

Audit Report for Water NZ's 2018/2019 National Performance Review

Final Report



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Table of Contents

1.0	Introduction	1
2.0	Methodology	1
	2.1 Organisations Involved	1
	2.2 Audit Personnel	1
	2.3 Measures Audited	1
	2.4 Audit Process	3
3.0	Audit Findings	5
4.0	Summary	18
	4.1 Audit Process	18
	4.2 Audit Measures	18
	4.3 Outcomes	18
	4.4 General Feedback	18
5.0	Disclaimer	19
Appendix A		
	Detailed Findings	A

List of Tables

Table 1	Audit Measures	1
Table 2	Audit Findings	5
Table 3	Grey District Council	A-1
Table 4	Invercargill City Council	A-8
Table 5	Kapiti Coast District Council	A-14
Table 6	Manawatu District Council	A-20
Table 7	Napier City Council	A-26
Table 8	Southland District Council	A-32
Table 9	Stratford District Council	A-39
Table 10	Taupo District Council	A-45
Table 11	Waitaki District Council	A-52
Table 12	Western Bay of Plenty District Council	A-59

1.0 Introduction

Each year Water New Zealand (Water NZ) carries out a National Performance (NPR) of organisations providing water supply, wastewater and stormwater services across New Zealand. AECOM has been contracted to provide verification audit services for the 2018/19 NPR. This report presents the verification audit findings for the 2018/19 NPR which included the following work:

- Reviewing data return spreadsheets from organisations nominated for audits
- Carrying out audits via telephone with each nominated organisation
- Preparation of audit findings report.

This report documents AECOM's findings arising from the audit work. Included in Appendix A are the detailed findings from each of the organisations audited.

2.0 Methodology

2.1 Organisations Involved

Of the 43 organisations participating in the NPR, AECOM undertook 10 audits. The participating organisations were:

- Grey District Council
- Invercargill City Council
- Kapiti Coast District Council
- Manawatu District Council
- Napier City Council
- Southland District Council
- Stratford District Council
- Taupo District Council
- Waitaki District Council
- Western Bay of Plenty District Council

2.2 Audit Personnel

The audit was undertaken by the following AECOM staff:

- Miles Wyatt - Principal Consultant, CMEngNZ, MIAM, REA, REAcap
- Brian Sharman – Technical Director, CMEngNZ, CPEng, MInstD

Both staff members have suitable experience in the water industry and have been involved in a number of previous NPR audits.

2.3 Measures Audited

A pre-defined set of measures (51 in total) were identified and agreed with Water NZ for inclusion/coverage in the audits. These measures were:

Table 1 Audit Measures

Common	
Background	
CB3:	Residential properties [Number]
Staff	
CB10b:	Retiring staff [Number]
CB14:	Staff training [hours/year]
CB15a:	Staff with a Bachelor of Engineering [Number]

Cb15b: Staff with a NZ Certificate [Number]
Cb15c: Staff with a NZ Diploma [Number]
CB15d: Staff with completed apprenticeships [Number]
Technology
CB19c: SCADA Controls
CB19d: SCADA Monitoring
Water Supply
Background
WSB2: Water Serviced Properties: Residential [Number]
WSB3: Water Serviced Properties: Non-Residential [Number]
Pipelines
WSA1a: Length of Water Supply Network [km]
Charges
WSS7a: Fixed Charge: Non-residential water [\$]
Revenue
WSF1: Revenue from Supply of Water to Other Local Authorities [\$]
WSF6: Debt funding: Water Supply [\$]
Expenditure
WSF9a: Routine maintenance: Water Supply [\$]
WSF9b: Reactive maintenance: Water Supply [\$]
WSF10: Management Costs: Water Supply [\$]
WSF11: Council Contract Management Costs : Water Supply [\$]
Wastewater
Background
WWB2: Wastewater Serviced Properties: Residential [Number]
WWB3: Wastewater Serviced Properties: Non-residential [Number]
Pipelines
WWA1a: Total Length of Public Wastewater Network [km]
Overflows
WWE2a: Wet weather overflows from the wastewater network [Number]
WWE2b: Wet weather overflows from combined stormwater and wastewater networks [Number]
WWE8a: Sewage design standards [AEP% or ADWF*PF]
WWE8b: Average calculated wet weather overflow frequency [ARI]
Compliance
WWE4e: Wastewater treatment plant consent non-conformance [Number]
WWE4f: Wastewater network discharge non-conformance [Number]
WWE4g: Wastewater network discharge consents [Number]
Outages

WWS7c: Planned Interruptions: Wastewater [Number]
Revenue
WWF1: Revenue from the Provision of Wastewater Treatment Services to Another Local Authority [\$]
WWF6: Debt funding: Wastewater [\$]
Expenditure
WWF9: Routine Maintenance: Wastewater [\$]
WWF10: Reactive Maintenance: Wastewater [\$]
WWF11: Management Costs: Wastewater [\$]
WWF12: Councils Contract Management Costs: Wastewater [\$]
Stormwater
Background
SWB2: Stormwater Serviced Properties – Residential [Number]
SWB3: Stormwater Serviced Properties - Non-residential [Number]
Pipelines
SWA1a: Total Length of Public Stormwater Network [km]
Discharges
SWE1a: Number of stormwater discharges from the piped network [Number]
Compliance
SWE2a: Stormwater consent abatement notices [Number]
SWE2b: Stormwater consent infringement notices [Number]
SWE2c: Stormwater consent enforcement orders [Number]
SWE2d: Stormwater successful prosecutions [Number]
SWE2e: Stormwater consent non-conformance [Number]
Revenue
SWF1: Operating Revenue: Stormwater [\$]
SWF5: Debt funding: Stormwater [\$]
Expenditure
SWF6a: Routine maintenance: Stormwater [\$]
SWF6b: Reactive maintenance: Stormwater [\$]
SWF7: Management Costs: Stormwater [\$]
SWF8: Council Contract Management Costs: Stormwater [\$]

In addition to the above list, other measures were included where there was a perceived issue. These measures were mostly identified by Water NZ and varied for each organisation.

2.4 Audit Process

For each measure standard question/s were defined and conveyed to each participating organisation in writing using the NPR spreadsheets. All organisations were requested to respond in writing prior to the telephone audits. The majority of the organisations complied with this request. In some cases, depending on the data value provided and/or associated commentary, the questions changed or were

worded slightly differently. The written responses were reviewed and further follow-up questions/clarifications were identified which were then addressed in the telephone calls. Where a response to an audit measure was quite clear and unambiguous, often this meant no additional questions were asked.

The questions and the documented responses to those questions are included in Appendix A. Issues, observations and commentary on the measures audited are covered in Section 3.0.

3.0 Audit Findings

Table 2 Audit Findings

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
Common		
CB3: Residential properties	<p>Last year (17/18) this measure was prepopulated by Water NZ based on census data sourced from Statistics New Zealand although organisations could overwrite the data if they had more accurate information. This year the data value was required to be entered by participants.</p> <p>This year six of 10 organisations used their Ratings Database to provide a data value. It is assumed the accuracy and completeness of this data source is reasonably high.</p> <p>Three organisations based their data value on census data – one organisation used the latest census data while two organisations used the 2013 census data as they felt the latest census data was not reliable enough due to well publicised issues.</p> <p>One organisation based their data value on QV valuation data.</p>	<p>While the data definition states “Total number of residential properties in the area under the participants jurisdiction.” there should be some clarification on whether or not this should include properties connected (or not connected) to networks regardless of how big or small those networks are.</p>
CB10b: Retiring staff	<p>There were no real issues with this measure. Five of 10 organisations identified staff reaching retirement age in the next five years with Taupo District Council having the biggest number which was eight.</p> <p>One organisation commented that their HR department was uncomfortable providing this data as it could easily be attributed to people. While the organisation did provide a data value it could possibly be a reason why some of the other five organisations did not provide a data value.</p>	<p>Somehow consider the privacy of personal information – maybe make this measure optional and/or require organisations to consult with staff before providing a data value.</p>

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
CB14: Staff training	<p>Responses to this measure varied from there being no data available to an average being assumed. Only three organisations appeared to provide data values based on actual training records. No organisation reported that they allocated a set number of training hours per year.</p> <p>It is quite surprising that the use of HR systems to record training hours is not prevalent in all organisations.</p>	<p>Suggest that this measure be included in the 19/20 NPR audit. With the impending water regulation, it will likely be important that organisations show evidence of continuing education and re-certification etc. by staff.</p> <p>Organisations like Engineering NZ also mandate that members demonstrate they have undertaken at least 40 hours of Continuing Professional Development (CPD) per year and it makes it easy if this information can be recorded and sourced from your organisation's HR system.</p>
CB15a: Bachelor of Engineering	<p>There were no issues with the measure. While the data definition states the word "engineering", the reality is that there are people working in local government with a wide range of degree qualifications. Through the question that was asked against this measure, organisations were encouraged to include other degrees (if not already included) such as a Bachelor of Science. All organisations except for Western Bay of Plenty District Council were able to report on this measure.</p>	<p>Recommend that the data definition be modified to state that non-engineering degrees should be included e.g. Bachelor of Science and environmental type degrees etc. and that organisations state in the Comments field the different types of degrees that have been included. This should include any internationally accepted degrees.</p>
CB15b: NZ Certificate	<p>There were no issues with this measure. All organisations except for Western Bay of Plenty District Council were able to report on this measure.</p> <p>A question was asked about staff who are still in training but the definition guidelines currently state that only staff who have completed their qualification should be counted.</p>	<p>Leave this (and the other) qualification measure "as is" i.e. don't include partially complete qualifications. It might be useful though to have another measure that indicates how many staff are enrolled and studying towards qualifications covered by the NPR.</p>
CB15c: NZ Diploma	<p>There were no issues with this measure. All organisations except for Western Bay of Plenty District Council were able to report on this measure.</p>	

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
CB15d: Apprenticeship	<p>There were no issues with this measure. All organisations except for Western Bay of Plenty District Council were able to report on this measure.</p> <p>A question was raised about whether or not to count staff who have higher qualifications but also have completed an apprenticeship. The definition guidelines currently state that staff with more than one qualification may be counted more than once.</p>	<p>The tendency is probably to not read the introductory words in the definition guidelines and just focus on the four qualification categories. A graphic might be useful to focus attention and shows that "John" completed a fitter and turner apprenticeship, then completed NZCE in mechanical engineering and went on to do a BE so has three qualifications.</p>
CB19c: SCADA Controls	<p>The audit focussed on whether or not organisations only reported on pump stations or treatment plants and not elements of these assets. As a result of the question being asked, some revisions to data values were made. The accuracy of the data does vary with some organisations making estimates rather than doing actual counts.</p> <p>Only one organisation – Taupo District Council, was unable to report against this measure. While they do use SCADA, they were unable to collate the data but will try and do this for the next NPR.</p>	<p>Most organisations are also controlling other assets such as bores, intakes and reservoirs etc. To clarify what reporting is expected, a suggestion would be to have a measure for each of the different asset types. This would also support the feedback received that it doesn't make sense to incorporate treatment plants into the same percentage as pumpstations. as implementing SCADA at a treatment plant is a much more significant undertaking.</p> <p>Some organisations are also using telemetry to control as well as monitor asset performance and it was confusing or unclear how to treat telemetry. AECOM's recommendation would be to include control by telemetry but then this raises the issue of whether or not to quantify the use of SCADA versus telemetry. Further discussion is required.</p>

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
CB19d: SCADA Monitoring	<p>The audit focussed on whether or not organisations only reported on pump stations or treatment plants and not elements of these assets. As a result of the question being asked, some revisions to data values were made. The accuracy of the data does vary with some organisations making estimates rather than doing actual counts.</p> <p>Only one organisation – Taupo District Council, was unable to report against this measure. While they do use SCADA, they were unable to collate the data but will try and do this for the next NPR.</p>	See CB19c suggestions/recommendations above.
Water Supply		
WSB2: Water Serviced Properties: Residential	<p>The audit mainly focussed on whether or not multi-unit dwellings connected to a single connection were being accounted for in the data value provided.</p> <p>Six organisations were accounting for multi-unit dwellings, three organisations were not accounting for multi-unit dwellings and one organisation did not have any multi-unit dwellings. The ability to report on multi-unit dwellings appears to be based on whether or not an organisation identifies such occurrences in their rating system.</p> <p>The definition is quite clear in its request for multi-unit dwellings to be counted. It was just not clear from the initial responses whether this had been done and what the methodology was.</p>	<p>There doesn't appear to be much more that can be done other than reiterating that organisations read and apply the definition guidelines. There is possibly some confusion around properties versus dwellings so some clarity on this would be useful.</p> <p>Possibly a yes/no measures could be added to ask organisations if they are accounting for multi-unit dwellings.</p>
WSB3: Water Serviced Properties: Non-Residential	<p>The audit mainly focussed on whether or not multi-unit dwellings connected to a single connection were being accounted for in the data value provided.</p> <p>Three organisations were accounting for multi-unit dwellings, five organisations were not accounting for multi-unit dwellings, one organisation did not have any multi-unit dwellings and one organisation classed all multi-unit</p>	<p>See WSB2 suggestions/recommendations above.</p> <p>Taupo District Council who were not counting non-residential multi-unit dwellings, raised the issue about hotels and campgrounds of which they have many. This would also apply to other organisations that have popular tourist destinations within their jurisdiction.</p>

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	<p>dwellings as residential. The ability to report on multi-unit dwellings appears to be based on whether or not an organisation identifies such occurrences in their rating system.</p> <p>The definition is quite clear in its request for multi-unit dwellings to be counted. It was just not clear from the initial responses whether this had been done and what the methodology was.</p>	
WSA1a: Length of Water Supply Network	<p>The audit mainly focussed on whether or not the lengths of laterals/service connections to property boundaries or meters etc. were included.</p> <p>Seven organisations were counting the pipe length up to property boundaries and three organisations were not counting the pipe length up to property boundaries.</p> <p>Another possible issue is whether or not rural organisations are including all schemes when considering length etc. with the preference being to ignore very small schemes. At least one organisation was not including all schemes.</p>	<p>The definition for this measure is reasonably clear however clarification should be sought on what an organisation's ownership policy is i.e. does it stop at the main or does it go up to the property boundary or the meter location etc.</p> <p>It might be useful if the definition stated that all schemes should be included even if only small, as long as they are publicly owned.</p>
WSS7a: Fixed Charge: Non-residential water	<p>There were no issues with this measure. A general question was asked about how the fixed charge was derived and mostly the fixed charge was based on recovering operating costs.</p>	
WSF1: Revenue from Supply of Water to Other Local Authorities	<p>There were no issues with this measure. None of the organisations audited were collecting revenue from supplying water to other local authority organisations.</p>	
WSF6: Debt funding: Water Supply	<p>The audit attempted to explore how organisations defined debt and then morphed into clarification on whether or not organisations used internal loans. Clarification was also sought in some instances on whether the data values provided were increases (or decreases) in debt relative to the previous year or represented total debt values.</p>	<p>A definition of what constitutes debt would be useful including clarification of what constitutes an internal loan. The approach taken in the audit was to define debt including internal loans as funding that needed to be paid back so does not include funding from development contributions or reserves.</p>

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	<p>Two organisations had no debt and of the eight organisations that did have debt, only one used internal loans.</p> <p>Following clarification and some changes, all data values were reporting changes in debt levels.</p>	
WSF9a: Routine maintenance: Water Supply	There were no issues with these two measures. Seven organisations were able to provide separate costs for routine and reactive maintenance and the other three organisations provided a combined value.	
WSF9b: Reactive maintenance: Water Supply	There was no particular ratio trend (routine versus reactive) evident across the organisations that did provide a breakdown of costs. Any significant changes in costs from the previous year were mostly due to water quality/safety issues.	
WSF10: Management Costs: Water Supply	<p>The audit attempted to clarify if the management costs reported included all overhead costs like IT and insurance etc.</p> <p>All organisations reported that overhead costs were included although one organisation reported that external insurance was funded by Opex.</p> <p>There was some confusion in that one organisation reported the costs for managing their external contractor instead of reporting the cost against WSF11. one organisation was unable to separate out their external contract costs from their internal management costs</p>	Add a note in the definition highlighting that costs for managing external maintenance contractors should be reported against WSF11.
WSF11: Council Contract Management Costs	There were no issues with this measure. Only three organisations reported costs and one organisation was unable to separate out the contract costs from WSF10.	
Wastewater		
WWB2: Wastewater Serviced Properties: Residential	The audit mainly focussed on whether multi-unit dwellings connected to a single connection were being accounted for in	There doesn't appear to be much more that can be done other than reiterating that organisations read and apply the definition guidelines. There is possibly some confusion

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	<p>the data value provided.</p> <p>Five organisations were accounting for multi-unit dwellings, three organisations were not accounting for multi-unit dwellings, one organisation did not have any multi-unit dwellings and one organisation was unsure if multi-unit dwellings were included. The ability to report on multi-unit dwellings appears to be based on whether an organisation identifies such occurrences in their rating system.</p> <p>The definition is quite clear in its request for multi-unit dwellings to be counted. It was just not clear from the initial responses whether this had been done and what the methodology was.</p>	<p>around properties versus dwellings so some clarity on this would be useful.</p> <p>Possibly a yes/no measures could be added to ask organisations if they are accounting for multi-unit dwellings.</p>
WWB3: Wastewater Serviced Properties: Non-residential	<p>The audit mainly focussed on whether multi-unit dwellings connected to a single connection were being accounted for in the data value provided.</p> <p>Four organisations were accounting for multi-unit dwellings, three organisations were not accounting for multi-unit dwellings, one organisation did not have any multi-unit dwellings, one organisation classed all multi-unit dwellings as residential and one organisation was unsure if multi-unit dwellings were included. The ability to report on multi-unit dwellings appears to be based on whether an organisation identifies such occurrences in their rating system.</p> <p>The definition is quite clear in its request for multi-unit dwellings to be counted. It was just not clear from the initial responses whether this had been done and what the methodology was.</p>	See WWB2 suggestions/recommendations.
WWA1a: Total Length of Public Wastewater Network	<p>The audit mainly focussed on whether the lengths of laterals/service connections to property boundaries or the buildings etc. were included.</p> <p>five organisations were counting the pipe length up to</p>	The definition for this measure is reasonably clear. Possibly clarification should be sought on what an organisation's ownership policy is i.e. does it stop at the main or does it go up to the property boundary etc.

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	property boundaries and five organisations were not counting the pipe length up to property boundaries.	
WWE2a: Wet weather overflows from the wastewater network	There were no issues with this measure. Four organisations reported wet weather overflows and the other six organisations either had no overflows or were unable to report the data. Duration of overflows is not recorded but they tend not to last longer than 24 hours.	
WWE2b: Wet weather overflows from combined stormwater and wastewater networks	Only one of the 10 organisations (Grey District Council) audited identified the existence of a combined network but they reported no public overflows.	
WWE8a: Sewage design standards	This is one of the more problematic measures (as it was last year) and produces quite varied responses. Very few initial responses were compliant with the definition guidelines and organisations had to be pressed to provide something useful. As such it may be timely to consider the value/benefit of continuing with this measure.	Possibly consider separating Average Dry Weather Flow (ADWF) and Peaking Factor (PF) into separate measures to clarify what is required. A more responsive measure (possibly an additional measure) may be to ask organisations what standard is being applied for sewage design. The three common standards seem to be NZS: 4404, an Internal Code of Practice or a hybrid of NZS: 4404.
WWE8b: Average calculated wet weather overflow frequency	This was also one of the more problematic measures as only two organisations provided data and both values were in different units. While most organisations had models, they haven't been in use long enough to reliably calculate wet weather overflow frequencies. It should be possible to compare this measure with WWE2a and WWE2b above. The fact that this cannot be done may demonstrate the lack of good industry information on the whole subject of overflows from the public network.	Include in the definition guidelines a worked example of ARI so it is quite clear what type of data value is expected.
WWE4e:Wastewater treatment plant consent non-	There were no issues with this measure. Only four organisations reported non-conformances.	

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
conformance		
WWE4f:Wastewater network discharge non-conformance	There were no issues with this measure. Only two organisations reported non-conformances.	
WWE4g:Wastewater network discharge consents	The audit focussed on whether it was clear that this measure is related to wet weather overflows. The question was slightly irrelevant as only one of the 10 organisations (Grey District Council) reported they had a wastewater network discharge consent. However, three organisations did comment that they thought it was unclear that the measure related to wet weather overflows.	Make it clear in the definition guidelines that this measure is related to wet weather overflows.
WWS7c: Planned Interruptions: Wastewater	While no planned interruptions were reported, there was a slightly negative reaction to this measure in particular the data definition that references "...total loss of the customers' ability to flush or otherwise dispose of products to sewer." The consensus seemed to be that unless there was an immediate blockage on private property it is very rare if ever, that a customer cannot flush their toilet. Most repairs are done live with measures in place to bypass problems so the customer is not inconvenienced.	We suggest some further thought is given to the data definition and maybe whether or not the measure should be kept. It was felt that the definition was more aligned with water networks and is not applicable to wastewater.
WWF1: Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	There were no issues with this measure. None of the organisations audited were providing wastewater treatment services to another local authority.	
WWF6: Debt funding: Wastewater	The audit attempted to explore how organisations defined debt and then morphed into clarification on whether or not organisations used internal loans. Clarification was also sought in some instances on whether the data values provided were increases (or decreases) in debt relative to the previous year or represented total debt values. Two organisations had no debt and of the eight organisations that did have debt, only one used internal loans. Following clarification and some changes, all data values	A definition of what constitutes debt would be useful including clarification of what constitutes an internal loan. The approach taken in the audit was to define debt including internal loans as funding that needed to be paid back so not funding from development contributions or reserves.

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	were reporting changes in debt.	
WWF9: Routine Maintenance: Wastewater	There were no issues with these two measures. Six organisations were able to provide separate costs for routine and reactive maintenance and the other four organisations provided a combined value. There was no particular ratio trend (routine versus reactive) evident across the organisations that did provide a breakdown of costs.	
WWF10: Reactive Maintenance: Wastewater		
WWF11: Management Costs: Wastewater	The audit attempted to clarify if the management costs reported included all overhead costs like IT and insurance etc. Eight of the 10 organisations reported that overhead costs were included. We are surprised that this differs from Water Supply. One organisation was unable to separate out their external contract costs from their internal management costs	Add a note in the definition highlighting that costs for managing external maintenance contractors should be reported against WWF12.
WWF12: Councils Contract Management Costs: Wastewater	There were no issues with this measure. Only two organisations reported costs and one organisation was unable to separate out the contract costs from WWF11.	
Stormwater		
SWB2: Stormwater Serviced Properties – Residential	The audit mainly focussed on whether or properties were only charged through their rates for stormwater.	
SWB3: Stormwater Serviced Properties - Non-residential	All 10 organisations confirmed that properties were charged for the stormwater activity via rates. One organisation did not differentiate between residential and non-residential stormwater serviced properties.	
SWA1a: Total Length of Public Stormwater Network	The audit sought to confirm that only pipes and culverts that form part of the primary stormwater reticulation network are	State in the definition guidelines that organisations should include a breakdown by asset type in the comments to clarify what the data value consists of and lengths for certain asset

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
	<p>included in the data values.</p> <p>Eight of the 10 organisations reported only pipe and culvert lengths. One organisation reported the lengths for all stormwater assets and one organisation included unlined channels but excluded swales.</p>	types can be deducted if needed.
SWE1a: Number of stormwater discharges from the piped network	<p>The audit focussed on if there were any difficulties in interpreting the measure.</p> <p>Nine organisations said they had no difficulty although one of those nine did not know how many discharge points it had.</p> <p>One organisation questioned about discharges to regionally managed environments as it was unclear if these should be included or not.</p> <p>One organisation stated that they had more stormwater discharges with resource consents (SWE1b) than the number of stormwater discharges but it would appear they are counting all consents.</p>	<p>Add commentary to the definition about whether discharge points to regionally managed environments should be included or not. AECOM's recommendation would be that they should be included.</p> <p>Emphasise that there is a relationship between the number of stormwater discharges from the piped network (SWE1a) and the number of stormwater discharges with resource consents (SWE1b). Possibly this emphasis is best done against SWE1b).</p>
SWE2a: Stormwater consent abatement notices	There were no issues with this measure – no abatement notices were reported.	
SWE2b: Stormwater consent infringement notices	There were no issues with this measure – no infringement notices were reported.	
SWE2c: Stormwater consent enforcement orders	There were no issues with this measure - only one enforcement order was reported.	
SWE2d: Stormwater successful prosecutions	There were no issues with this measure – only one successful prosecution was reported.	
SWE2e: Stormwater consent non-conformance	There were no issues with this measure – only one non-conformance was reported.	

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
SWF1: Operating Revenue: Stormwater	<p>The audit sought to identify if any grants were included in the operating revenue.</p> <p>No organisations reported the inclusion of grants in their operating revenue. This was a repeat of last year's situation.</p>	
SWF5: Debt funding: Stormwater	<p>The audit attempted to explore how organisations defined debt and then morphed into clarification on whether organisations used internal loans. Clarification was also sought in some instances on whether the data values provided were increases (or decreases) in debt relative to the previous year or represented total debt values.</p> <p>Three organisations had no debt and of the seven organisations that did have debt, only one used internal loans.</p> <p>Following clarification and some changes, all data values were reporting changes in debt.</p>	<p>A definition of what constitutes debt would be useful including clarification of what constitutes an internal loan. The approach taken in the audit was to define debt including internal loans as funding that needed to be paid back so not funding from development contributions or reserves.</p>
SWF6a: Routine maintenance: Stormwater	<p>There were no issues with these two measures. Five organisations were able to provide separate costs for routine and reactive maintenance and the other five organisations provided a combined value.</p>	
SWF6b: Reactive maintenance: Stormwater	<p>There was no particular ratio trend (routine versus reactive) evident across the organisations that did provide a breakdown of costs.</p>	
SWF7: Management Costs: Stormwater	<p>The audit attempted to clarify if the management costs reported included all overhead costs like IT and insurance etc.</p> <p>Nine of the 10 organisations reported that overhead costs were included. We are surprised that this differs from Water Supply and Wastewater.</p> <p>One organisation was unable to separate out their external contract costs from their internal management costs</p>	<p>Add a note in the definition highlighting that costs for managing external maintenance contractors should be reported against SWF8.</p>

	Issues, Observation and Commentary on Audit Measures	Suggestions/Recommendations
SWF8: Council Contract Management Costs: Stormwater	There we no issues with this measure. Only two organisations reported costs and one organisation was unable to separate out the contract costs from SWF8.	

4.0 Summary

4.1 Audit Process

This year was the second year that audits were conducted by telephone. The approach varied slightly from last year in that all organisations were asked to respond in writing to the audit questions prior to the telephone calls. This meant less time was spent on note taking and more time spent on further understanding or exploring the answers previously provided. All but one organisation complied with this request.

A number of the written answers generated further and/or different questions as well.

The number of measures audited this year was 51 compared with 35 last year the trade-off being 10 organisations were audited this year compared to 12 last year.

4.2 Audit Measures

The pre-defined set of measures that were used for the audit were quite broad. Only a small number of the 51 measures were repeats from last year's audit.

As a result of the audits, a number of data changes (and additions) were made and generally these came about as a result of the audit questions being asked and the subsequent telephone discussion. At the time of the initial audit, a number of measures had yet to be populated and most of these were populated during the audit process.

As they were last year, the most problematic measures were WWE8a (Sewage containment design standards) and WWE8b (Average calculated wet weather overflow frequency). Based on feedback from last year, these measures were redefined for this year's NPR to better align with how organisations designed new sewage networks and hopefully enable organisations to be more responsive. This wasn't the case and a reasonable amount of prompting was required to get data values for WWE8a. The responsiveness to WWE8B as very poor the main reason being that organisations did not have sufficient data.

Most of the other issues identified by the audit came down to how organisation were (or were not) interpreting the definition guidelines. The audit has identified some useful changes and additions to the definition guidelines but the perception is that the definition guidelines are not being adhered to closely and part of the problem appears to be poor access to the definition guidelines. While the "mouse overs" in the spreadsheet are useful it would be worthwhile incorporating the complete definition guidelines within the spreadsheet. In this way when the spreadsheet is circulated internally within organisation everybody has access to the complete definitions.

4.3 Outcomes

As well as a number of data changes and data additions, the NPR audit has resulted in a number of suggestions/recommendations for Water NZ to consider. The majority of the suggestions/recommendations relate to providing more clarity and/or added detail to the definitions behind a number of the measures.

Some further rethought is suggested for WWE8a (Sewage containment design standards) and WWE8b (Average calculated wet weather overflow frequency). It is not clear what the best approach should be to ensure useful responses from all organisations. Possibly the answer is to focus on what standards or codes of practice organisations are using and then try and build from there to establish some technical measures.

We believe that the industry in general has poor information / knowledge of the performance of the wastewater and combined sewer networks during wet weather, which causes problems in getting good quality, consistent answers to questions WWE2a; WWE2b; WWE8a and WWE8b.

4.4 General Feedback

Other general comments, questions and suggestions from audit participants are listed below:

- It would be useful to signal in advance any significant changes to the NPR, in particular the inclusion of new measures. This would allow organisations to be prepared to provide new/additional data prior to receiving the NPR spreadsheet.
- Are there any thoughts on changing/aligning the NPR with other international benchmarking exercises?
- The biggest impact on an organisation's ability to respond to the NPR is when there has been a significant change in staff.
- The later timing of this year's NPR was better [more convenient] although it was felt that the response period allowed was quite short.
- Rural councils are quite different and the wisdom of having the same measures for all councils was questioned.
- More advance information on the audit process would be useful.

5.0 Disclaimer

This report is based on information provided by participating organisations both in writing and verbally, to address a series of questions asked about a subset of specific measures.

AECOM has used all reasonable endeavours to ensure that the written and verbal responses have been transposed accurately into this report. No responsibility is assumed for any inaccuracies in the transposing by AECOM.

AECOM has not physically verified the information provided by the participating organisations (unless specifically noted otherwise) and we assume no responsibility and make no representations with respect to the adequacy, accuracy or completeness of such information.

AECOM does not accept any liability, whether directly or indirectly, for any liability or loss suffered or incurred by any party placing any reliance on this report, in part or in full. Any party that relies on the detailed findings in Appendix A does so entirely at its own risk.

Appendix A

Detailed Findings

Appendix A Detailed Findings

Table 3 Grey District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
CB3	Residential properties	Number	6651	Is the data value from the latest census?	Yes. It is from 2018 Census (got the data using stats tool).
CB10b	Retiring staff	Number	0	No question	
CB14	Staff training	hours/year	40	Does this number only apply to full time employees or were contractors included/considered as well?	Only in house staff.
CB15a	Staff with a Bachelor of Engineering	Number	2	Were any other types of related/similar qualifications considered?	Yes, Bachelor of Engineering or similar.
CB15c	Staff with a NZ Diploma	Number	2	Were any other types of related/similar qualifications considered?	Yes, NZ Diploma of Engineering or similar.
CB15b	Staff with a NZ Certificate	Number	1	Were any other types of related/similar qualifications considered?	Experience or similar.
CB15d	Staff with completed apprenticeships	Number	1	Were any other types of related/similar qualifications considered?	Experience or similar.
CB19c	SCADA Controls	%	0.00%	"Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities?"	While 60% of all sites have SCADA monitoring, only one site can be controlled remotely.
				What is the one site - is it a treatment plant or pump station?	The one site is a reservoir - changed data value to 0.0%.
CB19d	SCADA Monitoring	%	100.00%	Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?"	Within the 60% reported, Council does have Treatment Plants, Pumping Stations, Reservoirs, flow meters, level monitoring and pressure monitoring sites.
				Can you limit the data value to just treatment plants and	Changed data value to 100%.

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
				pump stations?	
WSB2	Water Serviced Properties: Residential	Number	4595	Miles - could you please explore this comment? I would have thought commercial properties would be by definition non-residential	Agree, should be 5038-443 = 4595.
				Are any farming or lifestyle properties included in this data value? If applicable, how are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Yes, farming properties are included. Multi- unit dwellings will be included but are separate in terms of numbers (based on rateable units as if they were individual dwellings).
				So, if a property has 2 dwellings with a single connection supplying both, is that being counted as 2 water serviced properties?	Yes.
WSB3	Water Serviced Properties: Non-Residential	Number	443	If applicable, how are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Multi-unit dwellings will be included but are separate in terms of numbers (based on rateable units as if they were individual dwellings).
				So, if a property has 2 dwellings with a single connection supplying both, is that being counted as 2 water serviced properties?	Yes.
WSA1a	Length of Water Supply Network	km	210.67	If stock races exist in the district are they excluded? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	No stock races in district. Yes, assetfinda calculates all the water mains, rider mains and service laterals.
WSS7a	Fixed Charge: Non-residential water	\$	\$517.88	What does the \$517.88 represent - how is it derived?	There are different rate for different regimes. Targeted rate. \$517.88 only apply to Dobson/Taylorville and Stillwater. Refer original data provided.
				How are the fixed charges set - are they based on the costs for operating each scheme?	Expected costs divided by the number of people. Inflation is also added.

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	-\$142,000.00	Is there debt funding associated with the water supply activity and if so, how much did it increase or decrease from last year?	There is, we repaid \$142K in debt for water in the 18/19 financial year. We don't have any internal loans.
				Are there any internal loans?	
				So, the change in debt should be -\$142k?	Yes.
WSF9a	Routine maintenance: Water Supply	\$	\$589,342.69	Is the data value just for routine or is it reactive and routine combined?	Reactive and routine combined.
WSF9b	Reactive maintenance: Water Supply	\$		See above.	See above.
WSF10	Management Costs: Water Supply	\$	\$349,369.85	Have other costs like IT and insurance etc. also been included?	Only for administration purposes (this come from our internal costs allocation).
				So are overhead cost allocations included?	
				Yes, but internal insurance only. External insurance goes to Opex.	
WSF11	Council Contract Management Costs : Water Supply	\$	\$0.00	Does this amount cover operations and maintenance or is it for specialist type services?	Just for Capital projects.
				This measure applies to network operations and maintenance so the data value should be \$0.00.	
				Just for Capital projects - have changed the data value of \$8,892.42 to \$0.00 to align with other responses.	
WWB2	Wastewater Serviced Properties: Residential	Number	4936.6	Are any farming or lifestyle properties included in this data value?	Yes, small number of lifestyle properties included. Multi-unit dwellings will be included but are separate in terms of numbers (based on rateable units as if they were individual dwellings).
				If applicable, how are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	
				So, a property with 2 dwellings is being counted as 2	Yes.

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
				wastewater serviced properties?	
WWB3	Wastewater Serviced Properties: Non-residential	Number	433	If applicable, how are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Multi-unit dwellings will be included but are separate in terms of numbers (based on rateable units as if they were individual dwellings).
				So, a property with 2 dwellings is being counted as 2 wastewater serviced properties?	Yes.
WWA1a	Total Length of Public Wastewater Network	km	185.25	Are lengths of laterals/service connections up to the property boundary included?	Yes, AssetFinda calculates all the sewer mains ,rising mains and service laterals.
WWE2a	Wet weather overflows from the wastewater network	Number	11	Would the data in AssetFinda identify if the events went longer than 24 hours? Any reason for the drop from 6 to 0?	Currently, AssetFinda does not track the time length of an overflow, rather that it has occurred. We are investigating the reasons why the drop may have occurred.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	Would the data in AssetFinda identify if the events went longer than 24 hours? Any reason for the drop from 8 to 0?	Currently, AssetFinda does not track the time length of an overflow, rather that it has occurred. We are investigating the reasons why the drop may have occurred.
				Were the 2 overflows on private property?	Yes.
WWE8a	Sewage design standards	AEP% or ADWF*PF	6.00	Last year's value of 600% was incorrect then?	PWWF=6*ADWF used for Greymouth, otherwise 5*
				What is the ADWF value?	Need to check.
WWE8b	Average calculated wet weather overflow frequency	ARI		Any idea what the data value might be?	Not at this time.
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Self-observed non-conformances logged in spreadsheet and provided to regional council.
WWE4f	Wastewater network discharge non-conformance	Number	0		

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
WWE4g	Wastewater network discharge consents	Number	1	Was/is it clear from the definition that this measure is related to wet weather overflows?	Should be 1 consent for Greymouth Sewerage Scheme - Stage One.
				Is the 1 consent for an engineered overflow in the network or is it for a treatment plant?	Engineered overflow - changed data value.
WWS7c	Planned Interruptions: Wastewater	Number/year	0	How do you manage and/or identify planned interruptions?	Logged in as service request for utilities contractor and convey information via phone.
				So '0' planned interruptions is correct?	Yes
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	-\$295,000.00	Is there debt funding associated with the wastewater activity and if so, how much did it increase or decrease from last year?	Yes, there is debt funding associated. Last year the debt was decreased by \$295K. No internal loans
				Are there any internal loans?	
				So, the change in debt should be -\$295k?	Yes
WWF9	Routine Maintenance: Wastewater	\$	\$771,105.13	Is the data value just for routine or is it reactive and routine combined?	Combined.
WWF10	Reactive Maintenance: Wastewater	\$		See above.	See above.
WWF11	Management Costs: Wastewater	\$	\$209,287.28	Have other costs like IT and insurance etc. also been included?	Only for administration purposes (this comes from our internal costs allocation).
				So are overhead cost allocations included?	Yes.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	Should the data value be \$0 as in no wastewater services are contracted out?	\$12,244

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
				Is this value for capital projects or managing outsourced operations and maintenance?	Checked by Grey but they didn't clarify what the cost is related to - just confirmed the value of \$12,244. Have assumed it is for Capital projects as per water and have set the data value to \$0.00.
SWB2	Stormwater Serviced Properties - Residential	Number	5852	Are there properties that do not have an explicit stormwater charge in their rates but are billed through other means? If so, have they been included?	No, stormwater rates are charged as part of the general rate.
SWB3	Stormwater Serviced Properties - Non-residential	Number		See above	See above.
SWA1a	Total Length of Public Stormwater Network	km	137.4	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Yes, includes all mapped stormwater assets within our Asset Management System.
				Is it correct that the length has gone up - is this partly because of the combined network being shifted to stormwater?	Have done some stormwater work as well as adding combined network.
SWE1a	Number of stormwater discharges from the piped network	Number	8	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	We have not identified a full list of SW discharge points from the piped network. 524 outlets identified by AssetFinda, includes kerb outlets, creek outlets, open drain outlet, wingwalls
				If you excluded kerb outlets, what would the number reduce to?	Need to check.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	No contact from regional authority about stormwater.
				Where would you look or where would it be recorded if there had been notices or orders?	Keep notices and orders in a file.
SWE2b	Stormwater consent infringement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	No contact from regional authority about stormwater.

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
				Where would you look or where would it be recorded if there had been notices or orders?	Keep notices and orders in a file.
SWE2c	Stormwater consent enforcement orders	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	Regional Council function.
				Where would you look or where would it be recorded if there had been notices or orders?	Keep notices and orders in a file.
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Non-conformance for sewer observed and noted here as the system is a combined sewer/stormwater system.
				Are the observations recorded anywhere?	No, there is no monitoring.
SWF1	Operating Revenue: Stormwater	\$	\$1,130,915	Has any grants revenue been included and if so, does this differ from last year's approach?	No grants for stormwater.
SWF5	Debt funding: Stormwater	\$	-\$14,000	Is there debt funding associated with the stormwater activity and if so, how much did it increase or decrease from last year? Are there any internal loans?	Yes. Repaid \$14000. Not internal.
				So, the change in debt should be -\$14k?	Yes.
SWF6a	Routine maintenance: Stormwater	\$	\$324,672	Is the data value just for routine or is it reactive and routine combined?	Combined.
SWF6b	Reactive maintenance: Stormwater	\$		See above	See above.
SWF7	Management Costs: Stormwater	\$	\$231,807	Have other costs like IT and insurance etc. also been included?	Only for administration purposes (this come from our internal costs allocation).

Code	Measure	Units	Data	AECOM/Water NZ Questions	GDC Responses
				So are overhead cost allocations included?	Yes.
SWF8	Council Contract Management Costs: Stormwater	\$		Should the data value be \$0 as in no stormwater services are contracted out?	None for Stormwater.

Table 4 Invercargill City Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
CB3	Residential properties	Number	20680	The data value has dropped from the previous year which was based on census data. Any comments or reasons why the data value has dropped?	Data was extracted from our rating system for residential properties so unsure of why the difference.
				Obviously a difference between census data and ratings data.	
CB10b	Retiring staff	Number	1	Does this number only apply to full time employees or were contactors included/considered as well?	Only reported on employees for this measure.
CB14	Staff training	hours/year	700	Does this number only apply to full time employees or were contractors included/considered as well?	Only reported on employees for ALL training and qualification measures.
CB15a	Staff with a Bachelor of Engineering	Number	8	No question.	
CB15c	Staff with a NZ Diploma	Number	4	The 1 NZCE should be added to CB15B	OK
CB15b	Staff with a NZ Certificate	Number	7	Were any other types of related/similar qualifications considered?	Only reported on those listed in the guidelines.
CB15d	Staff with completed apprenticeships	Number	0	Were any other types of related/similar qualifications considered?	Only reported on those listed in the guidelines.
CB19c	SCADA Controls	%	17.31%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities?	Not the elements just the total number of individual sites/facilities Flow meters and pressure monitoring sites have been

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
				Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	excluded - data value changed slightly.
CB19d	SCADA Monitoring	%	67.31%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities?	As above CB19c and includes flow meter and pressure monitoring sites.
				Does Council have other facilities that have SCADA monitoring e.g. reservoirs and water intakes etc.?	
				The guidelines were a bit confusing - the measure should only apply to pump stations and treatment plants. Are you able to exclude flow meter and pressure monitoring sites?	Flow meters and pressure monitoring sites have been excluded - data value changed slightly.
WSB2	Water Serviced Properties: Residential	Number	19341	Are any farming properties included in this data value?	All counts based on rates rather than connection data. Residential rate code includes 4 properties classed as 'farms' and 400 multi-units which are individual units counted regardless of how many connections feed them.
				How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	
				How do you identify the multi-units?	Multi-units have a special rating classification so easily identifiable.
WSB3	Water Serviced Properties: Non-Residential	Number	1571	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	I counted all multi-units as residential.
				How do you identify the multi-units?	Multi-units have a special rating classification so easily identifiable.
WSA1a	Length of Water Supply Network	km	422	Does the length exclude stock water races?	This length only includes the supply and reticulation mains.
				Are lengths of laterals/service connections up to the property boundary or meter etc. included?	
				So, length of service connections to property boundary	Yes, they are excluded.

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
				are excluded?	
WSS7a	Fixed Charge: Non-residential water	\$	\$694.72	496.23 (-20% to 400%) had previously been entered. For benchmarking purposes have adopted median value for benchmark and shifted high and low values to separate columns. Please amend if this does not represent the charging regime well (however a single representative value needs to be in the data column).	% adjustment relates to property capital value; with the average property value in Invercargill being \$300,130 as of June 2019, rate adjustment should be +40%, therefore single value should be reported as \$694.72.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	\$472,000.00	What approach or rationale was considered when identifying debt funding?	As per guidelines - change in debt for water supply.
				Does the amount include any internal loans?	ICC does not use internal loans as a funding mechanism.
WSF9a	Routine maintenance: Water Supply	\$	\$492,003.00	The split has clearly changed from last year to favour reactive maintenance. Was this a conscious decision or is something not correct with the data values?	I think this is due to a different interpretation of the costing codes. Assessment has been better documented so that it should be the same in future years.
WSF9b	Reactive maintenance: Water Supply	\$	\$1,303,183.00		
WSF10	Management Costs: Water Supply	\$	\$1,926,397.00	Have other costs like IT and insurance etc. also been included?	Yes.
WSF11	Council Contract Management Costs : Water Supply	\$		No question.	
WWB2	Wastewater Serviced Properties: Residential	Number	20574	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	All counts based on rates rather than connection data. Residential rate code includes 5 properties classed as 'farms' and 406 multi-units which are individual units counted regardless of how many connections feed them.

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
				5 farms and not 4 as per water? How do you identify the multi-units?	Data for wastewater says 5 farms - not sure why the difference. Multi-units have a special rating classification so easily identifiable.
WWB3	Wastewater Serviced Properties: Non-residential	Number	1593	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	I counted all multi-units as residential.
WWA1a	Total Length of Public Wastewater Network	km	371.149	Are lengths of laterals/service connections up to the property boundary included?	This length only includes the supply and reticulation mains.
				So, length of service connections to property boundary are excluded?	Yes, they are excluded.
WWE2a	Wet weather overflows from the wastewater network	Number	10	Do the work orders just identify overflow events and not the duration of events i.e. can you identify if an overflow lasts longer than 24 hours and count that as an additional overflow?	Correct - just number of events and not duration; however, it would be a rare occurrence that an overflow lasted longer than 24 hours without us knowing about it and fixing it.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question	
WWE8a	Sewage design standards	AEP% or ADWF*PF	0.7l/s/ha	Is this unit litres/second/hectare?	Yes, litres/second/hectare.
				Do you know the average dry weather flow and associated peaking factor used to determine peak wet weather flows?	No, we do not know ADWF and PF - have just used the stated value for sewerage design flows. ICC have own Code of Practice.
WWE8b	Average calculated wet weather overflow frequency	ARI	4.00	4 has been selected because it is the median of 2-6 - is this correct?	Yes
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-	No non-conformances or self-observed non-conformance.

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
WWE4f	Wastewater network discharge non-conformance	Number	0	observed non-conformances?	
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	Not clear however our only wastewater discharge consent is for the treatment plan therefore not included in this measure.
WWS7c	Planned Interruptions: Wastewater	Number/year	0	No question.	
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	\$858,000.00	What approach or rationale was considered when identifying debt funding?	As per guidelines - change in debt for wastewater.
				Does the amount include any internal loans?	ICC does not use internal loans as a funding mechanism.
WWF9	Routine Maintenance: Wastewater	\$	\$434,154.00	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$926,475.00	No question.	
WWF11	Management Costs: Wastewater	\$	\$1,225,641.00	Have other costs like IT and insurance etc. also been included?	Yes.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	No question.	
SWB2	Stormwater Serviced Properties - Residential	Number	20680	Are there properties that do not have an explicit stormwater charge but are billed through other means? If so, have they been included?	No. Properties are either charged through rates or not at all.
SWB3	Stormwater Serviced Properties	Number	1516		

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
	- Non-residential				
SWA1a	Total Length of Public Stormwater Network	km	417.578	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Yes - only piped mains included.
SWE1a	Number of stormwater discharges from the piped network	Number	255	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	There were no informal notifications however there were 9 investigations instigated by Environment Southland with only 1 pending and no further investigation/orders on the other 8.
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	1		
SWE2d	Stormwater successful prosecutions	Number	1	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	There were no officially notified non-conformances, however Environment Southland consider any spill of sewerage to the stormwater to be a non-conformance in which case there were 9 events investigated by ES and up to an additional 5 not investigated.
SWF1	Operating Revenue: Stormwater	\$	\$4,039,550	Is there a reason this number has increased so much since last year?	Error in figure reporting. Changed from \$8,079,550 to \$4,039,550
				Has any grants revenue been included and if so, does this differ from last year's approach?	No grants revenue included.
SWF5	Debt funding: Stormwater	\$	\$17,000	What approach or rationale was considered when identifying debt funding?	As per guidelines - change in debt for stormwater.

Code	Measure	Units	Data	AECOM/Water NZ Questions	ICC Responses
				Does the amount include any internal loans?	ICC does not use internal loans as a funding mechanism.
SWF6a	Routine maintenance: Stormwater	\$	\$432,161	No question.	
SWF6b	Reactive maintenance: Stormwater	\$	\$655,050	No question.	
SWF7	Management Costs: Stormwater	\$	\$787,489	Have other costs like IT and insurance etc. also been included?	Yes.
SWF8	Council Contract Management Costs: Stormwater	\$	\$0	No question.	

Table 5 Kapiti Coast District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
CB3	Residential properties	Number	25252	How does basing the total on SUIP yield a different result from basing total on rating unit. Does SUIP account for persons inhabiting part of a rating unit?	SUIP is separately used or inhabited parts of a rating unit. It doesn't account for persons it accounts for multi uses/dwellings.
CB10b	Retiring staff	Number	4	Does the org chart just allow you to remind yourself of those you know who may be nearing retirement age?	Yes, there are some people I do not know. I also obtained data from a study on behalf of DIA on our processes. Staff age was a factor collected (HR were very uncomfortable sharing age as it could easily be attributed to people). Any future questions on this would maybe benefit from an opt in survey - where the staff give permission for personal info to be collected.
CB14	Staff training	hours/year	12.84	How are hours accounted for when staff are studying/training for a qualification?	I added up the number of hours spent attending training/studying and divided by the number of staff.

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
CB15a	Staff with a Bachelor of Engineering	Number	10	Add in the 6 staff and just state the types of qualifications in the comments.	"Bachelor of science, Staff with a Post Graduate Medical Laboratory Scientist – Nuclear Medicine, Biochemistry minor Microbiology (Registered).
CB15c	Staff with a NZ Diploma	Number	5	Is the one staff member with a Diploma in Science included in the 4?	No.
				Add in the one staff member - change data value to 5?	Agreed.
CB15b	Staff with a NZ Certificate	Number	13	Miles - please make a call on whether 14 or 18 should be included here and what you think we should do in future years regarding those currently in training (also would have thought this would have increased the training hours per employee a fair bit?)	Sorry typo on certificate - only 13. Of these one is also an electrician by trade, another is a fitter turner. Two of the 13 have a NZ CE Civil rather than the certs in retic or treatment. 5 of the 13 have certs in retic (lv3), 4 have lvl 4 retic supervisor, 1 has lvl 4 water treatment and 1 has lvl 4 in wastewater treatment. An additional 2 are seeking lvl 4 water treatment, 4 additional are going for lvl 4 wastewater and two are seeking lvl 3 retic.
CB15d	Staff with completed apprenticeships	Number	5	Miles this comment [qualified tradies] seems like a good point. Could you please cover of on this in your audit and report.	
				Are you able to get the number of trade qualified staff and add in the data value?	There are three staff who are/were electricians and two who were fitter/turners
CB19c	SCADA Controls	%	100.00%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities? Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	Lion's share of SCADA controls is in pump stations and treatment plants. no automated control valves in either ww or water networks.

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
CB19d	SCADA Monitoring	%	100.00%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities?	Wide range - not just wwps and treatment plants, but also reservoirs, water intakes, network points (bulk meters, pressure, etc).
				Does Council have other facilities that have SCADA monitoring e.g. reservoirs and water intakes etc.?	
				Everything is monitored so even if the focus is just on pump stations and treatment plants the data value is still 100% - correct?	Yes - 100% is correct.
WSB2	Water Serviced Properties: Residential	Number	23862	Are any farming or lifestyle properties included in this data value? How are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Yes, lifestyle properties would be if they are connected to water. Farming is considered Primary Industry and is under non-residential. Water based on Separately used or inhabited parts of a rating unit. (multi uses/dwellings) Derived from Rating Database/building files.
WSB3	Water Serviced Properties: Non-Residential	Number	2091	How are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Water based on separately used or inhabited parts of a rating unit (multi uses/dwellings). Derived from Rating Database/building files.
WSA1a	Length of Water Supply Network	km	571.688	If stock races exist in the district are they excluded? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	We do not have stock races. It includes 15,20 and 32mm services to property boundaries.
WSS7a	Fixed Charge: Non-residential water	\$	\$215.00	If \$215 is the median, what are the minimum and maximum rates?	Minimum \$172.00 (80%) large scale 20 or more SUIP, maximum \$430.00 (200%) accom/hosp.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	\$501,000.00	Is it correct to interpret the data value as being a reduction in debt by the amount shown?	No-this is a drop in debt so we are borrowing less 2018/19. We have no internal loans

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
				Does the amount include any internal loans?	
				Confused.	Data value changed.
WSF9a	Routine maintenance: Water Supply	\$	\$554,132.00	No question.	
WSF9b	Reactive maintenance: Water Supply	\$	\$508,081.00	No question.	
WSF10	Management Costs: Water Supply	\$	\$2,259,997.00	Have other costs like IT and insurance etc. also been included?	Yes, these are included.
WSF11	Council Contract Management Costs : Water Supply	\$	\$0.00	Council does not contract out any aspect of its water supply services?	No. All deliverables for Water is completed by our inhouse operations depot.
WWB2	Wastewater Serviced Properties: Residential	Number	22270	Are any farming or lifestyle properties included in this data value? How are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Yes, lifestyle properties would be if they are connected to Wastewater. Farming is considered Primary Industry and is under non-residential. Wastewater based on Separately used or inhabited parts of a rating unit. (multi uses/dwellings) Derived from Rating Database/building files
WWB3	Wastewater Serviced Properties: Non-residential	Number	4323	The number of wastewater serviced properties exceeds the total number of non-residential properties in the district? (listed in the common tab CB4)	SUIP method is appropriate. For large scale (such as the likes of coastlands and retirement villages) based on per toilet pan/urinal.
				How are multi-unit dwellings connected to a single connection being accounted for? How is such information identified/derived?	Wastewater based on separately used or inhabited parts of a rating unit. For non-residential connected large scale Wastewater is based on per Toilet Pan/Urinal. Derived from Rating Database/building files
WWA1a	Total Length of Public Wastewater Network	km	488.147	Are lengths of laterals/service connections up to the property boundary included?	Yes.
WWE2a	Wet weather overflows from the	Number	0	With the method used, how would you know to exclude	I went through each request from the public and read

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
	wastewater network			events caused by blockages?	the issue, what work was done and how it was resolved. I also checked what weather bombs hit. For example, in 2017/18 we had four weather bombs causing us to use storm basins at WWTP. There were corresponding wet weather SR complaints (smell of sewage, surcharging gullies, lime spread).
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question.	
WWE8a	Sewage design standards	AEP% or ADWF*PF	625	Can assume $250*2.5=625$ for this measure then?	Data value should be 625.
WWE8b	Average calculated wet weather overflow frequency	ARI	20.00%	No question.	
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Yes. There has been 1 informal notification.
WWE4f	Wastewater network discharge non-conformance	Number	0		
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	Yes.
WWS7c	Planned Interruptions: Wastewater	Number/year	0	Miles - can you please ask them about the nature of these interruptions? Almost all others entered 0 or data not available which had me thinking it was a bit of a silly question.	Typo - looking at records it was zero.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	-\$87,000.00	Is it correct to interpret the data value as being a	Yes, this is an increase in 2018/19. We have no internal

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
				reduction in debt by the amount shown? Dose the amount include any internal loans?	loans.
				Confused.	Data value changed.
WWF9	Routine Maintenance: Wastewater	\$	\$197,974.00	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$455,056.00	No question.	
WWF11	Management Costs: Wastewater	\$	\$1,988,947.00	Have other costs like IT and insurance etc. also been included?	Yes, these are included.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	Should the data value be \$0 as in no wastewater services are contracted out?	Yes. All deliverables for Water is completed by our inhouse operations depot.
SWB2	Stormwater Serviced Properties - Residential	Number	21142	Are there properties that do not have an explicit stormwater charge in their rates but are billed though other means? If so, have they been included?	No.
SWB3	Stormwater Serviced Properties - Non-residential	Number	1248		
SWA1a	Total Length of Public Stormwater Network	km	231.99	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Open waterways and swales are not included.
SWE1a	Number of stormwater discharges from the piped network	Number	101	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	Yes and no.
SWE2b	Stormwater consent infringement notices	Number	0		

Code	Measure	Units	Data	AECOM/Water NZ Questions	KCDC Responses
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Yes and no.
SWF1	Operating Revenue: Stormwater	\$	\$2,467,274	Has any grants revenue been included and if so, does this differ from last year's approach?	No grants received for both years. Same approach as this year applied.
SWF5	Debt funding: Stormwater	\$	\$1,780,000	Is it correct to interpret the data value as being an increase in debt by the amount shown? Does the amount include any internal loans?	The value is an increase. No internal loans.
SWF6a	Routine maintenance: Stormwater	\$	\$595,000	See below.	
SWF6b	Reactive maintenance: Stormwater	\$	\$397,009	Is the data value just for reactive or is it reactive and routine combined?	Now split into reactive and routine.
SWF7	Management Costs: Stormwater	\$	\$964,295	Have other costs like IT and insurance etc. also been included?	Yes, these are included.
SWF8	Council Contract Management Costs: Stormwater	\$	\$0	Should the data value be \$0 as in no stormwater services are contracted out?	Yes, it should.

Table 6 Manawatu District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
CB3	Residential properties	Number	12137	Curious why the data confidence is not highly reliable	First time we have run this report so we could improve in

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
				especially if the data comes from rates. Any comment?	later years.
CB10b	Retiring staff	Number	5	No Question.	Data value changed.
CB14	Staff training	hours/year		No Question.	
CB15a	Staff with a Bachelor of Engineering	Number	6	Would HR be able to provide this data?	Data value provided.
CB15c	Staff with a NZ Diploma	Number	4	Would HR be able to provide this data?	Data value provided.
CB15b	Staff with a NZ Certificate	Number	10	Would HR be able to provide this data?	Data value provided.
CB15d	Staff with completed apprenticeships	Number	2	Would HR be able to provide this data?	Data value provided.
CB19c	SCADA Controls	%	100.00%	100% implies that all pump stations and treatment plants have some level of SCADA control? Is this correct? Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	All Treatment Plants have SCADAs and PLCs. All fully automated with alarming and remote access.
				Are pump stations included?	
CB19d	SCADA Monitoring	%	100.00%	100% implies that all pump stations and treatment plants have some level of SCADA monitoring? Is this correct? Does Council have other facilities that have SCADA monitoring e.g. reservoirs and water intakes etc?	Yes, see above comment. Reservoirs and Water Takes have monitoring for Resource Consent compliance monitoring.
				Are pump stations included?	
WSB2	Water Served Properties: Residential	Number	7792	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such	Yes, farming properties are included. This is urban and rural potable supplies

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
				information identified/derived?	
				How are multi-unit dwellings identified?	MDC does not have many multi-unit dwellings - a more likely situation is say farms which can have several dwellings.
WSB3	Water Served Properties: Non-Residential	Number	836	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Use rates data - dwelling number on property. Difficult to get this info.
				How are multi-unit dwellings identified?	MDC does not have many multi-unit dwellings - a more likely situation is say farms which can have several dwellings.
WSA1a	Length of Water Supply Network	km	342.9	Does the length exclude stock water races? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	This is the length of pipes to the boundary.
WSS7a	Fixed Charge: Non-residential water	\$	\$660- \$864	No fixed charge - is this correct?	No - rate depends on size of connection.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	-\$588,000.00	What approach or rationale was considered when identifying debt funding?	General Council approach - debt is raised to fund capital expenditure so that the expense is spread over multiple years. This means the cost will be borne by those that benefit from the assets, rather than immediately by the ratepayer.
				A reduction in debt - is that correct? Is part of the debt internal loans?	This data value is a forecast reduction associated with development contributions.
WSF9a	Routine maintenance: Water Supply	\$		If the split is not known, do you know the total maintenance cost and if so, enter the value against	Data value provided.

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
WSF9b	Reactive maintenance: Water Supply	\$	\$373,644.00	reactive maintenance.	
WSF10	Management Costs: Water Supply	\$	\$1,224,228.00	Have other costs like IT and insurance etc. also been included?	Yes. Need to update value though.
				Can you provide an updated data value?	Updated data value provided.
WSF11	Council Contract Management Costs : Water Supply	\$		Can it be assumed that Council does not contract out any of its water supply services?	Water Supply is managed inhouse. External Contractor for SCADA
WWB2	Wastewater Serviced Properties: Residential	Number	7410	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	No Farming properties are included.
				How are multi-unit dwellings identified?	MDC does not have many multi-unit dwellings - a more likely situation is say farms which can have several dwellings.
WWB3	Wastewater Serviced Properties: Non-residential	Number	730	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Yes - dwelling number from rates.
				How are multi-unit dwellings identified?	MDC does not have many multi-unit dwellings - a more likely situation is say farms which can have several dwellings.
WWA1a	Total Length of Public Wastewater Network	km	227.3	Are lengths of laterals/service connections up to the property boundary included?	Length of lateral connects are not included. We have added 7 km of pipe to the network.
WWE2a	Wet weather overflows from the wastewater network	Number		How are overflows managed and reported on?	3 Waters Incident Report is filled in for these issues. This system has only just been set up.
WWE2b	Wet weather overflows from combined stormwater and	Number		No question	

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
	wastewater networks				
WWE8a	Sewage design standards	AEP% or ADWF*PF	625	Do you know the average dry weather flow and associated peaking factor used to determine peak wet weather flows?	MDC use NZS 4404:2010 - specifies an ADWF of 180-250 l/p/d and a PF of 2.5.
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	No Wastewater modelling has been done recently
WWE4e	Wastewater treatment plant consent non-conformance	Number	5	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Only formal notifications are included
WWE4f	Wastewater network discharge non-conformance	Number	0		
WWE4g	Wastewater network discharge consents	Number	0	Does the fact that there was a network consent breach noted (WWE4e) not imply that there is a consent for networks?	MDC have no discharge consents.
WWS7c	Planned Interruptions: Wastewater	Number/year		How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	Missed.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	\$1,281,000.00	What approach or rationale was considered when identifying debt funding?	General Council approach - debt is raised to fund capital expenditure so that the expense is spread over multiple years. This means the cost will be borne by those that benefit from the assets, rather than immediately by the ratepayer.
				An increase in debt - is that correct? Is part of the debt internal loans?	This data value is a forecast increase associated with development contributions.

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
WWF9	Routine Maintenance: Wastewater	\$		If the split is not known, do you know the total maintenance cost and if so, enter the value against reactive maintenance.	Data value provided.
WWF10	Reactive Maintenance: Wastewater	\$	\$1,266,837.00		
WWF11	Management Costs: Wastewater	\$	\$1,582,206.00	Can a value not be determined/sourced the same way it was for water? An annual report maybe?	Data value provided.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	Can it be assumed that Council does not contract out any of its wastewater services?	Wastewater services are provided by in house services
SWB2	Stormwater Serviced Properties - Residential	Number	7443	Are there properties that do not have an explicit stormwater charge but are billed through other means? If so, have they been included?	No
SWB3	Stormwater Serviced Properties - Non-residential	Number	850		
SWA1a	Total Length of Public Stormwater Network	km	85.896	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Excluded.
SWE1a	Number of stormwater discharges from the piped network	Number	Unknown	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No - we are not aware of the number of discharge points in our network. Stormwater data is of a low quality
SWE2a	Stormwater consent abatement notices	Number	0	No data this year?	No abatement notices, infringement notices or enforcement orders, no prosecutions
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0		

Code	Measure	Units	Data	AECOM/Water NZ Questions	MDC Responses
SWE2e	Stormwater consent non-conformance	Number	1	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Only formal notifications were included
SWF1	Operating Revenue: Stormwater	\$	\$962,654	Has any grants revenue been included?	No grants funding included
SWF5	Debt funding: Stormwater	\$	\$790,000	What approach or rationale was considered when identifying debt funding?	General Council approach - debt is raised to fund capital expenditure so that the expense is spread over multiple years. This means the cost will be borne by those that benefit from the assets, rather than immediately by the ratepayer.
				An increase in debt - is that correct? Is part of the debt internal loans?	This data value is a forecast increase associated with development contributions
SWF6a	Routine maintenance: Stormwater	\$		If the split is not known, do you know the total maintenance cost and if so, enter the value against reactive maintenance.	Total maintenance cost - no split available
SWF6b	Reactive maintenance: Stormwater	\$	\$36,847		
SWF7	Management Costs: Stormwater	\$	\$416,032	Can a value not be determined/sourced the same way it was for water? An annual report maybe?	Data value provided.
SWF8	Council Contract Management Costs: Stormwater	\$		Can it be assumed that Council does not contract out any of its stormwater services?	All stormwater services are managed inhouse

Table 7 Napier City Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
CB3	Residential properties	Number	21985	No question.	
CB10b	Retiring staff	Number	0	No question.	

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
CB14	Staff training	hours/year	207	Would HR be able to provide this data?	Data value provided.
CB15a	Staff with a Bachelor of Engineering	Number	6	Were any other types of related/similar qualifications considered?	4 BE, 1 BSc and 1 Masters.
CB15c	Staff with a NZ Diploma	Number	2	Were any other types of related/similar qualifications considered?	All NZ Diplomas.
CB15b	Staff with a NZ Certificate	Number	16	Were any other types of related/similar qualifications considered?	All were operations type qualifications.
CB15d	Staff with completed apprenticeships	Number	2	Were any other types of related/similar qualifications considered?	Inhouse trained staff - reticulation related training.
CB19c	SCADA Controls	%	85.00%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities? Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	80-85% excluding reservoirs.
CB19d	SCADA Monitoring	%	75.00%	Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities? Does Council have other facilities that have SCADA monitoring e.g. reservoirs and water intakes etc.?	70-75% excluding reservoirs.
WSB2	Water Serviced Properties: Residential	Number	22813	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Data value changed to 22813. Excludes farming but includes a few lifestyle properties. Multi-unit dwellings identified through use of SUIP (Separately used or inhabited part of a rating unit) which identifies multiple occupancies on a rateable property. SIP's are recorded in the rates database.

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
WSB3	Water Serviced Properties: Non-Residential	Number	2338	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Data value changed to 2338. Multi-unit dwellings identified through use of SUIP (Separately used or inhabited part of a rating unit) which identifies multiple occupancies on a rateable property. SIP's are recorded in the rates database.
WSA1a	Length of Water Supply Network	km	484.9	Does the length exclude stock water races? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	Napier has no stock water races. Laterals are not included in the length.
WSS7a	Fixed Charge: Non-residential water	\$	\$221.00	What is the basis for the rate - e.g. is it capital value and based on an average?	Fixed charge is based on calculation to recover actual expenditure for water.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	\$0.00	What approach or rationale was considered when identifying debt funding?	Council does not borrow money. Shortfall is funded from reserves.
WSF9a	Routine maintenance: Water Supply	\$	\$2,143,432.00	The cost of routine maintenance has increased considerably from last year. Any reason?	Increased maintenance to meet water safety requirement and address current dirty water issue.
WSF9b	Reactive maintenance: Water Supply	\$	\$1,428,954.00	No question.	
WSF10	Management Costs: Water Supply	\$	\$1,066,285.00	Have other costs like IT and insurance etc. also been included?	Includes IT and insurance costs etc.
WSF11	Council Contract Management Costs : Water Supply	\$	\$602,833.00	No question.	
WWB2	Wastewater Serviced Properties: Residential	Number	22785	Number of properties serviced with wastewater is greater than the total number of residential properties (CB3).	Data value changed to 22785. No farming properties included. Wastewater connections to separate units are in rating

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
				Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	database.
WWB3	Wastewater Serviced Properties: Non-residential	Number	2228	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Data value changed to 2228. Wastewater connections to separate units are in rating database.
WWA1a	Total Length of Public Wastewater Network	km	388.7	Are lengths of laterals/service connections up to the property boundary included?	Laterals are not included in the length.
WWE2a	Wet weather overflows from the wastewater network	Number		How are overflows managed and reported on?	Currently we are not monitoring wet weather overflows, but dry weather overflows from RFS system.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question	
WWE8a	Sewage design standards	AEP% or ADWF*PF	20.00%	No question	
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	Outputs of modelling will be available for next year's reporting.
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Only considered formal notifications.
WWE4f	Wastewater network discharge non-conformance	Number	1		
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	Changed data value to '0'. At present, we don't have a consent to discharge from network.

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
WWS7c	Planned Interruptions: Wastewater	Number/year	0	How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	Planned interruptions for more than 4 hours are manually recorded.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	\$0.00	What approach or rationale was considered when identifying debt funding?	At the moment there is no external or internal borrowings.
WWF9	Routine Maintenance: Wastewater	\$	\$3,478,587.00	If split is unavailable include all maintenance costs in this category	Combined data value provided.
WWF10	Reactive Maintenance: Wastewater	\$		See above.	See above
WWF11	Management Costs: Wastewater	\$	\$746,057.00	Have other costs like IT and insurance etc. also been included?	Includes IT and insurance costs etc.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$549,718.00	No question.	
SWB2	Stormwater Serviced Properties - Residential	Number	21985	Are there properties that do not have an explicit stormwater charge but are billed through other means? If so have they been included?	No. Have difficulty getting right data values.
SWB3	Stormwater Serviced Properties - Non-residential	Number	4269		
SWA1a	Total Length of Public Stormwater Network	km		Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Unlined channels and swales are excluded.
SWE1a	Number of stormwater discharges from the piped network	Number	14	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No, reported the number of final discharges into the sea and estuaries.

Code	Measure	Units	Data	AECOM/Water NZ Questions	NCC Responses
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	There were discussions with Regional Council on discharge quality, but there were no infringement notices.
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	There were discussions with Regional Council on discharge quality, but there were no infringement notices.
SWF1	Operating Revenue: Stormwater	\$	\$262,724	Has any grants revenue been included and if so, does this differ from last year's approach?	No grants.
SWF5	Debt funding: Stormwater	\$	\$0	What approach or rationale was considered when identifying debt funding?	At the moment there is no external or internal borrowings.
SWF6a	Routine maintenance: Stormwater	\$	\$1,105,611	If split is unavailable include all maintenance costs in this category	Combined data value provided.
SWF6b	Reactive maintenance: Stormwater	\$		See above.	See above.
SWF7	Management Costs: Stormwater	\$	\$604,102	No question	
SWF8	Council Contract Management Costs: Stormwater	\$	\$549,779	No question	

Table 8 Southland District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
CB3	Residential properties	Number	7049	Do these figures relate to the whole region or just the nine schemes covered in the following spreadsheets?	The number quoted relates to wastewater residential properties serviced which is the greater of district wide serviced properties of Water, Wastewater or stormwater.
				The data value has increased significantly from the previous year which was based on census data. Any comments or reasons why the data value has increased?	The Census data 2013 has been calculated for each applicable scheme by GIS / Mesh block data from the Census.
				Still not clear why the increase though.	Last year's data value is for water serviced properties in 9 schemes and not the whole network - this year's data value is for wastewater serviced properties which are greater in number. This provides more sensible answers for the measures that make use of this data value.
CB10b	Retiring staff	Number	4	Does this number only apply to full time employees or were contactors included/considered as well?	This number applies to the W&W department who have 4 long term employees retiring over the next 2-5 years. No contractors were considered in this analysis.
				Are stormwater staff not included then?	Stormwater staff are included. Currently one person looks after all 3 waters but moving to have a person lead each water activity - looking for 5 extra staff.
CB11	Contracted staff	FTE	16	Last year's spreadsheet. Included the number of Downer staff in this field. Would it be possible to estimate this again this year?	Unchanged - Downer staff = 16
CB15a	Staff with a Bachelor of Engineering	Number	1	Would HR be able to provide this data?	1 x BE
CB15c	Staff with a NZ Diploma	Number	1	Would HR be able to provide this data?	1 x Dip E
CB15b	Staff with a NZ Certificate	Number	3	Would HR be able to provide this data?	3 x Allied field Certificates.

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
CB15d	Staff with completed apprenticeships	Number	0	Would HR be able to provide this data?	Nil.
CB19c	SCADA Controls	%	100.00%	100% implies that all pump stations and treatment plants have some level of SCADA control? Is this correct? Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	100% all Water TP's - 100% all Wastewater pump stations, flowmeters and treatment plant electrical components. No SCADA to any stormwater facilities as they are all static facilities (i.e. no mechanisation)
				Are there any water pump stations?	There are 2 water pump stations which are controlled and monitored.
CB19d	SCADA Monitoring	%	100.00%	Would there be 100% monitoring if everything is controlled?	Yes.
				Are there any water pump stations?	There are 2 water pump stations which are controlled and monitored.
WSB2	Water Serviced Properties: Residential	Number	5204	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	In the nine (9) schemes selected basically no farming. There are Lifestyle blocks included (minor affect). Multiple dwellings e.g. flats, units, motels etc are counted as one connection.
WSB3	Water Serviced Properties: Non-Residential	Number	754	Percentage wise, there is quite an increase in the data value. Any reason for this? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Put down to interpretation of Rating data and Mesh block approach this year. Refined Non-residential numbers went up and residential went down.
WSA1a	Length of Water Supply Network	km	303.9	Does the length exclude stock water races? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	Only includes mains and laterals to property boundaries of the nine (9) selected schemes. No stock water of any kind is included.
WSS7a	Fixed Charge: Non-residential	\$	\$196.00	What is the basis for the rate - e.g. is it capital value and	Non-residential and residential water have the same fixed rate per cu. m. The rate is adjusted (usually

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
	water			based on an average?	triennially) and comprises O&M costs, Capital depreciation, electricity and other such production costs. The rate is a district wide rate (i.e. all schemes pay the same rate)
				Is the rate determined by dividing the costs by the number of connections?	The total costs to operate and maintain a scheme included renewals etc. is worked out and then divided by the number of connections. Rate varies for each scheme especially if there are going to be a larger number of renewals. It is essentially a user pays system.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question	
WSF6	Debt funding: Water Supply	\$	\$10,605,000.00	What approach or rationale was considered when identifying debt funding?	Annual Rate increase levelling is the primary driver in relation to borrowing levels
				Confirm if the data value is the total debt or change in debt. Does the amount include any internal loans?	The data value is a total. The amount is all internal loans.
WSF9a	Routine maintenance: Water Supply	\$	\$1,087,671.00	No question	
WSF9b	Reactive maintenance: Water Supply	\$	\$110,000.00	Don't understand the comment "not commercially available" especially since a value has been provided for routine maintenance. Can you expand on the comment?	SDC have a long term O&M Contract with Downer circa \$2.5m per annum for water and wastewater. A breakup of costs is commercially sensitive so an approximate breakdown was previously provided. Similarly, reactive maintenance is at best an estimate only. An estimate of \$110k could be used with "less reliable" data confidence - NOTE the reduction at WSF9a to \$1,087k corrects an error in 2017/2018 data to align with the 9 selected schemes.
WSF10	Management Costs: Water	\$	\$160,000.00	Have other costs like IT and insurance etc. also been	This amount relates only to W&W administration costs

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
	Supply			included?	of the O&M contract.
				This measure is to do with all the internal costs of managing wastewater excluding the costs of managing Downer. Should this cost be against WSF11 then? Can you divide the costs up against water and wastewater?	Changed data value to \$160k and allocated \$80k to WSF11.
WSF11	Council Contract Management Costs : Water Supply	\$	\$80,000.00	I would expect this would include costs associated with the Downer contract	These costs are included at WSF9a
WWB2	Wastewater Serviced Properties: Residential	Number	7049	Quite an increase in the number of properties. Any reason for this? Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Increase due to wastewater applying to all schemes not the nine (9) selected urban water schemes. Number of properties derived from Rates Dept data. Properties included in this item must be within Township sewer boundaries. Multiple dwellings / motels etc count as one (1) connection, not number of units rated for.
				How many scheme are there?	There are 22 schemes in total but the 7049 just relates to 9 schemes.
WWB3	Wastewater Serviced Properties: Non-residential	Number	218	What led to the data value going up from 0 to 218? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	This calculation was incorrect 2017/18 as it was included with residential. Data from Rating provides landuse type. Multiple rating from single connection counts as 1 unit (connection).
WWA1a	Total Length of Public Wastewater Network	km	325.6	Are lengths of laterals/service connections up to the property boundary included?	Total length includes mains and laterals up to property boundary.
WWE2a	Wet weather overflows from the wastewater network	Number	0	How are overflows managed and reported on?	There are no designed wastewater overflows. Should an overflow occur due to blockage it is cleaned and sanitised. A report is made to Environment Southland and the overflow is reported to D.I.A through KPI

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
					reporting.
				Were there any overflows in the last year?	No overflows last year.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question.	
WWE8a	Sewage design standards	AEP% or ADWF*PF	625	What standards are being applied to any know wastewater network design?	Not known.
				Are you using NZS 4404?	Consultant does all the design so safe to assume they use NZS 4404. Have assume a data value similar to other organisations using NZS 4404.
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	Not known.
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Notification to Environment Southland is mandatory.
WWE4f	Wastewater network discharge non-conformance	Number	0		
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	Notification to Environment Southland is mandatory.
WWS7c	Planned Interruptions: Wastewater	Number/year		How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	Planned interruptions are notified and recorded by Workorders through IPS (Asset Management System) Frequency is dashboarded for KPI reporting.
				Were there any planned interruptions in the last year?	Based on known procedures, safe to assume there were no planned interruptions.
WWF1	Revenue from the Provision of Wastewater Treatment Services	\$	\$0.00	Assume \$0?	Correct.

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
	to Another Local Authority				
WWF6	Debt funding: Wastewater	\$	\$14,582,000.00	The amount of debt taken on seems to significantly exceed expenditure. Is this definitely correct?	The debt funding is associated with a \$22m disposal to land project at Te Anau. The debt funding is internally sourced.
				Confirm if the data value is the total debt or change in debt.	The data value is a total. The amount is all internal loans.
WWF9	Routine Maintenance: Wastewater	\$	\$1,290,255.00	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$200,000.00	Seems odd that this data value is not available yet it was reported last year. Any comment?	SDC have a long term O&M Contract with Downer circa \$2.5m per annum for water and wastewater. A breakup of costs is commercially sensitive so an approximate breakdown was previously provided. Similarly, reactive maintenance is at best an estimate only. An estimate of \$200k could be used with "less reliable" data confidence.
WWF11	Management Costs: Wastewater	\$	\$160,000.00	Seems odd that this data value is not available yet it was reported last year. Any comment?	A similar amount as previous of \$240,000 is applicable with a Data Confidence "Uncertain".
				See comment against WSF10.	Added a data value of \$160k.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$40,000.00	Are there any wastewater services that are contracted out?	As stated, a \$2.5m lump sum contract exists for Water and Wastewater Services.
				This measure is to do with all the internal costs of managing wastewater excluding the costs of managing Downer.	Added a data value of \$40k.
SWB2	Stormwater Serviced Properties - Residential	Number	5827	Are there properties that do not have an explicit stormwater charge but are billed though other means? If so, have they been included?	Changed data value to 5827

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
SWB3	Stormwater Serviced Properties - Non-residential	Number	200	It seems odd that there is no data value. Any comment?	Added data value of 200
SWA1a	Total Length of Public Stormwater Network	km	114.1	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Length quoted is piped length only - Laterals to boundary
SWE1a	Number of stormwater discharges from the piped network	Number	87	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	Taken as piped discharges to environment. Discharges to soakholes generally a roading function outside townships and have not been counted.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	No notices formal or informal.
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	No non-conformances encountered.
SWF1	Operating Revenue: Stormwater	\$	\$523,267	Has any grants revenue been included and if so, does this differ from last year's approach?	Increased revenue from rates to cover increased compliance costs
SWF5	Debt funding: Stormwater	\$	\$190,000	No question.	
SWF6a	Routine maintenance: Stormwater	\$		No question.	
SWF6b	Reactive maintenance: Stormwater	\$	\$657,938	Does the data value represent both reactive and routine maintenance combined?	Yes - This work carried out by Roading Alliance contractor.

Code	Measure	Units	Data	AECOM/Water NZ Questions	SDC Responses
SWF7	Management Costs: Stormwater	\$	\$50,000	Include any costs related to Downer contract (if still in place).	Stormwater not carried out by Downer. This item included in SWF6b
SWF8	Council Contract Management Costs: Stormwater	\$		What does the \$50,000 cover?	Sorry - This \$50,000 should be allocated to SWF7- Data Confidence "Uncertain". Stormwater work managed under Rooding contract and Rooding pays the management costs.

Table 9 Stratford District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
CB3	Residential properties	Number	3927	Any reason why the 2013 Census data value is still be used?	Since the latest census was on line, many people did not respond, and thus the data was deemed unreliable.
CB10b	Retiring staff	Number	0	No question.	
CB14	Staff training	hours/year	20	No question.	
CB15a	Staff with a Bachelor of Engineering	Number	3	No question.	
CB15c	Staff with a NZ Diploma	Number	2	No question.	
CB15b	Staff with a NZ Certificate	Number	1	No question.	
CB15d	Staff with completed apprenticeships	Number	0	No question.	
CB19c	SCADA Controls	%	95.00%	By water supply sites do you mean intakes and bores?	No, I mean the three water treatment plants. Stratford, Midhirst and Toko, and the WWTP and one sewer pump station.
CB19d	SCADA Monitoring	%	62.50%	The % should only include facilities that are connected	62.50%

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
				to SCADA. Revise the value?	
WSB2	Water Serviced Properties: Residential	Number	2383	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Farms, lifestyle properties rural residential for Stratford Midhirst and Toko water supplies. Multiple units on one property are counted as multiple service connections. Information taken from GIS maps (IntraMaps), of water network and who is connected.
				So, farms, lifestyle properties and rural residential are counted?	Correct. Note - multi-unit dwellings have not been counted - the focus is on connections. For 2019-2020 will count all rateable properties as service connections.
WSB3	Water Serviced Properties: Non-Residential	Number	524	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	See above response.
WSA1a	Length of Water Supply Network	km	89.8	Does the length exclude stock water races? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	No stock water races. Laterals/service connections not included in pipe length.
WSS7a	Fixed Charge: Non-residential water	\$	\$584.00	What is the basis for the rate - e.g. is it capital value and based on an average?	Rate is based on operating costs plus depreciated cost plus any additional capital costs associated with upgrades or expansion
				Divided by the number of properties?	Divided by the number of connections.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	\$509,000.00	Does the value represent a change from 17/18 to 18/19 or is it the total debt amount? Does the amount include any internal loans?	Previous value (as well as last year) was a total. All level of service improvements are funded by debt as per our financial strategy, for intergenerational equity.

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
					Debt funding is external, i.e. Bank Loan
WSF9a	Routine maintenance: Water Supply	\$	\$211,390.00	No question.	
WSF9b	Reactive maintenance: Water Supply	\$	\$120,056.00	Quite a drop in the cost of reactive maintenance. Any reason?	Some emergency renewals were done under reactive maintenance by our services contractor
				You mean in 17/18?	Data value is correct.
WSF10	Management Costs: Water Supply	\$	\$296,428.00	Have other costs like IT and insurance etc. also been included?	No.
				Maybe the data confidence should be reliable then?	All overhead costs have been included in data value.
WSF11	Council Contract Management Costs : Water Supply	\$	\$0.00	Possibly 0 could be entered here rather than blank if there are no external contractors managing the network?	Will enter zero in cell
				Comment above refers to a services contractor so maybe there are some contract management costs.	Council Contract Management Costs are incorporated in WSF10 data value. Would be difficult to separate out.
WWB2	Wastewater Serviced Properties: Residential	Number	2273	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	No farming. Multiple dwellings counted as multiple service connects. Information taken from GIS maps (IntraMaps), of water network and who is connected
WWB3	Wastewater Serviced Properties: Non-residential	Number	258	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	Same as above answer.
WWA1a	Total Length of Public Wastewater Network	km	47.6	Are lengths of laterals/service connections up to the property boundary included?	No.

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
WWE2a	Wet weather overflows from the wastewater network	Number	0	Was the definition difficult to interpret e.g. was it clear what to do about events that lasted longer than 24 hours?	No events lasted longer than 24 hours.
				How would you verify this or do you just know?	Would get reported in KPI reporting.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question.	
WWE8a	Sewage design standards	AEP% or ADWF*PF	625	Because there is no network expansion are there no design standards in place?	We have recently adopted the NZS4404 Land Development and Subdivision Infrastructure
				NZS4404 specifies an ADWF of 180-250 l/p/d - do you know which value in this range has been chosen?	We have recently adopted the NZS4404 Land Development and Subdivision Infrastructure, AEP% = 2.5 or 250%, ADWF*PF = 250 litres per person per day. Taranaki councils have developed an amended version of NZS4404.
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	No
WWE4e	Wastewater treatment plant consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Regional Council inspects quarterly, no non-conformances other than weed control or grazing status around oxidation ponds
WWE4f	Wastewater network discharge non-conformance	Number	0		
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	There must be some misunderstanding, the number 3 is the number of consents issued by the Regional Council to discharge to our drainage network.
				Noted - the correct number is 0 then?	Yes
WWS7c	Planned Interruptions:	Number/ye	0	No planned interruptions - is this correct?	Correct, no planned interruptions

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
	Wastewater	ar			
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	\$1,310,000.00	What approach or rationale was considered when identifying debt funding?	All level of service improvements are funded by debt as per our financial strategy, for intergenerational equity.
				Does the value represent a change from 17/18 to 18/19 or is it the total debt amount? Dose the amount include any internal loans?	Previous value (as well as last year) was a total. All level of service improvements are funded by debt as per our financial strategy, for intergenerational equity. Debt funding is external, i.e. Bank Loan
WWF9	Routine Maintenance: Wastewater	\$	\$67,672.00	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$78,478.00	Quite a drop in the cost of reactive maintenance. Any reason?	Not really other than the high speed fibre optic people came though town a couple of years ago and drilled through many sewer laterals and sewer main lines
WWF11	Management Costs: Wastewater	\$	\$168,195.00	Have other costs like IT and insurance etc. also been included?	No.
				Maybe the data confidence should be reliable then?	All overhead costs have been included in data value.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	No question.	Note - Council Contract Management Costs are incorporated in WWF10 data value. Would be difficult to separate out.
SWB2	Stormwater Serviced Properties - Residential	Number	2383	Are figures available for the number of properties paying the UAGC? As these properties are contributing to the stormwater systems in their rates, we would consider them a 'stormwater serviced property'	My misunderstanding.
SWB3	Stormwater Serviced Properties	Number	524	Are figures available for the number of properties paying	My misunderstanding.

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
	- Non-residential			the UAGC? As these properties are contributing to the stormwater systems in their rates, we would consider them a 'stormwater serviced property'	
SWA1a	Total Length of Public Stormwater Network	km	20	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Yes.
SWE1a	Number of stormwater discharges from the piped network	Number	9	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	None.
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	No formal or informal notifications.
SWF1	Operating Revenue: Stormwater	\$	\$328,653	Has any grants revenue been included and if so ,does this differ from last year's approach?	No grants, no changes.
SWF5	Debt funding: Stormwater	\$	\$15,000	Does the \$15,000 include any internal loans?	All level of service improvements are funded by debt as per our financial strategy, for intergenerational equity. Debt funding is external, i.e. Bank Loan
SWF6a	Routine maintenance: Stormwater	\$	\$38,170	No question	

Code	Measure	Units	Data	AECOM/Water NZ Questions	STDC Responses
SWF6b	Reactive maintenance: Stormwater	\$	\$26,047	No question	
SWF7	Management Costs: Stormwater	\$	\$103,818	Have other costs like IT and insurance etc. also been included?	No.
				Maybe the data confidence should be reliable then?	All overhead costs are actually included in data value.
SWF8	Council Contract Management Costs: Stormwater	\$	\$0	No costs associated with stormwater service contract mentioned in SWA5c?	Council Contract Management Costs are incorporated in SWF7 data value. Would be difficult to separate out.

Table 10 Taupo District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
CB3	Residential properties	Number	23272	The data value has dropped from the previous year which was based on census data. Any comments or reasons why the data value has dropped?	This is a problem, every time someone new does the reporting we get different data. I have reverted back to an old method. New IT system being developed will hopefully help with the accuracy of this reporting.
				Explain the old method. What is the new IT system?	The old method is an existing query run on the ratings database. There are other queries as well but give different results. Data confidence should be "Less Reliable". Corporate systems are being replaced with TechnologyOne.
CB10b	Retiring staff	Number	8	Does this number only apply to full time employees or were contactors included/considered as well?	Just Council staff, I have asked Downer to provide their number.
				Not necessary to include contractors but useful information if it is available.	
CB14	Staff training	hours/year		Would HR know this?	Missed.

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
CB15a	Staff with a Bachelor of Engineering	Number	7	Were any other types of related/similar qualifications considered?	Added science degrees (3), suggest rewording of question.
CB15c	Staff with a NZ Diploma	Number	3	Were any other types of related/similar qualifications considered?	No other types of related/similar qualifications were considered.
CB15b	Staff with a NZ Certificate	Number	18	The degree qualifications should be included with the BE count.	Noted.
CB15d	Staff with completed apprenticeships	Number	0	No trade staff who have done apprenticeships?	1 currently doing this but not complete, no other staff have gone through this process.
CB19c	SCADA Controls	%		Does this mean there are no facilities controlled by SCADA?	We have SCADA just have collated the data
				Not sure I understand the response?	Information not easily available. Will try and have the information available for next year.
CB19d	SCADA Monitoring	%		Does this mean there are no facilities monitored by SCADA?	We have SCADA just have collated the data
				Not sure I understand the response?	Information not easily available. Will try and have the information available for next year.
WSB2	Water Serviced Properties: Residential	Number	18480	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such	No - farming properties are removed from this data. Info is derived from our rating factors. Single property/connection has a rating factor of 1. multi

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
				information identified/derived?	properties on single connections have a higher factor.
				So multi-unit dwellings are counted individually?	Multi-unit dwellings are being counted. Rural lifestyle blocks are also being counted as residential.
WSB3	Water Serviced Properties: Non-Residential	Number	1437	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	In this instance they are not. This is the sum of non-residential connections.
				The data confidence should be less reliable then?	The issue is what to do about hotels and camp grounds of which there are many in Taupo.
WSA1a	Length of Water Supply Network	km	770	Does the length exclude stock water races if any? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	We don't have any stock water races. Yes, laterals are included.
WSS7a	Fixed Charge: Non-residential water	\$	\$458.22	No question.	
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	\$2,242,386.00	What approach or rationale was considered when identifying debt funding?	Policy is that new capex is debt funded and renewals are funded from reserves.
				Is the amount reported a change in debt from last year or is it the current total? Is any of the debt an internal loan?	Value represents a change in debt. Need to check about internal loans.
WSF9a	Routine maintenance: Water Supply	\$	\$928,916.67	No question.	
WSF9b	Reactive maintenance: Water Supply	\$	\$459,813.75	No question.	

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
WSF10	Management Costs: Water Supply	\$	\$2,597,305.58	Have other costs like IT and insurance etc. also been included?	Yes.
WSF11	Council Contract Management Costs : Water Supply	\$	\$0.00	No question.	
WWB2	Wastewater Serviced Properties: Residential	Number	16,488	Quite an increase in the number of properties. Any reason for this? Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	I have some difficulty getting consistent information. The split between residential and non-residential. Reverted back to old spreadsheet tool
				Not possible to use GIS?	GIS is an option which will be looked at
WWB3	Wastewater Serviced Properties: Non-residential	Number	1,008	Quite an increase in the number of properties. Any reason for this? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	I have some difficulty getting consistent information. The split between residential and non-residential. Reverted back to old spreadsheet tool
				Not possible to use GIS?	GIS is an option which will be looked at
WWA1a	Total Length of Public Wastewater Network	km	489	Are lengths of laterals/service connections up to the property boundary included?	Yes
WWE2a	Wet weather overflows from the wastewater network	Number	0	How are overflows managed and reported on?	We have a response procedure for overflows, these are logged in our Works request system and job sent to contractor. The assessment of whether it is a wet or dry weather overflow is usually assessed post event.
WWE2b	Wet weather overflows from combined stormwater and	Number	0	No question.	

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
	wastewater networks				
WWE8a	Sewage design standards	AEP% or ADWF*PF	575	Need to provide the ADWF and PF included in the code of practice	ADWF is 250, PF is 2.3, WWIF is 3.5 and people per dwelling HEU is 2.7. These values are for residential flows.
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	Yes, however some more calibration work needs to be done. The network appears to have good capacity and only a couple of wet weather overflow risk points.
				Is it not possible to get a wet weather overflow frequency from the modelling?	Haven't done enough modelling scenarios yet.
WWE4e	Wastewater treatment plant consent non-conformance	Number	16	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Error in reporting, the 16 are related to WWTP as there are no network consents. The non-conformances are internally monitored and often come up in compliance reports. Some are very minor i.e. late report, other related to quality non-conformance.
WWE4f	Wastewater network discharge non-conformance	Number			
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	We have no consented discharges from the network
WWS7c	Planned Interruptions: Wastewater	Number/year		How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	Missed.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	Have entered 0 (cell was previously left blank)	We don't provide services to other LAs.
WWF6	Debt funding: Wastewater	\$	-\$677,606.00	What approach or rationale was considered when identifying debt funding?	Policy is that new capex is debt funded and renewals are funded from reserves.
				Is the amount reported a change in debt from last year or is it the current total?	Value represents a change in debt.

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
				Is any of the debt an internal loan?	
WWF9	Routine Maintenance: Wastewater	\$	\$2,130,378.67	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$1,065,189.33	No question.	
WWF11	Management Costs: Wastewater	\$	\$4,087,588.76	Have other costs like IT and insurance etc. also been included?	Yes.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	No question.	
SWB2	Stormwater Serviced Properties - Residential	Number	1500	What was the logic applied to the GIS data?	only sections that had a stormwater connection were counted. The majority of sections dispose to ground connected sections are the exception.
SWB3	Stormwater Serviced Properties - Non-residential	Number	500	What was the logic applied to the GIS data?	only sections that had a stormwater connection were counted. The majority of sections dispose to ground connected sections are the exception.
SWA1a	Total Length of Public Stormwater Network	km	217	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	channels and swales included if part of the stormwater network but not included if they were part of the roading network.
				Is it possible to provide the length of channels and swales and then Water NZ can deduct the length if appropriate?	SW mains 213km, SW culverts 4km, Channels 50m (which doesn't seem correct) so a total of 217km. The previously reported valued included roading as well which was incorrect.
SWE1a	Number of stormwater discharges from the piped network	Number	498	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	No difficulty.
SWE2a	Stormwater consent abatement	Number	0	Were only formal notices or orders considered? Were	Yes.

Code	Measure	Units	Data	AECOM/Water NZ Questions	TDC Responses
	notices			there any informal notifications?	
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	we did not receive any informal notifications.
SWF1	Operating Revenue: Stormwater	\$	\$1,769,460	Has any grants revenue been included and if so does this differ from last year's approach?	No Grants monies included as did not receive any, this is the same as previous approach.
SWF5	Debt funding: Stormwater	\$	\$462,840	Is the amount reported a change in debt from last year or is it the current total? Is any of the debt an internal loan?	Value represents a change in debt.
SWF6a	Routine maintenance: Stormwater	\$	\$271,378	No question.	
SWF6b	Reactive maintenance: Stormwater	\$	\$135,689	No question.	
SWF7	Management Costs: Stormwater	\$	\$386,523	Have other costs like IT and insurance etc. also been included?	Yes.
SWF8	Council Contract Management Costs: Stormwater	\$	\$0	No question.	

Table 11 Waitaki District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
CB3	Residential properties	Number	11271	No question.	
CB10b	Retiring staff	Number	1	Does this number only apply to full time employees or were contactors included/considered as well?	Full time employees within the 3 Waters team at the Waitaki District Council only.
CB14	Staff training	hours/year	74	This works out to 43 hours per staff member. Is this correct?	74 hours per staff member (the 818 hours was for the 10 members of the 3 Waters team plus the Assets Group Manager).
				What would be the hours for the 19 staff in CB10?	It is too hard to get training hours for the overhead FTE's. 74 hours is from 818/11.
CB15a	Staff with a Bachelor of Engineering	Number	2	Were any other types of related/similar qualifications considered?	One other staff member has a Bachelor of Science in Geography and Environmental Management. They were excluded from this measure.
				BSc is okay - increase the number by 1.	Change agreed.
CB15c	Staff with a NZ Diploma	Number	6	Were any other types of related/similar qualifications considered?	No.
CB15b	Staff with a NZ Certificate	Number	4	No question.	
CB15d	Staff with completed apprenticeships	Number	1	No question.	
CB19c	SCADA Controls	%	43.00%	How many sites are water reservoirs and intakes?	8 reservoirs, 0 intakes (should not have originally stated that it included intakes as neither of those have control). Excludes supplies managed by CWML.
				Are the supplies managed by CWML owned by Waitaki?	Supplies are owned by Waitaki but managed CWML - there is no interaction between the two organisations.
CB19d	SCADA Monitoring	%	100.00%	How many sites are water reservoirs and intakes?	10 reservoirs, 0 intakes (should not have originally stated that it included intakes as neither of those have monitoring). Excludes supplies managed by CWML.

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
				Are the supplies managed by CWML owned by Waitaki?	Supplies are owned by Waitaki but managed CWML - there is no interaction between the two organisations.
WSB2	Water Serviced Properties: Residential	Number	9322	Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	1) No farming properties would have been included as the QV data used would have considered them commercial and therefore non-residential. 2) They are not accounted for. I counted the number of properties levied not dwellings. They needed to include a definition of 'property' to get the answers they seem to be seeking in the follow-up questions. 3) I can't get a fool proof way of deriving dwellings. I could query the SUIPs rated but I question the integrity of this data from QV to indicate dwellings as other components of the data they provide contradict it. I derived the information by querying the properties rated for water and of those the properties considered residential in nature by QV.
				If there is no full proof way of correctly identifying and counting multi-unit dwellings then the suggestion is to lower the data confidence to less reliable. I agree there does need to be some clarity around properties and dwellings.	Would have to rework the methodology to include multi-unit dwellings - would produce a slightly higher data value but there are not that many multi-unit dwellings. Would look at reworking the methodology next year. Agreed to lower the data confidence. Need some more clarity around properties versus dwellings versus connections etc.
WSB3	Water Serviced Properties: Non-Residential	Number	1614	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	1) As per point 2 above they weren't accounted for and I don't have clear means to do it. 2) As per point 3 above I queried properties rated for water and those properties considered non-residential in nature
				Same suggestion then - lower the data confidence to	Would have to rework the methodology to include multi-unit dwellings - would produce a slightly higher data

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
				less reliable.	value but there are not that many multi-unit dwellings. Would look at reworking the methodology next year. Agreed to lower the data confidence. Need some more clarity around properties versus dwellings versus connections etc.
WSA1a	Length of Water Supply Network	km	1733.9	Does the length exclude stock water races? Are lengths of laterals/service connections up to the property boundary or meter etc. included?	Stock water races are excluded. Laterals up to the point of supply (manifold/meter/restrictor) are included.
				The data value is more than double that of your peers. Are you sure the value is correct?	Waitaki covers a large geographic area with a number of small rural supplies.
WSS7a	Fixed Charge: Non-residential water	\$	\$392.50	What is the basis for the rate - e.g. is it capital value and based on an average?	Total cost per water supply divided by the number of on-demand water connections or restricted units supplied.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question	
WSF6	Debt funding: Water Supply	\$	\$0.00	No question	
WSF9a	Routine maintenance: Water Supply	\$	\$1,289,065.60	No question	
WSF9b	Reactive maintenance: Water Supply	\$	\$1,494,272.38	No question	
WSF10	Management Costs: Water Supply	\$	\$1,037,537.08	Have other costs like IT and insurance etc. also been included?	Yes, this includes all direct management costs and indirect costs for Waters management.
WSF11	Council Contract Management Costs : Water Supply	\$	\$232,884.69	Are these just purely management costs only?	This is the sum of all expenditure paid to Corriedale Water Management Ltd for their management of the Awamoko, Tokarahi, Windsor and Kauru Hill water supplies as such it will include all their expenses e.g. accounting fees etc.

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
WWB2	Wastewater Serviced Properties: Residential	Number	7408	<p>Are any farming properties included in this data value?</p> <p>How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?</p>	<p>1) No farming properties would have been included as the QV data used would have considered them commercial and therefore non-residential.</p> <p>2) They are not accounted for. I counted the number of properties levied not dwellings. I guess I could have also multiplied the property by the number of pans but this doesn't necessarily correlate to the number of dwellings still. They needed to include a definition of 'property' to get the answers they seem to be seeking in the follow-up questions. We do record the number of assessments against a lateral but it doesn't itemise the assessments and it would be analysis that would have to make a lot of assumptions.</p> <p>3) I can't get a fool proof way of deriving dwellings. I could query the SUIPs rated but I question the integrity of this data from QV to indicate dwellings as other components of the data they provide contradict it. I derived the information by querying the properties rated for sewer and of those the properties considered residential in nature by QV.</p>
				<p>If there is no full proof way of correctly identifying and counting multi-unit dwellings then the suggestion is to lower the data confidence to less reliable.</p> <p>I agree there does need to be some clarity around properties and dwellings.</p>	<p>Would have to rework the methodology to include multi-unit dwellings - would produce a slightly higher data value but there are not that many multi-unit dwellings. Would look at reworking the methodology next year. Agreed to lower the data confidence.</p> <p>Need some more clarity around properties versus dwellings versus connections etc.</p>
WWB3	Wastewater Serviced Properties: Non-residential	Number	707	<p>How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?</p>	<p>1) As per point 2 above they weren't accounted for and I don't have clear means to do it.</p> <p>2) As per point 3 above I queried properties rated for sewer and those properties considered non-residential</p>

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
					in nature.
				Same suggestion then - lower the data confidence to less reliable.	Would have to rework the methodology to include multi-unit dwellings - would produce a slightly higher data value but there are not that many multi-unit dwellings. Would look at reworking the methodology next year. Agreed to lower the data confidence. Need some more clarity around properties versus dwellings versus connections etc.
WWA1a	Total Length of Public Wastewater Network	km	198.8	Are lengths of laterals/service connections up to the property boundary included?	No. These are not Council-owned assets. Council is responsible from the Y connection at the main.
WWE2a	Wet weather overflows from the wastewater network	Number	9	Does the database just identify overflow events and not the duration of events i.e. can you identify if an overflow lasts longer than 24 hours and count that as an additional overflow?	Duration of overflow is not recorded. The database identifies when the overflow was first notified to Council and when the issue was resolved (clearing of a blockage and the like).
				Could you calculate the duration if needed?	Information held doesn't reflect the duration of overflows.
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number		No question.	
WWE8a	Sewage design standards	AEP% or ADWF*PF	250 l/p/day, PF5	No question.	
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	A basic model has been produced for the trunk network of the Oamaru wastewater system however it is not calibrated and was built to inform capacity upgrades.
				Can the model tell you what the overflow frequency is?	Not enough modelling has been done.
WWE4e	Wastewater treatment plant consent non-conformance	Number	12	Were only formal notifications considered? Were there any informally notified non-conformances or self-	Only formal notifications have been included (those provided in the annual compliance report from the

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
				observed non-conformances?	Regional Council). Informally notified or self-observed non-conformances are not recorded but are acted on and resolved.
WWE4f	Wastewater network discharge non-conformance	Number		No question.	
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	No that wasn't clear. Doesn't change our response to this measure however as we do not have any network discharge consents.
WWS7c	Planned Interruptions: Wastewater	Number/year	0	How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	A planned interruption would be managed via work order. Our response to this measure was zero as interruptions are reactive/unplanned and due to blockages or breaks and the like. Planned works are typically completed live or overland pumping is installed and there is no interruption to the customer.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question	
WWF6	Debt funding: Wastewater	\$	\$0.00	No question.	
WWF9	Routine Maintenance: Wastewater	\$	\$919,117.91	No question.	
WWF10	Reactive Maintenance: Wastewater	\$	\$159,034.03	No question.	
WWF11	Management Costs: Wastewater	\$	\$520,051.97	Have other costs like IT and insurance etc. also been included?	Yes, this includes all direct management costs and indirect costs for Wastewater management.
WWF12	Councils Contract Management Costs: Wastewater	\$	\$0.00	No question.	

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
SWB2	Stormwater Serviced Properties - Residential	Number	8679	No question.	
SWB3	Stormwater Serviced Properties - Non-residential	Number	968	No question.	
SWA1a	Total Length of Public Stormwater Network	km	56.5	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Yes. Swales are a roading asset and managed by the Roading team.
SWE1a	Number of stormwater discharges from the piped network	Number	87	No question.	
SWE2a	Stormwater consent abatement notices	Number		Does 'Highly reliable' mean there have been no notices or orders etc.?	Yes. There have been no notices or orders.
SWE2b	Stormwater consent infringement notices	Number			
SWE2c	Stormwater consent enforcement orders	Number			
SWE2d	Stormwater successful prosecutions	Number			
SWE2e	Stormwater consent non-conformance	Number			
SWF1	Operating Revenue: Stormwater	\$	\$425,949	Has any grants revenue been included and if so, does this differ from last year's approach?	Grants revenue has not been included (we did not receive any). We did not participate in the survey last year.
SWF5	Debt funding: Stormwater	\$	\$0	No question.	
SWF6a	Routine maintenance: Stormwater	\$	\$57,457	No question.	

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDC Responses
SWF6b	Reactive maintenance: Stormwater	\$	\$51,770	No question.	
SWF7	Management Costs: Stormwater	\$	\$136,268	Have other costs like IT and insurance etc. also been included?	Yes, this includes all direct management costs and indirect costs for Stormwater management.
SWF8	Council Contract Management Costs: Stormwater	\$	\$0	No question.	

Table 12 Western Bay of Plenty District Council

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
CB3	Residential properties	Number	12613	No question	
CB10b	Retiring staff	Number	0	Assume no staff are retiring?	Not answered.
CB14	Staff training	hours/year		Would HR be able to provide this data?	Not answered.
CB15a	Staff with a Bachelor of Engineering	Number		Would HR be able to provide this data?	Not answered.
CB15c	Staff with a NZ Diploma	Number		Would HR be able to provide this data?	Not answered.
CB15b	Staff with a NZ Certificate	Number		Would HR be able to provide this data?	Not answered.
CB15d	Staff with completed apprenticeships	Number		Would HR be able to provide this data?	Not answered.
CB19c	SCADA Controls	%	80.00%	What was the interpretation applied? Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities? Does Council have other facilities that have SCADA controls e.g. reservoirs and water intakes etc.?	80% only applies to pump stations and treatment plants.

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
CB19d	SCADA Monitoring	%	90.00%	<p>What was the interpretation applied?</p> <p>Does the % reported only apply to the number pump stations and treatment plants i.e. not elements of these facilities?</p> <p>Does Council have other facilities that have SCADA monitoring e.g. reservoirs and water intakes etc.?</p>	Data value changed to 90%. Only applies to pump stations and treatment plants.
WSB2	Water Serviced Properties: Residential	Number	11672	<p>Are any farming properties included in this data value?</p> <p>How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?</p>	Yes, includes only Council owned infrastructure, predominately not on private property for farms.
WSB3	Water Serviced Properties: Non-Residential	Number	5554	<p>How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?</p>	<p>Multiple dwellings connected to one meter are counted as one customer, IE one bill payer.</p> <p>Derived through rates data base.</p>
WSA1a	Length of Water Supply Network	km	744	<p>Does the length exclude stock water races?</p> <p>Are lengths of laterals/service connections up to the property boundary or meter etc. included?</p>	Yes, includes only Council owned infrastructure, predominately not on private property for farms
WSS7a	Fixed Charge: Non-residential water	\$	\$448.24	<p>What is the basis for the rate - e.g. is it capital value and based on an average?</p>	Fixed Operating Costs.
WSF1	Revenue from Supply of Water to Other Local Authorities	\$	\$0.00	No question.	
WSF6	Debt funding: Water Supply	\$	-\$568,000.00	<p>Please confirm the negative represents a decrease in debt.</p>	The change from -\$858k to - \$568k is a reduction in debt.
				<p>What approach or rationale was considered when identifying debt funding?</p>	This new value is the decrease in debt.
WSF9a	Routine maintenance: Water	\$	\$3,812,000.00	<p>Is this cost for routine maintenance only or does it</p>	This includes both proactive and reactive maintenance

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
	Supply			include reactive as well?	
WSF9b	Reactive maintenance: Water Supply	\$		See above.	See above.
WSF10	Management Costs: Water Supply	\$	\$911,647.00	Have other costs like IT and insurance etc. also been included?	Yes, as overheads.
WSF11	Council Contract Management Costs : Water Supply	\$		Is it still \$0.00 this year?	No.
WWB2	Wastewater Serviced Properties: Residential	Number	9267	Please update missing data confidence values on this sheet.	data confidence = Reliable.
				Are any farming properties included in this data value? How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	farming and multiple dwellings connected to a single connection may be included in result however not separately identified for the purpose of NPR reporting
WWB3	Wastewater Serviced Properties: Non-residential	Number	675	How are multiple dwellings connected to a single connection being accounted for? How is such information identified/derived?	multiple dwellings connected to a single connection may be included in result however not separately identified for the purpose of NPR reporting
WWA1a	Total Length of Public Wastewater Network	km	284	Are lengths of laterals/service connections up to the property boundary included?	Yes, where these belong to Council
WWE2a	Wet weather overflows from the wastewater network	Number	1	How are overflows managed and reported on?	Managed through job requests for maintenance contractor attendance and the outcome of the site visit
WWE2b	Wet weather overflows from combined stormwater and wastewater networks	Number	0	No question.	
WWE8a	Sewage design standards	AEP% or	ADWF*PF	Please provide the figure for ADWF*PF	The question is too general, be specific. The IDC

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
		ADWF*PF			peaking factor is 5.
WWE8b	Average calculated wet weather overflow frequency	ARI		Has any wastewater modelling been done?	Yes, in some urban areas
WWE4e	Wastewater treatment plant consent non-conformance	Number	16	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	External & Internal non-conformances were included. Councils with multiple plants should be able to report per plant
WWE4f	Wastewater network discharge non-conformance	Number	0		
WWE4g	Wastewater network discharge consents	Number	0	Was/is it clear from the definition that this measure is related to wet weather overflows?	Not clear. Networks are not consented to discharge. Significant network discharges are reported.
WWS7c	Planned Interruptions: Wastewater	Number/year		How are planned interruptions managed - are work orders or work requests used? If so, can they be counted?	Network runs continuously. Live work on the network only.
WWF1	Revenue from the Provision of Wastewater Treatment Services to Another Local Authority	\$	\$0.00	No question.	
WWF6	Debt funding: Wastewater	\$	\$436,000.00	What approach or rationale was considered when identifying debt funding?	Repayment of Loans ex Internal Treasury.
WWF9	Routine Maintenance: Wastewater	\$	\$2,639,000.00	Is this cost for routine maintenance only or does it include reactive as well?	Includes reactive as well.
WWF10	Reactive Maintenance: Wastewater	\$		See above.	See above.
WWF11	Management Costs: Wastewater	\$	\$1,477,313.00	Have other costs like IT and insurance etc. also been included?	Includes insurance and salaries but not overhead costs.
WWF12	Councils Contract Management Costs: Wastewater	\$		No contracted out wastewater services?	We manage the wastewater contracts within Council.

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
SWB2	Stormwater Serviced Properties - Residential	Number	11457	Are there properties that do not have an explicit stormwater charge but are billed through other means? If so, have they been included?	No & No.
SWB3	Stormwater Serviced Properties - Non-residential	Number	1034		
SWA1a	Total Length of Public Stormwater Network	km	183	Are unlined channels and swales etc. (i.e. the items mentioned in the definition) excluded from this length?	Unlined channels are included. Swales are excluded.
SWE1a	Number of stormwater discharges from the piped network	Number	93	Were there any difficulties or lack of clarity when interpreting this measure? If so please comment.	Question is not clear. Data considers discharge outlets to a Regional managed body of water.
SWE2a	Stormwater consent abatement notices	Number	0	Were only formal notices or orders considered? Were there any informal notifications?	Only formal notices were considered. No informal notices
SWE2b	Stormwater consent infringement notices	Number	0		
SWE2c	Stormwater consent enforcement orders	Number	0		
SWE2d	Stormwater successful prosecutions	Number	0	No question.	
SWE2e	Stormwater consent non-conformance	Number	0	Were only formal notifications considered? Were there any informally notified non-conformances or self-observed non-conformances?	Data considers all instances in breach of resource consent, whether they are internally monitored or external notices received.
SWF1	Operating Revenue: Stormwater	\$	\$4,157,000	Has any grants revenue been included and if so does this differ from last year's approach?	No Grants Revenue.
SWF5	Debt funding: Stormwater	\$	\$2,336,000	What approach or rationale was considered when identifying debt funding?	Repayment of Loans ex Internal Treasury.
SWF6a	Routine maintenance:	\$	\$629,000	Is this cost for routine maintenance only or does it	Includes reactive as well.

Code	Measure	Units	Data	AECOM/Water NZ Questions	WDOPDC Responses
	Stormwater			include reactive as well?	
SWF6b	Reactive maintenance: Stormwater	\$		See above.	See above.
SWF7	Management Costs: Stormwater	\$	\$204,694	Have other costs like IT and insurance etc. also been included?	includes insurance and salaries but not overhead costs.
SWF8	Council Contract Management Costs: Stormwater	\$		Is it still \$0.00 this year?	We manage stormwater contracts within Council.