



Notice is hereby given that a Meeting of the Te Anau Basin Water Supply Subcommittee will be held on:

Date: Tuesday, 17 July 2018
Time: 2.00pm
Meeting Room: Southland District Council Te Anau Office,
Venue: 116 Town Centre,
Te Anau

Te Anau Basin Water Supply Subcommittee Agenda OPEN

MEMBERSHIP

Chairperson	Keith Thompson
Members	Steve Bayler
	Henry Douglas
	Murray Hagen
	Bill Hunter
	Graham Johnston
	Rex Millar
	Councillor Ebel Kremer

IN ATTENDANCE

Committee Advisor	Jenny Labruyere
Operations Manager	Bill Witham

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

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

Terms of Reference – Water Supply Subcommittees

Te Anau Basin, Five Rivers and Matuku

The activity of the Southland District Council's Water Supply Subcommittees is framed by Southland District Council policies and plans. The responsibilities of these Water Supply Subcommittees include:

- Providing feedback to Council officers on relevant plans and strategies (including Asset Management Plans).
- Receiving operational and financial reports.
- Community engagement and representing community views to Council.

The Te Anau Basin, Matuku and Five Rivers Water Supply Subcommittees shall have the following delegated powers and be accountable to Council for the exercising of these powers:

- (a) Power to recommend the annual budget relating to the relevant water supply scheme.
- (b) Power to approve expenditure outside Council's authorised officer levels but within the budget of the water supply schemes. All decisions to approve expenditure outside Council's authorised officer levels must be made by way of a resolution at a meeting of the Water Supply Subcommittees. Any such decisions must be reflected in the minutes of the meeting.
- (c) Power to approve new connections to the relevant water supply scheme.
- (d) Power to approve expenditure outside of the relevant annual budget for emergency works.
- (e) Policies relating to water schemes;

In addition to the power to approve expenditure outside of the relevant annual budget for emergency works, this Subcommittee can also recommend unbudgeted expenditure to Council for approval.

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1 Apologies

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

2 Leave of absence

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

3 Conflict of Interest

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

4 Public Forum

Notification to speak is required by 5pm at least two days before the meeting. Further information is available on www.southlanddc.govt.nz or phoning 0800 732 732.

5 Extraordinary/Urgent Items

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

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

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

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

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

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

6 Confirmation of Minutes

6.1 Meeting minutes of Te Anau Basin Water Supply Subcommittee, 17 April 2018



Te Anau Basin Water Supply Subcommittee

OPEN MINUTES

Unconfirmed

Minutes of a meeting of Te Anau Basin Water Supply Subcommittee held in the Southland District Council Te Anau Office, 116 Town Centre, Te Anau on Tuesday, 17 April 2018 at 2.00pm.

PRESENT

Acting Chairperson	Murray Hagen
Members	Henry Douglas
	Graham Johnston
	Ebel Kremer

IN ATTENDANCE

Committee Advisor	Jenny Labruyere
Operations Manager	Bill Witham

1 Apologies

Apologies for non-attendance were lodged by Members Bayler, Hunter, Millar and Thompson .

Moved Member Johnston, seconded Member Douglas and **resolved:**

That the Te Anau Basin Water Supply Subcommittee accept the apologies lodged by, Members Bayler, Hunter, Millar and Thompson.

2 Leave of absence

There were no requests for leave of absence.

3 Conflict of Interest

There were no conflicts of interest declared.

4 Public Forum

There was no public forum.

5 Extraordinary/Urgent Items

There were no Extraordinary/Urgent items.

6 Confirmation of Minutes

Resolution

Moved Member Johnston, seconded Cr Kremer

Confirms the minutes of Te Anau Basin Water Supply Subcommittee, held on 11 October 2017.

Reports

7.1 Financial Report to the Te Anau Basin Water Supply Subcommittee for the period ended 28 February 2018

Record No: R/18/4/8057

Mr Witham, Operations Manager, presented the report.

Mr Witham updated the subcommittee on the project list advising that the pipeline renewal project for the Ramparts, Takitimu and Kakapo Scheme has been completed.

Mr Witham advised that an order for concrete tanks that are due for replacement on the Kakapo scheme have been placed.

In discussing the replacement tanks for Kakapo Members believed there may be advantages in considering heavy duty plastic tanks rather than concrete, and requested Mr Witham investigate whether it might still be put in place given the timing of supply of the ordered tanks.

Mr Witham updated Members on the low flow of supply to the Homestead Scheme over the very dry summer period, and advised investigation of potential options to deepen and lengthening the line for the draw off of more water to prevent the issue in the future.

Mr Witham advised that Environment Southland are now requesting fish screens be installed at inlets for schemes drawing from rivers meaning this will affect the Duncraigen scheme which draws water from the lower Waiau River.

In discussing this matter Members believed a discussion with Meridian and Landcorp should take place as to costing and an investigation for the potential for Council to dispose of this scheme.

Members raised the matter of lack of communication when there is a problem or water shut down on any of the schemes, and that all users be notified of the situation and an expected response timeframe. A suggestion was made for a "Whats App" chain link to alert all users of a failure to supply or issue with an affected scheme. Members requested the Committee Advisor to investigate this possibility and report back to the members.

Resolution

Moved Member Hagen, seconded Member Douglas

That the Te Anau Basin Water Supply Subcommittee:

- a) Receives the report titled "Financial Report to the Te Anau Basin Water Supply Subcommittee for the period ended 28 February 2018" dated 10 April 2018.**
- b) Request staff investigate the potential to alter the order of concrete tanks for the Kakapo scheme to plastic tanks.**
- c) Request staff investigate the responsibility for installation of Fish Screens with Meridian and Landcorp, and/or the potential for disposal of the Duncraigen Scheme.**
- d) Request staff investigate an instant communication process to alert scheme users of failures to supplies.**

7.2 Contract 17/14 Te Anau Basin Rural Watermain Renewals Project Update

Record No: R/18/3/7181

Bill Witham, Operations Manager, presented the report.

Mr Witham updated the subcommittee on the completion of pipeline upgrades to the Kakapo, Ramparts and Takitimu schemes and the costings for each project.

Mr Witham advised of the completion of the replacement of eight reservoir tanks at Mt York with the result being a greatly improved increase in water flows to scheme .

Mr Witham added that due to the Kakapo tank project budget being reallocated to Mt York, a new budget has been included in the Long Term Plan for the replacement of the existing reservoir on the Kakapo scheme which is in line with previous discussions held between the subcommittee and Council..

Resolution

Moved Cr Kremer, seconded Member Hagen

That the Te Anau Basin Water Supply Subcommittee:

- a) **Receives the report titled “Contract 17/14 Te Anau Basin Rural Watermain Renewals Project Update” dated 9 April 2018.**

The meeting concluded at 3.25pm

CONFIRMED AS A TRUE AND CORRECT RECORD AT A
MEETING OF THE TE ANAU BASIN WATER SUPPLY
SUBCOMMITTEE HELD ON 17 APRIL 2018.

DATE:.....

CHAIRPERSON:.....

Financial Report for the period ended 31 May 2018

Record No: R/18/7/15772

Author: Bill Witham, Operations Manager - Water and Waste Services

Approved by: Matt Russell, Group Manager Services and Assets

☐ Decision

☐ Recommendation

☒ Information

Water and Waste Engineer's Report

- 1 The monthly operations report for Downer has been included with this report. The report includes data on Downer's district wide operations activities which are presented on a town-by-town basis.

Project list

- 2 The table below shows all of the projects that are currently planned for Te Anau Rural Water Supply in 2017/18.

Project Name	Type	Year	Budget	Staff Comments
Replace reservoir tanks ahead of schedule (Kakapo)	DEM	2015/16	\$85,000	Tanks on order
Consent Renewal Preparation (Princhester)	LOS	2017/18	\$21,383	Consultant preparing
Pipeline Renewal (Ramparts)	REN	2016/17	\$64,104	Completed
Pipeline Renewal (Takitimu)	REN	2016/17	\$105,526	Completed
Pipeline Renewal (Takitimu)	REN	2017/18	\$156,000	Completed
Pipeline Renewal (Kakapo)	LOS	2016/17	\$161,494	Completed

Financial Considerations

Loans

- 3 The table below outlines the community loans as at 30 June 2017. The interest rate applicable on these loans for the 2017/18 year is 5.15%.

	Business Unit	Balance June 2017	Years Remaining
Electrical Upgrade	26960	\$11,631	5
Te Anau Water Renewal	26960	\$17,214	2

Reserves

- 4 Reserves are projected as:

	Opening balance 30 June 17	Annual Plan balance at 30 June 18	Forecast Closing 30 June 18
Te Anau Rural General Reserve	\$101,663	\$2,661	\$0

Recommendation

That the Te Anau Basin Water Supply Subcommittee:

- a) **Receives the report titled “Financial Report for the period ended 31 May 2018” dated 6 July 2018.**

Attachments

- A Te Anau Rural Water Supply financial report 31 May 2018 [↓](#)
B Utilities Monthly Report May 2018 - Downer [↓](#)
C Monthly Summary Report May 2018 [↓](#)

Te Anau Rural Water Supply Community Financial Report

91.67% Of Year

For the Period Ended May 2018

2017/2018 Financial Year

Income	Annual Budget	Actual Income to Date	Income to Date %	Full Year Projection	Annual Budget vs Projection Var	Annual Budget vs Projection %
26960 Water Supply Overheads	35,889	30,474	85%	35,904	15	0%
26961 Water Supply Ramparts	95,945	87,993	92%	95,988	42	0%
26962 Water Supply Mount York	34,204	31,369	92%	34,219	15	0%
26963 Water Supply Takitimu	54,758	50,220	92%	54,783	25	0%
26964 Water Supply Kakapo	90,036	82,574	92%	90,077	41	0%
26965 Water Supply Homestead	34,836	31,949	92%	34,852	16	0%
26966 Water Supply Princhester	37,701	34,576	92%	37,718	17	0%
26967 Water Supply - Duncraigen	7,286	6,682	92%	7,289	3	0%
Subtotal Water & Waste Business Units	390,655	355,836	91%	390,830	174	(0%)
Total	390,655	355,836	91%	390,830	174	0%
Expenditure	Annual Budget	Actual Spent to Date	Spent to Date %	Full Year Projection	Annual Budget vs Projection Var	Annual Budget vs Projection %
26960 Water Supply Overheads	98,058	134,517	137%	142,689	-44,630	(46%)
26961 Water Supply Ramparts	94,265	63,548	67%	71,388	22,878	24%
26962 Water Supply Mount York	34,204	29,292	86%	32,059	2,144	6%
26963 Water Supply Takitimu	52,228	36,178	69%	40,520	11,709	22%
26964 Water Supply Kakapo	86,211	49,195	57%	56,148	30,063	35%
26965 Water Supply Homestead	34,836	24,053	69%	26,859	7,978	23%
26966 Water Supply Princhester	16,318	13,218	81%	14,467	1,853	11%
26967 Water Supply - Duncraigen	7,286	8,984	123%	9,568	-2,281	(31%)
Subtotal Water & Waste Business Units	423,406	358,986	85%	393,697	29,714	7%
Total	423,406	358,986	85%	393,697	29,714	7%

Te Anau Rural Water Supply Community Financial Report

91.67% Of Year

Capital Expenditure	Annual Budget	Actual Spent to Date	Spent to Date %	Full Year Projection	Annual Budget vs Projection Var	Annual Budget vs Projection %
26961 Water Supply Ramparts	64,104	0	0%	5,342	58,762	92%
26962 Water Supply Mount York	0	80,070	0%	80,070	-80,070	0%
26963 Water Supply Takitimu	105,526	0	0%	8,794	96,732	92%
26964 Water Supply Kakapo	246,494	297,338	121%	317,880	-71,385	(29%)
26966 Water Supply Princhester	21,383	0	0%	1,782	19,601	92%
Subtotal Water & Waste Business Units	437,507	377,409	86%	413,868	23,640	5%
Total	437,507	377,409	86%	413,868	23,640	5%

Funding Adjustments (Contributions, Loans, Provisions, Reserves, Forestry Dividend)	Annual Budget	Actual Adjustments to Date	Adjustments to Date %	Full Year Projection	Annual Budget vs Projection Var	Annual Budget vs Projection %
26960 Water Supply Overheads	62,169	123,731	199%	128,912	66,742	107%
26961 Water Supply Ramparts	62,424	(0)	0%	5,202	-57,222	(92%)
26963 Water Supply Takitimu	102,996	(0)	0%	8,583	-94,413	(92%)
26964 Water Supply Kakapo	242,669	(0)	0%	20,222	-222,447	(92%)
Subtotal Water & Waste Business Units	470,258	123,731	26%	162,920	-307,340	65%
Total	470,258	123,731	26%	162,920	-307,340	(65%)



**Southland District Council
Water and Wastewater Maintenance Contract**



DISTRIBUTION

This Monthly Summary Report 120/15/10/01 has been distributed to:

Copy No.	Holder	Contract Position	Company
01	Ian Evans	Strategic Manager: Water and Waste Services	SDC
02	Bill Witham	Operations Manager: Water and Waste Services	SDC
03	Matthew Keil	Senior Projects Engineer: Water and Waste Services	SDC
04	Talita Aitken	IPS Data Analyst: Water and Waste Services	SDC

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1. Executive Summary
2. Health and Safety
3. Quality Assurance and Compliance
4. KPI Summary

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1. EXECUTIVE SUMMARY

COMPLIANCE (DRINKING WATER)

- All drinking water compliance testing was completed and carried out as per NZDWS.
- All samples were absent of Escherichia Coli.

COMPLIANCE (ENVIRONMENTAL)

- There were no non-compliant tests during May.

FINANCIAL

MISC MINOR WORKS		
Riverton WTP	\$435.00	Riverton Intake Bore sampling May 2018- : Lab & Labour @\$87 p/wk x 5 weeks
Monowai WWTP	\$251.60	1x item 1 & 2 for May (commenced Sep 2017)
Riverton WTP	\$4748.42	Chemical & filters Riverton WTP: May 2018
Additional Sampling Run	\$3,460.50	3.5x Additional sampling runs
Edendale WTP Hot Water Cylinder	\$444.77	Repair superheater at Edendale/Wyndham WWTP
Riversdale Ponds	\$4,530.94	Test hole at Riversdale Sewerage Ponds
43 Northview Avenue, Winton	\$6,709.11	Sewer Cross Connection
Church Street, Winton	\$480.00	CCTV S/W Main
Edendale WTP	\$3,838.94	New chlorine dosing point
190 Flora Road, Lumsden	\$1,185.65	Blocked sewer
23 Maria Street, Lumsden	\$4,568.95	Reconnect sewer lateral to main
Price Road/Gap Road	\$4,301.17	Oil spill
TOTAL	\$38,176.20	

ASSET IMPROVEMENTS – PAID UNDER LUMP SUM

- Ohai Phase Fail **\$1,114.55**; White phase down on voltage, Powernet replaced pole fuse which has fixed the issue.
- Secondary Pump 4 Lumsden WTP **\$598.65**; faulty VSD thermostat, disconnected and replaced.
- View St, Manapouri WWPS Kingfisher fault **\$2,916.71**; Kingfisher lost it's programme and unable to communicate with it. Replaced CPU and reprogrammed remotely.
- Otautau PS6 Pump Fault **\$185.64**; replace two pump fuses.

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- Moore Road Winton pump fault **\$894.13**; blew all three pole fuses and blew up the pump. Disconnect pump and connected up pump from Ohai
- Lake Side Pump 1 Oil Seal **\$170.00**
- Flow meter not going through to SCADA **\$297.50**
- Duncraigen flow meter **\$127.50**
- Install new flow meter **\$661.62**
- Replace pump 1 S/S **\$1,024.54**
- Restart Citect **\$120.00**
- Install new solenoid valve Edendale WTP **\$1,608.00**

All claims and invoices for completed work were certified and accepted.

HEALTH & SAFETY

- There were four incidents reported in May 2018.
 - ✚ Steven Flawn hit a duck with his truck.
 - ✚ Dale Elm broke ute headlight with a gate.
 - ✚ Steven Flawn hit a letterbox trying to avoid colliding with another vehicle.
 - ✚ Shane Adams hit his head with an upstand, cut his eyebrow, requiring 6 stitches.
- Monthly tool box meeting held at The Crib, Riverton on May 24, 2018.

QUALITY ASSURANCE

- Zero NCR/OFI were issued during May 2018.
- No instances of rework or product failure during the month.

PROJECT WORK / ACTIVITIES IN NEXT MONTH

PROJECT WORK/CAPITAL UPGRADES - QUOTED

Gorge Road	Septic Tank works (ongoing)
Otautau WWTP	Pump Upgrades
Winton WTP	Install new radio link

- Planned Power Interruption – Thursday June 7, 2018 9.00 am – 3.00 pm
Sewerage No 4, 83 Orepuki Riverton Highway, Riverton
- Thursday June 14, 2018 9.00 am – 1.00 pm
Kakapo Booster at rear 893 Kakapo Road, Te Anau
- Water Supply – end of Ladies Mile Te Anau

STAFFING

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- Contract staff levels are currently 18 permanent employees. This is made up of six management, administration and QA staff and twelve field staff. However, Paul Coutts, Southern Reticulation Operator, tendered his resignation on May 30, 2018. Measures will be put in place to obtain a suitable replacement as soon as possible.
- Training Completed in May:
 - Risk Management: Malcolm Hewitt, Steve Flawn, John Wilson, Dale Elm, Rusty Moeke, Tony Neilson
 - Permit Receiver: Malcolm Hewitt, Tony Neilson, Steven Flawn, Roger McDougall, Sy Waiti and Callum Wells
 - STMS: Rowena Owens, Malcolm Hewitt, Rusty Moeke
 - First Aid: Daryl Wells
- Training Scheduled for June:
 - People Leadership Workshop: Geoff Gray, Jane Cameron, Rowena Owens

2. HEALTH & SAFETY

HEALTH & SAFETY INDICATORS:

Description	Employees	Sub-Contractor
	Current Month	Current Month
Number of Fatalities	0	0
Number of Lost Time Injuries	0	0
Number of Days lost due to LTI's	0	0
Number of Medical Treatment Injuries	1	0
Number of First Aid Treatment Injuries	0	0
Number of Near misses	0	0
Number of Property/Plant Damages	3	0
Number of hours Worked	3,186.45	229
LTI Incidence Rate (1 million Hrs.)	0.0	0.0

3. QUALITY ASSURANCE & COMPLIANCE

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All potable water samples taken were found to be absent of any e-coli presence. All water and wastewater field sampling was carried out by an independent sampling subcontractor. All water and wastewater samples are tested at an IANZ accredited laboratory, Water Care Laboratory Services in Invercargill. Both site and field sampling results are reported through to Council as well as being logged on our WaterOutlook system. No samples were missed, all samples required were taken.

Description	Number
Water scheme laboratory tested samples taken for month: E-coli, UVT and P2	159
Wastewater scheme sampling completed for month	4
Wastewater scheme site samples taken for month	10
Wastewater scheme laboratory tests completed for month	63
Non-conformance reports received	0
OFI reports received	0
Site audits conducted	2

4. KEY PERFORMANCE INDICATORS – MAY 2018

	No.	Key Performance Indicator	Method Of Monitoring	Target	Compliance Y,N or N/A
Health & Safety	1.	Compliance with Contractor's approved Health & Safety Plan	Self-audit plus independent audit	100%	Y
	2.	Feedback on near misses	Monthly reports on incidents and lessons learnt	Any/All incidents reported each month	Y
	3.	Lost time Health & Safety incidents on this contract	Monthly reports on lost time incident hours/hours worked	0.00035% Lost time of total hours worked to date	Y
Wastewater	4.	Percentage compliance with wastewater Resource Consent determinands	Monitoring programme as required by Resource Consent	100%	Y
	5.	Percentage samples taken in accordance with the Resource Consent requirements	Monitoring programme as required by Resource Consent	100%	Y
	6.	Number of system failures and pollution incidents (overflows) per year across all systems	Data from HANSEN IMS	Less than 20	N
	7.	Percentage of Requests for Service responded to within required timeframes – wastewater	Data from HANSEN IMS	100%	Y
Water	8.	Percentage compliance with daily water take Resource Consent determinands	Monitoring programme as required by Resource Consent	100%	Y
	9.	Percentage of water tests that meet the requirements of the NZDWS 2005 (for plants	WINZ	100%	Y

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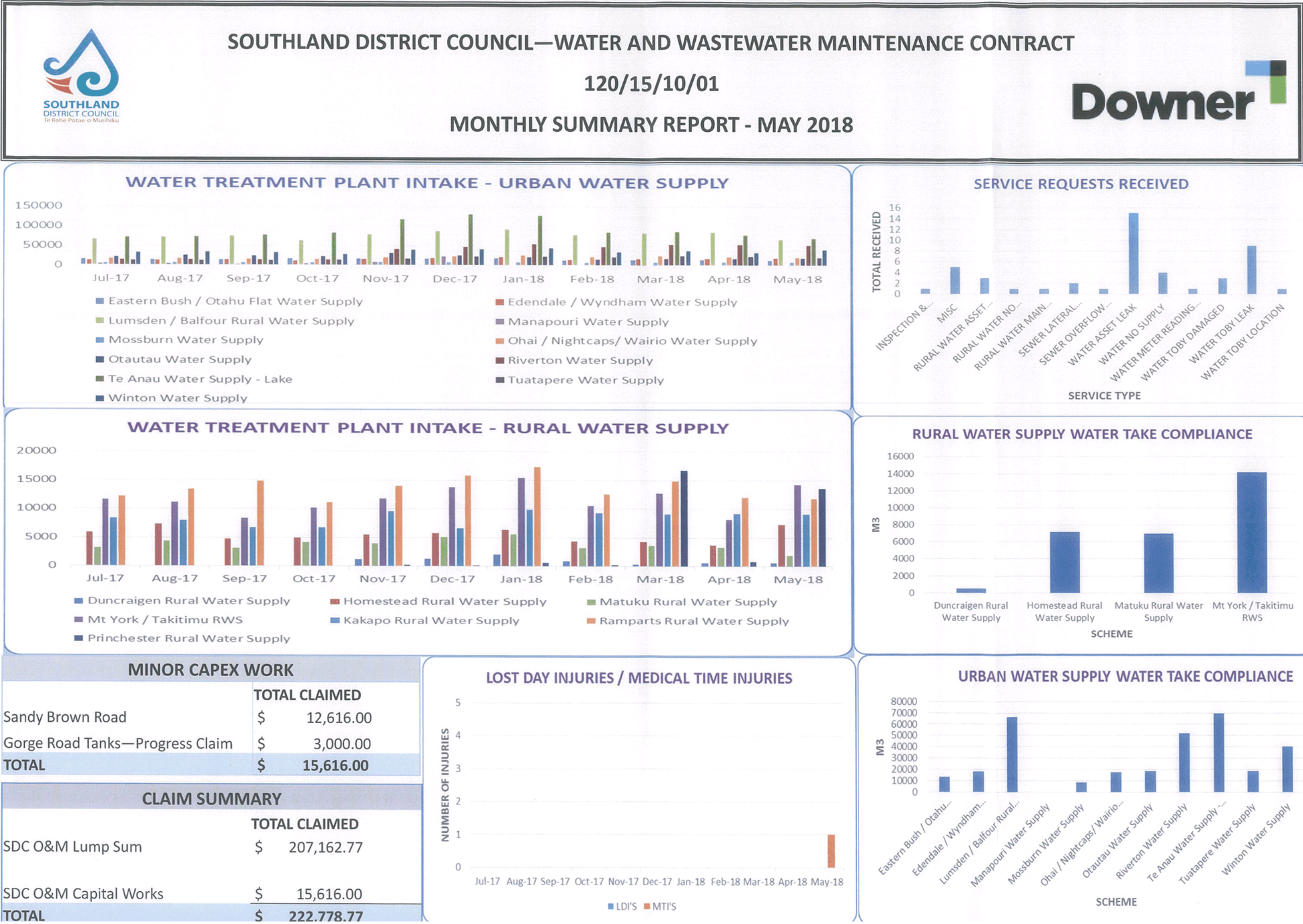
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		upgraded to meet the NZDWS 2005 standard). (This excludes Eastern Bush-Otahu Flat & Orawia supplies).			
	10.	Number of complaints regarding drinking water quality per year across all system	Data from HANSEN IMS	Less than 65	Y
	11.	Number of complaints regarding drinking and rural water quantity and pressure per year across all systems	Data from HANSEN IMS	Less than 130	Y
	12.	Number of non-notified shutdowns across all urban water systems	Data from HANSEN IMS	0	Y
	13.	Percentage of Requests for Service responded to within required timeframes - water	Data from HANSEN IMS	97%	Y
Performance Evaluation	A Total number of Y's				12
	B Total number of N's				1
	A + B				13
	OPR = 100 X (A/(A+B) %				92%

MAR 18	APR 18	MAY 18	JUNE 18	JULY 18	AUG 18	SEP 18	OCT 18	NOV 18	DEC 18	JAN 19	FEB 19
86%	85%	92%									

PERFORMANCE SCORING TABLE

OPR Score (%)	RATING	DESCRIPTION
91-100	Excellent	Awarded when requirements are consistently met in an outstanding manner
76-90	Above Average	Requirements fully covered in all material aspects, and being proactive
60-75	Average (proactive)	Outputs adequate and performance is adequate
50-59	Average (reactive)	Outputs adequate but in a reactive mode
40-49	Below Average	Barely adequate: Some deterioration in services
40 or less	Poor	Unacceptable: Serious deterioration of services



Level of Service for Installation of Utilities

Record No: R/18/5/10699
Author: Joe Findley, Contracts Administrator
Approved by: Matt Russell, Group Manager Services and Assets

☐ Decision ☐ Recommendation ☒ Information

Purpose

- 1 This document is intended to set out Council's decision to maintain its current Level of Service for installation of utilities, such as pipelines and other infrastructure, for the Te Anau Basin Rural Water Supply schemes.

Background

- 2 The Committee requested that the Southland District Council consider allowing a lower standard of installation methodology for the installation and renewal of pipe reticulation for the Te Anau Basin Rural Water Supply schemes. This request was addressed through a discussion document put up to the Water Supply Committee at its 8 August 2017 meeting.
- 3 After discussing the document at the 8 August 2017 meeting, the Water Supply Committee requested that Council consider producing a risk matrix, or similar assessment document. The intent of such a matrix would be to form the foundation of assessing each pipeline renewal on a case by case basis, to consider whether a lower standard of installation methodology would be appropriate, based on certain factors.
- 4 Further investigation was carried out to assess any associated cost savings and any possible implications of such a change to Council's installation methodology.

Supporting Information

- 5 Council has an obligation to ensure that all assets that it renews and maintains are able to meet their full design lifecycle. Maximising asset life is by its very nature an economic exercise, creating a cost saving in the short term by prolonging the need for maintenance and in the long term, increasing the renewal intervals. This goes hand in hand with following, at a minimum, New Zealand Standards, Codes of Practice and Industry Best Practice Guidelines.
- 6 At present, Council requires all pipe renewals to be constructed as follows:
 - Open trench methodology, with an invert depth of 900mm.
 - Compacted sand is to be provided in the following orientations; a minimum 100mm layer to be bedded below the pipe, minimum 100mm either side of the pipe and a minimum 150mm layer is to be provided above the pipe prior to backfilling.
 - Marker tape is then to be placed in the trench 150mm - 300mm above the crown of the pipe to warn of the pipe below.
 - Approved backfill material to be compacted in layers almost to the top of the trench with 100mm nominal depth of topsoil to finish off the reinstatement.

- 7 This methodology is in line with current applicable documents, Councils Subdivision, Land Use and Development Bylaw 2012, NZS2033:2008 Installation of Polyethelene Pipe Systems and NZS 4404:2010 Land Development and Subdivision Engineering.
- 8 Council follows these standards to ensure it can fully optimise the life of its assets and there is an obligation for Council to ensure that Quality Assurance measures are undertaken to aid this optimisation. Quality Assurance is the key driver of our current methodology, as with an Open Trench method and sand bedding, we can be assured that the new pipeline is not damaged by being bedded over a rock or having a rock compacted on top of it. The invert depth Council ask for prevents unnecessary incidents occurring where farm machinery may damage the pipeline, and the marker tape acts as a warning for excavators working near an asset. Having compacted layers of bedding and fill around the new pipe also ensure that the pipe will not be adversely affected by water hammer and move in trench, as it is bound and contained by the compacted backfill.
- 9 Due to continued population growth and changing land use within the Te Anau Basin, Council must ensure that all assets are installed to best industry practice, to maximise the asset life. This will also mean that the infrastructure is suitable for conveying potable water, should this be a requirement in the future.
- 10 Using other methods of installation, such as mole ploughing, would leave Council with no assurance that the new pipe has not been damaged or compromised in some way during installation. It would also leave no scope to identify and repair any damage to farm drainage that was struck during construction. Ground conditions within the basin can be varied within short distances and so no guarantee of suitable ground can be made. After some investigation from suitable contractors who mole plough water lines in for farms, it was discovered that the inverts that Council ask for could not be achieved without substantial additional work, meaning additional cost. There are limitations to the cost savings that could be achieved through a mole ploughing methodology. Fixed costs such as the pipe, valve hardware, connections to existing mains, establishment costs and As-Built documentation are all still relevant costs even if the methodology changes. While some cost saving is possible, the level of risk which Council is exposed to through other installation methodologies, far outweighs any financial benefit. If a mole ploughing methodology was to be used, then we void the pipe manufacturer's warranties. These warranties protect Council in the instance that there is a manufacturing fault with the pipe which results in early failure, provided we are able to prove that the pipe was installed to a minimum, best practise standard, such as the standard Council currently require.

Summary

- 11 Council has a standard for the installation of piped services, which it uses to ensure that full asset life cycles are able to be achieved. Council has a responsibility to consider the risks associated with a change to these minimum standards and the effects that any such change could have over the life of the asset.
- 12 While the view of the Committee has been considered, Council deems that the risks associated with changing its standard of installation for piped services, to be too great. The quality assurance practises, governed by industry best practise and New Zealand Standards, give Council confidence that the asset renewals it undertakes, will appropriately represent a standard of work

which is expected of Council while offering the best financial option for full asset lifecycle. Therefore, Council must maintain its current method of installation as a minimum requirement.

Recommendation

That the Te Anau Basin Water Supply Subcommittee:

- a) Receives the report titled “Level of Service for Installation of Utilities ” dated 30 May 2018.**

Attachments

There are no attachments for this report.