

Notice is given that an ordinary meeting of the Nelson Regional Sewerage Business Unit will be held on:

Date: Time: Meeting Room: Venue: Tuesday 16 July 2019 1.30 pm Tasman Council Chamber 189 Queen Street Richmond

Nelson Regional Sewerage Business Unit

AGENDA

MEMBERSHIP

Chairperson Members Cr Kit Maling Cr Dean McNamara Cr Tim Skinner Cr Stuart Walker Mr Frank Hippolite

(Quorum 3 members)

Contact Telephone: 03 543 8524 Email: robyn.scherer@tasman.govt.nz Website: www.tasman.govt.nz

AGENDA

- 1 OPENING, WELCOME
- 2 APOLOGIES AND LEAVE OF ABSENCE

Recommendation

That apologies be accepted.

3 DECLARATIONS OF INTEREST

- 4 PUBLIC FORUM
- 5 CONFIRMATION OF MINUTES

That the minutes of the Nelson Regional Sewerage Business Unit meeting held on Friday, 8 March 2019, be confirmed as a true and correct record of the meeting.

6 **PRESENTATIONS**

Nil

7 REPORTS

7.1 General Manager's Update Report......5

8 CONFIDENTIAL SESSION

Nil

7 REPORTS

7.1 GENERAL MANAGER'S UPDATE REPORT

Decision Required

Report To:	Nelson Regional Sewerage Business Unit
Meeting Date:	16 July 2019
Report Author:	Don Clifford, Acting General Manager
Report Number:	RNRSBU19-07-1

1 Summary

1.1 This is the three monthly General Manager's Update report.

1.2 A revised draft Business Plan 2019/2020 is presented for approval.

2 Draft Resolution

That the Nelson Regional Sewerage Business Unit:

- 1. receives the General Manager's Update Report NRSBU19-07-01; and
- 2. approves the revised draft Business Plan 2019/2020; and
- 3. recommends the revised draft Business Plan 2019/2020 to Nelson City Council and Tasman District Council for their approval.

3 Purpose of the Report

3.1 This report provides the three-monthly update on activity for the Nelson Regional Sewerage Business Unit (NRSBU).

4 Iwi Advisor to NRSBU

4.1 The Memorandum of Understanding for the Nelson Regional Sewerage Business Unit allows for the appointment of an iwi advisor, see below.

The NRSBU Board (the Board) shall comprise either six or seven members appointed as follows:

Two members appointed by the Tasman District Council (at least one of whom will be an elected member of the Tasman District Council);

Two members appointed by the Nelson City Council (at least one of whom will be an elected member of the Nelson City Council);

May include one member independent of either Council and not involved in any business related to the NRSBU activities. This member is discretionary and would only be appointed if mutually agreed to by both the councils and in accordance with the councils' 'Policy for the appointment and remuneration of jointly-appointed independent members on committees'. This member shall be appointed for a period of three years, and in such a way as to provide continuity through the triennial election period. The member shall be remunerated in accordance with the councils' 'Policy for the appointment and remuneration of jointly-appointed independent members on committees'.

One non-voting member representing, and appointed by, the NRSBU Major Industrial Customers.

One member representing and nominated by local iwi and confirmed by both councils. This iwi advisor shall be appointed for a period of three years, and in such a way as to provide continuity through the triennial election period. The member shall be remunerated in accordance with the councils' 'Policy for the appointment and remuneration of jointly-appointed independent members on committees'.

4.1 On 20 June 2019, both councils approved the appointment of Frank Hippolite (Ngāti Koata) as iwi advisor to the NRSBU.

5 Health and Safety

- 5.1 Health and safety operational matters are reviewed at monthly contract meetings.
- 5.2 One minor work injury has been reported for the three month period up to 31 May 2019.
- 5.3 The contractor has reported 19 health and safety incidents/near events for the three month period up to 31 May 2019.

Item 7.1

- 5.4 Two hundred and forty-four people visited the treatment plant over the last three months.
- 5.5 A comprehensive review of health and safety risks has been completed and an improvement plan has been developed. The implementation of the improvement plan is monitored at monthly meetings.

6 Financial Status

- 6.1 Attachment 1 includes three financial reports up to the end of May 2019:
 - Income Account for the period to 31 May 2019.
 - Balance Sheet as at 31 May 2019.
 - Detailed Budget Capital Expenditure.
- 6.2 Variable income is down and attributed to lower volumes/concentrations received.
- 6.3 Management costs are up against budget due to the extra inputs and external pricing of the acting General Manager and the acting Operations Manager. However, the operations management costs are down significantly from the February 2019 report due to more appropriate allocation of costs to capital expense categories. The year-to-date variation dropped from \$364,000 to \$254,000.
- 6.4 Maintenance costs are over budget due to numerous items at Rabbit Island, the pump stations and at Bell Island. The year-to-date variation is \$279,000.
- 6.5 Sundry costs are up significantly as a result of the use of Tasman District Council supplied water for cleaning the inlet screens. The year-to-date variation is \$43,000.
- 6.6 The biosolids costs are up due to the arrears payment of escalation to the contractor of \$79,198.58 (for the period July 2014 to September 2018). The year-to-date variation is \$66,000.
- 6.7 The customer contracts provide for a "wash-up" of net operating costs which will recover the shortfall in variable income and overruns in operating expenditure. The two councils will be the primary contributors to the extra funding. The year-to-date variation \$435,000.
- 6.8 Renewals costs are \$225,000 above budget; the main contributors to the overspend are pump replacement, the Bell Island discharge consent and pond works.
- 6.9 New capital works are \$3.77 million below budget due to no sludge removal from ponds and no work on the solids treatment facilities.

7 Contract 3458 – Operations and Maintenance

7.1 There have been several issues with flow meter performance within the NRSBU network during the period. The flow meter supplier was asked to visit Nelson to test the flow meters and it was found that there were issues in several meters. Work is required to change the airport outflow meter, the Saxton Road outflow meter and to investigate issues with the Songer Street outflow meter. One result of these issues is the potential for inaccurate charging to customers.

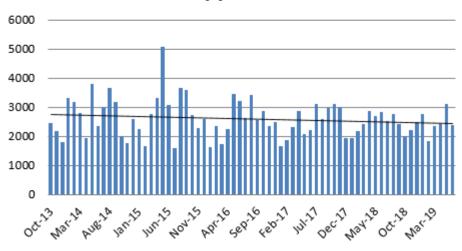
- 7.2 Pumpstation maintenance remains an ongoing concern due in part to very slow response from the pump suppliers. A critical spares list has been prepared and these will be purchased to allow reduction in parts supply duration.
 - 7.3 The review of the pond conditions will be completed by the NRSBU once the sludge assessment review has been completed by the contractor. The report has been delayed so that matters discussed at the pond workshop can be included in the contractor's report.
 - 7.4 The contractor's team is also working on the review of all operations documents and the delivery date of these has been revised to late July 2019.

Odour Management

7.5 Odour management requires ongoing vigilance. Odours observed during incidental visits to the treatment plant have not always been noticed or promptly addressed by operations staff.

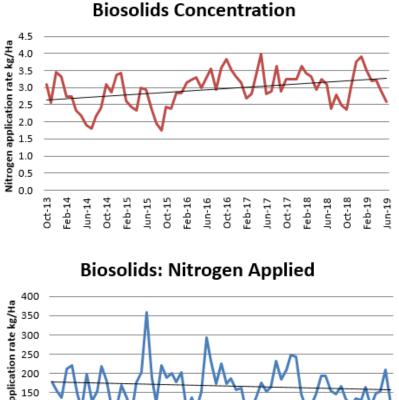
Biosolids Operation

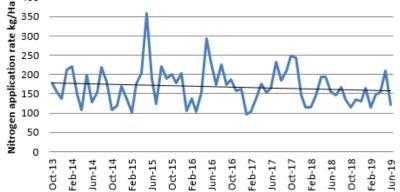
7.6 The 12-month rolling average of biosolids sprayed is 29,240m³. It is considered that the downward trend in production of biosolids is linked to improved process management at Bell Island and that further optimisation of processes at Bell Island can generate further improvement.



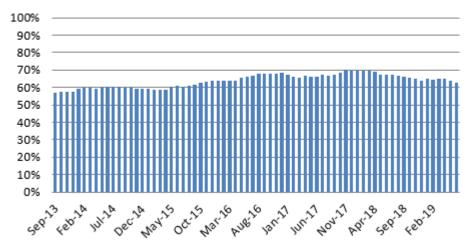
Biosolids Applied Volume m³

7.7 The increase in biosolids concentration and the decrease in nitrogen concentration of the biosolids suggest that the contractor has become more proficient with the management of treating sludge at Bell Island.





The following graph shows the use of nitrogen capacity of Rabbit Island pine plantations and 7.8 demonstrates that the NRSBU has a buffer of nearly 40%. If the effectiveness of the treatment of sludge at Bell Island can be maintained, the land available at Rabbit Island and Bell Island for the disposal of biosolids will be adequate for the foreseeable future. Furthermore, there is no need to use the waste stabilisation ponds at Bell Island to divert biosolids away from the sludge treatment facility or land.



Nitrogen Capacity used in 3 year cycle

8 Regional Pipeline

- 8.1 A formal request was received from Tasman District Council in 2018 regarding the existing pipe system at Headingly Lane, Richmond.
- 8.2 Following investigations by NRSBU and consequent discussions with Tasman District Council, the Council elected to continue with its own separate pipe project.
- 8.3 Works are ongoing to comply with some of the conditions of the aberrational discharge consent at pump stations.
- 8.4 Further to the Business Plan 2018/19 amendment agreed by both councils (Appendix F Reduction of Adverse Environmental Effects) a project to increase flow capacity downstream of Beach Road is proposed. This would significantly reduce the risk of overflows at the Beach Road pump station site. The Business Plan 2019/20 capital expenditure budgets have been amended to suit the proposed project.
- 8.5 The proposal to construct a new pipeline west of Nelson Pine Industries has been postponed indefinitely as latest estimates indicate costs in the order of \$35 million to \$40 million.

9 Trade Waste Agreements

- 9.1 The Trade Waste agreement for the ENZA site has recently been signed.
- 9.2 It is noted that the site is currently for sale.

10 Bell Island Resource Consent Application

- 10.1 The application suspension period has now ended. We await advice from the consenting authority about the hearing date.
- 10.2 The Acting General Manager has met with the resource consent consultant and the legal advisor to commence planning for the hearing.

11 Treated Wastewater Re-use Trial

11.1 There is no progress to report on the preparations for this trial.

12 Key Performance Indicators

12.1 The outcome of key performance indicators for the twelve month period up to 31 May 2019 are shown in the following table.

	Environmental: T	reatment and Disposal	
RMA consent -	RMA Consent -	RMA Consent -	Equipment Failure of
wastewater Discharge	Discharge of	Discharge of	critical components within
to Coastal Marine Area	Contaminants to Air	Contaminants to Land	treatment and disposal
	(Odour complaints)		system
	Environment	al: Pump Stations	
Odour complaints from	Pump station wet	Pump station overflows	Pump station overflows
pump stations	weather overflows	resulting from power	resulting from mechanical
		failure	failure
Environmenta	al: Pipeline		
Reticulation breaks	Air valve malfunction		
Capacity: Overloadin	g system capacity		
Treatment & Disposal	Pump Stations		
Reliability: Equ	ipment failure of crit	ical components	
Treatment & Disposal	Pump Stations	Pipelines	
Responsiveness: Spe	ed of response for e maintenance works	mergency and urgent	
Treatment & Disposal	Pump Stations	Pipelines	
	s: Speed of response mmable maintenanc		
Treatment & Disposal	Pump Stations	Pipelines	
	· · · · ·		
Key custome			
Treatment & Disposal	Pump Stations	Pipelines	

13 Compliance Outcomes

13.1 The compliance outcomes for the twelve month period to 31 May 2019 are outlined in the following table.

i)	Resource Consent (Compliance (rolling 12 month record)
	Discharge to Estuary	Achieved.
	(Consent for Aberrational Discharges within Nelson City Council area)	No overflows during the past 12 months.
	Discharge to Air Permit	100% Compliance
	Biosolids Disposal	100% Compliance
	Discharge treated	100% Compliance
	waste water to land	
ii)	Odour Notifications	
	Past three months Nil.	

	Last 12 months	Numerous odour reports have been received but none of these should be considered an odour event within the sense of consent compliance. Independent observations by the operations manager, the asset engineer and specialist consultant appointed to assess odour have identified incidences of malodour.		
iii)	Overflows			
	Past three months	Nil.		
	Last 12 months	Nil.		
iv)	Speed of response for maintenance works			
	Response within 30 minutes. Achieved. While initial response is excellent the compliance with timely action to remediate issues are not as satisfactory.			
V)	After hours call outs			
	Three month period to 31 May 2019: 21 call outs (Average of seven per month) compared to long term average of 3.2 call outs per month.			

14 **Business Plan**

- 14.1 The Memorandum of Understanding requires a draft Business Plan for 2019/2020 to have been issued to both councils by 31 December 2018.
- 14.2 The Memorandum of Understanding further requires that after the councils have had an opportunity to discuss and comment on the draft Business Plan the NRSBU shall finalise the Business Plan, incorporating any changes agreed between the councils and the Board and present the final Business Plan to the councils by 20 March 2019 (for inclusion in each council's draft Annual Plan).
- 14.3 At the 8 March 2019 meeting the Board approved a draft Business Plan 2019/20 (first draft).
- 14.4 Subsequently, staff from each council have provided feedback on the draft Plan particularly about the budgets.
- 14.5 An updated draft Business Plan has been written and is attached (Attachment 2). The changes from the first draft are highlighted in yellow.
- 14.6 Once approved by the committee, the Business Plan will be presented to Nelson City Council and Tasman District Council for their approval.

15 **Attachments** 1. **NRSBU Financial Report** 13 Revised NRSBU Business Plan 2019-2020 2. 19

Nelson Regional Sewerage Business Unit Financial Report

Income Account for the period to 31st May 2019

	Actual	Budget	Actual	%	%	2017/18	Budget]
	Month	Month	YTD	YTD	Year	YTD	Annual	YTD Variation
Income								
Contributions Fixed	367,155	372,000	4,038,703	99	90	4,092,000	4,464,000	(53,297)
Contributions Variable	191,413	261,478	2,441,532	85	78	2,876,254	3,137,732	(434,722)
Other Recoveries	16,359	13,189	158,078	109	100	145,079	158,268	12,999
Interest	1	-	1,813			-	-	1,813
Forestry Income	-	-	-		_	-	-	0
Total Income	574,928	646,667	6,640,125	93	86	7,113,333	7,760,000	(473,208)
Less Expenses								
Management	(182,247)	16,738	438,590	238	218	184,125	200,864	(254,465)
Electricity	82,734	68,363	721,029	96	88	751,988	820,350	30,959
Contract Maintenance	62,759	54,665	638,783	106	97	601,327	655,993	(37,456)
Reactive and Proactive Maintenance	94,579	42,377	744,885	160	146	466,125	508,500	(278,760)
Monitoring	9,804	17,149	109,537	58	53	188,627	205,775	79,090
Consultancy	2,226	6,250	24,912	36	33	68,750	75,000	43,838
Insurance	5,973	5,000	60,713	110	101	55,000	60,000	(5,713)
Sundry	11,994	12,231	177,630	132	121	134,539	146,770	(43,091)
Biosolids Disposal	50,167	51,900	636,573	112	102 _	570,904	622,804	(65,669)
Operating & Maintenance Expenses	137,989	274,673	3,552,652	118	108	3,021,385	3,296,056	(531,267)
Financial	50,035	51,583	454,489	80	73	567,417	619,000	112,928
Depreciation	159,680	155,833	1,756,488	102	94 _	1,714,167	1,870,000	(42,321)
Total Expenses	347,704	482,089	5,763,629	109	100 _	5,302,969	5,785,056	(460,660)
Net Income	227,224	164,578	876,496	48	44 _	1,810,364	1,974,944	(933,868)

NRSBU Ledger and Financial Report 2018 19 (A2059786).xlsx28/06/2019

Item 7.1

Nelson Regional Sewerage Business Unit

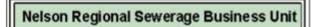
Balance Sheet as at 31st May 2019

	Current	Last Month	June 2018
Equity			
Opening Equity (July)	48,867,719	48,867,719	46,966,781
Plus Net Income YTD	876,496	649,272	0
Plus Revaluation	0	0_	1,900,939
Closing Equity	49,744,216	49,516,992	48,867,719
Contingency Reserve	100,000	100,000	100,000
	49,844,216	49,616,992	48,967,719
Which was Invested as follows -			
Current Assets			
Bank	277,167	10,699	621,557
Debtors	35,130	38,158	114,287
NCC Current account	358,084	467,941	0
Total Current Assets	670,381	516,798	735,844
Fixed Assets	63,602,863	63,339,895	64,247,645
Current Liabilities			
Creditors	(429,029)	(239,702)	(140,998)
NCC Loan	0	0	0
TDC Current Account	0	0	(731,820)
NCC Current account	0	0	(1,142,952)
Total Current Liabilities	(429,029)	(239,702)	(2,015,769)
Term Liabilities	(14,000,000)	(14,000,000)	(14,000,000)
Derivative Financial Instruments	0	0	0
	49,844,216	49,616,992	48,967,719

Item 7.1

Nelson Regional Sewerage Business Unit Detailed Budget - Capital Expenditure

		Month Actual 31st May 2019	Actual YTD 31st May 2019	Full Budget 2018/19	Budget Unspent
	Capital Expenditure				
	Renewals				
80407305	Renewal Inlet	24,899	57,019	-	57,019
80407320	Renewals: Pump replacement	200,469	311,773	85,000 -	226,773
804073300455	Renewal Aeration Basin	31,234	85,577	188,000	102,423
804073300781	Renewal: Sludge Treatment (ATAD)	10,212	44,115	119,000	74,885
80407140	Renewal: Sundry Plant	12,817	111,577	20,000 -	91,577
804073400800	Bell Island Discharge Consent	90,008	155,940	-	155,940
804070750800	AM: Bell Island Discharge Consent	-	140	-	140
804073900666	Rabbit Island renewals	-	-	223,000	223,000
804073900782	Renewal: Ponds	1,937	93,525	-	93,525
	Total renewals	371,575	859,666	635,000 -	224,666
80407615	Pipeline & Pumpstation Upgrades	9,287	44,095	-	44,095
804073302476	NRSBU Expand solids treatment	6,768	7,426	2,500,000	2,492,574
804076050540	Milliscreen	-	15,040	-	15,040
804073302477	NRSBU Sludge Management in Ponds at Bell	-	-	1,520,000	1,520,000
80407340	Capital: Resouce Consent Accid	2,745	11,896	-	11,896
8040 7950 0544	Capital: Oxidation Ponds	32,273	121,000	-	121,000
8040 7930 0800	Washwater and Water recycling	-	19,366	-	19,366
8040 7740	Capital: Plant and Equipment	-	33,219	-	33,219
	Total New Capital	51,073	252,041	4,020,000	3,767,959
	Total Capital Expenditure	422,648	1,111,707	4,655,000	3,543,293









NRSBU Business Plan 2019-2020

Contents	Page
Purpose	3
Memorandum of Understanding Requirements	3
Introduction	3
Mission Statement	3
Strategic Goals	3
NRSBU Structure	4
Business Objectives and Performance Measures	4
Three-Year Capital Expenditure Forecast	8
Financial Plan	9
Appendix A – Nelson Regional Sewerage Business Unit Committee Activity Schedule 2019-2020	9
Appendix B – Levels of Service	13
Appendix C – Business Improvement Plan	15
Appendix D – Ten-Year Plan – Capital Expenditure	16
Appendix E – Bell Island Treatment Plant Schematics	17
Appendix F – Reduction of Adverse Environmental Effects	18

Prepared by:	Don Clifford with input from Nathan Clarke, Acting Operations Manager and Johan Thiart, Senior Asset Engineer – Solid Waste
Approved by:	Don Clifford Acting General Manager
Approved by:	Nelson Regional Sewerage Business Unit Committee July 2019 ??

Cover photograph Bell Island

Nelson Regional Sewerage Business Unit Business Plan 2019/20 (Rev 3) Page **2** of **20**

1. PURPOSE

The purpose of the Nelson Regional Sewerage Business Unit Business Plan 2019/2020 is to summarise management goals and objectives to deliver wastewater collection and treatment services to the region; and to improve the effectiveness and efficiency in the delivery of those services.

2. MEMORANDUM OF UNDERSTANDING REQUIREMENTS

The Memorandum of Understanding states that the NRSBU Board shall by 31 December each year supply to the councils (Nelson City and Tasman District Councils) a copy of its draft Business Plan. The Business Plan outlines the management of the Nelson Regional Sewerage Business Unit and the assets for the ensuing year, together with any variations to the charges proposed for that financial year.

The Memorandum of Understanding (MoU) commenced on 1 July 2015 and shall terminate on 30 June 2025. The MoU was updated in March 2019.

3. INTRODUCTION

This Business Plan 2019/20 outlines the projects and initiatives to be implemented during the year. It also outlines the associated funding required and the details of the performance targets and measures.

The Business Plan is aligned with the NRSBU Strategic Plan and the NRSBU Wastewater Asset Management Plan 2017 (although some budgets have increased, some have decreased, and/or the timing has changed). It includes business objectives and performance targets (Section 7) and the three-year financial forecasts (Section 8). The following key pieces of information from those other documents are included in the appendices of this business plan:

Appendix A - Committee Activity Schedule

Appendix B - Targeted levels of service established by the Asset Management Plan

Appendix C - Internal business improvement plan

Appendix D - The 10-year financial plan

Appendix E - Schematic layout of the NRSBU operations

Appendix F - Reduction of Adverse Environmental Effects

4. MISSION STATEMENT

The NRSBU's mission statement is:

"To identify the long-term wastewater processing and reticulation needs of our customers and to meet current and future needs in the most cost effective and sustainable manner."

5. STRATEGIC GOALS

The NRSBU aspires to achieve the following goals:

Wastewater reticulation, treatment and disposal services meet customers' long-term needs.

Nelson Regional Sewerage Business Unit Business Plan 2019/20 (Rev 3) Page 3 of 20

- The costs of wastewater reticulation, treatment and disposal services are minimised.
- Risks associated with the services provided are identified and mitigated to a level agreed with customers and owners.
- We engage the right people with the right skills and experience.
- The NRSBU operates sustainably and endeavours to remedy or mitigate any identified adverse environmental, social and cultural impacts.
- Good relationships are maintained with all stakeholders.
- All statutory obligations are met.

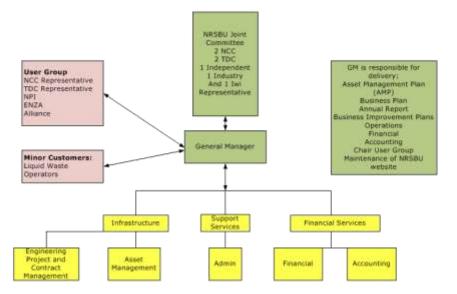
The NRSBU functional activities are managed by the Nelson City Council and therefore the NRSBU functional activities shall comply with the requirements of the Nelson City Council Health and Safety Policy and fully subscribe to the vision for a Zero Harm Culture.

All strategic goals are important and no one goal will be pursued at the expense of another.

6. NRSBU STRUCTURE

.

The structure of the Nelson Regional Sewerage Business Unit is as follows:



The Nelson Regional Sewerage Business Unit was established in July 2000, replacing the former Nelson Regional Sewerage Authority established in the 1970s.

Following the adoption of a new Strategic Plan in August 2013, the 2017 Wastewater Asset Management Plan was developed and adopted on 15 September 2017. A draft of the long-term financial plan based on the Asset Management Plan, was provided to Tasman District Council and Nelson City Council in July and October 2017 respectively to enable them to consolidate the NRSBU long-term plan into their own strategic documents.

7. BUSINESS OBJECTIVES AND PERFORMANCE MEASURES

The objectives outlined below describe the long-term aims of the business unit. Performance measure targets and dates (where they are not specified below) are set annually in the Business Plan along

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **4** of **20**

with performance measures for projects identified in the Asset Management Plan. Performance will be reported quarterly to the Board and annually or six monthly, as appropriate, to the shareholding councils.

Long Term Objectives	Key Performance Measures
Wastewater reticulation, treatment and dispos	al services meet customers' long-term needs
Sufficient reticulation, treatment and disposal capacity is available for loads received.	Loads do not exceed the capacity of the system components.
Intergenerational equity is maintained.	Loans are repaid over 30 years (the average life of the assets).
Customers are encouraged to engage with the organisation and are satisfied with the service.	All customer representatives attend at least 75% of customer meetings.
	Customer surveys show an average score of at least 5 out of 7 on satisfaction with services.
Levels of service are defined in all contracts and are met.	100% compliance with service level agreements by all major contractors.
The cost of wastewater reticulation, treatmen	t and disposal services are minimised
The costs of reticulation, treatment and disposal are minimised.	The operational costs of reticulation, treatment and disposal processes are benchmarked against costs incurred up to 30 June 2014.
	All capital projects are delivered within budget.
The economic lives of all assets are optimised.	Three yearly independent audit of asset management practices confirms this.
Customers understand the benefits of demand management and the costs, risks and environmental implications of increasing demand.	Combined loads do not exceed the capacity of the components of the system.
New technology choices are well understood and are proven to be reliable, sustainable and cost effective.	All significant technology choices are supported by cost-benefit analysis, independent peer review, energy efficiency analysis, risk analysis and, where appropriate, by other users of those technologies.

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **5** of **20**

. •
-
d
L.
Ŧ

Dist

Risk management plans include all significant	No event, which impacts on agreed levels of
health and safety, environmental, cultural, social, economic and contractual risks.	service, occurs that has not been identified in the NRSBU risk management plans.
	Customer representatives review and approve the risk management plan annually and followin any incidents that require activation of the plan.
Contingency plans adequately address emergency events.	Customer representatives review and approve the plans annually.
	Effectiveness of plans is reviewed and confirme following incidents that require activation of the plan.
We engage the right people, with the right sk	ills and experience.
Those engaged with the NRSBU have the right skills, experience, and support to perform well.	Annual staff performance reviews include assessment of the skills and experience require in their role in NRSBU and their development needs are identified and met.
	Development and succession plans are in place
	The Board reviews its performance at least annually.
Operation and maintenance manuals reflect best practice for the management of the plant and reticulation systems and are followed consistently.	An independent audit every three years confirm this.
IRSBU operates sustainably and endeavours nvironmental, social or cultural impact	s to remedy or mitigate any identified adverse
NRSBU minimises adverse environmental, social and cultural impacts where this is economically viable.	That progress towards meeting energy efficient targets reported on and reviewed annually in June.
	Current capacity to utilise beneficial application of biosolids to land is sustained.
	Beneficial economic and environmental reuse of treated wastewater is maintained or increased.
	Environmental, social and cultural impacts are considered in all decision making.

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **6** of **20**

2
÷
2
Ð
Ε
2
C
tta
Ā

Shareholders are satisfied with the strategic direction and the economic performance of the business unit.	All strategic and business plans are approved b shareholders.
	All budget projections are met.
Good relationships are maintained with all stakeholders including owners, iwi, customers,	All complaints or objections are addressed promptly.
contractors, neighbours, and the wider community.	All applications for resource consents are approved.
	Up to date information on activities and achievements are publicly available.
All statutory obligations are met	
All statutory obligations are identified and met and are included in contracts with suppliers.	100% compliance with all statutory obligations.
All resource consent requirements are met.	100% compliance with all resource consents.

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **7** of **20**

8. THREE YEAR RENEWAL EXPENDITURE FORECAST (\$'000)

Renewal Plan (\$,000)	Projected 2018/19	2019/20	2020/21	2021/22
Miscellaneous	120	120	120	120
Pump Stations and Rising Mains	85	67	42	218
Inlet, Aeration Basin, Clarifier and Ponds	88	88	190	259
Solids Handling	114	55	63	336
ATAD rust proofing		110		
Rabbit Island	223	38	153	48
Biosolids and sludge storage tank refurbishment			75	
Facilities (Operator Buildings)		95	150	
Replace water blaster & steam cleaner		10		
Replace isolation switches		25		
Replace microscope	12			
PLC renewal	100	100		
Roads		25	75	
Consents	130	137		
Total	872	870	868	981

The renewal programme of NRSBU assets is developed around lifecycle and condition assessment. An iterative process is followed whereby the renewal programme is considered annually with inputs from the Operation and Maintenance operator and the review of remaining useful life of assets.

Condition assessment reports may be commissioned where additional information is required to ensure optimal spend on renewals.

Miscellaneous items are at the discretion of the General Manager.

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **8** of **20**

9. NRSBU Capital Upgrade Plan

The following table outlines the capital upgrades proposed over the next three years. This is followed by a commentary outlining more detail on each of the proposals.

Year	Description of Projects	Estimated Costs \$
	Partial Desludging oxidation ponds	750,000
2019/20	Studies and initial design of capacity improvement to regional pipeline downstream of Beach Road pump station to Point Road.	550,000
	Pumpstation, Biosolids and Treatment Plant Upgrade (Resource Consent related; plus Operational and H&S improvements).	3,300,000
	Commence Regional Pipeline Capacity Upgrade	5,000,000
2020/21	Treatment Plant Upgrade (Resource Consent dependent; plus facilities improvements)	2,800,000
	Rabbit Island Biosolids Consent	240,000
	Partial Desludging oxidation ponds	750,000
	Completion of Regional Pipeline Capacity Upgrade	8,000,000
2021/22	Pumpstation and Treatment Plant Upgrade (Resource Consent related)	500,000

Commentary on Upgrade Proposals for 2019/20

Desludging of Ponds: Partial desludging will be carried out over two financial years. The intention is to reduce the depth of sludge in ponds F1 and F3 to improve the available vertical space in those ponds.

Pumpstation upgrade is to comply with the conditions of the aberrational discharge consent. For example, to install screens and to develop a programme of work to investigate and implement ways to reduce overflows from the sewerage pump stations to the estuary.

The regional pipeline downstream of Beach Road has insufficient capacity to prevent raw sewage overflows under moderate rainfall conditions. In line with the aspirations and intentions described in Appendix F, it is therefore proposed to investigate, design and implement capacity improvements. This

> Nelson Regional Sewerage Business Unit Business Plan 2019/20(rev 3) Page 9 of 20

is a new item that was not expressly identified in the 2017 AMP however there was an estimate of \$1m for the 2019/2020 year for Regional Pipeline (Demand dependent). A likely solution will be to rehabilitate existing infrastructure; as that would be significantly more affordable than completely new infrastructure.

Treatment Plant and Biosolids upgrade covers items such as:

- trials to re-use treated wastewater to clean the inlet screens (reducing the use of potable water and consequently the volume discharged to the estuary)
- further develop investigations into the potential re-use (by others) of treated wastewater
- investigate and implement potential tree and vegetation planting around the perimeter of Bell Island
- commission a high-level report into alternative wastewater treatment systems (that would avoid or significantly reduce the discharge of treated wastewater to the Waimea Inlet)
- equipment and physical improvements to improve health & safety on-site
- · biosolids odour reduction activities
- biosolids disposal future resilience studies

The modification of ponds budget is an allowance that is conditional on the review of the performance of improvements made to the final maturation pond. Therefore, this expenditure may be deferred, and/or the amount amended.

The consent for the application of biosolids at Rabbit Island expires 8 November 2020.

Regional Pipeline Upgrade:

- Monaco to Bell Island pipe condition assessment and pipe flushing connection, valves and installation.
- Regional pumpstation storm surge defence plant and implementation programme.
- Capacity improvement (in particular, downstream of Beach Road)

NRSBU Records and data:

Additionally, we will investigate the benefits of collating all the NRSBU historic and current information into a single access point electronic storage location.

> Nelson Regional Sewerage Business Unit Business Plan 2019/20(rev 3) Page 10 of 20

10. FINANCIAL PLAN

Nelson Regional Sewerage Business Unit Budget Summary for 2019 to 2021

	Projection	Budget		Budget
	18/19	19/20	20/21	21/22
Income				
Contributors	8,526	7,996	8,639	9,274
Interest	0	0	0	0
Other Recoveries	168	158	158	158
Total Income	8,694	8,154	8,797	9,432
Expenditure				
Operations & Maintenance	3,431	3,546	3,587	3,692
Management	796	599	599	599
Interest	595	469	724	1,025
Insurance	61	75	75	75
Depreciation	1,987	2,224	2,263	2,359
Total Operating Cost	6,870	6,913	7,248	7,750
Surplus/Deficit	1,824	1,241	1,549	1,682
Use of Funds				
Loan Repayment	1,115	1,354	1,395	1,378
Renewals	872	870	868	981
Owners Distribution	1,824	1,241	1,549	1,682
Upgrades	2,992	4,600	8,790	8,500
	6,803	8,065	12,602	12,541
Sources of Funds				
Surplus/Deficit	1,824	1,241	1,549	1,682
Depreciation	1,987	2,224	2,263	2,359
New Loans	2,992	4,600	8,790	8,500
	6,803	8,065	12,602	12,541

Note: The 2019/20 O&M budget has lifted from the previous 2018/19 Business Plan to reflect external management costs and increased maintenance activities. Those costs will need to be reviewed when writing the 2020/21 Business Plan. This table has changed (from rev 1) to reflect latest estimates and new loan repayment amounts

> Nelson Regional Sewerage Business Unit Business Plan 2019/20(rev 3) Page 11 of 20

Item 7.1

APPENDIX A

Nelson Regional Sewerage Business Unit Committee Activity Schedule 2019-2020

Date	Activity	Papers required
By 31 August 2019	Review draft Annual Report and Financial Statement.	Draft annual report and financial statement.
By 30 September 2019	Deliver annual financial statement to Councils.	Financial Statement.
By 31 December 2019	Review board planning/meeting timetable.	Planning/meeting timetable.
	Adopt draft business plan for presentation to Tasman District Council and Nelson City Council. Review and update Interests Register. Adopt business continuity plan.	Business Plan. Interests Register. Draft business continuity plan.
By 20 March 2020	Present Annual Report and Business Plan to Tasman District Council and Nelson City Council.	Annual Report and Business Plan.

Nelson Regional Sewerage Business Unit Business Plan 2019/20 <mark>(Rev 3)</mark> Page **12** of **20**

Date	Activity	Papers required
By 30 June 2020	Review board performance	Checklist for committee effectiveness.
	Review governance policy	Governance Policy
	Review Demand Management Plan	Draft Demand Management Plan.
	Receive report on Contingency Plan review by customer representatives.	Report on Contingency Plan review by customer
	Receive report on Risk Management review by customer representatives.	representatives.
	Review customer satisfaction survey results	Report on Risk Management review by customer representatives.
	Annual review of Strategic Plan	Customer survey report.
	Adopt Energy Conservation Plan	Strategic plan.
	Review Audit Management Report	Energy Conservation Programme.

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **13** of **20**

APPENDIX B

LEVELS OF SERVICE

The following levels of service are included in the Nelson Regional Sewerage Business Unit Asset Management Plan 2017 and compliance demonstrates progress towards achieving the strategic goals:

Environmental	Category	Level of Service
Treatment and Disposal	RMA Consent - Wastewater Discharge to Coastal Marine Area	100% compliance with consent conditions
	RMA Consent – Discharge of Contaminants to Air.	100% compliance with consent conditions
	RMA Consent - Discharge of Contaminants to Land	100% compliance with consent conditions
	Equipment Failure of critical components within the treatment and disposal system.	No equipment failures that impact on compliance with resource consent conditions.
Pumpstations	Odour complaints from pumpstations	No odour complaints originating from pumpstations
	Pumpstation wet weather overflows	No overflow events occurring for the contracted contributor flows
	Pumpstation overflows resulting from power failure	No overflow events occurring
	Pumpstation overflows resulting from mechanical failure.	No overflow events occurring
Pipelines	Reticulation Breaks	No reticulation breaks.
	Air valve malfunctions	No air valve malfunctions that result in overflows
Capacity	Category	Level of Service
Treatment and Disposal	Overloading system capacity	Treatment and disposal up to all contracted loads and flows
Pump Stations	Overloading system capacity	No overflows for all pumpstations for the contracted contributor flows
Reliability	Category	Level of Service
Treatment and Disposal	Equipment failure of critical	No equipment failures that
Pumpstations	components	lead to non-compliance with resource consent conditions
Pipelines		

Nelson Regional Sewerage Business Unit Business Plan 2019/20 (Rev. 3) Page **14** of **20**

Agenda

Responsiveness	Category	Level of Service
Treatment and Disposal Pump Stations	Speed of response for emergency and urgent maintenance works	Achievement of response times specified in the maintenance contract
Pipelines	Speed of response for routine and programmable maintenance works	Achievement of response times specified in the maintenance contract
Key Customer Relationships	Category	Level of Service
Treatment and Disposal Pump Stations	Customer satisfaction	Agreed levels of service provided to all customers
Pipelines		Robust charging structure is in place

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **15** of **20**

Appendix C

BUSINESS IMPROVEMENT PLAN

This section describes initiatives to improve the efficiency and effectiveness of the Business Unit and is based on the Nelson Regional Sewerage Business Unit Strategic Plan and referenced to the 2017 Wastewater Asset Management Plan.

IP	Description	Resource Requirements	Progress
IP-1	Consolidate all risk and natural disaster information; and review the related planning and mitigation.	In-house and consultants	2019-2020
IP-2	Renewal of effluent discharge permits.	In-house, Legal and Consultants	Ongoing from 2018-2019
IP-3	Develop sludge removal programme.	In-house and Contractor	On-going 2019-2021
IP-4	Review long term plan.	In-house	2019-2020
IP-5	Review AMP.	In house	2019-2020
IP-6	Investigate use of gravity belt thickener for use to thicken secondary sludge.	In-house	2020-2021

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **16** of **20**

APPENDIX D

10 YEAR PLAN

CAPITAL EXPENDITURE

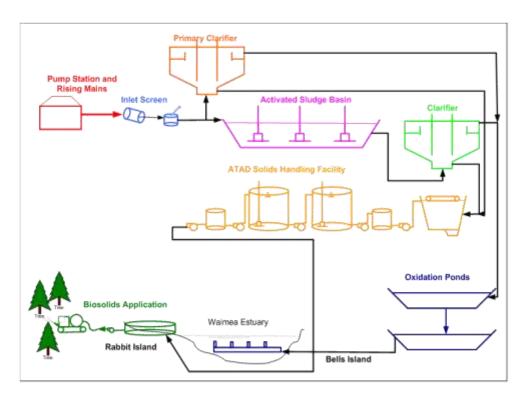
Upgrade programme		
Year	Description of Projects	Estimated Costs \$
	Desludging oxidation ponds	750,000
2019/20	Studies and initial design of capacity improvement to regional pipeline downstream of Beach Road pump station.	550,000
2010/20	Treatment Plant, Biosolids and Network Upgrade (Bell Island Discharge and Aberrational Discharge Consent compliance related; plus H&S improvements)	3,300,000
	Commence Regional Pipeline Capacity Upgrade (Demand dependent)	5,000,000
2020/21	Treatment Plant Upgrade (Bell island Resource Consent dependent; plus facilities improvements)	2,800,000
	Rabbit Island Biosolids Consent Application	240,000
	Desludging oxidation ponds	750,000
2021/22	Complete Regional Pipeline Capacity Upgrade (Demand dependent)	8,000,000
	Treatment Plant and Network Upgrade (Consent related)	500,000
	Regional Pipeline Upgrade (Demand dependent)	0
2022/23	Treatment Plant and Network Upgrade (Consent related)	500,000
	Modify Facultative Pond (Consent dependent)	420,000
2023/24	Treatment Plant and Network Upgrade (Consent related)	500,000
2024/25	Disposal of dried sludge	700,000*
2025/26	Songer street PS upgrade (Demand dependent)	100,000
2025/26	Disposal of dried sludge	700,000*
2026/27	Disposal of dried sludge	700,000*
2029/30	Activated sludge management (2 nd Secondary clarifier)	2,800,000

*Note: These forecast amounts will not be required if the NRSBU successfully obtains resource consent to use the material in bunds on site (to protect the low-lying area adjacent to the ATADs)

> Nelson Regional Sewerage Business Unit Business Plan 2019/20 <mark>(Rev 3).</mark> Page **17** of **20**

APPENDIX E

BELL ISLAND TREATMENT PLANT SCHEMATICS



Nelson Regional Sewerage Business Unit Business Plan 2019/20 (Rev 3) Page **18** of **20**



Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **19** of **20**

Item 7.1

APPENDIX F

REDUCTION OF ADVERSE ENVIRONMENTAL EFFECTS

The NRSBU intends to:

- reduce overflow into the coastal marine environment and Tasman Bay beyond.
- have a greater focus on the immediate coastal marine environment and impacts on the ecology of Tasman Bay.
- consider water quality, biodiversity and estuary health as priorities over the next three years.
- reduce the volume of wastewater discharged to Waimea Inlet.

To implement this vision, the NRSBU will:

- develop a programme of work to investigate and implement ways to reduce overflows from the sewerage pump stations to the estuary.
- implement the conditions associated with the pumpstations Aberrational Discharge resource consent.
- undertake a trial to re-use treated wastewater to clean the inlet screens (reducing the use of potable water and consequently the volume discharged to the estuary).
- further develop investigations into the potential re-use (by others) of treated wastewater.
- investigate potential tree and vegetation planting around the perimeter of Bell Island.
- continue to operate the treatment plant well and achieve high quality effluent.
- commission a high-level report into alternative wastewater treatment systems (that would avoid or significantly reduce the discharge of treated wastewater to the Waimea Inlet).

Nelson Regional Sewerage Business Unit Business Plan 2019/20<mark>(rev 3)</mark> Page **20** of **20**