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

Date:	**Wednesday 14 May 2025**
Time:	**9:30am**
Meeting Room:	**Nelson Council Chamber**
Venue:	**110 Trafalgar Street, Nelson**
Zoom conference link:	
Meeting ID:	
Meeting Passcode:	

Nelson Regional Sewerage Business Unit

Komiti Rohe Pakihi Whakaweone mo te Hau Hauora Whakatu

AGENDA

MEMBERSHIP

Chairperson	Tasman District Councillor K Maling
Deputy Chairperson	Nelson City Councillor T Skinner
Members	Tasman District Councillor B Dowler
	Nelson City Councillor K Paki Paki
	Independent Member T Mehmood
	Industry Representative (non-voting) P Wilson
	Iwi Representative A Young

(Quorum 4 members)

Contact Telephone: 03 543 8524
Email: tdc.governance@tasman.govt.nz
Website: www.tasman.govt.nz

Nelson Regional Sewerage Business Unit Delegations

Areas of Responsibility:

To manage and operate the wastewater treatment facilities at Bells Island and the associated reticulation network efficiently and in accordance with resource consent conditions to meet the needs of its customers.

Powers to Decide:

The Councils are agreed that the responsibility for all management and administrative matters associated with the NRSBU operation shall be with the Board, and in particular the Board shall without the need to seek any further authority from the Councils:

- Operate a bank account for the Business Unit;
- Comply with the Procurement Policy of the Administering Council;
- Enter into all contracts necessary for the operation and management of the Business Unit in accordance with the approved budgets and intent of the Business Plan;
- Authorise all payments necessary for the operation and management of the Business Unit within the approved budgets and intent of the Business Plan;
- Do all other things, other than those things explicitly prohibited by this Memorandum of Understanding or relevant statutes, that are necessary to achieve the objectives as stated in the Strategic Plan, Asset Management Plan or Business Plan approved by the Councils;
- Comply with the Health and Safety Policy and requirements of the administering Council

Contribute to the sanitary services assessment process of the Councils

Contribute to and comply with the waste management plans of the Councils

Contribute to the development of the Councils' Development and Financial Contribution policies

Contribute to the Councils' Regional Policy Statement and Regional Plan Reviews

Develop and keep under review an appropriate contract for the delivery of waste collection and disposal services with each of its customers

Follow generally accepted accounting practices

Follow good employment practices

Powers to Recommend to Councils:

Any other matters under the areas of responsibility of the Business Unit and detailed in the Memorandum of Understanding.

All recommendations to Council will be subject to adoption of an equivalent resolution by the other Council, unless it is a matter specific to one Council only.

Quorum:

The Memorandum of Understanding governing the NRSBU allows for either six or seven members to be appointed. The quorum at a meeting is either three (if six members are appointed), or four (if seven members are appointed), including at least one from each local authority.

Procedure:

The Standing Orders of the Council providing administration to the committee will be applied at each meeting.

The Chairperson will not have a casting vote.

Copies of minutes of meetings of the Joint Committee will be retained by each Council for record keeping purposes.

Nelson Regional Sewerage Business Unit

14 May 2025

Page No

Order of Business

Karakia and Mihi Timatanga

Karakia Whakamutanga

Procedural Items

1 Apologies

No apologies have been received at this time.

2 Confirmation Of Order Of Business

3 Interests

Members are reminded of their obligation to declare any conflicts of interest they might have in respect to the items on this agenda.

4 Public Forum

No requests for public forum have been received.

5 Confirmation Of Minutes

5.1 12 February 2025 - Minutes

That the Nelson Regional Sewerage Business Unit

1. Confirms the minutes of the meeting of the Nelson Regional Sewerage Business Unit, held on 12 February 2025, as a true and correct record.

Minutes of a meeting of the Nelson Regional Sewerage Business Unit held in the Boardroom, Best Island on 12 February 2025, commencing at 10:00 AM.

Present:	Tasman District Councillor K Maling (Chairperson), Tasman District Councillor B Dowler, Nelson City Councillor T Skinner (Deputy Chairperson), Nelson City Councillor K Paki Paki and Independent Member T Mehmood
In Attendance:	Deputy Chief Executive/Group Manager Infrastructure (A Louverdis), General Manager Regional Services (N Clarke) and Governance Adviser (A Bryce)
Apologies:	Industry Representative (non-voting) P Wilson

1 Apologies

Resolved RSBU/2025/1

That the Nelson Regional Sewerage Business Unit

1. Receives and accepts the apology from Philip Wilson.

TDC Cr Dowler/Cr Skinner Carried

2 Confirmation Of Order Of Business

There were no changes to the order of business.

3 Interests

There were no updates to the Interests Register, no interests with items on the agenda were declared.

4 Public Forum

There was no public forum.

5 Confirmation Of Minutes

5.1 15 November 2024 -

Minutes Resolved RSBU/2025/2

That the Nelson Regional Sewerage Business Unit

1. **Confirms the minutes of the meeting of the Nelson Regional Sewerage Business Unit, held on 15 November 2024, as a true and correct record.**

Cr Paki Paki/TDC Cr Dowler Carried

5.2 15 November 2024 – Minutes Confidential

Section 7(2)(b)(ii) To protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information

6 Reports For Decision

6.1 Nelson Regional Sewerage Business Unit General Manager Update Report February 2025

General Manager Regional Services, Nathan Clarke and Operations Manager Regional Services, Brad Nixon, took the report as read and answered questions on maintenance expenses budget and expectations, health and safety incident reporting and implementing improvement for contractor reporting management and fire risk monitoring.

Resolved RSBU/2025/3

That the Nelson Regional Sewerage Business Unit

1. **Approves the commencement of the consent application for discharge of wastewater to land on Best Island and Bell Island in the current financial year (a year earlier than expected), at an estimated cost of $300,000 with this to be offset against the proposed carry forward for the High Flow Pumpstation budget that will not be completed this financial year.**

Cr Skinner/Aneika Young Carried

7 Exclusion Of The Public

Resolved RSBU/2025/4

Recommendation

That the Nelson Regional Sewerage Business Unit

1. **Excludes the public from the following parts of the proceedings of this meeting.**

2. **The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:**

Cr Paki Paki/TDC Cr Dowler Carried

Section 7(2)(i) To enable the local authority to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations)

The meeting went into confidential session at 10.45a.m. and resumed in the public session at 10.50a.m.

8 Minutes Confirmed In Confidential

The only business transacted in confidential session was to confirm the minutes of 15 November 2024. In accordance with the Local Government Official Information and Meetings Act, no reason for withholding this information from the public exists, therefore this business has been recorded in the open minutes.

Resolved RSBU/2025/5

That the Nelson Regional Sewerage Business Unit

1. **Confirms the minutes of part of the meeting of the Nelson Regional Sewerage Business Unit, held with the public excluded on 15 November 2024, as a true and correct record.**

Cr Skinner/TDC Cr Dowler Carried

There being no further business the meeting ended at 10.50a.m.

Confirmed as a correct record of proceedings by resolution on (confirmation date).

Insert Resolution here (remove bold please)

Business Unit 14 May 2025

Report Title:	**R25-212 NRSBU General Manager Update Report May 2025 Report Author: Business Unit 14 May 2025**

Report Title:	**R25-212 NRSBU General Manager Update Report May 2025**
Report Author:	**Nathan Clarke (General Manager Regional Services)**
Report Authoriser:	**Alec Louverdis (Deputy Chief Executive / Group Manager Infrastructure)**

1 Purpose of Report

1.1 This report is an update by the General Manager (GM) on activities undertaken to 31 March 2025 by the Nelson Regional Sewerage Business Unit (NRSBU).

2 Recommendation

That the Nelson Regional Sewerage Business Unit

1. **Receives the NRSBU General Manager Update Report May 2025; and**
2. **Approves retrospectively the submission made to Taumata Arowai on behalf of NRSBU regarding consultation on proposed wastewater environmental performance standards.**

3 Health and safety

3.1 H&S for the operations contract is being managed well, and no significant safety issues are currently outstanding, the H&S Dashboard is now up and running and a copy of this is shown below in section 3.2.

3.2 No significant incidents occurred during the period.

	Nathan Clarke (General Manager Regional Services)
Report Authoriser:	**Alec Louverdis (Deputy Chief Executive / Group Manager Infrastructure)**

4 Purpose of Report

4.1 This report is an update by the General Manager (GM) on activities undertaken to 31 March 2025 by the Nelson Regional Sewerage Business Unit (NRSBU).

5 Recommendation

That the Nelson Regional Sewerage Business Unit

3. Receives the NRSBU General Manager Update Report May 2025; and

4. Approves retrospectively the submission made to Taumata Arowai on behalf of NRSBU regarding consultation on proposed wastewater environmental performance standards.

6 Health and safety

6.1 H&S for the operations contract is being managed well, and no significant safety issues are currently outstanding, the H&S Dashboard is now up and running and a copy of this is shown below in section 3.2.

6.2 No significant incidents occurred during the period.

Nelson Regional Sewerage

Event Type	Date	Event Details	Summary Findings
Close Call (Near Miss)	20/02/2025	While jetting biosolids line with Nicholsons to release stuck pig, their pressure line snapped at the	The hose was monitored by the jetting operator as it was going into the pipe and no issues were found, this
		coupling and flew out of the hole missing me but covering me in water both biosolids and water.	was the second or third time this section of hose had entered the pipe. This was an unforeseeable event as the hose and feral's were in good condition.
			A hose doctor attended site to repair the hose, he checked the other feral connections at this time and had no concerns with the fittings.
Injury/Illness	04/03/2025	Bitten by a spider	Bite site was
(Accident)		on my neck when I	swollen, but healed
		was cleaning the	up without
		containers out	complications
Close Call (Near Miss)	05/03/2025	When I was crossing the causeway at 6.45am yesterday I came across a lady walking a dog. It was quite foggy and I didn't see her until I was right on her. I think it shocked her and me. She had her dog under control	Good driving practice avoided an incident, the pedestrian should not have been in the area but we are aware they are often walking through there
Property Damage (Incident)	18/03/2025	Opening the drivers door of ute when a strong gust of wind pushed the door it	Employee was reminded of the Bell Island induction section on reverse

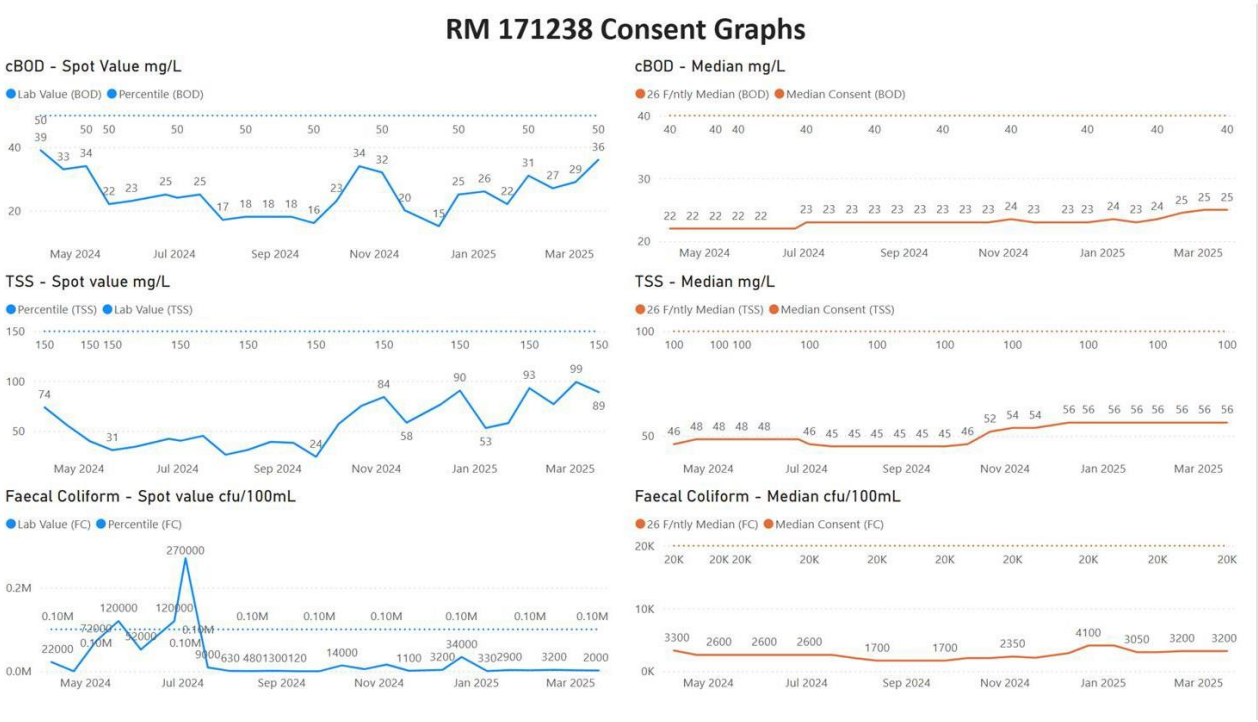
		broke a central hinge and this dent in the door and the body.	parking in carparks, and the caveat to park into / facing the direction of wind as a priority when onsite.

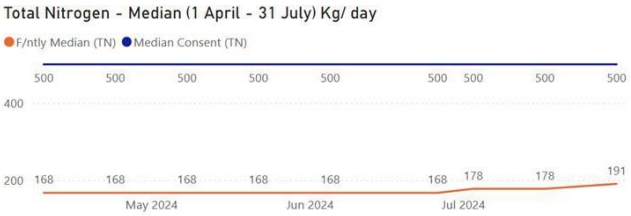
Property Damage **Incident**	31/03/2025	Installing mobile diesel pump for seeding from facultative pond 2 to facultative pond 1, a hose has been broken by high pressure because all ponds pipeline were closed by main butterfly valves.	Hose rated much higher than pressure generated by pump, so shouldn't have failed. Review condition of hoses onsite. Review SOP for pumping. Instigate 6 monthly inspections of all pumping hoses.

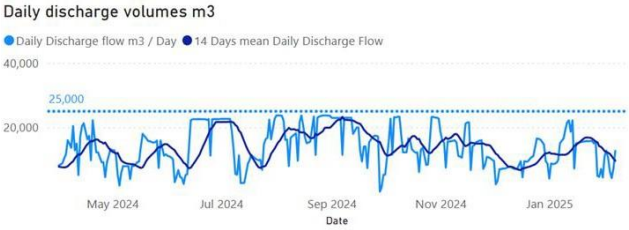
4 Operations and maintenance

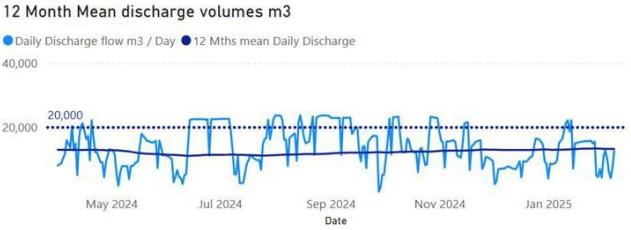
4.1 Operational performance of the Nelson Regional Sewerage Scheme (NRSS) continues at a high level.

4.1 The dashboard of compliance data is shown below, with no non- compliance issues occurring during the year to date.









4.2 The operating & maintenance costs against the Target Outturn Cost (TOC) for the 2024/2025 year are slightly above the NRSBU 2024/2025 Business Plan forecast budget. The increased costs were related to a higher maintenance programme at the start of the fiscal year, along with abnormal pond conditions over summer and unexpected maintenance requirements to the primary clarifier. Costs over the final quarter are expected to be lower than the budget and bring expenditure closer to budget.

4.3 Graph of progress against Target Outturn Cost (TOC)

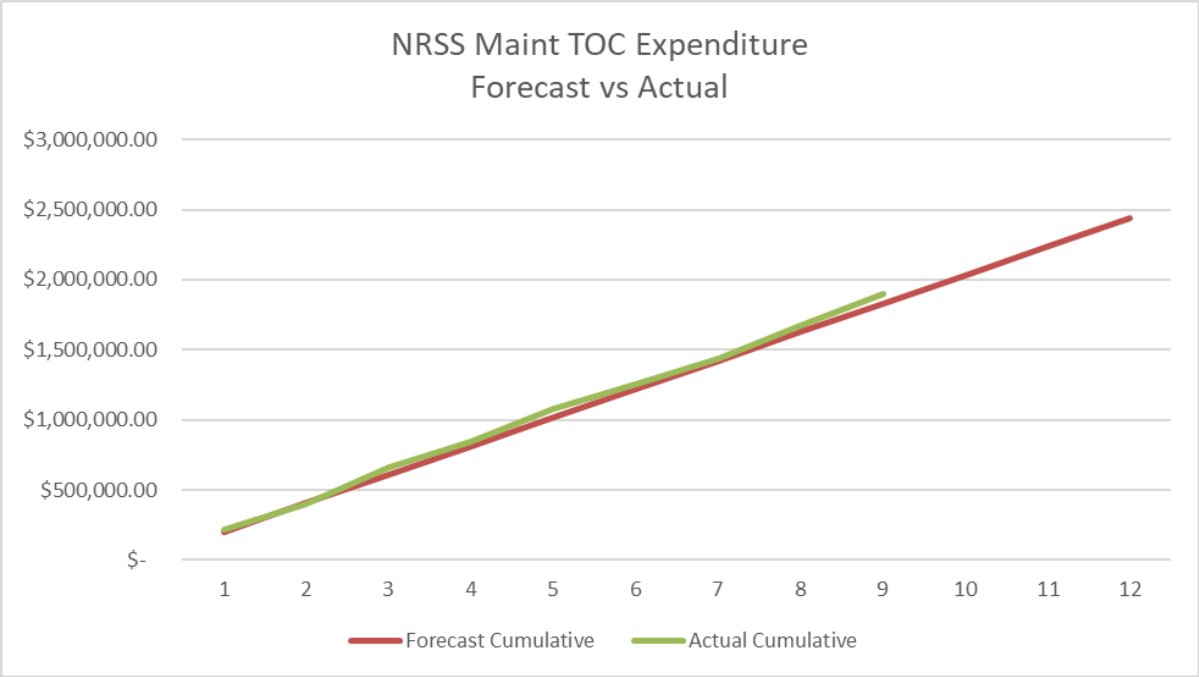


Figure 1: O&M Contract Expenditure vs TOC

4.4 Odour

4.4.1 There were no odour notifications over January to March

4.5 Wastewater overflows:

4.5.1 There was one wastewater overflow during the period.

4.5.2 The discharge occurred during a trial run of bypass pumping by a contractor at the Beach Rd pumpstation to allow the connection works of the duplicate rising main to proceed.

4.5.3 A hose used in the bypass pumping failed, resulting in an estimated discharge of 35m3 to the area around the pumpstation, which reached Saltwater Creek and the Waimea Estuary.

4.5.4 The hose failed at roughly 25% of its pressure rating, and whilst an exact cause of the hose failure has not been confirmed the damage indicated deterioration of the internal lining of the hose was the primary factor contributing to failure.

4.6 Beneficial reuse of resources:

4.6.1 NRSBU has applied 46,300m3 of treated effluent to land so far this irrigation season.

4.6.2 18,969m3 of treated effluent has been processed through the ultra-filtration (UF) plant for re-use onsite during the report period.

4.6.3 8,288m3 of UF treated water was exported to Green Acres Golf Course for use for irrigation during the report period.

4.6.4 NRSBU applied 6,598m3 of Biosolids between September and December 2024. This equates to 14.4 tonnes of Nitrogen for fertiliser to the

Motoroa/Rabbit Island pine forests.

5 Compliance with Trade Waste Agreements

5.1 NRSBU provides services to its customers under Trade Waste Agreements (TWAs).

5.2 The TWAs confirm the flows and loads NRSBU is contracted to convey and treat for each customer.

5.3 As part of the new network reporting requirements implemented by Taumata Arowai, NRSBU is required to report annually on compliance with TWAs along with actions taken in response to breaches.

The table below outlines the contracted flow and load breaches for the 2024/25 financial year to date:

Contracted Parameter	Number of breaches
Average daily volume	0
Peak ½ hour flow	3
BOD (Biochemical Oxygen Demand)	0
COD (Chemical Oxygen Demand)	0
SS (Suspended Solids)	4
TN (Total Nitrogen)	0
TP (Total Phosphorus)	0

5.4 Officers will shortly be writing to contributors highlighting the breaches. The breaches have not had material impact on the performance of the scheme, and therefore penalties under the TWA are not intended to be applied. One contributor may be required to increase their contracted suspended solids limit.

6 Projects

6.1 General projects underway at present include:

6.1.1 Update of the Business Continuity Plan.

6.1.2 Regional wastewater philosophy development.

6.1.3 Moturoa/Rabbit Island biosolids discharge consent finalisation (awaiting TDC action of minor amendments).

6.1.4 Condition assessment of the concrete rising main between Monaco and Bell Island.

6.1.5 Pump replacement at Beach Rd and Wakatu pump stations.

6.1.6 Pump and non-return valve replacement at Airport pump station.

6.1.7 Emission management plan development.

6.1.8 Biosolids application facility tank odour extraction & treatment, flow actuation.

6.1.9 Update Moturoa/Rabbit Island biosolids application consent to better manage stormwater discharge from the facility.

6.2 Bell Island projects currently underway include:

6.2.1 Installation of isolation valves to rising mains at the treatment plant inlet structure.

6.2.2 Fencing improvement to Bell Island to improve safety around the ponds.

6.2.3 Bell Island access road resealing.

6.2.4 Biosolids tank renewal.

6.2.5 Old sludge storage tank removal.

Figure 2: Old sludge storage tank with top strake removed

6.2.6 Secondary treatment system upgrade concept design works – this is substantially completed, with refinement of the concept to ensure ease of any future expansions. Progression to detailed design will be delayed slightly to consider the outcomes from the upcoming Taumata Arowai wastewater standards.

6.2.7 Bell Island High Flow pumpstation design – work has commenced on this design, however the scope of this work has broadened slightly to consider integration of the project with the renewals required on the Bell Island gravity pipelines, to check if cost savings are possible.

6.2.8 NRSS Rising Main Duplication:

6.2.9 The duplicate rising main from Beach Rd to Martins Point was brought online during the report period, following connection works at the Beach Rd pumpstation.

6.2.10 The final component of works, connection to Saxtons pumpstation, is now underway. This is expected to be bought into service in early May.

6.2.11 Bell Island site designation:

6.2.12 Officers are working with TDC to finalise conditions for the designation.

6.2.13 The designation conditions, and required delegations to accept the conditions, will be brought to a future meeting.

7 Risks

7.1 NTRLBU has an ongoing process on managing risks and criticality at different levels within the Business Unit process,

7.2 Asset management system

7.2.1 NRSBU has been looking to upgrade the asset management system being used to allow the required level of functionality.

7.2.2 Currently the Infor Asset management system does not have the functionality to accommodate the Best Practice “Three Waters” Asset management schema which NRSBU has adopted, and the current Infor system does not have a field module for inputting data. These, along with other deficiencies, mean the current Infor system is considered by officers as not fit for purpose.

7.2.3 The new system proposed is Asset Work Manager, which NCCs transport team has been using for a long time and which the NCC parks team is currently implementing. The system is currently going through a business case process for adoption by NCC utilities. NRSBU will move to this new system as soon as it has access to it.

7.3 Rising main capacity:

7.3.1 The NRSBU provides services for its customers based on requested flows and loads.

7.3.2 The customers are asked to confirm future demand annually, so that NRSBU can understand future capacity requirements and can plan and implement upgrades in a timely fashion.

7.3.3 In response to the request at the end of the 2023/24 financial year NCC and TDC have either confirmed sizable increases in future flows, or subsequently advised recent updates to the Future Development Strategy (FDS) will result in increases to flows currently requested.

7.3.4 NCC and TDC have advised that they are currently updating catchment models to better refine flow predictions, however if the future projected flows are correct/confirmed then there will be insufficient capacity within the network to accommodate the projected flows. NRSBU will need to seek funding in the next NRSBU Activity Management Plan for a new rising main from Richmond to Bell Island following a clockwise route, this has an estimated cost of around $60 Million.

7.4 Bell Island discharge capacity:

7.4.1 The Bell Island discharge consent allows for the treatment plant to discharge for 3 hours after high tide, at an average daily limit of 20,000m3, or to a maximum daily limit of 25,000m3.

7.4.2 Since the current consent was issued the Bell Island treatment plant has had to exceed the discharge limits on three occasions to mitigate or avoid uncontrolled overflows from the ponds. These events have occurred as the result of significant wet weather inflow to the plant.

7.4.3 Officers are working to vary the consent conditions to allow increased discharge limits in response to conditions outside of NRSBUs control (eg extreme or extended rainfall etc).

7.4.4 Dependent on the results of NCC and TDCs future flow modelling works NRSBU may be required to seek an additional consent variation to increase the average daily limit for discharge

8 Proposed wastewater environmental performance standards

8.1 Taumata Arowai has published information on proposed wastewater environmental performance standards that have been out for consultation.

8.2 In consultation with the NRSBU Chair, NRSBU submitted technical responses on the consultation across many of the areas covered - including discharge to water, discharge to land, overflow and bypass, and biosolids land application.

8.3 The submission to Taumata Arowai is appended for reference.

8.4 Of particular note the feedback provided on the proposed discharge to water standards outlined that the changes may have significant financial consequences to the NRSBU if the standards do not allow a method for consent application based on adverse effects

8.5 If the outcome of the standards does not allow NRSBU to have a discharge standard different to the proposed performance standard for discharge to estuaries (i.e. less stringent) then NRSBU will need to either change its discharge point or will need to significantly upgrade the Bell Island wastewater treatment plant. Both these options will have significant upgrade costs.

8.6 NRSBU will consider whether it would be appropriate to liaise with both NCC and TDC to consider the effects of the proposed standards on each, and to consider whether there are options available that would be more effective and cost efficient, should the proposed wastewater environmental performance standards be implemented without changes.

9 Finance

9.4 The net income for the six months ending 31st March 2025 is $1,095,537 behind budget.

Financial Report

Income Account for the period to 31st March 2025

	Actual Month	Budget Month	Actual YTD	% YTD	% Year	2024/25 Budget YTD	2024/25 Budget Annual	YTD Variation
Income								
Contributions Fixed	715,926	812,333	6,443,332	88	66	7,311,000	9,748,000	(867,668)
Contributions Variable	505,426	513,959	4,210,705	91	68	4,625,633	6,167,511	(414,928)
Other Recoveries	35,733	44,583	329,708	82	62	401,250	535,000	(71,542)
Interest	7	-	165			-	-	165
Forestry Income	-	-	-			-	-	0
Total Income	**1,257,092**	**1,370,875**	**10,983,910**	89	67	**12,337,883**	**16,450,511**	**(1,353,973)**
Less Expenses								
Management	49,688	57,917	481,928	92	69	521,250	695,000	39,322
Electricity	86,420	95,083	696,317	81	61	855,758	1,141,011	159,441
Contract Maintenance	151,709	117,952	1,172,992	110	83	1,061,559	1,415,412	(111,433)
Reactive and Proactive Maintenance	91,063	72,590	813,385	125	93	653,316	871,088	(160,069)
Monitoring	44,013	23,958	259,005	120	90	215,625	287,500	(43,380)
Consultancy	41,866	19,583	213,228	121	91	176,250	235,000	(36,978)
Insurance	54,570	34,167	214,625	70	52	307,500	410,000	92,875
Sundry	7,439	21,042	79,339	42	31	189,375	252,500	110,036
Biosolids Disposal	122,731	97,500	951,426	108	81	877,500	1,170,000	(73,926)
Operating & Maintenance Expenses	**649,498**	**539,792**	**4,882,244**	**100**	**75**	**4,858,133**	**6,477,511**	**(24,111)**
Financial	180,342	210,750	1,654,090	87	65	1,896,750	2,529,000	242,660
Depreciation	284,245	288,677	2,558,204	98	74	2,598,091	3,464,121	39,887
Total Expenses	**1,114,085**	**1,039,219**	**9,094,539**	97	73	**9,352,974**	**12,470,632**	**258,435**
Net Income	**143,007**	**331,656**	**1,889,372**	63	47	**2,984,909**	**3,979,879**	**(1,095,537)**

9.2 Income:

9.2.1 Fixed recoveries year to date under budget by $867,688.

9.2.2 The variable income year to date is under budget by $414,928.

9.2.3 Other recoveries year to date income is under budget by $71,542.

9.3 Expenditure:

9.3.1 Total Operating and Maintenance expenses are over budget by 0.5% ($24,111).

9.3.2 Maintenance costs are slightly above budget due to a range of activities including heavy maintenance activities and purchase of pond emergency response chemicals during the first quarter.

9.3.3 The trend for the contract maintenance and the reactive and proactive maintenance worsened slightly during the third quarter and is now tracking slightly over budget.

9.3.4 Financial and depreciation expenses are below budget by $258,435 due to lower than budgeted interest rates.

9.4 Finance Discussion:

9.4.1 The financial trend year to date is for income to be low. Flows and loadings increased during the second quarter to closer to normal levels, which has improved variable income, with the year-to-date variable income deficit reducing from $450,000 to $414,000.

9.4.2 The ongoing trend for the finances is for a lower than budgeted revenue, particularly the fixed revenue. This will lead to a reduced surplus at year end for the owners.

9.4.3 The fixed revenue trend is not able to be changed by NRSBU management, and it is expected that the financial trend will continue for the rest of the financial year.

9.4.4 As discussed in each quarterly report, the under-recovery on fixed revenue results from changes to interest rates used in the charging model versus the budget and the timing of setting these interest rates. The budget process used means there is a considerable time difference during which changes to interest rates can occur.

10 Conclusion

10.2 The NRSBU is operating well, with Operations and Health and Safety being managed to an appropriate level.

10.3 Business Unit operation is satisfactory except that the income is lower than budgeted. This is leading to a shortfall in revenue. The variable income improved during the third quarter, but the year-to-date revenue remains lower than the budget due to low loadings received during the first quarter.

10.4 It is likely based on the current trends that the NRSBU customers should expect the end of year variable charge reconciliation to include a payment to make up for the shortfall in variable revenue.

10.5 The result of the fixed revenue shortfall is a lower-than-expected surplus. This trend was identified in the first quarter, continued in subsequent quarters and will continue for the remainder of the financial year.

10.6 NRSBU operational costs are within 0.5% of the budget and therefore it is clear that cost controls are working effectively.

10.7 Currently limited operational budget reductions are available to mitigate the lower revenue.

10.8 For the scheme owners the lower variable revenue means that they as customers have been making savings, and this will partly compensate for the lower annual surplus projected.

Attachments

1. TA Wastewater Standards - Feedback - NRSBU

NRSBU
Nelson Regional
Sewerage Business Unit

Civic House, 110 Trafalgar Street
PO Box 645, Nelson 7040, New Zealand

P (03) 546 0200

E nrsbu@ncc.govt.nz
NRSBU.govt.nz

24 April 2025

Feedback to Taumata Arowai on proposed wastewater standards

Introduction

Nelson Regional Sewerage Business Unit (NRSBU) is a joint committee of the Nelson City and Tasman District Councils that has been set up to manage the Nelson Regional Sewerage System (NRSS) infrastructure on behalf of the owners Nelson City and Tasman District Councils. The ownership of the NRSBU is shared 50% by both NCC and TDC

The NRSBU has been delegated responsibility for decision making on behalf of the owners of the facility (NCC and TDC) and acts in a semi-independent manner to provide regional wastewater services.

The NRSBU treats wastewater from a population of around 50,000 people, while the treatment facility has a population equivalent of around 130,000.

The NRSBU supplies services to its users under trade waste agreements, and these users include the Nelson City and Tasman District Councils.

The NRSBU receives wastewater from three domestic catchments, through 24 km of rising mains including five major pumpstations, and one septage reception facility, and treats this wastewater through the Bell Island WWTP. Biosolids from the WWTP are disposed of beneficially to Moturoa/Rabbit Island as fertiliser for the pine plantations there.

NRSBU is in general support of the intended outcomes of the proposed Wastewater Performance Standards and agree it is an important opportunity to support the development of nationally consistent baseline standards and design solutions for Wastewater Treatment Plants, however as currently written the standards will result in a minor decrease in consenting costs for NRSBU but will also result in significant (tens of millions of dollars) increase in costs to upgrade the well performing Bell Island WWTP to comply with standards. These significant costs would all be borne by rate payers and local businesses.

This feedback is specifically provided by the NRSBU on the effects of the proposed standards on its operations (i.e. the Nelson Regional Sewerage Scheme only), not any of the networks operated by Nelson City Council or Tasman District Council. The feedback provided here should be read in conjunction with the feedback separately provided by Nelson City Council and Tasman District Council. In no circumstances should this feedback be considered a response by either Council in their capacity as a Regulatory Authority.

NRSBUs Goals and Aspirations

NRSBU acts to provide a service for its community with the following mission statement:

Resilient, reliable, and effective infrastructure that supports and protects our community and environment.

Area	Goal
Our approach	Implement and operate infrastructure considering the needs of our community. Our priorities for this are protection of public health, the environment, and cultural values.
Our Vision/Ambition/Aspiration	We will work towards the beneficial reuse of resources.
Our conduct	We will undertake our activities transparently, fairly, respectfully, in a timely manner and we will provide regional infrastructure leadership.

As part of this Mission NRSBU has actively promoted the development of the draft Regional Wastewater Philosophy project which helped build understanding of a Te ao Māori perspective and articulated shared objectives and outcomes for the management of wastewater with Tasman District Council and the Eight Te Tauihu Iwi. NRSBU invited other stakeholders to join in this process.

In addition to the Regional Wastewater Philosophy, NRSBU has also developed a Draft 50 Year Master Plan specifically for its services using an adaptive pathway process.

As part of the above processes NRSBU has actively worked to adopt additional discharge to land, and wastewater reuse options, with a goal of reducing wastewater discharge to water.

NRSBU is concerned the direction of the wastewater performance standards will undermine the significant shared progress made between Te Tauihu iwi, and NRSBU.

Feedback

NRSBU provide the following feedback on the proposed wastewater standards:

- Responses to selected consultation questions posed in the Discussion Document
- Other comments.

GENERAL

Do you agree with the areas the first set of standards are proposed to cover?

Our understanding is that the proposed national standards are intended to reduce the costs associated with Resource Consents for wastewater treatment plants.

While NRSBU believes that this would be a good outcome, our opinion based on a review of the consultation documentation and technical reports is that this ***will not be achieved*** **with the proposed standards** *and would need the national standards to encompass all* consents required for a facility.

The consequence of the national standards as they are proposed is not expected to reduce consenting costs significantly, but will result in significantly larger costs for upgrading facilities and will result in significant additional costs for operating and maintaining these more complex facilities.

Our initial assessment when considered against the future of our Bell Island wastewater treatment plant are:

- *That the proposed systems and national standard will not mitigate many of the issues associated with wastewater treatment consenting process (cultural concerns associated with discharge to water, and land use, sea level rise and odour, and therefore will not significantly reduce the cost of consenting the wastewater facility.*
- *That the proposed systems and national standard will require significant (tens of millions) of dollars of upgrading costs to meet the required standard associated with estuarine discharge. This seems counterproductive when scientific evidence shows that the current outgoing tidal discharge method has resulted in no significant adverse*

  environmental effects over the 40 years the Bell Island wastewater treatment plant has been operating.
- *That the current national standards proposed will encourage Territorial Authorities to prioritise the development of High Dilution Ocean discharges as these will likely have low ongoing operational costs.*
- *That the proposed systems and national standard will significantly increase the cost*

  associated with the operation of a much more technically complex wastewater treatment plant required to meet the estuarine discharge standard.

Significant gaps exist between the discharge consent covered by the national standards and the range of additional consents needed for operation of wastewater infrastructure, which could result in TAs imposing reduced consent terms for infrastructure outside of the proposed national standards. This could in some circumstances result in 'stranded assets' –

e.g. a WW treatment plant that has no consents for the outfall or incoming pipework located in marine areas.

What areas should we prioritise to introduce wastewater standards in future?

- *Wastewater standards around use of recycled water (e.g. highly treated wastewater)*

  would provide pathways for re-use opportunities such as use on sports fields, within new or existing subdivisions etc. Clarifying requirements to enable wider re-use opportunities should also be considered (e.g. on-site reuse at WWTPs, dust-suppression, re-use by a third party)
- *Some method for regulating what is an acceptable peaking factor on wastewater*

networks, and a method for ensuring that TAs are improving their performance against this. This may be intended to be captured within proposed Wastewater Risk Management Plans, however, at present this is unclear.

- *NRSBU provides services for the community, our discharge is covered by Consents, however the networks we receive wastewater from are not governed by NRSBU and NRSBU has to respond to excessive peaking factors associated with Inflow and*
  Infiltration. At present there appears to be no mechanism in the national standards that requires TAs to achieve a particular standard with the Network (e.g. a peaking factor of six time ADWF)
- *Managing this issue would substantively change the number and size of network overflows to the environment, reduce the adverse effects from WWTP discharges*
  including the number and size of bypasses, and would significantly reduce the cost for physical infrastructure development.
- *Occupation of coastal marine areas (e.g. pipes, discharge diffusers etc) – this is outside of current standards so theoretically could have a resource consent issued with a term that does not match the discharge to water consent.*

What topics should we cover in the guidance material to support implementation of the standards?

Clarity of the procedure associated with consent for an existing WWTP (e.g. once a party obtains a new consent under the standards, does that party have a certain timeframe to carry out any required upgrades to be able to meet the standards)?

Currently the normal RC practice is to allow for a period of time for upgrades etc to be implemented following the issue of the consent. This allows infrastructure owners to design and implement treatment upgrades to meet the consent standards once these are known. Whilst the consent standards would be set for some performance parameters there is currently no indication if these must be complied with from the start of any new consents, or if a transition period would be provided for to allow any upgrades or changes to be completed.

Further to the above there are a number of parameters which sit outside of the proposed standards – NRSBU understands consent limits for these would be set as part of the RC process as is currently completed. If compliance with the new WW standards is required from day one, then there is a risk for infrastructure owners and operators that significant expenditure may be incurred to comply with the new WW standards through upgrades, only to have RC conditions for non-standard parameters imposed through the RMA process that would require changes to recently upgraded processes to ensure compliance – resulting in significant additional expenditure. Consideration of these types of scenarios, and guidance around how Consenting Authorities and infrastructure owners can work through this interface is critical.

How should factors such as climate change, population growth, or consumer complaints be addressed when considering a 35-year consent term?

As the WW standards are set then compliance is required regardless of the impact of climate change or population growth. In effect the asset owners would have to either a) incorporate the reasonably foreseeable increases in flow & load (through climate change and/or population growth) in their infrastructure design prior to implementation of the resource consent, or b) develop an adaptive management style plan to allow for process upgrades and capacity increases throughout the life of the asset as demand increases.

Either way the provision of a 35 year term provides certainty for the asset owners to develop appropriate investment plans to deliver on the requirements of the standards, as well as certainty to allow reasonable asset life assumptions when considering the financial implications of depreciation to ratepayers.

The exception to this would be how the consent terms and standards manage changes within the definitions of plant size – e.g. if during the term of a consent a 'small' treatment plant was no longer considered as such. Clear requirements need to be considered.

As asset owners need to consider the location of assets in relation to climate change (e.g. sea level rise, flood hazards, etc), it would seem unlikely that inappropriate site selection would be a factor that the standards would need to consider.

Due to the 35 year proposed length of consent, it is highly likely that the interface point between wastewater infrastructure and neighbours will continue to change as communities grow and urban areas continue to expand. Standard conditions for other discharges associated with wastewater treatment plants, (e.g. discharges to air) would clearly set expectations for asset owners, as well as the territorial authorities as urban expansion progresses.

DISCHARGE TO WATER

How should we consider checks and balances to protect against situations where the degree of microbial contamination may change throughout the duration of a consent.

All discharges should have a mechanism included that require determination of whether harm is occurring or is likely to occur to the environment and should also have a risk based assessment on the risk from the discharge to human health. This could include monitoring for signs of adverse effect or risks and could also involve Quantitative Microbial Risk Assessments being undertaken. While QMRA is relatively expensive, if it is set up at the start of a consent period, then it should be relatively cost effective to review the QMRA every say 5 or 7 years to confirm if the QMRA is still valid or if it needs to be updated (e.g. to reflect change in network, plant operation or receiving environment) to confirm if the human health risk has not significantly changed. It is important to focus on the fact that the core function of wastewater treatment facilities is to treat wastewater to avoid public health issues, and to avoid adverse effects on the environment. Having sufficient data and a way of checking these risks systematically with appropriate frequency ensure that the facility achieves this function.

Are the areas for exceptions appropriate to manage the impacts of discharges and do you anticipate implementation challenges?

- *NRSBU currently interprets that the treated wastewater discharge from the Bell Island facility would fall in the 'estuaries with dilution ratio >50' receiving environment category under the standard. However, NRSBU does not consider that the current definition for the estuaries category considers the specific situation undertaken at the Bell Island Wastewater treatment facility. The Bell Island facility only discharges for a short duration on the outgoing tide so that the wastewater is flushed out into Tasman Bay and does not circulate inside the Waimea Estuary.*
- *NRSBU currently interprets the national standards proposed for discharges into estuaries to mean that the Bell Island Wastewater treatment plant would need to have significant upgrades (tens of millions of dollars in cost) to meet the estuarine discharge standard despite NRSBU investigating the effects and having scientific evidence that after 40 years of discharge that no significant adverse effects have occurred.*
- *On this basis it is highly recommended that if a treated wastewater discharge does not meet the relevant discharge standard (for water or land), the asset owner apply for a resource consent via the 'conventional' consenting pathway and that consent may be granted (i.e. as* proposed for exceptions). This would allow for site specific treated wastewater discharge *quality sufficient to ensure no more than minor adverse effects occur to the environment,* and that the risk to human health is protected to an appropriate degree. i.e. (QMRA).

How should the exceptions be further defined to ensure there are no unintended consequences?

Scientific evidence should be required to demonstrate any 'exceptions' do not result in more than minor effect. This is particularly relevant to existing facilities that have been operating effectively for many years.

Are the treatment limits, and monitoring and reporting requirements proportionate to the potential impacts of the different discharge scenarios?

NRSBU considers that the discharge scenarios are too generic. For example, the Bell Island WWTP (operated by NRSBU) has been discharging to the Waimea Estuary since the 1980s. All monitoring has determined that the treatment plant discharge does not have a detrimental effect on the environmental health of the Estuary. The current discharge scenarios do not consider the different types of estuaries, nor the discharge mechanism or timing of the WWTP discharge to the estuary. In the case of Bell Island, the Waimea Estuary is extremely tidal, and almost completely empties with every tidal cycle. The Bell Island WWTP discharges to one of the main tidal channels of the Estuary for the first 3 hours of each outgoing tide only. This results in the WWTP discharge being carried directly out to Tasman Bay (where monitoring has also demonstrated no detrimental environmental effects). The proposed discharge scenarios will require a significant alteration to the WW treatment processes employed at the Bell Island WWTP, at significant cost to local rate payers, with likely no measurable benefit to the receiving environment – in fact the current proposed standards would allow the WWTP to discharge continually, resulting in effluent (even if significantly better treated) being carried back into the wider Estuary on incoming tides, which NRSBU considers an inferior outcome for the community and the environment.

What benefits and challenges do you anticipate in implementing the proposed approach? Are there particular matters that could be addressed through guidance material?

See response to previous question.

DISCHARGE TO LAND

Are the proposed parameters appropriate to manage the impact of wastewater discharges to land?

The parameters fail to recognise the use of deficit irrigation. The Bell Island WWTP has been applying treated wastewater seasonally to low lying land adjacent to the plant for almost 20 years. The receiving environment is well monitored, and no significant adverse effects have been found.

The NRSBU recognises the importance of protecting the fresh and marine water bodies of the region and supports the stance of many parts of the community, especially mana whenua, of preference of land disposal rather than disposal to water. The land discharge parameters seem at present to exclude large areas of land that can (and do) safely support land disposal when managed properly.

Given the limitations already faced when determining suitable land for wastewater disposal, the proposed factors considered in the site-specific assessment for potential discharges to land – in particular depth to groundwater – will result in significant additional treatment requirements plus development and operational cost. The factors as they stand will *discourage network owners and operators from considering land discharge as an alternative* or supplementary disposal method to discharge to water.

Overall, NRSBU supports in principle a risk-based approach to discharging treated wastewater to land, which considers varying ability of different receiving environments to assimilate treated wastewater sustainably and effects of discharges on underlying groundwater and connected surface water. For 'mix-and-match' situations, it also supports assessments being carried out for the period when discharge to land (and water) is

occurring. However, it seeks that as part of developing the site-specific assessment

framework (including the site capability categorization) for the adopted standard, the definitions for each factor and category are refined, with consideration given to a wider

range of site conditions (e.g. shallower groundwater depths and setbacks) and the standard recognizes the use of deficit irrigation.

NRBSU does not support setting a blanket maximum hydraulic loading rate for treated wastewater discharge to land, rather seeks that the maximum rate is set on a case-by-case basis. See previous comment under Discharge to Water about using a 'conventional'

consenting pathway if the discharge to land standard cannot be meet.

What benefits and challenges do you anticipate in implementing the proposed approach? Are there other particular matters that could be addressed through guidance material?

See response to previous question.

Are the monitoring and reporting requirements proportionate to the potential impacts of the different discharge scenarios?

The requirement to engage third party auditing of compliance will add additional costs. In the case of the Bell Island WWTP the disposal to land activity has been undertaken for many years, with compliance reported and monitored as per existing consents without requirement for auditing.

NRSBU also seeks that monitoring and reporting requirements under the discharge to land standard reflect the scale of the wastewater scheme and consider 'mix-and-match' situations, where treated wastewater is discharged to land sometimes otherwise is discharged to water.

BENEFICIAL REUSE OF BIOSOLIDS

What should the permitted activity standards include?

NRSBU does not support the unrestricted discharge of A1 biosolids to land, specifically where such discharges would enable contaminants to enter surface or groundwater directly or where discharge would occur to areas of high ecological and biodiversity values. The impact to areas of heritage, archaeological or Māori cultural value should also be considered.

How should contaminants of emerging concern in biosolids be addressed in the short-term?

- *NRBSU supports the standard referring to international evidence for land contamination from parameters of emerging concern (e.g. PFAS). This includes looking at work in USA to understand any adverse effects and ensure it doesn't happen in NZ.*
- *Disposal/reuse needs to avoid the ability of it leaching to groundwater or getting into the food chain.*
- *Understanding what, if any, effective treatment options there are for contaminants of emerging concern such as PFAS is a current research area.*

OVERFLOWS AND BYPASSES

Is the current definition of overflow fit-for-purpose, and if not, what changes do you suggest?

The definition of overflow fails to provide a required performance standard required to be achieved (or a system designed to achieve) prior to overflow. Under the current definition a network owner/operator could design their WW system to only convey flows seen through an annual return rainfall event, with everything else overflowing. This seems to fail to meet the intent of wastewater systems in safely conveying, treating, and discharging wastewater in a manner that reduces risk to public health.

As the definition stands it does not encourage network operators to target and reduce inflow & infiltration, simply to engineer overflow points.

It also removes the ability for the community served by the wastewater systems to determine the level of service they are willing to pay for – i.e. what is important to them.

Addition of either a maximum peaking factor for networks, or minimum ARI, would provide a required level of service.

Does the proposed definition of bypasses adequately cover these situations, and if not, what changes do you suggest?

In line with feedback provided for the 'overflow' definition the definition proposed for bypass fails to incorporate a minimum required standard. In effect it allows network owners/operators to undersize the WW treatment plant, by designing plants to manage much smaller flows than may be received, either as part of normal diurnal flows, or in response to increase flows due to rainfall.

Addition of a required minimum WWTP design treatment flow percentile would define a level of service for network owners/operators to achieve, however this should take into consideration of maximum network flows, as detailed in the response to overflows.

What should be covered in guidance to support developing wastewater risk management plans?

- *The Risk Management Plans should not only deal with mitigating the risks associated with overflows, but also seek to reduce the likelihood of the overflows occurring in the first*
  place. At present the proposal reads more along the lines of an 'ambulance at the bottom of the cliff.'

Do you support setting all wastewater network overflows as controlled activity?

- *Yes, this is supported but only if the conditions include the responsibility to quantify the number and scale of the overflows. The conditions should also include the responsibility to mitigate harm from the overflow and should have a responsibility to upgrade the network to either increase capacity or reduce the inflow and infiltration if the network does not meet certain performance requirements.*
- *Any controlled activity should only be available for networks that are demonstrated to have appropriate inflow and infiltration levels. For example, if a network has a peaking factor of six then the network would be considered to have a reasonable peaking factor, and any overflows would be related to unusual or emergency issue. Whereas if the network has a peaking factor of more than six then the network is not a good network, and the network owner should be obligated to have a plan to reduce the peaking factor back to six.*
- *Consideration should be given to charging a fee for overflows, which are ringfenced within budgets for use in investigating and resolving Inflow and Infiltration issues.*

OTHER COMMENTS

- *As noted earlier, NRSBU is concerned the direction of the wastewater performance standards will undermine the significant shared progress made between Te Tauihu iwi and NRSBU. There are potential adverse implications for existing relationships and potential conflict with Te Ao Māori perspectives.*
- *NRSBU supports a compulsory 35-year term for all consents issued under the standards, including discharge permits for discharging treated wastewater to land or water, where those discharges comply with the wastewater performance standards. This provides greater certain on investment.*
- *NRBSU seek clarity on activity status for discharges complying with the standards. NRSBU support activities that comply with the standards having controlled activity status. However, if controlled activity status is removed from new resource management legislation as proposed by the Expert Advisory Group on Resource Management Reform, would discharges complying with the national standards become restricted discretionary instead?*
- *NRSBU seek clarity on activity status for discharges where the standards are not applied (i.e. alternative consenting pathway; still aligned with standards just do not use the numeric limits)*
- *NRSBU request further clarity on aspects that regulators will have control over (i.e. what they could introduce alongside standards, e.g. volume controls)*
- *NRSBU request more detail on how any future changes to standards would be fed in to discharge consents, and the process for revising/reviewing the standards at a national scale.*
- *NRSBU seek clarity on proposed end-of-pipe wastewater monitoring. Continuous on-line monitoring is not available for all proposed parameters, is not accredited, can be challenging to calibrate, and maintain to provide reliable results, particularly for WWTPs with a significant industrial load component. The alternative of fortnightly 24-hour composites referred to in the supporting technical information that informed the discussion document is also not appropriate for all parameters. NRSBU currently is required to conduct fortnightly compliance monitoring, with analysis carried out using an accredited laboratory under the current consent for Bell Island WWTP.*

Please feel free to contact us should you wish to discuss any of the feedback provided here. Yours sincerely

Nathan Clarke
General Manager – Regional Services, on behalf of the Nelson Regional Sewerage Business Unit