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

Date:	**Friday 8 December 2017**
Time:	**9.30 am**
Meeting Room:	**Tasman Council Chamber**
Venue:	**189 Queen Street**
	Richmond

Nelson-Tasman Regional Landfill Business Unit

AGENDA

MEMBERSHIP

Members	Cr S Walker
	Cr I Barker
	Cr S Bryant
	Cr K Maling

(Quorum 2 members)

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

Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted.

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-Tasman Regional Landfill Business Unit meeting held on Friday, 15 September 2017, be confirmed as a true and correct record of the meeting.

6 PRESENTATIONS

Nil

7 REPORTS

7 REPORTS

7.1 NELSON TASMAN REGIONAL LANDFILL BUSINESS UNIT GENERAL MANAGER'S REPORT

Decision Required

Report To:	Nelson-Tasman Regional Landfill Business Unit
Meeting Date:	8 December 2017
Report Author:	Jeff Robinson, General Manager
Report Number:	NTRLBU17-12-01

1 Summary

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

2 Draft Resolution

That the Nelson-Tasman Regional Landfill Business Unit

1. **receives the Nelson Tasman Regional Landfill Business Unit General Manager's Report; and**
2. **approves the Draft Business Plan 2018/2019, which will be forwarded to each Council to be used in their community consultation process.**

3 Purpose of the Report

3.1 This report provides the three-monthly update on activity for the NTRLBU.

4 Health and Safety

4.1 There have been no Health and safety incidents to date.

5 Operations Report

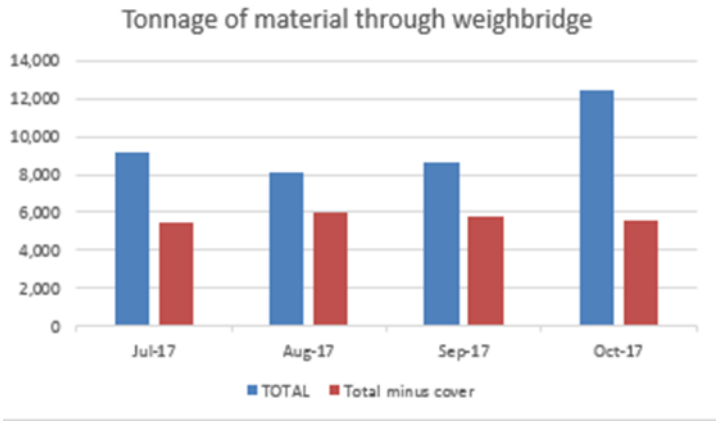
Finance report on trading to date

5.1 Attachment A is a set of financial reports up to the end of October 2017 including:

- Financial Report for the period to 31st October 2017
- Balance Sheet as at 31st October 2017
- Notes on the Financial Report
- Post closure cost provision report

Landfill O&M

5.2 Record of landfill disposal tonnages [York Valley]



5.3 Residual waste tonnages are tracking well ahead of budget projections. Analysis of waste trends suggests that this is a structural change associated with increased activity in the construction industry.

5.4 Significant tonnages of cover material were brought into the landfill to facilitate the construction of the toe embankment. (The toe embankment is constructed once a three meter lift has been completed).

5.5 The landfill policy allows the RLBU to accept material suitable for landfill construction at no charge if such material is required and available.

5.6 Unfortunately, this graph does not show construction waste that is disposed of at the transfer stations, but it does provide a general idea of the waste trends associated with construction activity in our region. The only other class of residual waste that shows an increase is sawdust that has more than doubled since 1 July 2017.

5.7 There is significant volatility in the tonnages of residual waste being disposed of at York Valley and the major "growth" categories are construction related and sawdust. Other categories appear to remain reasonably consistent. We think that this change in waste trends may be "seasonal" and linked to the current regional level of building and construction.

5.8 All indications are that the dewatered sludge from the Nelson Wastewater Treatment Plant will start coming into York Valley during December.

5.9 These two waste streams will result in a significant increase in revenue.

York Valley

5.10 Landfill costs are currently tracking well ahead of budget. This is an effect of the scheduled contractor rates. This results in increased cash flow for the contractor during the first half of the year, a drop during the next few months and then an acceleration once the total tonnage received exceeds 60,000 tons.

5.11 The most recent landfill survey has shown that there is airspace available until at least 2029. (However, there are caveats to this. Growth, policy, waste minimisation intervention, improved compaction and other diversions such as development of special waste landfills).

5.12 The exposed faces and benches have been hydro seeded to help reduce the amount of sediment entering York Valley stream. The slip on the east side bench has been cleared and vehicle access improved. Tonkin & Taylor believe that the water that was found to be present is due to the level of rain we received earlier this year. We are waiting on the CCTV footage to confirm the status of the storm water pipes.

5.13 The lay flat hoses used to direct storm water along the eastern side of the landfill have been damaged and will probably need to be replaced. Investigations show that the pipes are damaged due to high flow velocities and the inability to keep gravel out of the system. The cost to replace these pipes is estimated at approximately $18,000.00.

5.14 Pioneer energy are finding significant increase in condensation collected at their blower. We undertook investigation and believe the issue is due to increased demand from the hospital.

Eves Valley

5.15 The access road to the borrow pit and forestry block has been constructed. The forestry loggers have cleared approximately 60% of their trees.

5.16 The landfill cap design completed by Stantec was approved and forwarded to FH to price for this work. Following an evaluation of the FH proposal, a decision will be made if this work is approved as a variation to their current contract.

5.17 The capacity of the leachate pipeline has decrease significantly. A condition assessment of the pipeline is underway and a local supplier of bio-remediation organisms has been requested to assist with the condition assessment. His calculations suggest that the problem in the pipeline is a result of growing organisms inside the pipeline rather than a deposit of silt.

5.18 A leachate break out that occurred on the front face of stage two has been remediated. It is considered that the capping of the landfill will improve this situation in future, as the leakage outbreaks are associated with rainfall events.

Resource Consents and Monitoring

5.19 The York Valley landfill Annual Monitoring Report was received from Tonkin & Taylor and has been forwarded for a peer reviewed by Stantec. Our initial reading is that the landfill complies with all consent conditions.

5.20 Tasman District Council applied for replacement resource consents for the Eves Valley landfill for landfill operations in March 2015. This application was put on hold as the regional landfill proposal was considered by the Councils. Stantec were engaged earlier this year to update the Eves Valley Resource consent application to reflect the changed status of the landfill. Stantec have prepared an addendum to the consent application and an updated Landfill Management Plan. Staff are reviewing these documents and plan to meet with Stantec and Tasman District Council resource consent staff in December and submit the documents in January 2018.

6 Joint Landfill Asset Management Plan (AMP)

Update on the development of the AMP

6.1 Stantec has been engaged to assist us develop our first joint AMP.

6.2 The following is a draft layout of the AMP contents page – for information.

Draft Table of Contents

Executive Summary

1. Introduction (why we need a Plan)
2. Levels of Service (What we provide)
3. Future Demand (Planning for the future)
4. Lifecycle Management (How we provide the service)
5. Risk management Plan (Dealing with uncertainty)
6. Focus Areas
    - Optimise procurement of landfill operation and management services

- Optimise landfill cover
- Long Term Strategy for Stormwater Management
- Optimise Landfill Gas Harvesting

7. Financial Summary (What it will cost and how we pay for it)
8. Asset Management Practices
9. Plan Improvement and Monitoring (what we're doing to improve)
10. Appendices

Appendix A - Site Plans

Appendix B - Legislative Requirements

Appendix C - Risk Register

Appendix D - Opex and Capex Details

Appendix E - Resource consents conditions

The role of the NTRLBU in the Joint Waste Minimisation & Management Plan [JWMMP]

6.4 Our core business is to ensure that the region has continual access to a landfill that is well managed and operates within its' resource consent conditions. We are a key stakeholder in the regional management of the regional solid waste stream and we should have a view on what input (if any) we wish to consider forwarding to the special sub-committee that has been tasked to review and present the JWMMP to both Councils for ratification. Discussion required.

Our Operating Account

6.5 Our Deed of Agreement requires us to operate a closed business account. We are required to pay any operating surplus as a 'solid waste rebate' (or to apportion any operating deficit) at the conclusion of each operating year in the proportions 50% to Nelson and 50% to Tasman.

6.6 For discussion – our preference will be to set landfill disposal charges that remain relatively stable and if possible only increase with inflation when required – as opposed to going up or down each year depending on the next year's budget forecast. A mechanism to achieve this is to set aside a provision in the annual budget to provide better price certainty in the market. We propose something like this:

6.7 A waste stabilisation fund may be used at the end of a financial year if required to allow for annual budget fluctuations when setting the annual schedule of charges. The fund will have a limit that will be agreed between the Councils and the NTRLBU and will be funded by any available operating surplus.

6.8 Our future Joint Landfills long term Operations and Maintenance contract is due to be tendered to commence in July 2019. Having a contract in place that incentivises all parties to do the right thing is important. Some early thoughts will be shared at this meeting.

7 NTRLBU Business Plan

7.1 Attachment 4 is a copy of a Drat Business Plan. We would have preferred to have been further ahead with the development of our AMP therefore this draft is presented with an option to amend it if required when we finalise the first AMP.

7.2 There are two key financial amounts in the draft Business Plan which both Councils need to include in their LTPs which will be open to community consultation namely:

- The 2018/2019 Landfill Schedule of Charges
- The 2018/2019 Local Disposal Levy to each Council

7.3 The background to the financial summary is provided in Attachment 5, which is a Draft 30 year financial forecast.

7.4 Supporting Information for the Long Term Plan 2017 is provided in Attachment 6.

7.5 We wish to discuss holding a workshop early in 2018, before our next scheduled meeting, to work through all of the sections in the AMP. This will set the strategic direction for the joint landfills.

8 Attachments

Nelson Tasman Regional Landfill Business Unit
Financial Report
Income Account for the period to 31st October 2017

	Actual Month	Budget Month	Actual YTD	% YTD	% Year	2017/18 Budget YTD	2017/18 Budget Annual	YTD Variation
Income								
Landfill Fees	681,857	605,878	2,614,816	108%	36%	2,423,512	7,270,535	191,304
Other recoveries	4,394	4,757	15,973	84%	28%	19,030	57,090	(3,057)
Interest	6,864	7,702	27,456	89%	30%	30,806	92,418	(3,350)
Total Income	693,115	618,337	2,658,244	107%	36%	2,473,348	7,420,043	184,896
Less Expenses								
Staff time	20,100	19,586	77,782	99%	33%	78,338	235,015	(556)
York Valley Expenses	206,648	209,998	878,729	102%	34%	861,338	2,584,013	17,391
Eves Valley Expenses	22,543	20,947	129,652	155%	52%	83,790	251,371	45,862
Aftercare provision	6,759	5,337	27,036	127%	42%	21,349	64,046	5,687
Aftercare Value adjustment	-	-	700,893			700,893	700,893	0
Eves Valley Aftercare	93,165	51,203	108,608	53%	18%	204,813	614,439	(96,205)
Interest	-	774	-	0%	0%	3,098	9,293	(3,098)
Aftercare cost funding	(93,165)	(64,042)	(108,608)	42%	14%	(256,166)	(768,499)	147,558
Total Expenses	256,050	243,803	1,814,092	107%	49%	1,697,453	3,690,571	116,639
Net Surplus before levy	437,065	374,534	844,152	109%	23%	775,895	3,729,472	68,257
Local Disposal Levy	319,271	319,270	1,277,083	100%	33%	1,277,084	3,831,250	(1)
Net Surplus after Levy	117,795	55,264	(432,931)			(501,189)	(101,778)	68,258

Attachment 1

Nelson Tasman Regional Landfill Business Unit

Balance Sheet as at 31st October 2017

	Current	Last Month	1 July 2017
Equity			
Contributed Equity 1 July	8,805,257	8,805,257	8,805,257
Plus Net Income	(432,931)	(550,725)	
Closing Equity	8,372,326	8,254,531	8,805,257
Which was invested as follows -			
Current Assets			
NCC Current Account	922,981	854,006	-
Debtors	4,394	4,514	-
NZETS units	692,000	692,000	692,000
Total Current Assets	1,619,375	1,550,520	692,000
Fixed Assets	8,027,005	8,048,567	8,113,257
Investments	3,263,947	3,257,083	3,236,491
Total Assets	12,910,327	12,856,171	12,041,748
Less Liabilites			
Current Liabilities			
Sundry Crediotrs	682,188	659,420	-
NCC Current Account			
Total Current Liabilities	682,188	659,420	-
Term Liabilities	3,855,813	3,942,219	3,236,491
Net Assets	8,372,326	8,254,531	8,805,257

Nelson Tasman Regional Landfill Business Unit

Notes on October 2017 Financial Report

Summary

The year to date deficit of $433,000 is largely due to the $700,000 Aftercare Provision adjustment on 1 July. Since then the landfill has made operating surplus's totalling $267,000 due to higher than budgeted volumes being received.

Income

Landfill fees - running $191,000 ahead of budget due to increased volumes being received (22,953t compared to budget of 20,500t for 4 months).

Other recoveries – Gas sales and Electricity recoveries.

Interest – This is interest on the post closure funds invested with the two Councils.

Expenses

York Valley Expenses – YTD actual of $879,000 is $50,000 ahead of YTD budget and includes –

- Operational contract which at $232,000 is $18,000 ahead of budget due to the schedule rates for the increased volumes being above budget. These rates will decrease during the second half of the year until 60,000 tonnes is reached. Also there has been additional charges for handling contaminated and hazardous waste.
- Waste minimisation Levy to MoE at $229,000 is $24,000 ahead of budget due to the increased volumes.
- Toe bank maintenance not commenced yet $30,000 budget for 4 months
- ETS levy provision at $315,000 is below budget by $30,000 as the first six months of the year are at a lower Emissions factor rate than the second half of the year.
- Depreciation
- Resource Consent compliance, Electricity and other minor expenses

Eves Valley Expenses – Actual of $130,000 is $46,000 ahead of YTD budget due to unbudgeted operational costs for receiving waste in July and dealing with the July weather event.

Aftercare provision – This is a provision for the cost of aftercare allocated to the current waste received.

Aftercare Value Adjustment – This is the adjustment necessary as a result of the two landfill's being combined on 1 July and the time till closure is reduced as outline separately.

Eves Valley Aftercare – These are post closure costs that have been incurred to date and are funded from the provision account.

Interest – This is the cost of working capital funding which was budgeted for but has not been necessary.

Local Disposal Levy – This is the agreed amount paid to the two Councils to fund their waste activities.

Balance Sheet

NCC current account – This represents the landfill's net transactions to date. It's mostly made up of October sales. It also includes cash surplus to date less creditors owing in NCC's books.

Debtors – This is an accrual for Gas sales and Electricity recoveries for October.

NZETS units – This is 40,000 units inherited from the two Councils towards meeting our emissions liability.

Fixed Assets – This is Land, improvements and Infrastructure and other long term Assets of the Business unit.

Investment – This is the investment of the Post Closure Cost provision. The investment two equal interest bearing loan to the two Councils.

Sundry Creditors – This is largely a provision for ETS Levy of $315,000 for the 4 months to October which will be payable by surrendering NZETS units in April 2018 and accounts owing to MoE and TDC which hadn't been processed by NCC in October.

Nelson Tasman Regional Landfill Business Unit

Post Closure Cost commentary

1.1 Landfills are different from most service delivery assets in that significant costs are incurred to close and maintain the landfill after they have reached the end of their economic life. To ensure intergenerational equity these costs need to be recovered from the users of the landfill over its operational life.

1.2 This is achieved by estimating the post closure costs at current costs, then inflating those costs by the inflation over the estimated period when the costs will be incurred. This liability is then valued at Net Present value (NPV). Net present value is the amount needed to be invested at the current time that will deliver the required amount when it is to be spent. This is a requirement of the current accounting standards. The significant estimations are –

1.2.1 The cost of closure

1.2.2 The cost of aftercare

1.2.3 Time of closure

1.2.4 Length of time aftercare required

1.2.5 Inflation rate

1.3 The liability is recognized at the start of a Landfill's life and written off during the useful life of the landfill based on the Volume of the landfill consumed in each year.

1.4 Each year the liability is revalued as a result of changes to the estimates in 4.2 above especially the time to the closure of the landfill. This change is recognized as an expense during the year.

1.5 At 30 June 2017 the two councils valued the estimated post closure cost liability of Eves Valley stage 2 (EV) and York Valley Gully 1 (YV) based on their standalone operational life.

1.6 No liability is recognized for Eves Valley Stage 3. This will commence when the landfill is opened

1.7 On 1 July 2017 the post closure costs liability for these two landfills was assumed by the Regional Landfill Business Unit and revalued based on EV not accepting any more waste and YV taking all the regional waste. This reduced the estimated period to the expected post closure costs by 1 year for EV and 12 years for YV. As a result the estimated amount needed to be provided at 1 July to meet the costs in the reduced time period increased by $700,893.

1.8 At 30 June 2018 all the assumptions in 4.2 above will be reviewed particularly in light of the costs incurred in closing Eves Valley, a recalculation of the time available as a result of recalculating the airspace available and annual volumes expected to be received. This will result in an adjustment in the total provision movement for the year.

1.9 The main risk in post closure cost liability valuation is the significant reliance on estimates in calculating the valuation (see 4.2 above) and the length of time over which costs will be incurred. Ultimately this risk is born by the owner(s) of the landfill.

Draft:

Nelson Tasman Regional Landfill Business Unit

BUSINESS PLAN

2018/19

NTRLBU BUSINESS PLAN 2018/19

APPENDICES

Prepared by: Johan Thiart
Senior Asset Engineer – Solid Waste

Approved by: Jeff Robinson
General Manager

NRLBU Approved:

Cover photograph: Toe Embankment York Valley

1. PURPOSE

The purpose of the Nelson Tasman Regional Landfill Business Unit Business Plan 2018/19 is to detail management goals and objectives to ensure that there is a sanitary landfill available in the Nelson Tasman region.

2. TERMS OF REFERENCE REQUIREMENTS

The Terms of Reference states that the Nelson Tasman Regional Landfill Business Unit (NTRLBU) Joint committee shall by 31st October each year supply to the Councils (Nelson City and Tasman District Councils) a copy of its draft Business Plan for the management of the NTRLBU and the assets for the ensuing year (This requirement was waived for the first year by agreement with the Chief Executives of Nelson City and Tasman District Council). The final plan Business Plan must be presented by the 31 of May.

The Terms of Reference was signed on 28 April 2017 and shall be reviewed if and when required.

3. INTRODUCTION

This Business Plan 2018/19 outlines the projects and initiatives to be implemented during the year. It also outlines the associated funding required and the details on the performance targets and measures.

The Business Plan is aligned with the NTRLBU Strategic Plan and the NTRLBU Landfill Asset Management Plan 2018. It incorporates the business objectives and performance targets (Section 7) and the 3 year financial forecasts (Section 9).

The Joint committee activity schedule and levels of service are appended.

Appendix A – Joint committee Activity Schedule;

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

4. MISSION STATEMENT

The NTRLBU's mission statement is:
"To plan for the future needs of the community in a cost efficient and environmentally sustainable manner in accordance with the objectives of the Joint Waste Plan."

5. STRATEGIC GOALS

The NTRLBU aspire to achieve the following goals:

- Provide sanitary landfill capacity for the needs of the Nelson Tasman region.
- The costs of disposal of residual solid waste are affordable.
- Risks associated with the activity are identified and mitigated to a level agreed with the owners.
- We engage the right people with the right skills and experience.
- NTRLBU operates sustainably and endeavours to remedy or mitigate any identified adverse environmental, social and cultural impact.
- Good relationships are maintained with all stakeholders.
- All statutory obligations are met.

The NTRLBU functional activities are managed by the Nelson City Council and therefore the NTRLBU 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. NTRLBU BACKGROUND

The NTRLBU was established in April 2017 and started operating on 1 July 2017.

The Landfill Asset Management Plan was adopted on __ April 2018. A draft of the long term financial plan was adopted on 8 December 2017 and will enable council officers to integrate this into their own long term plans at their discretion.

The Deed of Agreement determines that the NTRLBU will annually agree on the value to be distributed 50:50 to the two councils to fund waste management and minimisation activities in twelve equal monthly instalments and recover this amount from landfill charges.

At the end of each financial year the operating surplus/deficit will be shared equally between the two councils and used exclusively for waste management and minimisation initiatives.

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

Long Term Objectives	Key Performance Measures
Landfill Capacity is available to receive solid waste generated within the Nelson Tasman Region.	
The development of a new sanitary landfill agreed on by the time that the estimated remaining useful life of the current active landfill is five years.	Reporting the available landfill airspace annually.
Levels of service are defined in all contracts and are met.	100% compliance with service level agreements by all major contractors.
The costs of disposal to landfill are affordable	
The cost of disposal to landfill is minimised.	That sum of the landfill surplus/deficit as measured over a five year period does not exceed the value set by the joint committee. (Proposed by officers: $200,000)
The economic lives of all assets are optimised.	Three yearly internal audit of asset management practices confirms this.

Long Term Objectives	Key Performance Measures
The available airspace at the landfill is used efficiently.	Airspace consumption of 1.23m^3 per tonne of residual waste received is maintained or improved.
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.
Risks associated with the services provided are identified and mitigated to a level agreed with owners.	
Risk management plans include all significant health and safety, environmental, cultural, social, economic and contractual risks.	No event, which impacts on agreed levels of service, occurs that has not been identified in the NTRLBU risk management plans.
Contingency plans adequately address emergency events.	Effectiveness of York Valley Landfill Management Plan is reviewed and confirmed following incidents which require activation of the plan.
We engage the right people, with the right skills and experience.	
Those engaged with the NTRLBU have the right skills, experience, and support to perform well.	Annual staff performance reviews include assessment of the skills and experience required in their role in NTRLBU and their development needs are identified and met. The Joint committee reviews its performance at least annually.
Operation and maintenance manuals reflect best practice for the activity are followed consistently.	An internal audit every three years confirms this.
NTRLBU operates sustainably and endeavours to remedy or mitigate any identified adverse environmental, social or cultural impact	
NTRLBU minimises adverse environmental, social and cultural impacts where this is economically viable.	Environmental, social and cultural impacts are considered in all decision making.
Good relationships are maintained with all stakeholders	
Shareholders are satisfied with the strategic direction and the economic performance of the business unit.	All strategic and business plans are approved by shareholders. Budget projections are met.
Good relationships are maintained with all stakeholders including owners, iwi, customers, contractors, neighbours, and the wider community.	All complaints or objections are addressed promptly. All applications for resource consents are approved. Up to date information on activities and achievements are publically available.

Long Term Objectives	Key Performance Measures
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.

8. LANDFILL CHARGES

It is projected that a moderate surplus will be achieved during the 2018/19 financial year if expenditure is maintained within the projected budget at the proposed landfill charges.

The proposed landfill charges per tonne (subject to the effect of increase of Local Disposal Levy) are:

Residual waste: $138

HAIL > 17,000 tonne: $103

HAIL <17,000 tonne: $108

HAIL Residential/tested: $72

Polystyrene: $1,800

The budget includes operation and management discretionary contingencies as follows;

Professional advice: $50,000 (Joint committee discretion)

Re-active Maintenance: $35,000 (General Manager)

Operational: $28,000 (Engineer to the Contract)

9. THREE YEAR RENEWAL AND UGRADE EXPENDITURE FORECAST ($'000)

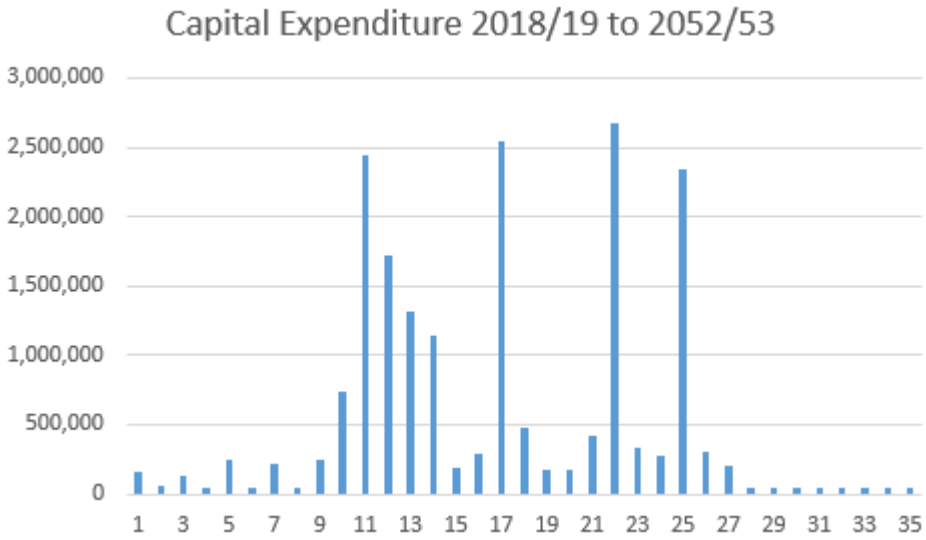
Renewal Plan ($,000)	2018/19	2019/20	2020/21
Piezo monitoring well	18		18
Moveable debris fences	14		
Upgrade vehicle wash	10		
Planting		13	

Storm water control	65		65
Total =	**107**	**13**	**83**

The renewal programme of NTRLBU assets is developed around lifecycle and condition assessment. Condition assessment reports are commissioned where additional information is required to ensure optimal spend on renewals.

A contingency amount of $50,000 is included in the budget for allocation by the Joint committee if required.

10. Long term capital programme



11. FINANCIAL PLAN

Nelson Tasman Regional Landfill Business Unit
Budget Summary for 2018 to 2021

	Projection	Budget		
	17/18	18/19	19/20	20/21
Income				
Landfill income	7,822	8,005	8,025	7,833
Interest	46	108	108	108
Other Recoveries	83	59	59	59
Total Income	7,951	8,172	8,192	8,000
Expenditure				
Operations & Maintenance		1,229	1,229	1,303
Emissions Trading Scheme		1,947	2,129	2,050
Waste Levy (MfE)		676	677	652
Local Disposal Levy		3,831	3,831	3,831
Interest		1	1	1
Insurance		14	14	14
Depreciation		146	146	146
Total Operating Cost	7,491	7,843	8,027	7,977
Surplus/Deficit	460	329	165	3

BUSINESS IMPROVEMENT PLAN

This section describes initiatives to improve the efficiency and effectiveness of the Business Unit and is based on the Nelson Tasman Regional Landfill Business Unit Strategic Plan and referenced to the 2018 NTRLBU Asset Management Plan.

IP	Description	Resource Requirements	Progress
1	Optimise procurement of landfill operation and management services	Internal and consultant	
2	Optimise landfill cover	Internal and consultant	
3	Develop long term strategy for storm water management	Internal and consultant	
4	Optimise landfill gas harvesting	Internal and consultant	

APPENDIX A

NELSON TASMAN REGIONAL LANDFILL BUSINESS UNIT JOINT COMMITTEE ACTIVITY SCHEDULE 2018-19

Date	Activity	Papers required
By 31 August 2018	Review draft Annual Report and Financial Statement.	Draft annual report and financial statement.
By 30 September 2018	Deliver annual financial statement to Councils.	Financial Statement.
By 31 October 2018	Review joint committee planning/meeting timetable. Adopt draft business plan for presentation to Tasman District Council and Nelson City Council. Review and update Interests Register.	Planning/meeting timetable. Draft Business Plan. Interests Register.
By 31 May 2019	Present Annual Report and Business Plan to Tasman District Council and Nelson City Council.	Annual Report and Business Plan.
By 30 June 2019	Review joint committee performance Receive report on Contingency Plan review by customer representatives. Review customer satisfaction survey results Annual review of Strategic Plan Review Audit Management Report	Checklist for joint committee effectiveness. Report on Contingency Plan review by customer representatives. Customer survey report. Strategic plan. Audit Management Report

Appendix B: Landfill Levels of Service Targets

Related Community Outcomes	Strategic Themes	Levels Of Service	Performance Indicators	Method of Measurement	Target
SOLID WASTE DISPOSAL - Council will provide a landfill for waste disposal					
Health Environment Education	Impacts	All landfill activities, facilities and services comply with resource consent conditions, site management plans and appropriate legislative requirements.	Compliance with resource consents All requests responded to in compliance with Councils' customer service policies	Number of non-compliances CRM analyses	0 3 Days
		Diversion options are available for all types of solid waste identified by NTRLBU for disposal and diversion.	Availability of diversion options for identified solid waste types	Percentage of treatment options available for solid waste disposal.	100%
		Adequate landfill airspace available to ensure future sustainability of solid waste disposal.	Available landfill space that has been consented Available landfill space that has been developed	Years of available consented landfill space Years of available developed landfill space	6 Years 2 Years
	Costs	Cost effective and sustainable landfill services available to all the community.	No rates required to support landfill activities Costs of managing fly-tipping does not increase more than rate of inflation	User Pays % Annual increase in costs for managing fly-tipping	100% Less than annual inflation rate

	Demand	Council provides consumer education and support which leads to behaviour which minimises quantity of waste to landfill. Landfills are open at convenient times.	Decrease in per capita tonnage of waste disposed of at landfill. (Excluding contaminated soil) Hours and days that the landfill is available for disposal	The quantity (kg) of waste per capita to landfill. Opening hours specified	Decrease compared to previous year 100%
	Health and Safety	Landfill activity provided in a safe manner and pose no health and safety risks to nearby residents.	No reported incidences of injury or illness attributable to use of facilities.	Complaints and incident forms.	0
	Quality	Good quality customer service Inquiries received through the Councils' service request system addressed within 24 hours	Customers are content with the services offered. All requests responded to in compliance with Council customer service policy	Customer satisfaction survey Service request response time	85% 90% in 24 hours

	1	2	3	4	5	6	7	8	9	10
	2018/19 Est	2019/20 AMP	2020/21 AMP	2021/22 AMP	2022/23 AMP	2023/24 AMP	2024/25 AMP	2025/26 AMP	2026/27 AMP	2027/28 AMP
Projected surplus/deficit	-375,524	-312,585	-131,672	-208,312	-285,307	-400,416	-517,341	-636,111	-756,753	-879,296
Income										
804505100278. Landfill Fees	-8,051,850	-8,172,821	-7,961,744	-8,024,315	-8,087,257	-8,209,050	-8,332,676	-8,458,163	-8,585,540	-8,714,834
80450530. Sundry Income	-6,700	-6,700	-6,700	-6,700	-6,700	-6,700	-6,700	-6,700	-6,700	-6,700
80450560. Sales: Gas	-25,137	-25,137	-25,137	-25,137	-25,137	-25,137	-25,137	-25,137	-25,137	-25,137
80450630. Recoveries Electricity	-27,084	-27,084	-27,084	-27,084	-27,084	-27,084	-27,084	-27,084	-27,084	-27,084
80450710. Interest	-107,879	-107,879	-107,879	-107,879	-107,879	-107,879	-107,879	-107,879	-107,879	-107,879
	-8,218,650	-8,339,621	-8,128,544	-8,191,115	-8,254,057	-8,375,850	-8,499,476	-8,624,963	-8,752,340	-8,881,634
Expenses										
804518808015. TDC Staff time and GM	23,398	23,398	23,398	23,398	23,398	23,398	23,398	23,398	23,398	23,398
80451671 NCC Utilities Staff	121,543	121,543	121,543	121,543	121,543	121,543	121,543	121,543	121,543	121,543
80451631 NCC Finance Staff	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320
80451664 NCC SLT	33,171	33,171	33,171	33,171	33,171	33,171	33,171	33,171	33,171	33,171
80451690 NCC Admin Staff	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
80451635 NCC IT Services	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
80452010. York Valley Landfill Operation	556,280	556,280	611,908	611,908	611,908	611,908	611,908	611,908	611,908	611,908
804520100418. LFG Operation	23,197	23,197	23,429	23,429	23,429	23,429	23,429	23,429	23,429	23,429
804520100419. Leachate Control	26,510	26,510	26,775	26,775	26,775	26,775	26,775	26,775	26,775	26,775
804520100420. Resource Consent Conditions	68,561	68,561	69,247	69,247	69,247	69,247	69,247	69,247	69,247	69,247
804520100422. Toe Embankment Maintenance	90,000	90,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000	108,000
80452310. ETS levy	1,947,163	2,129,410	2,049,767	2,039,093	2,028,431	2,033,502	2,038,586	2,043,683	2,048,792	2,053,914
804523100467. Waste Levy Min for Environment	675,629	677,293	651,962	648,566	645,175	646,788	648,405	650,026	651,651	653,280
804523100728. Local Disposal Levy TDC	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625
804523830730. Local Disposal Levy NCC	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625	1,915,625
80452607. Telephones	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
80452617. Electricity	25,939	25,939	25,939	25,939	25,939	25,939	25,939	25,939	25,939	25,939
804526178014. EV Electricity	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
80452621. Rates	8,684	8,684	8,684	8,684	8,684	8,684	8,684	8,684	8,684	8,684
804526218014. EV Rates	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446	3,446
80452625. Water by meter charges	4,456	4,456	4,456	4,456	4,456	4,456	4,456	4,456	4,456	4,456
80452626. Trade Waste Charges	3,028	3,028	3,028	3,028	3,028	3,028	3,028	3,028	3,028	3,028
80452637. Insurance	6,931	6,931	6,931	6,931	6,931	6,931	6,931	6,931	6,931	6,931
804526378014. EV LAPP Insurance	7,048	7,048	7,048	7,048	7,048	7,048	7,048	7,048	7,048	7,048
80452693. Levy for Closure Costs	66,669	66,669	66,669	66,669	66,669	66,669	66,669	66,669	66,669	66,669
80452720. Valuations / Surveys	19,356	19,356	19,356	19,356	19,356	19,356	19,356	19,356	19,356	19,356
80455503 Aftercare Amortisation	9,828	9,828	9,828	9,828	9,828	9,828	9,828	9,828	9,828	9,828
80452760 Professional Advice (Board discretion)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
New item Contingency GM discretion	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
80455505 Depreciation	4,174	4,174	4,174	4,174	4,174	4,174	4,174	4,174	4,174	4,174
80455507 Loss of Service potential YV	141,344	141,344	141,344	141,344	141,344	141,344	141,344	141,344	141,344	141,344
	7,843,125	8,027,036	7,996,872	7,982,803	7,968,750	7,975,434	7,982,135	7,988,852	7,995,586	8,002,338
Capital Expenditure										
804573902025. Capital: Piezo monitor well	18,382		18,377		34,592		18,377			
804573902031. Collection Network/Flare/Gas							19,458			
80457470. Planting		12,972			12,972					
804576551533. Road extension					43,240					
804576902027. Horizontal drilling for draina					43,240					
804576902774. Stormwater control	65,000		64,860							
804576902775. Weigh bridge improvements							125,396			
804579602024. Access Rd Stormwater					57,293					
Moveable debris catch fences at York Valley.	14,000									
Upgrade vehicle wash	10,000									
Construction of Stage 3									0	192,768
Access road sealing and development										
Investigations & Consent for Stage 3 as regional site									200,000	500,000
Contingency Board discretion (renewals and minor upgrades)	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total	157,382	62,972	133,237	50,000	241,337	50,000	213,231	50,000	250,000	742,768

NTRLBU – SUPPORTING INFORMATION FOR THE LONG TERM PLAN 2017

1. Purpose of Report

1.1. To consider the RLBU Long Term Strategy which informs the development of the Asset Management Plan.

2. Recommendation

THAT RLBU officers continue to develop the Long Term Plan based on the information reported.

3. Background

3.1. The RLBU is constituted by the Deed of Agreement.

3.2. The Terms of Reference provides the primary philosophy that drives the RLBU management activities.

3.3. The RLBU is managing two landfills, York Valley and Eves Valley.

4. Growth and Demand

4.1. The RLBU considers historical trends, growth projections, policy development and changes in technology to forecast future demand.

4.2. The combined tonnages of residual waste received at the two RLBU landfills are presented figure 4.1.

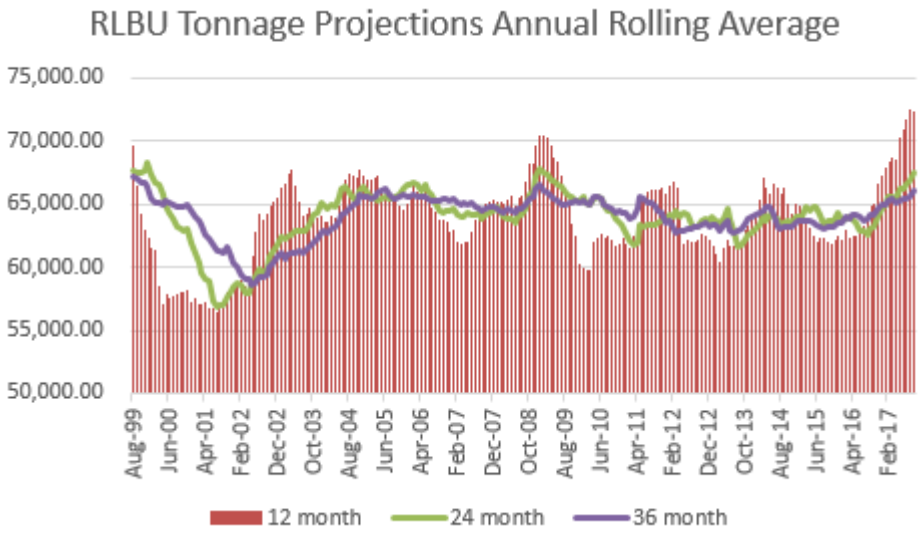


Figure 4.1 Tonnage of residual waste received at RLBU landfills

4.3. The graph above shows that there is significant variance over time in tonnage received at the landfills. It is well recognised that solid waste is linked to GDP/economic growth.

4.4. Many of the peaks are associated with one-off type developments in the region. These peaks complicate projections.

4.5. It should also be noted that JWMMP initiatives affect the generation of residual waste that needs to be landfilled.

4.6. It is important to note that a step-change in residual waste is likely associated with the implementation of the HAIL (Hazardous Activities and Industrial List) strategy in Nelson. In 2012 Nelson embarked on the development of a strategy to manage land that was subjected to HAIL activities. Rules have been developed around the management of such land and this has resulted in increased tonnages of waste coming into the landfill. One can expect that a similar step change will occur once Tasman District Council implement a similar policy in response to the National Environmental Standards for Assessing and Managing Contaminants in Soil to protect human health (NESCS).

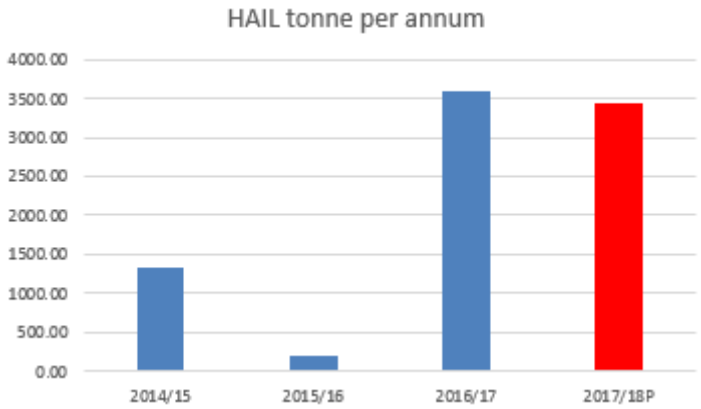


Figure 4.5 HAIL material received at York Valley

4.7. The waste associated with the management of HAIL sites can be considered unreliable and it is therefore important to follow a conservative approach when projecting future demand. (Processes to deal with this type of waste is developing right across New Zealand and in fact internationally)

4.8. Most of the 20 categories of waste tracked at York Valley have stayed relatively stable in spite of population growth. Four categories of waste have shown significant increases over the last few years.

Figure 4.5 Skip waste = Construction waste

4.9. Skip waste generally represents waste that is coming into the landfill from smaller construction projects. The increasing trend in this waste is likely to reflect increase in building activities by out of town contractors.

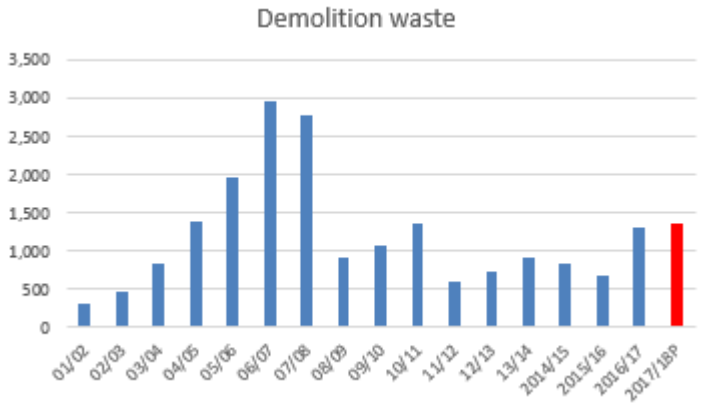
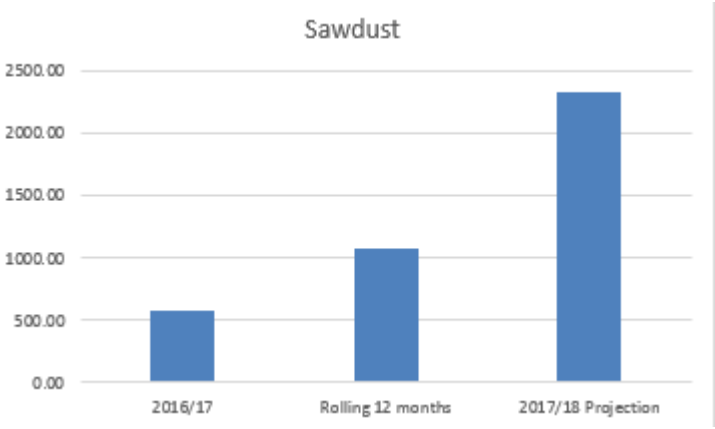


Figure 4.9 Demolition Waste

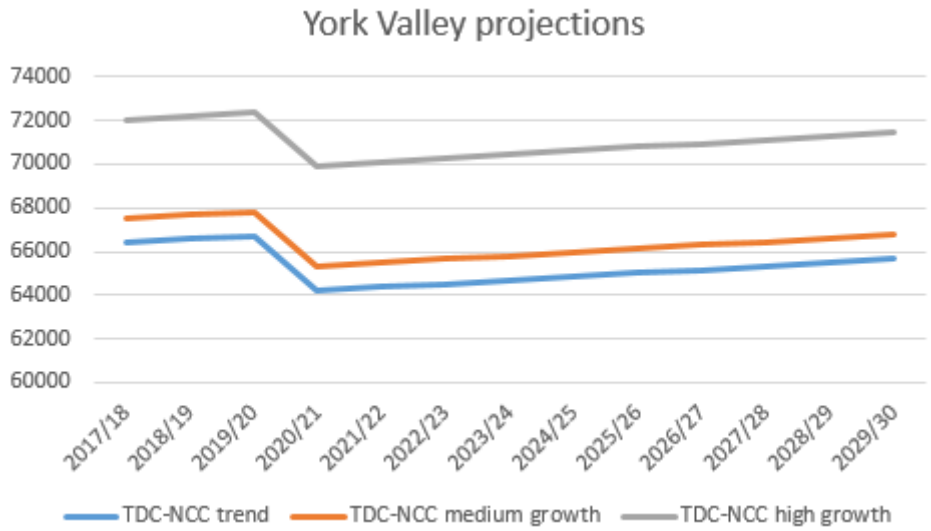
4.10. With increased construction activity one can expect an increase in the tonnage of demolition waste. The previous peak and then the sudden drop reflect the impact of the Global Financial Crises 2008 (GFC). Rapid growth followed by a very sudden contraction.

4.11. The slow-down in economic activity appears to have incentivised local contractors to look at recycling waste products. It is considered that the recycling of building waste materials by local contractors are diverting significant tonnages of waste material away from the landfill. It is therefore considered likely that once out of town contractors are well established that they will probably follow suit in order to stay competitive once the current growth spurt slows down.



4.12. The increase in sawdust reflects the additional tonnage of contaminated residual waste that used to be received at Eves Valley as special waste.

4.13. An analysis of the categories of residual waste that are showing growth suggests that the 2017/18 budget under-estimated tonnage of waste received at York Valley by something between 5,000 and 10,000 tonne for the year. A relatively small sample makes it difficult to predict trends accurately.



4.14. It is therefore considered prudent to budget income for projected landfill tonnages based using the current trend rather than the higher growth projections.

4.15. The approach is conservative and may result in a surplus however landfills are a dynamic asset and we are not able to fully predict the impact of severe weather events that could result in an over expenditure.

5. What do the customers want

Price stability.

Affordability.

Equitable distribution of benefits.

5.1. We are probably still in a declining trend in terms of overall waste production within the Nelson Tasman region and it is considered that once the construction activities start flattening out the decrease may continue in line with the waste minimisation initiatives rolled out within the region.

5.2. We consider that a good target will be to keep the annual schedule of charges at no more than the consumer price index.

6. Available Airspace

6.1. Available airspace is based on the final landfill profile as depicted in figure 6.1.

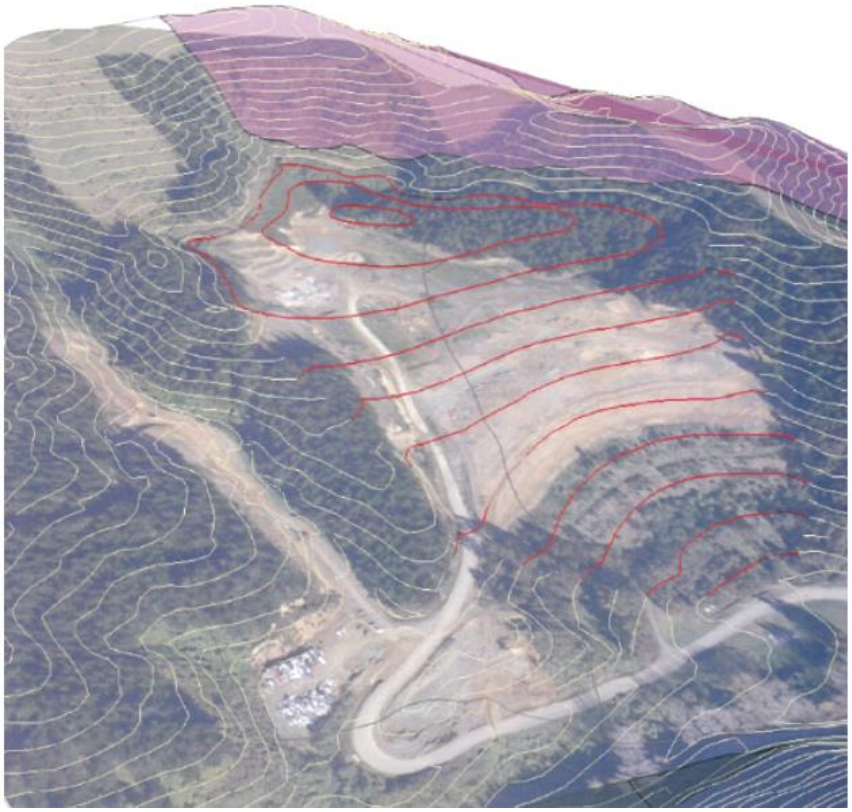


Figure 6.1: Final contour plan showing the closure profile for York Valley. A1078008

6.2. Based on the "TDC-NCC trend" York Valley has 15.3 years airspace available (projected closure 2032) and at the "TDC-NCC high growth" scenario there is 13.7 years airspace available.

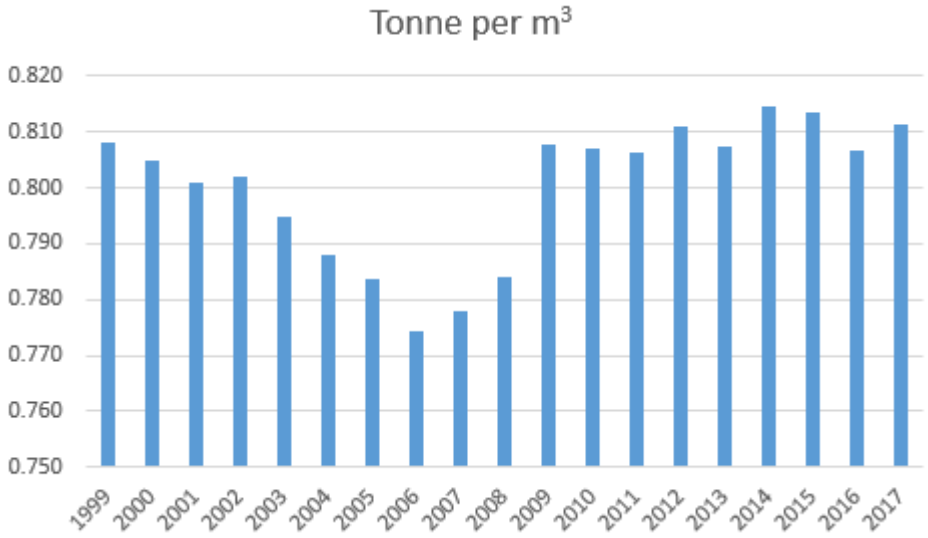


Figure 6.2: Shows how the density of the landfill changes over time

6.3. The future life of the landfill is calculated based on the current density of the landfill.

6.4. Improvements in compaction and using alternative landfill daily cover can affect the useful life of the landfill.

7. York Valley Constraints

7.1. Through the development of the Landfill Asset Management Plan it is hoped that the RLBU can refine the landfill acceptance criteria and create some productivity improvements within the region.

7.2. The cost of testing material to show that material conform to the landfill acceptance criteria is considered a financial burden that provides little benefit for the RLBU or customers.

8. Operational observations.

8.1. Water quality discharged from the storm water detention ponds appear low but does conform to the conditions of consent.

8.2. Increasing the capacity of these ponds could allow the RLBU to remove some silt from the York stream.

8.3. However, investigations into these issues in the past suggest that it is considered important that the RLBU develop an integrated storm water strategy that will create best benefit for the stream and community.

8.4. Improving the quality of the storm water discharged from these ponds appears to be the right thing to do until one realises that the water quality issues are affected by silt entering the stream upstream of the York Valley storm water detention ponds.

8.5. It is therefore advisable to treat surface areas that have been affected by earth movements over time outside the landfill so that benefits can be maximised.

Figure 8.5 York Valley Storm water detension ponds

8.6. Storm water collected from the surface of the landfill (west side) piped to a to the storm water detention ponds to settle sediment before the storm water is discharged to the York stream.

8.7. The existing ponds do not comply with the current LDM requirements and would need to be increased by approximately 100% to meet the current standard. Due to the amount of suspended solids in the water discharged to York Valley stream the NTRLBU is investigating the option of increasing the number and type of ponds.

8.8. Landfills are from time to time affected by the outbreaks of leachate.

8.9. These events can be caused by storm water infiltration, blockages of leachate pipes or the use of incorrect cover material.

Figure 8.9 Leachate observed during site inspection conducted by Tonkin and Taylor

8.10. These events are unexpected and often require significant investment to attenuate and deal with. It is considered best practice to provide contingency funding in annual budgets that will allow the landfill operator to deal with these without delay. Contingency amounts are allowed in the budget that can be allocated to fund this type of work at the discretion of the General Manager or Board.

Figure 8.10 Men at work dealing with a leachate outbreak in 2014

8.11. York Valley is a well managed landfill and these events are not common. However they do occur and need to be investigated and dealt with. It is considered best practice to allow a discretionary contingency budget to fund this type of unexpected work.

8.12. Storm water management: With the surface area of an active landfill continuously changing it is important to manage the storm water runoff. At York Valley

8.12.1. A small allowance is made on the renewal programme to investigate improvements to the landfill storm water management.

8.12.2. The landfill storm water management consist of two components. The final profile cut off drain and the landfill face drainage.

Figure 8.13.2 Showing landfill final profile cut off drain

8.12.3. The final landfill profile cut off drain will eventually form a drainage channel (artificial valley) along which the storm water that falls within the landfill catchment area will be managed.

8.12.4. The management of the run off from the landfill operating face is a bit of a challenge. The drainage areas are changing quite often and needs to be extended from time to time. Elevation changes present problems.

Figure 8.13.4 Side channel of new landfill working area showing sediment fence.

8.12.5. Conditions assessment following investigations into issues such destabilised front face areas etc. has shown that permanent drainage installed to drain the landfill working face areas are in a seriously compromised condition.

Figure 8.13.4a Condition assessment of storm water main east side of landfill

8.12.6. Operations and landfill operators generally use lay flat hoses connected to drop sumps and flow stilling chambers to bypass the compromised pipelines. (Unfortunately the pipes used cannot be reinstated economically) The replacement structure are generally installed on the surface and can be effectively managed to provide the required level of the service. Drop structure allow for the settling of silt upstream of the landfill storm water discharge to the York Stream.

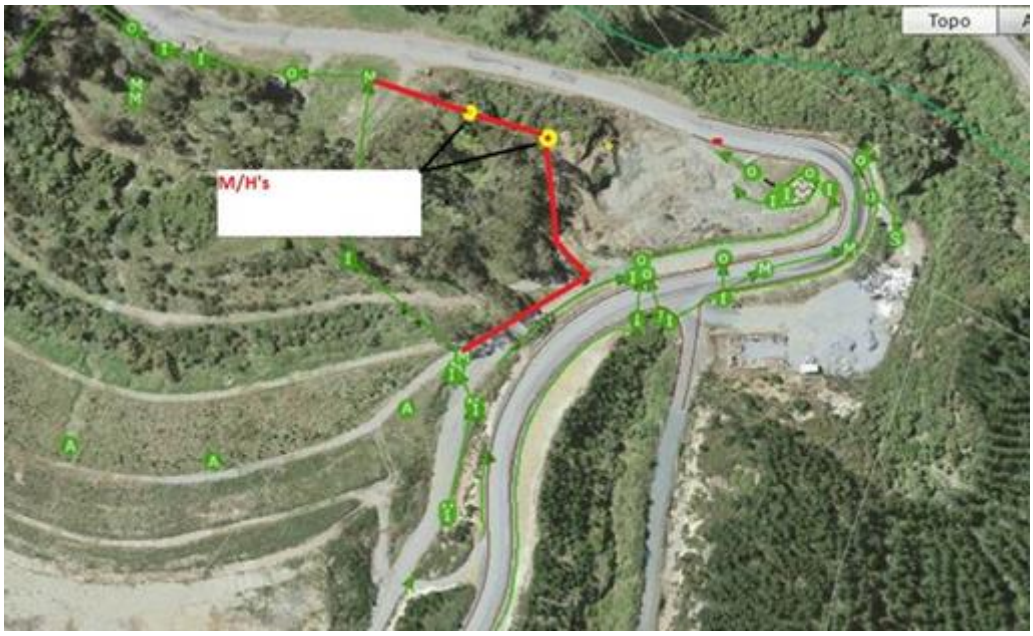


Figure 8.13.6: Shows how the abandoned storm water system is bypassed

8.12.7. Asset failures do occur and it is considered a reasonable response to include discretionary capital, operational and maintenance budgets in the business plan to allow the NTRLBU to manage these. It is considered best practice to carry unspent contingency funding forward and topping these up to the approved levels annually before distributing landfill surpluses to the owners.

8.12.8. From time to time the landfill operations are effected by situation that result from the deposal of material that are not mandated for acceptance at the landfill.

Figure 8.13.8 Detonation coil found embeded in a load of waste disposed at York

8.12.9. Electronic waste received at the landfill can cause issues.

Figure 8.13.9 A fire at the landfill (probably caused by a lithium type battery)

8.12.10. Once again it is difficult to predict these events and a contingency budget approach is considered the appropriate response. These events can be mitigated through the implementation of the appropriate waste minimisation initiatives. (Such as the electronic subsidy system recently implemented in Nelson)

8.13. Development of the toe embankment.

Figure 8.13: Front face development

8.13.1. The phasing of the development is mainly dictated by the filling of the landfill and is clearly not linear. The landfill is constructed in three metre lifts. Once a lift is completed the toe embankment will be finished off.

8.13.2. Experience has shown that there will always be some differential settlement within a landfill that will require the modifications to the front face to ensure the cross falls required to manage storm water drainage are maintained.

9. **Landfill gas management**.

9.1. The most recent gas efficiency review indicated that we are harvesting the gas harvesting efficiency in 2015 was 33% (Report A1400120) compared to 44% estimated in 2008.

9.2. The Landfill gas at York Valley has been sold to Pioneer. Through this agreement the NRLBU receives a payment of around $25,000 per annum for the gas recovered plus a third share of value of the carbon credits received by Pioneer when the value of an NZU is more than $15 per tonne of carbon.

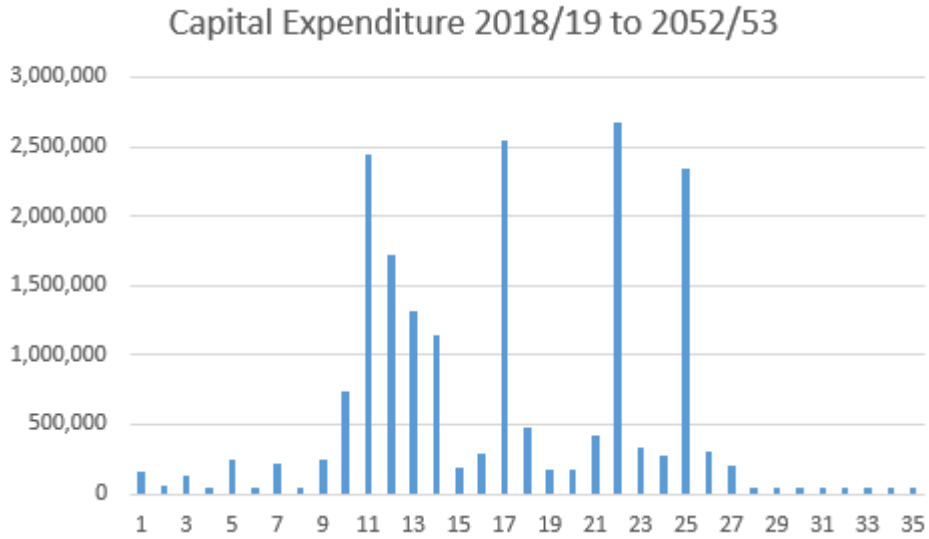
9.3. This arrangement complicated the allocation of additional capital and operational funding to improve landfill gas capture as the economic benefits will mainly accrue to the owner of the landfill gas.

9.4. There is always the possibility to apply for a Unique Emissions Factor and there could financial benefits that could accrue to the NTRLBU. However, the costs associated with this process is very high and benefits are likely to be marginal.

9.5. This matter is under consideration as part of the AMP development process.

9.6. **Renewal Programme.**

9.6.1. The long term capital plan forms part of the Asset Management and Business Plan development.



9.6.2. The increase in capital costs shows the effects of the development of a new landfill.

Renewal Plan ($,000)	2018/19	2019/20	2020/21
Piezo monitoring well	18		18
Moveable debris fences	14		
Upgrade vehicle wash	10		
Planting		13	
Storm water control	65		65
Total =	**107**	**13**	**83**

1.

Figure 9.6.2 Three year upgrade and renewal plan

9.7. The plan includes the procurement of debris fences to better manage the effects of wind-blown debris on the landfill working face.

Figure 9.6.1 Debris catch fences to improve mitigation of wind-blown debris

9.8. Small upgrades are also planned for the vehicle wash bay and improvements to storm water control.

10. Where does the NTRLBU go once the current landfill at York Valley is full?

10.1. In terms of the Deed of Agreement the residual waste activity will move to Eves Valley once the current landfill at York Valley has reached the end of its useful life. (This is addressed in the AMP)

10.2. It is useful to note that the development of a future landfill will need to be well investigated in order to optimise the activity.

Figure 8.16 Nasty surprise: Picture shows evidence of major fault rupture through an area that is currently identified for the extension of York Valley.

10.3. The planning for a new landfill needs to be signalled early so that all viable options are investigated in order to find the most appropriate site. Old worked out quarry areas should also be considered for this purpose.

11. Conclusion

11.1. The plan provides flexibility and moderate contingency allowance that will allow the NTRLBU to respond quickly while maintaining the appropriate level of authority to ensure that funds are spent wisely to ensure that benefits accrue to the users of the landfill, the community and the owners of the landfill.

Contact officer: Johan Thiart, Senior Asset Engineer: Solid Waste Engineering Adviser