

Solid Waste

Page #	Project Name	Old Project #	New Project #	2019/20 Workplan	2019/20 Carry Forward	2019/20 Gross	2019/20 Funding	2019/20 Net
G1	Burner Installation Hwy 101 Landfill	CWU01065	CWU01065	60,000	60,000	-	-	-
G2	Burnside Composting Facility Repairs	Waste1	CW190005	500,000	-	500,000	500,000	-
G3	Composting/Anaerobic Digestion (AD) Plant	CW000004	CW000004	1,043,564	43,564	1,000,000	1,000,000	-
G4	Dredging of Siltation Pond	CWU01092	CWU01092	360,000	360,000	-	-	-
G5	Environment Monitoring Site Work 101 Landfill	CWU01353	CW190004	330,540	330,540	-	-	-
G6	Materials Recovery Facility Purchase	CW000012	CW000012	1,200,000	1,200,000	-	-	-
G7	Materials Recovery Facility Repairs	CW000007	CW000007	332,704	52,704	280,000	280,000	-
G8	Miller Composting Purchase	CW000011	CW000011	2,100,000	2,100,000	-	-	-
G9	New Era Recapitalization	CW000009	CW000009	1,044,155	584,155	460,000	460,000	-
G10	New/Replacement Green Carts	CW000001	CW190001	669,422	669,422	-	-	-
G11	Rural Depots	CW000003	CW000003	-	-	-	-	-
	Grand Total			7,640,385	5,400,385	2,240,000	2,240,000	-

2019/20 Capital Budget Form

Project Name: Burner Installation Hwy 101 Landfill	Est. Start Date: Apr-19
Project Number: CWU01065	Est. Completion Date: Sep-19
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Replacement of oil fired burner mounted on 300,000 BTU heating boiler in Leachate Control building at the Highway 101 Landfill Leachate treatment Plant. The new burner is anticipated to provide for more efficient and reliable heating in the Leachate Control building. The burner was originally scheduled for replacement in the 09/10 fiscal year but has been moved out to the 19/20 year by Halifax Water, the operator of the facility.

Total Project Budget: 60,000

Budget Estimate Confidence: +-10%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	60,000	-	-	-	-	60,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	60,000	-	-	-	-	60,000
Other Funding	-	-	-	-	-	-
Total Funding:	60,000	-	-	-	-	60,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves for the project and there are no anticipated substantial impacts to the operating budget

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Replacement of oil fired burner at Highway 101 leachate treatment facility	60,000
Total Estimated Work Plan	60,000
Less Projected Carry Forward from Previous Years	60,000
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: Burnside Composting Facility Repairs	Est. Start Date: Apr-19
Project Number: CW190005	Est. Completion Date: Mar-20
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Repairs to the Miller Composting facility in Burnside as the operational contract has been extended two years. Required repairs as identified, including corrosion repairs and roof beam repairs/replacement.

Total Project Budget: 500,000

Budget Estimate Confidence: +-25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	-	500,000	-	-	-	500,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	-	500,000	-	-	-	500,000
Other Funding	-	-	-	-	-	-
Total Funding:	-	500,000	-	-	-	500,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Repair/replace roof beams, corrosion repairs and any other identified repairs.	500,000
Total Estimated Work Plan	500,000
Less Projected Carry Forward from Previous Years	
Gross Budget Request	500,000

2019/20 Capital Budget Form

Project Name: Composting/Anaerobic Digestion (AD) Plant	Est. Start Date: Apr-16
Project Number: CW000004	Est. Completion Date: Mar-21
Budget Category: Solid Waste	Supports Priority Area: Service Delivery
Project Type: Growth	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: Yes	Asset Steward: Manager, Solid Waste Resources

Project Summary

HRM needs to replace one or both of the existing aerobic composting facilities. The operating contracts extend to March 31, 2021 and a RFP is being developed to meet the current demand and new regulations. The costs outlined will enable a consultant is aiding in the RFP development, review, assessment and scoring; project management, design, siting, regulatory requirements; community consultations and engagement; contract negotiations; legal, and other direct costs for this project.

Total Project Budget: 3,000,000

Budget Estimate Confidence: +-25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	1,000,000	1,000,000	1,000,000	-	-	3,000,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	1,000,000	1,000,000	1,000,000	-	-	3,000,000
Other Funding	-	-	-	-	-	-
Total Funding:	1,000,000	1,000,000	1,000,000	-	-	3,000,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Internal and external legal, accounting and engineering staffing and consultant assistance in RFP and Project Agreement development, review of RFP proposals, contract negotiations, regulatory requirements, site work and investigations, public engagement, project management, design review, compliance oversight and testing, and other work as may be required to advance the project to completion including facility reference site visits.	1,043,564
Total Estimated Work Plan	1,043,564
Less Projected Carry Forward from Previous Years	43,564
Gross Budget Request	1,000,000

2019/20 Capital Budget Form

Project Name: Dredging of Siltation Pond	Est. Start Date: Apr-19
Project Number: CWU01092	Est. Completion Date: Sep-19
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Dredging of four siltation ponds to remove accumulated silt which will increase retention time in ponds allowing for more effective siltation and treatment of leachate to comply with Provincial regulations. The ponds have been monitored annually for build up and this work is expected to be required this construction season.

Total Project Budget: 360,000

Budget Estimate Confidence: +-25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	360,000	-	-	-	-	360,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	360,000	-	-	-	-	360,000
Other Funding	-	-	-	-	-	-
Total Funding:	360,000	-	-	-	-	360,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Dredging of four siltation ponds at Highway 101 leachate treatment facility	360,000
Total Estimated Work Plan	360,000
Less Projected Carry Forward from Previous Years	360,000
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: Environment Monitoring Site Work 101 Landfill	Est. Start Date: Annual Program
Project Number: CW190004	Est. Completion Date: Annual Program
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Bundled	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

To ensure the site continues to meet all of the requirements of a closed landfill, this work will include water monitoring, site maintenance and repair on a priority basis to meet all requirements of a closed landfill including site regulatory approval requirements. The current engineering and monitoring firm has identified this work to include erosion control, cap and leachate system improvements and inspections of site infrastructure.

Total Project Budget: n/a

Budget Estimate Confidence: +25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	1,248,000	-	-	-	700,000	1,948,000
Project Specific Funding:						
Q506 (Landfill Closure & Post Closure Costs Reserve)	1,248,000	-	-	-	700,000	1,948,000
Other Funding	-	-	-	-	-	-
Total Funding:	1,248,000	-	-	-	700,000	1,948,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Water monitoring, site maintenance and repair to meet all requirements of a closed landfill including site regulatory approval requirements. The work also includes: erosion control, cap and leachate system improvements and inspections of site infrastructure. This includes the carry over of residual funding to enable quick response to issues at the landfill that may be identified by the engineering and monitoring firm or the landfill gas operator. This is a 3 year contingency budget for 2019/20/21. The funding has already been approved through previous budget cycles. The remaining budget will be returned to reserves in 2019/20.	330,540
Total Estimated Work Plan	330,540
Less Projected Carry Forward from Previous Years	330,540
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: Materials Recovery Facility Purchase	Est. Start Date: Apr-18
Project Number: CW000012	Est. Completion Date: Mar-20
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

At the end of the current operating term, HRM is required to pay the residual value of the capital upgrades of the site which were added during the contractors term. This includes conveyors, material handling systems and storage building to accommodate the increased volumes of materials processed at the facility since the start of the contract.

Total Project Budget: 1,200,000

Budget Estimate Confidence: +-10%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	1,200,000	-	-	-	-	1,200,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	1,200,000	-	-	-	-	1,200,000
Other Funding	-	-	-	-	-	-
Total Funding:	1,200,000	-	-	-	-	1,200,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

Detailed Work Plan for 2019/20:	2019/20
Capital upgrades and equipment as per the contract	1,200,000
Total Estimated Work Plan	1,200,000
Less Projected Carry Forward from Previous Years	1,200,000
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: Materials Recovery Facility Repairs	Est. Start Date: Annual Program
Project Number: CW000007	Est. Completion Date: Annual Program
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Bundled	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Repairs to the Materials Recovery Facility (Halifax owned Recycling Plant) located at 20 Horseshoe Lake Dr., Bayer's Lake Business Park, including repairs to the roofing system to prevent ongoing leaks, replacement of truck scales and other required repairs.

Total Project Budget: n/a

Budget Estimate Confidence: +-25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	295,000	280,000	50,000	50,000	350,000	1,025,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	295,000	280,000	50,000	50,000	350,000	1,025,000
Other Funding	-	-	-	-	-	-
Total Funding:	295,000	280,000	50,000	50,000	350,000	1,025,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Repairs and recovering of building roof	200,000
Ongoing capital repairs	132,704
Total Estimated Work Plan	332,704
Less Projected Carry Forward from Previous Years	52,704
Gross Budget Request	280,000

2019/20 Capital Budget Form

Project Name: Miller Composting Purchase	Est. Start Date: Apr-18
Project Number: CW000011	Est. Completion Date: Mar-21
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Purchase of the entire assets of the Burnside composting operation at the end of the 20 year plus two year operating period as per the 1998 operating contract.

Total Project Budget: 2,100,000

Budget Estimate Confidence: +5%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	2,100,000	-	-	-	-	2,100,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	2,100,000	-	-	-	-	2,100,000
Other Funding		-	-	-	-	-
Total Funding:	2,100,000	-	-	-	-	2,100,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Purchase of all assets including building and equipment at the end of the contract as per the contract	2,100,000
Total Estimated Work Plan	2,100,000
Less Projected Carry Forward from Previous Years	2,100,000
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: New Era Recapitalization	Est. Start Date: Apr-16
Project Number: CW000009	Est. Completion Date: Mar-21
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Discrete	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Repairs to the Ragged Lake Composting Facility (Halifax owned Composting Facility) located at 61 Evergreen Place, Ragged Lake Business Park, including concrete slab replacement, corrosion protection, building cover replacement and other repairs to the screening building.

Total Project Budget: 1,310,000

Budget Estimate Confidence: +-10%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	850,000	460,000	-	-	-	1,310,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	850,000	460,000	-	-	-	1,310,000
Other Funding	-	-	-	-	-	-
Total Funding:	850,000	460,000	-	-	-	1,310,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

Detailed Work Plan for 2019/20:	2019/20
Corrosion protection of screener building	100,000
Concrete floor slab replacement	150,000
Screener building cover	377,000
Structural Assessment and related repairs	417,155
Total Estimated Work Plan	1,044,155
Less Projected Carry Forward from Previous Years	584,155
Gross Budget Request	460,000

2019/20 Capital Budget Form

Project Name: New/Replacement Green Carts	Est. Start Date: Annual Program
Project Number: CW190001	Est. Completion Date: Annual Program
Budget Category: Solid Waste	Supports Priority Area: Service Delivery
Project Type: Growth	
Discrete/Bundled: Bundled	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

This project includes the supply and delivery of organics green carts to newly constructed homes and the ongoing replacement of damaged and/or worn out carts. A cart is provided to each dwelling eligible for curbside solid waste collection based on the number of units. Contingency has been built in to the budget to account for unpredictable demand for carts (as they age), and the potential for increases in resin prices, which in turn, can increase unit cost.

Total Project Budget: n/a

Budget Estimate Confidence: +10%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	2,385,000	-	400,000	400,000	2,800,000	5,985,000
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	2,385,000	-	400,000	400,000	2,800,000	5,985,000
Other Funding	-	-	-	-	-	-
Total Funding:	2,385,000	-	400,000	400,000	2,800,000	5,985,000
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Funding from Solid Waste reserves and there is no impact to operating budget.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Procurement of new carts to new homes and ongoing replacement of damaged or worn out carts. The unit price of the green carts is approximately \$75-80 and the actual quantity is based on the demand.	669,422
Total Estimated Work Plan	669,422
Less Projected Carry Forward from Previous Years	669,422
Gross Budget Request	-

2019/20 Capital Budget Form

Project Name: Rural Depots	Est. Start Date: Annual Program
Project Number: CW000003	Est. Completion Date: Annual Program
Budget Category: Solid Waste	Supports Priority Area: Healthy, Livable Communities
Project Type: Asset Renewal	
Discrete/Bundled: Bundled	Project Manager: Barry Nickerson
Multi-Year: No	Asset Steward: Manager, Solid Waste Resources

Project Summary

Trailers service the two Rural Refuse Depots in Sheet Harbour and Middle Musquodoboit where refuse loads are consolidated prior to transport to the Otter Lake Facilities. There are currently six units in the fleet. The 2010 Spector trailers will be replaced in 2020/21. In addition, there are capital maintenance costs and upgrades required for the depots.

Total Project Budget: n/a

Budget Estimate Confidence: +-25%

Project Budget by Year

Fiscal Year	Previously Approved	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Gross Budget:	398,554	-	340,000	-	760,000	1,498,554
Project Specific Funding:						
Q556 (Solid Waste Facilities Reserve)	398,554	-	340,000	-	760,000	1,498,554
Other Funding	-	-	-	-	-	-
Total Funding:	398,554	-	340,000	-	760,000	1,498,554
Net Budget:	-	-	-	-	-	-

Impact on Operating Budget:

Any additional impact will be added operating costs to contract out trucks if the capital purchase is not advanced.

Operating Impacts of Capital Budget / Lifecycle Cost

	2019/20	2020/21	2021/22	2022/23 - 2028/29	Total
Ongoing Operating Costs (Savings)	-	-	-	-	-
One-time Operating Costs (Savings)	-	-	-	-	-

Detailed Work Plan for 2019/20:

	2019/20
Total Estimated Work Plan	-
Less Projected Carry Forward from Previous Years	
Gross Budget Request	-