



**STANDING POLICY COMMITTEE  
WATER AND WASTE, RIVERBANK MANAGEMENT  
AND THE ENVIRONMENT  
MARCH 7, 2019**

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**WATER AND WASTE DEPARTMENT  
2019 Preliminary Operating and Capital Budget**

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- Water Supply, Treatment and Distribution
- Sewage Collection and Treatment
- Land Drainage and Flood Control
- Solid Waste Collection
- Solid Waste Disposal
- Recycling and Waste Diversion

# Asset Inventory Statistics



WWD Asset Inventory		2017
Water Utility	WTP	1
	Aqueduct and Branch Aqueduct	182 km
	Feeder Mains	152 km
	Distribution Mains	2660 km
Sewer Utility	Sewage Treatment Plants	3
	Pump Stations	75
	Collection Sewer Mains	2640 km
Land Drainage Utility	Stormwater Retention Basins (SRB)	92
	Flood Pump Stations	31
	SRB Pump Stations	5
	Land Drainage Sewer Mains	1218 km
	Storm Relief Sewer Mains	188 km
Solid Waste Utility	Active Landfill	1
	Closed Landfills	33
	4R Depots	3
	Community Recycling Depots	4

## **Water Supply and Treatment**

- Intake
- Aqueduct
- Storage (Deacon, in-town reservoirs)
- Water treatment
- Pumping

## **Water Distribution**

- Water mains
- Hydrants
- Valves
- Service pipes
- Meters
- Public water fill stations

## **Business Processes**

- Operation
- Maintenance
- 24/7 emergency services
- Capital investment planning and delivery
- Development approvals, permits and inspections
- Regulatory compliance testing and reporting
- Customer service
- Meters and billing

# Comparison of 2018 Adopted Budget to 2019 Submission



## Water Services

### Contributing Departments

Water and Waste 100%

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	132.356	129.582	131.320	139.346
Provincial funding (service specific)	0.765	0.765	0.765	0.765
<b>Revenues</b>	<b>133.121</b>	<b>130.347</b>	<b>132.085</b>	<b>140.111</b>
Salaries and benefits	32.384	33.090	33.928	34.200
Services	20.683	20.635	20.852	21.069
Material, parts and supplies	16.417	17.198	17.717	18.397
Assets and purchases	1.048	1.165	1.188	1.155
Debt and finance charges	13.288	13.489	13.700	13.920
Grants, transfers and other	39.822	39.802	40.696	41.781
Recoveries	(8.108)	(8.449)	(8.458)	(8.265)
<b>Expenses</b>	<b>115.533</b>	<b>116.930</b>	<b>119.623</b>	<b>122.256</b>
<b>Surplus/(Deficit)</b>	<b>17.588</b>	<b>13.417</b>	<b>12.463</b>	<b>17.855</b>

**Revenue decrease of \$2.77 M** primarily due to a decrease in water sales resulting from a decrease in consumption.

**Expense increase of \$1.397 M** primarily due to increased transfer to the Water Main Renewal Reserve, and increases in salaries and chemicals, offset by a decrease to the utility dividend.

## **Sewage Collection**

- Service pipes
- Sewers
- Manholes
- Interceptors
- Lift stations
- CSO management

## **Sewage Treatment**

- Treatment plants
- Biosolids management
- Hauled wastewater disposal facility

## **Business Processes**

- Operation
- Maintenance
- Capital investment planning and delivery
- Development approvals, permits and inspections
- Regulatory compliance testing and reporting
- Customer service
- By-law inspection and enforcement



# Comparison of 2018 Adopted Budget to 2019 Submission



## Sewer Services

### Contributing Departments

Water and Waste 100%

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	197.706	194.368	199.713	216.109
Provincial funding (service specific)	0.336	0.336	0.336	0.336
<b>Revenues</b>	<b>198.041</b>	<b>194.703</b>	<b>200.049</b>	<b>216.444</b>
Salaries and benefits	33.802	34.719	35.676	36.435
Services	27.896	28.880	30.969	32.225
Material, parts and supplies	11.228	11.219	12.120	13.066
Assets and purchases	0.080	0.146	0.170	0.119
Debt and finance charges	1.431	4.357	9.936	12.423
Grants, transfers and other	83.323	155.985	88.090	91.317
Recoveries	(1.928)	(1.731)	(1.738)	(1.739)
<b>Expenses</b>	<b>155.832</b>	<b>233.575</b>	<b>175.222</b>	<b>183.847</b>
<b>Surplus/(Deficit)</b>	<b>42.209</b>	<b>(38.872)</b>	<b>24.827</b>	<b>32.598</b>

**Revenue decrease of \$3.34 M** Primarily due to decrease in sewer sales resulting from a decrease in consumption, offset by an increase in leachate treatment to recover the cost of the service.

**Expense increase of \$77.74 M** Primarily due to a one-time transfer to the Environmental Projects Reserve to support NEWPCC upgrade capital project, transfer to fund Land Drainage capital program, and increases in salaries and tipping fees, offset by a decrease to the utility dividend.

## Land Drainage

- Curb inlets
- Land drainage sewers
- Stormwater retention basins
- Underpass stations
- Storm relief sewers

## Flood Control

- Primary line of defense (diking)
- Flood pumping stations
- Temporary pumping
- Temporary diking

## Waterways Management

- Waterways permits, inspections and enforcement
- Riverbank monitoring and prioritization of stabilization works

## Business Processes

- Operation and maintenance
- Capital investment planning and delivery
- Development approvals, permits and inspections
- Flood level projections
- Customer service (including temporary diking assistance)



# Comparison of 2018 Adopted Budget to 2019 Submission



## Land Drainage and Flood Control

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	6.119	5.904	5.469	5.503
Provincial funding (service specific)	-	-	-	-
<b>Revenues</b>	<b>6.119</b>	<b>5.904</b>	<b>5.469</b>	<b>5.503</b>
Salaries and benefits	2.392	2.354	2.390	2.410
Services	2.495	2.363	2.418	2.445
Material, parts and supplies	0.792	0.809	0.759	0.747
Assets and purchases	0.003	0.003	0.004	0.004
Debt and finance charges	0.844	0.789	0.321	0.321
Grants, transfers and other	0.041	0.041	0.041	0.041
Recoveries	-	-	-	-
<b>Operating Expenses</b>	<b>6.568</b>	<b>6.360</b>	<b>5.932</b>	<b>5.968</b>
Transfer to Capital	-	0.205	0.727	0.735
<b>Total Expenses</b>	<b>6.568</b>	<b>6.565</b>	<b>6.659</b>	<b>6.703</b>
<b>Surplus/(Deficit)</b>	<b>(0.449)</b>	<b>(0.661)</b>	<b>(1.190)</b>	<b>(1.200)</b>

**Revenue decrease of \$0.2 M** primarily due to decrease in transfer from the Sewage Disposal Fund.

**Expense change** primarily due to increase transfer to capital (PPD) offset by reduction in miscellaneous expenses.

## **Collection Services**

- Automated garbage carts
- Multi family bins
- Bulky and surplus waste
- Dead animals
- Appliances with ozone depleting substances

## **Business Processes**

- Operation
- Customer service
- By-law inspection and enforcement

# Comparison of 2018 Adopted Budget to 2019 Submission



## Solid Waste Collection

### Contributing Departments

Water and Waste 100%

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	1.115	1.142	1.157	1.172
Provincial funding (service specific)	-	-	-	-
<b>Revenues</b>	<b>1.115</b>	<b>1.142</b>	<b>1.157</b>	<b>1.172</b>
Salaries and benefits	0.932	1.123	1.174	1.192
Services	20.997	21.637	22.290	22.996
Material, parts and supplies	0.036	0.095	0.144	0.184
Assets and purchases	0.239	0.239	0.239	0.239
Debt and finance charges	0.008	0.008	0.008	0.008
Grants, transfers and other	0.124	0.124	0.124	0.125
Recoveries				
<b>Expenses</b>	<b>22.335</b>	<b>23.226</b>	<b>23.979</b>	<b>24.743</b>
<b>Surplus/(Deficit)</b>	<b>(21.220)</b>	<b>(22.084)</b>	<b>(22.822)</b>	<b>(23.571)</b>

**Expense increase of \$0.89 M** primarily due to increase in collection contracts offset by decrease in landfill tipping fees resulting from lower tonnes.

## **Services/Facilities**

- Landfill
- Closed landfills

## **Business Processes**

- Operation
- Gas capture
- Leachate management
- Environmental monitoring
- Capital investment planning and delivery
- Customer service
- Stakeholder participation

# Comparison of 2018 Adopted Budget to 2019 Submission



## Solid Waste Disposal

### Contributing Departments

Water and Waste 100%

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	14.970	15.343	15.837	15.977
Provincial funding (service specific)	0.062	0.062	0.062	0.062
<b>Revenues</b>	<b>15.031</b>	<b>15.404</b>	<b>15.898</b>	<b>16.039</b>
Salaries and benefits	3.502	3.344	3.416	3.497
Services	7.647	8.274	8.660	8.876
Material, parts and supplies	0.660	0.710	0.781	0.815
Assets and purchases	0.095	0.095	0.095	0.095
Debt and finance charges	0.430	0.366	0.370	0.356
Grants, transfers and other	0.801	0.748	0.754	0.757
Recoveries	(0.025)	(0.035)	(0.035)	(0.030)
<b>Expenses</b>	<b>13.109</b>	<b>13.503</b>	<b>14.041</b>	<b>14.367</b>
<b>Surplus/(Deficit)</b>	<b>1.922</b>	<b>1.902</b>	<b>1.857</b>	<b>1.672</b>

Revenue increase of \$0.37 M primarily due to increase in landfill tipping fees.

Expense increase of \$ 0.39 M primarily due to increase in leachate treatment.

## **Services/Facilities**

- Recycling collection
- Recycling processing / sales
- Curbside yard waste collection and composting
- Waste diversion depots (Christmas tree, 24-7 community recycling depots)
- 4R Winnipeg Depots
- Biosolids composting

## **Business Processes**

- Operation
- Capital investment planning and delivery
- Customer service
- Stakeholder participation



# Comparison of 2018 Adopted Budget to 2019 Submission



## Recycling and Waste Diversion

### Contributing Departments

Water and Waste 100%

Operating Budget (in million dollars)	2018 Budget	2019 Preliminary Budget	2020 Projection	2021 Projection
Service revenue	26.389	24.884	27.144	30.252
Provincial funding (service specific)	4.901	4.926	5.016	5.041
<b>Revenues</b>	<b>31.290</b>	<b>29.810</b>	<b>32.160</b>	<b>35.293</b>
Salaries and benefits	5.727	5.860	5.989	6.088
Services	28.016	29.406	28.122	29.317
Material, parts and supplies	0.593	0.577	0.628	0.674
Assets and purchases	0.317	0.323	0.329	0.329
Debt and finance charges	2.787	3.177	3.183	2.994
Grants, transfers and other	0.161	0.211	0.211	0.210
Recoveries	(0.637)	(0.780)	(0.780)	(0.780)
<b>Expenses</b>	<b>36.965</b>	<b>38.775</b>	<b>37.682</b>	<b>38.832</b>
<b>Surplus/(Deficit)</b>	<b>(5.675)</b>	<b>(8.965)</b>	<b>(5.522)</b>	<b>(3.539)</b>

**Revenue decrease of \$ 1.48 M** primarily due to decrease in sale of recyclables offset by an increase in waste diversion fees.

**Expense increase of \$ 1.81 M** primarily due to increase in recycling collection contracts, recycling processing, and debt and finance.

# Full Time Equivalents (FTEs) Service Based Budget



## Water and Waste Service Based Budget

	2018 Adopted Budget	2019 Preliminary	Change	2020 Projection	2021 Projection
	FTEs	FTEs	FTEs	FTEs	FTEs
Water	409	409	-	409	409
Wastewater	410	410	-	410	410
Land Drainage - WWD	23	23	-	23	23
Solid Waste Collection	11	15	4.00	15	15
Solid Waste Disposal	41	38	(3.00)	38	38
Recycling/Waste Diversion	83	82	(1.00)	82	82
Total change in operational FTEs	977	977	-	977	977

- **Water Utility**
  - Water Main Renewal Reserve (WRR)
  
- **Sewer Utility**
  - Sewer System Rehabilitation Reserve (SSRR)
  - Environmental Projects Reserve (EPR)
  
- **Solid Waste Utility**
  - Landfill Rehabilitation Reserve (LRR)
  - Waste Diversion Reserve (WDR)

Note: Refer to Appendix 3 page 3-31 in the 2019 Preliminary Budget Volume 2

# Capital Budget Overview



<b>Capital Budget Summary</b> (\$ in thousands)	2019 Budget Submission	2019 - 2024 6-Year Budget Forecast	Percent of 6-Year Budget Forecast
Land Drainage Utility Fund	7,195	35,075	5.4%
Waterworks System Fund	25,000	186,760	28.8%
Sewage Disposal System Fund	64,189	411,209	63.4%
Solid Waste Disposal Fund	3,625	15,180	2.3%
<b>Total</b>	<b>100,009</b>	<b>648,224</b>	<b>100%</b>

# 2019 Change from Forecast Summary



<b>Capital Budget Summary</b> (\$ in thousands)	2019 Forecast Adopted in 2018 Budget	Total Changes	2019 Budget Submission
Land Drainage Utility Fund	7,940	(745)	7,195
Waterworks System Fund	37,059	(12,059)	25,000
Sewage Disposal System Fund	55,222	8,967	64,189
Solid Waste Disposal Fund	3,582	43	3,625
<b>Total</b>	<b>103,803</b>	<b>(3,794)</b>	<b>100,009</b>

## Land Drainage Utility Fund

<b>Capital Projects 2019</b> (\$ thousands)	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
Outfall Rehabilitation	2-252	2,000	14,500	<b>16,500</b>
Land Drainage and Combined Sewers Outfall Gate Structures	2-247	1,870	2,180	<b>4,050</b>
Lot 16 Drain Slope Stabilization Works	2-250	1,175	-	<b>1,175</b>
Flood Pumping Station Rehabilitation	2-245	1,000	5,500	<b>6,500</b>
Land Drainage Sewers - Regional / Local Streets	2-246	1,000	500	<b>1,500</b>
St. Boniface Hospital Primary Line of Defence (PLD) Slope Stability Analysis and Stabilization Works	2-251	150	-	<b>150</b>



## Land Drainage Utility Fund

<b>Capital Investment Plan 2019</b>	Estimate
(\$ thousands)	2019
Transfer from Sewage System Disposal	6,324
Transfer from Prior Year Authorization	871
<b>Total Land Drainage Utility Fund Budget</b>	<b>7,195</b>

## Waterworks System Fund – Supply and Treatment

<b>Capital Projects 2019</b> (\$ thousands)	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
Water Supervisory Control and Data Acquisition (SCADA) Upgrade	2-194	4,125	-	<b>4,125</b>
Tache Booster Pumping Station	2-191	785	2,865	<b>3,650</b>
Water Treatment Plant Asset Refurbishment and Replacement	2-202	575	6,650	<b>7,225</b>
Water Conservation and Efficiency Study	2-203	155	-	<b>155</b>
Discharge Meter Upgrades at the In-town Pumping Stations	2-201	150	3,950	<b>4,100</b>

## Waterworks System Fund – Distribution

<b>Capital Projects 2019</b> (\$ thousands)	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
Water Main Renewals	2-208	16,500	96,500	<b>113,000</b>
Digital Enablement for Plant and Field Employees	2-213	530	2,850	<b>3,380</b>
Public Water Outlets	2-207	475	-	<b>475</b>
Automated Remittance Processing	2-211	400	-	<b>400</b>
Feeder Main Condition Assessment and Rehabilitation	2-204	350	7,900	<b>8,250</b>
Information Technology Cybersecurity Review	2-214	340	-	<b>340</b>
GIS Enhancements	2-215	300	-	<b>300</b>
Customer Billing and Work Management Systems Upgrades Program	2-209	185	5,760	<b>5,945</b>
Customer Care and Billing - iNovah Integration	2-210	130	-	<b>130</b>

## Waterworks System Fund

<b>Capital Investment Plan 2019</b>	Estimate
(\$ thousands)	2019
Water Main Renewal Reserve	16,500
Retained Earnings	8,500
<b>Total Waterworks System Fund Budget</b>	<b>25,000</b>

## Sewage Disposal System Fund – Treatment

<b>Capital Projects 2019</b> (\$ thousands)	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
Asset Refurbishment and Replacement Program	2-220	6,000	20,000	<b>26,000</b>

## Sewage Disposal System Fund – Collection

<b>Capital Projects 2019</b>	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
(\$ thousands)				
Combined Sewer Overflow and Basement Flood Management Strategy	2-225	31,100	138,090	<b>169,190</b>
Sewer Renewals	2-230	17,500	99,500	<b>117,000</b>
Lift Stations Upgrading	2-223	2,825	28,175	<b>31,000</b>
Digital Customer Solutions	2-233	1,600	2,540	<b>4,140</b>
Comminutor Chamber Rehabilitation Program	2-226	1,200	1,300	<b>2,500</b>
Southwest Interceptor River Crossing	2-227	1,100	40,000	<b>41,100</b>
Arc Flash Hazard Analysis and Remediation	2-222	879	975	<b>1,854</b>
River Crossings Monitoring and Rehabilitation	2-224	700	4,350	<b>5,050</b>
Water and Waste Department (WWD) Business Intelligence	2-231	600	480	<b>1,080</b>
WWD Document Management System	2-234	500	650	<b>1,150</b>
Customer Billing and Work Management Systems Upgrades Program	2-232	185	5,760	<b>5,945</b>



## Sewage Disposal System Fund

<b>Capital Investment Plan 2019</b>	<b>Estimate</b>
(\$ thousands)	2019
Environmental Projects Reserve	31,100
Sewer System Rehabilitation Reserve	17,500
Retained Earnings	14,339
Transfer From Prior Period Authorization	1,250
<b>Total Sewage Disposal System Fund Budget</b>	<b>64,189</b>

## Solid Waste Disposal Fund – Landfill

<b>Capital Projects 2019</b> (\$ thousands)	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
Brady Road Resource Management Facility - Cell Construction	2-236	2,500	4,450	<b>6,950</b>
Brady Road Resource Management Facility - Onsite Leachate Management	2-240	450	-	<b>450</b>
Closed Landfill Site Improvement	2-241	225	1,105	<b>1,330</b>
Brady Road Resource Management Facility - Site Improvements	2-237	200	200	<b>400</b>

## Solid Waste Disposal Fund – Recycling and Waste Diversion

<b>Capital Projects 2019</b>	<b>Page Ref</b>	<b>2019</b>	<b>5-Year Forecast</b>	<b>6-Year Total</b>
(\$ thousands)				
Comprehensive Integrated Waste Management Strategy (CIWMS) - Materials Recovery Facility Education Centre	2-242	250	-	250

## Solid Waste Disposal Fund

<b>Capital Investment Plan 2019</b>	<b>Estimate</b>
(\$ thousands)	2019
Retained Earnings	2,500
Landfill Rehabilitation Reserve	875
Transfer From Prior Year Authorization	250
<b>Total Solid Waste Disposal Fund Budget</b>	<b>3,625</b>



**Water and Waste Department**

**Thank You**