



Water and Waste Department 2017 Preliminary Operating Budget

**Presentation to Standing Policy Committee on
Water and Waste, Riverbank Management and
the Environment**

Monday, November 28, 2016

Water and Waste Department Services

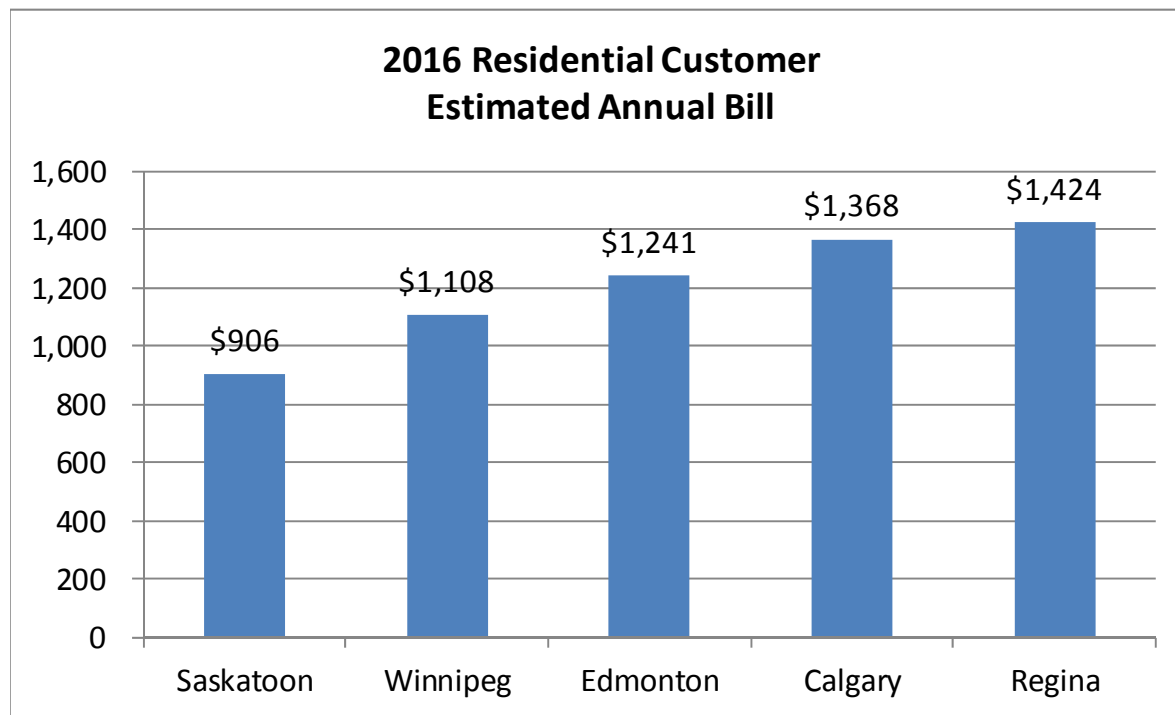
- Water supply, treatment and distribution
- Sewage collection and treatment
- Land drainage
- Flood control
- Solid waste collection and disposal
- Recycling and waste diversion
- Annual operating budget of approximately \$350M

2017 Fees and Charges

- Water and sewer rate increases as approved by Council on April 27, 2016 will be effective January 1, 2017

Residential customer quarterly bill (60 m3 per quarter family of 4)				
	2015	2016	2017	2018
Water	\$87	\$98	\$107	\$109
Sewer	\$137	\$144	\$153	\$168
DBC	\$32	\$37	\$44	\$50
Total Quarterly Bill	\$256	\$279	\$304	\$327
Overall \$ Change		\$23	\$25	\$23
Overall % Change		9.2%	8.9%	7.4%

2016 Residential Customer Estimated Annual Bill



Water Services

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 planning and delivery
- Development approvals, permits and inspections
- Regulatory compliance testing and reporting
- Customer service
- Water conservation programs
- Meters and billing

Water Services

Water and Waste 100 %

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service revenue	112.925	127.630	132.382	135.549
Provincial funding (service specific)	0.887	0.872	0.883	0.912
Revenues	113.812	128.502	133.265	136.461
Salaries and benefits	32.293	31.459	32.336	33.208
Services	20.746	20.989	21.435	21.572
Material, parts and supplies	15.134	15.365	15.542	15.769
Assets and purchases	1.102	1.005	0.980	0.940
Debt and finance charges	12.993	13.127	13.318	13.518
* Grants, transfers and other	36.503	38.339	40.049	42.058
Recoveries	(7.807)	(6.979)	(7.113)	(7.302)
Expenses	110.964	113.305	116.548	119.762
Surplus/(Deficit)	2.848	15.197	16.717	16.699

Revenue increase of \$14.69 M Primarily due to increase in 2017 water rates as approved by Council on April 27, 2016.

Expense increase of \$2.341 M The dividend transfer to General Revenue is 12% of Water Sales. An increase in water sales results in a higher dividend. The dividend rate remains unchanged from 2016.

Wastewater Services

Sewage Collection

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

Sewage Treatment

- Treatment plants
- Biosolids disposal
- Hauled wastewater disposal facilities

Business Processes

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

Wastewater Services

Contributing Departments

Water and Waste 100 %

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service revenue	165.182	180.864	198.453	214.594
Provincial funding (service specific)	0.885	0.385	0.397	0.415
Revenues	166.067	181.250	198.850	215.009
Salaries and benefits	31.573	34.202	35.584	36.758
Services	29.157	28.448	29.104	30.108
Material, parts and supplies	10.975	11.504	12.199	12.989
Assets and purchases	0.066	0.073	0.071	0.068
Debt and finance charges	0.010	1.295	7.269	14.306
* Grants, transfers and other	76.270	83.356	88.562	99.554
Recoveries	(2.112)	(1.914)	(1.918)	(1.921)
Expenses	145.939	156.963	170.870	191.863
Surplus/(Deficit)	20.128	24.287	27.980	23.146

Revenue increase of \$15.183 M Primarily due to increase in 2017 sewer rates as approved by Council on April 27, 2016.

Expense increase of \$11.024 M Primarily due to increase in the transfer to the sewer rehabilitation reserve due to timing of infrastructure renewal projects, increase in salaries and benefits, increase in debt and finance charges, and increase in the transfer to land drainage and flood control. The dividend transfer to General Revenue which is based on 12% of Sewer Sales, has increased. An increase in sewer sales results in a higher dividend. The dividend rate remains unchanged from 2016.

Land Drainage and Flood Control

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 (sandbag or clay)

Waterways Management

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

Business Processes

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

Land Drainage and Flood Control

Contributing Departments

Water and Waste	88 %
Planning, Property and Development	8 %
Public Works	4 %

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service Revenue	10.472	11.859	10.811	10.795
Revenues	10.472	11.859	10.811	10.795
Salaries and Benefits	1.879	2.358	2.389	2.413
Services	2.584	2.460	2.463	2.466
Material, parts and supplies	0.728	0.768	0.763	0.763
Assets and purchases	0.030	0.003	0.003	0.004
Debt and finance charges	1.005	1.054	0.683	0.661
Grants, transfers and other	0.001	0.066	0.067	0.067
Operating Expenses	6.228	6.709	6.367	6.374
Transfer to Capital	5.125	6.586	6.139	5.966
Total Expenses	11.353	13.296	12.506	12.340
Mill Rate Support/(Contribution)	0.881	1.436	1.696	1.544

Revenue increase of \$1.4 M increase in transfer from Sewer due to an increase in associated Land Drainage costs and increase in waterways management revenue.

Expense increase of \$1.9 M increase in land drainage and flood control transfer to capital, increase in waterways management transfer to capital and increase in water management costs.

Solid Waste Collection

Collection Services

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

Business Processes

- Operation
- Capital planning and delivery
- Customer service
- By-law inspection and enforcement

Solid Waste Collection

Water and Waste 100%

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service revenue	1.081	1.112	1.122	1.127
Revenues	1.081	1.112	1.122	1.127
Salaries and benefits	1.013	0.907	0.921	0.909
Services	18.626	19.383	22.061	22.754
Material, parts and supplies	0.049	0.049	0.049	0.049
Assets and purchases	0.169	0.209	0.209	0.209
Debt and finance charges	0.008	0.008	0.008	0.008
Grants, transfers and other	0.062	0.065	0.065	0.065
Recoveries	-	(0.017)	(0.017)	-
Operating Expenses	19.928	20.604	23.296	23.994
Transfer to Capital	-	-	-	-
Total Expenses	19.928	20.604	23.296	23.994
Mill Rate Support/(Contribution)	18.847	19.492	22.174	22.867

Revenue: Revenue remains stable.

Expense increase of \$0.676 M: Increase in garbage collection costs due to new contracts.

Solid Waste Disposal

Services/Facilities

- Brady Road Resource Management Facility
- Landfill gas capture/flaring system
- 33 closed landfills

Business Processes

- Operation
- Maintenance
- Capital planning and delivery
- Regulatory compliance testing and reporting
- Billing

Solid Waste Disposal

Contributing Departments

Water and Waste 100 %

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service revenue	15.169	14.953	15.306	15.674
Provincial funding (service specific)	2.084	1.987	2.064	2.090
Revenues	17.253	16.940	17.370	17.764
Salaries and benefits	3.136	3.247	3.383	3.482
Services	7.955	7.501	7.875	7.990
Material, parts and supplies	0.561	0.605	0.609	0.617
Assets and purchases	0.095	0.095	0.095	0.095
Debt and finance charges	0.335	0.396	0.398	0.400
Grants, transfers and other	0.833	0.905	0.925	0.935
Recoveries	(0.005)	(0.005)	(0.005)	(0.005)
Expenses	12.909	12.744	13.281	13.513
Surplus/(Deficit)	4.344	4.197	4.089	4.251

Revenues and expenses remain consistent with prior year.

Recycling and Waste Diversion

Services/Facilities

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

Business Processes

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

Recycling and Waste Diversion

Contributing Departments

Water and Waste 100 %

Operating Budget (in million dollars)	2016 Adopted Budget	2017 Preliminary Budget	2018 Projection	2019 Projection
Service revenue	22.788	24.334	25.344	26.172
Provincial funding (service specific)	3.295	3.208	3.240	3.258
Revenues	26.083	27.542	28.584	29.430
Salaries and benefits	4.137	5.603	6.329	6.412
Services	20.735	23.914	29.770	31.183
Material, parts and supplies	0.393	0.472	0.578	0.624
Assets and purchases	0.168	0.268	0.268	0.268
Debt and finance charges	2.377	2.774	2.773	2.771
Grants, transfers and other	0.103	0.098	0.098	0.098
Recoveries	(0.692)	(1.125)	(1.340)	(1.340)
Expenses	27.222	32.004	38.475	40.016
Surplus/(Deficit)	(1.139)	(4.462)	(9.891)	(10.585)

Revenue increase of \$1.46 M Increase in MMSM funding grant offset by decrease in sale of recyclables.

Expense increase of \$4.78 M Increases due to additional 4R Winnipeg Depot site and higher collection costs for recycling and yard waste from new contracts.

Water and Waste Department

Full-Time Equivalent (FTEs) – Traditional Basis

	2016 Adopted Budget	2017 Preliminary	Increase / (Decrease)		2018 Projection	2019 Projection
			Change	%		
Water Utility	619.18	607.87	(11.31)	-1.9%	607.07	607.07
Wastewater Utility	262.50	264.68	2.18	0.8%	267.58	269.98
Solid Waste Utility	69.60	85.96	16.36	19.0%	94.54	93.54
Garbage Collection (tax supported)	15.00	15.50	0.50	3.2%	15.50	15.00
TOTAL FTEs	966.28	974.01	7.73	0.8%	984.69	985.59

Overall increase of 7.73 FTEs, explained as follows:

Winnipeg 4R Winnipeg depots	16.00
Information Systems temporary positions 3 year terms - to be recovered from capital	2.00
Sewage treatment plants upgrade and expansion	2.00
Decreases due to operational efficiencies	(12.27)
	7.73

Reserves

- **Water Utility**
 - Water main renewal reserve (WRR)
- **Sewer Utility**
 - Sewer system rehabilitation reserve (SSRR)
 - Environmental projects reserve (EPR)
- **Solid Waste Utility**
 - Brady landfill rehabilitation reserve (BLRR)
 - Waste diversion reserve (WDR)

Note: Refer to Appendix 3 page 31 in the budget documents.

Questions?



Water and Waste Department 2017 Preliminary Capital Budget

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Capital Budget by Fund

2017 Budget Submission and 6-Year Forecast

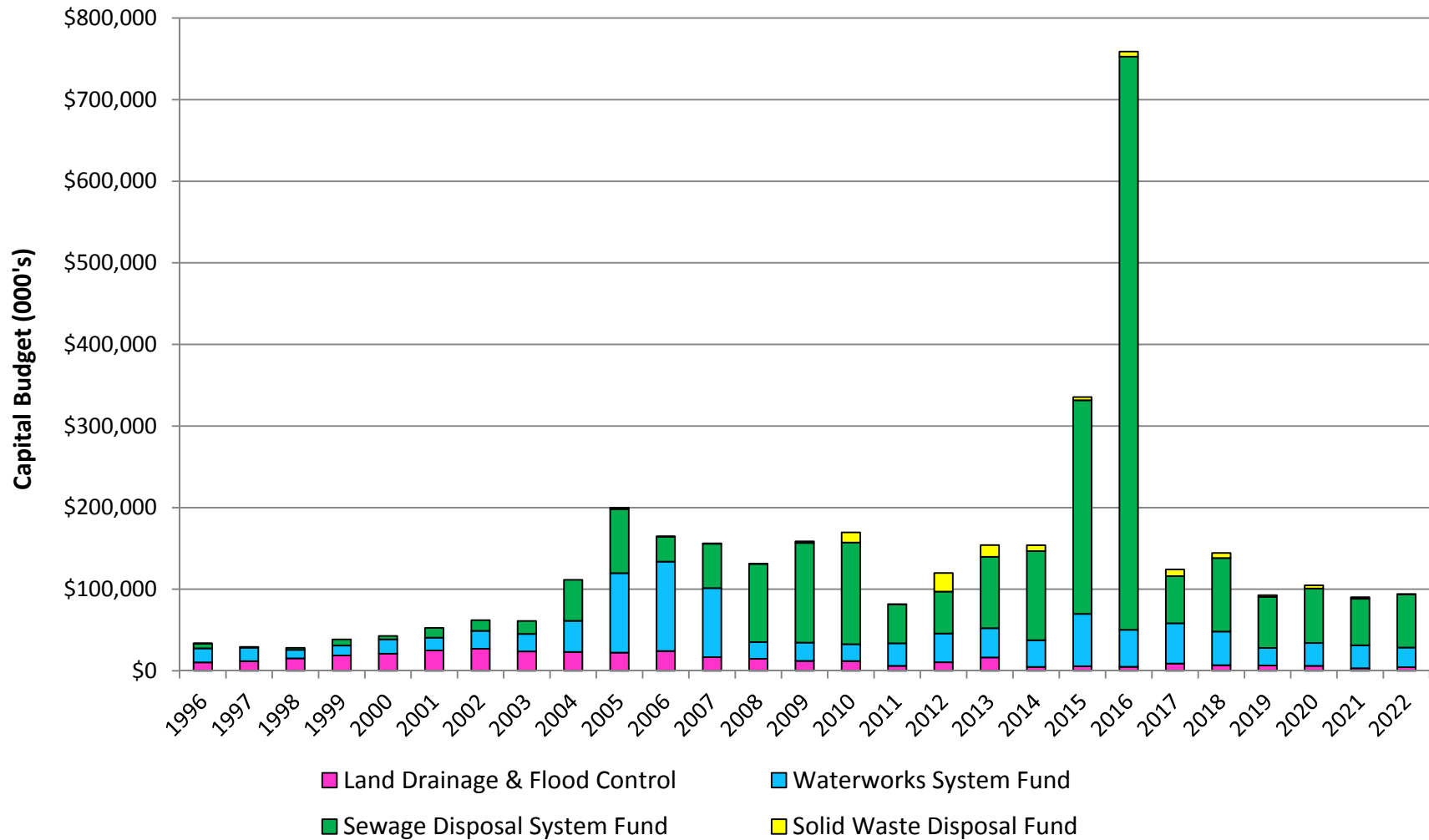
Capital Budget Summary (\$ in thousands)	2017 Budget Submission	2017 - 2022 6-Year Budget Forecast	Percent of 6-Year Budget Forecast
Land Drainage and Flood Control	8,895	36,055	5.5%
Waterworks System Fund	49,383	192,242	29.5%
Sewage Disposal System Fund	57,836	399,216	61.4%
Solid Waste Disposal Fund	8,134	23,157	3.6%
Total	124,248	650,670	100%

Summary of Capital Budget

Changes from Forecast

Capital Budget Summary (\$ in thousands)	2017 Forecast Adopted in 2016 Budget	Total Changes	2017 Budget Submission
Land Drainage and Flood Control	5,900	2,995	8,895
Waterworks System Fund	35,320	14,063	49,383
Sewage Disposal System Fund	52,387	5,449	57,836
Solid Waste Disposal Fund	9,750	(1,616)	8,134
Total	103,357	20,891	124,248

1996-2022 WWD Capital Budget



Land Drainage and Flood Control

Capital Projects 2017 to 2022

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Development Agreement Paybacks	2-199	3,250	4,200	7,450
Land Drainage and Combined Sewers Outfall Gate Structures	2-196	2,430	5,420	7,850
Outfall Rehabilitation	2-200	2,000	11,500	13,500
Flood Pumping Station Rehabilitation	2-195	1,000	5,000	6,000
Stormwater Retention Basin Revetments (formerly Stormwater Retention Basin Rehabilitation)	2-197	215	540	755
Land Drainage Utility (formerly Land Drainage Utility Study and Implementation)	2-198	-	500	500
Total Land Drainage and Flood Control Budget		8,895	27,160	36,055

Waterworks System Fund

Supply and Treatment Projects 2017 to 2022 (1 of 2)

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Water Supervisory Control and Data Acquisition (SCADA) Upgrade	2-208	8,033	775	8,808
Pumping Stations Reliability Upgrades	2-205	3,659	-	3,659
Shoal Lake Aqueduct Intake Facility Rehabilitation	2-202	3,223	2,605	5,828
Deacon Site Flood Protection	2-218	1,825	-	1,825
Ultraviolet Light Disinfection System Upgrade	2-220	1,735	-	1,735
Tache Booster Pumping Station	2-204	1,500	4,036	5,536
Aqueduct Condition Assessment and Rehabilitation (formerly Branch Aqueduct Condition Assessment and Rehabilitation)	2-203	1,500	1,000	2,500
Branch 1 Aqueduct at Seine River - Riverbank Stabilization (East Side)	2-213	950	-	950
Waterworks System Security Upgrades	2-210	498	947	1,445
Shoal Lake Aqueduct Asset Preservation	2-201	400	6,003	6,403

Waterworks System Fund

Supply and Treatment Projects 2017 to 2022 (2 of 2)

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Hurst Pumping Station Building - Structural Repairs	2-217	400	1,900	2,300
Study of Backup Power Supply for the Hurst Pumping Station (formerly Study of Natural Gas Powered Backup Pumps for Hurst Pumping Station)	2-214	400	-	400
HVAC Upgrades at Pumping Stations	2-219	-	4,900	4,900
Chlorination Upgrading at Pumping Stations	2-207	-	2,750	2,750
Pumping Stations and Reservoirs Structural Upgrades	2-206	-	1,200	1,200
Deacon Booster Pumping Station Suction Header Divider Wall and Valve	2-216	-	1,000	1,000
Deacon Reservoir Cell Rehabilitation	2-215	-	875	875
Regulatory Assessment of Water System Infrastructure and Supply Sources	2-211	-	575	575
Water Treatment Plant Capacity Validation	2-212	-	150	150
Total Waterworks System Fund - Supply & Treatment Budget		24,123	28,716	52,839
Total Waterworks System Fund Budget		49,383	142,859	192,242

Waterworks System Fund

Distribution Projects 2017 to 2022

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Water Main Renewals	2-227	18,500	100,000	118,500
Saskatchewan Avenue Water Main	2-221	4,830	-	4,830
Customer Billing and Work Management Systems Upgrades Program	2-225	930	2,495	3,425
Feeder Main Condition Assessment and Rehabilitation	2-223	500	5,750	6,250
Utility Asset Management System	2-226	500	-	500
Transcona Water Main Reliability Upgrade	2-222	-	5,788	5,788
Building Renovations - 1199 Pacific Avenue	2-224	-	110	110
Total Waterworks System Fund - Distribution Budget		25,260	114,143	139,403
Total Waterworks System Fund Budget		49,383	142,859	192,242

Sewage Disposal System Fund

Treatment Projects 2017 to 2022

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Asset Refurbishment and Replacement Program	2-233	2,000	20,000	22,000
Process Control System Master Plan and Upgrade	2-231	1,000	9,000	10,000
Wastewater Hauling System Replacement (formerly Wastewater Hauling and Grease Trap Licensing Automation)	2-234	1,000	-	1,000
North End Sewage Treatment Plant (NEWPCC) - Nutrient Removal/ Upgrade	2-229	980	-	980
Biosolids - Alternative Disposal Delivery and Management System	2-228	-	22,050	22,050
West End Sewage Treatment Plant (WEWPCC) - Facilities Plan	2-230	-	500	500
Total Sewage Disposal System Fund - Treatment Budget		4,980	51,550	56,530
Total Sewage Disposal System Fund Budget		57,836	341,380	399,216

Sewage Disposal System Fund

Collection Projects 2017 to 2022 (1 of 2)

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Combined Sewer Overflow and Basement Flood Management Strategy	2-239	21,400	146,714	168,114
Sewer Renewals	2-248	18,800	102,200	121,000
Plessis Road Interceptor	2-237	7,300	-	7,300
Lift Stations Upgrading	2-236	2,332	21,120	23,452
Comminutor Chamber Rehabilitation Program	2-241	1,100	3,600	4,700
Customer Billing and Work Management Systems Upgrades Program	2-247	930	2,495	3,425
Arc Flash Hazard Analysis and Remediation	2-235	424	1,076	1,500

Sewage Disposal System Fund

Collection Projects 2017 to 2022 (2 of 2)

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
River Crossings Monitoring and Rehabilitation	2-244	360	2,185	2,545
Water and Waste Department (WWD) Business Intelligence	2-246	210	2,640	2,850
Kenaston Boulevard Interceptor	2-238	-	6,800	6,800
Environmental Standards Laboratory Facility Plan	2-245	-	500	500
Southwest Interceptor River Crossing	2-242	-	250	250
Wastewater Services Facilities Plan	2-243	-	250	250
Total Sewage Disposal System Fund - Collection Budget		52,856	282,030	334,886
Total Sewage Disposal System Fund Budget		57,836	341,380	399,216

Solid Waste Disposal Fund

Landfill Projects 2017 to 2022

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Brady Road Resource Management Facility - Administration Building	2-249	2,700	-	2,700
Miscellaneous Land Acquisition	2-255	800	-	800
Brady Road Resource Management Facility - Cell Construction - Phase 1	2-250	699	3,911	4,610
Brady Road Resource Management Facility - Drainage, Roadways and Site Improvements	2-252	200	4,200	4,400
Closed Landfill Site Improvement	2-254	182	473	655
Brady Road Resource Management Facility - Landfill Gas Capture Expansion - Phase 2	2-253	-	1,800	1,800
Brady Road Resource Management Facility - Cell Construction - Phase 2	2-251	-	690	690
Total Solid Waste Disposal Fund - Landfill Budget		4,581	11,074	15,655
Total Solid Waste Disposal Fund Budget		8,134	15,023	23,157

Solid Waste Disposal Fund

Recycling and Waste Diversion Projects 2017 to 2022

Capital Projects 2017-2022 (\$ thousands)	Page Ref	2017	5-Year Forecast	6-Year Total
Comprehensive Integrated Waste Management Strategy (CIWMS) - 4R Winnipeg Depots (Community Resource Recovery Centres)	2-256	3,303	3,949	7,252
CIWMS - Garbage and Recycling Cart Asset Management	2-257	250	-	250
Total Solid Waste Disposal Fund - Recycling & Waste Diversion Budget		3,553	3,949	7,502
Total Solid Waste Disposal Fund Budget		8,134	15,023	23,157

Questions?