

HALIFAX WATER

Capital Budget 2015/16

Urban Core System

Summary

Asset Category	Project Costs
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<i>Water - Land -- T O T A L</i>	\$731,000
<i>Water - Transmission -- T O T A L</i>	\$5,297,000
<i>Water - Distribution -- T O T A L</i>	\$4,978,000
<i>Water - Structures -- T O T A L</i>	\$608,000
<i>Water - Treatment Facilities -- T O T A L</i>	\$2,412,000
<i>Water - Energy -- T O T A L</i>	\$700,000
<i>Water - Security -- T O T A L</i>	\$50,000
<i>Water - Equipment -- T O T A L</i>	\$112,000
<i>Water - Corporate Projects - T O T A L</i>	\$5,353,500
TOTAL - Water	\$20,241,500

<i>Wastewater - Trunk Sewers -- T O T A L</i>	\$1,100,000
<i>Wastewater - Collection System -- T O T A L</i>	\$7,945,000
<i>Wastewater - Forcemains -- T O T A L</i>	\$700,000
<i>Wastewater Structures -- T O T A L</i>	\$5,070,000
<i>Wastewater - Treatment Facility -- T O T A L</i>	\$10,500,000
<i>Wastewater - Energy -- T O T A L</i>	\$1,285,000
<i>Wastewater - Security -- T O T A L</i>	\$200,000
<i>Wastewater - Equipment -- T O T A L</i>	\$625,000
<i>Wastewater - Corporate Projects -- T O T A L</i>	\$5,660,900
TOTAL - Wastewater	\$33,085,900

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Asset Category	Project Costs
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<i>Stormwater - Pipes -- T O T A L</i>	\$1,460,000
<i>Stormwater - Culverts -- T O T A L</i>	\$1,355,000
<i>Stormwater - Structures -- T O T A L</i>	\$0
<i>Stormwater - Corporate Projects -- T O T A L</i>	\$1,079,600
TOTAL - Stormwater	\$3,894,600

GRANDTOTAL	\$57,222,000
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Water

Project Number	Project Name	Project Cost
<u>Water - Land</u>		
3.033	Watershed Land Acquisition	\$650,000
3.214	Forest Road Bridge Replacement - Tomahawk Lake Watershed Lands	\$10,000
3.241	JD Kline Watershed Access Road Bridge Replacements	\$71,000
<i>Water - Land -- T O T A L</i>		\$731,000
<u>Water - Transmission</u>		
3.042	Critical Valve Replacement Program	\$250,000
3.250	Critical Valve Replacement Program - Gottingen Street	\$250,000
3.175	Macdonald Bridge Transmission Main Replacement	\$3,750,000
3.245	Chain Control Transmission Main Realignment	\$455,000
3.231	Governor's Brook Transmission Main Oversizing	\$197,000
3.232	MacIntosh Run Estates Phase 1 Transmission Main Oversizing	\$96,000
3.259	Gaston Road - Circumferential Transmission Main Tie-in	\$120,000
3.246	Water Transmission Main Condition Assessment Program	\$60,000
3.043	Bedford South Capital Cost Contribution	\$87,000
3.045	Bedford West Capital Cost Contribution - Various Phases	\$30,000
3.261	Lakeside Timberlea Capital Cost Contribution	\$2,000
<i>Water - Transmission -- T O T A L</i>		\$5,297,000
<u>Water - Distribution</u>		
3.022	Water Distribution - Main Renewal Program	\$4,200,000
3.067	Distribution System Valve Replacement Program	\$125,000
3.068	Hydrant Replacement Program	\$75,000
3.069	Service Line Renewal Program	\$190,000
3.066	Cathodic Protection Program	\$300,000
3.243	Cowie Reservoir Meter Replacement	\$22,000
3.240	Robie Control Chamber High Service Meter	\$12,000
3.256	M2 Hydrant Replacement Program	\$54,000
<i>Water - Distribution -- T O T A L</i>		\$4,978,000

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Water

Project Number	Project Name	Project Cost
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Water - Structures

3.248	Water Pressure Control/Flow Meter Chambers Condition Assessment Program	\$30,000
3.247	Water Booster Stations Condition Assessment Program	\$20,000
3.173	Lake Major Dam Replacement - Design Phase	\$400,000
3.249	Confined Space Entry Retrofit - Titus and Evans Chamber	\$65,000
3.244	Lake Major Entrance Road Culvert Replacements	\$76,000
3.239	Renfrew Street PRV Decommissioning	\$17,000

Water - Structures -- T O T A L

\$608,000

Water - Treatment Facilities

J D Kline Water Supply Plant:

3.139	- Replacement Program for Filter Valve Actuators	\$45,000
3.157	- Filter Media Replacement	\$300,000
3.140	- Chemical Feed Pump Replacement Program	\$120,000
3.143	- Entrance Road Paving Renewal	\$85,000
3.135	- Parking Lot Resurfacing	\$170,000
3.156	- Backwash Butterfly Valve Actuators	\$30,000
3.236	- Ampgard III to Vacuum Contactor Conversion	\$40,000

Lake Major Water Supply Plant:

3.159	- Replace Contactors in the MCC	\$26,000
3.162	- Butterfly valve replacement program	\$40,000
3.201	- Process Optimization Study	\$110,000
3.204	- Lighting in Filter Gallery	\$5,000
3.205	- Catwalk in the Filter Gallery	\$15,000
3.206	- Chemical Feed Pumps	\$20,000
3.161	- Replace the Lime Feed and Delivery System	\$100,000
3.144	- New Diesel Generator	\$713,000
3.228	- Finished Water Chlorine Analyzer and Sample Pump	\$12,000
3.229	- Storage Containers	\$16,000

HALIFAX WATER

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Urban Core System

Water

Project Number	Project Name	Project Cost
3.258	- Chlorine Vacuum Regulator	\$21,000
3.160	- Upgrade the PLC	\$30,000
3.237	- Recirculating Pumps for the Heating System	\$8,000
3.226	Collins Park Wastewater Tank Retrofit	\$11,000
3.235	Geosmin Mitigation Study	\$65,000
3.166	Bennery Lake Water Supply Plant:	
3.166	- Channel Improvements	\$125,000
3.167	- Plate Settlers	\$233,000
3.238	- Zeta Potential Meter	\$72,000
Water - Treatment Facilities -- T O T A L		\$2,412,000
<u>Water - Energy</u>		
3.268	JD Kline - Heat Recovery Study Upgrade	\$700,000
Water - Energy -- T O T A L		\$700,000
<u>Water - Security</u>		
4.009	Security Upgrade Program	\$50,000
Water - Security -- T O T A L		\$50,000
<u>Water - Equipment</u>		
3.230	Truck Mounted Valve Exercising Machine	\$30,000
3.253	Leak Detection Equipment	\$16,000
3.252	Upgrade to Correlator	\$22,000
3.255	GPS/Total Station for Water Services	\$28,000
3.270	Diesel Plate Compactor	\$16,000
Water - Equipment -- T O T A L		\$112,000
Water - Corporate Projects - T O T A L		\$5,353,500
GRAND TOTAL - WATER		\$20,241,500

HALIFAX WATER

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Urban Core System

Wastewater

Project Number	Project Name	Project Cost
<u>Wastewater - Trunk Sewers</u>		
2.069	Jamieson Street Trunk Sewer Outfall Replacement - Phase 2 - Construction	\$1,100,000
<i>Wastewater - Trunk Sewers -- T O T A L</i>		\$1,100,000
<u>Wastewater - Collection System</u>		
2.223	Wet Weather Management Program	\$500,000
2.435	Inflow / Infiltration Reduction Pilot Projects	\$200,000
2.331	Wastewater Sewers - Condition Assessment - Zoom Camera	\$470,000
2.332	Wastewater Sewers - Condition Assessment - CCTV	\$155,000
2.333	Wastewater Sewers - Condition Assessment - Data Acquisition	\$25,000
2.357	Manhole Renewals	\$29,000
2.358	Lateral Replacements	\$1,490,000
2.052	Integrated Wastewater Projects	\$1,300,000
2.043	Corporate Flow Monitoring Program	\$710,000
2.168	Sewer Lining Program	\$1,000,000
2.157	Alder Crescent Collection System Replacement	\$635,000
2.437	Hines Road Rider Sewer Extension	\$300,000
2.370	Main Street Sewer Renewal - Hartlen Street to Gordon Avenue	\$253,000
2.417	Inglis Street Sewer - Hydraulic Analysis	\$33,000
2.074	Bedford West Collection System Capital Cost Contribution	\$20,000
2.359	West Region Infrastructure Plan	\$450,000
2.360	Central Region Infrastructure Plan	\$350,000
2.381	Regional Centre Local Wastewater Servicing Capacity Analysis	\$25,000
<i>Wastewater - Collection System -- T O T A L</i>		\$7,945,000
<u>Wastewater - Force mains</u>		
2.179	Balsam Road Pump Station - Force main Replacement	\$240,000
2.363	Bissett Pump Station Force main Replacement	\$400,000
2.394	Wastewater Force main - Condition Assessment	\$60,000
<i>Wastewater - Force mains -- T O T A L</i>		\$700,000

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Urban Core System

Wastewater

Project Number	Project Name	Project Cost
<u>Wastewater - Structures</u>		
2.420	Emergency Pump Station Pump Replacements	\$270,000
2.442	Wastewater Pump Station Upgrade Program - West Region	\$420,000
2.443	Wastewater Pump Station Upgrade Program - East Region	\$110,000
2.444	Wastewater Pump Station Upgrade Program - Central Region	\$70,000
2.039	New Pump Station and Force Mains plus Belmont WWTF decommissioning	\$3,000,000
2.091	Bedford Pump Station Rehabilitation (at Mill Cove WWTF)	\$1,000,000
2.336	Wastewater Pump Stations Condition and Performance Assessments	\$200,000
<i>Wastewater Structures -- T O T A L</i>		\$5,070,000
<u>Wastewater - Treatment Facility</u>		
2.057	HHSP Upgrade Program	\$250,000
2.050	Wastewater Treatment Facilities Upgrades (Various Locations)	\$250,000
2.056	Plant Optimization Audit Program	\$125,000
2.124	Mill Cove WWTF UV Upgrade	\$200,000
2.162	Mill Cove WWTF Vacuum Swing Absorption	\$1,500,000
2.330	Beechville Lakeside Timberlea WWTF - Process Upgrade Design	\$1,000,000
2.448	Halifax WWTF - Sludge Tank Mixing	\$100,000
2.024	Aerotech WWTF Upgrade - Design/Construction	\$5,970,000
2.126	Biosolids Processing Facility - Upgrade Program	\$120,000
2.425	Aerotech Biosolids Processing Facility - New Warehouse Ventilation System and HVAC Controls	\$100,000
2.422	Aerotech Biosolids Processing Facility - New Screening and Loading Building	\$615,000
2.410	Dartmouth WWTF - Upgrade UV Disinfection System	\$200,000
2.414	North Preston WWTF - Biological Treatment Capacity Assessment	\$33,000
2.415	North Preston WWTF - Autosampler	\$37,000
<i>Wastewater - Treatment Facility -- T O T A L</i>		\$10,500,000

HALIFAX WATER

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Urban Core System

Wastewater

Project Number	Project Name	Project Cost
<u>Wastewater - Energy</u>		
2.362	Energy Management Retrofit Program	\$110,000
2.252	Dartmouth WWTF - Carbon Scrubber Ventilation By-pass andAutomation	\$250,000
2.258	Halifax WWTF - Carbon Scrubber Ventilation By-pass andAutomation	\$300,000
2.236	Halifax WWTF - Ventilation Air Heat Recovery	\$175,000
2.261	Herring Cove WWTF - Effluent Heat Recovery	\$250,000
2.262	Herring Cove WWTF - Carbon Scrubber Ventilation By-pass andAutomation	\$200,000
<i>Wastewater - Energy -- T O T A L</i>		\$1,285,000
<u>Wastewater - Security</u>		
4.008	Security Upgrade Program	\$200,000
<i>Wastewater - Security -- T O T A L</i>		\$200,000
<u>Wastewater - Equipment</u>		
2.161	SIR Program Flow Meters and Related Equipment	\$55,000
2.418	Wastewater Operations Equipment	\$120,000
2.419	Trenchless Lateral Equipment Rehabilitation	\$450,000
<i>Wastewater - Equipment -- T O T A L</i>		\$625,000
<i>Wastewater - Corporate Projects -- T O T A L</i>		\$5,660,900
<i>GRAND TOTAL - WASTEWATER</i>		\$33,085,900

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Urban Core System

Stormwater

Project Number	Project Name	Project Cost
<u>Stormwater - Pipes</u>		
1.102	Manhole Renewals	\$26,000
1.103	Catchbasin Renewals	\$26,000
1.135	Lateral Replacements	\$53,000
1.042	Deep Storm Sewer Installation Program	\$100,000
1.038	Integrated Stormwater Projects	\$650,000
1.128	Rolling Hills Drive Stormwater Rehabilitation	\$157,000
1.123	Shore Drive Storm Sewer Diversion	\$291,000
1.043	Sullivan's Pond Storm Sewer System Replacement	\$100,000
1.132	Little Sackville River Flood Plain Mapping	\$57,000
<i>Stormwater - Pipes -- T O T A L</i>		\$1,460,000
<u>Stormwater - Culverts/Ditches</u>		
1.104	Driveway Culvert Replacements	\$200,000
1.009	183 Lakeview Avenue - Twin Culvert Replacement	\$201,000
1.016	Holly Court - Culvert Replacement	\$200,000
1.111	Bedford Highway at Shaunslieve Drive Culvert Upgrade	\$407,000
1.131	North Preston Road - Cross Culvert Replacement	\$347,000
<i>Stormwater - Culverts/Ditches -- T O T A L</i>		\$1,355,000
<i>Stormwater - Corporate Projects -- T O T A L</i>		\$1,079,600
<i>GRAND TOTAL - STORMWATER</i>		\$3,894,600

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Urban Core System

Corporate Projects

Project Number	Project Name	Project Cost
4.031	Information Technology Projects identified from Steering Committee	\$300,000
4.011	Desktop Computer Replacement Program	\$180,000
4.012	Network Infrastructure Upgrades	\$200,000
4.013	Document Management System	\$200,000
4.019	Computerized Maintenance Management System	\$1,500,000
4.024	Sharepoint Implementation	\$200,000
4.027	Asset Accounting in SAP	\$100,000
4.044	Customer Relationship Management (CRM) Selection and Implementation	\$600,000
4.048	SAP Rate Structure Support	\$220,000
4.057	Website Strategy	\$200,000
4.043	AMI/AMR Meter System Upgrades (split 50W/50WW)	\$2,500,000
4.040	GIS Data Program	\$1,500,000
4.038	GIS Hardware/Software Program	\$400,000
4.039	GIS Application Support Program	\$250,000
4.059	Water Database Model	\$50,000
4.03	Drawing Index Database Application	\$200,000
4.01	Lateral Card Database Conversion Project (split 50WW/50SW)	\$250,000
4.022	Land Acquisition and Management Program	\$30,000
2.176	East Region Operation Facility - Design (split 80WW/20SW)	\$300,000
4.020	Asset Management Program	\$100,000
4.045	Asset Management Strategies for Corporate Strategic Plan	\$30,000
4.047	Asset Management Procedures and Standards	\$10,000
4.055	Water and Wastewater Modeling Tools Evaluation	\$40,000
4.054	Asset Management Software and Tools	\$50,000
4.049	Asset Management Risk-Based Decision Model Development	\$15,000
4.035	Cowie Hill 450 2nd Floor Renovations	\$75,000
4.053	Water and Wastewater Master Plan Framework Development (split 50W/50WW)	\$35,000
4.052	Long Term Planning Coordination Framework Development (split 50W/50WW)	\$200,000
4.016	SCADA Master Plan Implementation (split 50W/50WW)	\$500,000
4.004	SCADA Control System Enhancements (split 50W/50WW)	\$200,000

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Corporate Projects

Project Number	Project Name	Project Cost
3.251	Survey Equipment - GPS Total Station	\$26,000
4.006	Fleet Upgrade Program - Stormwater	\$247,000
4.006	Fleet Upgrade Program - Wastewater	\$988,000
4.007	Fleet Upgrade Program - Water	\$398,000
GRAND TOTAL - Corporate Projects		\$12,094,000

ALLOCATION BREAKDOWN:

Water - Corporate Projects - T O T A L	\$5,353,500
Wastewater - Corporate Projects -- T O T A L	\$5,660,900
Stormwater - Corporate Projects -- T O T A L	\$1,079,600

GRAND TOTAL - Corporate Projects **\$12,094,000**

Note: All corporate projects are allocated as follows:

50% Water

40% Wastewater

10% Stormwater

(unless otherwise noted)

HALIFAX WATER

Capital Budget 2015/16

Summary of Routine Capital Expenditures included within Capital Budget

Project Number	Project Name	Project Cost
3.067	Distribution System Valve Replacement Program	\$125,000
3.068	Hydrant Replacement Program	\$75,000
3.069	Service Line Renewal Program	\$190,000
3.230	Truck Mounted Valve Exercising Machine	\$30,000
3.253	Leak Detection Equipment	\$16,000
3.252	Upgrade to Correlator	\$22,000
3.255	GPS/Total Station for Water Services	\$28,000
3.270	Diesel Plate Compactor	\$16,000
4.007	Fleet Upgrade Program - Water	\$398,000
2.357	Manhole Renewals - Wastewater	\$29,000
2.358	Lateral Replacements - Wastewater	\$1,490,000
2.161	SIR Program Flow Meters and Related Equipment	\$55,000
2.418	Wastewater Operations Equipment	\$120,000
4.006	Fleet Upgrade Program - Wastewater	\$988,000
1.102	Manhole Renewals - Stormwater	\$26,000
1.103	Catchbasin Renewals	\$26,000
1.135	Lateral Replacements - Stormwater	\$53,000
1.104	Driveway Culvert Replacements	\$200,000
4.006	Fleet Upgrade Program - Stormwater	\$247,000
GRAND TOTAL - Routine Capital Projects		\$4,134,000