Greater Sudbury

Water Summary

CATEGORY DESCRIPTION (For detailed project listing see attached)	2014 REQUEST	2015 OUTLOOK	2016 OUTLOOK	2017 OUTLOOK	2018 OUTLOOK
Previous Council Approvals	$ 1,840,520	$ 1,004,618	$ 670,000	$ 542,615	$ -
Water Distribution					
Condition Assessment - Watermains	$ -	$ -	$ 100,000	$ 100,000	$ 100,000
Watermain Replacement / Rehabilitation	$ 1,000,000	$ 200,000	$ 800,000	$ 700,000	$ 700,000
Watermain Priority Projects	$ 2,464,402	$ 5,096,508	$ 5,342,143	$ 4,323,692	$ 3,894,185
Network Looping	$ 325,000	$ 325,000	$ 1,250,000	$ 1,050,000	$ 1,450,000
Distribution System - Other	$ 340,000	$ 400,000	$ 350,000	$ 450,000	$ 250,000
Water Plants					
Plants - Water Treatment Plants	$ 6,580,000	$ 1,250,000	$ 2,200,000	$ 175,000	$ 10,125,000
Plants - Wells	$ 900,000	$ 922,691	$ 1,087,135	$ 1,412,135	$ 1,104,635
Plants - Reservoirs / Tanks / Booster Stations	$ 155,000	$ 75,000	$ 5,575,000	$ 75,000	$ 75,000
Plants - System Wide	$ 780,000	$ 800,000	$ 385,000	$ 500,000	$ 375,000
Water Works - Strategic Initiatives	$ 2,607,500	$ 1,382,500	$ 1,242,500	$ 1,122,500	$ 1,132,500
PROJECT COSTS	$ 16,992,422	$ 11,456,317	$ 19,001,778	$ 10,450,942	$ 19,206,320
PROJECT FINANCING					
Reserves: Capital	$ -	$ -	$ -	$ -	$ -
Reserves: Gas Tax	$ (1,960,000)	$ -	$ -	$ -	$ -
Capital Envelopes: Future Years or Debt Financing	$ (3,000,000)	$ 816,753	$ (6,483,247)	$ 2,317,960	$ (6,182,040)
CAPITAL ENVELOPE (W/WW User Fees)	$ 12,032,422	$ 12,273,070	$ 12,518,531	$ 12,768,902	$ 13,024,280

Priority Setting:
Watermain priority projects are determined based on a review of:

A) Condition: The database of watermain breaks is ranked according to number and frequency of breaks per section of pipe. This ranking is combined with the pipe age, material and diameter to determine priority sections for replacement, either as a watermain priority project or in conjunction with a roads priority project.

B) Capacity /Security of Supply: Fire flows and pressures are analysed for anticipated future developments, as well as opportunities for looping or upsizing the watermains, to improve the security of supply.

When a roads or sanitary sewer priority project is identified, all of the above criteria are reviewed to determine if associated watermain replacement / upgrades are required.
The following is the criteria considered for Prioritizing Water and Wastewater Facilities :

- Legislation / Compliance
- Health & Safety
- Protecting Public Health
- Maintenance / Renewal / Replacement of Existing Capital Assets
- Enhancing Productivity
- Protection of the Environment

Greater Grand Sudbury

Water Detail

PROJECT DESCRIPTION	PROJECT TYPE R (Renewal) E (Expansion) N (New)	2014 REQUEST	2015 OUTLOOK	2016 OUTLOOK	2017 OUTLOOK	2018 OUTLOOK
PREVIOUS COUNCIL APPROVALS						
Repayment: Levack Water Supply Loan Repayment over 5 years (2010 - 2015)	R,E,N	$ 1,145,520	$ 309,618			
New Valley Wells (2 Wells) (Internal Financing - $3,500,000 from 2013 to 2018)	N	$ 670,000	$ 670,000	$ 670,000	$ 542,615	
Computerized Maintenance Management Systems (CMMS) Contribution - Corporate Initiative	N	$ 25,000	$ 25,000			
SUBTOTAL PREVIOUS COUNCIL APPROVALS		**$ 1,840,520**	**$ 1,004,618**	**$ 670,000**	**$ 542,615**	**$ -**
Condition Assessment - Watermains						
Condition Assessment (Leak Detection and Analysis)	R	$ -	$ -	$ 100,000	$ 100,000	$ 100,000
SUBTOTAL - Condition Assessment - Watermains		**$ -**	**$ -**	**$ 100,000**	**$ 100,000**	**$ 100,000**
Watermain Replacement / Rehabilitation						
Watermain Rehabilitation (Lining)	R	$ 1,000,000		$ 500,000	$ 500,000	$ 500,000
Water Service Replacement	R		$ 100,000	$ 100,000	$ 100,000	$ 100,000
Watermain Valve Replacement	R		$ 100,000	$ 100,000	$ 100,000	$ 100,000
Watermain Air Release Valve Installation & Replacement	R			$ 100,000		
SUBTOTAL - Watermain Replacement / Rehabilitation		**$ 1,000,000**	**$ 200,000**	**$ 800,000**	**$ 700,000**	**$ 700,000**
Watermain Priority Projects						
Dollard Avenue - Madison Avenue to End	R	$ 550,000				
Elgin Street - Ste. Anne Road to Larch Street	R	$ 550,000				
Ellen Street - St. Agnes Street to Laurier Street	R	$ 450,000				
Afton Avenue - Hawthorne Drive to Gemmell Street	R	$ 300,000				
System Improvements (Development Projects)	R	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
MR15 / MR80 Intersection Improvements	R	$ 75,000				
Charette Avenue Sewermain Project	R	$ 50,000				
Preliminary Design for Subsequent Year Projects (Geotech, Surveys, Consultant Fees)	N,R	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
Moonlight Avenue - Bancroft Drive to Kingsway	R		$ 2,400,000			
Yale Street - Marcel Street to Regent Street	R		$ 550,000			
Second Avenue (Coniston) - Hwy 17 to Balsam Street	R		$ 350,000			
Lorne Street - Martindale Road to Logan Avenue	R,N		$ 300,000	$ 1,000,000		
Barry Downe Road - Westmount Avenue to Kingsway	R		$ 250,000			
Davidson Street - College Street to MacKenzie Street	R		$ 250,000			
MR15 from 1.6km West of Martin Road to 4.6 km West of Martin Road (Valve Installation)	N		$ 200,000			
Barbara Street - Yale Street to Arnold Street	R		$ 175,000			
Kelly Lake Road - Watermain with Culvert Replacement	R		$ 100,000			

Greater Grand Sudbury

Water Detail

PROJECT DESCRIPTION	PROJECT TYPE R (Renewal) E (Expansion) N (New)	2014 REQUEST	2015 OUTLOOK	2016 OUTLOOK	2017 OUTLOOK	2018 OUTLOOK
Various Watermain with Roads Priority Projects	R			$ 1,050,000	$ 3,125,000	$ 2,670,000
MR 35 Widening - Notre Dame Avenue to Hwy 144	R			$ 900,000		
Relocation of Backyard Watermains (Various Locations)	R			$ 500,000	$ 500,000	$ 500,000
Gutcher Avenue - Mary Street to Irving Street	R			$ 450,000		
Fairburn Street - Barry Downe Road to East End	R			$ 450,000		
Replacement of 2 " Watermains (Various Locations)	R			$ 250,000	$ 250,000	$ 250,000
Kingslea Court - Rinfret Street to Redfern Street	R			$ 100,000		
Dundas Street - Hargreaves Avenue to 75 m South West	R			$ 100,000		
Contingency - Watermain Priority Projects	R	$ 239,402	$ 271,508	$ 292,143	$ 198,692	$ 224,185
SUBTOTAL - Watermain Priority Projects		**$ 2,464,402**	**$ 5,096,508**	**$ 5,342,143**	**$ 4,323,692**	**$ 3,894,185**
Network Looping						
Whitefish Looping & Rechlorination Facilities - Rechlorination Project	N	$ 325,000	$ 325,000			
Frood Road - Burton Avenue to Shevchenko Avenue	N			$ 750,000		
Valley Water System Looping - Construction (Four Contracts)	N			$ 500,000	$ 800,000	$ 1,200,000
Water System Looping (Various Areas)	N				$ 250,000	$ 250,000
SUBTOTAL - Network Looping		**$ 325,000**	**$ 325,000**	**$ 1,250,000**	**$ 1,050,000**	**$ 1,450,000**
Distribution System - Other						
Distribution Support - Contract Support	R	$ 200,000	$ 200,000	$ 150,000	$ 200,000	$ 100,000
Water Meter Replacement	R	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
Distribution Health & Safety Equipment (Lock Out / Tag Out / Trench Box / Confined Space Entry / Depot Improvements)	N	$ 40,000				
Distribution System Monitoring	R		$ 100,000	$ 100,000	$ 150,000	$ 50,000
SUBTOTAL - Distribution System - Other		**$ 340,000**	**$ 400,000**	**$ 350,000**	**$ 450,000**	**$ 250,000**
Plants - Water Treatment Plants						
Wanapitei WTP - Phase 2 Construction	R	$ 4,750,000				
Funding from Future Year Envelopes (Debt Financing from 2015 to 2018)		$ (3,000,000)	$ 816,753	$ 816,753	$ 816,753	$ 816,753
Wanapitei WTP - Phase 2 - Financing in Budget Year		$ 1,750,000	$ 816,753	$ 816,753	$ 816,753	$ 816,753
Wanapitei WTP - Various Plant Repairs / Equipment Replacement	R	$ 85,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000
Wanapitei WTP - Phase 3 Design & Contract Administration / Inspection	R			$ 1,800,000		
Funding from Future Year Envelopes				$ (1,800,000)	$ 900,000	$ 900,000
Wanapitei WTP - Phase 3 - Financing in Budget Year				$ -	$ 900,000	$ 900,000
Wanapitei WTP - Phase 3 Construction	R					$ 10,000,000
Funding from Future Year Envelopes (Debt Financing from 2018 to 2032)						$ (8,500,000)
Wanapitei WTP - Phase 3 - Financing in Budget Year						$ 1,500,000

Greater Grand Sudbury

Water Detail

PROJECT DESCRIPTION	PROJECT TYPE R (Renewal) E (Expansion) N (New)	2014 REQUEST	2015 OUTLOOK	2016 OUTLOOK	2017 OUTLOOK	2018 OUTLOOK
Ramsey Lake Outfall Structure Upgrades	R	$ 300,000				
David Street WTP Upgrades (Membrane Replacement)	R	$ 850,000	$ 850,000			
David Street WTP Upgrades (HVAC)	R	$ 250,000				
David Street WTP Upgrades (Containment Tank Coating Replacements - 2 Annually)	R	$ 250,000	$ 250,000	$ 250,000		
David Street WTP - Various Plant Repairs / Equipment Replacement	R	$ 95,000	$ 75,000	$ 75,000	$ 100,000	$ 50,000
SUBTOTAL - Plants - Water Treatment Plants		**$ 6,580,000**	**$ 1,250,000**	**$ 2,200,000**	**$ 175,000**	**$ 10,125,000**
Plants - Wells						
Building Repairs / Upgrades - Design & Construction	R	$ 500,000	$ 622,691	$ 887,135	$ 1,062,135	$ 954,635
Inspection / Rehabilitation	R	$ 300,000	$ 300,000	$ 200,000	$ 350,000	$ 150,000
Onaping Wells - Install a Permanent Caustic Soda System	N	$ 100,000				
SUBTOTAL - Plants - Wells		**$ 900,000**	**$ 922,691**	**$ 1,087,135**	**$ 1,412,135**	**$ 1,104,635**
Plants - Reservoirs / Tanks / Booster Stations						
Storage Tank Inspection / Cathodic Protection - Various Tanks	R	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000
Azilda Storage Tank - Mixing System	R	$ 50,000				
Kingsway Booster Station - Demolition	R	$ 30,000				
Hanmer Water Storage Tank and Piping (Construction)	N, E			$ 5,500,000		
Funding from Future Year Envelopes (Debt Financing from 2015 to 2024)				$ (5,500,000)	$ 601,207	$ 601,207
Hanmer Water Storage Tank and Piping (Construction) - Financed in Budget Year				$ -	$ 601,207	$ 601,207
SUBTOTAL - Plants - Reservoirs / Tanks / Booster Stations		**$ 155,000**	**$ 75,000**	**$ 5,575,000**	**$ 75,000**	**$ 75,000**
Plants - System Wide						
SCADA, Controls & Instrumentation Systems Master Plan (50% W & WW)	R	$ 250,000	$ 250,000			
Annual SCADA / Communications Upgrades, All Facilities	R	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
Operating Manuals & As-Builts	R	$ 80,000	$ 75,000	$ 60,000	$ 75,000	$ 50,000
Health and Safety Inspections and Upgrades (Prestart Health & Safety Reviews)	R	$ 75,000	$ 50,000			
Security Improvements (Surveillance, Fencing, Alarms, Keys)	N	$ 50,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Various Plant Repairs / Equipment Upgrades	R	$ 50,000	$ 200,000	$ 100,000	$ 200,000	$ 100,000
Consultant's Procedural Manual For W & WW Facilities (50% W & WW)	R	$ 40,000				
Facilities Design Manual (50% W & WW)	R	$ 35,000				
SUBTOTAL - Plants - System Wide		**$ 780,000**	**$ 800,000**	**$ 385,000**	**$ 500,000**	**$ 375,000**

Greater Grand Sudbury

Water Detail

PROJECT DESCRIPTION	PROJECT TYPE R (Renewal) E (Expansion) N (New)	2014 REQUEST	2015 OUTLOOK	2016 OUTLOOK	2017 OUTLOOK	2018 OUTLOOK
Water Works - Strategic Initiatives						
AMR (Automatic Meter Reading) Water Meters	R,N	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
Bulk & Residential Water Filling Station Upgrades (5)	R	$ 400,000				
AVL (Automatic Vehicle Locator) Software & Capital Equipment (W / WW - 40% / 60%)	N	$ 300,000	$ 20,000	$ 20,000		
Plant Process / Energy Optimization Studies (Wanapitei WTP & David Street WTP)	R	$ 200,000				
Operational Optimization Implementation Plan - Hydraulics	N	$ 150,000	$ 150,000			
Frobisher Depot Upgrades	R	$ 150,000				
Asset Management Plan (Detailed) (50% W & WW)	N	$ 100,000				
Asset Management Software (for Capital Project Planning)	N	$ 75,000				
Source Protection Plan	N	$ 50,000	$ 30,000	$ 40,000	$ 40,000	$ 50,000
GIS - Various Equipment & Software	N	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
Trench Rescue Training	N	$ 50,000				
Locates	N	$ 50,000				
National W & WW Benchmarking Initiative (Collection & Distribution and Plants)	N	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Annual Contribution - Children's Water Festival	R	$ 7,500	$ 7,500	$ 7,500	$ 7,500	$ 7,500
Energy Saving Initiatives (Collection & Distribution and Plants)	R		$ 100,000	$ 100,000		
SUBTOTAL Waterworks - Strategic Initiatives		**$ 2,607,500**	**$ 1,382,500**	**$ 1,242,500**	**$ 1,122,500**	**$ 1,132,500**
TOTAL - Water		$ 16,992,422	$ 11,456,317	$ 19,001,778	$ 10,450,942	$ 19,206,320

Federal Gas Tax	
Watermain Rehabilitation (Lining)	$ 680,000
Dollard Avenue - Madison Avenue to End	$ 350,000
Elgin Street - Ste. Anne Road to Larch Street	$ 350,000
Ellen Street - St. Agnes Street to Laurier Street	$ 300,000
Afton Avenue - Hawthorne Drive to Gemmell Street	$ 200,000
MR15 / MR80 Intersection Improvements	$ 50,000
Charette Avenue Sewermain Project	$ 30,000
	$ 1,960,000

INCREMENTAL OPERATING BUDGET IMPACT:	
AVL Units	$ 16,000

Greater Grand Sudbury

Unfunded Capital Projects

Water

PROJECT DESCRIPTION	PROJECT TYPE R (Renewal) E (Expansion) N (New)		COST
Wanapitei WTP Alternate Trunk Watermain - Multiple Phases	N	$	37,000,000
Well Building Repairs/Upgrades - Construction	R	$	10,600,000
Fielding Road Watermain Servicing	E	$	13,280,000
Maley Drive Extension - Watermain	E	$	4,800,000
Boland, Lancaster, Windsor Booster (Construction - will include Watermain Upgrades)	R, N	$	2,500,000
Ramsey Lake South Shore Servicing (Construction)	E	$	2,000,000
Valley Water Looping	N	$	2,000,000
Automated Meter Reading (AMR) Conversion Program	N	$	1,000,000
Kingsway Realignment	R	$	800,000
Falconbridge Water Tower Replacement Design / Contract Administration and Inspection	R	$	550,000
Implementation of Booster Station Evaluation	R	$	300,000
Depot Upgrades (Note 1)	R		TBD
TOTAL UNFUNDED		$	74,830,000

TBD - to be determined

Note 1 - Depot Needs Study that is planned to be completed will identify future needs with estimated costs for upgrades to various depots.