

# The Corporation of the City of Vaughan

# Consolidated Water System Financial Plan

Vaughan Water System Kleinburg Water System



LOOKING TO OUR FUTURE

The Corporation of the City of Vaughan • 2141 Major Mackenzie Drive, Vaughan, Ontario L6A 1T1



# WATER SYSTEM

# STATEMENT OF FINANCIAL POSITION

	FORECAST								
As at December 31	2010	2011	2012	2013	2014	2015			
Financial Assets									
Cash and Cash Equivalents	28,575,000	31,814,000	35,253,000	38,932,000	46,688,000	57,066,000			
Water Billings Receivable	6,581,000	7,218,000	7,804,000	8,438,000	9,123,000	9,863,000			
Total Financial Assets	\$35,156,000	\$39,032,000	\$43,057,000	\$47,370,000	\$55,811,000	\$66,929,000			
Liabilities									
Accounts Payable	641,000	646,000	666,000	687,000	709,000	731,000			
Accrued Liabilities	10,323,000	11,714,000	12,964,000	14,253,000	15,456,000	16,738,000			
Debenture and other debt	1,169,000	1,030,000	889,000	748,000	604,000	460,000			
Deferred Revenue - Obligatory Reserve Funds	1,815,000	1,915,000	1,715,000	815,000	388,000	188,000			
Total Liabilities	\$13,948,000	\$15,305,000	\$16,234,000	\$16,503,000	\$17,157,000	\$18,117,000			
Net Financial Assets	\$21,208,000	\$23,727,000	\$26,823,000	\$30,867,000	\$38,654,000	\$48,812,000			
Non-Financial Assets									
Tangible Capital Assets	262,568,000	264,416,000	263,471,000	265,680,000	262,500,000	261,945,000			
Inventory of Supplies	101,000	101,000	101,000	101,000	101,000	101,000			
Total Non-Financial Assets	\$262,669,000	\$264,517,000	\$263,572,000	\$265,781,000	\$262,601,000	\$262,046,000			
Accumulated Surplus	\$283,877,000	\$288,244,000	\$290,395,000	\$296,648,000	\$301,255,000	\$310,858,000			



# CITY OF VAUGHAN WATER SYSTEM STATEMENT OF OPERATIONS

	FORECAST								
For the years ended December 31	2010	2011	2012	2013	2014	2015			
Revenues									
Rate Based	36,558,000	40,099,000	43,355,000	46,875,000	50,681,000	54,797,000			
Other	1,175,000	1,199,000	1,222,000	1,247,000	1,272,000	1,297,000			
Contributions from Developers	1,000,000	1,300,000	1,400,000	1,500,000	900,000	400,000			
Contributed / Assumed Assets	752,000	3,783,000	814,000	3,847,000	881,000	3,917,000			
Interest Income	185,000	814,000	962,000	1,038,000	1,177,000	1,410,000			
Total Revenues	\$39,670,000	\$47,195,000	\$47,753,000	\$54,507,000	\$54,911,000	\$61,821,000			
Expenses									
Water Purchases	25,266,000	28,278,000	30,621,000	32,795,000	34,362,000	35,750,000			
Operating and Maintenance	8,008,000	8,100,000	8,426,000	8,776,000	9,155,000	9,566,000			
Allocated Overhead	1,475,000	1,520,000	1,565,000	1,612,000	1,661,000	1,710,000			
Interest Expense	66,000	65,000	64,000	62,000	61,000	60,000			
Amortization	4,780,000	4,865,000	4,926,000	5,009,000	5,065,000	5,132,000			
Total Expenses	\$39,595,000	\$42,828,000	\$45,602,000	\$48,254,000	\$50,304,000	\$52,218,000			
Annual Surplus	\$75,000	\$4,367,000	\$2,151,000	\$6,253,000	\$4,607,000	\$9,603,000			
Accumulated Surplus, beginning of year	\$283,802,000	\$283,877,000	\$288,244,000	\$290,395,000	\$296,648,000	\$301,255,000			
Accumulated Surplus, end of year	\$283,877,000	\$288,244,000	\$290,395,000	\$296,648,000	\$301,255,000	\$310,858,000			



# WATER SYSTEM

#### STATEMENT OF CASH FLOW

	FORECAST							
As at December 31	2010	2011	2012	2013	2014	2015		
Cash provided by (used in):								
Operations:								
Excess revenues over expenses	75,000	4,367,000	2,151,000	6,253,000	4,607,000	9,603,000		
Items not involving cash:								
Amortization	4,780,000	4,865,000	4,926,000	5,009,000	5,065,000	5,132,000		
Contributions from Developers	(1,000,000)	(1,300,000)	(1,400,000)	(1,500,000)	(900,000)	(400,000)		
Contributed/Assumed Assets	(752,000)	(3,783,000)	(814,000)	(3,847,000)	(881,000)	(3,917,000)		
	3,103,000	4,149,000	4,863,000	5,915,000	7,891,000	10,418,000		
Uses:								
Increase in water billings receivable	(154,000)	(637,000)	(586,000)	(633,000)	(685,000)	(740,000)		
Decrease in deferred revenue		, , ,	(200,000)	(900,000)	(427,000)	(200,000)		
	(154,000)	(637,000)	(786,000)	(1,533,000)	(1,112,000)	(940,000)		
Sources:		( · · /			( , , , , , , , , , , , , , , , , , , ,	( · · )		
Increase in accounts payable	103,000	5,000	20,000	21,000	22,000	23,000		
Increase in accrued liabilities	843,000	1,391,000	1,250,000	1,289,000	1,203,000	1,281,000		
Increase in deferred revenue	500,000	100,000	,,	, ,	, - ,	, , ,		
	1,446,000	1,496,000	1,270,000	1,310,000	1,225,000	1,304,000		
Net change in cash from operations	\$4,395,000	\$5,008,000	\$5,347,000	\$5,692,000	\$8,004,000	\$10,782,000		
Capital:								
Cash used to acquire tangible capital assets	(2,823,000)	(1,630,000)	(1,767,000)	(1,871,000)	(105,000)	(260,000)		
Net change in cash from capital	(\$2,823,000)	(\$1,630,000)	(\$1,767,000)	(\$1,871,000)	(\$105,000)	(\$260,000)		
Financing:								
Debenture and other debt repaid	(138,000)	(139,000)	(141,000)	(142,000)	(143,000)	(144,000)		
Net change in cash from financing	(\$138,000)	(\$139,000)	(\$141,000)	(\$142,000)	(\$143,000)	(\$144,000)		
Investments:								
Increase in investments								
Net change in cash from investments	\$0	\$0	\$0	\$0	\$0	\$0		
Net change in cash and cash equivalents	\$1,434,000	\$3,239,000	\$3,439,000	\$3,679,000	\$7,756,000	\$10,378,000		
Cash and cash equivalents, beginning of year	\$27,141,000	\$28,575,000	\$31,814,000	\$35,253,000	\$38,932,000	\$46,688,000		
Cash and cash equivalents, end of year	\$28,575,000	\$31,814,000	\$35,253,000	\$38,932,000	\$46,688,000	\$57,066,000		
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# WATER SYSTEM

# STATEMENT OF CHANGES IN NET FINANCIAL ASSETS

	FORECAST							
As at December 31	2010	2011	2012	2013	2014	2015		
Annual Surplus / (Deficit)	75,000	4,367,000	2,151,000	6,253,000	4,607,000	9,603,000		
Less: Acquisition of Tangible Capital Assets	(4,575,000)	(6,713,000)	(3,981,000)	(7,218,000)	(1,885,000)	(4,577,000)		
Add: Amortization of Tangible Capital Assets	4,780,000	4,865,000	4,926,000	5,009,000	5,065,000	5,132,000		
	280,000	2,519,000	3,096,000	4,044,000	7,787,000	10,158,000		
Less: Acquisition of Supplies Inventory Add: Consumption of Supplies Inventory								
	0	0	0	0	0	0		
Increase in Net Financial Assets	\$280,000	\$2,519,000	\$3,096,000	\$4,044,000	\$7,787,000	\$10,158,000		
Net Financial Assets, beginning of year	\$20,928,000	\$21,208,000	\$23,727,000	\$26,823,000	\$30,867,000	\$38,654,000		
Net Financial Assets, end of year	\$21,208,000	\$23,727,000	\$26,823,000	\$30,867,000	\$38,654,000	\$48,812,000		



# WATER SYSTEM

## NOTES TO THE CONSOLIDATED SIX YEAR FINANCIAL PLAN

The City of Vaughan with a population of 283,000 is located in the Regional Municipality of York, Province of Ontario, Canada. The City manages, maintains and distributes drinking water to 75,000 property owners through two water systems, the Vaughan water system and the Kleinburg water system.

#### 1. SAFE DRINKING WATER ACT

Under the Safe Drinking Water Act (SDWA) the City has received a full scope – Accreditation Certificate on July 7<sup>th</sup>, 2009 for its Drinking Water Quality Management Standards (DWQMS). As a result of receiving the accreditation the City must now under the SDWA regulation 453/07 provide to the Ministry of Municipal Affairs and Housing a six year financial plan for Water.

The six year financial plan must include:

Statement of Operations Statement of Financial Position Statement of Net Financial Assets Statement of Cash Flow

The consolidated six year financial plan must be adopted by the Council of the municipality and the resolution must also indicate that the drinking water system financial plan is sustainable and financially viable.

#### 2. THE SIX YEAR FINANCIAL PLAN - ASSUMPTIONS

The development of the pro forma consolidated six year water financial statements incorporated the assumptions contained in the 2009 water/wastewater rate study, the 2009 development charges study and the initial year of the forecast incorporates the approved 2010 Water Budget.

The above studies included assumptions for growth, inflationary factors, lifecycle capital forecasts and development charge revenues. The cost used for the purchase of potable water over the forecasted period was available from Region of York.

In certain situations best estimates were used in the development of the forecasted figures when financial information or data was not known. Generally the development of the consolidated six year financial forecast used a conservative approach in terms of consumption, inflation, expenditures and estimates.

#### 3. FINANCIAL ASSETS

Financial assets consist of cash, cash equivalents, accounts receivables and billing accruals. Controlled by the City, these economic resources are a result of past transactions or events where future economic benefits are expected to be obtained.

Water reserve ending fund balances were adjusted for accrued transactions as reflected in accounts receivable/payable and conversion of other account balances to determine opening cash values. Forecasted accounts receivable and billing accruals are projected estimates based on historical trends.

#### 4. LIABILITIES

Liabilities consist of accounts payable, accrued liabilities, long term debt and deferred revenue.

#### Accounts Payable & Accrued Liabilities

Accounts payable and accrued liabilities represent the costs of goods and services acquired in the period and recognized whether or not payments have been made or invoices received. Forecasted accounts payable and accruals are projected estimates based on historical trends.

#### Long Term Debt

The City has incurred long term debt which consists of debentures for watermain replacements. Forecasted principal and interest payments are based on existing debentures only and no additional debentures are projected in this forecast period.

#### Deferred Revenue

Deferred revenue represents special area development charge reserve fund balances which are considered a liability until funds are expended for projects related to growth activity. Forecasts are based on existing projects as outlined in the Development Charges Background Study (September 2008). Due to the nature and timing of collections and spending, projections are based on anticipated activity on remaining net project estimates at 2009.

#### 5. NON-FINANCIAL ASSETS

Non-financial assets consist of tangible capital assets (TCA), inventory supplies, and prepaid expenses. These are not available to discharge existing liabilities and are held for use in the provision of services.

#### Tangible Capital Assets

TCA are physical assets with useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset.

Forecasted capital additions reflect budgeted capital expenditures (2010), contributed/assumed assets, work in progress (WIP) and special area projects. Specific details are outlined as follows:

#### Additions

Capital spending is forecasted for 2010 per the approved capital budget and subsequent years reflect outstanding commitments for the year ended 2009 totalling \$6.8M. These expenditures are reflected as tangible capital assets in this forecast period and depreciated accordingly (half year rule applied).

#### **Contributed/Assumed Assets**

These asset additions exceed those funded from water and are funded from other sources or are assets contributed by developers. Due to the nature and timing of recognizing these assets a conservative approach has been applied. Water meters have been forecasted on the basis of a future growth of 2%. Contributed or assumed assets are reflected as revenues on the forecasted statement of operations.

#### Work In Progress

Work in progress (WIP) primarily consists of special area development charges for this forecast period representing projects that are not completed. Such assets are not depreciated in this forecast period. WIP may also consist of assets contributed, assumed or funded from other sources.

#### Disposals

Not projected for this forecast period.

#### Amortization

Tangible capital assets are physical assets with a useful life extending beyond one year that are acquired, constructed or developed.

The cost, less residual value, of the tangible capital assets, excluding land, are amortized on a straight line basis over their estimated useful lives as follows:

Asset	Useful life - Years
Water and Wastewater Infrastructure Water Booster Stations – Concrete Water Booster Stations – Machinery & Equipment Water Filling Stations Water Meters	80 – 95 85 20 - 35 25 20
Vehicles	7

Annual amortization is charged in the year the asset is available for productive use and in the year of disposal. Assets under construction are not amortized until the asset is available for productive use.

#### **CITY OF VAUGHAN**

#### WATER SYSTEM

#### TANGIBLE CAPITAL ASSET SUMMARY

FORECAST						
2010	2011	2012	2013	2014	2015	
326,496,000	331,071,000	337,784,000	341,765,000	348,983,000	350,868,000	
4,575,000	6,713,000	3,981,000	7,218,000	1,885,000	4,577,000	
0	0	0	0	0	0	
\$331,071,000	\$337,784,000	\$341,765,000	\$348,983,000	\$350,868,000	\$355,445,000	
63,723,000	68,503,000	73,368,000	78,294,000	83,303,000	88,368,000	
4,780,000	4,865,000	4,926,000	5,009,000	5,065,000	5,132,000	
0	0	0	0	0	0	
\$68,503,000	\$73,368,000	\$78,294,000	\$83,303,000	\$88,368,000	\$93,500,000	
\$262,568,000	\$264,416,000	\$263,471,000	\$265,680,000	\$262,500,000	\$261,945,000	
	326,496,000 4,575,000 0 \$331,071,000 63,723,000 4,780,000 0 \$68,503,000	326,496,000 331,071,000 4,575,000 6,713,000 0 0 \$331,071,000 \$337,784,000 63,723,000 68,503,000 4,780,000 4,865,000 0 0 \$68,503,000 \$73,368,000	2010 2011 2012   326,496,000 331,071,000 337,784,000   4,575,000 6,713,000 3,981,000   0 0 0   \$331,071,000 \$337,784,000 3,981,000   \$331,071,000 \$337,784,000 \$341,765,000   \$331,071,000 \$337,784,000 \$341,765,000   \$63,723,000 68,503,000 73,368,000   4,780,000 4,885,000 4,926,000   0 0 0   \$68,503,000 \$73,368,000 \$78,294,000	2010 2011 2012 2013   326,496,000 331,071,000 337,784,000 341,765,000   4,575,000 6,713,000 3,981,000 7,218,000   0 0 0 0   \$331,071,000 \$337,784,000 \$341,765,000 0   \$331,071,000 \$337,784,000 \$341,765,000 0   \$331,071,000 \$337,784,000 \$341,765,000 0   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000   \$63,723,000 \$68,503,000 73,368,000 \$78,294,000   4,780,000 4,865,000 4,926,000 5,009,000   0 0 0 0 0   \$68,503,000 \$73,368,000 \$78,294,000 \$33,303,000	2010 2011 2012 2013 2014   326,496,000 331,071,000 337,784,000 341,765,000 348,983,000   4,575,000 6,713,000 3,981,000 7,218,000 1,885,000   0 0 0 0 0 0   \$331,071,000 \$337,784,000 \$348,983,000 1,885,000 0 0   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000 0 0   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000 \$350,868,000   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000 \$350,868,000   \$331,071,000 \$337,784,000 \$341,765,000 \$348,983,000 \$350,868,000   \$63,723,000 \$68,503,000 73,368,000 \$78,294,000 \$63,303,000 \$3,303,000   4,780,000 \$73,368,000 \$78,294,000 \$83,303,000 \$88,368,000   \$68,503,000 \$73,368,000 \$83,303,000 \$88,368,000 \$88,368,000	

#### 6. NET FINANCIAL ASSETS

Net financial assets as defined is the difference between financial assets and liabilities and is a key indicator in determining the water system financial ability to replace its infrastructure. As reflected in the statement of changes in net financial assets the City is in a net financial asset position which is an indication that the City has sufficient resources to finance current and future activities. Forecasted net financial assets for the years 2010-2015 are \$21.0M - \$48.8M.

#### 7. ACCUMULATED SURPLUS

Accumulated surplus consists of reserve and reserve fund balances, contributions of tangible capital assets and debt related transactions.

# **CITY OF VAUGHAN**

# WATER SYSTEM

#### STATEMENT OF ACCUMULATED SURPLUS

	FORECAST							
As at December 31	2010	2011	2012	2013	2014	2015		
Surplus:								
Investment in tangible capital assets Amounts to be recovered in future years:	262,568,000	264,416,000	263,471,000	265,680,000	262,500,000	261,945,000		
Future Benefits	(1,985,000)	(2,382,000)	(2,859,000)	(3,431,000)	(4,117,000)	(4,940,000		
Debentures	(1,169,000)	(1,030,000)	(889,000)	(748,000)	(604,000)	(460,000		
	259,414,000	261,004,000	259,723,000	261,501,000	257,779,000	256,545,000		
Reserves set aside for specific purposes by council:								
Water	24,463,000	27,240,000	30,672,000	35,147,000	43,476,000	54,313,000		
Accumulated Surplus	\$283.877.000	\$288,244,000	\$290.395.000	\$296,648,000	\$301,255,000	\$310.858.000		