

Water Long-Range Financial Plan  
In Accordance with O.Reg. 453/07

**The Regional Municipality of Niagara**

**#007-301A**

---

## *Table of Contents*

---

### WATER LONG-RANGE FINANCIAL PLAN FORECAST

INTRODUCTION	2
What is a Long Range Financial Plan	3
Importance of a Long Range Financial Plan	4
General Approach to Preparing the Region's LRFPP	4
The LRFPP is Dynamic	5
WATER MODEL AND SITUATIONAL ANALYSIS	6
Model Development	6
Challenges, Risks and Opportunities	7
WATER FORECAST - CAPITAL BUDGET	9
Water Capital Budget- Key Assumptions	9
Water Capital Budget - Type of Project and Capital Financing	10
Water Capital Budget - Debt Summary	11
WATER FORECAST - OPERATING BUDGET	12
Introduction and Operating Budget Assumptions	12
REPORTING REQUIREMENTS—O.Reg. 453/07	13
Water Reporting Requirements - O.Reg 453/07	14
Water - Statement of Financial Position	15
Water - Statement of Financial Operations	16
Water - Statement of Cash Flows	17

***Water Long Range Financial Plan  
Forecast***

## ***Introduction to Long Range Financial Planning***

### **Water Long Range Financial Planning**

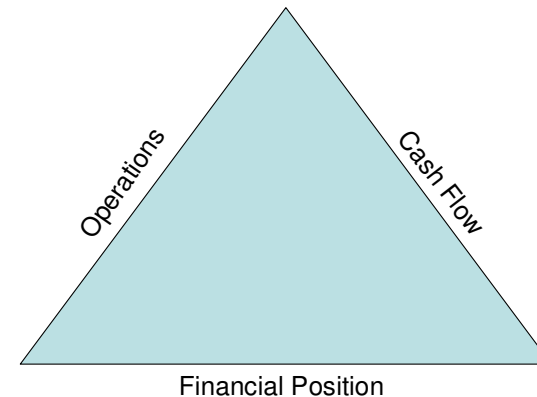
Niagara Region, along with other Ontario municipalities that are responsible for the provision of drinking water, are required to meet the requirements set out in the Financial Plans Regulations O.Reg.453/07.

The regulation sets out:

- What a financial plan is for both new and existing drinking water systems
- Approval and submission requirement
- Timing for submission and renewal of financial plans
- Public transparency provisions

The regulation requires financial plans to contain projections of prescribed categories of financial information for municipal drinking water systems projected for each fiscal year for a minimum of 6 years.

The categories can be found in three statements:



The categories of financial information have been developed;

- to ensure that they provide a sound picture of the financial position of a drinking water system
- to ensure that they are aligned with municipal financial statements prepared on a full accrual accounting basis, beginning on January 1, 2009
- to be a balance between encouraging more comprehensive and consistent financial planning for municipal water services, and accommodating existing municipal practices

### What is a Long Range Financial Plan?

The financial environment for municipal government has fundamentally changed. Niagara Region, like other municipalities in Ontario has to fund programs and services it provides within a limited funding framework—namely, it must address rising costs, the demands of growth, increased service responsibilities and aging infrastructure with relatively flat revenue streams and limited ability to modify the services it provides.

A Long Range Financial Plan (LRFP) is a comprehensive financial plan that contains statements of strategies, principles and policies to guide financial decision-making. The goal is to provide the Region with a realistic and informed view of operating and capital expenditures needed over time to maintain the integrity and health of its physical infrastructure and to accommodate growth and new environmental standards. As such, a LRFP creates a more purposeful approach to long-term financial management and helps align short term actions with long term financial strategies.

This document puts the Region's financial condition in perspective, discusses the current challenges and risks and provides a financial forecast, consistent with the strategic direction of the Region. The plan also provides a framework for guiding the annual budget and the financial planning over a longer horizon. The LRFP helps to understand the implications that today's decisions have on future budgets.

The LRFP will be instrumental in the Region's ability to meet the Provincial reporting requirements included in O.Reg. 453/07 for water operations.



### *Importance of a Long Range Financial Plan*

A LRFP is a framework to guide the Region in planning and decision-making to help ensure that the Region:

- Has a plan to protect and maintain its assets
- Has a reasonable degree of stability and predictability in the rate burden
- Has a fair sharing in the distribution of resources between current and future ratepayers
- Has sustainable cash flows in the long term
- Maximizes its financial flexibility
- Minimizes financial vulnerability during economic downturns
- Maintains programs and services at their desired levels

### *General Approach to Preparing the Region's LRFP*

The LRFP identifies the key financial strategies that will influence the building of a sustainable long-term financial future and takes into account:

- Expected expenses and capital outlays for each year of the plan
- Expected revenues for each year and their source
- Performance measures to enable assessment of the Council's strategic priorities
- Assumptions that have been used in the development of the LRFP
- Sensitivity analysis on key assumptions most likely to affect long-range financial planning and sustainability to ensure that the Region is aware of the key levers that will impact the LRFP and that should be monitored over time

### The LRFP is Dynamic—Regular Updates Will Be Undertaken

Although great effort has been made to present accurate financial projections, based upon the data available at this time, a LRFP is a dynamic document and should be updated and re-evaluated, on an ongoing basis. As such, the 2010 Water LRFP should be considered a work-in-progress.

It is not an exercise in precision, rather it is intended for use as a forecasting tool to ensure that the Region is on the right course to meet its financial obligations and future challenges.

A software tool has been developed to allow staff to update the LRFP as new data and assumptions become available. Assumptions used in the LRFP should continue to be refined, its projections should build on more customized data and scenarios, and its strategies should continue to be tested by changing circumstances. The intent is to provide Council with regular updates to this document, so it will be useful in the ongoing cycle of business planning and budgeting.

There are many potential circumstances that could occur within the short to medium term that would affect the assumptions in the projections for operating and capital. Council priorities, planning policies, changes to service levels, consumption projections and infrastructure requirements, will certainly lead to changes when future LRFP updates are prepared.

It is anticipated that updates to the LRFP will:

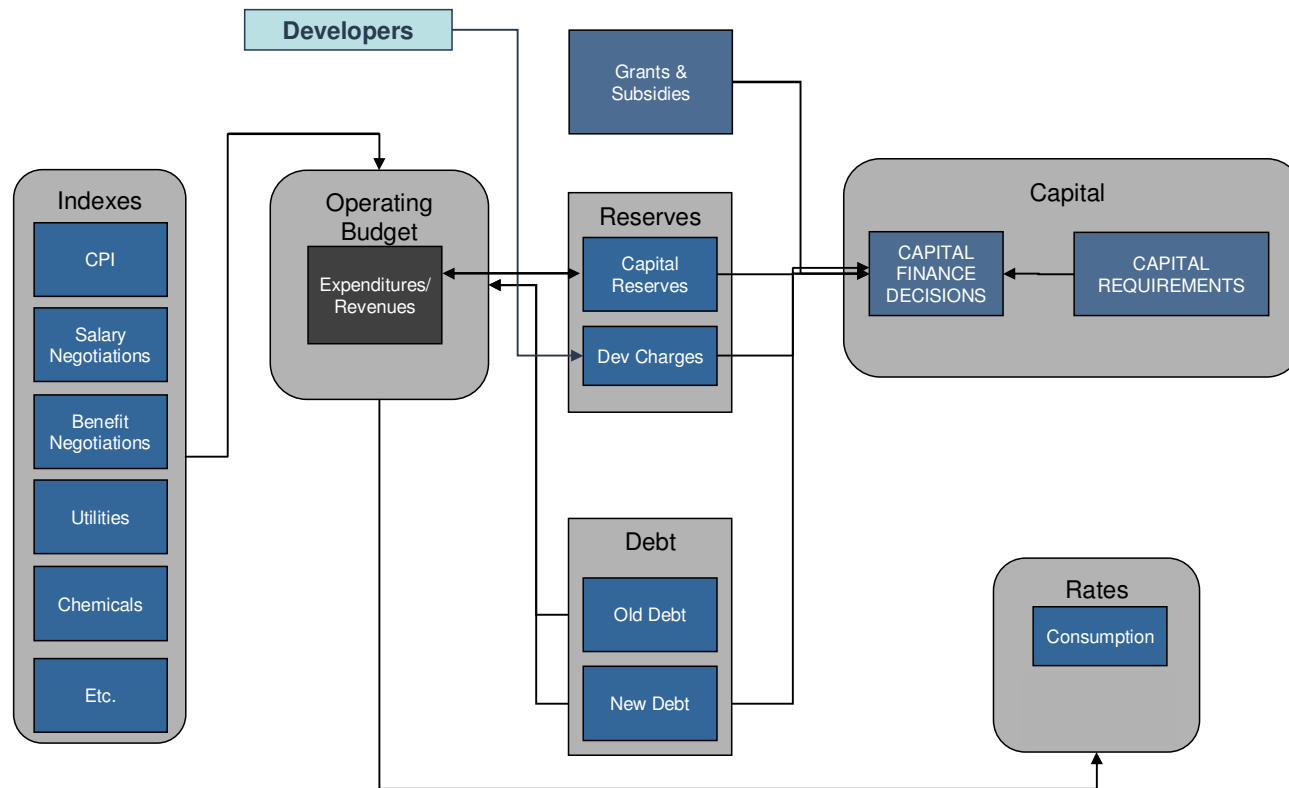
- Amend the assumptions, projections and strategies, as required, based on changes in the municipal environment
- Continue building awareness of future changes in current operating and capital spending and funding levels
- Assist the Region in determining the extent of its financial challenges
- Reconfirm the key financial goals and strategies that should guide future planning
- Spur the development of actions in future business plans that would respond to the long-term strategies



**Water Model and Situational Analysis**

**Model Development**

The LRFP is developed based on an analysis of all factors impacting the capital and operating budget, including financing plans and consumption forecasts. This forecast also includes assumptions with respect to growth and development charge revenues, interest rates impacting reserves and debt issuance. As shown below, due to the inter-relationship between all components of the plan, changes in any of the assumptions will potentially have an impact throughout the LRFP.



### Challenges, Risks and Opportunities

The following summarizes the key challenges, risks and opportunities to long-term financial sustainability:

- **Complex System**—The Region’s system is complex—Within the Region, there are five (5) separate water systems, with six (6) water treatment plants, over thirty (30) treated water storage tanks, eleven (11) major pumping stations and 285 kilometres of trunk watermains.
- **New Provincial Standards and Regulations**—Cost increases due to additional Provincial environmental requirements. Further, the O.Reg. 453/07 requires municipalities to demonstrate full cost recovery for all water services and provide a capital asset management plan.
- **Asset Renewal/Replacement**—The demand for additional infrastructure to match Niagara’s growth comes at the same time that the existing assets are reaching an age where their renewal/replacement are becoming critical and more costly. The Region has inventoried, valued and collected condition data on various infrastructure assets. The challenge will continue to be striking the right balance between funding growth related projects not recovered from DCs and the replacement of existing infrastructure to ensure affordability.
- **Large Capital Projects**—The Region has a number of large one-time projects on the horizon over the next several years to upgrade treatment plants. Efforts have been made to smooth rate increases.
- **Predictability of Wholesale Revenues**—Based on trends seen across Ontario, consumptions are, in fact, decreasing, despite population growth. This can be attributed to the decline in the economy as well as the success in conservation efforts and the installation of new water efficient technologies in homes and businesses. The Region has experienced significant losses in revenues over the past several years as a result of lower than anticipated water consumption.

A phased-in approach is also being implemented for water to gradually increase the fixed portion of the revenue recoveries from the area municipalities, based on the prior three-year consumption. Further, the Region updated their forecasting of water consumption using regression analysis to more accurately predict future consumption.

- **Availability of Stabilization Reserves and Reserve Funds**—The Region currently has no water stabilization reserve funds available in case of budget shortfalls. Strategies have been incorporated into the wholesale rate structure to reduce the risk.
- **Availability of Capital Reserves**—There is a need to increase capital reserve balances to support the replacement and refurbishment of assets. The plan incorporates strategies to build/maintain capital reserves over the next several years.
- **DC Revenues**—DC revenues are the primary source used to fund growth-related capital costs. Revenues from DC collections have not kept pace with the capital expenditure requirements to service new growth. The current practice is to fund the costs not recovered from DC revenues from water rates. This poses a challenge in terms of rate affordability and risks for current ratepayers.
- **Increasing Costs**—Many of the Region's water costs are fixed and do not vary by volumes consumed. Further, many of these costs are increasing at a pace faster than inflation.
- **Changes in Interest Rates**—While the existing borrowing rates are favourable, it is unknown how long these conditions will continue. This is a risk in terms of future debt financing.
- **Additional Funding Opportunities**—The LRFP is based on the existing funding formulas. Additional infrastructure funding from other levels of government which are unknown at this time have not been incorporated into the plan. This may provide opportunities for the Region to undertake additional capital replacement/refurbishment projects that would otherwise be unaffordable.
- **Debt Limits**—Currently, the Region has \$14.55 million of debt outstanding related to water with \$8 million in debt planned for 2010. The Region has been able to internally finance water the majority of capital over the past several years.
- **Affordability**—A number of municipalities in Niagara have lower than average household incomes in comparison to other municipalities in Ontario. Further, due to the relatively complex water system in the Region, the wholesale cost of water service is high. Future commitments at both the wholesale and retail level may lead to affordability challenges for ratepayers. The Region has capped, in its forecast, 2% annual increase in rate revenue requirements.

## Water Forecast—Capital Budget

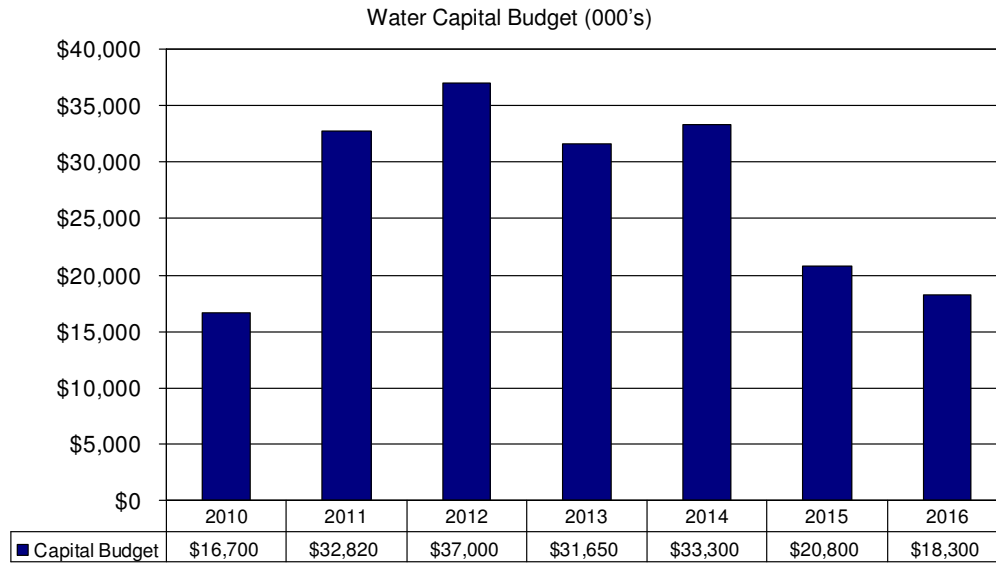
### Capital Budget—Key Assumptions

The following provides the key assumptions in the Capital Forecast:

- **Capital Projects**—The Water Capital Forecast is based on the approved 2010 Capital Budget.
- **Water Capital Reserves and Unfinanced Capital Reserve Adjustment**—The opening balance for 2010 Water Capital Reserve and Reserve Fund are based on the year-end estimated balance for 2009 with adjustments made per unfinanced capital. The opening balance for the Water Capital Reserve and Reserve Fund is \$46.279 million.
- **DC Reserves and Reserve Funds**—Opening balance for 2010 are based on the figures provided by Finance (DC Water \$7.018 million). DC forecast annual revenues are based on information provided by Finance.
- **Sources of Financing**—Capital Reserves were used as the primary source of financing replacement, risk and compliance related capital works, as defined in the Region's Capital Budget document. As identified in the Region's Master Plan, growth-related projects were first funded from available DC Reserve Funds and secondly from debt where insufficient DC Reserve Funds are available.
- **Gas Tax Funding**—This plan assumes no gas tax funding is available.
- **Debt Issuance Interest Rates**—Assumes 5% interest rates and a 10 year term.

**Capital Budget—Type of Project and Capital Financing**

Water operations are very capital intensive. The Water Capital Budget for 2010-2016 is \$190.47 million.

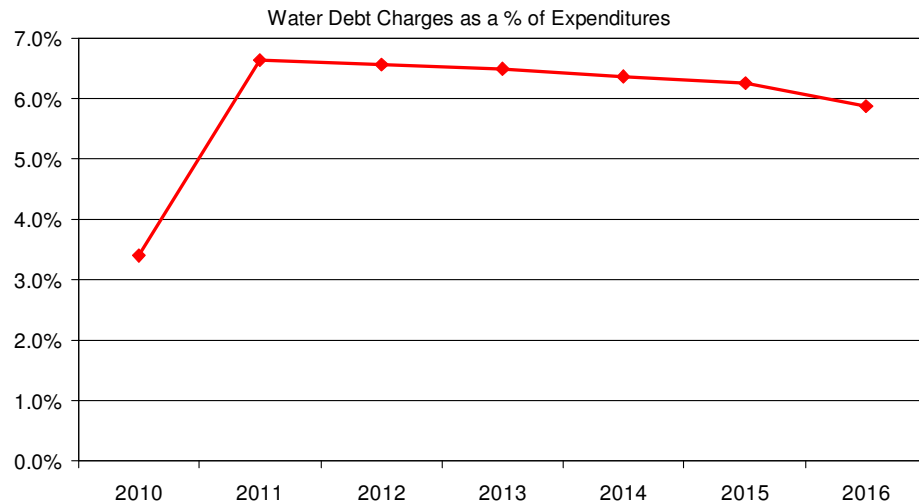
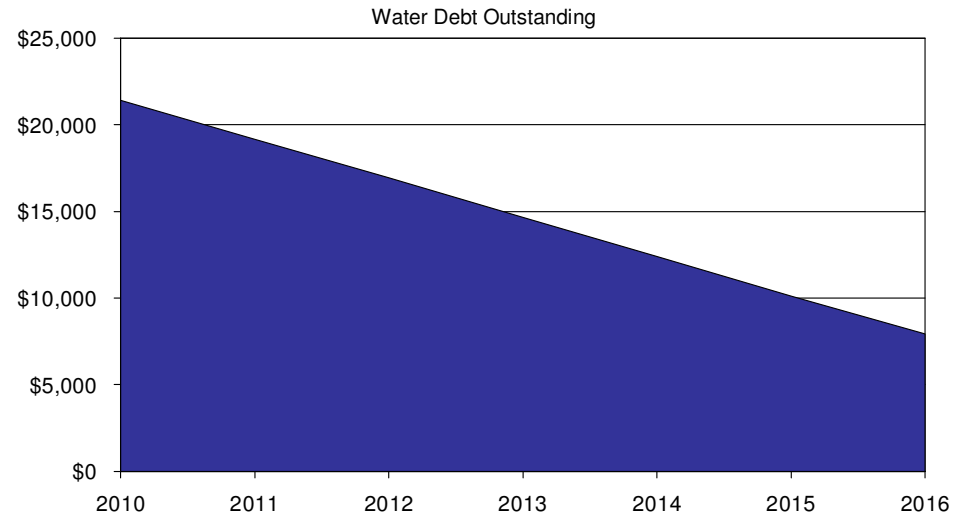
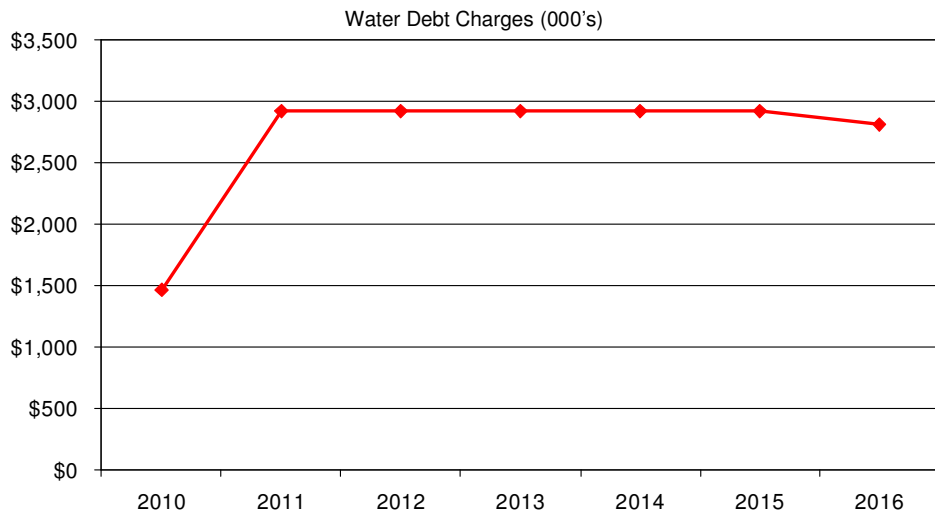


As stated in the Region’s Water Master Servicing Study, the Region considers the prudence of lower debt loads and lower financing costs from a “pay-as-you-go” policy as a high priority. When using internal funding sources, the financing vehicle chosen should relatively match the service provided through the capital project. For example, wherever possible growth-related capital cost should be funded through development charges. Similarly, replacement infrastructure, reconstructions and existing system improvements and maintenance should be funded by existing customers through user rates. Only when these first two internal sources cannot be accommodated without placing undue burden on the users should debenture financing be used as a source of funds. Large capital expenditures that are lumpy, that is occurring irregularly and in significantly large amounts for the construction of a treatment plant, could be funded, after grants and DCs, through debenture financing.

**Capital Financing**

	2010	2011	2012	2013	2014	2015	2016
DCs	\$ 350	\$ 3,916	\$ 12,000	\$ 3,700	\$ 3,600	\$ 3,600	\$ -
Debt	\$ 8,000						
Capital Reserves	\$ 8,350	\$ 28,904	\$ 25,000	\$ 27,950	\$ 29,700	\$ 17,200	\$ 18,300
<b>Total</b>	<b>\$ 16,700</b>	<b>\$ 32,820</b>	<b>\$ 37,000</b>	<b>\$ 31,650</b>	<b>\$ 33,300</b>	<b>\$ 20,800</b>	<b>\$ 18,300</b>

Debt Summary



While debt is often considered to be a financing source of last resort to be avoided, it is an appropriate way of financing large projects. Some major benefits derived from long-term debt financing are as follows:

- For water assets with a longer life expectancy, payments are spread over a longer term
- Helps prevent large fluctuations in rates from year to year
- Allows for more projects to be constructed simultaneously

Prior to issuance of debt, other sources of revenue such as available reserves and reserve funds have been utilized in order to minimize the amount of debt. However, with low Water DC Capital Reserve Fund balances, debt financing will be required for a portion of the growth-related capital projects. As illustrated, water debt charges as a percentage of expenditures peaks at 6.6% in 2011.

## Water Forecast—Operating Budget

### Introduction and Operating Budget Assumptions

Rates are set at a level to adequately cover current operating costs, maintain and repair the Region's existing asset base and replace assets where appropriate.

An annual increase of 2% in the water revenue requirements has been included in the LRFP and capital reserve contributions have been used to smooth the rate increase.

Efforts are being made in this plan to gradually grow/maintain the Water Capital Reserve Fund to provide a source of funding for the ongoing replacement/refurbishment of capital assets and provide a reasonable level of stabilization funds to deal with future operating fund deficits and emergency situations.

The following summarizes the key assumptions used to develop the Operating Budget Forecast:

- Expenditure increases for many municipal services to maintain existing level of services is based on estimated Consumers Price Index increases with the following exceptions:
  - Salary, wage and benefit increases based on existing contracts and future projected increases (2.5% annually).
  - Hydro is assumed to increase 7% annually based on information provided by the Associate Director of Energy Management.
  - Natural gas is assumed to increase 7% annually.
  - Property taxes is assumed to increase 5% per annum.
  - Chemicals—the forecast assumes a 5% per annum increase.
  - Other revenues are forecast to increase 1.5% annually which is between anticipated inflation and prior year forecasts for revenues.
- Reserve contributions vary annually and have been used to ensure full funding of sustainability, risk and compliance projects from the Capital Reserves
- The Forecast water notional rates is based on linear regression analysis for water for 2010-2012 with growth factored in until 2019 based on the DC study growth projections.

*Reporting Requirements—O.Reg. 453/07*



## Water Reporting Requirements—O.Reg. 453/07

Paragraph 4 of subsection 3(1) of the regulation requires that financial plans include the following:

1. Details of the proposed or projected **financial position** of the drinking water itemized by:
  - a. total financial assets
  - b. total liabilities
  - c. net debt
  - d. non-financial assets that are tangible capital assets, tangible capital assets under-construction, inventories of supplies and prepaid expenses
  - e. changes in tangible capital assets that are additions, donations, write-downs and disposals
2. Details of the proposed or projected **financial operations** of the drinking water system itemized by:
  - a. Total revenues, further itemized by water rates, user charges and other revenues
  - b. Total expenditures itemized by amortization expenses, interest expenses and other expenses
  - c. Annual surplus or deficit
  - d. Accumulated surplus or deficit
3. Details of the drinking water systems proposed or projected gross **cash receipts or gross cash payments (cash Flows)** itemized by:
  - a. Operating transactions that are cash received from revenues, cash paid for operating expenses and financing charges
  - b. Capital transactions that are proceeds on sale of tangible capital assets and cash used to acquire capital assets
  - c. Investing transactions that are acquisitions and disposal of investments
  - d. Financial transactions that are proceeds from the issuance of debt and debt repayment
  - e. Changes in cash and cash equivalents during the year
  - f. Cash and cash equivalents at the beginning and end of the year
4. Details related to the replacement of lead service pipes. Note this is not included as Niagara Region is an upper tier municipality providing treatment to 11 local area municipalities. The local area municipalities manage the distribution systems and replacement of lead service pipes.

**Proforma Statement of Financial Position - Water**

(in 000's)

	2010	2011	2012	2013	2014	2015	2016
<b><u>Financial Assets</u></b>							
Cash	\$ 59,451	\$ 50,889	\$ 46,094	\$ 38,078	\$ 28,384	\$ 31,263	\$ 33,350
<b><u>Liabilities</u></b>							
Debt - Principal Outstanding	\$ 21,657	\$ 19,819	\$ 17,889	\$ 15,862	\$ 13,734	\$ 11,499	\$ 9,153
<b>Net Financial Assets</b>	<b>\$ 37,794</b>	<b>\$ 31,070</b>	<b>\$ 28,205</b>	<b>\$ 22,216</b>	<b>\$ 14,650</b>	<b>\$ 19,764</b>	<b>\$ 24,197</b>
<b><u>Non-Financial Assets</u></b>							
Tangible Capital Assets	\$ 184,484	\$ 209,775	\$ 239,007	\$ 262,855	\$ 289,442	\$ 304,563	\$ 317,735
Cash as a % of Net Fixed Assets	32.2%	24.3%	19.3%	14.5%	9.8%	10.3%	10.5%
Debt as a % of Net Fixed Assets	11.7%	9.4%	7.5%	6.0%	4.7%	3.8%	2.9%

**Proforma Statement of Financial Operations - Water**

(in 000's)

	2010	2011	2012	2013	2014	2015	2016
<b><u>Water Total Revenues</u></b>							
Rate Revenues	\$ 42,018	\$ 42,858	\$ 43,716	\$ 44,590	\$ 45,482	\$ 46,391	\$ 47,319
Miscellaneous Revenues	\$ 339	\$ 339	\$ 344	\$ 349	\$ 354	\$ 360	\$ 365
Interests Earned - Revenues	\$ 634	\$ 767	\$ 488	\$ 89	\$ 45	\$ 15	\$ 158
<b>Total Revenues</b>	<b>\$ 42,991</b>	<b>\$ 43,964</b>	<b>\$ 44,548</b>	<b>\$ 45,028</b>	<b>\$ 45,881</b>	<b>\$ 46,766</b>	<b>\$ 47,842</b>
<b><u>Water Total Expenses</u></b>							
<b>Operating Expenses</b>							
Salaries and Wages Expenses	\$ 5,379	\$ 5,513	\$ 5,651	\$ 5,792	\$ 5,937	\$ 6,086	\$ 6,268
Benefits Expenses	\$ 1,004	\$ 1,029	\$ 1,055	\$ 1,081	\$ 1,108	\$ 1,136	\$ 1,170
Miscellaneous Expenses	\$ 1,608	\$ 1,656	\$ 1,706	\$ 1,757	\$ 1,810	\$ 1,864	\$ 1,920
Chemicals Expenses	\$ 807	\$ 848	\$ 890	\$ 935	\$ 981	\$ 1,030	\$ 1,082
Repairs and Mtce Expenses	\$ 2,702	\$ 2,783	\$ 2,866	\$ 2,952	\$ 3,041	\$ 3,132	\$ 3,226
Utilities - Electricity Expenses	\$ 1,855	\$ 1,984	\$ 2,123	\$ 2,272	\$ 2,431	\$ 2,601	\$ 2,783
Utilities - Natrual Gas Expenses	\$ 384	\$ 411	\$ 440	\$ 470	\$ 503	\$ 538	\$ 576
Consulting Services Expenses	\$ 1,119	\$ 1,152	\$ 1,187	\$ 1,222	\$ 1,259	\$ 1,297	\$ 1,336
Interfunctional Transfers Expenses	\$ 4,124	\$ 4,248	\$ 4,375	\$ 4,507	\$ 4,642	\$ 4,781	\$ 4,924
Property Taxes Expenses	\$ 949	\$ 996	\$ 1,046	\$ 1,098	\$ 1,153	\$ 1,211	\$ 1,271
Recoveries Expenses	\$ (307)	\$ (316)	\$ (325)	\$ (335)	\$ (345)	\$ (356)	\$ (366)
Waste Disposal Services Expenses	\$ 385	\$ 396	\$ 408	\$ 420	\$ 433	\$ 446	\$ 459
<b>Operating Expenses</b>	<b>\$ 20,008</b>	<b>\$ 20,701</b>	<b>\$ 21,422</b>	<b>\$ 22,172</b>	<b>\$ 22,953</b>	<b>\$ 23,766</b>	<b>\$ 24,649</b>
<b>Debt Charges</b>							
Debt Charges - Interests Payments	\$ 564	\$ 1,083	\$ 991	\$ 895	\$ 793	\$ 687	\$ 460
<b>Amortization Expenses</b>							
Water Assets	\$ 7,328	\$ 7,529	\$ 8,285	\$ 9,214	\$ 8,743	\$ 8,435	\$ 8,580
<b>Total Expenses</b>	<b>\$ 27,336</b>	<b>\$ 28,230</b>	<b>\$ 29,707</b>	<b>\$ 31,386</b>	<b>\$ 31,696</b>	<b>\$ 32,201</b>	<b>\$ 33,229</b>
<b>Annual Surplus (Deficit)</b>	<b>\$ 15,655</b>	<b>\$ 15,734</b>	<b>\$ 14,841</b>	<b>\$ 13,642</b>	<b>\$ 14,185</b>	<b>\$ 14,565</b>	<b>\$ 14,613</b>

**Proforma Statement of Cash Flows/Cash Receipts - Water**

(in 000's)

	2010	2011	2012	2013	2014	2015	2016
<b>Total Revenues</b>	\$ 42,991	\$ 43,964	\$ 44,548	\$ 45,028	\$ 45,881	\$ 46,766	\$ 47,842
<b>Cash Paid For</b>							
Operating Costs	\$ 20,008	\$ 20,701	\$ 21,422	\$ 22,172	\$ 22,953	\$ 23,766	\$ 24,649
Debt Repayment - Debt Interest	\$ 564	\$ 1,083	\$ 991	\$ 895	\$ 793	\$ 687	\$ 460
<b>Cash Provided From Operating Transactions</b>	\$ 22,419	\$ 22,180	\$ 22,135	\$ 21,961	\$ 22,135	\$ 22,313	\$ 22,733
<b>Capital Transactions</b>							
Acquisition of TCA	\$ 16,700	\$ 32,820	\$ 37,000	\$ 31,650	\$ 33,300	\$ 20,800	\$ 18,300
<b>Finance Transactions</b>							
Proceeds from Debt Issues	\$ 8,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from DCs	\$ 350	\$ 3,916	\$ 12,000	\$ 3,700	\$ 3,600	\$ 3,600	\$ -
Debt Repayment - Principal	\$ (897)	\$ (1,838)	\$ (1,930)	\$ (2,027)	\$ (2,128)	\$ (2,235)	\$ (2,346)
<b>Increase/(Decrease) in Cash Equivalents</b>	\$ 13,172	\$ (8,562)	\$ (4,795)	\$ (8,016)	\$ (9,693)	\$ 2,878	\$ 2,087
<b>Cash and Cash Equivalents at Beginning Balance</b>	\$ 46,279	\$ 59,451	\$ 50,889	\$ 46,094	\$ 38,078	\$ 28,384	\$ 31,263
<b>Cash and Cash Equivalents at Ending Balance</b>	\$ 59,451	\$ 50,889	\$ 46,094	\$ 38,078	\$ 28,384	\$ 31,263	\$ 33,350