

# Town of Tecumseh Water and Wastewater Rate Study and O. Reg. 453/07

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## Overview Presentation

June 22, 2010

Watson & Associates Economists Ltd

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## Study Purpose

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- ❑ Over the past 10 years, significant legislated changes have occurred in the municipal water sector
- ❑ The **Safe Drinking Water Act** has established many of the rules and protocol surrounding how regulated entities provide water to its constituents
- ❑ One of the requirements is for all municipalities providing water service to be licensed to operate the water system(s) – as noted on the next page, part of the licensing requirement is for the municipality to submit a Financial Plan to the Province

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## 5 Requirements for Municipal Drinking Water Licence

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1. Drinking Water Works Permit (DWWP)
2. Accepted Operational Plan, based on the Drinking Water Quality Management Standard (DWQMS)
3. Accreditation of the Operating Authority
4. **Financial Plan**
5. Permit to Take Water (PTTW)

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## Timing for Submitting Financial Plans

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- ❑ O. Reg 453/07 provides that the financial plans must be submitted by July 1, 2010 or six months after granting of a municipalities license to operate their system(s), whichever is later
- ❑ O. Reg. 188/07 established the time frame for municipalities to apply for their licence to operate their systems
- ❑ 299 municipalities to apply during the January 1 2009 - June 1 2010 period – on average, 17 municipalities per month to apply for their license – staging was the largest municipalities first and then from South-west to South-east then North

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## Timing for Filing O. Reg. 453/07 Report

- As of May 1, 2010 only 47 municipalities have had their licenses approved – the following provides the timing of the O. Reg. report filing

July	August	September	October	November	December	2011+
Barrie, Brant, Brantford, Cambridge, Durham Region, Grimsby, Guelph, Halton Region, Hamilton (city), Kingston, Kingsville, Kitchener, Lake Huron Primary System, Leamington, Markham, Niagara Falls, Niagara Region, North Middlesex, Ottawa, Peel Region, Pelham, Plympton-Wyoming, Port Colborne, Richmond Hill, Sarnia, South Bruce, St. Catharines, St. Mary's, Southwest Middlesex, Tecumseh, Thunder Bay, Union Water Board, Vaughan, Warwick, West Elgin, West Grey, Windsor, York Region	Toronto	Amherstburg, Bayham, Lincoln, Norfolk, Prescott (Town), South Bruce Peninsula	Niagara-on-the-Lake, Point Edward	252 More to Submit →		

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## Summary of O. Reg. 453/07 Requirements

A brief summary of key elements of Regulation 453/07 is provided below:

- The financial plan will represent one of the five key elements for obtaining your Municipal Drinking-Water License
- The plan is to be completed July 1, 2010 (may be later if Drinking water license is obtained later than this date)
- The financial plans shall be for a period of a least six years but longer planning horizons are encouraged
- As the regulation is under the Drinking Water Act, the preparation of the plan is mandatory for water and encouraged for wastewater

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# Summary of O. Reg. 453/07 Requirements

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- ❑ The plan is considered a living document but will need to be undertaken at a minimum every five years
- ❑ The plans are generally consistent with the "Watson" Approach in forecasting the capital, operating and reserve fund positions, providing detailed inventories, forecasting future volumes and calculation of the rates.
- ❑ The additional requirements include the PSAB information for each year of the forecast (i.e. total non-financial assets, tangible capital assets acquisitions, tangible capital asset construction, betterments, write downs, disposals, total liabilities and net debt)
- ❑ The financial plans must be made available upon request to the public (without charge) and on the municipality's web site. The availability of this information must also be advertised

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## What does all of this mean?

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- ❑ Reporting is mandatory for Water and encouraged for Wastewater services
- ❑ The intent of the legislation is for:
  1. municipalities to project future activities for capital (including inventory renewal), operating, reserves and customers (and usage) and then
  2. report it to the Province in PSAB 3150 financial statement format (projected into the future)
- ❑ The O. Reg. 453/07 Study must be approved but the forecasted rates (i.e. beyond 2010) do not have to be approved at this time (may be reviewed in detail during next budget cycle)
- ❑ The Rate study provides the basis projecting the financial information on which the O. Reg. report will be prepared

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# Rate Study vs. O.Reg 453.07 Reporting Format

Significant Revision Areas	Rate Study	O.Reg 453.07 Financial Plan
Approach	"Modified Cash Basis"	"Full Accrual Basis"
Capital Requirements	Capital Forecast	Tangible Capital Assets
Previously acquired assets	Lifecycle Cost Analysis (Future Replacement)	Tangible Capital Assets (Historical Cost)
Debt Payments	Principal & Interest Expense	Interest Expense Principal: Debt reduction
Amortization	Not Applicable	Included in Operating Expenses
Reserve Transfers	Included as an expense	Part of "Accumulated Surplus"
Development Charge Reserve Fund Balances	Reserve Fund Continuity Schedule	Deferred Revenue

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# Present Water and Wastewater Rate Structure

Tecumseh Area B:	Water		Wastewater	
	Base Charge based on Meter Size	Volume Charge (per m <sup>3</sup> )	Base Charge based on Meter Size	Volume Charge (per m <sup>3</sup> )
5/8" & 3/4"	\$10.80	\$1.15	\$10.80	\$0.76
1"	\$18.74	\$1.15	\$18.74	\$0.76
1 1/2"	\$36.77	\$1.15	\$36.77	\$0.76
2"	\$54.80	\$1.15	\$54.80	\$0.76
3"	\$92.01	\$1.15	\$92.01	\$0.76
4"	\$148.51	\$1.15	\$148.51	\$0.76
6"	\$264.09	\$1.15	\$264.09	\$0.76

Lakeshore	Base Monthly Charge	Volume Charge (per m <sup>3</sup> )	Base Monthly Charge	Volume Charge (per m <sup>3</sup> )
Area A	\$50.00	\$1.15	\$10.80	\$0.76
Area C	\$50.00	\$1.15	\$10.80	\$0.76
Area D	\$50.00	\$1.49	\$10.80	\$0.76
Area E	\$50.00	\$1.49	\$10.80	\$0.76

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# Forecast Users and Billable Volumes

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- We have assumed an average of 300 m<sup>3</sup> per residential customer for future flows (based on existing usage data).
- This annual average has been assumed for future water and wastewater customers including new customers in Oldcastle.

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# Customer Profile - Existing

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Number of Customers	Water	Wastewater
5/8" & 3/4"	8,508	7,568
1"	117	68
1 1/2"	21	5
2"	69	46
3"	2	2
4"	2	2
6"	2	2
Total	8,721	7,693

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# Water and Wastewater Forecast Users and Billable Volumes

Water Customer Forecast

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Existing	8,721	8,721	8,721	8,721	8,721	8,721	8,721	8,721	8,721	8,721	8,721
New - Growth	11	37	94	210	361	537	732	937	1,152	1,367	1,582
Total	8,732	8,758	8,815	8,931	9,082	9,258	9,453	9,658	9,873	10,088	10,303

Water Consumption Forecast (m<sup>3</sup>)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Existing - Tecumseh	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090	2,800,090
Existing - Lakeshore (Premium) *	131,023	131,023	131,023	131,023	131,023	131,023	131,023	131,023	131,023	131,023	131,023
Existing Bonduelle Ontario Inc. **	154,159	154,159	154,159	154,159	154,159	154,159	154,159	154,159	154,159	154,159	154,159
New - Growth	3,300	11,100	28,200	63,000	108,300	161,100	219,600	281,100	345,600	410,100	474,600
Total	3,088,572	3,096,372	3,113,472	3,148,272	3,193,572	3,246,372	3,304,872	3,366,372	3,430,872	3,495,372	3,559,872

\* Lakeshore - 130% of Billing Code 155

\*\* 66% of Consumption - Billing Codes 113 & 154

Wastewater Customer Forecast

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Existing	7,693	7,693	7,693	7,693	7,693	7,693	7,693	7,693	7,693	7,693	7,693
New - Oldcastle	0	0	33	69	77	81	89	96	105	113	120
New - Growth	11	37	94	210	361	537	732	937	1,152	1,367	1,582
Total	7,704	7,730	7,820	7,972	8,131	8,311	8,514	8,726	8,950	9,173	9,395

Wastewater Consumption Forecast (m<sup>3</sup>)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Existing - Tecumseh	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781	2,490,781
* Existing Bonduelle Ontario Inc.	53,293	53,293	53,293	53,293	53,293	53,293	53,293	53,293	53,293	53,293	53,293
New - Oldcastle	0	0	9,900	20,700	23,100	24,300	26,700	28,800	31,500	33,900	36,000
New - Growth	3,300	11,100	28,200	63,000	108,300	161,100	219,600	281,100	345,600	410,100	474,600
Total	2,547,374	2,555,174	2,582,174	2,627,774	2,675,474	2,729,474	2,790,374	2,853,974	2,921,174	2,988,074	3,054,674

## Capital Infrastructure

- Capital needs were developed with Town Staff
- Works identified based on 2010 - 2019 capital budget, review of capital infrastructure replacement
- Capital works were identified by
  - Need
  - Timing
  - Costs

# Capital Water System Needs – 2010-2019 – (inflated \$)

Description	Total	Timing
Cast Iron Watermains Replacement	\$2,738,000	2010-2019
Tools/equipment	275,000	2010-2019
Meter purchases	932,000	2010-2019
Water rate study	49,000	2010, 2014 & 2019
Water Masterplan update	67,000	2011 & 2016
West Tecumseh Trunk Watermain from CR 22 to Intersection Road	1,143,000	2011-2012
West Tecumseh Trunk Watermain from Intersection Road to CP Railway	590,000	2015-2016
East Tecumseh Hamlet Watermain Connection	333,000	2013-2014
Trunk Watermain on Manning Road from CR 22 to CP Railway	1,447,000	2013-2014
North Talbot Road Trunk Watermain	1,140,000	2010
West Tecumseh Trunk Watermain from CP Railway to CR 42	1,066,000	2018-2019
Trunk Watermain on Manning Road South of CP Railway	769,000	2015-2016
Southwest Tecumseh Trunk Watermain on County Road 46	914,000	2012-2013
Southwest Tecumseh Trunk Watermain on 8th Concession Road	1,659,000	2016-2017
Lifecycle Replacement	385,000	2010-2019
<b>Total</b>	<b>\$13,507,000</b>	

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# Capital Wastewater System Needs – 2010-2019 – (inflated \$)

Description	Total	Timing
Rate study	\$49,000	2010, 2014 & 2019
Flushing	328,000	2010-2019
Lakewood Pump Station Replacement/Upgrades	3,634,000	2011-2012
Wastewater Masterplan update	67,000	2011 & 2016
Share of Windsor trunks - phase 1A & 3	500,000	2010
Share of Windsor trunks - phase 1B	500,000	2010
SCADA System for Cedarwood and Lakewood Pumping Stations	180,000	2010
West Tecumseh Trunk Sewer from CR 22 to Intersection Road	2,716,000	2010-2012
West Tecumseh Trunk Sewer from Intersection Road to CP Railway	1,439,000	2015-2016
Diversion Sewers	874,000	2011-2012
East Tecumseh Trunk Sewer	1,436,000	2013-2014
Sylvestre Pumping Station Upgrade	1,058,000	2015-2016
North Talbot Road Trunk Sewer	3,280,000	2010
Purchase Additional Conveyance Capacity in Northeast Windsor Trunk Sewer, Forest Glade to Little River PCP	2,979,000	2010-2011
West Tecumseh Trunk Sewer from CP Railway to CR 42	2,176,000	2018-2019
Purchase Additional Conveyance Capacity in Northeast Windsor Trunk Sewer, Banwell Road to 8th Concession Road	5,424,000	2010-2011
Southwest Tecumseh Trunk Sewer- Part 1	2,071,000	2012-2013
Southwest Tecumseh Trunk Sewer- Part 2	2,138,000	2016-2017
Local Works North Talbot Road Outlet	3,762,000	2010-2019
Lifecycle Replacement	395,000	2010-2019
<b>Total</b>	<b>\$35,006,000</b>	

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## Capital Financing Options

- ✓ Reserves
- ✓ Operating Budget Transfers
- ✓ Grants
- ✓ Debt
- ✓ Development Charges
- ✓ Municipal Act (Part 12)
- Local Improvements

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## Proposed Capital Financing – Water and Wastewater Programs (inflated \$)

Description	Water (2010-2019)	Wastewater (2010-2019)	Total (2010-2019)
<b>Capital Financing</b>			
Provincial/Federal Grants	\$760,000	\$7,788,700	\$8,548,700
Part 12 Recovery		4,855,333	4,855,333
Revenue from Meter Sales	385,450	0	385,450
Development Charges	168,000	4,513,600	4,681,600
Non-Growth Related Debenture Requirements	0	700,000	700,000
Growth Related Debenture Requirements	7,320,800	7,698,000	15,018,800
Transfer from Vehicle Reserve	370,000	365,000	735,000
Reserves and Reserve Funds	4,502,750	9,085,367	13,588,117
<b>Total Capital Financing</b>	<b>\$13,507,000</b>	<b>\$35,006,000</b>	<b>\$48,513,000</b>

Note: Growth Related Debt is not fully recoverable without developer assistance and will have impacts on the rates post 2016 for water and post 2021 for wastewater.

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## Lifecycle Infrastructure Costs

- Water infrastructure dates back to the 1960's and wastewater infrastructure dates back to the 1970's.
- Total value of existing water and wastewater infrastructure is \$158.8 million

## Lifecycle Infrastructure Costs (2010\$)

Area	Total Replacement Value	Amount to be funded in 10 year forecast	Total Net Replacement Value	Annual Lifecycle Replacement
<b>Water</b>				
Storage and Chambers	4,031,000	-	4,031,000	126,013
Vehicles	283,209	283,209	-	-
Watermains	88,253,940	-	88,253,940	3,270,725
<b>Total Water</b>	<b>92,568,149</b>	<b>283,209</b>	<b>92,284,940</b>	<b>3,396,738</b>
<b>Wastewater</b>				
Plant, Chambers and Pumping Stations	13,742,000	3,516,000	10,226,000	269,466
Vehicles	283,209	283,209	-	-
Sanitary Sewers	52,240,300	-	52,240,300	1,628,826
<b>Total Wastewater</b>	<b>66,265,509</b>	<b>3,799,209</b>	<b>62,466,300</b>	<b>1,898,292</b>
<b>Total</b>	<b>158,833,657</b>	<b>4,082,417</b>	<b>154,751,240</b>	<b>5,295,030</b>

## Lifecycle Reserves

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- Lifecycle contributions for each service have been rationalized.
- Water and Wastewater infrastructure replacements coming due within the 10 year forecast amount to approximately \$283,200 and \$3.8 million, respectfully.
- Transfers to reserve funds have been provided to begin phasing in the funds required for future needs.
- Forecast has ensured that the rates attain “financial sustainability” by the end of the forecast period.

## Operating Budgets

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- Operating expenditures are increasing over the forecast to recognize:
  - inflationary impacts
  - Need to monitor possible additional requirements associated with Licensing process and possible refinements to legislative changes

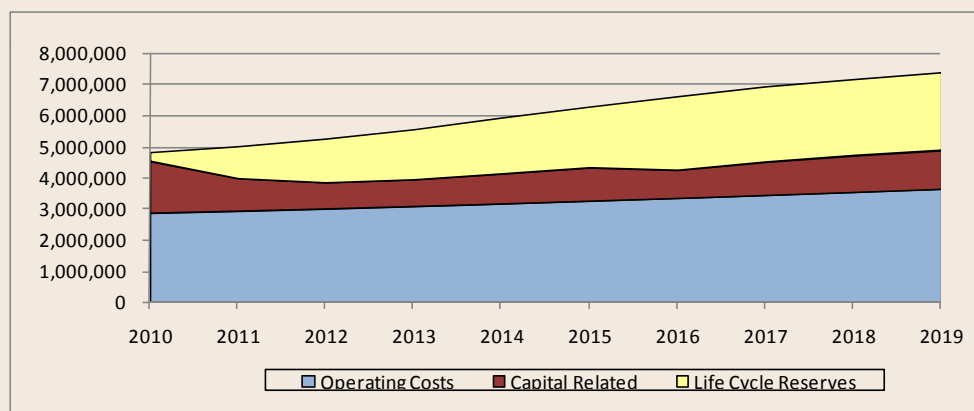
# Operating Budget – Water and Wastewater Overview of Components

Water Operating Budget		
Item	Inflation	Other
Payroll Related Expenses	2%	Based on WUC rates and consumption forecast
Administrative Expenses	2%	
Water Purchased		
<b>Water Distribution</b>		
Payroll Related Expenses	2%	
Supplies and Maintenance	2%	
<b>Water Plant</b>		
Hydro	2%	
Grass Cutting	2%	
<b>Water Oasis</b>		
Materials & Supplies	2%	
Building R & M Service	2%	
Utilities - Hydro & Water	2%	

Wastewater Operating Budget

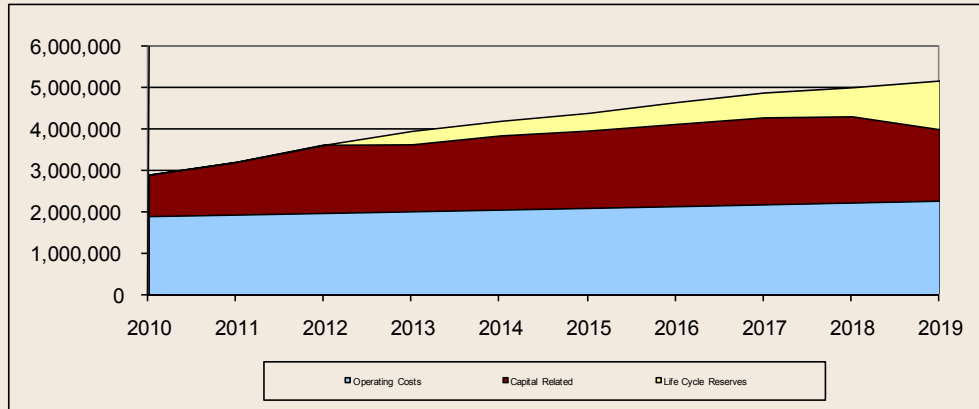
Item	Inflation
Payroll Related Expenditures	2%
Treatment-Windsor	2%
Administration Charge	2%
Billing & Collection Fee	2%
Property Taxes	2%
Maintenance Service	2%
Maintenance package plant	2%
Utilities - Hydro & Water	2%
Insurance	2%
Professional Fee - Engineering	2%
Materials and supplies	2%
Professional Develop. & Growth	2%
Education/Seminar Fees	2%
Advertising	2%
Professional Fee - Legal	2%
Equipment R & M Purchases	2%
Utilities - Gas	2%
Computer support/software	2%
Telephone	2%
Equipment maintenance	2%
Travel & Mileage	2%

# Water Operating Budget – Impact on Future Budgets



Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating Costs	2,855,594	2,919,645	2,992,444	3,071,424	3,155,596	3,244,409	3,336,857	3,433,075	3,531,809	3,633,120
Capital Related	1,679,407	1,057,706	851,659	869,979	975,949	1,082,955	911,657	1,080,271	1,189,946	1,257,315
Life Cycle Reserves	275,000	1,020,000	1,400,000	1,600,000	1,785,000	1,940,000	2,350,000	2,400,000	2,425,000	2,475,000
Total	4,810,001	4,997,351	5,244,103	5,541,404	5,916,545	6,267,365	6,598,514	6,913,346	7,146,756	7,365,434

# Wastewater Operating Budget – Impact on Future Budgets



Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating Costs	1,892,701	1,930,554	1,969,165	2,008,548	2,048,721	2,089,693	2,131,488	2,174,117	2,217,600	2,261,953
Capital Related	991,750	1,261,903	1,636,721	1,607,646	1,782,672	1,858,936	1,977,185	2,090,812	2,075,267	1,717,653
Life Cycle Reserves	0	0	0	325,000	350,000	425,000	525,000	600,000	700,000	1,175,000
<b>Total</b>	<b>2,884,451</b>	<b>3,192,457</b>	<b>3,605,886</b>	<b>3,941,194</b>	<b>4,181,393</b>	<b>4,373,629</b>	<b>4,633,673</b>	<b>4,864,929</b>	<b>4,992,867</b>	<b>5,154,606</b>

# Water and Wastewater Bill Forecast (Based on 300 m<sup>3</sup> annual usage)

Average Residential Water Bill (based on 300m<sup>3</sup> annually)

Rates	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Base Charge	122.16	129.60	132.24	134.88	137.52	140.28	143.04	145.92	148.92	151.80	154.92
Volume Charge	318.00	345.00	357.00	366.00	375.00	387.00	396.00	405.00	405.00	405.00	405.00
<b>Total Bill</b>	<b>440.16</b>	<b>474.60</b>	<b>489.24</b>	<b>500.88</b>	<b>512.52</b>	<b>527.28</b>	<b>539.04</b>	<b>550.92</b>	<b>553.92</b>	<b>556.80</b>	<b>559.92</b>
<b>Annual Percentage Increase</b>		<b>8%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>

Average Residential Wastewater Bill (based on 300m<sup>3</sup> annually)

Rates	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Monthly Base Charge	122.16	129.60	132.24	134.88	137.52	140.28	143.04	145.92	148.92	151.80	154.92
Volume Charge	207.00	216.00	225.00	234.00	243.00	249.00	255.00	264.00	264.00	264.00	264.00
<b>Total Bill</b>	<b>329.16</b>	<b>345.60</b>	<b>357.24</b>	<b>368.88</b>	<b>380.52</b>	<b>389.28</b>	<b>398.04</b>	<b>409.92</b>	<b>412.92</b>	<b>415.80</b>	<b>418.92</b>
<b>Annual Percentage Increase</b>		<b>5%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>

<b>Total Bill (Water and Wastewater)</b>	<b>769.32</b>	<b>820.20</b>	<b>846.48</b>	<b>869.76</b>	<b>893.04</b>	<b>916.56</b>	<b>937.08</b>	<b>960.84</b>	<b>966.84</b>	<b>972.60</b>	<b>978.84</b>
<b>Annual Percentage Increase</b>		<b>7%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>3%</b>	<b>2%</b>	<b>3%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>

## Comparison of Volumes Rates between 2007 & 2010 studies

Water	2010	2011	2012	2013	2014	2015	2016	2017
2007 Rate Study	1.15	1.20	1.21	1.21	1.21	1.21	1.21	1.21
2010 Rate Study	1.15	1.19	1.22	1.25	1.29	1.32	1.35	1.35
Difference	-	(0.01)	0.01	0.04	0.08	0.11	0.14	0.14

Wastewater	2010	2011	2012	2013	2014	2015	2016	2017
2007 Rate Study	0.76	0.82	0.82	0.82	0.82	0.82	0.82	0.82
2010 Rate Study	0.72	0.75	0.78	0.81	0.83	0.85	0.88	0.88
Difference	(0.04)	(0.07)	(0.04)	(0.01)	0.01	0.03	0.06	0.06

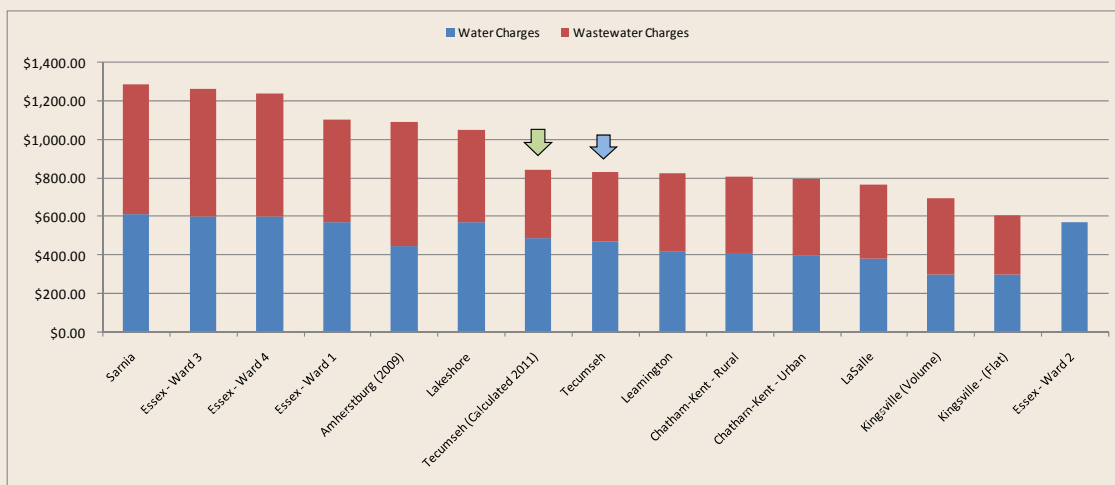
Changes between the two studies over the 2010-2017 timeframe include:

- Consumption Forecast has been reduced by approx. 13%
- Additional Capital Projects of \$3.5 million for water and \$19.9 million for wastewater
- Grant Funding of \$760,000 for water and \$7.8 million for wastewater
- Assumed Recovery (Part 12) from Existing Residents/Businesses connecting to the wastewater system (North Talbot Road)
- Updates to Lifecycle Reserve Needs

## Water and Wastewater Bill Comparison (Based on 300 m<sup>3</sup> annual usage)

Rank	Municipality	Water Charges	Wastewater Charges	Total Charges
1	Sarnia	\$614.52	\$675.97	\$1,290.49
2	Essex - Ward 3	\$603.00	\$663.00	\$1,266.00
3	Essex - Ward 4	\$603.00	\$639.00	\$1,242.00
4	Essex - Ward 1	\$573.00	\$534.00	\$1,107.00
5	Amherstburg (2009)	\$449.88	\$640.20	\$1,090.08
6	Lakeshore	\$574.08	\$480.12	\$1,054.20
7	Tecumseh (Calculated 2011)	\$488.36	\$356.01	\$844.37
8	Tecumseh	\$474.07	\$357.27	\$831.34
9	Leamington	\$419.94	\$405.02	\$824.96
10	Chatham-Kent - Rural	\$414.00	\$393.00	\$807.00
11	Chatham-Kent - Urban	\$402.00	\$393.00	\$795.00
12	LaSalle	\$384.00	\$384.00	\$768.00
13	Kingsville (Volume)	\$303.16	\$394.12	\$697.28
14	Kingsville - (Flat)	\$303.16	\$305.00	\$608.16
15	Essex - Ward 2	\$573.00	\$0.00	\$573.00

## Water/Wastewater Bill Comparison Based on 300 m<sup>3</sup> annual usage



## Examples of Reporting Differences between O.Reg. Report and Rate Report

- The following provides examples of the reporting differences between a Modified Cash Basis and Full Accrual Basis

# Capital Water System Needs – 2010-2019 – (inflated \$)

Description	Total	Timing
Cast Iron Watermains Replacement	\$2,738,000	2010-2019
Tools/equipment	275,000	2010-2019
Meter purchases	932,000	2010-2019
Water rate study	49,000	2010, 2014 & 2019
Water Masterplan update	67,000	2011 & 2016
West Tecumseh Trunk Watermain from CR 22 to Intersection Road	1,143,000	2011-2012
West Tecumseh Trunk Watermain from Intersection Road to CP Railway	590,000	2015-2016
East Tecumseh Hamlet Watermain Connection	333,000	2013-2014
Trunk Watermain on Manning Road from CR 22 to CP Railway	1,447,000	2013-2014
North Talbot Road Trunk Watermain	1,140,000	2010
West Tecumseh Trunk Watermain from CP Railway to CR 42	1,066,000	2018-2019
Trunk Watermain on Manning Road South of CP Railway	769,000	2015-2016
Southwest Tecumseh Trunk Watermain on County Road 46	914,000	2012-2013
Southwest Tecumseh Trunk Watermain on 8th Concession Road	1,659,000	2016-2017
Lifecycle Replacement	385,000	2010-2019
<b>Total</b>	<b>\$13,507,000</b>	

# Water Tangible Capital Assets

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Opening TCA Balance (Historical Cost)	-	51,093,835	52,521,154	53,391,556	54,742,246	56,388,165	57,572,506	58,583,112	60,423,096	61,610,025	62,494,623
Acquisitions	-	1,565,000	949,000	1,500,000	1,741,000	1,267,000	1,101,000	1,980,000	1,316,000	961,000	1,011,000
Disposals	-	137,681	78,598	149,310	95,081	82,659	90,394	140,016	129,071	76,402	112,285
<b>Closing TCA Balance (Historical Cost)</b>	<b>51,093,835</b>	<b>52,521,154</b>	<b>53,391,556</b>	<b>54,742,246</b>	<b>56,388,165</b>	<b>57,572,506</b>	<b>58,583,112</b>	<b>60,423,096</b>	<b>61,610,025</b>	<b>62,494,623</b>	<b>63,393,338</b>
Opening Accumulated Amortization	-	12,227,664	12,912,047	13,671,864	14,373,024	15,149,240	15,957,407	16,771,410	17,554,842	18,378,791	19,277,123
Amortization Expense	-	822,064	838,415	850,471	871,297	890,826	904,396	923,448	953,020	974,734	964,953
Amortization on Disposal	-	137,681	78,598	149,810	95,081	82,659	90,394	140,016	129,071	76,402	112,285
<b>Ending Accumulated Amortization</b>	<b>12,227,664</b>	<b>12,912,047</b>	<b>13,671,864</b>	<b>14,373,024</b>	<b>15,149,240</b>	<b>15,957,407</b>	<b>16,771,410</b>	<b>17,554,842</b>	<b>18,378,791</b>	<b>19,277,123</b>	<b>20,129,792</b>
<b>Net Book Value</b>	<b>38,866,171</b>	<b>39,609,107</b>	<b>39,719,692</b>	<b>40,369,221</b>	<b>41,238,925</b>	<b>41,615,098</b>	<b>41,811,702</b>	<b>42,868,254</b>	<b>43,231,234</b>	<b>43,217,500</b>	<b>43,263,546</b>

**\$13,391,000**

**Asset Acquisitions for O.Reg 453/07**  
Note: Difference in total is due to studies which are not classified as a TCA

## Proposed Capital Financing – Water and Wastewater Programs (inflated \$)

Description	Water (2010-2019)	Wastewater (2010-2019)	Total (2010-2019)	
<b>Capital Financing</b>				
Provincial/Federal Grants	\$760,000	\$7,788,700	\$8,548,700	4
Part 12 Recovery		4,855,333	4,855,333	4
Revenue from Meter Sales	385,450	0	385,450	4
Development Charges	168,000	4,513,600	4,681,600	1
Non-Growth Related Debenture Requirements	0	700,000	700,000	2
Growth Related Debenture Requirements	7,320,800	7,698,000	15,018,800	2
Transfer from Vehicle Reserve	370,000	365,000	735,000	3
Reserves and Reserve Funds	4,502,750	9,085,367	13,588,117	3
<b>Total Capital Financing</b>	<b>\$13,507,000</b>	<b>\$35,006,000</b>	<b>\$48,513,000</b>	

Rate Study Capital Financing →

O.Reg 453/07:

1. Use of Deferred Revenue
2. Increase in Debt
3. Use of Accumulated Surplus
4. Other Revenue

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## Lifecycle Infrastructure Costs (2010\$)

Area	Total Replacement Value	Amount to be funded in 10 year forecast	Total Net Replacement Value	Annual Lifecycle Replacement
<b>Water</b>				
Storage and Chambers	4,031,000	-	4,031,000	126,013
Vehicles	283,209	283,209	-	-
Watermains	88,253,940	-	88,253,940	3,270,725
<b>Total Water</b>	<b>92,568,149</b>	<b>283,209</b>	<b>92,284,940</b>	<b>3,396,738</b>
<b>Wastewater</b>				
Plant, Chambers and Pumping Stations	13,742,000	3,516,000	10,226,000	269,466
Vehicles	283,209	283,209	-	-
Sanitary Sewers	52,240,300	-	52,240,300	1,628,826
<b>Total Wastewater</b>	<b>66,265,509</b>	<b>3,799,209</b>	<b>62,466,300</b>	<b>1,898,292</b>
<b>Total</b>	<b>158,833,657</b>	<b>4,082,417</b>	<b>154,751,240</b>	<b>5,295,030</b>

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# Water Tangible Capital Assets

Description	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Opening TCA Balance (Historical Cost)	-	51,093,835	52,521,154	53,391,556	54,742,246	56,388,165	57,572,506	58,583,112	60,423,096	61,610,025	62,494,623
Acquisitions	-	1,565,000	949,000	1,500,000	1,741,000	1,267,000	1,101,000	1,980,000	1,316,000	961,000	1,011,000
Disposals	-	137,681	78,598	149,310	95,081	82,659	90,394	140,016	129,071	76,402	112,285
<b>Closing TCA Balance (Historical Cost)</b>	<b>51,093,835</b>	<b>52,521,154</b>	<b>53,391,556</b>	<b>54,742,246</b>	<b>56,388,165</b>	<b>57,572,506</b>	<b>58,583,112</b>	<b>60,423,096</b>	<b>61,610,025</b>	<b>62,494,623</b>	<b>63,393,338</b>
Opening Accumulated Amortization	-	12,227,664	12,912,047	13,671,864	14,373,024	15,149,240	15,957,407	16,771,410	17,554,842	18,378,791	19,277,123
Amortization Expense	-	822,064	838,415	850,471	871,297	890,826	904,396	923,448	953,020	974,734	964,953
Amortization on Disposal	-	137,681	78,598	149,310	95,081	82,659	90,394	140,016	129,071	76,402	112,285
<b>Ending Accumulated Amortization</b>	<b>12,227,664</b>	<b>12,912,047</b>	<b>13,671,864</b>	<b>14,373,024</b>	<b>15,149,240</b>	<b>15,957,407</b>	<b>16,771,410</b>	<b>17,554,842</b>	<b>18,378,791</b>	<b>19,277,123</b>	<b>20,129,792</b>
<b>Net Book Value</b>	<b>38,866,171</b>	<b>39,609,107</b>	<b>39,719,692</b>	<b>40,369,221</b>	<b>41,238,925</b>	<b>41,615,098</b>	<b>41,811,702</b>	<b>42,868,254</b>	<b>43,231,234</b>	<b>43,217,500</b>	<b>43,263,546</b>

Asset Historical Cost for O.Reg 453/07

# 2010 Revenue/Expense Conversion

Modified Cash Basis	Budget 2010	Adjustments to Remove Non-Accrual Accounts		Transition Budget Balances 2010	Adjustments to add Accrual Accounts		Full Accrual Budget 2010	Accrual Basis	Notes on Adjustments
		Dr	Cr		Dr	Cr			
<b>Revenues</b>								<b>Revenues</b>	
Revenues	4,728,389			4,728,389			4,728,389	Revenues	No change
Transfers from Reserves	-			-			-		Removes non-accrual reserve account
					167,989		167,989	Earned Deferred Revenue - Development Charges	New account to reflect earned Deferred Revenue
Other Revenue	81,612			81,612		872,290	953,903	Other Revenue	To account for Interest Revenue, Grants, and Meter Revenue
<b>Total Revenues</b>	<b>4,810,001</b>			<b>4,810,001</b>			<b>5,850,291</b>	<b>Total Revenues</b>	
<b>Expenditures</b>								<b>Expenses</b>	
Operating	2,865,594			2,865,594	15,000		2,870,594	Operating Expenses	Adds various expenses previously classified as capital expenditures
Capital									
Transfers to Reserves	1,680,000	1,680,000		-			-		Removes non-accrual reserve account
Transfers to Capital	-			-			-		Removes TCA related balances which are now captured in statement of financial position
Debt Repayment (Principal & Interest)	250,995			250,995		195,436	55,559	Interest on Debt	Removes principal portion of debt - now reflected on statement of cash flow.
					822,064		822,064	Amortization	New account created as a result of PSAB 3150 - reflects cost of using TCA
Other - Debt Recoverable from Landowners	23,412			23,412		19,488	3,925	Other - Debt Recoverable from Landowners	Removes principal portion of debt - now reflected on statement of cash flow.
<b>Total Expenditures</b>	<b>4,810,001</b>			<b>3,130,001</b>			<b>3,752,141</b>	<b>Total Expenses</b>	
<b>Net Expenditures</b>	<b>-</b>			<b>-</b>			<b>2,098,150</b>	<b>Annual Surplus(Deficit)</b>	Represents difference between Revenues and Expenditures
Increase (decrease) in amounts to be recovered	-			-			41,903,062	Accumulated Surplus(Deficit), beginning of year	
<b>Change in fund balances</b>	<b>-</b>			<b>-</b>	2,098,150		<b>44,001,212</b>	<b>Accumulated Surplus(Deficit), end of year</b>	To transfer annual surplus to accumulated surplus
<b>TOTAL ADJUSTMENTS</b>		<b>-</b>	<b>1,680,000</b>		<b>2,935,213</b>	<b>1,255,213</b>			

## 2010 Asset/Liability Conversion

Modified Cash Basis	Budget 2010	Adjustments to Remove Non-Accrual Accounts		Transition Budget Balances 2010	Adjustments to add Accrual Accounts		Full Accrual Budget 2010	Accrual Basis	Notes on Adjustments
		Dr	Cr		Dr	Cr			
<b>Assets</b>									
<b>Financial Assets</b>									
Cash	4,903,597			4,903,597			4,903,597	Cash	No change
Accounts Receivable	902,679			902,679			902,679	Accounts Receivable	No change
				-			-	Investments	No change
				-			-	Inventory for resale	New account
Total Financial Assets	5,806,276			5,806,276			5,806,276	Total Financial Assets	
<b>Non-Financial Assets</b>									
Inventory of Supplies	-			-			-		Presented below Non-Financial Asset section
Prepaid Expenses	-			-			-		Presented below Non-Financial Asset section
Total Non-Financial Assets	-			-			-		
<b>Liabilities</b>									
Accounts Payable & Accrued Liabilities	106,553			106,553			106,553	Accounts Payable & Accrued Liabilities	No Change
Gross Long-term Liabilities	1,304,568			1,304,568			1,304,568	Debt (Principal only)	No Change
Other (DC Reserves-Deferred Revenue)	3,050			3,050			3,050	Other (DC Reserves-Deferred Revenue)	No Change
Total Liabilities	1,414,171			1,414,171			1,414,171	Total Liabilities	
<b>Net Assets/(Debt)</b>	<b>4,392,105</b>			<b>4,392,105</b>			<b>4,392,105</b>	<b>Net Financial Assets/(Debt)</b>	
					39,624,107	15,000	39,609,107	<b>Non-Financial Assets</b>	
					-	-	-	Tangible Capital Assets	Adds NBV of Tangible Capital Assets (less non-TCA capital projects) - offset entry is to accumulated surplus
					-	-	-	Inventory of Supplies	Account reclassified as Non-Financial Asset for inventory for own use
					-	-	-	Prepaid Expenses	Account reclassified as Non-Financial Asset
					-	-	-	Total Non-Financial Assets	
<b>Municipal Position</b>									
Water Reserves	5,696,673	5,696,673		-			-		Removes non-accrual reserve account - balance to be transferred to accumulated surplus
Development Charge Reserve Fund	3,050	3,050		-			-		Removes non-accrual reserve account - balance to be transferred to accumulated surplus
Amounts to be Recovered	(1,307,618)		1,307,618	-			-		Removes account - balance to be transferred to accumulated surplus
Total Municipal Position	4,392,105	-	-			44,001,212	44,001,212	Accumulated Surplus/(Deficit)	Represents offset entry for TCA's and existing reserve fund balances
<b>TOTAL ADJUSTMENTS</b>		<b>5,699,722</b>	<b>1,307,618</b>		<b>39,624,107</b>	<b>44,016,212</b>			

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## Next Steps

- ▣ As noted earlier, the O. Reg. 453/07 Study must be approved but the forecasted rates (i.e. beyond 2010) do not have to be approved at this time (may be reviewed in detail during next budget cycle)
- ▣ The two reports will be submitted to the MOE and MMAH along with the Council Resolution approving the O. Reg. 453/07 “Financial Plan” Report

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