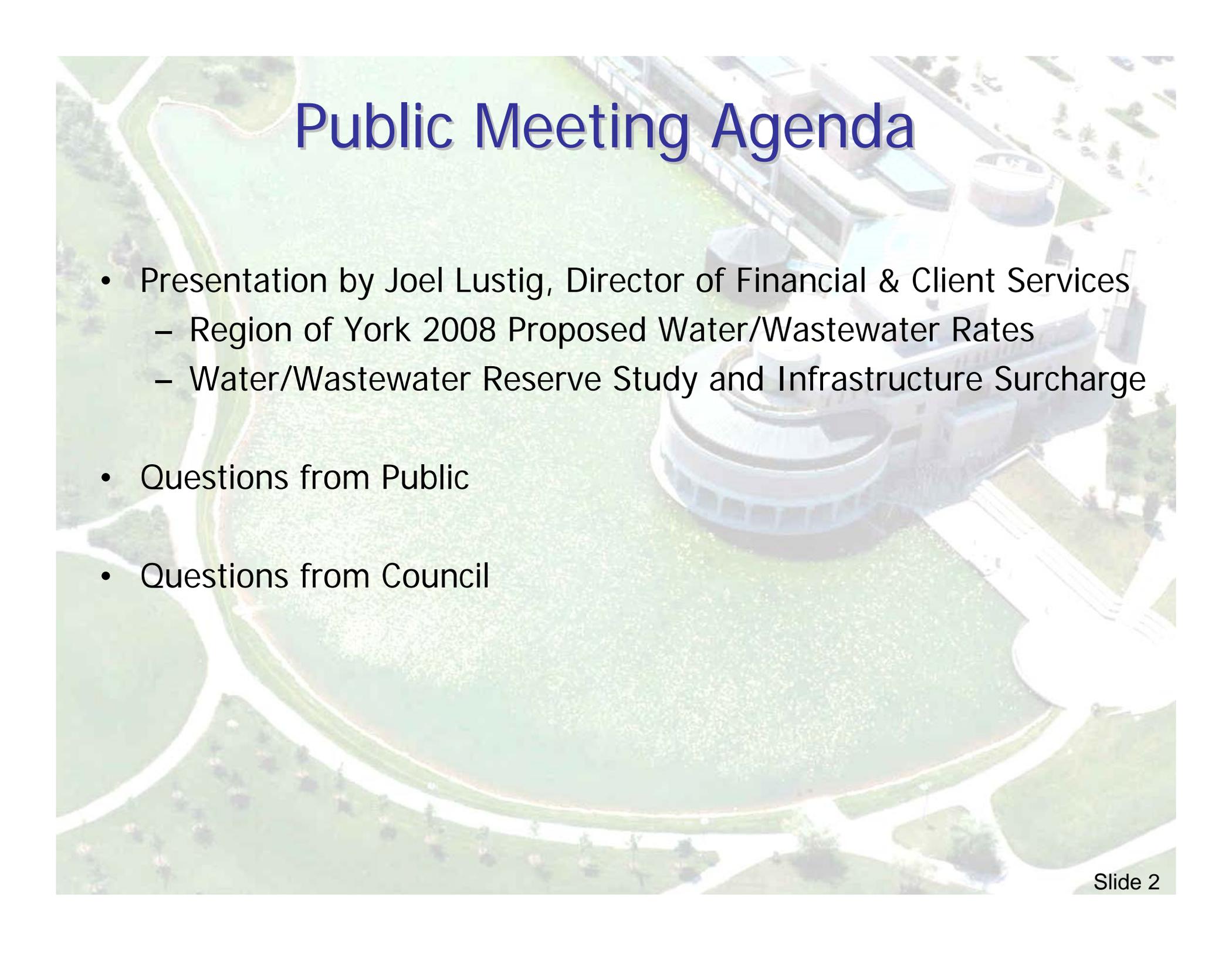


Town of Markham

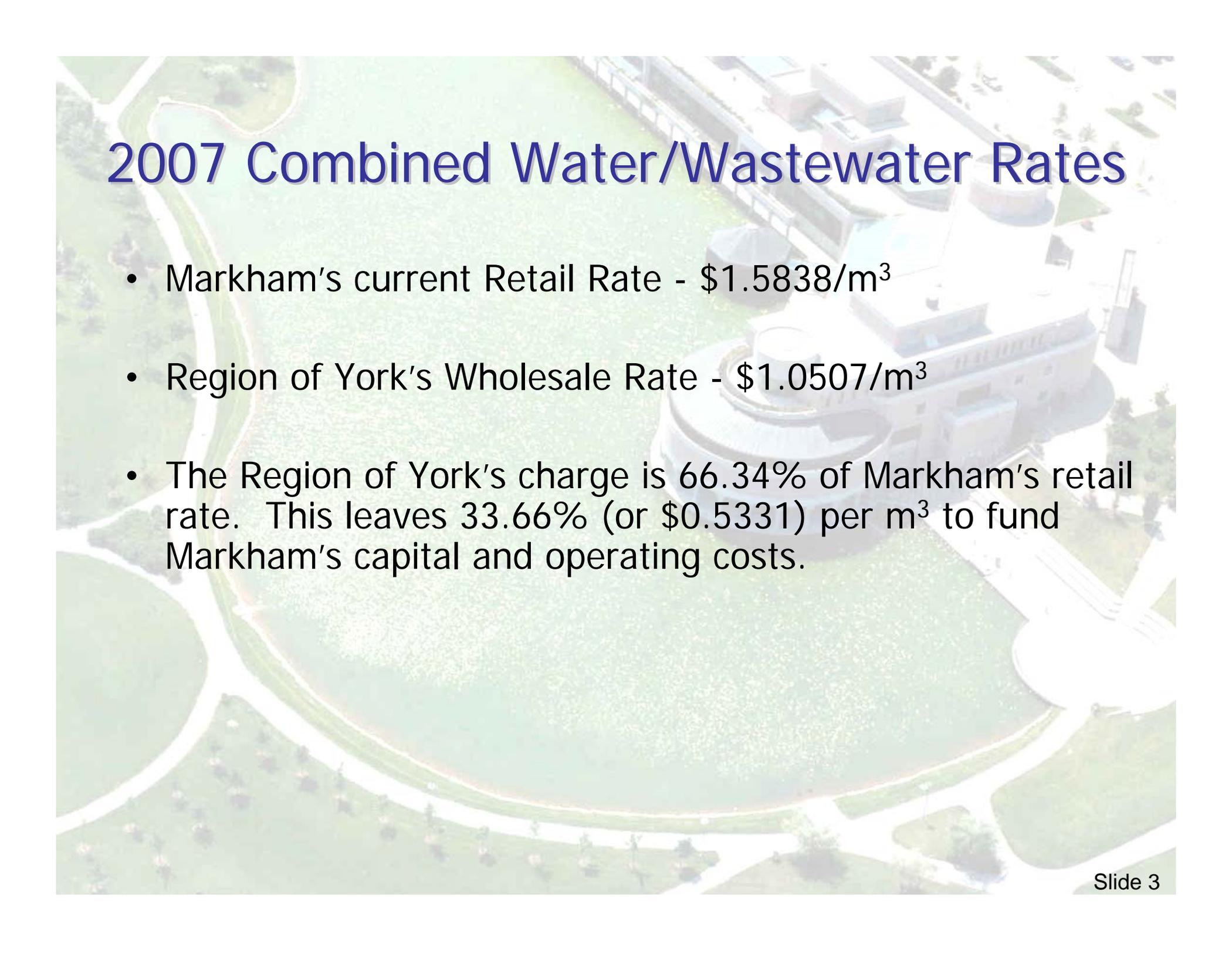
2008 Proposed Water/Wastewater Rates

Public Meeting
November 20, 2007



Public Meeting Agenda

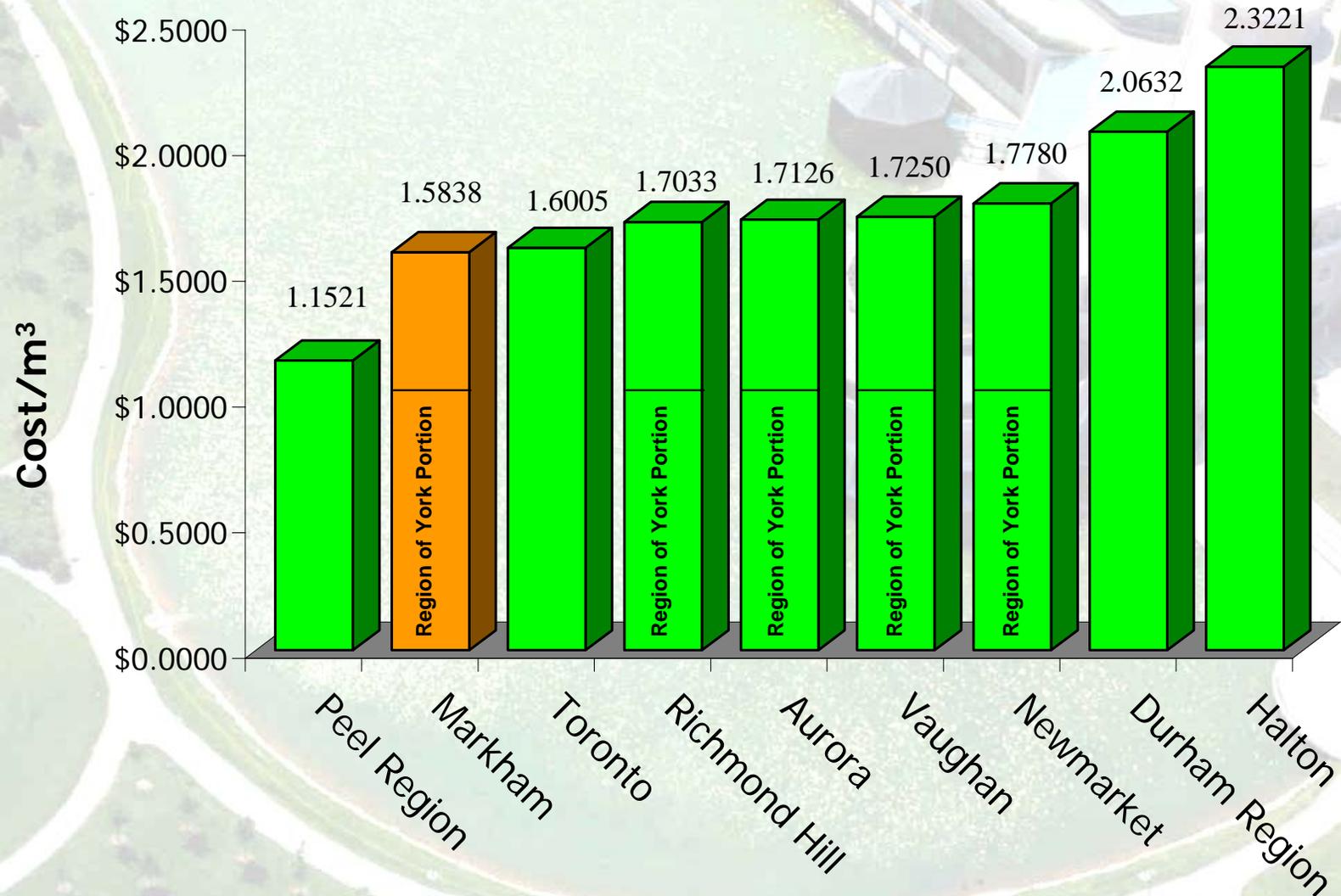
- Presentation by Joel Lustig, Director of Financial & Client Services
 - Region of York 2008 Proposed Water/Wastewater Rates
 - Water/Wastewater Reserve Study and Infrastructure Surcharge
- Questions from Public
- Questions from Council



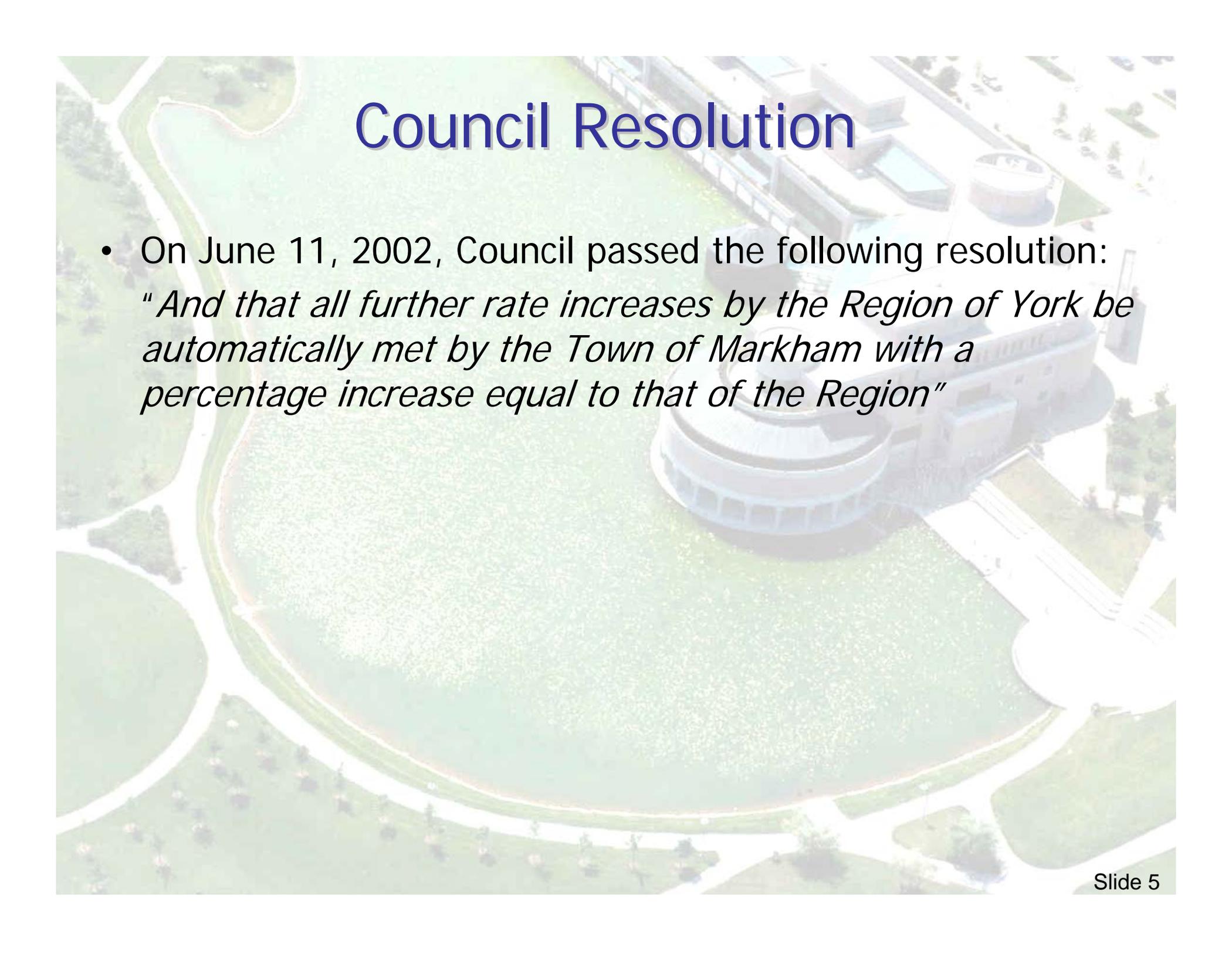
2007 Combined Water/Wastewater Rates

- Markham's current Retail Rate - \$1.5838/m³
- Region of York's Wholesale Rate - \$1.0507/m³
- The Region of York's charge is 66.34% of Markham's retail rate. This leaves 33.66% (or \$0.5331) per m³ to fund Markham's capital and operating costs.

Comparative 2007 Water/Wastewater Rates (\$/m³)

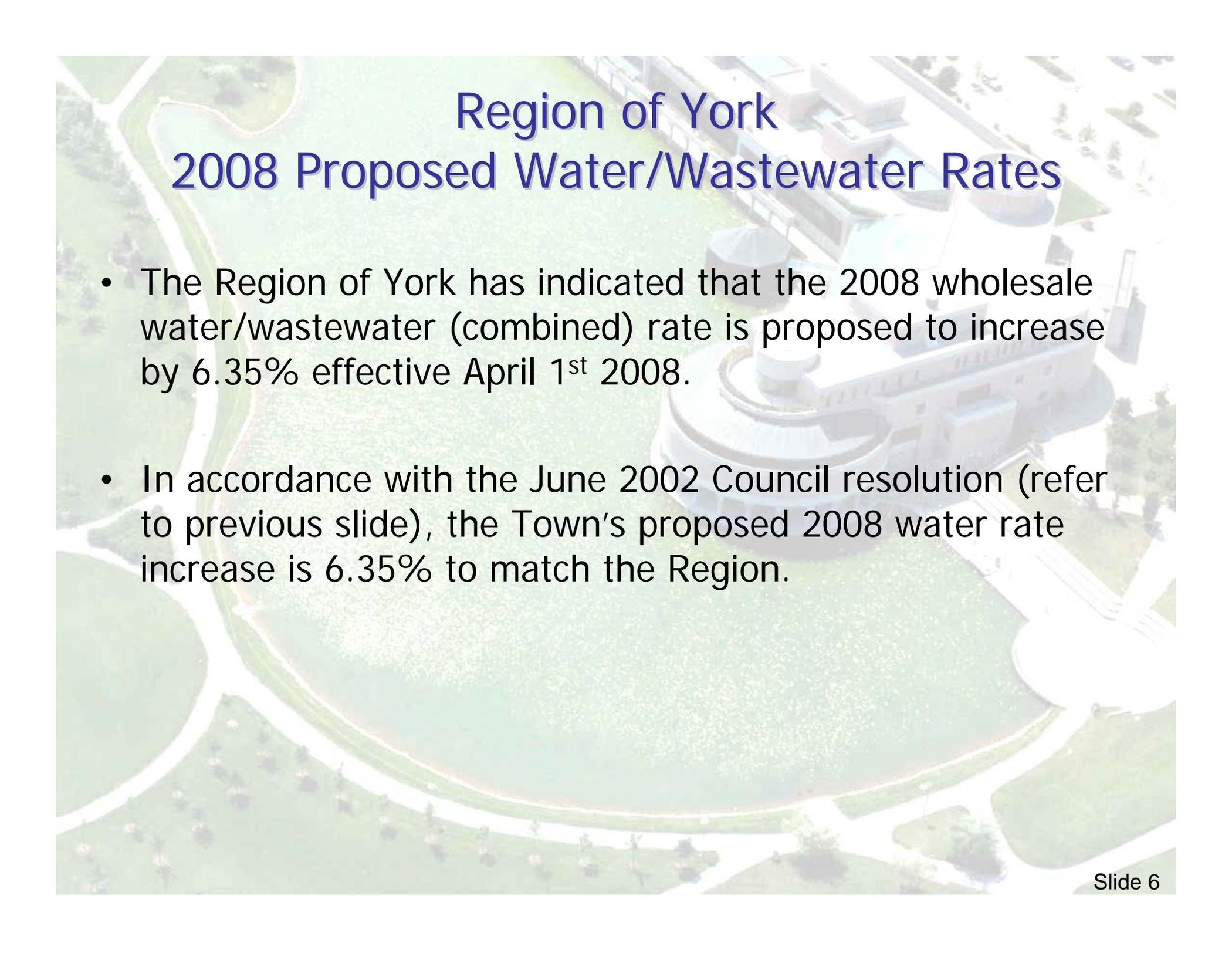


- Toronto has various rates, based on consumption. The rate shown here represents an average based upon projected consumption for a residential home.
- Durham Region includes a service charge of \$0.5745/ m³. Halton Region includes a service charge of \$0.8092/ m³
- York Region's wholesale rate is \$1.0507/m³



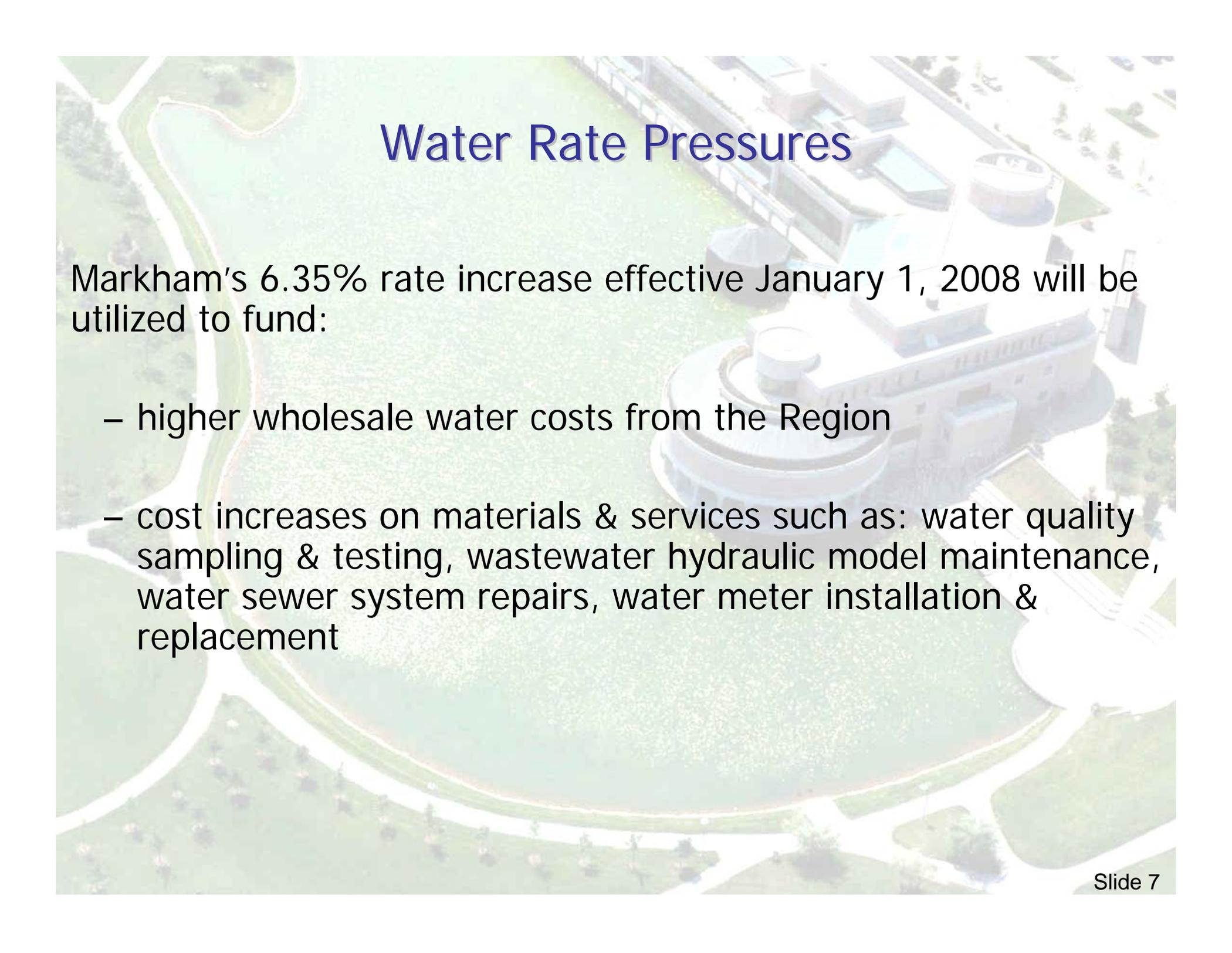
Council Resolution

- On June 11, 2002, Council passed the following resolution:
"And that all further rate increases by the Region of York be automatically met by the Town of Markham with a percentage increase equal to that of the Region"



Region of York 2008 Proposed Water/Wastewater Rates

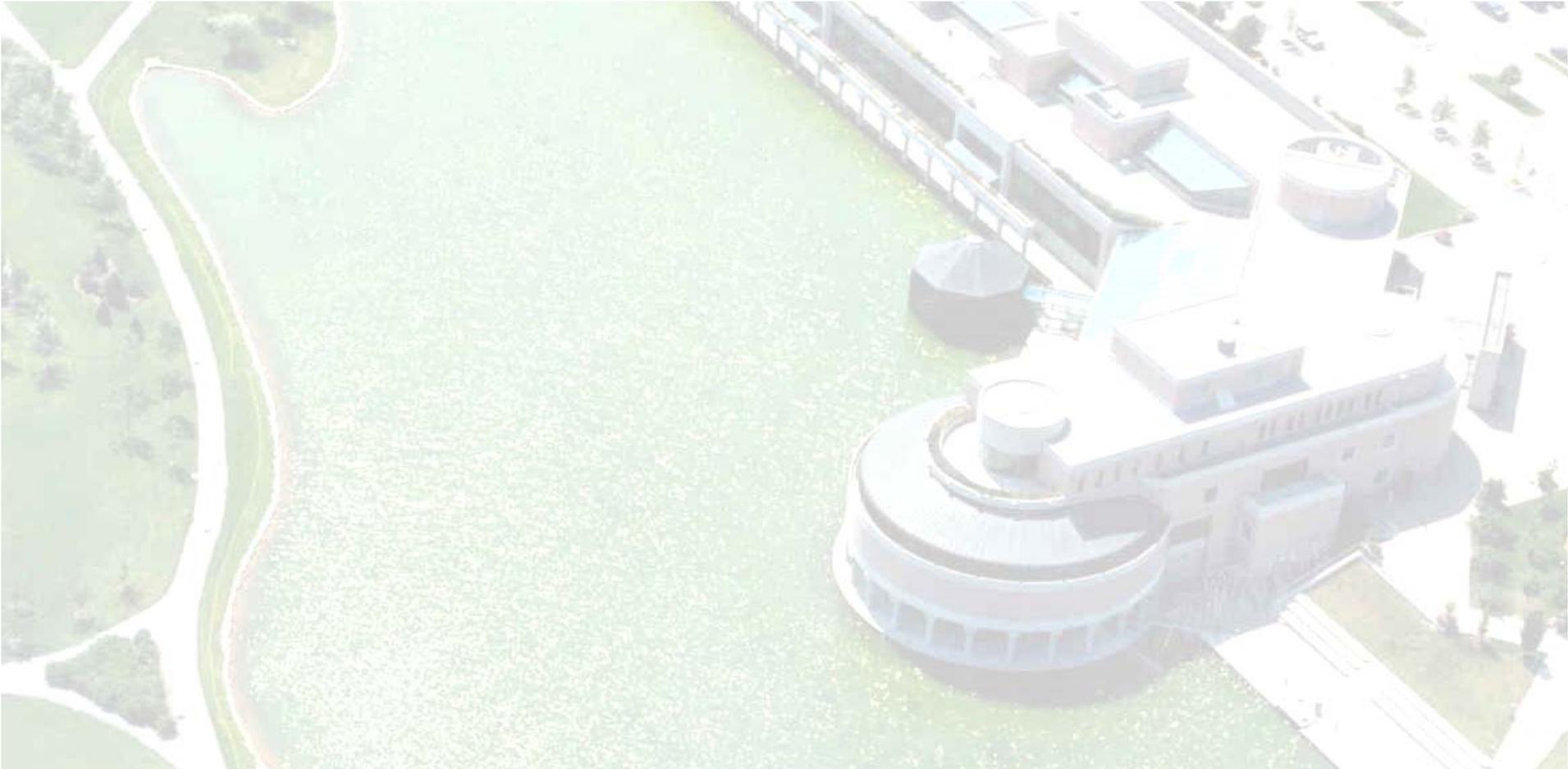
- The Region of York has indicated that the 2008 wholesale water/wastewater (combined) rate is proposed to increase by 6.35% effective April 1st 2008.
- In accordance with the June 2002 Council resolution (refer to previous slide), the Town's proposed 2008 water rate increase is 6.35% to match the Region.



Water Rate Pressures

Markham's 6.35% rate increase effective January 1, 2008 will be utilized to fund:

- higher wholesale water costs from the Region
- cost increases on materials & services such as: water quality sampling & testing, wastewater hydraulic model maintenance, water sewer system repairs, water meter installation & replacement



Water/Wastewater Reserve Study
&
Infrastructure Surcharge

Water & Wastewater Reserve Study

Purpose

- To address ongoing replacements and rehabilitation requirements for Waterworks Infrastructure and other Waterworks related capital assets (i.e. Fleet, Facilities, ITS infrastructure) over their useful lives
- Pro-active in addressing funding requirements now for the significant future replacement costs of the aging Waterworks infrastructure in advance of pending legislation
- Similar to the Life Cycle & Capital Reserve Study, establish policy to ensure adequate funding in Reserve to sustain future Waterworks replacement/rehabilitation requirements

Waterworks Reserve Balance

Balance (as at the end of October 2007)

\$8,775,781

Executive Summary

- Assets to the end of December 2006
- Incorporate projection on future population growth and the impact on sale and purchase of water
- Industry standards, consultant study, estimates, and statistical data are used to determine replacement cycle and asset replacement values
- The Reserve Study will be updated annually to account for new inventory and to monitor the adequacy of the Reserve to sustain planned future replacements
- Similar to the capital budgets of replacements/rehabilitation of non-Waterworks assets, future year Waterworks capital budgets will be based upon the Water & Wastewater Reserve Study (for asset repairs/replacements) should condition assessments determine the replacements are required
- The Reserve Study addresses capital replacement/rehabilitation requirements and provides for capital induced operating costs & non-replacement programs

Existing Waterworks Inventory & Related Life Cycle Assumptions

Type	Life Cycle	Inventory (as at the end of December 31, 2006)	
Sewer	Sewer Main *	73	778 km
	Sewage Service *	50	67,039 Connections
	Manholes	100	11,384 Manholes
	Manholes - ICI property line	100	approx. 1,870 Manholes ***
	Lift Station	50	5
Water	Water Main *		Total 918 km
	Asbestos Cement	77	4.5 km
	Cast Iron	92	76 km
	Copper	85	16.7 km
	Concrete Pressure Pipe	108	15.9 km
	Ductile Iron	68	236.1 km
	Polybutylene	88	1.4 km
	Polyethylene	88	1.3 km
	Polyvinyl Chloride (PVC)	88	565.5 km
	Steel	68	0.3 km
	Water Service	63	67,039 Connections
	Water Metre **	20	67,039
	Fire Hydrant *	61	7,132
	Water Valve Chamber *	50	6,887
	Water Valve * (includes In-Chamber 7,742 & Curb Box 1,054)	59	8,796

* Life Cycle based on Consultant Report (Delcan)

** Life Cycle based on York Region Average

*** Based on number of Water Meters with ratio assumption of 1 Water Meter to 1 Manhole

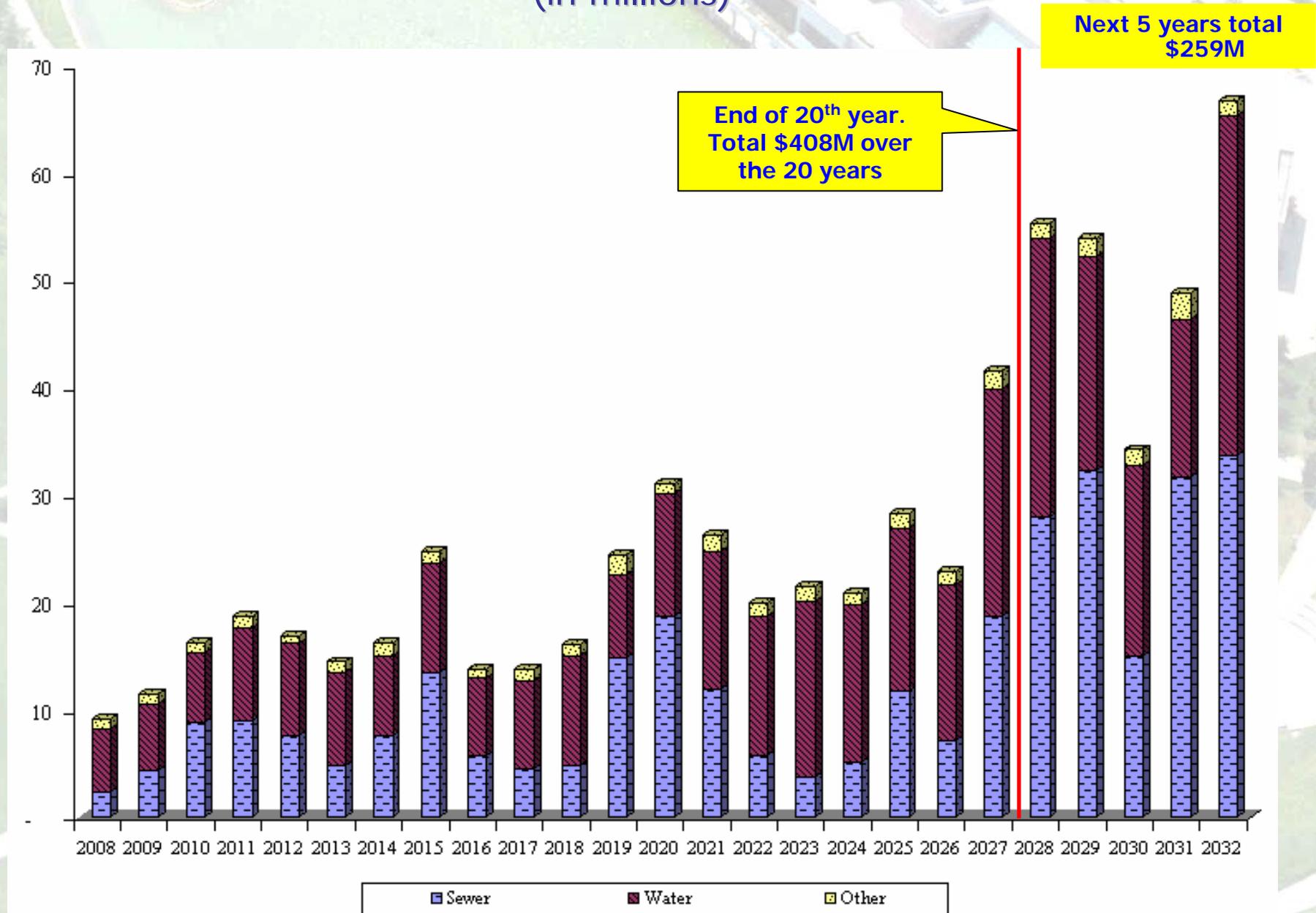
Other Major Assumptions

- Inflation at 5% from 2008 to 2012 (based on average Construction Price Index* from past 5 years) and at 2% starting in 2013
- 2008 Region's Water rate increase of 6.35% with Town matching Region's increase of 6.35%, and at 3%/yr for both Region's & Town's Water rate increase in future years
- Population Growth rate** at:
 - 2% from 2008 to 2016
 - 0.5% from 2017 to 2047
 - By 2048, maximum population will be reached
- Water loss at 7.5%
- Accelerated Cast Iron Replacement Program

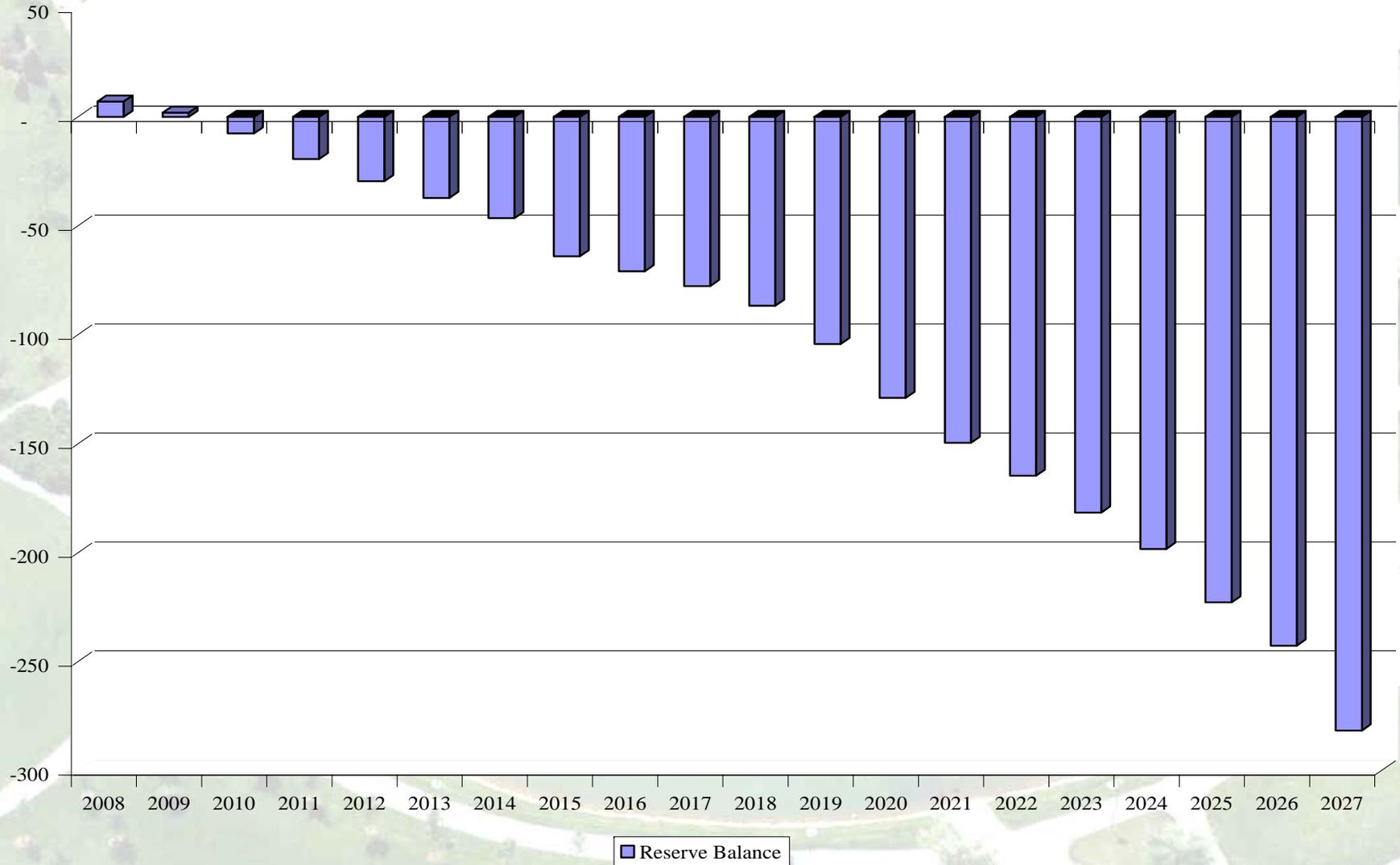
* From the Construction Price Index used in the Development Charge Background Study

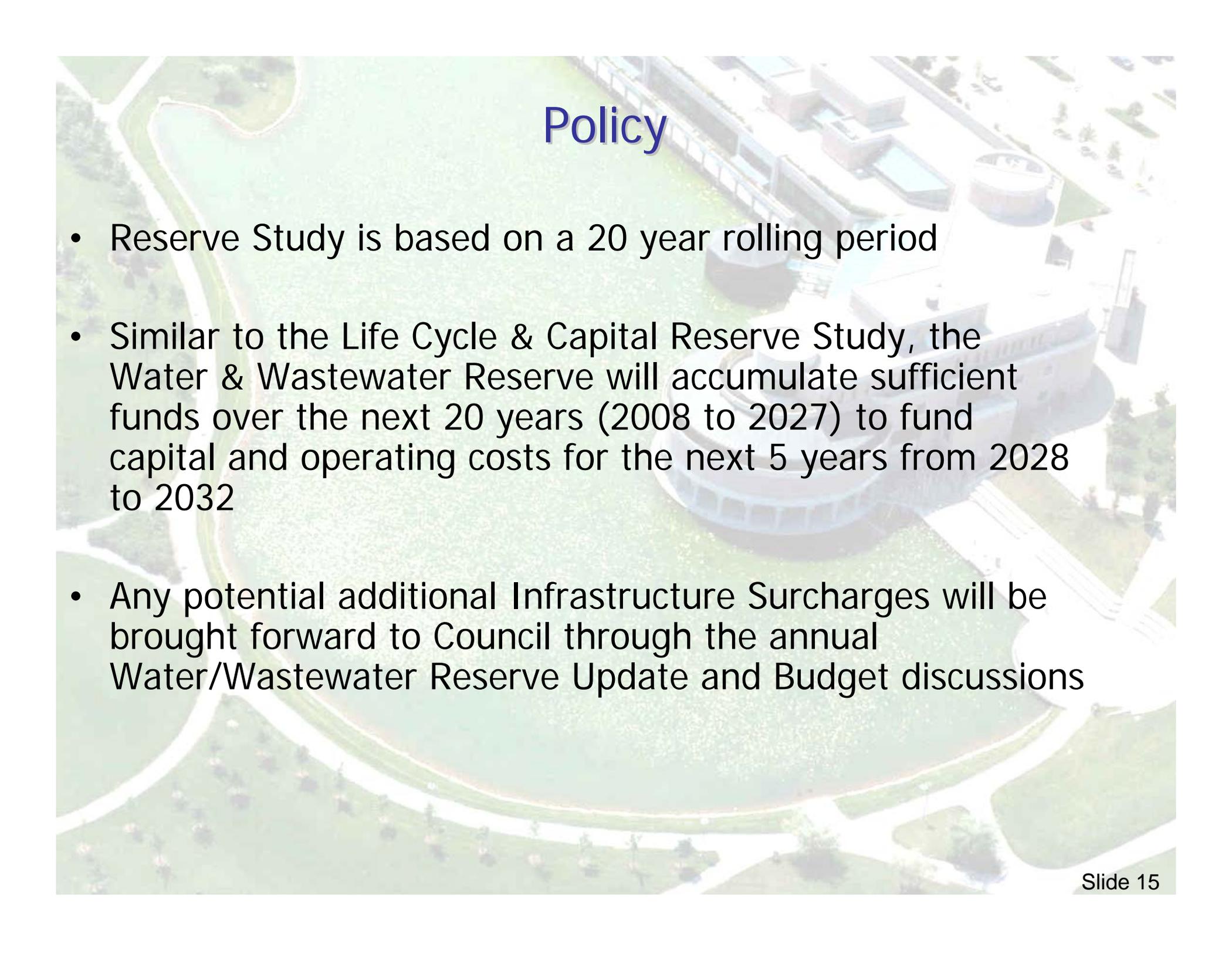
** Population Growth rate from Hemson

Total Replacement/Rehabilitation Costs from 2008-2032 (in millions)



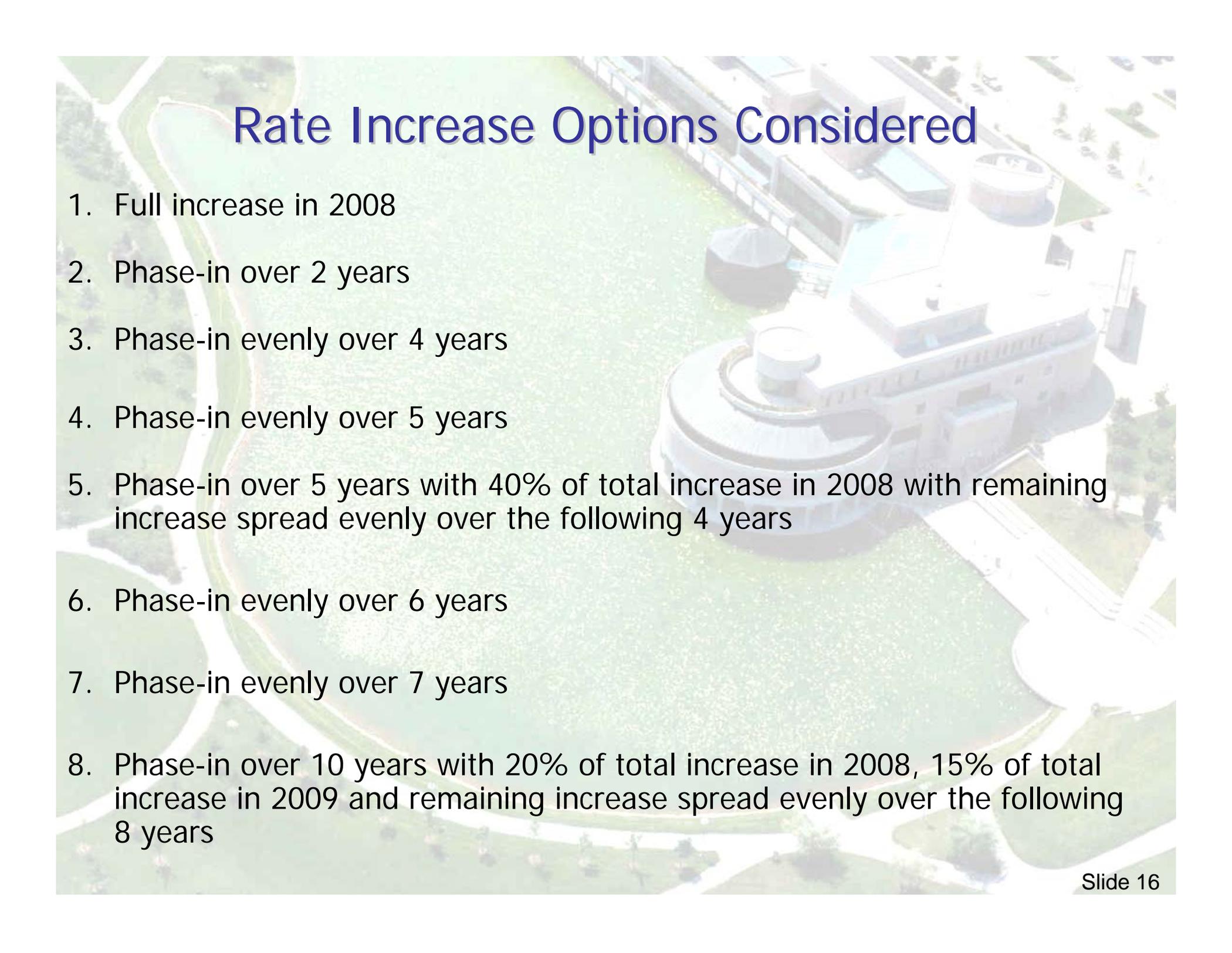
Impact on Reserve Balance with no Infrastructure Rate Increase (in millions)





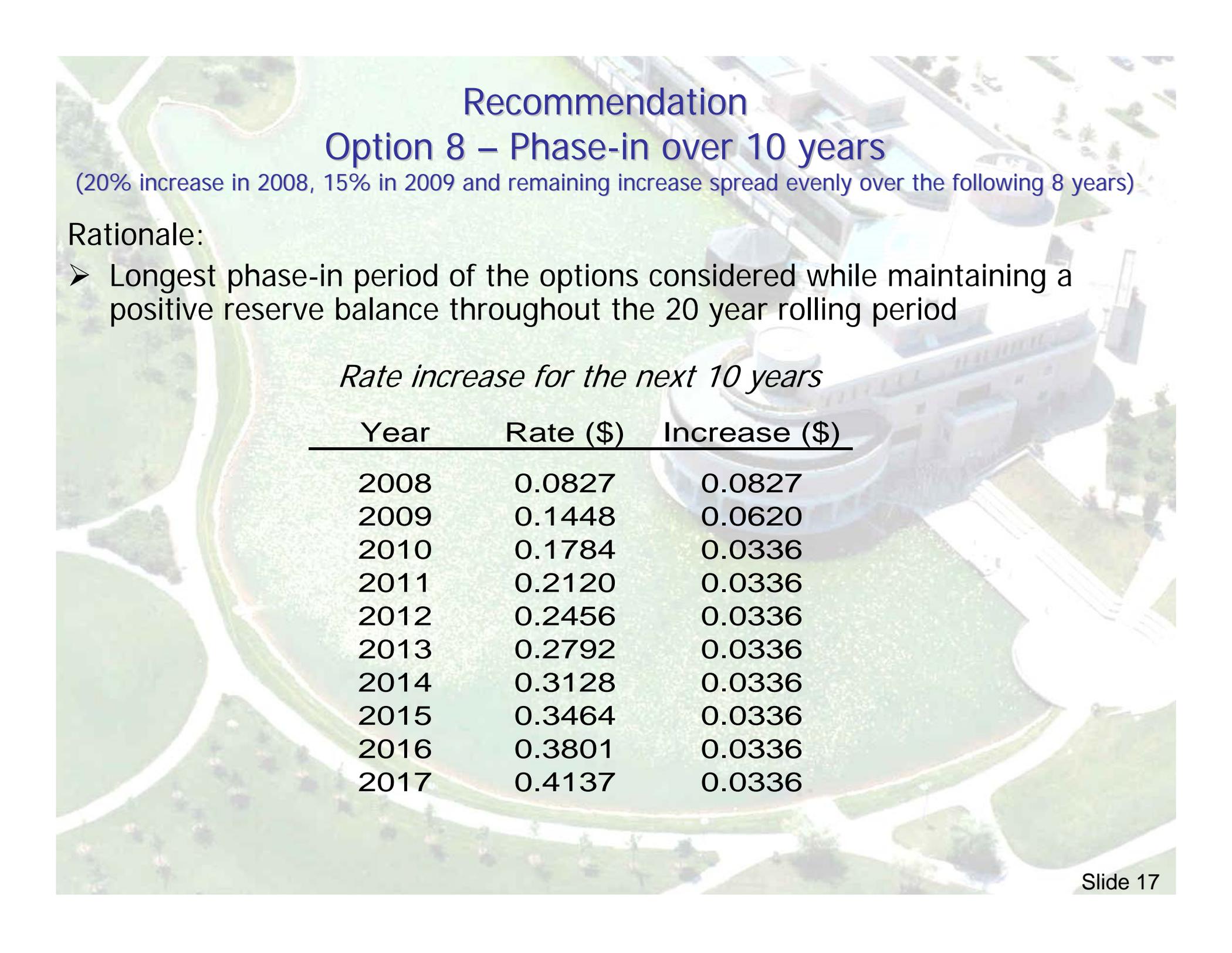
Policy

- Reserve Study is based on a 20 year rolling period
- Similar to the Life Cycle & Capital Reserve Study, the Water & Wastewater Reserve will accumulate sufficient funds over the next 20 years (2008 to 2027) to fund capital and operating costs for the next 5 years from 2028 to 2032
- Any potential additional Infrastructure Surcharges will be brought forward to Council through the annual Water/Wastewater Reserve Update and Budget discussions



Rate Increase Options Considered

1. Full increase in 2008
2. Phase-in over 2 years
3. Phase-in evenly over 4 years
4. Phase-in evenly over 5 years
5. Phase-in over 5 years with 40% of total increase in 2008 with remaining increase spread evenly over the following 4 years
6. Phase-in evenly over 6 years
7. Phase-in evenly over 7 years
8. Phase-in over 10 years with 20% of total increase in 2008, 15% of total increase in 2009 and remaining increase spread evenly over the following 8 years



Recommendation

Option 8 – Phase-in over 10 years

(20% increase in 2008, 15% in 2009 and remaining increase spread evenly over the following 8 years)

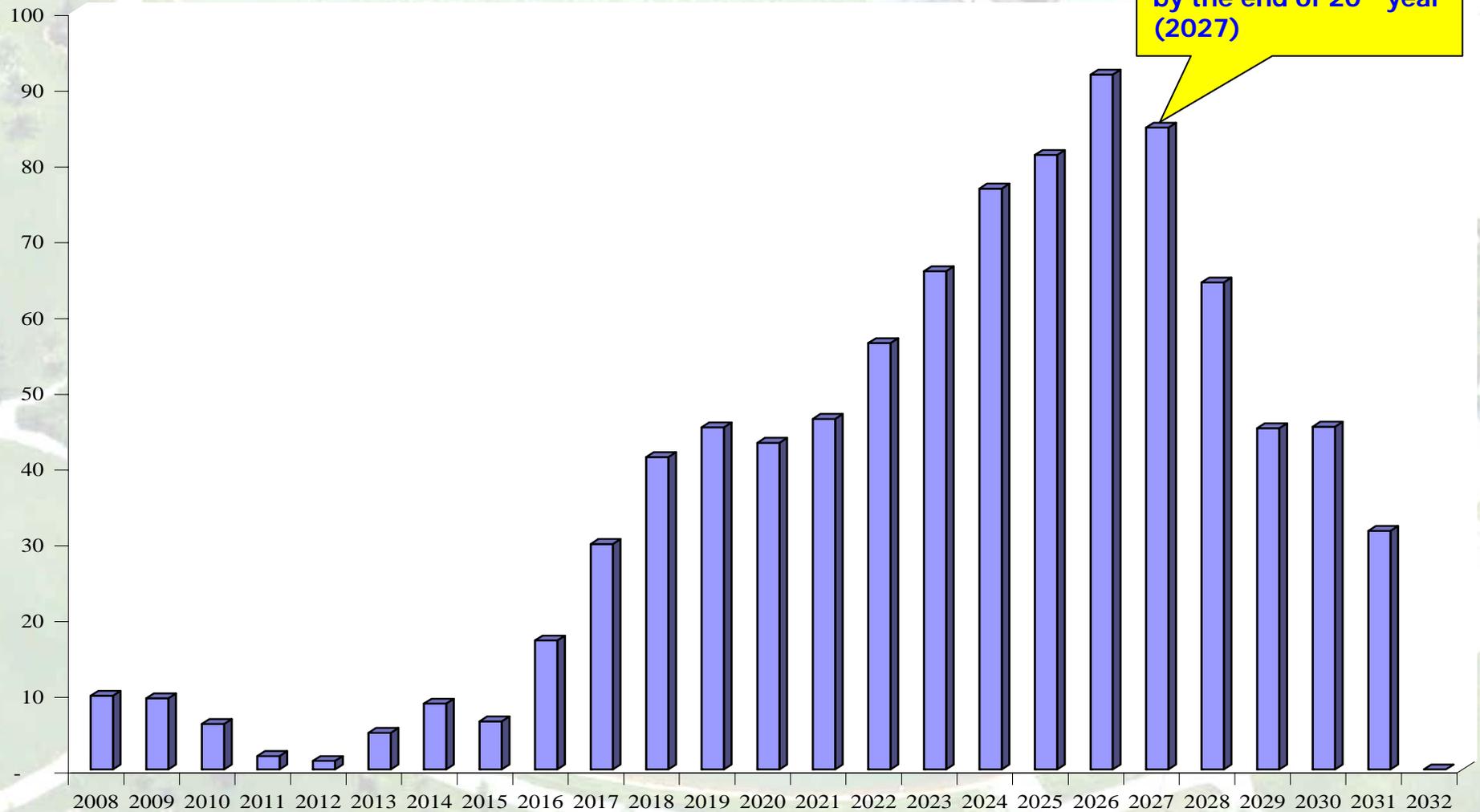
Rationale:

- Longest phase-in period of the options considered while maintaining a positive reserve balance throughout the 20 year rolling period

Rate increase for the next 10 years

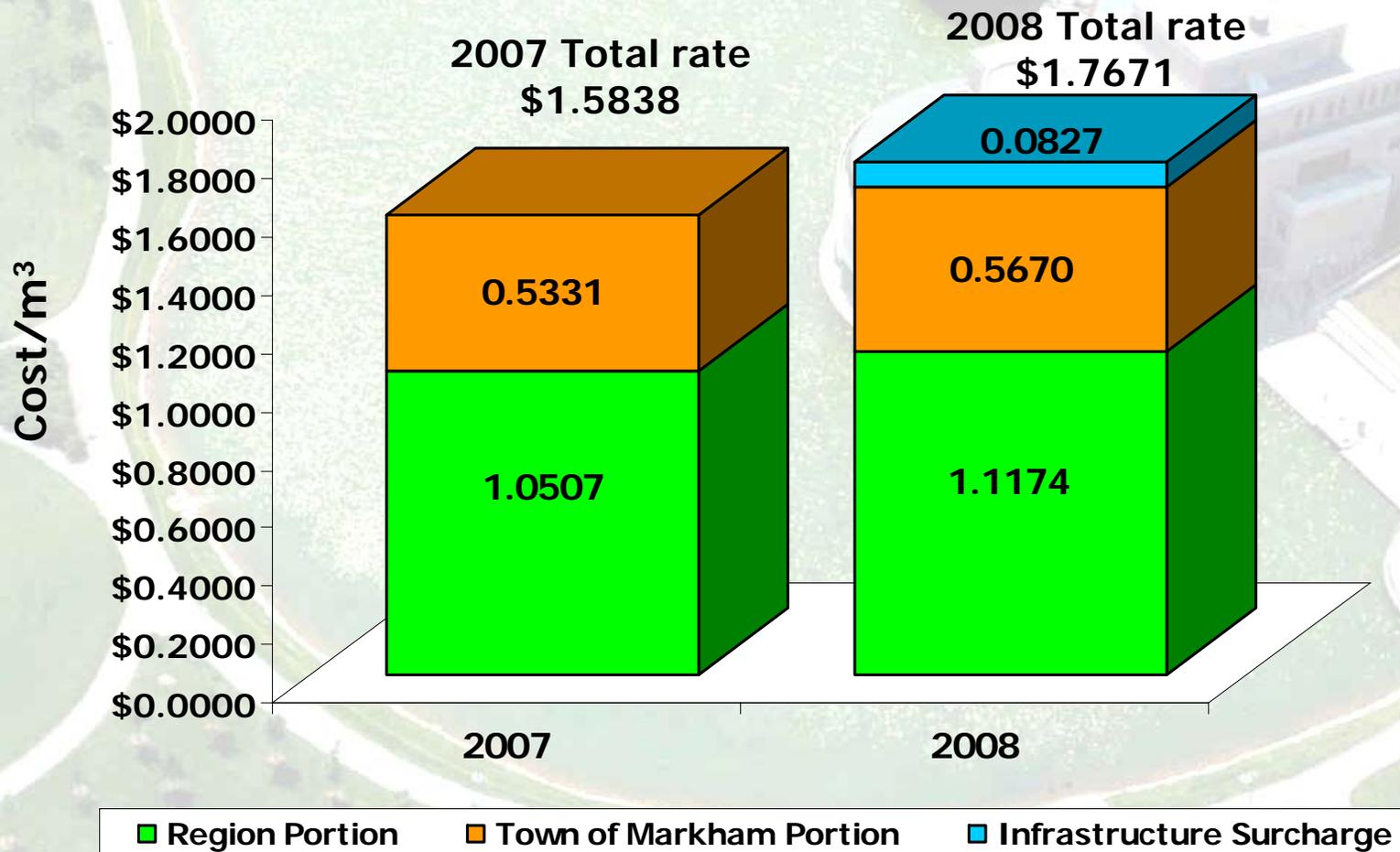
<u>Year</u>	<u>Rate (\$)</u>	<u>Increase (\$)</u>
2008	0.0827	0.0827
2009	0.1448	0.0620
2010	0.1784	0.0336
2011	0.2120	0.0336
2012	0.2456	0.0336
2013	0.2792	0.0336
2014	0.3128	0.0336
2015	0.3464	0.0336
2016	0.3801	0.0336
2017	0.4137	0.0336

Reserve Balance with Phase-in of Recommended Increase over 10 Years (20% increase in 2008, 15% in 2009 and remaining increase spread evenly over the following 8 years) (in millions)



Comparative 2007 & 2008 Markham Water/Wastewater Rates (\$/m³)

Total Increase of \$0.1833/m³



Impact to Average Household & Top 10 Institutional, Commercial, Industrial (ICI) Customers

Total Rate increase of \$0.1833 in 2008
(includes Region's rate increase of \$0.1006 and proposed Infrastructure Surcharge of \$0.0827)

Average household annual consumption is 365m³

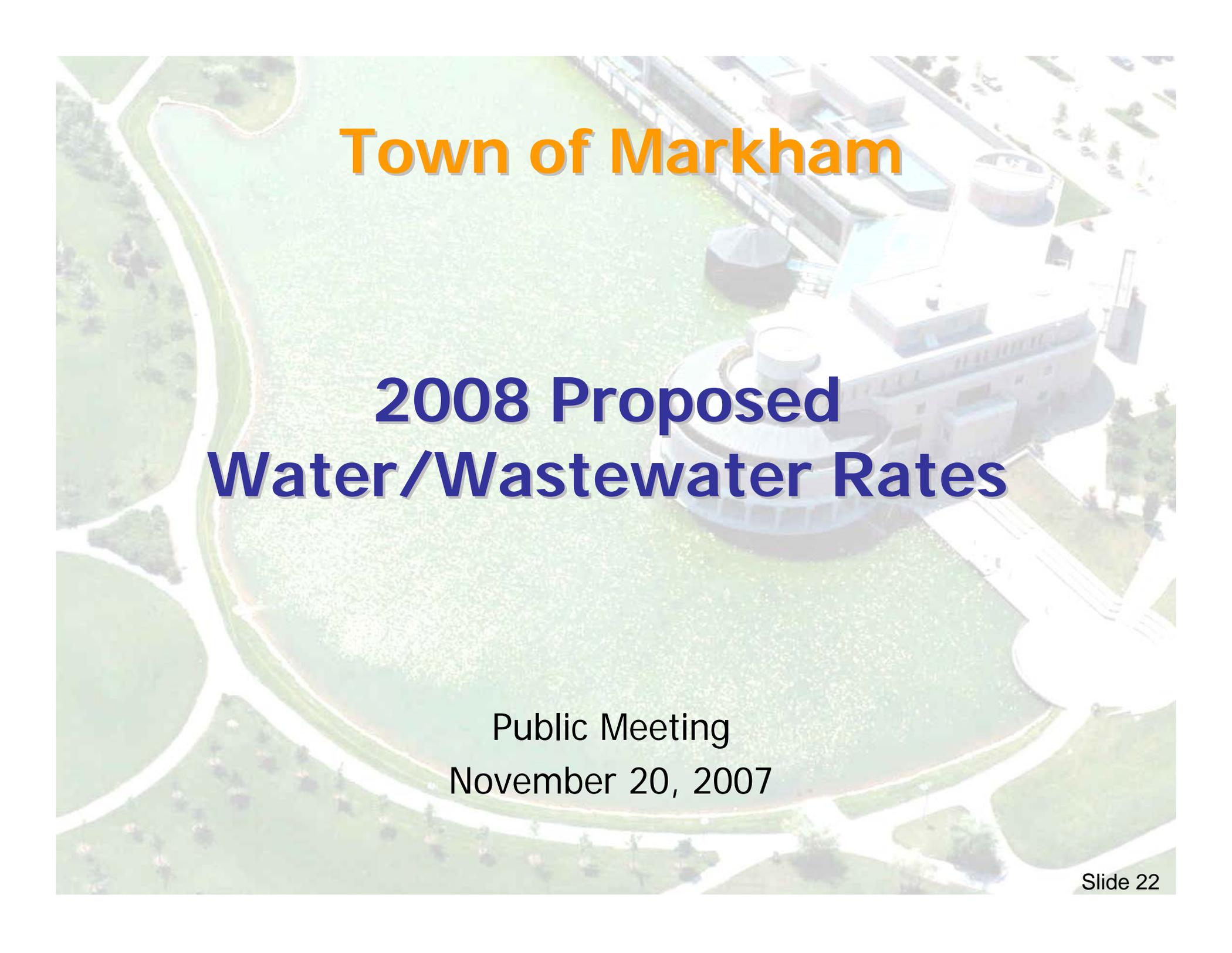


Total Increase of \$66.90 in 2008
(Region's increase \$36.72, proposed Infrastructure Surcharge \$30.18)

Impact on top 10 ICI customers ranges from \$27K to \$53K
(Region's increase \$15K to \$29K, proposed Infrastructure Surcharge \$12K to \$24K)
(Top 10 List includes manufacturers, a health care provider, and hospitality providers)

Next Steps

- Report to be tabled at November 26, 2007 General Committee
- Report to incorporate feedback from the Public Meeting
- Report to recommend the Water/Wastewater rate be increased by 6.35% in matching to the Region's increase, equivalent to $\$0.1006/\text{m}^3$, and an Infrastructure Surcharge of $\$0.0827/\text{m}^3$
 - (Total increase of $\$0.1833/\text{m}^3$)



Town of Markham

2008 Proposed Water/Wastewater Rates

Public Meeting
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