



Wastewater

SERVICE LEVEL REVIEW
REGIONAL COUNCIL
November 17, 2005

Wastewater

Who we are

- Engineering and Construction
 - Engineering and Infrastructure Planning
 - Engineering Technical Services
 - Capital Works

- Operations and Maintenance
 - System Operations

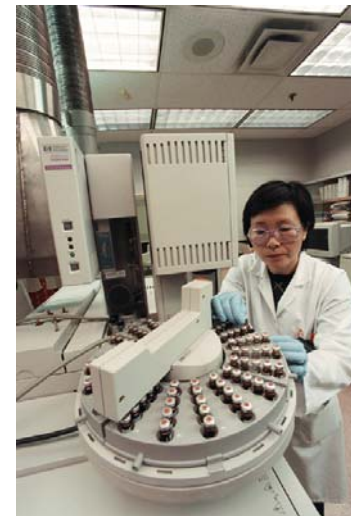
- Water and Wastewater Treatment
 - Plant Operations
 - Environmental Control
 - Capital Works



Wastewater

What we do

- The Wastewater Program includes the provision of the following services:
 - Planning and Development
 - Design and Construction
 - Collection & Treatment
 - Environmental Control



Wastewater

What we do

- The Wastewater Program is shared by three divisions:
 - Engineering and Construction
 - Subdivision approvals and development
 - Master Plan for long term servicing
 - Environmental Assessments for Capital Projects
 - Capital Design, Construction and Inspection of local and trunk sewer mains
 - Closed Circuit Television Inspection of sewers

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What we do

- Operations and Maintenance
 - Inspection and Flushing of 3000 km of Local and Trunk Sewer mains
 - Repair and Maintenance of Collection System
 - Emergency Response to Blocked Laterals and System Surcharging



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What we do

- Water and Wastewater Treatment
 - Contract Administration, Operations and Maintenance of Wastewater Treatment and Facilities
 - Operations and Maintenance of 3 Wastewater Treatment Facilities, 35 Sanitary Pumping Stations, 2 Stormwater Pumping Stations and 2 Sanitary Landfill Leachate Treatment Facilities
 - Capital Design, Construction and Inspection of Treatment and Pumping Facilities
 - Environmental Control Spill Response
 - Enforcement of Sewer Use By-Law
 - Regional Laboratory to analyze industrial wastewater effluent and treatment facility compliance

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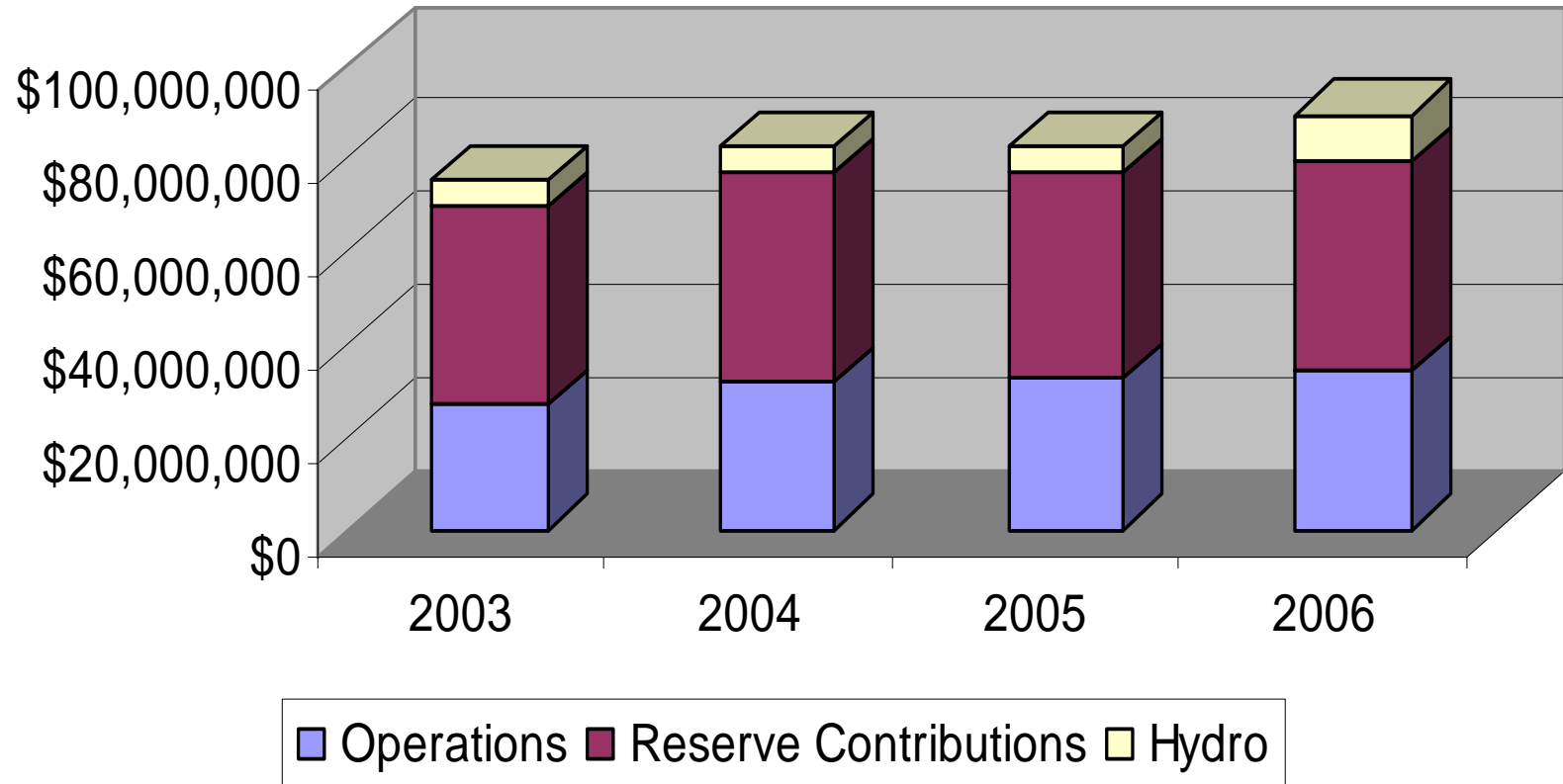
Why we do it

- Protection of the Environment and Public Health
- Sections 52 of the Ontario Water Resources Act
 - Compliance with MOE Certificates of Approval
- Regulation 129/04 - Certification of Wastewater Operators
- Sewer Use By-Law to Control Industry Discharges
- The Wastewater Master Plan provides a 30-year planning schedule for Peel's wastewater infrastructure



Wastewater Historic Spending

Total Wastewater Operating Costs



Wastewater Cost and Service Demand Management Initiatives

Initiative	Savings
South Peel Contract	Projected \$68M over 10 years for Water and Wastewater Programs combined
Cross-training of water and wastewater operators in Peel has been recognized as an industry best practice in more efficient use of staff	Not Applicable
Peel's Biosolids Management Strategy utilizing Incinerators and Dewatering Centrifuges is less expensive than Land Application	\$3M Annually

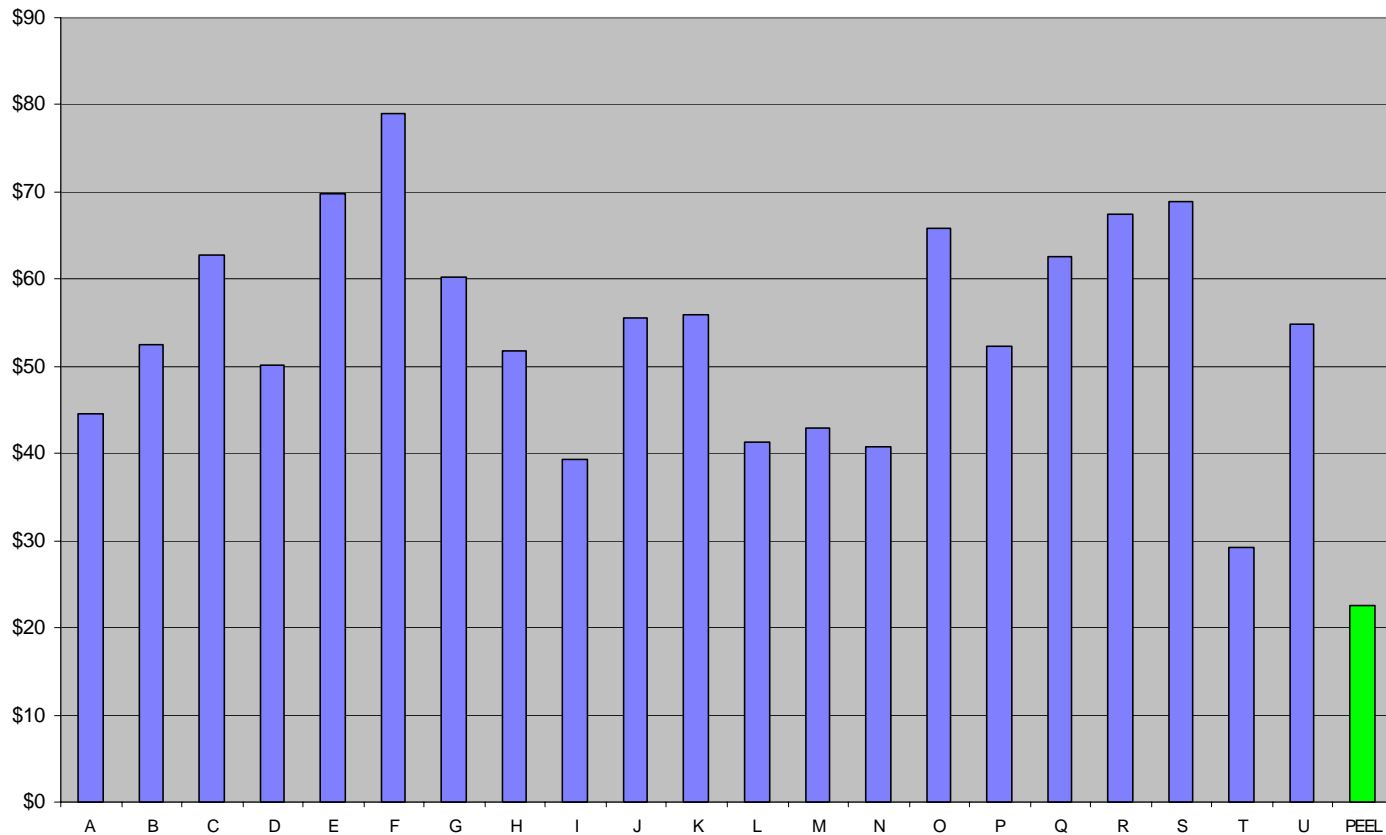
Wastewater Cost and Service Demand Management Initiatives

Initiative	Savings
Energy Demand Management Initiative implemented in Wastewater Treatment Facilities using fine bubble aeration, capacitors and high efficiency lighting systems	\$0.75M Annually
Conversion of existing incinerators to hot windbox technology and phase out of Zimpro is costs in staffing, maintenance and natural gas	\$2M Annually Phased in Over 2006-2008

Wastewater

Benchmarking – 2004 National Results

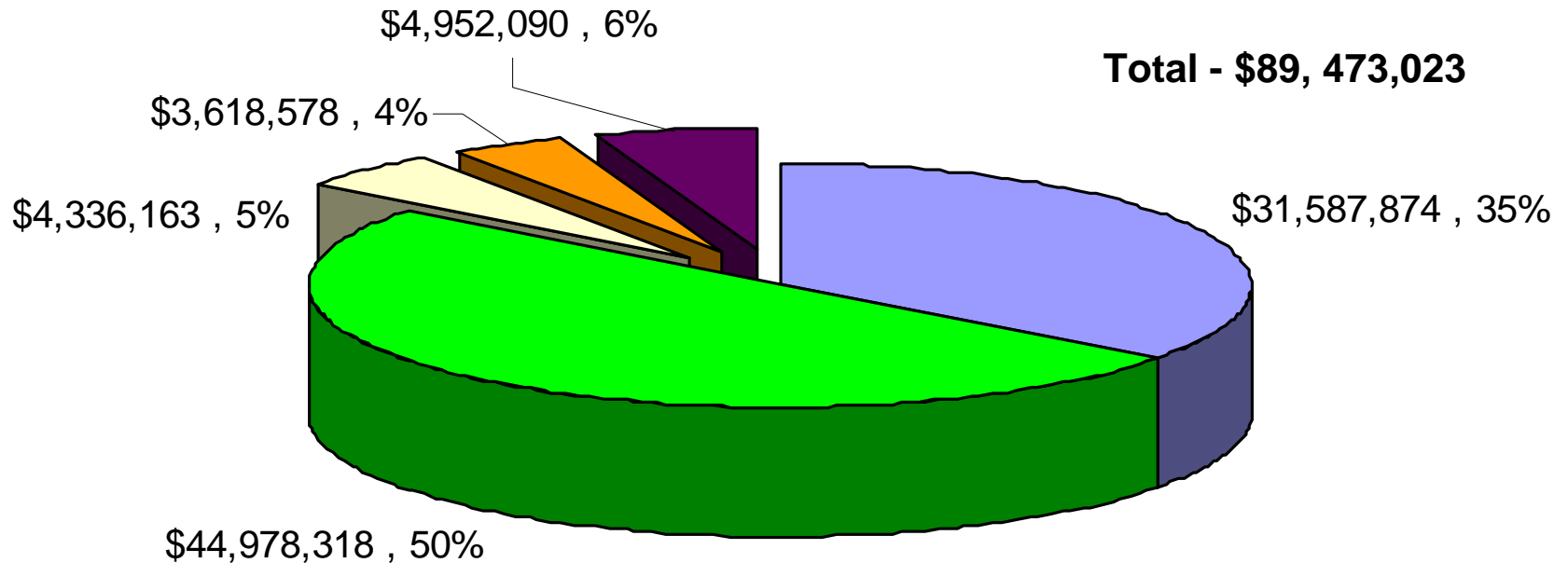
Total Wastewater Operating Costs / Population Served 2003



Wastewater Benchmarking

	Peel	Other GTA Municipalities
Linear System	Trunk and Collection Single Tier	Trunk and/or Collection Single or Two Tier
Treatment Type	Primary, Secondary and Tertiary (Inglewood)	Primary, Secondary and Tertiary (Smaller Systems)
Biosolids	On-site Disposal Contract Operated	On-Site Disposal In-House Operated or Off-Site Disposal Contracted Out
Plant Operations	Contracted Out Ontario Clean Water Agency	Municipality Operated

Wastewater Current Budget – Total Spending

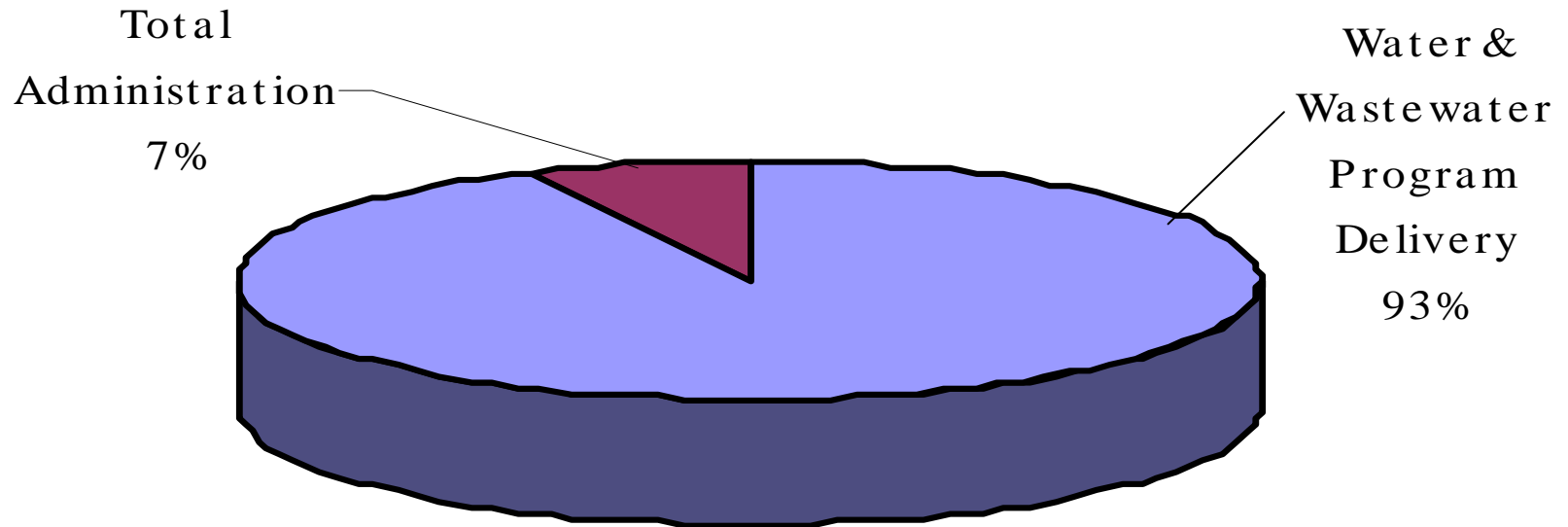


■ Treatment Costs
■ Operations & Maintenance
■ Water Meter/Billings and Finance

■ Reserve Contributions
■ Environmental Control

Water & Wastewater Staffing

Water & Wastewater Staffing - FTE's



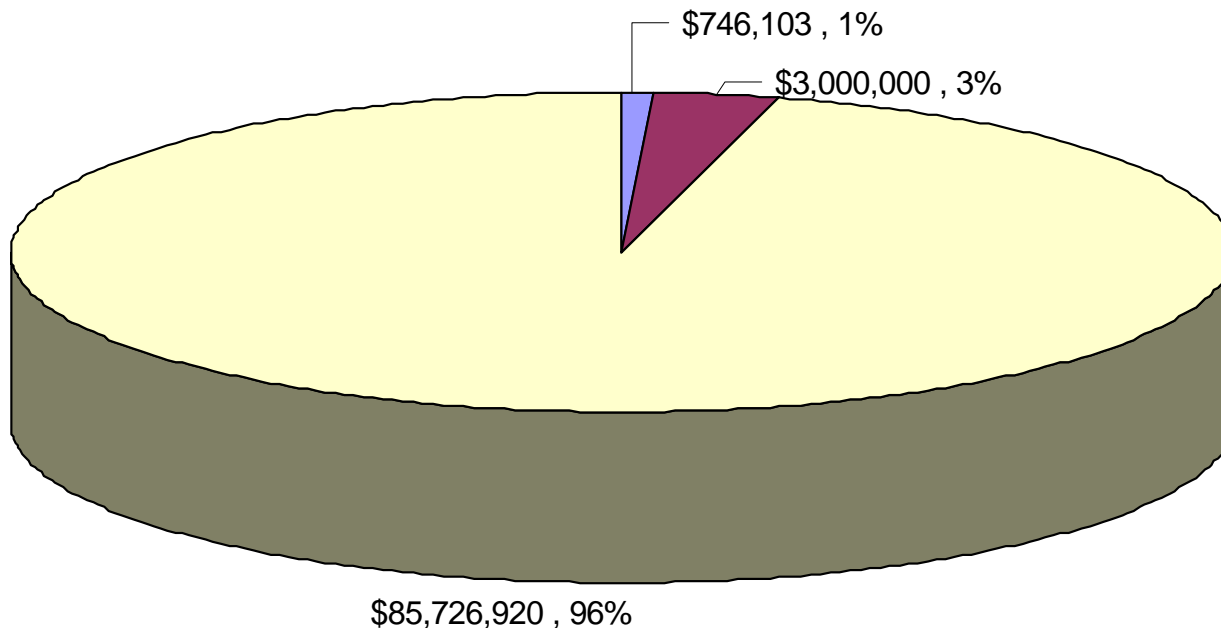
380 FTE's related to the Delivery of the Water & Wastewater Programs

**Water and Wastewater Programs include 10.5 new positions to meet regulatory compliance reporting, resolve quality complaints, water conservation, external audit recommendations, supervision of accelerated capital works programs and utilities in the programs,.*

Wastewater

Current Budget–Revenue Sources \$000s

Total - \$89,473,023



■ Fees, Charges & Other ■ Qualitative Surcharge Billings ■ Direct Wastewater Billings

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Total Budget Comparison (\$000s)

2006 Proposed Total Expenditure	\$89,473
2005 Approved Total Expenditure	\$82,792
Differences	\$6,681

Wastewater Significant Pressures (\$000s)

Council Approved	\$4,203
Growth and Inflation	\$978
Legislated	\$1,500
Total	\$6,681



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Significant Pressures – Council Approved Programs

Major Driver	\$000s	Annualized \$000s
Hydro for New Dewatering Technology and Expansions to Phase Out Zimpro (Long-Term Odour Reduction Strategy)	2,600	5,200
Chemicals related to New Thickening Technologies, Odour Control and Phase Out of Chlorine Gas Railcars	1,600	3,260

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Significant Pressures – Growth and Inflation

Major Driver	\$000s	Annualized
OCWA Contract Agreement	153	N/A
Existing Staff Salary and Wage Increases	247	N/A
Reserve Contributions	525	N/A

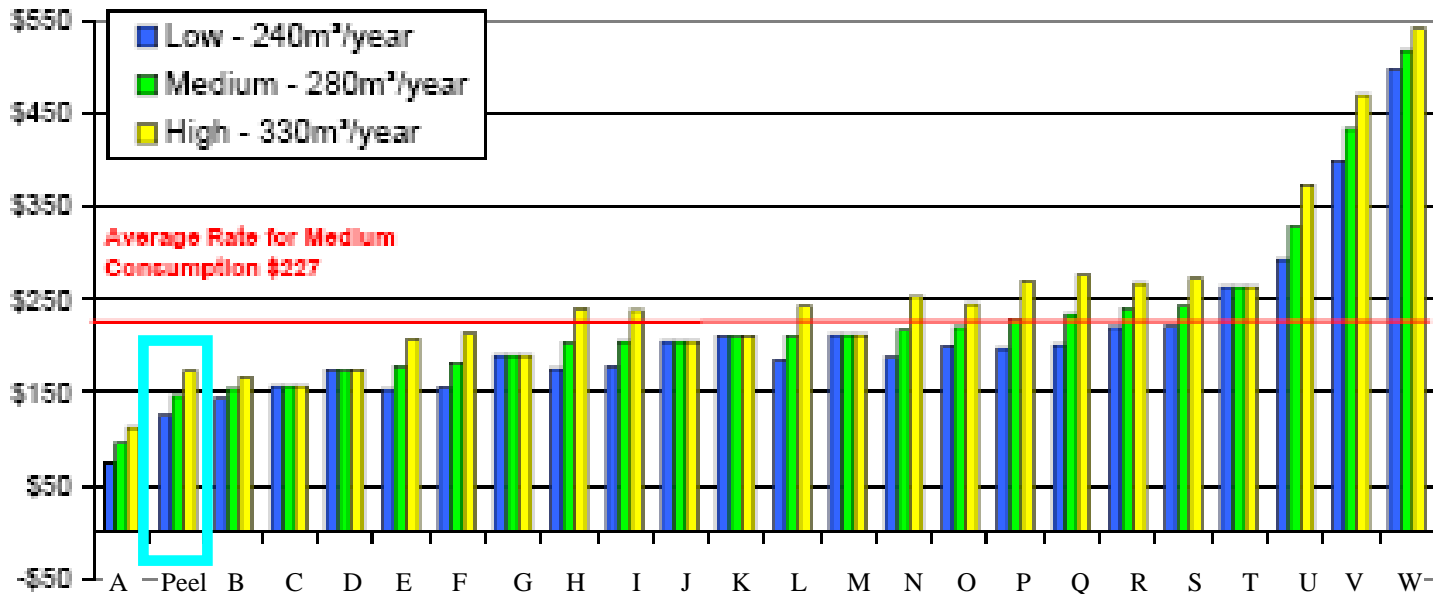
Wastewater Significant Pressures – Legislation

Major Driver	\$000s	Annualized \$000s
Hydro related to new levels of ammonia removal	1,500	3,000

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Benchmarking – 2004 National Results

2004 Annual Wastewater Rates for 3/4" Residential Connection
with 3 Water Consumption Scenarios
Collection System Utilities



All metered rates unless otherwise indicated
X-axis - In order of increasing population

Wastewater Efficiencies and Service Level Options

	Service Option	2006	Annualized
1	Increase Qualitative Sewer Surcharge Rate by 10% to assist in recovering cost of new treatment technologies at the Wastewater Treatment Facilities	\$300,000	\$300,000



Wastewater Conclusion

- Peel offers a high level of service for the Wastewater program at one of the lowest rates in the country
- Major increases are for hydro and chemicals
- This will allow Peel to phase out older odourous technology at the Lakeview WWTP