

DATE: September 17, 2008

SUBJECT: **CAPITAL INFRASTRUCTURE RENEWAL - WATER/WASTEWATER PROGRAM**

FROM: Dan Labrecque, Acting Commissioner of Environment, Transportation and Planning Services
 Norma Trim, Acting Chief Financial Officer

OBJECTIVE

The purpose of this report is to provide Council with a high-level assessment of its capital financing needs for the utility rate supported Programs and to outline how the organization plans to meet the challenges.

REPORT HIGHLIGHTS

- Peel has an estimated \$12.3 billion of existing utility rate supported capital infrastructure.
- Long-term modeling of capital financing forecasts predict the need to immediately increase utility rates by a minimum of three percent annually to finance the expanding state-of-good-repair budget and mitigate against debt financing.
- There is much uncertainty and risk in the long-term forecast related to recent significant increases in construction prices.
- Reinforces the value of Corporate Asset Management initiative.

DISCUSSION

1. Background

In the fall of 2007 staff presented Council a perspective of the Region's tax supported capital financing needs. The report highlighted the need to significantly increase reserve contributions in order to continue to sustain both the state of the Region's capital infrastructure and its debt free status.

The 2007 report noted that details with respect to the utility rate program would come forward ahead of the 2009 budget process. This report presents a number of preliminary findings to be considered as part of Council's decision-making processes for the long-term sustainability of Peel's water and wastewater infrastructure. This report is one of several that will be brought forward over the next weeks with respect to the overall sustainability of Peel's capital financing:

- **Increasing capital construction price trends** – Broader market trends are having a significant impact on tender prices. An assessment of the increasing trends based

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on discussions and feedback from staff contractors, developers and municipal peers is being prepared.

- **Update on the “One Percent” solution** – The strategy adopted by Council as part of the 2008 budget called for an annual one per cent tax increase over the next ten years for purposes of building up our capacity to sustain the tax supported state-of-good-repair program. This strategy is currently being reviewed in light of the recent \$67 million Provincial grant and the significant inflationary impacts of rising construction costs. Preliminary analysis suggests a continuing deterioration in our fiscal capacity to sustain the capital program despite the Provincial grant and the annual one percent tax increase.
- **Potential DC By-Law amendments** – The government announcements with respect to the joint Provincial/municipal review are anticipated to include some changes to the Development Charges Act (DCA) that may provide more capacity towards meeting Council’s objective of “growth pays for growth”. As well, recent tender awards suggest that the statutory cost index included in the DCA and Peel’s bylaw is continuing to fall well short of capturing our realized costs. While the 2009 Budget was originally scheduled to include a formal review of our development charge financing status, we may be required to go directly back to the public with a further update; after only eighteen months into our new by-law.

2. Water and Wastewater Capital Financing – Strategic Challenges

Over the last decade the Region of Peel has undergone extensive expansions to its water and wastewater infrastructure base. Coupled with all the new infrastructure is the fact that Peel has been proactive in replacing/rehabilitating its existing infrastructure base. The net result is a vast inventory of complex infrastructure worth approximately \$12.3 billion that is in a good state of condition. However, long-term planning and key early decisions are necessary to address many strategic challenges that lie ahead in maintaining the sustainability of the infrastructure at a cost Peel’s residents can afford and at a level of service our customers have come to expect:

- **Peel’s infrastructure continues to grow, age and become more complex** – Peel’s infrastructure needs will transition over the next 25 years from investing an additional \$5.5 billion (2008 dollars) in new infrastructure to meet growth needs to planning and investing in state-of-good-repair needs to maintain \$17.8 billion (2008 dollars) worth of infrastructure. Furthermore, the older infrastructure being replaced usually requires significant upgrades in terms of technology and materials to bring them up to current standards.
- **Many social, economic and environmental uncertainties** – These uncertainties include the costs of construction which are rapidly rising beyond the current average inflationary increases; greater avoidance of community and environmental disruptions using more expensive, less intrusive construction methods (e.g. tunneling rather than open cut construction); increasingly extensive regulations/measures to protect and reduce risk to the public’s water supply.
- **Residents are better informed and expect good services and value** – There is less customer tolerance for sudden rate increases without having demonstrated good rationale or due diligence of thorough planning. Furthermore, Peel’s residents have come to expect high quality, reliable services that they can afford.

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- **Aging Demographics** – The average age of our society is increasing, which means there will be less flexibility and ability by Peel's residents to afford sudden rate increases.

3. Improved Planning and Asset Management

Peel's infrastructure is a key component of the services we deliver. Sustaining our services at the levels our customers have come to expect requires that our infrastructure and financing remain sustainable. This is the driver behind the Corporate Asset Management initiative.

Our traditional approach in reviewing capital financing adequacy revolves around the ten year capital plan and ongoing infrastructure assessments. While this has proven itself adequate in the past, much longer range modeling is required to assess the more complex long-term challenges ahead and to mitigate against sudden and significant rate increases and/or major debt financing.

The key to improving infrastructure and reserve planning is more robust asset management. The objective of Peel's Corporate Asset Management initiative is to develop strategies to:

- standardize asset management practices across the organization
- assess the current and future state of Peel's assets and reserves
- prioritize infrastructure needs across the organization
- perform optimized infrastructure and financial planning
- maximize the performance of Peel's assets to meet required levels of service at the lowest overall costs

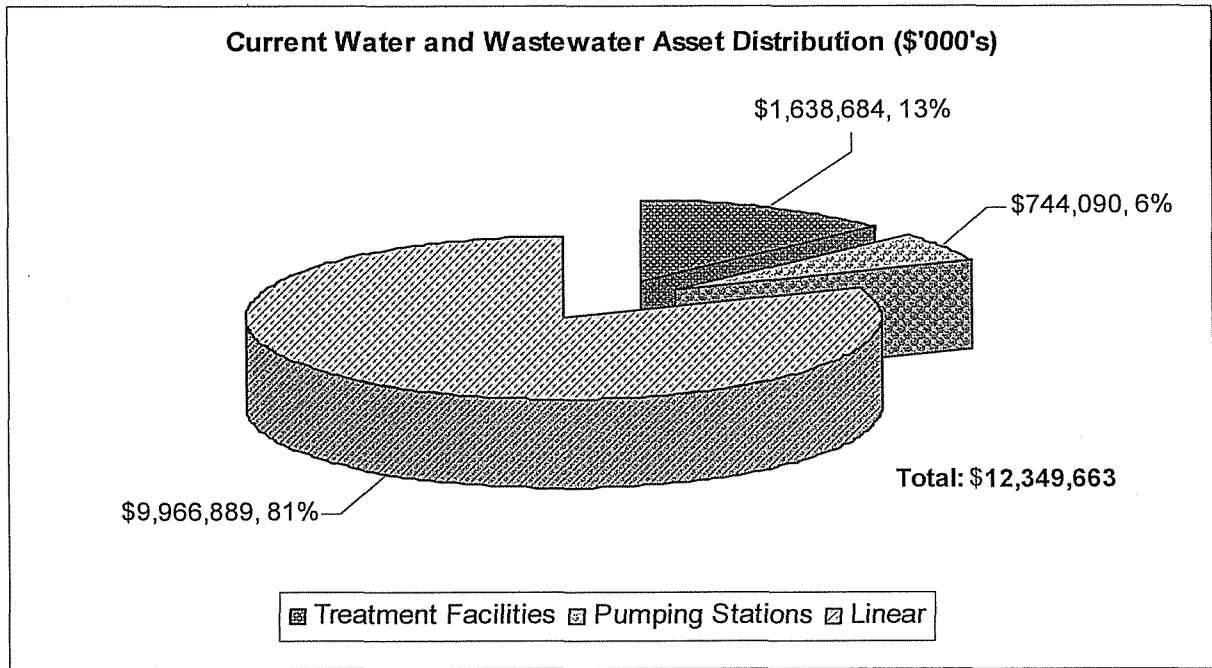
4. Analysis – Long-Range Capital Financing Needs

While Peel is several years away from having a comprehensive asset management system in place, staff have been able to capitalize on existing data and systems to develop a high-level preliminary view of the long-term capital financing needs necessary to maintain our existing and future water and wastewater assets in the condition they are today. Many variables exist and many options still need to be explored which can alter the long-range picture. Full exploration of all options will require additional tools, analyses and policy discussions developed through the Corporate Asset Management initiative.

a) Infrastructure Value – 2008

Our preliminary valuation of the replacement of our utility system is in the range of \$12.3 billion. As noted on the following chart, the linear assets (which are the most difficult to maintain and replace) represents the largest portion of our infrastructure investment.

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**b) Infrastructure Value – 2031**

It is estimated that our system will require a further \$5.5 billion (2008 dollars) in future infrastructure investments primarily to meet forecasted growth in our customer base. While development funding is the key source of this investment, the replacement liability for the total \$17.8 billion (2008 dollars) worth of infrastructure will be the utility ratepayers' responsibility.

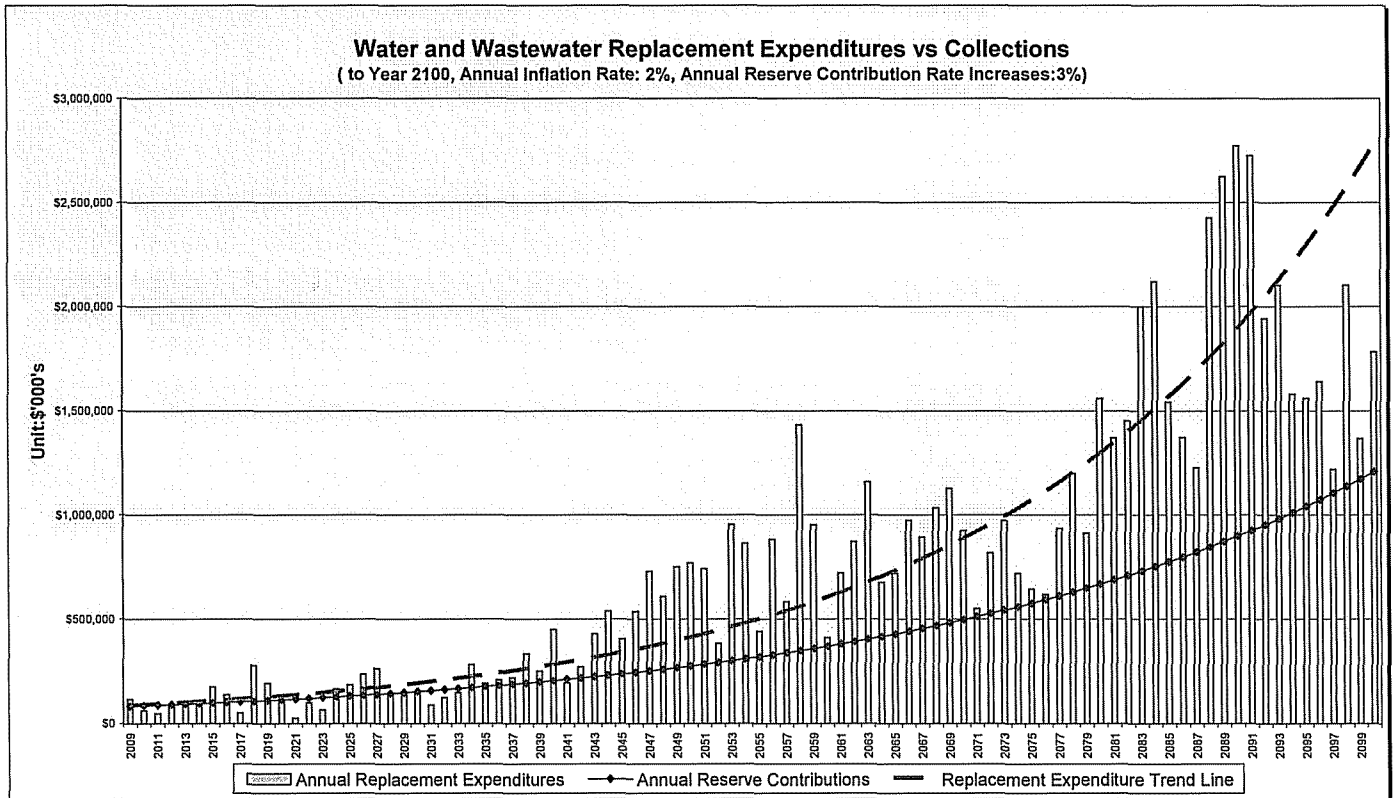
c) Impact of Construction Prices on Asset Valuation

The analysis reflects both growth of the system and the impact of rising construction costs to 2008. The result of our update is that the value of our system grew by over 50 percent in the last two and a half years. This factor alone has materially impacted the adequacy of our existing reserve contributions in sustaining our infrastructure needs and maintaining a debt free position.

d) Forecasted Utility Infrastructure Replacement Plan

The bars on following chart project the approximate level of funding required each year to sustain all of Peel's utility capital assets in a state-of-good-repair over the balance of this century. This forecast is based on assumptions of average life cycles experienced by our system components and reflects our first attempt at reviewing this critical issue from a longer strategic point of view. Many assumptions have been used that will require further analysis and refinements through the Corporate Asset Management initiative.

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e) Forecasted Rate Supported Capital Financing

The upper dashed line indicates the overall trend in expenditures required to maintain the water and wastewater assets in a state-of-good-repair. A minimal two percent annual inflation rate has been applied to the annual expenditures. While a two percent rate does not come close to reflecting recent increases in construction price trends, it reflects a more standard rate of inflation for long-term analysis. The lower dotted line on the graph indicates the affects of an annual three percent rate increase to the reserves as compared to the projected expenditures. It is apparent that even with a minimal two percent annual inflation rate and a three percent annual rate increase, there is an increasing funding gap over the long-term.

The three percent rate was selected for several reasons:

- It serves as a reasonable starting point for rate increases.
- It draws awareness to the need for early transitioning of rate increases and demonstrates due diligence in avoiding sudden more dramatic increases in the future.
- Based on the preliminary nature of the analysis, the rate represents what can be confidently projected as a minimum of what is required to meet state-of-good repair needs.

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- It will help to supplement financing needs for the interim until better assessments of our infrastructure needs can be made and financing and policy options can be further explored with Council.
- It allows room for the potential of additional financing from other levels of government.

5. Summary Observations and Next Steps

The analysis undertaken has identified a number of critical issues which we must address in our longer term business planning:

- Utility infrastructure requires a longer term focus than that provided within the existing ten year capital planning process.
- Existing reserve contributions need to be increased to reflect long-term challenges and recently experienced construction price increases.
- Emphasizes the value of the Corporate Asset Management initiative to improve financial and infrastructure planning and to further develop long-range funding strategies to ensure Peel's sustainability.

Therefore the next steps are proposed:

- The proposed three percent rate increase will be included as part of the targeted seven percent utility rate increase for 2009.
- Additional analysis of the long-term capital financing requirements will be carried out as part of the Corporate Asset Management initiative and additional information will be brought back to Council.

CONCLUSION

Peel's water and wastewater capital infrastructure is well maintained and relatively young, as compared to other major utility systems in North America, if not the world. Council's previous decisions have enabled these outcomes while maintaining a debt free status. The combined impacts of the expansion and natural ageing of the system, compounded by market pressures on the replacement costs will challenge future utility rate budgets. For now, a three percent rate increase will help to manage those challenges.

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Council's strategic focus in incorporating both asset management and long-term planning will continue to position this organization well for ensuring the long term sustainability of this essential public infrastructure.



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