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## **2007 BUDGET BRIEFING NOTE**

### **Impact of Deferring the Ashbridges Bay Treatment Plant (ABTP) Odour Control Project**

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#### **Issue/Background:**

- The ABTP odour control project is currently in the design phase and a consultant has been retained to deliver pre-design, design and construction inspection services. This project was developed based on extensive measurement of odours from the plant, and is intended to bring the plant into compliance with Ministry of Environment (MOE) odour guidelines in the most economical means possible.
- The ABTP has a number of existing odour control systems that have surpassed their useful life and can no longer operate effectively.
- The ABTP odour control project presents an opportunity to simultaneously address a number of other related issues. These include:
  - Responding to an MOE order regarding the Air Certificate of Approval
  - Compliance with existing electrical code and Electrical Safety Authority (ESA) requirements
  - Overall reduction of odours from the facility
  - Compliance with ABTP Environmental Assessment Mediation Agreement
  - Improving ABTP electrical efficiency through aeration system improvements.
- Most of the design and approvals work will be completed in 2007. More significant Capital expenditures are planned to begin in 2008.

#### **Key Points:**

- The project is designed to reduce odours from the ABTP by approximately 90%, will bring the facility in line with current MOE guidelines, and should significantly mitigate odour impacts on the surrounding community. Resolution 3 item 3.1.7 of the ABTP Environmental Assessment Mediation Agreement commits the City to working proactively to implement odour controls at the ABTP. Further deferral of the odour control project could delay compliance with the Mediation Agreement.
- The City received an order from MOE to consolidate the ABTP Air Certificates of Approval. This requires the City to develop facility wide emissions and noise impact models, and to develop an odour abatement plan. These are part of the odour control project and must be completed according to timelines established by the MOE order. Further deferral of the ongoing design work could lead to non-compliance with timeline contained in the MOE order.

- Currently the City is unable to carry out necessary maintenance on a number of critical systems due to existing old equipment that is not compliant with the current electrical code. A significant part of the odour control work will involve upgrading the ventilation and electrical systems in these odourous areas in order to comply with the current electrical codes. All of these upgrades require changes to ventilation systems, for which the MOE will require the implementation of new odour control or treatment measures. Further deferring the construction of the odour control systems will prevent the facility from implementing upgrades to comply with the electrical code, will restrict the ability to maintain these critical systems and could lead to mechanical failures of the older equipment.
- The aeration tanks are one of the largest sources of odours at the ABTP and the associated air blowers are the largest electrical consumers in the facility. The odour control project will include conversion to Fine Bubble Aeration, which will reduce odours emitted from the aeration tanks, and in turn reduce the size and cost of the required odour treatment systems. Fine Bubble Aeration will also reduce electrical consumption and therefore deferring conversion to Fine Bubble Aeration would defer the opportunity to achieve electrical savings.

#### **Questions & Answers:**

- Can the entire project be delayed by a year or more?
  - Project schedule can be extended however stopping the work will delay compliance with MOE orders.
- Can the construction timeline be extended to spread out cash flow?
  - In 2007, as part of detailed design, Construction sequencing and more detailed costing will be developed. Several of the components of the project will require parts of the plant to be shut down during construction. Shutdowns must be carefully coordinated to avoid impacting overall plant performance. Further deferral will lengthen the construction schedule resulting in extended shutdowns of certain parts of the plant. These shutdowns increase the risk of wet weather plant by-passes. Opportunities, if feasible, for alternate scheduling and a more phased approach will be reviewed in 2007.

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