

City of North Bay Update - Construction of the Drinking Water Filtration Plant May, 2008

Background Information

Why build this facility?

Construction of a new water filtration plant in the City of North Bay is the result of a new regulation instituted by the Ministry of the Environment resulting in the need to install filtration on the North Bay water supply system.

New Plant Design

A key element of the design includes a multi-barrier approach for treatment of the biological contaminations that are possible from a surface water source. The heart of the new treatment plant is Pall Corporation's membrane filtration system which was selected based on the results from pilot testing on Trout Lake water at the existing plant. The Pall two-stage membrane system will treat 99% of the plant's feed water into drinking water. The recovery efficiency of the treatment process is vital to conserving the quality of Trout Lake drinking water. The new plant will combine membranes, ultraviolet disinfection (UV) and chlorination to provide quality drinking water. The entire process will be controlled by state of the art instrumentation and automated controls that are linked to the distribution system's computer monitoring system.

How is the project funded?

Funding for this \$45.5 million project has come from several sources including: Canadian Ontario Municipal Rural Infrastructure Fund (COMRIF), the Northern Ontario Heritage Fund Corporation; and the City of North Bay (surcharge added to water rates over a 20-year period).

Who is the building contractor of the new plant?

In March 2006, North Bay City Council awarded Torbear Contracting Ltd. of Woodbridge, Ontario the general contract to build the new water filtration plant. City staff with the assistance of CH2MHill Canada Limited, the design engineers for this project have provided construction management and contract administration services.

Work Completed to Date

Site work activity began early April 2006 and has progressed over the past two years. The majority of work to date has focused on construction of the building structure which is now complete and contains over 82 tonnes of rebar and 3000m³ of concrete placed and finished. Major works completed include the installation of all 13 membrane filtration racks and installation of all 5 high lift pumps (350 HP each) that will feed drinking water to the City distribution system.



Water Treatment Plant Construction Site July 2007

Is construction on schedule?

Construction projects of this magnitude often encounter issues which lead to delays, both avoidable and unavoidable. This project was originally scheduled for completion March 2008, yet due to delays, this date has been postponed approximately 8 months. Currently, the construction is steadily progressing and the general contractor has ramped up their efforts on site. As you may have noticed, many of the trades are working on weekends. The City's construction management staff is doing everything possible to facilitate completion of the project as soon as possible.

Is the project on budget?

The good news is that the City remains within their projected budget for the project. The City will continue to monitor all construction activities very closely to ensure that the new facility will efficiently serve the citizens of North Bay for many years.

Anticipated Work Schedule to Completion

The most recent schedule provided by the contractor projects that the facility will be producing filtered water by mid November 2008, but total completion including demolition of the existing plant and landscaping will not be completed until June of 2009. Major activities to come include:

- Exterior masonry completion in May 2008.
- The installation of 2 large 900mm diameter water mains from the new plant out to Lakeside Drive is scheduled to commence in May 2008.
- Permanent power to the new plant is expected in June 2008.
- The process equipment installation inside the building will continue until late summer at which point the commissioning process will begin.
- During commissioning, all equipment and systems will be performance tested and we anticipate the new water filtration plant will be online delivering drinking water to the City of North Bay residents in November 2008.



Installation of Pall Membrane Racks October 2007

Impacts on Community

Large-scale construction projects will always have activities that will impact the surrounding neighborhood.

The project team is working hard to ensure that these impacts are minimized: for example: the recent road closure at Lakeside Drive and Coreen Crescent was required to upsize the sanitary sewer.; this work was scheduled to take 2-3 weeks, but the contractor worked long hours and the road was re-opened within a week.

The project team also made every effort to create a design that will not only meet the requirements of the regulations but also integrate well within the surrounding community. These include:

- **Building Design:** The architectural design uses concepts and themes such as interesting roof lines, window walls, and varying textured masonry units to help integrate the new building within the residential area.
- **Colour Selection:** The exterior colour scheme is a light sand colour with grey/blue accents. The architectural coloured masonry, siding, and roofing complement the colour scheme and was selected with input from neighborhood residents. The new building will blend in nicely with the surrounding community.
- **Landscaping:** The landscaping design includes the reestablishment of over 25 new mature trees (blue spruce and sugar maples) which will augment the existing trees on the property. The neighbourhood tot park will be relocated to the north side of the property.

Contact Information

We look forward to completing the project as soon as possible. If you have any questions or concerns about this project please contact:

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