



*Innisfil's Water Pollution Treatment Plant*

*The rate of growth in the Town of Innisfil has already surpassed what was identified in the Town's Official Plan (1996), due to large planned developments.*

## Sanitary Sewer System Analysis Town of Innisfil

In the fall of 2004, the Town of Innisfil retained the Ainley Group to conduct a detailed review of the existing sewage infrastructure system (gravity pipes, pump stations, forcemains and treatment plant). The rate of growth in the Town of Innisfil has already surpassed what was identified in the Town's Official Plan (1996), due to large planned developments. The system analysis undertaken by the Ainley Group will be incorporated into a Master Servicing Study and assist the Town in updating its Official Plan.

The work involved the preparation of a detailed computer model for the sanitary sewage collection system within the Town of Innisfil. To ensure the Town has full confidence in the model results, careful calibration of the data was required to prepare an accurate model. The computer model parameters included, but were not limited to, the following

- Establishing drainage areas and servicing needs
- Collecting sufficient data to define the physical description of the systems, including pipe diameters, depths, appurtenances and relative location within the road or easements rights-of-way
- Establishing a unique identifier system for each pipe and maintenance hole in the respective computer models
- Determining representative pipe friction rates
- Determining contributing flows on per pipe basis
- Calibrating the model through sewer monitoring and verification
- Identifying existing system hydraulic constraints and works required to address them
- Preparing a Summary Report.

### Project Facts

**Client:** Town of Innisfil

**Scope of Work:**

Sewage Collection System

- Collection and review of system data
  - sewer system inventory
  - system operating records
- Survey of trunk sanitary sewers
- Prepare base model:
  - establish sewer shed boundaries
  - confirm/update all sewage collection system physical data
  - determine existing unit sewage contribution rates
  - determine theoretical infiltration rates
  - develop sewage flow diurnal rates
  - populate information fields
- Implement flow monitoring program
- Calibrate model:
  - physical data collection
  - operation data collection
- Prepare and submit final report.

Water Pollution Control Plant

- Physical condition survey
- Prepare and submit final report.

**Project Cost:** \$64,000 (2005)