



# Town of Markham Development Services Committee

## South East Collector Trunk Sewer

### Project Status Update

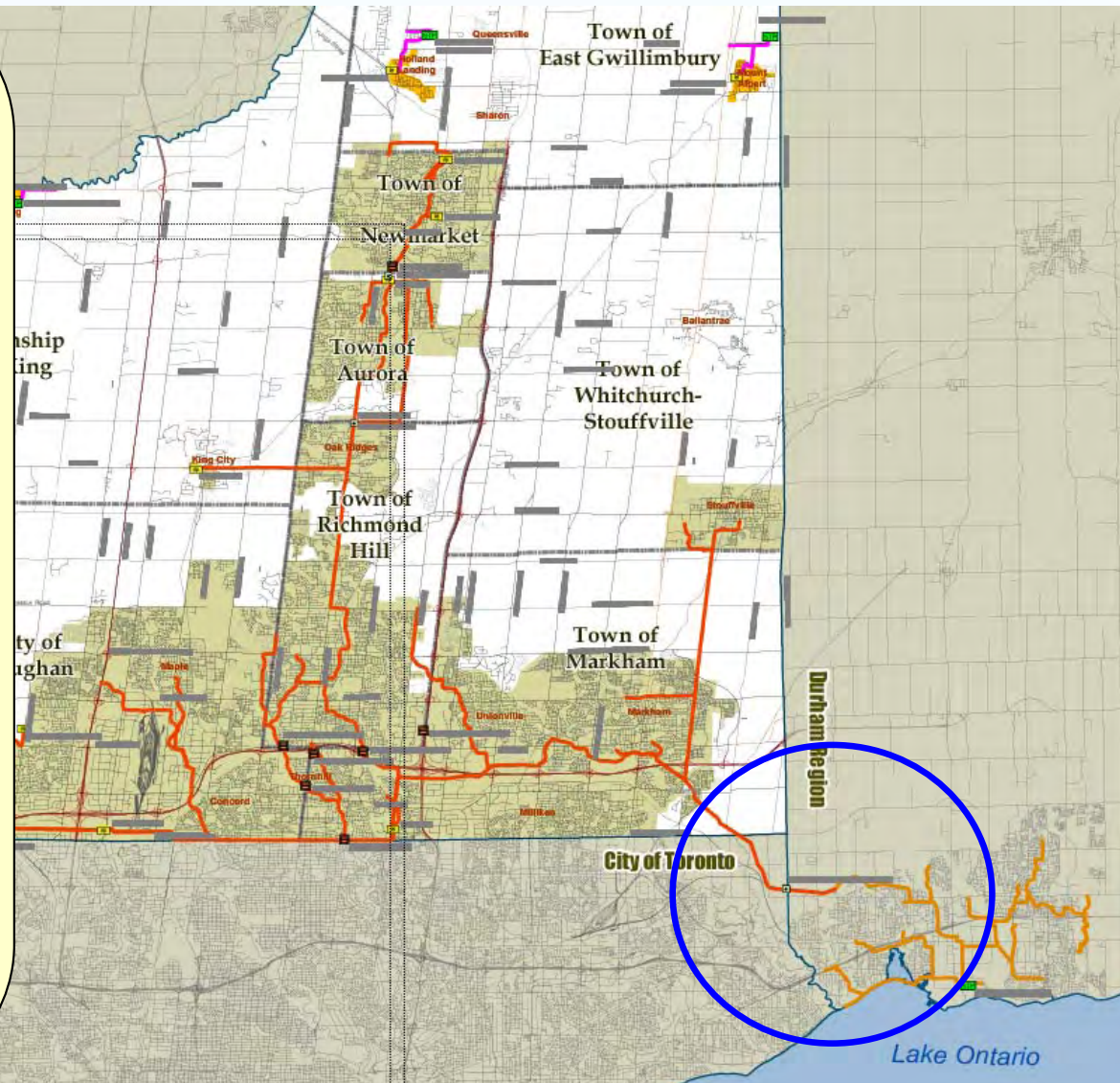
**Daniel Kostopoulos**  
**York Region - Environmental Services**  
**September 29, 2009**

## In This Presentation

- South East Collector (SEC) Location
- Odour Control Strategy
- Individual Environmental Assessment (IEA)
- Enhancements
- Detail Design and Procurement
- Next Steps / Project Schedule

# York Durham Sewage System Overview

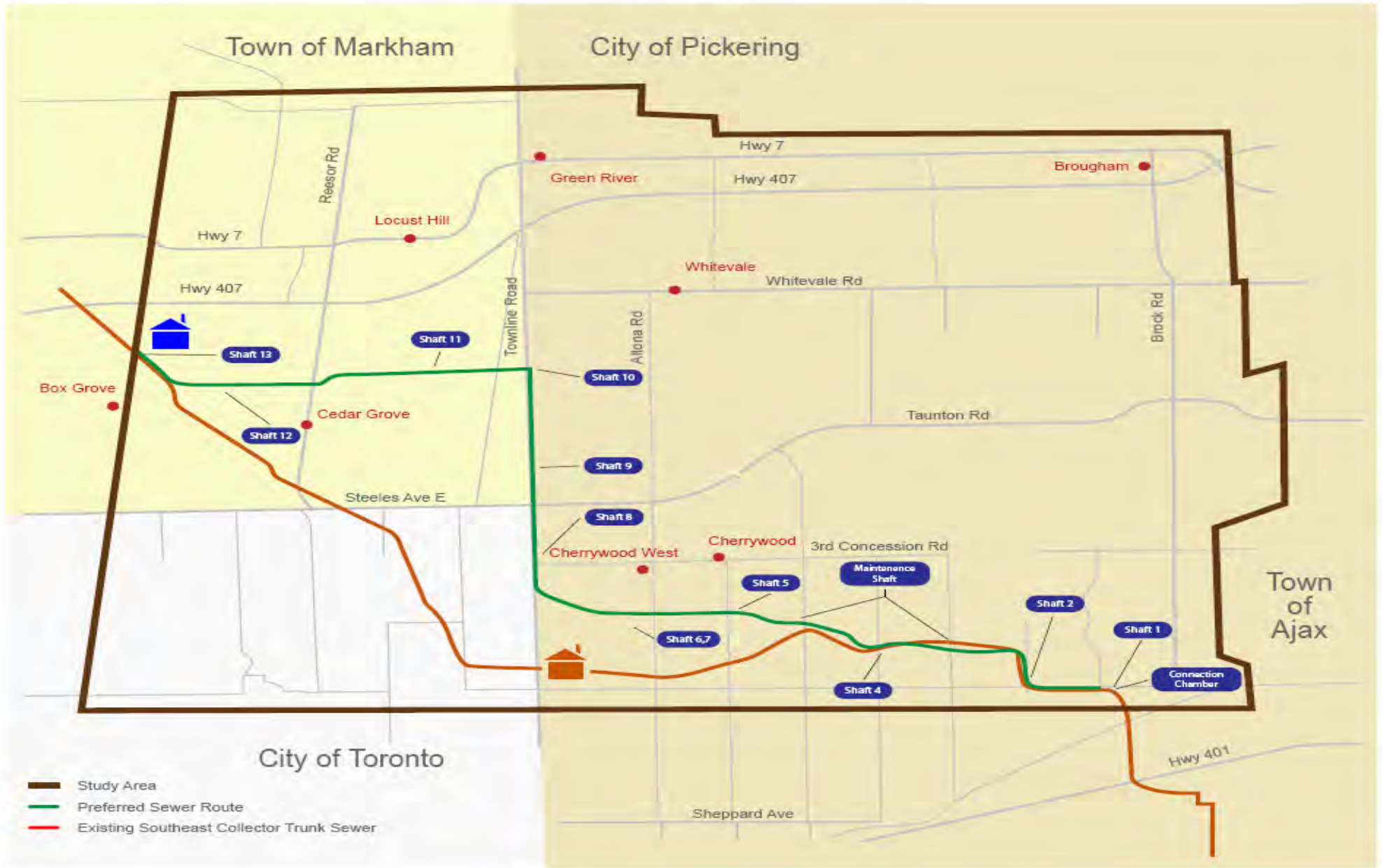
- \$520M SEC Project to convey sewage to Duffin Creek WPCP
- \$500M Duffin Creek WPCP expansion underway
- Provides critical redundancy for existing SEC and required to implement Places to Grow
- Most complex EA for sewer in Ontario
- New SEC 15km long and up to 40m deep
- Project initiated in 2001
- IEA Terms of Reference 2004
- Conducted hundreds of stakeholder consultation meetings
- Sewer Alignment confirmed 2007
- IEA Report filed with MOE 2008
- IEA timeout in March 2009
- IEA Report re-filed in August 2009

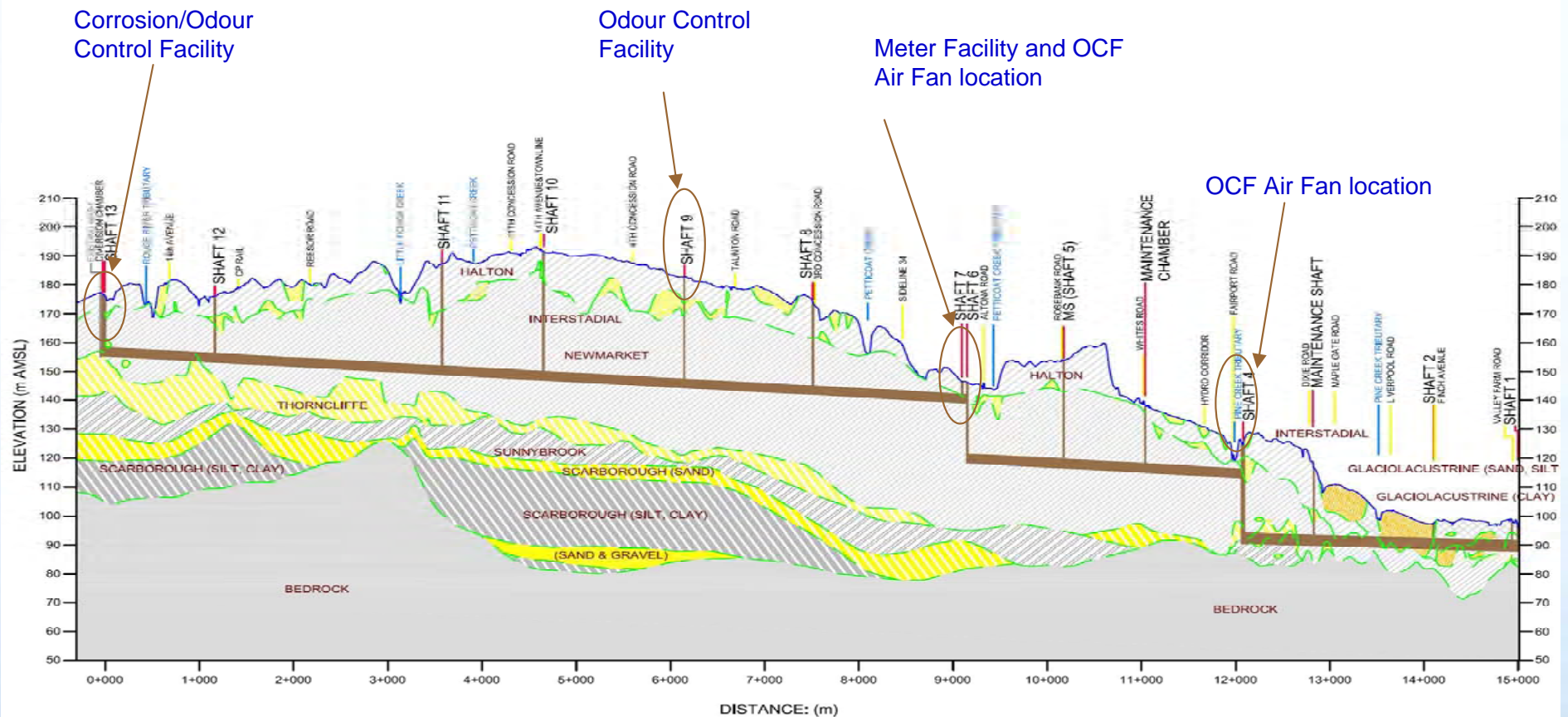






15 km Approx





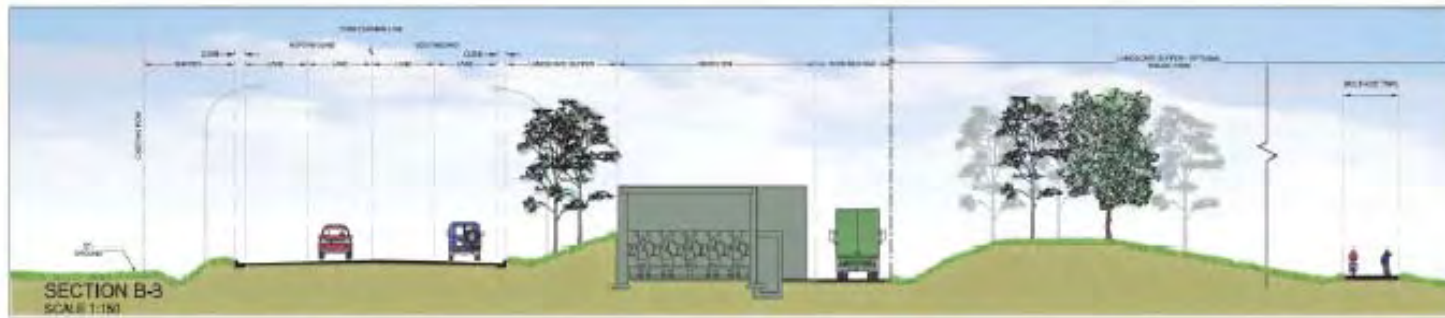
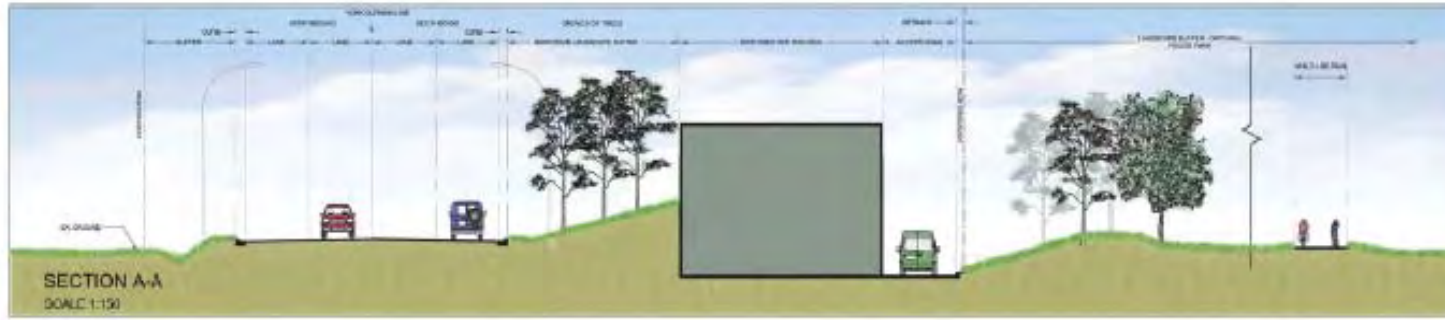


# Odour Control Strategy

- Sanitary sewers traditionally constructed without odour control (including original YDSS)
- Topography creates need for drop structures in sewer
- In all sewers, drop structures agitate wastewater
- York has an overall odour management program and has implemented odour control facilities throughout the Region
- Proactive approach to mitigate potential odour from day 1 – not retrofit as an afterthought
- Facility will remove odour – not create or release it

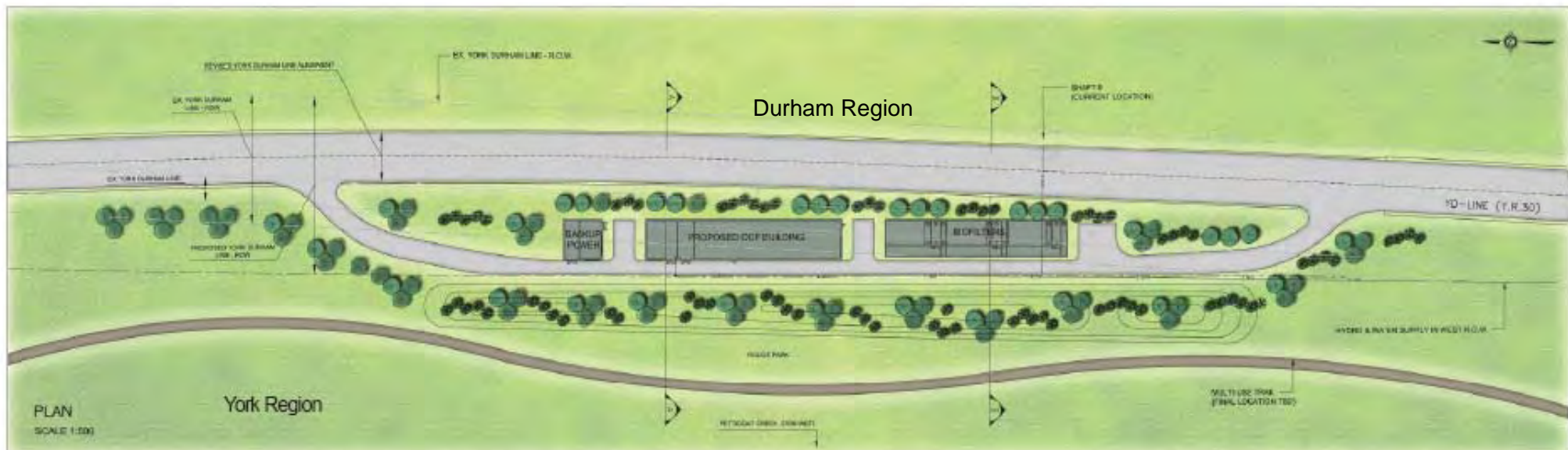
# Odour Control Facility Site Selection

- Advantage to locate facility close to source of odour generation to effectively treat air
- Original OCF location at drop structures in Pickering
- In response to Durham Regional Council's motion, the OCF was relocated out of Durham Region
- New location on York-Durham Line strikes a balance between Pickering, Markham and Rouge Park
- New Facility will be architecturally controlled and receive enhanced landscaping treatment



Odour Control Facility

Cross-Section and Site Plan





## How the OCF works

- Fans create negative pressure in sewer airspace
- Fans move air to OCF
- OCF treats air through Bio-filters
- Air is further treated via Activated Carbon filters
- Resultant air is non-detectable for odour

# Continuous Operation is Assured

- 100% redundancy on all treatment processes
  - Filter media
  - Power supply
  - Fans
- Complete spare parts inventory stored on site, no waiting for shipment
- 24/7 monitoring and on-call maintenance staff

## Status of IEA Update

- In response to Durham Council Resolution, York requested a time out from MOE in spring of 2009
- Upon review of available options, relocation of OCF to York Region, within York-Durham Line right-of-way was selected as best alternative within York
- This location has been reviewed by staff from Pickering, Markham, Durham, TRCA and Rouge Park and was presented to public on July 23, 2009
- Results of these consultations were incorporated into IEA and resubmitted to MOE on August 21, 2009



# Identifying Candidate Enhancements

- 140 candidate enhancements developed through the IEA
- Enhancements screened using the following criteria:
  - Environmental and social benefits
  - Partnership opportunities
  - Long-term ownership of enhancements
  - Potential to be a catalyst for future enhancements
- 42 enhancements recommended

# Enhancements – Bob Hunter Memorial Park and Rouge Park

- Enhancements support the Bob Hunter Memorial Park and Rouge Park Master Plan
- Planned enhancements include:
  - Multi-use trails
    - Little Rouge Creek Trail, Carrying Place Trail, 14<sup>th</sup> Avenue
    - Trailhead development at Cedar Grove Community Centre
  - Wetland development NE corner of BHMP
  - Restoration of Headwater Stream Entering BHMP
  - Archaeology and trail mapping

**Investment:** \$6 million

**Timing:** Implementation to begin after EA approval

**Leaving a positive legacy with environment and community**







# Detailed Design and Procurement

- The contract for the four tunnel boring machines was awarded in June 2009.
- Tenders have been issued for:
  - supply of the pre-cast tunnel liner segments
  - improvements to designated haul roads
  - soil turning for detailed archaeological investigations
- Pre-qualification of tunnel contractors is complete
- Four firms are pre-qualified based in Canada, the United States and Europe

## Next Steps

- Detail design of sewer tunnel is forecast for 100% review by October 2009
- Upon completion of 100% design review, tunnel contract will be issued to pre-qualified bidders
- IEA approval is anticipated in early 2010
- Award of tunnel contract in early 2010 will coincide with delivery of Tunnel Boring Machines and precast segmental tunnel liners.

# Project Schedule Overview

Task	Date
IEA Report Submission to MOE	November 2008
IEA Report Re-submission to MOE	August 2009
MOE Approval of IEA Report	Anticipated Early 2010
Design Completion	October 2009
TBM Procurement	June 2009
RFQ for Tunnelling Contractors	July 2009
Tender for Segmental Lining Contract	August 2009
Tender for Haul Route Contract	September 2009
Tender for Soil Management Contract (Archaeological Investigation)	September 2009
Commence Construction of Tunnel Contract	Subject to IEA Approval
Commissioning of the Southeast Collector	Subject to IEA Approval
Project Completion (includes post construction activities)	Subject to IEA Approval





**YDSS Servicing**  
YORK DURHAM SEWAGE SYSTEM  
Municipal Partners Protecting the Environment Since 1971



# Thank-you

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