

Master Servicing Study (MSS)

Update on Draft Report

April 17, 2012

Purpose of MSS

- **Determine Existing Capacity Constraints of Municipal Services (Water, Sanitary & Storm)**
- **Estimate Future Servicing Needs based on 2031 Land Use Projections**
- **Identify Infrastructure Improvements to support 2031 Land Use**
- **Estimate Infrastructure Improvement costs for input into Development Charges Study**

2031 Land Use

- **Combined Growth projections are provided by Planning Policy Section**
- **Draft land use projections are used for certain growth areas, e.g. Markham Centre, Milliken Centre.**

Municipal Services Assessed

- **Assessments were carried out for 21 areas with growth potential**
 - Water Supply System Assessment
 - Sanitary Collection System Assessment
 - Storm Drainage System Assessment
 - System Capital Cost Summary

Assessment Areas

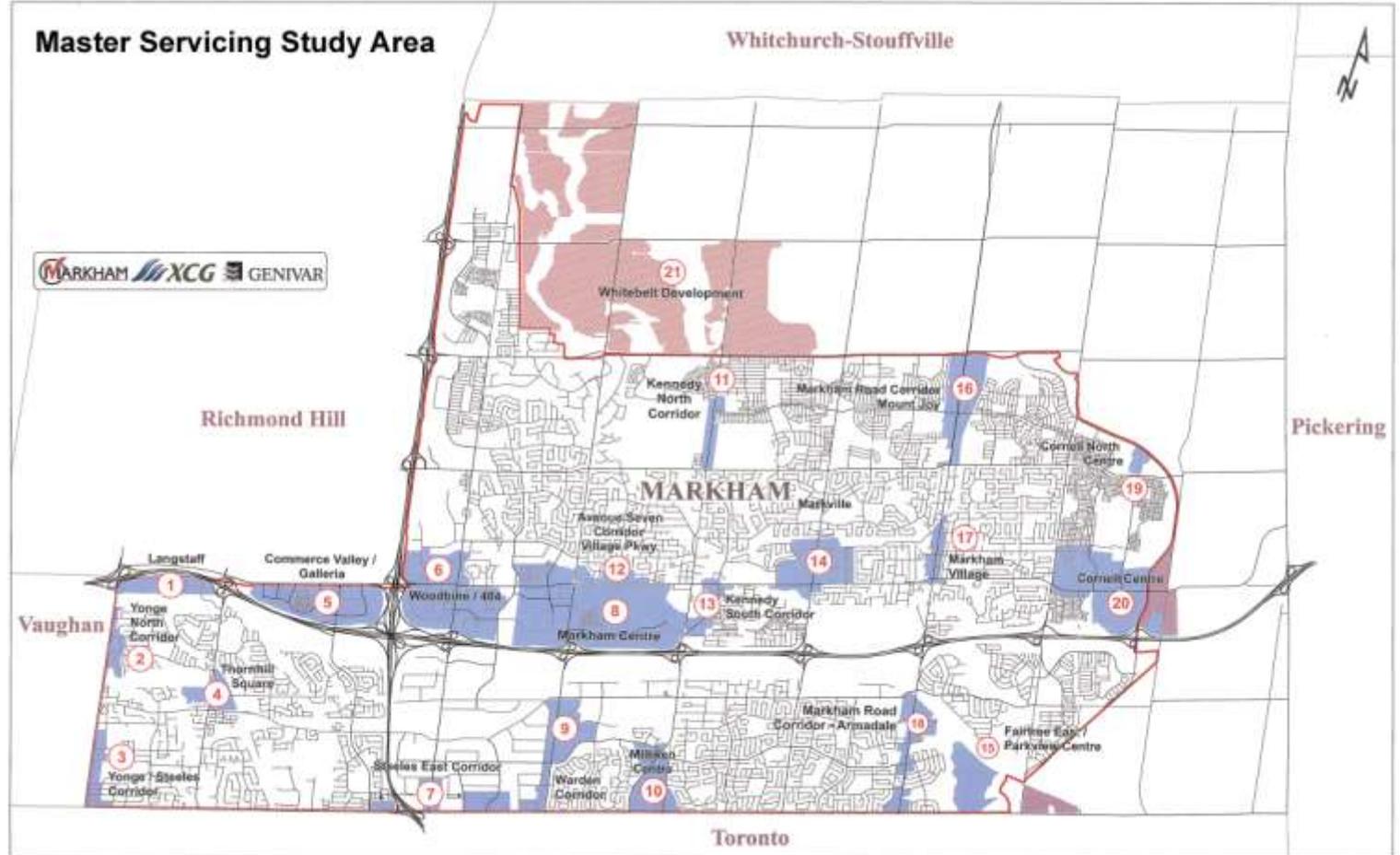


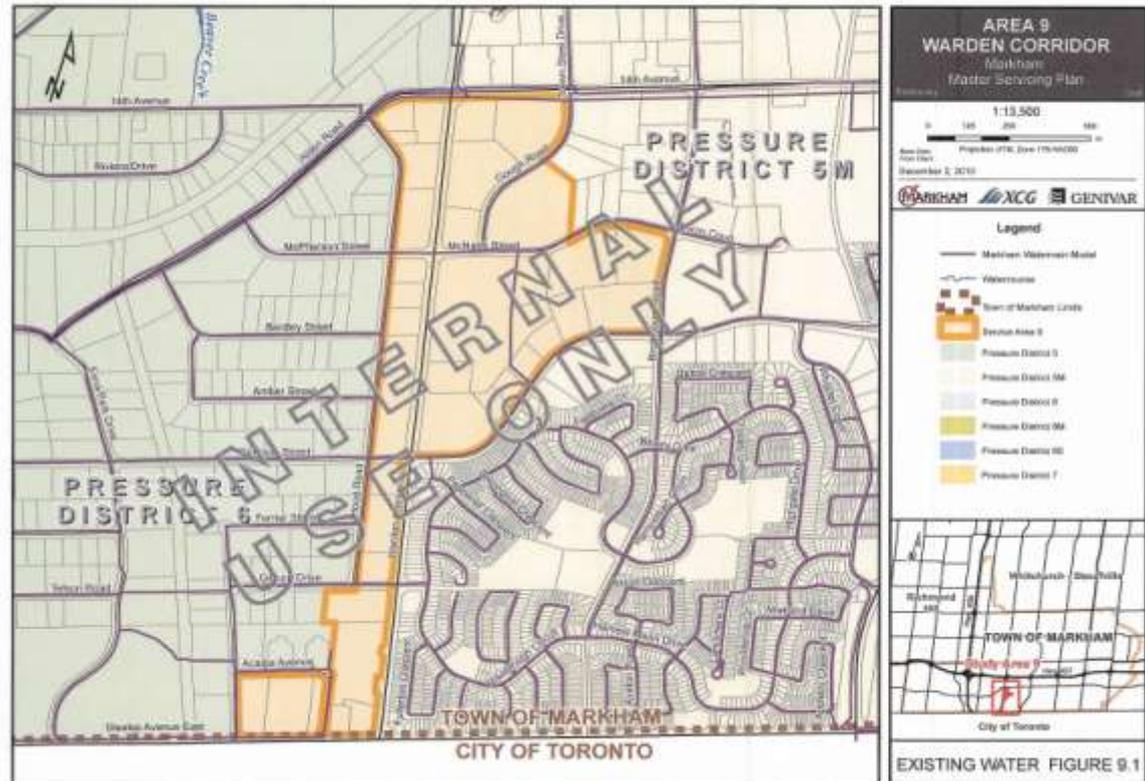
EXHIBIT 1



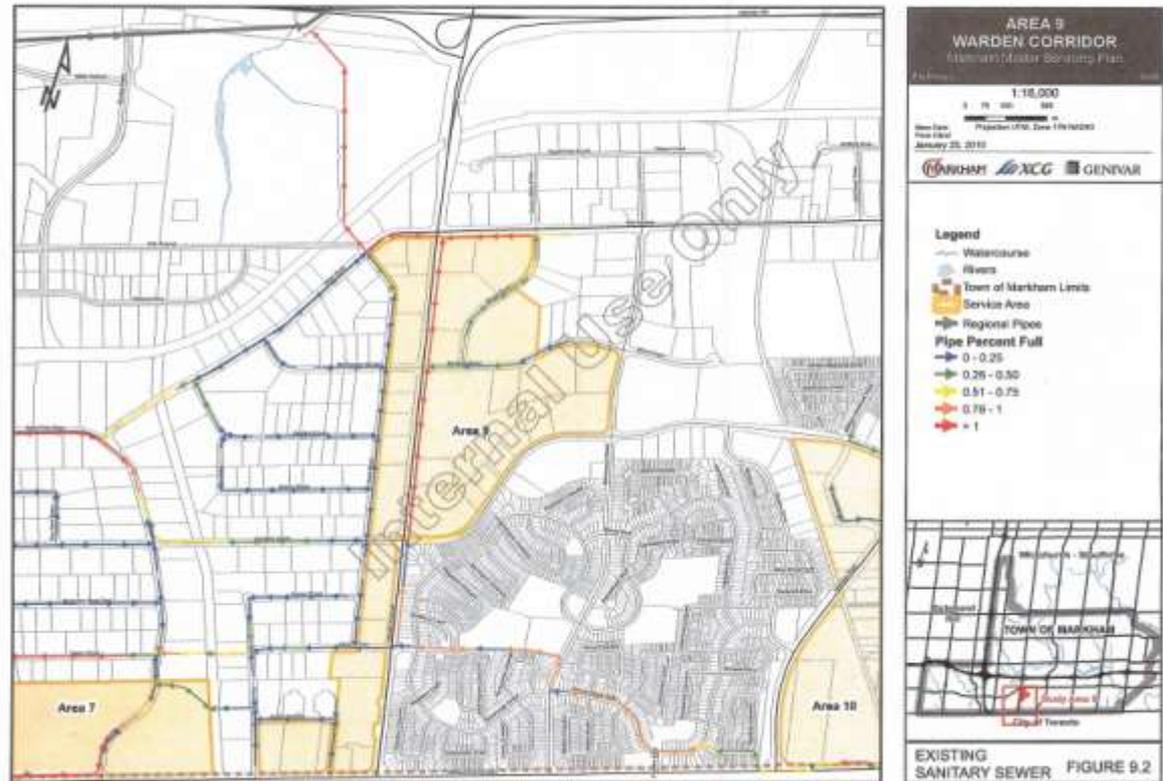
Example of Assessment

Town of Markham Master Servicing Plan Existing System and 2031 Assessment		Area 9
Warden Corridor		
Location Description Along Warden Avenue bounded by Steeles Avenue, Eona Park Drive, Birchmount Road and Hood Road.	Area Map 	
Existing Land Use Mostly light industrial and commercial.		
Potential Land Use Changes		
Current/Recent Studies SWM Study for Concanmar Subdivision, 1987		
Current Issues/Problems		
Existing Systems Water Supply (Zone, Source, Storage, etc.) <ul style="list-style-type: none"> • See Figure 9.1 • Area is within York Pressure District 5 west of Warden, York PDSM east of Warden • PDS pumping stations supplying the area are Thornhill PS, near Bayview Avenue and 14th Avenue, and Milliken PS near Kennedy Road and 14th Avenue. • PDS storage is located at Markham Reservoir situated on McCowan Road near Elgin Mills Road. • PDS watermains - 300 mm watermains along Steeles Avenue, Hood Road, Aiden Road and Denison Street. • PDSM pumping station is located at the Milliken PS near Kennedy Road and 14th Avenue. • PDSM storage is located in the Milliken ET near Kennedy Road and 14th Avenue. • PDSM watermains - 400 mm watermains along 14th Avenue and Birchmount Road and 300 mm watermains along Denison Street, McNabb Street and Cough Road. 		

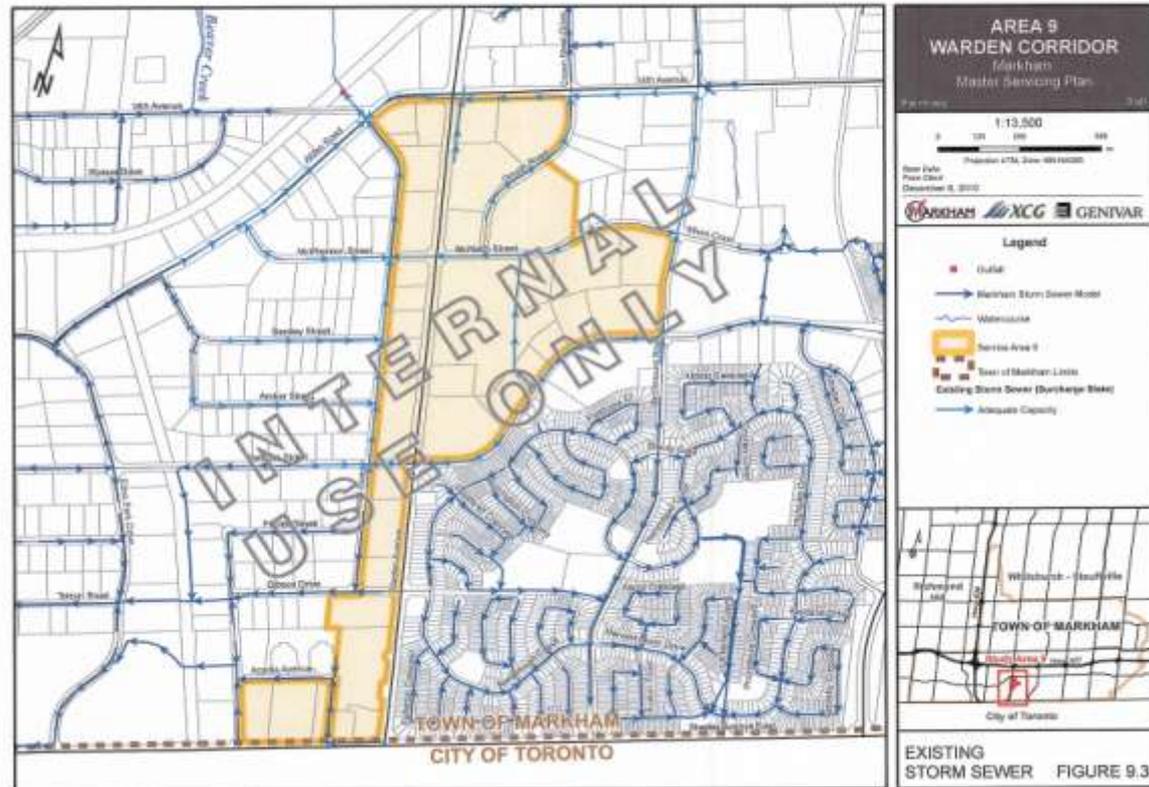
Example of Assessment



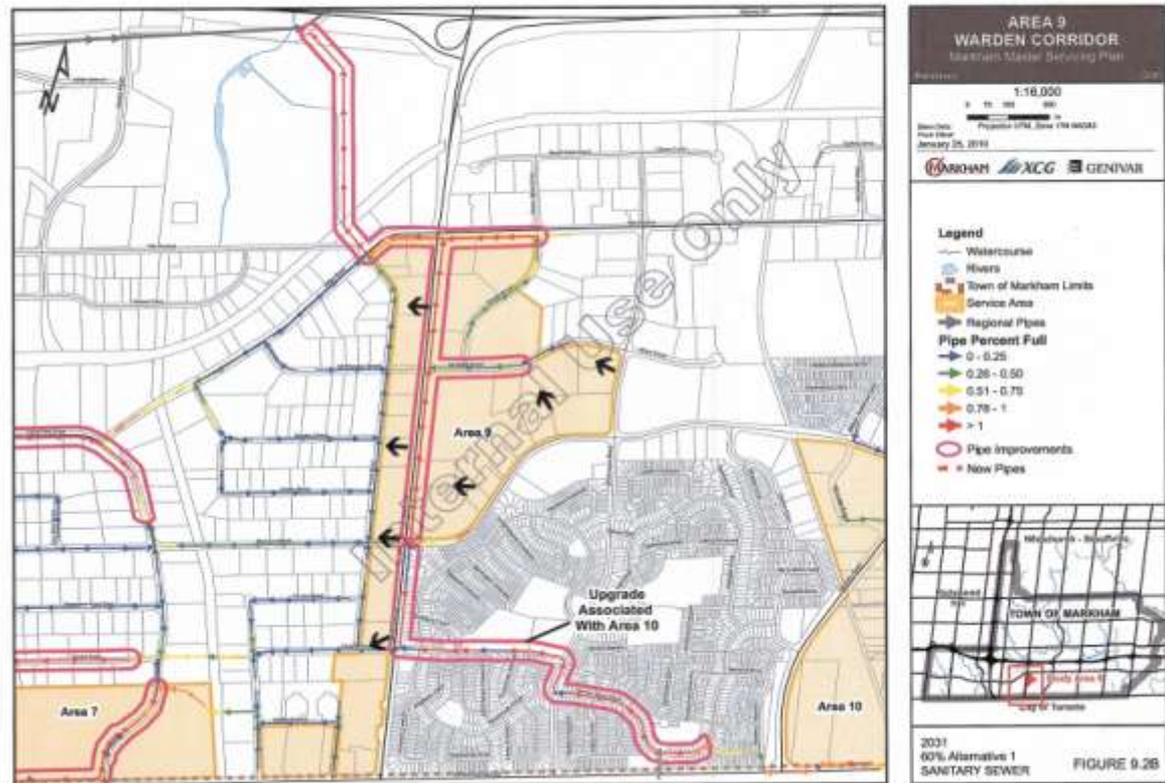
Example of Assessment



Example of Assessment



Example of Assessment



Water Supply System

- Two tier system (Region & Town)
- Significant Regional system improvement is required to service Markham Centre
- Langstaff will require new supply from an existing Regional truck watermain in the Langstaff area
- Some growth areas will require upgrades to watermain sections
- Further review of system required before new infrastructure requirements and cost estimates can be finalized.

Sanitary Collection System

- Two tier system (Region & Town)
- Town system is connected to the York-Durham Sewer System (YDSS) which is operated by the Region
- Major improvement required for Langstaff (Town & Regional system), Yonge South Corridor, Steeles East Corridor, Avenue Seven Corridor, Fairtree East/Parkview Centre, Whitebelt
- Most growth areas will require sewer improvements and/or flow diversions to optimise flow in existing sewers
- Need to provide study results to the Region to ensure the YDSS can handle the anticipated sanitary flow from Markham
- Further review of system required before new infrastructure requirements and cost estimates can be finalized.

Storm Drainage System

- Storm drainage is based on a system of storm sewers, overland flow routes (if designed), tributaries and major watercourses
- Stormwater Management (SWM) design criteria have evolved over time to provide better protection against storms, water quality and the environment
- Intensification and redevelopment areas will require on-site water quantity and quality control as there are no downstream stormwater management ponds
- Storm sewers will need to be upgraded in most growth areas
- Sewer upgrades for growth areas are independent of service level improvements that are currently undertaken by Asset Management Department (e.g. Thornhill)
- Further review of system required before new infrastructure requirements and cost estimates can be finalized.

Next Step

A) Finalize MSS will be based on:

- Final 2031 Land Use projections
- Growth targets in some growth areas (e.g. Langstaff, Markham Centre, Markham Road North, Milliken Centre) are being finalized
- Regional OP Amendment 3: Growth in the Whitebelt and OMB decision

B) Required infrastructure, cost estimates and funding sources (growth : non-growth) to be included in DC background study update

C) Staff Report back in the Fall 2012 with further update