

Planning and Economic Development Committee

2013 Capacity Assignment for YDSS Service Area

Daniel Kostopoulos and **Heather Konefat**

Director of Capital Planning and Delivery

Director of Community Planning

February 3, 2010

February 3, 2010

Key Messages

- 2013 allocation is achievable with conditions
- Reducing Inflow & Infiltration is a shared challenge between all nine Local Municipalities and the Region
- Partnership approach is vital to success

Report to Environmental Services Committee on February 10 2010

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YDSS and Local Sewage Collection Systems



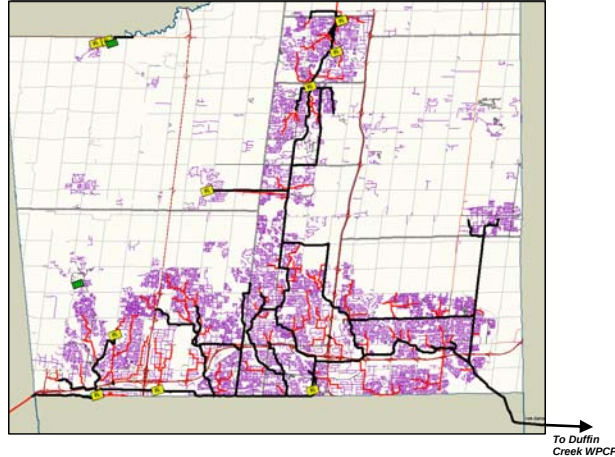
Two-tiered Sanitary Sewage System

•Region

- Conveyance (Major Trunk Sewers)
- Treatment

•8 Local Municipalities

- Local conveyance from Residences and Businesses to Regional System



Over 3,300 Linear Km of sewers – 3,000 under Local Municipal & 300 under Regional jurisdiction

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2011 and 2012 Allocation



- Prior to twinning the SEC Design Capacity of the YDSS will be reached by end of 2010
- Design capacity for growth in 2011 and 2012 is made available by installing three Flow Control Gates
- Construction of the three Flow Control Gates is underway with completion on track for May 2010



In-Line Storage via Flow Control Gates Enables 2011 & 2012 Allocation

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Challenges to 2013 Allocation



- Desire to accommodate additional growth for 2013
- Capacity constraints exist in the YDSS to permit 2013 Allocation driven by:
 - Delay in IEA approval of the Southeast Collector (SEC)
 - Inflow and Infiltration (I-I)
- Careful management of system flows through I-I reduction and flow control gates will help manage operating risk prior to SEC commissioning

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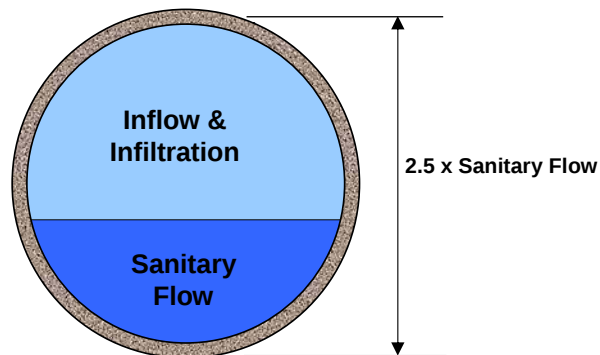
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System Capacity



- System design allows for increased flows during wet weather events (rain, snow melt) due to I-I.
- Pipes and Water Pollution Control Plants have capacity for 2.5 times sanitary flow



*YDSS is designed to accommodate some Inflow & Infiltration
(up to 2.5 times sanitary flows)*

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Range of Peak Flows in the YDSS

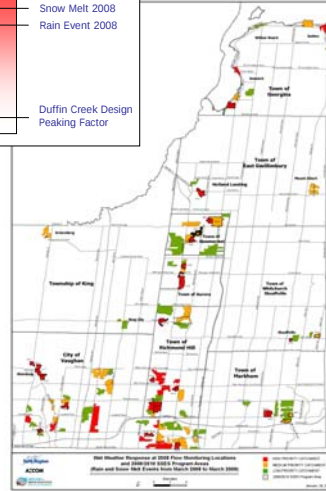
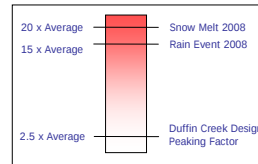


Peak flows range from 6 to 35 times the average dry weather flow

Peak flows are affected by:

- Age and condition of system
- Amount of snow pack
- Combined rain/snow melt
- Climate Change /Severe Weather

Planning for Peak Flows and Climate Change is critical for system security



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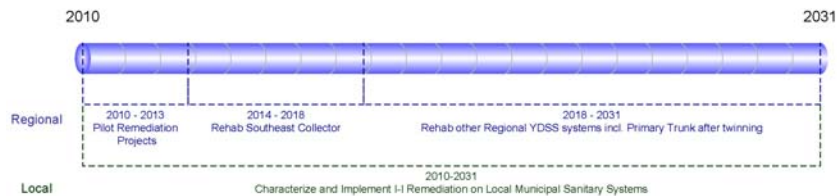
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Timeline for I-I Reduction



- Clarification of level of commitment of funding and resources for I-I reduction



20 Year Timeline to Reduce Peak Wastewater Flow by 10%

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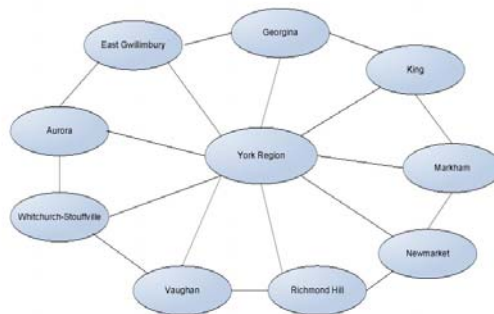
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Moving forward to Reduce I-I Together



York Region and Local Municipal Inflow and Infiltration Reduction Task Force



Mandate

- Continue to seek out the sources of inflow and infiltration
- Adopt standards and guidelines intended to reduce I-I
- Develop funding and cost sharing principles

Senior Management Public Works Engineering and Planning

Team dedicated to making decisions and ensuring the reduction of I-I becomes and remains a priority

Consultation with Local Municipalities on 2013 Allocation Report resulted in commitment to work together to reduce I-I

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Moving Forward with Servicing Capacity



- Methodology utilized to determine assignment of servicing capacity to each municipality based on:

Assessment of three growth indicators:

- 10 year historical building permit average
- 5 year historical building permit average
- Forecasted growth

Assessment of system capacity

- More deliberate actions on I/I reduction contributes to goal of sustainability



- Allows planned growth to move forward



- Communication & consultation with local partners

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Proposed 2013 Servicing Capacity



Further consultation with northern YDSS municipalities, technical assessment of regional reserve and regional priorities – led to revised recommended allocation assignment

Municipality	Revised 2013 Assignment of Capacity	
	(population)	(units)
Aurora	1,245 (revised)	400 (revised)
Newmarket	1,590 (revised)	500 (revised)
King City	465	150
Markham	11,259	3,292
East Gwillimbury	1,500	500
Richmond Hill	6,625	2,064
Vaughan	12,377	3,651
Stouffville	1,788	600
YDSS Region	36,328	10,990

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Critical Triggers for Release of 2013 Servicing Capacity in YDSS



- Approval of Individual Environmental Assessment by MOE for Southeast Collector (anticipated Spring 2010) for municipal allocation to individual developments.
- Occupancy no earlier than one year prior to completion of the Southeast Collector (i.e. Occupancy in 2013)
- Support of local municipalities to adequately resource and implement I-I reduction and water conservation programs, in partnership with the Region, through ongoing consultation.



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Next Steps



- Servicing Capacity for 2013 to be assigned subject to:
 - Southeast Collector IEA Approval
 - Occupancy in 2013 (1 year prior to completion of the Southeast Collector)
 - I-I Reduction
- Ongoing high level of engagement with Local Municipalities
- Report back to Environmental Services Committee in Q2-2010 with additional details and cost estimates on I-I Reduction programs
- Regional and Local municipalities to work together on I and I reduction through a collective task force

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• Questions?



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