



WATER AND WASTEWATER MASTER PLAN UPDATE

PUBLIC INFORMATION CENTRE
June 19, 2018



Welcome to this Public Information Centre

- + Please sign-in on the sheet provided.
- + Please review displayed materials.
- + Staff from the Town of Tecumseh and CIMA+ will be pleased to discuss with you any questions or concerns that you may have.
- + Comment Sheets are provided at the front.
- + Please complete a Comment Sheet and drop it in the Comment Box, or send it to the contact people provided in sheet by **July 13, 2018.**



Why are we Here Tonight?

- + The Town of Tecumseh is updating its Water and Wastewater Master Plan in accordance with the Class Environmental Assessment (Class EA) – Approach 2 process for Master Plans.
- + Public participation is an integral part of the Class EA process. This meeting provides an opportunity for the public to participate in the process.
- + We encourage you to review the information presented tonight and provide us with any comments or concerns which you may have.

Objectives of the Master Plan Update

- + Master Plans are long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles.
- + Key objectives of a Master Plan Update:
 - + Update growth projections based on most up-to-date planning estimates.
 - + Review and confirm the water and wastewater infrastructure strategies to serve existing and future population in Town to the year 2036+.
 - + Develop a list of specific projects to best meet the overall system needs under both existing and future conditions.
 - + Provide a capital implementation program for the preferred servicing strategies.
 - + Follow key principles of successful environmental planning, as per the Municipal Class Environmental Assessment process.

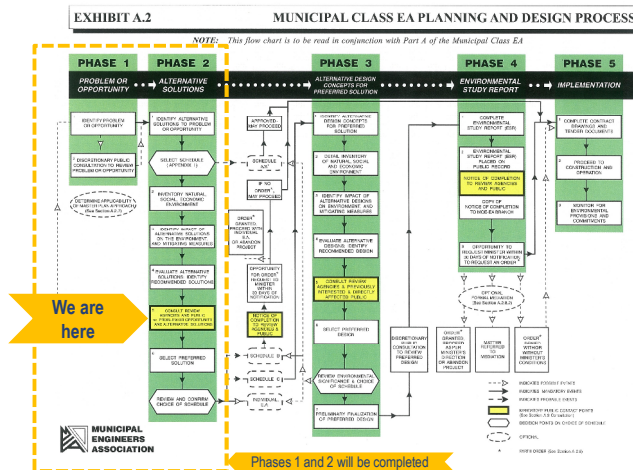
Objectives of this Public Information Centre

- + To present:
 - + Background project information
 - + Drivers for revisions to existing water and wastewater servicing strategies
 - + Key water and wastewater servicing constraints and opportunities
 - + Preliminary preferred water and wastewater servicing strategies
- + To receive comments from the public and interested review agencies about the preliminary preferred servicing strategies



Municipal Class Environmental Assessment Process and Master Plan Context

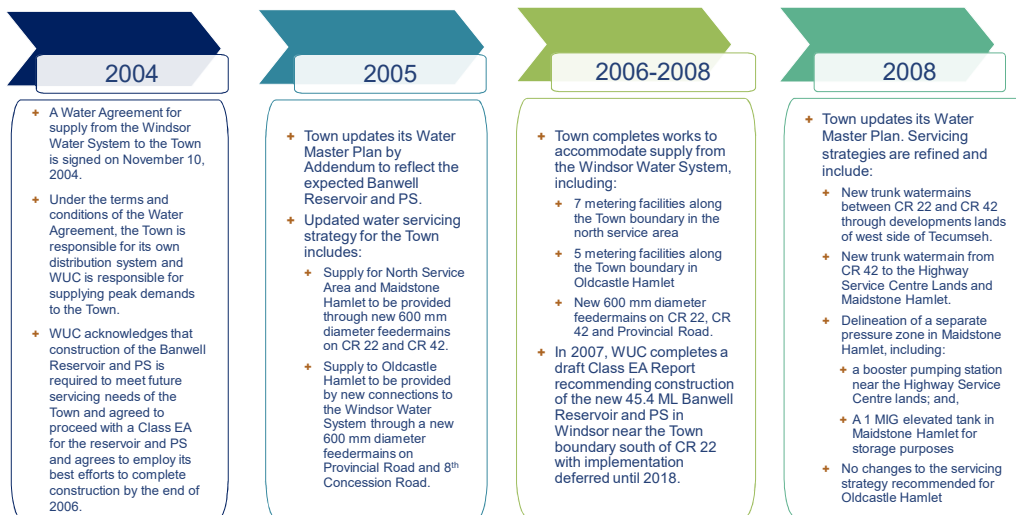
- + The Master Plan process will address Phases 1 and 2 of the Class EA process.
- + A broad level of assessment will be completed to evaluate and select the preferred servicing strategies.
- + A Master Plan document will be prepared at the conclusion of Phases 1 and 2 and will be available for public review prior to approval.
 - + Schedule A, A+ and B projects identified within the Master Plan can proceed to implementation.
 - + Schedule C projects identified within the Master Plan will require more detailed investigations at a project-specific level.



Planning Projections – Residential Population

Population Projections	2008 Master Plan	2018 Master Plan Update
2016	32,282	23,229
2026	40,250	27,501
2036	Not reported	30,068
Ultimate Urban Build-out	47,756	47,756

Evolution of Water Servicing Strategy – 2004-2008



Evolution of Water Servicing Strategy – 2009-2017

2011-2014

- + WUC completes a Class EA to reevaluate options for providing additional storage in Windsor. The revised preferred solution includes:
 - + A new 35 ML reservoir approximately 7 km away from the Town boundary in lieu of the Barwell Reservoir and PS originally agreed to in the Water Agreement between WUC and the Town.
 - + A new central corridor Feedermain routed through Windsor to increase transmission main capacity in the City as well as address current pressure problems in the southwest area of Windsor.

2015-2016

- + Construction of the Herb Gray Parkway proceeds, resulting in the reconfiguration of the water supply connection to Tecumseh at Howard Avenue (MCT-12). Supply to Tecumseh now routed through watermain owned and operated by the Town of LaSalle

- + Due to a billing dispute, the supply connection at Howard Avenue (MCT-12) was closed.

2017-2018

- + Town updates its Water Master Plan. Servicing Strategies are refined and include:
 - + Relocation of the Zone 2 Booster Pumping Station and elevated storage facility from Maidstone Hamlet to Oldcastle Hamlet
 - + Reduction in conveyance capacity of the South Tecumseh Trunk Watermain south of CR 42 to reflect supply for south service area from Provincial Road Trunk watermain in Windsor
 - + Additional watermain upgrades identified in Oldcastle Hamlet to improve available fire flows for existing and new development.

Water Servicing Agreement (2004)

+ GUIDING PRINCIPLES OF THE AGREEMENT:

- + The Commission is responsible for the supply of water to the Town via boundary meters on a continuous basis up to a maximum daily flow of **87 million litres per day (MLD)** to the year 2055
- + Tecumseh will remain responsible for its own distribution system within the boundaries of the Town
- + The Commission is responsible for delivering peak hourly flow to the Town
- + The Commission agrees to provide transmission mains to the boundary of Tecumseh. Ownership of watermain installed at the expense of the Commission will reside with the Commission.
- + The Commission is responsible for the provision of storage for equalization and peak hour flow of water for the Town in the Windsor Water System
- + Tecumseh's elevated water tank will be used by the Commission for system pressure control
- + The Commission is responsible for maintaining sufficient storage in Tecumseh's elevated water tank for fire flows in the Town
- + Tecumseh is responsible for and any new storage works that may be required to supply its fire flow of water

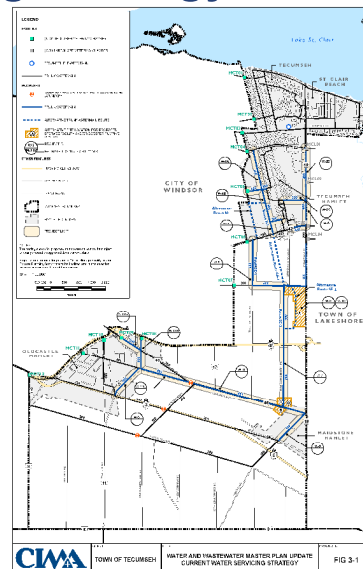
Water Servicing Objectives

- + Monitor water flow from the Windsor Water System at the Town boundary
- + Provide adequate flow and pressure to water customers in the Town
- + Provide adequate fire flows, reliability and security throughout the distribution system
- + Provide adequate water storage, pumping capacity and standby power to meet emergency conditions
- + Maintain adequate water quality throughout the distribution system
- + Promote water conservation
- + Utilize reasonable planning design and costing criteria for establishing and evaluating servicing scenarios.

The Town's water distribution network currently operates on a single pressure zone that is controlled by the Windsor Water System. However, based on the geographical distribution of its population; two distinctive separate areas are observed; the North Service and the South Service Areas.

2008 Approved Water Servicing Strategy

- + Major components of the 2008 approved water servicing strategy:
 - + Additional trunk watermain capacity in North Service Area to service projected growth in Tecumseh Hamlet and accommodate supply from the Windsor Water System.
 - + Additional trunk watermain capacity in South Service Area to overcome service limitations in the Windsor Water System serving the Southwest Tecumseh Service Area.
 - + A new 1.0 MIG water elevated tower in Maidstone Hamlet to provide equalization, fire and emergency storage capacity.
 - + A new booster pumping station near the Highway Service Centre lands to address limitations in the system and create a 2nd pressure zone in Maidstone Hamlet.



Water Servicing Constraints and Opportunities

Constraints

- + Low pressures have historically been reported in Oldcastle and Maidstone Hamlets, and have been exacerbated due to accelerated growth in the South Service Area, particularly in Oldcastle Hamlet.
- + Expansion of the Oldcastle Hamlet boundary to the east has been approved for Employment lands. Additional growth may exacerbate low system pressure issues in the south service area.
- + Cancellation of the Banwell Reservoir and BPS results in the Town's reluctance to rely on the Windsor System to provide adequate supply for the South Service area through the Town's North Service area.
- + WUC has limited ability to address capacity limitations in the Windsor system or to improve pressures in the Town's south service area.

Opportunities

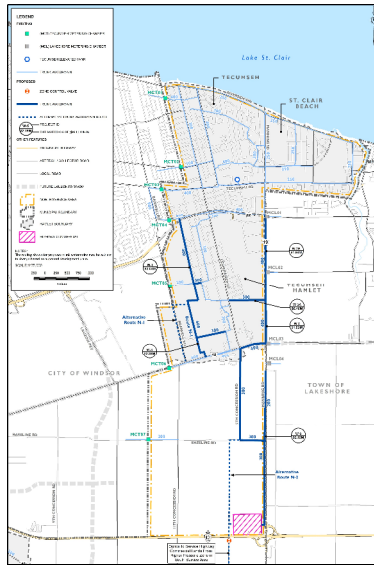
- + Address pressure problems and meet fire flow demands in the South Service Area by:
 - + Relocating the booster pumping station from the North Service Area – originally planned at the Highway Service Centre – to the South Service Area in Oldcastle Hamlet.
 - + Maintaining 2 supply metering chambers and closing remaining chambers south of Highway 401, which would only be used for emergency back-up supply.
 - + Relocating the elevated tower – originally proposed at Maidstone Hamlet – to Oldcastle Hamlet.
 - + Both Oldcastle and Maidstone Hamlets would operate on a separate higher pressure zone. The South Service Area would be able to operate independently from the Windsor Water System
- + Reduce size of trunk watermain south of CR 42 to Maidstone Hamlet to reflect cancellation of construction of the Banwell Road reservoir and BPS
- + Watermain extension south of CR 42 will remain to primarily service the Highway Service Centre lands and to provide emergency supply connection between the Town's north and south service areas.

2018 Recommended Water Servicing Strategy

- + Key Features:
 - + Implement new Pressure Zone (Z-2) in the South Service Area with supply through Oldcastle Hamlet.
 - + Additional storage capacity in Zone 2 for pump control and additional fire flow storage in the South Service Area.
 - + A new Booster Pumping Station to maintain adequate system pressures under peak hour conditions in the South Service Area.
 - + Reduction in size of the South Tecumseh trunk watermain from County Road 42 to Highway 401.

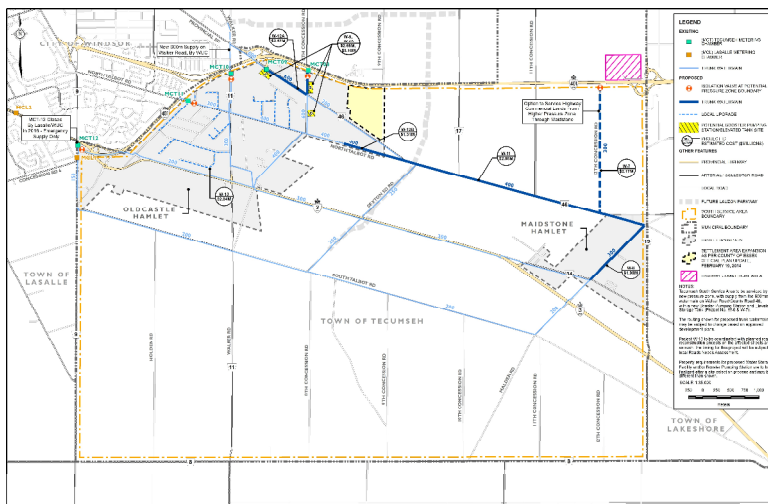
2018 Recommended Water Servicing Strategy

North Service Area



2018 Recommended Water Servicing Strategy

South Service Area

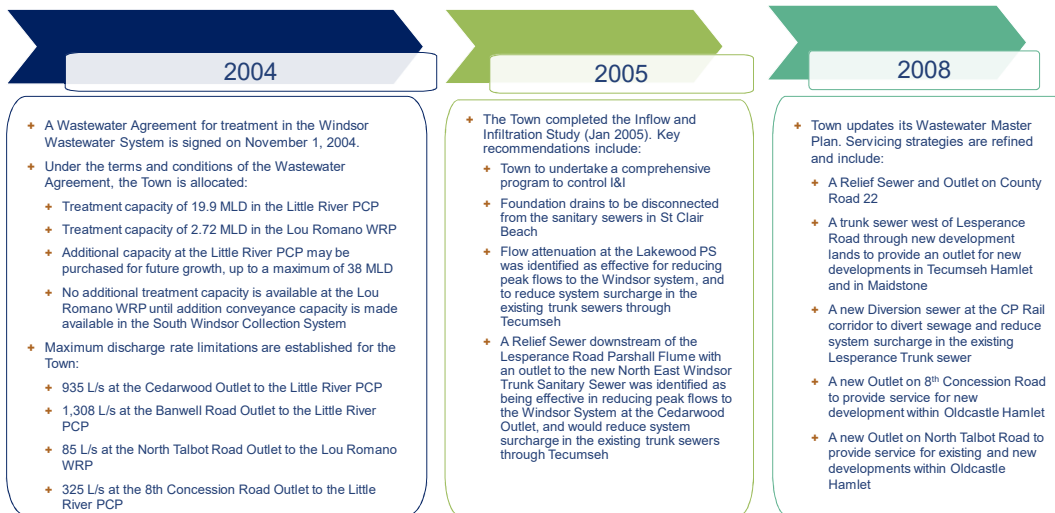


Water Capital Program for 20-Year Planning Period (2018 – 2038)

Project ID	Year in Service	Project Name	Location	Class EA Schedule	Cost (\$ Million)
North Service Area					
W-1	6-10	West Tecumseh Trunk Watermain from CR 22 to CP Railway	Tecumseh Hamlet	B ¹	2.04
W-2a	1-5	East Tecumseh Hamlet Watermain Connection	Tecumseh Hamlet	A+	0.46
W-2b	1-5	Trunk Watermain on Manning Road from CR 22 to CP Railway	Tecumseh Hamlet	A+	1.88
W-4	10-15	West Tecumseh Trunk Watermain from CP Railway to CR 42	Tecumseh Hamlet	B ¹	2.26
W-5	15-20	Trunk Watermain on Manning Road south of CP Railway	Tecumseh Hamlet	A+	1.53
W-6	20+	South Tecumseh Trunk Watermain from CR 42 to Hwy 401	Tecumseh Hamlet	A+	2.19
South Service Area					
W-7	20+	South Tecumseh Trunk Watermain from Highway 401 to Maidstone	Maidstone Hamlet	A+	2.17
W-8	10-15	Maidstone Hamlet Trunk Watermain	Maidstone Hamlet	A+	1.00
W-9	1-5	Zone 2 Booster Pumping Station	Oldcastle Hamlet	B	2.66
W-10	1-5	Zone 2 Water Storage Facility	Oldcastle Hamlet	B	5.16
W-11	5-10	County Road 46 Trunk Watermain	Oldcastle Hamlet	A+	2.96
W-12a	1-5	Southwest Tecumseh Supply Watermain	Oldcastle Hamlet	A+	2.57
W-12b	5-10	Oldcastle Road Trunk Watermain	Oldcastle Hamlet	A+	1.31
W-13	Ongoing	Oldcastle Hamlet Watermain Upgrades	Oldcastle Hamlet	A+	2.84

Notes: 1 – Project may be Approved (Schedule A) if implemented under an approved Plan of Subdivision

Evolution of Wastewater Servicing Strategy – 2004-2008



Evolution of Wastewater Servicing Strategy – 2009-2018

2009-2011

- + The Town completed construction of the County Road 22 Relief Sewer and Outlet
- + The Town completed the construction of the North Talbot Road trunk Sewer and outlet
- + The City of Windsor and Town of Tecumseh advance the timing of construction of the North-East Windsor Trunk Sanitary Sewer from County Road 22 through the Airport Lands to Highway 401 and Oldcastle Hamlet.

2013

- + The Town of Tecumseh completes the Tecumseh Sanitary Sewage Collection System Improvements Class EA Study. Key recommendations of the Study include:
 - + Upgrade of the Lakewood Pumping Station and provision of peak flow storage to reduce downstream surcharge
 - + Provision of Peak Flow Storage on Riverside Drive to alleviate downstream system surcharge

2018

- + Town updates its Wastewater Master Plan. Servicing strategies are refined and include:
 - + Modification of the timing for the West Tecumseh Trunk Sanitary Sewer.
 - + Elimination of the majority of the South Tecumseh Trunk Gravity Sanitary Sewer between County Road 42 and Maidstone Hamlet. Servicing of Maidstone Hamlet to be by a central Pumping Station and discharge force main
 - + Refinement of the planned sanitary sewer routing within Oldcastle Hamlet, including the addition of 3 local pumping stations

Context for Wastewater Servicing

- + Urban areas in Town will be serviced from a combination of capacities at the Lou Romano Water Reclamation Plant (WRP) and the Little River Pollution Control Plant (PCP) in Windsor.
- + As per existing Windsor–Tecumseh Wastewater Agreement:
 - + Allocated treatment capacity to Town: **19.9 MLD in the Little River PCP limited and 2.72 MLD in the Lou Romano WRP**
 - + Additional capacity at the Little River PCP can be purchased for future growth up to 38 MLD
 - + No additional treatment capacity is available at the Lou Romano WRP until addition conveyance capacity is made available in the South Windsor Collection System
 - + Maximum discharge rate limitations established for the Town:
 - + **935 L/s at the Cedarwood Outlet to the Little River PCP**
 - + **1,308 L/s at the Banwell Road Outlet to the Little River PCP**
 - + **85 L/s at the North Talbot Road Outlet to the Lou Romano WRP**
 - + **325 L/s at the 8th Concession Road Outlet to the Little River PCP**

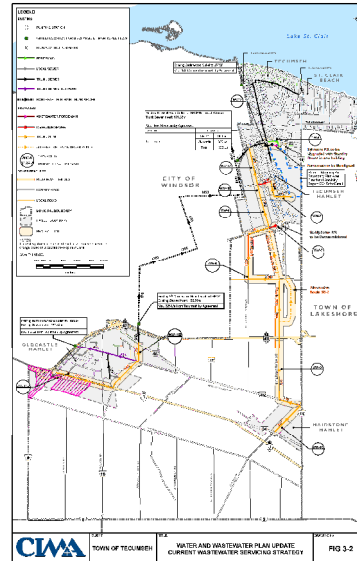


Lou Romano Water Reclamation Plant and Little River Pollution Control Plant, City of Windsor



2008 Approved Wastewater Servicing Strategy

- + Major components of the 2008 approved wastewater servicing strategy:
 - + Construction of West Tecumseh Trunk Sewer to service development lands in Tecumseh Hamlet, Highway Commercial Lands and Maidstone Hamlet
 - + Construction of Diversion Sewers at Intersection Road and CR42 to alleviate existing surcharging and free up capacity for future growth in the Manning Road Secondary Plan Area
 - + Construction of South Tecumseh Trunk Sewer to service development lands in Oldcastle Hamlet
 - + Construction of Southeast Tecumseh Trunk Sewer to service Highway Commercial lands and future growth in Maidstone Hamlet
 - + Decommission the Skyway Plaza Wastewater Treatment Plant in Oldcastle Hamlet and divert flows to either Lou Romano WRP or Little River PCP



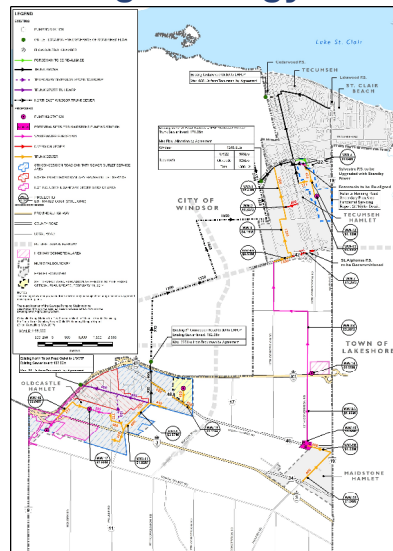
Wastewater Servicing Constraints and Opportunities

- + Early decommissioning of the Skyway Plaza WWTP required a temporary diversion of flows to the Lou Romano WRP via the newly built North Talbot Trunk Sewer.
- + The Little River PCP provides wastewater treatment for the North, Southeast and the majority of the Southwest Services Areas of the Town. Lower growth projections for these areas may result in deferred timing for plant expansion.
- + Maximum treatment capacity allocated for the Town at the Windsor's wastewater treatment plants.
- + Maximum discharge limitations set out for the Town.

2018 Recommended Wastewater Servicing Strategy

Key Features:

- + Elimination of the East Tecumseh Trunk Sewer within the existing utility corridor south of CP Railway for lands on the east side of Tecumseh Hamlet
- + Elimination of the South Tecumseh Trunk Sewer between CR42 and Highway 3 to service lands in the Maidstone Hamlet Secondary Plan, the Highway Service Centre lands and existing developments in the South Service Area
- + A new forcemain between North Talbot Road and CR42 to service designated lands in the Maidstone Hamlet Secondary Plan and the Highway Service Centre lands
- + A new pumping station in Maidstone Hamlet to convey flows from the Maidstone Hamlet to the north discharge outlet at CR42
- + New trunk sewers for existing developments and new growth in the Southwest Service Area with discharge to the Little River PCP through the future 8th Concession Road Outlet
- + Three new pumping stations in Oldcastle Hamlet to convey local flows to the 8th Concession Road Outlet with ultimate discharge to Little River PCP.



Wastewater Capital Program - Period (2018 – 2038)

Project ID	Year in Service	Project Name	Location	Class EA Schedule	Cost (\$ Million)
WW-1	6-10	West Tecumseh Trunk Sewer from County Road 22 to CP Railway	Tecumseh Hamlet	B ¹	5.21
WW-2	6-10	Tecumseh Hamlet Diversion Sewer	Tecumseh Hamlet	A+	0.84
WW-4	1-5	Sylvestre Pumping Station Upgrade	Tecumseh Hamlet	A+	0.64
WW-5	11-15	North Talbot Road Trunk Sewer, North Talbot Road to Piccadilly Ave.	Oldcastle Hamlet	A+	3.07
WW-6	6-10	West Tecumseh Trunk Sewer from CP Railway to CR42	Tecumseh Hamlet	B ¹	4.16
WW-7	11-15	CR 42 Diversion Sewer	Tecumseh Hamlet	A+	1.29
WW-8a	11-15	South Tecumseh Trunk Sewer, Odessa Drive to 11 th Concession Rd	Tecumseh Hamlet	A+	2.53
WW-8b	16-20	South Tecumseh Trunk Forcemain, CR42 to Hwy 401	Tecumseh Hamlet	A+	3.61
WW-9a	21+	South Tecumseh Forcemain	Maidstone Hamlet	A+	1.65
WW-9b	21+	South Tecumseh Trunk Sewer, North Talbot Road	Maidstone Hamlet	A+	1.23
WW-10	21+	Maidstone Hamlet Trunk Sewer, Malden Road	Maidstone Hamlet	A+	1.95
WW-11	11-15	Southwest Tecumseh Trunk Sewer	Oldcastle Hamlet	A+	1.92
WW-12	1-5	Manning Road Secondary Plan Area Trunk Sewer	Tecumseh Hamlet	A+	1.10
WW-13	1-5	Manning Road Secondary Plan Area Pumping Station	Tecumseh Hamlet	A+	0.93
WW-14	16-20	Highway Commercial Lands Pumping Station	Tecumseh Hamlet	A	0.99
WW-15	21+	Maidstone Hamlet Pumping Station	Maidstone Hamlet	B	0.99
WW-16	6-10	Provincial Road Trunk Sanitary Sewer	Oldcastle Hamlet	A+	3.27
WW-17	16-20	Blackacre Drive Servicing	Oldcastle Hamlet	B	2.68
WW-18	21+	Howard Avenue Servicing	Oldcastle Hamlet	A+	3.01

Notes:
 1. Plan may be Approved (Schedule A) if implemented under an Approved Plan of Subdivision
 2. Cost to purchase additional Treatment Capacity from Windsor in accordance with the Wastewater Servicing Agreement (Nov. 2004) not shown in above table.

Next Steps

- + After this meeting, the project team will:
 - + Compile information and comments received from you and other stakeholders to confirm and finalize the preferred servicing strategies
 - + Respond to other questions and comments we receive
 - + Document the water and wastewater servicing strategy update and public consultation process
 - + File the documentation on the public record for a 30-day review period

THANK YOU FOR ATTENDING