

Welcome

South London Wastewater Servicing Study

Municipal Class Environmental Assessment Master Plan

Public Information Centre

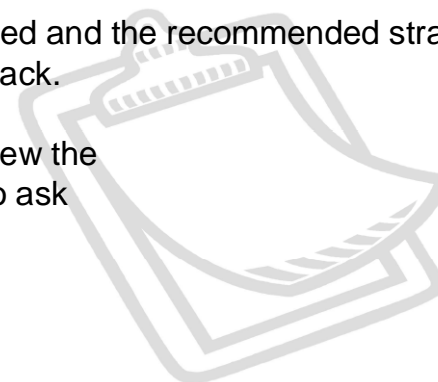
February 26, 2018



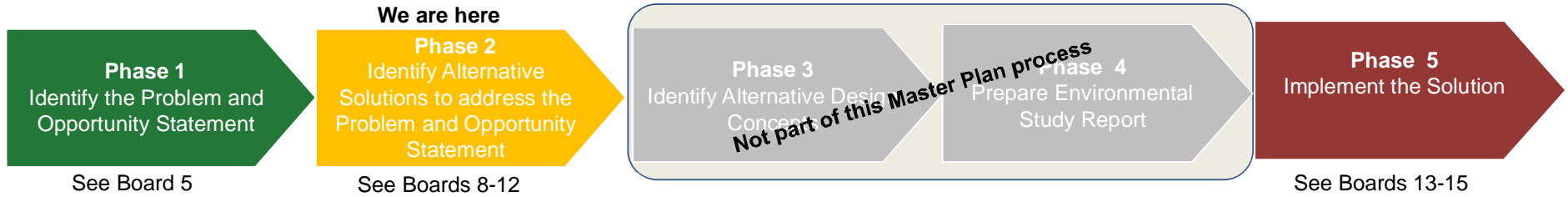
The purpose of this Public Information Centre (PIC) is to:

- Introduce the project;
- Communicate the need for a strategy to service the study area;
- Provide an overview of the Class Environmental Assessment/Master Plan process;
- Describe existing and future conditions;
- Present the alternative solutions considered and the recommended strategy; and
- Meet the project team and get your feedback.

Please take a comment form and a pen. As you review the information presented today, we encourage you to ask questions and provide feedback.



Municipal Class Environmental Assessment - Master Plan Process



- The project is following the Municipal Class Environment Assessment (EA) process (2015) / Master Plan Approach #2.
- Requirements for all Schedule A, A+ and select B projects will be addressed.
- At the end of the EA process, a Master Plan Project File will be prepared for public review and comment.

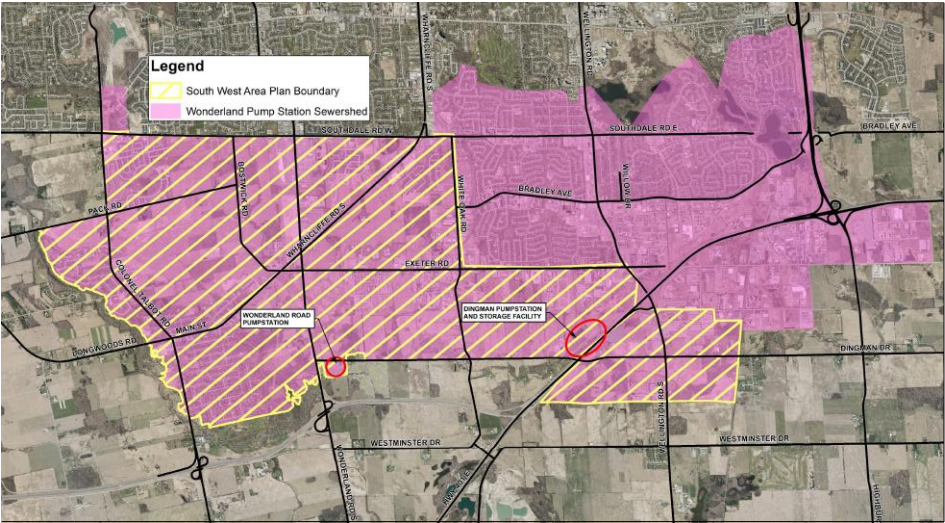
Examples of Applicable Master Plan Projects

Schedule B Projects		
<p>Increase Pumping Capacity Construct new pumping station or increase pumping station capacity by adding or replacing equipment, where new equipment is located in a new building or structure.</p>	<p>Convey Sewage Establish, extend or enlarge a sewage collection system where facilities are not in an existing road allowance or an existing utility corridor.</p>	<p>Increase Wet Weather Storage Establish sewage flow equalization tankage in existing sewer system or at existing sewage treatment facilities, or at existing pumping stations for influent and/or effluent control.</p>
Schedule A+ Projects		Schedule A Projects
<p>Increase Pumping Capacity Increase pumping station capacity by adding or replacing equipment, where new equipment is located in an existing building or structure and where its existing rated capacity is exceeded.</p>		<p>Pre-Treatment Install chemical or other process equipment for operational or maintenance purposes in existing sewage collection system or existing sewage treatment facility.</p>

Study Area

What is a Sewershed?

A sewershed is the area that is serviced by a wastewater pumping station or Wastewater Treatment Plant (WWTP). This means that all of the gravity sanitary sewers in the area are directed to the pumping station or WWTP. Any sewershed serviced by a pumping station relies on that pumping station to convey the collected flows to a WWTP. In this case, Wonderland PS conveys flows from the Wonderland Sewershed to Greenway Wastewater Treatment Centre (WWTC).



The study area includes the entire **Wonderland Sewershed** as shown in purple on the map above.

Within the study area are lands included as part of the Southwest Area Secondary Plan and the Industrial Land Development Strategy

What is a Pumping Station?

A pumping station is typically a building located in the lowest area within the sewershed. It receives sanitary flows from gravity sewers and directs the sewage to a larger trunk sewer, a wastewater treatment plant or to another sewershed.



What is a Storage Facility?

A sewage storage facility is a holding tank or lagoon for retaining sewage during periods of high flow instead of sending overflows to the environment. Sewage flows back into the sewage collection system after flows have returned to normal.





Wonderland Pumping Station (PSWL)

- PSWL was constructed in 2008 to replace the temporary Dingman Creek Pumping Station and to service growth in the southwest corridor.
- PSWL directs sanitary flow from the City's south end to the Greenway Wastewater Treatment Centre (WWTC).

Dingman Creek Pumping Station (PSDC)

- PSDC was constructed in 1967 as a temporary pumping station to service the White Oaks area.
- PSDC was taken out of regular service after the PSWL was brought into service.
- PSDC currently houses the pumps that direct sewage to the SFDC during high flow events.
- The PSDC forcemain extends down Dingman Drive, White Oak Road and discharges at Wharncliffe Road South, north of Southdale Road. PSDC was decommissioned in 2009.

Dingman Creek Storage Facility (SFDC)

- SFDC was constructed in 2004 to provide emergency sewage storage and to mitigate sanitary sewage overflows to Dingman Creek during large wet weather events.
- SFDC has been effective in reducing sanitary sewage overflows to Dingman Creek.

Existing Conditions

Socio – Economic

The Project Study Area is located in the Dingman / Wonderland corridor within the south end of the City of London. It includes a mixture land uses including:

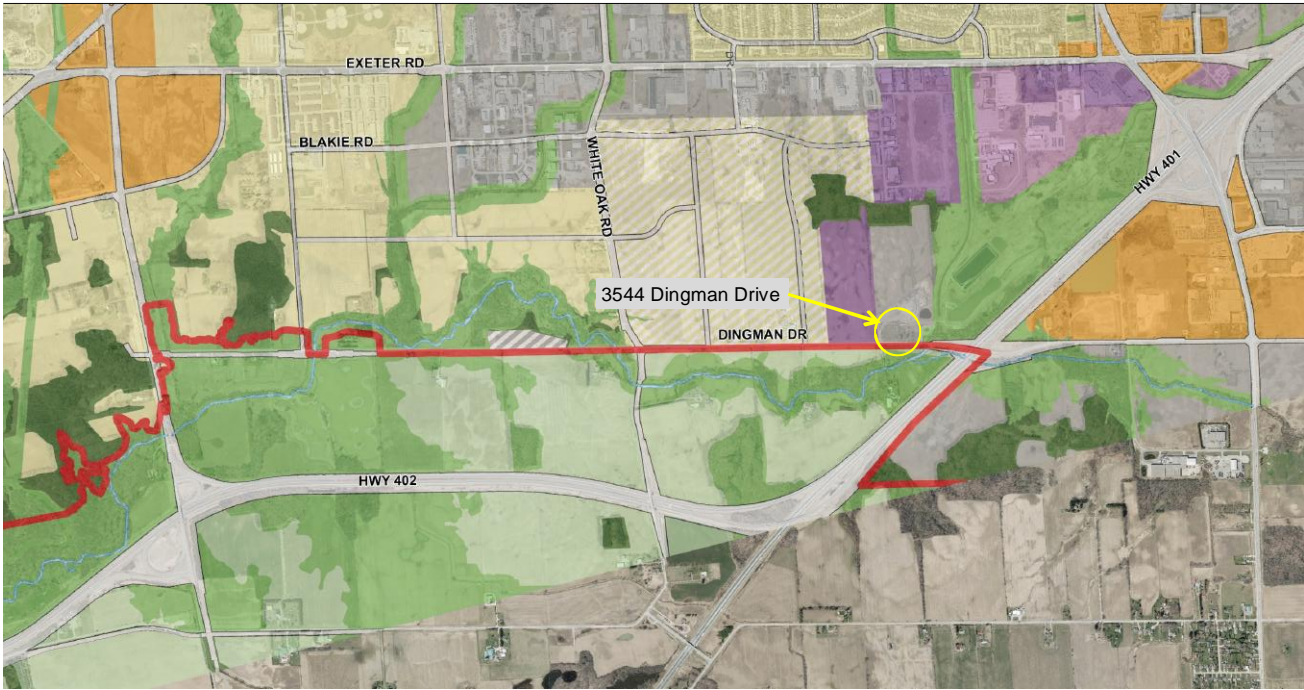
- agriculture
- industrial
- future development
- major road corridors
- green space
- environmental review



Cultural Heritage

The Stage 1 background study for the study area determined that the potential for the recovery of both pre- and post-contact Indigenous and 19th century Euro-Canadian archaeological resources within most of the study area is high.

A Stage 2 Archaeological Assessment will be required for areas identified as retaining archaeological potential that will be impacted by the recommendations of this project. This work will be undertaken during detailed design.



3544 Dingman Drive is listed on the City of London Register (Inventory of Heritage Resource). It is identified as a 1870 Ontario farmhouse. The barn is listed as a Priority 1 feature and the house is a Priority 2 feature. The barn was demolished in 2015.

The photograph shows a two-story white farmhouse with a brown roof and a prominent chimney. The house is surrounded by a well-maintained lawn and several trees. A paved driveway leads to the house.

Natural Environment

Based on background review, several significant features were identified within the study area, including:

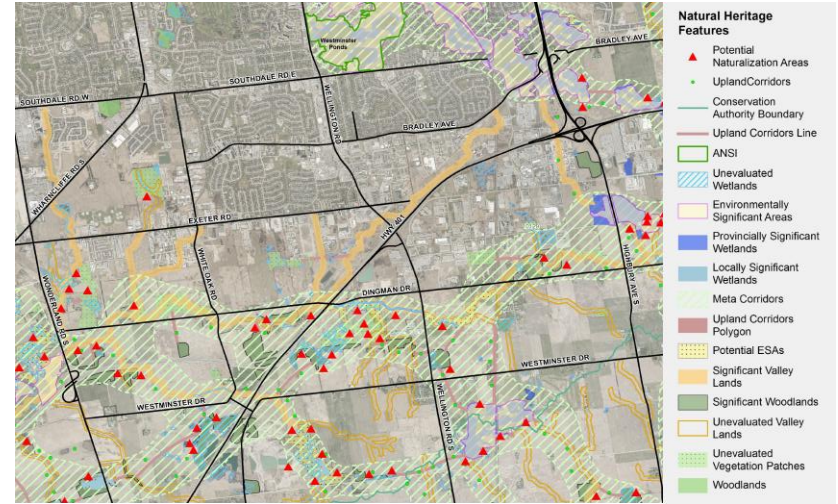
- Significant Corridor/Valleyland related to Dingman Creek
- Significant Woodland
- Westminster Ponds/Pond Mills ESA and PSW.

Within the study area, there is potential for several Species at Risk (SAR), however, during field investigations none of the species were observed.*

Potential SAR:

- 15 Endangered Species (including Drooping Trillium, Red Mulberry and American Badger)
- 12 Threatened Species (including Rusty-Patched Bumble Bee, Blue Ash and Barn Swallow)
- 12 Special Concern Species (including Monarch, Climbing Prairie Rose and Snapping Turtle)

* Additional surveys and inventories will be conducted for the recommended servicing strategy.



Drooping Trillium



Rusty-Patched Bumble Bee



Snapping Turtle



Red Mulberry

The following Long List of Alternatives was identified to address capacity issues along the Dingman Drive/Wonderland Road sanitary servicing corridor.

1. Do Nothing

- Operate the Wonderland Pumping Station at the current capacity.

2. Limit Growth

- Restrict development within the area to limit growth and reduce the need for additional infrastructure.

3. Increase Pumping Capacity to Greenway WWTC

- Increase the pumping capacity to meet the future development needs of the sewershed.

4. Increase Pumping Capacity to an Alternate Treatment Facility

- Construct a new pumping station and forcemain to direct sewage to one of the City's five other treatment facilities.

5. Provide Full Treatment (New Treatment Facility)

- Establish a new treatment facility on the Dingman/Wonderland corridor.

6. Increase Wet Weather Storage Capacity

- Construct a storage facility to better manage peak flows and reduce untreated sewage bypasses to the river.

7. Improve Septage Receiving

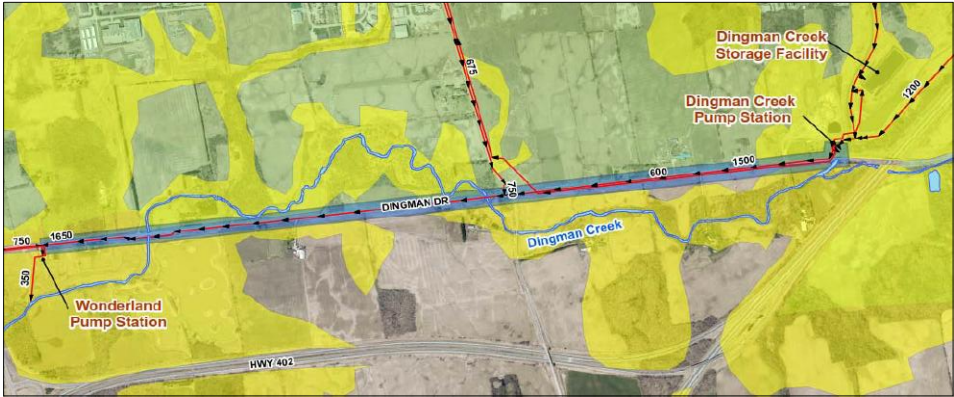
- Monitor and treat septic waste receiving to reduce the influx of grit and FOG in the PSWL sewershed.
- New facility will include enhanced odour control capability.

The Long List of Alternatives was evaluated based on the screening criteria and if they can address the Problem and Opportunity Statement (Board 5).

Alternative	Evaluation	Recommended
1. Do Nothing	Does not address the operational challenges at the Wonderland Pumping Station and will not provide sufficient capacity for the sewershed.	No
2. Limit Growth	Does not address the operational challenges at the Wonderland Pumping Station and will not provide sufficient capacity for the sewershed. Does not comply with the development goals and policies of the London Plan. Significant amendment to the London Plan will be required.	No
3. Increase Pumping Capacity to Greenway WWTC <ul style="list-style-type: none"> • Upgrade PSWL • Upgrade PSDC • Establish New PS 	Increasing the pumping station capacity will service the future development needs of the sewershed. Increasing the pumping capacity will be achieved by adding pumps to the existing pump station or establishing a new pumping station and constructing a second forcemain. Increasing the capacity to Greenway WWTC delays the need for a new Southside WWTP. It is recommended that the solution include pre-treatment to remove FOG and grit.	Yes (Schedule B project) See Boards 10-12
4. Construct Pumping Capacity to an Alternate Treatment Facility	Sewage from the Wonderland sewershed is directed to Greenway WWTC through the gravity collection system. Greenway WWTC and the collection system have limited long term capacity to accept additional sewage. This servicing restriction will be alleviated if a new pumping station directs sewage to another treatment facility in the City. It is recommended that the solution include pre-treatment to remove FOG and grit.	Yes (Schedule B project)
5. Provide Full Treatment (New Treatment Facility)	The Wonderland sewershed is currently serviced by the Greenway WWTC. This facility is located centrally along the Thames River north of Wonderland Road. Establishing a new treatment facility in the City's south area can alleviate the collection system and reduce pumping requirements. However, Dingman Creek does not have capacity to receive the additional flow, therefore it will have to be pumped into the Thames River. Additionally, there is sufficient treatment capacity available at other treatment facilities in the City (Greenway WWTC, Vauxhall WWTP and Pottersburg WWTP).	No
6. Increase Wet Weather Storage Capacity	Adding sanitary storage will provide more operational flexibility to mitigate direct sewage discharges to the environment.	Yes (Schedule B project) See Boards 13-15
7. Improve Septage Receiving	Monitoring and treatment of septic waste will reduce the influx of grit and FOG in the sanitary sewershed.	Yes (Schedule A project)

Pumping Station Location Criteria

Must be located upstream of the Wonderland Pumping Station and downstream of the two large diameter sewers from the White Oaks and Pond Mills/Berkley Industrial areas.



Pumping Station Location Alternatives

Considering the above, six sites were selected for further evaluation.



Pumping Station Location Evaluation Criteria

Factor Groups			
Socio-Economic	Cultural Environment	Natural Environment	Technical
<ul style="list-style-type: none"> • Land use • Construction impacts 	<ul style="list-style-type: none"> • Archaeology • Cultural Heritage Resources 	<ul style="list-style-type: none"> • Terrestrial • Aquatic • Species at Risk 	<ul style="list-style-type: none"> • Design • Constructability • Operations • Cost

Pumping Station Location Evaluation

Pumping Station Location Alternatives						
	Alternative 1: Upgrade Wonderland PS	Alternative 2: Upgrade Dingman Creek PS	Alternative 3: Establish New PS			
			Alternative 3A: South of Dingman Drive	Alternative 3B: North of Dingman Drive	Alternative 3C: At Dingman Creek PS	Alternative 3D: At Dingman Creek existing storage facility
Socio-Economic	Green	Green	Yellow	Yellow	Green	Green
Cultural Environment	Green	Green	Yellow	Yellow	Yellow	Yellow
Natural Environment	Yellow	Yellow	Green	Green	Yellow	Yellow
Technical	Red	Red	Yellow	Green	Green	Yellow
Recommended Alternative	Red	Yellow	Yellow	Green	Recommended	Yellow

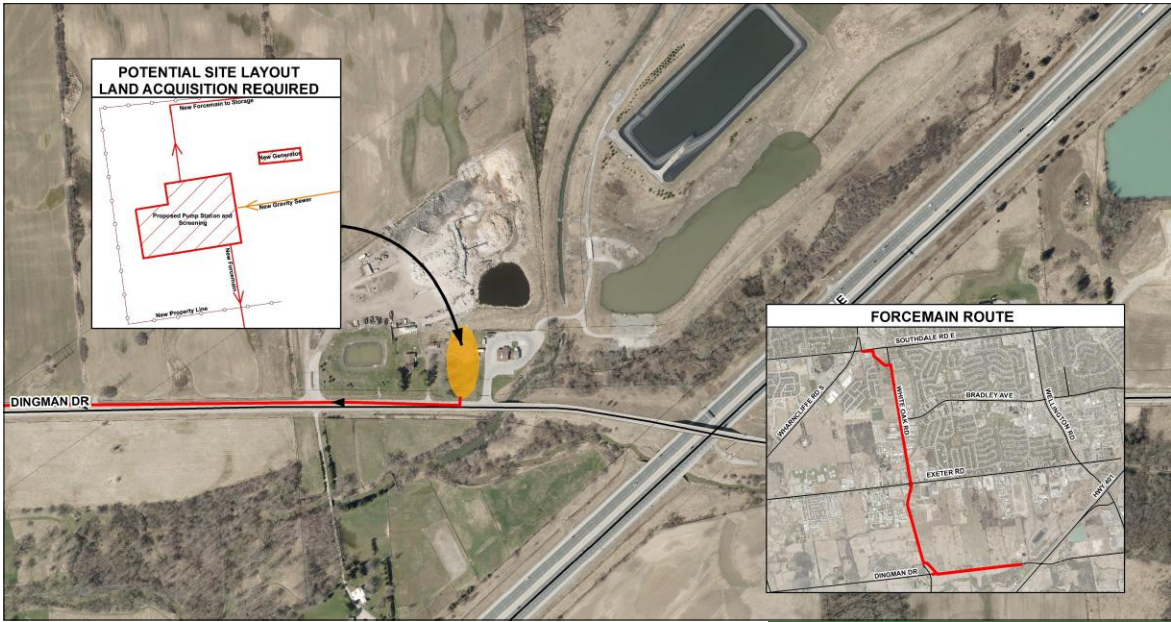
Pumping Station Location Recommended Solution

The recommended strategy is **Alternative 3C: New Pumping Station at Dingman Creek** (adjacent to the existing PSDC) for the following reasons:

- It is located upstream of the existing deep gravity sewer along Dingman Drive, therefore the depth of the PS will be shallower which in turn is less costly.
- It is adjacent to existing municipal infrastructure.
- It is located in an area of predominantly industrial and agricultural lands with low impact to existing residents and businesses.

Pumping Station Location Project Details

- The new pumping station will intercept flow from the gravity sewer.
- From there, the new pumping station will send sewage to the Greenway WWTC via a forcemain along Dingman Drive, White Oak Road, Southdale Road and Wharncliffe Road South and discharge to the existing trunk sewer.
- The overflow for the pumping station will direct sewage to the PSWL, through the existing gravity system, or the storage facility.
- The proposed pumping station will provide preliminary treatment, screening, grit and FOG removal.
- The pumping station will have the capacity to service the upstream gravity system for the 20 year horizon.



Storage Facility Location Criteria

- The location is to be in close proximity to a pumping station or the existing storage facility.
- Locating the new facility near the existing storage facility will allow for combined operation.
- If the storage facility is to be located within the Upper Thames River Conservation Authority (UTRCA) regulated area or flood plain, compensation must be provided to offset the loss of flood storage. (The regulated area is the area of land that the UTRCA has jurisdiction over.)

Storage Facility Location Alternatives

- Four locations along the Wonderland / Dingman corridor were selected for the new storage facility.
- Each location is adjacent to a proposed PS location to allow for combined operations.



Storage Facility Location Evaluation Criteria

Factor Groups			
Socio-Economic	Cultural Environment	Natural Environment	Technical
<ul style="list-style-type: none"> Land use Construction impacts 	<ul style="list-style-type: none"> Archaeology Cultural Heritage Resources 	<ul style="list-style-type: none"> Terrestrial Aquatic Species at Risk 	<ul style="list-style-type: none"> Design Constructability Operations Cost

Storage Facility Location Evaluation

Storage Facility Location Alternatives					
	Alternative 1: Wonderland PS	Alternative 2: South of Dingman Drive	Alternative 3: North of Dingman Drive	Alternative 4	
				Alternative 4A: South of Existing Storage Facility	Alternative 4B: North of Existing Storage Facility
Socio-Economic					
Cultural Environment					
Natural Environment					
Technical					
Recommended Alternative					Recommended

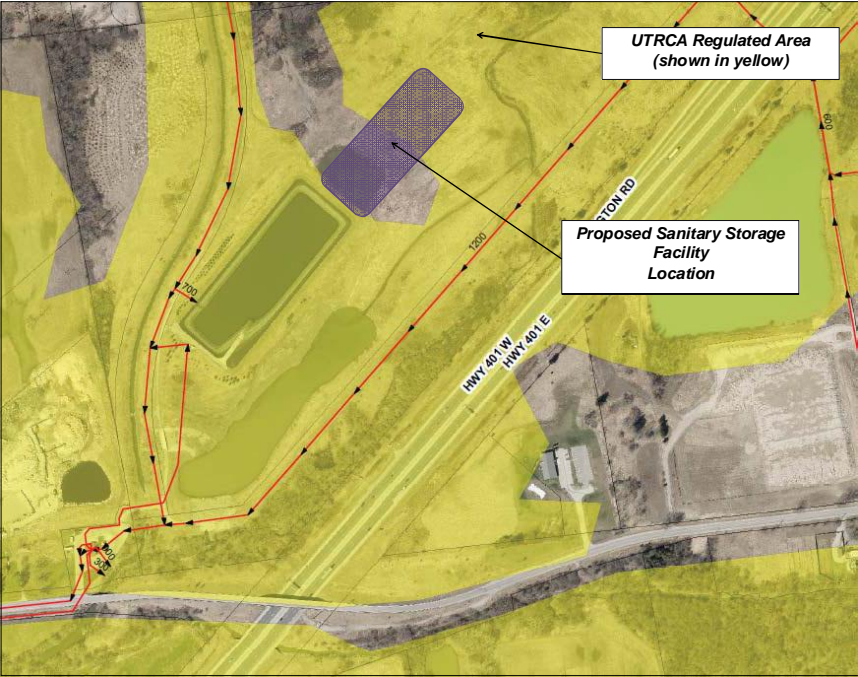
Storage Facility Location Recommended Solution

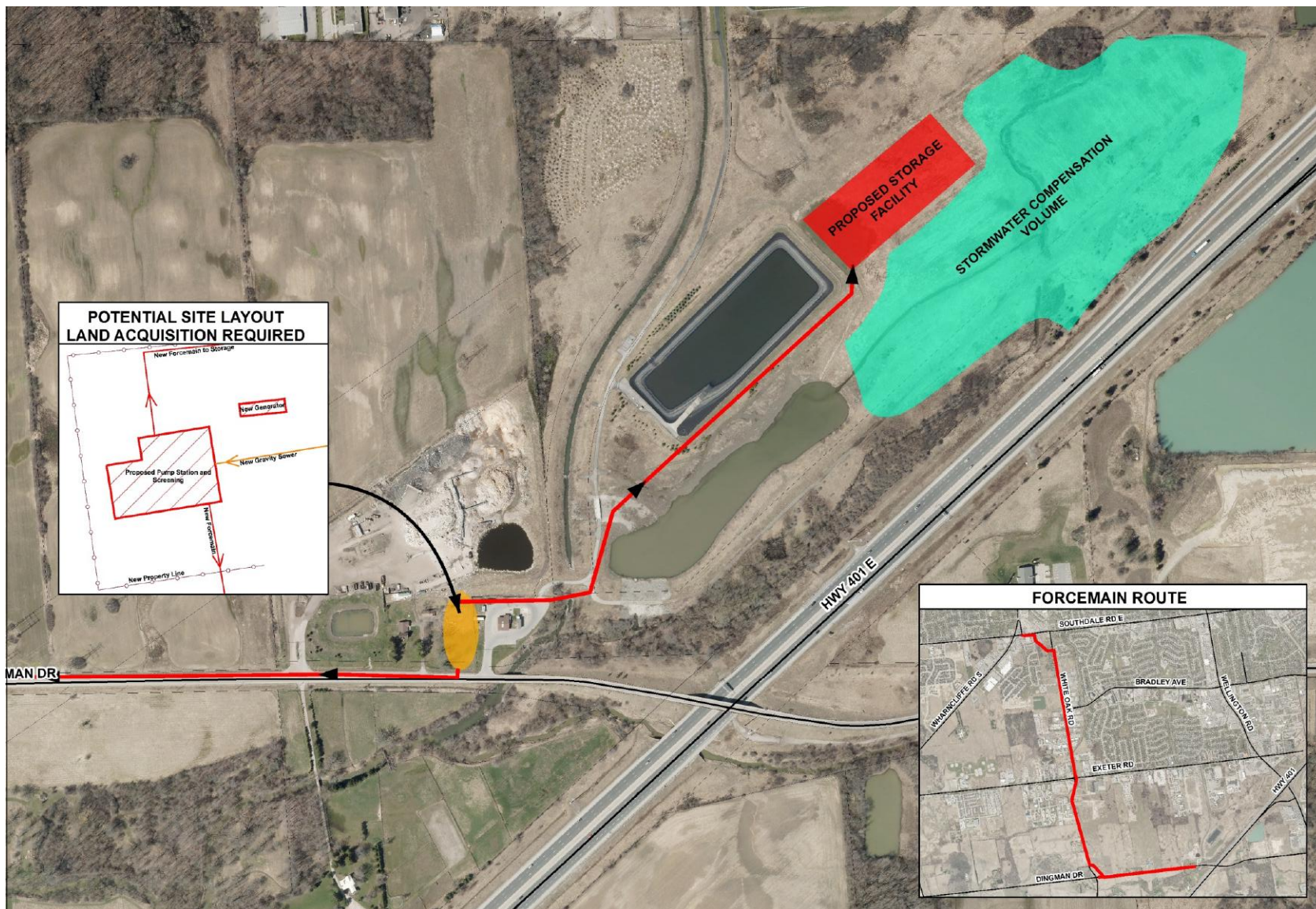
The recommended strategy is **Alternative 4B: New Storage Facility Adjacent to Existing Facility**. This location meets the criteria and provides the following:

- The location is adjacent to existing infrastructure which allows for combined operations;
- The area is visually obscured from the public; and
- The land is City owned and is less desirable for future development.

Storage Facility Location Project Details

- The new storage facility will provide additional retention time during wet weather and facilitate system improvements during dry weather.
- The new storage facility will have a connection to the existing storage facility. The two facilities can operate in series or in parallel.
- Any loss of Dingman Creek Subwatershed flood storage in the property caused by construction of the sanitary storage will be offset.





Noise/Dust/Vibration

- Construction operations to occur during day shift.
- Use of low noise equipment during construction, where possible.



Archaeology

- Complete Stage 2 archaeological assessment based on Stage 1 Archaeological assessment findings.
- If any archaeological and/or historical resources are discovered during the performance of construction work, the performance of the work in the area of the discovery is to halt. The Ministry will be notified for an assessment of the discovery. Work in the area of the discovery will not resume until cleared to do so by the Ministry.



Cultural Heritage

- There is potential for 'adaptive reuse' of the Listed house at 3544 Dingman Drive.
- AECOM is preparing a Cultural Heritage Evaluation Report to identify the significant features of the house.
- This report will be presented to London Advisory Committee on Heritage (LACH) for review and further discussions.



Traffic Management

- Prepare Traffic Management Plan including staging drawings.
- Maintain one lane of traffic and access to property at all times.
- Provide advanced notification to affected property owners.



Natural Environment

Additional studies will be required including:

- Ecological Land Classification and Botanical Inventory,
- Bat Maternity Habitat Assessment,
- Breeding Bird Surveys,
- Breeding Amphibian Surveys, and
- Aquatic Habitat Assessment.



The need for these studies will be determined in consultation with the City for the preparation of the Environmental Impact Study (EIS).

Next Steps

Next Steps

- Comments received from the public, the City and Approval Agencies (UTRCA) will help confirm the preferred servicing strategy.
- A Master Plan report will be prepared and made available for public review for 30 days.
- If no issues are raised within the 30 days review period, the City will proceed to detailed design, approvals and construction.
- Detailed design will be completed and construction will begin.



Please remember to drop off your completed comment form before you leave or send it to us before March 12, 2018.

Thank You for Attending

- We appreciate the time you have taken to learn more about the Project.
- We value your input to this study and encourage you to stay connected.
- Please visit the City’s website:
<http://www.london.ca/residents/Environment/EAs/Pages/default.aspx>
- Join our mailing list: leave us an email or mailing address so we can keep you up-to-date as the project progresses.
- Contact us with additional comments or questions at any time.

Kirby Oudekerk, P.Eng.,
Environmental Services Engineer - City of London
300 Dufferin Avenue
London ON, N6A 4L9
Tel: 519.471.1537
Email: koudeker@london.ca

Anna Cleaver, P.Eng
Project Engineer - AECOM Canada
250 York Street, Suite 410
London ON, N6A 6K2
Phone: 519.963.5895
Email: anna.cleaver@aecom.com