

Welcome

**Learn more about
upcoming construction activities at the**

St. Clair Reservoir at Sir Winston Churchill Park

View display boards and speak one-on-one with staff

Purpose of Tonight's Meeting

To learn more about:

- Construction activities
- Construction schedule
- How residents may be impacted

Speak one-on-one with you and answer your questions

St. Clair Reservoir at Sir Winston Churchill Park

- The Sir Winston Churchill Park is located on top of the St. Clair Reservoir's green roof
- The reservoir was originally constructed in 1930
- The reservoir consists of 2 separate water basins
- The reservoir provides storage of drinking water and fire protection for local residents



301 St. Clair Avenue West



Existing Reservoir Site with Basin Overlay



1929 – St. Clair Reservoir Site Before Construction



1932 – St. Clair Reservoir as Seen off Spadina Rd.

Why are we Working in your Area? at the St. Clair Reservoir

- Upcoming construction work is part of the 2015 - 2024 Capital Works Program
- Waterproofing and structural rehabilitation of water reservoir required to:
 - Preserve structural integrity of the reservoir
 - Extend infrastructure service life
 - Bring the infrastructure to a state of good repair
 - Work with Parks, Forestry & Recreation to improve ageing park features



Valve House



Portal Building

What Work is Being Undertaken

October 2015 – April 2018

- Replace waterproofing membrane on the roof of the below ground reservoir
- Structural rehabilitation and repair of the reservoir and valve house
- Internal valve replacement
- Replacement of park features, including tennis courts, dog park, playground, fountains, walking paths, and staircases in cooperation with Toronto Parks, Forestry & Recreation
- Portal Building access road restoration



Existing Dog Park Fountain to be Relocated within Dog Park



Existing Staircase



Existing Access Road to Portal Building

Construction Projects in the Area

- St. Clair Reservoir Rehabilitation
- Roycroft Park and Trail Rehabilitation
 - Resurfacing, improved drainage and repair of trail (Aug. – Nov. 2015)
 - New entrances and pedestrian path at Roycroft park (May – Sep. 2016)
- Spadina Road Bridge Reconstruction
 - Reconstruction and repair of Spadina bridge, improved pedestrian access (Sep. 2014 – Sep. 2015)



Key Design Considerations

St. Clair Reservoir ~ Pioneer in Green Infrastructure

- **Green Infrastructure:** Use of vegetation, soils, and natural processes to manage stormwater and create healthier urban environments
- Benefits:
 - Create sustainable communities
 - Stormwater management
 - Maintaining urban green space
- Features to be included at the St. Clair Reservoir
 - Preservation of green roof
 - New permeable pavements
 - New planter boxes



Example of Permeable Pavement

Preparing for Construction

Summer 2014

- Tree inventory performed on trees above and adjacent to the reservoir and to the reservoir's eastern property line
- Site investigations performed including:
 - Soil and structure investigation on top of the reservoir
 - Borehole drilling on the sides and slope of the reservoir
 - Piezometer installation for groundwater monitoring
 - Concrete coring and patching, and
 - Structural testing of the concrete within the reservoir.



Key Construction Activities

Waterproof Membrane Replacement and Structural Rehabilitation

- All park features to be temporarily removed and reinstated after construction
- Excavation of top and sides of reservoir
- Structural concrete repairs and maintenance
- New waterproof membrane and drainage layer



Excavation Equipment



Waterproof Membrane Installation

What's Happening During Construction

Possible Option A

Phase 1: Fall 2015 to Spring 2017

- West basin area closed for construction
- Dog park, six tennis courts and playground will remain open
- Soil removed from reservoir to be stored in Soil Storage Area

Phase 2: Spring 2017 to Spring 2018

- East and west basin closed for construction
- Closures in place to:
 - Avoid safety risk to public
 - Allow sod to grow
 - Minimize restoration costs
 - Maintain warranty
- City is still investigating possible construction options



Phase 1



Phase 2

What's Happening During Construction

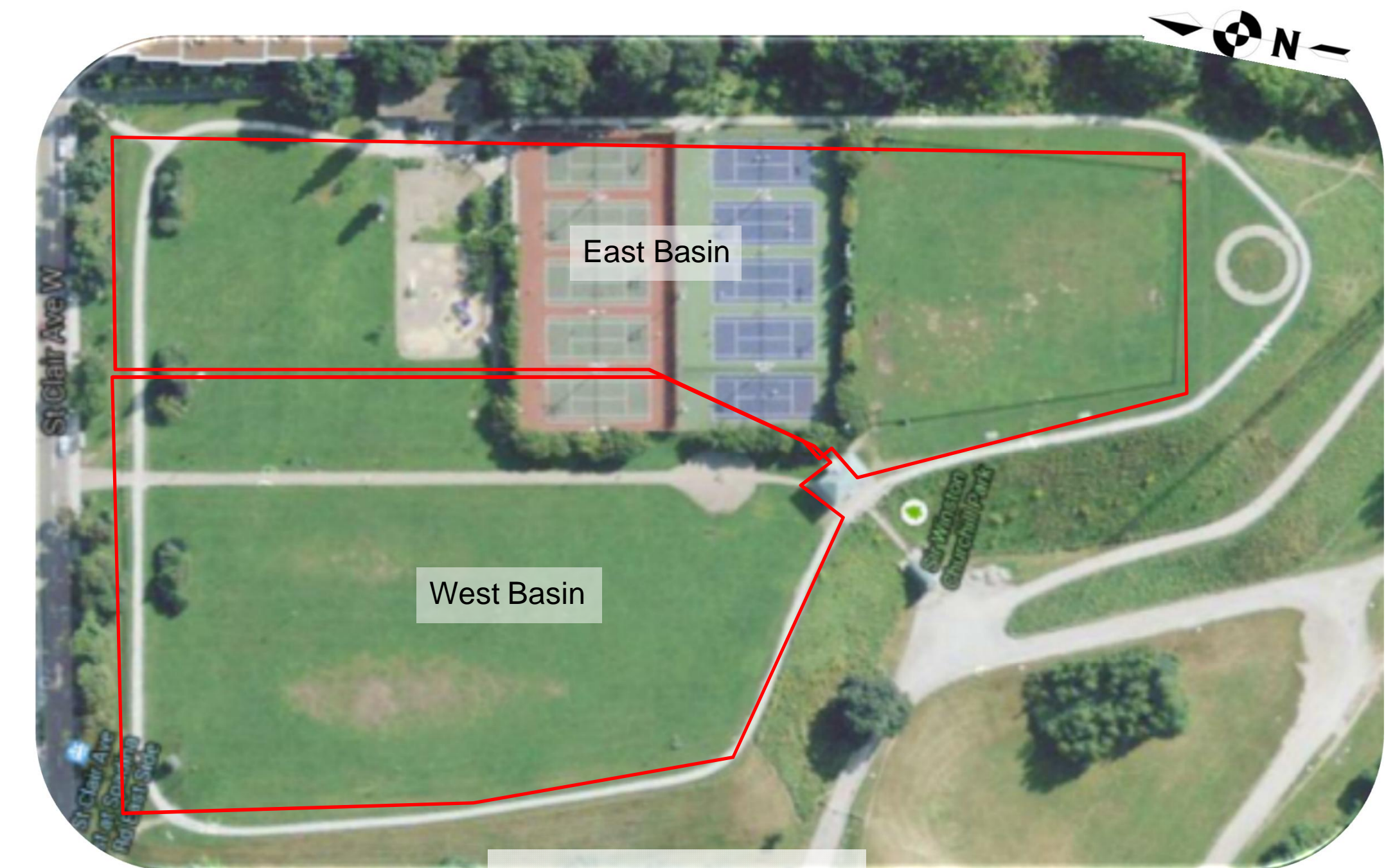
Possible Option B

Phase 1: Fall 2015 to Spring 2016

- Entire park open to public
- Internal reservoir work only

Phase 2: Spring 2016 to Spring 2018

- East and west basin closed to the public for construction
- Soil removed from east reservoir to be stored in Soil Storage Area
- City is still investigating possible construction options



Phase 1



Phase 2

What's Happening to the Soil at the St. Clair Reservoir

- Soil from the top of the reservoir will be stored onsite where possible to minimize offsite truck traffic, noise and dust
- 75% of the soil from the top of the reservoir will be stored in the soil storage area – onsite
- 25% of soil to be removed offsite by truck



Soil Transportation Truck



Location of Soil Storage Area



Soil Transportation Truck

What's Happening to the Trees at the St. Clair Reservoir

- All trees will be removed from the top of the reservoir during construction. Replacement trees will be planted where possible
- Tree planting on top of the reservoir will be avoided due to the impact of roots on the reservoir structure and waterproofing membrane
- Landscape architect will develop a replanting strategy



Existing Trees Along Spadina Rd. Will Remain



Existing Trees Along St. Clair Ave. Will Remain

Dust Mitigation During Construction

- Dust caused by:
 - Construction equipment and activities
 - Soil storage onsite
- Control measures:
 - Hoarding (plywood fence)
 - Weekly cleaning of public roads
 - Wetting of reservoir gravel roads
 - Limited hauling of soil offsite



Example of hoarding

Next Steps

- Engineering design work is ongoing. The City will be hiring a contractor in Fall 2015
- Expected start date of construction is Fall 2015
- Expected completion is Spring 2018

Two weeks before construction, a [Construction Notice](#) will be issued with more details on when work will begin and stages of construction

Sign up for email updates by contacting Josie Franch at jfranch@toronto.ca

Website: toronto.ca/stclairreservoir