

PORT LANDS FLOOD PROTECTION

Port Lands Flood Protection Construction Liaison Committee Meeting #6

April 24, 2019



Agenda

1. Introductions
2. Construction Update: Cherry Street Stormwater and Lakefilling
3. Construction Update: Port Lands Flood Protection
4. Overview: Environmental Management Plans
5. Discussion and Feedback

Project Overview

Full Vision Plan



"Opening Day" Plan





September 2018



March 2019



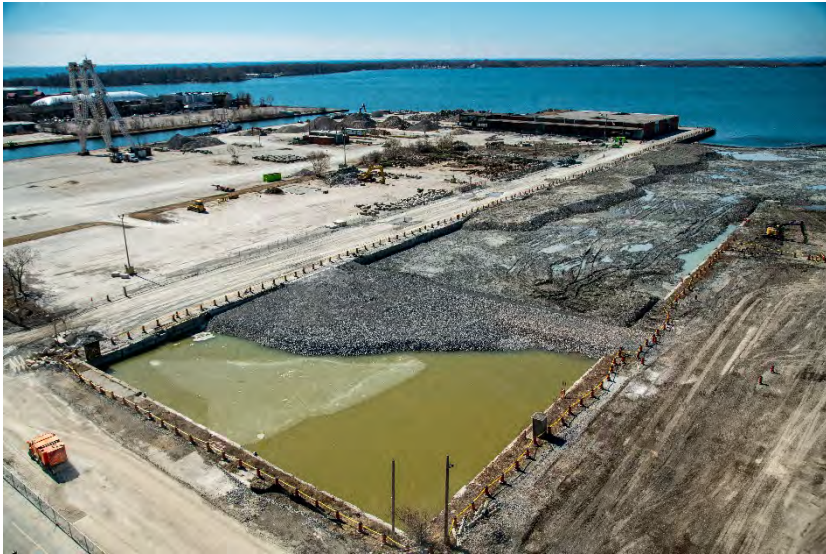
Looking south over
the new River Valley

Construction Update: Cherry Street Stormwater and Lakefilling

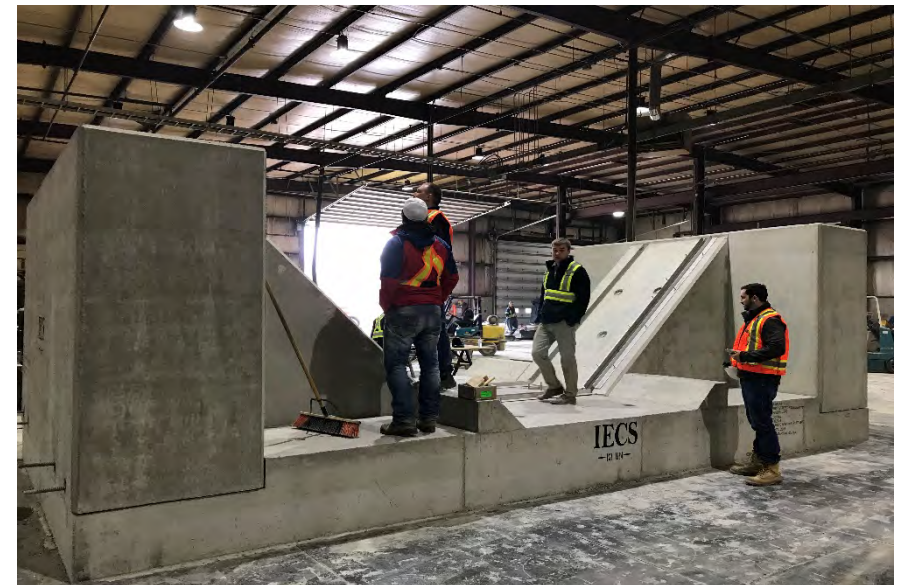
Ongoing Construction: Dock Wall



Ongoing Construction: New Cherry Street Alignment

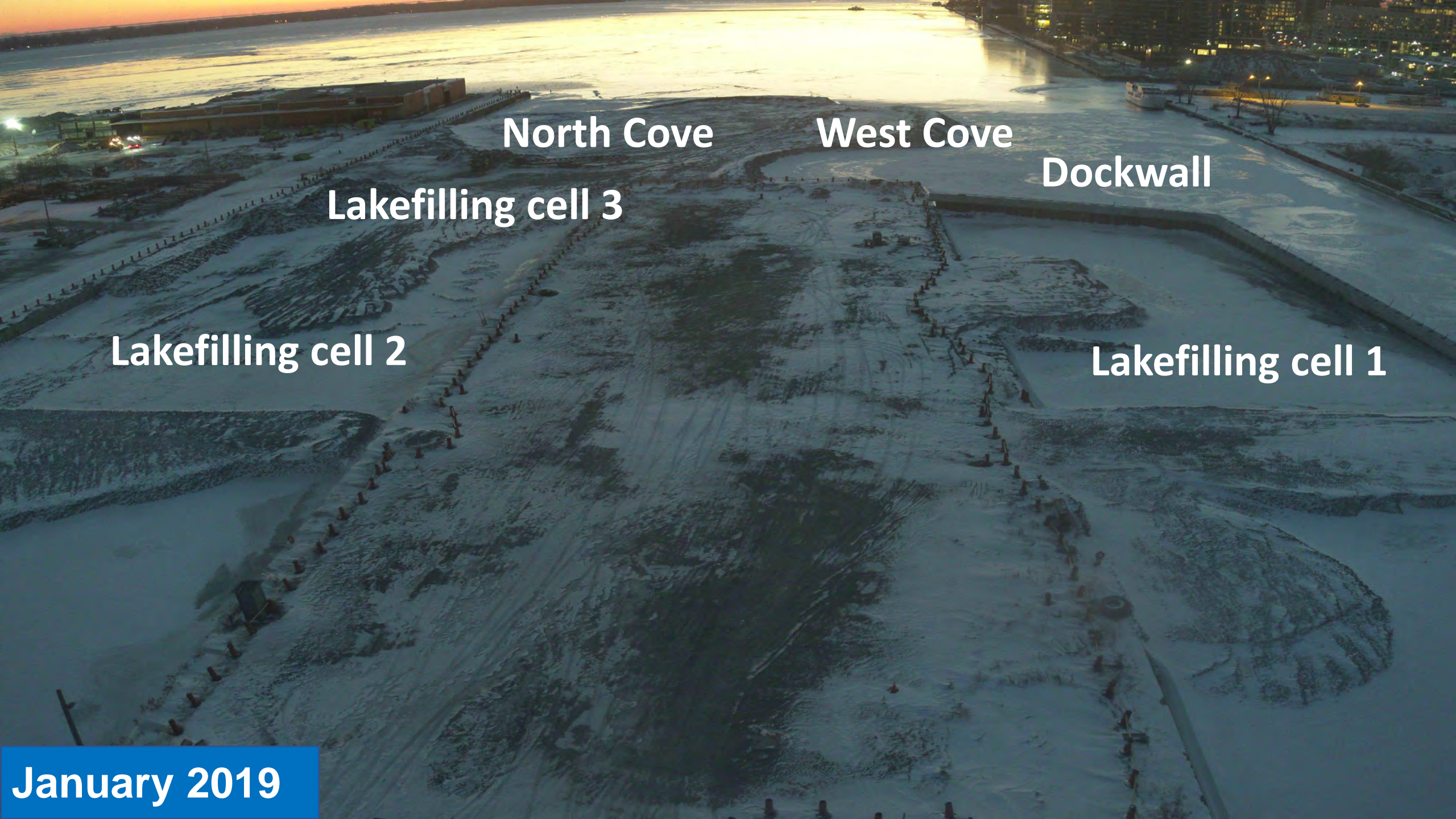


Ongoing Construction: Marine Landscaping (Forming Habitats and Shoreline)



Ongoing Construction: Marine Landscaping (Forming Habitats and Shoreline)





North Cove

West Cove

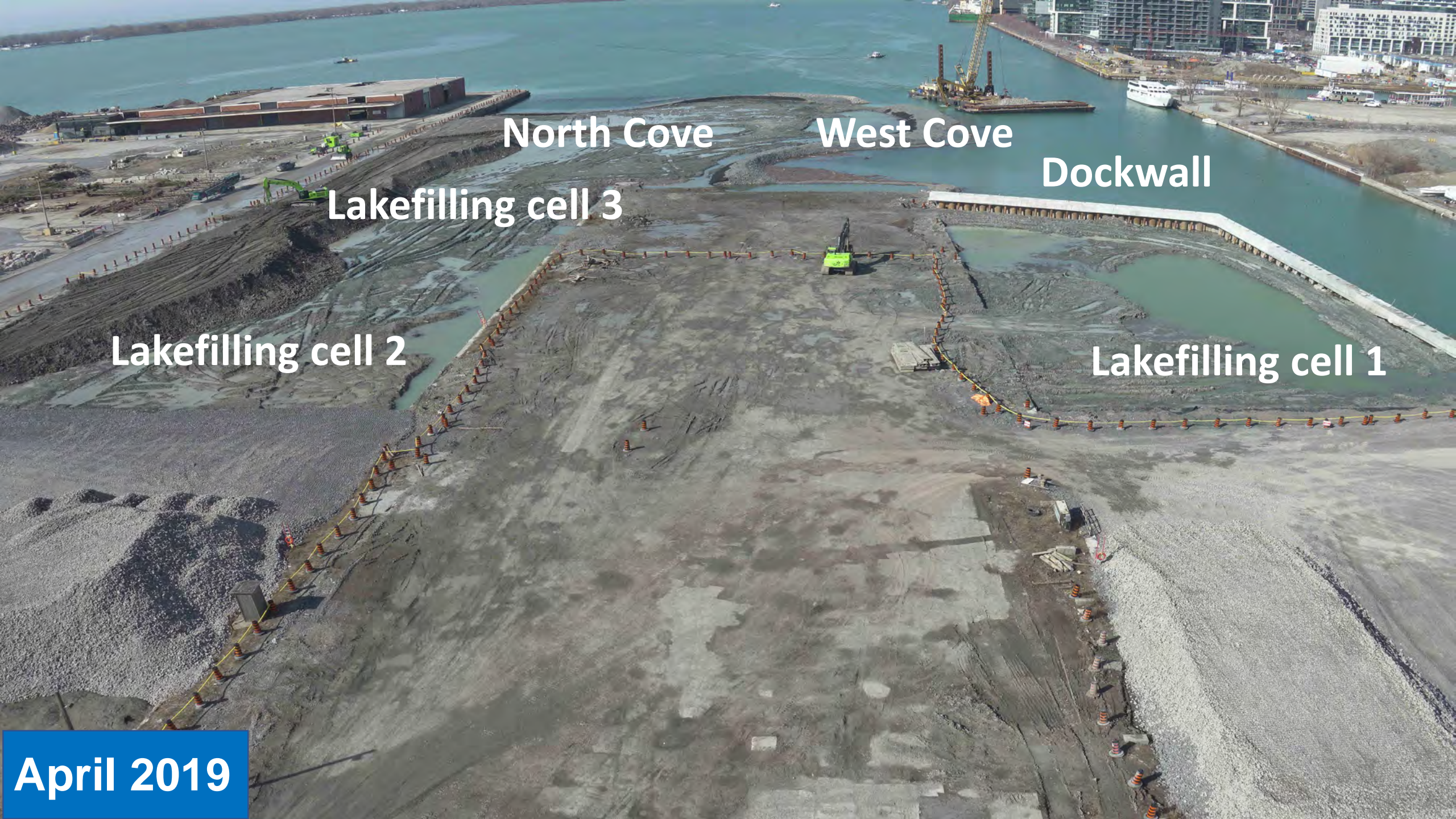
Dockwall

Lakefilling cell 3

Lakefilling cell 2

Lakefilling cell 1

January 2019



North Cove

West Cove

Dockwall

Lakefilling cell 3

Lakefilling cell 2

Lakefilling cell 1

April 2019

Construction Update: Port Lands Flood Protection

Ongoing Work: Excavation of River Valley



Ongoing Work: Excavation of River Valley



Ongoing Work: Preparing for Deeper Excavation



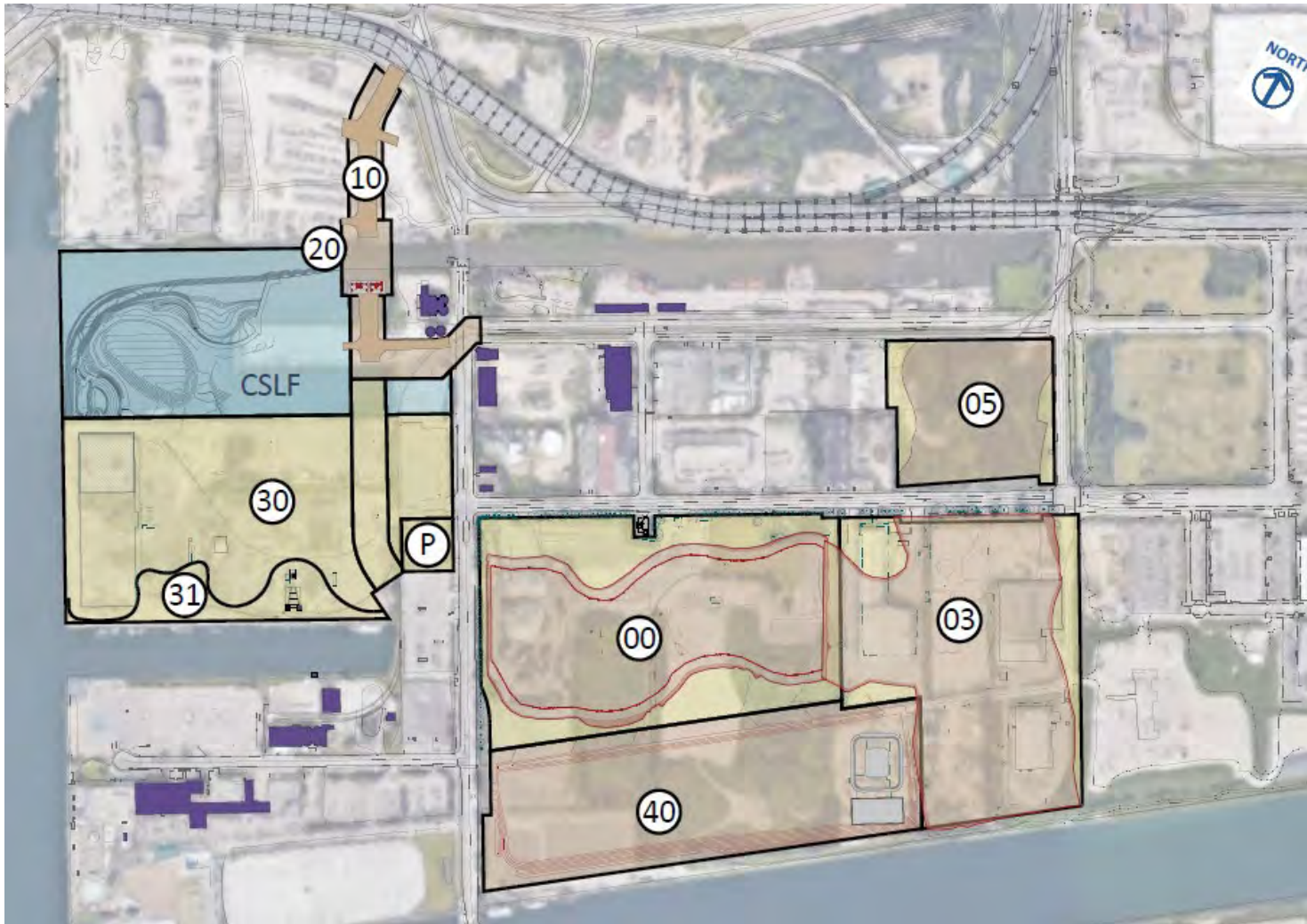
Ongoing Work: Preparing for Deeper Excavation



Ongoing Work: Tree Cutting



Upcoming Construction: April - June 2019



AREA 10

- Cherry Street realignment: demolition, site preparation

AREA 20

- New Cherry Street Bridge

AREA 30 & 31

- Demolition: parking lots, buildings
- Site preparation

AREA 40

- Installation of soil treatment facility

AREA 30

- Demolition: parking lots, buildings
- Site preparation

AREA 00

- Cut-off wall – Caisson drilling
- Excavation

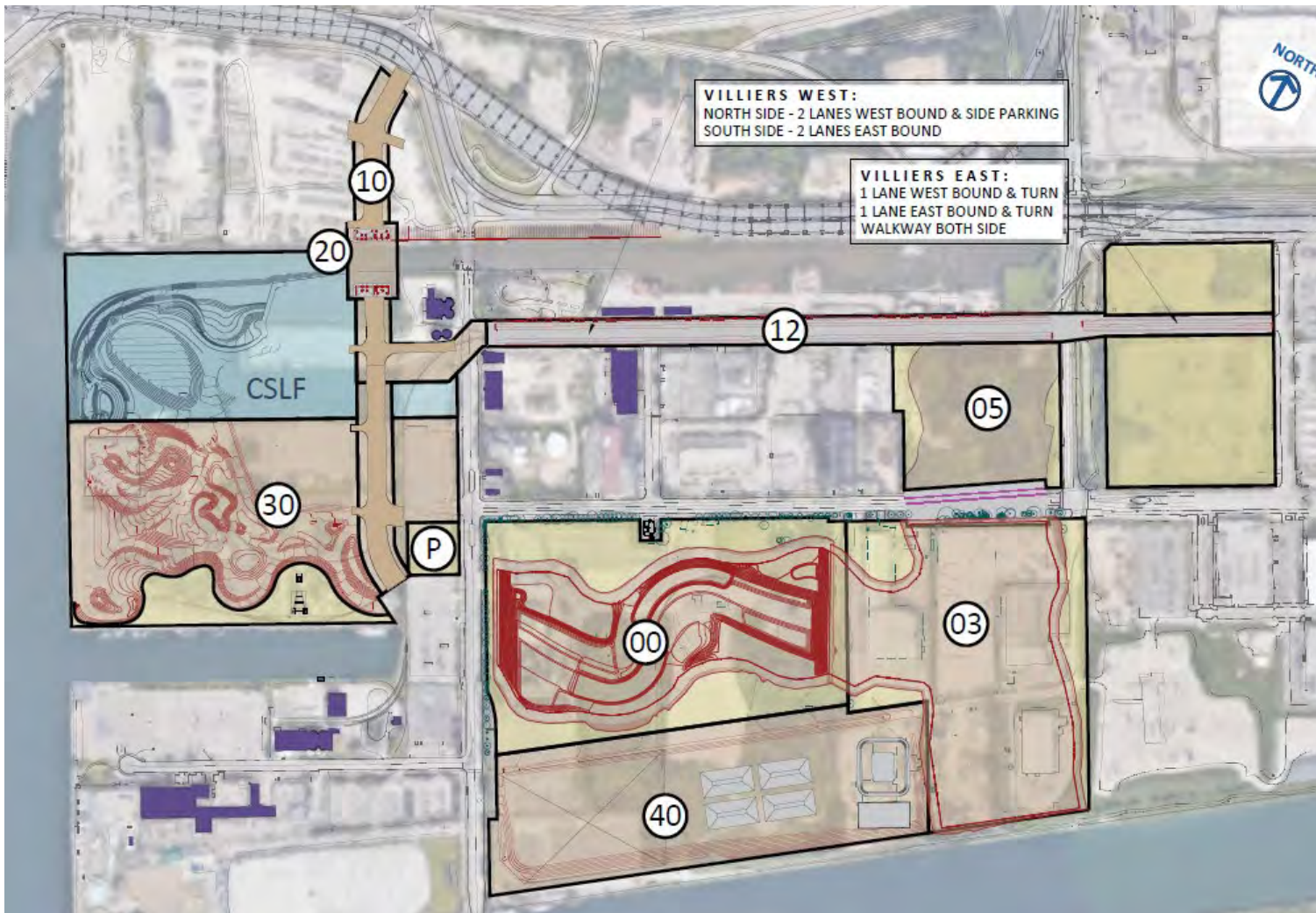
AREA 03 & 05

- Site preparation, demolition
- Excavation

MONITORING (SITE-WIDE):

- Air, dust, noise, odour, weather
- Turbidity
- Surface-water quality
- Vibration
- Soil and groundwater

Upcoming Construction: July to September 2019



AREA 10

- Cherry Street realignment: demolition, site preparation

AREA 20

- New Cherry Street Bridge

AREA 30

- Demolition: parking lots, buildings
- Site preparation

AREA 40

- Stockpiling of soil and soil treatment facility

AREA 30

- Demolition: parking lots, buildings
- Site preparation

AREA 00

- Cut-off wall – Caisson drilling
- Excavation

AREA 03 & 05

- Site preparation, demolition
- Excavation

AREA 12

- Road modifications and improvements

MONITORING (SITE-WIDE):

- Air, dust, noise, odour, weather
- Turbidity
- Surface-water quality
- Vibration
- Soil and groundwater

What to Expect During Construction

As discussed at previous meetings:

- Because there are contaminants in the soil and groundwater, and because of the decaying peat and organic material found in the soils, dredging and excavating will create some odours.
- While odour is not necessarily linked to air quality or health concerns, it can still be a nuisance. Crews will monitor odour levels to ensure they stay within limits we have set for this project, which have been reviewed and accepted by the Provincial Ministry of the Environment and Toronto Public Health.
- Ongoing work will cause noise and vibration. Crews will monitor noise levels to ensure they stay within limits we have set for this project, which were based on extensive investigation of pre-construction conditions in the Port Lands.
- Traffic impacts in the project area will be minor. There will be some closures or diversions, and parking areas will be impacted. A traffic management plan is being finalized to ensure impacts are mitigated as effectively as possible.

We will continue to flag specific impacts in regular construction notices

Environmental Management Plans

What is an Environmental Management Plan?

Environmental Management Plans (EMPs) were created to:

- Minimize potential environmental impacts during construction
- These potential impacts were noted in the Don Mouth Naturalization and Port Lands Flood Protection EA

We've summarized the following plans:

- Air Quality and Noise Monitoring Plan Summary
- Odour Monitoring Plan Summary
- Soil Management Plan Summary
- Groundwater Management Plan Summary
- Surface Water Management Plan Summary

Air Quality and Noise Monitoring Plan Summary

What is the Air Quality and Noise Monitoring Plan?

- Much of the soil in the Port Lands has been contaminated by various industrial activities
- We're digging a new river valley and spillway through the Port Lands
- During excavation, we will monitor air quality on site and at nearby locations to ensure any release of contaminants does not negatively impact air quality
- We will also minimize dust and noise

This plan monitors and protects against:

- Dust
- Emissions from vehicles and construction equipment
- Contaminant release from exposed soil and groundwater

Air Quality and Noise Monitoring Plan Summary



We're monitoring air quality at five locations on the construction site and at nearby locations.



Noise is being monitored in and around the site using sound level meters.

Air Quality and Noise Monitoring Plan Summary

Before construction, we will:

- Measure existing air quality and noise at multiple locations in and around the construction site
- Identify the criteria, means and methods for monitoring air and noise during construction
- Outline the actions that will be taken if monitoring finds that levels exceed the criteria

During Construction, we will:

- Monitor continuously, daily, weekly or monthly depending on the construction stage and weather
- Ensure air quality meets applicable provincial and federal standards using Ontario's Compliance Ambient Air Quality Criteria
- Monitor noise levels to ensure they stay within limits we have set for this project
- Respond to emails or phone calls from members of the public

What if our tests show an impact?

If noise or air quality exceeds our criteria, we will:

- Immediately investigate
- Review the controls in place at the construction site
- Implement new mitigation measures as appropriate

Odour Monitoring Plan Summary

What is the Odour Monitoring Plan?

- Contaminated soil that we remove will be stored on-site, treated, reused and, in some cases, transported off site.
- Dredging and excavating will create some odour.
- While odour is not necessarily linked to air quality or health concerns, it can still be a nuisance.
- This plan is a guideline for how we'll monitor and control odour during construction.

This plan includes:

- Project-specific odour monitoring criteria
- Response protocols to follow if odours exceed our criteria
- Methods for real-time monitoring

Odour Monitoring Plan Summary

We use a nasal ranger or olfactometer to measure existing odour in and around the construction site



Odour Monitoring Plan Summary

Before construction, we will:

- Identify construction activities or circumstances that may produce odours and opportunities to avoid those activities.
- Collect samples to establish existing conditions.

During Construction, we will:

- Monitor odour on site and at nearby locations.
- Use daily monitoring results to proactively manage odours.
- Respond to emails or phone calls from members of the public.

What if our tests show an impact?

We can manage odour in a number of ways, including:

- Minimize work area
- Apply odour reducing sprays to materials that may be causing the odour
- Use odour suppressing foams

Soil Management Plan Summary

What is the Soil Management Plan?

- We'll excavate over 1 million cubic metres of soil to create the new river valley and spillway – enough to fill the Rogers Centre.
- We'll also demolish some roads, buildings, parking surfaces and other structures, all of which will produce concrete rubble, asphalt and other materials.
- This plan is a guide for handling, storing and reusing those materials on site.

The goal of the plan is to:

- Ensure that as much soil as possible is reused during project activities.
- Ensure reuse is done in a sustainable manner that is protective of human health and the environment.

During construction, we will:

- Screen all excavated soil to confirm treatment requirements, which vary across the site.
- Analyze all imported soils to ensure the quality is acceptable.

Groundwater Management Plan Summary

What is the Groundwater Management Plan?

- During excavation, we will remove groundwater to keep our work area dry
- This water needs to be treated and returned to either Lake Ontario or the local sewer system
- Quality requirements for discharging to Lake Ontario are set by the Provincial Water Quality Objectives
- Quality requirements for discharging into the sewer system are set by a City of Toronto bylaw
- This plan ensures we manage that water according to those regulatory requirements

This plan outlines:

- How we manage groundwater that emerges during excavation
- How we monitor groundwater during and after construction

Groundwater Management Plan Summary

What is Groundwater?

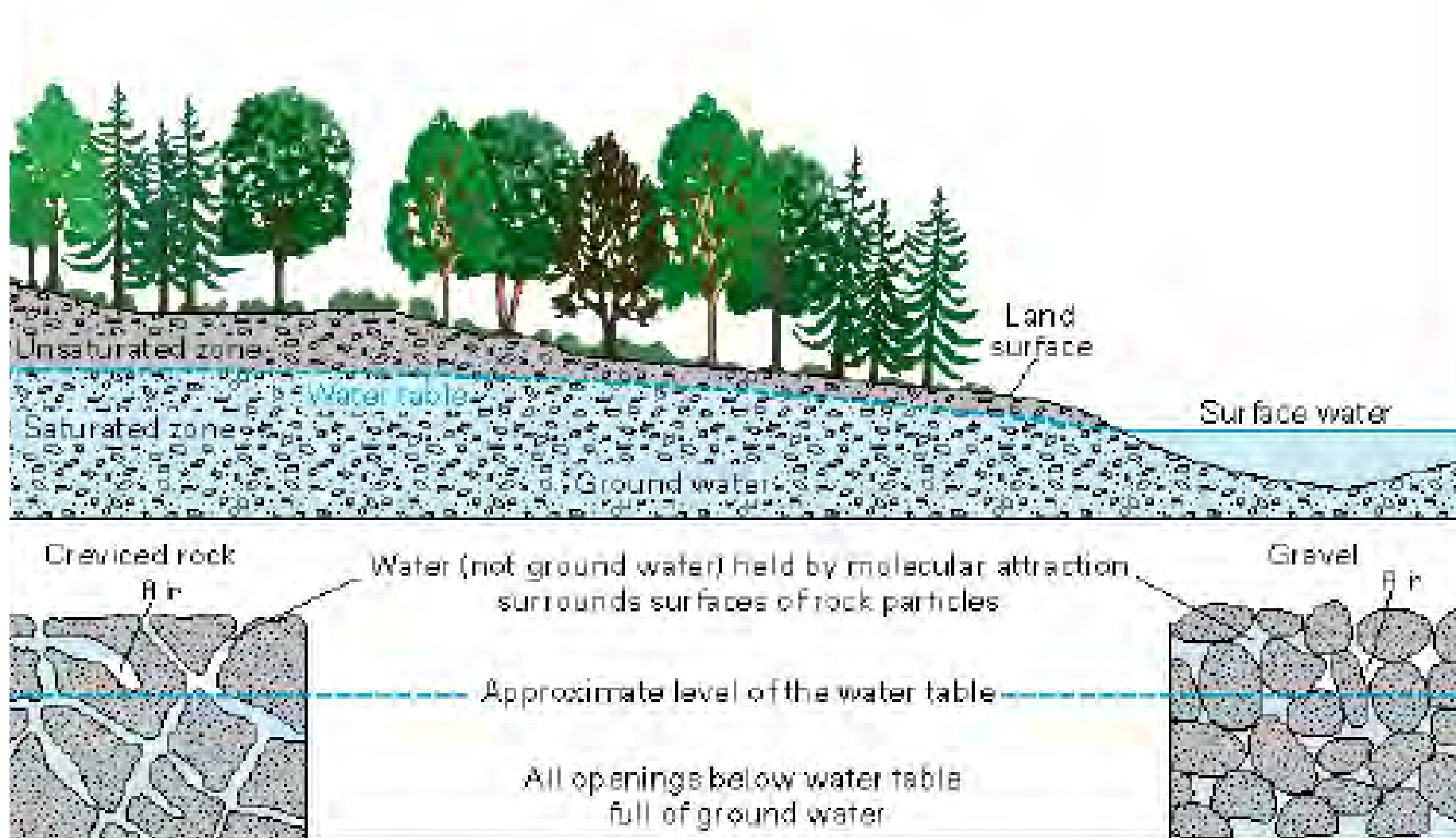


Image source: USGS Water Science School

Groundwater Management Plan Summary

Before construction, we will:

- Test the existing groundwater to establish baseline conditions
- Develop a quality assurance and quality control plan

During Construction, we will:

- Remove water (or dewater) as we excavate in order to keep the new river valley, roads, utility trenches and infrastructure dry while we work
- Treat the groundwater we remove to ensure it meets applicable criteria before releasing it to municipal sewers or Lake Ontario
- Monitor and sample groundwater as required to confirm it meets applicable criteria

Groundwater Management Plan Summary

After construction, we will:

- Allow the Don River to flow through the new river valley into Lake Ontario
- Continue to monitor groundwater in and around the construction area to ensure our work isn't negatively impacting groundwater

What if our tests show an impact?

If monitoring shows an impact, then we will:

- Take action to quickly identify and control the impact source and manage its influence on nearby surface waters

Surface Water Management Plan Summary

What is the Surface Water Management Plan?

- As we excavate and treat contaminated soil during construction, this plan guides how we monitor and control impacts on the surrounding surface water bodies.



Examples of surface water:

- Don River (1)
- Keating Channel (2)
- Polson Slip (3)
- Eastern Channel (4)
- Ship Channel (5)

Surface Water Management Plan Summary

Before construction, we will:

- Test existing surface water quality during dry and wet weather to establish baseline conditions

When excavation starts near water bodies, we will:

- Test the water clarity in and around the site twice daily when construction crews are working near surface water.
- Test for contaminants of concern four times per season, during wet and dry weather.

What if our tests show an impact?

If testing shows an impact:

- The appropriate response measures will be implemented to quickly identify and control the source of contamination and to manage impacts on nearby surface water.
- This will also trigger a review of our sediment and erosion control plans.

Discussion and Feedback