

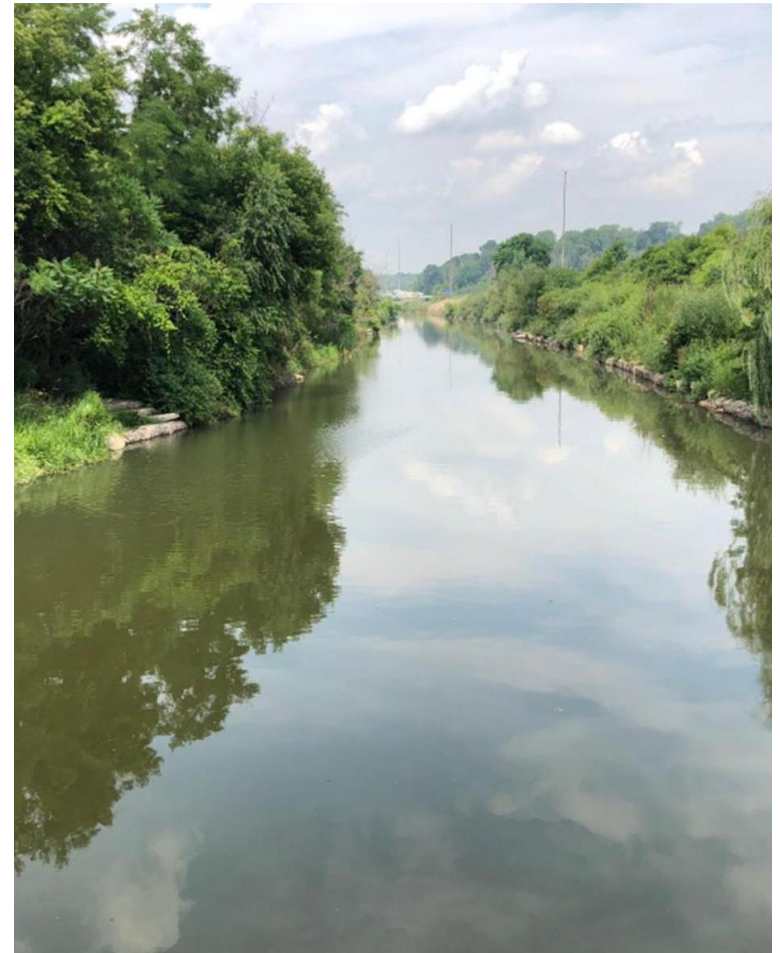


CHEDOKE CREEK ORDER UPDATE

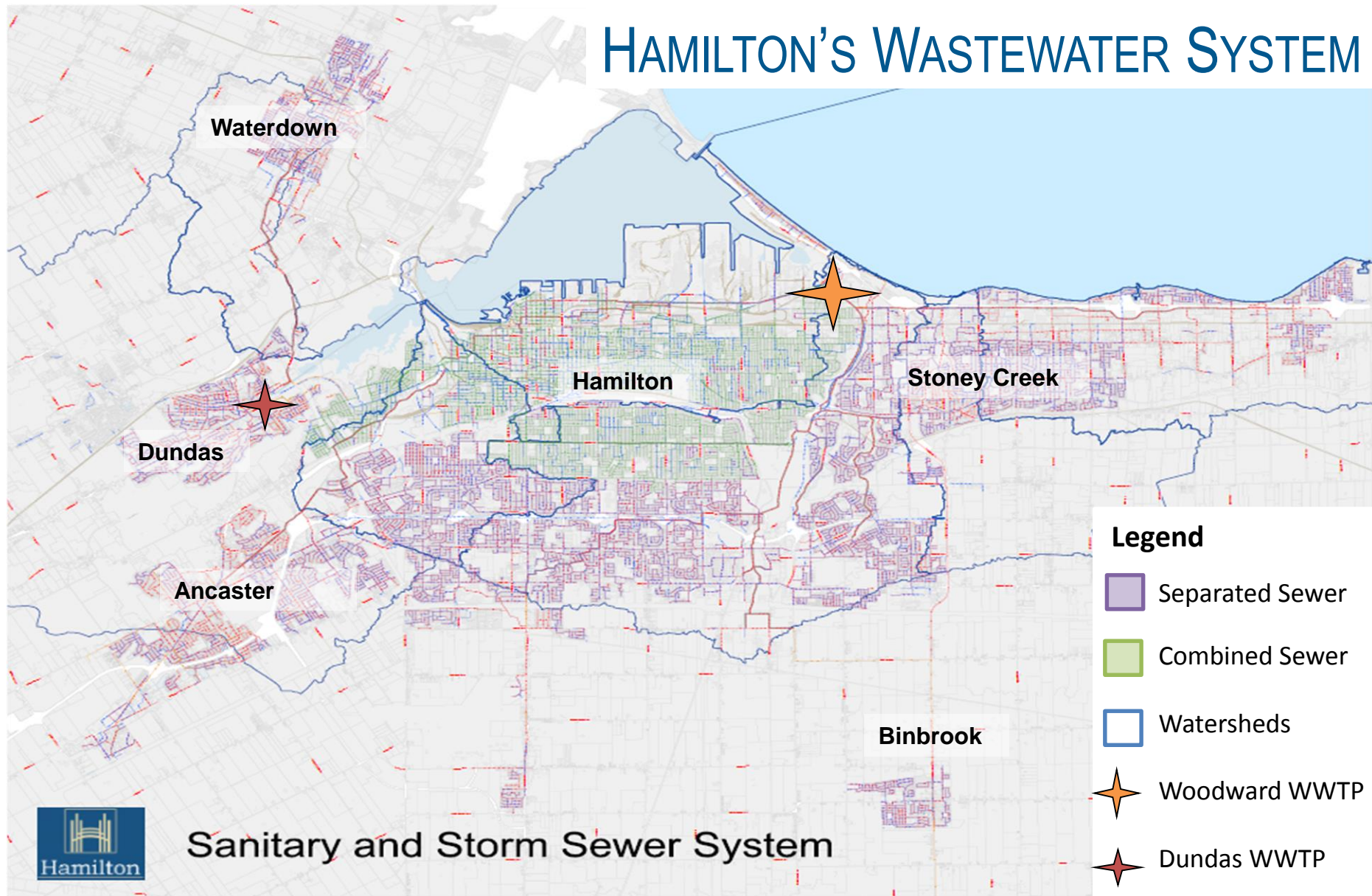
November 30, 2022

PRESENTATION OUTLINE

- Hamilton's Wastewater System
- What caused the Chedoke Creek spill?
- Internal Investigation Findings
- MECP Investigation and Charges
- Corrective & Preventative Actions taken
- MECP Orders
- Chedoke Creek Workplan
- Cootes Paradise Workplan
- Communication Plan
- Next Steps

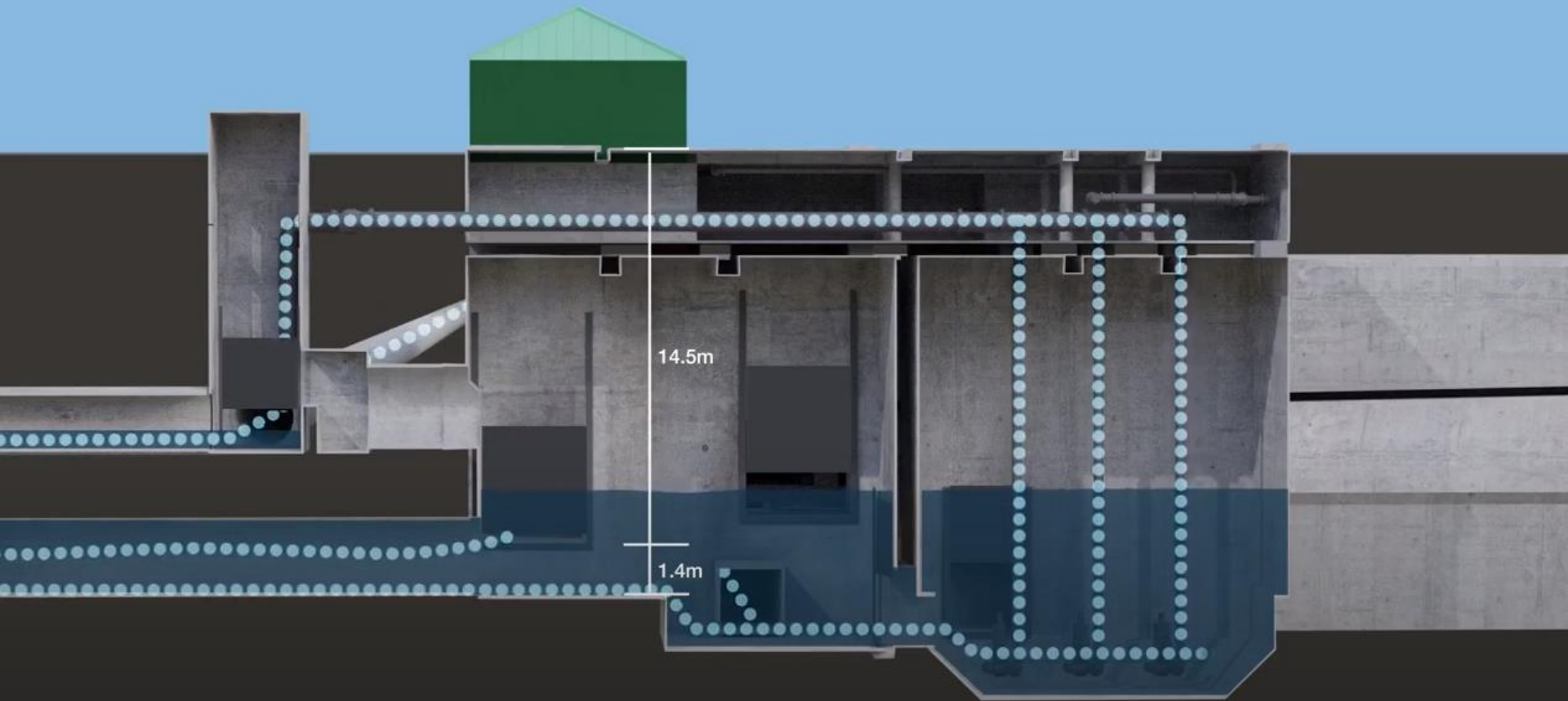


HAMILTON'S WASTEWATER SYSTEM



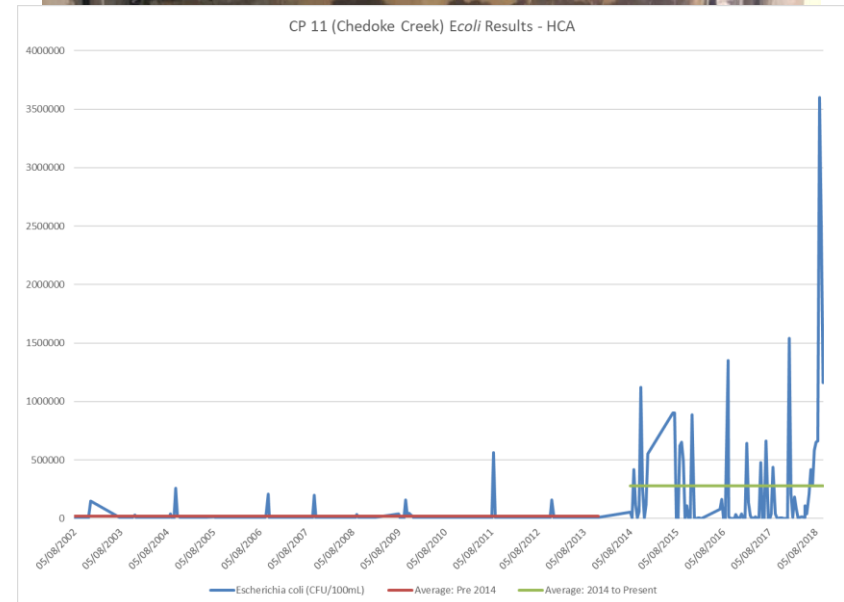
WHAT HAPPENED

January 28, 2014 - July 2018



INTERNAL INVESTIGATION FINDINGS

- Bypass gate at Main/King CSO tank was opened partially (approximately 5% or 14.8 cm) on January 28, 2014, at approximately 11:50 p.m. Who opened it and why is unknown.
- Bypass gate naming convention in design documents was misleading.
- Gate was not easily accessible for physical inspection.
- Water quality samples for Chedoke Creek were not being trended by City nor other agencies.
- Second gate failure in (approximately) January 2018.



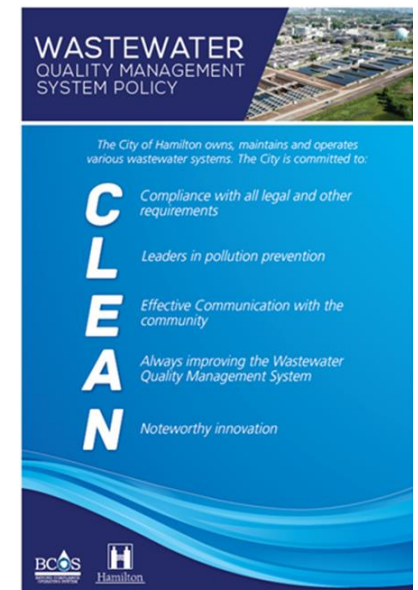
MECP INVESTIGATION & CHARGES

- MECP's Investigation & Enforcement Branch (IEB) began investigation In September 2018.
- Interviews conducted from October 2018 through to February 2020.
- The City provided the IEB with records, procedures and other documents associated with the Main/King CSO tank and the discharge event.
- On December 9, 2020, the MECP served the City with two (2) charges in relation to the Main/King CSO discharge into Chedoke Creek.
 - Section 14 of the *Environmental Protection Act*
 - Section 30 of the *Ontario Water Resources Act*
- These charges are currently before the courts and an update will be provided in a separate report from the City's Legal Services Division.



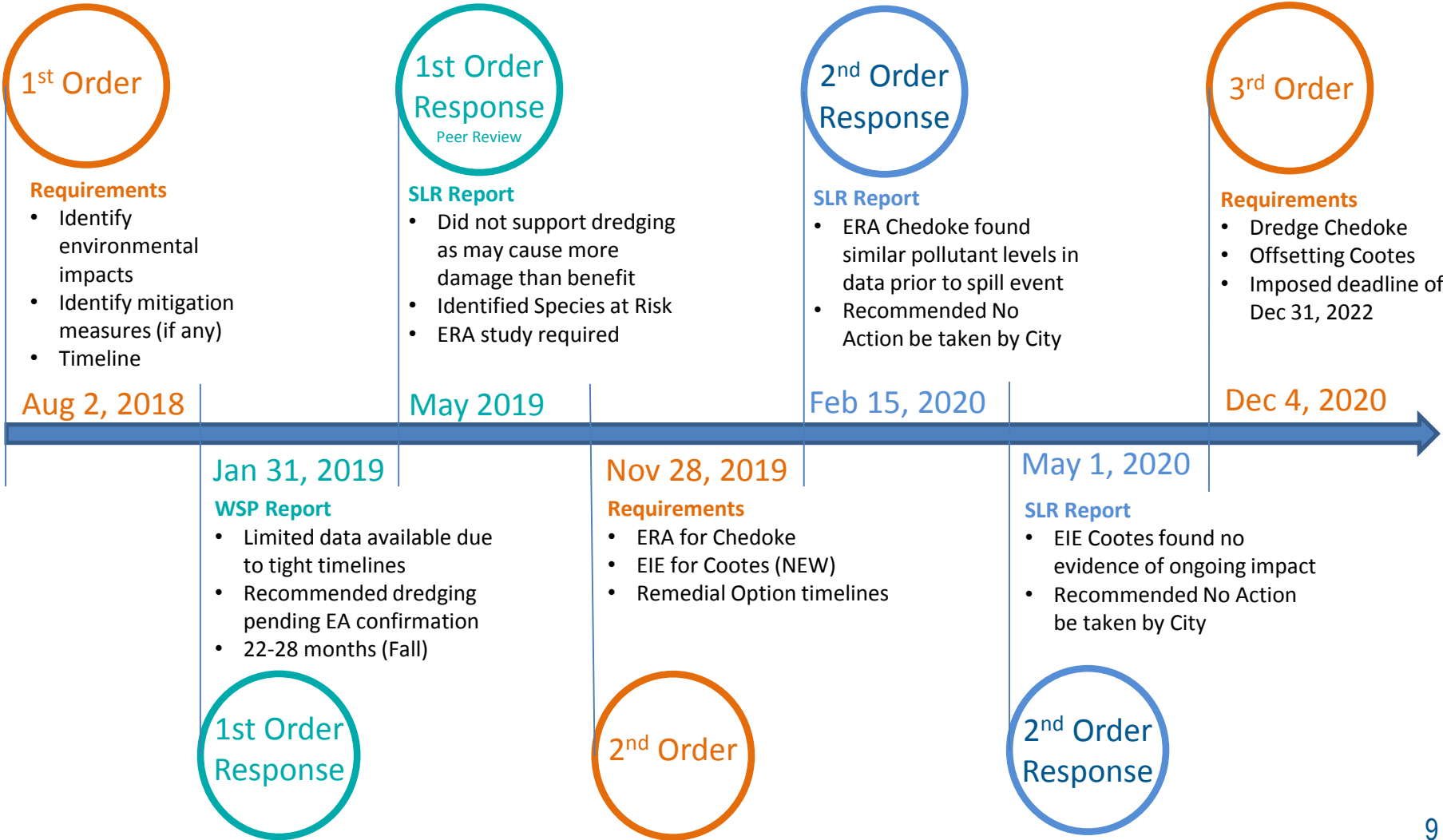
CORRECTIVE & PREVENTATIVE ACTIONS

- Bypass gate closed and physically locked
- 242,000 liters of floatable material removed
- Installation of a boom to collect material downstream of CSO
- Computer Programming Error Corrected
- Updated control documents and enhanced operator training
- Enhanced City of Hamilton Outstations Team created
- Wastewater Quality Management System created
- Creation of Surface Water Quality Program
- Wastewater Overflows and Bypasses Monitoring website created
- Chedoke Creek Water Quality Framework Study
- Creation of the Watershed Management Office
- Installation of small-scale treatment within Chedoke Creek



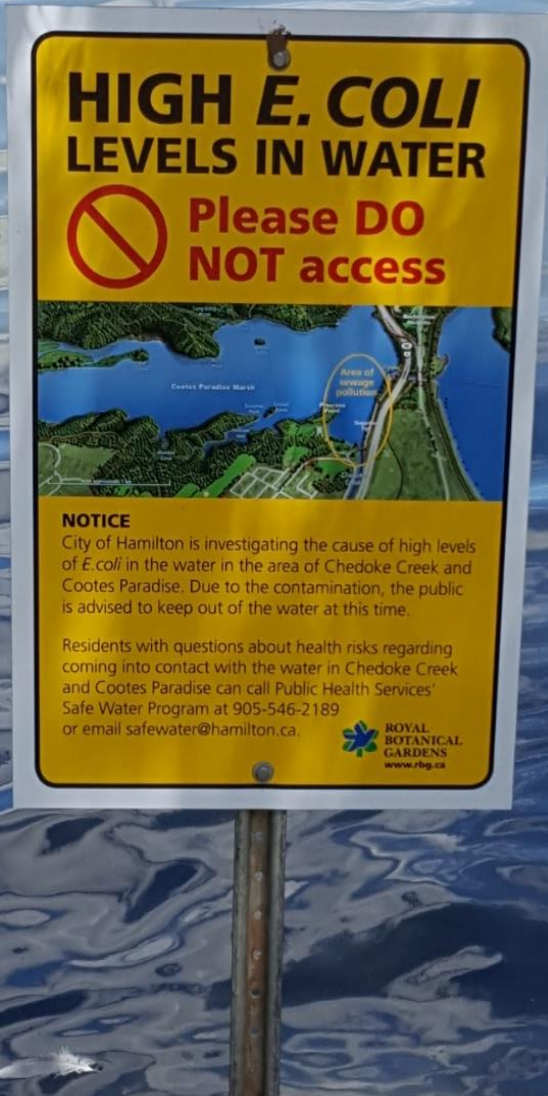
- ERA – Environmental Risk Assessment
- EIE – Environmental Impact Assessment
- EA – Municipal Class Environmental Assessment

MECP ORDERS



CURRENT MECP ORDER

Director's Order Number 1-PE3L3 (Dec 2020)



First Part (Removal)

- Chedoke Creek Workplan

Second Part (Offsetting)

- Cootes Paradise Report
- Cootes Paradise Workplan

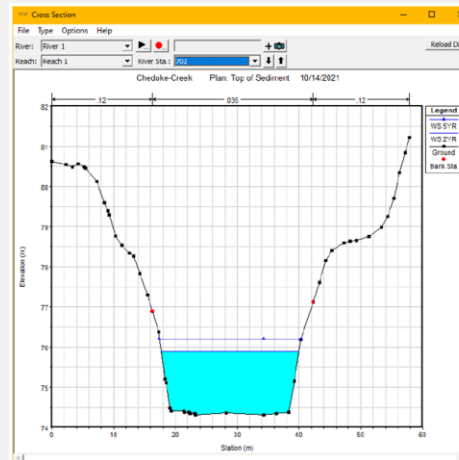
CHEDOKE CREEK WORKPLAN

Preparation Works:

- Sediment sampling & bathymetry
- Topography via LiDAR
- Hydraulic and hydrologic modelling
- Species at Risk investigation and relocation
- Contractor tendering and evaluations



Photo source: https://www.inaturalist.org/guide_taxa/722282



Engagement

External Stakeholders:

- Royal Botanical Gardens
- Bay Area Restoration Council
- Hamilton Harbour Remedial Action Plan
- Conservation Halton
- Hamilton Conservation Authority
- Fisheries and Oceans Canada
- Ministry of Transportation
- Environment Hamilton
- Environment and Climate Change Canada
- Ministry of the Environment, Conservation and Parks

Indigenous Nations & First Peoples

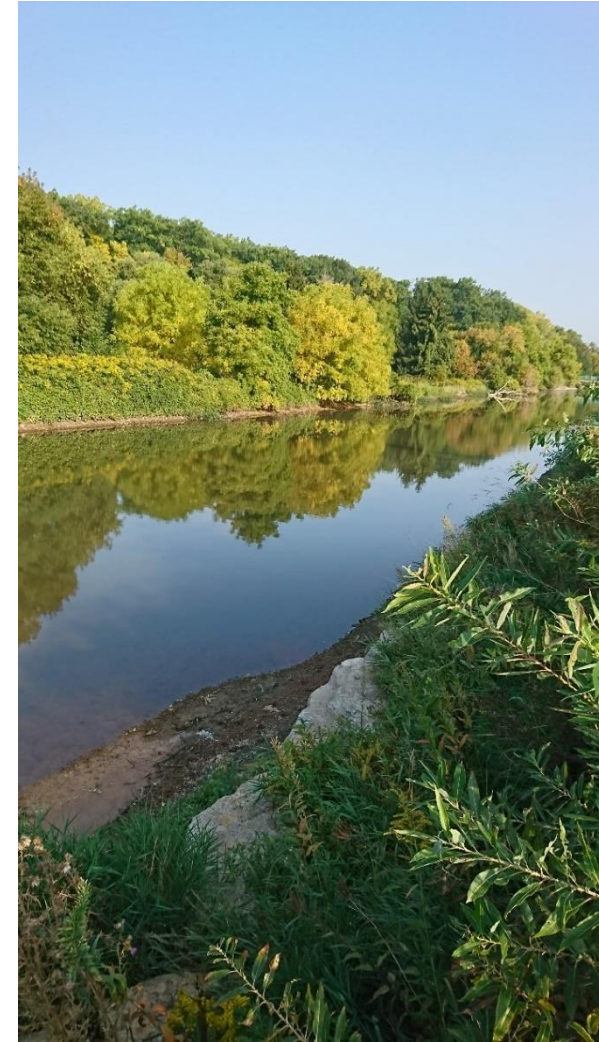
- Mississaugas of the Credit First Nation
- Six Nations of the Grand River (Elected Council)
- Haudenosaunee Confederacy
- Huron-Wendat First Nation

Internal City Stakeholders:

- Parks
- Recreation
- Waste Management
- Hamilton Street Railway
- Transportation Operations
- Landscape Architectural Services
- Environmental Monitoring and Enforcement

Local Institutions:

- Diocese of Hamilton
- Westdale Secondary School
- Georges-P.-Vanier High School



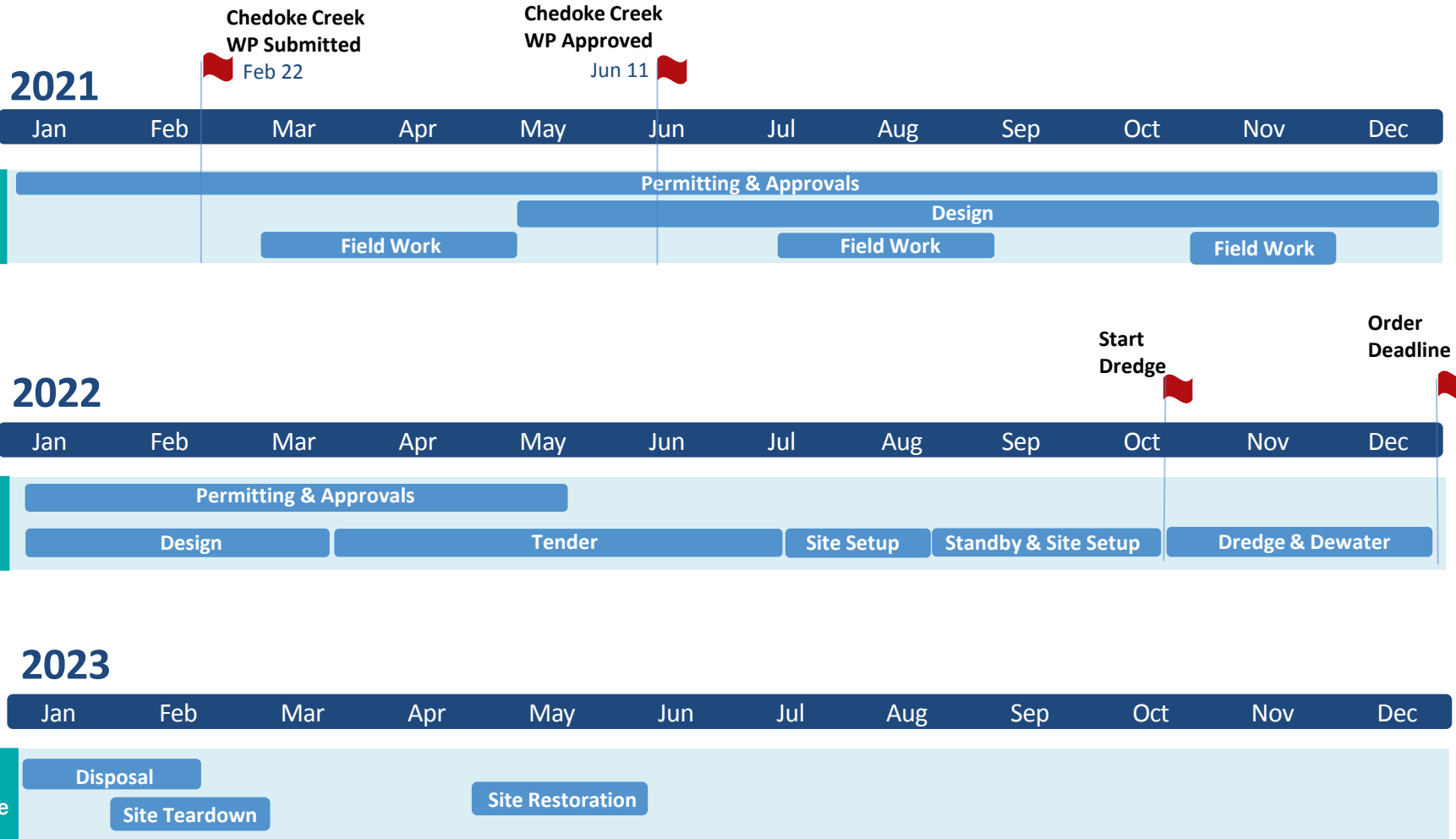
CHEDOKE CREEK WORKPLAN

Permitting Requirements

External	Required Permitting
Ministry of Environment, Conservation and Parks	Overall Benefit
	Permit to Take Water
Hamilton Conservation Authority	Work Permit
Ministry of Transportation	Building and Land Use
Transport Canada	Navigation
Fisheries and Oceans Canada	<i>Species at Risk Act</i>
Royal Botanical Gardens	Research

Internal	Required Permitting
Sewer Use Bylaw	Construction Dewatering

CHEDOKE CREEK WORKPLAN



CHEDOKE CREEK WORKPLAN

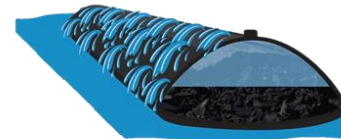
1. Dredge



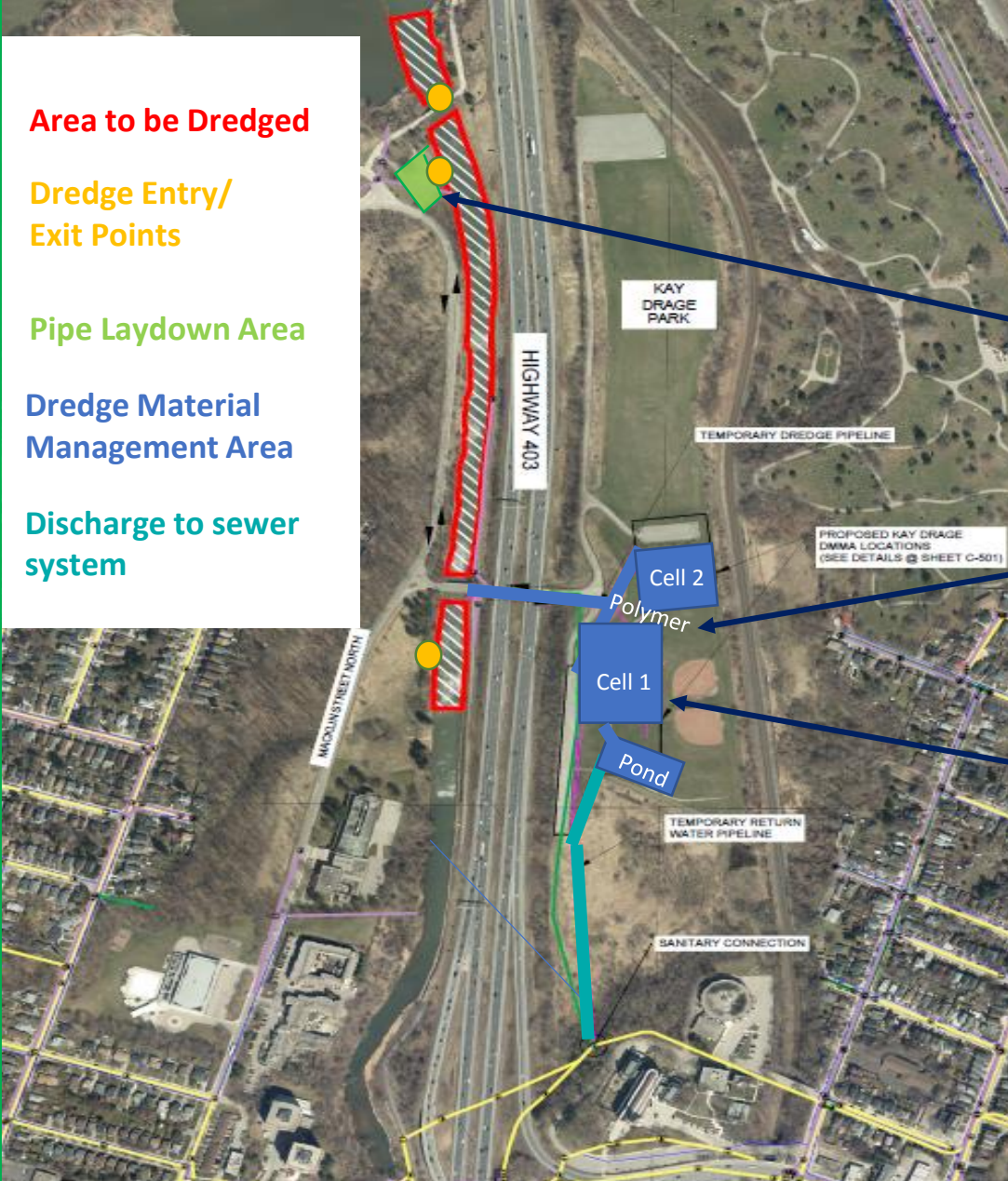
2. Polymer



3. Dewater



4. Disposal



PROTESTS & PROJECT DELAYS

August 18, 2022 work was paused

HDI claimed the City required their consent to complete the dredging work

HDI insisted the City provide funding for environmental monitors



Image credit: Hamilton Spectator

In mid September Council approval was given to negotiate Environmental Monitoring Agreement with each of the First Nations

PROTESTS & PROJECT DELAYS

Multiple attempts to begin dredging

Developed operational safety plan for the site

Oct 5th – Contractor work refusal received

Oct 6th – City agreed to pause project



Oct 6th - Letter requesting MECP intervention and deadline extension was sent

CHEDOKE CREEK WORKPLAN COSTS

INCURRED TO DATE

Item	Cost
Small Scale Offsetting	\$ 35,933
Costs from 2018-2020	\$ 2,008,290
Emergency Procurement - Wood's Services (Workplans, Data Collection, Design and Permitting)	\$ 791,144
Standby Costs (Aug 18 - Oct 31 2022)	\$ 688,613
Milestone Environmental Contracting Inc. (Targeted Dredging of Chedoke Creek)	\$ 1,390,627
Total	\$ 4,914,607

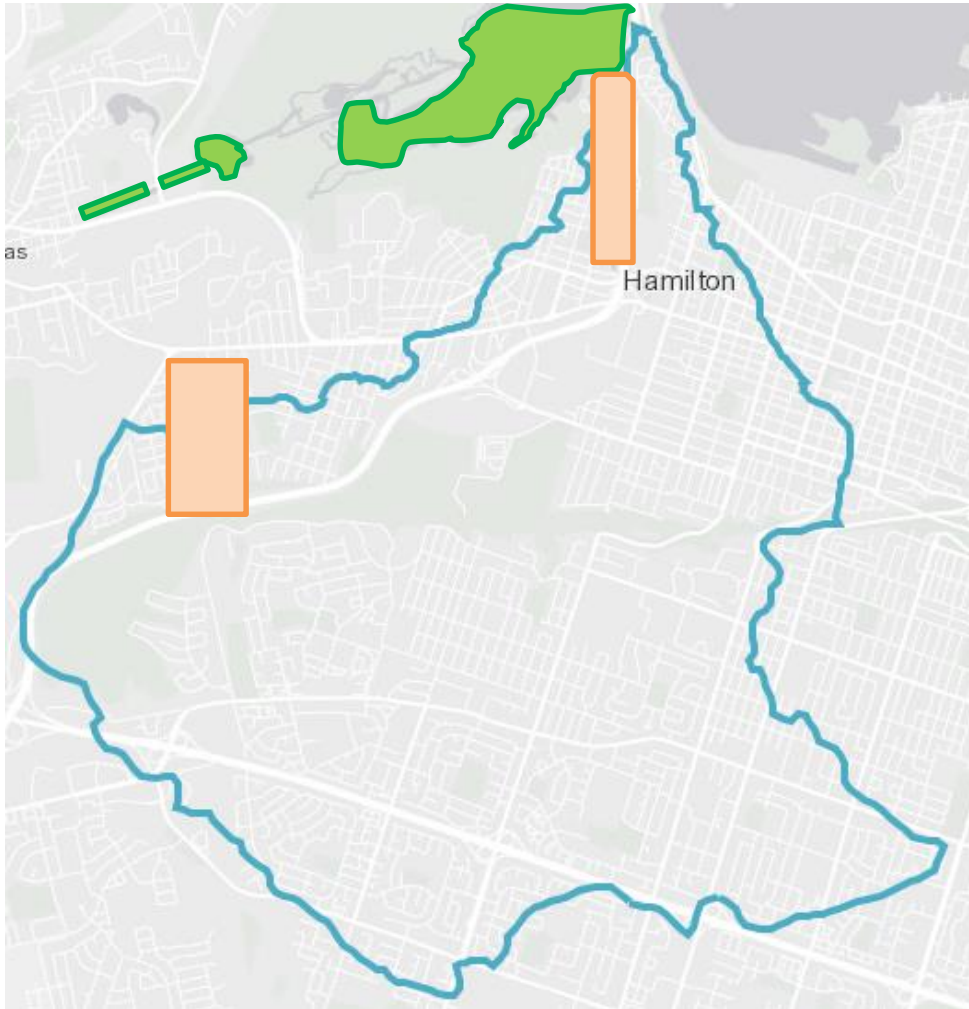
COMMITTED WORK REMAINING

Item	Budget
Wood's Services (Contract Administration, Investigative Field Work and Post Monitoring)	\$ 780,156
Milestone Environmental Contracting Inc. (Targeted Dredging of Chedoke Creek)	\$ 4,195,888
Total	\$ 4,976,044

COOTES PARADISE WORK PLAN (Offsetting)

	TP (est. tonnes)	TKN (est. tonnes)
Discharge Event (Deposited)	47	312
Targeted Dredge (Removal)	24	31
Deficit	23	281

COOTES PARADISE WORK PLAN (Offsetting)



Chedoke Stormwater Retrofit EA

Ainslie Wood Sewer Separation EA

Lower Chedoke EA

Additional Investigative Studies/Projects

Road Retrofits Rehabilitation Policy

Stormwater Management Policy


COMMUNICATIONS PLAN



Public Notice


CHEDOKE CREEK REMEDIATION

Beginning this summer, the City of Hamilton will start targeted dredging activities within Chedoke Creek to remove nutrient laden sediment from the creek bed. The targeted dredging will occur in two zones, North and South and is expected to be completed before the end of 2022. To follow along as the work progresses and learn about any potential impacts to the surrounding area please visit: www.hamilton.ca/chedokecreekremediation



Onsite Signage

CHEDOKE CREEK





WHAT IS HAPPENING?
In summer 2022, the City of Hamilton will begin targeted dredging within Chedoke Creek to remove nutrient laden sediment from the creek bed. The targeted dredging will occur in two zones, North and South and is expected to be completed before the end of 2022.

WHY IS THE CITY OF HAMILTON DOING THIS WORK?
The City of Hamilton was served a Ministry of the Environment, Conservation and Parks (MECP) Order on December 4, 2020, as a result of the Main King Certified Sewer Overflow discharge that occurred between January 2014 and July 2018. The City of Hamilton has been working closely with the MECP and the Royal Botanical Gardens (RBG) to develop remediation workplans for both Chedoke Creek and Cootes Paradise in response to the Order to improve the condition of the waterways. Details of the approved workplans can be found at: www.hamilton.ca/ChedokeCreek

To report a concern please call 905-546-CITY (2488) and state the call is related to Chedoke Creek Remediation.

To follow along as the work progresses and learn about any potential impacts to the surrounding area please visit: www.hamilton.ca/chedokecreekremediation



 Hamilton

COMMUNICATIONS PLAN

Chedoke Creek Remediation

Chedoke Creek Spill & Remediation Activities

Council Communication Updates

Chedoke Creek updates provided to Hamilton City Council and Standing Committees.

Chedoke Communication Updates

Chedoke remediation workplan

The City of Hamilton was served a Ministry of the Environment, Conservation and Parks (MECP) Order on December 4, 2020, as a result of the Main/King Combined Sewer Overflow discharge that occurred between January 2014 and July 2018. The City of Hamilton has been working closely with the MECP and the Royal Botanical Gardens (RBG) to develop a remediation workplan for both Chedoke Creek and Cootes Paradise in response to the Order.



www.hamilton.ca/chedokecreekremediation

NEXT STEPS



- The Project Team is reviewing options, timelines and budgetary impacts for restarting the project
- The Project Team is working with permitting agencies for permits extensions and exemption to in-water work restrictions
- The Project Team is working with the MECP on appropriate extension to the Order deadline
- Options and recommendations from a Legal perspective will be outlined in a separate confidential report

QUESTIONS

