



Hamilton

**CONSTRUCTION AND DEVELOPMENT
DEWATERING**

June 14 , 2021

**PUBLIC WORKS DEPARTMENT
HAMILTON WATER**

Presentation Agenda



Wastewater System

Legislative / Policy Drivers

Construction Dewatering Program

Next Steps

WASTEWATER SYSTEM (2020 PERFORMANCE)

2 WASTEWATER TREATMENT PLANTS



113,975 ML TREATED
APPROXIMATELY 40% OF HAMILTON HARBOUR

10,833

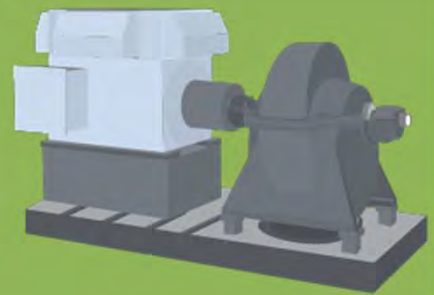
BACKWATER VALVES INSTALLED SINCE PROGRAM INCEPTION



71

STORM MODE ACTIVATIONS

71



PUMPING STATIONS

9

COMBINED SEWER OVERFLOW TANKS

12
WWTP SECONDARY BYPASS

1,387 ML



95*

OTHER CSO EVENTS

USAGE BY SECTOR

51%

ICI & MULTI RESIDENTIAL

49%

RESIDENTIAL

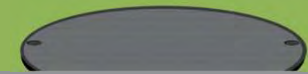


1,202 km
SANITARY SEWER

571 km
COMBINED SEWER

1,231 km
STORM SEWER

25,503
MANHOLES



74 - 82%



WOODWARD WWTP CAPACITY UTILIZATION

765

DEVELOPMENT APPLICATION REVIEWS



70

ACTIVE SEWER DISCHARGE PERMITS



TOTAL WASTEWATER ASSETS - \$5.39 BILLION
TOTAL STORMWATER ASSETS - \$1.46 BILLION

2020 Overflow Performance Summary



Credit - <https://www.thespec.com/>



Woodward WWTP

- ❖ Secondary Bypass Events – 12
- ❖ CSO Volume (ML) – 1,386.94
- ❖ CSO Duration (hrs) – 146.36

Cootes Paradise*

- ❖ CSO Outfall Sites - 8
- ❖ CSO Volume (m3) – 35,852
- ❖ CSO Duration (hrs) – 42.2

Hamilton Harbour*

- ❖ CSO Outfall Sites - 17
- ❖ CSO Volume (m3) – 911,242
- ❖ CSO Duration (hrs) – 1,738.3

Red Hill Creek*

- ❖ CSO Outfall Sites - 6
- ❖ CSO Volume (m3) – 22,711
- ❖ CSO Duration (hrs) – 98.7

Legislative / Policy Drivers

Regulatory Challenges

- ❖ MECP Procedure F-5-5 guidance
- ❖ Capacity allocation – combined system
 - MECP – downstream impact / approvals
- ❖ Stormwater source control strategy
- ❖ Construction dewatering
- ❖ Permanent dewatering
- ❖ Area-wide linear wastewater and stormwater collection
Environmental Compliance Approvals

Organizational

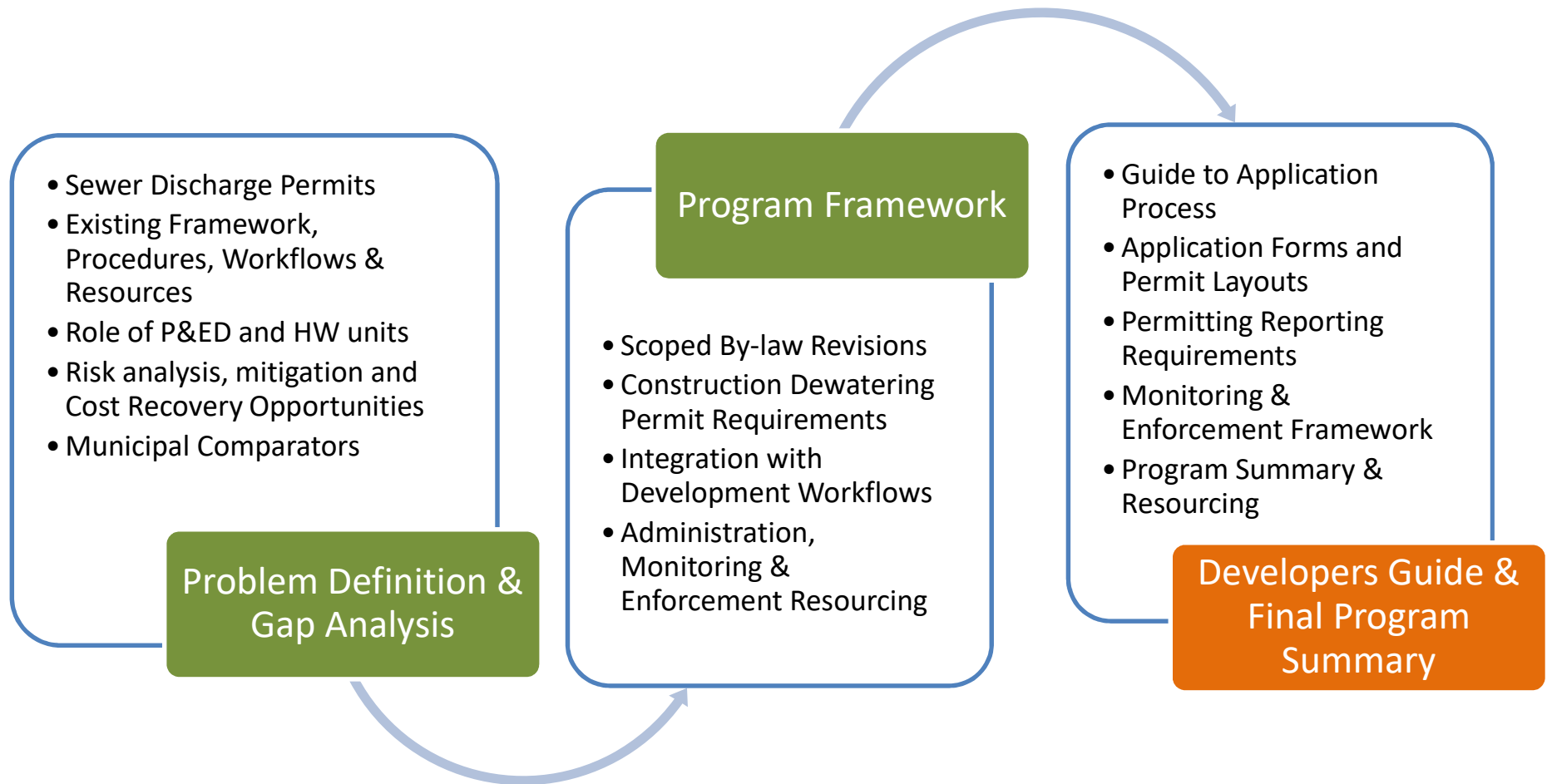
- ❖ Master Planning
- ❖ GRIDS II

Legislative / Policy

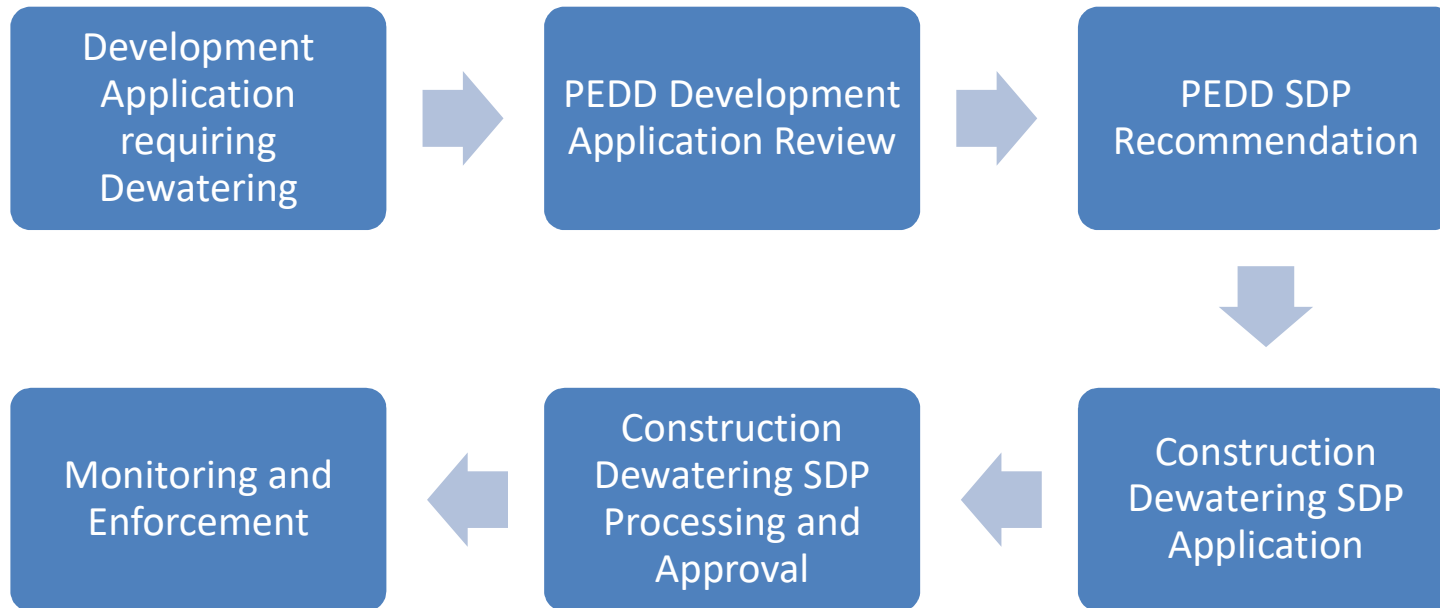
- ❖ A Place to Grow
- ❖ Downtown Secondary Plan
- ❖ Provincial Intensification Targets
- ❖ Comprehensive Development Guidelines and Financial Policies Manual
- ❖ Sewer Use By-Law 14-090 / Sewers & Drain By-Law 06-026



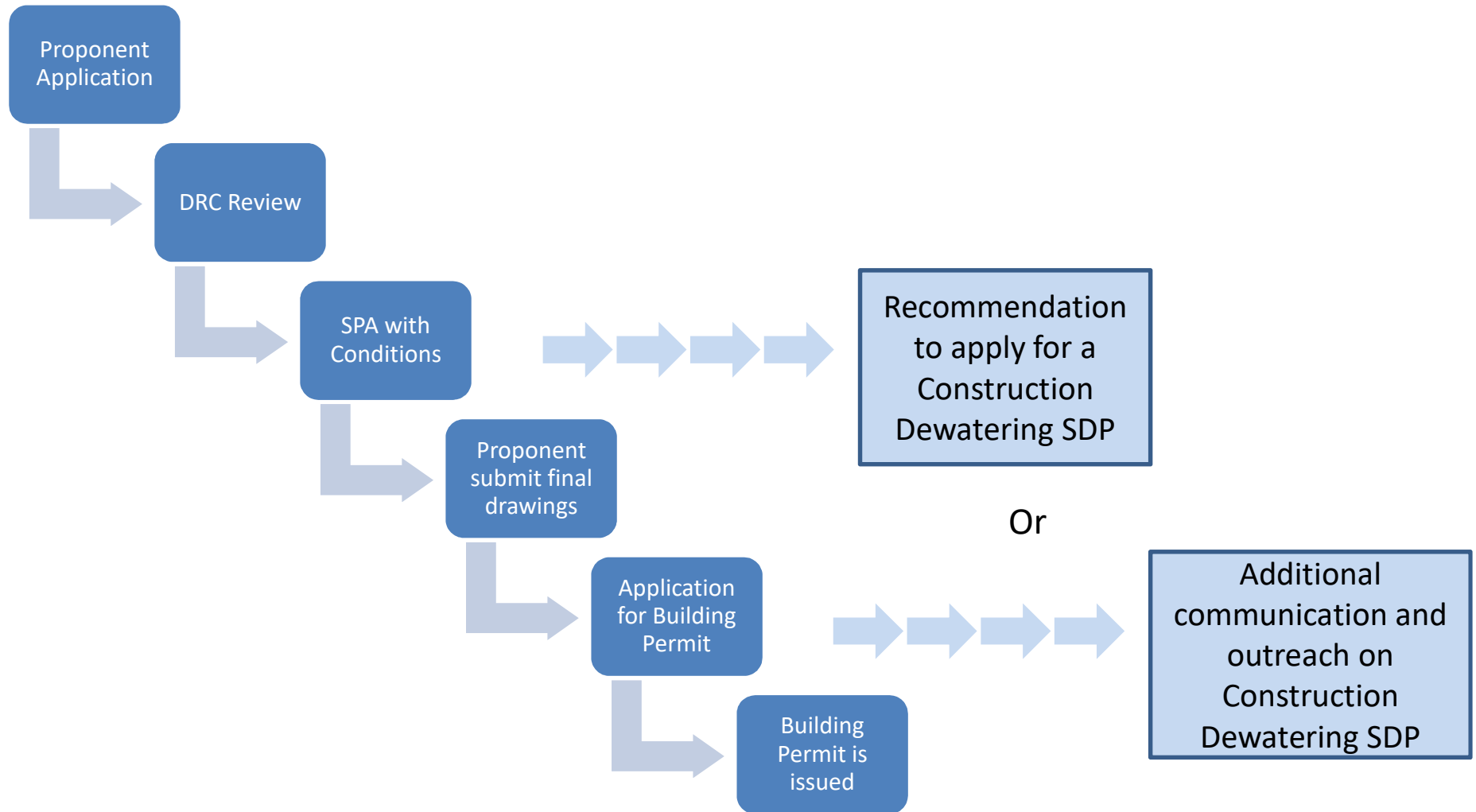
Construction Dewatering Program - Program Framework



Construction Dewatering Program – Program Workflow



Construction Dewatering Program – Permit Integration



Construction Dewatering Program - Activities

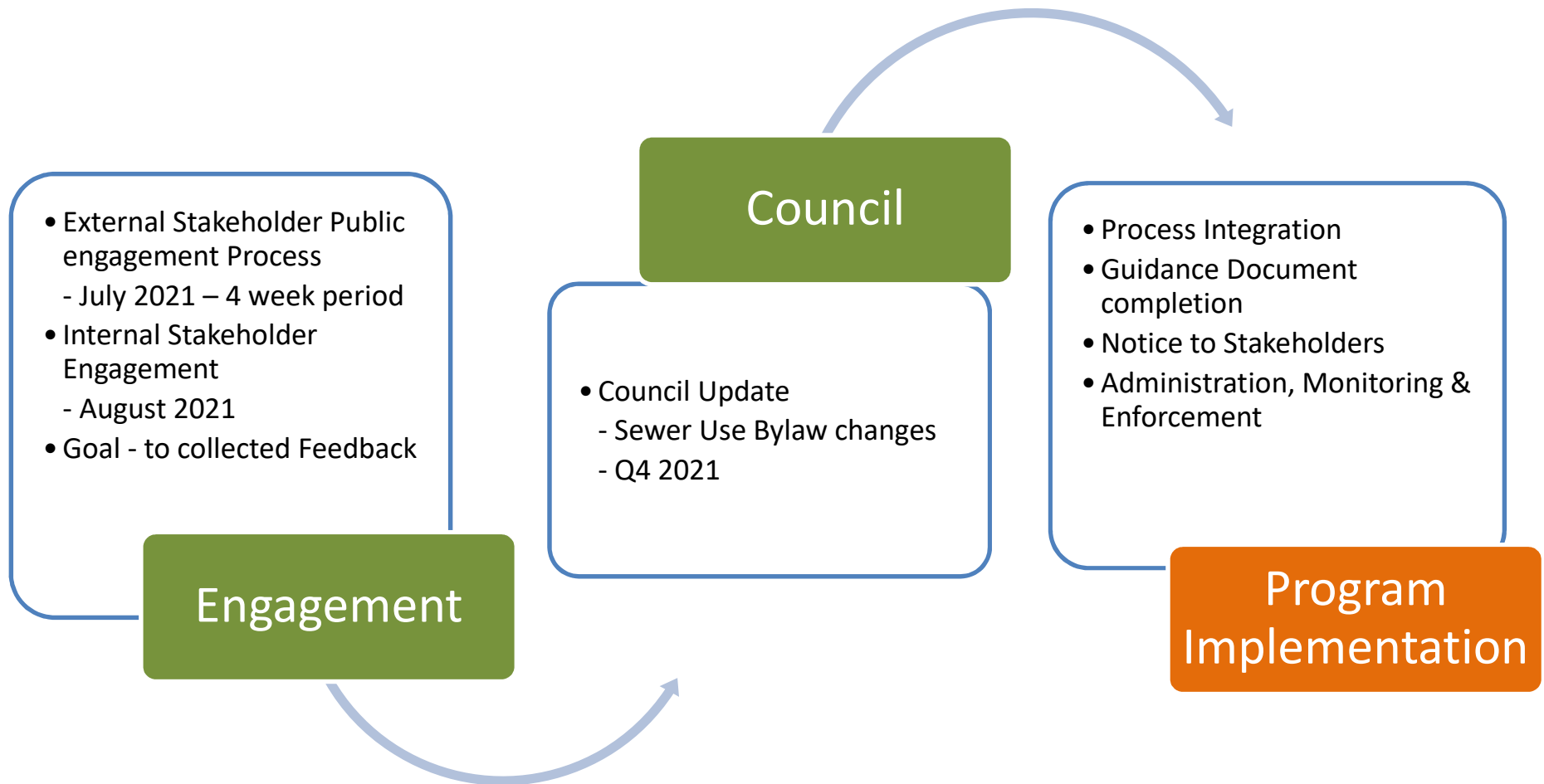
Activities Covered – Discharges to Sewer Works

- ❖ Discharges from water originated from a well or otherwise extracting groundwater;
- ❖ Discharges from a permanent or temporary pond or other surface water body, whether natural or man-made;
- ❖ Discharges from water previously stored in a tank, tanker truck, vessel, or other means of water storage;
- ❖ Discharges resulting from permanent or temporary alteration of a natural or pre-existing drainage pattern;
- ❖ or any combination of the above-noted activities (where the water from any of these activities is related to a construction, land development, renovation, repair, maintenance or demolition activity at a property, and it is not related to a groundwater remediation unit or site.)

Activities Not Covered – Discharges to Sewer Works

- ❖ Discharges containing substances that exceed the City's standards established in the Bylaw No. 14-090.
- ❖ Discharges from dewatering operations associated to groundwater remediations units or site covered under the City's Conditional Sewer Discharge Permit.
- ❖ Discharges from permanent foundation drains
- ❖ Other (Inflow Infiltration, Stormwater Management).

Construction Dewatering Program – Next Steps





THANK YOU