



Town of Essex Flooding

Infrastructure Services



August 2023 Flooding Event

- The Town of Essex and surrounding areas experienced a very significant rainfall event that impacted the entire municipality, however, was very concentrated in the southern half of the municipality in Harrow and Colchester.
- Heavy amounts of rain lasted a duration of roughly 40 hours, causing significant flooding along the West side of Colchester along with rural and urban areas south of County Road 18.
- The saturation of water and duration of rain caused significant back ups both in the lagoons and treatment plants causing to run a bypass for the first time in history
- Province assisted by opening emergency funding to support residents with no/limited insurance.

River Canard



Windsor Aerial
DRONE PHOTOGRAPHY



Ambassador Beach Colchester



Colchester



September 2025 Flooding Event

- On September 24, 2025, the Town of Essex experienced an extreme rainfall event that affected the hamlets of Harrow and Colchester, resulting in localized surface and basement flooding.
- (ECCC) reported rainfall totals exceeding **190mm** (approximately **7.5in**) in the Harrow region over a 24-hour period which is among the highest one-day totals recorded in recent history.
- This magnitude of rainfall significantly exceeded the design standards for local storm sewer and drainage systems which are typically designed for a 1:2 to 1:5 year storm.

Colchester



Ambassador Beach



Colchester



Storm Event Observations

Storm Sewers

Functioned as designed but surcharged during peak rainfall causing flooding.

Pump Stations

Functioned as designed but were unable to keep up with overland flows to storm system

Catch Basins & Ditches

Reports of blockages from storm debris and vegetation exacerbated localized ponding.

Roads

Roads in the area experienced flooding. Some in excess of 12 -24 inches . Temporary flooding was observed on roadways and some private property. Flooding on roadways was significant, especially in the northwest quadrant of Harrow and west side of Colchester some areas seeing significant structural damage to County Road 50

System Issues

- A large majority of drains in the Town of Essex are Municipal Drains which are user paid systems paid for by the residents that benefit from these drains and governed by the Drainage Act.
- These systems are designed to handle a 1:2 to 1:5-year storm event. Anything over and above this design would need to be paid for by Town of Essex.

Financial Issues

- Asset Management Plan (AMP) pays like for like – but does not assist with funding upgrades to protect against climate change and flooding resilience. This is a significant burden on the tax base to fund.
- Current backlog in AMP is \$101.5 million across all core assets with the next 8 years requiring approximately \$275 million in capital due for replacement.

Closing

- Climate change and flood resilience in an area surrounded by great lakes and having flat topography present a unique challenge to regional municipalities and requires additional support to protect residents. (Especially given frequent extreme storm events)
- Homeowners are struggling to maintain/obtain insurance for flooding.

Closing

- Essex has a relatively small tax base but significant capital expenditures.
- Limited funding and growth pressures strain the budget, creating a growing gap between needed repairs and available resources for long term asset sustainability.
- Town's Asset Management Plan shows that we are severely underfunding the infrastructure replacement program (even with OCIF!) and rural municipalities such as Essex struggle even more due to limited tax base and funding opportunities.

ASK and Provincial Benefit

- **More funding is needed to address the current population, not just growth and housing.**
- **A specific and targeted funding stream to help flooding prone areas**
 - This could reduce the need for emergency preparedness funds (changes the provinces approach to proactive rather than reactive)
 - Assist in future housing development by ensuring infill lots are development ready