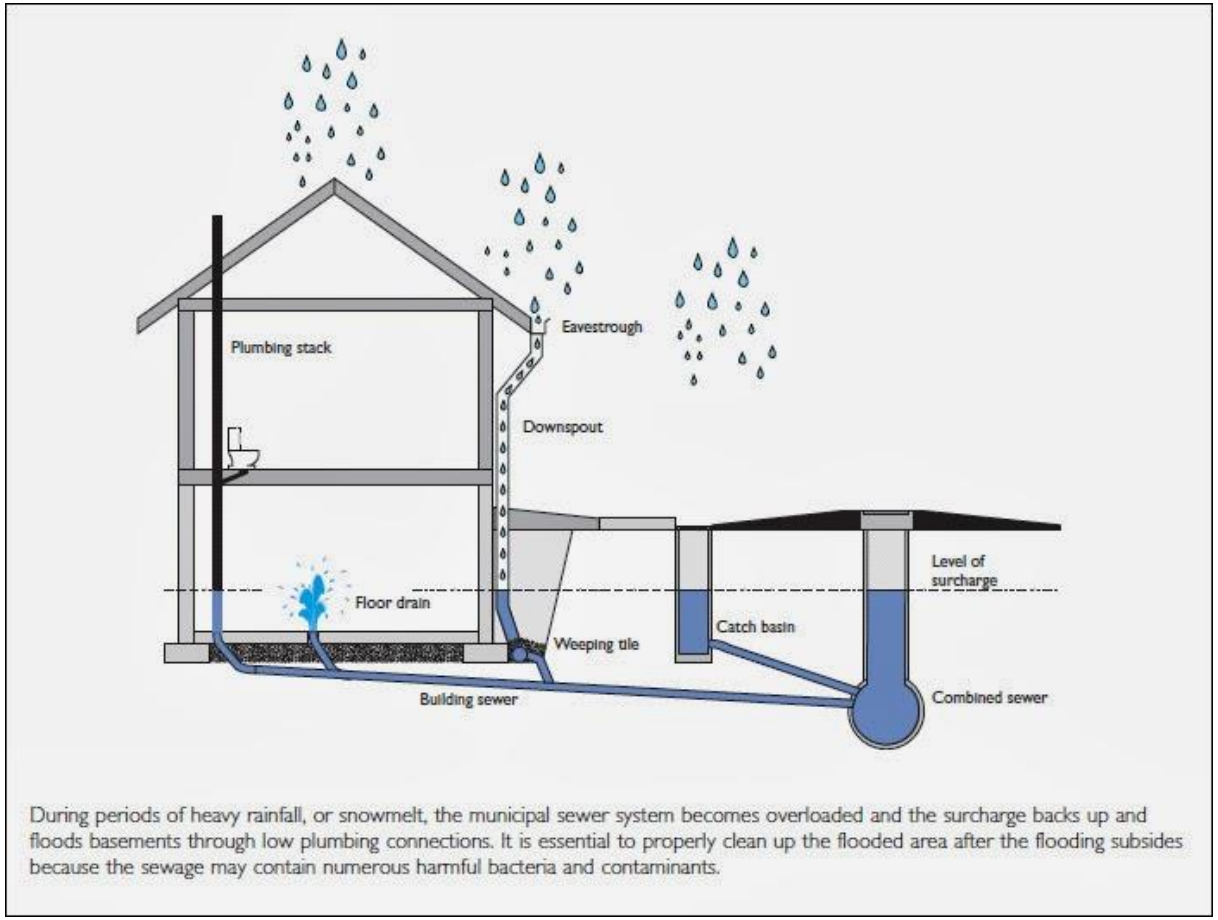
HARRY ABBINK

- Resident of Ottewell - 30 Years
- Professional Engineer (Retired)
- COE Drainage Services (1993-2013)
- Manager Flood Prevention Program

Ottewell Flood – July 4, 1995

- 1300 basements flooded
- *the existing combined sewer network has limited capacity to convey the large volume of storm runoff generated during severe rainfall events…*
- Flood Prevention Program
- Many More Floods Since

Combined Sewer System



During periods of heavy rainfall, or snowmelt, the municipal sewer system becomes overloaded and the surcharge backs up and floods basements through low plumbing connections. It is essential to properly clean up the flooded area after the flooding subsides because the sewage may contain numerous harmful bacteria and contaminants.

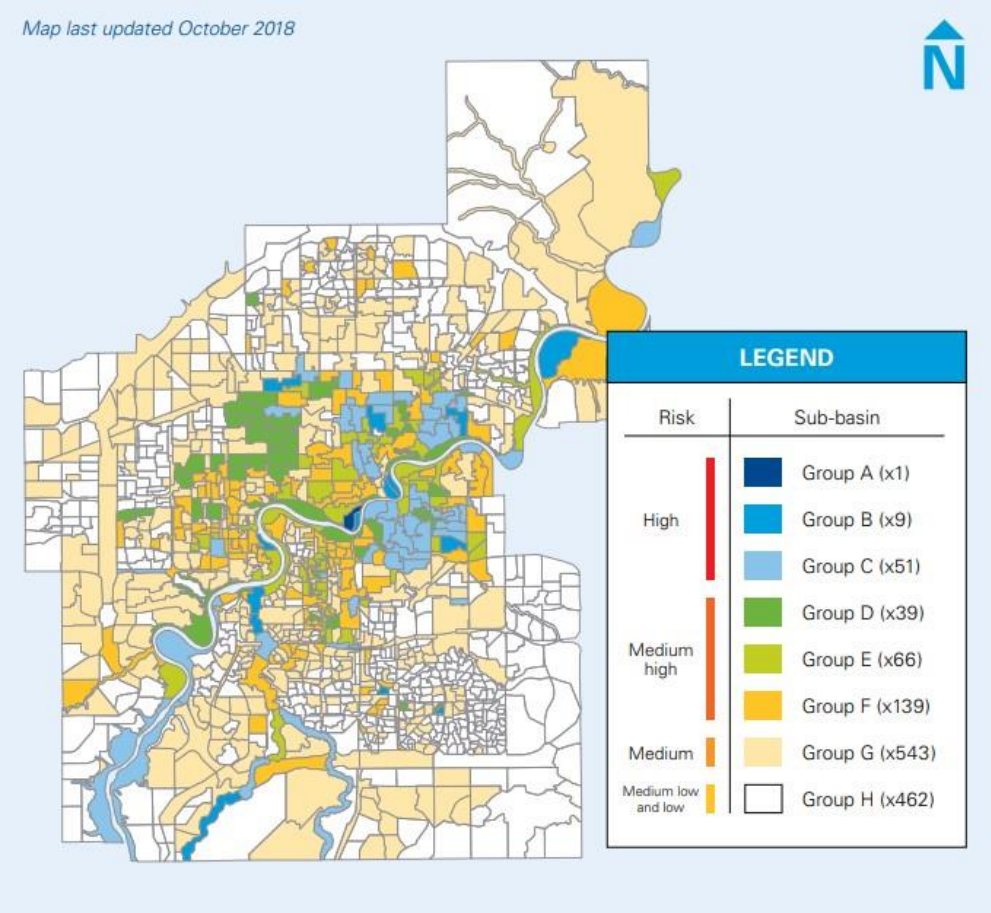
Zoning Proposal Will Worsen Climate Change Effects

- More Basement Flooding
- In High Risk Neighbourhoods
- Serviced by Combined Sewers

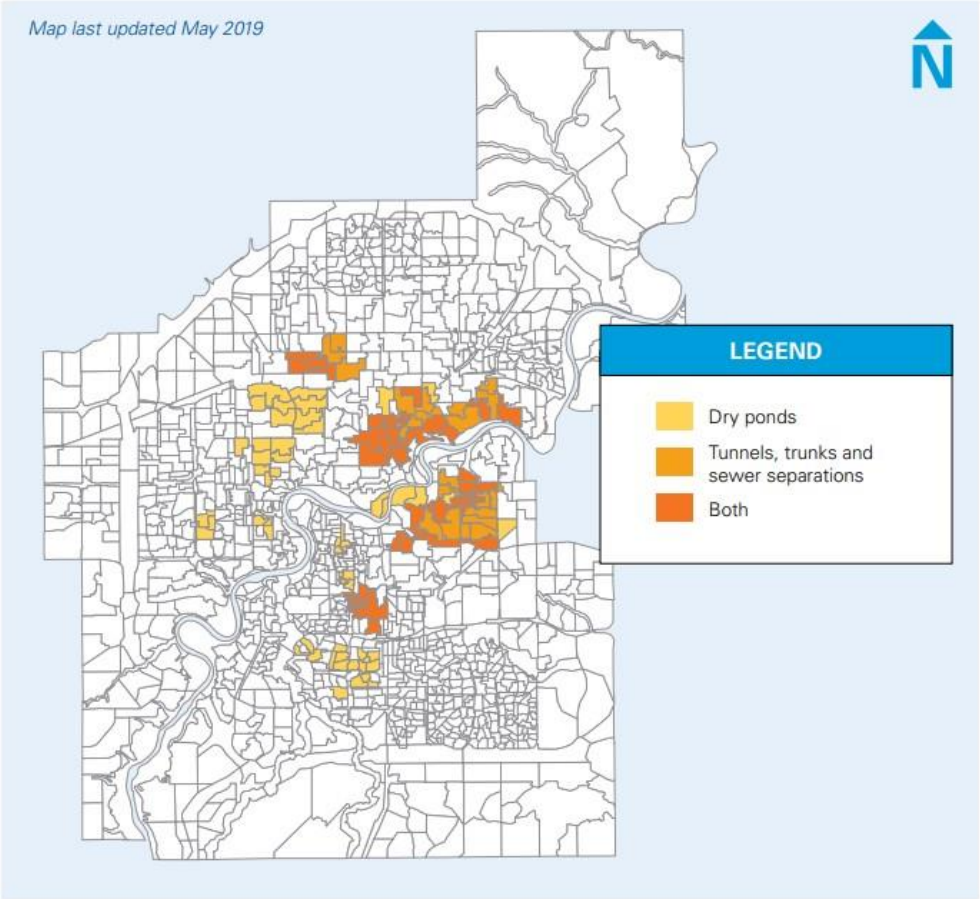
Higher Risk of Basement Flooding

- Inadequate Combined Sewer System
- More Frequent / Intense Storms
- Increased Population Density
- Increased Sanitary Volumes
- Increase in Surface Runoff from more hard surfaced areas

High Risk of Flooding



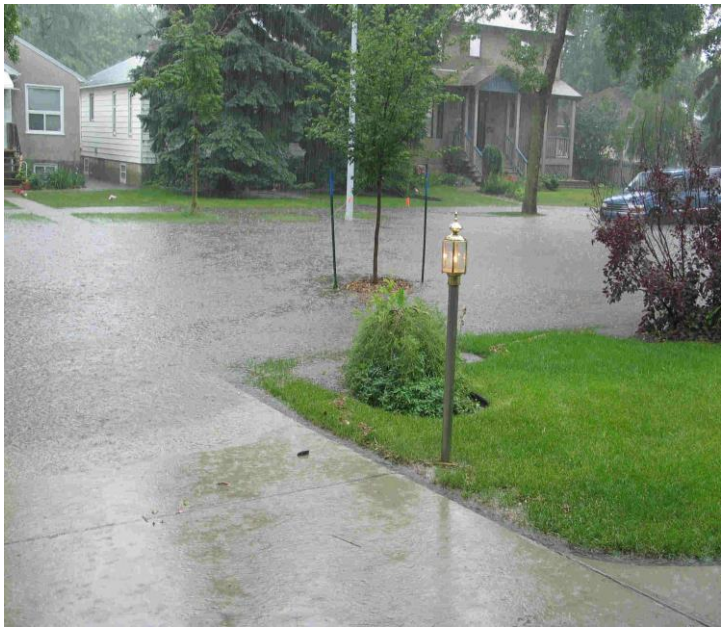
Does EPCOR Have a Plan?

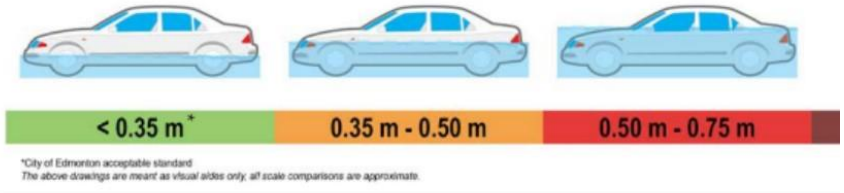


Stormwater Integrated Resource Plan

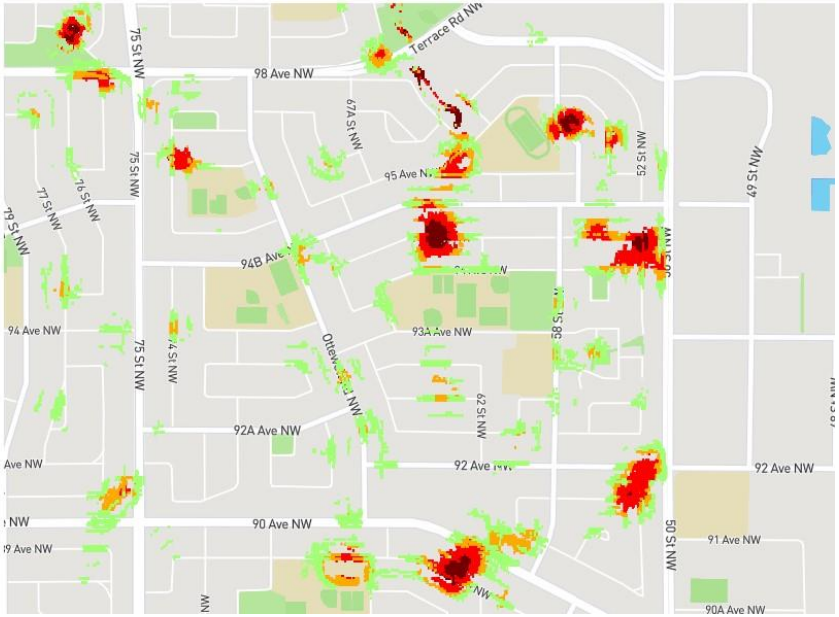
- 20 Year Plan (Or More)
- Each Major Project could take 2 Years (Or More)
- Probably Only 3 – 4 Major Projects per Year
- Will All Flooding Issues be Resolved?
- Benefits only local in effect?
- Increased population density addressed?

Ottewell Dry Pond





Surface Ponding Depth



Water Consumption

- Residential Water Consumption has fallen 36% per account from 2002 – 2019 (EPCOR)
- Flooding risk reduced
- But higher population density will result in higher water volumes (more residential accounts)
- Water efficiencies will eventually bottom out.
- Flooding risk increases with time.

Recommendations

- Address Climate Change Risk of Flooding Through Smart Infill Zoning
- Restrict High Density Infill Development in High Risk Neighbourhoods
- Build Flood Prevention Projects First
- Consider High Risk Neighbourhoods to be the same as Flood Plains and plan accordingly
- Do not locate high density infills in areas with limited drainage capacity.