



# LID Monitoring Projects Meadows in the Glen

## Background

This project is the first Greenfield Low Impact Development subdivision in the Credit River Watershed, it is located in the Hamlet of Glen Williams in the Town of Halton Hills. The planned design for the Meadows in the Glen Subdivision includes LID measures such as, narrower road widths, porous pavement, street swales, rain gardens, bioretention, soak away pits, preservation of forests, and water and energy conservation measures, which will help to reduce the impact of the subdivision on the environment.

**Location:** Glen Williams, Town of Halton Hills

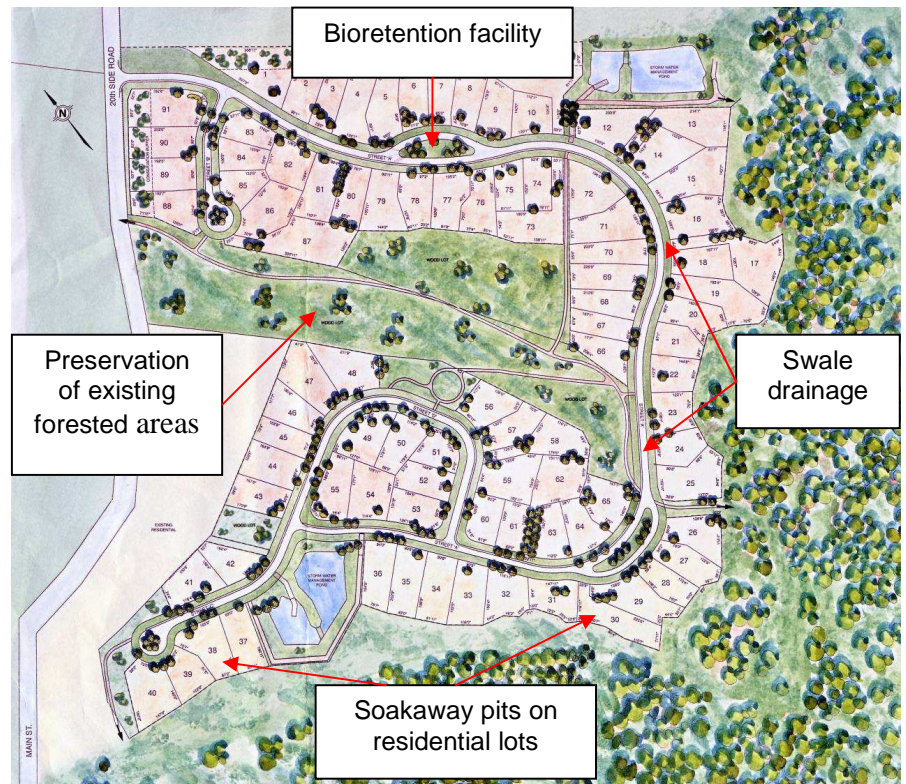
## LID Practices Implemented

### Residential lots:

- **Roof Soakaway pits** are underground infiltration galleries that allow roof runoff to infiltrate into the ground.
- **Rain gardens** are depressed areas designed with appropriate soils and vegetation to receive roof runoff and allow it to soak into the ground.
- **Permeable Pavement Driveways** allow water to soak into the joints between the paving stones and into the ground.

### Road allowance:

- **Swale drainage** reduces pollutant and sediment concentrations, and can have significant reduction time of flow to local creeks and storm drain systems. Open drainage also has the ability to reduce mosquito breeding areas through the reduction of areas with standing water (catch basins).
- **Biofilters** or bioretention cells are a stormwater management technique that uses the chemical, biological, and physical properties of plants and soils to treat stormwater runoff. They are designed to mimic natural conditions promoting infiltration, retention, and the slow release of stormwater runoff.





## LID Monitoring Projects

### Why are we Monitoring?

- We are evaluating the effectiveness of the various LID measures as a whole in reducing stormwater runoff, improving the quality of the stormwater runoff, and maintaining groundwater infiltration.
- We will also conduct a water balance on one of the stormwater ponds to determine if pond sizes can be reduced in developments that incorporate LID.

### What are we Monitoring?

- CVC is currently measuring the groundwater level in six wells located throughout the site with continuous water level loggers and taking groundwater samples twice per year.



- Once the development is complete, we will start measuring the water flow entering Stormwater Pond A and the flow exiting stormwater pond A and B using continuous level loggers and weirs. We will also take flow weighted water samples during precipitation events at these locations. In addition, we will be measuring water flow and conducting geomorphological monitoring along the small tributary to which Stormwater Pond A drains.

### When did monitoring begin?

- Groundwater monitoring started in January 2011.
- The remainder of the monitoring program will start once construction is finished and the site has had time to stabilize.

### Who are the Partners?

- Credit Valley Conservation, Intracorp Canada, The Town of Halton Hills, & The Ontario Ministry of the Environment.