

**DRAFT - Nov. 30, 2018**  
**Lakeshore Road Drainage Plan**

**Principles/ Common Law:**

1. All properties are entitled to an outlet for water drainage from their land.
2. No property owner may negatively impact their downstream neighbour via the conveyance of water from their land.

**Lakeshore Road Issues:**

- Water flows downhill.... from the west, east toward the Bay. All property owners benefit from efficient and effective drainage.
- Four (?) culverts were originally installed under the road to assist with conveyance of water from the west side of the road, to the east, with outlets to the Bay: 1. At Mills, 2. At Stevens (Davies), 3. At Rhodes, and 4. North of Flanakins.
- Originally, there was an open ditch along the west side of the road. In many cases this ditch has been filled in by each property owner and, in some cases, has impaired drainage as a result.
- Areas of immediate concern:
  1. Drainage from Stevens, Clements and Mills has inadequate outlet at the road and has caused flooding at Love's.
  2. Inadequate surface drainage at Mills (ditch has been filled in) has caused water ponding at the road's edge damaging the road through freeze/ thaw.
  3. The under road culvert at Mills needs replaced and lowered.
  4. The under road culvert at Stevens (Davies) needs to be replaced and possibly reconfigured (impacting Pugsley/ Dean).
  5. Surface drainage at Rhodes seems inadequate and should be directed to the existing culvert under Rhodes' driveway with a swale and catch basin to direct surface flow.

**Municipally Recommended Drainage Plan**

1. The open ditches along the west side of the road could be restored.
2. As an alternative, a subsurface tile (culvert) should be installed along the west side of the road (350mm). A surface level catch basin should be installed at each lot line. Under road culverts should be upgraded to plastic (and upsized in some cases). A surface swale should be created on top of the tile to direct surface water flow to catch basins.

**Costs**

- If this were a municipal road, each property owner would be financially responsible for designing and installing a drainage system to get water from their property to either a municipally installed and maintained roadside ditch or storm sewer. Property taxes would pay for the ditch and storm sewer.
- As a private road, we're responsible for it all.

The following cost allocation model is recommended:

1. The cost of designing and installing a drainage system to get water a) from an individual's property to the road's edge (for properties west of the road), or b) from the road and then east to the Bay (for properties east of the road), is the full responsibility of each property owner.
2. Under-road culverts will be 100% paid for by the Road Association.
3. The roadside conveyance of water through either an open ditch or sub-surface culvert with catch basins, for existing and known problem areas, will be paid 1/3 by the property owner and 2/3 by the Road Association. This recognizes that everyone benefits from an efficient and effective conveyance system. The identified problem areas and remedies were evaluated as of November 30, 2018 and include:

- A new catch basin and swale in front of Len Rhodes (1/3, 2/3 formula)
  - A new under-road culvert from Davie's to Dean/ Pugsley's (100% paid for by the road association)
  - A new open ditch to replace the problem culvert between Clement's and Mill's driveway (Note, as per the recommendation from the AGM the cost for this remedy will be paid 100% by the road association. Replacement of the culvert under Mill's driveway will be funded using the 1/3 landowner, 2/3 road association formula).
  - A new under-road culvert immediately north of Mill's driveway (100% paid for by the road association).
  - A new ditch/ culvert along the west side of the road at Gardner's (1/3, 2/3 formula).
4. New property development including structures, grading and landscaping can affect local drainage. It is the full responsibility of the property owner to ensure that proper and adequate drainage is included as part of this development, at the owner's expense.

