

## RETENTION POND | PUBLIC AWARENESS

Most new communities in Ontario require stormwater management and retention pond design. Morris Village has the first large retention pond in Rockland. This is a **public awareness** initiative explaining the purpose and function of a community stormwater management system and retention pond as well as environmental and safety concerns.

### STORMWATER MANAGEMENT

Good stormwater management design reduces the risk of **flooding homes** during major rainfall and snow melt events. The system utilizes engineering design that drains stormwater in a controlled manner. It diverts runoff to the retention pond where it can be treated for quality prior to being released into the natural environment.



### POND



Retention pond design helps control stormwater **quantity** (prevent flooding) and stormwater **quality** (reduce pollution). Runoff is diverted by catch basins and pipes into the retention pond. The pond slows the flow allowing sediments to settle to the bottom before releasing treated water into the local water course.

### PUBLIC SAFETY

Pond sediments contain road salt and other compounds. Water levels are unpredictable and fluctuate with weather conditions resulting in unreliable and unsafe ice conditions. Retention ponds are **not suitable for walking or skating**. The public should keep off the pond in all seasons.

The first section of a wet pond has graduated side slopes before abruptly descending into **deeper water**. Pond water should be avoided.





## LANDSCAPE DESIGN

Site-specific pond landscape design defines the visual character of the facility and contributes to functional performance in terms of operation and maintenance, public safety, contaminant removal and other environmental benefits.

Stormwater management ponds are constructed. They are not natural. They can be landscaped to appear natural and are often used as habitat by wildlife. Pond landscape design mimics natural ponds without the need of manicured landscaping except for pathways. Landscaping helps stabilize shoreline, creates barriers to public access and helps provide wildlife habitat.

Pond landscaping intercepts rainfall and airborne pollutants, filters out coarse sediments, traps and accumulates floatables, impedes colonization by undesirable invasive species and helps conceal structures and fencing. Most ponds include design features that maintain water movement reducing the risk of mosquito breeding.

## MAINTENANCE

After the retention pond is constructed and transferred, the City becomes responsible for maintenance. Proper maintenance includes sediment accumulation monitoring and removal to ensure flood protection capacity and water quality control continues.

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