

Issues facing ravine properties

Toronto ravine properties with property lines extending into conservation areas have complex conditions with obvious effects on the greater ravine. Subtle factors relating to storm water and plant material can also contribute greatly to the health of the overall watershed. This brief diagrammatic document will illustrate some of the common conditions and solutions that can affect the value of your property and the health of the ravine in your backyard.

These conditions and solutions illustrated here in are not an accurate representation of any one specific property and are meant to inform home owners about current issues that may affect their property as well as the larger ravine system. Contact your local residents' association and/or the City of Toronto and visit the Toronto and Region Conservation Authority's website for more information. It is recommended that property owners contact a professional consultant to review and assess their property.

Ravine vegetation

Dense canopy of invasive Norway Maple dominate and block light to understory before native plants "leaf-out" in spring.

Dead native ash and elm trees from disease or infestation stop holding soil in place as roots/stumps decompose.

Yard waste dumped in ravine suffocates understory and spreads non-native invasive plants.

Front Yard

Downspouts drain to storm water system, causing basement flooding and creek level surges downstream.

Paved driveway and turf lawns slope to street and do not infiltrate water into the ground.

Back Yard

Lawn and paved areas draining into ravine and down bare slope cause erosion and increase levels of water in the creek.

Pools are drained into storm water system or into ravine. Pool water contains chemicals that are harmful to plants and aquatic wildlife.

Flooding washes out path. Users walk around wet areas and wear down wider areas on edges.

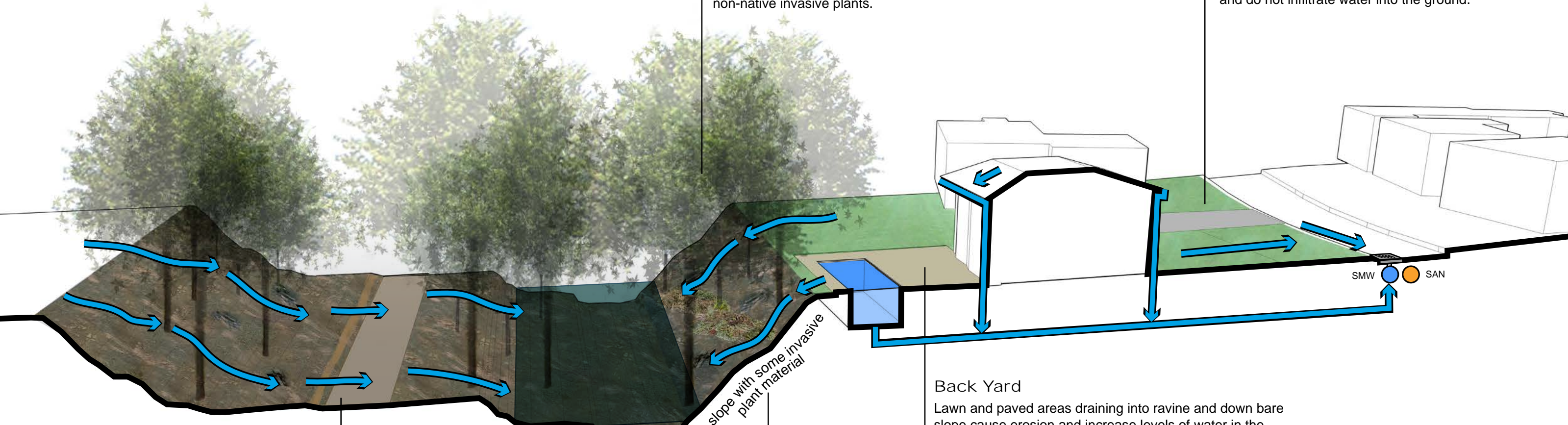
Ravine Slope

Creek surges as water from property above flows down during storms. River then widens and erodes bank.

Many areas have stormwater pipes emptying into the creek. Limiting the amount of water that enters the storm water system will reduce the level of the creek during storms.

Bare slope with some invasive plant material

SMW SAN



Solutions for healthy ravine properties

The principle of infiltrating storm water is a simple one: if every drop of rain soaked into the ground at the location where it fell, rather than drain to the lowest point in the area, there would be almost no flooding. A healthy ravine slope covered in native plant material is very good at slowing down the flow of water, absorbing runoff into the ground, and holding soil on the slope in place.

Invasive plant material has the ability to dominate local, native plant material. When this happens, a diverse system of plants that supports wildlife and retains soil is lost. The dominance of invasive plant species throughout our ravine systems is a problem that everyone must address together as the spread of invasive seeds extends across property lines and boundaries. Collective cooperation between land owners will ensure that invasive species are eradicated from the area.

The solutions illustrated on this page are typical solutions that do not address any specific property. The suggestions are meant to inform home owners about property improvements that will positively impact the larger ravine system. Contact your local residents' association and/or the City of Toronto and visit the Toronto and Region Conservation Authority's website for more information. It is recommended that property owners contact a professional consultant to review and assess their property.

Ravine slope

- Retain and protect native trees and understory vegetation.
- Remove invasive trees to allow sunlight to understory.
- Remove invasive understory vegetation.
- Plant a new native understory of ground covers, shrubs and trees.
- Use logs from cut trees to stabilize the soil and create habitat.

Front Yard

- Downspouts drain to a permeable landscape.
- Planting beds, permeable pavements and below ground infiltration chambers or soak-away pits can all reduce storm water from entering the storm system (SMW).
- Raised grade at street where possible.
- Yard waste for City pick-up or use to make compost.
- Irrigation systems that employ efficient driplines, rain sensors and timers can keep your plant material healthy while reducing water use.

Back Yard

- Pool water contains chemicals, drain to sanitary system (SAN).
- Ensure structures at edge of ravine are structurally sound and footings are not subject to or causing erosion.
- Raise grades at top of ravine where possible.
- Add gardens that infiltrate water.
- Create habitat and food for pollinators - bees and butterflies.

