



A PROPERTY OWNER'S GUIDE TO **HEALTHY RAVINES**



Photo credit: Matt Forsythe

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No other city has a ravine system like Toronto's

Toronto's astounding network of ravines is among the largest in the world. It is the heart and soul of a remarkable natural environment system that spills out of the river valleys into the city's parks, neighbourhoods and urban landscape.

Ravines connect the Oak Ridges Moraine north of Toronto to the shores of Lake Ontario, carrying water, wildlife and people through Ontario's most densely urbanized area. They also connect us with the city's rich history and Indigenous heritage. Once seen as the biggest challenge to Toronto's growth, these corridors of "disordered nature" are now treasured as some of its greatest assets.

Cutting across the whole city, Toronto's ravines intersect with a diverse array of cultures and communities. Rich in natural character and biodiversity, they provide many ecological benefits and are a cherished escape from the fast pace of urban life.

We are all guardians of the ravines and must treat them with care and respect. As a ravine property owner, you have an important role to play in the health and sustainability of these natural spaces. This guide provides an overview of best practices for managing and getting the most out of your ravine property. Thank you for your partnership in working to create a healthy and robust ravine system that will function and flourish for years to come.

Did You Know?

Toronto's ravines have inspired the likes of:

Anne Michaels
Michael Ondaatje
Atom Egoyan
Margaret Atwood
Robert Bateman

87% of Toronto's
Significant Areas (ESAs)
Environmentally
are found in ravines



17% of Toronto's land
area or about

11,000 ha is protected
under the Ravine
and Natural Feature Protection Bylaw (RNFP).



Of this area, approximately

60% consists of publically-owned
lands and

40% is private lands,
including about

30,000 private
addresses

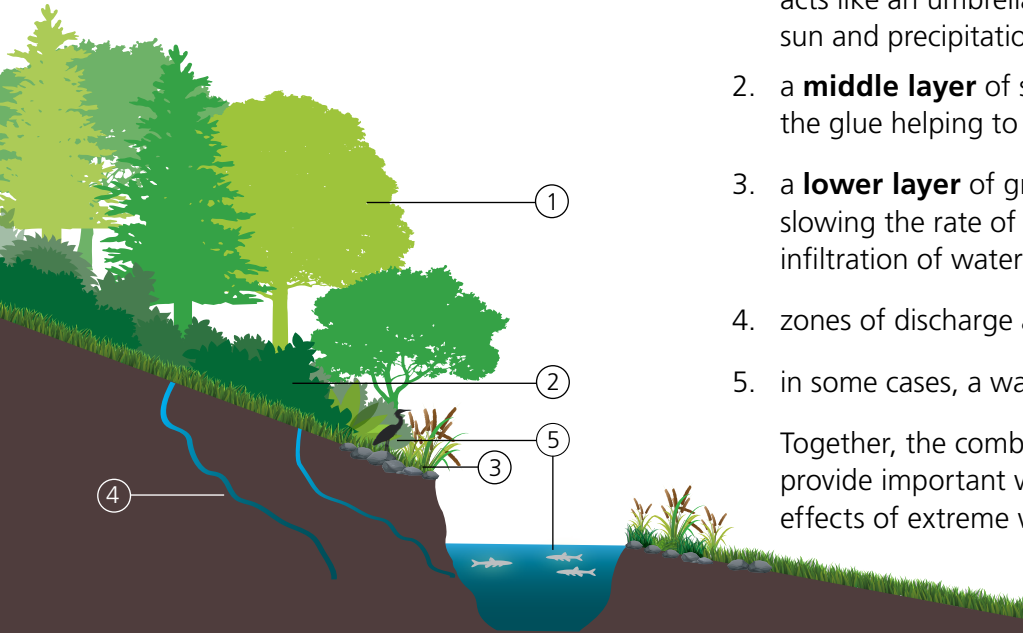


Layers of a Ravine

Ravines are complex ecological systems made up of several important layers:

1. an upper **canopy** of deciduous and coniferous trees acts like an umbrella protecting the forest floor from sun and precipitation
2. a **middle layer** of shrubs and other plants act like the glue helping to maintain slope stability
3. a **lower layer** of ground cover absorbs shock, slowing the rate of runoff and increasing ground infiltration of water
4. zones of discharge and recharge of groundwater
5. in some cases, a watercourse and aquatic habitat

Together, the combined layers of vegetation also provide important wildlife habitat and regulate the effects of extreme weather.



Benefits of Having a Ravine Property

- improves health, well-being and quality of life
- decreases heating and cooling costs
- provides aesthetic value, improves air quality and buffers wind and noise
- increases property value
- reduces temperature, humidity, precipitation, and stormwater runoff
- improves local soil and surface water quality

Characteristics of a Healthy Ravine

Healthy ravines have:

- a diversity of native species of trees, shrubs, and plants
- healthy trees
- large, old trees as well as smaller, young trees
- natural vegetation including trees and shrubs that extend past the top of bank onto the tableland (flat land)
- both large and small dead tree stems and branches on the ground known as woody debris, plus dried leaves from past growing seasons, known as leaf litter
- some standing dead trees that serve as wildlife habitat
- stable slopes
- structures that are set back from its edge
- no evidence of dumping or piles of debris, including yard waste



Photo credits: Matt Forsythe

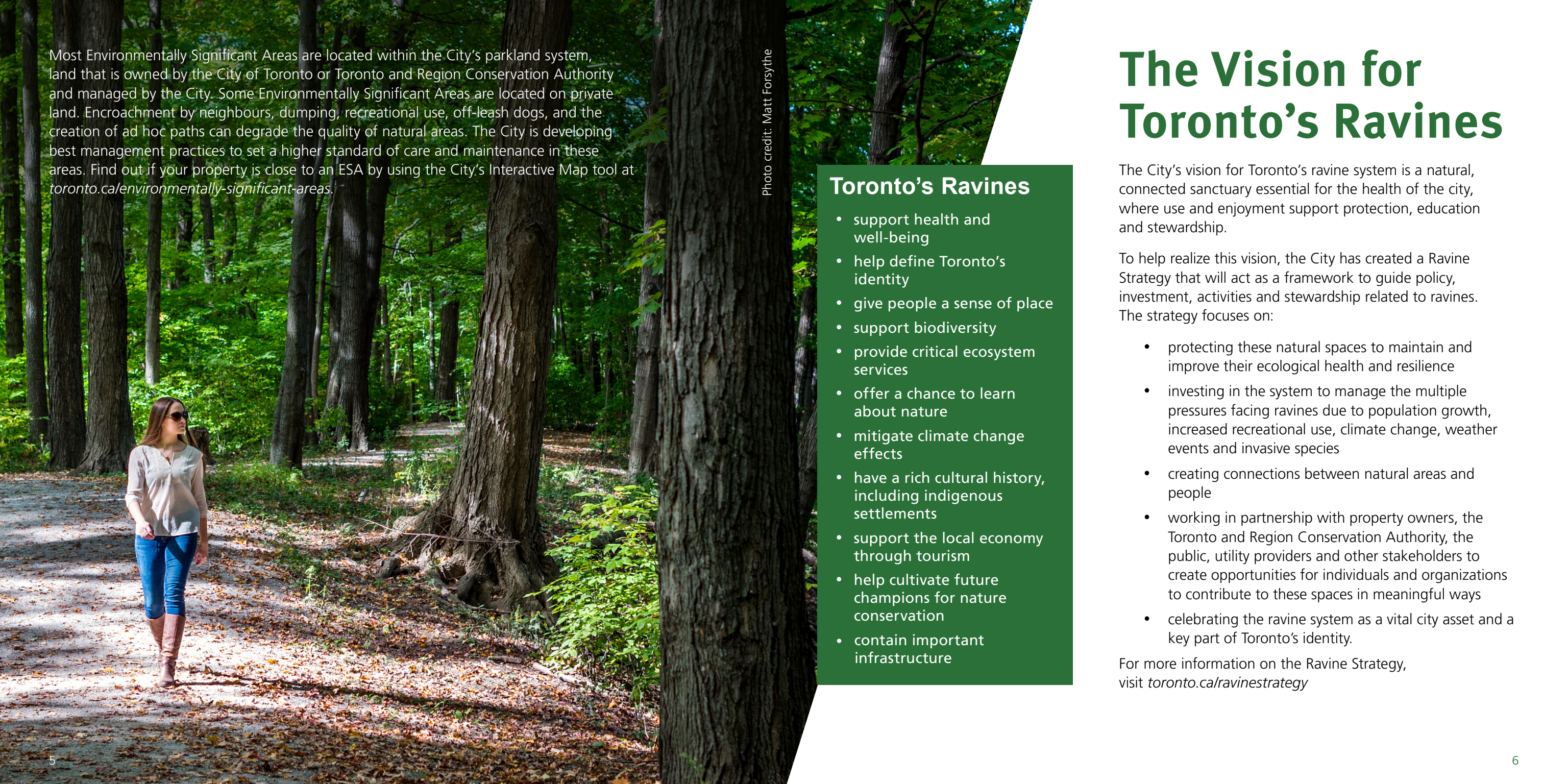
The photo on the left shows a healthy ravine system. Notice the naturally-deposited woody debris and leaf litter as well as the gentle slope of the ravine edge.

By comparison, the photo on the right shows an overly steep slope, few plants in the understory (ground level) and leaning trees that indicate slope instability, and exposed roots due to erosion of the soil.

Environmentally Significant Areas

Environmentally Significant Areas (ESAs) are spaces within Toronto's natural heritage system that require special protection and care to preserve their environmentally significant qualities. Each Environmentally Significant Area has one or more of the following qualities:

- they are home to rare or endangered plants or animals
- they are large, diverse and relatively undisturbed, which many plants and animals need to survive and reproduce
- they contain rare, unusual or high quality landforms that help us understand how Toronto's landscape formed
- they provide important ecological functions that contribute to the health of ecosystems beyond their boundaries, such as serving as a stopover location for migratory wildlife



Most Environmentally Significant Areas are located within the City's parkland system, land that is owned by the City of Toronto or Toronto and Region Conservation Authority and managed by the City. Some Environmentally Significant Areas are located on private land. Encroachment by neighbours, dumping, recreational use, off-leash dogs, and the creation of ad hoc paths can degrade the quality of natural areas. The City is developing best management practices to set a higher standard of care and maintenance in these areas. Find out if your property is close to an ESA by using the City's Interactive Map tool at toronto.ca/environmentally-significant-areas.

Photo credit: Matt Forsythe

Toronto's Ravines

- support health and well-being
- help define Toronto's identity
- give people a sense of place
- support biodiversity
- provide critical ecosystem services
- offer a chance to learn about nature
- mitigate climate change effects
- have a rich cultural history, including indigenous settlements
- support the local economy through tourism
- help cultivate future champions for nature conservation
- contain important infrastructure

The Vision for Toronto's Ravines

The City's vision for Toronto's ravine system is a natural, connected sanctuary essential for the health of the city, where use and enjoyment support protection, education and stewardship.

To help realize this vision, the City has created a Ravine Strategy that will act as a framework to guide policy, investment, activities and stewardship related to ravines. The strategy focuses on:

- protecting these natural spaces to maintain and improve their ecological health and resilience
- investing in the system to manage the multiple pressures facing ravines due to population growth, increased recreational use, climate change, weather events and invasive species
- creating connections between natural areas and people
- working in partnership with property owners, the Toronto and Region Conservation Authority, the public, utility providers and other stakeholders to create opportunities for individuals and organizations to contribute to these spaces in meaningful ways
- celebrating the ravine system as a vital city asset and a key part of Toronto's identity.

For more information on the Ravine Strategy, visit toronto.ca/ravinestrategy



The City's Role

The City of Toronto has several important roles when it comes to managing Toronto's ravines. It acts as a:

- **land manager and custodian** responsible for maintaining all public ravine property – owned by the City and the Toronto and Region Conservation Authority (TRCA) – and the infrastructure and facilities within it
- **regulator and protector of ravines** through the Ravine and Natural Feature Protection Bylaw

Understanding the Ravine and Natural Feature Protection Bylaw

The Ravine and Natural Feature Protection Bylaw applies to private and public natural areas in the City of Toronto and aims to protect, manage and conserve ravines, slopes and natural features. The bylaw applies to all trees, regardless of size or species. The geographic limits of the area covered by the Ravine and Natural Feature Protection Bylaw are based on natural features and topography, not property lines. Some properties may have one part, for example the backyard, covered by the Ravine and Natural Feature Protection Bylaw, and another, for example the front yard, covered by the Private Tree Bylaw.

Any activity that could lead to tree injury or destruction or any alteration to the grade of your property needs to be reviewed and authorized by the City's Urban Forestry department. This includes:

- tree removal or injury (i.e. disturbance within a tree's minimum tree protection zone)
- vegetation removal
- digging, drilling, trenching, regrading, placing or compacting fill
- storing or stockpiling excavated soil or fill
- constructing new or altering existing permanent or temporary buildings or structures
- constructing new or altering existing accessory structures including decks, pools, sheds, and retaining walls
- installing driveways, parking pads, walkways or trails
- installing large stones or boulders

Every property is unique. If you are planning changes to your property, please contact Urban Forestry at the City of Toronto. More information, including specifications for construction near trees, the bylaws and details of the permit process can be found at toronto.ca/trees/ravines.

The Role of the Toronto and Region Conservation Authority (TRCA)

Toronto and Region Conservation (TRCA) is empowered by the Province under Section 28 of the Conservation Authorities Act to administer Ontario Regulation 166/06, which is a natural hazard-based regulation that also aims to conserve natural lands and natural features. The geographic area covered by the City's Ravine and Natural Feature Protection Bylaw overlaps in many areas with the TRCA Regulation which affects:

- watercourses
- river or stream valley systems, including adjacent tableland (flat land)
- lake Ontario shoreline
- wetlands
- areas of interference around wetlands

Regulated activities include:

- development (construction and reconstruction, change of use to a building, site grading, temporary or permanent placement or removal of fill)
- interference with a wetland or its area of influence
- alteration to the Lake Ontario shoreline
- alteration to a watercourse

The TRCA, through its Planning and Development Division, regulates development in valley and stream corridors, wetlands and along the Lake Ontario shoreline. The TRCA reviews and comments on development proposals and planning applications that are within or near these areas. In carrying out these responsibilities, the focus is on preventing, eliminating or reducing the risk to life and property from flooding, erosion and slope instability and, at the same time, encouraging the protection and enhancement of our natural systems.



In addition, TRCA's Community Engagement Program offers homeowner workshops on various topics. Their homeowners' guide entitled *Greening Your Grounds* is available by request.

Maps showing the extent of the Ravine and Natural Feature Bylaw and the TRCA Regulation are available online at toronto.ca/interactive-toronto-map.

If a Property Is Within TRCA's Regulated Area:

- TRCA requirements take precedence over the City of Toronto requirements
- TRCA permits are required prior to a City building permit being issued
- City and TRCA staff work together to ensure a coordinated review process that considers both City and TRCA requirements

If a Property Is Outside of TRCA's Regulated Area:

- where the property is outside of the TRCA regulated area, the City of Toronto Ravine and Natural Feature Protection Bylaw and other City tree bylaws apply
- TRCA is not involved in the review unless formally requested to be involved
- the City's Ravine and Natural Feature Bylaw regulates alterations of grade

For ravine property owners, it is important to know that TRCA's Regulated Areas are determined by site-specific conditions, plus a prescribed allowance, as set out in the Conservation Authorities Act. For more information, visit TRCA's Planning and Development web pages at trca.ca/planning-permits.

What can I do as a Ravine Property Owner?

Just by caring for your home and yard, you can help the City create a ravine system that will function and flourish for years to come. Maintaining your yard and property with the ravine in mind can contribute to a healthier and more livable community for you, your family and your neighbours.

Above: Terracing on a ravine property to stabilize the slope

Important Guidelines for Ravine Property Owners

One of the most important ways to maintain a healthy ravine is to prevent erosion. Erosion is a threat to the ecological integrity of the landscape and a hazard for ravine property owners. Ravines erode due to various forces: natural processes like water drainage, soil movement, wind, and freeze/thaw cycles. Human activities can also cause erosion such as improperly altering the slope through construction activities, removing trees and vegetation, poorly constructed water drainage, or outletting swimming pool water directly onto a slope.

Here's what you can do to maintain a healthy ravine and prevent erosion:

- practice good management by minimizing disturbance adjacent to and on ravine slopes and planting large growing native tree species, plus native shrubs and forest plants, appropriate to your ravine
- control invasive plants
- monitor forest health
- ensure and maintain proper setbacks from the edge of the ravine
- be a good neighbour – realize that your actions affect the property owners beside you, and below you

Practice Good Water Management

As a ravine property owner, one of the most important steps you can take to reduce erosion is following good water management practices.

Control surface water runoff

Controlling water runoff on ravine properties is critical. Roofs, driveways, patios and other hard surfaces force water to run off into storm drains, ditches and, unless properly managed, down the side of the ravine. Slope patios and driveways toward the street and away from the ravine. Downspouts should be connected to rain gardens or directed to flat areas of a yard, rather than down a slope through a weeping tile (e.g. a porous pipe used for underground water collection or discharge). Disconnecting downspout(s) from the sewer system is required under City of Toronto Municipal Code, Chapter 681. It can reduce the risk of basement flooding and release of polluted rainwater into our local waterways.

Learn more at toronto.ca/downspout.

A build-up of water in the soil can weaken the slope and cause it to fail. While it is important for water to infiltrate the soil, the rate of infiltration should be moderate – not too much and

not too fast. Divert water away from the top or on the sides of ravines slopes. Do not drain chlorinated water from swimming pools into ravines and repair pool leaks as soon as possible.

Water your lawn and garden appropriately

Operate sprinkler systems manually. Automatic sprinklers can cause sheeting of water on ravine slopes. When you are watering your garden, consider using a soaker hose. A soaker hose is like a garden hose but porous. The water leaks out slowly from small holes in the hose when it is turned on, thereby allowing water to soak slowly in around plants and soil.

You may want to attach a soaker hose to your rain barrel for effective watering. You can also consider drip irrigation. Drip irrigation provides water at exact intervals and allows you to determine where water goes and at what speed and concentration.

Create a natural filter for rainwater

One of the most basic methods of managing runoff beside a ravine is to stop mowing up to the ravine edge. Plants within 3 meters or more of the top of any ravine can help stabilize soil and absorb excess water and sediments. Uncut grass acts as a natural filter. The best method for managing runoff is to extend the natural forest cover to create garden beds with appropriate native plants along the ravine edge and on to the flat area (tableland) of your property.

Create a rain garden

As a private landowner, you may wish to consider planting a rain garden – a depression in your yard that would absorb rain water from hard surfaces. Rain gardens can be planted with native species that thrive in wet conditions and some evidence has shown that rain gardens can reduce the amount of water flowing over land by as much as 30 per cent.

Additional information about low impact stormwater management and design can be found at:
trca.ca/get-involved/healthy-yards-program/#resources

Did You Know?

Your pool or hot tub water contains chemicals such as chlorine or bromine and copper-based algaecides. Emptying your pool water is regulated under the City of Toronto's Sewer Bylaw. Pool water should be disposed of via a sanitary sewer connection. It should not flow down the side of the ravine or onto another person's property.

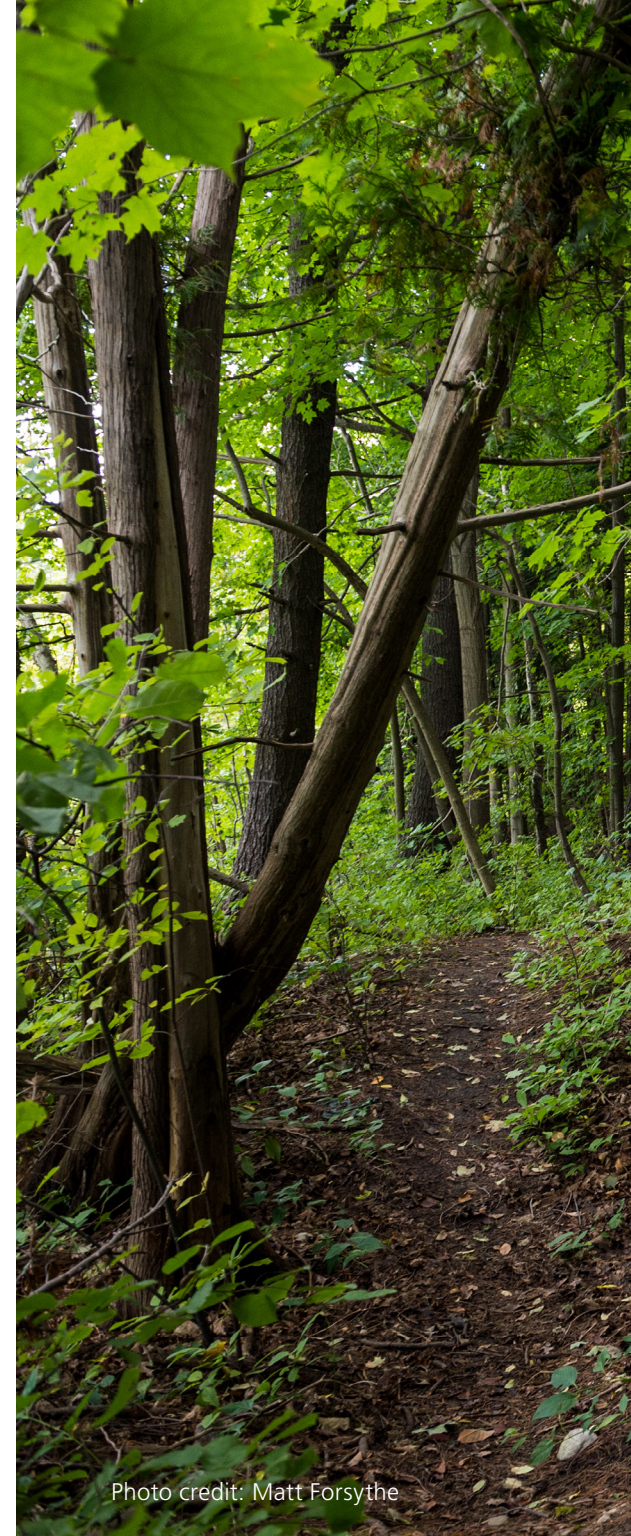


Photo credit: Matt Forsythe

Practice Good Land Management

Dispose of yard waste properly

Avoid throwing compost, leaves, gardening debris or garbage into the ravine. Instead, yard waste should be disposed through the City of Toronto's collection or in your backyard composter, with the exception of invasive species. Dispose of invasive species in black garbage bags to avoid spreading seed.

Material dumped or piled in ravines, including yard waste, can smother natural vegetation, spread invasive plants, prevent rain water from soaking into the ground, and affect the natural drainage on the slope. It can also smother tree roots, which are vital to the stability of the slope as well as the health of the tree. Forests have a natural cycle of leaf and woody debris decomposition that is disrupted when outside material is added.

Keep your trees healthy

Maintaining the existing trees on your property is one of the most important factors in good land management. This can include:

- using proper pruning techniques
- ensuring there is enough room for trees to grow, particularly underground space for roots
- protecting trees and root systems from physical damage
- monitoring trees for pests and disease
- following proper watering practices

A certified arborist can offer professional assistance in helping you to maintain your trees.

Minimize Disturbances

Avoid disturbance around ravine slopes. Any excavation or addition of soil or fill can lead to destabilization of slopes, drainage issues, and the spread of invasive species if not done properly. This includes removing tree stumps, because their root systems help to hold the soil in place. If a tree dies or requires removal, cut the trunk above the base, leaving the stump in place to preserve stability. Leaving as much of the trunk as possible is also beneficial for wildlife habitat.

Plant Native Species

Native plants offer many benefits. Trees, shrubs, grasses and perennials are attractive, low maintenance and effective natural filters. Because of their deep root systems, native plants help stabilize the slope which can reduce erosion. Native plants also conserve water, provide important benefits to local wildlife and pollinator species, and promote overall ecological health.

Looking for information on what to plant?

The Ontario Invasive Plant Council has developed a *Grow Me Instead* publication that provides detailed information on various types of non-invasive plants for your garden: ontarioinvasiveplants.ca/resources/grow-me-instead

Remember to plant along the top of the bank to create a natural buffer for the slope. Purchase native plants from reputable suppliers that do not collect plants from the wild.

Opposite page

A: invasive dog-strangling vine (*Vincetoxicum rossicum* and *V. nigrum*) invading a ravine

B: goutweed (*Aegopodium podagraria*) invading a ravine

C. naturalizing a ravine lot

D. an unnaturalized ravine lot

Did you know?

Many garden centres sell invasive species that can escape from gardens into ravines and natural areas. Choose native vegetation where possible to prevent erosion, improve habitat quality and support wildlife. For more information see the Ontario Invasive Plant Council's *Grow Me Instead* guide for help choosing native and non-native plant alternatives found to be non-invasive in Ontario.



Control Invasive Plants

Invasive plants have led to a considerable loss of biodiversity locally and globally. Increasing human impacts, such as pollution, development, soil compaction and erosion, cause the deterioration of natural habitats. Invasive plants are able to take advantage of these disturbed areas while out-competing native vegetation.

Invasive plants should be controlled to reduce competition to restored areas and prevent spread into natural areas. Control methods for invasive plants are selected for individual species based on their growth habits (see table on pages 17 and 18) and to minimize the amount of disturbance or harm to the environment.

Most species should be targeted at the time of flowering to help deplete plants' resources and prevent seeding. Care should be taken to properly dispose of any material that may contain seeds. If you are disposing of invasive plants, place them in a garbage bag and dispose through City garbage collection. Do not compost the flowers or seeds of invasive plants as seeds can remain viable long after the main plant has been pulled.




Landowners can use manual methods of control if the invasive infestations are relatively small and newly established. Manual methods include cutting, pulling, digging, smothering with mulch or black plastic for a year, and girdling. Larger infestations may require herbicide treatment and contracting this work to a landscape company or licensed exterminator.



Under certain conditions, removal of invasive trees may be recommended to allow replanting with a more diverse mix of tree, shrub and herbaceous species that will support greater slope stability. Reviewing the existing tree cover and vegetation on your property with a professional can help you identify whether invasive plants such as Norway maple are present. A permit for removal must be obtained under the appropriate tree protection bylaw (toronto.ca/trees/ravines).

Learn to identify and manage invasive plants on your property. Detailed information on controlling invasive woodland plants can be found in resources produced by the Ontario Invasive Plant Council, such as *The Landowner's Guide to Controlling Invasive Woodland Plants*.



Common invasive species in Toronto’s ravines:

Species	How To Control It
 <p>Common buckthorn (<i>Rhamnus cathartica</i>)</p> <p>Common buckthorn is a drought and shade tolerant shrub and can grow in a variety of habitats. Once established, it can spread very quickly, creating a thick cover that will shade out native plants.</p>	<p>Control depends on size. Smaller plants can be hand-pulled or dug up using a shovel. Remove the entire root to prevent re-sprouting. For larger plants, use shears or a saw to cut the stem close to ground level. Re-sprouts must be cut as necessary. Herbicide can also be applied by a licensed exterminator to freshly cut stumps.</p>
 <p>Dog-strangling vine (<i>Vincetoxicum rossicum</i>)</p> <p>Dog-strangling vine, a perennial herb, can grow up to 1-2 m in height by wrapping around trees and other plants. They tend to twine around each other forming dense colonies that appear to ‘strangle’ other plants and small trees and overwhelm ground vegetation.</p>	<p>Small infestations can be dug up ensuring the entire root is removed. Hand pulling is not effective, as the plants will snap at the root crown and the roots will re-sprout if left intact. Target the plant in June through August when it is in full flower and before it goes to seed. Cut resprouts as necessary. Large-scale infestations may require multiple herbicide treatments by a licensed exterminator.</p>
 <p>Garlic mustard (<i>Allaria petiolata</i>)</p> <p>Garlic mustard, a biennial herb, grows in upland and floodplain forests, savannas, yards, and along roadsides. It thrives in shady conditions but can be found in full sun and occurs in a variety of soils. Once established, it doubles in size every four years.</p>	<p>Cut or hand-pull each stalk at ground level April to May before the seed sets. Remove the root and any stems from the area. Larger populations can be mown or cut after flowering and before seed production. Efforts may need to continue for several years until the seed bank is exhausted. Infestations may also be treated with herbicide by a licensed exterminator.</p>

Species	How To Control It
 <p>Goutweed (<i>Aegopodium podagraria</i>)</p> <p>Goutweed, a perennial herb, is found in gardens and ravines throughout North America. It tolerates a wide range of soil, is highly shade tolerant, and competitive once established.</p>	<p>Small patches can be controlled by digging up the plant ensuring the entire root is removed or covering with a tarp or weed barrier for at least one growing season. Target plant in May and June, when it is in flower. Infestations may also be treated with herbicide by a licensed exterminator.</p>
 <p>Norway maple (<i>Acer platanoides</i>)</p> <p>Norway maple is a medium to large-sized deciduous tree that can be distinguished easily from other maples because the leaves and twigs ooze milky sap when cut or torn. It is a fast-growing species that can adapt to a variety of growing conditions. Because of its ability to grow in deep shade, it is particularly threatening to native forest habitats and prevents native understory species from growing leading to soil erosion.</p>	<p>A permit for removal of a tree of any size and species on protected land must be obtained under the appropriate tree protection bylaw (toronto.ca/trees/ravines). Norway maple seedlings may be dug out of the ground. Cut small saplings at the base using hand pruners or loppers. Small to medium-sized trunks can be girdled. Girdling is when a band (at least 3” wide) is cut into the heartwood around the stem of the plant to prevent wound closure and the recovery of the tree. Herbicide can also be applied by a licensed exterminator to freshly cut stumps.</p>

Did you know?

Moving infested material, including nursery stock, trees, leaves, logs, lumber, wood, wood chips and bark chips out of Toronto is prohibited without a permit from the Canadian Food Inspection Agency. This helps prevent the spread of invasive pests to the rest of Ontario and Canada.

Monitor Forest Health

Some insects and diseases have the potential to cause significant damage to the natural environment and the economy. If not managed effectively, they can spread rapidly, threatening native species and biodiversity.

Emerald ash borer, Asian long-horned beetle, European gypsy moth and Dutch elm disease are examples of current threats. Urban Forestry continues to develop and implement specific management programs for current forest health threats to mitigate their negative impact on Toronto's urban forest.

Signs that your trees and shrubs may need to be inspected:

- yellowing of foliage
- sprouting branches from the base of the stem
- dead branches
- heavy seed production
- thinning crown
- bark cracks or deformities

Learn more about Toronto's forest insects, diseases and threats at toronto.ca/forest-management.

A. an ash trees treated with a pesticide for emerald ash borer
B. an ash tree infested with emerald ash borer

Did you know?

- A 10 metre tree, properly situated, can reduce annual heating and cooling costs of a typical home between 8 and 12%.
- A mature tree canopy reduces air temperatures by about 2-4%.
- Shrubs and trees provide habitat, shade and promote the absorption of rainwater.
- Planting trees, shrubs, grasses and perennials is a simple but effective way of improving the health of the ravine watershed. The type of planting is important too. Native species are the best choice because they are adapted to our local climate and perform well with minimal care.

Photo credit: Matt Forsythe

Maintain Proper Setbacks from the Edge of the Ravine

The City's Official Plan requires that any development in or near a ravine be set back from the top of the ravine bank to mitigate slope failure, erosion, flooding, or other hazards. On properties where TRCA's regulation applies, they are responsible for controlling setbacks from the top of slope. Where those regulations do not apply, the City controls setbacks under the Ravine and Natural Feature Protection Bylaw.

Property owners should ensure that there is sufficient erosion protection in the form of grasses and shrubs even if structures are situated well back from a slope. Take care to ensure that any additions, decks or backyard swimming pools do not weaken the roots of existing vegetation or place new pressures on the slope. Consult a professional to plan any construction in ravine areas and ensure approvals are in place for the Ravine and Natural Feature Bylaw and TRCA Regulations prior to starting. For more information see trca.ca/planning-permits/ and toronto.ca/trees/ravines.

Be a Good Neighbour

Keep in mind that what happens on your ravine property can affect neighbours beside and below you. When in doubt, hire a professional to help you maintain a stable slope on your property.

A. improper disposal of yard waste
B. tilting infrastructure due to erosion
C. improper disposal of yard waste
D. improper setback. Erosion and waste dumping

Slope failure can be caused by:

- construction activities such as excavation and filling of slopes
- exceeding the natural angle of the ravine by over-steepening the slope
- altering the bottom of the slope
- loss or removal of vegetation on the slope and at the top of the slope
- erosion
- rainfall and major storm events
- improper water management
- improper land management
- building too close to the edge of the slope
- geological factors like underlying bedrock type

Be Aware and Beware – Early Warning Signs of Slope Failure

- tilting or cracking of concrete floors, foundations
- separation of joints on built structures
- tilting decks, patios
- accessory structures moving in relation to the main house
- leaning trees, retaining walls or fences
- soil moving away from foundations
- new cracks or unusual bulges in the ground
- springs, seeps or saturated ground in areas that have not typically been wet in the past



Photo credit: Matt Forsythe

Some early warning signs include eroded soil, exposed roots, and a lack of understory vegetation (left) and tilting or slumping infrastructure (right).

I am Doing Work on My Property - Who Can Help Me?

Consult with City and TRCA staff when considering alterations or construction affecting a ravine. Experts and professionals can also provide:

- information on addressing slope-related stability and/or erosion
- advice on maintaining trees, including proper pruning
- guidance on planting trees, shrubs and herbs
- reports (e.g. arborist reports, site plans, engineered drawings etc.)
- advice related to development or planning

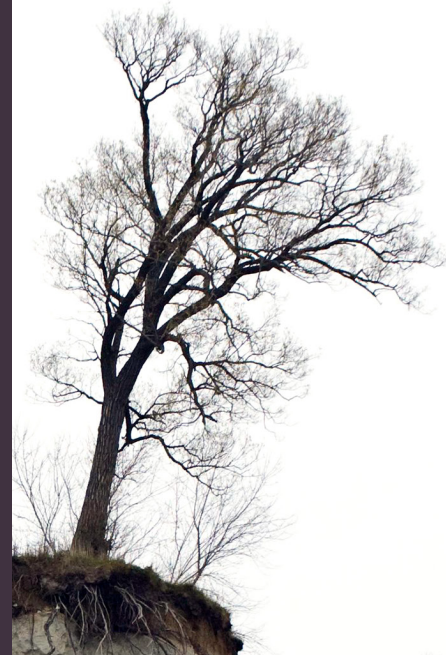


Photo credit: Matt Forsythe

While the City does not recommend the services of specific contractors, the following is a list of professionals that may be of interest:

Specialist	Specialty/Area of Focus	How They Can Help	Certifying Bodies/ Accrediting Organizations
Arborist	Knowledge of tree biology and physiology and experience in arboriculture – the cultivation, management and study of individual trees.	Plan and undertake maintenance of individual trees and groups of trees. Offer advice to protect trees during construction.	Arborists can be accredited under the International Society of Arboriculture and the American Society of Consulting Arborists, or qualified by the Ontario Training and Adjustment Board Apprenticeship and Client Services Branch.
Landscape Professional	Can include gardeners, landscape designers, landscape architects, invasive plant management professionals and licensed pesticide exterminators.	Assist with design, installation, and maintenance of vegetation. However, not all are experienced with ravine vegetation, so it is important to assess their level of knowledge and experience in these unique landscapes.	Landscape architects are accredited by the Ontario Association of Landscape Architects.
Native Plant Nurseries	A source for native plants and shrubs appropriate to your ravine.	Identify specific native plants based on the local conditions. Other resources for information on native plants include: <ul style="list-style-type: none">• The North American Native Plant Society• the Ontario Society for Ecological Restoration	

Specialist	Specialty/Area of Focus	How They Can Help	Certifying Bodies/ Accrediting Organizations
Professional Engineer	There are many fields of engineering, including, but not limited to civil engineering, environmental engineering and structural engineering.	Develop plans for slope assessment and stability.	Professional Engineers Ontario (PEO) represents the engineering profession and governs its licensing and regulated practice. PEO establishes educational experience and other requirements for licensing. Only a PEO Certificate of Authorization holder can offer or provide engineering services to the public.
Registered Professional Forester	Knowledge of forest management. Advice on when, where and how to reforest areas and protect other forest values (e.g. fish, wildlife, water).	Can address larger forestry systems and provide woodland restoration and maintenance plans for areas with trees.	The Ontario Professional Foresters Association is responsible for licensing and regulating the practice of professional forestry in Ontario in accordance with the Ontario Professional Foresters Act 2000.
Registered Professional Planner	Knowledge of applicable legislation, zoning, policies and regulation/ permit requirements for site alteration and construction/development.	Advise and assist with development or construction of property by navigating re-zoning, site plans and other municipal processes and procedures.	Professional Planners are members of the Ontario Professional Planners Institute (OPPI) or the Canadian Institute of Planners (CIP).



Disclaimer: This Guide contains general information and is not meant to be specific to any particular house, property or area. The City of Toronto will not be responsible or liable for any loss incurred as a result of any individual relying on information contained in this document. Property owners are advised to retain the services of a qualified professional to determine any action that may be required on their properties.



toronto at your service