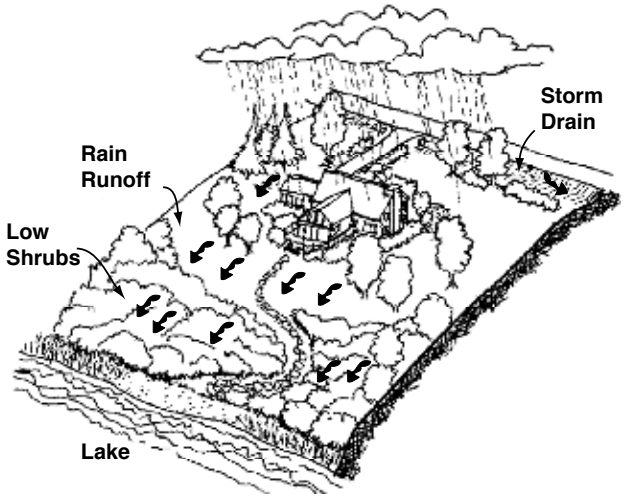
But good landscaping techniques and the right plants can help! Native plants, especially trees and woody shrubs have deeper, denser root systems than lawn grasses. These plants soak up excess storm-water and filter out pollutants, ensuring water leaving your property is as pure as possible before entering the lake. For our lakes this means less algae, fewer noxious weeds and invasive species, safer waters for swimming and boating, and better conditions for native fish. And, a side benefit of less lawn is fewer geese!

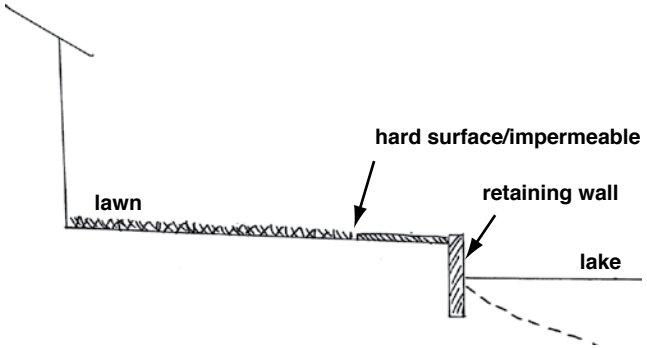
After

By landscaping this property with water quality in mind, the yard has more aesthetic character and contributes less storm pollution to the lake.

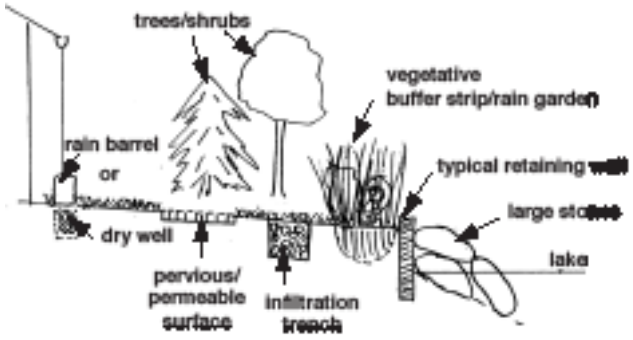


In conjunction with appropriate landscaping, good shoreline development practices are crucial for improving lake water quality. These building practices can prevent shoreline erosion and improve the quality of storm water draining into the lake. Providing a stable shoreline that can absorb the energy from wind and waves helps keep eroded sediment out of the lake. There are also many ways to reduce the amount of runoff reaching the lake from developed areas, simply by creating more opportunities for runoff to get into the ground, or to be absorbed by vegetation. In addition, runoff quality can be improved with measures that provide natural filtration.

Before



After



The bottom line is you don't have to be a horticultural whiz, a large property owner, or even a lakeside resident to help our lakes. The addition of just a few shrubs, trees, or even perennials will reduce the proportion of hard, less pervious surfaces (like lawns) and, therefore, the amount of polluted water eventually entering the lake. Adding a rain barrel, checking your septic system annually, or building a small rain garden are other ways of improving our lakes' water quality.

References:
Finger Lakes Landscapes:Landscaping for Water Quality in the Finger Lakes Region. Cornell University Cooperative Ext. Onondaga Co., 28 pp.

Some Landscaping Suggestions

- Low shrub buffer near water's edge
- Flowering plants and ground covers bordering house
- Rain barrel to collect run-off from roof
- Inclusion of hardwood trees which have deeper roots than most evergreens
- Meandering paths of stones (or a pervious system) on inclines instead of a straight path of an impervious material (like concrete)
- Live fascines or "wattles" (bundles of dormant cuttings from species like dogwood or willow that root easily and help stabilize banks)
- Rain gardens to replace part of lawn

Development Practices for Existing Lots

- Replace impervious surfaces by using permeable materials for decks, patios, and driveways
- Install drywells and infiltration trenches to re-introduce surface runoff into the ground
- Stabilize existing shorelines with vegetation and natural rock
- provide wave energy dissipation for existing retaining walls by adding stone rip-rap at base

Development Practices for New Lots

- Preserve natural shoreline vegetation
- Minimize tree removal on wooded lots
- Minimize land disturbance and hard surfaces
- Locate all buildings, hard surfaces and septic systems well away from the shoreline
- Provide stabilized drainage conveyance
- Provide proper erosion and sedimentation control during construction
- If shoreline stabilization is required, use natural rocks or live fascines to avoid uniform retaining walls

Other Measures

- Reduce or eliminate the use of phosphorous-based fertilizers on areas that drain to the lake
- Maintain a properly functioning septic system by regularly inspecting and pumping the septic tank
- Install water-saving fixtures to reduce sewage generation

Some Plant Suggestions

All of these are native species that grow in our climate. For a more comprehensive list, see "Landscaping for Water Quality in the Finger Lakes region" by Cornell University Cooperative Extension, Onondaga County.

Trees

Botanical Name	Common Name	Height	Growth Rate	Notes
Fraxinus nigra	Black ash	40-60		Moist to wet soil, tolerates poor drainage; sun. Yellow fall color, good streamside plantings.
Prunus serotina	Black cherry	60-70	medium-fast	Moist to dry soil; sun. White flowers, red berries, yellow/red fall color.
Quercus bicolor	Swamp white oak	50-60	medium	Moist to wet soil; tolerates drought and flooding; sun. Grows well in compacted soils.
Salix lucida	Shining willow	15-20	fast	Moist to wet soil; sun to partial shade. Native along streams and wet meadows.
Amelanchier canadensis	Shadbush, serviceberry	15-30		Wet to moist soil; tolerates drought; sun to shade. White flowers, dark purple fruit

Shrubs

Alnus serrulata	Smooth alder	8-14		Moist soil; tolerates poor drainage.
Physocarpus opulifolius	Eastern ninebark	8-14	fast	Dry to moist soil, partial shade. White flowers, red fruits, yellow fall color. Bank cover/erosion control.
Cornus amomum	Silky dogwood	6-10	fast	Moist to wet soil; partial shade. Yellow/white flowers, bluish fruit. Bank cover/erosion control.
Cornus sericea	Red-osier dogwood	4-8	fast	Moist to wet soil; tolerates poor drainage and wide range soil conditions; sun. White flowers, red twigs, purple fall color. Bank cover/erosion control.
Rhus aromatica	Fragrant sumac	2-8	fast	Dry soil; sun. Fragrant, mounded shrub. Orange/red/purple leaves in fall. Bank cover/erosion control.
Aronia arbutifolia	Red chokecherry	6-10	fast	Wet soil; tolerates poor drainage, dry soil; sun or partial shade. Vase-shaped shrub. Red fruit, red fall color. Erosion control.
Lindera benzoin	Spice Bush	6-12	slow	Moist soil, sun to partial shade, tolerates dry soil. Red fruits loved by birds, lemon yellow fall color, very fragrant.
Amelanchier stolonifera	Running serviceberry	4-6	medium	Moist to dry soil, sun, partial shade; thicket-forming. White flowers, sweet purple fruit, red fall color. Bank cover.
Spirea alba	White Meadowsweet	2-6		Moist to wet soil, but tolerates dry; sun. White flowers; yellow fall color, compact shape.
Juniperus horizontalis	Creeping juniper	0.5-1.5		Dry soil; sun. Low growing, mat-forming evergreen. Bank cover/erosion control.

Guidelines for Improving Lake Water Quality

Town of Nelson

Whether you live on Tuscarora or Eatonbrook Lake or within one of the lake's watersheds (the land area that drains into a lake), water or snow that falls on your property affects the lake's water quality. Unless this precipitation evaporates or is soaked up by plants, it eventually reaches the lake, bringing with it pet and livestock waste, septic system leakage, fertilizers and chemicals from the yard, road salt, rubber dust from tires, silt and sediment. When land leading down to a lake (or to streams that feed a lake) is covered with lawn grass or hard surfaces like wood or asphalt, these dissolved pollutants wash into the lake nearly unimpeded.

Before

Lawn is the major component of the yard, providing little protection to the lake.