

Do you own property along a river?

We want to help!

If you are interested in learning more:

- For a guide to invasive species, please go to <https://bit.ly/stream-buffers>
- A very detailed guide to stream buffers is available at <http://www.crjc.org/pubs/riparian-buffers/>
- Want to appreciate your stream more deeply? Download the free book, My Healthy Stream, a publication of Trout Unlimited and the Aldo Leopold Foundation, at TU.org/my-healthy-stream

Support the conservation of local streams

- Please contact your local town conservation department or Southwest Conservation District for conservation questions at <http://conservect.org/southwest/> or 203-859-7014.
- Please contact the Fairfield County Community Extension Service for gardening questions at <http://cahnr.uconn.edu/extension> or fairfield@uconn.edu 203-207-8440.
- For information on Raingardens:

UConn Rain Gardens at

<https://nemo.uconn.edu/raingardens/>

Why it all matters

Our rivers and streams are home to an abundance of native wildlife.



Brook trout, *Salvelinus fontinalis*

About Trout Unlimited

Founded in Michigan in 1959, Trout Unlimited today is a national non-profit organization with 300,000 members and supporters dedicated to conserving, protecting and restoring North America's coldwater fisheries and their watersheds.

Website: www.tu.org



The Nutmeg Chapter of Trout Unlimited (# 217) is based in eastern Fairfield County, Connecticut.

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ILLUSTRATIONS: Brook trout: Bob Knoebel
Waterfront in fall: John Kovach
Buffer Garden: Linda Elder

SOURCES:

The Backyard Water Resources Guide, 2nd ed.

Partially extracted from

My Healthy Stream: A Handbook for Streamside Owners, 2nd ed.

Your Healthy Backyard Stream



A healthy stream sustains populations of native plants and animals with high water quality, natural flows, and the support of a well-vegetated riparian zone. ~ Find out how to protect your property's most valuable asset!

A riparian area is the strip of land adjacent to streams. It is likely the most important wildlife habitat on your property. It also prevents harmful sediments, debris, hot water and pollution (runoff) from reaching the water. Think of it as a protective barrier.

Vegetation in the Stream Protection Zone

The most effective buffer zones will be at least 35' wide and have vegetation that is well established, undisturbed, and with a good mix of *native* species such as:

Trees

Eastern hemlock *Tsuga canadensis*
Atlantic white-cedar* *Chamaecyparis thyoides*
Black birch *Betula nigra*
American elm *Ulmus americana*
American sycamore *Platanus occidentalis*
Swamp White oak *Quercus bicolor*
Pin oak *Quercus palustris*
Black willow* *Salix nigra*
Black cherry *Prunus serotina*
Sassafras *Sassafras albidum*

Shrubs & Small trees

Speckled/Hazel alder *Alnus rugosa/serrulata*
Buttonbush *Cephalanthus occidentalis*
Sweet pepperbush *Clethra alnifolia*
Red-osier dogwood* *Cornus stolonifera*
Pussy willow *Salix discolor*
Serviceberry/Shadbush *Amelanchier ssp.*
Elderberry *Sambucus canadensis*
Swamp rose* *Rosa palustris*
Rosebay rhododendron* *R. maximum*
Highbush blueberry* *Vaccinium corymbosum*
Winterberry *Ilex verticillate*
Nannyberry* *Viburnum lentago*

(*Please avoid similar *non-native* species often found in nurseries.)

It is important to keep any buffer garden natural, not "manicured." Fallen leaves and twigs help the buffer break down pollutants, soak up water, and provide overwintering homes for butterflies/caterpillars.

The woody debris that falls into the water provides hiding places and pools for fish.

Overhanging trees and shrubs create a thick canopy that reduce erosion and shade the water, making it possible for fish such as brook trout to survive, as they begin to experience stress at 66°F.

Cut large trees that might fall from a steep bank if they are likely to pull the riverbank with it, but leave the root system in place.

If foot access to the stream is desired, create a curved path, plant around it, grading the path to avoid water pooling and the path becoming a tiny stream. If the slope is over 15% it may be necessary to construct steps or stairs.



Invasive species

Non-native species and invasive weeds can take over from native species, lower the value of your property, provide less wildlife value and often have shallower roots than desirable, deep-rooted native plants that help stabilize streambanks. Non-natives should be removed by hand or mowed down before they flower and go to seed. Spraying with herbicides should be avoided because of the potential to harm aquatic life.

Common invasives:

Trees

Norway maple *Acer platanoides*
Tree of Heaven *Ailanthus altissima*
Autumn olive *Eleagnus umbrellata*

Shrubs & Vines

Burning bush *Euonymus alatus*

Japanese barberry *Berberis thunbergii*
Multiflora rose *Rosa multiflora*
Japanese knotweed *Polygonum cuspidatum*
Oriental bittersweet *Celastrus orbiculatus*
Porcelainberry *Ampelopsis previpedunculata*

How to reduce water pollution

The key is to be mindful of one's impact, expand one's riparian buffer, and reduce impervious hard surfaces. This will help minimize property damage by reducing erosion and flood damage, increase property values and aesthetics, reduce property maintenance costs, and even decrease cost of public investment in stormwater management.

- Homeowners use up to 10 times more chemical pesticides per acre on their lawns than farmers use on crops. Please choose non-chemical weed controls whenever possible. If you must fertilize near the water, use only lime or wood ash, and organic, slow-release fertilizers elsewhere.
- If you own a pool, never release any pool water to your property where it could enter the stream. Chlorine, even in very low concentrations, is extremely lethal to fish and other aquatic life.
- Have a licensed septic contractor pump out your system every 2-3 years.
- Don't dispose of yard waste, leaves & grass into streams: compost or bag.
- Reduce the size of your lawn and the amount of oils, fertilizer, pesticides & herbicides you use. Water less.
- Minimize the amount of crushed stone, concrete and asphalt.
- Use permeable materials such as wood chips, brick or stone.
- Direct roof gutters and runoff to *rain gardens* (get the free app by UCONN.)
- Look for eroded, disturbed or exposed areas and plant thick native groundcovers – or mulch.