

CONTACTS FOR ADDITIONAL INFORMATION

CT Department of Environmental Protection [DEP]:

<http://dep.state.ct.us> (go to publications; search for composting; CT Native Tree and Shrub Availability List)

CT Department of Health [DPH]: <http://dph.state.ct.us>

(for water softener facts, visit www.ct.gov/dph/lib/dph/environmental_health/private_wells/pdf)

EPA hotline for drinking water issues: 800-426-4791

EPA Office of L.I. Sound:

www.longislandsoundstudy.net

Natural Resources Conservation Service [NRCS]:

<http://www.nrcs.usda.gov>

CT Cooperative Extension System:

Extension@uconn.edu

Norwalk River Watershed Association [NRWA]:

www.norwalkriver.org (go to Links, Protecting the Watershed, riparian buffers, Plant Life & Invasives)

For riparian/streamside plantings, go to

http://counties.cce.cornell.edu/onondaga/watersheds/PDF/Files/streamside_plants.pdf; crjc.org/riparianbuffers.htm

For invasive plant information, state list of banned plants, "Native Alternatives for Invasive Ornamental Plants,"

go to <http://www.hort.uconn.edu/cipwg/>

Native Plant Center: www.nativeplantcenter.org/

Rain gardens:

<http://www.westchestergov.com/planning/environmental/SoilWaterReports/altpractices.pdf>

Also local Health, Conservation, Inland Wetlands

The Silvermine River and Comstock Brook are among tributaries to the Norwalk River, which empties into Long Island Sound. The facts and principles in this pamphlet, however, apply to all rivers and watersheds that drain to the Sound.

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HOW TO MANAGE AND LANDSCAPE YOUR PROPERTY

A good supply of **clean drinking water** is essential for your family's health, a thriving community, and high property values. Whether you own or rent a home or business, basic management activities and techniques can protect and improve the quality of your water and quality of life in the watershed where you live and work (plus help you save on costly repairs). Knowing how to responsibly manage your home and land helps you protect your assets and makes you an asset to your neighbors and community because each property affects the next.

This guide pinpoints important areas that need attention and websites that can give more information. The Action Checklist will help you rate your property and how you care for it, so you can improve your property and its impact on your watershed, reservoirs, and Long Island Sound.



Numbers on the diagram refer to Areas for Attention discussed in more detail on the reverse side of this brochure and to recommendations for improvement listed both there and on the Action Checklist.

ACTION CHECKLIST

Rate Your Property and Your Care of It

(See reverse side for topic details.)

1. Well

- Protected from contaminating motor oil, gas, road salt, lawn fertilizers, pesticides, garden and household chemicals; goose droppings, pet wastes, and horse manure.
- Non-discharging water softener installed to prevent release of salty water to groundwater.
- Chemicals not flushed down drain or poured onto ground, but disposed of properly or taken to a Household Hazardous Waste Day.
- Water conserved.

2. Fuel Tank

- Put above ground or in basement or garage.

3. Septic System

- Tank pumped every 2-3 years, more if needed.
- Additives and chemicals avoided.
- No medicines flushed down toilet.
- Laundry loads staggered during week.
- Stormwater diverted from septic tank/field.

4. Hazardous Household/Garden Chemicals

(paint thinners, pesticides, and more)

- Reduced or eliminated, where possible.
- Remainder given to friend who wants it.
- Taken to Household Hazardous Waste Collection Day or disposed of properly.

5. Composting

- Formal or informal program begun on your property to recycle your organic waste, to create rich soil, avoid littering, lessen waste.

6. Stormwater Runoff

- Slowed by planted buffers, terracing, berms, or swales.
- Directed from roof, parking, and driveway into ground to increase infiltration and to prevent direct discharge onto street; into watercourses, wetlands, rivers, reservoirs, and L.I. Sound.
- Porous materials used for "paved" surfaces.
- Bare soil covered, seeded, or mulched to prevent or reduce erosion.
- Litter, goose and pet waste, and sediment prevented from washing into storm drains, wetlands, and watercourses.

7. Landscaping

- No fertilizers or pesticides used near well.
- Soils tested and chemicals reduced.
- Lawn areas decreased, mow height increased.
- Vegetated buffers as large as possible installed on slopes and by wetlands and watercourses.
- Trees planted to combat heat, noise, wind.
- Native, non-invasive plants used.
- Invasive plants removed or controlled.

8. Community and Watershed Protection

- Support funding for land purchases.
- Suggest specific land purchase to your local Conservation Commission or Land Trust.
- Support funding for Household Hazardous Waste Collection Days.
- Help river, lake, beach, open space cleanups.
- Volunteer with conservation group to protect natural resources: help with river/lake monitoring, restoration projects, trail maintenance.
- Speak out on environmental issues and spread the message about responsible property management and landscaping.
- Report erosion or pollution to municipality.

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AREAS FOR ATTENTION

(See *Contacts on reverse side for links and information.*)

1. Well and Drinking Water Sources

Whether your drinking water comes from a private well or a public source, chemicals you let into the soil can affect the quality of your and your neighbors' water, as well as your health and property values. How water moves underground is not easy to predict. Use these precautions to safeguard this essential resource.

- Do not pour old motor oil, gas, or anti-freeze on the ground or down the drain. Fix car leaks.
- Do not apply herbicides or pesticides near your well. Weed or remove pests by hand.
- Pick up pet waste; remove kennel from near well. Flush pet waste down the toilet or put in trash.
- Prevent horse manure from leaching into water.
- Test your water. If you need a water softener to remove minerals, choose a system that backflushes by volume, not automatic timer. Chose a non-sodium system (use Potassium Chloride and/or air injector) whose backflush does not drain to your septic system (prohibited by CT Public Health Code) or groundwater. Sodium Chloride salt can cause hypertension and other medical problems, deteriorate concrete in your septic tank, and harm your septic field. Treat only hot water and boiler feed lines. See Contacts for DPH fact sheet.
- In winter, chip ice, use sand for traction or Calcium Chloride or Calcium Magnesium Acetate (CMA) on walks/drives, not Sodium Chloride salt.
- Conserve water and save electricity. Fix leaks. Install low-flow toilets or place a plastic milk jug of water (no brick) in the toilet tank to save water with each flush. Instead of baths, short showers with a water restrictor save gallons. Run full loads in the dishwasher or washing machine. Instead of running water, refrigerate a water bottle for a cold drink.
- **Throw old medicine in the trash, not toilet.**

2. Fuel Tank

Move your fuel tank above ground or into the basement or garage. With a predicted life span of 15-20 years in Connecticut's acid soils, all-steel in-ground tanks can rust and leak. If you smell oil, taste oil in water, or notice oil used at a faster rate, contact your Health and Fire departments and oil company. Delay may be dangerous, and costly if you or your neighbor needs a cleanup or new well.

3. Septic System

A properly designed and functioning system allows "good" bacteria in the septic tank to work on the incoming effluent. Solids drop to the tank's bottom as liquid waste flows out into the leaching area, where other bacteria in the soil help to renovate the fluid and increase groundwater supplies. Tank solids that will not decompose further must be pumped out before they build up, ooze into the leaching area, and cause the leaching fields to malfunction – threatening personal and public health, and necessitating costly repairs.

- Have the septic tank pumped by a licensed service every 2-3 years, or more often if system or soil is not adequate, to prolong the system's life.
- Avoid septic additives.
- Do not pour fat, gasoline, paint thinner, or other chemicals down the drain. They will kill the "good" bacteria. Instead, pour fat into a can, refrigerate till can is full; toss in trash. Participate in Household Hazardous Waste Days. **Most septic systems or sewage-treatment plants aren't designed to treat chemicals that are not ordinary household waste.**
- Reduce wastewater. Use low-flow toilets, eliminate leaky faucets, and stagger laundry loads, especially when soil is saturated from rain.
- Direct stormwater away from tank/leaching field.

4. Hazardous Household/Garden Chemicals

Buy only chemicals you need; give extra to those who want it. Reduce or eliminate pesticides; they can harm children, pets, birds, fish, wildlife. Never pour chemicals on ground or into storm or sink drain. Take used motor oil to gas station, other items to Waste Day.

5. Composting

Make the best, cheapest soil for gardens, landscaped areas, and lawns that won't need extra fertilizers; save space in landfills, reduce municipal waste disposal costs. Provide area for leaves, grass clippings, garden waste, vegetable peelings. Whether you pile organics up and rot them out over time or apply lime and water and turn the material to hasten the process, composting is an inexpensive way to improve your soil. Do not dump organic waste on open space or neighbor's land.

6. Stormwater Runoff

Rainwater running off the land can contribute to non-point source pollution. Unlike point sources which can be more easily traced to a pipe, industry, or sewage-

treatment plant, non-point sources are much harder to identify because they originate from salt, gas, and oil deposits on roads or parking lots; overfertilized lawns; pesticides; goose and pet wastes; sediments from construction; and failed septic systems. These substances can impair wildlife, groundwater, and swimming, fishing, and shellfish areas; clog wetlands and impede their nursery, cleansing, and flood-control functions; cause smelly algal blooms which deplete oxygen for fish; harm health; and affect property values. Runoff directed into streams reduces groundwater drinking supplies; increases flooding potential.

- Direct rain downspouts away from foundation, well, septic, and driveway into rain barrels, rain gardens, areas needing watering, or dry wells. Use splash guards to slow erosion at pipe discharge area.
- Grade impervious surfaces toward your lawn or landscaped areas. Create swales or berms to direct flow; terrace slopes to slow run-off, or bury a perforated pipe to a dry well to intercept flow.
- Use pervious materials for sidewalks, patios, driveways, and parking areas to allow infiltration. Consider gravel, bricks, porous asphalt or concrete, plastic meshes that can form a seeded lawn strong enough to support trucks and that can be mowed or plowed by raising the machine blade one inch.
- Prevent leaf litter and trash from entering storm drains or waterways. Litter impacts health, wildlife, flood control, aesthetics, and property values.

7. Landscaping

A well-landscaped yard can reduce runoff, flooding, and erosion; provide beauty and wildlife habitats; minimize time, money, and energy for maintenance; save on heating and cooling bills; and help protect water quality and quantity.

- Plant a large, deciduous shade tree off the SE and SW corners of your house to cool the house in summer and allow the sun to warm it in winter.
- Plant trees and shrubs to frame a view; screen unwanted sights or noise; provide privacy and wind breaks; hold a slope; or provide shade. Plant along contours or with terracing. Use mulch and ground covers to retard weeds and retain moisture. The steeper the slope, the wider the landscaped buffer should be.
- Plant or maintain the widest possible streamside or wetland buffers (aim for 100'-150' minimum) with native vegetation. Do not fertilize or remove leaf litter.

For a view, plant a low-bush buffer, or high-grass meadow mowed once a year to 12" maximum in late fall. Buffers will shade and cool water, improve fish habitat, help control algae by intercepting pollutants, and discourage waste- and bacteria-producing geese.

- Cover, seed, or plant bare soil to avoid sedimentation of waterways and wetlands, and to discourage the establishment of invasive plants.
- Minimize lawns; these high maintenance areas do not contribute food or habitat for wildlife. Where you must mow, cut grass 2 1/2"-3" high with a mulching mower or cut often enough to allow clippings to fertilize. Water deeply once a week in early morning, if needed. Plant drought-resistant seed in fall. Cooler days and better moisture will stimulate healthier roots.
- Reduce lawn herbicides and fertilizers. Test soil pH with a kit from the hardware store to determine if lime or fertilizer is needed. In late spring, spread thin layer of organic compost on lawn and planting areas to promote healthy growth. In early to mid-fall, if necessary, fertilize lawn with a single dose of slow-release or organic fertilizer, but never before a heavy rain in order to avoid contaminated runoff.
- Make paths to water sources curved and keep mulched to curtail runoff and soil erosion.
- Remove and avoid planting invasives that replace more productive native plants and threaten the biodiversity of wetlands, fields, and woodlands.
- Plant native species; they attract wildlife and require less water.

8. Community and Watershed Protection

Informed citizens are the best guardians of their watershed. Your vocal support of responsible actions and necessary funding to implement important regulations and actions will make a positive difference to your property and community.

- Support purchase of land and easements that link open spaces and provide passive recreation; protect biodiversity; offer corridors for wildlife and people to enjoy; protect water quality and quantity; and reduce flooding and runoff.
- Participate in volunteer cleanups of rivers, beaches, and open spaces; restoration projects; trail maintenance to make sure areas are maintained properly and not abused or littered.
- Support Household Hazardous Waste Collection Days and a regional year-round collection center.