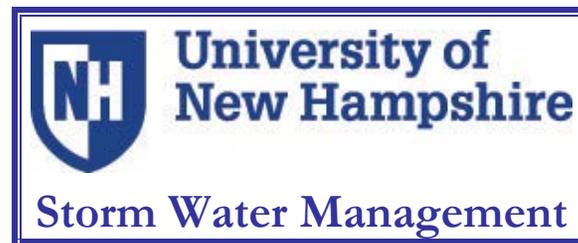


STORM WATER RESOURCES

UNH Facilities

Ritzman Lab
22 Colovos Road
Durham, NH 03824-3515
603.862.2650 (Telephone)
603.862.3927 (Facsimile)

<http://www.unh.edu/facilities/storm-water-management>



INTRODUCTION

Storm water runoff from lands modified by human activities can harm surface water and, in turn, change natural hydrologic patterns, accelerate natural stream flows, destroy aquatic habitat, and elevate pollutant concentrations. Such runoff is said to contain non-point source pollutants, which include sediment, suspended solids, nutrients (phosphorus and nitrogen), heavy metals, pathogens, toxins, oxygen-demanding substances and floating material.

UNH operates its own storm water system under the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit. The UNH storm water system is composed of more than 650 catch basins and outfalls that discharge to the College Brook, Pettee Brook, Oyster River and Town of Durham storm water sewer system.

In response to rules issued by the Environmental Protection Agency, UNH has developed a storm water management program designed to prevent harmful pollutants from being washed by storm water runoff into the MS4 (or from being dumped directly into the MS4) and then discharged from the MS4 into local water bodies.

UNH activities with the potential to impact the storm water system include:

- ▶ General maintenance of buildings, grounds, and roads;
- ▶ Seasonal application of sand, salt, and de-icer to roads, parking lots, and sidewalks;
- ▶ Seasonal application of pesticides, herbicides, and fertilizers to landscaped areas;
- ▶ Construction projects more than one acre in size; and
- ▶ Spills and leaks.

**Do *your* part to
protect our water!**



NH Department of Environmental Services

Water Division, Waste Water Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095
603.271.3503 (Telephone)

<http://des.nh.gov/organization/divisions/water/stormwater/index.htm>

U.S. Environmental Protection Agency

New England Headquarters
5 Post Office Square - Suite 100
Boston, MA 02109-3912
888.372.7341 (Telephone)

<http://www.epa.gov/region1/npdes/stormwater/index.html#smallms4program>

UNH Stormwater Center

Environmental Research Group
35 Colovos Road
University of New Hampshire
Durham, NH 03824-3534
603-862-2206
<http://www.unh.edu/unhsc/>



UNH Facilities,
June 2017, University of New Hampshire

UNH Storm Water Management Program

The UNH Storm Water Management Program comprises six elements that, when implemented in concert, are expected to result in significant reductions of non-point pollutants discharged into Great Bay. These six elements include:

- ▶ Public Education and Outreach;
- ▶ Public Participation / Involvement;
- ▶ Illicit Discharge Detection and Elimination;
- ▶ Construction Site Runoff Control;
- ▶ Post-Construction Runoff Control; and,
- ▶ Pollution Prevention/Good Housekeeping.

To read more about these six elements, or for more information about storm water management at UNH, please go to:

<http://www.unh.edu/facilities/storm-water-management>

If you notice improper dumping or **non-storm water discharges** on University property, immediately notify the Facilities Control Center at 862-1437. Report any off-campus dumping into Durham storm drains to the Town of Durham's Department of Public Works at 868-5578.

WHAT CAN YOU DO?

UNH lies within the Oyster River Basin, which discharges into the Great Bay. Our students, staff, faculty, vendors and visitors both on campus and in all parts of our community, especially at home, need to be concerned about storm water. In order to protect and preserve our ecological resources, be sure to take the following preventive measures for:

Lawn/Yard Care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. Yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.



- ▶ Don't over water your lawn, gardens, or other outdoor areas. Consider using a soaker hose instead of a sprinkler. Berm lawn and yard to prevent water run-off and encourage water absorption (infiltration).
- ▶ Preserve and plant trees and shrubs to help keep soil in place.
- ▶ Use pesticides and fertilizers sparingly. If necessary, only use recommended amounts.
- ▶ Use organic mulch or safer pest control methods.
- ▶ Compost or mulch yard waste. Cover piles of dirt or mulch.
- ▶ Recycle as much as possible.
- ▶ Use a broom to sweep and collect sediment and organic matter on sidewalks and driveways. Collect sand used on driveways and sidewalks for future use or disposal.
- ▶ Use de-icing materials sparingly on driveways and sidewalks.
- ▶ Drain swimming pools onto expanse lawns or other vegetated areas.



Small Farms

Agricultural run-off from farming activities increases the amounts of coliform and organic matter in downstream water supplies. Small farming activities such as cow, sheep, and goat grazing, as well as waste from chicken coops, hog or pig pens, horse corrals, etc. can also contribute to wastewater run-off if not properly maintained. ***Please note that small farms are not included in the UNH MS4 permit or Storm Water Management Program.***

Septic Systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by storm water and discharged into nearby water bodies. Pathogens can cause public health and environmental concerns.

- ▶ Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- ▶ Don't dispose of household hazardous waste in sinks or toilets.

Auto Care



Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a water body. For example, one quart of oil can contaminate up to 2 million gallons of water.

- ▶ Use a commercial car wash that treats or recycles its wastewater or wash your car on your yard so the water infiltrates into the ground.
- ▶ Dispose of used auto fluids and batteries at designated recycling and drop-off locations.
- ▶ Prevent gas and oil leaks and spills.
- ▶ Have your motor vehicle routinely serviced.

Pet Waste



Pet waste can be a major source of bacteria and excess nutrients in local waters.

- ▶ When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local water bodies.

Prevent Storm Water Runoff

There are several ways to help prevent storm water runoff. Here are some examples:

- ▶ Plant trees, shrubs, and ground cover.
- ▶ Use a barrel to collect rain and store water for gardening.
- ▶ Redirect downspouts from paved areas to vegetated areas. Guide storm water onto grass or other vegetated areas by using berms or dikes.
- ▶ Use wooden planks, bricks, or interlocking stones for walking areas and patios.
- ▶ Clear away fallen trees and debris from natural waterways and storm water drains.