

Untreated Gray Water in North Carolina is Wastewater/Sewage

The North Carolina Plumbing Code defines gray water as "waste discharged from lavatories, bathtubs, showers, clothes washers and laundry sinks." This type of household wastewater may contain disease-producing organisms and should not be used to water plants such as trees, vegetable gardens or flowers. By law, this wastewater must be disposed of through a permitted treatment system, either a public owned treatment plant or a permitted septic tank system.

The Law

The disposal of sewage/wastewater is regulated by North Carolina law, which can be found online at http://www.deh.enr.state.nc.us/osww_new/new1/images/Rules/1900RulesAugust2007.pdf.

15A NCAC 18A .1935 DEFINITIONS: "Sewage" means the liquid and solid human waste and liquid waste generated by water-using fixtures and appliances, including those associated with food handling. The term does not include industrial process wastewater or sewage that is combined with industrial process wastewater.

15A NCAC 18A .1937 PERMITS: (a) Any person owning or controlling a residence, place of business, or place of public assembly containing water-using fixtures connected to a water supply source shall discharge all wastewater directly to an approved wastewater system permitted for that specific use.

North Carolina State Building Code - 2006 Plumbing Code: Current version Code 301.3 requires all plumbing fixtures, drains and appliances that receive or discharge liquid wastes or sewage to discharge to the sanitary drainage system of the structure. Exceptions include bathtubs, showers, sinks, washing machines and laundry sinks **as long as** they discharge to an approved gray water recycling system. Appendix C of the 2006 N.C. Plumbing Code allows for limited uses of treated or recycled gray water; details are provided below.

The Facts

Fact #1: Using untreated wastewater for watering is both illegal and unhealthy.

Throwing untreated, household wastewater on top of the ground in North Carolina is illegal as it is considered sewage by law and must be disposed of through a permitted sewage treatment system. It is also considered unhealthy to use untreated wastewater for any other uses that might bring it in contact with humans.

Although soaps are used in the dish and bath water, it is still wastewater as is water from washing your vegetables, dishes, hands, body or clothing. These types of wastewaters may contain disease-producing organisms, called pathogens, from fecal material or from on the body (e.g. staph), which are infectious! Waste has always been buried or disposed of in other ways for basic human sanitation. Countries that do not dispose of wastes away from human contact have higher disease rates and sometimes epidemics.

Fact #2: Untreated wastewater attracts animals and pests that can spread diseases.

People are not the only animals in North Carolina looking for water sources during a drought. Flies, pets, wildlife and other animals that transport diseases would be attracted to water that someone tossed on the ground. When these transport animals touch and drink the wastewater, they become contaminated and may get sick. They may also spread the disease-causing germs to local residents and the community.

Gray water can be recycled for home use.

According to the 2006 N.C. Plumbing Code, ***treated*** household gray water may be permitted for use for ***specific*** purposes if treated according to Code Standards. In Appendix C, Section C101.1 allows for recycled gray water to be used for flushing of toilets that are located in the same building as the gray water recycling systems. These recycling systems can also be used for irrigation purposes when approved by the authority having jurisdiction. Appendix C includes information regarding the installation, filtration, disinfection, drainage and identification of gray water recycling systems.

Gray water used in a gray water recycling system must be filtered and disinfected before it can be recycled for flushing of toilets or irrigation as stated in Appendix C.

Suggested ways to conserve water is to fix leaks and other good water management practices in the home.

It is okay to collect clean water from faucets or showers in a clean bucket while waiting for it to get hot!

For more water conservation tips, visit <http://www.p2pays.org/water/>.

For questions on the current Plumbing Code or gray water recycling systems, contact the N.C. Building Code Council at (919) 661-5880 or the N.C. Department of Insurance at (800) 546-5664. For more information about gray water, contact Dr. Barbara Hartley Grimes, Non-Point Source Pollution Program coordinator for the Division of Environmental Health, at (919) 715-0141 or by e-mail at barbara.grimes@ncmail.net. You can also check with local plumbing inspectors, and obtain the proper permits, before installing a gray water recycling system.