

ENVIRONMENTAL Fact Sheet



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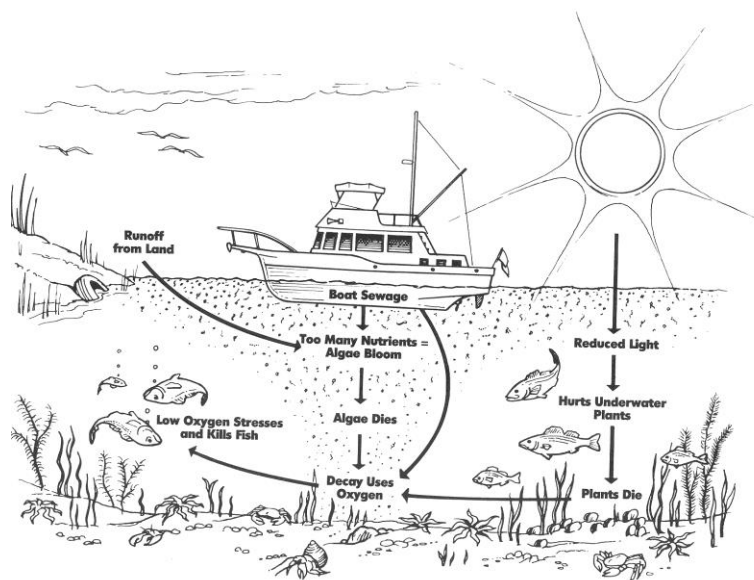
2016

Greywater: Keep It Out of Surface Waters

Greywater, like other pollutants, degrades the quality of water and limits or prevents its use. Greywater is laundry, dish and bath/shower water; while toilet water is referred to as "black water." Greywater has adverse effects on aquatic life and public health by negatively impacting drinking water supplies, recreational activities and wildlife.

Typically, greywater exhibits a much faster rate of decomposition than black water; this is a process that can degrade water quality. The faster rate means some of the **initial polluting effects of greywater are significantly higher than that of black water.** In addition to decomposition, the concentration of pathogens, nutrients and chemicals also contributes to degrading the quality of the receiving water.

The nutrients, particularly phosphorus, found in greywater can increase plant growth, including algal growth. Nitrogen does not compose a significant portion of greywater, as it does with black water; however, phosphorus levels in greywater often exceed that of black water. Detergents contribute the majority of this phosphorus, which is why manufacturers have been required to limit the amount of phosphorus present in household cleaning products.



Although black water generally contains more disease-causing organisms, many of these organisms can also be found in greywater and water contaminated with greywater. Some familiar organisms include coliform bacteria; fecal coliforms, including *E. coli*; *Salmonella* species; staphylococci species; viruses, including polioviruses and hepatitis virus A; and possibly *Giardia* cysts. The likelihood of these and other organisms subsisting in greywater increases with the presence of sick individuals or young children using diapers.

Chemicals, especially organic chemicals, cause a wide range of toxic effects on fish and aquatic life, including tumors and skin lesions and disruption of reproductive functions. Some of these chemicals accumulate in the environment, increasing their concentrations and their impacts. Additionally, chemicals associated with detergents, including the active cleaning agents for most detergents,

surfactants, have recently been reported to disrupt normal hormonal functions. This growing concern has prompted studies into the health and ecological effects of these disruptors, however, many questions have yet to be answered. For information about EPA's ongoing research visit their endocrine disruptor website at <https://www.epa.gov/endocrine-disruption>.

What can you do to help?

- Make sure that all of your plumbing is functioning properly and no waste water of any kind is discharged into surface waters.
- Never throw greywater overboard if boating within the territorial waters of the state.
- Consider installing or converting a holding tank to collect all greywater.
- If boating in inland lakes, request a boat plumbing inspection! This is a free service offered during the summer months and is scheduled at your convenience. Please use the contact information below to schedule an inspection.

Contact Information

For more information please contact Melanie Cofrin by emailing CVA@des.nh.gov or Melanie.Cofrin@des.nh.gov, or by calling (603) 271-8803.

For mail please use: ATTN: Watershed, CVA Program
NH Dept. of Environmental Services
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Please visit our website for more information on practices that help keep our water clean!

On our website you'll find information on:

- Where to pumpout holding tanks, which is the best option when using marine toilets, sinks, or showers and the ONLY legal option for boaters on freshwater/inland lakes in New Hampshire.
- The boat inspection program, which offers free plumbing inspections on freshwater/inland lakes to ensure boats are setup properly to safeguard water quality.
- Federally designated No Discharge Areas in New England and what it means for boaters in New Hampshire and transient boaters.
- The Clean Vessel Act program, which is the federally funded program that provides for education, boat inspections, and funding for the construction and maintenance of pumpouts.

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

