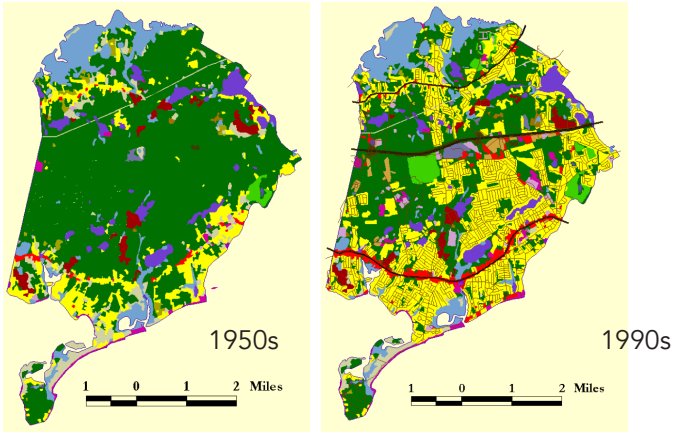
Yarmouth water

The Yarmouth we love exists because of the water that surrounds us. The same water that brings people to our beaches, powers our economy, recharges our drinking water wells, keeps our grass green and our environment healthy. The goal of our comprehensive wastewater management plan (CWMP) is to restore and both grow and protect all of Yarmouth's water resources.
All water in Yarmouth is important.

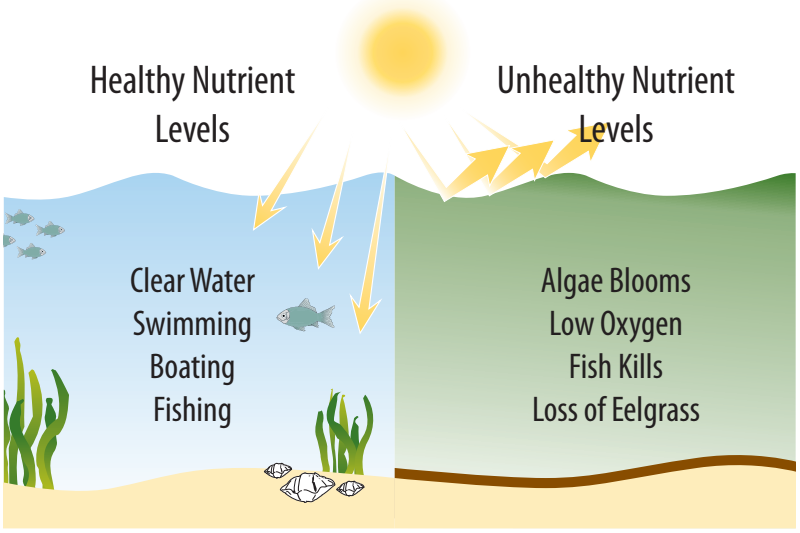


Why is water quality an issue?

Our population has increased over 400 percent since 1951. That growth has resulted in various water quality issues that now must be addressed. (Green means undeveloped)

How are our water resources impacted?

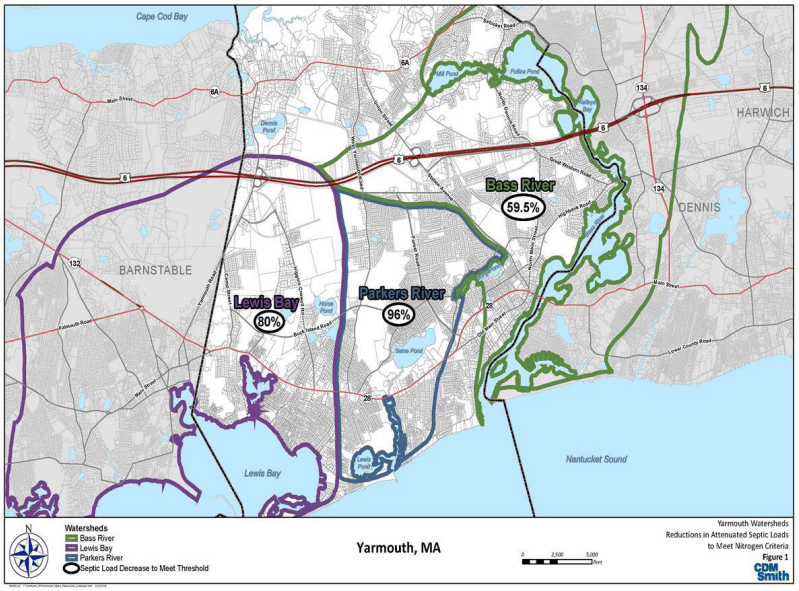
Beaches, rivers and harbors are severely impacted by excess nutrients. Too much nitrogen from septic systems allows algae to flourish. The algae clouds the water blocking sunlight, causing aquatic grasses and other plant life to die. As the algae uses all available nutrients and dies, decomposing algae (and dead grasses) deplete dissolved oxygen in the water which results in further loss of fish and bay organisms and an unhealthy environment.




Mill Creek, Yarmouth

What needs to be done?

Each watershed has been evaluated to determine the amount of nitrogen which needs to be removed to restore our estuaries. The average removal required in Bass River watershed is 59.5% with 96% required in the Parkers River watershed and 80% in the Lewis Bay watershed. Approximately 85 percent of the controllable nitrogen in a given watershed comes from septic systems, with stormwater run-off and fertilizer accounting for an additional 7 to 8 percent each. Since the required nitrogen removal is so high in our estuaries, the focus is on removing nitrogen associated with septic systems.

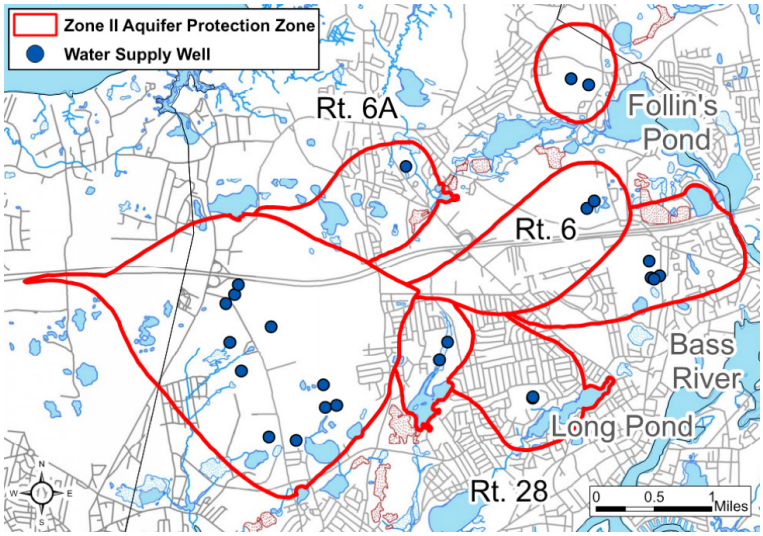


Impacted watersheds.

Learn more! Visit *www.yarmouth.ma.us*

drinking water

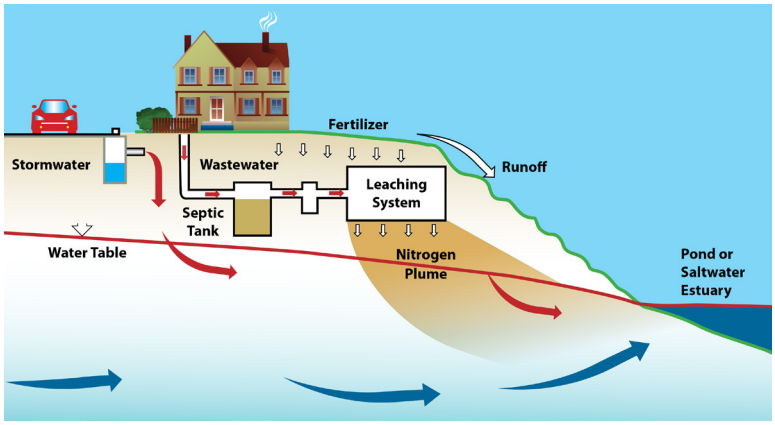
Protecting our clean and plentiful drinking water supports local businesses and drives community growth and economic development. The same nitrogen impacting our estuaries and bays infiltrates groundwater supplying our wells. Other contaminants like phosphorus, bacterial and viral constituents and potential contaminants of emerging concern (CECs) need to be monitored.



fresh water

Similar to nitrogen impacting our salt-water estuaries, phosphorus impacts fresh water ponds and can result in significant plant and algae growth impacting the overall health of the pond. In addition to septic system effluent, other potentially significant sources include runoff from impervious surfaces, excess fertilizer application, runoff from cranberry bogs, birds and other wildlife, and regeneration of phosphorus from the bottom sediments of ponds. The Town of Yarmouth has 70 ponds. The Cape Cod Ponds and Lake Stewardship (PALS) program works to collect annual data on pond health for select ponds in the Town.

wastewater



Title 5 septic systems aren't designed to remove nutrients like nitrogen from wastewater. Nitrogen infiltrates into the groundwater and eventually flows through the watershed into salt-water estuaries. These excess nutrients cause algae blooms and other negative impacts.

It doesn't matter whether a home is located next to the estuary or two miles inland since the groundwater collects and conveys the nitrogen to the watershed outlet or in this case the saltwater estuary/harbor.

reclaimed water

Treated water reclaimed from the septage treatment plant irrigates the Bayberry Hills Golf Course. The treated water is a valuable product and drastically reduces our dependence on using groundwater.

stormwater

Stormwater cleanses impervious surfaces and sends contaminants like phosphorous and bacteria to groundwater and surface water sources. To better control the run-off, it needs to be treated or filtered prior to recharging groundwater or discharging to surface water. As our population grows and develops, it's important to control sources of stormwater pollution as more contaminants find their way to our water bodies.