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Credits and acknowledgements:

This publication is developed as part of the Stafford Pond Education Committee's work to restore and protect Stafford Pond and its watershed. Funding for this project is provided by the Federal Clean Water Act, Section 319, RIDEM.

*Photos on cover, pages 5 and 16: Clint Clemens
Brochure design: Eva Anderson Design*

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Stone Bridge Fire District
The Stafford Pond Improvement Association
RI Bass Federation
RI Department of Environmental Management
URI Cooperative Extension Water Quality Program

Have you ever looked out your window during a heavy rainstorm and wondered where the water goes? Have you ever watched as streams of water run down the street, picking up oil and gasoline from roads or washing pet wastes off lawns?



It's easy to look for pollution sources from industry or sewage treatment plants, but in our backyards there are other pollution sources that threaten Stafford Pond's water quality.

Many Tiverton residents live within the Stafford Pond watershed. The majority of these residents rely on private wells for their drinking water. For those who live outside the watershed, the area is also important as many Tiverton residents depend on Stafford Pond as their source of drinking water either at home, work or school. Stafford Pond is also prized for its scenic beauty and recreational opportunities.

What we do in and around our homes can affect Stafford Pond water quality. The use, storage and disposal of household chemicals, cesspools or improperly sited and maintained septic systems in close proximity to the Pond, fertilizer and pesticide use in yards and gardens, and animal waste can all affect the Pond's water quality. Although household activities may seem like a drop in the bucket, the combined impact of all of these practices does add up. If we think of all the houses, lawns, driveways and streets in each neighborhood, and consider the kinds of products we use and how we use them, you can begin to imagine our potential impact on water quality. BUT, sound household practices can make a positive difference.

We can restore and protect water quality in Stafford Pond by recognizing and eliminating the things that we do in and around our homes that pollute.

In this handbook, you will learn:

- **What the threats to water quality in Stafford Pond are.**
- **Actions you can take to help protect this important drinking water resource.**

Stafford Pond and its watershed

What is a watershed?

While not everyone lives next to a pond or stream, we all live in a watershed – the land area that contributes water to a specific surface water body, such as Stafford Pond or Narragansett Bay. Human activities in the watershed – what we do on the land – affect both the surface and ground water quality.

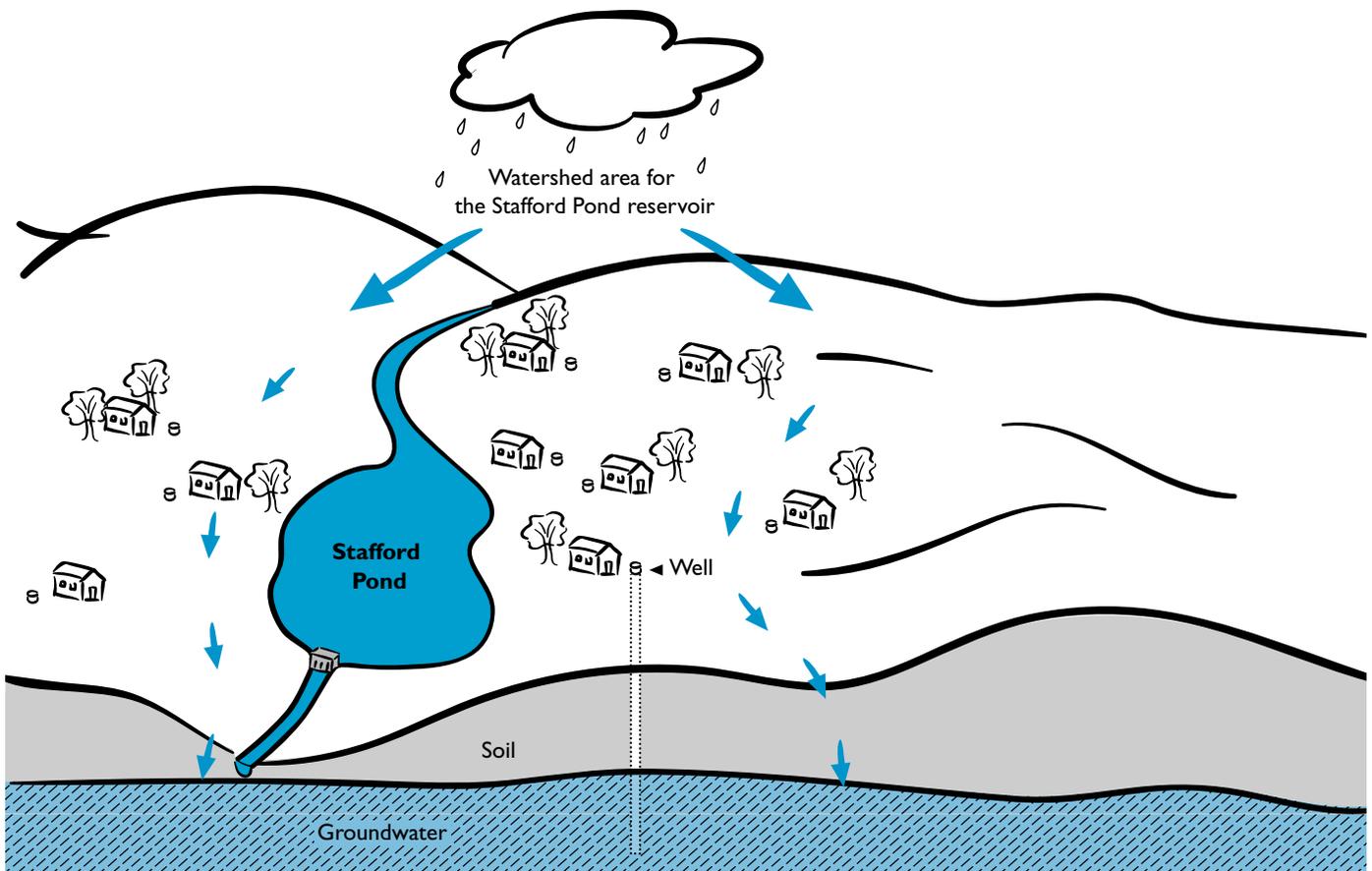
A variety of human activities occur in the Stafford Pond watershed including homes, farms, busi-

nesses and industry. Forest and residential areas are the most common land uses in the watershed.

Within a watershed, the ground and surface water are usually interconnected. Groundwater can discharge, or move, into surface water. Likewise, surface water can move through the soil and recharge the groundwater.

The fact that groundwater and surface water are connected is

important when considering the protection of Stafford Pond's water. The quality of one can affect the quality of the other. And so, the protection of both water resources is closely linked. Threats to Stafford Pond water quality can also threaten the quality of private well water which is the source of drinking water for many watershed residents. Watershed protection efforts include protecting the quality of both the ground and surface waters.



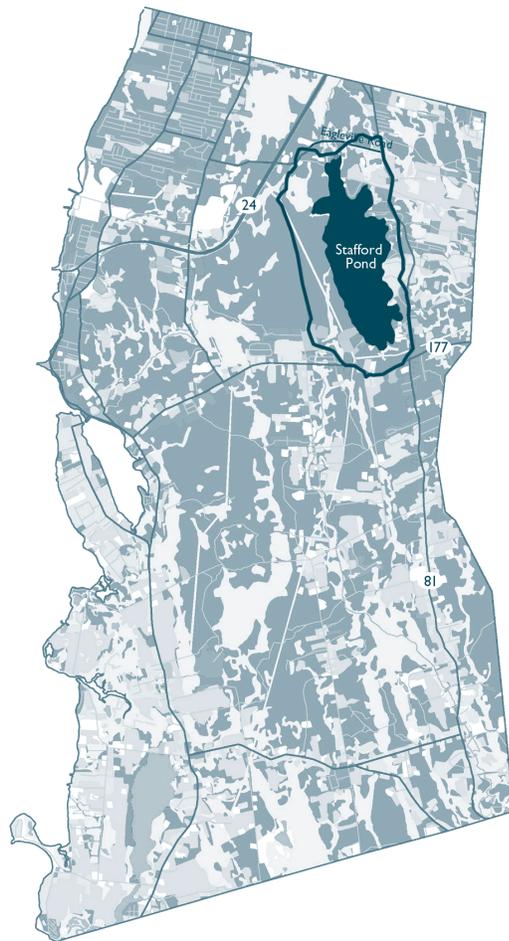
The Stafford Pond resource

Stafford Pond is a drinking water reservoir with a dam built on Sucker Brook – the stream that flows out of Stafford Pond. In 1946 the Stone Bridge Fire District was formed, using Stafford Pond as a supply for fire fighting. Today, the Pond is still used as a water source for fire fighting and also supplies drinking water to more than 8,000 people, including residents, businesses, schools and utilities.

Public drinking water supply

The Stone Bridge Fire District, which is a non-profit, quasi-municipal authority, operates the water supply on Stafford Pond. The District maintains a water treatment facility on the southwest shore. During peak demand the Stone Bridge Fire District uses about 750,000 gallons of water a day from Stafford Pond.

The City of Fall River, Massachusetts maintains the dam that regulates the amount of water in Stafford Pond. Sucker Brook, the outflow of Stafford Pond, flows towards Fall River and is considered an emergency water supply by the City. The Watuppa Reservoir Company provides Fall River



Stafford Pond is located in the northeast corner of Tiverton, Rhode Island. It is part of the Narragansett Bay drainage basin. The Pond is 487 acres in area and the watershed draining into Stafford Pond is 947 acres in size.



with its drinking water and owns the water rights to Stafford Pond.

Other uses

In addition to serving as a drinking water resource, Stafford Pond is used for recreation. According to state law, swimming is prohibited in a public drinking water supply. Stafford Pond is highly regarded for its beauty especially by those residents who call it home. The Rhode Island Department of Environmental Management (RIDEM) maintains a public boat launch and parking area. RIDEM stocks Stafford Pond with trout each year.

The Pond supports one of the State's few remaining populations of smallmouth bass. Other fish species found in the pond are bluegill, yellow perch and white perch.

Many people boat on Stafford Pond. In 1990, a restriction was placed limiting the size of gas-powered motors to 10-horse power for boats accessing the Pond from the State boat ramp. There is no restriction for property owners who directly abut Stafford Pond. Stafford Pond is also a landing site for recreational seaplanes.



Stafford Pond holds about **2.04 billion** gallons of water.

Where does this water come from?

- 46% from rainfall and snowmelt
- 23% from stormwater runoff
- 18% from groundwater discharging into the Pond
- 13% from streams flowing into Stafford Pond

Over half of the water that enters Stafford Pond is at risk from pollutants in the watershed.

Where does the water in Stafford Pond go?

- 42% flows out into Sucker Brook
- 31% evaporates
- 23% is used for drinking water supplies
- 4% seeps into the groundwater

Stafford Pond water quality

Water quality monitoring of Stafford Pond has documented a decline in the Pond's water quality over a number of years. The Pond's water clarity has declined and nuisance algae blooms have increased. In 1996, the Rhode Island Department of Environmental Management initiated a study to provide scientific information to identify and evaluate the pollution sources affecting the pond.

What are the pollution sources to Stafford Pond?

This study identified polluted runoff from a neighboring dairy farm and two Rhode Island Department of Transportation (DOT) storm drains as major contributors to the problems in Stafford Pond. Follow-up studies by DOT suggest that impacts from the storm drains are not as large as originally estimated. Efforts are underway to address both of these pollution sources.

In addition, the 1996 study identified other watershed land use practices that can adversely affect water quality in Stafford Pond. These include:

- Cesspools and improperly sited and maintained septic systems in close proximity to the Pond.
- Animal waste – including human,

pet and waterfowl wastes.

- Sediment from soil erosion.
- Fertilizer and pesticide use from residential yard and garden care.



- Chemicals from commonly used household and marine products.
- Road salts.
- Petroleum products used in and around the pond.
- Trace metals from road runoff.
- Household trash and litter.

Each of us can take steps to reduce these pollutants in the Stafford Pond watershed.

What is the main water quality problem in Stafford Pond?

Excessive algae growth in Stafford Pond is the primary problem. Algae are tiny plants that live in water. There are many different kinds of algae including green, blue-green

and red algae. Algae play a vital role in ponds as they are the base of the food web. However, excess amounts can be harmful and interfere with the use and enjoyment of Stafford Pond.

What causes the algae growth?

Excessive amounts of phosphorus entering Stafford Pond encourage algae growth. Phosphorus is a nutrient, and the main sources to Stafford Pond are the dairy farm and the storm drains. In addition, many of us apply it in fertilizers to our lawns and gardens, and it is found in human and pet waste. In fresh water, phosphorus also acts as a fertilizer causing increased growth of aquatic plants.

What are the effects of excessive algae growth on Stafford Pond?

Excessive algae diminishes the value of the Pond for virtually all uses.

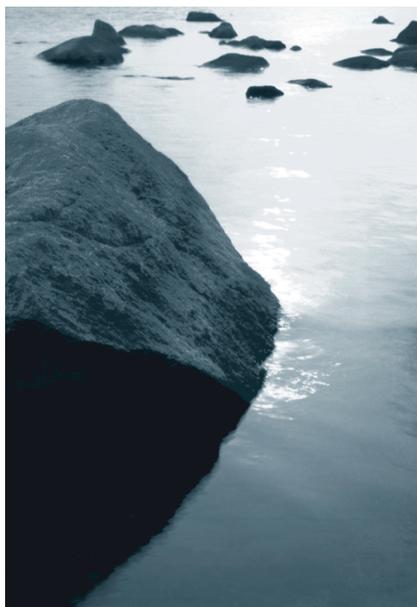
Algae blooms in Stafford Pond cause:

- Taste and odor problems for the drinking water.

- Extensive chemical treatment of the drinking water, which increases the cost of providing water.
- Adverse affects for fishing and other recreational uses. This includes loss of habitat and may even cause fish kills.

Where does the phosphorus come from?

Phosphorus occurs naturally. However, the high amounts of phosphorus found in Stafford Pond are from the land use activities within the Stafford Pond watershed. Phosphorus is found in human and animal waste, lawn and garden fertilizers, and stormwater runoff from developed areas.



Will lowering the dam at the Pond outflow make a difference in water quality?

It has been suggested that increasing the flow of water out of the Pond will increase flushing and improve water quality. However, scientists who have studied the Pond believe that there is adequate water mixing throughout due to wind and natural circulation. Most importantly, studies suggest that reducing the input of phosphorus from the watershed is far more effective at improving the Pond's water quality.

Over the last several decades, the bottom of Stafford Pond has experienced a slow build up of sediments. It is possible that the sediments are now releasing phosphorus back into the Pond. This process is called "internal cycling" of nutrients and can impact the Pond's water quality even if flushing is increased.

Water quality monitoring paints a picture of pond health

The University of Rhode Island Watershed Watch Program, a volunteer water quality monitoring program, has worked with the Tiverton community since 1992 to monitor Stafford Pond's water quality. The Rhode Island Bass Federation helped to initiate the monitoring efforts, which the Stone Bridge Fire District sponsors. On a weekly basis from April to November, trained volunteers launch their boats and monitor the Pond. From these efforts, we have multi-year data about the Pond's water quality. These data paint an annual water quality picture of Stafford Pond and also allow us to see if there are any trends occurring.

In other words, is water quality improving, degrading or staying the same over the years?

Measuring Water Clarity

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Several measurements are taken and averaged to get a clarity measurement.

The illustration below shows how algae, dirt and aquatic plants influence Secchi depth measurements. Secchi depth measurements are then matched with appropriate trophic status.

What is Trophic Status?

Trophic status indicates the general water clarity of a lake or pond. There are three categories of trophic status. They are:

Oligotrophic

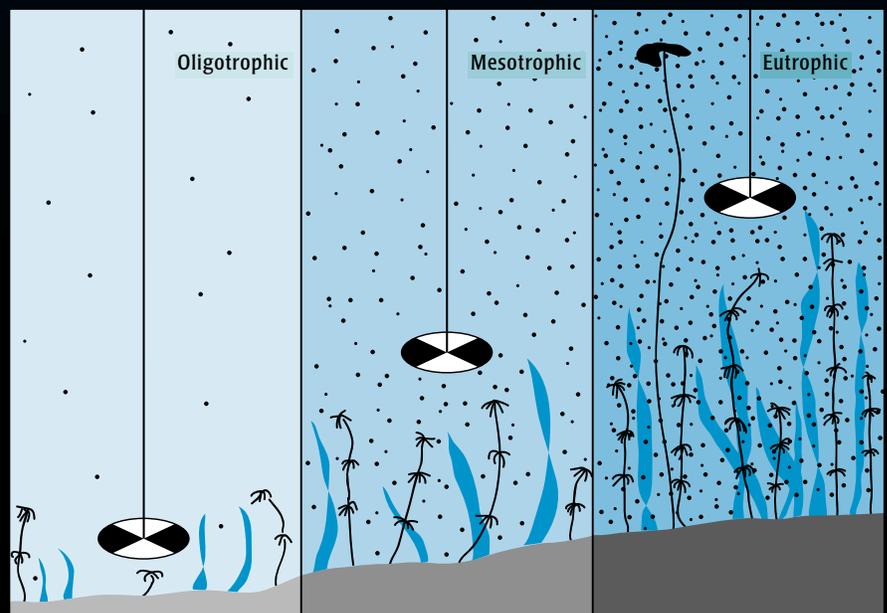
- Very clear water
- Few nutrients
- High amounts of dissolved oxygen in the bottom water

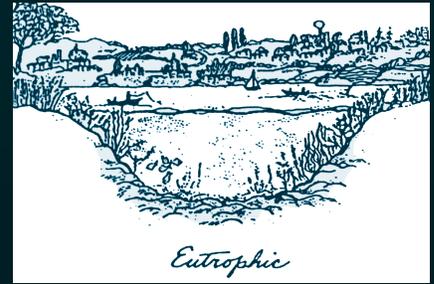
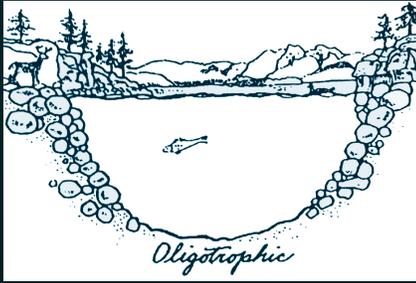
Mesotrophic

- Ponds or lakes in this category fall in between oligotrophic and eutrophic.

Eutrophic

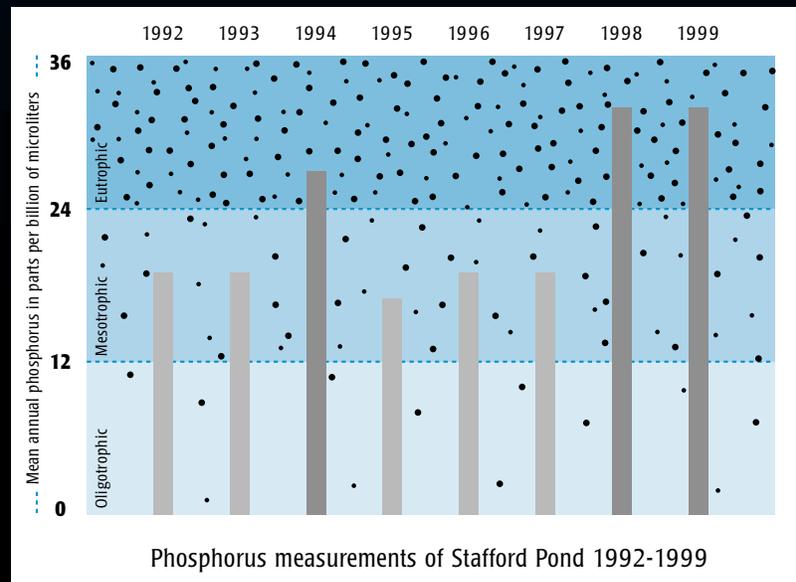
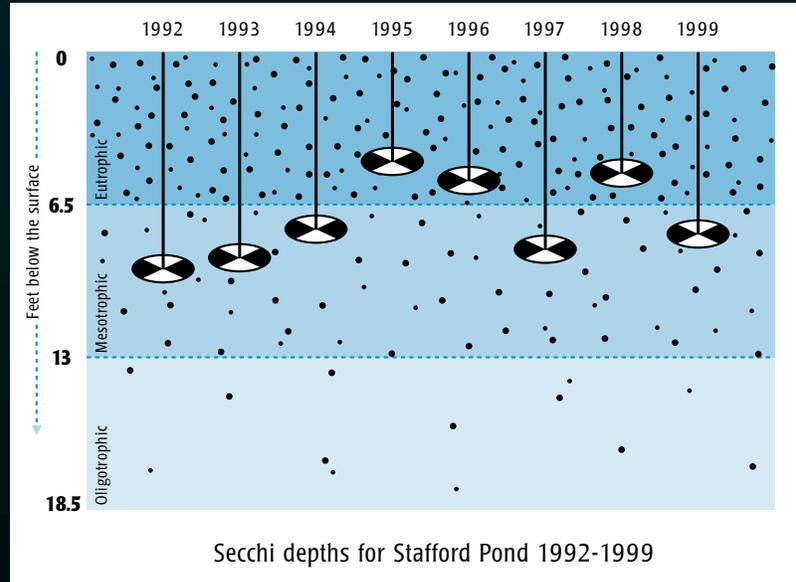
- Low water clarity
- High level of nutrients
- An abundance of algae and aquatic plants
- Low amounts of oxygen in the bottom water during the summer





As ponds age, they naturally move through the trophic status spectrum. This takes place over many hundreds of years. However, human activities can speed up this process so that a pond progresses to the eutrophic stage in as few as ten years. This is what is happening with Stafford Pond. If pollution sources can be identified and reduced, the water quality in a eutrophic pond can be improved.

From the volunteer monitoring information, Stafford Pond falls within the mesotrophic – eutrophic range. Actual water quality from year to year varies in the Pond as the graphs (at right) of Secchi depths and phosphorus levels show.



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What you can do to protect Stafford Pond

Maintain your septic system

What does my septic system have to do with Stafford Pond?

If your septic system is malfunctioning, improperly located, outdated or has failed, you could be releasing harmful bacteria and nutrients into the groundwater that feeds Stafford Pond. Cracks or leaks in your system and the clogging of your leach field are examples of problems, which, when not addressed, result in the release of untreated waste to your yard, the

groundwater and ultimately the Pond. Improperly maintained septic systems are one of the major sources of nutrients and bacteria to surface water throughout the state and the country.

What can I do?

◆ **Get informed.** Learn more about your septic system. The answers to the following questions can help you determine the potential risk your system poses to the Pond:

- What kind of system do you have?
- When was it installed?

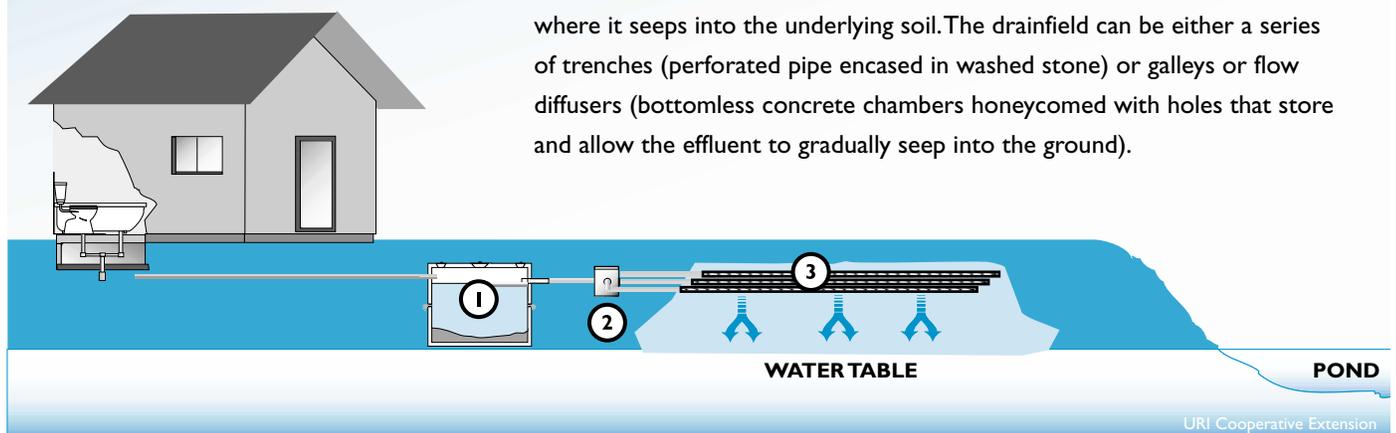
- Where is it located?
- When was it last inspected and/or pumped?

◆ **Maintain your septic system.** Prevention of leaks and failures is key to protecting water quality and to saving you money.

- **Inspect your system annually.** Annual inspections can reveal small problems that could become much more serious and costly if not addressed immediately. You can do this yourself or hire a professional.

Conventional Septic System

The standard conventional septic system consists of a septic tank followed by a drainfield, also called a leachfield or soil absorption field. Wastewater from toilet, bathtub and sink drains to a **septic tank (1)** where solids and grease are trapped and decomposition takes place. The liquid effluent flows to a **distribution box (2)** which directs flow to a **drainfield (3)** where it seeps into the underlying soil. The drainfield can be either a series of trenches (perforated pipe encased in washed stone) or galleys or flow diffusers (bottomless concrete chambers honeycombed with holes that store and allow the effluent to gradually seep into the ground).



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- **Have your system pumped regularly.** Systems vary in their need to be pumped. The best approach is to inspect your system annually and pump accordingly.
- **Do not dispose of hazardous materials down the sink or toilet.** The chemicals in these products can kill the beneficial bacteria in your tank causing it to malfunction. Because septic systems are not equipped to treat toxic materials, they will still be toxic when released into the groundwater.
- **Do not use chemical treatments for your system.** State and local laws prohibit the use of acids and organic solvents in septic systems. Bacteria and enzyme treatments are unnecessary and can't replace pumping.
- **Avoid garbage disposals.** Disposals contribute extra fibrous waste, which breaks down slowly resulting in more solid waste build up in your tank.
- **Do not flush slow-to decompose materials down the toilet.** Facial tissue, paper towels, baby

wipes, sanitary napkins, tampons, disposable diapers and cigarettes can clog your system.

- **Maintain the area above the leach field to prevent clogging.** Avoid compacting the soil. Keep trees and shrubs 10 ft. away to prevent the roots from clogging the pipes. Don't overload with water. Keep the area covered with dense grass and shallow-rooted plants rather than asphalt or concrete.
- **Conserve water.** Too much water passing through the system can wash solids out of the tank and into the drain field.
- ◆ **Research alternatives.** New technologies provide advanced levels of treatment, and increased protection of water quality in the Pond.
- **Old systems in the Stafford Pond Watershed must be replaced** to meet new septic system standards by 2005.
- **Go to a workshop or read a fact sheet.** URI's Cooperative Extension offers workshops and tours of conventional and advanced treatment systems at their Onsite Wastewater Training Center. Fact sheets on septic system maintenance are also available from Cooperative Extension.

Manage pet wastes

How does my pet affect Stafford Pond?

Septic systems are not the only source for bacteria and nutrients to the Pond. Pet waste can be washed into the Pond when in rains.

- **Pick up after your pet and put the waste in the garbage.**



- **Reduce the impact of farm animals.** Even small numbers of horses, cows and other farm animals can threaten water quality if potential problems are not addressed. Managing the manure, reducing the erosion from pastures and exercise lots, and limiting animal access to streams, lakes or wetlands are measures that can protect water quality.

What about wildlife and waterfowl?

Studies have shown that feeding waterfowl, like geese, swans and ducks, can contribute to the pollution of surface waters. When people feed the birds it not only attracts more birds, it encourages them to stay for a longer time. The waste from all these birds can add up and increase the amount of bacteria and nutrients in the Pond.

Take care in your yard and garden

How does my yard affect the Pond?

Yards and gardens in the Stafford Pond Watershed, just like natural areas, are part of the water cycle and therefore are very closely linked to the health of the Pond. When it rains or when you water your yard the water can wash soil, pesticides, herbicides and fertilizers from your yard to the Pond. Even if you don't live right next to the Pond, water that leaves your property through streams or underground in groundwater eventually ends up in the Pond.



Gardening facts:

Many gardeners use up to **20 times** more pesticides than farmers do.

In residential areas, like those around Stafford Pond, you can minimize threats to water contamination by reducing the pesticide use in your garden.

Of the many different insects found in a healthy garden, about **90%** are not harmful to plants.

The following are three major aspects of yard and garden care that can threaten the water quality in the Pond:

1. Fertilizers are designed to provide nutrients to help your garden or lawn grow better. Those same nutrients, phosphorus in particular, also speed up the growth of

the algae (microscopic plants) in the Pond. Not only is too much algae unattractive, it can lead to some serious water quality concerns. When it decomposes it uses up the limited supplies of oxygen in the water available for fish and other animals as well as leaving an unsightly, smelly scum.

- 2. Pesticides and herbicides** are potentially toxic chemicals that can contaminate water supplies. Those chemicals that do not break down in water can also threaten beneficial plants or insects.
- 3. Landscaping methods and designs** can impact the water quality of the Pond. Exposed soil is vulnerable to erosion, which carries soil into the water, making it cloudy and adding nutrients. Lawns that extend to the water's edge eliminate natural buffers which increases the threat of fertilizer, pesticide and herbicide runoff. Buffers reduce the impact of your yard on the Pond.

What actions can I take in my yard to protect the water quality of Stafford Pond?

Whole books have been written on this topic. Highlighted here are some preliminary suggestions. For lists of resources for further research, refer to page 17. There

- **Control your application.**

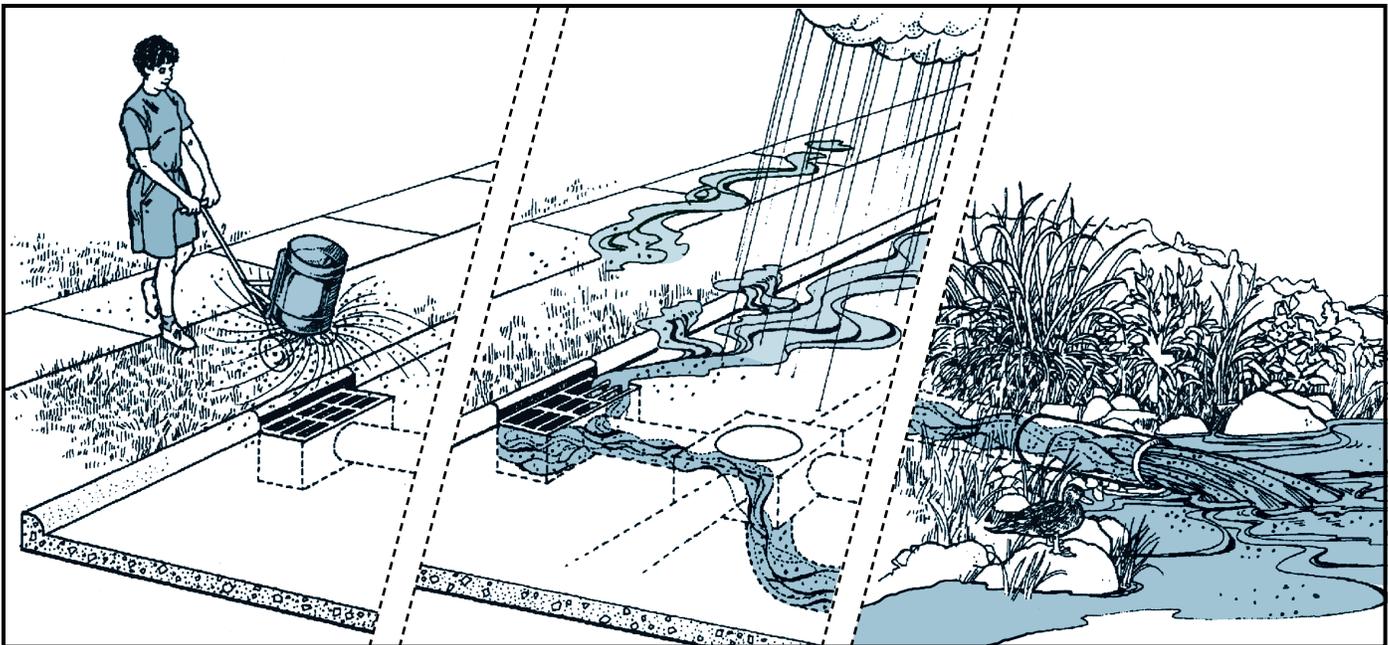
Using general broadcast methods such as a rotary spreader can result in fertilizer being applied directly to the Pond. A drop spreader and taking care to avoid the area next to the Pond can reduce this risk.

- **Use natural fertilizers.**

Lawn clippings left on the lawn will decompose, returning nutrients to the soil.

- **Manage your lawn.**

Grass kept at a height of 3 inches encourages deeper rooting, decreasing the need for water and fertilizers.



are many steps you can take to reduce the impact of your yard on the Pond. Some may even save you money!

How can I reduce the amount of nutrients entering the Pond?

- ◆ **Apply fertilizer carefully.**

- **Avoid paved areas.** Fertilizer applied on driveways, walkways or roads is easily washed away to the Pond.

- **Clean up carefully.** Sweep up spills to avoid excess fertilizer from being washed into the Pond, streets or storm drains.

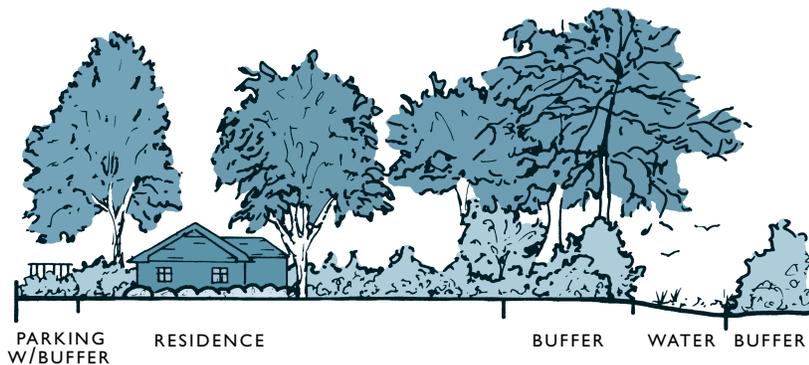
- ◆ **Reduce the amount of fertilizer you use.**

- **Find out what your soil needs.** Soil tests can help you figure out what nutrients your soil needs and the most effective methods to improve it.

Sharp blades help to keep grass healthy.

- **Don't overfertilize.** Excess fertilizer can't be taken up by the plants and can be washed to the Pond. Information on how much to use is available from URI Cooperative Extension.

- **Plan your plantings.** Different varieties are suited to different climates and soils. Choose the one appropriate for where you



- live. Native species are often better suited for your soil and so require less fertilizer and water.
- **Include natural landscapes.** These areas reduce the land where fertilizer is applied while providing habitat for wildlife.
- ◆ **Choose alternative fertilizers.**
- **Phosphorus free fertilizers** are available.
- **Slow-release fertilizers** break down more slowly, which reduces the amount that is lost to runoff or leaching.
- **Organic fertilizers** such as cottonseed, bone or blood meals, fish emulsion, compost or manure are generally slow releasing and also increase the organic content of the soil and provide micronutrients.
- ◆ **Prevent nutrients from reaching the Pond.**
- **Water with care.** Careful watering means less water to carry fertilizers to the Pond.
- **Choose drought resistant and disease tolerant varieties.** They require less watering.
- **Watch for runoff.** Water pooling on the surface can carry nutrients to the Pond.

- **Include a vegetated buffer** between your lawn and the Pond. A buffer can simply be a no-mow zone or a landscaping design that uses native vegetation.
- **Reduce runoff of storm water.** Water from storm gutters can be collected and used to water your yard or directed away from paved surfaces to increase absorption. Likewise, landscaping around driveways, patios and other paved surfaces can increase infiltration and reduce runoff.
- **Manage your yard waste.** Leaves contain phosphorus. Rake and remove leaves from Pond-side property in the fall. Don't dispose of other yard waste in the Pond.
- **Prevent erosion.** Survey your property regularly, particularly after a big storm. Correct any sites suffering from erosion immediately.
- **Avoid products that contain phosphorus** such as detergents and road de-icing salts.

How can I reduce my use of herbicides and pesticides?

There are many different alternatives to herbicides and pesticides. More specific information is available from URI Cooperative Extension.

- ◆ **Prevent pest problems.** Healthy lawns and gardens are more resistant to pests. Following the care guidelines for a healthy soil and proper watering technique results in healthier plants that require fewer pesticides. Choosing plants suited for your soil and climate also produce healthier plants, which require less maintenance.
- ◆ **Find out what the problem is.** Treating a specific problem is much more effective, costs less and can result in fewer chemicals introduced into the environment.
- ◆ **Explore your pest management options.** Do some research and try to find the solutions which have the least amount of environmental impact. Near the Pond only use chemicals approved for aquatic use.
- **Check out non-toxic or less toxic alternatives** (*see page 17*).
- **Use your hands.** Large pests like slugs and Japanese beetles can be caught in traps or plucked from plants by hand. Cardboard collars around seedlings will discourage cutworms.

- **Read the labels.** Many products, especially “weed and feed” products, may contain chemicals that you don’t need. These “extras” can harm beneficial insects, contaminate water supplies and cost you more money.



- **Avoid general pesticides.** Choose the one specific to your problem and follow the directions for the minimum application. Treat only the affected area.
- **Avoid applying pesticides before it rains.** The pesticide will be washed off the application point and possibly end up in the Pond.

Minimize your household hazardous waste

What is hazardous waste?

Why is it a problem?

Many common household products are classified by the Environmental Protection Agency (EPA) as hazardous. These products contain substances that can be potentially dangerous to people and the environment when not disposed of properly. They may be explosive, flammable, corrosive, toxic or react with other chemicals. Pouring them down the drain or storm drain, or onto a lawn or roadside ditch releases these potentially hazardous substances into the environment. Once in the environment, they can pose serious threats to the water quality in Stafford Pond.

What can I do about it?

Dispose of hazardous waste properly. Keep in mind the three R’s – Reduce, Reuse, Recycle. These efforts can help us protect our homes,

Here’s how to responsibly dispose of your hazardous household waste

Product	Disposal
Pesticides / herbicides	Eco-Depot
Gasoline	Eco-Depot
Oil-based paints	Eco-Depot
Household solvents	Eco-Depot
Automotive fluids	Eco-Depot
Pool chemicals	Eco-Depot
Photographic chemicals	Eco-Depot
Empty containers	Regular trash
Used motor oil	Used oil facility
Tires	Curbside pickup
Car batteries	Recycling centers
Latex paints	Donate or dry out and put in regular trash

Call Eco-Depot at 1-800-CLEANRI

Why do it?



5 quarts of automobile oil can produce an oil slick the size of **2 football fields** or pollute **1,000,000 gallons** of drinking water.



An average American family disposes of **5 quarts** of household hazardous waste every year.

communities and environment from potential threats due to hazardous wastes.

- ◆ **Reduce:** Just as with other forms of waste, reducing the amount of potentially hazardous substances we use means less waste we have to dispose of.
- **Check out the labels on the products you buy.** Manufacturers are required to list all the substances contained in their product as well as warnings about potential threats, but it is our responsibility as consumers to use and dispose of the product responsibly.
- **Buy what you need.** Buying too much or not the right product for the job means more waste.

- **Investigate alternatives.** Different products may be equally effective but may not produce a hazardous waste.
- ◆ **Reuse:** Many potential hazardous wastes can be reused.
- **Donate leftover products.** Except medicines and some kinds of pesticides, most products can easily be donated to someone who needs them. Just make sure the label and any other safety information is enclosed. **Tip:** Many community organizations accept donations of paints and other household products.
- **Used paint thinner and brush cleaners can be strained.** The clear part can be reused and the sludge taken to a hazardous waste facility.



- ◆ **Recycle:** Some commonly used products can be recycled by certain facilities and used in a different form.
- **Find out where the closest facility is in your community.** Used motor oil can be recycled at the oil Igloo at your local Public Works facility.
- **Make sure your car battery is recycled.** The Rhode Island Battery Deposit and Control Law states that when a person buys a new battery they should be able to return the old one. **Tip:** Contact the Eco-Depot for a list of facilities that will take the batteries for free and some may even pay for them.
- ◆ **Disposal:** Not all waste can be reduced, reused or recycled. For these wastes, safe disposal is essential.
- **Make an appointment at Eco-Depot,** a DEM managed collection facility in Providence. It's quick, easy and safe!
- **Clean up spills** by using kitty litter, sawdust or newspaper to absorb the material. Allow it to absorb for several hours, then triple bag it. If it is less than a gallon, you can put it in the trash – if more, take it to the Eco-Depot.
- **Tires** can be picked up curbside two at a time (with an annual limit of four per household).

Boat responsibly

How can boats contribute to water quality problems in Stafford Pond?

Recreational boating can affect the water quality in a number of different ways.

1. **Hazardous wastes** such as motor oil, fuel, detergents and TBT-based paints are released into the water unless steps are taken to prevent it.
2. **Erosion** caused by boat wakes can threaten shorelines.
3. **Nutrients** resulting from human and pet waste contribute to problems with excess algae growth.
4. **Invasive species** are plants and animals which, when introduced into a new area, begin to take over and out-compete native species. These species can be introduced on the hulls of boats or in their machinery.

What steps can I take to reduce the impact of boating on the Pond?

By following some simple guidelines, we can enjoy Stafford Pond as both a drinking water source and recreational location.

- ◆ **Observe the regulations posted at launch site.** Avoid the marked off areas and follow the 10 horsepower limit on boats entering at the state boat ramp.

- ◆ **Reduce the amount of oil and fuel that is released into the water.**

- Consider alternatives to gas powered motorboats such as canoes, rowboats and electric motors.



- If you're using a gas motor, maintain it to run as cleanly as possible.
- Consider using a new 4-cycle outboard motor, which doesn't burn oil with gas.
- Use drip cans to minimize fuel and oil spills. Wipe the outside surfaces of the boat and gas tank to remove any excess fuel.

- Disconnect the fuel line well away from the Pond. A small amount of fuel seeps from the line when it is disconnected.

- Use an oil-absorbing bilge pillow to remove oil from the bilge water.

- ◆ **Take care when using toxic materials.**

- Wash your boat away from the Pond.
- Avoid using toxic detergents.

- Don't use TBT-based paints. While copper-based anti-fouling paints are less toxic, they still pollute the water. Regularly cleaning the bottom of your boat is a non-toxic alternative.

- Scrape the bottom of your boat over a drop cloth. Vacuum up TBT-contaminated wastes and take them to Eco-Depot.

- ◆ **Control the speed of your boat.**

- A smaller wake causes less erosion and disturbance to the shoreline.

- ◆ **Dispose of human or pet waste properly.**

- Use a "pee can" or a large ziplock bag filled with kitty litter to avoid any spills. Pick up after your pet.

- ◆ **Prevent the introduction of invasive species.**

- Make sure to remove plants and animals from your boat, trailer

and accessory equipment before leaving any water access area.

- Washing your boat with hot water when you get home, including the motor's cooling system and other parts that normally get wet, and then drying thoroughly (three days if possible) will kill invasive plants and animals before you transport them to a new location.
- Empty your bait bucket on land.
- Make sure not to dip your bait or minnow bucket in the Pond if it has water in it from another location.
- Never dump live fish from one water body into another.
- Learn what invasive species look like. Report possible infestations to RIDEM.
- ◆ Dispose of all trash properly once you get onshore.

Support community efforts aimed at protecting Stafford Pond

- ◆ Volunteer to monitor Stafford Pond water quality with URI Watershed Watch. For more information, call the Watershed Watch Program at (401) 874-2905.
- ◆ Support community efforts to protect wetlands in their natural state. Wetland areas help to filter nutrients and many other pollutants.
- ◆ Support efforts to develop a local group. You can help continue the work of the Stafford Pond Steering Committee by developing a Stafford Pond watershed association. (The current steering committee is only an interim body while the improvements to the dairy farm and storm drains are made and the Pond education project is completed.)



What is a Watershed Association?

A long-term goal of some Tiverton residents has been to establish a cooperative watershed association that will represent the interests of the Stafford Pond residents and users to promote the restoration and protection of the Pond. Because issues can arise within a watershed that affect Stafford Pond and involve many different people, an association is a good forum to help communities address problems and concerns. Many communities have formed watershed or Lake Associations. These associations get involved in a number of different activities including protection, land conservation, educational programs and social events.

F O R M O R E I N F O R M A T I O N

Potential pollution sources	What you can do	For more information	Record your actions
Boating	<ul style="list-style-type: none"> ▪ Prevent the release of hazardous materials ▪ Avoid the introduction of invasive species ▪ Dispose of human and pet waste properly ▪ Reduce threats to shoreline 	For permitting and pollution prevention brochures: RI DEM Office of Technical and Customer Assistance (401) 222-4700 www.state.ri.us/dem/hfb/boating/boating.htm	
Household hazardous waste	<ul style="list-style-type: none"> ▪ Check the labels ▪ Reduce, reuse and recycle ▪ Dispose of wastes responsibly 	Eco-Depot 401-942-1430 ext. 241	
Landscaping	<ul style="list-style-type: none"> ▪ Reduce the impact of fertilizer on the Pond ▪ Prevent runoff ▪ Limit use of herbicides and pesticides 	For sustainable landscaping, yard and garden care and alternatives, and soil testing: URI Cooperative Extension 1-800-448-1011 www.uri.edu/ce/ceec/greenshare.html	
Pet waste	<ul style="list-style-type: none"> ▪ Curb your dog ▪ Don't leave pet waste in areas vulnerable to runoff ▪ Reduce the impact of farm animals ▪ Control pet populations 	For technical assistance for manure management : USDA Natural Resources Conservation Service (401) 828-1300	
Septic systems	<ul style="list-style-type: none"> ▪ Get informed ▪ Maintain your current system ▪ Research alternatives 	For information, training programs and technical assistance: URI CE On-Site Wastewater Training Center (401) 874-5950 For regulations and permits: RI DEM Permitting Section (401) 222-6820	

For more information about community conservation efforts or to get involved in the protection of Stafford Pond:

- Tiverton Conservation Commission (401) 625-6710
- Stonebridge Fire District, Water Treatment Facility (401) 624-4486 or 625-1502
- Stafford Pond Improvement Association, Ed Adamoski (401) 624-7246
- Household pollution prevention:
 University of Rhode Island Cooperative Extension Home*A*Syst Program (401) 874-5398
- Drinking water testing and treatment:
 RI Department of Health, Drinking Water Section (401) 222-6867
- Water quality regulations and protection measures:
 RI Department of Environmental Management, Office of Water Resources (401) 222-4700
- You can view maps of Tiverton land use and natural resources, surface water, groundwater and biodiversity on the web at www.edc.uri.edu/riatlas