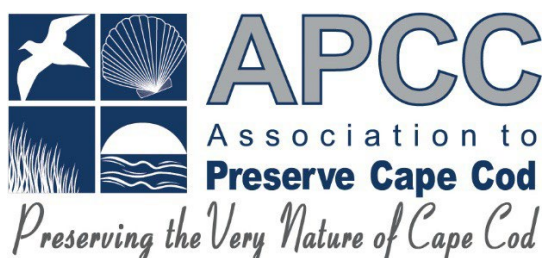


A Guide to Pond Stewardship

How to start a Pond Association



Introduction

Freshwater Ponds of the Cape: Their Natural History

What is a Pond Association?

Starting a Pond Association

- Logistics and Organizing

- Mission, Vision and Goals

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APCC: What We are Doing, How We Can Help

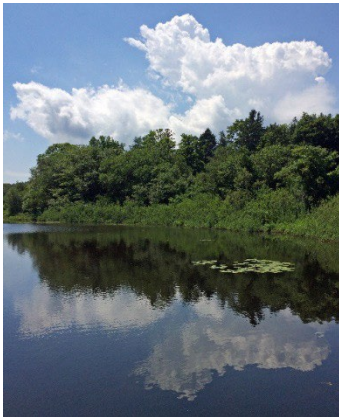
Established Cape Cod Pond Associations

Resources and References

Introduction

The purpose of this guide is to provide a “how to” manual for residents living on the Cape who want to be active in caring for a pond they love. One way is to form a pond association. While there are many existing conservation and pond preservation groups throughout the Cape, this guide is aimed at those who want to form their own pond association, similar to a neighborhood association. Important resource information is included about the natural history of Cape Cod’s ponds, contact information for pond preservation groups already doing great work, and tips for how you can start a pond association.

The Cape’s freshwater ponds are the jewels of Cape Cod. They provide recreation, enhanced property value, unique critical habitat for wildlife and plant communities, and are windows on our aquifer, the groundwater from which most of the Cape derives its drinking water. However, ponds are also at risk from over-use, degraded water quality due to poor stormwater management, fertilizer use on landscapes in the watershed, and wastewater from septic systems. Pond associations, both large and small, are crucial to the continued protection of the Cape’s ponds as they can provide great value by informing residents about pond health and engaging residents to take positive actions to protect these special ecosystems.



The Association to Preserve Cape Cod (APCC) takes a keen interest in the health of the Cape’s ponds and works with towns and pond groups to monitor their water quality. APCC makes this information publicly accessible through a dedicated website, CapeCodWaters.org, which is home to APCC’s special annual report: *State of the Waters: Cape Cod*. There, you will find water quality data and action items that we can all take to protect the Cape’s ponds. In this guide, you will find a resource list of state and regional agencies, existing freshwater pond groups, and relevant resource materials.

Some of the Cape’s ponds are designated [Great Ponds](#) because they are over 10 acres in size and therefore are owned by the Commonwealth. But there are many more ponds that are privately owned. Privately owned ponds may be under single ownership, or by each pondfront owner, in which case the property lines meet in the center of the pond. While ownership has some implications, taking action to protect the health of the Cape’s ponds belongs to us all. Joining together with a common interest in pond stewardship is an effective means of protecting and preserving our valuable freshwater ponds, and this is where pond associations can be especially rewarding.

If you live on a pond or enjoy a special pond near you, we encourage you to join an existing pond association or consider starting one. We hope this guidebook is helpful for you to take action!

No matter how you get involved, APCC thanks you for supporting our efforts in keeping ponds safe and healthy. We cannot do our work without your support!

Freshwater Ponds: Their Natural History



Satellite imagery captures just the largest of the Cape's lakes and ponds.

The Cape Cod Commission's Pond Atlas states there are 890 ponds and lakes throughout Cape Cod. No matter the size, these bodies of water serve many important functions and play a significant role as one of the many ecosystems that make up the living natural resources of Cape Cod.

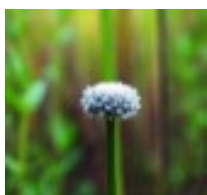
Created by the retreating glacier more than 15,000 years ago, most of the ponds are kettle ponds, deep ponds with steep banks. They are connected to groundwater and therefore, pond water levels are reflective of groundwater levels. Our groundwater and the aquifer from which most of the Cape derives its drinking water is totally dependent on rain and snow melt for replenishment.

Ponds are Home to Animal and Plant Species

Freshwater ponds and lakes throughout the Cape support a wealth of biodiversity. Many of our ponds are considered [coastal plain ponds](#), home to special plant communities that have adapted to the seasonal and cyclical fluctuating water levels. Plants and animals, including many that are rare and endangered, rely on these waterbodies for nesting, food, shelter, and habitat. These protected species are on the [MA List of Endangered, Threatened and Special Concern Species](#).



Plymouth Gentian
Sabatia kennedyana



Pipewort
Eriocaulon aquaticum



Pickerel Weed

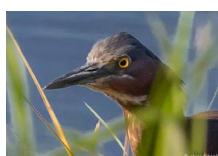


Dragonflies & Damselflies

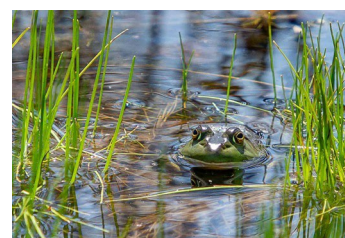


Mark Lotterhand © 2021

Painted Turtle



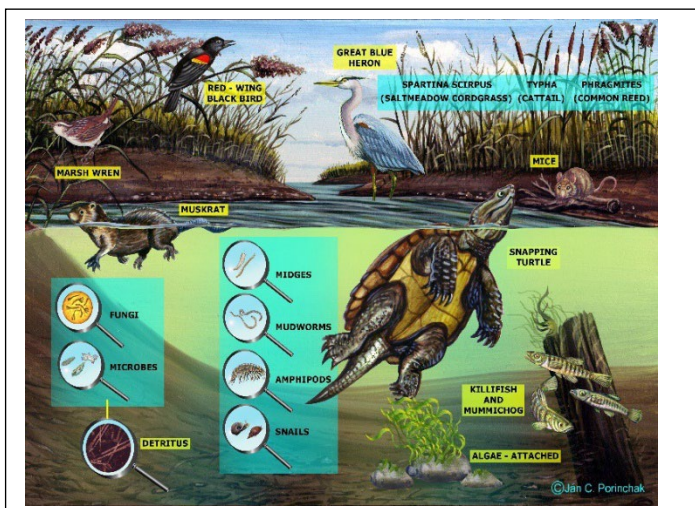
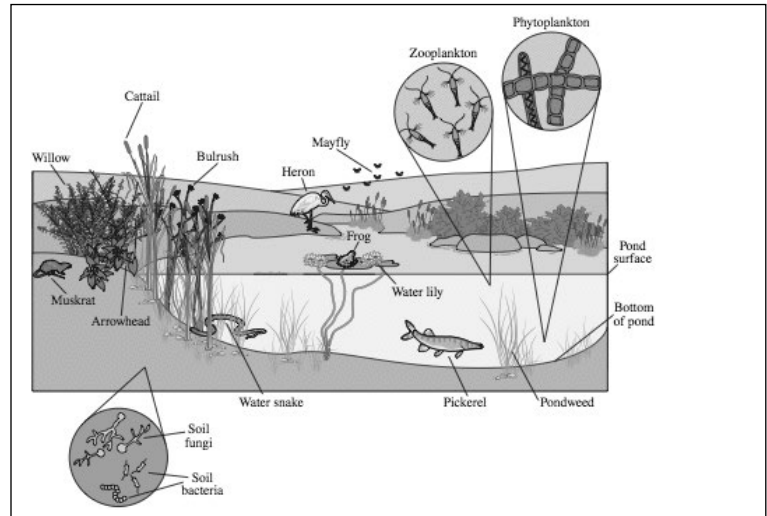
Green Heron



Bullfrog Photo by Gerald Beetham

Pond Ecology

Ponds aren't just important for plants and animals; they play a key role in how nitrogen and other potential biohazards are broken down. The bottom of a freshwater pond is filled with sediments where microorganisms break down organic matter and nutrients are recycled. No matter the size of the pond, these natural functions are important for ecosystem health.



Ponds serve many different functions throughout the year. During fall and winter, life beneath the iced over water still goes on. Anaerobic bacteria thrive in the colder, less oxygenated water and break down organic matter, recycling nutrients. In the spring and summer months, snow and ice from the previous season begin to melt and the cold water sinks to the floor of the pond. This creates small currents within the pond, circulating nutrients that support algal growth. These algae are the basis for the entire ecosystem community of plants, animals, fungi,

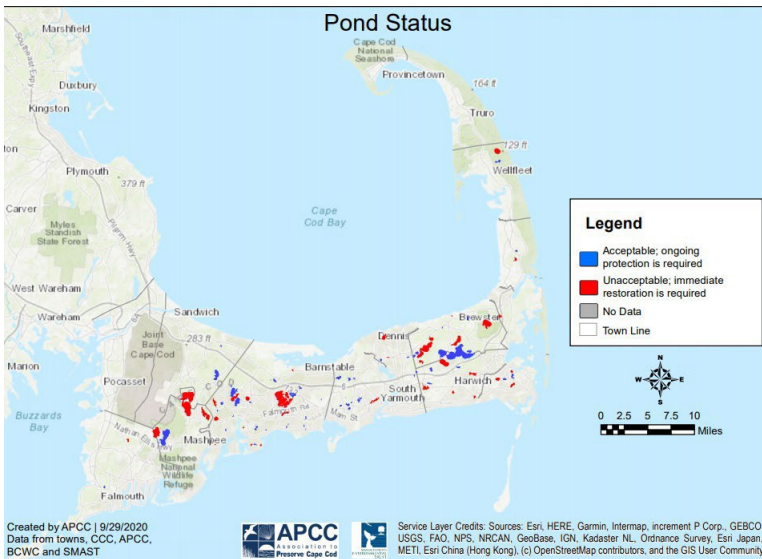
and bacteria. Together these organisms support each other through a variety of connections and dependencies that have been developed through co-evolution over generations.

This concept of an ecological community is important to keep in mind when it comes to protecting pond and lake habitats. Like many things in nature, that which threatens one aspect of the ecosystem threatens the entire ecosystem.

Nutrients – phosphorus and nitrogen

Phosphorus has long been said to be the “limiting nutrient” in freshwater systems, meaning that it is the primary nutrient that affects plant growth. However, studies indicate that nitrogen also plays a role. When there is an excessive amount of nutrients, a pond can become eutrophic, which means there will be accelerated plant, algae, and cyanobacteria growth. Eutrophication causes a reduction in water clarity. Further, algal blooms limit light penetration that causes die-off of plants. When algae and plants die, the microbial decomposition depletes dissolved oxygen, creating ‘dead zones’ that lack sufficient oxygen to support most organisms. Nutrients come from septic systems, fertilizers, and stormwater runoff.

The Problem ~ Ponds at Risk



Pond Status from State of the Waters: Cape Cod 2020

Cape Cod, gives a Cape-wide look at water quality concerns. Importantly, there is an Action Plan with specific actions we can take to protect and improve water quality that can be viewed at CapeCodWaters.org.

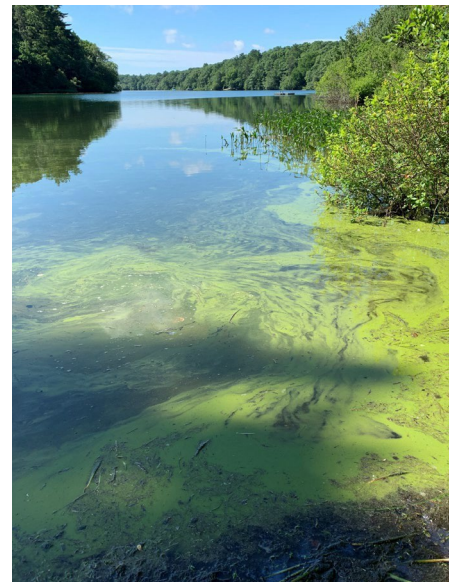
The excess nutrients, together with warm water temperatures spurred on by a changing climate, fuel algal blooms and toxic cyanobacteria blooms. Toxic cyanobacteria blooms pose serious health concerns for people, pets, and wildlife. In recent years, cyanobacteria blooms have occurred more frequently in the Cape's ponds. You can learn more about cyanobacteria and APCC's monitoring program at APCC.org/cyano.

Natural pond ecosystems are also threatened by non-native plant species that grow along the shoreline. Invasive species such as phragmites and gray willow grow quickly and once established will crowd out the imperiled coastal plain pond shore plant community and other native plants. Aquatic invasive species that thrive in the pond, such as hydrilla and Eurasian milfoil, clog the water, changing the ecosystem and the recreational enjoyment of a pond.

Ponds face additional challenges related to development, habitat destruction, groundwater drawdown from public water supply wells, and the multiple impacts of climate change.

We know our ponds are at risk. The Commonwealth posts a list of ponds with [fish consumption advisories](#) due to mercury contamination and other pollutants. The water quality data gathered by Cape Cod towns and volunteer groups indicate a declining trend in water quality for many of our ponds, largely due to increased nutrients entering the ponds. While the process of pond eutrophication is a natural process, nutrient pollution from septic systems, fertilizers, and stormwater causes accelerated plant growth and eutrophication.

APCC's annual report, *State of the Waters*:



Cyanobacteria bloom

What is a Pond Association?

A pond association is any group of individuals that regularly and actively works to preserve and protect pond/lake health.

There are many benefits to working in groups as an association rather than as an individual. Pond associations allow people to gain strength and popularity in numbers, develop a partnership with neighbors and others, create a communication network for sharing pond news, and access a variety of skills and expertise from many different people. A pond group can be any size. Its makeup can be of property owners that are on the pond, and it can be users of the pond. In reality, any person with an interest in the pond's health can be a valued member of a pond association.

Some examples of pond association activities are:

- Engaging property owners in the pond's watershed to follow best practices that will help protect pond health
- Helping identify pond management issues
- Hosting events to gather pondfront property owners and pond users together to get to know one another
- Facilitating discussions or inviting knowledgeable speakers to educate members on pond topics
- Distributing information to property owners about the value of reducing fertilizer use
- Establishing a water quality monitoring program with the help of APCC
- Advocating for improved stormwater management around the pond

No matter the size of the association, pond associations are essential to ensuring that ponds are a priority for conservation and protection in their community.

Starting a Pond Association

Organizing - Where to start?

Talk with friends and neighbors who may be interested. Engage others who have expressed interest, or whom you know enjoy fishing in the pond, nature walks, and the outdoors in general. Begin meeting informally to discuss ideas and the issues you want to address. Get to know the group, identify the strengths of different people in the group. What other skills and knowledge do individuals possess that can be beneficial to forming a pond association?

Get informed about what is already known about your pond(s).

Establish a routine time and place for future meetings and assign people roles and responsibilities according to their preference, skills, and expertise.

[Read the story of Deep Pond Preservation Project here.](#)

You've decided to give it a go? Fantastic! Here are the next steps...

Mission, Goals, & Vision

A clear mission, attainable goals, and strong vision are three of the most important parts of any organization or association. Meet with your key organizers to write a short but informative mission statement for the pond association. A mission statement defines the purpose of the association and briefly explains what the association does. Here is an example from the Brewster Ponds Coalition:

"The Brewster Ponds Coalition is dedicated to preserving and nurturing the natural beauty, healthy habitats, and recreational opportunities of Brewster's Ponds, and to safeguard them for current and future generations."

Goals of the pond association should be broken down into two categories: short-term (3-6 months) and long-term (1-3 years). Start with a manageable number of goals, perhaps two or three short-term goals and two or three long-term goals. A majority of the short and long-term goals should be achievable with some goals being more idealistic. These goals can change and shift in priority from time to time, but a master list of goals is always a good idea to keep for reference.

Publicity and Events

Hosting events and having publicity in the community and surrounding area is key to getting more members, fundraising, and achieving the pond association's goals and objectives. Events can be educational, formal, or informal. They can be held monthly or even quarterly depending on the association. Ideas for events include:

- Having a nature walk around the pond.
- Hosting a speaker from the area.
- Showing a relevant film with an informative discussion following the screening.
- Organizing a pond litter clean-up.
- Hosting a potluck dinner.
- Holding a public meeting to discuss issues surrounding ponds.

Collaboration is always a good idea because it builds the association's reputation with leaders in the area and opens doors for networking and long-lasting partnerships. Look for community partners in the area, such as a library, your local land trust, or your town's conservation department that may have a larger pool of resources. Spreading the word to the community is valuable, so no matter the size of the event, publicize it! Put up flyers in local business, libraries, and town offices. Create an email list of interested persons to whom you can send email notices. Use of social media is an especially easy way to publicize events. Submit press releases to local papers and event notices to radio stations – there's no cost to do so and it will get the word out.

Planning Long-Term

Planning long-term is essential to establishing and maintaining any organization. The best way to plan long-term is to think strategically about what needs to be done to accomplish long-term goals. For example, if the pond association wants to reduce the amount of phosphorous in a local pond by a certain amount by next May, prioritize and plan what must be done between now and then to reduce the desired amount of phosphorous. After these steps are laid out, assess those that will take the longest to plan and implement. Include the time it will take to put on events, gather water quality data, and other procedural logistics. This may include fundraising and partnering with other organizations. Come up with a strategic plan for how the pond association will accomplish these steps. Having regular meetings, open communication, and assessing the strengths, weaknesses, and mission of the association are all things that are important to long-term planning. Address any contentious issues as soon as they arise to avoid escalation. Do not be afraid to change or modify goals and plans as needed.

Fundraising and Grants

Fundraising and grant writing are two of the most important parts of maintaining an association and achieving goals. There is much that an association can do without funding, especially in the early stages of development, but many goals cannot be achieved without financial support. Before an association applies for grants, it is important keep in mind several things:

- Create a diverse fundraising plan, do not rely on a single source for funding.
- Research grant opportunities and foundations.
- Invest in grant writing training for members of the association or find someone who is well-qualified to write grants. APCC may be able to help.
- Apply for a grant only if the association's project matches all the grantor's criteria.
- Understand that many first-time grant applications are rejected. If this happens, ask the grantor where the application fell short. This will help you make the next application better.
- Seek partners. Sometimes the town, a town pond coalition, or APCC can be joint applicants, or act as your fiscal agent if non-profit status is required.

Start with small and community-based philanthropic foundations. Collaborate with other groups to share resources or be co-applicants. Establish partnerships with groups that will offer letters of support for your project and grant application.

Go for the low hanging fruit. There are many pond protection projects that can be accomplished for little or no money, such as an organized day for litter pick up. A mailing to neighbors with a letter of ways they can be good pond stewards. A social get together for a presentation by an expert on a relevant topic. Less than \$100 will pay for a round of baseline water quality testing. For a list of possible actions, go to [State of the Waters: Cape Cod's Action Plan](#).

To be or not to be...a 501(c)3

For your careful consideration, here are some pros and cons about incorporating as a nonprofit:

ADVANTAGES

Tax exemption/deduction: Organizations that qualify as public charities under [Internal Revenue Code 501\(c\)\(3\)](#) are eligible for federal exemption from payment of corporate income tax. Once exempt from this tax, the nonprofit will usually be exempt from similar state and local taxes. If an organization has obtained 501(c)(3) tax exempt status, an individual's or company's charitable contributions to this entity are tax-deductible. [Learn more about starting a nonprofit.](#)

Eligibility for public and private grants: Many foundations and government agencies limit their grants to public charities. Nonprofit organizations also can offer tax deductions to individuals or businesses that give charitable contributions.

Formal structure: A nonprofit organization exists as a legal entity in its own right and separately from its founder(s). Incorporation puts the nonprofit's mission and structure above the personal interests of individuals associated with it.

Limited liability: Under the law, creditors and courts are limited to the assets of the nonprofit organization. The founders, directors, members, and employees are not personally liable for the nonprofit's debts. However, there are exceptions. A person cannot use the corporation to shield illegal or irresponsible acts on his/her part. Also, directors have a fiduciary responsibility; if they do not perform their jobs in the nonprofit's best interests, and the nonprofit is harmed, they can be held liable.

Contracting with third parties. A nonprofit corporation is able to contract directly with suppliers, financial institutions, and other organizations or individuals. With an unincorporated association, one or more of the association's members must personally enter into such contracts.

Given these advantages, why would you not want to incorporate as a nonprofit?

DISADVANTAGES

Cost: Creating a nonprofit organization takes time, effort, and money. Fees are required to apply for incorporation and tax exemption. The use of an attorney, accountant, or other consultant may also be necessary.

Paperwork: As an exempt corporation, a nonprofit must keep detailed records and submit annual filings to the state and IRS by stated deadlines in order to keep its active and exempt status.

Shared control: Although the people who create nonprofits like to shape and control their creations, personal control is limited. A nonprofit organization is subject to laws and regulations, including its own articles of incorporation and bylaws. In MA, a nonprofit is required to have a board of directors, who in turn are the only people allowed to elect or appoint the officers who determine policy.

Scrutiny by the public: A nonprofit is dedicated to the public interest; therefore, its finances are open to [public inspection](#). The public may obtain copies of a nonprofit organization's state and Federal filings to learn about salaries and other expenditures.

Find answers to frequently asked questions about nonprofits from [Mass.gov](#).

APCC: What We are Doing & How We Can Help

APCC is committed to preserving the natural resources of Cape Cod. We do this in a variety of ways, including engaging citizen scientists in local programs such as herring counting each spring and the cyanobacteria monitoring program. We work with pond associations, towns, and volunteers to gather valuable data.

Through APCC's Restoration Coordination Center, we work with Cape communities in a variety of ways to accomplish projects that will habitat restoration projects, such as the projects to restore the Coonamessett River and the Childs River. APCC promotes projects that will improve water quality for more vibrant ecosystems.

We are happy to give encouragement, provide speakers and outreach materials, and offer technical assistance with proposed projects.

Existing Cape Cod Pond Associations

There are many pond associations already established on the Cape that can provide guidance and ideas as well as resources, outreach materials, and additional information. Here are just a few:

[Brewster Ponds Coalition](#)

[Friends of Chatham Waterways](#)

[Orleans Pond Coalition](#)

[Indian Ponds Association](#)

[Deep Pond Preservation Project](#)

[Falmouth Water Stewards](#)



Resources and References

[Association to Preserve Cape Cod](#) APCC works to preserve the nature of Cape Cod through a variety of scientific, community and educational programs. The APCC website provides a wealth of information about upcoming events, current issues facing Cape Cod ecosystems and more.

[State of the Waters: Cape Cod](#) This is an annual report by APCC on the state of water quality across the Cape and is based on the most recent available water quality data. The report is presented on a dedicated website (CapeCodWaters.org) and includes an interactive map, resources, and an [Action Plan](#) with steps that can be taken to protect the health of the Cape's ponds.

[A Renter's Guide to the Natural Resources of Orleans, MA](#) The [Orleans Pond Coalition](#) has published this brochure about the natural resources of the town and ways in which both visitors and renters can help protect the environment of Orleans. This brochure can serve as a template for pond associations that want to create their own informational publications.

[Cape Cod Commission Pond and Lake Atlas](#) Created by the Cape Cod Commission in 2003, the CCC Pond and Lake Atlas provides an overview of the fresh waters of the Cape. It includes information on water quality, fisheries, watershed management and continued pond monitoring,

[Cape Cod Pond and Lake References](#) The Cape Cod Commission has released this list of Pond and Lake references for those interested in lakes and ponds. The list goes town by town and sites publications, town planning documents, local bylaws and publications around the health and water quality of ponds and lakes.

[Friends of Chatham Waterways Blue Pages](#) Based on the original Orleans Pond Coalition's *Blue Pages* (see below), the *Chatham Blue Pages* is a compiled resource on materials related to ponds, lakes and marshes around Chatham and surrounding areas. It includes information on the hazards facing lakes and ponds, pollution, and tips for how everyone can protect both salt and fresh water.

[Indian Ponds Association ~ A Residents Guide to the Indian Ponds](#) The residents' guidebook from the Indian Pond Association was the inspiration for this booklet. It contains information specific to the Indian Ponds, as well as ponds in general. It provides information on the ecological communities that depend on ponds, the challenges in preserving them and a handy guide to local and state laws pertaining to the protection of ponds.

[Indian Ponds Assoc. A Residents Guide to the Indian Ponds References and Further Reading](#) Along with the residents' guide, the Indian Pond Association has put together a list of resources and references about the social, cultural and historical importance of ponds, and responsible pondside living.

[Massachusetts Lake and Pond Guide](#) Developed by the Massachusetts Dept. of Conservation and Recreation, this in-depth guidebook gives information on understanding lakes and ponds, actions individuals can take to protect them, and lake and pond issues and management.

[Mass Energy & Environmental Affairs: Lakes and Ponds](#) Mass.gov has a webpage dedicated to information about ponds and lakes in Massachusetts. It contains information on native species that live around ponds, weeds that can become hazardous, publications and guides for boat owners.

[Nantucket Pond Coalition Educational Resources](#) Although specific to Nantucket, these educational resources can be used by any pond association on how to educate the public about ponds in the local area. They also provide a general overview of pond health and hazards, as well as how the health of ponds effect people.

[National Seashore Lakes and Ponds](#) The National Seashore gives information on the lakes and ponds found throughout the outer Cape. These resources focus on glacial kettle ponds and contain information about how to keep these unique ponds beautiful and thriving. There is also a Kettle Pond Data Atlas and past reports regarding pond conditions on the National Seashore and their continued progress in restoring them.

[Orleans Blue Pages: A Guide to Protecting Cape Cod Waters](#) The *Orleans Blue Pages* provide information on pond and lake resources throughout Orleans and the surrounding area. The Blue Pages were created to help people understand the Cape's waterways and how to best protect them and have served as a model or other towns like Chatham.

[PBA: A Shoreline Assessment of Lakes and Ponds in the Pleasant Bay ACEC](#) This survey report, issued by the Pleasant Bay Alliance, examined pondside vegetation and the impact that humans have on these fragile ecosystems. The report contains an overview of the study, the critical environmental concern that Pleasant Bay faces, and a discussion about the need for further study of the Pleasant Bay area and the vegetation that grows there.

[Pond Maps of Southeast Massachusetts](#) This interactive map of ponds throughout Massachusetts allows people to explore the variety of different freshwater habitats throughout the state. You can also examine pond depth, shorelines, boat access and the types of fish found in these ponds.

[Ponds Management Plan Wellfleet](#) Created in 2011, the Wellfleet Ponds Management Plan gives a detailed overview of pond management practices, the historical significance of ponds, shoreline issues and sections on specific ponds in Wellfleet. This handy guide can be adapted to any town pond management program and used to brainstorm ideas about creating a database or informational booklet for any pond association.

