



Explore Cape Cod National Seashore

VISITOR CENTERS:

CAPE COD NATIONAL SEASHORE HAS TWO VISITOR CENTERS: SALT Pond in Eastham and Province Lands in Provincetown. Both centers have staff to assist visitors with orientation and trip planning; and stores featuring books, maps, puzzles, games, and other interpretive items provided by the park's education partner, Eastern National. ♿

Salt Pond Visitor Center: open daily from 9 AM to 4:30 PM (later during the summer). This visitor center offers magnificent views of Salt Pond, Nauset Marsh, and the Atlantic; an outstanding museum; and regularly scheduled films in the theater. New exhibits showcase the Outer Cape's location in the Gulf of Maine ecosystem and Wampanoag culture and history. Restrooms are available in the parking area. The Nauset Marsh and Buttonbush trails and the Nauset Bicycle Trail are nearby. Location: off Route 6, Eastham. Telephone: 508-255-3421.

Province Lands Visitor Center: open daily from 9 AM to 5 PM, May 25 through September 2. Just two miles from the tip of the Cape, this center features an observation deck with 360-degree views; a small exhibit area; showings of park orientation films every half hour (9 AM to 4 PM). Whales are often viewable from here. Restrooms are available in the parking area. The Province Lands Bicycle Trail and Race Point Beach are nearby. Location: off Race Point Road, Provincetown. Telephone: 508-487-1256.

WALKING AND HIKING SELF-GUIDING TRAILS

THERE ARE TWELVE SELF-GUIDING TRAILS AT THE SEASHORE THAT ARE open year round: in Eastham - the Fort Hill, Red Maple Swamp, Buttonbush, Nauset Marsh, and Doane trails; in Wellfleet - the Atlantic White Cedar Swamp and Great Island trails; in Truro - Pamet Area Bearberry Hill Overlook, Small's Swamp, Highlands Woods Walk, and Pilgrim Spring trails; and in Provincetown - the Beech Forest Trail. Interpretive folders with information on natural and historic features are available at some trailheads.



Ranger-guided programs offer opportunities to explore and enjoy park resources in a variety of settings with knowledgeable staff, enhancing your park experience. (NPS photo)

Superintendent's Message "Take a Hike, Call Me in the Morning"

Richard Louv's book *Last Child in the Woods* (2005) chronicles the demise of unstructured outdoor time for children. For many of us who recall leaving the house on a summer day after breakfast and returning home after a full day of exploring woods, streams, and fields, this is a major lifestyle change. The consequence is a loss of connection to nature. Louv's latest book, *The Nature Principal* (2011), takes this disconnection from nature a step further, concluding that it is detrimental to our mental and physical health. He proposes a "new nature movement... where pediatricians and other health professionals prescribe nature; where park rangers become para-health professionals... Where antidepressants and pharmaceuticals are prescribed less and nature prescribed more... where obesity - of children and adults - is reduced through nature play."

Health professionals are seeing the benefits of outdoor time. The Veterans Administration, for instance, notes success with post-traumatic stress disorder patients who participate in outdoor activities. They are "awed at the powerful effect that nature has to promote healing." A 2008 study published in *American Journal of Preventive Medicine* finds that the greener the neighborhood, the lower the body mass index of children.

What's the connection to National Parks? National park areas preserve

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National Park Service
U.S. Department of the Interior

Cape Cod National Seashore

99 Marconi Site Road
Wellfleet, MA 02667

Superintendent: George E. Price, Jr.

E-mail: Superintendent_CACO@nps.gov

Park Headquarters

508-771-2144

Fax Number

508-349-9052

Salt Pond Visitor Center

508-255-3421

Province Lands Visitor Center

508-487-1256

Race Point Ranger Station

508-487-2100

Oversand Office at Race Point Ranger Station

Route Information: 508-487-2100 ext. 0926 (April 15 through November 15)

Permit Information:

508-487-2100 ext. 0927

Nauset Ranger Station

508-255-2112

North Atlantic Coastal Lab

508-487-3262

Website: www.nps.gov/caco

Emergencies: 9 - 1 - 1

Visitor Services

CAPE COD NATIONAL SEASHORE'S 40 MILES OF PRISTINE OCEAN BEACH AND 44,000 ACRES MAKE IT A premier destination for exploring natural and cultural features and enjoying recreational activities.

BIKING

THERE ARE THREE BICYCLE TRAILS UNDER THE care and maintenance of Cape Cod National Seashore: Nauset Trail in Eastham (1.6 miles), Head of the Meadow Trail in Truro (2 miles), and the Province Lands Trail in Provincetown (loop trail 5.45 miles). Massachusetts state law requires children 16 and younger to wear protective helmets when operating a bicycle or riding as a passenger. It is advisable that all riders, regardless of age, wear protective headgear to ensure a safe and enjoyable experience.

CAMPING

THE NATIONAL PARK SERVICE DOES NOT OPERATE a campground at Cape Cod National Seashore. Camping is available at private and state-operated facilities (see page 16). Overnight camping and parking within Cape Cod National Seashore are prohibited.

PETS

CAPE COD NATIONAL SEASHORE REQUIRES THAT pets be controlled by a leash at all times. Specific areas where pets are prohibited, such as ponds, shorebird nesting areas, and lifeguard-protected beaches, are posted. Ask at seashore visitor centers or ranger stations about restrictions.

ACCESSIBILITY

PARK TRAILS AT DOANE ROCK IN EASTHAM AND the Marconi Station Site in Wellfleet have been surfaced to accommodate wheelchairs. Large-print versions of official park publications and the Buttonbush Trail are available for people with impaired vision. Park films have captions and audio descriptions. Coast Guard and Herring Cove beaches provide accessible parking, restrooms, changing facilities, and beach wheelchairs. Herring Cove Beach features showers that accommodate wheelchairs.

CAMPFIRE PERMITS

A LIMITED NUMBER OF CAMPFIRE PERMITS PER day, per seashore beach, may be reserved up to three days in advance in person or by phone reservation. Locations are: Salt Pond Visitor Center for Coast Guard, Nauset Light, and Marconi beaches; or Province Lands Visitor Center for Head of the Meadow, Race Point, and Herring Cove beaches. Fire permits for the Oversand Route are issued through the Oversand Station at Race Point. Permits are free and must be picked up at the reserving visitor center prior to 3:30 PM the day of the fire. Demand often exceeds the number of permits available. (See chart below for day of reservation for day of fire.)

How to Reserve a Fire Permit:	Reserve on:	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	For a fire on:	Wed	Thurs	Fri	Sat	Sun	Mon	Tues

On the cover: *Atlantic Coastline, Truro*, by Philip Keohan. Philip is a professional photographer and part time interpretive park ranger at Cape Cod National Seashore. His photographic prints are available at the Eastern National bookstores at both seashore visitor centers.



Kayakers, Nauset Marsh (NPS photo)

Superintendent's Message
continued

our nation's most significant natural and cultural treasures, and they also provide superb opportunities for outdoor experiences and exercise.

This concept is not new. In 1963, Cape Cod National Seashore was the site of the first bike trail in the National Park System. Dr. Dudley White, public health advocate and physician to President Eisenhower, cut the ribbon to open the 7.2-mile Province Lands Bike Trail. He once said, "A vigorous five-mile walk will do more for an unhappy but otherwise healthy adult than all the medicine and psychology in the world." Earlier, at the turn of the 20th century, naturalist John Muir wrote, "Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wilderness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life."

In its *Call to Action: Preparing for a Second Century of Stewardship and Engagement*, the National Park Service describes how parks can promote health. The initiative "Take a Hike, Call Me in the Morning" aims to increase citizen recognition of the value of parks to improve health and well-being. This is easily done at Cape Cod National Seashore, where there are boundless opportunities for firsthand experiences with the outdoors.

Whether you are visiting the national seashore from across the country or across town, we invite you to take a walk, ride a bike, paddle a canoe, or simply find a quiet place to sit and reflect. You will feel better for it, and if you encourage your children or young friends to join you, you will help restore an immeasurable benefit that is missing from the lives of many young people today.

George E. Price, Jr.
Superintendent

Beach Activities and Fees

CAPE COD NATIONAL SEASHORE MANAGES SIX OCEAN BEACHES IN FOUR TOWNS: EASTHAM (COAST GUARD AND NAUSET LIGHT BEACHES), WELLFLEET (MARCONI BEACH), TRURO (HEAD OF THE MEADOW Beach), and Provincetown (Race Point and Herring Cove beaches). All national seashore beaches include the following facilities and services: showers, paved parking, restrooms, changing rooms, drinking water, water quality testing, and lifeguards (late June through Labor Day). Two beaches, Coast Guard in Eastham and Herring Cove in Provincetown, are accessible to persons with disabilities and have wheelchairs capable of traveling over sand.

Beach entrance fees are charged. Rates for the 2013 season are:

Daily Vehicle	\$15.00
Cape Cod National Seashore Season Pass	\$45.00
Interagency Pass (accepted at any National Park area and other Department of Interior sites) *	\$80.00
Interagency Senior Pass (allows entry for those age 62 or older, U.S. citizen, permanent resident) *	\$10.00
Interagency Access Pass (allows entry for those legally blind or permanently disabled) *	FREE

* Photo ID required for pass usage.

Fees are collected daily from late June through Labor Day at all six seashore beaches. Fees are also collected on weekends and holidays from Memorial Day to late June and after Labor Day through the end of September at Herring Cove, Race Point, Nauset Light, and Coast Guard beaches.

BEACH PARKING LOT TRENDS:

Coast Guard Beach/Little Creek Tram, Eastham: Tram parking area rarely fills; moderate turnover. Beach access via Little Creek tram and parking area, a half-mile away. Drop off and pick up of passengers and belongings at the beach are *PROHIBITED*. Limited handicapped parking (state-issued plate or placard required) at the Coast Guard Station parking area.

Nauset Light Beach, Eastham: Public parking area fills by 10 AM daily during the summer; minimal turnover. Drop off and pick up of passengers and belongings at the beach are *PROHIBITED*.

Marconi Beach, Wellfleet: Parking area rarely fills during late June and July. Parking area fills occasionally in August; moderate turnover.

Head of the Meadow Beach, Truro: Parking area rarely fills.

Race Point Beach, Provincetown: Parking area rarely fills during June and July. When the parking area does fill, it is usually one to two hours after Herring Cove fills. Access is also available on *The Shuttle*.

Herring Cove Beach, Provincetown: Parking area rarely fills during June and July. Parking area fills occasionally in August; moderate turnover after 1 PM. Access is also available on *The Shuttle*. Seasonal snack bar.

GENERAL REGULATIONS:

- Do not disturb natural or cultural features; all are protected by federal law.
- Glass containers, flotation devices (rafts, rubber tubes), snorkels, and masks are prohibited on lifeguard-protected beaches.
- Pets must be controlled by a leash at all times. Leashes may not exceed six feet. Pets are not permitted in public buildings, picnic areas, on lifeguard-protected beaches, on trams, or on designated nature trails.
- Public nudity is prohibited.
- State licenses are required for saltwater and freshwater fishing.
- Town licenses for shellfishing are required. Regulations and fees vary by town.
- Surfing and windsurfing are permitted in waters outside lifeguard-protected areas.
- Possession or use of metal detectors is prohibited.

- Permits are required for all beach fires. They may be obtained on a first-come, first-served basis at Salt Pond Visitor Center in Eastham, the Province Lands Visitor Center in Provincetown, and the Oversand Station at Race Point. Do not bury coals.
- Sand collapses easily. Climbing steep slopes or digging deep holes above knee level is hazardous and prohibited.

OVERSAND PERMITS

Permits for driving on seashore oversand routes are required and available for purchase at Race Point in Provincetown. Bird nesting activity may require some route closures during the spring and summer. Call 508-487-2100 ext. 0927 for permit and general information (April 15 through November 15). Call 508-487-2100 ext. 0926 for route closure information.

Park and Local Area Map

Rules of the Road

MOTORIST WARNING

Wear your seat belt. It's the LAW. Massachusetts state law provides pedestrians the right of way in a crosswalk. Be aware of pedestrians, bicyclists, and other park users, and share the road.

Visitor Safety

BE SAFE! OBSERVE THE FOLLOWING SUGGESTIONS:

◆ Bicycle Safety

- Bicycle accidents injure more people each year at the seashore than all other activities combined. Please stay alert and ride safely.
- **BIKE SAFETY STARTS WITH HELMETS.** Regardless of age, all riders are urged to wear protective headgear. Massachusetts state law requires children 16 and younger to wear protective helmets when on a bicycle, even if only a passenger.
 - Take time to fit your helmet properly – snug and level on your head.
 - Test ride your bike to check brakes, seat, and handlebar settings.
 - Trail conditions vary. Stay alert for sharp curves, steep hills, and sand-covered sections.
 - Keep an eye out for park volunteers on bike patrols, and show them you care about safety and are a safe rider.

◆ Beach Safety

- Rip currents and undertow are common, dangerous conditions along ocean beaches. Stay safe by swimming in lifeguard-protected areas, and closely supervise your children at all times.

◆ General Safety

- Use sunscreen to avoid sunburn. Use a waterproof sunscreen if you intend to go swimming.
- Take precautions to avoid contact with insects. Deer ticks may carry Lyme disease. Mosquitoes may carry encephalitis or the West Nile virus. Browntail moth "tents" cause skin irritation. Stay on trails, out of tall grasses, and inspect clothes and skin. Use bug spray and wear proper clothing.
- Poison ivy is prolific in many locations. The rash it produces can cause severe discomfort. "Leaves of three, let it be."
- In summer, be alert for heavy traffic, bicycles, and pedestrians on roadways.
- Hunting is permitted at many locations in the seashore. Seasons run September through February, plus May for turkey hunting. Check the park's website at www.nps.gov/caco, or ask at visitor centers or ranger stations for current information.



Be Green and Be Safe with Seashore Bike Shuttle

by Jenna Sammartino, Park Ranger



The Bike Shuttle runs between the Flex bus stop on Marconi Site Road in Wellfleet (adjacent to the Cape Cod Rail Trail) and MacMillan Wharf in downtown Provincetown. Multiple stop options along the way allow for the chance to fully enjoy park destinations, with the freedom of being car-free.

Bicycling has long been a favorite activity of visitors and residents alike, and miles of safe and scenic bicycle trails are a hallmark of Cape Cod and the national seashore. The missing link, however, has always been the stretch of the Cape between Wellfleet, where the Cape Cod Rail Trail terminates, and Provincetown, where the seashore's Province Lands Bike Trail is located. In past years, cyclists traveling between the two locations have had little option but to pedal along unsafe sections of the Route 6 highway.

The national seashore wanted to address this safety issue and at the same time encourage visitors to keep their vacations environmentally friendly by reducing vehicle use. As a result, last year the park implemented a pilot Wellfleet-to-Provincetown Bike Shuttle program in partnership with the Cape Cod Regional Transit Authority. The program is returning for the 2013 season, and service is expanding from weekends to seven days a week. Two shuttles running throughout the day in opposite directions will operate throughout the summer. With the ability to carry up to 12 bicycles each, and a fare of only \$2 per person, the Bike Shuttle is a great way to explore Cape Cod National Seashore. Multiple stop options along the way allow folks the chance to fully enjoy park destinations, all with the freedom of being car-free.

Innovative programs like the Bike Shuttle are just one way the national seashore is working to lighten the footprint we all leave on the planet. Cape Cod National Seashore is also a certified Climate Friendly Park, which means that we have pledged to meet key sustainability challenges and emissions reductions. In the transportation category, we are striving to reduce emissions by 20 percent by 2020. Our 2007 baseline showed park operations transportation emissions at 397 metric tons of carbon dioxide. But that number balloons to 2,304 metric tons when visitor emissions are factored in, far and away the largest contributor to the park's overall greenhouse gas emissions.

Examples like this make clear that Cape Cod National Seashore needs help from its visitors to reach its goals. Furthermore, it highlights the key role that visitors play in moving the national parks toward sustainability and a climate-friendly future. Cape Cod National Seashore, and all the parks, belong to all of us, which means we all share in the responsibility to be good stewards of these special places.

Learn more about the National Park Service's sustainability initiatives at www.nps.gov/sustainability. More information about car-free transportation options on Cape Cod is available at www.capecodtransit.org.

Friends of the Cape Cod National Seashore

by Richard Spokes, President
(info@fccns.org)

Last year Friends of the Cape Cod National Seashore celebrated its 25th anniversary. Now, we must focus on the next 25 years and what must be a more ambitious role.

In this year of sequestration and inevitable federal budget cutbacks, the impact on the National Park Service – and on our beloved national seashore – will be felt by each one of us. A recent Associated Press article noted that “for years Congress has been cutting funding to the National Park Service, and in today's dollars, it is 15 percent less than a decade ago.” There is clearly an urgent need for greater Friends involvement in support of the seashore.

One dramatic example of the impact the Friends group can have is our recent donation of \$25,000 to Cape Cod National Seashore for the express purpose of allowing the Province Lands Visitor Center to open this summer, from Memorial Day through Labor Day. Typically open from May 1 through October 31, the center was slated to be closed entirely due to the required sequestration. With Friends funding, the center can continue to serve park visitors during the busiest months of the year.

Friends has also pledged its volunteers to help with shorebird monitoring and to be of use wherever needed because of the budget cuts. We continue to maintain 12 of the park's most popular trails and to work on brush cuts and burns throughout the park.



The costs to preserve and protect the seashore's natural and cultural resources continue to spiral upward. In the last five years alone, the seashore has had to replace the bridge on the Nauset Marsh Bike Trail, the Nauset Light beach stairs, and part of the Herring Cove Beach parking lot.

The blizzard of 2013 has further eroded seashore beaches and damaged the stairs, once again, at Nauset Light Beach, as well as at Marconi. Evidence increasingly points to links between climate change and dramatic swings in weather.

Historic buildings, which have undergone fairly recent restoration, already are in need of maintenance and repair, due to the effects of our unique coastal climate.

You get the picture! Friends must step up. Private philanthropy must help fill the funding gaps if we are to leave to future generations the gift we so fondly enjoy.

Friends of the Cape Cod National Seashore is a partner with the U.S. Park Service, guided by a formal legal agreement. However, we are a separate and distinct not-for-profit organization. We can solicit donations and grants that the national seashore cannot. Donations to Friends are tax-deductible as we are a non-profit 501 (c) (3) corporation.

As never before, please help Friends help Cape Cod National Seashore in coping with reduced federal funding and nature's ways over the coming years. Become a member of Friends. Donate, volunteer, get involved.

The satisfaction is priceless.



National Public Lands Day held annually is just one of the joint opportunities for hands-on, rewarding work sponsored by the Friends and the seashore. (NPS photo)



Junior Ranger Program

What is a Junior Ranger? A Junior Ranger is: ...a Caretaker ...an Adventurer ... a Learner ...a Seeker ...a Discoverer... A Junior Ranger could be... YOU!

If you are between the ages of 5 and 12, you can start the Junior Ranger journey. Just pick up the small Junior Ranger booklet at the Salt Pond or Province Lands visitor center, talk to one of the rangers at the desk, and you're ready to explore Cape Cod National Seashore! Being a Junior Ranger means you understand how special national parks are and how it is up to all of us to help protect them in the future. We hope you will have fun learning about this park and the many others that also have Junior Ranger programs. It usually takes about two days to complete the program.

For more Junior Ranger fun when you return home, check out "WebRangers" at www.nps.gov/webrangers. Check out the Junior Ranger Program at other national parks you may visit in the future!

We invite you to become a Cape Cod National Seashore Junior Ranger. You will join a growing group of young people who are interested in the world around them and involved in their nation's history.



(NPS photo)

RANGER-LED ACTIVITIES, JULY 1 through AUGUST 31, 2013

-  Denotes activities that are accessible with minor assistance. Contact park staff if you have questions about accessibility.
- ✓ Long pants (shorts for canoe trips), appropriate footwear, hats, sunscreen, bug spray, and water are recommended for outdoor activities.

-  Denotes National Park Service Ocean Park Stewardship programs aimed at improving awareness and protection of marine resources.
-  Denotes activities especially suited for families with children.

SPECIAL PROGRAM AND RESERVATION POLICY

RESERVATION POLICY: \$ - Fee required

All programs requiring reservations may be reserved no more than seven days in advance.

- Salt Pond Paddle trips cost \$17 per adult, \$12 per child 16 and under. Canoe experience not required. Minimum age is 6.
- Canoe trips: \$20 per adult, \$14 per child 16 and under (minimum age 6). Canoe experience is mandatory.
- Surfcasting lessons cost \$15 per person. Minimum age is 12.
- Fish, Snails, and Horseshoe Crab Tales programs cost \$10 per family, or \$5 per person.
- Tickets are nonrefundable, available in advance, and must be purchased either in person at visitor centers, or by phone with a credit card, prior to 4:30 PM daily. Credit cards are preferred. Cash refunds are problematic if unsafe conditions require program cancellation.
- All equipment is provided unless otherwise noted.
- You may have to wade and assist with moving equipment during canoe programs.
- Wear shoes (required) that can get wet.
- In most cases, a group size greater than 8 may not participate in programs offered to the general public, unless the programs are suitable for large groups such as park films, auditorium, and amphitheater programs.

Due to mandatory, across-the-board budget cuts, fewer ranger-guided programs are offered this season.

Thanks to a generous donation by Friends of the Cape Cod National Seashore, the Province Lands Visitor Center is open from May 25 through Labor Day, September 2. This donation is funding the rangers who provide important interpretive, orientation, safety, and resource protection information at the center. The National Park Service is funding the Province Lands Visitor Center operation in September.

Salt Pond Visitor Center
50 Nauset Road, off Route 6
Eastham, 508-255-3421 

Province Lands Visitor Center
111 Race Point Road, off Route 6
Provincetown, 508-487-1256 



Sun	Mon	Tues	Wed	Thur	Fri	Sat	Eastham - Program Descriptions and Meeting Locations
<p><i>Impromptu programs will take place periodically at the Salt Pond Visitor Center. Stop by the information desk to ask for details.</i></p> <p><i>Look for the shorebird specialists and their activity tables at the visitor centers and on the beaches throughout the summer. Learn about the birds that nest here during the summer, and those that rest in the fall during their long migration journeys. Name this season's mega-shorebird!</i></p>							
				7 AM		7 AM	<p>BEGINNING SURFCASTING LESSON - 1½ hours. Learn the basics of saltwater fishing and practice the skill, but don't expect to bring home supper! No fishing license required. Meet at the Coast Guard Station, Coast Guard Beach. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ABOVE.</p>  \$
2:30 PM	9:30 AM and 2:30 PM	2:30 PM	9:30 AM and 2:30 PM	3:30 PM	2:30 PM		<p>CANOEING: SALT POND PADDLE - 1½ hours, 1½ miles. Take a leisurely paddle in the protected waters of Salt Pond and nearby area of Nauset Marsh to explore its beauty and diversity. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ABOVE.</p>  \$
		10:30 AM No program July 2 and 9					<p>ACTIVITY: TAKE THE CAPE HISTORY CHALLENGE! - 20 minutes. Free. Take this fun, hands-on challenge by trying to identify curious bits and pieces of Cape Cod history. Be a history detective and discover the larger stories behind the old stuff left behind. Great for kids too. Come meet the Park Historian, Bill Burke, and get updates on what's new with the seashore's old stuff. Meets in the Salt Pond Visitor Center classroom.</p> 
	10:30 AM No program August 5		10:30 AM No program August 7		10:30 AM No program August 9		<p>ACTIVITY: SECRETS OF THE SEASHORE - 1 hour. Free. This indoor program for ages 4 to 6 examines animals found in Cape Cod's intertidal zone. Meet a seashore celebrity and enjoy a creature craft. Look for marvelous mollusks, incredible crustaceans, excellent echinoderms (sea stars and sponges), fabulous fish, and a special appearance by the horseshoe crab! Adults must remain with children. Meet in the classroom at Salt Pond Visitor Center. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER.</p>  
10:30 AM No program August 11, 18, or 25				10:30 AM No program August 1			<p>ACTIVITY: SMALL FRY SPECIAL - ¾ hour. Free. Children, bring your parents to the Salt Pond Visitor Center to hear some savory seashore stories, or participate in hands-on fun discovering the critters that live here in Cape Cod National Seashore. Geared for young children. Adults must remain with children. SUNDAY PROGRAM BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER. THURSDAY PROGRAM IS ACCESSIBLE</p> 
	T 11 AM	OH 1 - 4 PM	OH 1 - 4 PM	OH 1 - 4 PM		T 11 AM	<p>CAPTAIN EDWARD PENNIMAN HOUSE: A WHALING FAMILY'S STORY - Free. Learn about the Penniman family through a tour of their home and stories of their travels. Examine some of the hardships, adventures, and lifestyle of a whaling family. T = TOUR, BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER. OH = OPEN HOUSE, BROWSE THROUGH. Meet at the Penniman House at Fort Hill. <i>Limited parking.</i></p> 
4:30 to 7:30 PM			4:30 to 7:30 PM				<p>TOUR: NAUSET LIGHT - Lighthouses have guided mariners off Cape Cod shores since the late 1700s. Nauset Light remains a navigational aid. Park at Nauset Light Beach. <i>Beach fee may apply. Conducted by Nauset Light Preservation Society. www.nausetlight.org. Donations accepted.</i></p> 
5 PM		5 PM					<p>TOUR: THREE SISTERS LIGHTHOUSES - 1 hour, ½ mile. Free. These 19th-century lighthouses once provided a beacon for sailors off the shore of Nauset Light Beach. Learn of their history and importance. Meet at the northeast corner of Nauset Light Beach parking area. <i>Beach fee may apply.</i></p> 
		7 PM					<p>TUESDAY NIGHTS AT SALT POND VISITOR CENTER - 1 hour. Free. Subject specialists, authors, and performing artists present a variety of programs throughout the summer. Details on page 6.</p> 
Times vary	Times vary			Times vary	Times vary		<p>CANOEING: CANOE ADVENTURE - up to 3 hours, 3 miles. These trips may explore Nauset Marsh, kettle ponds, or a bay, or may focus on a specialized topic. Locations and topics vary. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, FOR A LIST OF PROGRAM TOPICS, DETAILS, AND TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ABOVE.</p>  \$

Sun Mon Tues Wed Thur Fri Sat Wellfleet - Program Descriptions and Meeting Locations

Wellfleet is celebrating 250 years since incorporation as a town. Many activities are planned including "Founders Week," 9 days of events, August 2 through 10. Check www.wellfleet250.org for a current schedule.



			11 AM	11 AM No program July 4 and August 22				TOUR: ATWOOD-HIGGINS HOUSE - 1 hour. Free. Learn about early 18th-century Cape Cod architecture and one of the Outer Cape's early colonial settlement sites. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, TO REGISTER. Directions: Take Route 6. Turn onto Pamet Point Road, at the Truro town line. Follow signs.
	Times vary							ACTIVITY: FISH, SNAILS, AND HORSESHOE CRAB TALES - 1½ hours, 1 mile. Get your feet wet as you explore the abundance and diversity of life in an intertidal zone. Shoes are required. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL SALT POND VISITOR CENTER, 508-255-3421, FOR MEETING LOCATION AND TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ON PAGE 4. Mondays: July 1 - 11:30 AM, July 8 - no program, July 15 - 10 AM, July 22 - 4:30 PM, July 29 - 10 AM, August 5 - 4 PM, August 12 - 8:30 AM, August 19 - 3 PM, August 26 - 8:30 AM Fridays: - July 5 - 3 PM, July 12 - 8 AM, July 19 - 1:30 PM, July 26 - 8 AM, August 2 - 1:30 PM, August 9 - no program, August 16 - 12 noon, August 23 - no program, August 30 - 12 noon.

Sun Mon Tues Wed Thur Fri Sat Truro - Program Descriptions and Meeting Locations

10 AM to 5:30 PM	10 AM to 5:30 PM	10 AM to 5:30 PM	10 AM to 5:30 PM	10 AM to 5:30 PM	10 AM to 5:30 PM	10 AM to 5:30 PM		TOUR: HIGHLAND LIGHT - Enjoy magnificent views from Cape Cod's oldest lighthouse. Open daily through mid-October. \$4 all ages. Children must be 48 inches tall. 508-487-1121. Conducted by volunteers of Highland Museum and Lighthouse, Inc. www.capeodlight.org .
	10:30 AM to 4:30 PM		MUSEUM: HIGHLAND HOUSE MUSEUM - Browse through an amazing array of objects from the Truro Historical Society's collection. Monday to Saturday, through September 30. \$5 adults, 12 and under and members free. Hosted by volunteers of the Truro Historical Society. www.trurohistorical.org .					
Times vary No program August 25			Times vary					WALK: SEALS OF CAPE COD - 1 hour, 1 mile in soft sand. Free. Explore what species are here, their natural history and biology, and learn how to observe them. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER, 508-487-1256, FOR MEETING TIME, LOCATION, AND TO REGISTER.

Sun Mon Tues Wed Thur Fri Sat Provincetown - Program Descriptions and Meeting Locations

Deck Programs - Tuesday through Thursday, throughout the day. Look for park rangers, shorebird or seal specialists offering short programs on the visitor center decks. Topics may include details about the amazing 360° views of ocean, dunes, and historic buildings; our summer bird and marine mammal visitors; or the variety of plant and animal life found in the dunes.

10 AM					10 AM			WALK: DUNES OF THE PROVINCE LANDS - 1 hour, 1 mile in soft sand. Free. Explore an enchanting dune landscape of unusual plants and wild cranberry bogs. Discover the hidden story of America's second-oldest public lands and how actions by enterprising settlers changed this landscape. Meet at Province Lands Visitor Center, off Race Point Road. Wear shoes appropriate for walking in soft sand, and bring water.
		10 AM	10 AM		10 AM			ACTIVITY: LIFEGUARD DEMONSTRATION - ½ hour. Free. Join a lifeguard for a surf rescue demonstration on the beach and learn how to stay safe while swimming in the ocean. Meet at the head lifeguard stand at each beach: Tuesday, at Race Point Beach; Wednesday, at Herring Cove Beach; Friday, at Head of the Meadow Beach in Truro. All ages. Beach fees apply.
				11 AM				TALK: MARINE LECTURE SERIES - 1 hour. Free. Weekly offerings by the director of marine education, Provincetown Center for Coastal Studies. Meet at Province Lands Visitor Center. July 4 - no program; July 11 - Whales of Cape Cod; July 18 - Oceans and Climate Change; July 25 - Seals: Making a Comeback; August 1 - Whales of Cape Cod; August 8 - Oceans of Trash: Plastic Pollution in 21st Century; August 15 - Oceans and Climate Change; August 22 - Marine Animal Disentanglement; August 29 - Seals: Making a Comeback
						2 PM No program August 31		ACTIVITY: JUNIOR LIFESAVER - 1 hour. Free. Explore the lives of Cape Cod's shoreline heroes through games and activities. Try your hand at maritime skills from the past and earn a Junior Lifesaver patch. Meet at Province Lands Visitor Center to caravan to this program.
2 PM to 4 PM	2 PM to 4 PM	2 PM to 4 PM	2 PM to 4 PM	2 PM to 4 PM	2 PM to 4 PM	2 PM to 4 PM		OPEN HOUSE: OLD HARBOR LIFE-SAVING STATION - Free. Built in 1898, Old Harbor is the last intact life-saving station of the original 13 on Cape Cod. Extensively restored and refurnished, a visit feels like stepping into a turn-of-the-century working station while the crew is out on patrol. Park at Race Point Beach and take the short walk to Old Harbor. Beach fee may apply.
			4 PM					HIKE: ART IN THE DUNES - 3 hours, 2½ to 3 miles in loose sand. Free. On this long hike into the Province Lands dunes, view firsthand the quality of light, natural environment, and isolation that have long attracted artists and writers to Provincetown. Some weeks you can meet an artist-in-residence at a dune shack. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER, 508-487-1256, FOR MEETING LOCATION AND TO REGISTER. SPACE IS LIMITED.
				6 PM				HISTORICAL REENACTMENT: BEACH APPARATUS DRILL - 1 hour. Listen for the keeper's command, "Open the boat room doors!" and return to the days of shipwrecks and lifesaving along Cape Cod. Watch uniformed surfmen fire a line from a cannon to a "ship" in distress and haul the "victim" to shore. This is our 34th year reenacting this 1902 rescue drill. Takes place at Old Harbor Life-Saving Station, Race Point Beach. \$5 for adults; \$2 for seniors over 62, and children 7 to 17; children 6 and under are free.
		Times vary Listed dates only.						ACTIVITY: FISH, SNAILS, AND HORSESHOE CRAB TALES - 1½ hours, ½ mile. Get your feet wet as you explore the abundance and diversity of life in an intertidal zone. Shoes are required. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER, 508-487-1256, FOR MEETING LOCATION AND TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ON PAGE 4. July 16 and 30, 11 AM; August 13 and 27, 9:30 AM.
	Times vary							CANOE ADVENTURES - up to 3 hours, 3 miles. Paddle the far west end of Provincetown Harbor, a series of Wellfleet kettle ponds, or the meandering Pamet River. If conditions permit, swimming and snorkeling may be possible. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER, 508-487-1256, TO REGISTER. SEE SPECIAL PROGRAM AND RESERVATION POLICY ON PAGE 4.

Special Programs

TUESDAY NIGHTS at SALT POND VISITOR CENTER

Programs are on Tuesdays and occur at 7 PM at Salt Pond Visitor Center, off Route 6, Eastham, last about 1 hour, are free to the public, and accessible. Doors open at 6:30. Due to limited seating, please arrive early. Sponsored by Friends of the Cape Cod National Seashore.

JULY 2 - A LOOK AT THE HERRING RIVER RESTORATION PROJECT - The Herring River in Wellfleet is the largest estuary on Outer Cape Cod, yet is in a severely altered state due to a dike constructed in 1908. Join Cape Cod National Seashore restoration ecologist Tim Smith to learn about the Herring River restoration project, the most ambitious wetland restoration project in the state.

JULY 9 - SONGS OF NATURE AND THE LAND - Balladeer Linda Russell takes a musical and historical look at the impact of settlement and the relationship between people and the land as revealed in the traditional songs of the past.

JULY 16 - SALT AND FAMILY: THE LIFE OF A HUMPBACK WHALE - Join Carol "Krill" Carson for an evening about the life of the famous humpback whale named *Salt* who has returned each year to feed in the waters off Cape Cod. A 25-foot fabric whale that represents *Salt's* calf Crystal when he was one year old and a life-size model of *Salt* will be on display. This promises to be a special evening about a humpback whale that has stolen the hearts of many.

JULY 23 - ONCE UPON A TIDE - Stand-up chameleon Jackson Gillman shares a rollicking mix of interactive songs, movement, and stories that is guaranteed to delight and enchant you and your family. In this performance, he will draw on his fishy repertoire from the sandy beach to the briny deep.

JULY 30 - FROM BEACH TO TABLE: MODERN-DAY SALTWORKS ON CAPE COD - Join Janice Burling and Penny Lewis, founders of Cape Cod Saltworks Sea Salt, for a look at the history of the salt industry on Cape Cod and the processes they use today to harvest all-natural sea salt from local waters.

AUGUST 6 - SONGS OF THE SEA - Join local musicians Denya LeVine and Julie Charland for a fun, maritime, musical presentation including sea chanteys, folk music, fiddle tunes, and 20th-century popular music on the theme of the sea.

AUGUST 13 - GEOGRAPHY GAMESHOW - Explore the world through this innovative and interactive program by local artist, geography expert, and world traveler Neal Nichols. Features the rendering of a map from memory and audience interaction and participation.

AUGUST 20 - OCEANS OF FUN - Storyteller Diane Edgecomb shares favorite family tales about water time adventures in this interactive and lively performance. Enjoy her original story *What Now Cloacina!?*, a humorous participatory story about water conservation, among other rousing tales.

AUGUST 27 - TOOLS OF THE TRADE - Join Aquinnah Wampanoag historian Jonathan Perry for an insightful presentation on the development, history, and use of many commonplace tools and utensils used in traditional Wampanoag culture.

PROGRAMS at PROVINCE LANDS VISITOR CENTER, off Race Point Road, Provincetown

Tuesdays, at 3 PM. One hour. Free. ♿

Sponsored by Friends of the Cape Cod National Seashore

JULY 9 - SONGS OF NATURE AND THE LAND - Balladeer Linda Russell takes a musical and historical look at the impact of settlement and the relationship between people and the land as revealed in the traditional songs of the past.

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FAMILY WEEK

ACTIVITY: SECRETS OF THE SEASHORE

August 5, 7, and 9, at 10:30 AM. 1 hour. Free. ♿

This indoor program for ages 4 to 6 examines animals found in Cape Cod's intertidal zone. Meet a seashore celebrity and enjoy a creature craft. Look for marvelous mollusks, incredible crustaceans, excellent echinoderms (sea stars and sponges), fabulous fish, and a special appearance by the horseshoe crab! Adults must remain with children. Meet at the Province Lands Visitor Center. **BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER AT 508-487-1256 TO REGISTER.**



Zoe Lewis

FUN-A-PALOOZA! ZOE LEWIS AND PETER DONNELLY CONCERT

Friday, August 9, Free.

Join us at the picturesque outdoor Provincetown amphitheater for games and crafts and concert. Pre-concert games and crafts - 2 to 3 PM.

Concert - 3 PM. These popular local musicians will quickly have us all dancing and singing along. Sponsored by Friends of the Cape Cod National Seashore

Third Annual Science Symposium Friday, August 23, 1 to 4 PM

Salt Pond Visitor Center, Eastham. Free.

This showcase of natural science research being conducted in the Cape Cod National Seashore will feature short presentations by current researchers and will be aimed at general audiences. Check the park's website at www.nps.gov/caco closer to the date for details. Refreshments courtesy of Friends of the Cape Cod National Seashore.

Partner Programs

Payomet Performing Arts Center 15th Season

Full schedule of classes, children's programming, theater, and music. Shakespeare's *Twelfth Night* - fully staged, professional production, July 10 through August 13, followed by the world premier of *(Enter Vonnegut)*, written and directed by Payomet Artistic Director Kevin Rice. Music headliners: Rosanne Cash (July 1), Holmes Brothers (July 6), and others. For tickets or more details, call the Payomet at 508-487-5400 or check their website at payomet.org.

Provincetown Center for Coastal Studies

Saturday, July 20, 5:30 to 8:30 PM - Benefit Whalewatch; and July 29 through August 3 - Third Annual Provincetown Whale Week. For more information, visit: www.coastalstudies.org.

Truro Center for the Arts at Castle Hill

August 11, Wellfleet Congregational Church, Castle Hill's *Woody English Distinguished Artists and Writers Chair* honors the founder of the grassroots global movement group, "350.org." Bill McKibben. Highlands Center wood kiln loading and firing pottery to 2300 degrees on August 25, 26, and 27, unloading on August 31. Curious? Stop by! Visit www.castlehill.org for more information.



Wood kiln at Highlands Center

Sustainable CAPE

For more information about Sustainable CAPE's programs, including Truro Agricultural Fair and Truro Farmer's Market, visit their website: www.sustainablecape.org.



PHOTOGRAPHY HIKE: LEAVE ONLY FOOTPRINTS, TAKE ONLY PICTURES - Wednesday, August 28, 5:30 PM. 2 hours, up to 2½ miles. Free.

A sunset hike and photography workshop. Instruction and advice provided for capturing unique perspectives of the seashore. All levels and formats (digital or film) are welcome. Tripods recommended but not necessary. BY RESERVATION ONLY NO MORE THAN 7 DAYS IN ADVANCE. CALL PROVINCE LANDS VISITOR CENTER, 508-487-1256, FOR MEETING LOCATION AND TO REGISTER.

The Friends is a non-profit organization whose purpose is to enhance people's enjoyment of the seashore through financial and volunteer support. www.fccns.org



"From Right Whales to Gray Seals: Stranding Response on Cape Cod" featuring Brian Sharp from the International Fund for Animal Welfare Wednesday, July 17, at 7:30 PM, at Salt Pond Visitor Center, Eastham. Free. ♿



Brian Sharp, stranding coordinator for the International Fund for Animal Welfare (IFAW) on Cape Cod, will give an illustrated talk on IFAW's Marine Rescue and Research program that deals with everything from large whale necropsies to mass stranding of dolphins to human interactions with seals. *The annual meeting of the Friends of the Cape Cod National Seashore precedes this program at 6:30 PM. The public is invited to attend the meeting.*

An Evening of Celtic Music ♿

Friday, July 26, at 7 PM, at Salt Pond Visitor Center, Eastham. Free. Join Billy Hardy and Beth Sweeney, a Celtic fiddle and instrumental duo, for Irish and other Celtic music.

Outer Cape Chorale Chamber Singers ♿ Thursday, August 8, at 7 PM, at Salt Pond Visitor Center, Eastham. Free. Enjoy an evening of song with this popular local group.

Self-Guiding Trails



Great Island Trail, Wellfleet
(NPS photo)

❖ Self-guiding trail folders with information on specific features are available at some trailheads. ❖ Pets and bicycles are prohibited on self-guiding trails year-round. ❖ Natural and archeological features are protected by federal law and must remain undisturbed. ❖ Taking, feeding, or harassing wildlife is prohibited.

Fort Hill Trail, Eastham

Length: 1 mile loop, one hour. **Location:** Turn off Route 6 at the brown Fort Hill sign on Governor Prentice Road. Continue to the parking area on the left, across from the Captain Penniman House. The trail may also be accessed from Hemenway Landing, just north of Fort Hill on Route 6. **Features:** Loop trail crosses open fields, connects with the Red Maple Swamp trail, and offers vistas of the Nauset Marsh area. **Conditions:** Easy; solid surface; some log steps on slopes; seasonal restrooms near Hemenway Landing.

Red Maple Swamp Trail, Eastham

Sections of the boardwalk have been closed due to structural deterioration and safety concerns. Check at Salt Pond Visitor Center for the current status of this trail, and for your safety, remain out of closed areas.

Buttonbush Trail, Eastham

Length: .3 mile loop, 15 minutes. **Location:** Adjacent to Salt Pond Visitor Center amphitheater, off Route 6. **Features:** This trail, which includes guide rope, text in braille, and large print, involves all the senses as it winds through forest, crosses over the Buttonbush Pond on a boardwalk bridge, and traverses formerly cultivated areas. **Conditions:** Easy; some log steps on the second half of trail; moderate grade; restrooms at visitor center.

Nauset Marsh Trail, Eastham

Length: 1.3 mile loop, plus spur to Coast Guard Beach, one hour. **Location:** Adjacent to Salt Pond Visitor Center amphitheater, off Route 6. **Features:** This trail winds along the edge of Salt Pond and Nauset Marsh, crosses fields, and returns to the Salt Pond Visitor Center through a recovering forest. There are several spectacular vistas along the way. *As of spring 2013, the footbridge on the Nauset Marsh Trail has been removed due to damage. The rest of the trail is open and may be accessed from the Buttonbush Trail. Ask at Salt Pond Visitor Center for hiking options.*

Nauset Marsh Trail, continued

Conditions: Easy; some log steps; moderate grade; use caution when crossing the bike trail; restrooms at visitor center parking area. *Sections may be submerged at highest tides. Check at visitor center for conditions.*

Doane Trail, Eastham

Length: .6 mile loop, 30 minutes. **Location:** Doane picnic area, one mile east of Salt Pond Visitor Center on Nauset Road (leading to Coast Guard Beach). **Features:** This paved, wheelchair-accessible trail with interpretive text winds through an emerging pine and oak forest, and offers vistas of Nauset Marsh. A picnic area is adjacent to the parking area. **Conditions:** Easy; wheelchair-accessible grade (also good for strollers); seasonal restrooms. *Two-hour parking limit.*

Atlantic White Cedar Swamp Trail, Wellfleet

Length: 1.2 mile loop, one hour. **Location:** At stop light, turn east off Route 6 into the Marconi Station Area, South Wellfleet. Follow brown signs to the Marconi Site and White Cedar Swamp. **Features:** This trail descends through a stunted oak and pine forest into a mature woodland, leads to a boardwalk that winds through the picturesque Atlantic White Cedar Swamp, and returns via the historic “Wireless Road” (a sand road) to the starting location. **Conditions:** Moderate difficulty; some steep stairs; return route is ½ mile in soft sand; swamp portion of this trail is boardwalk; seasonal restrooms.

Great Island Trail, Wellfleet

Length: 3.9 - 8.8 miles round trip (3.9 for tavern loop round trip to parking area; 8.8 for round trip to Jeremy Point overlook and including tavern loop). Allow three to five hours to explore Great Island. **Location:** From Route 6, follow green signs to Wellfleet Center; turn left onto East Commercial Street (follow signs to Wellfleet Harbor); continue along the shoreline from the town pier via Chequessett Neck Road to the Great Island parking area. (Keep the water view on your left after leaving Route 6.) **Features:** This trail follows sandy stretches between the elevated heights of Great Island and Great Beach Hill. Its higher elevations punctuate spectacular vistas, which emerge from an even-aged, pitch-pine forest. Part of this trail leads to a colonial-era tavern site (no remains visible).

Great Island Trail, continued

Other sections skirt salt marsh embayments. A picnic area is adjacent to parking area. **Conditions:** The park’s most difficult trail; mostly soft sand; some log steps; portions are submerged at high tide; hats, sturdy footwear, and drinking water are advisable; seasonal restrooms. **CAUTION:** Trail options can be confusing. Check tide table. Do not attempt to walk to Jeremy Point if the tide is rising. * This trail does not provide direct access to the beach. * Do not traverse dune to reach beach (enforced). * Stay on designated trails to protect fragile resources.

Pamet Area Trails, Truro

Length: .6 miles each way, plus extensions, 45 minutes. Adjacent fire roads offer additional miles of walking opportunities. **Location:** Take Truro Center/Pamet Roads exit off Route 6 in Truro. Proceed 1½ miles on North Pamet Road to the end. Trail begins at the parking area adjacent to the Environmental Education Center (a hostel in summer). **Features:** The Bearberry Hill overlook offers spectacular views of the Pamet landscape, the Atlantic, the glacial terrain of the Pamet valley, and a former bog house. Outdoor exhibits and a folder keyed to trail markers describe the area. **Conditions:** Moderate difficulty; log steps; steep grade to overlook. No restrooms.

Woods Walk at Highlands Center, Truro

Length: 1 mile, 30 minutes. **Location:** Take Route 6 to the Highland Light Exit in North Truro. Go east on Highland Road. Turn right onto South Highland Road. After 0.6 miles, turn left onto Old Dewline Road. The Highlands Center is at the end of the road. **Features:** This trail winds through the back woods of the emerging Highlands Center for arts, science, and education. It offers a glimpse of the Cold War past amidst forest, heathlands, and dramatic ocean bluffs. **Conditions:** Moderate difficulty; a mix of paved and unpaved roads; sections with fairly steep terrain. No restrooms. Leashed dogs permitted.

Small’s Swamp Trail, Truro

Length: .6 mile loop, 30 minutes. **Location:** In North Truro, turn off Route 6 at the Pilgrim Heights sign. Walk begins and ends at the covered picnic shelter. **Features:** Chosen by Native People for living sites for thousands of years for water, protection, and food sources, early-European settlers sought to make a living on this landscape. Gradually, soil gave out, farms were abandoned, and the landscape slowly began to recover. The forest here now hides most, but not all, of the former land uses in this area. **Conditions:** Easy; some log steps; moderate grade; short boardwalk surface; picnic area and seasonal restrooms in adjacent parking area.

Pilgrim Spring Trail, Truro

Length: .7 mile loop, 30 minutes. **Location:** In North Truro, turn right off Route 6 at the Pilgrim Heights area sign. Walk begins at the covered shelter. Upon exiting the trail near the restrooms, proceed ahead across the parking area to your vehicle. **Features:** Path leads to a site representative of where the Pilgrims drank their first fresh water in New England. This short loop trail winds through recovering pine and oak forest and passes a marker that commemorates the Pilgrims’ initial exploration of the area. **Conditions:** Easy; some log steps; moderate grade; picnic area and seasonal restrooms in parking area at end of trail.

Beech Forest Trail, Provincetown

Length: 1 mile loop, (pond loop ¾ mile, extension loop ¼ mile), one hour. **Location:** Turn right (north) at the traffic light on Route 6 onto Race Point Road. Proceed approximately ½ mile to the Beech Forest parking area on the left. **Features:** Journey into the heart of a picturesque beech forest and enjoy great bird watching opportunities. Skirts Beech Forest Pond. **Conditions:** Easy; extension loop has steep log steps; some soft sand; picnic area and seasonal restrooms at trailhead; access to Province Lands Bicycle Trail and designated pet trail from parking area.

Remain on designated trails to prevent damage and reduce exposure to disease-carrying insects, poison ivy, and other natural risks. Observe trail conditions and be aware of naturally occurring hazards.

Scenic Routes and Overlooks



Nauset Light Beach, Eastham
(NPS photo, William Giokas)

At Cape Cod National Seashore, opportunities for inspiration, reflection, and renewal abound. Use this information, in conjunction with the park map, to discover the drama of the ocean surf, or the subtle beauty of a cultural landscape. Allow 15 to 30 minutes at each site to take in the view, or walk to a scenic overlook.

Eastham

Fort Hill Area - off Route 6. Open fields, views of Nauset Marsh, historic Penniman House (occasional, scheduled tours and open houses). Access to Red Maple Swamp Trail. Limited parking. Seasonal restrooms.

Coast Guard and Nauset Light beaches, Nauset and Three Sisters lighthouses - off Route 6 at the traffic light at Nauset Road near Salt Pond Visitor Center. Ocean View Drive in Eastham affords ocean and marsh views and an opportunity to see historic lighthouses. Seasonal restrooms at beaches. Seasonal beach fee may apply. Highly congested in summer; spring and fall use recommended.

Wellfleet

Atwood-Higgins House - Inquire at visitor centers for directions. 18th-century Cape house (occasional, scheduled tours) accessed from true “back roads” to Bound Brook Island. Caution: Circuitous, narrow roads. Limited parking.

Marconi Station Site - off Route 6 at the traffic light at Marconi Station area. High sand cliffs above the ocean, and the history of Marconi and his wireless radio station. Overlook platform. Access to Atlantic White Cedar Swamp Trail. Seasonal restrooms.

Truro

Highland Lighthouse (Cape Cod Light) and Highland House - off Route 6 at the North Highland Road exit, North Truro. The oldest lighthouse on Cape Cod and adjacent museum (open seasonally, fees). Overlook platform. Seasonal restrooms.

Pilgrim Heights - look for National Park Service sign off Route 6, North Truro. Viewpoint overlooks kettle hole, with distant views of the sand dunes of the Province Lands. Access to Pilgrim Spring Trail. Picnic area. Seasonal restrooms.

Provincetown

Old Harbor Life-Saving Station - at Race Point Beach, off Race Point Road. Historic structure at Race Point Beach (occasional, scheduled open houses), with dune and ocean views. Seasonal beach fee may apply.

Race Point Road - off Route 6 at Race Point Road traffic light. Scenic, two-mile road through beech and oak forest and the Province Lands dunes. Connects Race Point Beach to Province Lands Road. Herring Cove Beach loop (additional two miles). Access to Beech Forest Trail, Province Lands Bicycle Trail, and Province Lands Visitor Center (seasonal).

The Lighthouses of Cape Cod National Seashore and Beyond

1. Race Point Light, Provincetown

The first Race Point Light was erected in 1816. The current lighthouse and keeper's house date from 1876. Over 100 ships wrecked on the treacherous shoals here between 1816 and 1946. *Directions:* Inaccessible by road. From Route 6, turn at the lights onto Race Point Road and follow to its end. Park in the Race Point Beach parking area. Walk along the beach about two miles to Race Point Light. *Beach fees apply during summer months and on weekends in late spring and early fall.*

2. Wood End Light, Provincetown

A twin to Long Point Light guarding the entrance to Provincetown Harbor, Wood End Light is located toward the end of the breakwater. Built in 1873, the lighthouse is now solar-powered. *Directions:* Inaccessible by road. Park at the rotary at the west end of Commercial Street. Walk across the breakwater, then bear straight across the neck about one-half mile to Wood End Light. Summer boat service from MacMillan Wharf.

3. Long Point Light, Provincetown

This light at the entrance to Provincetown Harbor was first lit in 1827. The lighthouse and keeper's cottage were rebuilt in 1875. In 1952, Long Point Light was automated. Solar panels were installed in 1982. *Directions:* Walk across Provincetown breakwater. Turn left and follow Long Point approximately one and one-half miles to the end. Summer boat service from MacMillan Wharf.

4. Highland Light (Cape Cod Light), North Truro

Traditionally, Highland Light was the first light seen on a voyage from Europe to Boston. In 1798, Highland was the first Cape Cod lighthouse built. The present brick lighthouse was erected in 1857 on the 100-foot-high cliffs above the ocean. It was moved inland in 1996. *Directions:* From Route 6 in North Truro, turn onto Highland Road, which is over three miles north of Truro Center. At the end of Highland Road, go right onto Lighthouse Road and into the parking area. *Open seasonally and operated by Cape Cod Highland Light and Museum, Inc. www.capecodlight.org.*

5. Nauset Light, Eastham

Nauset Light was built as three brick towers in 1838 to differentiate the location from Highland and Chatham lights. When erosion claimed the originals in 1892, they were replaced by three wooden towers called the Three Sisters. The current tower, moved here from Chatham in 1923, succeeded them. *Directions:* Turn right off Route 6 at the lights at Salt Pond Visitor Center, Cape Cod National Seashore. Continue to Coast Guard Beach, then turn left onto Ocean View Drive. Drive one mile to the Nauset Light Beach parking area. *Operated seasonally for public access by agreement with the Nauset Light Preservation Society. www.nausetlight.org*

Note: Some of the information included here has been drawn from Admont G. Clark, Lighthouses of Cape Cod, Martha's Vineyard, Nantucket: Their History and Lore (1992); and Laurel Guadagno, Cape Cod Lighthouses (1994)

6. Three Sisters lighthouses, Eastham

Built at Nauset in 1892. Two of the three lights were sold to become a summer cottage in 1911. The third one was replaced in 1923 by one of the two Chatham lights. The Three Sisters are now located safely back from shore-front erosion in the Cape Cod National Seashore. *Directions:* Same directions as to Nauset Light Beach. Short walk inland on Cable Road from the parking area to Three Sisters. Limited parking at Three Sisters.

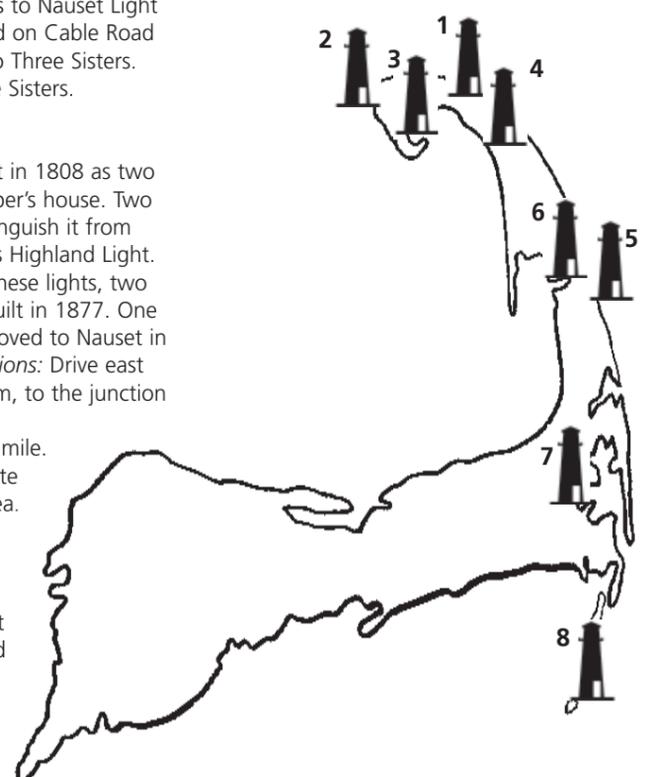
7. Chatham Light

Chatham Light was built in 1808 as two brick towers with a keeper's house. Two lights were used to distinguish it from the single light at Truro's Highland Light. When erosion claimed these lights, two new metal ones were built in 1877. One of the two lights was moved to Nauset in Eastham in 1923. *Directions:* Drive east on Main Street, Chatham, to the junction with Shore Road. Turn right and drive one-half mile. The lighthouse is opposite the overlook parking area.

8. Monomoy Point Light, Chatham

The first Monomoy Light was erected in 1823 and rebuilt in 1849 with cast-iron plates lined with brick.

The Monomoy Point Light was decommissioned in 1923 because the Chatham Light covered the area. Monomoy is now part of the Monomoy National Wildlife Refuge of the U.S. Fish & Wildlife Service. *Directions:* The island is accessible only by boat. The light is at the end of five-mile-long South Monomoy Island.



Shoreline Sightings: Identifying Whales, Sharks, Seals, and Sunfish from Land

by Christine Harris, Park Ranger

When walking the beaches of Cape Cod, we often spend most of our time looking down in search of interesting shells and rocks, but much can be missed when traveling this way.

Cape Cod is an arm of land thrust 30 miles into the North Atlantic, and as a result its eastern shores can reward the patient observer with views of oceanic wildlife including whales, sharks, seals, and common sunfish. A trained eye can learn to differentiate among these creatures even from a distance.

One identifying feature of some of the large oceanic species seen off the shores of Cape Cod is the presence of a dorsal, or top, fin that is sometimes visible above the water line. The shape, size, and location of these fins can help the coastal observer identify the species.



Basking shark fin. (Photo, John Chisholm)

For example, the basking shark (*Cetorhinus maximus*) has a large, rounded triangular dorsal fin that is slightly concave on the back edge. The tip of its tail can often be seen. The great white shark (*Carcharodon carcharias*) has a sharply pointed fin with a straight back edge. Its tail is not generally seen above the waterline.



Great white shark fin. (Photo, John Chisholm)

Additionally, the behaviors of these two species of shark differ greatly, with basking sharks spending extended periods of time near the surface of the water, swimming slowly with their giant mouths agape collecting plankton, and great white sharks traveling deeper in the water column, usually only coming to the surface to feed.

In spotting whales from shore, often a spout or the back of the whale is all that you will see. Fortunately for those trying to identify whales from land, each species has a unique spout and back and dorsal fin shape when surfacing.

Some of the whales most commonly spotted from land at the national seashore include the humpback (*Megaptera novaeangliae*), North Atlantic right whale (*Eubalaena glacialis*), and finback (*Balaenoptera physalus*).

Humpbacks are often seen in groups and exhibit an array of spectacular behaviors from propelling themselves completely out of the water, or “breaching,” to tail and flipper slapping. When not engaged in these

distinctive behaviors, humpbacks can be identified by their “humped” profile when breaking the surface and by a low, bushy, split spout. They also commonly roll their tail out of the water as they begin a deep dive.



Humpback whale. (Photo courtesy of Provincetown Center for Coastal Studies, taken under NOAA permit 633-1778.)

Seen from the shore most often in spring, the North Atlantic right whale, one of the world’s rarest marine mammals, often comes very close to land, putting on quite a show for coastal observers. In early spring, these whales will congregate in large groups in Cape Cod Bay to feed. If you hit the right day in late March or April, you may be able to see dozens of these leviathans feeding off Race Point or Herring Cove Beach in Provincetown.



North Atlantic right whales. (NPS photo)

Identifying North Atlantic right whales from land is relatively easy given that they have a distinctive V-shaped double spout; rough, white lumps called callosities on their heads; and two rows of long, dark baleen plates hanging from the upper jaw that can be seen above the waterline when feeding.

The largest whale commonly seen off the coast of Cape Cod, and second largest in the world, the finback can grow to 85 feet. This species is easy to spot and identify from a distance because of its robust spout, which can rise up to 20 feet, and its prominent back and dorsal fin.



Finback whale. (Photo courtesy of Provincetown Center for Coastal Studies, taken under NOAA permit 633-1778.)

Typical behavior includes blowing as many as 10 times at 15-to-20-second intervals with a shallow dive between each blow. After this series of breaths and shallow dives, the whale will often take a deep dive lasting five to 10 minutes.



Gray seal. (NPS photo)

Seals are the ocean dwellers most likely to be spotted from the shore, with the gray seal (*Halichoerus grypus*) being most common. A year-round resident in the waters off Cape Cod, the gray seal is also the largest seal of the region, with males weighing as much as 800 pounds. With an elongated head and gaping nostrils, the head of the gray seal resembles that of a horse.



Harbor seal. (Photo, Christine Harris)

With a face resembling that of a cocker spaniel, the “cuter” of the two seals seen most often in the national seashore is the harbor seal (*Phoca vitulina concolor*). Significantly smaller than the gray seal, the harbor seal grows to lengths of 4 to 6 feet and can weigh up to 250 pounds and is seen most often from fall into spring.

Perhaps the most peculiar animal spotted from the beaches of the national seashore from late spring through early fall is the common mola, also known as the ocean sunfish (*Mola mola*).

The heaviest bony fish in the world, the common mola can grow to 10 feet in length and tip the scales at over four tons. It resembles a large, swimming head with long, sweeping fins on top and bottom.

The common name “sunfish” comes from the fish’s habit of lying on its side at the water’s surface seeming to sun itself. It flops its long dorsal fin up and down often splashing the water, a behavior that can be helpful in identifying a common sunfish from land.



Common mola. (Photo courtesy of New England Coastal Wildlife Alliance.)

Though getting out on the waters of the Atlantic is an unparalleled experience, you don’t have to leave the shore to enjoy a memorable encounter with oceanic wildlife off Cape Cod. The next time you visit one of the beaches of the Cape Cod National Seashore, keep your eyes on the waves; you never know what you may be lucky enough to see!



(NPS Photo, Robby McQueeney)

Tips for Viewing Ocean Wildlife:

- ▶ Though an observant pair of eyes is all that is necessary, binoculars or a spotting scope can also be helpful tools.
- ▶ Whales, seals, and sharks can remain underwater for long periods of time. Be patient and continue to watch the area where you first saw activity for at least 10 minutes.
- ▶ Particularly in the Provincetown area, boats that are sitting stationary off the coast can indicate the presence of whales.
- ▶ For the safety of the animals and yourself, never attempt to swim out to, or close to, marine animals. Law requires that you stay at least 50 yards away from marine mammals.

SHARK ADVISORY

Great white sharks live in these waters.

Sharks prey on seals. Avoid swimming near seals.



Too Hot to Handle? Climate Change's Surprising Cape Cod Casualty

by William Burke, Cape Cod National Seashore Historian



During the winter storms of 2013, Coast Guard Beach was scoured so low by wave action that the remains of this ancient cedar swamp were uncovered. Both geologic and human history are at risk from climate change. (NPS photo)

In a remote corner of Wellfleet within an exposed steep coastal bank lies a serpentine ribbon of gray and white bleached shell. Looking up this 50-foot-tall bluff from the beach, the shell appears highly compacted in a 3-foot-deep layer that undulates for a few hundred feet horizontally before disappearing into the bluff.

Yet this shell ribbon, an ancient shell midden of unknown age, is slowly dissolving like the tail end of a 4th of July firework, mixing with fresh dirt, cobbles, and tangles of grass as it slides down the bluff.



Climate change's rising sea level is claiming this ancient shell midden in Wellfleet. (NPS photo)

It is an awkward end to an extraordinary thing the National Park Service (NPS) calls a cultural resource. Made by thousands of hands that tossed the leftovers of an untold number of shellfish feasts – scallops, clams, and mussels – this cultural resource holds information about our past that can never be replaced.

This mini-drama is being played out all along our nation's coasts, where rapidly rising sea levels and powerful ocean storms threaten archeological sites and historic structures like lighthouses and venerable lifesaving service stations.

A notable example – Jamestown Virginia's buried original fort site – was recently uncovered by the James River's rising waters, with part of the fort being washed away forever. Fort Jefferson, the Western Hemisphere's largest brick fort located within Dry Tortugas National Park, is constantly battered by incrementally stronger storms and higher tides. The entirety of Ellis Island National Monument is less than three feet above the current high tide level, which explains why the site sustained significant damage during Hurricane Sandy in October 2012.

Inland, significant cultural resources like the cliff dwellings at Mesa Verde and 80 percent of the archeological sites at Bandelier National Monument are rapidly eroding due to rainstorms that cause flash floods.

It lays out a four-pronged response: (1) uncover and apply the best available climate change science by working with scientific agencies and institutions; (2) adapt to change by learning what is at risk by performing vulnerability assessments, and monitoring, documenting and, if possible, shielding or moving resources; (3) reduce the NPS carbon footprint by being a leader in climate-friendly practices; and (4) educate the public.

Our park has responded by having staff scientists study the effects of sea level rise on salt marshes and other resources, utilizing NPS archeologists to document at-risk sites like that shell midden in Wellfleet, and raising public awareness through interpretive programs and by earning the designation of "Climate Friendly Park" – a park that is actively tracking and reducing its emissions, promoting alternative modes of commuting for its employees, and providing public transportation to its neighbors and visitors.

In addition, Superintendent George Price and regional leaders from the Cape Cod Commission, Woods Hole Sea Grant, Cape Cod Cooperative Extension, and the Provincetown Center for Coastal Studies are planning for sea level rise impacts throughout the peninsula, including effects on historical resources.

Losing Cape Cod history to rising sea levels is nothing new here. The historical accounts of old-time Cape Codders are full of stories of lost settlements like Billingsgate Island, an active fishing village that succumbed to the rising sea a century ago.

In the 1880s, Henry Marindin, working for the U.S. Coast and Geodetic Survey, measured the coast and calculated a 3-foot-a-year erosion rate on the Outer Beach – findings recently confirmed by park mapping specialist Mark Adams and coastal geologist Dr. Graham Geise.

In 1991, storms uncovered the infamous Carns Site, a prehistoric archeology site in Eastham, sending archeologists scurrying to document its remains. Lighthouse supporters helped relocate Highland and Nauset Lights back from the eroding cliffs in 1996.



As the bluffs of the outer beach are eroded away, spectacular cultural resources like the Marconi Wireless Station towers, pictured here in 1906, are lost. Today, the bluff is approaching the back two towers, while the bases of the front two can be found on the beach at extreme low tide. (NPS photo)

Over half of the original Marconi Wireless Station Site is now on the beach or underwater, while even some of the rugged dune shacks flirt with the edge of the changing bluffs of Truro and Provincetown.

So now, in response to climate change, we measure. We monitor. We assess what is vulnerable. We plan for what's at risk next. We prioritize what we have left. We document when we can. We move back what we can. We weigh the public cost of what can or should be saved.

Yet as the NPS Climate Change Action Plan reminds us:

"Unlike some plants and animals that may adapt to changing circumstances by migrating, most cultural resources are fixed in place on the landscape. Cultural resources are unique; they do not reproduce; once lost, they are lost forever."

Ironically, National Park archeological and museum collections may offer as much insight into the problem of climate change as traditional physical "climate science" can. These collections offer a human barometer for paleoenvironmental data, and can improve our understanding of the genetic diversity of populations and past human responses to climate change.

"I believe climate change is fundamentally the greatest threat to the integrity of our National Parks that we have ever experienced."

Jonathan Jarvis, Director, National Park Service



Perhaps the most dramatic example of climate change's threat to Cape history is captured in this image of Highland Light just prior to its relocation from the eroding Truro bluff. Aerial photo courtesy of the Cape Cod Times. It was moved 450' inland at a snail's pace over several weeks in the summer of 1996. The lighthouse was supported by steel I-beams while hydraulic rams pushed it along rails lubricated with Ivory soap.



Restoring Wellfleet's Herring River

by Tim Smith, Cape Cod National Seashore Restoration Ecologist

Thanks to the Friends of the Herring River and John Portnoy for historical research. Historic photos used with permission of the Wellfleet Historical Society.

Next time you're on the back roads traveling from Wellfleet to Truro, look to your left. If it's summertime, you won't see much beyond the thick tangle of leaves and vines along the edge of the road. But return in November after the leaves have fallen, or venture to high ground for a better overview, and you'll get glimpses of a vast, flat, shrubby woodland that suggests an African savannah, not Cape Cod's typical rolling, oak-pine landscape. Seem odd? You'd be correct to think so.

You're looking at the Herring River flood plain, one of the most unusual and ecologically altered areas of Cape Cod National Seashore.

But big changes are in store for the Herring River, and someday the view will be quite

daily at high tide. As saltwater flowed upstream and mixed with inflowing freshwater, salinity gradually diminished, creating distinct habitats for shellfish, migratory river herring, diamond-backed terrapins, and other estuary-dependent wildlife.

These important habitats were destroyed when a dike was constructed at the mouth of the Herring River at Chequesett Neck, cutting off tidal saltwater. More than 40 years earlier, a railroad had been built, connecting the sleepy settlement of Wellfleet to Boston and New York. In an effort to revive the Cape economy, devastated by over-fishing by the late 1800s, development of the tourist industry was underway. Into the 20th century, increasing tourism elevated concerns about mosquitoes and diseases caused by them, and fears that the pesky creatures would persuade visitors to seek other vacation destinations.

After several years of abundant rain and unusually high mosquito production, propos-

Designed to block salt water from flowing into the Herring River estuary while allowing fresh water to drain out, the dike had immediate and lasting effects on the vast upstream wetlands. The tidal range upstream of the dike was reduced from about 10 feet to less than two feet. Circulation of salt water was drastically reduced and habitats that were dependent on salt water all became fresher, creating a much less diverse ecosystem.

Eventually, salt marsh plants gave way to fresh water and brackish marsh plants and, in areas that were particularly well-drained after mosquito ditching, to the upland trees and shrubs which give the flood plain much of its current unusual appearance.

Most notable was the impact to the Herring River's namesake species. The harvest of natural resources from estuaries like the Herring River was a major economic and social focus of the town, as indicated by the consistent attention given to the management of the herring run.

Officials. A "fishery station," where herring were trapped and netted, was staffed daily throughout the spring run.

The herring run was substantial, with over 200,000 fish harvested yearly. In 1920, the state fish biologist, David L. Belding, reported that Wellfleet's Herring River run was the second most productive in the state between 1890 and 1899.

Subsequent town appropriations indicate that the intended outcome of blocking the tide, mosquito control, was not realized and that additional work was needed to control them.

In 1910, the year after the river was diked, the town voted: "To see what action the Town will take towards raising and appropriating a sum of money for the purpose of establishing proper outlets for the water in the different sections of the Meadow lands, which are affected by the Herring River Dike..."

Although significant amounts were spent on ditch drainage for mosquito suppression shortly before building the dike, these expenditures increased greatly after the dike was in place. Suppression included ditching and stream channelization, as well as the application of oil.

Through the 1910s and 1920s, annual expenditures for mosquito control regularly exceeded \$1,000 (over \$24,000 in 2012 dollars). Between the diking of Herring River in 1909 and 1935, Wellfleet had spent over \$31,000 (over \$500,000 in 2012 dollars) on ditching and oiling diked wetlands. This expense was in addition to the cost of constructing and maintaining the dike.

The increase in mosquito control expenses was accompanied by a corresponding collapse in the herring fishery and its associated income after the diking of Herring River. Herring had difficulty passing through the dike's tide gates and could not reach spawning areas upstream.

By the 1920s, herring-related income was reduced to only a few dollars per year compared with the hundreds earned prior to constructing the dike and eventually petered out entirely.

Other natural resources of economic value were also lost by eliminating tidal influence from the Herring River.

Salt marsh hay was essential to the Cape's early agricultural economy, providing fodder for livestock that in turn provided manure to enrich otherwise sandy and unproductive upland farm soils.



Herring River flood plain, one of the most unusual and ecologically altered areas of Cape Cod National Seashore. (NPS photo)

different. At least that is the hope, according to the Draft Environmental Impact Statement (Draft EIS) released by the National Park Service (NPS) and the Herring River Restoration Committee (HRRC) in October 2012. The Draft EIS lays out a detailed plan for ecological restoration of the river and its associated flood plain habitats.

HRRC is the primary sponsor of the project and has representatives from the national seashore, the towns of Wellfleet and Truro, National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, and the Massachusetts Division of Ecological Restoration. The HRRC is currently working on the Final EIS and restoration plans. Pending further public review, permitting, and fund-raising, the project is expected to begin within three to five years, beginning a long-term process to restore tidal flow.

Until 1909, the Herring River was the main artery of a thriving estuary. Saltwater from Wellfleet Harbor flowed freely up and down the river and into several smaller tributary streams and sub-basins. Salt marshes flourished in the inter-tidal area flooded twice

als for mosquito suppression first appeared in the Wellfleet Town Report in 1904, with a request for \$1,000 "to drain and dyke meadows and use oil where needed to stop the mosquito pest." (At the time, kerosene was commonly used to smother and kill mosquito larvae.)

In 1905, a town meeting article was passed requiring the owners of "salt and fresh meadows to cut ditches" and connect them to main creeks in order to reduce mosquito breeding habitat by draining wetlands; landowners who failed to comply would be charged for ditching undertaken or contracted by the town. Also in 1905, town meeting voted to "appoint a committee and petition the Legislature to build a dyke (sic) across Herring River."

The committee was led by Lorenzo D. Baker, Jr., a wealthy former ship captain and owner of the Chequesett Inn, a hotel built on piers in Wellfleet Harbor. The Massachusetts Legislature approved Baker's petition, contingent on town approval and appropriation of matching funds. In 1907, the town voted \$10,000 to dike the Herring River. The dike was constructed over the winter of 1908-1909.

According to Wellfleet records, the right to fish for herring was auctioned off by the selectmen for the first time in 1791.

By the 1880s, the town's annual receipt from the auction ranged up to \$667 (about \$16,000 in 2012 dollars) and increased through most of the next decade. Proceeds from the sale of the fishing rights were enough to pay all elected town of-



The Herring River dike on Chequesett Neck Road in Wellfleet was constructed over the winter of 1908-1909. (Photo courtesy of Wellfleet Historical Society.)

Restoring Wellfleet's Herring River *continued*



A "fishery station," where herring were trapped and netted, was staffed daily throughout the spring run. (Photo courtesy of Wellfleet Historical Society.)

In 1913, the town appointed a committee to arbitrate the case of damage done to Levi Higgins's salt meadow; this man was harvesting salt hay that, with the blockage of sea water, succumbed to the invasion of freshwater wetland plants. As late as 1927, the town voted that "land damages on Herring River Meadows be left in the hand of the Selectmen for adjustment," presumably financial compensation for continuing damage to salt marsh hay crops.

Even though salt marsh hay and river herring are no longer major economic resources, for the past 40 years the scientific community has clearly documented, and society has increasingly recognized, the functions and values associated with coastal wetland systems. Estuarine communities are now known to be among the most ecologically productive ecosystems on the earth. The subtidal waters and intertidal salt marshes are vital for pollution control, storm surge protection, fish and shellfish habitat, water-bird use, and overall near-shore productivity.

Unfortunately, the pattern of alteration of Wellfleet's Herring River was not an isolated incident. For decades coastal marshes along the Atlantic Coast were subjected to long-term diking and drainage efforts with the intent of controlling mosquito populations and for agricultural and land development. These alterations dramatically changed the hydrologic patterns of tidally dependent wetlands.

In the Gulf of Maine watershed (from Cape Cod to Nova Scotia) nearly 30 percent of coastal wetlands have been altered by tidal restrictions. In the last decade considerable efforts have been expended by agencies and groups in the region toward identifying impacted coastal wetlands and implementing plans for restoring the tides and thus the natural functions of these areas.

The NPS acquired management responsibility for more than 2,500 acres of diked and drained wetlands when the national seashore was established in 1961. The seashore's General Management Plan, completed in 1998, states that one of the goals for water resources in the park is to "restore the natural hydrography and ecology of estuaries in consultation with affected municipalities," including salt marsh restoration at Herring River.

From 1998 to 2003, tidal exchange was incrementally restored to about 90 acres at Hatches Harbor in Provincetown. East Harbor in Truro has undergone partial tidal restoration by opening a closed clapper-type tide gate, allowing saltwater to flow into the Harbor.

The Herring River restoration, is the largest and most ambitious of these projects; in fact, at 1,100 acres of tide-restricted estuary, it is the largest project of its kind in New England.

The major component of the Herring River project is to rebuild the main dike at Chequessett Neck Road with a much wider opening, thereby allowing a higher volume of saltwater to flow into and out of the estuary.

A series of adjustable tide gates will be included within the dike. This will allow gradual, incremental openings of the gates, similar to Hatches Harbor, enabling controlled tidal restoration throughout most of the Herring River flood plain while protecting flood-prone private property and roads.

Tidal flushing will be increased, reducing mosquito breeding on the wetland surface and diluting the presently high bacteria counts that have closed shellfish beds at the mouth of the river. Water quality will be improved by flooding the wetland twice each day with oxygen-rich Cape Cod Bay water. Improved water quality also will reduce mosquito production by enhancing aquatic habitat quality for the mosquito's major predators: small but abundant estuarine fish like mummichogs and sticklebacks.

Restored salinity will stress many of the salt-sensitive non-native plants that have invaded the floodplain and enable recolonization of native salt marsh plants. Higher salinity also would reduce the survival time of coliform bacteria, adding to the dilution effect of increased tidal flushing to further depress fecal coliform counts in shellfish beds.

The reestablishment of tidal range, salinity, water quality, and the salt-marsh plant community will restore hundreds of acres of wetland habitats and access to those habitats by fish, shellfish, marsh birds and mammals.

For people, this means better boating throughout the Herring River estuary on higher tides across an open marsh instead of the presently drained shrub thicket, with fewer mosquitoes, plus improved opportunities for observation, education, and harvest both within the estuary and in nearby coastal waters.

More importantly, it also means a return to the extensive, abundant, and diverse marine resources that the Herring River provided for centuries to the people of outer Cape Cod.

For more information on coastal wetland restoration at the seashore and the Herring River Project, visit: <http://www.nps.gov/caco/naturescience/estuaries-and-salt-marshes.htm> or <http://www.friendsofherringriver.org>.

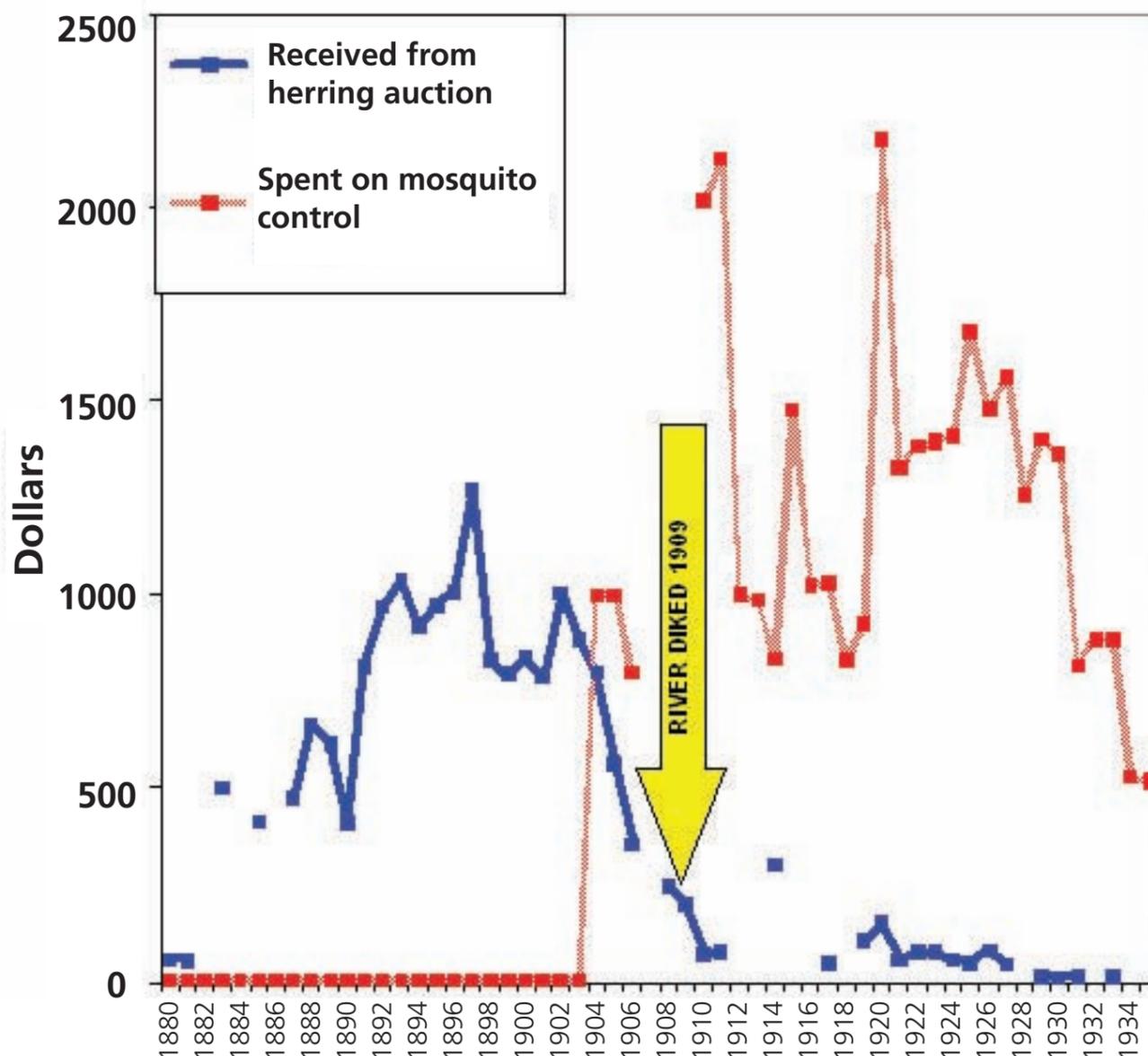
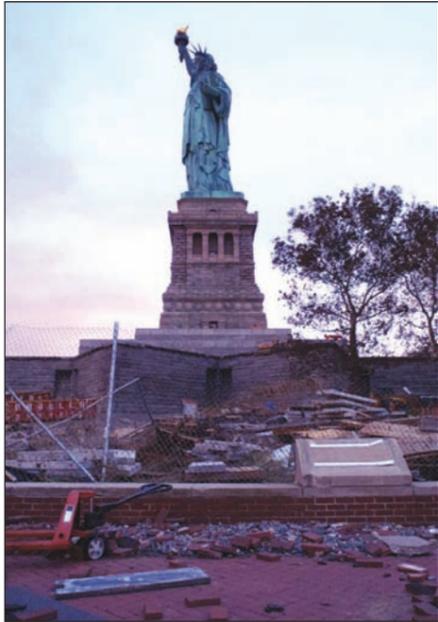


Figure 1. The diking and drainage of Wellfleet's Herring River estuary was followed by the demise of the system's lucrative river herring fishery and concurrently escalating costs for mosquito control. Note that the prime rationale for diking the river was mosquito suppression.

Seashore Staff Join the Effort to Help Parks Hit by “Sandy”

by Bridget Macdonald, Park Ranger

Restoring a flooded sewage plant at Sandy Hook, removing thousands of soaked brochures from Liberty Island, recovering American flags from New York Harbor: these are not typical duties for employees at Cape Cod National Seashore, but are just a few of the important tasks they took on in the weeks following Superstorm Sandy.



Water came up to the pedestal of the Statue of Liberty. Residual debris was massive. (NPS photo)

In the wake of the hurricane, national seashore staff lent their time and goodwill to some of the hardest hit National Park Service (NPS) units in the battered mid-Atlantic region. Along with employees from national parks across the country, they helped shore up wildlife habitat, recreational areas, and cultural icons at Gateway National Recreation Area, Fire Island National Seashore, and Assateague National Seashore.

Representing law enforcement, fire management, maintenance, and resource management, staff from Cape Cod took on a range of responsibilities from supervision to assessment to manual labor. Regardless of the nature of their assignments, they all played vital parts in the service-wide effort.

“You get to work with people of all different skills from across the NPS system as part of a team, and in these really meaningful places,” said Mark Adams, the national seashore’s geographic information systems (GIS) specialist. “It is really gratifying.”

It was also eye opening. As they helped pick up the pieces in coastal areas thrashed by sand, water, and wind, staff from Cape Cod National Seashore all arrived at the same conclusion: It could happen here.

Damage control

Christopher Williams, a law enforcement ranger in the South District of the national seashore, was on the frontlines within days. After checking in at Gateway’s Fort Wadsworth in New York on November 3, he was sent to Fire Island National Seashore, where he spent the majority of his detail at a security checkpoint regulating who was coming and going.

Only contractors removing immediate hazards – trees, debris, sand, electrical lines – were allowed entry in the immediate aftermath of the storm. Not even residents were permitted on the island.

When homeowners returned, they found a changed landscape. Williams estimated that some areas lost 30 to 40 feet of dunes that

had served as a protective barrier for homes. He described seeing houses with windows blown in, roofs torn apart, or knocked completely off their foundations. Some were total losses. “The mass devastation was unreal to see,” Williams said.

North district ranger Craig Thatcher was on the scene on November 3 as well, sent farther south to Assateague National Seashore, in Maryland and Virginia, to serve as the incident commander of the recovery operation. Heading up a team comprising a maintenance chief, a finance officer, a liaison officer, a plan-section chief, and 70 employees from other park areas, Thatcher and his crew focused on lifting some of the burden from the shoulders of overwhelmed staff at Assateague.

They started by prioritizing. “We set up a short-term list, and a long-term list, and had an assessment team coming up with values for things that were damaged,” he said.

The team was able to tackle enough of the immediate issues during the two-week detail that by the time they were leaving, Assateague was getting started on some of the bigger but less urgent projects, such as rebuilding parking lots and boardwalks, and unearthing campgrounds buried beneath three feet of sand.

Although a lot of visitors were calling Assateague with concerns about accessing the park’s recreational areas, Thatcher said, “The biggest thing people were concerned about was the horses.” Assateague has a population of about 100 horses that live on a barrier island, and after the storm, the park posted information online immediately about how they had fared.

“They had gone up to higher ground, and were still feeding,” said Thatcher. “Sometimes nature takes care of itself.”

Picking up the pieces

When Sandy hit, the seashore’s assistant fire management officer, Justin DeForest, was on Long Island attending training. As soon as the ferries were running again, he and his crew headed to Staten Island, arriving on Sunday November 4 for a 10-day detail at Gateway.

“It was a very full 10 days,” said DeForest. Accustomed to facing wildfires in vast national forests out west, the crew may as well have been on another planet. They set up a self-sufficient camp in the shadow of New York’s Verrazano-Narrows Bridge and shipped out to work on Liberty Island.

“Everything had been washed over,” said DeForest. “Water came up to the pedestal of the statue.” Tree damage on the grounds was so extensive, the park sent over a dump truck and a chipper on a barge, and DeForest and his crew spent four days just clearing woody debris.

The literal highlight of their work on Liberty Island was relighting the torch. A lighting company had donated a temporary light-emitting diode (LED) system to restore power, and DeForest said, “One of our guys was lucky enough to flick the switch to the light of liberty.”

But their time on Ellis Island was the most meaningful. The crew was assigned to take apart several mobile trailers that had provided housing for park police. In the midst of demolishing the units with drills and saws, they paused often to sift out personal

belongings from the rubble. “Some of the officers lost everything,” he explained. “We got to see this personal side, and it really hit home.”

Seven of his crew members also discovered personal connections to the island itself, finding their families’ names on The American Immigrant Wall of Honor. DeForest said some of them were so moved, they called their parents or grandparents right away to hear stories about how their ancestors had set foot in the United States on the very ground they were helping to clean up.

And it was DeForest’s team that rescued the American flags found floating in the water around the national landmarks.

Daniel Murphy, a mechanic and carpenter in the maintenance division at the national seashore, was on a detail in Gateway as well. He checked in on November 7, and was assigned to the Sandy Hook unit in New Jersey the next day along with seashore mechanic Eric Anderson.

Murphy said he was “amazed” by the extent of the devastation, and that it had clearly taken a toll on residents and park staff. “I don’t know if you have ever been robbed, but it is a shocking, debilitating experience,” he said for comparison. When Sandy came through, “Everything they knew had been wiped away.”

Murphy and Anderson were assigned to help get a sewage plant back online after it was washed over.

“When we arrived, there were six to seven feet of sewage and seawater that we had to pump out before getting a look.”

It was a common dilemma. In another area, Murphy saw a steel canoe tied to a chain-link fence, with two shovels inside. Park staff needed to make an initial assessment of the auto shop, and a boat was the only way to get access. “They didn’t have paddles, so they had to use shovels,” he explained.

Working with an equipment operator from the District of Columbia and an electrician from Dinosaur National Monument, they scrounged a generator and some spare wiring and managed to get the sewage plant back to 50 percent of operating capacity by the end of their stint.

Jack Shields, the seashore’s fire program management assistant, came to Gateway in the second wave of relief, sent to assist with incident command on November 13. He said his assignment helping to process departing staff the first week, and incoming staff the second, “was basically like working the front desk of a hotel, except signing in people from national parks all over the country.”

Shields said the staff who were departing were glad to have helped out but were clearly shaken by the experience. “They couldn’t wait to get home.” At the same time, he said the new arrivals were eager to lend a hand.



Before and after aerial photos of Sandy Hook Visitor Center at Gateway National Recreation Area showing road and parking lot destruction, loss of vegetation, and shoreline erosion. (NPS photos)



Seashore Staff Join the Effort to Help Parks Hit by “Sandy” *continued*

Personally, Shields said the experience provided a rare opportunity for reflection. “I was there through Thanksgiving,” he explained, “so I had a little bit more perspective on the holiday this year in terms of everything we have to be thankful for.”

The new normal

Mark Adams, the seashore’s GIS specialist, arrived at the incident command at Gateway on November 30. As part of a branch of the recovery called the resource advisors, his job was to help ensure that the already battered natural and cultural resources within the parks were not inadvertently damaged further during the cleanup process.



National Park Service employee working at a makeshift office among debris at Sandy Hook. (NPS photo)

So when operations staff or contractors were clearing debris, the resource advisors worked closely with them to point out fragile resources.

“After a storm, whatever remains – the structure of a dune, the shape of beach, every patch of vegetation – is an important foothold for re-establishing a coastal system,” Adams explained. “The more that’s left undisturbed, the better the chances of stability for the next storm.”

He noted that Sandy Hook encompasses cultural resources from many eras, habitat for endangered species and protected shorebirds, “and the island is pretty much at sea level, so everything is extremely vulnerable.”

The storm surge brought a tremendous amount of sand inland, but the cleanup process was not as simple as shoveling it away. “In some areas, we had to make sure the sand was put down flat because shorebirds like plovers and terns prefer a certain terrain for nesting,” said Adams. “We had to explain to the bulldozer drivers that the sand should only be a foot deep and should mimic the contours of the ground as closely as possible.”

Adams said natural resource specialists do not fully understand how these birds select where to lay their eggs, so it is critically important to provide the most accommodating nesting grounds possible. “Otherwise,” he said, “they will just move on.”

Parks have also proceeded with caution when repairing infrastructure. “In some areas, managers must choose not to rehabilitate, but just to reassess and stabilize for safety and essential services,” said Adams.

In the wake of a disaster, there is often an intrepid desire to repair and reopen everything – a course of action that is not always realistic or wise. After the storm, Gateway



National Park Service Director Jonathan Jarvis being briefed on site at the Incident Command Post at the Gateway National Recreation Area visitor center on Staten Island. (NPS photo)

did not mince words about this difficulty in a statement on its website: “Like the entire area hit by Hurricane Sandy, Gateway will never be the same as it was before the storm.”

But the statement continued, “It can, however, be as good or better than what was here before. The ‘new normal’ will take not only effort, but also sound planning.”

At the 70 NPS areas that were affected by Hurricane Sandy, the storm was a tragedy but perhaps also a catalyst for change. For an agency charged with protecting natural resources, cultural treasures, and recreational opportunities, Sandy brought up important questions about what is sustainable and what is susceptible.

“So how do we build in a response and still maintain a meaningful experience?” Adams asked. “That’s what we need to address.”

Even at parks that were spared from the brunt of Sandy, like Cape Cod National Seashore, the lessons are transferable.

The Statue of Liberty is due to reopen to the public July 4, 2013. The Ellis Island Immigration Museum will likely remain closed through 2013. The museum’s collection is currently being stored in a climate-controlled environment until repairs are complete. Gateway National Recreation Area expects most public-use areas to be open by Memorial Day 2013, though repairs to wastewater treatment facilities, ferry service, and bike paths is ongoing. Fire Island sustained major damage, and a new breach in the Old Inlet area was created. As of the spring of 2013, certain areas remain closed and inaccessible. Assateague Island suffered considerable erosion, though the herd of wild horses that resides there weathered Sandy relatively unscathed.



The literal highlight of work on Liberty Island was relighting the torch. A company had donated a temporary light-emitting diode (LED) system to restore power. Assistant Fire Management Officer Justin DeForest said, “One of our guys was lucky enough to flick the switch.” (NPS photo)



Fort Hill, Eastham. (NPS photo, Robby McQueeney)

Technology-Based Programs at Cape Cod National Seashore



Dial and Discover.

Cell phone tour stops are located throughout the seashore. Look for the green and brown “Dial and Discover Seashore Stories” signs at Salt Pond, Coast Guard Beach, Fort Hill, Province Lands Visitor Center, and the Marconi Site. Cell phone tour scripts are available at visitor centers for persons with hearing impairments.

The Fort Hill Quest is a GPS-based information scavenger hunt at the Fort Hill area in Eastham. Download the coordinates and clue booklet from the seashore website, www.nps.gov/caco/planyourvisit/outdooractivities.htm, or pick up a free copy at Salt Pond Visitor Center in Eastham.

FRIENDS OF THE CAPE COD NATIONAL SEASHORE

BECOME A FRIEND OF THE SEASHORE

Friends of the Cape Cod National Seashore, the not-for-profit fundraising partner of the seashore, is committed to the conservation and preservation of the park through volunteerism and philanthropic support. Friends lends a hand by:

- ✦ Supporting a summer season of free, fun, and educational events for the entire family;
- ✦ Promoting the interpretive, environmental, historical mission of the seashore;
- ✦ Encouraging much needed private donations to support seashore projects and programs;
- ✦ Providing volunteers for important seashore projects such as seal education training, dune restoration, and trail maintenance.

Love the Seashore? Join the Friends!
Visit us at www.fcns.org and find us on Facebook

Cape Cod National Seashore Bookstores



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Caps & Hats T-Shirts Hoodies & Jackets Kid's Tees Tote Bags & More



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Eastern National is a private, nonprofit organization that provides quality educational products and services to park visitors. Proceeds are donated directly to Cape Cod National Seashore to support interpretive and educational programs, including the printing of this publication.

Thank you for your purchases.

Historic Buildings at Cape Cod National Seashore

The Penniman House, Eastham

The Penniman House, completed in 1868, was styled after the French Second-Empire period. It included every known comfort of the day and many innovative ideas. The Captain Edward Penniman family enjoyed this fine home for nearly 100 years. Off Route 6, approximately one mile north of the Orleans rotary, at Fort Hill in Eastham. Seasonal tours and open houses. Limited parking.



Nauset Light, Eastham

Lighthouses have served as guides to mariners off Cape Cod shores since the late 1700s. Nauset Light, moved in 1996, remains a navigational aid. Nauset Light Preservation Society volunteers conduct tours 4:30 to 7:30 PM on Sundays Memorial Day through August, and additionally on Wednesdays in July and August. Donations accepted. www.nausetlight.org. Take Route 6 to the traffic light at Salt Pond Visitor Center at Nauset Road in Eastham. Turn onto Nauset Road and follow signs to Coast Guard and Nauset Light beaches. Park at Nauset Light Beach. (Beach fee may apply.)

The Three Sisters Lighthouses, Eastham

These 19th-century wooden lighthouses that once provided a beacon for sailors off the shore of Nauset Light Beach are now arranged in their original configuration off Cable Road. Seasonal tours and open houses. Located 1/4 mile west of Nauset Light on Cable Road. (Beach fee may apply.) ♿



Atwood-Higgins House, Wellfleet

The Atwood-Higgins House is a fine example of a properly framed Cape Cod cottage, which grew from a half-house in the early 1700s to a full-Cape with eight rooms by the 19th century. Take Route 6. Turn onto Pamet Point Road in Wellfleet at the Truro town line. Take Pamet Point Road and follow signs to Atwood-Higgins. Seasonal tours. Limited parking.

Highland Light and Highland House, Truro

Highland Light: Open daily mid-May through mid-October. Lighthouse tours daily 10 AM to 5:30 PM, \$4 all ages. Children must be 48 inches tall. 508-487-1121. www.capecodlight.org. **Highland House Museum:** June 1 through September, Monday to Saturday, 10:30 AM to 4:30 PM. \$5 adults, 12 and under/ members free. 508-487-3397. www.trurohistorical.org. *Directions to both:* Take the Cape Cod Light exit, Route 6 onto Highland Road, follow signs.



Pamet Cranberry Bog House, Truro

Originally constructed around 1830, the Bog House is located among former cranberry bogs in the Pamet Valley. It supported cranberry harvesting that occurred there until the 1960s. Views of the house can be seen from atop Bearberry Hill. Follow North Pamet Road in Truro, off Route 6, to its end. Limited parking.

Old Harbor Life-Saving Station, Provincetown

At Old Harbor, the National Park Service interprets the dramatic story of shipwrecks and the role of the U.S. Life-Saving Service in preventing shipwrecks and performing rescues. During the summer months, re-enactments of the historical breeches buoy drill are performed weekly. Take Route 6 to Race Point Road in Provincetown. Park at Race Point Beach. Seasonal open houses. (Beach fee may apply.)



Local Area Information

Chambers of Commerce:

Cape Cod Chamber of Commerce:

Website: www.capecodchamber.org
Email: info@capecodchamber.org
Phone: 1-888-33-capecod or 508-362-3225

Chatham:

Website: www.chathaminfo.com
Email: chamber@chathaminfo.com
Phone: 1-800-715-5567
Info Booth: 508-945-5199

Orleans:

Website: www.capecod-orleans.com
Email: info@capecod-orleans.com
Phone: 1-800-865-1386
Info Booth: 508-255-1386

Eastham:

Website: www.easthamchamber.com
Email: info@easthamchamber.com
Phone: 508-240-7211
Info Booth: 508-255-3444

Wellfleet:

Website: www.wellfleetchamber.com
Email: info@wellfleetchamber.com
Phone: 508-349-2510

Truro:

Website: www.trurochamberofcommerce.com
Email: info@trurochamberofcommerce.com
Phone: 508-487-1288

Provincetown:

Website: www.ptownchamber.com
Email: info@ptownchamber.com
Phone: 508-487-3424

Outer Cape Bicycle Rentals:



Arnold's, Provincetown	508-487-0844
Gale Force, Provincetown	508-487-4849
Idle Times, Eastham	508-255-8281
Idle Times, Wellfleet	508-349-9161
Little Capistrano, Eastham	508-255-6515
Little Capistrano, So. Wellfleet	508-349-2363
Provincetown Bikes	508-487-8735

Whale Watching in Provincetown:



Dolphin Fleet	800-826-9300
Provincetown Whale Watches	800-225-4000

Dune Tours in Provincetown:

Art's Dune Tours	508-487-1950
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Outer Cape Campgrounds, RV Parks, State Parks:

Atlantic Oaks, Eastham	508-255-1437
Maurice's, So. Wellfleet	508-349-2029
Paine's, So. Wellfleet	508-349-3007
Horton's, No. Truro	508-487-1847
North of Highland, No. Truro	508-487-1191
No. Truro Camping, No. Truro	508-487-1847
Dune's Edge, Provincetown	508-487-9815
Coastal Acres, Provincetown	508-487-1700
Nickerson State Park, Brewster	508-896-3491
Hostelling International - http://capecod.hiusa.org	