



#### Welcome

Great Swamp is one of more than 560 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service. The National Wildlife Refuge System is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat and represents the most comprehensive wildlife resource management program in the world.

Swamp woodland, hardwood ridges, cattail marsh, and grassland typify this approximately 7,800-acre refuge. The swamp contains many large old oak and beech trees, stands of mountain laurel, mosses and ferns and many plant species from both the northern and southern botanical zones.

The refuge has identified more than 244 species of birds according to their seasonal occurrence. Some of the 39 species of mammals found on the refuge include the white-tailed deer, river otter, muskrat, mink, beaver, black bear, raccoon, skunk, red fox,

Raccoon



Bill Buchanon/USFWS

coyote, woodchuck, gray squirrel, opossum, cottontail rabbit, and the federally endangered Indiana bat. An interesting variety of fish, reptiles, and amphibians, including the federally threatened bog turtle and the state endangered blue-spotted salamander, are also found on the refuge. The following lists are available at the refuge: bird, mammal, reptile, amphibian & fish, and wildflower.

## **Origin of Great** Swamp

Roughly 25,000 years ago, where the Wisconsin Glacier reached its furthest point south and stopped, the creation of Great Swamp began.

As the melting glacier receded, ice and debris blocked gaps in the Watchung Mountains causing the Passaic River to back up forming Lake Passaic—a giant lake, 30 miles long and 10 miles wide.

Eventually, the retreating glacier uncovered an outlet at what is now Little Falls Gap, and the lake waters drained out along the Passaic River. The lake disappeared and was eventually replaced by extensive marshes and swamps which would be named Black Meadows, Great Piece Meadows, Lee Meadows, Troy Meadows, Hatfield Swamp, and Great Swamp.

# History

Native American settlement is documented in the Great Swamp from at least the close of the last Ice Age over 12,000 years ago, and was continuous until Euro-American settlers arrived in the 1720s. During most of that time the inhabitants lived by hunting, fishing, and gathering of native plants. Later they cleared small fields to add corn, beans and squash to their diet. The earliest local record of land sale by the Lenni-Lenape people (more commonly known as the Delawares) occurred in 1708. Although most Lenni-Lenape left the area after Euro-American

settlement began around the swamp edge, the Great Swamp is still considered an important part of their ancestral homeland.

General George Washington was headquartered in Morristown with his army encamped nearby. The geography created a strong defensive position protected by forest, the Great Swamp, and rugged Watchung Mountains forming a barrier against British attacks from their New York base. Morristown served as a military center until 1783.

The Great Swamp quickly became noted for the value of its timber for shipbuilding, barrel-making, wagon wheel parts, and a wide variety of other wood products, as well as for fuel at local iron furnaces. The demand was so great that by the early 19th century most of its trees had been cleared, so farmers turned to ditching the swamp for production of "foul meadow hay."

Nearly all of the swamp had been both cleared and drained by the early 20th century, but small farming operations became uneconomical and gradually disappeared. Consequently, much of the cleared areas returned to wetlands. Various modern uses



Eastern bluebird

were planned for Great Swamp: flood control and a proposed reservoir in the 1920s; drainage projects in the 1930s; and a major jet airport proposal in 1959.

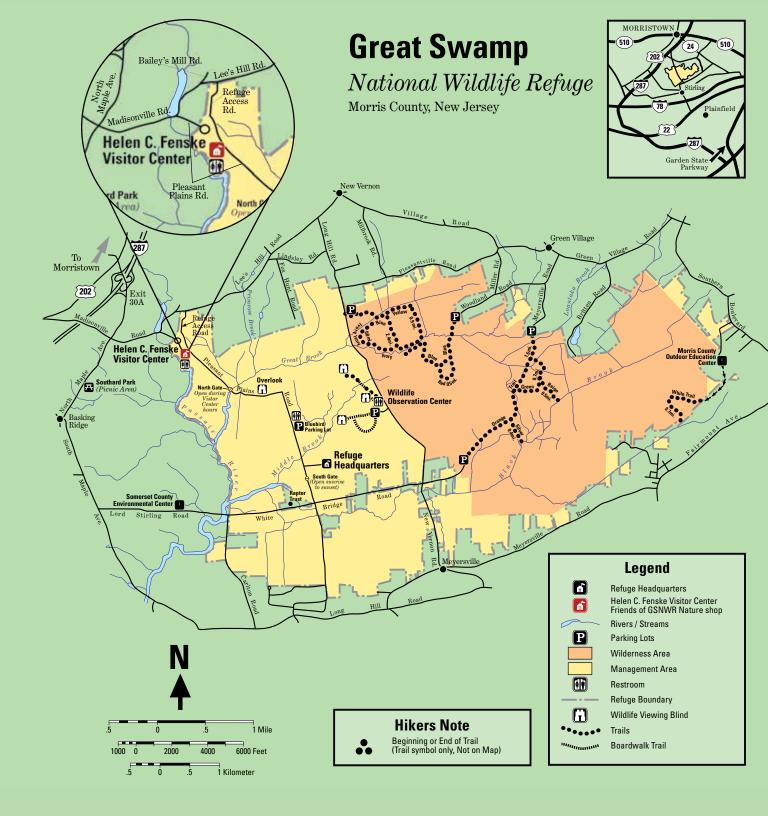
It was the threat of the jetport that enabled the Great Swamp Committee of the North American Wildlife Foundation to muster the aid of a significant number of volunteers. This effort raised more than a million dollars to purchase nearly 3,000 acres, which were donated to the U.S. Department of the Interior. These acres formed the nucleus of the Great Swamp National Wildlife Refuge. Through the years additional acres have been added to the original tract. In 1966, the refuge was designated a registered National Natural Landmark.

### Refuge Management

Wildlife Management Great Swamp was established primarily as an area to provide resting, feeding and nesting habitat for migratory birds, primarily waterfowl. The western half of the refuge is intensively managed to maintain optimum habitat for a wide variety of wildlife. Water levels are regulated; grasslands and brush are moved periodically to maintain habitat and species diversity; nesting structures for wood ducks, bluebirds, and other birds are provided; research studies and surveys are conducted. To minimize disturbance to wildlife, public access in this area is limited to the Helen C. Fenske Visitor Center, Pleasant Plains Road, and trails at the Wildlife Observation Center.

Wilderness Area
The eastern half of the refuge was
designated by Congress as a National
Wilderness Area in 1968. This was the
first Wilderness Area designated on
Department of Interior lands. Generally,





no permanent structures, motor vehicles, or motorized equipment are allowed, not even mechanized forms of transportation such as bicycles. The U.S. Fish and Wildlife Service worked hard to remove remaining traces of man such as roads, buildings and dumps. Drained wetlands were restored. The Wilderness Area provides a more primitive outdoor experience and serves as an outdoor classroom and laboratory. Hiking on approximately 8 ½ miles of trails or crosscountry travel is permitted. By limiting use to foot travel, the wilderness character of this sensitive area can be preserved. Waterproof footgear is recommended during most seasons. Mosquitoes, ticks, and deer flies may be a nuisance from May to September:

#### **Visitor Activities**

Start your visit at the Helen C. Fenske Visitor Center for an orientation to the refuge. The visitor center features state-of-the-art exhibits and touch screen computer technology showcasing refuge wildlife, habitats, history,



Barred owl

and recreational opportunities. Other features include an eBird Trail Tracker kiosk - a real time electronic bird sightings log, and the Discovery Den which offers seasonal hands-on educational activities for children. The visitor center also houses the Friends of Great Swamp NWR Nature Shop. The Friends is a non-profit, all-volunteer organization which provides support to the refuge through funding and volunteer resources. Outside, beautiful native plant gardens for birds and butterflies surround the visitor center. The half-mile Bockoven Trail leads to views of a vernal pool and the Passaic River. The Nature Detective Trail, a short self-guided woodland trail, challenges children to use their senses and explore nature up close.

#### Wildlife Observation

People are encouraged to observe, study, photograph, and enjoy nature in designated public areas. The best times for observing wildlife are early morning and late afternoon. The quieter you are, the better your chances of seeing wildlife.

The Wildlife Observation
Center, located at 220 Long
Hill Road, is particularly good
for photography and wildlife
observation. It has approximately
1½ miles of boardwalks and trails,
an informational kiosk, blinds for
observing wildlife, and restrooms.
Pleasant Plains Road is another
good place for viewing wildlife from
your car or on foot. The Overlook on
Pleasant Plains Road has two viewing
scopes and offers the opportunity to
see many species of birds.

#### **Visitor** Information

The refuge is open daily from sunrise to sunset. The Helen C. Fenske Visitor Center is located at 32 Pleasant Plains Road. Hours are: Thursday and Friday, noon – 4:00 pm; weekends 10:00 am - 4:00 pm. Note that hours are subject to change. Please call ahead for the latest information. Refuge headquarters is located at 241 Pleasant Plains Road. Hours are 8:00 am to 4:30 pm, Monday through Friday.

Para obtener mas informacion sobre el Gran Pantano/ Great Swamp Refugio de Vida Silvestre, por favor visite nuestro sitio web.

Great Swamp Outdoor Education Center, operated by the Morris County Park Commission, is located on the eastern side of the refuge off Southern Boulevard in Chatham Township. The Center offers natural science programs, guided tours and provides 1 1/2 miles of trail. Telephone 973/635 6629.

The Environmental Education Center, operated by the Somerset County Park Commission, is located on the western border of the refuge on Lord Stirling Road. The park offers environmental education courses, guided field trips, and 8 1/2 miles of walking trails. Telephone 908/766 2489.

Bog turtle



The Raptor Trust, at 1390 White Bridge Road, cares for injured birds. It is open daily and offers a self-guided tour to view raptors and other species of birds that cannot be released back to the wild. Telephone 908/647 2353.

# We need your help

Wildlife have no restrictions. They have free run of the entire refuge, day and night, because this is their home; access for people, as visitors, is limited to certain areas.

# Trails

are open to foot travel only; most trails at the Wildlife Observation Center are handicap accessible.

#### Pets

must be on a leash not exceeding 10ft and are permitted only along Pleasant Plains Road and in parking areas.

Vehicles must be parked in designated areas.

Releasing, collecting, disturbing, or destroying plants, animals, or parts thereof, is prohibited.

Camping, canoeing and fishing are not permitted on the refuge.

Littering
Please don't litter - recycle instead!

Great Swamp National Wildlife Refuge exists today because people care what happens to wild animals and natural places. Please do your part to protect the beauty of this refuge. Great Swamp National Wildlife Refuge, established in 1960, lies 26 miles west of New York City's Times Square and seven miles south of Morristown, New Jersey.



 $Eastern\ cottontail$