

U.S. Fish & Wildlife Service

# Great Meadows

*National Wildlife  
Refuge*



*Great Meadows National Wildlife Refuge is one of more than 530 refuges in the National Wildlife Refuge System which is 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. Units of the system stretch across the United States from northern Alaska to the Florida Keys, and include small islands in the Caribbean and South Pacific. The character of the refuges is as diverse as the nation itself.*

### **Welcome: Oasis for Wildlife**



*This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.*

Just twenty miles west of Boston lies an oasis for wildlife—the Great Meadows National Wildlife Refuge. Roughly 85 percent of the refuge's more than 3,600 acres is composed of valuable freshwater wetlands stretching along 12 miles of the Concord and Sudbury Rivers. The U.S. Fish and Wildlife Service protects and manages Great Meadows as nesting, resting, and feeding habitat for wildlife, with special emphasis on migratory birds. The diversity of plant and animal life visible from refuge trails provides visitors with excellent opportunities for wildlife viewing and nature study.

Great Meadows NWR is one of eight national wildlife refuges that comprises the Eastern Massachusetts National Wildlife Refuge Complex. The eight ecologically diverse refuges include Assabet River, Great Meadows, Mashpee, Monomoy, Nantucket, Nomans Land Island, and Oxbow. Protected inland and coastal wetlands, forests, grasslands, and barrier beaches provide important habitat for migratory birds, mammals, plants, reptiles, and amphibians.

*Sunset at Great Meadows National Wildlife Refuge*



Paul Olsen

Great Meadows NWR consists of two units of land bordering on eight historically significant towns—Billerica, Bedford, Carlisle, Concord, Framingham, Lincoln, Sudbury, and Wayland. Minute Man National Historical Park and Thoreau's Walden Pond are located nearby.



Bruce Flaig

*Eastern Bluebird*

### Wildlife Abounds

A great diversity of birds have been recorded at Great Meadows NWR; an annotated list of over 220 species is available upon request. White-tailed deer, muskrats, red fox, raccoons, cottontail rabbits, weasels, squirrels, and various small mammals are common along the marsh borders and can also be found in the uplands. Amphibians and reptiles can be observed in the warmer months, but no poisonous snakes are found on the refuge. Several species of waterfowl, including mallards, black ducks, wood ducks, and blue-winged teal nest here. Nesting boxes are provided for wood ducks in refuge wetlands.



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*Aquatic weed harvester at work.*

### Working for Wildlife

The goal of refuge management is to provide habitat for a diversity of native fish and wildlife. Management tools include exotic plant control, water level and vegetation manipulation, and farming practices. Exotic plant control helps maintain the natural diversity present in an ecosystem. Water level manipulation can change habitat and provide food and cover for fish and wildlife.

One of the major wildlife management efforts underway at Great Meadows NWR is the control of exotic plants. Plants such as purple loosestrife (the tall purple flower seen in disturbed areas) and water chestnut (the small green plant that forms a carpet over open water) have little to no wildlife value and are out-competing our native vegetation. Several methods of control have been attempted at the refuge: everything from hand-pulling plants, to chemical applications, to flooding the marshes. For purple loosestrife, the release of weevils and beetles native to the European home of loosestrife, seems to be the best management solution. These insects feed only on purple loosestrife.



K. & L. Brown

*Muskrat assisting in management on the refuge.*

*Sunset view  
through trees.*



Bruce Flaig

## **An Ancient History**

As for water chestnut, a combination of harvesting the plants and draining the pools appears to be the most promising control.

Many relics of early people found in the vicinity date back to 5500 B.C. Thousands of stone artifacts have been found in Concord alone. River meadows and plains were burned over to provide cropland and pasture for game, and the waters provided fish in great quantity for both food and fertilizer. The river provided transportation for the Native American's annual summer movement to the sea, where the greater portion of their winter food was gathered and dried.

Native Americans named the Concord River "Musketahquid," meaning grassy banks. Settlers named the grasslands the "Great River Meadows." Hay was harvested annually and provided an important income for early settlers. With the advent of industrialization in the early 19th century, a mill dam was built in Billerica. The dam caused the river's water level to rise and to extend into the Meadows. The newly created habitat became increasingly attractive to waterfowl. In fact, the wetlands became highly valued for hunting and fishing.



Bruce Flaig

*Great blue heron.*

Recognizing their value, Samuel Hoar, a hunter, purchased a part of the Meadows in 1928. He built earthen dams or dikes to hold the water within these marshlands, enhancing their value as waterfowl habitat. In 1944, Hoar donated 250 acres of this land to the U.S. Fish and Wildlife Service. To provide greater protection for the area's wetlands and wildlife, the Service began buying additional land during the 1960s. Today the two units of the Great Meadows NWR contain over 3,600 acres of prime wildlife habitat.



Bruce Flaig

*American  
Goldfinch  
on Cattail.*

## Wildlife Watching Tips

Dawn and dusk are the best times to see wildlife.

In warmer climates, little is moving on hot summer afternoons or on windy days.

Observe from the sidelines. Leave “abandoned” young animals alone. A parent is probably close by waiting for you to leave. Don’t offer snacks; your lunch could disrupt wild digestive systems.

Cars make good observation blinds. Drive slowly, stopping to scan places wildlife might hide. Use binoculars or a long lens for a closer look.

Try sitting quietly in one good location. Let wildlife get used to your presence. Many animals that have hidden will reappear once they think you are gone. Walk quietly in designated areas, being aware of sounds and smells. Often you will hear more than you will see.

Teach children quiet observation. Other wildlife watchers will appreciate your consideration.

Look for animal signs. Tracks, scat, feathers, and nests left behind often tell interesting stories.

## Things to do at the Refuge



Great Meadows NWR provides visitors with many wildlife-oriented recreational opportunities. The refuge has long been a favorite stop for bird watchers. Noted ornithologists consider the Concord Unit of the refuge to be one of the best inland birding areas in the state. Visitors can hike the nature trails and observe, photograph, and study wildlife and plants.



Snowshoeing and cross-country skiing on the trails in the winter can provide wonderful wildlife viewing opportunities. Interpretive and environmental education programs are available upon request and are listed in the quarterly refuge newsletter. Please contact refuge headquarters for more information.

## Sudbury Unit – *Weir Hill Trail and Refuge Visitor Center*



The trail at Weir Hill takes visitors on a 3/4-mile long walk around marshes, uplands, woodlands, fields, the river, brook, and pond. The trail begins in front of the Visitor Center. Refuge trails are connected to a more vast trail system. Please come inside and look around the Visitor Center before or after your hike and ask us any questions you have about the refuge. The visitor center is wheelchair accessible.

## *Stop by the Refuge Office*



The refuge office, visitor center (open daily 8 a.m. to 4 p.m.; closed weekends during the winter), and educational facilities are all part of the headquarters, located adjacent to the Sudbury River at the base of Weir Hill. This hill—a 12,000 year old glacial deposit—was used by Native Americans who trapped fish in the river by constructing fish weirs; hence the name “Weir Hill.”



USFWS

*Sudbury River; Weir Hill Area.*

To reach the office and visitor center at Weir Hill, follow Route 27 (1.7 miles) from Wayland and turn right onto Water Row Road. Follow Water Row Road (1.2 Miles) until it ends and turn right onto Lincoln Road. Travel one half mile, turn left onto Weir Hill Road and follow to end.

Teachers and other group leaders may receive assistance in using the refuge as an educational resource. With help from the refuge staff, leaders can plan and lead visits that will enable their students or groups to learn directly about the natural world by studying wildlife habitat and observing wildlife.

### **Concord Unit – Dike Trail Area**



This original 250-acre area that belonged to Samuel Hoar is still known as the “Great Meadows,” and is open to visitors. Several trails are available for wildlife observation, including the Dike Trail, a 2.7-mile loop around one of the marsh pools. Trailside interpretive signs and an observation tower provide visitors with additional views and information about the refuge, its management, and its wildlife.



Steph Koch

*Nature study with kids and staff.*

Travel to this area by following Route 62 east from Concord Center toward Bedford. After about one mile, turn left onto Monsen Road. Continue on Monsen Road until you see the refuge entrance on your left.

### **Additional Trails O'Rourke Trail**



This 126 acre unit was added to the Great Meadows NWR in 1998. The trail system winds visitors through open grasslands, wet marshes and mature forests. The property provides visitors with great birding and wildlife watching opportunities.

There is no direct road access to the Refuge for the public. The trail system can be accessed through the Foss Farm off Bedford Road (Route 225) to the south or through Greenough Land off Maple Street to the northwest of the refuge. Both Greenough Land and Foss Farm are Town of Carlisle conservation lands and are open to the public.



Carole D'Angelo

*White-tailed deer in fall.*

### *Billerica Trail*



In 2000 a new trail and parking area were added to the refuge through cooperative efforts with the Sudbury Valley Trustees. The parking area is located on the east side of the Route 4 bridge in Billerica. Hikers will eventually be able to follow this river trail to Two Brothers Rock in Bedford.

*Canada Geese on trails.*



Carole D'Angelo

### **A Few Simple Rules**



Public use of designated trails within the refuge for nature study, hiking and photography is permitted from one-half hour before sunrise to one-half hour after sunset. There are no picnic areas or campsites on the refuge.



Dogs are allowed, but must be on a short hand-held leash during the entire visit. No other domestic pets are allowed.

Horses are not permitted.



Motorized vehicles and bicycles are restricted to entrance roads and parking areas. Bicycles are not allowed on trails.

Hunting, shooting, building fires, swimming and ATVs/ORVs are not permitted.

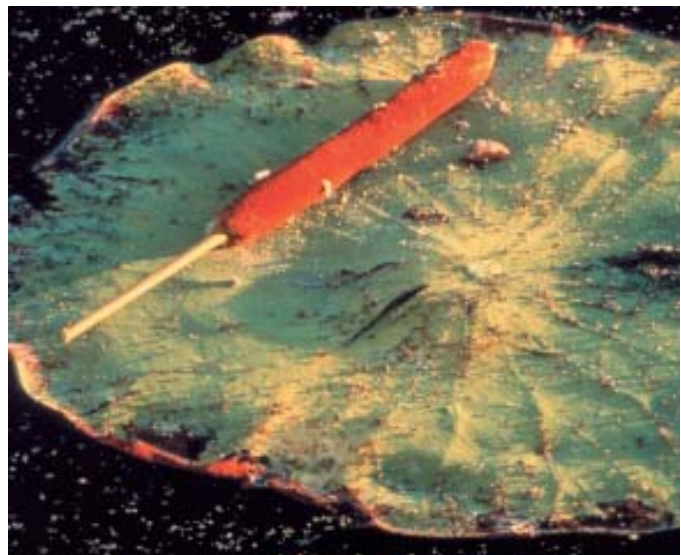


Boating and fishing are allowed in the Concord and Sudbury Rivers, but not in the refuge pools.



The disturbance, destruction, or removal of wildlife, vegetation, and facilities are prohibited.

*Cattail on a lily pad.*



Sandy Selesky

This is your refuge to enjoy. Please respect the wildlife and other visitors. Remember to take only memories or photographs and leave only footprints.

**For further information, contact:**

Eastern Massachusetts  
National Wildlife Refuge Complex  
73 Weir Hill Road  
Sudbury, Massachusetts 01776  
978/443 4661  
978/443 2898 Fax  
r5w\_gmnwr@fws.gov  
<http://greatmeadows.fws.gov>

*Yellow iris in bloom.*



Bruce Flaig

**Great Meadows  
NWR Facts**

*Where is it?*

Great Meadows NWR is located 20 miles west of Boston, Massachusetts. The Refuge headquarters can be reached by taking Route 20 to Route 27 North. Follow Route 27 (1.7 miles) from Wayland and turn right onto Water Road Road. Follow Water Row Road (1.2 miles) until it ends and turn right onto Linclon Road. Travel one half mile, then turn left onto Weir Hill Road.

*When was it established?*

Samuel Hoar donated the first tract of land to the Fish and Wildlife Service in 1944.

*How big is it?*

Over 3,600 acres

*Why is it here?*

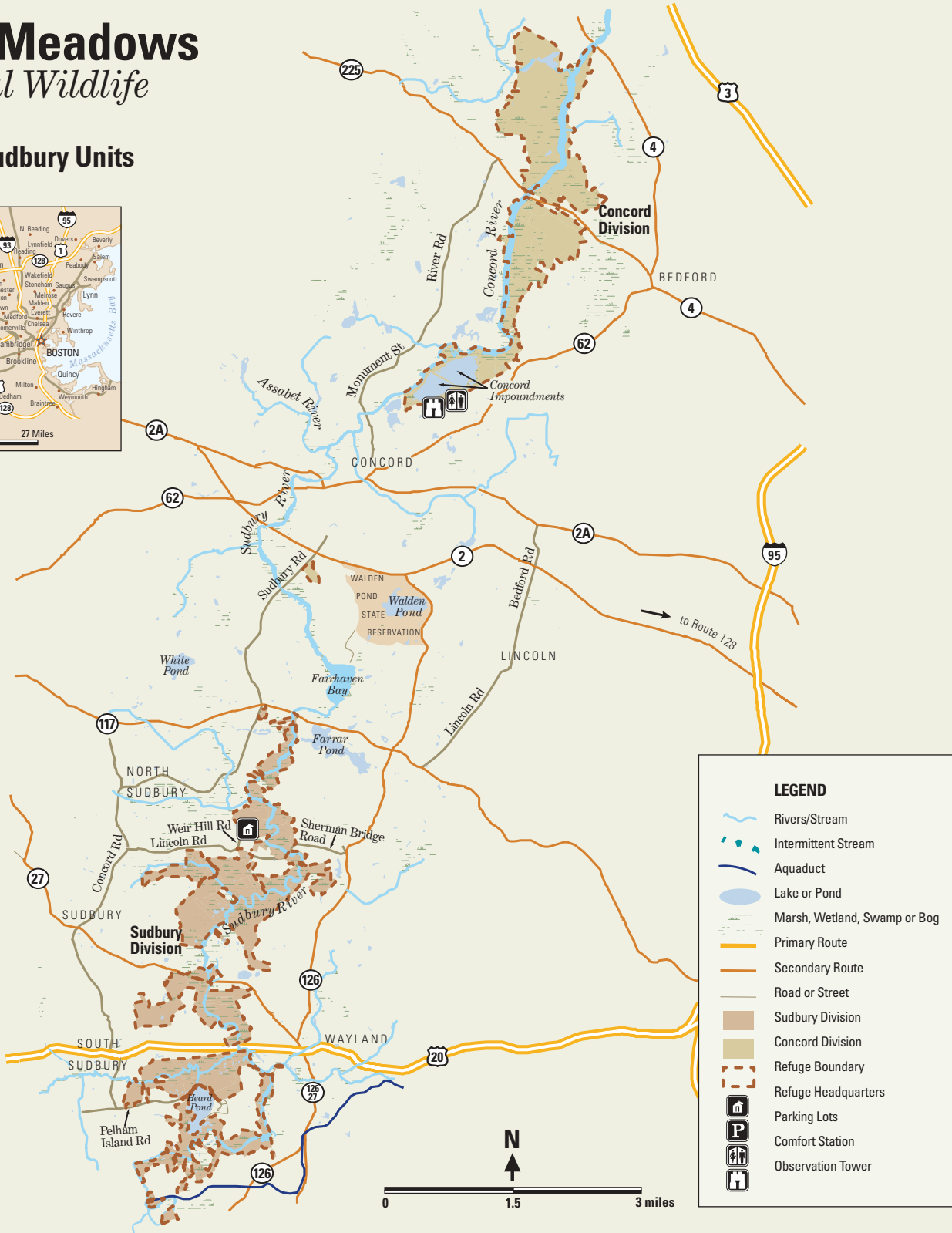
Great Meadows NWR was established to protect and manage freshwater wetlands for migratory birds.

*Grasshopper*



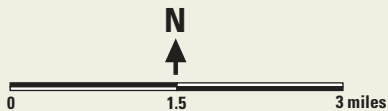


# Great Meadows National Wildlife Refuge Concord/Sudbury Units



## LEGEND

- Rivers/Stream
- Intermittent Stream
- Aquaduct
- Lake or Pond
- Marsh, Wetland, Swamp or Bog
- Primary Route
- Secondary Route
- Road or Street
- Sudbury Division
- Concord Division
- Refuge Boundary
- Refuge Headquarters
- Parking Lots
- Comfort Station
- Observation Tower



Eastern Massachusetts  
National Wildlife Refuge Complex  
73 Weir Hill Road  
Sudbury, Massachusetts 01776  
978/443 4661  
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r5rw\_gmnwr@fws.gov  
<http://greatmeadows.fws.gov>

Massachusetts Relay Service  
1 800/439 2370 T

U.S. Fish & Wildlife Service  
<http://www.fws.gov>

For Refuge Information  
1 800/344 WILD

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