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U.S. Fish & Wildlife Service

# Deer Flat

*National Wildlife  
Refuge*



*Deer Flat National Wildlife Refuge provides a watery oasis for resident and migratory wildlife, including spectacular concentrations of waterfowl.*



*Canada geese*

## About the Refuge

Deer Flat National Wildlife Refuge has two sectors, Lake Lowell and the Snake River Islands. The Lake Lowell sector encompasses 10,588 acres, including the almost 9,000-acre Lake Lowell and surrounding lands. The Snake River Islands sector contains about 800 acres on 101 islands. These islands are distributed along 113 river miles from the Canyon-Ada County Line in Idaho to Farewell Bend in Oregon.

### Diverse Habitats

The refuge provides a mix of wildlife habitats from the open waters and wetland edges of Lake Lowell, to the sagebrush uplands around the lake, to the grasslands and riparian forests on the Snake River islands. With assistance from local growers, the refuge also cooperatively farms 240 acres to provide food for wildlife.

The variety of habitats makes Deer Flat NWR an important breeding area for resident and migratory birds and other wildlife. The refuge is also a significant resting and wintering area for birds migrating along the Pacific Flyway, including spectacular concentrations of mallards and Canada geese.

### A System of Refuges

Deer Flat NWR is one of the oldest refuges in the National Wildlife Refuge System, which now includes over 540 refuges. Managed by the U.S. Fish and Wildlife Service, the System preserves a network of lands and waters set aside for the conservation and management of the nation's fish, wildlife and plant resources for the benefit of present and future generations.



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

## A Brief History

### Early Settlers

Before settlement, the area that was to become Deer Flat NWR was a low-lying area with many springs. In winter, herds of deer and elk came from the mountains to eat the abundant grasses. Early settlers observing these herds dubbed the area Deer Flat.

Needing water to irrigate crops, settlers initially restricted their settlements to the areas close to rivers. In the early 1900s, they began lobbying and raising money for a reservoir. The Bureau of Reclamation began work on the Deer Flat Reservoir in 1906.

### Creating Lake Lowell



Between 1906 and 1909, two large and two small earthen embankments, or dams, were built to contain the reservoir. The Upper Dam was constructed using a small-gauge train to haul, dump and compact the material. Horse teams were used on the Lower Dam. Workers also constructed a diversion dam on the Boise River and enlarged the New York Canal, which brings water from the Boise River to the reservoir.

### Establishment of the Refuge

The reservoir was completed in 1909 at a cost of \$2,500,000. Unfortunately, local landowners greeted it with outrage rather than cheers because most of the water first used to fill the reservoir either evaporated or leaked out. Fortunately, the reservoir soon began to hold water.

In 1945, Deer Flat Reservoir was re-named Lake Lowell in honor of J.H. Lowell, who had spearheaded efforts to establish the reservoir in his position as president of the local water users association. Lake Lowell is now one of the largest off-stream reservoirs in the American west, with the capacity to irrigate over 200,000 acres of land.

With the reservoir completed, President Theodore Roosevelt realized that a nearly 9,000-acre lake in an arid region would be an oasis for wildlife, so he created Deer Flat NWR. The refuge remained unstaffed until 1937, when 36 islands in the Snake River were added to protect a riparian corridor for wildlife. Through land purchases, donations and other land-acquisition methods, the refuge eventually expanded to about 11,400 acres.

*Left: Deer Flat steam shovel*  
*Below: Horse teams compacting the dam*



## Work Crews

*Pillar installed by the Civilian Conservation Corps at the Upper Dam*



In the 1930s, a Civilian Conservation Corps camp was established at the Lower Dam and grew to over 100 corpsmen, who spent many years quarrying lava rock to face both dams. Crews from the Works Projects Administration also worked on refuge projects. Some created nesting

islands in the eastern portion of the lake, while others would “line up shoulder to shoulder and walk around the lake pulling or digging up... undesirable plants.” Both of these programs ended with the start of World War II.

In the early 1970s, Job Corpsmen from the nearby center in Marsing, Idaho constructed many of the current refuge facilities, including the Visitor Center, shop, a residence

and facilities at the Lower Dam Recreation Area.

*Refuge visitor center built by the Job Corps*



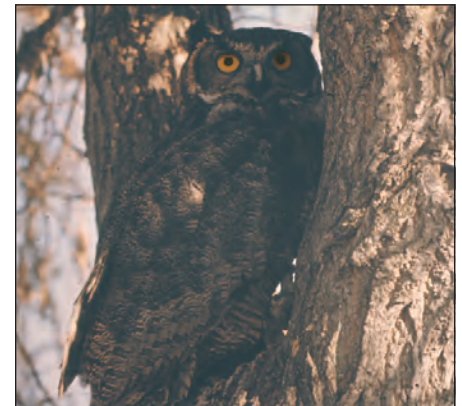
## Spring

Resident Canada geese set up nesting territories on the Snake River islands in early March, and goslings hatch by mid-April. At the same time, large numbers of white-fronted geese gather on the Snake River below Homedale and Weiser for up to a month before continuing their northward migration.



*Goslings*

Bald eagles, osprey and great horned owls nest on both sectors of the refuge, with most feeding nestlings by the end of April. Getting a slightly later start are great blue herons, black-crowned night herons, and double-crested cormorants that nest in large rookeries on some of the Snake River islands in April and May.



*Great horned owl*

## Summer

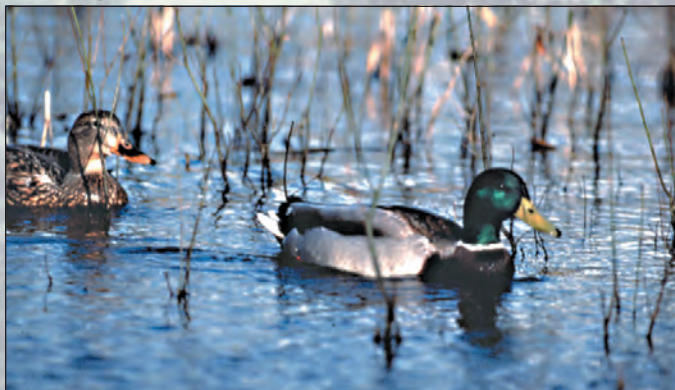
In early summer, western grebes dance on Lake Lowell while resident bald eagles look for food for their young. Visitors can see large numbers of white pelicans on the lake and large broods of Canada geese on pastures and fields adjacent to the Snake River.

*White pelican*



By late July and early August, mallards and wood ducks begin to congregate on the lake, looking for food in flooded vegetation. As summer progresses and the lake is slowly drawn down for irrigation, large numbers of shorebirds come to feed on the exposed mudflats. Look for dowitchers, sandpipers, godwits, yellowlegs and plovers.

*Mallard pair*



## Fall

As fall approaches, the number of birds using the refuge increases. The large exposed mudflats continue drawing vast numbers of shorebirds. Resident flocks of ducks and up to 6,000 Canada geese are usually on Lake Lowell by the second week of October.

*Lake Lowell mudflats*



As colder weather drives migrating ducks and geese south, migratory birds join the resident birds at the lake. Some birds pass through while others spend the winter. By mid-November,

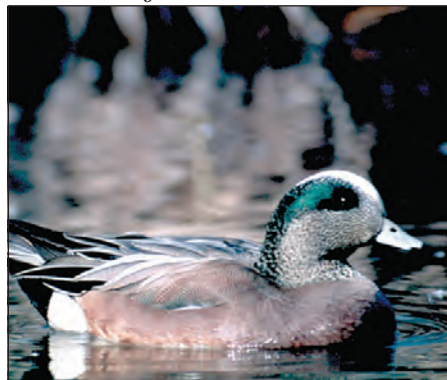
the goose population peaks at up to 15,000 birds.

*Canada geese*



## Winter

*American wigeon*



Duck populations peak in mid-December, with up to 150,000 on Lake Lowell. Geese and ducks roost on the lake at night, their activity usually keeping patches of water open all winter. At dawn, they depart in large flocks to feed in the surrounding area. Visitors can see these feeding flights of ducks and geese at dawn or dusk, or view the large flocks of geese that feed on

refuge farm fields during the day. Bald eagles, which move into the area to feed on weak and injured birds, can often be seen around the lake.



*Bald eagle*

The Snake River also provides a winter home for a variety of waterfowl, including goldeneyes, scaup, mergansers, buffleheads, wood ducks, green-winged teals and a large number of mallards.

*Canada geese on Lake Lowell ice*



## Managing Habitats

Wildlife needs a variety of habitats for food, shelter and raising young. Deer Flat NWR is managed to improve and maintain habitat for wildlife.

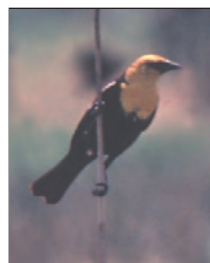
*Refuge habitats*



## Wetland Habitats

During spring and summer, water is released from Lake Lowell to irrigate surrounding farm fields. This slow draw-down of the lake exposes mudflats that provide abundant habitat for shorebirds. The lake also produces a bumper crop of aquatic vegetation for birds to feed on, particularly smartweed. In fall, smartweed seeds provide a feast for migratory ducks heading south. The refuge also has marsh areas where the water is manipulated to provide feeding, nesting and resting habitat for mallards, sora rails, yellow-headed blackbirds and other wildlife.

*Yellow-headed blackbird*

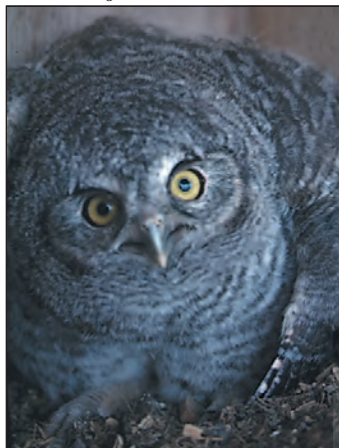


*Smartweed*



## Riparian Forests

*Screech owl  
in a cavity nest*



Areas near the lake, as well as many of the refuge islands, are forested with predominantly cottonwood, peachleaf willow and coyote willow.

These areas provide food, nesting sites and cover from predators for a variety of tree-dependent species. Of the 320 species of Idaho birds, nearly one-third nest in cavities in hollow trees. Refuge managers maintain these forests by removing invasive trees like Russian olives and salt cedars. Managers also set prescribed fires to improve wildlife habitat and to reduce fuel loads.

## Snake River Islands

The 101 islands of the Snake River sector provide a variety of habitats, including areas dominated by grasses, sagebrush, and trees such as maples, box elders and cottonwoods. These islands provide ideal nesting habitat for Canada geese, ducks, herons, gulls, cormorants, and various songbirds. Refuge managers use prescribed fire to maintain nesting habitat on the islands. In addition, to protect nesting birds, the islands are closed to all public entry from February 1 to May 31.

*Snake River  
islands*



## Uplands

Sagebrush, rabbitbrush and the bunchgrass Great Basin wild rye dominate the uplands near the lake and on the islands. Large blocks of this native habitat can be visited just west of the Visitor Center and on several of the larger refuge islands.



*Sagebrush upland*

Rabbits, gophers, mule deer and even grasshoppers feed on upland plants and rely on them for nesting sites and cover. Predators such as foxes, coyotes, red-tailed hawks or American kestrels may later eat these animals.

## Croplands

Farming at Deer Flat is “for the birds.” Approximately 240 acres of refuge land is irrigated cropland managed to provide food and cover for wildlife. Local farmers grow corn, beans, peas, wheat and alfalfa using modern soil-conservation techniques, such as filter strips, and minimal pesticides and fertilizers. The farmers keep a share of the crop and leave the rest for wildlife. Pheasants, deer and other wildlife feed and nest in these fields. In fall and winter, local Canada geese, migrant geese and other waterfowl from the north harvest the abundant food available in refuge fields.

*Canada geese  
in refuge field*



## Wildlife Viewing Tips

With over 250 bird species and 30 mammal species on the refuge, the patient observer or photographer has many excellent wildlife viewing opportunities.

### When to Visit

The refuge is open all year from dawn to dusk. Wildlife is generally most active in the mornings and early evenings.

The best season for viewing a wide variety of wildlife is from September through December.

### *California quail*



### Where to Go

Some areas of the refuge are closed to protect wildlife, so watch for signs and check the map.

For an auto tour, drive the 29.5-mile bird tour around Lake Lowell or the 47-mile bird tour along the Snake River. Both tours start and end at the east end of the Upper Dam. Written guides for these tours are available at the Visitor Center or on the refuge web site.

Those who prefer to walk can visit the short, self-guided Nature Trail at the Visitor Center. For a longer tour, there are several miles of internal refuge roads that begin at the Visitor Center and at Gotts Point.

### How to See Wildlife

If driving, your car is an excellent observation and photographic blind. Stay in your car to avoid scaring wildlife and to have better viewing opportunities. If walking, move slowly and quietly to avoid scaring wildlife.



*Cinnamon teal*

Use binoculars or a spotting scope to view animals up close without disturbing them.

Look closely at your surroundings for tracks, chewed leaves or branches and any other evidence that animals have been there before you.

Learn more about wildlife. A refuge bird list is available at the Visitor Center. In addition, a good field guide can help you identify the species you see.

Please be considerate. Stay on maintained trails and do not approach wildlife too closely.

Do not pick up wildlife. While you may think that a young animal has been abandoned, more than likely it has a parent watching anxiously nearby.

Leave pets at home. Pets will scare wildlife before you get a chance to see it.



## Enjoying the Refuge

The refuge is open to the public all year *from sunrise to sunset*. Please help protect wildlife and their habitats by obeying all regulations. Some areas are closed to public use, so please observe signs.

### Visitor Center

The Visitor Center provides an observation room overlooking Lake Lowell, interpretive panels about the wildlife and history of the refuge and a kid's activity area. The Visitor Center is open weekdays from 8:00 am to 4:00 pm and Saturdays from 10:00 am to 4:00 pm, except on Federal holidays. Organized groups can be accommodated at other times by making special arrangements with refuge staff.

### Environmental Education

Refuge facilities are available to teachers and other educators to help promote an understanding of wildlife and the natural environment. Refuge staff can provide short presentations to visiting groups or assist teachers before or after visits to the refuge. Call to schedule a staff presentation or to reserve the Environmental Education Building for your group.

### Disabled Visitors

Access difficulty varies. Disabled visitors should consult the refuge staff for suggestions about visiting the area safely.

### Snake River Islands

The islands are closed to *all* uses from February 1 to May 31 to protect nesting wildlife.

### Vehicle Travel

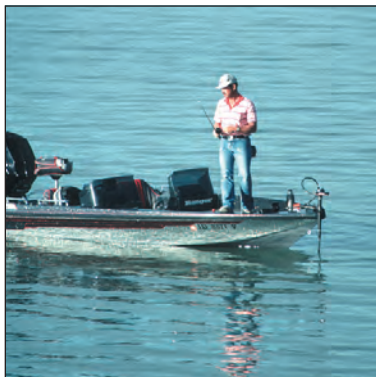
All motorized vehicles, including all-terrain-vehicles (ATVs), are restricted to county roads. Vehicles should be parked in designated parking areas only.



## Boating



Boating is permitted *during daylight hours only*. Between April 15 and September 30, motorized and non-motorized boats may be used.



Between October 1 and April 14, human-powered boats may be used, but only in the areas 200 yards in front of the Upper and Lower Dams. Boat-launching facilities are located at the Lower Dam Recreation Area, Access No. 1, Access No. 7 and the east and west ends of the Upper Dam. All

launching facilities are subject to closure due to low water levels.

## Horseback Riding and Mountain Biking



Horseback riding and mountain biking are allowed *on maintained roads and trails during daylight hours* in the North Side, East Side and South Side Recreation Areas.

## Pets



All pets must be on a leash.

## Weapons



All weapons are prohibited *except* during authorized hunting seasons. Target shooting, airguns and paint ball weapons are prohibited *at all times*.

## Prohibited Activities



Open fires, fireworks, camping, overnight parking, driving a motorized vehicle off of roads, using metal detectors, gathering wood, and collecting plants, animals, rocks or other specimens are prohibited.

## Area Services



Food, gasoline, campgrounds and motels are available in nearby communities.

# Hunting & Fishing

## Hunting Regulations

All waterfowl, coot, upland game and mourning dove hunters on the refuge are required to use non-toxic shot and may not possess lead shot in the field. Target shooting is prohibited. Contact the Idaho Department of Fish and Game for current hunting regulations.

Although use of permanent blinds is prohibited, portable blinds are allowed if they are removed at the end of each day. Temporary blinds may be constructed from natural vegetation less than 3 inches in diameter and are available on a first-come, first-served basis.

## Lake Lowell Sector Hunting

Hunting on the Lake Lowell Sector is limited to the East Side and South Side Recreation Areas. Only upland game birds, mourning doves, ducks and coots may be hunted. State seasons apply. Duck and coot hunting in the East Side Recreation Area is walk-in only. Duck and coot hunters in the South Side Recreation Area may use float tubes, non-motorized boats, or boats with electric motors only. Boat use is limited to 200 yards from the water's edge. Goose hunting is prohibited throughout the Lake Lowell Sector of the refuge.

*Duck hunting at Lake Lowell*



## Snake River Sector Hunting

Hunting of waterfowl, coots, upland game, mourning doves, and deer is allowed on all islands of the Snake River Sector during state seasons. Where the Snake River is the boundary between Idaho and Oregon, hunters from either state may hunt the islands according to the regulations of the state for which they are licensed.

### *Deer on island*



## Fishing



*Crappie fishing*

Game fish in the lake include largemouth bass, smallmouth bass, perch, crappie, bluegill, rainbow trout, channel catfish and brown bullhead. Some areas of the refuge are closed to protect wildlife, so watch for signs and check the map. During waterfowl-hunting season, fishing is restricted to Fishing Areas A and B, 200 yards in front of the Upper and Lower Dams. Fishing from the shore of the Snake River Islands is prohibited during nesting season, from February 1 to May 31. Contact the Idaho Department of Fish and Game for current fishing regulations.



*Sport fishing*

## Refuge Signs

Refuge signs inform visitors of permitted or restricted activities. Please help protect wildlife and their habitats by respecting these signs.



This sign marks the refuge boundary.



Areas designated by this sign are closed to *all* entry year round to protect wildlife.



Areas designated by this sign are closed to *all* entry between October 1 and January 31 to protect wintering wildlife.



Refuge islands are closed to *all* entry between February 1 and May 31 to protect nesting waterfowl.



Areas designated by this sign may be hunted as permitted by refuge regulations. See the *Hunting* section of this brochure for more information. Target shooting is prohibited throughout the refuge.



All migratory bird and upland game hunters on the refuge are required to use non-toxic shot and may not possess lead shot in the field.



# Deer Flat National Wildlife Refuge

- Improved Roads
- Gravel Roads
- Refuge Boundary
- Area Closed to All Entry Year Round
- Boundary of Goose Hunting Closure Area
- Area Open to Fishing During Waterfowl Hunting Season
- East Side Recreation Area
- South Side Recreation Area
- North Side Recreation Area
- Parking Area
- Picnic Facilities
- Boat Ramp

