

# J. Clark Salyer National Wildlife Refuge



**13** Prescribed burning is used by wildlife managers to control monotype stands of grass and the invasion of brush species. To your right is an area that has a history of prescribed burning. Notice how sparse the willows are, compared to the area on your left which has not been burned for many years.



**14 Johnson Bridge**  
The Scenic Trail now crosses the Souris River on the Johnson Bridge. Historians believe the Indians used a crossing about 100 feet to the right of the bridge. Beaver inhabit this part of the river. Look for red squirrels, wood ducks and hooded mergansers. This is also the beginning of the refuge canoe trail.



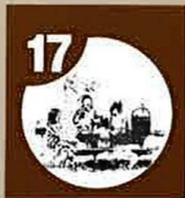
**15 Early History**  
The Scenic Trail now leaves the river bottom and enters the sandhills. An early day cattle operation, the famous Stevens Ranch Company, based its headquarters on the first sand ridge entering the sandhills. Texas longhorn cattle were shipped here around 1900 but were not hardy enough to withstand the cold North Dakota winters. Some say these Texas herds furnished the foundation stock for nearly all the cattle produced in this area.

Two miles southeast is the Cole Ford, another famous crossing used by Sioux, Chippewa and Assiniboine Indians, fur traders, trappers, explorers and even cars in more recent years. The late historian Dana Wright said of it, "This was a well established rendezvous known to every plainsman on the northern prairies."



**16 Sandhills**  
These tall sand ridges were a beach of glacial Lake Souris in the last ice age, about 10,000 years ago. Wind formed the ridges by sweeping loose sand into dunes at the edge of the lake. The sandhills are home for deer, turkeys, ruffed grouse, sharp-tailed grouse, red squirrels, snowshoe hares, many songbirds and coyotes.

Visitors are welcome to park and walk into the sandhills. The view from the sand ridges is beautiful. Note the many grasses and forbs to be found here. The blue three-petaled spiderwort and prairie wild rose, state flower of North Dakota, are common. The tiny ball cactus may be spotted on close inspection. Watch for poison ivy, a creeping plant with three leaflets, found mainly beneath trees and shrubs. TAKE CARE NOT TO BECOME LOST.



**17 Sandhills Picnic Area**  
A side trail leads to the sandhills picnic area. Again watch for poison ivy. Please cooperate in keeping the picnic area clean by packing out all waste. After detouring to the picnic area, return to this point and continue on the Scenic Trail.

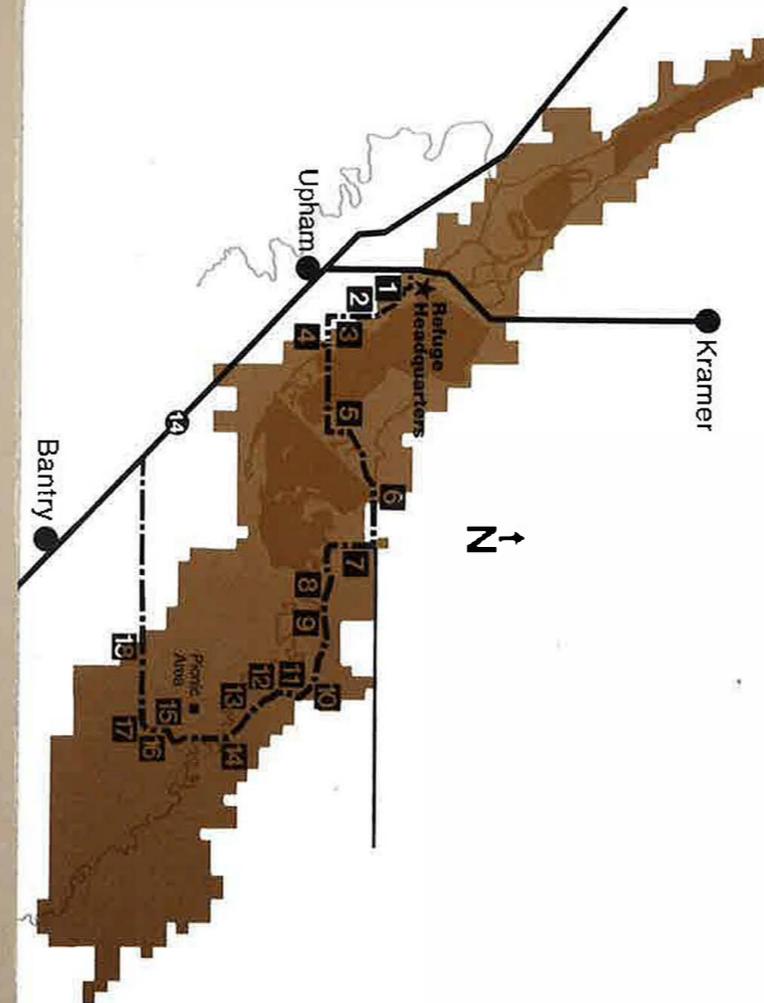


**18 Historic Trail**  
Here the trail crosses the Red River Hunters Trail, also used by Captain Twining in 1873. This trail comes from the Red River across the Cole Ford and goes into Canada, leaving the U.S. at the Hill of the Murdered Scout near Portal, North Dakota.

The Scenic Trail is a reminder of the rich history and a look at the wildlife habitats of J. Clark Salyer National Wildlife Refuge. Continue west four miles to Highway #14 and turn right four miles to Upham or go left 17 miles to Towner. We hope you return soon to the J. Clark Salyer National Wildlife Refuge!



The U.S. Fish and Wildlife Service seeks to afford persons with disabilities full accessibility or reasonable accommodation. Contact Refuge Headquarters for information or to address accessibility problems. For the hearing impaired, use your State Relay System for the Deaf.



## WELCOME to J. Clark Salyer National Wildlife Refuge.

Established in 1935 for the preservation and propagation of migratory waterfowl and other wildlife, the refuge is nearly 59,000 acres in size, extending along the Souris River for 50 miles between Bantry, North Dakota, and the Manitoba border. Originally called Lower Souris Refuge, it was renamed in 1967 in honor of J. Clark Salyer II, who was a biology teacher in Minot, North Dakota, and went on to become the Chief of Refuges for the U.S. Fish and Wildlife Service.

The name "Souris" is French for "mouse." Before 1800, French explorers found the Indians calling the stream "the mouse river" because of the great number of mice found in the meadows on the banks of the river.

A 22-mile tour covering marshes, wooded river bottoms, and sandhills of the refuge starts here and ends north of Bantry on Highway 14.



### Nursery

This tree nursery to your left was established in 1935, and from it the Civilian Conservation Corps planted most of the trees now at headquarters. This nursery and similar tree groves are valuable winter habitat for pheasants, deer and small animals as well as being attractive summer nesting areas for songbirds.



### Pool 326

A dam north of Headquarters forms Pool 326 to the left (east). Farmers of the early 1900s drained the natural marsh that was here for farming, but such operations failed. The dam impounds the water, thereby restoring the marsh.

Water levels are controlled to stabilize marsh vegetation, prevent flooding of nesting areas and encourage growth of food-producing aquatics.

The marshes are important feeding, resting, and nesting habitat for ducks, geese, and waterbirds like American avocet and eared grebe. Thousands of ducks stage on the refuge marshes each fall, preparing for migration. Refuge personnel band several thousand ducks each year. Band returns have been received from all over the United States and from South America, Canada, and Mexico.



To the left is a typical refuge wildlife cover patch, establishing by seeding a Dense Nesting Cover mixture of sweet clover, alfalfa, and two types of wheatgrass on a former farm unit. These patches maintain cover for 5-10 years after establishment. Some type of manipulation is occasionally required to rejuvenate the cover.

Grain from refuge farming operations is used to attract ducks to banding sites, and is winter food for pheasants, partridge, grouse, and deer.

The Scenic Trail continues left on the Upham-Willow City road about 0.7 miles ahead.



### Marshland Wildlife

To the left in pool 326 are small platforms on poles in open water areas where wild Canada geese nest, safe from flooding and predators such as raccoons. The refuge marshes contain over 100 of the artificial nests

where several hundred goslings are produced annually. Visitors may see different species of ducks in the road ditches ahead. The tour route continues straight ahead to stop 5.



### Leconte's Sparrow

Refuge visitors may find Leconte's sparrow in one of its few habitats in the midwest. This small, interesting bird, which is uncommon and difficult to see, seeks meadows with tall grassy areas like those ahead to the right.



### Pool 320

Dike and water control structure 320, directly ahead to the right, extends southwest for nearly three miles, creating a pool and marsh of 4,300 acres. Here visitors can observe ducks and many other water birds. Visitors are welcome to walk up on the dike and look out over the marsh. Canada geese and many ducks use the islands to nest. Gates of the control structure may be raised or lowered to achieve desired pool water levels. PLEASE REFRAIN FROM DRIVING ON THE DIKE OR GOING NEAR THE CONTROL STRUCTURE—IT IS A DANGEROUS PLACE.

Refuge dikes and the pools behind them are numbered (320, 326, etc.) to correspond with the number of river miles from where the Souris River enters North Dakota from Canada. The last 75 of 358 river miles within the state are in the refuge.

The parking area to the right is the site of the old Freeman Bridge crossing, named for a pioneer family in this area. This is one of 13 public fishing areas on the refuge.

Follow the county road ahead for 1½ miles and turn right at the "Scenic Trail" marker. This is a dry weather road only. Fire danger may be high so please be careful if you smoke.



### "End of the Woods Crossing"

Ahead, where the timber along the river ends, was once a crossing well travelled by Indians, fur traders and explorers. They call it "End of the Woods." From here north was open prairie. In 1852, Charles Cavellier, a customs collector, camped here for 21 days. About 40 Indian families were also living here. Cavellier recorded that their hunters killed more than 400 buffalo in one chase during his stay.

Grazing units are located on both sides of the trail. Refuge neighbors have grazing privileges on 12,000 acres. Refuge managers permit cattle to graze early in the growing season to retard growth of grasses less valuable to wildlife. This encourages growth of warm season native grasses of more value to wildlife.



### River Oxbow

To the right is a river oxbow, a good place to see ducks. The meandering river forms these water areas by changing its channel over the years, which isolates an oxbow, or loop, in the river. The oxbow is habitat for tree-nesting ducks and their broods. Across the oxbow is a cedar nesting box erected to attract tree-nesting ducks such as hooded mergansers and wood ducks.



### Water Control

To your right, Dam #1 crosses the river. It was built in 1936 to divert water to the marsh on the left. The dam also maintains water levels in the river, filling old oxbows to the south. Water diverted at Dam #1 flows back into the river near Dam #2.

This is where the Canoe Trail ends.



There are 33 hay units on the refuge. Each unit is about 100 acres and the hay permittee cuts one-half of the unit each year. Haying of the 3,300 acres is used, along with burning, as a technique to control the invasion of brush species (such as willows).



### Willow Creek

The woods follow Willow Creek, a name the Indians gave the small stream. Porcupine, deer, and moose are common here. Wood ducks are sometimes seen along this wooded creek.



### Twining Expedition

On September 8 and 9, 1869, Captain W. J. Twining of the U.S. Engineers Corps camped near here. He was making a reconnaissance of northeastern North Dakota, including the Souris River and Red River valleys. From here Twining's party made a circle of the southeast back to Ft. Totten, where he arrived on the 18th of September.

Just ahead by the spruce trees is the Thompson Place, a farm home before establishment of the refuge. Visitors will find here picnic tables and a well with good drinking water.