ABOUT THE AUTHOR

This interpretive tour was written by Alice Elshoff who has been visiting the Refuge since the 1960s, first birding and then volunteering. She is a retired teacher who enjoys sharing her love of wildlife with visitors of all ages. She believes deeply in the mission of the National Wildlife Refuge System, which sets wildlife conservation as its primary purpose and preservation and restoration of biological diversity and environmental health as its main goal.

Alice plays a large role with the Friends of Malheur National Wildlife Refuge (FOMR), a non-profit group whose purpose is to support the goals of the Refuge. With the help of the FOMR, this interpretive tour and the numbered signs for the auto tour were made possible.

FRIENDS OF MALHEUR NATIONAL WILDLIFE REFUGE

Friends of Malheur National Wildlife Refuge was formed in 1999 and is an independent non-profit 501(c)(3) corporation.

FOMR promotes conservation and appreciation of natural and cultural resources at the Refuge through education, outreach, advocacy and on-the-ground stewardship.

To learn more about FOMR, please visit malheurfriends.org.

FRIENDS OF MALHEUR NATIONAL WILDLIFE REFUGE

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U.S. Fish & Wildlife Service

Malheur

National Wildlife Refuge

Blitzen Valley Auto Tour Route

Self-Guided Interpretive Tour

STOP #1: Malheur Lake Overlook

We begin the tour here at the northwestern corner of the Great Basin, overlooking Malheur Lake with Mud Lake to the west. Harney Lake is just beyond the sand dunes visible on the western horizon. Lake levels can vary dramatically according to the annual winter snowpack in the Blue Mountains to the north and Steens Mountain to the south. At water levels low enough for emergent plants to grow, Malheur Lake becomes one of the largest inland marshes in the west. At high water levels, such as those that occurred in the 1980s, Malheur Lake floods into Mud and Harney Lakes, becoming Oregon's largest lake.

From the overlook, scan Malheur Lake for seasonal concentrations of American white pelicans or tundra swans, and watch overhead for soaring raptors. Brewer's sparrows and sage thrashers nest in the surrounding sagebrush, and Refuge headquarters below you can be teeming with songbirds during both spring and fall migrations.

To continue the auto tour, cross the paved Sodhouse Lane and enter the auto tour route.

American White Pelican
Barbara Wheeler/USFWS

STOP #2: Sod House Ranch and Malheur Field Station

Looking to the west, you can see the buildings and cottonwood trees of the historic Sod House Ranch. Established and managed by Peter French for Dr. Hugh Glenn in the 1880s, Sod House Ranch was the northern headquarters for this 140,000-acre livestock empire. Eight of the original ranch buildings are still standing, including the restored barn. Many of the original corrals also remain intact. The cottonwood trees were planted in the 1890s and provide nesting habitat for colonial waterbirds, especially great blue herons and double-crested cormorants. The ranch is open to the public from August 15 through October 15, and Refuge volunteers are on hand to interpret local history. This is also a perfect time to scour the cottonwoods and willows for migrating songbirds. The remainder of the year, the ranch is managed for wildlife habitat.

The buildings beyond the ranch comprise the Malheur Field Station. Once a Job Corps center, the station is now a residential visitor center administered by the non-profit Great Basin Society, which was founded in 1985. In summer, many swallows can be viewed at close range nesting under the eaves of the buildings, and the station hosts northern flickers and California quail year-round. South Coyote Butte, south of the station, supports a small nesting population of black-throated sparrows.

STOP #3: Wright's Pond

General George Wright led some of the earliest troops in settling the west. It is not certain whether Wright actually visited the Blitzen Valley, but in 1865 he died in a shipwreck off the California coast. His name is memorialized in at least two notable Harney County landmarks: Wright's Point on Highway 205 and Wright's Pond, which is before you now.

The Blitzen River flows northward from Steens Mountain to Malheur Lake, making Wright's Pond one of the last ponds to receive water in the spring. From May to October, however, the pond supports a broad diversity of herons, ducks, and grebes.

Historic Sod House Ranch
Barbara Wheeler/USFWS

Watch for black terns flying low over the water to catch insects, and listen for some very vocal marsh-nesting songbirds, such as the common yellowthroat, marsh wren, and red-winged and yellow-headed blackbirds. From fall through spring, search the dried marsh vegetation for resident song sparrows. Northern harriers hunt low over the marsh and grasslands throughout the year.

STOP #4: Basin-and-Range Geology

At this point, you are within the geological province known as the Brothers Fault Zone, a narrow and highly fractured area between the still-spreading Basin-and-Range province to the south and the older, more stable mountains to the north. Look around at the isolated buttes and flat-topped ridges. These fragments of the originally contiguous landscape have been separated by faulting and subsequent erosion. Before you finish this auto tour, you will pass from the Brothers Fault Zone into true Basin-and-Range topography.

Look to the south, up the Blitzen Valley. To the left is Steens Mountain—a single 35-mile-long fault block and the headwaters of the Blitzen River. As tectonic movement stretched the land between the Rocky Mountains and the Sierra Nevada and Cascades in an east–west direction, long north–south faults appeared. These breaks in the Earth's crust separated great blocks of land, tilting them as steep as sixty degrees.

Steens Mountain, with a summit approaching 10,000 feet, is a classic fault-block mountain, gently sloping on its west side, but dropping vertically a mile to the Alvord Desert on its east side. Snow melt from the broad western face is carried downhill by five major streams, which eventually merge to become the Blitzen River. Over the eons, the river has deposited many feet of sediment on the valley floor. These fertile soils, combined with the waters of the Blitzen River, provide an optimal foundation for the marshes and wet meadows of the Refuge.

Steens Mountain East Rim
Stephen Shunk

STOP #5: McLaughlin Slough

Many homesteaders settled across the Blitzen Valley, but most of their stories have faded with history. One, however, has persevered—that of pioneer mother Nettie McLaughlin. Born in 1852, she was first married to a Mr. Brown at age 17. With him, she bore three children and began raising them at their homestead near this tour stop. Brown soon died, leaving Nettie to raise her family alone. She later married Mr. McLaughlin just one year before her death at age 35. Her grave site remains preserved on the Refuge just a few miles south of here.

At this site on the auto tour, you can glimpse remnants of the old Blitzen River channel with its deeply incised curves typically formed when water moves across sedimentary soils. During prehistoric periods of low water, the Blitzen River meandered around this curve. However, when the river flowed high, it created the bench that is exposed when the high waters recede. These actions created braided channels, which in turn became the sloughs and wetlands that are now used to deliver water to various parts of the Refuge. Adjacent canals and ditches, dug by early ranchers to drain the wetlands, are now being used to create more wet meadows.

McLaughlin Headstone
USFWS

STOP #6: First Residents

Rattlesnake Butte, which appears to your left, has been important to people since prehistoric times. Nearby, a rocky ledge extends across the Blitzen River providing the only natural crossing for miles. This point of access, along with the availability of water and a butte from which to survey the surrounding land, made this an important place for bands of Northern Paiute people who first occupied the Blitzen Valley as early as 9,600 years ago.

By 3,500 years ago, small villages were built around the marshes and along the river. Excavations show the people who lived here harvested waterfowl, rabbits, fish, and large game animals, as well as grass seeds and roots. They built wickiups of bent willow branches covered with brush, cattail mats, or animal skins. These people were known as the Wada'tika or Wada Eaters. Wada, today known as seepweed, was a highly valued plant that grows well in alkali soils. Because of their long connection to the region, modern-day descendants of these people continue to collect and use plant materials on the Refuge, and they occasionally assist with habitat management projects.

STOP #7: Meadow Lands

Along the auto tour, you may have noticed rows of old juniper fence posts. Volunteer groups have contributed hundreds of hours removing the old wire fences that were hazardous to wildlife. Many posts were left in the ground as perches for raptors, which you may see hunting over the meadows. In the wetlands, these posts are often used by gulls and terns, and you may be lucky enough to spot a willet or wilson's snipe on one.

You will also notice that the Blitzen River has been straightened and channelized along this stretch. This was done by private landowners beginning in 1910. As part of the Swamp Act, landowners drained the meadows to create areas for grazing and haying. This channelization is currently used by the Refuge in managing wetlands, but it provides challenges for the native redband trout (a subspecies of rainbow trout), which has inhabited the Blitzen River since the last Ice Age. The Refuge is developing a long-term plan to make the river more habitable for these specially adapted fish. Watch for some of the sophisticated fish passage structures at various points along the river.

To continue the auto tour, proceed down the auto tour route and turn at the signed right turn to Buena Vista Overlook.

Northern Paiute Tule-mat Dwelling

From "The Great Basin" by C. Melvin Aikens and Marilyn Couture, in The First Oregonians (1991) Oregon Council for the Humanities

STOP #8: Buena Vista Ponds

The Buena Vista Ponds are managed for nesting and migrating waterfowl. In some years, they also serve as nesting habitat for trumpeter swans. In the fall, sandhill cranes loaf here at night as they stage for their southbound migration.

As you look at Steens Mountain from this angle, you will see what looks like a rugged chasm on the north side. This is the famous Kiger Gorge, a classic U-shaped valley carved by ice-age glaciers. Although the continental ice sheet did not reach this far south, Steens Mountain was high enough to develop its own glaciers, which left the mountain with five U-shaped gorges. Kiger and McCoy Creeks drain from the north side of the mountain, entering the Refuge through the Diamond Valley, the wide gap in the rimrock to your left.

As you drive along the ponds, watch for black and forster's terns feeding over the water, and keep your radar on for the elusive American bittern, occasionally seen on the opposite side of the road.

STOP #9: Buena Vista Trail and Overlook

From here you may either drive 3/4 of a mile on the gravel road or walk the 1/4-mile trail to the Buena Vista Overlook, which offers a stunning panorama of the Blitzen Valley. Combine the two on foot for an excellent one-mile birding hike.

The rimrock surrounding the overlook offers one of the best places on the Refuge to get up close and personal with canyon and rock wrens. Watch for cliff and violet-green swallows nesting along the cliff faces and for bullock's orioles and western kingbirds near the lower trailhead. In the sagebrush flats behind the overlook, listen carefully on early spring and summer mornings for the sweet songs of the sage and black-throated sparrows.

To continue the auto tour, retrace your route back to the auto tour route and continue south.

STOP #10: Diamond Lane

In the field across the paved road, post-breeding sandhill cranes begin congregating in August to prepare for their southerly flight. Up to 250 pairs of cranes nest on the Refuge, but as many as 3,000 may pass through on yearly migrations, stopping at the Refuge to rest and refuel. The eastern edge of this field is often a good place to see pronghorn, a unique North American mammal in its own family related to other ruminants. As the fastest land animal on the continent, pronghorn can run 45 miles/hour for several miles.

A left turn here would take you on a side trip to the Diamond Valley and Diamond Craters, as well as the historic Peter French Round Barn, another relic of the Glenn/French cattle empire.

To continue to the southern portion of the auto tour, turn right here and then left onto Highway 205. Continue about six miles south and turn left at Krumbo Lane, just after milepost 47. Drive about ¼ mile to Stop #11, passing the entrance to the southern portion of the auto tour route, to which you will shortly return.

Greater Sandhill Crane
Roger Baker USFWS Volunteer

STOP #11: Crane Pond

If you wish to take a break from your vehicle, park on the right side of the road and hike the primitive 1/2-mile trail to Crane Pond Overlook. Crane Pond represents the delta of Krumbo Creek. In breeding season, watch for mated pairs of sandhill cranes and their colts, or juveniles. You might see a brewer's or lark sparrow along the trail, and watch for American bushtits in the juniper trees.

Krumbo Reservoir lies four miles farther down this road. As the deepest water on the Refuge, the reservoir hosts good numbers of diving birds. It is an especially good place to find common loons (in migration), double-crested cormorants, diving ducks such as goldeneye, bufflehead, and scaup, and up to five grebe species from spring through fall. Because it is large enough to remain ice-free for much of the year, the reservoir offers important winter habitat and it is the only location on the Refuge for flatwater fishing and recreational boating open to the public.

To continue the auto tour, back-track a few hundred yards to the northern entrance of the south auto tour route.

STOP #12: Blitzen River Willows

The willow thickets are particularly dense along this section of the auto tour. Although they block the view of the Blitzen River and certain fields, they host a wonderful variety of migratory songbirds, including warblers, flycatchers, sparrows, vireos, and finches. Black-headed grosbeaks, yellow warblers, and willow flycatchers typically nest in this habitat.

A banding project here revealed that one willow flycatcher had successfully made its annual round-trip to Central America ten times, returning to the exact same spot to nest each summer. Not bad for a six-inch bird weighing less than an ounce! This discovery changed our understanding of this species' life expectancy, and it emphasized the importance of banding birds. It also heightened our awareness that conservation must transcend political borders.

STOP #13: Benson Pond

George M. Benson served as the Refuge Game Warden, and later agent, beginning in 1918. Preferring the title of "Refuge Protector," Benson not only enforced hunting and trapping laws at Malheur, but he also banded many waterfowl, often with the help of local children. With his wife Ethel, Benson eventually moved into the old ranch house that once stood in the large cottonwood grove at the end of this road. The small stone building that remains in the shade of these cottonwoods was first a well house 1930s and 1940s, when the CCC was planting willows and excavating what would eventually become Benson Pond. The building then served as a hunter check station in the 1950s and 1960s.

Look for resident great horned owls as you walk beneath the giant willows along the dike. In spring and summer, the trees around the first bridge can be a fun place to study up to six swallow species as they alternately perch and feed nearby. In summer, search the exposed branches for roosting common nighthawks, which perch parallel to the branches. The pond itself is a good place to see swans. During spring and fall migrations, tundra swans use the Refuge as a refueling stop, and resident trumpeter swans typically nest here, protected in the tall marsh vegetation, such as cattails and tules.

Trumpeter Swans
Barbara Wheeler/USFWS

STOP #14: Dredger Pond

Dredger Pond is named for the steam-driven dredge that was eventually abandoned here after once being used to channelize the Blitzen River. The surrounding marsh vegetation, mostly hardstem bullrush, or tule, provides excellent nesting habitat for redheads, mallards, Canada goose, and northern harriers. Behind Dredger Pond and nestled in the small basin to the east is Boca Lake, an important nesting site for multiple grebe species.

As you proceed along the auto tour, look for the occasional breaches in the dike on the opposite side of the Blitzen River. These are natural attempts by the Blitzen River to break from its constraints and return to historic channels. The Refuge no longer repairs these openings, instead allowing the river to have its way.

STOP #15: Knox Ponds

The two large ponds here are good examples of wetlands that are managed to improve the survival of young waterbirds. Periodically, both West Knox and East Knox Ponds are drained and planted with grain for forage. Once dry, they can be excellent places to look for mountain bluebirds, American pipits, and horned larks.

Proceeding south on the auto tour, you may notice fire-scarred willow remnants. Fire is a natural part of the valley's ecology, and controlled burning is an important management tool for keeping certain habitats in healthy condition. When burning is not an option, haying and rake-bunch grazing may be utilized to emulate the effects of fire on vegetation. All of these practices benefit native bird species.

STOP #16: Cottonwood Pond

The lone cottonwood tree that gives this pond its name is one of many roost sites for bald eagles that overwinter on the Refuge. Other large raptors may also roost in this sentinel tree, including resident red-tailed hawks and golden eagles or overwintering rough-legged hawks.

The riparian, or streamside, habitat in this area has hosted yellow-billed cuckoos in repeated years, a species of great interest to birders. This bird, once seen more frequently along Oregon waterways, needs a complement of cottonwood for feeding and willow for nesting. Perhaps as we begin the process of restoring healthy riparian systems to our western rivers, these birds will once again grace us regularly with their presence.

STOP #17: Bridge Creek

This is another good place to get out and stretch your legs. You are standing at the confluence of Bridge Creek and the Blitzen River. The dam you see on Bridge Creek (on the east side of the road) had for years presented a barrier to the redband trout traveling up to spawning grounds in the upper reaches of the creek. In an ongoing plan to improve conditions for fish, the Refuge is installing screens, which prevent the loss of fish to the meadows, and fish ladders, which improve passage around dams. The fish ladder you see here has made it possible for the "redbands" to once again reach their ancient spawning grounds.

Bridge Creek Solar-powered Fish Screens
USFWS

Just across the bridge and downstream from the confluence, walk the short trail to the Blitzen River. Management efforts are aimed at restoring the natural stream channel and flooding regime to the Blitzen River system, and this site has received treatment.

As you continue south on the auto tour, you may notice that the road climbs gently, with a notable change in vegetation. These dunes were formed from blowing glacial soils deposited in times when the basin was dry. The very tall bunch-grass is Great Basin wild rye, an important grain for the Paiute people. Together with the sagebrush, rabbitbrush, and other native bunch grasses, these rye patches provide premium habitat for grassland sparrows and cottontails.

STOP #18: Bobolink Alley

From here to historic P Ranch, the auto tour could be called "Bobolink Alley," at least from late May through July, when breeding pairs are present. Male bobolinks are most visible from late May into early June, when they are actively singing and displaying among the willows and tall grasses, often perched along the road. Look for their striking pied plumage—generally black with bold white patches and a cream-colored skull-cap—and listen for their whimsical, tinkling song from among the willows.

Bobolink
Barbara Wheeler/USFWS

Once the young bobolinks fledge, the adults become harder to find, but concentrations of birds can sometimes be found in August and early September along fence rows or across dry ponds in the upper Blitzen Valley. The Refuge hosts the greatest abundance of bobolinks in Oregon, and these fields represent the western extremity of the species range in North America, the bobolink generally favoring inland short-grass prairies east of the Rockies.

To continue with the auto tour, proceed along the auto tour route until you cross a bridge over the Blitzen River. Turn right immediately under the large cottonwoods into the historic P Ranch.

STOP #19: P Ranch

In 1872, backed by California industrialist Dr. Hugh Glenn, Peter French headed north from California with a few vaqueros and 1,200 head of Glenn's shorthorn cattle. They sought land for grazing and livestock production, and once French entered the lush Blitzen Valley, he knew his search was over. The Glenn/French dynasty, through some legitimate and some devious practices, eventually controlled the entire valley, with outposts at Buena Vista, Sod House Ranch, and Diamond. We observed the historic Sod House Ranch at our first stop on the auto tour, and we close the tour at the historic P Ranch Long Barn.

When French arrived in the region, many homesteaders had already settled parts of the Blitzen Valley. The old Porter homestead, for one, comprised a land claim where the historic P Ranch now stands. At some point, Mr. Porter decided to abandon his homestead, and he soon met French in the Catlow Valley. French offered to buy Porter's claim along with his few head of cattle, and Porter's "P" brand was retained in naming the P Ranch. Eventually, the Refuge acquired the land, and during George Benson's time, horses were the transportation of choice. These horses were the last known stock to bear the famous "P" brand.

Though not part of the original P Ranch home, the red-brick chimney marks its location. This site is now a residence for Refuge volunteers, interns and collaborative partners.

As you explore this historic property, keep your binoculars handy! Good birding can be had along the River Trail, where bullock's orioles and willow flycatchers nest annually. Cedar waxwings, western tanagers, and other migrating songbirds frequent the large cottonwoods and orchards at the ranch. Red-naped sapsuckers that nest in the aspens on Steens Mountain stage here prior to moving upslope; they can also be found here after breeding. The old lookout tower provides a roost site for dozens of turkey vultures on summer evenings, and fall and winter are prime seasons to observe raptors roosting in the cottonwoods.

Western Tanager
Erwin Weston/USFWS

This brings a close to the interpretive tour!

We hope this information has increased your enjoyment of Malheur National Wildlife Refuge and encouraged you to think about the importance of conserving our natural heritage of wildlands and the wildlife with which we share this beautiful planet.

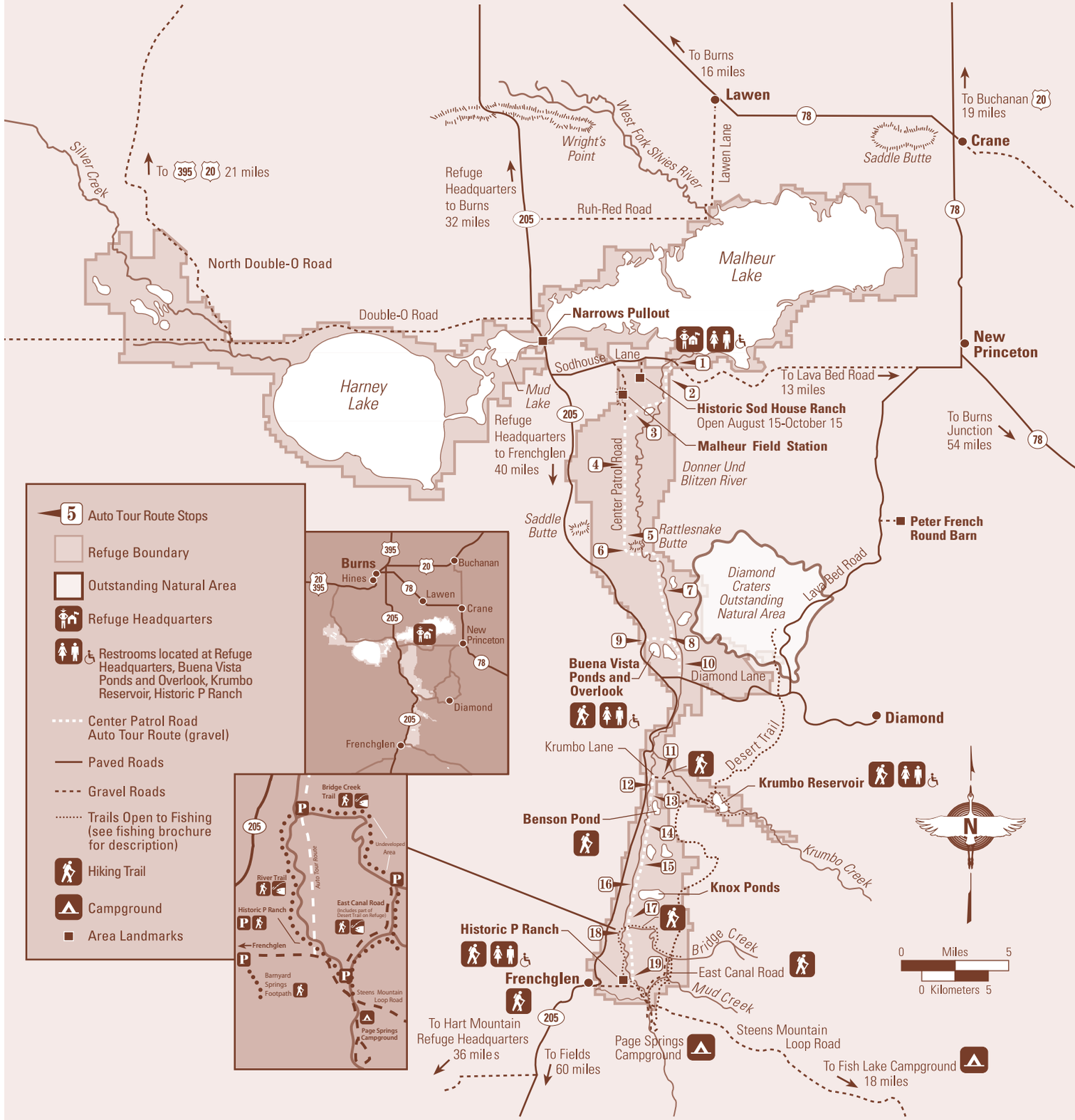
Please do what you can to support the National Wildlife Refuge system, and please come again.

INTRODUCTION

This 42-mile self-guided auto tour showcases the scenic Blitzen Valley, from the Refuge headquarters of Malheur National Wildlife Refuge south to historic P Ranch. The full tour requires at least two hours to complete, depending on the frequency and length of any stops you make. During the peak of spring bird activity, you should allow at least a half-day to cover both the upper and lower portions of the valley.

The auto tour route primarily follows the historic Center Patrol Road (CPR) built by the Civilian Conservation Corps (CCC) through outstanding features of historical, geological, and biological interest. The diversity and abundance of wildlife you see will depend on the season, the time of day, your speed of travel, and your observation skills. Please take care not to disturb wildlife along the way.

Before you begin, please review the map provided in the back of this guide. The auto tour can generally be driven in two sections, the north auto tour route and south auto tour route, and it lies almost entirely on gravel roads. Numbered signs with the symbol below identify the stops and correspond to places of interest described in this interpretive tour, which was made possible with the help of the Friends of Malheur National Wildlife Refuge.

TO START

Stop #1 begins just above Refuge headquarters. Begin the auto tour by driving up to the signed Malheur Lake Overlook.