

# Malheur

## *National Wildlife Refuge*

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### *Blitzen Valley Auto Tour Route*



*Brought to you by*

**Malheur**  *Wildlife Associates*

## INTRODUCTION

This 42-mile self-guided auto tour route takes you the length of the historic Blitzen Valley. The full tour requires three to five hours to complete, depending on the amount of time you wish to spend. The tour will take you along a gravel road through a number of outstanding features of historical, geological and biological interests. The amount of wildlife you will see depends on the season, time of day, speed at which you drive, and your ability to spot movements. Please take care not to disturb wildlife along the way.

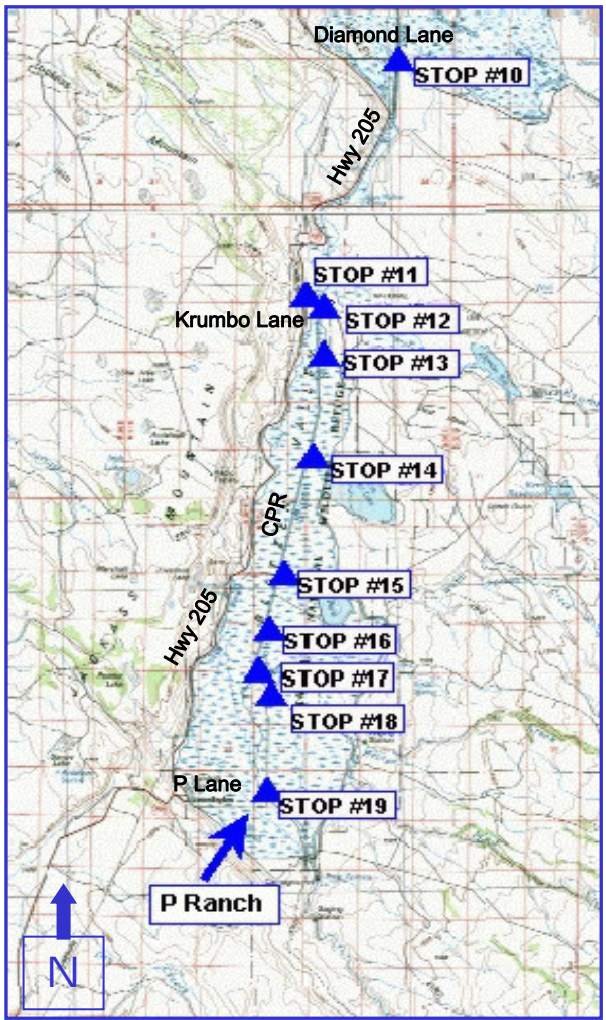
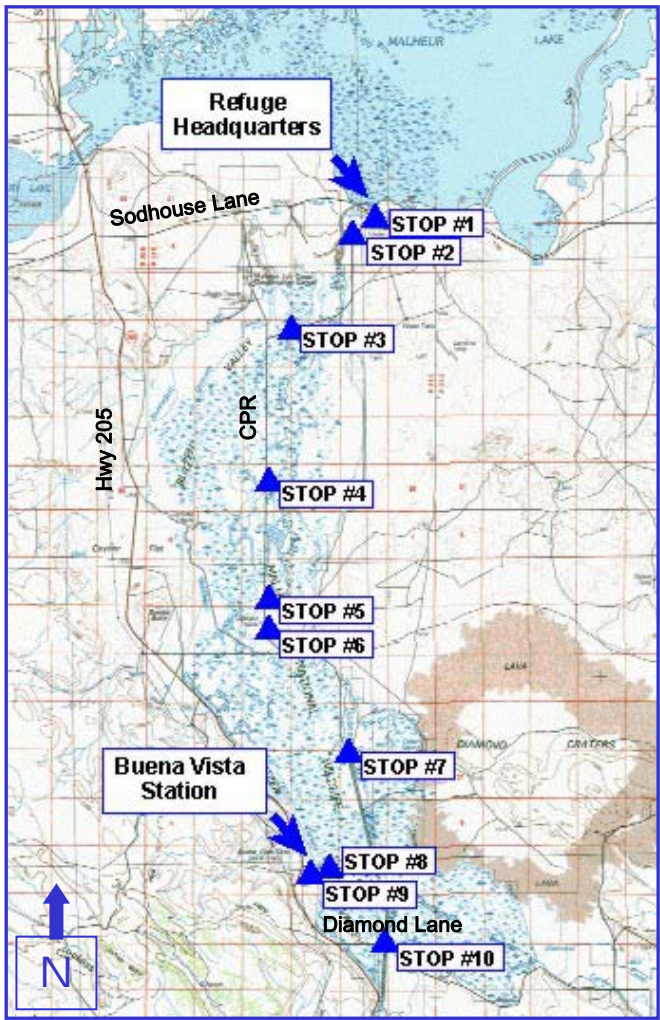
Before you begin, review the maps provided. Alternate routes are available for those who do not wish to complete the entire route.

Numbered markers with the symbol on the right are placed along the road that corresponds to the numbers on the messages in this guide. Stop #1 is at the north end of the Blitzen Valley near Malheur National Wildlife Refuge (Refuge) headquarters.



Restroom facilities are available at Refuge headquarters, the Buena Vista Station, and at P Ranch.

Gasoline is seasonally available at the Narrows RV Park and Diamond Hotel. *Now, lets begin the tour.*



# Blitzen Valley Auto Tour Route

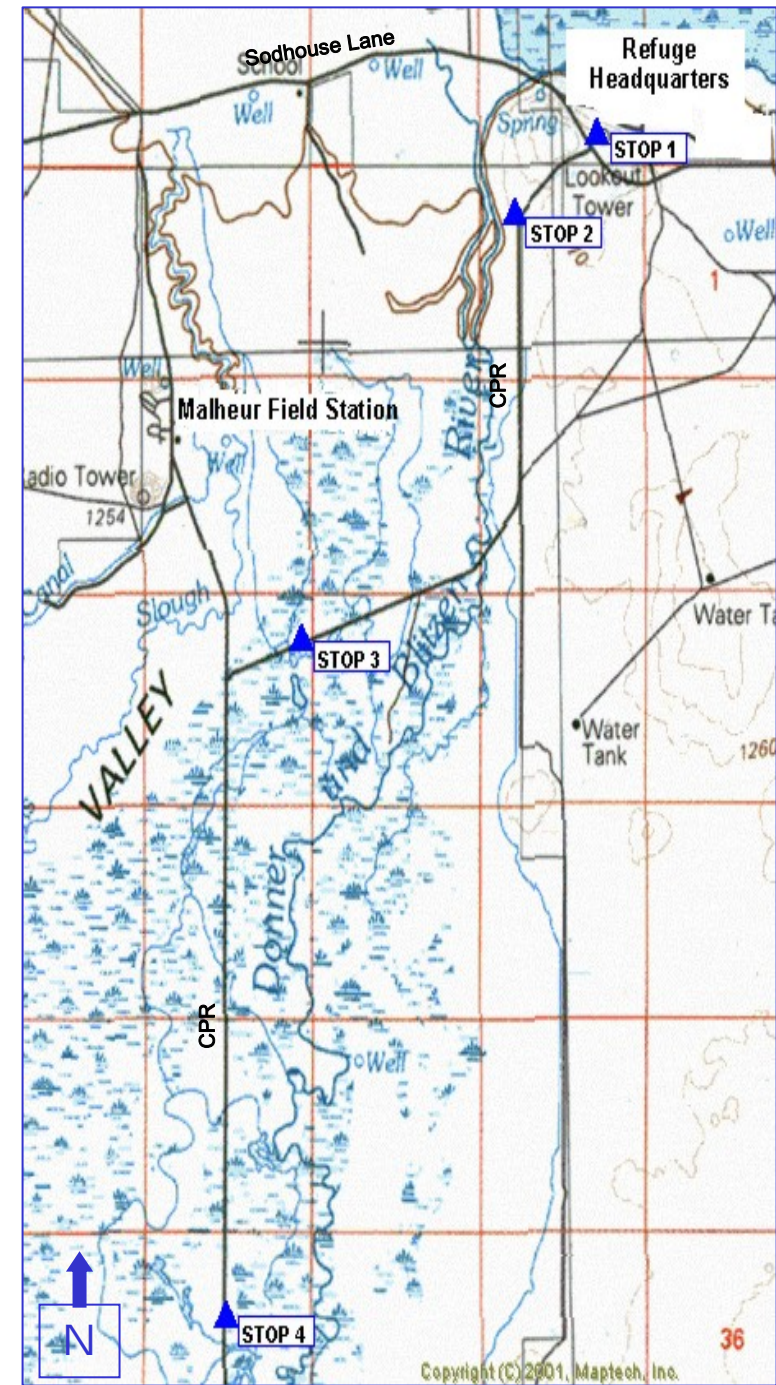
## STOP # 1 Refuge Headquarters Overlook

We begin the tour here at the northern extremity of the Great Basin, overlooking Malheur Lake with Harney Lake visible to the west.

With no outlet to the sea, evaporation is the only means of escape, so water levels on these lakes can vary dramatically according to climate cycles, keeping the area in a state of dynamic flux. At water levels low enough to permit emergent vegetation, Malheur Lake becomes one of the West's largest inland marshes. At high water levels, as occurred in the 1980's, Malheur Lake joins with Harney Lake to become the largest lake in Oregon.

Three migration routes converge in this area, making it one of the most important feeding and resting locations on the Pacific Flyway. Thousands of northern pintails, snow and Ross' geese, american widgeons, green-winged teal, northern shovelers and canvasbacks rest and refuel here on their long migrations. Hundreds of sandhill cranes and tundra swans add to this spectacle, which is in full swing from mid March to mid April.

It was here in 1908 that Teddy Roosevelt created the original Malheur Lake Reservation, thus ending the plume hunting that had been devastating populations of swans, herons, egrets and grebes. This reservation was the first land acquisition in what would become the Refuge. As you travel south along the tour, you will go through the heart of the Blitzen Valley, which was added to the Refuge in 1935. Now, drive onto the Center Patrol Road (CPR) to continue the tour.



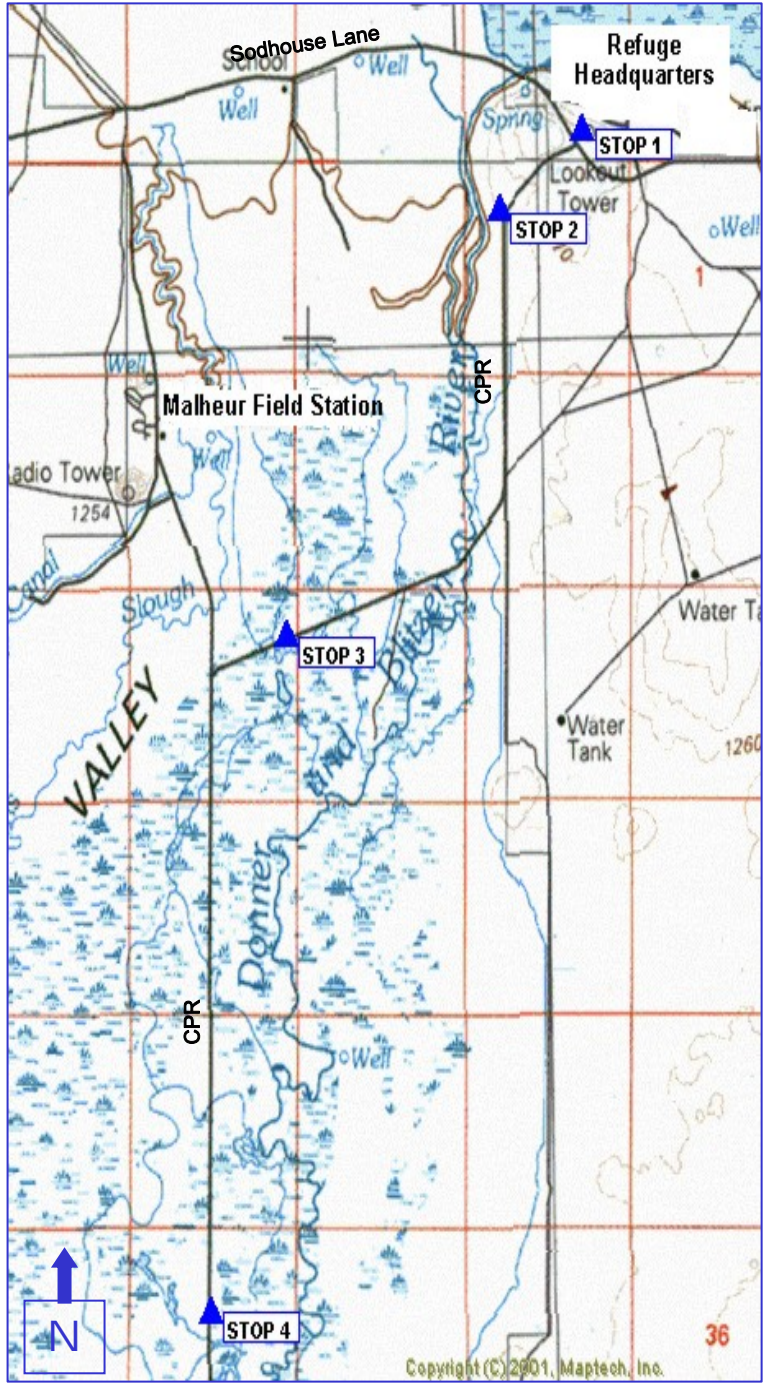
# Blitzen Valley Auto Tour Route

## STOP # 2 Historic Sites

Looking to the west, you can see the buildings and cottonwood trees at the historic Sod House Ranch. Established and managed by Pete French for Dr. Hugh Glenn in the 1880's, 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 unique long barn. Many of the old corrals remain intact. The tall cottonwood trees were planted in the late 1890's and provide habitat for a large nesting colony of great blue herons, double-crested cormorants and Canada geese. The ranch is open to the public from August 15 to October 31; during the remainder of the year, the ranch is managed for wildlife habitat.

The buildings beyond the ranch constitute the Malheur Field Station. The Field Station, once served as a Job Corps Center, is now an environmental and research center administered by the Great Basin Society, a non-profit organization founded in 1985.

Along the tour, you may notice rotational plantings in the fields below the rise. This field along with several others are managed specifically to support fall migrating sandhill cranes and other migratory birds. Refuge staff may plant high-energy grains that are required to support the birds in their fall migration. Staff may also plant other high-quality foods along with the grain, such as native sunflowers and/or winter peas. These foods can help support migrating song birds by providing broad leaf substrates for insects during the spring migration and seeds during the fall. Upland game birds, such as pheasants, quail and grouse also benefit from this management. *Now, proceed along CPR to STOP #3.*



### STOP # 3 Wright's Pond

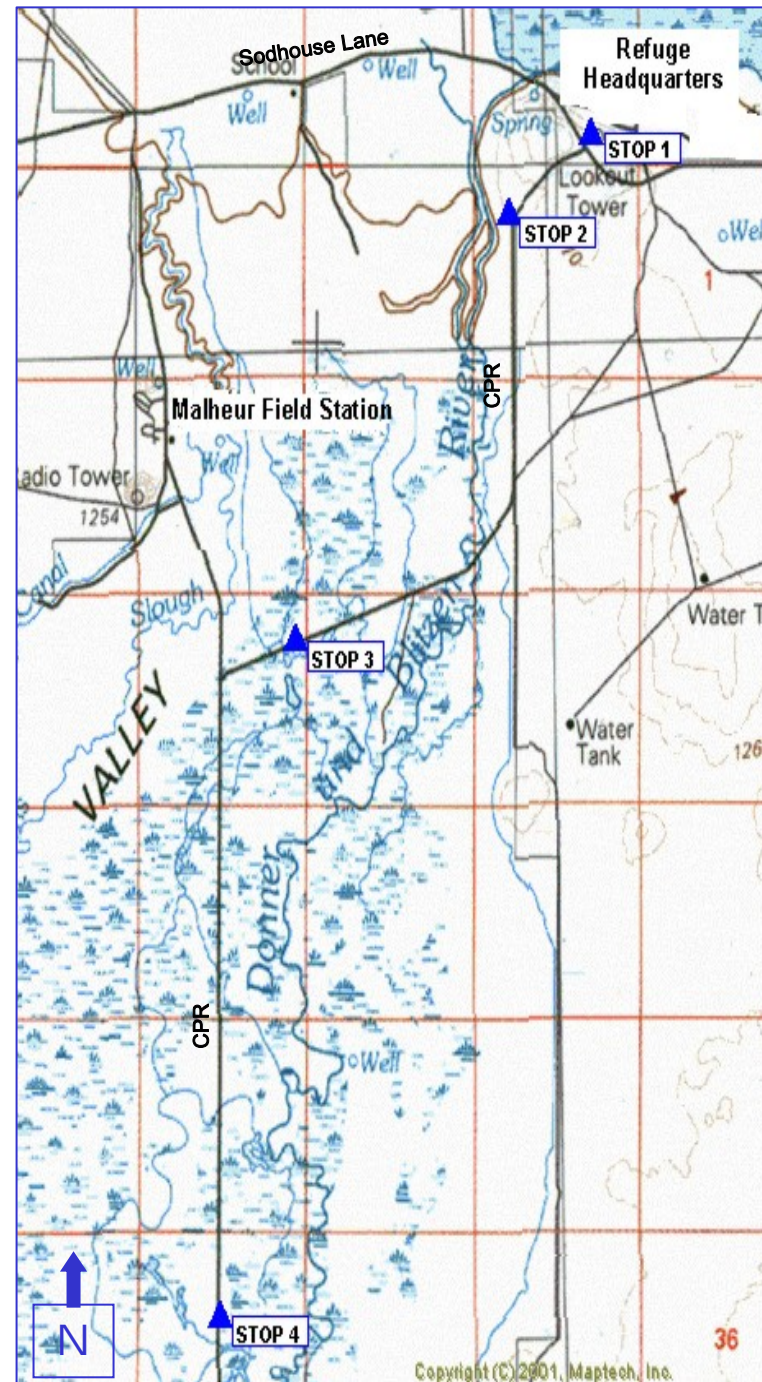
If you are visiting Wright's Pond between April and October, watch for white-faced ibis and a variety of egrets, ducks, terns, herons and grebes, perhaps even an elusive rail or bittern. As you proceed past the landscapes of ponds and marshes, look for these birds and remember that your car makes the best blind from which to observe.

When asked what is the best time of the year to visit the Refuge, the answer depends on what one most wants to see. There is something to observe in all seasons.

March brings the large concentrations of cranes, geese and swans to rest and refuel before they proceed to nest in the far north. April marks the peak of the marsh and shorebirds, some of whom will also nest farther to the north while others stay to nest on the Refuge. May and June bring the great variety of songbirds back from Central and South America.

By July, the Refuge quiets as the nesting birds begin the serious business of raising young. In August, September and October, smaller numbers of waterfowl and shorebirds stop once again to rest and refuel on their way south.

In November, the resident mule deer bucks are so intent on the mating game, that they remain oblivious to observers who come to photograph them. The bitter cold in the north brings beautiful rough-legged hawks and bald eagles here to winter. *Now, proceed along CPR to STOP #4.*

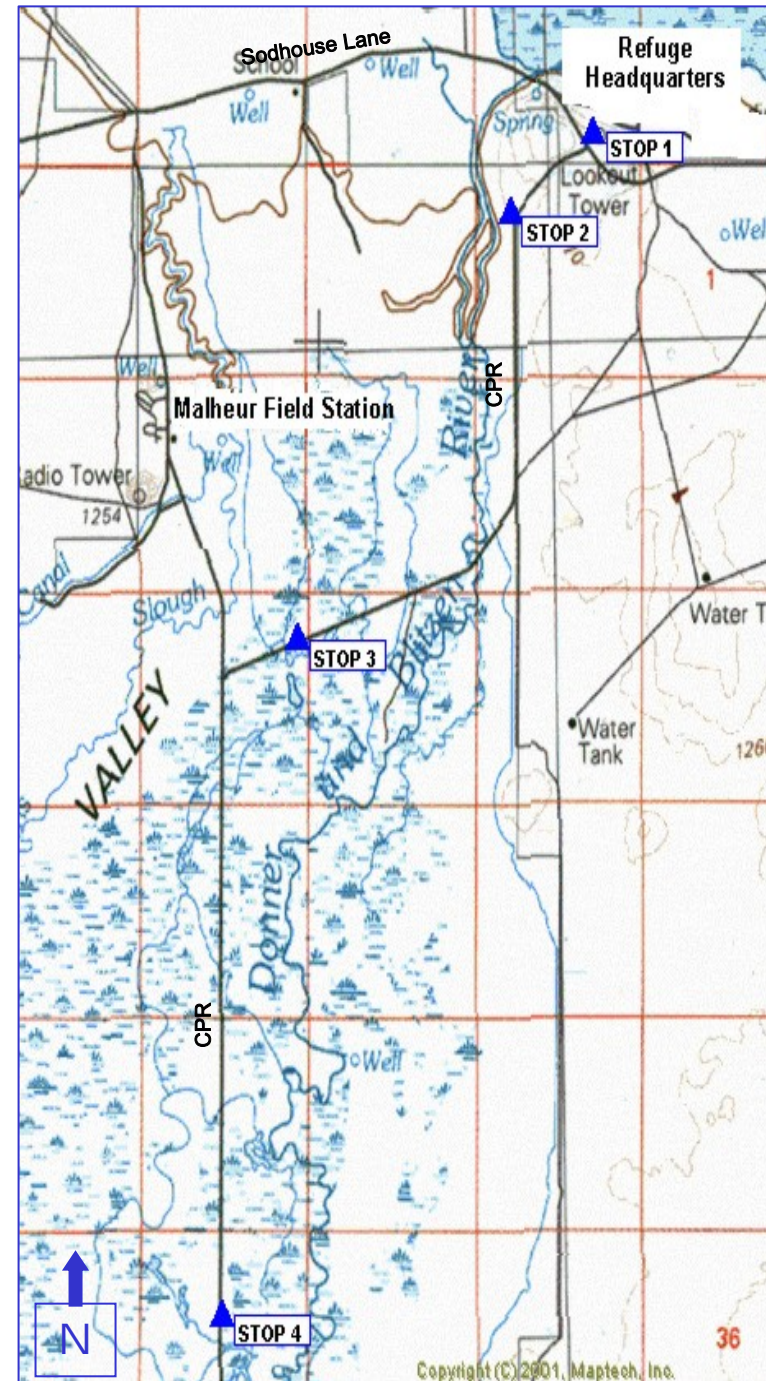


# Blitzen Valley Auto Tour Route

## STOP # 4 Geological Uniqueness

At this point, you are within the geologic province known as the Brothers Fault Zone, a narrow but highly fractured area between the still spreading Basin/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 have been separated by faulting and by subsequent erosion. Before you finish this tour, you will pass from this province into true Basin/Range topography.

Now, look to the south up the Blitzen Valley which extends for 40 miles. To the left is Steens Mountain, head waters of the Blitzen River. The history of the Refuge really begins with the uplift of this classic fault-block mountain. As tectonic movement stretched the land between the Rocky Mountains and the Sierra/Cascades from east to west, long north/south trending faults appeared. These breaks in the earth's crust separated great blocks of land not vertically but at angles of roughly 60 degrees, thus affecting their centers of gravity and causing them to tilt. Steens Mountain, with a summit approaching 10,000 feet, is a classic example of a fault block mountain, gently sloping on its west side, but dropping vertically a mile to the Alvord Desert on its east face. Snow melt from this broad western face is carried down in five major creeks, which would have dried up individually in a basin playa, were it not for a fortuitous cross fault that gathered them all and turned them north to become the Blitzen River. Over time, the river has deposited sediments to create a flat basin which makes possible the marshes and wet meadows of the Refuge. *Now, proceed along CPR to STOP #5.*



# Blitzen Valley Auto Tour Route

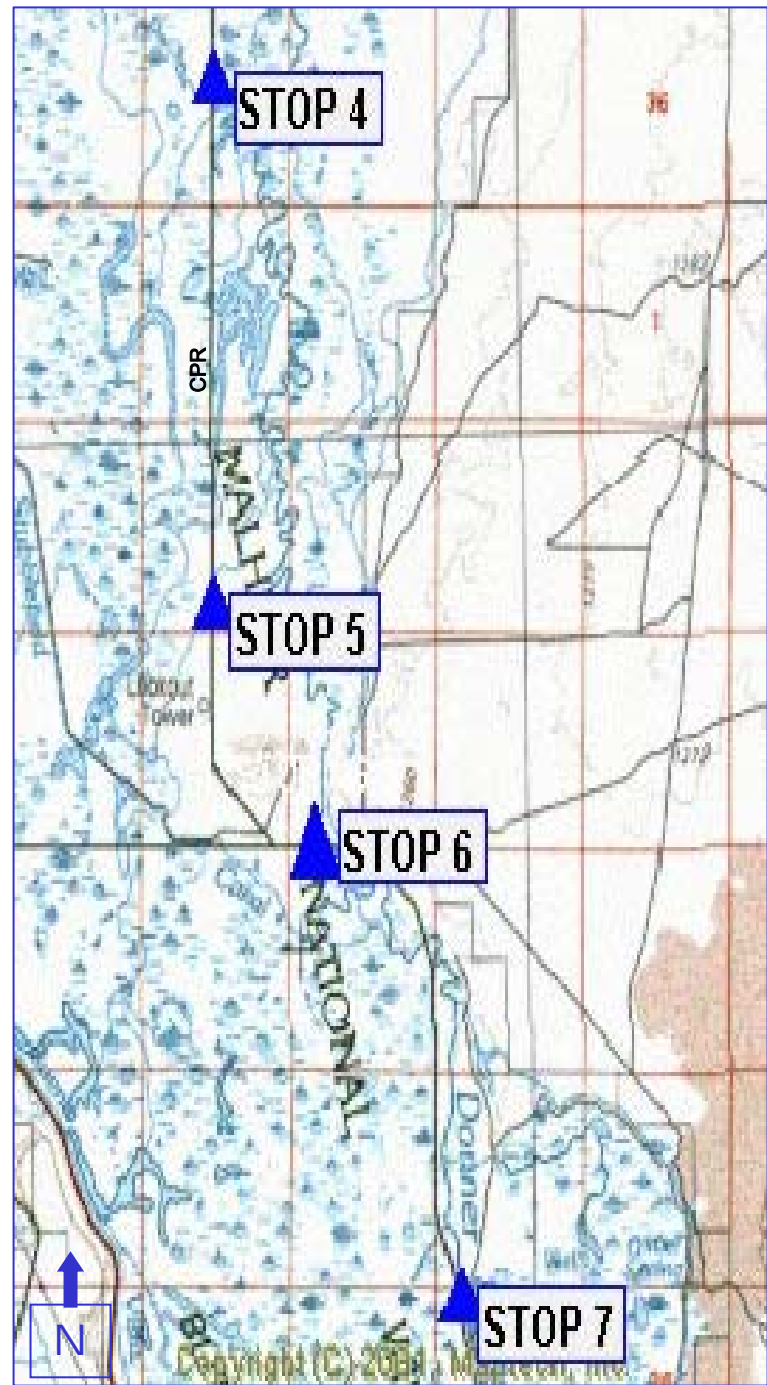
## STOP #5 McLaughlin Slough

Here, you can glimpse remnants of the old Blitzen River channel with its deeply incised curves typically caused by water movement through sedimentary soils. During low flows, the Blitzen River would have meandered around this curve, but during high volume would have attempted to cut across, creating the bench you see. These natural, braided channels now create the sloughs and wetlands which the Refuge uses to provide different depths of water needed by different species of birds. The canals and ditches, originally dug by early ranchers to drain the wetlands, are also being incorporated in Refuge management to increase the area of wet meadows. Eventually, these waters terminate in Malheur Lake, a true basin lake from which there is no outlet.

Another stop in about 100 yards gives another glimpse of a tight curve which is often the prelude to an oxbow. Also, along this portion of the road, an old remnant fire lookout still stands, a reminder of the tremendous work accomplished by the Civilian Conservation Corps (CCC) from 1935-1942. These workers constructed the stone buildings at Refuge headquarters and Buena Vista as well as dams, canals, bridges and the road you are traveling. *Now, proceed along CPR to STOP #6.*

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Of Historical Note: It was the lure of beaver and river otter pelts that brought the first explorers to the area. These early trappers, intent on keeping rival trappers from gaining a foothold, exterminated the beaver, largest of American rodents, and otter in the Blitzen River. Reintroduction by Refuge staff has assured that beavers and ever playful river otters once again share the river with muskrats, weasels, and mink.



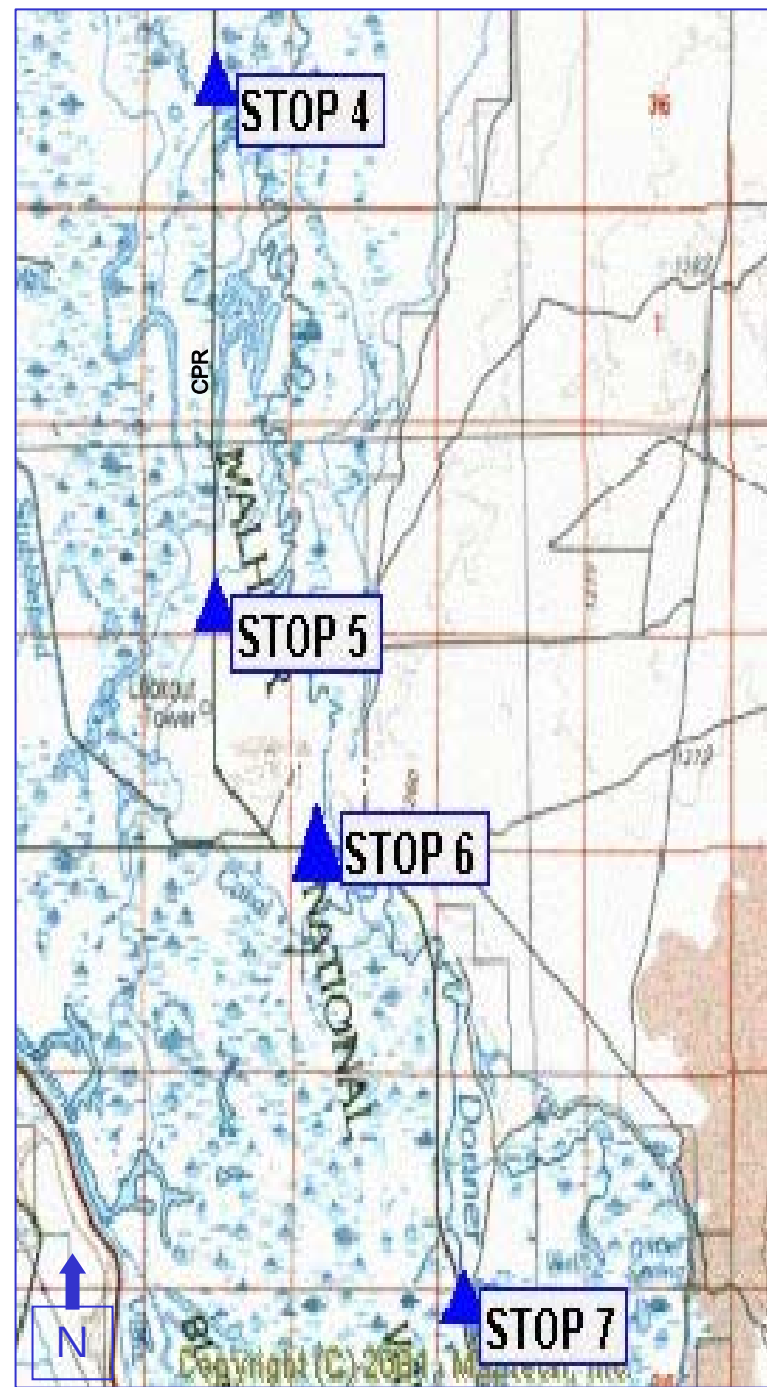
# Blitzen Valley Auto Tour Route

## STOP #6 First Residents

Rattlesnake Butte, which appears to your left, has served as an important landmark in human activity since prehistoric times. Nearby, a rocky ledge extends across the river, providing the only natural crossing for miles. This point of access, along with the availability of water and the butte from which to survey the surroundings, made this an important place for the bands of Northern Paiute people who first occupied the valley.

Archeological records show use of the Refuge as early as 9,600 years ago. This was known as the Pluvial Period, the end of the Ice Ages, when all the intermountain basins were filled with large lakes. Eventually, as the climate dried, these lakes disappeared.

By 3,500 years ago, small villages appeared around the marshes and along the river. Excavations show these people were making use of waterfowl, rabbits, fish and large game animals as well as grass seeds and roots. They built wickiups of bent willows covered with brush or cattail mats or skins and made use of the same resources as those identified in the older archeological record. These local Paiute people were known as the Wada'tika, or Wada Eaters -- Wada being a much-valued plant of the marshes. Descendants of these people continue to have access to plant resources on the Refuge and continue to be involved with management decisions. *Now, proceed along CPR to STOP #7.*



# Blitzen Valley Auto Tour Route

## STOP #7 Meadow Lands

As you travel the next portion of the road, you will notice a few wooden fence posts. Volunteer groups have contributed hundreds of hours removing old, no longer needed wire fences that have become hazardous to wildlife. They have left the occasional posts as perches for short-eared owls and the numerous northern harriers which can be seen harrying over the meadows.

You will also notice that the river has been straightened and channelized along this stretch. This was done by private landowners beginning in the 1920's. As part of the Swamp Act, landowners drained the meadows to provide areas for hay production. While this channelization has now been put to use by the Refuge in managing wetlands, it has not been healthy for the native redband trout which have inhabited the Blitzen River since the Ice Ages. The Refuge is embarking on a long term plan to make the river more user friendly for these beautiful, desert-adapted fish.

If you are visiting between March and October, listen for the liquid trills of red-wing blackbirds, the raucous calls of the yellow-headed blackbirds, the magical songs of the meadowlarks and song sparrows, and the wildly musical "krruuk" of the sandhill cranes. *Now, proceed a few miles along the CPR and make a right turn at the auto tour arrow for a side trip to STOP #8 at Buena Vista Ponds.*



# Blitzen Valley Auto Tour Route

## STOP # 8 Buena Vista Ponds

These ponds are managed as brooding areas for local waterfowl and fall feeding sites for migrant waterfowl. They also serve as a nesting area for trumpeter swans in some years. In the fall, these ponds serve as night roosting sites for sandhill cranes as they stage for their southerly migration.

Historically, the Great Basin ponds and marshes dried up periodically creating a cycling of nutrients absolutely necessary to the health of this ecosystem. The Refuge now manages a rotation of drying cycles to mimic this important ecological function.

As you look at Steens Mountain from this angle, you will see a huge gash on the north side. This is the famous Kiger Gorge, a classic U-shaped valley carved by Ice Age glaciers. While the continental ice sheet did not reach this far south, Steens Mountain was high enough to create its own glaciers which left the mountain with five such U shaped gorges. Kiger Creek and two other creeks bring water from the north side of the mountain to enter the Refuge through the Diamond Valley, the wide gap in the rimrocks to the left. *Now, continue ahead to STOP #9 with interpretive panels and restroom facilities.*

## STOP # 9 Buena Vista Trail Parking Area

From here you may either drive or take the trail to the overlook for a stunning view of the surroundings. If you choose to visit the overlook, pause for a moment and reflect on how the early Paiute people saw around them everything they needed for life...food, water, resources for clothing, shelter and tools. *Now, retrace your route back to CPR and continue south to STOP #10.*



## STOP # 10 Diamond Lane

In the field across the paved road, sandhill cranes begin to congregate in August and September in preparation for their southern flight. While some 250 pairs of cranes nest here on the Refuge, as many as 3,000 may pass through on yearly migrations, using the Refuge as a refueling stop.

Sandhill cranes are a very old group of birds, with fossil remains from the Eocene Period, some 60 million years ago. They stand five feet tall and mate for life. You may be lucky enough to catch some in their dramatic and graceful dance, in which both partners leap into the air and bow before each other. Sometimes sticks are picked up and tossed into the air to attract attention. While this is courtship behavior, some cranes perform in any season, and young cranes can often be seen practicing.

One of nature's most beautiful sounds is the sonorous, trumpet-like unison call of the cranes. A five-foot long trachea, half of which lies looped within the keel of the breastbone, modifies the voice and accounts for the deep resonant tones, somewhat analogous to a French Horn. A sky filled with cranes filling the air with their calls is certainly one of nature's most satisfying glimpses of pure wildness.

The eastern edge of this field is often a good place to see antelope, more properly called Pronghorn, with adaptations for vision and speed that suit them perfectly for life in the wide open spaces of the west. Along with the coyote and jackrabbit, pronghorns are indigenous to North America, having evolved here rather than arriving from Asia across the Bering Land Bridge, as most of our other large mammals did. *Continue on next page.*

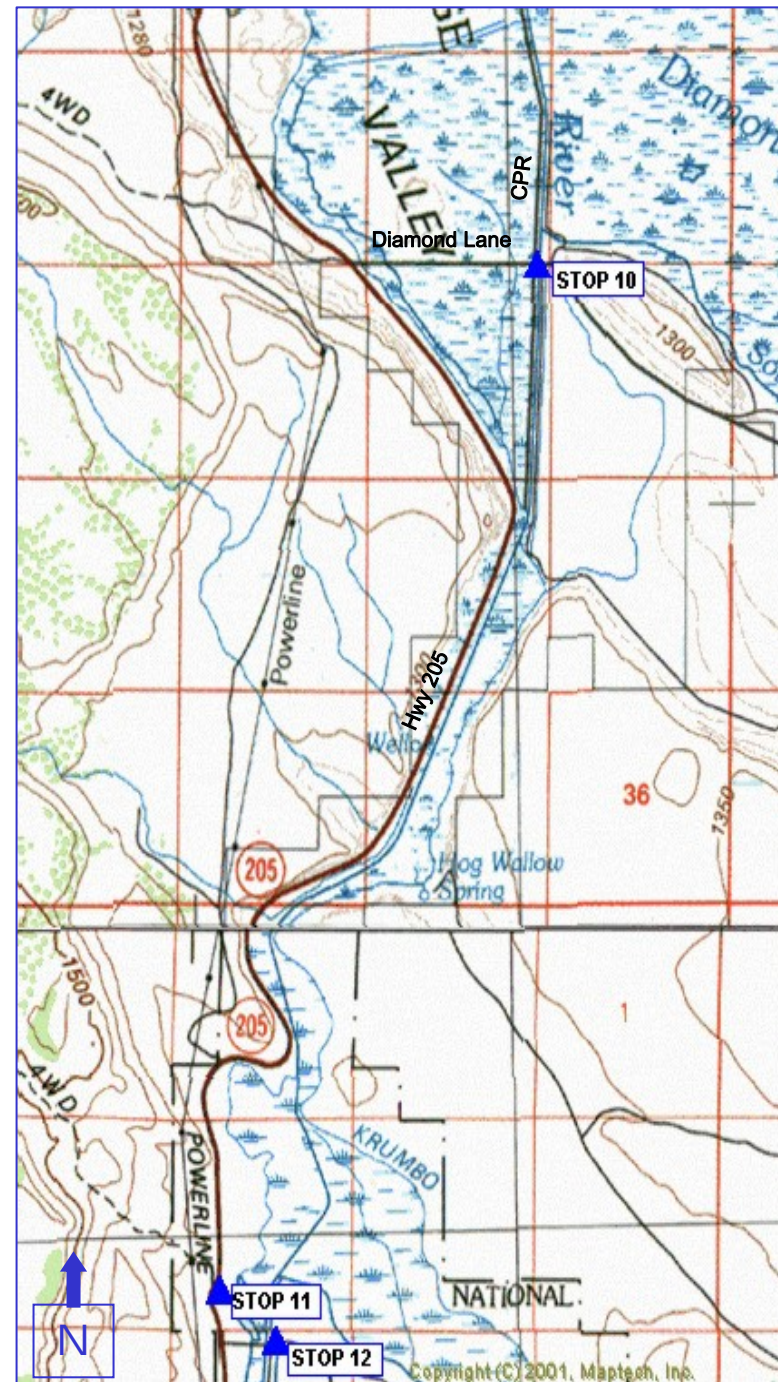


## Blitzen Valley Auto Tour Route

A left turn here would take you on a side trip to the Diamond Craters, an area of great geologic interest. An auto tour brochure of the craters is available at the Refuge headquarters and other locations. Beyond the Diamond Craters lies the historic Round Barn and Visitor Center, another relic of the Pete French empire, and the town of Diamond, including Diamond Hotel.

*Turn right here to continue the tour. Proceed to Hwy 205 and turn left at the intersection. Remember that you are back on a State highway and be mindful of traffic.*

On Hwy 205, you will travel through a narrow canyon cut by the Blitzen River during glacial times when water runoff was much higher than it is today. The rimrocks here are of welded tuff, hot ash deposits, which erupted from sources near the present town of Burns, roughly 9 million years ago. These deposits can be identified by horizontal, lens shaped holes, remnants of once rounded gas pockets, flattened while still warm by the weight of continued accumulation of deposits above them. Watch for these in the road cuts. *Drive south a short distance, (bypassing future STOP #11, a work-in-progress where improvements are under development), turn left on Krumbo Lane (just after mile post 47) and proceed to STOP #12.*



## Blitzen Valley Auto Tour Route

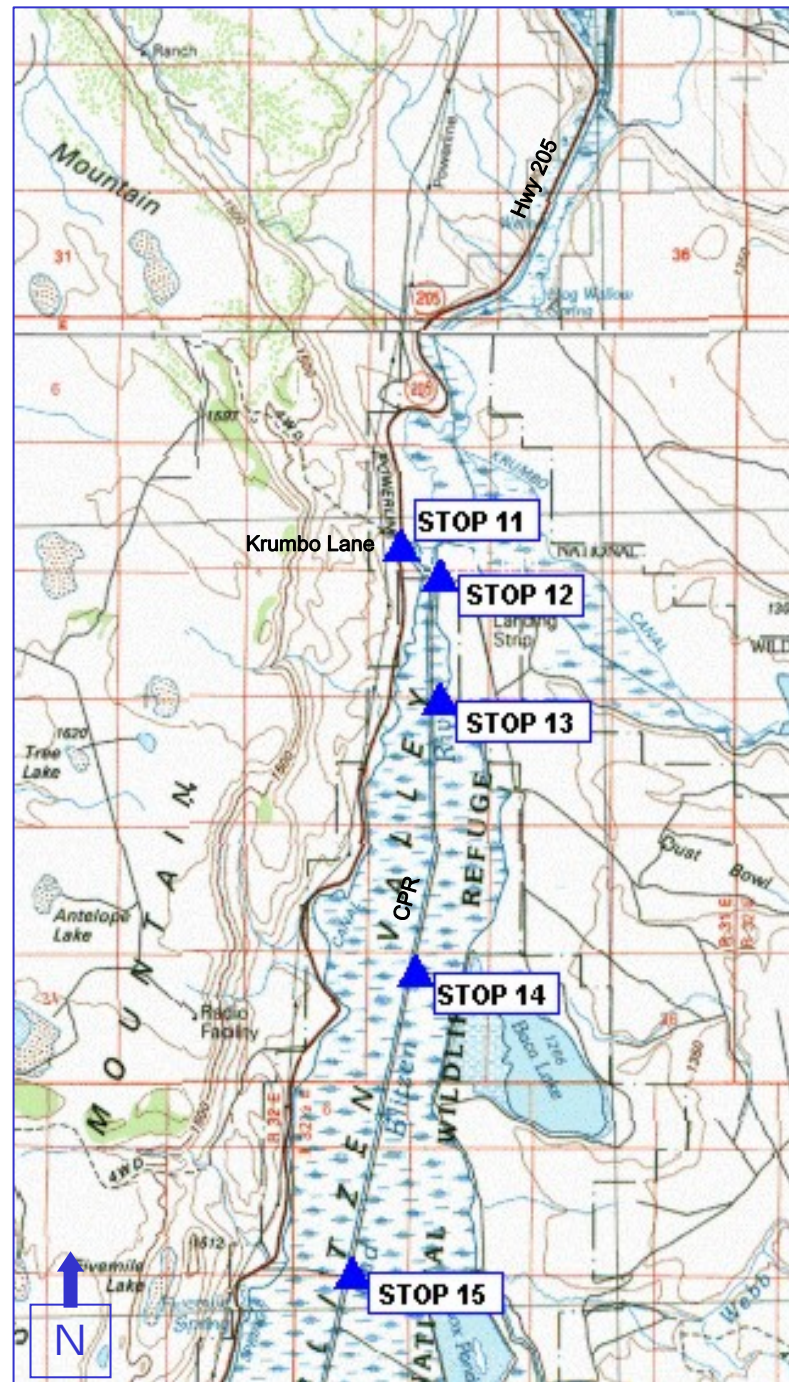
### STOP #12 Willow Thickets

A side trip to Krumbo Reservoir is a possibility here. It lies a few miles to the east and features a public fishing area. It is also a good place to find migrating loons in early spring and fall and eared grebes during nesting season. Because it is large enough to remain ice free for much of the year, it offers important winter habitat and is closed to the public during that time.

*To continue the southern portion of the tour, you will make a right turn on CPR and continue through thickets of willow, red ozier dogwood, and thin leaf alder, golden current and wild rose. Even though these thickets block the view of certain areas, they house a wonderful variety of passerines, including warblers, flycatchers, sparrow, vireos, kingbirds, phoebes, finches and kinglets. Please be patient.*

A banding project here revealed that one willow flycatcher had successfully made the annual trip to its southern range in Central America ten times, returning to the exact same spot to nest here in the willows along this road. Not bad for a six inch bird weighing less than one ounce. This information extended our understanding of the life expectancy of this bird and points up the importance of this type of research. It also heightens our awareness of the fact that our conservation efforts must transcend political borders.

*Now, proceed along CPR to STOP #13.*



# Blitzen Valley Auto Tour Route

## STOP #13 Benson Pond

As you walk under the old-growth willows planted by the CCC, look for owls and, if visiting between May and September, look for nighthawks perched parallel to the branches. Both will be using their cryptic coloration to catch a good day's sleep, unharrassed by smaller birds.

The pond itself is a good place to see swans. During spring and fall migrations between the Arctic and California, tundra swans use the Refuge as a refueling stop. A few of the slightly larger trumpeter swans spend the summer here.

Should you see trumpeter swans wearing green collars, these represent an attempt to reintroduce these birds throughout the inter-mountain west.

By 1900, market hunters had reduced the trumpeter swans to near extinction and the ancestral knowledge of some flyways was lost. Today, wildlife biologists are working to re-establish a wider network of routes, so that a catastrophe in one locale will not mean a catastrophe for the species. *Now, proceed along CPR to STOP #14.*



# Blitzen Valley Auto Tour Route

## STOP #14 Dredger Pond

This is Dredger Pond, so named for the old steam driven dredge which once was used to channelize the Blitzen River and was abandoned here. The thick, emergent marsh vegetation, mostly hardstem bullrush provides excellent nesting habitat for redheads, mallards, canada geese and northern harriers.

Northern harriers may have been seen flying low over the meadows. This species differs from most raptors in that the males and females of this species do not look alike. The males are smaller and silver grey and the females are larger and brown.

As you proceed between Dredger Pond and the next stop, you will drive along shallower marshes where the dominant vegetation consists of mostly cattail and burreed, providing an abundance of protected nesting habitat. Here, the excitable marsh wrens sound their insistent reedy “tsks” all night long during mating season. They can often be brought to the top of the cattails briefly to “check you out” with a loudly whispered “pish, pish, pish” from your car window... lots of fun particularly if you are traveling with children.

You may have also noticed occasional breaks in the dike on the opposite side of the river. These are natural attempts by the Blitzen River to break from its channelization and return to its historic channels. The Refuge will not repair these openings but will allow the river have its way. Due to man’s intervention, the Blitzen Valley will never again function as a natural system. Therefore, the Refuge staff must continue to use an extensive ditch system to transfer water through the valley. *Now, proceed along CPR to STOP #15.*



# Blitzen Valley Auto Tour Route

## STOP #15 Knox Ponds

Knox Ponds are good examples of large ponds managed to improve survival of young waterbirds. Periodically, these ponds are drained and planted with grain for forage. Proceeding south from here, you may notice fire scarred willow remnants. Controlled burning is an important management tool in keeping certain kinds of habitat in a healthy condition. Haying and grazing may also be observed, both of which can benefit certain species.

Notice how the topography has changed since the start of the tour. You began in a highly fractured area marking the northern boundary of the Basin Range geologic province, you are now following one of the north/south trending faults that describe Basin Range topography. On the left lies the gentle west facing slope of Steens Mountain in contrast to the abrupt fault scarp on the right. The actual fault that separates these once joined blocks lies buried under the sediments beneath you. Because the land is still stretching, magma lies very close to the surface here, resulting in numerous hot springs in the area. *Now, proceed along CPR to Stop #16.*

## STOP #16 Lone Cottonwood Tree

This tree is one of many roost sites for Bald Eagles that come from the north to winter at the Refuge. The occasion of a yellow-billed cuckoo having been seen in this vicinity for a few years recently has been of great interest to birders. These birds, once seen along Oregon waterways need a complement of cottonwoods for feeding and willows for nesting. Perhaps as we begin the process of restoring healthy riparian systems to our western rivers, these birds will once again grace us with their presence. *Now, proceed along CPR to STOP #17.*



# Blitzen Valley Auto Tour Route

## STOP #17 Bridge Creek

This is a good place to get out, stretch you legs and look around. At this location, Bridge Creek enters the Blitzen River from the left. The dam you see on Bridge Creek had for years presented a barrier to fish traveling up the Blitzen River to spawning grounds in the upper reaches of Bridge Creek. In an ongoing plan to improve conditions for fish, the Refuge is installing fish screens to prevent loss of fish to the meadows and fish ladders to improve passage. The ladder you see here has once again made it possible for the wild redband trout to travel to their ancient spawning grounds in upper Bridge Creek.

From here a walking trail follows the Blitzen River south for three miles to end at the P Ranch. Just across the creek, you will find some interpretive panels explaining one phase of river restoration work being undertaken by Refuge staff.

As you continue the tour, you will be aware that every so often the road climbs ever so subtly, the land being elevated just enough to cause a change in vegetation. These dunes were formed of blowing glacial loess soils deposited in times when the basin was dry. The very tall, lush bunch grass is great basin rye, once so prolific in the Great Basin, that early accounts talk of losing sight of cattle driven into its meadows. Seeds from this grass were harvested as grain by the Paiute people.

Uplands, such as these, of sage and rabbit brush and a number of native bunch grasses provide habitat for sage thrashers, brewers, sage and vesper sparrows and western meadow larks. short-eared owls, curlews, mallards and gadwalls nest in this habitat as well. *Now, proceed along CPR to STOP #18.*

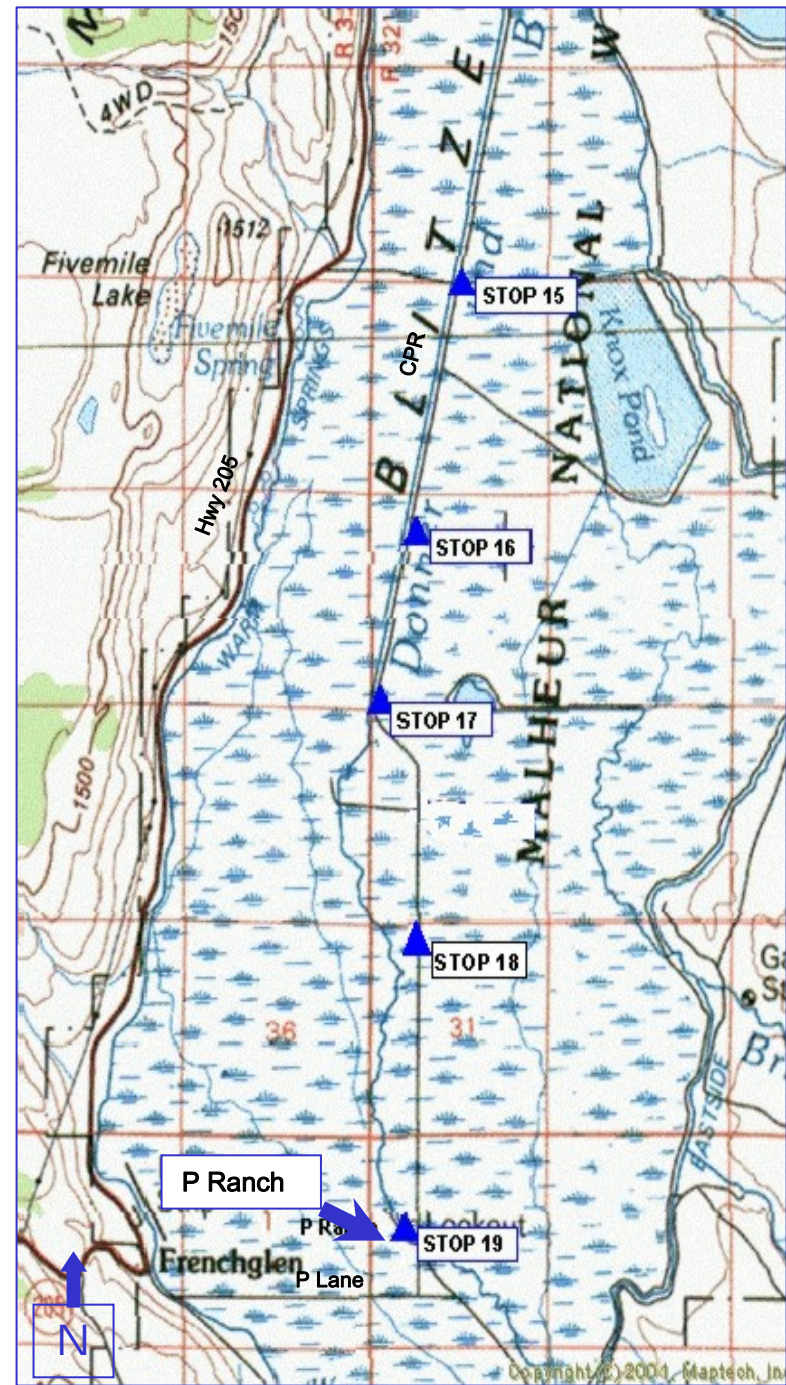


# Blitzen Valley Auto Tour Route

## STOP #18 Bob-o-Links Habitat

From here to P Ranch where the tour ends, the patient observer between June and September, should be able to spot bob-o-links showing themselves briefly above the tall grass meadows. The Refuge hosts the greatest abundance of bob-o-links in Oregon. These fields represent the western extremity of their range in Oregon, the bob-o-link being primarily a bird of the more inland short-grass prairies.

*After you cross the Blitzen River, follow the tour route arrow, turning right at the large, old cottonwoods into what was once the headquarters for the historic P Ranch. Though not part of the original P Ranch home, the red brick chimney marks the location. This site is used as a maintenance station and Refuge personnel residence, so please respect their privacy. Continue past the house to the parking area where you will find a restroom and stop # 19.*



# Blitzen Valley Auto Tour Route

## Stop # 19 P Ranch

It was in 1872 when Pete French, backed by Dr. Hugh Glenn, headed north from California with a few vaqueros and 1,200 head of shorthorn cattle looking for land. Once he entered the lush Blitzen Valley, he knew his search was over. The French/Glenn dynasty eventually controlled the entire valley with outposts at Buena Vista, Sod House near headquarters and at Diamond. The long barn he built here still stands, just a short walk away.

Take a walk to the long barn noting the clever use of willows, an eminently renewable resource for fencing. Try to guess the use of the two pieces of equipment you see in the field (answers below). Land disputes between the French-Glenn cattle empire and other settlers led to French's murder in 1897. This effectively brought a close to the Cattle Baron Era.

Good birding can be had along the River Trail. Northern orioles, cedar waxwings and western tanagers like the proximity of large cottonwoods and orchards.

The old CCC fire tower, while not open to the public, provides roosting for as many as 50 turkey vultures who come each summer evening and leave when the sun warms them in the morning.

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If you guessed the tripod of poles was a hay derrick, you were correct. With this primitive but effective crane, bundles of hay could be grasped with tongs and placed atop a large pile. The square wheel might have had you guessing, but short ropes at each corner when pulled by hand turned the wheel whose axle wrapped up another rope capable of lifting a beef carcass for skinning and butchering.



*This brings a close to the tour!*

We hope this information has increased your enjoyment of the area and caused you to think about the importance of preserving our natural heritage of wild lands 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.

Thank you!

Exiting P ranch two rights turns will put you back on Hwy 205, in the little village of Frenchglen.

*Brought to you by*

**Malheur**  *Wildlife Associates*

**This brochure was produced by the  
Malheur Wildlife Associates who welcome  
your membership, allowing you to receive our  
newsletter and join us for volunteer work parties.**

*Malheur Wildlife Associates* is a non-profit group whose mission is to support the purposes of the Malheur National Wildlife Refuge.

*Goals include:*

- \* Enhancing and restoring habitat for the diversity of fish and wildlife in the Harney Basin and environs.
- \* Improving the educational experience of visitors and enhancing appreciation and knowledge of natural systems in the Refuge and environs.
- \* Advocating for greater responsibility on the part of the public and elected officials toward the natural world in general and Harney Basin in particular.

*Projects may include:*

- \* Planting native vegetation
- \* Building trails and observation blinds
- \* Removing no longer needed barb wire fences which have become a danger to wildlife

*Board of Directors:*

- \* Alice Elshoff, Patty Bowers, Joe Hendry, Gary Ivey, and Guy Sheeter

***For More Information***

Visit the web site at [malheurfriends.org](http://malheurfriends.org),  
email at [calice@highdesertair.com](mailto:calice@highdesertair.com), or call at 541-495-2322

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