

Water Trail Interpretive Guide



Douglas Beall - Wood Duck

Big Paddle 2018

1. Ridgefield National Wildlife Refuge (RNWR)

Established in 1965 for the purpose of ...providing wintering habitat for dusky Canada geese and other waterfowl, provide breeding and migration use and a substantial public shooting area, and to support peak populations of 125,000 ducks and 3,000 geese. When established the Refuge was approved to be 6,538 acres with 5,300 acres currently acquired.

Today, approximately 200 bird species have been observed on the Refuge. Peak migration populations are 35,000 geese, 3,000 swans, and 1,500 cranes.



Caleb Jacobson- Ridgefield NWR River 'S' Unit

2. Ferry Landing

The pilings and ramp on the shore of Bachelor Island was the former location of a ferry landing that served the Bachelor Island Farm, aka Zimmerly Ranch. Until the 1990's there was no bridge access to Bachelor Island. All items to operate a 1,610 acre farm were ferried from Ridgefield. Conversely, the crops were ferried to Ridgefield and hauled to market. Potatoes were a major crop for the Bachelor Island. Largely, the potatoes were sent to Vancouver to supply chip production at the Frito-Lay plant. In-harvest potatoes left in the field were popular with wintering swans. Swans searching for potatoes and winter would be brown with mud from the fields. Loading the ferry with crop waiting tractor-trailer required considerable skill. The ferry would have to throttle – pushing against the shore. The force of the truck hitting the ferry would force the ferry away from shore, sometimes before the trailer was on board. Application of the truck brakes at this time would additionally thrust the ferry from shore. The loaded trucks coming down the steep ramp were only use the trailer brakes to serving as an anchor along the ramp. The ferry was relatively small offering is shortly landing pad for tractors and trailers before running off the backside.

3. Bachelor Island History

Archaeology shows a Native American presence on Bachelor Island for thousands of years. Lewis and Clark first called the Island "Green Byror Isd." when they traveled downstream in 1805. The name was charted to "Quathlahpotle Island" in 1806 in honor of the Native American village they visited nearby on the mainland. In 1841 the island was chartered 'Pasauks or Pasainks Island' by Wilkes. The present name is of local origin after being settled by unmarried man Hendricks, Teal, and Thing in 1849 or 1850. The island has gone through many owners that farmed the areas. Life in the floodplain before the construction of the dikes was an annual hazard. Rosa Hare, a child from Bachelor Island in the 1920s writes about farm life in the floodplain. Island Farms were self-contained with chickens, gardens, orchards, cattle, and milk sheds. The farm houses on the island were built above the flood stage to allow water to run underneath. Her house sat on a concrete foundation with a 2-3 foot excavated basement. The house had eight front steps to the porch, water during the highest years would reach the fifth step. The floorboards of the basement and attached woodshed would float during flooding. A plank from the front porch to the fence served as access to the dock. Her father would access the rest of the farm by row boating during flooding. There were two high locations on the island, 'high gardens'. If necessary, cattle would be moved to the higher ground during the spring floods. As a child, she enjoyed swimming and wading in the yard as the highwater rose and receded.

Children would attend school in Ridgefield. Until 1935 the school district contracted motorboats to pick up children along Bachelor Islands Slough and Lake River. The school board would contract for \$25-\$30 per month for a suitable boat and operator to pilot in the morning and night run with school children. As many as 12 children would be picked up by the school boat. The winters in the 1920s



were particularly cold, several weeks each winter the water would freeze and the boat could not reach the children. Children would walk over the sloughs ice and hike to the school dock where the school boat owner would meet the children to see that they made it over the ice. Sometimes it was just too bad to make it to school.

Diking on Bachelor Island started in the 1940s by the Zimmerly to reduce annual flooding. The Refuge acquired Bachelor Island in 1985 and for nearly a decade the Zimmerly family continued to crop the island. Largely, the crops from 1995 to 1985 were clover, alfalfa, barley and wheat. Today, the island is managed as grasslands and for wildlife. The island is set aside a sanctuary for wildlife with no public access on Refuge owned parcels.

4. Bachelor Island Unit Input Pump

On the shore of Bachelor Island is a screened elevated pumping platform. This is the water intake for the managed wetlands of Bachelor Island. The pumps feed a network of buried pipes, capable of delivering water to wetlands through the island. The screen service is designed to prevent fish from entering the pump.

5. Ladd and Reed Farm

In 1859 William S. Ladd (of Ladd's Addition) and Simeon G. Reed (of Reed College) were business partners in Portland with many business interests. Among them was a network of farms in the Portland area. In 1878, the Ladd and Reed Farm of Bachelor Island

was operated from a farmhouse near this location. In addition to Mssrs Ladd & Reed, portions of the island called Columbia island in this era Were being farmed by John Borrel and G.E. Tyszkiewrtz. Ladd and Reed were not known to live in this location. They employed a farm manager by the name of George Gammiel, who lived on the island with his wife and five children. The Ladd and Reed farm of Bachelor Island had a large farmhouse with 20 rooms. (Presumably for farmhands and Gammiel family).

6. River 'S' Unit Expulsion Pump

Periodically, the water in this location is known to boil and bubble. This location is the outfall of the pump network that drains water off of the River 'S' Unit. And winter, rainfall pours water into the diked portions of the River 'S' Unit. Without the pump system, the wetlands would overtop and fill the dikes like a very large bathtub.

The pump system is designed to maintain water levels in the wetlands at a desired that while pumping excess water back into the Columbia.



7. River 'S' Unit Impulsion Pump #1

Fall in the Pacific Northwest bring tens of thousands of migrating ducks and geese to the refuge. Unfortunately, there is very little rainfall in the fall to fill the Refuge's wetland in preparation for the return of these migrating birds. The pump structure on the east shore is a supplemental system to bring water to the Refuge's wetlands from the Columbia. On good tides, this pump station can move about 6,000 gallons of water per minute to the Refuge.

8. **A River 'S' Unit History**

The River 'S' Unit was the northern tip of the land claimed by the Hudson's Bay Company under the treaty of 1846. The River 'S' is named for the 'S' brand of the West Coast Farms, Sevier family, who owned the area prior to 1965. The River 'S' was among the first land parcels acquired to create the Refuge. The area is currently managed as wetlands and grasslands for wildlife. The Unit has significant wildlife value with high densities of wintering swans, geese, and ducks. The Unit also contains some of the Refuge's public use areas such as seasonal trails, observation blind, hunting unit, and auto tour route.

9. **Sandbar**

The sandbar in the channel is a great location for seeing sandhill cranes (a state endangered species) in the fall. Cranes are known to spend the night (roost) in large groups in the shallow wetlands of the Refuge. Many cranes will move to Bachelor Island to eat crops such as corn. Mid-day resting finds the birds on sandbars in Bachelor Slough between the roosting and feeding areas. Peak number of sandhill cranes in the lower Columbia River are 4,000 birds in mid-October.

10. **Riparian Restoration**

The young trees on the west shore were planted by the refuge and volunteers from 1995 to 1999. Located outside the dike and subject to flooding, the field was not optimal for agricultural management and showed great potential for restoration of native bottomland forests. Native willow, dogwood, alder, cottonwood, and rose were planted in the field. In places it has become a dense thicket to trees and shrubs with confirmed nesting of riparian birds including hummingbirds, song sparrow, and yellow chats. If you build it, they will come!

11. **River 'S' Unit Impulsion Pump #2**

Same text as #7. However, this is the main impulsion pump for the area with a maximum input of 6,500 gallons per minute. Although

with tidal influence, sandbars to the north and south keep preclude the unit from pumping water twice a day during low tides. During the flood of 1996 it is worth noting that the river water level was within a foot of overtopping the dike protecting River 'S' in several locations south of this pump.



12. Sandbar

During much of the fall this sandbar must be portaged to the Columbia. The silts of the sandbar are a great opportunity to look for tracks of birds and small mammals. Before construction of the Bachelor Island bridge, the Zimmerly Farm would run select low ground pressure equipment from the mainland to Bachelor Island over the sandbar to avoid operating the ferry. The silts make the crossing a bit dicey.

13. Bachelor Point

The forest to the east is called Bachelor Point. For a decade (1993 to 2002) the Refuge and its partners conducted songbird studies in this area. Song bird calls were monitored during the early breeding season. Additionally, birds were captured and banded at select stations within the forest using a protocol employed throughout the United States. The program succeeded in capturing breeding Songbirds and periodic rare migrants. The banding program

additionally had the highest song sparrow banding rates than other banding locations in the US.

14. **Pilings**

The pilings along the Columbia River are relicts from the early 1900s when huge log rafts containing millions of board feet of lumber were floated from the forests to the mills along the Columbia River. The pilings served as anchor points for the log graphs in transport to the mill. Today, the pilings are popular for osprey nests along the river. To locate osprey nests, look for large stick nests on top of pilings along the river.

15. **Bald Eagle Nest**

This area has been an active bald eagle territory since the early 1990s. The pair has moved around in the forest and returned to various nesting trees leaving scattered vacant nests in the forest. Nesting occurs from late January to July with birds in close proximity tending the nest. In the fall and winter birds are not obligated to the nest and might be found anywhere along the refuge.



Gary Davenport- Bald Eagle

16. **Lewis and Clark Campsite November 5, 1805**

The words of Clark described the abundance of wildlife near post office lake. Today post office lake is part of the Ridgefield National Wildlife Refuge, a refuge established to provide wintering and migration habitat for wintering waterfowl.

17. **Purple Martin Pole**

The pole on the tip of Bachelor Island is part of a Refuge program to maintain purple martin nesting structures. Each spring Refuge volunteers create poles with attached gourds to serve as nesting cavities for Martin's. Martin's of the Pacific Northwest are well adapted to using artificial nest cavities like gourds. The gourds are removed, cleaned and stored over the winter. Gourds are installed in May all around the Refuge allowing martins immediate nesting access, thereby, discouraging nesting by non-native birds (starling and house sparrow). In 2007, 31 of 32 Refuge gourds were occupied by martins.

18. **Bachelor Island Shoreline**

The non-vegetated beach of Bachelor Island is under jurisdiction of the Washington Department of natural resources. The beach is open for public visitation and offers a great location for getting out of the boat for a hike or lunch.

19. **Bald Eagle Nest**

The eagle nesting territory has been active since 1995. Over the years the pair has moved around within the forest leaving vacant nests in various locations. Nesting occurs from late January to July with birds in close proximity tending the nest. In the fall and winter, birds are not obligated to the nest and might be found anywhere along the refuge.

20. Great Blue Heron Rookery

Great blue herons nest in trees in late winter often in large, communal colonies. Within the closed area of Bachelor Island is the largest nesting colony of



Jacob Afflerbaugh- Great Blue Heron

great blue herons in the lower Columbia River. Historically, this colony has held over 700 nesting pairs. Recently, the colony has approximately 400 nesting pairs annually. In the last decade, the colony has also attracted a few pairs of nesting great egrets. Efforts to expand the forest surrounding the colony were conducted in the early 1990s. This restoration is intended to add a buffer to the colony and potentially offer additional forested habitat for colony expansion (IMPORTANT – colonies are highly vulnerable to disturbance and the area is closed to the public, so please only view remotely from the shoreline or water). Viewing is best before the forest leaves out and obscures the colony, before the end of February.

21. Waterfowl Flyovers

Considerable numbers of geese, swans, cranes, Eagles, and ducks move between Bachelor Island and Sauvie Island Wildlife Management Area. Keep an eye and ear to the sky for birds moving over the river.

22. Bald Eagle Nest

The eagle nesting territory has been active since 2000. Nesting occurs from late January to July with birds in close proximity

tending the nest. In the fall and winter, birds are not obligated to the nest and might be found anywhere along the refuge.

23. **Warrior Rock**

Thirteen years before Lewis and Clark came downriver, Captain George Vancouver had sailed into the mouth of the Columbia River. Mooring the ship in the mouth, a small vessel was dispatched upstream with Lt. William Broughton. On October 28, 1792, Broughton and crew reach the northern end of Sauvie Island. At this location then countered what initially looked to be a conflict with the locals.

In consequence of being there surrounded by twenty-three canoes, caring from three to twelve persons each, all attired in their war garments and in every other respect prepared for combat. On these strangers discoursing with friendly Indians who had attended our party, they soon took off their war dress, and with great civility disposed of their arms and other articles of such valuables as were presented to them, but would neither part with their copper swords, nor a kind of battle ax made of iron.

The location of this contact has become known as Warrior Rock. Interesting to note that at this very early contact, the tribes of the lower Columbia already possessed iron.

24. **Military Road**

In 1853 Congress authorized the construction of the military road from Fort Vancouver to Seattle. In route, the trail connected Fort Nisqually, Fort Steilacoom, and Fort Puyallup. A cadastral map (a map showing boundaries and ownership) from 1854 shows this road transecting the Carty Unit along Lake River.

25. **Flood of 1996**

During the flood of 1996 the Bachelor Island dike failed flooding the entire island, except a small compound of building protected by a secondary dike. Floodwaters at 23 feet were within a foot of

overtopping the River 'S' Dike built at approximately 24 feet. It is impressive to look at the height of the dikes bordering the Slough and imagining the slough full to the top of the dike.

26. Carty History

James Carty moved to this area in 1840 taking up a donation land claim on the area known at the Carty Unit and living on the land claim until his death



Gary Davenport- Red Shouldered Hawk/Garter Snake

in 1873. Early letters from the Carty family describe the presence of a Native American village on the parcel and visits to the homestead by local Indians. Grazing, farming, and rock quarrying were among the industries of the Carty family. On a historical note, the first U-Haul trailer was also constructed by a relative to the Carty family in a shed at the Carty Homestead. The Chinookan village of Cathlapotle has only been in two ownerships since the Cathlapotle disbanded (Carty and U.S.F.W.S.). Unlike many archeological sites in the lower Columbia, the site of Cathlapotle remained intact and secure from development. The Carty Unit is connected to the Columbia and functions as a natural floodplain habitat to both the river and Gee Creek. The Unit hosts rare plant communities of mature Oregon white oak woodlands. Associated with the oak habitat are wildlife species uncommon to Washington State like slender-billed white breasted nuthatches and western scrub jays.

The Carty Unit also contains a State- and Federally- threatened plant called water howellia. This aquatic annual was discovered in 1897 by Thomas and Joseph Howell on Sauvie Island, OR. Since its discovery, water howellia has become extinct in Oregon. In

Washington, water howellia has limited distribution with only a few remnant populations. At Ridgefield, occurrences of howellia are limited to several ponds scattered throughout the Carty Unit. No other Clark County occurrences are known.

27. Basalt Quarries

Seven basalt rock quarries are located in the Carty Unit. This quarried rock was important to Portland, OR as it grew from a frontier village to an urban and commercial center. Seasonally, the dirt roads of early Portland transitioned between dust and mud. Early road improvements included wooden planks and macadam (graded rock) to make the roads passable in all seasons. Beginning about 1880, basalt blocks were quarried from the Carty Unit and hauled to Lake River and ferried to Portland. These blocks were chipped to a standard shape and size (Belgian Block) and laid in the streets of Portland. Sewer blocks were also cut to shape and exported to Portland. By 1885, three miles of Portland's roads were paved by the blocks. In 1890, the Blocks were located on Front, First, and Second Streets, from G Street on the north to Jefferson Street in Portland. Eventually as much as 30 miles may have been covered before its use was discontinued. City engineer estimates suggest that 4.8 million square feet of stone was placed in Portland, with much of it coming from the Carty Quarry.



Fred Kerr- Columbian White-tailed Deer



Dennis Davenport- Long-tailed Weasel

28. Lewis and Clark Campsite March 29, 1806

After visiting the Village of Cathlapotle, the Expedition paddled upstream a distance to camp between Carty Lake and Lake River. From their campsite they observed women from Cathlapotle gathering wapato from Carty Lake.

Encamped on a beautiful grassy place, where the natives make a portage of their Canoes and Wapato roots to and from a large pond a short distance, in this pond of natives inform us they collect great quantities of wapato, which the women collect by getting into the water, sometimes to their necks holding a small canoe and with their feet loosen the wapato or bulb of the root from the bottom from the fibers. And it immediately rises to the top of the water, they collect & throw them in the canoe, those deep roots are the largest and best roots (Mouton)

29. Lake River to Vancouver Lake

Lake River is a popular paddle route from Ridgefield to Vancouver Lake. In 1836, Congress approved \$300,000 for the “U.S. Exploring Expedition”. This scientific expedition was headed by Charles Wilkes. The expedition lasted from 1838 to 1842 to explore the Pacific Northwest. The following are Wilkes’ description of the alternate route to Fort Vancouver during periods of flooding.



... Opposite to Warrior’s Point two small creeks enter, one from the southeast, called Calapuya [Lake River]; the other from the northeast, called Snas Creek [Lewis River]; the Nut Islets [Squaw Island?] in front of them. One branch [Bachelor Slough] of the Calapuya [Lake River], called Piscou Creek [Bachelor Slough, unites with the Columbia. 3 ½ miles above, separating a large part of the low prairie land into an island, called Pasainks [Bachelor Island]. Another branch [Lake River] runs up to within a mile of Vancouver, and affords a safe and convenient passage for boats and canoes when the river is high; at its upper end it approaches within a few hundred feet of the river [vicinity of Vancouver Lake’s Flushing Channel], at which place there is a short portage.