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Lower Columbia River Estuary Partnership

Lower Columbia River WATER TRAIL MAP AND GUIDE

1. Overview Description of the River

Native Americans called it *Nch-i-Wana*, "The Big River." The Columbia has shaped the character of the Northwest, and still inspires a wondrous sense of adventure. From Bonneville Dam to the Pacific Ocean, the Water Trail encompasses a 146-mile, free-flowing stretch of the river's lower reaches. The scenery is sublime, from spectacular waterfalls and sheer basalt cliffs to evergreen-cloaked hills and mazes of mist-shrouded islands. Wildlife refuges harbor hundreds of species of birds and mammals, while immense flocks of migratory birds soar high overhead. History haunts the shorelines with remembrances of abandoned canneries, docks, roaring steamboat towns, Lewis and Clark landing sites, Chinook Indian fishing camps. A day's paddle might veer from tranquil sandy shores to bustling ports of call. A river of legend, the Columbia is extravagant in beauty, dramatic in landscape, and always an intriguing journey.

2. Overview Description of Each Reach

Reach 1: The Gorge

River miles 146-122. Bonneville Dam to the mouth of the Washougal River in Washington and the Sandy River in Oregon

The Water Trail begins just below Bonneville Dam, the last of the Columbia River dams; from here the river is free-flowing to the Pacific. Throughout this reach, the trail passes through the beautiful Columbia River Gorge National Scenic Area, where craggy 3,000-foot basalt cliffs rise dramatically from the river. Multnomah Falls, with its 620-foot drop, is tallest of the bevy of cascading waterfalls -- the second highest concentration in the country, next to Yosemite Valley. Intriguing rock formations like Phoca Rock, Rooster Rock and 850-foot Beacon Rock are remnants of ancient lava flows. The river is wide and open, with frequent rough waters, and strong winds confirm the Gorge's reputation as a sailboarding mecca. Large commercial tugs and barges create a busy marine highway.

Reach 2: Portland/Vancouver River miles 122-102. From the confluences of the Washougal River in Washington and the Sandy River in Oregon to the mouth of the Willamette River Downriver from the Gorge, the landscape transforms into gradually widening floodplains and heads into a highly urbanized shoreline. Flowing past the communities and metropolitan areas of Camas and Vancouver in Washington, and Troutdale and Portland in Oregon, the river is fringed with moorages and marinas, and Portland International Airport. The Columbia's two largest deepwater ports, the Port of Portland and the Port of Vancouver, are typically lined with docked international cargo ships. On clear days, Mt. St. Helens, Mt. Adams, and Mt. Hood are visible jutting above the panorama of Cascade Mountains. During summer months especially, this stretch of river experiences extremely heavy traffic, with a steady stream of cargo ships, tugs and barges, cruise ships, sailboats, jet skis and powerboats.

Reach 3: Sauvie Island River miles 102-86. The upriver end of Sauvie Island to just southeast of St. Helens, Oregon

Kelley Point Park, at the southern end of this reach, marks the Columbia's confluence with the Willamette River. Sauvie Island in Oregon is the largest Columbia River island, 15 miles long and four miles wide, with its own rivers, lakes and sloughs. The southern half is mainly private farmland while the northern 12,000 acres comprise the Sauvie Island Wildlife Area, permanent home or migratory stopover for more than 260 species of wildlife. The northern shore is a popular long, sandy beach with Warrior Rock Lighthouse near its end. Across the river is the Ridgefield National Wildlife Refuge. Scappoose Bay offers an extensive, intricate maze of wetlands and marshes. The mainstem of the Columbia is narrow in this stretch, but there are many side channels, sloughs, bays, and adjacent lakes.

Reach 4: St. Helens/Kalama

River miles 86-68. From the confluences of the Multnomah Channel and the Lewis River to just west of the Cowlitz River in Kelso, Washington

St. Helens was founded as a river mill town, and its National Historic District buildings, dominated by a 1906 stone courthouse, are visible from the river. A number of islands worth exploring -- Sand Island, Deer Island, Martin Island, Goat Island and Sandy Island -- offer interesting sloughs and side passages. Along this stretch the Columbia is narrow, although the shore broadens on the Washington side near Woodland. Large cargo ships frequently traverse up and down the shipping channel.

Reach 5: Longview/Rainier River miles 68-38. From the confluence of the Cowlitz River to mid-Puget Island east of Cathlamet, Washington

Pulp and paper mills, and busy commercial ship-loading of logs and other products headed around the world, give Longview and Rainier an industrial landscape. The Lewis and Clark Bridge crosses the river high overhead, the only bridge between Portland and Astoria spanning the entire Columbia. Wooded hills and mountains in the distance frame the river scene, until downriver where the Washington shoreline rises into steep cliffs. This reach features a variety of open water, island and backwater sloughs, with the mainstem dominated by the shipping channel and large commercial river traffic.

Reach 6: The Refuge River miles 38-18. From Cathlamet, Washington to the confluence of Gray's River

From the water, much of this reach looks untouched by civilization. The Lewis & Clark National Wildlife Refuge is a labyrinth 35,000 acres of dozens of islands, wetlands, tidelands and marshes laced with myriad channels and backwater sloughs. Roosevelt elk, small white-tailed deer, and many species of birds inhabit the 5,600 acre Julia Butler Hanson National Wildlife Refuge for Columbian White-tailed Deer. One of the few remaining Sitka spruce swamps is preserved at Blind Slough. A stretch of vertical cliffs and 80-foot waterfalls is known as the "lower Gorge." The towns of Cathlamet and Skamokawa recall the once-abundant river communities that dotted the shoreline. Water conditions vary greatly. Near Tenasillahe and Puget islands, the river is narrow and confined, then widens to a broad, open expanse downriver.

Reach 7: The Mouth River miles 18-0. From the confluence of Gray's River to the Pacific Ocean.

The mouth of the Columbia, where thousands of ships have foundered, is considered one of the most perilous on earth. Between Cape Disappointment and Clatsop Spit the mouth is two miles wide. The river's confluence with the Pacific is fraught with large waves, river and tidal current and strong winds that create both challenging and potentially dangerous conditions. Up through the tributaries of this reach are calm backwater streams and small rivers meandering through wetlands, woods and farms. Astoria, one of the first settlements in the West, still has a working waterfront, with docks and wharves along its length. A short stroll from Netul Landing on the Lewis & Clark River is Fort Clatsop, a replica of the fort built by Lewis and Clark. Across the Columbia, Fort Canby and Cape Disappointment commemorate the spot where Lewis and Clark first reached the Pacific.

3. Trip Recommendations

Reach 1: BIDDLE'S BEACON

Launch/Landing: Beacon Rock State Park, WA. River mile 141 Distance: 5 miles round trip (overnight option) Skill Level: Intermediate to Advanced Charts: NOAA 18531, ______chart's descriptive name)_______. Tide Tables: Pacific Beaches with corrections for ______, WA.

Directions: Beacon Rock State Park is located 35 miles east of Vancouver WA at milepost 35 on Highway 14.

Description: Beacon Rock, named and described by Lewis and Clark as "a remarkable high rock," is a remnant of an ancient volcanic explosion; at 848 feet high it stands as a stunning landmark to guide a paddle around Pierce and Ives islands. Two-hundred acre Pierce Island is a Nature Conservancy preserve, haunt of osprey and beavers. Visitors are asked to stay only briefly and leave no trace. Heavily-wood Ives Island is part of the Gifford Pinchot National Forest. Adjacent to the islands are the wetlands and uplands of Pierce National Wildlife Refuge on the Washington shore (not open to the public) and on the Oregon side, John B. Yeon State Park, site of a trailhead to two of the gorge's most beautiful and secluded waterfalls, Elowah and Upper McCord Creek falls. Surrounding views from the water encompass Hamilton Mountain, Aldrich Butte, Yeon Mountain, St. Peters Dome and Rock of Ages. Camping is available year-round at popular Beacon Rock. An easy trail leads to the summit of the rock, with panoramic views up and down the Columbia Gorge National Scenic Area from Wind Mountain to Crown Point. Henry Biddle purchased the rock to build a trail and in 1935 his heirs turned it over to the state for use as a park.

Reach 1: CAPE HORN CRUISIN'

Launch/Landing: Dalton Point, Oregon. River mile 133.6 Distance: 1-6 miles round trip Skill Level: Intermediate to Advanced Chart: NOAA 18531, Columbia River: Vancouver to Bonneville Tide Tables: Pacific Beaches with correction for Ellesworth, WA (estimate only)

Directions: Dalton Point, at milepoint 29 of Interstate 84 in Oregon, is accessible only from the westbound lanes. If driving east, exit at Multnomah Falls then return two miles west to the Dalton Point boat ramp.

Description: At the western edge of the spectacular Columbia River Gorge, Dalton Point is gateway to geologic beauties and fine sandy beaches. Just over a mile downriver, near the Washington side, rises a rugged basalt pillar, remnant of massive landslides eons ago. Lewis and Clark named it Phoca Rock for the many harbor seals, *Phoca vitulina*, they saw nearby. The main shipping channel runs between the Rock and shore; large commercial craft, especially tugs and barges, can approach quickly and almost silently. This area can also be hazardous with winds and rough water. Cape Horn, with its impressive towering basalt cliffs rising directly out of the river, waterfalls and small caves, lines the shore beyond. Mid-river is Sand Island, a partly-forested, undeveloped part of Rooster Rock State Park. Its extensive sandy beaches are clothingoptional. Lewis and Clark camped from April 6 to April 8, 1806 just downriver from the island. Shuttle trips can be continued downriver, to land at Rooster Rock State Park (RM 128.5, five miles from Dalton Point) or Corbett Ramp (RM 126.5, seven miles from the launch.)

Reach 1: STEAMBOAT LEGACY

Directions: The park is located in Washougal, WA, at Highway 14 and 15th Street.

Description: A Clark County Heritage Site, Steamboat Landing offers both a beach launch and a floating dock. In the 1880s, it was the home port for the steamer *Calliope*, and some of the pilings are still visible a few hundred yards upstream from the site. Remnant dock pilings and pieces of pipeline at the landing are the remains of a Pendleton Woolen Mills dock for unloading oil, used from the 1920s to the '40s. A mile upriver is the Captain William Clark Park at Cottonwood Beach, and a mile downriver is the Port of Camas-Washougal Boat Ramp. Lady Island is three miles downriver. In 1805 Lewis and Clark estimated its size at 3-1/2 miles long and 1-1/2 miles wide. They watched more than a thousand waterfowl pass over its head and named it "Island of Fowls."

Today Highway 14 crosses over the island, which is now the property of Crown-Zellerbach Corporation; part of it is a pulp mill but the island's sandy beaches revealed at low water are fine for a picnic lunch. At the upriver end of the island are the mouths of two rivers -- in Washington the Washougal River and in Oregon the delta of the Sandy River -- both excellent waterways for further exploration.

Reach 2: PADDLING THE PORTS, WILDLIFE BONUS

Launch/Landing: McCuddy Marine Docks, Oregon. River mile 107
Distance: 12 miles round trip
Skill Level: Beginner to Intermediate
Charts: NOAA 18531, Columbia River: Vancouver to Bonneville, and
NOAA 18525, Columbia River: St. Helens to Vancouver.
Tide Tables: Pacific Beaches with correction for Vancouver, WA

Directions: Interstate 5 north to Jantzen Beach exit, drive a half mile along NE Tomahawk Island Drive to the Alder Creek Kayak and Canoe store parking lot.

Description: Huge international cargo ships at anchor, dry docks, cranes, pilings, piers, grain silos and stevedores at work provide a fascinating backdrop for exploring the busy inland seaports of Portland, Oregon and Vancouver, Washington. A circumnavigation of Hayden and Tomahawk Islands (now one connected narrow island, about 5. 5 miles long) offers a flavor of urban river ambiance -- the Port of Portland's Terminal 6, marinas and floating houseboat communities, overhead the Interstate Bridge and low-flying airplanes from the Portland International Airport. Lewis and Clark called Hayden "Image Canoe Island" after the highly-decorated canoes they saw in the area; from here they spotted and named Mount Jefferson. More than 800 acres of the island's northern half are undeveloped and sit at the intersection of two major wildlife corridors. The cottonwood-ash forest is one of the largest intact stands left on the lower Columbia and the area is used by more than a hundred wildlife species, including bald eagles, pileated woodpeckers and painted turtles.

Reach 2: PARK TO PARK

Launch: Vancouver Landing Public Dock, WA. River mile 106 Landing: Frenchman's Bar Park, WA. River mile 100 Distance: 6 miles; requires shuttle Skill Level: Intermediate to Advanced Charts: NOAA 18531, ______ chart's descriptive name)______ Tide Tables: Pacific Beaches with correction for Vancouver, WA

Directions: The launch is an amphitheater just west of the Red Lion Inn at the Quay, 100 Columbia St. From the City Center exit (Sixth St.) off Interstate 5, proceed three blocks to Columbia St., turn left and then right into the landing's parking lot.

Description: A city park, major hotel and restaurant lining the shore set the stage for a decidedly urban paddle. Downriver, gargantuan grain silos and huge international cargo ships at dock or anchored mid-river dwarf a small craft, while a view upriver reveals marinas, moorages and multi-story condos. Vancouver, population 140,000, is the seat of Clark County, its rapid growth reflected in an expanding city skyline and construction cranes. Four-mile-long Hayden Island, its northern half undeveloped, makes a transition to a more natural shoreline. Just past Hayden's downriver end is the Willamette River's confluence with the Columbia at Kelley Point Park in Oregon. From here, Sauvie Island comprises the Oregon shore and commercial shipping traffic from both rivers merges into a busy river highway. A mile past the point, Frenchman's Bar (named for Paul Haury, a French sailor who jumped ship) has more than a mile of sandy beaches and a 2-1/2 mile trail that connects the 120acre regional park with Vancouver Lake Park. Other paddle options launching from Vancouver include Vancouver Marine Park (WA, RM108) to Kelley Point Park (OR, RM 101).

Reach 3: CAMP ON COON ISLAND

Launch: Sauvie Island Boat Ramp, OR. River mile 101, Multnomah Channel RM 18

Landing: Gilbert River Boat Ramp on Sauvie Island. River mile 91, Multnomah Channel RM 7 [*Note that these numbers don't jive; PJ calls the Gilbert ramp MCRM* 7.5] **Distance:** 10 miles overnight (or 15 miles round trip)

Skill Level: Beginner

Chart: NOAA 18524 _____chart's descriptive name)_

Tide Tables: Pacific beaches with correction for _____

Directions: Launch: Sauvie Island is approximately 10 miles northwest of Portland. Follow Highway 30 to the Sauvie Island bridge; the road becomes NW Sauvie Island Rd. Follow it for approximately 2.5 miles, turn right onto NW Ferry Rd. leading to the boat ramp.

Landing: Follow Highway 30 to the Sauvie Island bridge, then turn left at the bottom of the ramp to Gillihan Rd. At approximately 6 miles it turns into

Reeder Rd; follow for approximately 7 miles, then turn left at the boat ramp sign to the parking lot.

Description: Part of the Willamette River Greenway, Multnomah Channel is a narrow, 21-mile stretch connecting the river with the Columbia. Before a bridge was built in 1951, the launch site was a ferry landing for islanders traveling to and from the mainland. Along the first two miles downriver, shores are lined with ash, willow and cottonwood forests--Wapato Access Greenway State Park on the right, and on the left, mainly Metro Parks and Greenspaces lands, where more than 20,000 trees have been planted to stabilize the banks and provide shade cover for fish habitat. The northern 12,000 acres of Sauvie Island are owned by Oregon Department of Fish and Wildlife and managed for waterfowl habitat. Great blue heron, belted kingfishers and bald eagles are regularly seen; during migrations, sandhill cranes and tundra swans commonly fly overhead. As the channel nears the outskirts of Scappoose, marinas and floating homes solidly line the left shoreline, with agricultural fields beyond. A floating restaurant, Mark's on the Channel, is a popular stop. At River Mile 93 (or MC RM 8) the J.J. Collins Marine Park (also known as Coon Island) offers camping on the west and east sides. Approximately 1-1/2 miles downriver, just after the mouths of Cunningham Slough and the Gilbert River, the Gilbert's boat ramp is easy to spot.

Reach 3: LITTLE SLOUGH TO BIG RIVER AND BACK

Launch/Landing: Ridgefield Kayak Launch, WA. River mile 90
Distance: 10 miles round trip
Skill Level: Beginner to Intermediate
Chart: NOAA 18525, Columbia River: St. Helens to Vancouver
Tide Tables: Pacific Beaches with corrections for St. Helens, OR

Directions: Interstate 5, take Exit 14 (Ridgefield) and head west on Highway 501 for about 3 miles into town. Turn right at the stoplight, left in _____ blocks to ______ Street to the kayak launch.

Description: From the launch site on Lake River, this scenic circumnavigation of Bachelor Island begins on narrow, tree-lined waterways. First heading north for about a mile, then sharply turning south into Bachelor Island Slough, the route wends along the main unit of Ridgefield National Wildlife Refuge. Great blue heron, belted kingfisher and a host of other migratory and resident birds are likely to be seen along this stretch of the refuge, managed to protect habitat for waterfowl and other wetland wildlife. After two miles, the small slough meets the expansive, open-water Columbia. With Sauvie Island in the distance on the opposite shore, Bachelor's sandy beaches offer a glorious spot for lunch or lazing

about. Changeable weather and strong winds can result in dangerous conditions heading downriver. At the confluence with Lake River, a short paddle returns to the launch. The trip can be lengthened by crossing the Columbia to the north shore of Sauvie Island and a stop at Warrior Rock Lighthouse.

Reach 3: GUNKHOLING IN SCAPPOOSE BAY

Launch/Landing: Scappoose Bay Marine Park, OR. River Mile 89 (or a mile up Scappoose Bay from Multnomah Channel RM 2) Distance: 2-5 miles round trip Skill Level: Beginner Charts: NOAA 18524 ______ chart's descriptive name)______ Tide Tables: Pacific beaches with correction for ______.

Directions: Follow Highway 30 to the town of Warren, turn east on Bennett Rd. at milepost 25.8, then an immediate left on Old Portland Rd, then another half mile to the marina.

Description: Scappoose Bay is a gunkholer's paradise, an intricate web of wetlands and mostly unnamed creeks, tributaries and channels that meander and curve and switchback and slice through islands and veer into lakes and flow into each other -- or simply peter out, so tide tables should be carefully checked. The bay's watershed drains about 85,000 acres and has been identified as a major salmon and steelhead spawning and rearing area. Paddling in the bay is a sheltered float in protected waters amid the sights and sounds of myriad birds, including bald eagles, cormorants, and woodpeckers. Depending on the course, sights might include old farmhouses, pastures with grazing cows, logging pilings from yesteryear, expanses of arrow-leafed native wapato plants, or canopies of overhanging trees. The marina includes a convenience store and Scappoose Bay Kayaking, purveyors of kayaks and gear, food, rentals and guided tours.

Reach 4: TO HISTORIC ST. HELENS

Launch/Landing: Pixie Park, Oregon. River mile 84
Distance: 4-5 miles round trip (overnight option)
Skill Level: Intermediate
Chart: NOAA 18524, Columbia River: Crims Island to St. Helens
Tide Tables: Pacific Beaches with corrections for St. Helens, OR

Directions: Highway 30 to Columbia City. Turn east on First Street and follow it for four blocks to Pixie Park.

Description: Pixie Park's small gravel beach provides a gentle launch into the Columbia. Because this jaunt begins by paddling upriver, checking tide tables is a must. The city of St. Helens is only two miles upriver, but depending on wind and weather, the short distance can be a challenge. Out of the main shipping channel, this stretch poses an opportunity for watching the passage of international cargo ships from a safe vantage point. The town was likely named for the view of 8,364-foot Mount St. Helens, a volcano formerly 9,677 feet; steam plumes occasionally still rise from its crater. Boat tie-up is available at the city-owned public docks. A ramp leads up to the National Historic District, for a tasty brunch or a stroll past architectural treasures. Sand Island Marine Park, a short distance offshore, offers the opportunity for a detour or overnight stop. The park features nature trails and sandy beaches, and the upriver end of the island has an expansive view of rivers, channels, islands and the broad Columbia upriver.

Reach 4: BEYOND COFFIN ROCK

Directions: Scipio's Goble Landing boat ramp, 70360 Columbia River Highway (Highway 30)

Description: Dock houses line the floating walkway next to the boat ramp in the small town of Goble where from 1884 to 1908 the *Tacoma*, then the second largest ferry in the world, transported trains across the Columbia. One mile downriver is Coffin Rock, once an Indian burial place. A mile further is a geologic feature known as the Klatskanic Divide, where the topography dramatically changes. The western portion rises steeply to 1,500 feet while the eastern portion is a flat alluvial plane. Just beyond is the mile-long sandy Prescott beach, a Lewis and Clark campsite and today a favorite spot for windsurfing. Prescott faces the upriver end of Cottonwood Island across the river in Washington. This paddle continues along the Oregon shore for the island's 3-1/2 mile length. A careful crossing to the Washington side at the island's downriver point leads to the mouth of the Cowlitz River, a course upriver on Carroll's Channel behind the island, and a crossing back to Goble. A round trip between Goble and Prescott Beach is six miles. Another option is to launch at Prescott to circumnavigate Cottonwood Island.

Reach 5: DABBLING AROUND DIBBLEE ISLAND

Launch/Landing: Dibblee Point Beach Landing, Oregon. River mile 64 Distance: 1-5 miles round trip (overnight option) Skill Level: Beginner Chart: NOAA 18524, Columbia River: Crims Island to St. Helens Tide Tables:

Directions: A mile north of Rainier on Highway 30, turn right onto Rockcrest Street, then left of W. Rainier Dike Road. Follow the road as it turns into a network of primitive roads leading to a beach.

Description: Within view of the Lewis & Clark Bridge, Dibblee Island marks the transition between the industrial zones of Longview and Rainier and the more primitive islands and wild landscapes downriver. In the distance are steep-shouldered bluffs and 500-foot Mount Solo on the Washington side. Because the islands are close to the Oregon shore, they are out of the main shipping channel, offering more protected paddling. The two islands (actually they're one island officially known as Lord Island) are divided by a slough, with plenty of inlets for backwater exploring. Cottonwoods and other trees, and a vine maple understory, make for classic Columbia River islands, with the maples a brilliant red in autumn. Just downriver from Lord is Walker Island, where Lewis & Clark camped March 26, 1806. Clark wrote: "I saw some deer & Elk at a distance in the Prarie. we continued untill late in the evening and encamped on a Small Island near the Middle of the river haveing made 18 miles." For an overnight trip, primitive camping is permitted on the east, north and south sides of Lord Island. (RM 62.5 and 63)

Reach 5: ISLAND DRIFT

Launch/Landing: Abernathy Creek Boat Ramp, WA. River mile 54 Distance: 8 miles round trip (overnight option) Skill Level: Intermediate to Advanced Charts: NOAA 18523 and 18524 <u>chart's descriptive</u> <u>names)</u> Tide Tables: Pacific beaches with correction for <u>....</u>

Directions: From milepost 48 on Highway 4 (about 14 miles west of Kelso), turn north onto Abernathy Creek Road, then turn left and follow a dirt road to the launch. At low tide, launch the small beach at the mouth of the creek.

Description: Many islands of the lower Columbia appear to be surrounded by small isles that were once part of a whole. Three-mile-long Crims Island is such a site, with Gull Island and four small unnamed islands around it, and another two nearby in Bradbury Slough, making it an island "complex" with byways for exploration. Lewis & Clark called it "Fanny's Bottom," presumably after Clark's sister Frances. Beginning at Abernathy Creek Boat Ramp in Washington, this paddle route crosses the shipping channel for a circumnavigation around Crims, then a jaunt downstream past Oak Point to Quill Island before a return to the Abernathy ramp. In the late 1800's, Astoria was known as the "salmon canning capital of the world" and the area around Oak Point contributed to that catch, with about fifty horse-drawn seine net crews and hundreds of wooden fishing traps at work. Primitive camping is available on Quill Island.

Reach 6: SHELTERING SLOUGH

Launch/Landing: Skamokawa Boat Ramp, WA. River mile 32
Distance: 1-5 mile round trip, or overnight
Skill Level: Beginner
Chart: NOAA 18523, Columbia River: Harrington Point to Crims Island
Tide Tables: Pacific Beaches with correction for Skamokawa, WA.

Directions: From Interstate 5 north, Longview/Kelso exit, take Highway 4 west to Skamokawa. For the public boat ramp, turn left across Skamokawa Creek Bridge then south down Pleasant Point Road. Other launch options include the Skamokawa Paddle Center dock, and Vista Park beach.

Description: A web of waterways stream around the vicinity of the historic town of Skamokawa -- Elochoman Slough, Steamboat Slough, Brooks Slough, Skamokawa Creek, and Red Slough on Tenasillahe Island mid-river. Picturesque Brooks Slough, with its forested shores and mountain backdrop, is a protected waterway that can be traveled about two miles upstream to its mouth in the Julia Butler Hansen Columbia White-Tailed Deer National Wildlife Refuge. Skamowaka was known at the turn of the century as "Little Venice." Scattered along the north shoreline are small homes, docks, boats, buildings on stilts, and old pilings that give a flavor of the slough's past as a bustling river community. Black and White-tailed Deer and Roosevelt elk are observed year-round, and beavers and muskrats can often be seen. During low tides, sandbars and exposed logs can hinder travel. For overnight stays, camping is available at Skamokawa Vista Park, and lodging exists at the historic Skamokawa Inn.

Reach 6: INTO THE WILDERNESS

Launch/Landing: Knappa Docks, OR. River mile 28 Distance: 1-10 miles round trip Skill Level: Beginner to Advanced Charts: NOAA 18523 ______ chart's descriptive name)______ Tide Tables: Pacific beaches with correction for ______.

Directions: At milepost 82 on Highway 30, turn north and follow Knappa Dock Road for 1.5 miles.

Description: Knappa is the launching point for two very different paddling experiences, yet each with a feel of wilderness. The first, and more sheltered, is Blind Slough, about a mile upriver. The slough is a preserve of the Nature Conservancy, and the best remaining example in Oregon of a Sitka spruce swamp (some of the trees are 400 years old), once common in coastal estuaries from here to Alaska. Along the channels are wildflowers and dense thickets of willow, twinberry and nootka rose. Just across Knappa Slough from the launch is Karlson Island and the chain of dozens of estuary islands, bars, mud flats and tidal marshes that are part of the 35,000-acre Lewis and Clark National Wildlife Refuge. During peak northern migration in February and March, the refuge provides habitat for as many as 1,000 tundra swans, 5,000 Canada geese and 50,000 ducks. Access to these areas is also available by launching at Aldrich Point (OR, RM 30), John Day Boat Ramp (OR RM 18), or one of the three Skamokawa launches (WA RM 32).

Reaches 6 and 7: TWO RIVERS AND GRAY'S BAY

Launch/Landing: Oneida Boat Ramp, WA. River mile 22 Distance: 1-6 miles round trip (overnight option) Skill Level: Intermediate to Advanced Charts: NOAA 18523_____chart's descriptive name)_____ Tide Tables: Pacific beaches with correction for ______.

Directions: From milepost 10.8 on Highway 14, turn south onto Oneida Road and follow it for two miles to the boat ramp.

Description: With Gray's Bay to the north and Cathlamet Bay to the south, the Columbia is at its widest here, with grand, expansive views of the river and distant hills and bluffs. Rice Island, approximately 2-1/2 miles from the launch, is a dredge spoil island with acres of river sand. Vegetation is being established to deter caspian terns, whose colony was relocated because of their feeding frenzies on the estimated 100 million young salmon who linger in spring in this

zone of mixing salt- and freshwater. Deep River, Gray's River and its tributary Seal Slough all empty into the bay and offer tranquil, wildlife-rich paddling past valley meadows and forested shoreline, with homes, docks and fishing shacks along the lower reaches. In two-mile-long Seal Slough, snags of red cedar trees buried in an earthquake in January, 1700 are exposed. Camping is available at a private campground in Oneida. Gray's Bay is named for American Captain Robert Gray, who explored the mouth of the river in 1792 and named it for his ship, the *Columbia Rediviva*.

Reach 7: LEWIS AND CLARK'S LANDING

Launch/Landing: Netul Landing, Oregon. River mile 13, Lewis & Clark River Distance: 1-6 miles round trip Skill Level: Beginner Chart: NOAA 18521, Columbia River: Pacific Ocean to Harrington Point Tide Tables: Pacific Beaches (with correction for ____?)

Directions: From Astoria, take Alternate Highway 101 south, turn left onto Fort Clatsop Road; Netul Landing is approximately 1.5 miles beyond the Fort Clatsop site.

Description: Netul Landing is the heritage spot where The Corps of Discovery landed on December 7, 1805 to establish a winter encampment. Clark wrote, "this is certainly the most eligable Situation for our purposes." Now a part of the new Lewis and Clark National Historical Park, the landing features information kiosks, a bronze statue of Sacagawea, and a canoe/kayak boat launch into the Lewis and Clark River. A small waterway, with Saddle Mountain in the distance, it meanders north past woods and pastoral fields. Pilings, remnants of logging operations, jut from the water near shore. After about two miles downstream, the river widens considerably into the open waters of Young's Bay. Astoria and Smith Point are visible from the river's mouth. At low tide, Young's Bay becomes mudflats; tide tables should be consulted for optimum passage with tides and river current, since the return trip will head upriver. From the landing, a half-mile walking trail leads to Fort Clatsop.

Reach 7: OF TURNS AND TERNS

Launch/Landing: Port of Ilwaco, WA. River mile 3 Distance: 6 miles round trip (overnight option) Skill Level: Experienced Charts: NOAA 18521 ______chart's descriptive name)_

 Tide Tables: Pacific beaches with correction for ______.

Directions: From Highway 101 in Ilwaco, turn on Elizabeth Street and continue to the ramp at the mooring basin.

Description: Ilwaco is a small traditional fishing port with an 800-boat marina, sheltered in Baker Bay on the Long Beach Peninsula. It's the gateway to Fort Canby State Park and the Lewis & Clark Interpretive Center at Cape Disappointment State Park. In this bay, which they called "Haley's," Clark wrote that they were "in full view of the Ocian" and finally had achieved their goal of reaching the Pacific. In the center of the bay, from one to three miles from the launch, are two islands, West Sand and East Sand. West Sand, with its native dunegrass, has been proposed for designation as a national natural landmark. East Sand is the nesting site of nearly 10,000 breeding pairs of Caspian terns -- the largest colony in the world, as well as the largest colony of double-crested cormorants in the Pacific Northwest, about 8,700 pairs. Up to 10,000 brown pelicans have occupied the island, along with species of loons, grebes, gulls, and abundant shorebirds and waterfowl during spring and fall migrations. Visitors are not permitted on East Sand, but primitive camping is available on West Sand Island.

4. Stewardship

LEAVE NO TRACE

Every paddler has a responsibility to preserve the natural beauty, wildlife, habitats, and environmental integrity of the Columbia River. Minimum impact principles should be followed at all times. "Leave No Trace" means just that -- when you depart, the site should show virtually no sign that you were there. Begin with planning. Know your route, the regulations, learn about sensitive areas, and consider all that you'll need for a low-impact experience.

CAMPING

Travel in small groups, or divide larger parties into groups of four to six. Use existing campsites where available. In pristine areas, seek out sites where you'll create the least disturbance, away from vegetation, and keep campsites small. Protect riparian areas by camping at least 200 feet from the river. Avoid crushing plants or seedlings with your boat or shoes. Don't build lean-tos or benches, or dig trenches. Use biodegradable soap for bathing, and wash dishes with sand or gravel. Leave rocks and plants as you found them. When you break camp, take time to make sure that the site looks as natural as it did when you arrived.

FIRES

A lightweight stove for cooking and a candle lantern for light are preferable to a campfire, even in areas where fires are permitted. If you will have a campfire, use an existing fire ring or a site below high tide. Gather dry or downed deadwood taken from different locations, or pieces of driftwood. Keep fires small. Don't burn food scraps or plastic. Be sure the fire is completely out, then scatter the cool ashes in the river.

FISH AND WILDLIFE

Even unwittingly, paddlers have the potential to disturb wildlife and disrupt their behavior patterns. Move slowly and quietly, and observe wildlife from an ample distance, using binoculars or a long-lensed camera. Do not approach or try to follow them. Sometimes seals will pop up and watch or even follow a kayak. Stay where you are or paddle away in the opposite direction. Be aware of sensitive areas during mating and nesting seasons and avoid those habitats. Give bird rookeries a wide berth. Never feed wildlife; store food and trash securely. Control pets at all times, or leave them at home.

PACK IT IN, PACK IT OUT

Take all your trash home with you. Pick up litter -- yours, and what others may have left behind. Repackaging your food and removing excess packaging before you leave home will result in less trash. Store your garbage bag in a sturdy nylon stuff sack to keep it from tearing and spilling. Use toilet paper sparingly and pack it out. To keep from damaging plants, it's best to urinate in the river below high tide. Human waste can be buried in a cathole, dug six to eight inches deep and at least 200 feet from water, camp and trails. Another option is a threeto five-gallon waterproof container with a garbage-bag liner and tight-fitting lid or an easy-to-make "poop tube." In the U.S. it's illegal to deposit solid human waste into a river or ocean. Before leaving, inspect the campsite and rest areas for forgotten items, food scraps and litter.

5. Invasive Species

INVASIVE SPECIES

Fast-spreading aquative invasive plants and animals can damage marine ecosystems, even driving native species to extinction. Among the many dozens of destructive species that have threatened water resources around the country, three are of special concern: the aquatic weed hydrilla, the zebra mussel, and the mitten crab. They have not yet been found in Columbia River waters, and all boaters are encouraged to help prevent their spread. Before leaving a water body, inspect your boat and remove any plants and animals. At home, clean your boat to kill harmful species. Use high-pressure hot water if possible, or rinse thoroughly with a garden hose. Before launching again, air dry boat and equipment, preferably five days or more. Be extra cautious when boating in other states.

If you find an aquatic nuisance species, report it . In Oregon, contact the Oregon Department of Fish and Wildlife (503) 947-6000 or the Oregon Department of Agriculture Weed Control Division (503) 986-4621. In Washington,

6. River Etiquette

CONGESTION

Cargo ships, tankers, barges, fishing boats, sailboats, windsurfers, waterskiers, jetskiers, kayaks and canoes move up, down and across the river, in some places making for a crowded waterway. Paddlers should keep alert in congested areas, and be wary of fast-moving craft and their wakes. When paddling in a group, stick close together and keep to one shoreline.

"RULES OF THE ROAD"

Although the river is a busy marine highway with rules that give right of way to the boat on the right when two craft are on an intersecting course, it is generally safer for slower canoes and kayaks to concede right of way to bigger and faster craft. Keep far from commercial boats and large boats over 65 feet, which have right of way. Remember that pilots often can't see a small boat directly ahead, nor can they change course quickly to avoid a collision.

BOAT RAMP ETIQUETTE

Be courteous to fellow boaters. Boat ramps are primarily for power boaters and get crowded in good weather and during fishing seasons. If launching from a ramp, don't block the lane with vehicles, boats or gear. So that you can launch and land quickly, have your equipment organized before you pull up to the ramp.

FISHING AND HUNTING

Steer a good distance around the lines of people fishing from boats or from shore. During commercial gillnet season, paddle around the ends of the nets strung across the river. Be aware of local hunting seasons (generally fall and winter) and take proper care to avoid conflicts.

RESPECT LANDOWNERS

Assume that all property is private unless otherwise marked, and don't camp on private property without the owner's permission. All refuge lands are off-limits. Respect all No Trespassing signs.

SHORELINE OWNERSHIP

In Oregon and Washington, the beds and banks of the Columbia River and all other navigable waterways are publicly owned up to the ordinary high water or high tide line. All of Oregon's state-owned lands are open for recreation, including camping.

7. Safety

The rapid onset of high winds, fog, storms and other dramatically changing conditions on the lower Columbia can transform a seemingly easy paddle into a dangerous, and even life-threatening, situation. Be prepared for the worst scenario and make safety a priority when planning your trip.

HYPOTHERMIA

Sudden immersion in cold water can induce the dramatic lowering of body core temperature known as hypothermia, which can result in rapid breathing, cardiac arrest, unconsciousness, and death. In cold water, your extremities can feel numb in as few as five minutes and you can be hypothermic in twenty to thirty minutes. Dress for the water and consider wearing a wetsuit or dry suit during cold weather.

TRAINING AND SELF-RESCUE

Paddling lessons will help you learn how to use your strokes more efficiently and how to communicate on the water with paddle signals. Learn how to rescue yourself and others, and practice those techniques. Purchase and get proficient at using self-rescue aids like paddle floats. Take a first aid class. Learn the proper treatment of hypothermia.

TRIP PLANNING

Recognize your level of experience and look for trips that match your skills, knowledge, and fitness. Even if you're highly capable and in top condition, it's always prudent to paddle with others. Groups should travel close and make crossings together, keep in voice contact, and have someone volunteer as "sweep," responsible for keeping pace with the slowest paddler.

FLOAT PLAN

Leave a float plan with family or a friend -- make up your own or use the form on our website, <u>www.columbiawatertrail.org</u>. A float plan should include time

and launch place and expected return, route, and detailed descriptions of boats. Be sure to notify the person when you return.

WEATHER CONDITION CHECKS

Columbia River weather is notoriously unpredictable and conditions can rapidly change. Always check the local weather forecast before you go. You can get weather conditions from the television, local radio, Coast Guard radio, or one of the weather channels on a VHF radio. River flow can be checked at <u>http://or.water.usgs.gov</u>

LIFE JACKETS

Wearing a life jacket at all times on the water is your biggest safety asset -- it will help you survive should you capsize. In both Oregon and Washington, boaters are required to have one Coast-Guard approved life jacket per person on board, and children 12 and under are required to wear life jackets on boats that are underway.

SIGNAL DEVICES

All boats are required to show a white light in dusk, dark or fog. For paddling boats, a flashlight is acceptable. Other useful signaling devices are flares, dyes, glow sticks and signal mirrors. A VHF radio or cellular phone could be used to call for help but may not be reliable in all locations.

EQUIPMENT LIST

- □ Life jacket
- Sunglasses
- □ Whistle
- □ Rain and wind protection
- \Box Extra clothes
- Pump
 First Aid kit
- Drinking waterNautical charts
- □ Maps
- Repair and tool kitPlenty of food
- □ Tide Tables
- □ Pocketknife

- □ Waterproof matches
- \Box Extra ropes
- □ Flashlight
- \Box Compass
- □ Cell phone/VHF radio
- \Box Hat with brim
- \Box Dry bags

SPECIAL COLUMBIA RIVER CAUTIONS Dredging Operations

Stay well outside of dredging setups, which include a large pipe on floats that may extend a mile or more. Yellow floating tanks mark the outside perimeter. The dredge barge and small way stations may be visible from a distance.

Sand Overhangs

Avoid sand overhangs, common along the river on islands made of dredge spoils that have eroded. While they look like appealing places to take shelter, their sudden collapse has caused a few deaths in recent years.

8. Disclaimer

Conditions on the lower Columbia River can vary dramatically, from calm with clear skies to fog, cold, high winds and three-foot whitecaps. The descriptions in these Paddling Maps cannot predict the water and weather conditions that you will find for your trip. You and your party assume all risk and responsibility for your own safety.

Always carry appropriate NOAA nautical charts. The Paddling Maps are accurate but should not be used for navigation because they cannot include the detail required for safe passage. USGS topo maps, which depict the surrounding landscape, are an additional aid.

9. Hazards

The Columbia is a mighty river, by volume, the second-largest in North America. Its lower stretches capture the powerful flow of its thousand-mile length. Unpredictable weather, winds gusting across an expansive surface and heavy commercial shipping traffic create a unique brew of paddling hazards.

River **current** and **tides** are dynamic forces. Ebb tides increase the speed of the river downstream, while incoming tides can reverse some of the lower river's direction everywhere except in the main channel. Navigation is befuddling as islands disappear under a high tide. At low tide, boats are easily stuck in the soft mud, while high tides can wash away boats. Columbia River **winds** are notorious, known to swiftly transform a glassy surface into huge whitecapped waves. Afternoon and evening winds generally blow upriver in summer, downriver in winter. **Fog** obscures landmarks and dangerous river traffic. Winter **water temperature** is below 50 degrees Fahrenheit. Tankers, cargo ships and barges ply the **shipping channel**, moving with surprising speed and quiet. Wakes can be dangerous. Perilous obstructions to be avoided include **wing dams** (row of pilings often submerged), **deadheads** and **strainers** (trees, stumps and branches in the water.) Boats can be pinned, or capsized.

10. Resources

PADDLING CLUBS

Lower Columbia Canoe Club: <u>www.l-ccc.org</u> Oregon Kayak and Canoe Club, <u>www.okcc.org</u> Oregon Ocean Paddling Society: <u>www.oopskayak.org</u> Scappoose Bay Paddling Association: <u>scappoosebaypaddlingassociation@yahoogroups.com</u> Southwest Washington Canoe Club: Box 714, Kelso, WA 98626 Washington Water Trails Association: <u>www.wwta.org</u>

WEATHER RESOURCES

National Oceanic and Atmospheric Administration (NOAA) (503) 261-9246

EMERGENCY CONTACT RESOURCES

U.S. Coast Guard: 1-800-982-8813, or 9-1-1

PARKS AND TOURISM

Oregon Parks and Recreation: 1-800-551-6949 <u>www.prd.state.or.us</u> Washington Parks and Recreation: (360) 902-8844 www.parks.wa.gov.

LOCAL CHAMBERS OF COMMERCE (for towns accessible from the river)

N. Bonneville, Skamania County: <u>http://66.175.50.194</u> Camas -Washougal: <u>www.cwchamber.com</u> Troutdale: <u>www.troutdalechamber.org</u> Vancouver: <u>www.vancouverusa.com</u> Portland: <u>www.portlandalliance.com</u> Ridgefield: <u>www.businessfinance.com/coc.asp?id=5595&zip=98642</u> St. Helens/Scappoose: <u>www.shschamber.org</u> Woodland: <u>www.lewisriver.com/woodlandchamber/</u> Kalama: <u>www.lewisriver.com/woodlandchamber/</u> Kalama: <u>www.cityofkalama.com/chamber</u> Rainier: <u>www.rainier97048.org/busin/cc/chamber.htm</u> Kelso-Longview: <u>www.kelsolongviewchamber.org/4_6html</u> Clatskanie: <u>www.clatskanie.com/chamber</u> Skamokawa: <u>www.wahkiakumchamber/com</u> Astoria-Warrenton: <u>www.oldoregon.com</u> Ilwaco-Ocean Park: <u>www.opwa.com</u>

11. History

A GREAT SWEEP OF HISTORY

In the 12,000 years since the Missoula Floods of the last Ice Age scoured the river's channel, the Columbia has been a pathway for a great sweep of history. Finely crafted Native American canoes coursed up and down this liquid highway, making it one of the main Indian trade routes in the northwest. Captain James Cook and Robert Gray told the world of their river discoveries. The expedition of Lewis and Clark literally put the lower Columbia River on the chart. The explorers named many of its sites, described species of birds, plants and animals new to science, and their voyage ultimately set America's destiny of becoming a continental nation. Commerce and settlers followed. French voyageurs in their high-prowed bateaux sought beaver and other furs to trade. Intrepid pioneers ventured downriver on crude rafts and flatboats. Steamboats transporting gold-seekers spurred the development of roaring lively steamboat towns. In the heyday of salmon fishing, dozens of canneries operated along the waterfront. Dams and development have given shape to today's industrial, agricultural, and recreational waterway, while traces of the river's rich and colorful past are still evident in many places along its shores.

SITES

HAMILTON (STRAWBERRY) ISLAND (Reach 1)

Hamilton Island is no longer an island, but a curve of the shoreline. When Lewis and Clark paddled upriver here on April 9, 1806, they called it "Straw berry" Island and found the first of a series of rapids where they "could not pass with the large Canoes." They encountered a village where natives were "rebuilding their habitations of bark" and surmised, "it is most probable that they only reside here dureing the Season of the Salmon."

COTTONWOOD BEACH (Reach 1)

This mile-long beach area was the defining boundary between the lower and upper Chinook tribes. Lewis and Clark noticed the beach on November 3, 1805 on their downriver journey, and the main party camped here and gathered provisions during their return, from March 31 to April 5, 1806. It was voted on to be a place of winter camp, but lost out to the location of Fort Clatsop. Today the beach is a major regional park, popular for swimming and picnicking.

VISTA HOUSE AT CROWN POINT (Reach 2)

Not a paddle destination, Vista House towers 733 feet above the river, and is the most photographed icon of the Gorge. The sandstone, stained glass and marble structure was built in 1916-18 as a memorial to Oregon pioneers and a comfort

station for intrepid travelers on the historic Columbia River Highway. Engineer Sam Lancaster suggested the site, where the Gorge "could be viewed in silent communion with the infinite."

FORT VANCOUVER NATIONAL HISTORIC SITE (Reach 2)

Established in 1825, Fort Vancouver served as headquarters and main supply depot for the Hudson's Bay fur trading company. Known as "New York of the West," the fort thrived as a center of exploration, politics, culture and settlement. Beginning in 1849 with the construction of the Barracks and Officers' Row, the site became the first American military post in the Pacific Northwest. The site is approximately one half mile from the river

BURLINGTON NORTHERN TRAIN BRIDGE (Reach 2)

Just downriver from the Interstate 5 highway bridge, the "North Bank Bridge" was constructed in 1906 by the Spokane, Portland and Seattle railway. The train bridge brought about the end of the rail-car ferry that traveled between Kalama, WA and Goble, OR. Its swing span to open for river traffic is 467 feet. Today's Burlington Northern creates a corridor between Vancouver, B.C. and San Diego, CA.

WARRIOR ROCK (Reach 3)

In 1792, Lieutenant William Broughton was sent by Captain George Vancouver to survey the Columbia River for the British Admiralty and he reached the rocky northern shore of Sauvie Island. Twenty-three canoes bearing 150 warriors from the island arrived, welcomed the explorer and stayed to trade, and the rock still bears the name of that occasion.

PORT OF LONGVIEW (Reach 5)

Long before the city of Longview and its port were established, loggers were sawing trees into lumber and using the Columbia River for transport. Oceanworthy log rafts, held together with as much as 250 tons of chains, were typically about 1,000 feet long. Log rafts moved the felled trees as far away as San Diego, CA, circumventing the high cost of railroads or ocean barges. Today log rafts still transport logs on the Columbia River to mills.

ABANDONED HISTORIC COMMUNITIES (Reach 6)

Nearly 30 small logging and fishing communities once lined the shores of the Columbia's lowest reaches; today most are gone. Something of their past forgotten lives can still be seen in ruined pieces of old docks, piers and pilings, glassless windows of deserted buildings, sagging warehouses, weathered shops, and rusting corrugated roofs.

KNAPPTON COVE HERITAGE SITE (Reach 7)

"Ellis Island of the Columbia River," the 1899 Quarantine Station was one of four points of entry on the west coast housing emigrants who arrived by passenger ship and possibly carried disease. Until it closed in 1938, thousands of immigrants were quarantined, and vessels were fumigated. Most of the original buildings remain and the site, on the eastern shore of the cove, is listed on the National Register of Historic Places. Open 1-4 pm Saturdays all summer. [Chris, I got this from a recent Oregonian article but sent an email to Karen asking her exactly what she'd like us to say and also about accessibility from the river.]

LEWIS AND CLARK NATIONAL HISTORIC PARK (Reach 7)

Significant sites from Lewis & Clark's arrival at the Pacific are included in this new national park: a replica of Fort Clatsop in Oregon, where the Corps of Discovery spent the winter of 1805-1806; in Washington, "Dismal Nitch," a campsite where the expedition was pinned down by storms for five days; and "Station Camp," where they took the historic vote that included the black slave York and the woman Sacagawea of where to stay the winter.

12. Culture

NAUTICAL AND HUMAN HERITAGE

What was it like, the Columbia River of the past? Sites all along the river feature exhibits that display the essence and the artifacts of much of the river's nautical and human heritage, and the work of its future preservation. Museums, libraries and historical societies are housed in architectural gems -- a mansion, a courthouse, even a floating lighthouse, *The Lightship Columbia*. Among the cultural attractions are Bonneville Dam Visitor Center, Prindle Schoolhouse, Columbia Gorge Historic Highway, Skamania County Historical Society Museum, Columbia Gorge Interpretive Center, Multnomah Falls Lodge, Vista House at Crown Point, Hood River County Historical Museum, Clark County Historical Museum, Columbia Springs Environmental Learning Center and Fish Hatchery, Abernathy Cemetery, Knappton Cove Heritage Site, Ilwaco Heritage Museum, Fort Canby and the Lewis & Clark Interpretive Center featuring work by Maya Lin and the Discovery Trail to hike in Clark's footsteps. Check websites for these places to learn about the exhibits, films, tours and other experiences that tell the stories of the lives and livelihoods of the people who have resided along the Columbia River for thousands of years.

SITES:

BONNEVILLE LOCKS AND DAM (Reach 1)

The oldest dam on the Columbia, Bonneville's construction from 1933 to 1937 brought much-needed jobs during the Depression, and its operation today provides hydropower and river navigation. A visitor complex (accessible only from the road) includes exhibits, a fish hatchery, observation desk, and viewing sites of the fish ladders, where 7,000 to a million adult salmon and steelhead migrate upstream.

VANCOUVER WATER RESOURCES EDUCATION CENTER (Reach 2)

Set amid 50 acres of wetlands with habitat for more than 120 species of fish and wildlife, the Center provides environmental education to teach people to better care for and make wise decisions about water. Exhibits include interactive activities, the White Sturgeon Art Gallery and live sturgeon in a 350-gallon aquarium. The balconies offer a panoramic view of the Columbia River.

HISTORIC ST. HELENS, OREGON (Reach 4)

St. Helens is a quaint, picturesque town with a heritage of logging and fishing. The downtown area is a National Registered Historic District and includes the County Courthouse and the Columbia County Historical Museum, along with other buildings more than a century old.

WESTPORT FERRY (Reach 5)

The Wahkiakum went into service in 1961 and is still in use today -- the last ferry on the lower Columbia River. The ferry runs from Westport, OR to Puget Island, WA, seven days a week, 365 days a year, once an hour in each direction from approximately 5:00 am to 10:00 pm. Check <u>www.cwcog.org/ferry.html</u> for current rates and schedule.

PORT WESTWARD (Reach 5?)

Site of the Beaver Ammunition Depot during World War II, the Port served as a major army shipping point for the Pacific Theater of operations. Today Port Westward is an industrial park, not accessible from the river. A Portland General Electric gas-fired power plant is scheduled to begin operation in 2007. Steam generator modules for the facility, weighing as much as 200 tons, were shipped from South Korea via cargo vessel and barge to the site.

SKAMOKAWA (Reach 6)

"Smoke on the Water," the Chinook Indian words for fog, aptly describes today's historic community. A former riverboat town frequented by sternwheel steamboats, many buildings from the 1800s are still standing. The River Life Center, with exhibits that depict local history, is housed in an 1894 Queen-Anne style schoolhouse.

DUCK SHACKS (Reach 6?)

Throughout the maze of islands in the Lewis & Clark National Wildlife Refuge -where even primitive camping is not permitted -- are small colonies of duck shacks. The structures have a unique history. Grandfathered-in when the area became a refuge, some of these remnant duck shacks have been in the same families for a hundred years. All are located in the back channels to avoid the rock-and-roll water of commercial ship traffic wakes.

ILWACO HERITAGE MUSEUM (Reach 7)

The museum focuses on the lower Columbia's north shore and includes an art gallery, photo archive and research library. Several courtyard displays feature exhibits including an Ilwaco Railroad and Navigation Company narrow gauge Pullman Palace car from 1890 and the former Ilwaco depot of the IR & N railroad.

COLUMBIA RIVER MARITIME MUSEUM (Reach 7)

A treasure trove of the river's history of shipwrecks, lighthouses, fishing, navigation and naval enterprise can be found in this museum, with a roof designed to resemble ocean waves. Besides the library and research center, exhibits include a 44-foot motor lifeboat, *Old Dynamite*; a floating lighthouse, *The Lightship Columbia*; a working towboat wheelhouse, and the troller *Darle*.

ASTORIA WATERFRONT (Reach 7)

A few fish-packing plants are the last remnants of Astoria's historic salmon canneries. Today the waterfront has been revitalized with seafood restaurants, a 3-mile riverwalk popular for strolling and bicycling, hotels, shops, and a maritime museum. A restored 1913 trolley offers 40-minute tours along the riverfront. Piers and docks are prime sea-lion-watching locales.

13. Nature/Environment

THE NATURE OF THE LOWER COLUMBIA

With its national wildlife refuges, wildlife areas, sanctuaries, city and state parks and greenways, and its significant location on the Pacific Flyway, the Columbia is host to hundreds of species of resident and migratory birds, fish, mammals and other wildlife. Riverside forests, fields, wetlands, marshes, and riparian areas provide excellent year-round habitat . A number of threatened and endangered species depend on the lower Columbia, including the bald eagle and peregrine falcon, northern spotted owl, marbeled murrelet, brown pelican, western pond turtle, and species of fish including steelhead, bull trout and salmon. A paddle most anywhere on the Columbia is likely to offer sightings of a multitude of wildlife, whether a solitary heron winging past, otter scampering on shore, osprey diving to catch a fish, turtle sunning on a log, deer cautiously watching from behind a tree, or great flocks of birds like sandhill cranes, snow geese or trumpeter swans soaring overhead. Restoration projects throughout the river's length have improved thousands of acres of habitat and purchased islands and critical shorelines to establish connectivity of habitats and thriving ecosystems.

SITES:

WATERFALLS OF THE COLUMBIA GORGE (Reach 1)

Countless waterfalls, named and unnamed, descend over the Gorge's steep basalt cliffs. They're classified in eight basic forms: plunge, horsetail, fan, cascades, punchbowl, block, tier and segments. The most famous waterfalls that can be seen from the river include Horsetail (176 ft), Multnomah (the second highest year-round waterfall in the country at 620 ft), Shepherds Dell (upper, 35-50 ft; lower 40-60 ft) and Wahkeena (242 ft). All four are located in Oregon between river miles 136 and 130.

SANDY RIVER DELTA (Reach 1)

At the confluence of the Sandy and Columbia Rivers, 1,400 land acres are managed by a collaboration of federal, state and local government agencies. Historically the delta was a braid of ponds, sloughs, bottomland woods and floodplains, but has been greatly altered by agriculture, the hydropower system, and invasive plant species. A landscape restoration plan aims to reestablish 600 acres of riparian forest and 200 acres of wetlands.

STEIGERWALD NATIONAL WILDLIFE REFUGE (Reach 2)

The refuge protects more than a thousand acres of historic lakebed and river bottomland and supports a variety of wildlife including bobcats, red foxes, minks and more than 180 species of birds. While closed to the public, visitors can enjoy viewing refuge wildlife from the Columbia River Dike Trail that extends two miles from Captain William Clark Park at Cottonwood Beach past Steigerwald Lake to Point Vancouver.

WOOD'S LANDING (Reach 2)

Four parcels make up the Woods Landing Preservation Project, a site that is one of the last three remaining spawning grounds in the lower Columbia basin for chum salmon. The parcels were conserved through major efforts of the Erskine Biddle Woods family, Columbia Land Trust, community partners and grassroots fund-raising. As many as 1,000 adult chum, listed as threatened under the Endangered Species Act, spawn each fall at the Landing.

SHILLAPOO WILDLIFE AREA (Reach 3)

Known as a "heron hot spot," Shillapoo hosts an active heron colony with approximately 100 nests. The area is located within the Vancouver Lake lowlands, comprised of agricultural, pasture, wetland and riparian habitat. With an emphasis on wetland restoration, the site provides wintering and resting habitat for Canada geese, sandhill cranes, bald eagles and many other species.

RIDGEFIELD NATIONAL WILDLIFE REFUGE (Reach 3)

The refuge's 5,150 acres are divided into units that preserve the natural Columbia River floodplain, and maximize habitat for waterfowl and other wetland wildlife. Red-tailed hawks and great blue heron are among the year-round residents, while migration brings thousands of shorebirds and songbirds. The cedar Cathlapotle plankhouse (on Gee Creek but not accessible by boat because of fallen logs) commemorates the ancient village of the Quathlapotle Nation, which had 900 inhabitants and 14 plankhouses at the turn of the 19th century.

CRIMS ISLAND (Reach 5)

Columbia white-tailed deer is a species so rare it was once thought to be extinct. Crims, a 600-acre island close enough to the Julia Butler Hanson National Wildlife Refuge that deer can swim to it, was purchased by the Columbia Land Trust to turn the acreage over to the refuge. Funding came from the Bonneville Power Authority to help restore important salmon runs in the island's backwaters.

FOX CREEK (Reach 5)

Through the efforts of Friends of Fox Creek, founded by the Rainier Elementary School PTA, a 550-foot culvert was removed to daylight the stream through downtown Rainier to its confluence with the Columbia, returning it to a habitat suitable for salmon spawning and rearing. Another 300 feet was daylighted through the school's playing field and a draft curriculum was created to incorporate the stream in science studies.

BLIND SLOUGH SWAMP (Reach 6)

The best remaining example of a Sitka spruce swamp remaining in Oregon, Blind Slough is a nearly 900-acre preserve protected by The Nature Conservancy. Sitka spruce, some of which are 400 years old, are part of an overstory including western red cedar and western hemlock. The swamp provides habitat for bald eagles, osprey, beaver, river otter and coho salmon. May, June and September are the best times to visit; the refuge is closed February, March, July and August due to nesting and fledging bald eagles.

TWILIGHT EAGLE SANCTUARY (Reach 6 or 7)

Bald eagles live in the sanctuary year-round, with 30 to 35 active nests. A roadside viewing platform looks out over the tidal marshes, mudflats and

islands of the 35,000-acre Lewis & Clark National Wildlife Refuge. In addition to bald eagles, the refuge is habitat for harbor seals, river otters, minks, shorebirds, raptors, and an estimated 1,000 tundra swans in winter.

14. Other Information

AIDS TO NAVIGATION

Know how to read waterway markers. Buoys depicted on marine charts are like road signs, identifying your location and the safe boundaries of the shipping channel. When moving downstream, green can-shaped buoys mark the right edge of the channel, while red cone-shaped ones mark the left. Buoys are also valuable for predicting where larger vessels will travel so you can keep clear of them. Orange range markers on land indicate safe passage for ships and barges; two aligned markers indicate the shipping channel.

(Symbol for green "can" buoy) Green buoy, left of channel (Symbol for red "nun?"/cone buoy) Right buoy, right of channel

MARINE CHARTS AND TOPO MAPS

For accurate navigation, use both marine charts and topo maps. Charts show the undulations of the coastline in detail, as well as underwater rocks, mud flats, aids to navigation and details like powerlines and bridges. Maps are better at showing the landscape's elevation contours such as valleys and mountains, plus the location of towns, roads, houses and other structures, and hiking trails.

Reach 1: NOAA #18531, Columbia River: Vancouver to Bonneville
Reach 2: NOAA #18531, Columbia River: Vancouver to Bonneville
#18525 Columbia River: St. Helens to Vancouver
#18524 Columbia River: Crims Island to St. Helens
Reach 3: NOAA #18524 Columbia River: Crims Island to St. Helens
Reach 4: NOAA #18524 Columbia River: Crims Island to St. Helens
Reach 5: NOAA #18524, Columbia River: Crims Island to St. Helens
#18523 Columbia River: Harrington Point to Crims Island
Reach 6: NOAA #18523 Columbia River: Crims Island to St. Helens
#18521 Columbia River: Pacific Ocean to Harrington Point
Reach 7: NOAA #18521 Columbia River: Pacific Ocean to Harrington Point