

BOATING GUIDE



TO THE

Lower Columbia & Willamette Rivers

The Oregon State Marine Board is Oregon's recreational boating agency. The Marine Board is dedicated to safety, education and access in an enhanced environment.

The Extension Sea Grant Program, a component of the Oregon State University Extension Service, provides education, training, and technical assistance to people with ocean-related needs and interests.

As part of the National Sea Grant Program, the Washington Sea Grant Marine Advisory Services is dedicated to encouraging the understanding, wise use, development, and conservation of our ocean and coastal resources.

The Washington State Parks and Recreation Commission acquires, operates, enhances and protects a diverse system of recreational, cultural, historical and natural sites. The Commission fosters outdoor recreation and education statewide to provide enjoyment and enrichment for all and a valued legacy for future generations.

SMB 250-424-2/99
OSU Extension Publication SG 86

First Printing May, 1992
Second Printing November, 1993
Third Printing October, 1995
Fourth Printing February, 1999
Fifth Printing September, 2003
Sixth Printing June, 2007

Extension Service, Oregon State University, Corvallis, Lyla Houglum, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture and Oregon counties.

The Extension Sea Grant Program is supported in part by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

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*Lower Columbia
&
Willamette Rivers*

Jointly Published by:

Oregon State Marine Board
Oregon State University Extension Sea Grant Program
Washington Sea Grant Marine Advisory Program
Washington State Parks

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PREFACE

As a self-appointed river explorer, historian and philosopher is the way you should travel the lower Columbia and Willamette rivers. That, anyhow, is the way I encourage you think of yourself as you cruise these waters in powerboat, sailboat, skiff or canoe.

The rivers are yours to discover places, waterways and islands you have not seen. This book will help you to seek out those places, to see what lies down the wandering backwater slough, to know what lies on the other side of the island and around the point. In doing so, you must occasionally leave the safety and security of the main channel. Unexpected encounters with snags, mudbanks and sandbanks might occur, but with caution, such hazards can be avoided.

The boat in which I gathered notes for this book draws less than a foot of water and sometimes in going where only the curious go, my boat ran aground. A push, a pull, a little patience, wet feet and a missed social event were the nominal price I paid for many wonderful and memorable adventures on the rivers.

My disclaimer is this: the charts and your own judgement must be your final authority. You follow the author at your own risk.

A general outline of history adds much to the cruise. Therefore, this book includes a brief historical overview of the rivers and some of the place names along their shores. The larger story is that the Columbia and Willamette rivers are the life streams of our region, its history and its future.

As for philosophy, I think the runaway-rogue Huckleberry Finn said it just right as he described dawn on the river as he floated down the Mississippi on his raft.

“Not a sound anywhere – perfectly still – just like the whole world was asleep...then a pale place in the sky; then more paleness spreading around; then the river softened up away off, and warn’t black any more, but gray...it was so still, and sounds came so far...and you see the mist curl up off the water, and the east reddens up...and next you’ve got the full day, and everything smiling in the sun, and the song-birds just going it!”

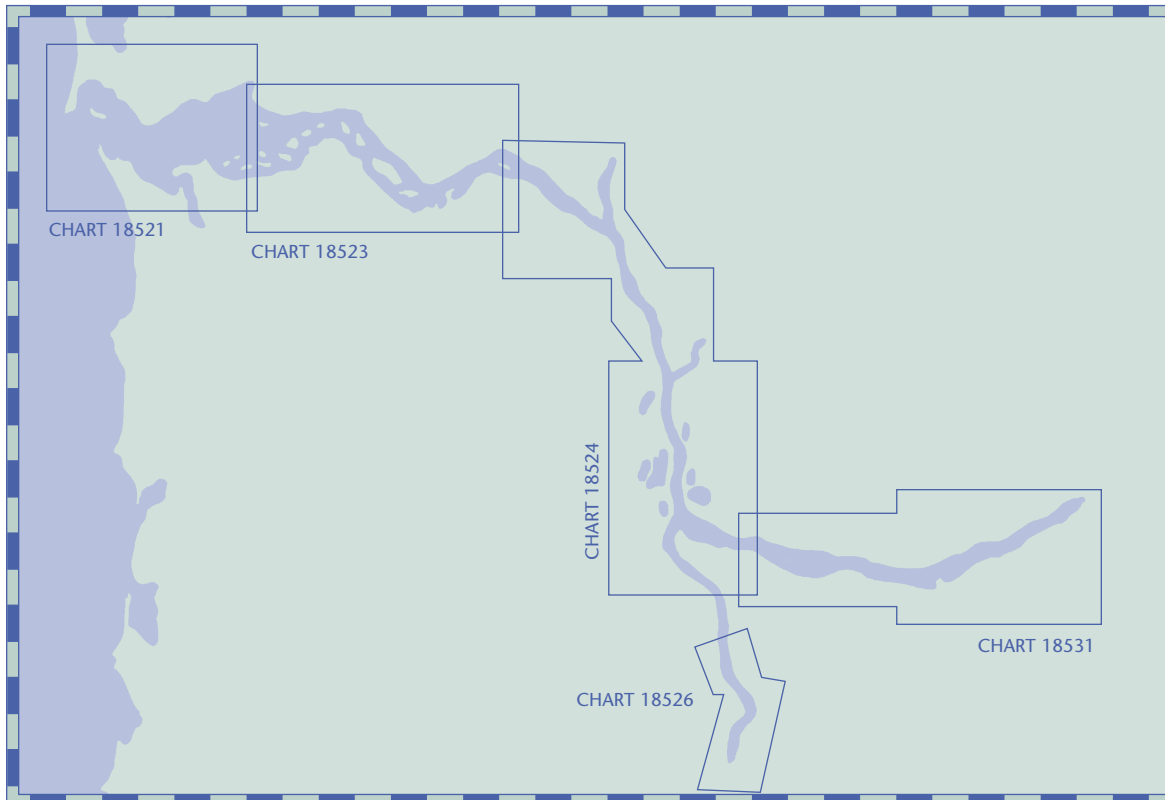
To the Huckleberry Finn in all of us, I dedicate this book.

Sam McKinney
Columbia River Heritage Program
Oregon Historical Society
January 1992

Cover: Puget Island

CONTENTS

How to use this book	iii	Willamette Mouth to Oregon City.....	17
Columbia Mouth to Harrington Point.....	1	River Hazards and Conditions	20
Harrington Point to Crims Island	5	Underway	22
Crims Island to St. Helens.....	9	High Water, Low Water	24
St. Helens to Vancouver	11	Understanding the Chart	24
Vancouver to Bonneville Dam	14	Clean Boating Practices	26
		Fishing the Columbia River.....	28
		<i>by Tom McAllister</i>	
		River History	32



This book is laid out in six sections that cover the Columbia River to Bonneville Dam and the Willamette River to Oregon City. Each section is tied to the marine chart of the area it covers. Note: **The maps in the book are for information only and should not be used for navigation.** The book reads “upstream” on both rivers. Additional sections carry information of general cruising interest and a short profile of Columbia and Willamette river history.

Various terms used throughout the book are defined on pages 24 and 25. Some include:

“Navigation aids” are the lighted and unlighted buoys and other markers placed along the river to mark channels, shallow areas and locations.

“Miles” are statute miles, not the nautical mile.

“Stages of high water (and low water)” relate to water levels in the rivers as affected by tides and annual floods.

“Shallow draft boats” is a relative term. Here, it refers to the safe draft of a boat powered by an outboard engine, a small boat powered by an inboard-outboard engine, and a centerboard sailboat.

Shoreside services and attractions mentioned in the book are all within short walking distances from docks and marinas. Major boat facilities are mentioned in the text but not all facilities along the two rivers are indicated. For a full listing of boating services and facilities, refer to the OREGON BOATING FACILITIES GUIDE, available without charge from the Oregon State Marine Board, P.O. Box 14145, Salem, OR 97309-5065. www.boatoregon.com.

MOUTH OF THE COLUMBIA TO HARRINGTON POINT

For Navigating, refer to NOAA Chart No. 18521
Distance, 24 Miles

More like an inland arm of the sea than a river, this wide and open section of the Columbia is dominated by the weather, the tides and the mood of the ocean. Here, the Columbia reaches its widest point, 9 miles between Miller Point in Grays Bay and Settler Point in Cathlamet Bay. This wide river section, however, is deceptively shallow over much of its area with the shoals of Desdemona Sands and Taylor Sands comprising a wide, shallow area between the Oregon and Washington shores.

Three large bays in this area – Youngs, Grays and Cathlamet – are also largely shoal, but their various marked channels offer interesting side cruises. Four navigable rivers enter this section of the Columbia: the Lewis and Clark, Youngs River, the John Day and Deep River.

For general advice and suggestions for crossing the Columbia River bar, refer to **BOATING IN OREGON COASTAL WATERS**, published by the Oregon State Marine Board.

Beginning at the mouth of the Columbia, this river area is described in three sections: One, main shipping channel from the mouth of the Columbia to Harrington Point. Two, John Day and South Channel from Tongue Point to Settler Point. And, three, the Washington shore from Ilwaco to Harrington Point.

Caution area: Wind, tide and waves at the mouth of the Columbia River can create extremely dangerous conditions. Boaters should exercise extreme caution in this area and show proper regard for approaching weather conditions and the time and direction of the tides. Boaters should also be aware of the high rise and fall of tides in this river area (as much as 12 feet during extreme winter tides) and avoid mooring to non-floating structures.

Main Channel:

River Mouth to Harrington Point

Distance, 24 Miles

The main channel inward from the mouth of the river follows along the Oregon shore. It is well marked with red and green lighted buoys.

Desdemona Light, 23 feet high, and 8 miles from the mouth of the river and 6 miles downstream from the Astoria-Megler Bridge, marks the lower end of **Desdemona Sands**. You can safely cross between the Oregon and Washington shores downstream from this prominent beacon.

Hammond (now a part of Warrenton), the most northwesterly Oregon city, has a well protected mooring basin that provides a launching ramp, fuel and overnight moorage. Lighted aid 1 marks the entrance to the basin. A memorial dedicated to the sailors and fishermen who have lost their lives on the Columbia River Bar is planned.

Warrenton extends to the south end of the **Skipanon Waterway**. Lighted aids 3 and 4 on pilings mark the entrance to the channel leading to the mooring basin where full marine services and supplies are available, including a marine sewage pumpout. Stores and restaurants are within walking distance of the moorage.

Up-to-date boating, fishing, and weather information is broadcast on 1610 AM, 24 hours daily in the Hammond/Warrenton area.

Shallow **Youngs Bay** lies between the Skipanon Waterway and Astoria. Lighted aid 2 stands at the opening of the dredged channel that leads across the bay to **Youngs River** and the **Lewis and Clark**

River. The bridge across Youngs Bay clears 45 feet and lifts to clear 80 feet. The dredged channel turns eastward at lighted aid 6 and leads to **Youngs River**. The bridge across the entrance to Youngs River clears 24 feet closed. The **Astoria Yacht Club** and launching ramp are located immediately upstream from the bridge on the north shore. Log rafts in Youngs River provide moorage for overnight tie-up.

The buoyed channel to the **Lewis and Clark River** branches off the dredged channel across Youngs Bay at unlighted buoy 4 and follows a line of unlighted buoys to the mouth of the river. The opening bridge over the Lewis and Clark River clears 25 feet closed. Log rafts in the river provide moorage for overnight tie-up.

Note: There are no closed hours for the three drawbridges in Youngs Bay. However, an advance call of 30 minutes is required to open any of the three spans. Call on VHF channel 13.

Astoria is a major cruising destination in the lower Columbia. **West Mooring Basin** lies a short distance downstream from the Astoria-Megler Bridge. There is a marine sewage pumpout at this location. Fuel and overnight moorage are provided and restaurants are within walking distance. A launching ramp is located in **East Mooring Basin**, 2 miles upstream from the bridge. A transient moorage has been developed on the Astoria waterfront in front of the Columbia River Maritime Museum. This moorage places the historic features and attractions of downtown Astoria within easy walking distance for visiting boaters. These attractions include the Columbia River Maritime Museum, the site of old Fort Astoria, the Flavel House, the Clatsop County Historical Museum, and a walking tour route of the city's working waterfront and historical homes.

The main shipping channel follows a line of lighted buoys between Astoria and **Harrington Point**. To the north of the channel lies the shoal area of the **Taylor Sands** and to the south lie the shallow area and low marsh islands of **Cathlamet Bay**.

John Day and South Channels: Tongue Point to Settler Point

Distance, 6 Miles

Depending on your direction of travel, the John Day and South Channels can be the entrance or the exit from the secondary channels that follow along the Oregon shore of the Columbia between Tongue Point and Puget Island. With time, caution and close reference to the charts, this alternate route is considerably scenic with historic interest. It also provides a protected upriver or downriver passage when wind, waves and tide make cruising conditions on the main channel uncomfortable or difficult.

John Day Channel runs north and south behind Tongue Point and past the mouth of the **John Day River**. A launch ramp is located on the John Day River less than a mile in from the river mouth on the west shore. The railroad bridge across the river is normally open except during the passage of the trains. **Mott and Lois Islands** lie along the eastern edge of the John Day Channel. A deep-water bay lying between the two islands provides a protected anchorage. John Day Channel becomes **South Channel** upstream from the John Day River and carries this name to **Settler Point** where it intersects with **Prairie Channel** (Refer to NDAA Chart No. 18523, Harrington Pt. to Crims Is., for information on Prairie Channel above Settler Point).

Washington Shore: Ilwaco to Grays Bay and Harrington Point

Distance, 21 Miles

Baker Bay lies just inside the mouth of the Columbia and between **Cape Disappointment** and **Chinook Point**. The bay is shallow and numerous snags and broken pilings abound. **Ilwaco** and **Chinook**, two important commercial and sport fishing centers, front the bay.

Caution: Four wing dams (spur jetties) lie along the outside edge of Baker Bay. These are identified

by lighted aids 1, 3, 5 and 7 at the outside ends of these dams. On a strong ebb tide, currents flowing through these spurs can run as fast as five miles an hour. Boaters are cautioned to stay clear of these jetties on strong ebbing tides to avoid being trapped on the upstream side.

Ilwaco is reached by a 3-mile long dredged and buoyed channel. Lighted aids 1 and 2, mounted on the ends of two wing dams, or pile dikes, mark the entrance to the channel. **Caution:** the entrance to the Ilwaco Channel is exposed to westerly swells. The Cape Disappointment Coast Guard Station is located on the west shore of the Ilwaco Channel. This station is responsible for search and rescue operations at the mouth of the Columbia River. The Port of Ilwaco facilities provide fuel, moorage, a launching ramp, a marine sewage pumpout and a marine hoist. Marine supplies, grocery stores, restaurants and motels are within walking distance of the moorage. In downtown Ilwaco, large public murals depict scenes of early community history. This same history is presented in the collections and interpretive displays of the Ilwaco Heritage Museum.

Chinook is the home port of many sport and commercial fishing boats. A dredged channel, approximately 1.4 miles long, leads to the breakwater that encloses a moorage where fuel, supplies, a launching ramp, and a hoist are available. The entry to this channel opens at lighted buoy 1. This light lies between lighted aids 5 and 7 that stand at the outside ends of two long wing dams. The channel should be navigated with caution to avoid the shoal areas that lie on both sides of the channel. Deep-draft boats should not attempt to navigate the channel at low tide.

The Astoria-Megler Bridge clears 48 feet under the non-opening span off **Point Ellice**.

The bay lying between lighted aid 9 and Grays Point (lighted aid 13), is shallow and littered with snags and pilings.

Grays Bay is mostly shallow. A semi-protected anchorage can be found in deeper water on the

western side of Grays Bay, just off **Portuguese Point**.

Deep River and **Grays River** flow into **Brix Bay**, which forms the northern part of Grays Bay. Lighted aid 7 on Rocky Point marks the entry to a narrow channel that leads to Deep River. Day beacons and reflectors mark this channel. The channel should be navigated with caution.

Grays River in the northwest corner of Grays Bay is all but closed by shoals, snags and sunken logs. Shallow draft boats, however, enter and leave the river at higher water stages. The channel crossing Grays Bay from Portuguese Point to Harrington Point is elusive and not well marked. The channel is subject to continuous change and the four or more unlighted buoys that mark the channel are not charted because they are frequently shifted in order to define the shifting channel.

PLACE NAMES

Ilwaco

The community was originally established as Unity in 1868 and later named after Chief El-wah-ko, a Chinook indian.

Baker Bay

Named by the Vancouver expedition for Capt. James Baker of the ship JENNY.

Chinook

Named for the Tsinuk Indian tribe, renowned lower river traders. Their language became the Chinook jargon used by many tribes and, later, traders and pioneers.

Hungry Harbor

A storm trapped a number of old sailing gillnet boats in this inlet in the 1800s and the fishermen ran out of food during the week-long storm.

Grays Bay

The name honors American ship captain Robert Gray who anchored his ship, COLUMBIA REDIVIVA, here in May 1792.

Hammond

Formerly the most northwestern Oregon city, it was named for Andrew Hammond. He built the Astoria and Columbia River Railroad.

Warrenton

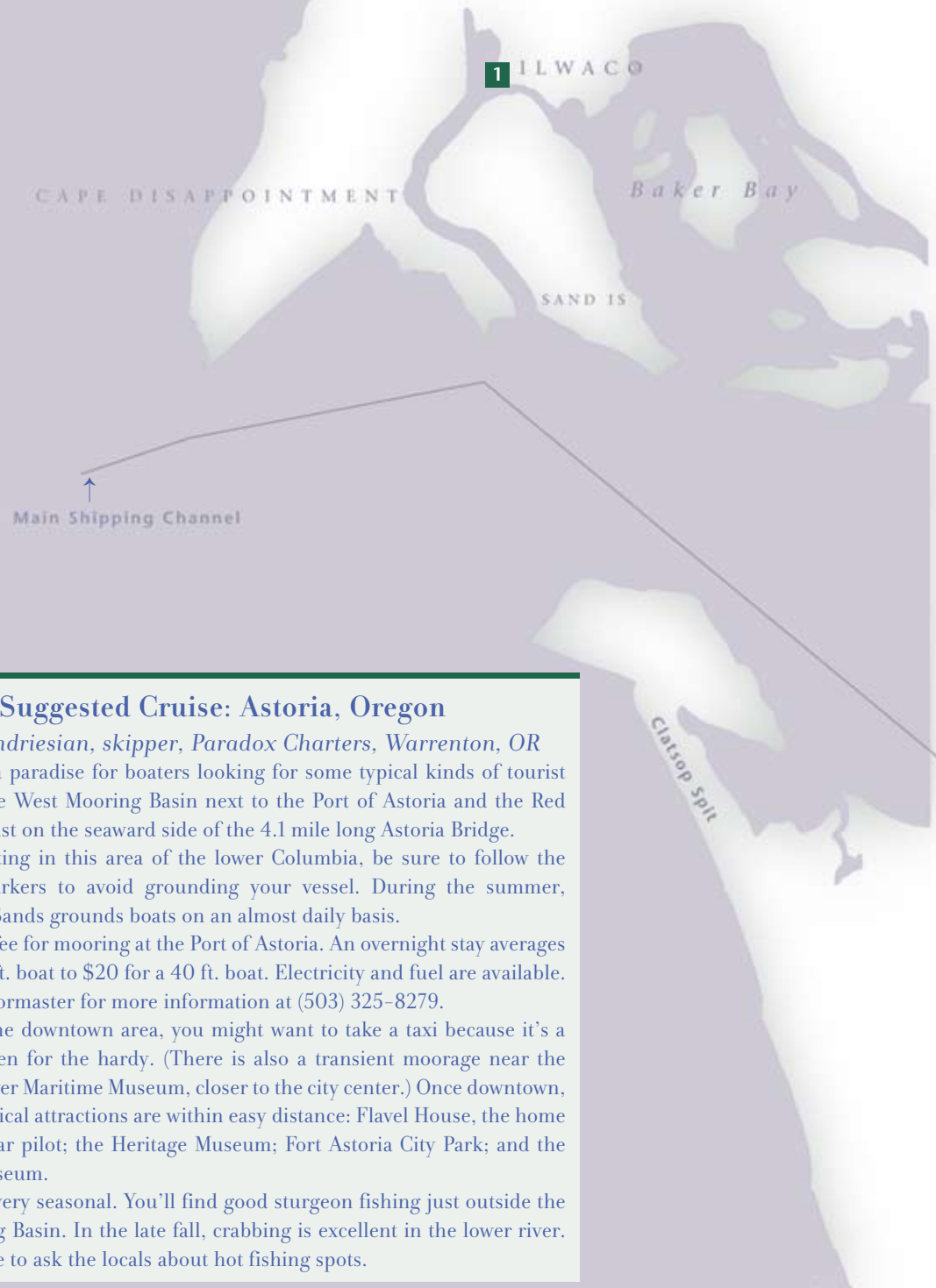
Platted as Lexington in 1848, the town was later named for D.K. Warren, an early settler. The Skipanon River that flows through the city was traveled by the men of the Lewis and Clark expedition hunting for elk during their winter stay in Fort Clatsop.



Columbia River Maritime Museum, Astoria

BOATING FACILITIES

- 1** Ilwaco - fuel, moorage, hoist, ramp, sewage pumpout, dump station
 - 2** Chinook - fuel, moorage, hoist, ramp
 - 3** Hammond Basin - fuel, moorage, ramp
 - 4** Warrenton - moorage, ramp, hoist, sewage pumpout, dump station
 - 5** Youngs Bay Park - ramp
- Astoria 6 - 8
- 6** West Mooring Basin - fuel, moorage, sewage pumpout, dump station
 - 7** Maritime Museum - moorage
 - 8** East Mooring Basin - ramp
 - 9** Pier 39 - seasonal moorage, sewage pumpout, dump station
 - 10** John Day River - ramp



Suggested Cruise: Astoria, Oregon

D.R. Andriesian, skipper, Paradox Charters, Warrenton, OR

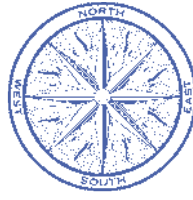
Astoria is a paradise for boaters looking for some typical kinds of tourist activities. The West Mooring Basin next to the Port of Astoria and the Red Lion Inn is just on the seaward side of the 4.1 mile long Astoria Bridge.

When boating in this area of the lower Columbia, be sure to follow the waterway markers to avoid grounding your vessel. During the summer, Desdemona Sands grounds boats on an almost daily basis.

There is a fee for mooring at the Port of Astoria. An overnight stay averages \$12 for a 20 ft. boat to \$20 for a 40 ft. boat. Electricity and fuel are available. Call the harbormaster for more information at (503) 325-8279.

To reach the downtown area, you might want to take a taxi because it's a long walk even for the hardy. (There is also a transient moorage near the Columbia River Maritime Museum, closer to the city center.) Once downtown, several historical attractions are within easy distance: Flavel House, the home of an early bar pilot; the Heritage Museum; Fort Astoria City Park; and the Maritime Museum.

Fishing is very seasonal. You'll find good sturgeon fishing just outside the West Mooring Basin. In the late fall, crabbing is excellent in the lower river. Don't hesitate to ask the locals about hot fishing spots.



HARRINGTON POINT TO CRIMS ISLAND

For Navigating, refer to NOAA Chart No. 18523.
Distance, 31 miles

For all-around cruising interest and variety, this large river section is outstanding. It contains many islands and miles of backwater sloughs and secondary channels. Lying between the main channel and the long secondary channels that curve along the Oregon shoreline are the estuary islands of the Lewis and Clark National Wildlife Refuge. This refuge contains 35,000 acres of open water and tidelands and 94 acres of islands, mudflats and tidal marshes. The Columbia River Heritage Canoe Trail follows a marked route through the narrow interior channels of these islands.

Skamokawa, Cathlamet, Westport and Clatskanie, the four riverside communities in this area, provide shoreside visits of historical interest.

Though a considerable distance inland from the mouth of the Columbia, tides in this area can exert a strong influence with the flood tide still able to cause a reversal of the river current.

This rather complex river area is described below in three sections: Main Channel, Harrington Point to Puget Island, including Cathlamet Channel; Main Channel, Puget Island to Crims Island; and Prairie and Clifton channels, Settler Point to Clifton.

Main Channel: Harrington Point to Puget Island

Distance, 13.6 Miles

From Harrington Point to Skamokawa, the main channel runs close along the steep Washington shore. The shoreline is exposed to wind and ship wash and there is no protected anchorage along its 10 mile length. An exposed and safe anchorage can be found in the deep water area lying between **Jim Crow Sands** and **Woody Island**, directly south from lighted buoy 18 which lies south of Jim Crow Point (lighted aid 19).

South of the main channel lie the low islands and shallow areas of the Lewis and Clark National Wildlife Refuge, an outstanding natural area of the lower river.

Altoona and **Pillar Rock**, two old fishing communities, are located just upriver from Harrington Point. There is no public boating access to either of these communities.

Skamokawa lies at the junction of **Steamboat Slough**, **Brooks Slough** and **Skamokawa Creek**. The early settlement was referred to as the "Venice of the lower Columbia" because these waterways were the community streets. Local fishboats enter and leave Skamokawa harbor, but visiting boaters should enter with caution on the upstream side of lighted aid 33 offshore from the community.

Overnight camping is provided at Skamokawa Vista Park. Bridges with restricted overhead clearance cross both Brooks Slough and Skamokawa Creek and both waterways are shallow within short distances above these bridges.

Steamboat Slough, running behind **Price Island**, is a navigable waterway for most boats. Caution, however, should be observed when exiting or entering the upper end of the slough and a dead-head watch should be set.

Elochoman Slough, two miles north-northwest of Cathlamet, Washington. The slough merges with

the Columbia at river mile 36 in Cathlamet. The downstream entry to the slough is very shallow with numerous snags and deadheads. The area is, however, exceptional for its birds and wildlife as it contains the Julia Butler Hansen Wildlife Refuge. For a shallow-draft boat, traveling up this backwater is an interesting side trip.

The lower end of **Cathlamet Channel** opens off the main channel at the lower end of Puget Island (lighted buoy 41). The channel runs for 8 miles along the north shore of Puget Island where it then merges with the main channel at **Cape Horn**. The bridge over Cathlamet Channel clears 74 feet. **Bernie Slough** parallels both the channel and the island for most of this distance. The lower entry to the slough lies between the lower tip of Puget Island and **Ryan Island**. Local fishboats travel Bernie Slough, but a bridge with a restricted clearance closes the upper part of the slough to sailboats. Houses, boat docks and gardens line this colorful waterway so watch your wake.

Cathlamet is a major boating center in the lower river. An unlighted green buoy stands at the entrance to a short passage that leads to the Elochoman Slough Marina. Go around this buoy on the upstream side. The marina provides overnight moorage, fuel, sanitary pump-out, launching ramp, restrooms and showers. **Note:** The Elochoman Slough Marina is the only fuel source in this section of the river. The marina monitors channel 13 for approaching boats.

Cathlamet retains much of its earlier historical appearance. Its history is displayed in the Wahkiakum Historical Museum. A riverside walking trail, a quiet residential district, numerous historical homes and buildings, restaurants, overnight accommodations and a grocery store are within walking distance of the marina.

Main Channel: Puget Island to Crims Island

Distance, 17.4 miles

The main channel follows the Oregon shore as it rounds Puget Island and then returns to the Washington shore at Cape Horn.

Westport Slough opens on the Oregon shore just upriver from the Wauna pulp mill. Unlighted buoy 56 marks the entrance to the slough. Deep water carries 2 miles up the slough to **Kerry**. Log rafts and dolphins in the slough provide a protected tie-up. **Caution:** The Puget Island ferry, the only ferry on the Columbia, operates between the lower slough and Puget Island. A launching ramp is located just upstream from the ferry dock. **Westport** lies a quarter mile south of the ramp.

At **Cape Horn** above Puget Island, the main channel runs close along the Washington shore. **Note:** Off Cape Horn, winds can be erratic and the water rough.

Wallace Island lies along the Oregon shore south from Cape Horn. Stay close to the Oregon shore when entering the downriver opening of Wallace Slough, just upstream from day beacon 66A. **Beaver Slough** enters Wallace Slough at its upper end. Beaver Slough then leads to the **Clatskanie River** and the river to the city of **Clatskanie**. A railroad



Riverfront home, Skamokawa



Bernie Slough



Entering Beaver Slough

bridge across the river remains open except for the passage of trains. The river is shallow just

below the city, but can be navigated at high water stages. Boats can temporarily tie-up at the dock below Hump's Restaurant. Groceries can be purchased in the city and gas from a station within walking distance of the restaurant dock. Day beacon 1 on the upper end of Wallace Island marks the upper entry to Wallace Slough.

An off-channel anchorage in deep water lies at the upper end of the shoal area upstream from Wallace Island. This anchorage is located 2 miles below **Port Westward** (the long dock on the Oregon shore at the opening to Bradbury Slough), behind a small island between day beacons 3 and 2.

The shore of **Bradbury Slough**, between the Oregon shore and **Crims Island**, provide a sheltered anchorage.

Prairie and Clifton Channels: Settler Point to Clifton

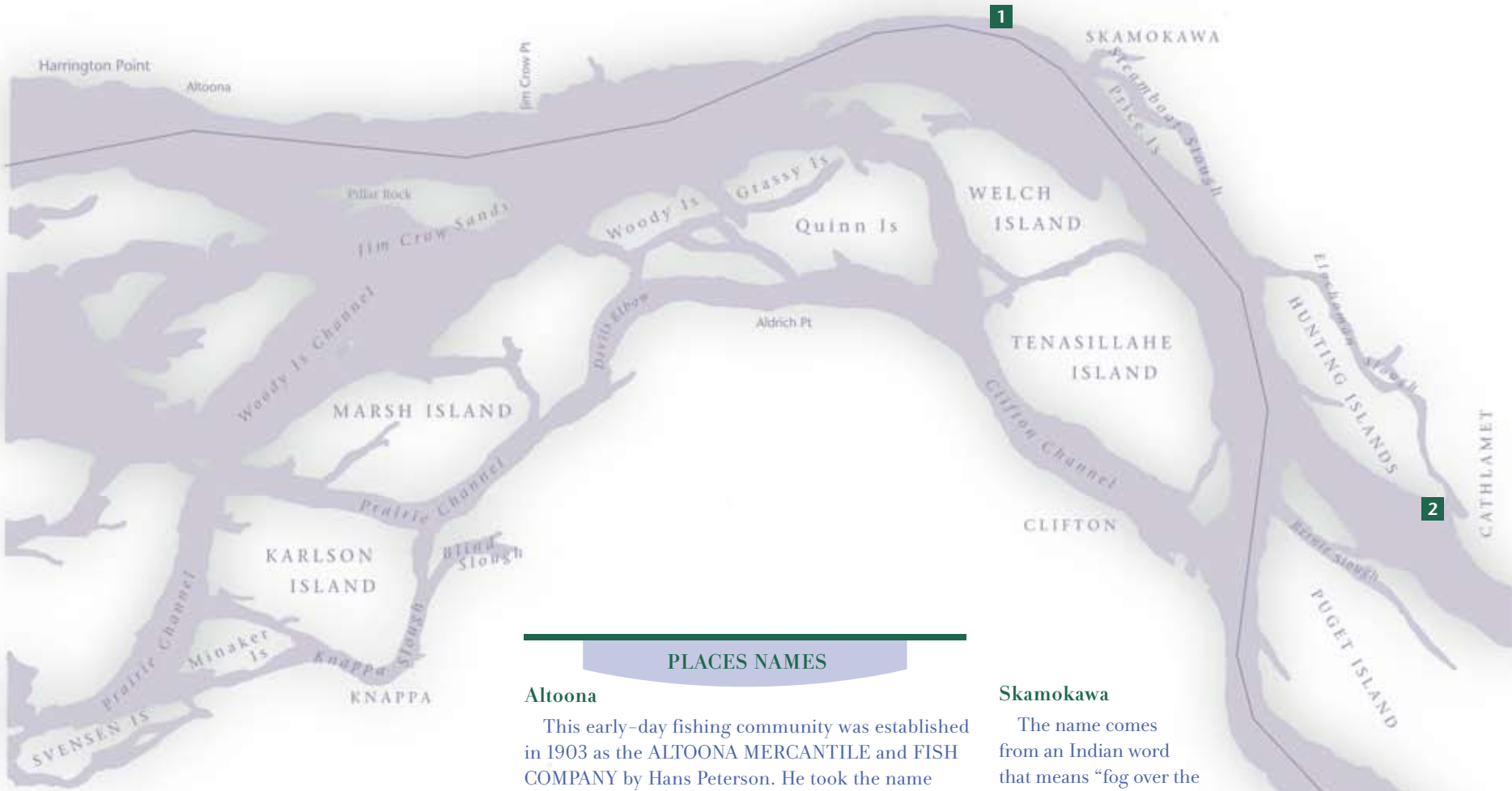
Distance, 14 Miles

Particular attention should be given to the chart when cruising this complicated but scenic route that parallels the Oregon shore. A dead-head watch should be kept. Log rafts in this area are frequently used for temporary moorage.

Svensen Island, at the downstream beginning of Prairie Channel, is a diked area of farmland. You can enter the small slough at the west end of the island, but a low bridge blocks this slough at **Svensen Landing**.

Going upstream, Prairie Channel rounds **Karlson Island** to the north and then turns eastward at lighted aid 21 and runs between **Karlson** and **Marsh Islands** to reach the Oregon shore. **Note:** **Woody Island Channel**, north of Marsh Island, is very shallow at its upper end. **Calendar**, **Big Creek** and **Knappa Sloughs**, lying south of Minaker and Karlson Islands, are deep water sloughs that can be cruised.

Blind Slough opens at the upper end of Knappa Slough. Note the extensive shoal point



PLACES NAMES

Altoona

This early-day fishing community was established in 1903 as the ALTOONA MERCANTILE and FISH COMPANY by Hans Peterson. He took the name from his home port of Altoona, Germany.

Pillar Rock

Indians called this basalt pillar TALUAPTEA after a chief who displeased the spirits and was turned to stone. The Lewis and Clark expedition camped on the shore across from Pillar Rock in November, 1805.

Jim Crow Point

Named for James D. Saules, an African American who served aboard the Wilkes survey ship PEACOCK. Saules later served as a Columbia River bar pilot, and ran a freight boat between Astoria and Cathlamet.

Skamokawa

The name comes from an Indian word that means “fog over the water”. At one time, all the community’s houses and buildings faced the water and it was called the Venice of the Columbia.

Tenasillahe Island

Two Chinook words, *tena* meaning little and *illahe* meaning land, give this island its name.

Cathlamet

The Kathlamet Indians formerly lived in this area. James Birnie founded Cathlamet in 1846 as a Hudson’s Bay Company trading post. The house he built remains, but it is not open to the public.

off the entry to Blind Slough. The deep waters of the slough provide a quiet, protected anchorage.

At Devils Elbow (lighted aid 23), a navigable channel cuts through between Horseshoe and Woody islands. This channel can be used to exit or enter Prairie Channel from the main shipping channel.

Clatskanie

The name is taken from the Indian word *Tlats-kani* that was used to describe an Indian trail along a series of streams that led to the Nehalem Valley. The community was founded as Bryantville in 1884.

Puget Island

Captain George Vancouver named this island to honor Lieutenant Peter Puget, who surveyed the Puget Sound area south of Seattle for Vancouver in 1792.

Eagle Cliff

The first salmon cannery on the Columbia River was located here in 1865 by the New England firm of Hapgood and Hume.

Crims Island

James Crim homesteaded the island in 1871. Earlier, Lewis and Clark named it Fanny's Island in honor of Clark's youngest sister.

Suggested Cruise: Warren Slough

Mike Lamper, Commodore, Northwest Outboard Trailer Sailors, Beaverton, OR

Warren Slough is one of my favorite spots of the lower Columbia River. It is located just off Prairie Channel at about river mile 28. What I found most enjoyable is its secluded location, varied wildlife, and unspoiled vegetation.

To get there, proceed west on Prairie Channel, a serene and little known waterway. You'll have a chance to test your charting skills at Devils Elbow on your way to Warren Slough.

When you leave Prairie Channel and enter Warren Slough, you will immediately notice that you are leaving civilization behind. The channel is wide and deep enough to accommodate larger boats for about a half-mile. At that point it widens out to make room for you to anchor and spend some time. We have had up to a dozen boats anchored here with plenty of room for more.

A network of streams flowing in and out of this area is ideal for a dinghy or any shallow draft vessel. At high tide you have more freedom to explore beaver dams and other evidence of wildlife. In August, the water is surprisingly warm and ideal for swimming, so kids love to come here, too. Perhaps best of all is just getting away from the hum of civilization.

We have found Warren Slough to be our place of choice for an overnight or several day stay while cruising to and from Astoria. Be sure to mark it on your chart as a place to visit. It represents cruising on the lower Columbia at its best.



BOATING FACILITIES

- 1 Skamokawa - ramp
- 2 Cathlamet - fuel, moorage, ramp, sewage pumpout
- 3 Westport - ramp
- 4 Beaver - ramp

CRIMS ISLAND TO ST. HELENS

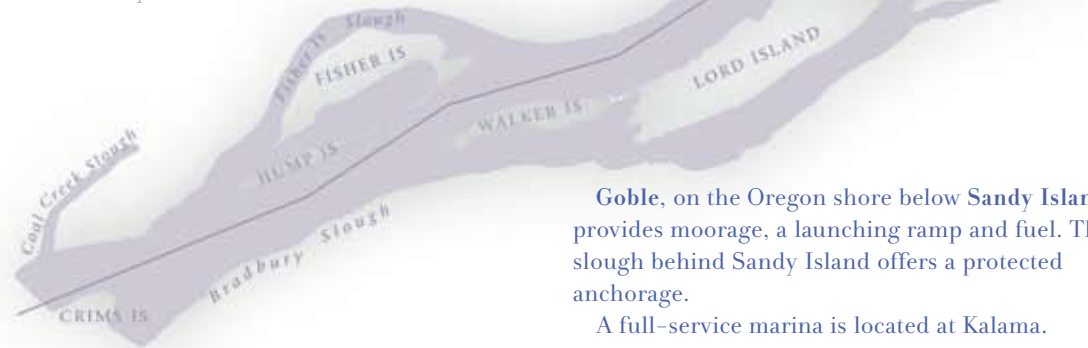
For Navigating, refer to Chart NOAA No. 18524.
Distance, 30 Miles

This section of the Columbia River contains seven navigable backwater sloughs, nine islands, and the urban and industrial areas of five river cities.

The few remaining buildings of the old community of **Stella** stand on the Washington shore just across from **Crims Island**. There is no public boat access to the community.

Coal Creek Slough enters the Columbia at Stella. With caution, the bar at the entrance can be crossed to a protected anchorage area in the lower slough.

The upper entry to **Bradbury Slough** opens at day marker 1 (green) downstream from the community of **Mayger**. There is no public boat access to the community.



Longview Yacht Club is located on **Fisher Island Slough**. The club offers moorage for overnight guests and fuel is available. The lower entry to Fisher Island Slough lies less than a mile downstream from lighted buoy 5. A long, narrow inlet lying between the lower ends of Hump Island and

Fisher Island offers a protected anchorage.

Walker and Lord Islands divide the river two miles below the Longview Bridge. The lower end of the 4-mile slough running behind the islands opens at lighted buoy 10. Boats frequently anchor in deep water at the lower end of this slough or tie to log rafts on Walker Island. The shallows around Lord Island are worthy of exploration by small boats.

The industrial waterfront of Longview has no public boat access. The **Rainier City Marina** provides a ramp and moorage but no fuel. Restaurants, grocery stores, gas stations and the six-acre Rainier Riverfront Park are within walking distance of the dock.

The mouth of the **Cowlitz River** is shallow because of ash deposits from the eruption of Mount St. Helens. The sandy beach on the **Carrolls Channel** side of **Cottonwood Island** is a popular boat camping area. The upper end of **Carrolls Slough** opens at lighted aid 41.

Goble, on the Oregon shore below **Sandy Island**, provides moorage, a launching ramp and fuel. The slough behind Sandy Island offers a protected anchorage.

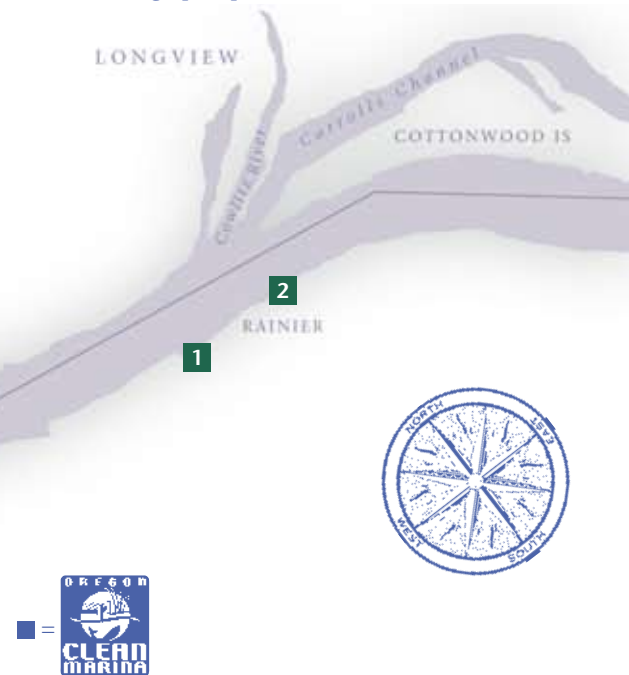
A full-service marina is located at Kalama. Restaurants and grocery stores are located downtown, which is within walking distance of the marina via a pedestrian ramp that crosses the Interstate Highway.

Martin Island Slough, on the Washington shore (just below lighted aid 63), is a popular and well-protected anchorage. The best anchorage is

within the log pond in the center of **Martin Island**. **Caution:** Pass close to **Martin Bluff** when entering to avoid the long sandbar at the downriver tip of the island.

Columbia City, two miles below St. Helens, has no public boat access.

A public dock at **St. Helens** is located in front of the clocktower in the old courthouse. There is a marine sewage pumpout at this location.



BOATING FACILITIES

- 1 Rainer Riverfront Park - Ramp,
- 2 Rainier - ramp, moorage, sewage pumpout, dump station
- 3 Goble - fuel, ramp, moorage
- 4 Kalama - fuel, moorage, ramp, sewage pumpout
- 5 St Helens Marina - fuel, moorage, ramp
- 6 St Helens Courthouse Docks - moorage, -sewage pumpout, dump station
- 7 Sand Island - moorage

Suggest Cruise: Walker Island

Arnie Schuldt, past commodore, Northwest Outboard Trailer Sailors, Milwaukie, OR

Walker Island lies on the Oregon side of the main ship channel. You can enter the sheltered area behind the island at red buoy 10, river mile 60 – about six miles downstream from Longview. You'll find good anchorage all along the Oregon shore for about 1.5 miles from the lower tip of the island. Be sure to go in far enough to miss the surge from passing ships.

The Burlington Northern railroad track runs next to the river's edge, but only three or four trains a week use the rails. The highway is at least a mile away, high up on the bluff. So if you want a quiet anchorage, this spot deserves a visit. You'll have an opportunity to see many native birds and even an occasional deer. And take your fishing pole as some folks with local knowledge have caught legal size sturgeon in here. Fishing for bass and pan fish is good, too.

This is a great place to spend a quiet day or evening with close friends. But remember, it's strictly an anchorage. The closest services—such as fuel, restrooms, and restaurants – are in Rainier about 6–7 miles away.

When boating this area, keep a good watch for snags. The chart shows about 7 feet of depth at the upper end of the island, but I have never found that channel.

The National Historic District in the downtown waterfront area of old St. Helens contains a number of turn-of-the-century homes and buildings as well as Court House Square, the Columbia County Historical Museum and Columbia View Park. All these attractions, along with stores and restaurants, are within walking distance of the public dock. Gas and marine supplies are available downstream at the St. Helens Marina.

Sand Island Marine Park, across the channel from St. Helens, has two mooring docks, camping sites, restrooms and a park-like area of nature trails and sandy beaches, but does not have drinking water.

Multnomah Channel enters the Columbia at St. Helens to form the lower tip of Sauvie Island.

The **Lewis River** empties into the Columbia at **Austin Point** on the Washington shore across from St. Helens. Local shallow-draft boats go up the river as far as **Woodland**.

PLACE NAMES

Stella

The community's first postmaster named this early logging community after his daughter, Stella Packard. Fire destroyed most of the community years ago.

Longview

When it was developed by lumberman Robert Long in the late 1920s, Longview was the second-largest planned city in the United States.

Cowlitz River

The name is derived from the Indian name *Tawallitch*. In early days, an Indian trail led from the Columbia and up the Cowlitz to Puget Sound.

Rainier

Founded in 1851, the city takes its name from Mt. Rainier which, in turn, was named by Captain George Vancouver for Rear Admiral Peter Rainier of the British Royal Navy.

Kalama

"Where Rail Meets Sail" was the booster slogan of this community founded as a railroad terminus for the Northern Pacific Railroad. The 338-foot ferry TACOMA carried freight cars across the Columbia to Goble.

Deer Island

Named by Lewis and Clark because of a successful hunt when the expedition camped on the island in 1806.

Columbia City

The city was founded in 1867 by the Caples brothers (Jacob and Joseph) with the hope that it would become a railroad terminus. The Caples house, now a museum, can be seen from the river above the park.

St. Helens

The city was named for Mount St. Helens which, in turn, was named by Captain George Vancouver for Baron Saint Helens. As British ambassador to Spain, the baron negotiated the Nootka Treaty at Madrid, thereby preventing a possible war between England and Spain as a result of Spanish seizure of British ships on the West Coast of Vancouver Island.

ST. HELENS TO VANCOUVER

(INCLUDING MULTNOMAH CHANNEL)

For Navigating, Refer to NOAA Chart No. 18524.
Distance, 20 Miles



Thousands of acres of lake, sloughs and wetlands in this river section are set aside as bird and wildlife refuges on Sauvie Island and in the Ridgefield National Wildlife Refuge. Long, sandy beaches that fringe these refuge areas and the intricate waterways wandering through them provide a remarkable natural setting for cruises within only a few miles of the Portland-Vancouver metropolitan area. Five secondary waterways can be explored in this river area: the Lewis River, Bachelor Slough, Lake River, Scappoose Bay and the Gilbert River.

Sauvie Island, lying between the Columbia River and Multnomah Channel, is the largest of the Columbia River Islands.

This river section is described below in two sections: One, Columbia River, St. Helens to Vancouver and, two, Multnomah Channel, St. Helens to the Willamette River.

Columbia River: St. Helens to Vancouver

Distance, 20 Miles

The lower entrance to **Bachelor Slough** opens on the Washington shore just across from **Warrior Rock**, the conspicuous point on the downstream tip of Sauvie Island. A navigable channel going up Bachelor Slough leads to **Lake River**. Lake River branches off to the left (going upstream) and leads to the city of **Ridgefield**. Visiting boats can tie-up at the launching ramp. Fuel is not available at Ridgefield. Lake River drains **Vancouver Lake**, 9 miles south, but passage above Ridgefield is restricted by shallow water and a low bridge to all but small boats and canoes.

CAUTION AREAS:

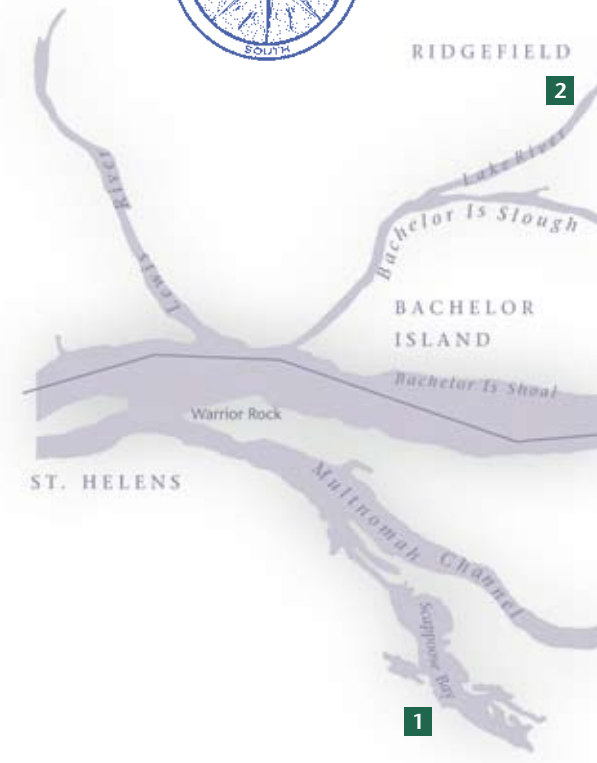
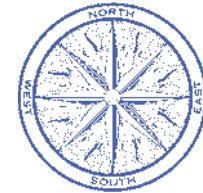
One: There are some two-dozen wing dams along the Washington and Sauvie Island shore. Many show lighted navigation aids at their outer ends, some do not. Nearly all of these pile dikes (with exception of their outer ends) are covered during the spring periods of high water.

Two: Bachelor Island Slough extends a consid-

erable distance offshore from the island. Lighted buoy 7 (green) marks the outside edge of this shoal.

The upper end of Bachelor Island Slough opens on the Washington shore at lighted aid 13. This opening is shallow but can be entered by shallow draft boats at stages of high water.

Cove Marina lies in a small inlet on the Sauvie Island shore just upstream from Willow Point. A launching ramp is available but no fuel.



BOATING FACILITIES

Multnomah Channel (1 - 11)

- 1 Scappoose Bay Marina - ramp, moorage, sewage pumpout, dump station
- 2 Ridgefield - ramp
- 3 Gilbert River - ramp, moorage
- 4 Gilbert River - moorage
- 5 Coon Island, J.J. Collins Marine Park - moorage
- 6 McCuddy's Landing - fuel, ramp, sewage pumpout, dump station
- 7 Rocky Pointe - ramp, sewage pumpout, dump station
- 8 Hadleys Landing - moorage
- 9 Sauvie Island - ramp
- 10 Larsons Landing - moorage, ramp
- 11 Freds Marina - fuel, ramp, moorage
- 12 Jantzen Beach Marina - fuel, sewage pumpout, dump station



Suggested Cruise: Coon Island

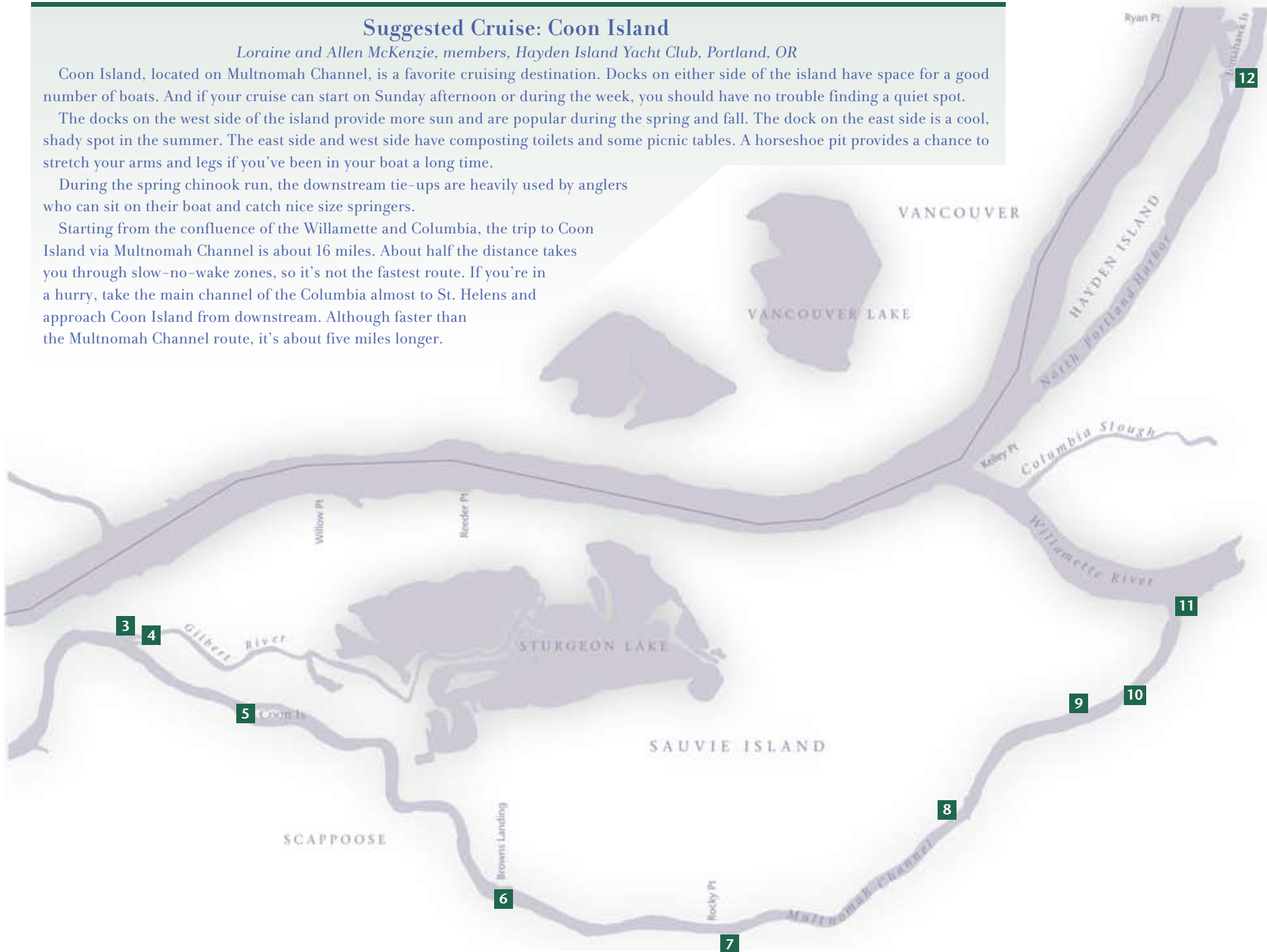
Loraine and Allen McKenzie, members, Hayden Island Yacht Club, Portland, OR

Coon Island, located on Multnomah Channel, is a favorite cruising destination. Docks on either side of the island have space for a good number of boats. And if your cruise can start on Sunday afternoon or during the week, you should have no trouble finding a quiet spot.

The docks on the west side of the island provide more sun and are popular during the spring and fall. The dock on the east side is a cool, shady spot in the summer. The east side and west side have composting toilets and some picnic tables. A horseshoe pit provides a chance to stretch your arms and legs if you've been in your boat a long time.

During the spring chinook run, the downstream tie-ups are heavily used by anglers who can sit on their boat and catch nice size springers.

Starting from the confluence of the Willamette and Columbia, the trip to Coon Island via Multnomah Channel is about 16 miles. About half the distance takes you through slow-no-wake zones, so it's not the fastest route. If you're in a hurry, take the main channel of the Columbia almost to St. Helens and approach Coon Island from downstream. Although faster than the Multnomah Channel route, it's about five miles longer.



Caterpillar Island is separated from the Washington shoreline by a very narrow slough. The lower end of the slough provides a protected anchorage. The island is across from lighted aid 28 on the Oregon shore at **Reeder Point**.

The **Willamette River** enters the Columbia at **Kelley Point**. A long wing dam extends outward from Kelley Point, its outer end marked by a junction light and a prominent red and green marker.

Caution area: The confluence of the Columbia and Willamette rivers is a busy marine intersection with boats, tugs, barges and ships moving up and down the rivers. Particular caution should be observed when traveling in this area.

Above the mouth of the Willamette, **Hayden** and **Tomahawk Islands** divide the Columbia into two channels. The main channel follows along the Washington shore of the islands, and the **North Portland Harbor** follows along the south side of the islands.

Two bridges cross the two channels. The railroad swing-bridge clears 39 feet (call signal, one long followed by one short). The twin-spans of the fixed Interstate Bridge over North Portland Harbor clear 34 feet. The lifting span of the Interstate Bridge over the main ship channel clears 39 feet down, 178 feet up. The call signal to open is two long, followed by one short. Clearance under the bridge in the alternate barge channel is 58 feet at the center of the span. Attendants on these bridges monitor VHF channel 13.

Note: Closure times on the Interstate Bridge are 5:30 a.m. to 9 a.m. and 2:30 p.m. to 6 p.m., Monday through Friday. Call (503) 283-5854 for information.

A guest mooring dock is available for use in Vancouver, just below the Interstate Bridge. The Clark County River Patrol is based at the Port of Vancouver.

Numerous private moorages and houseboats lie along the North Portland Harbor so boaters should

be careful to avoid creating damaging wakes. Fuel, a marine sewage pumpout and marine supplies are available at the **Jantzen Beach Marina**.

Multnomah Channel: St. Helens to Willamette River

Approximate Distance, 19 Miles

Multnomah Channel enters the Columbia at the downriver tip of Sauvie Island. There are no significant cruising hazards in the channel but a watch for deadheads and waste lumber should be kept.

Scappoose Bay opens on the west side of Multnomah Channel 1.4 miles up from St. Helens. This is a shallow, dead-end bay but a navigable channel follows along the west side of the bay to **Scappoose Bay Marina** where there is a launching ramp and full marine services are available, including a marine sewage pumpout.

The **Gilbert River** opens on the Sauvie Island shore 6 miles upstream from the mouth of the channel. This river drains the large area of **Sturgeon Lake** on Sauvie Island. An overnight mooring float (without shore access) is located a quarter mile up the Gilbert River. Canoes and shallow draft boats are able to go up the Gilbert to Sturgeon Lake. A power line with a clearance of 53 feet crosses the Gilbert a quarter mile from the lake's outlet.

J.J. Collins Marine Park on Coon Island is a popular marine park. There are two overnight mooring docks on the island and picnic shelters, campsites and restrooms are provided.

Fuel and supplies are available in Multnomah Channel at (traveling upstream) the **Coon Island Marina**, **McCuddy's Landing**, **Rocky Pointe Marina**, **Larsons Landing**, and **Freds Marina**. A floating dock for overnight tie-up is located at **Hadleys Landing** on the island shore downstream from Sauvie Island Bridge.

Multnomah Channel branches off from the Willamette River 3 miles upstream from the Willamette mouth.



Warrior Rock

PLACE NAMES

Sauvie Island

Sauvie was the name of a French-Canadian employee of the Hudson's Bay Company who worked on a dairy farm on the island in the 1830s.

Warrior Rock

This Prominent basalt ledge was named by Lieutenant William Broughton who was dispatched by the Vancouver expedition to explore the Columbia. Passing the rock in his longboat in October, 1792, Broughton found himself surrounded by 23 Indian canoes with the men all attired in war garments. No battle developed.

Scappoose

The name is an Indian term that describes a gravelly plain. A post office was established in Scappoose in 1872.

Vancouver

Established as a Hudson's Bay Company headquarters in 1825, Vancouver is the oldest white settlement in Washington. It was named for British Captain George Vancouver. After the company moved its headquarters to Victoria in 1860, the U.S. Army established a military base in Vancouver.

VANCOUVER TO BONNEVILLE DAM

For Navigating, refer to NOAA Chart No. 18531.
Distance, 39 Miles

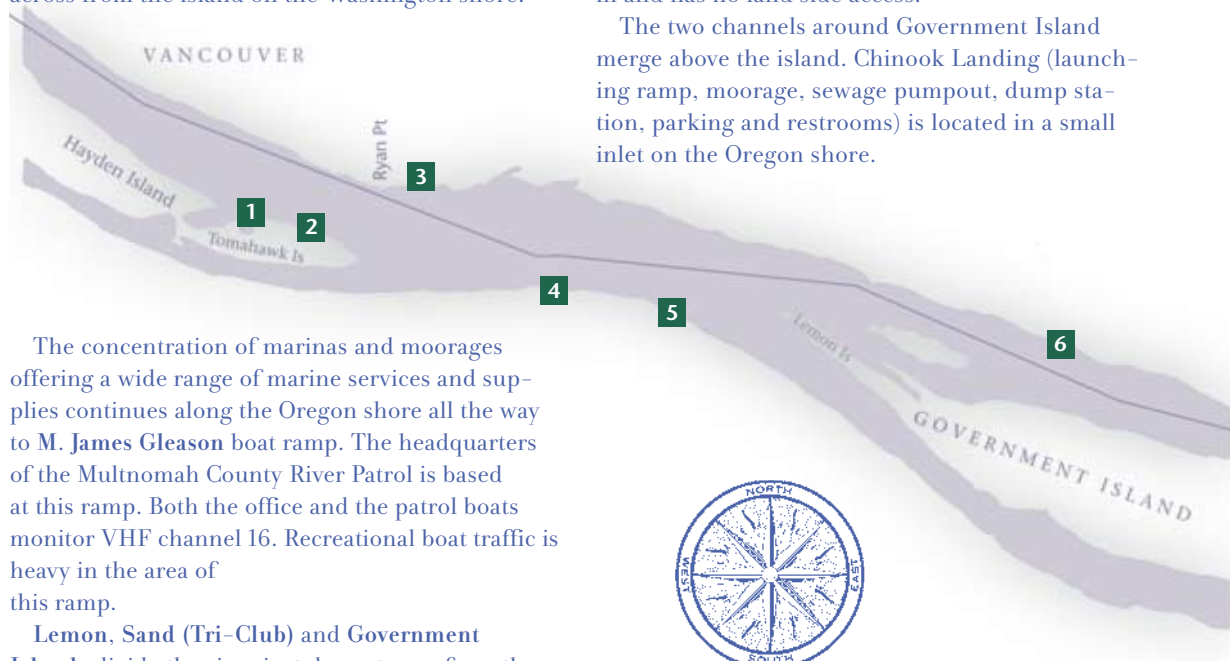
This river section includes the contrasting lowlands of the Columbia River flood plain and the western end of the scenic Columbia River Gorge. The dramatic geographic change occurs at the entry to the Columbia Gorge National Scenic Area just east of the Sandy River and Washougal. A cruise through this scenic river corridor, where steep, forested slopes and basalt cliffs climb to nearly 4,000 feet, rivals any river trip in the world.

BOATING FACILITIES

- 1 Hayden Bay – moorage, sewage pumpout, dump station ■
- 2 Tomahawk Bay – moorage, sewage pumpout, dump station ■
- 3 Ryan Point – ramp
- 4 Donaldsons Marina – fuel, sewage pumpout, dump station
- 5 M. James Gleason Ramp – ramp, sewage pumpout, dump station
- 6 Steamboat Landing – moorage, sewage pumpout



Above the I-5 Bridge, North Portland Harbor merges with the main channel through a dredged channel that cuts across the upper end of Tomahawk Island. There is a marine sewage pumpout and dump station at Tomahawk Bay Marina. The two channels intersect at lighted buoy 14. A launching ramp is located at Ryan Point, across from the island on the Washington shore.



The concentration of marinas and moorages offering a wide range of marine services and supplies continues along the Oregon shore all the way to M. James Gleason boat ramp. The headquarters of the Multnomah County River Patrol is based at this ramp. Both the office and the patrol boats monitor VHF channel 16. Recreational boat traffic is heavy in the area of this ramp.

Lemon, Sand (Tri-Club) and Government Islands divide the river just downstream from the I-205 Bridge. The main channel follows along the Washington shore. Steamboat Landing Marina, located on the Washington side of the channel, provides moorage and a marine sewage pumpout. A secondary channel flows between the islands and the Oregon shore. Unlighted day beacons mark the channel all the way to the upper end of Government Island. Day beacons 2 and 3 at the downriver tip of Lemon Island mark the entrance to this channel, which should be navigated with caution. The enclosure formed by Lemon, Sand and Government islands is a popular anchorage area.

The I-205 Bridge over the Columbia has a vertical clearance of 48 feet over the southern span, 136

vertical feet over the main channel span with 144 feet at the center of that span.

Government Island Dock and Bartlett Landing are both located on the north side of Government Island upstream from the bridge. Both moorages provide tie-ups, restrooms and camping. There is a public moorage at Commodores Cove. It is shoaled in and has no land side access.

The two channels around Government Island merge above the island. Chinook Landing (launching ramp, moorage, sewage pumpout, dump station, parking and restrooms) is located in a small inlet on the Oregon shore.

Caution area: Various lines of pile dikes at the head of Government Island are covered at stages of high water. Above Government Island, the main channel runs south of Lady Island. Camas Slough runs between Lady Island and the Washington shore. This slough leads to the paper mill at Camas. The upper end of the slough bares at low water. **Caution area:** The rocks of Ione Reef along the south side of the main channel extend from the Oregon shore just downstream from the power lines that cross to Lady Island. Sundial Beach ramp is located on the Oregon shore beneath the power lines.

Above Lady Island, the main channel curves around an extensive shoal at the mouth of the **Sandy River**. Unlighted buoys 46 and 48 and lighted aid 50 define the outside edge of this shallow area.

The **Camas-Washougal Marina at Parkers Landing** provides full marine services, moorage, launching ramp, a marine sewage pumpout, a restaurant and supplies. Upstream 2.5 miles from Parkers Landing, the inlet between the lower tip of **Reed Island** and **Cottonwood Point** provides a protected anchorage. The upper part of the inlet bares at low water.

Overall cautionary note: Boaters traveling upstream in this area will be entering the corridor of the lower Columbia River Gorge. Strong currents and winds in the gorge can create cruising dangers. Currents run with considerable intensity, particularly in the main channel and in and around floats and pile dikes. Mornings are the safest time for travel.

in the small inlet behind the conspicuous shaft of **Rooster Rock**. A shallow pile-jetty marks the entrance to the inlet.

An extensive shallow area lies along the Oregon shore eastward from Rooster Rock to **Phoca Rock** and beyond. Lighted aid 66 and unlighted buoy 68 define the outer edge of this shoal.

Lighted buoy 75 stands at the lower opening to an inlet lying between **Fir Point** and **Skamania Island**. This inlet provides a deep but somewhat exposed anchorage.

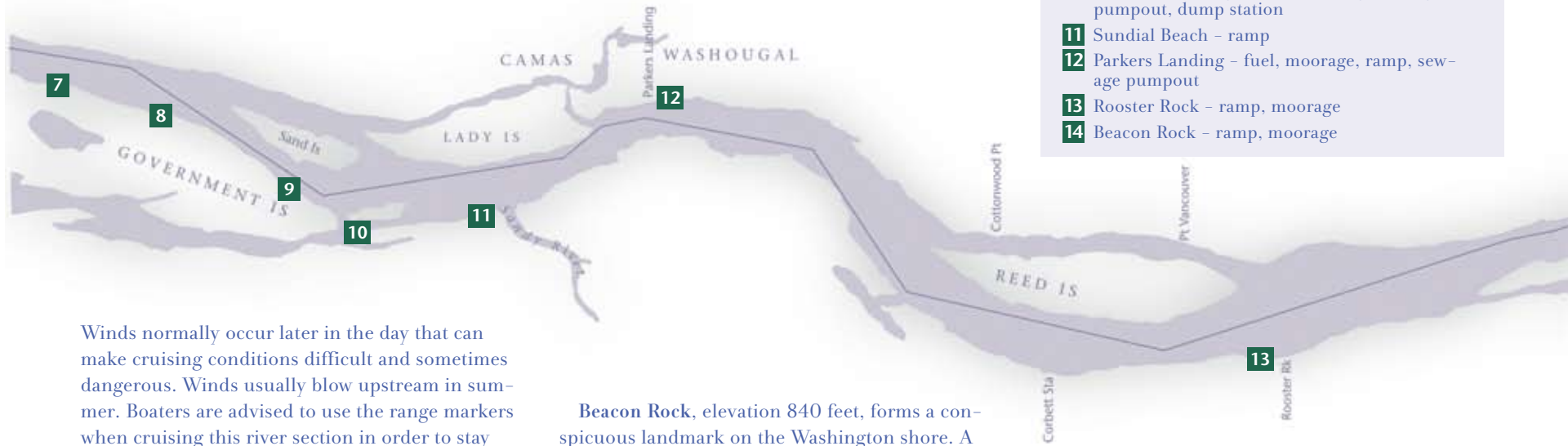
Caution area: Fashion Reef projects out from the Oregon shore just below **Multnomah Falls**. Unlighted buoy 74 and lighted buoy 76 mark the safe line around this reef.



Sailboarding at Hood River

BOATING FACILITIES

- 7** Commodores Cove - moorage
- 8** Government Island - moorage
- 9** Bartlett Landing - moorage
- 10** Chinook Landing - ramp, moorage, sewage pumpout, dump station
- 11** Sundial Beach - ramp
- 12** Parkers Landing - fuel, moorage, ramp, sewage pumpout
- 13** Rooster Rock - ramp, moorage
- 14** Beacon Rock - ramp, moorage



Winds normally occur later in the day that can make cruising conditions difficult and sometimes dangerous. Winds usually blow upstream in summer. Boaters are advised to use the range markers when cruising this river section in order to stay within the margins of the barge channel.

Small boats anchoring along the channel are advised to place a float on the anchor line and provide 7 to 10 feet of line-length for every foot of depth (see illustration, page 22).

A launching ramp and mooring dock are located

Beacon Rock, elevation 840 feet, forms a conspicuous landmark on the Washington shore. A mooring float is located in the state park at the base of the rock. A zig-zag stairway offers easy access to the summit of Beacon Rock for spectacular views up and down the Columbia Gorge. **Pierce and Ives Islands** upstream from Beacon Rock are separated from the Washington shore by a shallow

PLACE NAMES

Government Island

Lewis and Clark called this Diamond Island because of its shape. It was given the name Government Island when used by the U.S. government to raise hay for the Vancouver barracks.

Camas

The name is derived from the onion-like root dug for food by Indians of the area.

Washougal

The name comes from an Indian word that meant rushing waters.

Rooster Rock

The four-letter word for the male chicken was the more colorful name given to this phallic-shaped rock.

Cape Horn

This impressive rock face, 500 feet high, was named after a stormy cape at the tip of South America because the early voyagers traveling down the Columbia fought strong headwinds while rounding this cape.

Phoca Rock

Passing this basalt pillar in 1805, Lewis and Clark noted a large number of harbor seals, *Phoca vitulina*, in the river.

Bonneville Dam

Brigadier General Benjamin L.E. Bonneville (French born), explored the West in 1832-35.

Suggested Cruise: Beacon Rock State Park

Randy Cummings, president, Oregon Federation of Boaters, The Dalles, OR

Beacon Rock lives up to its name. It's one of the few places on the Columbia River where you can see your destination long before you arrive. The 848-foot rock is reported to be the second largest monolith in the world after the Rock of Gibraltar.

The Beacon Rock moorage is located at river mile 142, approximately 34 miles from Portland and four miles downstream from Bonneville Dam. The channel to Beacon Rock lies directly south of the rock between Pierce Island and the Washington mainland. Apparent channels east of Pierce Island should

not be considered navigable, even during periods of high water. When approaching the moorage, stay in the center or slightly to the left of the channel. There's a strong southerly current in the moorage most of the year until late summer or fall.

If the docks are full, you can tie up on pilings north of the moorage or anchor east of the docks. By doing so, you'll save on moorage fees. There are no daily fees but nightly moorage fees are enforced 1pm-8am and range from .50¢ per ft with \$10 minimum.

Plan on being self-sufficient at Beacon Rock. The campground near the dock has a primitive toilet and a water faucet. But if you need more than that, such as showers, you'll have to go to the main part of the park a couple miles away.

A 4,555 foot trail leads to the top of Beacon Rock. The brisk climb is worth the effort, and you will be rewarded with a spectacular view of the Columbia River Gorge.

The area around Beacon Rock is an angler's paradise. World class sturgeon and walleye can be found just upstream in the main river channel. Smallmouth bass lurk in the back eddies of the main channel, while largemouth bass inhabit the sloughs and backwaters of the main channel. And, of course, there are great opportunities to catch salmon and steelhead during their upriver migration.

If you have a dinghy, the area northeast of the moorage is fun to explore. During spring and summer, the water is high enough to allow access to some good waterways back into the countryside.

Interestingly, Beacon Rock has a bit of an international ambiance. Many boaters from around the world make it the end of their upriver cruise. This tends to concentrate them at this spot like nowhere else on the river.

For more information, contact Beacon Rock State Park, Skamania, WA 98648, telephone (360) 902-8844.



MOUTH OF THE WILLAMETTE TO OREGON CITY

For Navigating, refer to NOAA Chart Nos. 18526 and 18528. Distance, 26 miles

From its mouth to the Ross Island Bridge, the Willamette River passes through the commercial, industrial and downtown waterfront of Portland. Upstream from the Ross Island Bridge, the river enters a green belt area as it winds its way south past parkways of tree-lined shores and the landscaped gardens of riverfront homes.

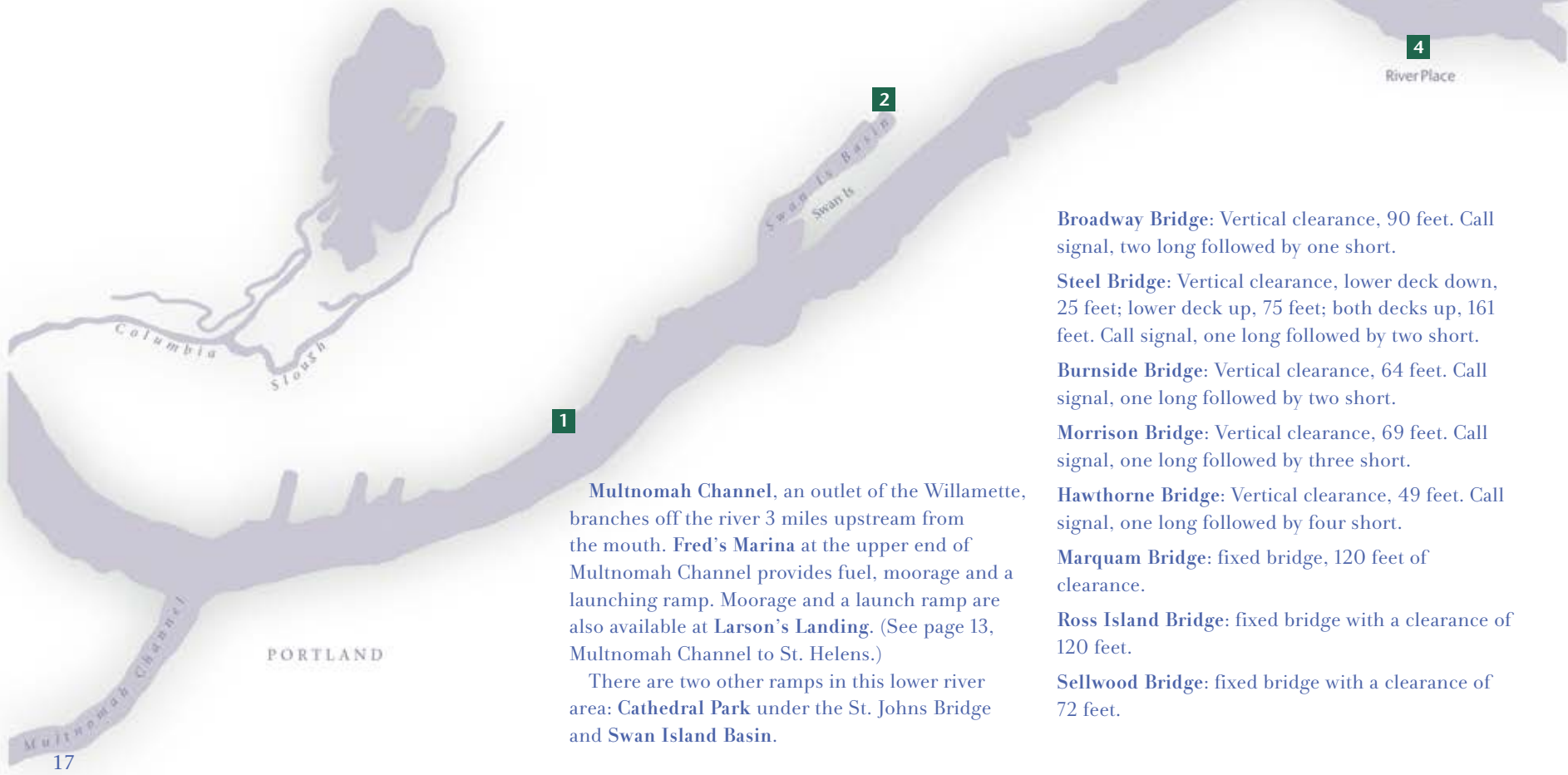
The Willamette River enters the Columbia 101 miles inland from the Pacific. Kelley Point stands at the confluence of the two rivers. Columbia Slough enters the Willamette .5 miles upstream from Kelley Point. This slough is a long, narrow back channel that runs eastward, parallel to the Columbia River. A dam blocks the slough 7 miles above its mouth. The entry into the slough is shallow at low water stages. The shoreline of the slough remains in a remarkably natural state but water in the slough is badly polluted because of sewage discharge and runoff from the abandoned St. John's landfill.

Caution Area: This section of the lower Willamette is a working, commercial harbor, and ship, barge and tug boat traffic is heavy. This traffic holds right-of-way.

Upstream from the St. Johns Bridge, six opening bridges and four non-opening bridges cross the Willamette in the following sequence:

St. Johns Railroad Bridge: Vertical clearance, 55 feet (vertical clearance refers to bridges un-open). Call signal, one long followed by one short.

Fremont Bridge: Fixed bridge with high ship clearance. Multnomah County's River Patrol Willamette Office is located nearby.



Multnomah Channel, an outlet of the Willamette, branches off the river 3 miles upstream from the mouth. **Fred's Marina** at the upper end of Multnomah Channel provides fuel, moorage and a launching ramp. Moorage and a launch ramp are also available at **Larson's Landing**. (See page 13, Multnomah Channel to St. Helens.)

There are two other ramps in this lower river area: **Cathedral Park** under the St. Johns Bridge and **Swan Island Basin**.

Broadway Bridge: Vertical clearance, 90 feet. Call signal, two long followed by one short.

Steel Bridge: Vertical clearance, lower deck down, 25 feet; lower deck up, 75 feet; both decks up, 161 feet. Call signal, one long followed by two short.

Burnside Bridge: Vertical clearance, 64 feet. Call signal, one long followed by two short.

Morrison Bridge: Vertical clearance, 69 feet. Call signal, one long followed by three short.

Hawthorne Bridge: Vertical clearance, 49 feet. Call signal, one long followed by four short.

Marquam Bridge: fixed bridge, 120 feet of clearance.

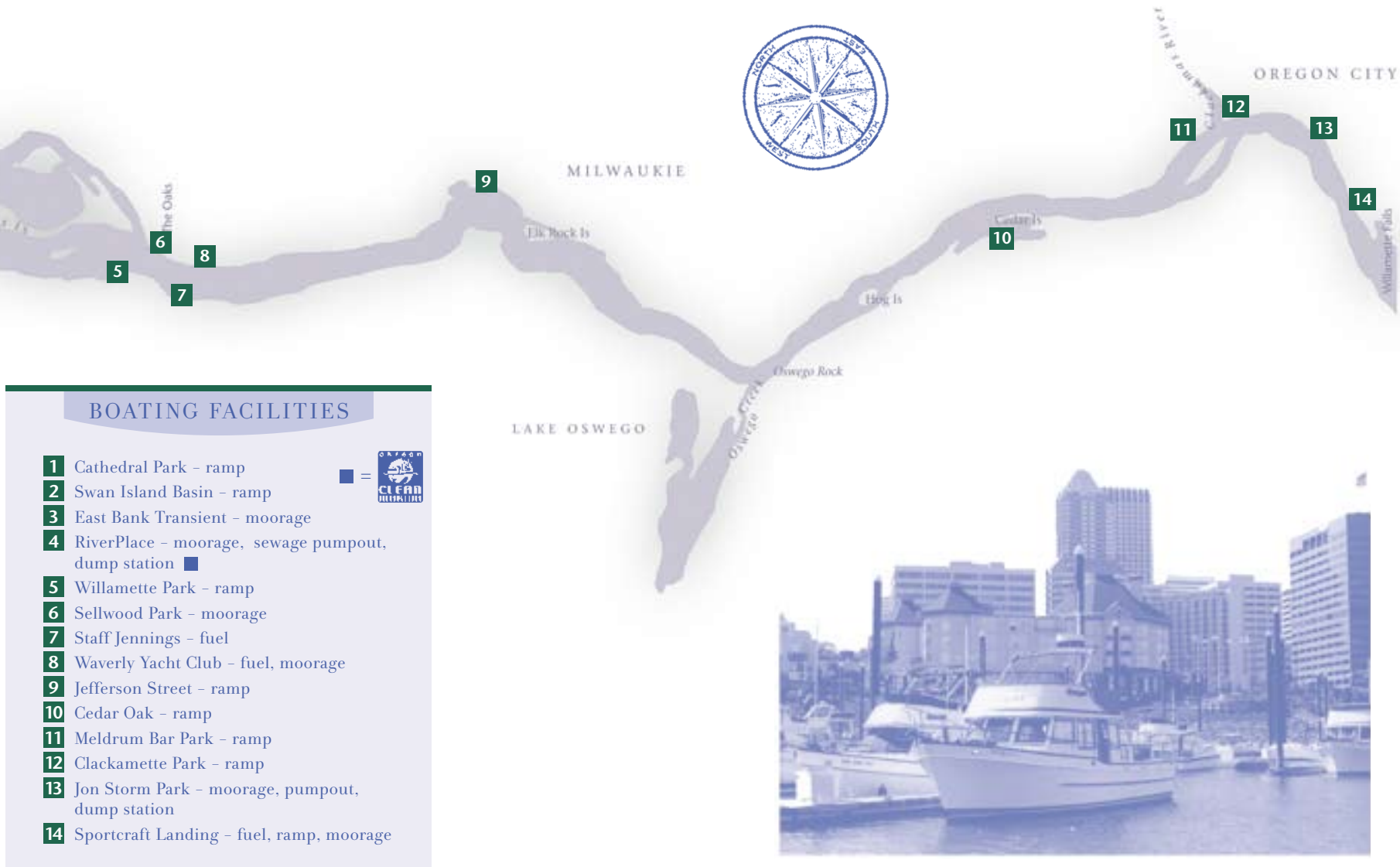
Ross Island Bridge: fixed bridge with a clearance of 120 feet.

Sellwood Bridge: fixed bridge with a clearance of 72 feet.

Note: Closure time for the opening Willamette River bridges is 7 a.m. to 8:30 a.m. and 4 p.m. to 5:30 p.m., Monday through Friday.

Note: The Burnside Bridge is not continuously staffed. Boaters requiring this bridge to open must call ahead one hour on channel 13 or telephone the Port of Portland at (503) 944-7000. Call ahead two hours for weekend openings.

Boats can moor overnight in downtown Portland at the public dock at **RiverPlace** on the west shore of the river just above the Hawthorne Bridge. There is a marine sewage pumpout and dump station at this location. Downtown Portland is within walking distance of this marina.



PLACE NAMES

St. Johns

James John crossed the plains to California and came to Oregon in 1843. He operated a ferry across the Willamette in 1852.

Portland

Francis Pettygrove and Asa Lovejoy platted the future city in 1845 and then flipped a coin to determine whether the city should be named Portland, after Portland, Maine, or Boston. Pettygrove, from Maine, won the flip.

Ross Island

Named for Sherry Ross, who owned and lived on the island in pioneer days.

Milwaukie

Founded by Lot Whitcomb in 1847 as a rival to Oregon City. Both communities considered their locations to be at the headwaters of navigation on the Willamette.

Lake Oswego

The first pig-iron smelted west of the Rockies was produced at the mouth of Oswego Creek (then called Sucker Creek) in 1867. The first iron stoves in Oregon were cast here. The remains of the castle-like smelter can be seen in George Rogers Park.

Oregon City

Oregon City was the first seat of organized government in the West. The area was settled in 1829 by Hudson's Bay Company trappers who occupied portions of Dr. John McLoughlin's land claim. Oregon City was the first city to be incorporated in the Northwest.

Willamette Falls Canal

The locks were built as a private investment in 1873 and were purchased by the Corps of Engineers in 1915.



Willamette Falls

At **Ross Island**, the river divides. The main channel follows the west shore, a secondary channel the east shore. This secondary channel becomes narrow and shallow at its upper end where it rejoins the main channel.

Willamette Park and launch ramp are located on the west shore of the river just across from the upstream tip of Ross Island. Recreational boat traffic is heavy in this area, particularly on spring and summer week-ends. **Caution Area:** A rocky, shallow area lies just upstream from the Willamette Park boat ramp. Unlighted buoy 4 marks the outside edge of this shallow area.

Sellwood Riverside Park, on the east shore and upriver from Willamette Park, has a mooring dock. Fuel and boat repairs are available at the **Staff Jennings** dock just below the Sellwood Bridge. Fuel, overnight moorage and a waterfront restaurant are available at the **Waverly Yacht Club** on the east shore of the river upstream from the Sellwood Bridge. Above the Sellwood Bridge, the river becomes more scenic as it passes through the outlying residential districts of Portland.

A public ramp is located in **Milwaukie**. **Caution:** A shallow area of rocks extends from the west shore across from Milwaukie. Three unlighted buoys, numbers 8, 10 and 10-A, mark the safe channel

around this shallow area. Boaters are strongly advised not to cut inshore from this line of buoys.

Elk Rock Island, a city-owned park, has no mooring facilities, but shallow draft boats can be beached in a small inlet on the west side.

The railroad bridge over the Willamette below the city of **Lake Oswego** clears 74 feet. **Oswego Rock**, just upstream from the city, is marked by an unlighted day beacon. The entry into **Oswego Creek** is shallow.

Cedar Island, on the west shore 4 miles upstream from Oswego Creek, encloses a deep lagoon where boats can anchor. A launching ramp is located on the shore of the lagoon. One other launch ramp is located in this river section, **Meldrum Bar Park**.

The **Clackamas River** enters the Willamette just below Oregon City. Launching ramps are located at the mouth of the river at **Clackamette Park** and at **Sportcraft Landing** just above Interstate 205 Bridge. Fuel, repairs and supplies are available at **Sportcraft Marina**.

Travel up the Willamette can be continued by transiting the **Willamette Falls Canal**. Entry to the canal is on the west bank of the river. Four locks with a combined lift of 50 feet carry boats above the falls of the river.

RIVER HAZARDS AND CONDITIONS

In general, potential boating hazards on the Columbia and Willamette rivers are predictable. Currents and tides follow certain consistent patterns. Normally, winds do not suddenly change direction and storms give long warnings of their approach. The main river channels are deep and well charted with numerous and obvious buoys and markers.

A properly fitting Personal Flotation Device (PFD) is required for each person in the boat. Wear it! All devices must be of a suitable size and buoyancy standard. There are three PFD flotation values: type I, off-shore life jacket; type II, near shore buoyant vest; and type III, flotation aid. Type III has the lowest flotation value and is intended for general boating activities where quick rescue is available. Remember, on Oregon waters, children age 12 and under must wear U.S. Coast Guard-approved life jackets on a boat that is underway.

In addition to PFD's, you're required to have lights at night, a fire extinguisher and a sound device. For more information, consult the Oregon or Washington boaters handbook.

The majority of boat accidents are the result of poor judgement, lack of attention, alcohol consumption or excessive speed on the part of boaters.

Drinking and boating; like drinking and driving, don't mix. Moreover, operating a boat under the influence is illegal and potentially lethal.

FOG

Fog can blanket the river any time of year. The obvious solution is to proceed with caution or wait until visibility improves. Navigation lights should be on if boats are underway during daytime when visibility is restricted.

FLOATING DEBRIS

Logs and large pieces of driftwood are potential hazards, especially during periods of high water and afterwards when the rivers carry a heavy load of floating materials washed from the high water line of the shore.

Deadheads (also called sinker logs) are a serious hazard for the unwary. The waterlogged deadhead stands almost vertically in the water, sometimes with just the tip of one end standing out of the water. Impact with a deadhead can punch a hole in a large boat and destroy a small one that might hit it at high speed.

SHIPS AND COMMERCIAL VESSELS

One of the most interesting features of the Columbia and Willamette rivers is the frequent passage of ships and other working vessels. Ships and workboats have been on these rivers for more than 150 years and certain traditions and laws have been established that give them right-of-way over other vessels.

Federal law (Rule 9) says that the larger vessel (over 65 feet) has right-of-way over small vessels (under 65 feet) in all situations if:

1. The larger vessel does not have room to maneuver, or,
2. If by altering course, the larger vessel would be placed in jeopardy.

When a boat gets in the way of a large vessel, the pilot of the larger vessel can do little to avoid a collision. If the boat is in front of a ship, the pilot may not see it because a long area in front of a ship is a blind spot for the pilot. The pilot of the larger vessel must stay in the channel and has little room, if any, to change direction. If the larger ship were to reduce speed to avoid a collision with a smaller boat, the ship would lose its maneuverability.

A ship emerging from around a bend in the river can advance with surprising speed. Its rate of speed is likely in excess of 10 miles an hour. At a speed of 10 miles per hour, the ship will cover a mile in about six minutes. If a smaller boat approaches the ship at 10 miles an hour, it will take only three minutes for the two vessels to meet. It's up to the pilot of the smaller vessel to avoid the potential collision.

A pleasure boat on the Columbia or the Willamette does not need to travel in the middle of the ship channel. The right-hand edge of the channel is deep enough for its passage. A simple and temporary change of course to the right on the part of the pleasure boat will avoid all risk.

Tacking sailboats, of course, must cross and recross the channel in a zig-zag course. Short tacks will allow the sailboat to travel along the safer channel edge. If the channel must be crossed, it should only be done with a clear view of the channel in both directions. The "danger signal" of five or more blasts from a ship's whistle signals smaller vessels to take necessary action to avoid a collision.

SHIP WAKE

A large ship sometime gives the appearance of traveling through the water without leaving a wake. It is an illusion: Tremendous forces are being churned up as the ship plows through the water. In deep water areas, this wake normally forms as a large "roller-coaster" series of waves. With a small boat turned to meet these waves head-on or at a quartering angle, the waves can be safely met. In shallow water areas, however, the wave train from a ship's wake is potentially more dangerous because it can break like a surfing wave. A boat anchored in shallow water or tied to a beach can take a heavy beating from the breaking surf of a ship's wake.

There is another effect of the passing ocean ship. This is the suction-like action caused by water moving in to fill the "hole" in the river made by the approaching ship. This effect creates a sudden and dramatic drop in the water

level along a beach or shoreline. A forecast of the breaking waves that will soon follow. These breaking waves could swamp or damage a beached boat.

TUGS AND LOG RAFTS

Tugs pushing barges in front or towing log rafts behind, are frequently encountered. The tug always has right-of-way over smaller craft. The pilot of a tug pushing a barge also has a long blind spot in front of the barge. The low profile of the log raft being towed behind a tug boat is sometimes difficult to see, and the submerged towing cable between tug and raft is nearly invisible. Never cross behind a tug, or attempt to cross between a tug and a log raft.

PILE DIKES (WING DAMS)

Rows of pilings projecting out from the shore or standing across the upstream end of an island or slough are called *pile dikes* or *wing dams*. There are many of these on the lower Columbia, fewer on the Willamette. Their function is to restrict the width of the river, thus increasing current velocity which, in turn, sluices silt through the channel. A dolphin, which is a cabled-cluster of tall pilings, stands at the off-shore end of a pile dike. Navigation aids are mounted on some dolphins but not on all of them. During high water, pile dikes are frequently covered and invisible. Only the dolphin at the offshore end reveals the location of the invisible row of pilings. As a general rule, boats *should not* pass in-shore of any isolated pilings standing offshore.

GILLNET BOATS

Boaters should be aware of the gillnet boats that spread long nets across the Columbia at certain seasons of the year. Fishing is done both day and night. The boats lay out their nets, drift, and then haul the nets. The boat is easy to see, but the long line of floats that suspend the net in the water is not so visible. The end of the net is marked with an orange ball during daytime drifts and a lighted float while night fishing. At night, the gillnet boat is also lighted with a white masthead light.

Gillnet boats often lay out their nets in the main channel. It is courtesy and custom for pleasure boats to avoid running over a gill net. Running across a net can damage the net and the net itself can become wrapped around a boat's propeller.

Gillnet fishing seasons in the lower Columbia take place from mid-February to mid-March of the winter salmon run and mid-September to late November for the fall run. Below Bonneville, the gillnetting season for shad occurs during May and June.

RIVER CURRENTS

A general understanding of river currents is important to boaters. It allows currents to be used when they are favorable, and minimized when they are contrary to a boat's passage. By understanding the relationship between currents, shore contours and water depth, boater's can "read" the river, picture what the eye cannot see, and respond accordingly.

Current velocities vary greatly across a given width of the river. Shallow water and the shoreline edge reduce current velocity, while the deeper channels allow it to accelerate. Pile dikes, sandbars and islands accelerate currents in one place and slow them in another.

Natural river channels and faster currents tend to follow the outside curve of a river bend. The faster moving water scours out a natural channel on the outside of the bend while the slower moving currents run along the inside of the curve. Whenever a river current slows, its scouring action decreases and it drops its load of suspended silts. Slower moving water along the inside of a bend allows suspended sediments to drop to the bottom. Thus, the point on which the river turns becomes a shallow area of slower currents.

Current washing both sides of an island will deposit silt scoured from that island in a quiet "V" shaped area of slower currents at the downriver tip of the island. This shallow bar can extend a long distance downstream from the visible tip of the island. Allowances for this shallow area must be made when cutting across the downriver tip of an island.

Another shallow area occurs at the upstream openings of off-branching sloughs. The river current is slowed when it enters the slough and the sediments accumulate to form a shallow area across the upstream entry to the slough.



The wave pattern created by wind against current gives an indication of river depth. Where the channel is deeper, the current will run faster. Where currents run faster toward the wind, a larger wave pattern builds. Thus, the area of larger waves is an area of deeper water and faster currents.

RUNNING AGROUND

You can't spend much time cruising the relatively shallow Columbia River without eventually running aground. Most groundings will be on sandbars or mudbanks. The experience can be embarrassing and it can ruin the cruising schedule, but rarely will the situation be serious. There are a few procedures to consider in getting afloat again.

First, an awareness of the changing water level is most important in deciding what action to take. If the grounding occurs on an ebbing tide, it might take the return of the flood tide to refloat the boat. If the boat grounds at high tide, it will soon be stranded in even shallower water.

A boat about to be set high and dry might come to rest on a rock or other submerged object. The concentrated weight of the boat on this object could damage the hull.

A slow-turning propeller can dig quite a channel in the soft bottom of the river through which a boat might escape to deeper water. (Be careful that the water-cooling intake system does not suck up mud or sand.) Digging, shoving, pushing, hauling and rocking the boat side-to-side are techniques that might get the boat off. And, of course, an obliging boater might come to assist. The Coast Guard should be called only as a last resort and then only if a real danger or emergency is present or imminent.

EMERGENCIES

The U.S. Coast Guard monitors Channel 16 for emergency and distress calls on the Columbia and Willamette rivers. **For assistance in an emergency or distress situation**, the Coast Guard can call on its own boats and helicopters and the helicopter rescue services of the Air National Guard. In addition, through a network of city police and county sheriff offices, some 200 citizen members of the Coast Guard Auxiliary are available for assistance in emergency situations.

In reporting an accident or an emergency, the boat operator should be able to give the boat's precise location, the nature of the problem, the condition of the passengers, and the condition of the boat.

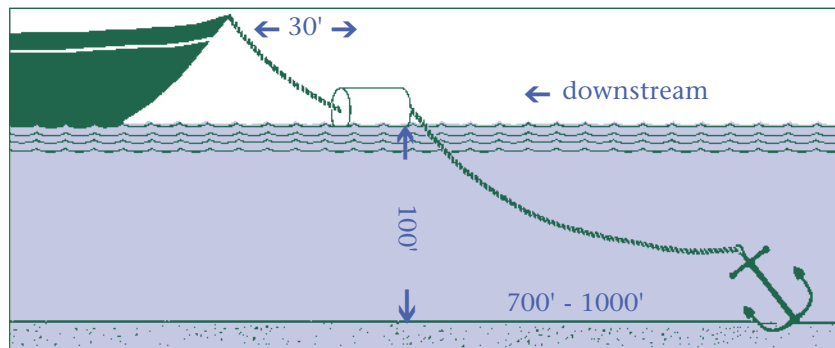
If towing assistance is provided by the Coast Guard or any emergency boat, it is the policy to tow the boat to the closest safe moorage, not to the home port.

ANCHORING

The substantial difference in water levels caused by tides in the lower Columbia can present anchoring problems. Boats should not be tied to non-floating structures.

Anchor Safely

Swift current, high flows and cold water make anchoring recommendations imperative. Use 7 to 10 times the depth of the water for the length of the anchor lines and use a float. Anchor only off the point of the bow. Anchoring off the stern or side will capsize your boat. Power upstream of the anchor before retrieving it and maintain position in line with the flow of the current while retrieving the anchor.



UNDERWAY

RULES of the ROAD

Rivers, like highways, have rules that govern right-of-way. On water, these are called rules of the road. The boat that has the right-of-way on the river is called stand-on boat. The boat that must yield is called the give-way boat. The rules of the road have the force of law and boaters can be penalized for failure to observe them.

CROSSING SITUATIONS

When two boats are on intersecting courses, the boat to the right (the starboard side) is the stand-on boat and it has the right-of-way. The give-way boat must alter its course or speed to avoid a collision with the stand-on boat. The stand-on boat should maintain its right-of-way course in the crossing situation. (See illustration, page 23.)

OVERTAKING

A boat being overtaken or passed by another boat has the right-of-way. The boat being passed must hold its course and speed as it is being passed. The overtaking boat must pass at a distance sufficient to avoid a collision or endangering the other boat with its wake. (See illustration, page 23.)

MEETING HEAD-ON or NEARLY HEAD-ON

When two boats approach each other head-on, each must alter course to the right to avoid collision. If the two boats are far to the left of each other, no course change is necessary. (See illustration, page 23.)

ADDITIONAL RULES OF THE ROAD

- Less maneuverable boats, such as sailboats, rowboats and canoes, usually have right-of-way over powerboats, except in an overtaking situation.
- All boats under 65 feet in length must yield to larger vessels and ships in all situations.
- Obstructing boats by anchoring in a channel or passageway ordinarily used by other boats, is against the law.
- No one shall operate a boat at more than 5 mph within 200 feet of a boat launch ramp, marina, floating home or boathouse moorage.

BOATING COURTESIES

Simple courtesy adds much to the pleasures of boating and safety for everyone. Here are a few points to remember.

1. Watch your wake, particularly when passing other boats and near docks, floating homes, moorage and ramps. You can be held responsible for damage caused by your wake!
2. When launching and loading boats, avoid blocking ramps and docks when others are waiting to use the facilities.
3. Be alert for swimmers, downed water skiers and slow moving boats.
4. Respect private property and beaches.
5. Avoid loud operating noises near residential areas.
6. Give bank and boating fishermen a wide berth. They have lines out.
7. Extend to others the courtesies you have a right to expect from them.

LITTERING AND THE ENVIRONMENT

Boaters can make a difference every day by practicing Clean Boating etiquette and laws. Please keep a trash bag secure on deck and keep litter from blowing overboard. Pollution is unsightly, harmful to fish, birds, and wildlife, and is illegal. It can also damage propellers, cooling water intake systems and engines. Take recycling on shore.

Use alternative cleaners, such as baking soda, lemon juice, vinegar or anything else that will not harm the environment. Make sure to avoid cleaners such as bleach, ammonia, lye or petroleum distillates. Boaters commonly use paints, lacquers, thinners, paint strippers, brush cleaners, wood preservatives and turpentine. Some of these are suspected carcinogens and are poisonous to humans and marine life. Please always be careful when using toxic chemicals and petroleum products. Never dump them overboard.

Human sewage poses a significant pollution problem. While boating, it is important that you treat or dispose of your sewage properly. You are not required to have a toilet installed in your boat. However, if there is one, it must be equipped with a U.S. Coast Guard-certified marine sanitation device, or MSD. An MSD is designed to prevent untreated sewage from being discharged overboard.



There are three types of MSDs. For the type required on your boat, consult U.S. Coast Guard Fact Sheet 13, “Marine Sanitation Devices on Boats”.

Boats without toilets should use a port-a-potty. Many marine parks and marinas have dump stations to empty port-a-potties. Locations of pumpouts and dump stations are provided in this book. For a current listing of pumpout facilities, call the Oregon State Marine Board at (503) 378-8587.

You can take a personal role in maintaining the beauty of the Columbia or Willamette, or any other Oregon river. Adopt and clean up your favorite stretch through the Oregon Adopt-A-River program, a joint effort of SOLV (Stop Oregon Litter and Vandalism), the Marine Board and others. Call 800-333-SOLV for information.

HIGH WATER, LOW WATER: WHEN AND WHY

Water levels on the Columbia and Willamette rivers are determined by complicated and interlocking factors such as the season of the year, the strength of the Pacific tides and the network of dams that hold and discharge water for electricity, irrigation, navigation, fish migration and flood control.

Natural conditions of rainfall and snowmelt are seasonal. Tidal conditions cause hourly changes. The flow of water over dams fluctuates according to seasons of the year and the daily and even hourly demands for electrical current. Some understanding of the conditions that determine water highs and lows is important to river cruising.

SEASONAL FLUCTUATIONS

Annual weather patterns in the Columbia and Willamette watersheds are the dominant influence on water levels in the two rivers. The two rivers have entirely different flood seasons. Peak flow on the Willamette River, largely rain-fed, occurs during the mid-December through February period.

Snow melt in the Rocky Mountains and the Columbia Plateau causes the Columbia to reach peak-flow in late May. Thus, the Willamette is low, or nearly so, at the time the Columbia is at its highest level.

DAMS

The network of dams in both river basins anticipates these seasonal water surpluses and controls water levels along the rivers to reduce damaging floods. Surplus water during these periods is also stored for future release to satisfy the needs of energy, irrigation, navigation and fish migration.

TIDAL EFFECT ON THE RIVERS

In each 24-hour period the Oregon and Washington coasts experience two high tides and two low tides. These tides affect the Columbia upriver as far as Camas, and upriver on the Willamette to Oregon City. Mean ranges of tides in the Columbia range from 6.7 feet at Astoria, to 1.3 feet at Vancouver and 1.8 feet at Portland.

Traveling upstream from the mouth of the Columbia, the effect of the flood tide takes approximately six hours to reach the mouth of the Willamette River. As this tidal effect works its way upstream, it slows or even reverses the downriver current of the Columbia. When the tide changes to the ebb at Astoria, the holding action of the high tide against the river current is released and the river current accelerates to discharge water held back by the tide.

Tidal effects should be taken into consideration when anchoring, particularly in the lower Columbia where tidal rise and fall is more noticeable. To save time and fuel, boaters can use the forces of the tide by timing the departure of a downriver trip with the start of the ebb, and an upriver trip with the flood.

Inexpensive tide books are available at most marine and fishing supply stores. These books list the predicted times of high and low tides for the calendar year. The books also give the times of high and low tides at various locations along the Columbia.

UNDERSTANDING THE CHARTS

The chart is your best guide to river travel. Your eyes see the river, the chart places what you see in context. An island is given a name, a distance of depth determined, a location established.

The chart defines a safe channel, reveals potential dangers, and identifies the navigation aids placed along the river.

It is a document of great history, intricate measurements and photographic accuracy. A chart is the planning base for a cruise in unfamiliar waters. Creased and worn and scribbled with margin notes of your experiences, the chart becomes the personal record of your cruise.

This book is to be in conjunction with the full scale charts of the areas covered. The book is keyed to these charts. **The chart drawings in this book are for information only; they should not be used for navigation.**

MILEAGE

On the charts, river mileage is marked at intervals of five statute miles by the purple lines that intersect the river and carry this information: St M 10, meaning statute mile 10. Mileage is computed along the main ship channel and a boat's actual travel distance will vary with any departure from the measured miles of the main channel.

COLORED AREAS

Note the various colors on the chart. Each color has significance. Solid land is shown in buff-yellow. Deep water areas are white (the color of the paper). Shallow water areas are shown in a blue tone. The edge between the white-colored deep water and the blue-colored deep water follows along a depth line of approximately 18 feet. Areas alternately above or below water because of tide of flood stages are colored green. These areas could be sandbars, marshes or mudbanks.

DEPTHS

All water depths and all heights above water are shown in feet. Water depth is measured at “mean lower low water”. This means that these indicated depths are the least depth in feet that you will find over the bottom.

Note: Areas in the Columbia River outside the main shipping channel are subject to silting and actual river depths may be less than indicated on the charts.

OBSTRUCTIONS

Note carefully the style of lettering in the words on the chart that describe places and things, such as “Snag”, “Dike”, “Piling”, etc. If the letters are vertical, the obstruction stands above the water; if the letters slant, the obstruction lies below the surface of the water.

PILE DIKES

Pile dikes (also called wing dams) are placed in the river to concentrate currents in directions that provide a natural sluicing of the navigation channels. They can be identified by the cluster of pilings (called dolphins) standing at their outer ends. Some dolphins support lighted navigation aids. Wing dams are shown on the charts as solid black lines standing out from the shores or across the upriver ends of islands and sloughs.

MAIN CHANNEL

The main ship channel is maintained at a depth of 48 feet across the entrance to the Columbia and 40 feet to the Broadway Bridge on the Willamette. Above Vancouver, channel depth is 27 feet. Channel depth between the Broadway Bridge and Ross Island is 30 feet. The main channel is shown on the charts by parallel dashes.

BUOYS, LIGHTS AND DAY BEACONS

The right and left sides of a channel are determined by the view of a vessel moving upstream. This vessel is coming from the sea and is said to be “returning”. Aids to navigation that mark the right and left sides of the river and its channels are keyed to the right and left side of the returning ship. Aids to navigation (numbered buoys and lights) are placed to show one side or the other of a channel. Red buoys, red lights and even numbers are on the right side of

the channel; green buoys, green lights and odd numbers are on the left side of the channel. “Red-right-returning” is the sailor’s ditty to remember. It simply means the red buoys are passed on your right side when proceeding upstream.

For geographical convenience, the Oregon shore of the Columbia can be considered the right side of the channel, the Washington shore the left side. On the Willamette, the west shore can be considered as the right side of the channel, the east shore the left side. This is not the system, it is just an easy way of remembering the system on the Columbia and Willamette rivers.

Buoys on the chart are shown as either a red or green solid diamond and circle with their appropriate number along with the light characteristics of the buoy.

MINOR LIGHTS

Minor lights (and day markers) are placed in fixed locations along the river. They are not floating. On the Columbia, these lights are frequently (but not always) placed on the pilings at the deep-water end of pile dikes. They do not normally define the edges of the channel. Their function is to assist in determining a vessel’s location on the river. On the charts, these lights are shown as small tear-shaped, purple symbols along with their individual light characteristics and number.

NUMBERING SYSTEM OF BUOYS AND LIGHTS

The numbering system begins at the mouth of the river and works upstream, even numbers to the right (Oregon shore and west bank of the Willamette), odd numbers to the left (Washington shore and east bank of the Willamette). However, it is not a cumulative system in that the sequence ends at certain high numbers and begins again. Nor is the numbering always sequential because some numbers are skipped in order to keep both sides of the channel in approximate numerical relationship.

RANGES

Ranges are visual navigation aids that allow the pilot of a ship to run the center line of a channel. Ranges consist of two large, orange markers with black, vertical lines placed in a line, one above the other. When the ship is in line with both vertical lines on the markers, it is in the center of the channel. At night, each range is identified by its particular light characteristic.

On the chart, the ranges can be identified by a black line drawn through the center of the two dotted lines that define the channel. The range will be identified along this center line by name (“Pillar Rock Lower Range, Wauna Range” etc.). This center line will lead to the two range markers – the orange boards with black, vertical stripes.

CLEAN BOATING PRACTICES

WHAT IS THE OREGON CLEAN MARINA



PROGRAM?

The Oregon State Marine Board cares about clean water. That is why the Marine Board sponsors and supports the Oregon Clean Marina program. This program recognizes marina that go above and beyond environmental regulations by designating them as “Clean Marinas”.

The Oregon Clean Marina program also provides information to marina managers on how to protect against the release of polluting materials – such as oil, paint, cleaning chemicals, sewage, fish waste and trash – into the environment.

The goal of this program is to help protect and improve local water quality by promoting the usage of environmentally responsible practices at marinas.

WHO CAN BECOME CERTIFIED?

Marinas, boatyards, yacht clubs and floating home moorages with ten slips or more can become certified.



BOAT WASTE COLLECTION FACILITIES



Please help keep sewage out of Oregon’s waterways. The Marine Board has participated in the Clean Vessel Act program since 1993, providing grant funds to build pumpouts, dump stations and floating restrooms on the most heavily used waterways statewide. To encourage the use of these facilities, no fees are charged.

The Clean Vessel Act program is administered through the U.S. Fish and Wildlife Service on a national competitive basis. Please follow these simple best-boating practices:

- Use shore-side restroom facilities before casting off.
- Use pumpouts, dump stations and floating restrooms. Dumping any untreated sewage into inland lakes, rivers or coastal waters inside the three-mile limit is a Class B felony (ORS468.946).
- On extended trips, use this guide to locate onshore or floating restrooms.
- Keep solvents, oil, emulsifiers, paints, poisons, phosphates, disposable diapers and sanitary napkins out of your holding tank or portable toilet. These items can damage the sewage disposal equipment and increase the cost of disposal.
- Be a Clean Boating Steward. Help other boaters understand ways to prevent boat sewage contamination by passing along information on pumpout and dump station locations, notifying the owners of malfunctioning equipment and encouraging marina operators to install a pumpout and/or dump station with assistance through the Clean Vessel Act Grant program managed by the Marine Board.



NUISANCE SPECIES

Many non-native nuisance species are threatening Oregon's waterways with the potential to alter ecosystems and damage fisheries. Zebra mussels, mitten crabs, hydrilla and other plants and animals can hitch a ride on your boat and spread to your favorite waterbody. Here's what you can do to prevent spreading aquatic nuisance species:



- Inspect your boat and trailer. Remove any plants and animals you see before leaving the waterbody.
- Drain your motor, live well and bilge on land before leaving the waterbody.
- Empty your bait bucket away from the water. Never release live bait into a waterbody, or move aquatic animals from one waterbody to another.
- Rinse your boat, trailer and equipment. A home pressure washer or those found at self-service car washes are excellent. Air dry your boat and equipment for as long as possible – five days is optimal.

REDUCE YOUR MOTOR'S EMISSIONS

Carbureted two-stroke engines produce relatively large amounts of hydrocarbon emissions. Consider upgrading to 2006 compliant outboard engines like four-stroke or new-technology two-stroke engines. Look for the EPA 2006 sticker to make sure any engine you buy is clean and efficient.

Newer technology engines are at least 75 percent cleaner than carbureted two-stroke models. They produce fewer hydrocarbon emissions which means cleaner air and water, and more pleasant fishing or skiing. Because these engines are 30-70 percent more fuel efficient than carbureted outboards, you'll save money in the long-term, too.

MARINE FUELING PRACTICES

Gas or diesel may spill while you are fueling your boat, either as backsplash out the fuel intake or as overflow through the vent fitting. Fuel spills harm aquatic life, waste money, and can result in stains on the hull and damage to your boat's gel coat and striping. Follow these tips to avoid problems:

- Fill tanks to no more than 90 percent capacity – gas that is drawn from cool storage tanks will expand as it warms onboard your vessel and overflow the tank.
- To determine when the tank is 90 percent full, listen to the filler pipe, use a sounding stick (if possible), and be aware of your tank's volume.
- Rather than filling your tank upon your return to port, wait and fill it just before leaving on your next trip. This practice will reduce spills due to thermal expansion because the fuel will be used before it has a chance to warm up.
- Fill portable tanks ashore where spills are less likely to occur and easier to clean up.
- Use oil absorbent pads to catch all drips.
- Slow pump down at the beginning and end of fueling.



FISHING THE COLUMBIA RIVER

by Tom McAllister

As part of the effort to rebuild salmon and steelhead runs, anglers will find many angling restrictions on the mainstem Columbia. In part, these restrictions are necessary because both healthy and threatened runs are often intermingled during migration. For instance, during much of the spring and early summer period, fishing is closed on the lower Columbia to protect the races of Chinook salmon returning to the far upper tributaries in Idaho and Northeast Oregon. The restrictions ease when a healthy run turns into its home river. The Willamette spring Chinook run is a prime example.

Angling rules for salmon and steelhead can be changed in-season and need to be checked closely for openings and closures. Contact the Oregon Department of Fish and Wildlife prior to fishing for an update on regulation status. Columbia River fishing regulations for both Washington and Oregon are set for uniformity on the river, so what applies to anglers launching from the Oregon shore applies as well to those who embark from the Washington shore. Under rules enacted as part of the wild steelhead management program, all unmarked steelhead – those with intact adipose fin – must be released unharmed. Steelhead with a clipped adipose fin come from one of the hatcheries on the river and can be kept. Salmon and steelhead runs that use the lower Columbia tributaries, especially the Willamette, Clackamas, Sandy, Cowlitz, Kalama, Lewis and Washougal rivers offer good fishing. Much of the fishing effort in the Columbia concentrates around the juncture of these streams with the Columbia. When the Columbia warms into the high 60's and low 70's in late July, August and early September, the best fishing is off the mouths of these tributaries where migrant summer steelhead pause for a cool exchange of water over their gills.

Boat anglers often anchor off the confluence of these cooler rivers and work a buoyant, bobber-type lure, like the Spin-n-Glo, or a flatfish in silver, gold, flame and red hues just off the bottom. The bright-colored, winged bobber floats upward from the bottom and spins and waggles in the current. Here's

how this gear set-up works: A pyramid or bank sinker is rigged to slide free on the line, and a barrel swivel and several beads provide the stop at the juncture between the line and a three-foot leader. When a fish strikes, the pull is signalled directly up the line, because the line slides freely through the eye of the sinker. This is the same effective system used by so many bank anglers along the shores of the Columbia.

Because of light currents in August and September, spinners and spoons work well especially for steelhead, when cast and retrieved along the demarcation line where the waters of the two streams mingle. The Kalama River mouth has always been a favored spot for casters. Egg wobblers also work well when anchor fishing in slow currents.

Spring salmon follow the path of least resistance. As they migrate upstream, they press close to shore and take advantage of broken water and obstructions such as breakoffs, rock points, pilings, abutments and log rafts. They will use a slack pocket to pause alongside or below these structures.

Tide tables are valuable because of the extent of tidal flow in the lower Columbia and the tendency of the salmon and steelhead to come in waves and to move with the incoming tide.

During March – primarily the last two weeks – Columbia spring salmon anglers troll off the beaches or bars, especially on the Oregon side of the

Columbia, to intercept chinook moving toward the Willamette River. Willamette-bound spring salmon come up both the Multnomah Channel from St. Helens as well as the main navigation channel into the Portland Harbor, where they are caught right off the Swan Island docks as well as under the bridges and in sight of onlookers in the downtown highrises. Spring salmon fishing is often cut off early in the Columbia to protect weak chinook runs bound for the upper Columbia that intermingle with the stronger Willamette run in April and May. The beaches off Westport, Rainier, Prescott and Goble all yield spring salmon on a variety of trolled spinners, wobblers, plugs and either plug-cut or whole herring. The same rigs work in the Willamette River. Some boaters anchor outside the range of the beach casters and work their lures in



The Columbia River is home to North America's largest freshwater game fish, the white sturgeon.

the current. The usual trolling rig consists of a wire spreader with three feet of leader for the lure and 18 inches of dropper line for the sinker. Sinker weights vary with the strength of tide and current and may run anywhere from three to eight ounces.

Novice salmon anglers often put out too much line. The friction of the current keeps their lure closer to the surface than desired and does not allow as direct a feel. You'll get better results if you take a certain number of pulls on line off the reel to figure depth, employ enough weight to hold the lure at the desired depth and drop the line in fast.

Spring salmon start arriving in the Willamette by February. The early chinook are the largest, many to them five-year-old adults weighing from 24 to 40 pounds. They seem to be the best biters, and their passage in March and early April is marked by outbursts

of fine fishing when the river is not too high and discolored. Willamette spring salmon fishing from St. Helens to Oregon City rolls into May and the later arriving salmon are the four-year-olds that run from 12 to 22 pounds.

A separate midsummer salmon fishery takes place in the Columbia estuary, where foraging coho slash through schools of anchovy. The entrance above buoy 10 opens in early or mid-August on a date agreed to and announced each season by Oregon-Washington fishery managers, and this fishing bonanza lasts into September. It is a melee of boats and salmon and requires close watch on the part of small boat skippers for other craft and especially for deep-draft vessels coming and going in the shipping channel.

A sound rule concerning deep-draft vessels is to stay at least one ship length – 500 to 600 feet – away from their bow and at least 100 feet from the vessel's side as it passes. It is illegal to cross in front of one of these channel-restricted vessels or a tug with barge if the crossing impedes their passage.

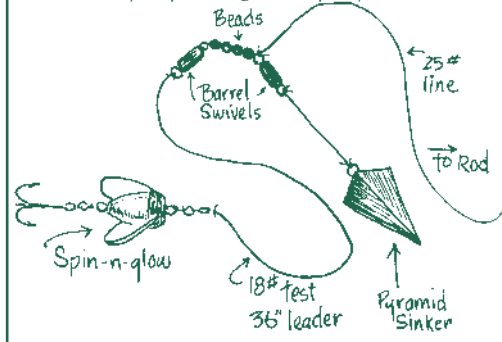
The Inland Steering and Sailing Rules and international rules are clear. Vessels less the 20 meters (65.6 feet) in length shall not impede the passage of a vessel that can navigate safely only within the channel confines. There is no such thing as right-of-way over these deep-draft vessels which ply the lower Columbia River every day.

Sturgeon

The Columbia River, home to North America's largest freshwater game fish, the white sturgeon, is a sturgeon resource second only to that of Asia's Caspian Sea.

The Columbia's sturgeon population was depleted by commercial overfishing in the late 1880's. Stocks recovered slowly and were then cut off from in-river movement by dams. Sturgeon do not use the fish ladders. Some adult

A pyramid or bank sinker is rigged to slide free on the line, and a barrel swivel and several beads provide the stop at the junction between the line and a three-foot leader. When a fish strikes, the pull is signalled directly up the line, because the line slides freely through the eye of the sinker.



white sturgeon make prolonged journeys, as yet little understood, out of the Columbia and up and down the coast. Since 1980, the popularity of sturgeon fishing with sports anglers has jumped in the Bonneville to Astoria reach, where sturgeon are still free to follow a varied seasonal food supply, including smelt, anchovy, lamprey, crayfish, fresh water clams and salmon that die en route home.

Sturgeon fishing is open all year, but in recent years regulations designed to protect the supply of mature spawners and to bring more large sturgeon into the sport catch have been enacted. Under these regulations, sturgeon 5 feet (60 inches) or more in length, the brood fish, must be released unharmed. A six footer weighs about 100 pounds, but that's just a start for a sturgeon that historically reached weights from 900 to 1,200 pounds! To assist in a safe release, neither

barbed nor multi-point hooks or gaffs can be used to catch and land sturgeon. The minimum length is 42 inches, and the daily catch is limited to one sturgeon. An annual sturgeon tag for recording the catch is required, and the annual catch limit is 10 sturgeon. However, sturgeon fisheries are managed on a quota system, so check with the Oregon Department of Fish and Wildlife on the status of the season prior to fishing. Anglers catch many undersized fish for every keeper sturgeon, sometimes at a ratio of 10 to 1.

A basic sturgeon rig should get down fast and hold bottom, where the sturgeon, with its sensitive barbels, or whiskers, its long snout, and its underslung, expandable mouth roots, sniffs, feels and tastes all that moves in the depths. Stiff seven-foot rods with roller tips are needed to handle the depth, the drag created by 10 to 48-ounce sinkers, and the power of an aroused "diamond back".

Forty-pound test monofilament line and 80-pound braided Dacron leader serve the needs of sturgeon seekers. The lead weights are run free on the line through a snap swivel so there will be a direct pull when the sturgeon picks up the bait. A bead-and-barrel swivel between the line and leader act as a stop for the sliding weight. To the several feet of leader tie a 6/0 or 8/0 octopus hook. When rigging smelt, the preferred bait of late winter and early spring, hook the bait head first and put three half-hitches of leader around the body to hold it securely while the sturgeon mashes and sucks on the bait.

The estuary off Chinook, Washington, Tongue Point, Oregon, and the downriver ends of the islands leading into Prairie Channel is a top sturgeon area in spring and summer. Another productive area is in the deep holes near Dodson at the western terminus of the Columbia Gorge. Moreover, sturgeon can be found all through the holes of the Columbia and lower Willamette

ivers, and the fishing flows with the movement of sturgeon in pursuit of changing food supplies.

Sturgeon take a bait with a steady pull. You'll get the best results if you feed the fish a little line, take out the slack, and hit hard to sink the hook in that rubber-firm mouth.

Heavy flows, especially in the Gorge area, and strong wind and tide in the estuary make anchoring for sturgeon hazardous if safety considerations are not kept foremost in mind. Use anchor lengths seven to ten times the depth of water and employ a float buoy with the anchor line. The float will serve as a buffer and provide a point of detachment and return without having to weigh or drop anchor again. Lower the anchor only from the point of the bow. Do not throw out the anchor. Anchoring from side or stern can capsize the boat. Power upstream of the anchor and maintain position with the flow of the current while retrieving line. Turning crosswise to the current increases the chance of capsizing.

Walleye

Walleyes are members of the perch family and are best noted for their flaky, white, sweet tasting fillets and not for their fight. These recent arrivals from the midwest first provided catches in the Lake Roosevelt reach of the Columbia in the 1960's and worked steadily downriver. The size of the walleye in the Columbia is remarkable, with many fish running six to nine pounds and reaching top weights of 18 pounds in the mid-Columbia.

Even expert walleye anglers have a time trying to get a "fix" on the expanding lower Columbia walleye population. You can locate a school one day, return the next day under identical time, weather and current conditions and the walleye may be miles away. Most catches in this largely unexplored new fishery have come in the Corbett to Hamilton Island reach of the Columbia River Gorge. But walleye are taken incidentally on spinners by salmon and steelhead trollers downriver to Goble and through Multnomah Channel and the lower Willamette, so they are there.

Fishing is haphazard in winter and spring and more consistent in summer and fall. To locate walleye in the lower Columbia, move about, watch the fish finder, and troll with various spinner or jig and bait combinations. When walleye are located, move upriver or above the school and drift back over them, using just enough power to maintain course, and keep the bow pointed upstream.

Walleye hunt bottom-feeding sculpin when the river is cold, the suckers and squawfish are also regular fare. Being able to read the bottom structure and the soft springy tap or touch of the walleye is important. It is easy to set the hook too soon. Remember that walleye are hard-mouthed, and the hook must be set sharply.

One-half to three-quarter-ounce plastic-bodied jigs, like the Twister Tail, or a Big Eye jig, with stinger hooks and a strip of white meat from a sucker or squawfish, or a section of nightcrawler are lures with which to probe the bottom for

walleye in winter and early spring. Jigs work best when drifted and jigged lightly just inches off the floor of the river. Light leader – eight ounces is adequate for walleye – allows the jig to flutter and work its best. A sliding sinker suspended from a snap swivel with its eye running free through the main line provides a better feel for the soft bite of the walleye.

When the river warms in June, switch to bright little walleye spinners with nightcrawlers and troll downstream just fast enough to keep the spinner blade working. Downstream drifts and trolls take less lead. Pencil leads slide more easily along the bottom and are less apt to hang. Punch a hole in one end of the pencil lead to attach it with the snap swivel.

Fall is the season to troll upstream along the breaks or ledges with a plug or crankbait set to run the right depth. Walleye schools follow the deep side of these ledges as they hunt for the shad fry moving downriver. Remember that walleye lay with their bellies just off the bottom; the lure needs to come to them, and it should be just creeping because walleye rarely chase a fast-moving lure.

Bass and Panfish

Quiet sloughs and back bays off the mainstem Columbia are the haunts of largemouth bass, while smallmouth use faster water and thrive in the Willamette between Oswego and West Linn. Cedar Island, Meldrum Bar and the Dahl Park areas all yield smallmouth on drifted nightcrawlers. Yellow perch, bluegill, crappie, warmouth, bullhead catfish and channel catfish have their niches along the lower Columbia and Willamette Rivers.

Some of the best bass fishing comes on mellow autumn days when the water temperature chills and largemouth bass retreat into the warmer sloughs. Bass, along with the panfish, will take a worm fished from a bobber. But the aggressive largemouth bass is an ambusher, and it wants its prey in action. It pounces from cover to grab other fish, frogs, salamanders, snakes, nymphs, and assorted critters like mice that fall into the water. Bass lures include floating or topwater plugs, diving plugs, jigs, spinner baits and buzz baits. Time of year, water depth and food preference make a difference in choosing which lure to use. When in doubt, cast and retrieve a nightcrawler on a spinner rig. Even lethargic winter bass can be taken on plastic black worms or eels fished deep along a breakoff. In summer, largemouth bass are found in the shallows by pilings, logs, brush and weed cover, where they feed most actively in low light periods. When the sun is bright on the water, bass leave the shallows for darker cover.

Cover is all-important for the perch, bluegill and crappie, so avoid currents and look for backwaters or eddies where structures poke into the river. Sunken barges, downed trees and logs, pile dikes, rock formations and log rafts all provide cover.

Some of the best catfishing takes place in spring high water when the catfish come into the grassy margins of Vancouver and Sturgeon Lakes to spawn. Both spots can be accessed in high water by connecting channels from the Columbia.

Lake River, connecting the Columbia and Vancouver Lake, is a prime panfish location and one of the few that regularly produces the dandy of the catfish tribe, the channel cat.

Another notable bass and panfishing spot which boats can access off the main Columbia on the Washington side is Coal Creek Slough west of Longview. It has high banks and sheltering tree cover and is good for a mix of both bass and panfish in all but the coldest midwinter weather. On the Oregon side, Blind Slough off Prairie Channel, Westport Slough near Westport, and Beaver Slough off Wallace Slough below Clatskanie are worth exploring. They are all effected by strong tidal flow. Portland Harbor comes as a fishing surprise, but in summer, crappie can be taken two at a time on jigs in about 20 feet of water around the docks, and bass are there, too. And the log rafts anchored in Multnomah Channel provide protective cover for schools of yellow perch waiting to pounce on a worm.

Small lead head jigs with plastic skirts in a variety of colors will catch the various panfish when cast and retrieved slowly because they simulate a whole array of food from minnows to bugs. Jigs are usually rigged in pairs. If fished deep or in a current, add weight by using a rubber core sinker that can be used over and over without chafing the line. When fished in shallow water, jigs can be suspended from a bobber. Splash the bobber about next to overhanging brush or cover, and it's like ringing the dinner bell if a school of crappie is present.

Except for spring, when they come close inshore to spawn, catfish are best taken on worms fished on the bottom in holes or back eddies where food arrives with the current.

Shad

Shad are the lottery fish because their numbers run in the millions. These giant members of the herring tribe are anadromous, like salmon, and return each spring in dense schools that pass briskly up the Columbia as far as the Tri-Cities area to spawn. Shad were introduced from the East Coast in the 1870's, and their numbers exploded. Shad succeeded on the Columbia in spite of the dams because of their easy adjustment to long upriver migrations and fish ladders. Each female shad broadcasts from 30,000 to as many as 100,000 eggs. The eggs sink to the bottom, and in three to seven days, the young shad hatch. They remain in the river until fall and then drift seaward.

Western anglers, unlike those in the East, have been slow to appreciate shad

The Columbia River, once the world's most productive salmon and steelhead river system, is now the focus of a seemingly endless series of biological and political crises. Many runs are severely depressed. Some historic runs are gone, and others face extinction.



Steelhead

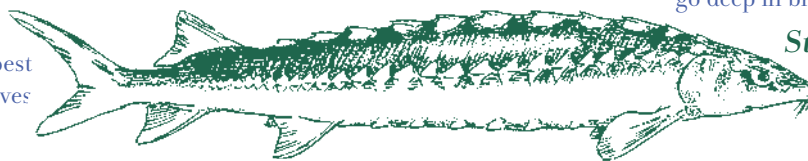
as a game or food fish. Nonetheless, good fishing begins as early as the third week of May below Bonneville Dam and lasts throughout June in years when the spring runoff is high and murky. Shad pick definite spots to pause on their journey. Look for a fast current where the schools are forced close to shore.

Shad gear is simple. Use six or eight-pound test line so the little shad lure will swim better. A gold or silver size 1 or 2 hook with two or three beads say, red, metallic and coral – above the eye of the hook makes an inexpensive

lure. Standard lures are little wobbling spoons like the FST or Triple Teaser, or shad darts in yellow or white. A no. 6 hook is ample on these wobblers and darts.

Think light with shad gear. A shad's mouth is small and tender. Shad are plankton feeders and stop feeding when they enter fresh water, which is why only small lures work. Instead of a spreader, a couple of three-way swivels can be used to fish a pair of shad lures when anchoring in the current. It is not unusual to get shad on two at a time. The shad strike is a short bump. Make a sharp, quick wrist set to sink the hook. Do not make a long jerk that pulls the hook free of the tender mouth.

The best shad fishing occurs from early morning until about 9:00 a.m. They go deep in bright light.



Sturgeon

Productive Columbia Gorge shad areas for anchored boats are off the lower ends of Hamilton, Pierce and Ives Island. Any further upstream, and the powerful currents are very risky. The mouth of the Washougal River at Camas Slough and the lower end of Shell Island off St. Helens are also points where shad hold in the current edge as they migrate upriver. In the Willamette, the shad action takes place at the mouth of the Clackamas, especially when backwater from the Columbia has slowed the Willamette, and in the swift current between West Linn Bridge and the Willamette Falls deadline.

Mind the spring current when anchoring to fish for shad, and follow the rules of safe anchoring described under sturgeon fishing.

HISTORY

ALONG THE LOWER COLUMBIA AND WILLAMETTE RIVERS

1775: Bruno Heceta, commander of the Spanish ship SANTIAGO, returning from explorations along the Northwest Coast, noted the mouth of the Columbia but was unable to enter the river. He named the opening he saw *Bahia de la Asuncion*, the northern headland *Cabo San Roque* (now Cape Disappointment) and the southern cape *Cabo Frondoso* (now Clatsop Spit).

1778: John Mears, independent trader, sailed close to the mouth of the Columbia, but believed it to be only a large bay. He expressed his disappointment by renaming Cabo San Roque *Cape Disappointment*.

1792: American ship captain Robert Gray, on his second trading voyage to the Pacific Northwest Coast, made the first ship crossing of the Columbia River bar in the ship COLUMBIA REDIVIVA. The claim the United States later made for the watershed area of the Columbia River was largely based on Gray's exploration of the river. In the fall of 1792, British Captain George Vancouver, sailing south after exploring the Northwest Coast, reached the location of Gray's Columbia River and sent Lieutenant William Broughton in HMS CHATHAM on an exploration of the river. Broughton went upriver in the Chatham's launch to the approximate location of the Sandy River, where he claimed the Columbia watershed area for Great Britain.

1795 to 1804: Over 70 ships, both British and American, visited the lower Columbia during this period. It was from these ships that Indians of the area obtained guns, clothing; trinkets and the diseases that killed many of them.



Astoria Regatta, 1911, OHS-O.H.. 36629



Sailing ships in Portland Harbor, 1899, OHS-C.N. 015 404

1805: The Lewis and Clark expedition reached Cape Disappointment to conclude its overland journey. The expedition then wintered at Fort Clatsop.

1811: Fort Astoria was founded as a collection and shipping point for the projected fur enterprise of John Jacob Astor. In 1813, the fort was sold to the competing British-owned North West Company and renamed Fort George.

1811: David Thompson, geographer and explorer for the North West Company, completed his "Voyage of a Summer Moon" that took him from the headwaters of the Columbia to Fort Astoria.

1825: Hudson's Bay Company established Fort Vancouver and from there, Chief Factor John McLoughlin administered the company's vast fur region, which extended from the Pacific Ocean to the Rocky Mountains to take in most of what today comprises the states of Oregon, Washington, Idaho, parts of Montana and Wyoming and large sections of British Columbia. In 1849, the U.S. government occupied the fort, the Hudson's Bay Company having moved its headquarters to Victoria, B.C.

1834: Fort William, the second attempt to found an American outpost in the Northwest, was established on Sauvie Island by Nathaniel Wyeth. The fort was abandoned two years later.

1836: The first steamboat on the river, the BEAVER, arrives at Fort Vancouver.

1840: Solomon Smith, the first settler of the Clatsop Plains, began the first ferry service on the lower Columbia with two canoes tied together.



Early gillnet "butterfly" boats on the Columbia, OHS-O.H. 36614

1847: The first post office west of the Rocky Mountains was opened in Astoria to serve a population of 250 people.

1850: The first steamboat built on the Columbia was launched at Astoria. It bore the name COLUMBIA.

1856: Cape Disappointment lighthouse was completed. The North Head lighthouse was not completed until 1898.

1864: The City of Portland paid \$42,000 in gold coin for construction of dredging equipment that was used to remove sandbars at the mouth of the Willamette. By 1874, with removal of sandbars in the river at St. Helens, the Astoria to Portland ship channel offered a safe channel of 17 feet.

1865: Joel Munson began a volunteer life-saving station at the mouth of the Columbia with a lifeboat salvaged from a wrecked ship. In 1880, the U.S. government established a professional lifeboat station at Cape Disappointment.

1866: The salmon fishing industry of the Columbia was begun with the construction of the Hapgood, Hume and Company cannery at Eagle Cliff.

1873: Oregon City locks opened to provide navigation around the falls of the Willamette.

1887: Morrison Bridge opened as the first bridge across the Willamette. Others soon followed: Steel Bridge, 1889; Broadway Bridge, 1913; Sellwood Bridge, 1925; Ross Island Bridge, 1926 and the St. Johns Bridge, 1931.

1895: The south jetty at the mouth of the Columbia was completed after ten years of construction. In 1914, work began on the north jetty. When completed, the scouring action of the two jetties washed away the old bar that formerly blocked navigation on the river.

1896: The lock and canal around the Cascades of the Columbia (near present-day Cascade Locks) opened.

1915: The Columbia River Gorge Highway was completed. In 1920, the Evergreen Highway on the Washington shore was completed. The last stage of the Interstate Freeway, I-84, was completed in 1975.

1917: The first highway bridge to span the Columbia was completed to link Portland and Vancouver by road. The Lewis and Clark Bridge over the Columbia at Longview, Washington, was opened in 1930; the Astoria-Megler bridge in 1966. Longview Bridge was opened in 1930, the Astoria bridge in 1966.

1933: Construction began on Bonneville Dam. The dam was completed in 1938, but the lake behind the dam did not fill until 1940.

1948: Last major flood on the Columbia destroyed the wartime city of Vanport. The 20-day flood drowned a number of people, left 18,000 others homeless and flooded 15,000 acres of agriculture lands. Flood water covered over 600 blocks in Portland. This flood led to the acceleration of large dam construction on the Columbia: The Dalles Dam, John Day Dam, and McNary Dam.

1956: Dredging began at the mouth of the Columbia to provide a 48-foot depth over the bar, and work was begun to enlarge the ship channel to a width of 600 feet with a safe depth of 40 feet.

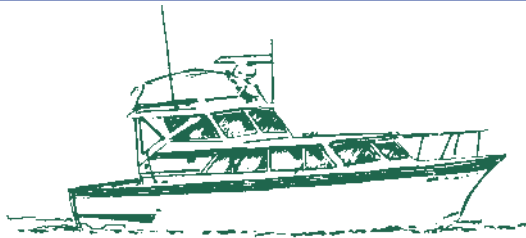
1975: Construction began on the second powerhouse at Bonneville Dam. In this same year, the last section of the I-84 Freeway was completed along the Oregon shore.

1980: Mt. St. Helens erupted. Volcanic ash from the eruption was carried by the Toutle and Cowlitz rivers to the Columbia where, for a short time, it blocked the main shipping channel.

1982: I-205 Bridge across the Columbia completed.

1986: Federal legislation approved to designate 253,000 acres of the Columbia Gorge as a national scenic area.





PUBLICATIONS

Boating publications available through the Oregon State Marine Board:

OREGON BOATER'S HANDBOOK – WATERBODY RULES, EQUIPMENT REQUIREMENTS Contains information on registration, equipment, rules of the road, accident reporting, safe operation and a complete listing of all boating operation rules listed by waterbody. Updates are posted on the Marine Board's web site at www.boatoregon.com.

OREGON BOATING FACILITIES GUIDE Facility locations are indicated on maps for reference. Information on each facility describes the type of ramp, availability of overnight moorage, fuel, supplies, restrooms, parking etc.

OREGON MARINA GUIDE A listing of public and private boat marinas including information on restrooms, pumpouts, waste dumps, launches and repair services.

BOATING IN OREGON COASTAL WATERS A guide to safe boating along Oregon's beautiful but sometimes hazardous coastline. Includes photos, charts and danger areas for each bar entrance.

WILLAMETTE RIVER RECREATION GUIDE Map of the river, includes river characteristics and hazards, excursions, facilities, state parks and camping. Include one dollar check to cover postage and handling.

GREAT RIVER OF THE WEST A Boater's Guide to Discovering the Columbia River with Lewis and Clark. This historic representation of the river features the Columbia River as Lewis and Clark saw it and the Columbia today. It includes points of interest, access sites, moorage locations and fuel. There is critical information on river conditions, interacting with commercial ships and locking through dams.

For a copy of these free publications, send your request to:

Oregon State Marine Board
P.O. Box 14145
Salem, OR 97309-5065
www.boatoregon.com

Boating publications available through the Boating Programs Office, Washington State Parks and Recreation Commission:

WASHINGTON STATE BOATER'S GUIDE Rules, regulations and safety afloat. Information on hypothermia, life jacket requirements and general boating safety.

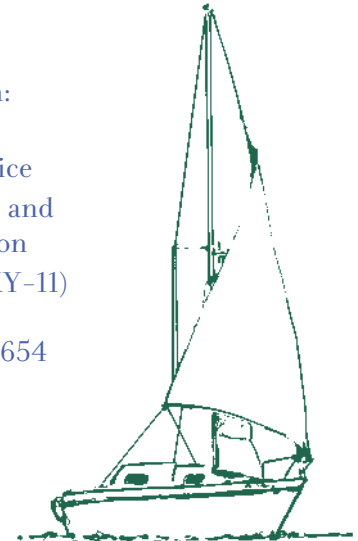
WASHINGTON BOATING BASICS, A SMALL CRAFT PRIMER A home study course in boating safety. A classroom guide is available.

EXPLOSION PROOFING YOUR BOAT How you can prevent fires. Summary of precautionary measures and safety guidelines for fire/explosion proofing your boat.

CARBON MONOXIDE, THE SILENT KILLER ABOARD YOUR BOAT Boating safety information.

Boating information:
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Boating Programs Office
Washington State Parks and
Recreation Commission
7150 Cleanwater Lane (KY-11)
P.O. Box 42654
Olympia, WA 98504-2654



PLEASE HELP IMPROVE THE NEXT EDITION.

We realize that the information in this book may not accurately list or describe all the boating activities and facilities on the lower Willamette and Columbia rivers. In the future, we want this publication to be as complete as possible. If you have any corrections or suggestions, please send them to the Oregon State Marine Board, P.O. Box 14145, Salem, OR 97309-5065.

ACKNOWLEDGEMENTS

The concept and initial financial support for this guide came from the Oregon State Marine Board. Paul Donheffner, director, generously committed funding, staff expertise and logistical support throughout the project.

Bruce DeYoung, leader of the Oregon State University Extension Sea Grant Program, provided financial support and staff expertise, and facilitated the involvement of agencies in the state of Washington.

Mike Spranger, program leader for the Washington Sea Grant Marine Advisory Services, provided financial support and shared his considerable knowledge of the Columbia River and its history.

Jim French, of the Washington State Parks Department, provided financial support and made a significant contribution to the “Littering and the Environment” section and to the accuracy of the site information of the Washington side of the Columbia.

Chip Bubl, chairman of the Columbia County Office of the OSU Extension Service helped in the initial planning of the book and provided financial support.

Randy Cummings, The Dalles; Arnie Schuldt, Milwaukie; Mike Lamper, Beaverton; D.R. Andriesian, Warrenton; and Allen and Loraine McKenzie, Vancouver, shared their favorite boating retreats.

Don Christensen, of the United States Power Squadron, not only gave valuable advice on the content, but also on matters of grammar and style.

Funding for this guide is provided by a grant from the Clean Vessel Act and the Boating Infrastructure Grant Program, funded through the Sport Fish Restoration Program, administered by the U.S. Fish and Wildlife Service. Additional state matching funds were provided by the State Marine Board using registration fees and marine fuel taxes paid by boaters. Funding for revision comes from BIG, COA and OSMB.

Others who rendered valuable assistance were Mitch Boyce, Columbia River Pilots Association; Glen Comstock, Brix Maritime; Sandy Dillard, St. Helens; Curt Hanson, Multnomah County Sheriff’s Office; Dave Harlan, Port of Asoria; Irv House, Portland; John Howard, Clark County Sheriff’s Office; the Columbia County Sheriff’s Office; Jerry Ostermiller and Hobe Kytr, Columbia River Maritime Museum; John Raichl, Clatsop County Sheriff’s Office; Bill Sanborn, Portland; Chief Warrant Officer Ken Siders, U.S. Coast Guard; Doug Strong, Washington State Parks Department; Peter Williamson, St. Helens; and Jill Andrick, Dave Obern, Bill Rydbloom, and Wayne Shuyler, Oregon State Marine Board.



