Recreational Motorboat Access on the Columbia River: Washington Shore, Dallesport to the Bar

James M. Pacheco, Graduate Student Intern
School of Marine Affairs
University of Washington

Robert F. Goodwin, Principal Investigator
Washington Sea Grant Program
University of Washington

Recreational Motorboat Access on the Columbia River: Washington Shore, Dallesport to the Bar

James M. Pacheco, Graduate Student Intern
School of Marine Affairs
University of Washington

Robert F. Goodwin, Principal Investigator
Washington Sea Grant Program
University of Washington

Washington Sea Grant Program, University of Washington
3716 Brooklyn Avenue N.E., Seattle, Washington 98105-6716
206/543-6600 Fax 206/685-0380
seagrant@u.washington.edu, http://www.wsg.washington.edu

James M. Pacheco, Robert F. Goodwin

WSG MR 96-02

$15

Preparation of this report was funded in part through State of Washington Interagency Agreements Nos. 95-05 and 97-01 between the Interagency Committee for Outdoor Recreation (IAC) and Washington Sea Grant Program, University of Washington, and in part through a grant from Washington Sea Grant Program, University of Washington, pursuant to National Oceanic and Atmospheric Administration Award No. NA36RG0071, Project A/FP-7 (Marine Advisory Services). The views expressed herein are those of the authors and do not necessarily reflect the views of IAC, or of NOAA or any of its subagencies.

Foreword

The University of Washington School of Marine Affairs (SMA) trains graduate students for careers in marine and coastal resources management and public policy analysis. Marine recreation is an important public policy issue addressed in SMA courses on coastal zone management, marine communities and coastal law; and the subject has spawned a number of theses by SMA graduates over the past twenty years. Opportunities for students to gain experience in "real world" settings prior to graduation are welcomed. Often these opportunities are in the form of internships with government agencies, port authorities, or maritime industries. Consequently, when the Interagency Committee for Outdoor Recreation (IAC) approached Washington Sea Grant Program's (WSGP) coastal resources office to establish an internship to study Columbia River motorboat access, SMA was prepared to react quickly and an SMA student, Jim Pacheco, the principal author of this report, was offered the position.

Usually, interns are hired directly by the sponsoring institution and supervised by a mentor in that institution. In this case the intern was supervised by the principal investigator and paid through an interagency agreement between IAC and the University of Washington.

Now in its twenty-fifth year at the University of Washington—one of the nation's first Sea Grant Colleges—WSGP's mission is to encourage the understanding, use, and conservation of marine resources and the marine environment through research, education, and public service. The program involves interaction, communications, and partnerships with other educational institutions, industry, government and the public. In support of this, Marine Advisory Services (MAS) provides university resources and technical information needed to make wise decisions—decisions that solve local, regional, and national problems, and that bring economic and social benefits to people. MAS staff carry out a program that provides statewide informal marine education, develops public awareness of resource management and conservation, transfers new technology to those who will use it, conducts applied research projects that benefits marine users, and serves as a link between university research and marine users.

The Columbia River element of the 1995-96 MAS program plan delineates a goal and related objective directly pertinent to this study:

Goal: To work on marine recreational issues, when specific opportunities arise and where staffing and alternative resources are available.

Objective: Assist the Washington State Interagency Committee on Outdoor Recreation (IAC) in the investigation of the Lower Columbia River public access sites.

WSGP MAS has provided supplemental funding and support for this project, including salaries of the Principal Investigator and the Intern (during periods his salary was not covered by IAC funding), travel expenses and virtually all of the costs of the production for this report.

Acknowledgments

The authors wish to thank all the volunteers who spent part of their Memorial Day Holiday and additional weekends during the summer of 1995 handing out surveys to Columbia River boaters, and the three hundred boaters who made the time and took the effort to complete and return them. Claudia Kelley of Vancouver, Wash., who organized the volunteers and undertook other local arrangements has our gratitude. We also thank the managers and staff of port, municipal, state and federal boating access facilities for their assistance before, during and after our site visits; their insights and local knowledge about the river were indispensable. Staff at the US Army Corps of Engineers, Portland District, and at the Washington State Departments of Natural Resources and Fish & Wildlife were particularly helpful in identifying environmentally sensitive areas along the shorelines where access might be undesirable.

The Washington State Parks and Recreation Commission and Washington State Department of Fish & Wildlife provided the boats and operators to permit us to experience the mighty Columbia first hand, and to access boating facilities and sites as boaters on the river would.

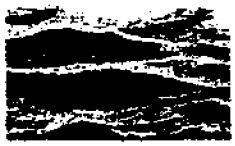
Finally, an internship, by design, is an educational opportunity for the intern; the sponsoring agency plays a tutorial role as the intern undertakes a "real life" project. In this regard we wish to thank Jim Eychaner, planner, and Jim Fox, special assistant to the Director, Interagency Committee for Outdoor Recreation, for their advice, constructive criticism, patience and encouragement during the course of this internship.

Table of Contents

List of Tables

List of Figures

Summary & Recommendations



Chapter One: Summary and Recommendations

Where do boaters want launch ramps and transient moorage located?

Almost 60% of owners of boats 26 ft. and under who responded to the boaters survey want additional launch ramps on the Washington shore of the Columbia River between Dallesport and the Bar, and would like to see them located 10-12 miles apart. Among the surveyed owners of larger boats, 73% reported that they needed additional transient moorage facilities located, on average, at 15 miles intervals along the river. Boaters were deeply concerned about crowded conditions on the river, but did not believe access improvements would result in increased congestion.

What are the feasible locations for access improvements?

The investigators, with the help of the boaters surveyed in the summer and fall of 1995, identified twenty-eight new sites on the Washington shore of the Columbia River between Dallesport and the Columbia River Bar that had potential to be developed for the benefit of motor boaters. Of these, thirteen were suitable for transient moorage only, 5 for launch ramps only, and 9 were suitable for both ramps and transient moorage. One additional site was recommended as both a transient moorage and hand-launch site.

The investigators visited the thirty-three existing launch ramps and transient moorage sites on the river, noting the services available to boaters and assessing the condition of the facilities. Where repairs and improvements were needed, these were identified and are described in Section V of this report.

What services and amenities do boaters most want on the river?

The kinds of services boaters would like to see at or near launch ramps and transient moorage facilities depend on the kind of vessel they own. For boats 26 ft. and under, respondents overwhelmingly wanted car parking, campgrounds or motels, fish cleaning stations, port-a-potty dump stations groceries and drinking water, in that order. These needs are tied to their dependence on launch ramps to access the water, limitations on storing consumables aboard smaller boats, the dominance of fishing as an activity they support and the need to sleep ashore on overnight trips. Boaters with vessels over 26 ft. in length wanted sewage pump-outs, electrical power, mooring buoys, swimming areas, showers and picnic areas, reflecting their more complex vessel requirements and a desire for "destination area" amenities while living aboard their boats. Fuel, garbage cans, restrooms and interpretive signage were more or less equally in demand by both these groups of boat owners.

What conditions on the Columbia River most concern boaters?

Surveyed boaters have a variety of concerns, most of which fall into three categories: Water conditions on the river, conflicts with other waterway users, and distance between boater services. Wind and waves are the most frequently mentioned weather-related hazards, while shallow water and changing water levels are concerns driven by the operation of the dams. Crowded conditions was the single most-cited concern of boaters; conflicts with other users—a direct consequence of crowding—was fourth. Conflicts with commercial vessels, fish nets and personal watercraft were frequently cited concerns, as were rude or inconsiderate boaters. Distances between fuel and other services, including pumpout facilities, affect both the safety and comfort of cruising boaters, particularly outside urban areas on the upper and lowest river reaches in the study area. Lack of docks and moorage and boat launch facilities were mentioned less often than the concerns discussed above, though perhaps, in some boaters' minds, "distance between services" might include launching and transient moorage facilities. Clearly, boaters are concerned, first, about conditions that affect their safety; second, about factors that diminish their enjoyment of the river; and third, about access sites and moorage.

Implementing the study's recommendations

At the bi-state "Lower Columbia River Public Boating Access Workshop" held on May 10, 1996, in Portland, seventy participants reviewed the preliminary recommendations contained in this report, together with the results of three recent studies of transient moorage needs along the Oregon shore of the Columbia River and the Washington shore upstream of Dallesport to Pasco. The participants—primarily boating facility providers and managers from ports, county and municipal parks departments and state boating and outdoor recreation agencies—identified a list of sites they considered of sufficiently high priority to warrant developing over the next 5 years. Table 1.1 lists the existing and potential boating access sites along the Washington shore of the river. Those priority sites identified in the workshop are marked with an asterisk.

The recommendations of this study, combined with the workshop process, will minimize the amount of planning information project sponsors would be required to provide in support of their proposals. The IAC expects that the workshop results will encourage potential sponsors to propose boating access projects that meet defined, bi-state, priority needs and avoid unnecessary duplication of facilities on either shore of the lower Columbia River.

About the boaters survey

A mail-back questionnaire was distributed to boaters utilizing launch ramps and/or transient moorage facilities at 33 locations on the Washington shore of the Columbia River between Dallesport and Skamokawa on Memorial Day weekend, the following weekend,

and during the mid-weekdays of the succeeding week in 1995. In most cases questionnaires were handed to the boaters by staff or volunteers with an explanation of the importance of completing and returning their responses. In cases where volunteers were unavailable, or where few boaters were observed at boat ramps, questionnaires were left on car windshields in adjacent trailer parking lots. In addition, some yacht clubs requested extra copies of the questionnaire to distribute to their members.

Sites from west of Skamokawa to the Columbia River Bar were surveyed, using the same protocol, in early September 1995 to coincide with the Ocean and Buoy 10 recreational salmon fisheries—the year's busiest boating season on the Columbia estuary.

Of the 1500 questionnaires distributed, 303 (20%) usable responses were obtained. Though it did not produce a scientific random sample of boaters using the Columbia River, the survey captured a large proportion of the boaters using the river on peak and off-peak weekends, and midweek days during the year's heaviest use periods—times when congestion at access facilities and conflicts among the various users of the river are likely to be most felt.

About the boating access facilities survey

A list of existing and planned boating access sites was compiled from a variety of sources including port and marina directories, boat launch inventories, local and state parks and recreation department reports and IAC's databases. Investigators visited each of these sites to assess their physical condition, their accessibility from land and water, and the on-site and nearby services and amenities available to boaters. With the exception of sites located above Bonneville Dam, each facility was approached from the river by boat, permitting investigators to take depth soundings and assess the site's protection from winds and wakes.

Two aerial surveys were conducted from a light single engine rental aircraft; the first was flown from Kelso to Dallesport on Memorial Day, 1995, the second from Kelso to the Columbia Bar in early October, 1995. During the flight the shoreline features and boating access facilities along the river were videotaped and photographed. The results showed, dramatically, the level of congestion at popular facilities and fishing areas, as well as the low boat use levels on many stretches of the river above Bonneville and downstream of Longview.

Information gathered by the investigators was augmented by responses to questions in the boater survey about desired improvements to boating access facilities.

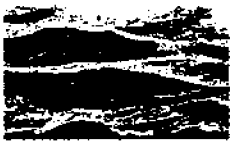
TABLE 1.1	Summary of Recommendations					
Facility Name	Acquisition	Major Ramp Repair	New or Expand Ramp	Major Transient Moorage Repair	New or Expand Transient Moorage	Other
River Reach One						
Fort Canby State Park			X		X	Cd;P
*Port of Ilwaco			X			D;E;F;R;S
Port of Chinook		X		X		C;F;R;W
Fort Columbia			X			Not Rec.
Megler	X		X			
*Knappton	X		X		X	P
Portuguese Point	X			X		C
*Oneida	X		X		X	Cd;F;P;R;W
River Reach Two						
Altoona	X		X		X	
Jim Crow Point					X	C
*Skamokawa			X	X		D
Steamboat Slough	X		X		X	M
Brooks Slough						
*Elochoman Slough Marina					X	C;D;E;F;R;S
Coffee Pot Island	X				X	C
*Puget Island (Ramp)			X			
Puget Island (TM)	X				X	C
County Line Park			X			Not Rec.
Upriver Park		X				R;W
Stella	X		X		X	
River Reach Three						
*Willow Grove Park			X		X	C
Hump Island	X				X	C;R
Longview Yacht Club						
Barlow Point	X		X			
Weyerhaeuser			X			B;D;P;R
Gerhart Gardens		X				D;F
*Carrolls Channel	X		X		X	M
Cottonwood Island	X				X	C;R
Sportsman Club Beach			X			
Kalama River						R
Port of Kalama			X		X	Cd;P;PD;R;S;T
*Martin Island	X				X	C
Woodland Bar			X			

*Sites included in the list of prioritized sites produced by the Lower Columbia River Public Boating Access Workshop participants.

Facility Name	Acquisition	Major Ramp Repair	New or Expand Ramp	Major Transient Moorage Repair	New or Expand Transient Moorage	Other
River Reach Four						
Forks Ramp						Cd
Pekins Ferry Landing						
Stevens Moorage						
Bachelor Island	X				X	C;R
Lake River Ramp			X	X	X	Cd;D;P
*Caterpillar Island	X				X	C;R
Caterpillar Ramp						
*Morgans Landing	X		X			
Frenchmans Bar					X	C
River Reach Five						
Vancouver Landing						PD;R
Waterfront Park		X				
*Marine Park			X			B;Cd;D;P;R
I-205 Bridge	X		X			
Fishers Landing			X		X	
*Gentrys Landing	X	X		X		M
Ackerman Island	X				X	C
*Port of Camas-Washougal		X		X		B;D;R;S;P;PD
Steamboat Landing Park					X	
River Reach Six						
Cottonwood Point					X	C
Reed Island						
Fir Point	X		X		X	C
St. Cloud			X		X	
Beacon Rock		X		X		B;Cd;E;G;S;W
Fort Cascades						P
River Reach Seven						
Port of Skamania			X		X	P;R;S;W
Wind River						C;D
Drano Lake			X			D;R
White Salmon River			X			R
Bingen Marina			X		X	C;D;E;R;S
Lyle			X		X	
Dallesport			X			

Legend: B=Breakwater or Jetty; C=Camping; Cd= Courtesy dock; D=Dredge; E=Electrical hook-ups; F=Fish cleaning station; G=Gasoline; M=Marina; P=Parking; PD=Pump-out or Dump Station; R=Restroom; S=Shower; T=Trailer storage; W=Fresh water

Background



Chapter Two: Background

Boating Facilities Planning for the Columbia River

The States of Washington and Oregon have adopted different approaches to planning public recreational boating facilities and funding their development. Two agencies have particularly critical roles to play, however: The Oregon State Marine Board (OSMB) and the Washington Interagency Committee for Outdoor Recreation (IAC).

Oregon

In Oregon, the OSMB—a five-member, gubernatorially-appointed board staffed by a full-time director and staff—has statewide jurisdiction and comprehensive authority over recreational boating. OSMB registers and titles boats, regulates recreational boating on the state's waterways, educates boaters on safe operation, supports law enforcement by others and assists in accident investigations, and undertakes to study, plan and recommend the development of boating facilities. This last function is implemented through a grant-in-aid program to public agencies (ports, state and local parks agencies, etc.), and supported by an in-house technical staff with engineering, environmental and planning expertise (OSMB, 1993). Post-construction evaluation and monitoring of facilities' performance by the OSMB over the years has resulted in the continual refinement of facility siting and design, and selection of construction materials. Funding for facilities development is derived from boat registration fees and a portion of unrefunded state marine fuel tax receipts.

Planning for motorized boating facilities in Oregon is accomplished through a six-year statewide boating facilities plan, the latest of which was adopted by OSMB in 1993 for the period 1993-99. Its recommendations are based on analyses of several kinds of information: statewide boater surveys conducted roughly every three years—the last in 1992; statewide boat registration trends; Oregon SCORP needs projections; a survey of boating facilities providers; and a series of workshops for local project sponsors and existing facilities providers.

Washington

In Washington, statewide responsibilities for the various aspects of recreational boating are divided among several agencies and levels of government. Registration and titling are performed by the State Department of Licensing; boating safety programs, law enforcement funding assistance and boater education, by the State Parks and Recreation Commission; and statewide public boating facilities funding assistance by the Interagency Committee for Outdoor Recreation, this study's principal sponsor. IAC's funding assistance program for land acquisition and design and construction of facilities is similar to Oregon's: Unrefunded motor vehicle fuel tax receipts attributable to boating use are disbursed through grants-in-aid by IAC, half to state agencies and half to local agencies (including ports) through a competitive awards process. At present, 50% local dollar matching is required. Boating access facilities are designed and developed by the

operating entity—public port districts, state and local parks agencies or Native American Tribes.

At present, no agency in the State of Washington conducts statewide comprehensive boating access planning. IAC's in-house planning staff have used the Statewide Comprehensive Outdoor Recreation process to identify areas of unmet need for recreational boating facilities. In the past, the planning process dealt with coarsely defined regions and highly aggregated measures of boating activity to assess need, and this approach has had to be supplemented by much finer scale local planning before funding allocation decisions were made.

In March 1995 IAC adopted its Boating Facilities Program Plan to guide its use of boating funds. Among its four "priority actions and strategies" number three is:

"IAC shall consider a lead role in coordinated state boating access planning".

Among the approaches being considered to implement this strategy are: "Site-specific planning, as currently being tested with the Oregon State Marine Board on the Columbia River" and, "assessing boater needs, seeking data from boaters concerning their needs and wants and reporting the data to state and local agencies" (IAC, 1995).

This present study is, in part, an experiment to determine whether regional motorized boating facilities studies based, in part, on boater surveys, might be useful adjuncts to the SCORP, perhaps making it unnecessary for local agencies to conduct elaborate regional demand studies themselves prior to applying for state boating funds.

Study Goals

The overall goal of this study is to determine what would be necessary to ensure that safe and convenient facilities for recreational motorboat users will be available on the Washington shore of the Columbia River from The Dalles Dam to the river's mouth at Cape Disappointment. In recent years, two studies have addressed similar goals for the Oregon shore of this river reach, while a third covered the shores of both states upstream of The Dalles to the Tri-Cities.

This study has three parts. The first was to document the current stock of motorboat facilities—launch ramps, transient moorage and related services and amenities —on this stretch of the river and to evaluate their condition and need for renovation. The second was to survey Columbia River motor boaters in order to better understand their use of the river and to assess their needs for additional or improved motorboat access facilities. The third part of the study was to identify existing facilities that need to be improved or expanded, and specific sites where new facilities could be built to accommodate motorboat access and transient moorage needs for the next five years.

Related studies

IAC Studies

State of Washington Outdoor Recreation and Habitat: Assessment and Policy Plan, 1995-2001 (A Statewide Comprehensive Outdoor Recreation Planning (SCORP) Document).

IAC's most recent statewide document approaches outdoor recreation planning, including boating facilities, by establishing strategic policies that are to be implemented through a prioritized set of actions by public facilities providers at local, state and federal levels. The plan recognized "...that the public wants facilities in settings that include water access *more than any other type of setting.*" (Emphasis in the original). Development of boat launch ramps and transient moorage were given priority over marinas. Water access sites should serve multiple state objectives including habitat preservation, watershed restoration and provision of trails on, to or along the water (IAC, 1995, p.10). The Washington State Parks and Recreation Commission is charged with continuing to provide recreational boating services "while considering additional facilities on significant water bodies *such as the Columbia River...*" (Emphasis added). Recognizing the unique federal role in managing the Columbia River for multiple purposes, IAC urges the U.S. Interior Department's Fish and Wildlife Service and Bureau of Reclamation, and the U.S. Army Corps of Engineers to "include recreational needs, *especially recreational boating*, in any changes to the operation of the Columbia River system for salmon recovery purposes, and in future negotiations concerning in-lieu fishing sites." (IAC, 1995, p.24). (Emphasis added.)

Boating Facilities Program Plan

IAC's 1995 Boating Facilities Program Plan establishes the agency's policies for funding the acquisition of lands for and the development of boating facilities by other state and local agency sponsors. Its recommendations are statewide and not site-specific; though, as discussed above, IAC is considering a more proactive role in regional and site-specific planning and planning assistance to local sponsors. Because the source of boating facility funds is unrefunded motor vehicle fuel tax receipts attributable to boating use, the agency has adopted an administrative policy targeting "...facilities and resources predominantly serving the motorized boating community." (Policy A-1)

The plan assigns funding priority to facilities that provide efficient access for trailered boats while minimizing parking impacts on shorelands (Policy C-1), to renovating existing access sites (Policy C-2), and to acquiring sites under threat by other uses, where delay could result in an opportunity being lost (Policy C-5).

Oregon State Marine Board Studies

The Oregon State Marine Board (OSMB) has funded internships with Oregon State University to undertake studies of cruising boaters' needs for transient moorage on the Lower Columbia River. The reach from the Bar to St. Helens (Cassel, 1991), and St. Helens to The Dalles (Burr, 1993) were undertaken solely on OSMB's initiative. OSMB,

in a collaborative effort with IAC, shared funding for a third internship (Cerveny, 1995) to study both shores of the river between The Dalles and Pasco, Wash. Oregon Extension/Sea Grant provided supervision of the interns as well as supplemental funding. None of these three studies were designed to address the need for boat ramps. The Oregon studies' methodologies are discussed in more detail in Section III: Approach and Methods, following this section. The authors present a prioritized list of transient moorage sites for each of the three river reaches studied. Their recommendations are based on physical inspections of each site, interviews with boaters on the river, mailed surveys of a selected statewide sample of owners of larger cruising motor boats and consultations with agency staff.

This current assessment of boaters' transient moorage needs and opportunities to meet them has filled the geographical gap on the Washington shore downriver from The Dalles Dam to the Columbia Bar, and has included boat ramp access as a study element.

Management Plan for the Columbia River Gorge National Scenic Area

The Management Plan for the Columbia River Gorge National Scenic Area (Columbia Gorge Commission 1992) addressed the many factors impacting the Columbia River Gorge National Scenic Area and tried to balance the need for recreational access with the need to preserve the aesthetic and natural value of the area. They did this mainly by placing physical limits on the number of people who could use a site at the some time (i.e., there were varying limits on the number of parking spaces, camping spaces, launch lanes, and transient slips.) Much of the plan dealt with inland recreation such as bike and hiking trails and camping, but there were some areas identified for boating access improvement.

In their area management scheme, they used two main categories: General Management Areas (GMA), and the more restrictive Special Management Areas (SMA). Each of these categories had four Recreation Intensity Classes ranging from Class 1 (very low intensity) to Class 4 (high intensity). Investigators tried to keep within the restrictions set forth in the plan, but there was one exception. The boater-recommended St. Cloud site, or the alternate Fir Point site has the potential for a boat ramp, but they both lie within a SMA Recreation Intensity Class 2 and boat ramps are not one of the approved uses. However, investigators believe that a single lane ramp with limited parking would not violate the spirit of the plan.

Columbia River Treaty Access Fishing Sites (COE)

In their report, the Army Corps of Engineers (USACOE 1995) identified a number of fishing access or "in-lieu" sites that could potentially be purchased, developed, and then transferred to the control of local tribes. This was done to help meet our treaty obligations to mitigate for the destruction of the tribe's usual and accustomed fishing grounds when the dams were constructed.

In an effort to avoid conflict, investigators did not investigate or include any of these sites as potential public boating access sites. Moreover, since the Corps is continuing to search for additional sites to develop as "in-lieu" sites, investigators were

hesitant to recommend any site above Bonneville Dam for acquisition and development by local or state sponsors—as such actions could result in these agencies competing with the Corps for the same site. While this nearly eliminated the number of potential boating access sites above Bonneville Dam (only one site was recommended), it did present a strong case for improving existing sites over development of new ones.

Regional socioeconomic and demographic context

Boat Ownership

A household telephone survey conducted in 1992 for the Northwest Marine Trade Association (NMTA) revealed that, in Clark County, approximately 1 in 3.8 households owned at least one boat and that the average number of boats owned in those households was 1.4. Table 2.1 shows the household and per capita breakdown of boat ownership in Clark County by boat type and length. No households were interviewed in other Columbia River counties in the study area.

Table 2.1: Boat Ownership, Clark County 1992

	Per Household Boat Ownership	Per Capita Boat Ownership	Average Length (ft.)
1. Canoes/Kayaks	0.0320	0.0119	16.67
2. Dingies	0.0480	0.0178	13.60
3. Sailboards[1]	0.0000	0.0000	
4. Inflatables	0.0160	0.0059	10.00
5. Trailerable Powerboats	0.2240	0.0833	17.69
6. Trailerable Sailboats	0.0080	0.0030	12.00
7. Non-trailerable Powerboats	0.0160	0.0059	33.00
8. Non-trailerable Sailboats[1]	0.0000	0.0000	
9. Other Types	0.0160	0.0059	10.00
County Total	0.3600	0.1338	
Number of households called: 125			
Number of households having at least one boat: 33			
Number of Boats owned: 45			

Source: Amjoun, Ben. Boat Ownership Survey: Washington State 1992.

Population trends

There are wide demographic variations among counties bordering the lower Columbia River in Washington State, but the region they comprise has experienced, as a whole, faster population growth in the last five years than has the state. Eighty-two

[1] Because of the small sample size, the absence of sailboards and non-trailerable sailboats is a statistical anomaly and understates the actual ownership rates of these vessels.

percent of the Washington boaters who responded to the current survey resided in these counties; and, while the survey was not scientifically sampled or stratified, it probably represents a reasonable picture of the universe of Washington boaters using ramps and transient moorage in the summer months. Thus, population growth rates in this region may account for a significant portion of new demand for boating access facilities.

Table 2.2 shows that the six Lower Columbia River counties comprising the study area in Washington grew 18% between 1990 and 1995, and are expected to grow another 9% by the year 2000. Clark County, the largest, grew by 22% and alone accounted for 81% of the Lower Columbia River region's recent growth. With a projected 1995-2000 growth rate of 11%—only half that of the preceding five year—Clark County will still contribute 79% of the region's forecast growth[2]. By contrast, the remaining counties grew at more sluggish rates—or, having much smaller population bases than Clark County, had numerically small increases. Cowlitz County, the second largest in the region, grew by 9% between 1990 and 1995, and will experience another 6% growth by 2000.

The Puget Sound region, where 21% of the surveyed boaters reported residing, experienced 1990-95 growth rate of 11%. The forecast 1995-2000 growth rate is a more modest 5.2%

Table 2.2: Lower Columbia River counties population change, 1990-95 and forecast growth, 1995-2000.[3]

County	1990 Pop'n	1995 Pop'n	1990-95 Change	% Change	County share of change	2000 Pop'n	1995-2000	% Change	County share of change
Clark	238,053	290,997	52,944	22%	81%	322,755	31,758	11%	79%
Cowlitz	82,119	89,402	7,283	9%	11%	94,383	4,981	6%	12%
Klickitat	16,616	18,101	1,485	9%	2%	19,410	1,309	7%	3%
Pacific	18,882	20,799	1,917	10%	3%	21,992	1,193	6%	3%
Skamania	8,289	9,551	1,262	15%	2%	10,179	628	7%	2%
Wahkiakum	3,327	3,700	373	11%	1%	3,950	250	7%	1%
All Lower Col. R.	367,286	432,550	65,264	18%	100%	472,669	40,119	9%	100%
State Total	4,738,833	5,429,887	691,054	15%		5,849,893	420,006	8%	

Boat fleet projections

Based on Clark County boating household data (Table 2.3), the Lower Columbia River resident boat fleet is projected to grow by 8,734 from an imputed 49,154 vessels of all kinds in 1990 to 57,888 vessels in 1995. By 2000 an additional 5,369 vessels are projected to swell the fleet to 63,257. These projections are based on OFM Forecast

[2] This projection may have to be revised upward following the recent decision by Samsung to locate its U.S. manufacturing plant in Camas.

[3] Washington State Office of Financial Management, Forecasting Division. Washington State County Population Projections by Age and Sex: 1990-2020. 1995 Projections.

Division's "medium" population forecasts for Washington counties and a stable per capita rate of boat ownership. Either of these assumptions could be invalidated if significantly more family wage manufacturing jobs were added to communities in the region.

Table 2.3: Imputed 1990 boat ownership in Lower Columbia River counties, and estimates to 2000.

Type of Boat	Per Capita Ownership	Percent of Fleet	Estimated Number of Boats		
			1990	1995	2000
1. Canoes/Kayaks	0.0119	8.9%	4,369	5,146	5,623
2. Dingies	0.0178	13.3%	6,554	7,718	8,434
3. Sailboards[4]	0.0000	0.0%	0	0	0
4. Inflatables	0.0059	4.4%	2,185	2,573	2,811
5. Trailerable Powerboats	0.0833	62.2%	30,584	36,019	39,360
6. Trailerable Sailboats	0.0030	2.2%	1,092	1,286	1,406
7. Non-trailerable Powerboats	0.0059	4.4%	2,185	2,573	2,811
8. Non-trailerable Sailboats[4]	0.0000	0.0%	0	0	0
9. Other Types	0.0059	4.4%	2,185	2,573	2,811
All Boats	0.1338	100.0%	49,154	57,888	63,257

Implications for boating access

Data limitations inherent to intercept surveys such as the one administered to Columbia River boaters by the investigators prevent extrapolation of the results to the universe population—in this case, to all the boaters using the Columbia River in 1995. There are clear biases in the sample towards boaters who use the river frequently, or predominantly during the summer months, and away from boaters engaged in day use activities who access the river from marinas, private docks, or hand-launch from beaches. These biases exaggerate the mean number of times boaters use the river and underestimate the number of day-sailors and day-cruisers on the river. It is therefore impossible to infer from the sampled boaters' responses either the total number of boaters using the river, or the number of boating activity occasions they generate over the course of a year. However, the authors believe that the sample captures a significant number of the motor boaters who were using launch ramps and transient moorage facilities on the Washington shore of the river on the days the surveys were conducted.

The location of the residences of these sampled boaters can tell us something about the "service area" from which the Columbia River boating access facilities draw their users, as well as the differential impacts population growth in Washington and Oregon may have on these facilities. The boater survey data suggest that the relationship

[4]For the reasons mentioned in footnote #1 (pg. II-5), it is not possible to extrapolate a valid # of vessels for these vessel types

between residence and the location of facilities boaters use is quite different for launch ramps compared to transient moorage.

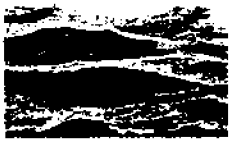
Launch ramp utilization

Trailerable powerboats, which comprised 62% of the boats owned by Clark County respondents to the 1992 household survey, are the component of the fleet most likely to use launch ramps as their mode of access to the river. (Of the boaters surveyed in the present study who had used a boat ramp in the preceding year, 89% reported owning a trailerable motorboat.) Most of the boaters using launch ramps located on the Washington shore are Washington residents. (Eighty-one percent of the boaters surveyed in the present study who reported using a Columbia River launch ramp at least once in the last 12 months were Washington residents.) Thus, if use trends continue, population growth in Washington would appear to have a far greater impact on demand for launch ramps in Washington than would population growth in Oregon. Exceptions might occur at launch ramps located near bridge crossings; in such cases, the ramp nearest Oregon boaters' residences—or wherever they store their boats—might well be on the Washington shore.

Transient moorage utilization

Once on the water, boaters are likely to be indifferent to the side of the river on which the transient moorage facility they choose is located. Convenience, safety, and the range of services and amenities available will be more important characteristics than which state the facility is located in. Of boaters surveyed at access sites on the river who reported using a transient moorage facility at least once in the last 12 months, almost fifty percent were Oregon residents. This finding suggests that growth in the boating population in Oregon will have important ramifications for increased utilization of transient moorage facilities on the Washington shore.

Approach & Methods



Chapter Three: Study Approach and Methods

This study had three sections. The first involved taking an inventory of all existing public boating access sites (or private sites open to the public) from the Columbia River Bar to the Dalles Dam and to evaluate the condition and services available at each site. For this second task, investigators sought facility information from numerous state agency and recreational publications, communications with state county, port district, and city personnel. Investigators also relied on the local knowledge of boaters to identify all the existing official and primitive boating access sites. These sites were visited, photographed, and evaluated for their adequacy of boating and recreational access. A sample of the facility evaluation form is given in Appendix B.

The second activity involved the development, delivery, and analysis of a boating questionnaire to gather information about recreational use of the Columbia River and about the people who boat there. Investigators also used this process to discover what those boaters thought of boating access on the Columbia River and what improvements, if any, they would like to see done to enhance their enjoyment of the river.

The third activity involved the identification and analysis of potential boating access sites. These sites were then visited, photographed, and evaluated for their adequacy of boating access. Other boating services and recreational amenities were also listed.

The Boater Survey

Survey Design

Investigators considered several survey alternatives including a randomized mail or telephone survey of a sample of Washington Boaters. This would have been a true scientific method and would have given the most statistically significant results and be the most generalizable across the whole boater population, but budget and staff constraints and a lack of a good boater database eliminated this alternative for the survey design. Instead, investigators adopted a method used in the previous Oregon studies which involved intercepting boaters at a variety of boating access sites along the Columbia River. However, investigators decided that the 15-20 minutes it took to verbally administer the questionnaire would not be amenable to boaters at launch ramps. Investigators therefore decided to rely solely on a hand-out and mail-back questionnaire. This decision helped determine the design of the survey.

The questionnaire design was heavily influenced by *The Total Design Method of Telephone and Mail Surveys* (Dillman 1978). The total design method (TDM) provides a structure for question design, question ordering, page set up, and follow-up procedures which increases response rates. Our questionnaire was to be given to anonymous boating access users, and thus was not amenable to follow-up procedures, but question structure and question ordering were incorporated. The gist of many questions was similar to those used in the Oregon transient moorage studies, but the wording and ordering was changed in accordance with the TDM. In addition, this questionnaire defined boating access as

both transient moorage and facilities that give boats access to the water (such as boat ramps).

The survey consisted of questions about general boat use of the Columbia, the locations the boat and the potential concerns they have, questions about the facility where the survey was administered, general transient moorage and boat ramp and overall quality and quantity of facilities, and some personal information including residential zip code, type of boat used, and gallons of gasoline used this trip. The survey went through several drafts, each reviewed by IAC and Sea Grant personnel. The approved survey contained 44 questions. A copy of the actual survey can be found in Appendix C.

Selection of Survey Sites

A total of 33 existing boating access sites were identified from the mouth of the Columbia River to The Dalles Dam which were located either on the Columbia River or its tributaries where boaters were using the site to gain access to the Columbia River. Investigators would have wanted to visit and survey boaters at all these sites, but were limited in both time and manpower. Because of the limits, investigators decided to limit full time survey efforts to what they perceived to be the more popular boating access sites. In addition, a rover was assigned to drive to several sites during the day and place surveys on the windshields on any trailered vehicles found many of the less popular sites. This method insured that the preponderance of boaters accessing the river from the Washington shore would receive a questionnaire. More detailed information about which sites received full time effort and which were rover sites can be found in Appendix D.

After the survey period, investigators found one major flaw in their strategy for site selection: the selection of Weyerhaeuser as a rover site. During the rover's visit, the Weyerhaeuser Ramp was found to be quite a popular launch site and should have been stationed with a full time survey person. The rover was able to talk with the several boaters at this site, but the majority of questionnaires were placed on the vehicle's windshield. Since a survey person did not get a commitment to have the survey returned, investigators believe the response rate at this popular site suffered.

Survey Delivery

The questionnaire was handed out on three different dates in order to get a more diverse portion of the boater population. For those three dates, investigators chose a combination of a peak-use weekend, a non-peak weekend, and a mid-week date. The Memorial Day weekend (May 27 & 28) was selected for the peak weekend. June 3 & 4 served as the non-peak weekend. For the mid-week dates, volunteers were not available, and investigators, Sea Grant and IAC staff needed three days to cover all the survey sites. The mid-week date started Tuesday, June 6 and ended Thursday, June 8. By excluding Monday and Friday, investigators hoped to avoid extended weekend boaters.

Unfortunately, during the survey design, discussions with local boaters and port managers informed investigators that the lower river, particularly at the mouth and the bar, would not be heavily used until the August opening of the Buoy 10 fishery. The survey of sites near the mouth of the Columbia were therefore delayed. August 19 & 20

served as the peak-weekend date in an attempt to catch the Buoy 10 rush, August 29-31 was used as the mid-week date, and September 9&10 served as the non-peak weekend.

Survey delivery involved intercepting boaters as they launched, giving a brief explanation of the purpose of the questionnaire, and asking for a commitment to fill it out and return it in the self-addressed stamped envelope provide at the back of the questionnaire. This direct contact with the boaters was made possible because of the volunteer effort organized by Sea Grant field staff. Because of these volunteers, official sites had either investigators, IAC personnel, or volunteers manning the site from 8:00 to 9:00 until between 2:00 and 4:00, or until they were out of questionnaires.

Approximately 50-100 questionnaires were administered at each site except for Vancouver which was given 150. Various yacht clubs in the area were also given a total of about 100 surveys. For rover sites, direct contact was made if there were any boaters launching at that time, otherwise, a questionnaire was left on the boater's windshield. A total of 12 sites received full-time attention and eight sites were surveyed by a rover. The remaining 13 sites were visited, but were not being used by boaters at the time.

One problem with survey delivery was that the area between The Dalles Dam and Bonneville Dam did not receive adequate coverage. Investigators spent a couple of hours at Bingen, but all other sites in this region were treated as rover sites. Only approximately 50 total surveys were distributed among all the sites from Dalles Dam to Bonneville Dam, and most of these were placed on the boater's windshield.

Boating Access Inventory

The inventory of boating access sites started out as a simple project, but rapidly grew in complexity as additional pieces of information about the sites were requested, requiring investigators to travel to each site multiple times to gather the new information. However, before any field observations were made, an exhaustive literature search of boating access site location and information was conducted.

Literature Review

The process started with an extensive review of IAC files, which include proposals and comprehensive management plans for many of the cities, counties, and port districts within the study area across the state. These files not only identified past constructions, but also highlighted several potential sites that have been considered.

After this review, the search expanded to libraries, publications from other state agencies, and bookstores which turned up a variety of useful books, pamphlets, and maps listing or showing the location of boating access sites and boating related amenities such as fuel docks and pump-out and dump stations. All useful materials found during this search are included in the bibliography (Appendix A). Information from these sources was compiled and placed in a data base. Several sources (e.g. the Oregon boating access studies) contained information about boating access sites in Oregon. These sites were included in the data base, but the information about these sites were not verified.

Field Research

Investigators planned to cover the entire study area in three different ways, by air, by water, and by land. The aerial survey was conducted from a rented airplane cruising at approximately 1500 to 2000 feet. Investigators took video of the shoreline of almost the entire study area. Because of restricted air space around the Portland airport, much of the Vancouver shoreline was not photographed or taped. Still camera shots of known boating access sites and areas with recreational activity were also taken.

The water survey gave investigators the opportunity to use and view existing and potential sites as a recreational boater and to gain first hand experiences of problems such as water depth and wind and wake protection. This field survey was conducted in two parts. The first boat trip occurred near the end of June. WA Dept. of Fish and Wildlife provided investigators with a boat and operator for two days. Existing and potential sites from the Lewis River to Beacon Rock State Park were investigated and photographed. In addition to driving the boat, the operator provided investigators with extremely valuable knowledge of the recreational opportunities and limitations in the area.

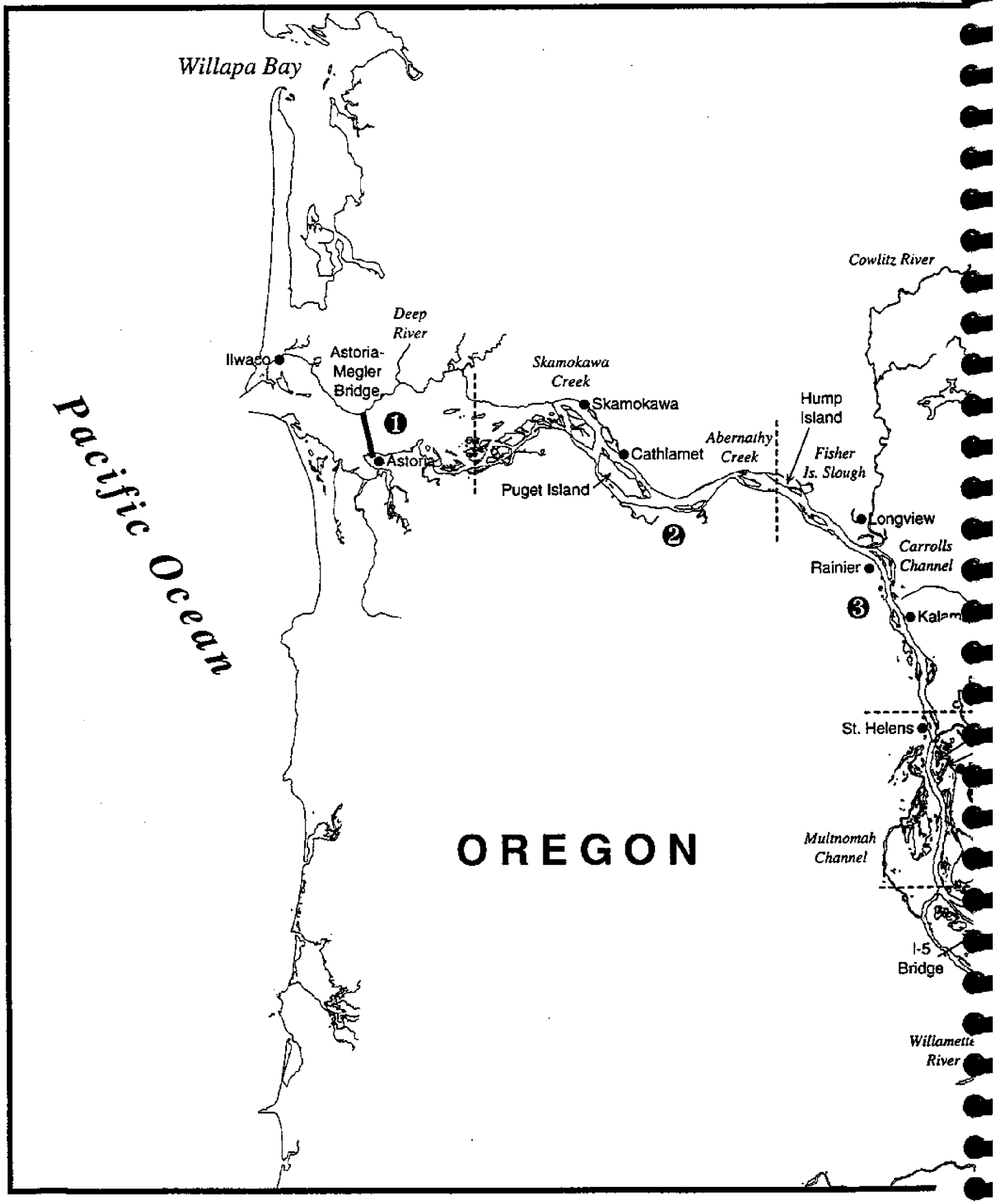
The second boat trip occurred in mid-September. For this trip, Washington State parks loaned the boat and IAC provided the operator. This trip lasted four days. Existing and potential sites from Fort Canby State Park to the Port of Camas-Washougal were investigated and photographed. Investigators also had an opportunity to investigate and photograph several Oregon boating access facilities. Unfortunately, investigators were unable to perform field surveys at sites upriver from the Bonneville Dam by boat.

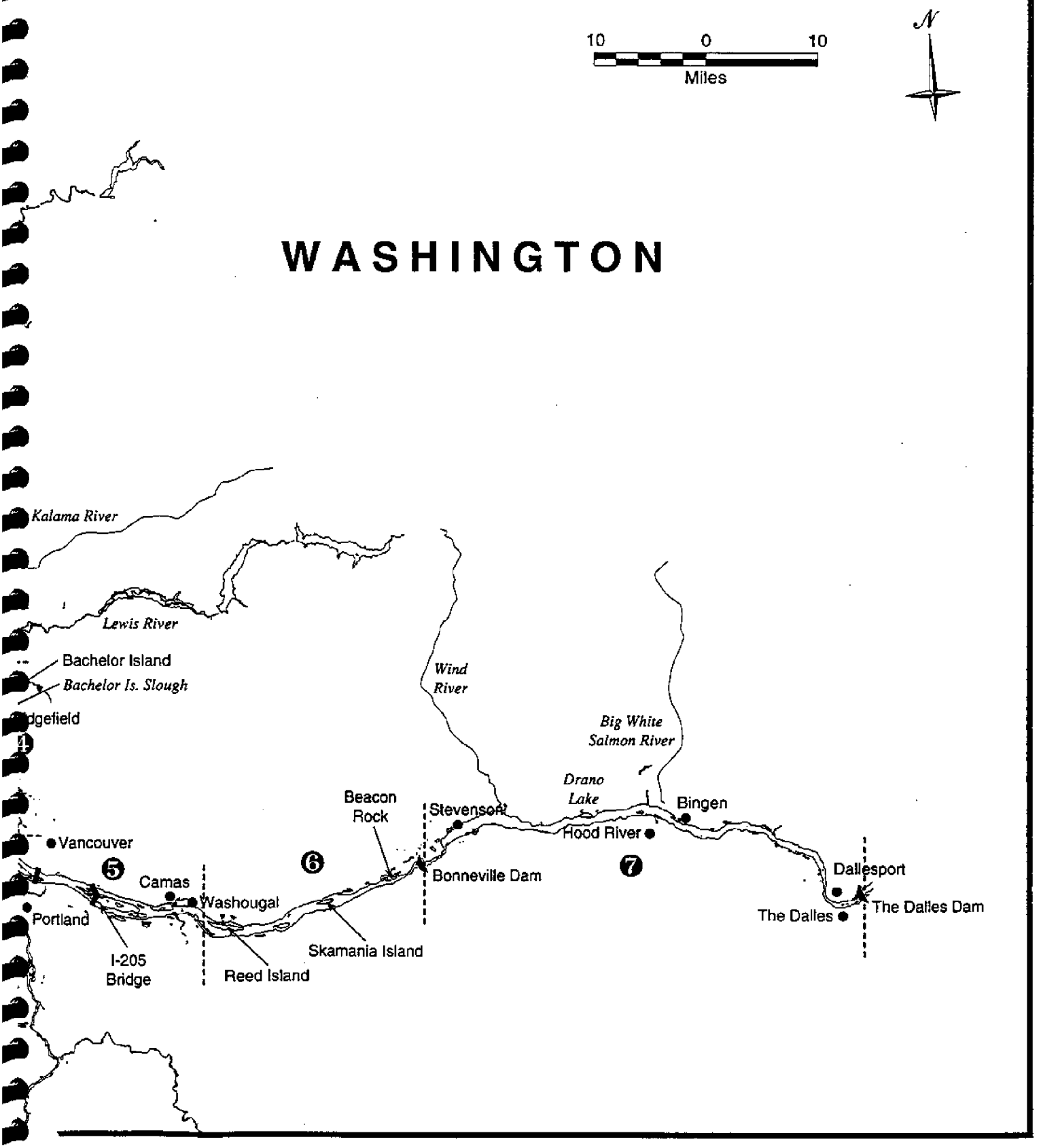
The survey by land took the largest amount of time and was conducted in a piecemeal fashion throughout most of the project's time frame. Whenever investigators traveled to the various sections of the river, some time was usually taken to investigate the back roads looking for primitive or potential boating access sites. Investigators also used this time to investigate recreational sites observed during the aerial or water survey or recommended by boaters.

River Reach Design

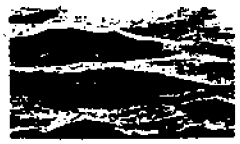
The river reach design tried to combine similar physical and social characteristics into the same reach. For example, the Vancouver-Portland metro area is densely populated and has a high degree of shoreline development. Since this area and the outlying suburbs are similar physically and socially, it forms one river reach. Sometimes the reach boundary was more of an aesthetic or subjective choice, but in others, distinct physical characteristics, such as the Bonneville Dams produced a clear boundary line.

After the initial analysis, investigators determined that physical characteristics alone did not make good boundaries. In the initial river reach design, the Lewis and Willamette rivers formed the boundaries between reaches 3, 4, and 5, but river mouths turned out to be the destination of may fishermen. Investigators therefore adjusted the boundaries so that confluence of the river, and therefore a group of boaters, were included in the same reach. The following pages show a map of the entire study area separated into seven river reaches. Cities, towns and important rivers and streams are also shown.


Willapa Bay
Pacific Ocean
Deep River
Ilwaco
Astoria-Megler Bridge
Skamokawa Creek
Skamokawa
Hump Island
Abernathy Creek
Fisher Is. Slough
Cathlamet
Astoria
Puget Island
Cowlitz River
Longview
Carrolls Channel
Rainier
Kalama
St. Helens
OREGON
Multnomah Channel
I-5 Bridge
Willamette River
1
2
3


10 0 10
Miles
N
WASHINGTON
Kalama River
Lewis River
Bachelor Island
Bachelor Is. Slough
dgefield
Wind River
Big White Salmon River
Drano Lake
Beacon Rock
Stevenson
Bingen
Hood River
Vancouver
Camas
Washougal
Portland
Bonneville Dam
Dallesport
The Dalles
The Dalles Dam
I-205 Bridge
Reed Island
Skamania Island
4
5
6
7

Boater Survey Results



Chapter Four: Boater Survey Results

Of the approximately 1500 questionnaires passed out, 303 were returned. giving a response rate of 20%. This chapter summarizes and analyzes the data obtained from responses to several questions relating to the boater and their vessel. Through these questions, investigators obtained information about the types and sizes of boats that are used on the Columbia River. Investigators also obtained information about where the boater came from, their boating experience, and their pattern and frequency of use of the Columbia River. In addition, investigators found some interesting correlations between the type of boat used, the pattern of recreational use, and the need for additional boating access facilities.

Boat Type

The Columbia River offers a variety of recreational opportunities, which leads to a variety of boat types. Although the survey was by its nature selective toward users of boat ramps and transient moorage, there were still a variety of boat types represented.

Question # 36: "What type of boat are you using today."

Type of Boat	Number of Boaters	Percent of Boaters
Motor Boat	253	82.1%
Sailboat (with motor)	35	11.4%
Personal Water Craft (PWC)	8	2.6%
Sailboard/Kayak or Canoe	12	3.9%
Total	**308**	**100%**

The reader should note that the number of vessels add up to more than 303. An analysis of the data showed that five of the PWC users were also users of a Motor Boat. This was the only case where two boat types were listed. For purposes of the remaining data analysis, these combination boaters were considered to be motor boat users.

Recreational vessels of all shapes and sizes are found using access points and transient moorage facilities on the Washington shore of the river; but since most of the surveys were distributed at boat ramps, trailerable motorboats were the dominant boat type surveyed. At transient moorage facilities larger cruising motorboats and motorized sailboats were well-represented. A sprinkling of personal watercraft, non-powered sailboats and kayaks, and a few sailboards were found using the ramps and hand-launch sites.

Type of Access Used

The Columbia River offers a number of different types of boating facilities. To help determine how often a particular type of facility was used, boaters were asked to estimate the number of times they used each of different kind of boating access facility.

Question #4: "During the last 12 months, about how many times did you use the following facilities?"

Access Type	Number of Responses	Average Yearly Use
Transient Moorage	146	14
Boat Ramp	200	24
Boat Hoist	43	4
Travel Lift	14	2
Total	**403**	**17.5**

The total number of responses adds up to more than 303 because many boaters responded by listing more than one type of boating access. When this fact is correlated with the boat type data previously mentioned, it shows that boaters, and in particular motorboaters, use a variety of boating access facilities throughout the year.

Table 4.1: Facility usage vs. boat type

	Ramp Users		Transient Moorage Users		Hoist Users		Travel Lift Users	
Type of Boat	# Boats	% Boats	# Boats	% Boats	# Boats	% Boats	# Boats	% Boats
Sailboat with Motor	7	3.5%	30	20.5%	6	14.0%	7	50.0%
Motorboat	183	92.5%	112	76.7%	37	86.0%	7	50.0%
PWC	3	1.5%	0	0.0%	0	0.0%	0	0.0%
Sailboard Kayak/Canoe	5	2.5%	4	2.8%	0	0.0%	0	0.0%
All Types	200	100.0%	146	100.0%	43	100.0%	14	100.0%

The total number of boats do not add up to 303 because not all surveyed boaters completely filled out the survey. For example, 24 motorboaters failed to indicate the types of access they used throughout the year.

Because there are a limited number of transient moorage facilities in Washington, the vast majority of surveys were passed out to boaters using boat ramps; thus the number of motor boats in comparison to the other types of vessels is probably proportionally larger than that in the general boater population. However, the above data show that boaters tend to use a variety of boating access facilities over the year. For example, 92 motorboaters who used boat ramps also used transient moorage facilities. This indicates that the survey design used, which was selective toward boat ramp users, still obtained a good information about transient moorage users.

Boat Length

Boat length questions were asked in all three Oregon transient moorage studies. Since investigators wanted to have similar data to compare with these studies, the data will first be grouped in a similar fashion. The alternate grouping is one investigators found to be more useful.

Question #34: "What is the length of your boat?"

Length in Feet	Motor Boat	Sailboat
Less than 20 ft.	150 (60%)	2 (6%)
21 ft. to 30 ft.	71 (28%)	11 (31%)
31 ft. to 40 ft.	25 (10%)	15 (43%)
41 ft. to 50 ft.	4 (2%)	7 (2%)
Alternate Grouping		
Less than 26 ft	206 (82%)	6 (17%)
Greater than 26 ft.	44 (18%)	29 (83%)

These data again highlight the possible selectivity problem of this survey. Because most surveys were passed out at boat ramps, most vessels were of the smaller sizes. There were no vessels over 49 ft.

Types of Access

Boat length provides a way to discriminate between the different types of facilities. It was particularly useful in discriminating between boaters who use launch ramps to access the river and those who moor their vessel in the water at a yacht club or marina. Motorboat, PWC, and Sailboat data from question #4 were analyzed by boat length and displayed in table 4.2. The individual percentages add up to more than 100% because boaters often selected more than one type of access.

Table 4.2: Facility usage vs. boat length

	Boats > 26 ft.		Boats ≤ 26 ft.	
Type of Access Used	# Boats	% Boats	# Boats	% Boats
Launch Ramp	13	17.6%	200	88.9%
Boat Hoist	15	20.3%	28	12.4%
Travel Lift	10	13.5%	4	1.8%
Transient Moorage	66	89.2%	80	35.6%
Total Number of Responses	74	100.0%	225	100.0%

Boats owned by ramp users had an average length of 19.6 ft.; less than 7% were longer than 26 ft. 89% of boats 26 ft. and under used launch ramps at least once during the twelve months preceding the survey; 12% used a hoist to access the river.

Boats using transient moorage were on average much larger than those using boat ramps—26.2 ft.; 44% were over 26 ft. in length. While both large and small boats are found tied up to transient docks and floats along the river, boats over 26 ft. in length are 2-1/2 times more likely to use these facilities than those 26 ft. and under. This is hardly surprising when one examines the ways boats are used on the river. Larger boats travel greater distances (median trip distance: 55 miles versus 15 miles for boats 26 ft. and under), and thus tend to take longer trips than smaller boats. Moreover, compared to boats 26 ft. and under, the larger boats spend more nights on the river for each trip they

take (median trip duration: 4 days). Consequently they utilize transient moorage for overnight stays. Smaller boats are primarily day-use craft (median trip duration: 1 day).

Method of Boat Storage

Question #40: "Where do you normally store your boat?"

Boat length provides a way to discriminate between the different methods boaters use to store their boat. It also provided an interesting correlation with boaters who use launch ramps to access the river. The individual percentages add up to more than 100% because some boaters selected more than one storage method.

Table 4.3: Boat storage vs. boat length

	Boats > 26 ft.		Boats ≤ 26 ft.	
Storage Type	# Boats	% Boats	# Boats	% Boats
Land Storage	2	2.8%	184	84.0%
Dry Stack Storage	0	0.0%	3	1.4%
Mini-Storage	0	0.0%	6	2.7%
Year-Round Wet Moorage	70	98.6%	18	8.2%
Seasonal Wet Moorage	1	1.4%	16	7.3%
Number of Boaters Responding	71	100.0%	219	100.0%

A similar percentage of boats 26 ft. and under (88%) were stored out of the water on land, in dry stack or in mini-storage, as used launch ramps to access the water (89%). Less than 3% of boats over 26 ft. stored their boats out of the water. The small percentage of boats under 26 ft. using dry stack or mini-storage facilities might well be explained by the low density residential character of communities along the Washington shore of the Columbia River. There are few barriers to storing boats in private driveways and back yards.

Of the boats over 26 ft. in length, 95% were moored year-round in water. Only 8% of boats 26 ft. and under were stored that way, while an additional 7% were moored in water on a seasonal basis.

Facilities Onboard

Question #39: "Does your boat have any of the following facilities?"

Table 4.4: Onboard facilities vs. boat length and type

	Motorboat > 26 ft.		Motorboat ≤ 26 ft.		Sailboat > 26 ft.		Sailboat ≤ 26 ft.	
Number of Vessels	44		206		29		6	
Port-a-Potty	3	7%	63	31%	1	3%	3	50%
Head with Holding Tank	43	98%	15	7%	29	100%	3	50%
Cooking Facilities	43	98%	34	17%	28	97%	4	67%
Sleeping Berths	44	100%	53	26%	28	97%	5	83%

The facilities onboard a vessel determine, in part, the types of shore based facilities boaters would need. Boaters were asked if their boat had a port-a-potty, a head with holding tank, cooking facilities, or sleeping berths. The responses were organized by boat type and boat length.

These results show that boats over 26 ft. are almost always self contained. It also shows that larger vessels are more likely to need pump-out or dump facilities. Interestingly, there is no difference between motorboats or sailboats over 26 ft. However, sailboats under 26 ft. are more likely to be self-contained than similar sized motorboats.

Fuel usage

IAC expressed an interest in obtaining data regarding gasoline consumption among boaters. To determine the type of fuel used and the consumption rate, the following questions were asked.

Question # 41: "Does your boat use fuel?" (Yes or No)

Question # 42: "What type of fuel do you use?" (Gasoline or Diesel)

Question # 44: "Where do you normally by the fuel for your boat?" (roadside service station or marina/fuel dock)

The results were separated by boat type and are listed in table 4.5. Further analysis of where the fuel was purchased was based only on gasoline-using vessels. Although these results give an accurate representation of the fuel usage of surveyed boaters, they may not necessarily be applicable to the general boating population. These data from this question were separated into boat types and boat length. PWC were considered motorboats ≤ 26 ft. for the propose of this analysis.

Table 4.5: Fuel use vs. boat length and type

	Motorboat > 26 ft.		Motorboat ≤ 26 ft.		Sailboat > 26 ft.		Sailboat ≤ 26 ft.	
Number of Fuel Using Vessels	44		209		29		6	
Fuel = Gasoline	38	86.4%	207	99%	3	10.3%	5	83.3%
Fuel = Diesel	6	13.6%	2	1%	26	89.7%	1	16.7%
Purchased at a Service Station	2	5.3%	157	75.9%	1	33.3%	5	100%
Purchased at a Fuel Dock	36	94.7%	39	18%	2	66.7%	0	0.0%

These results again emphasize the difference between boat types and boat lengths, but also show some dramatic differences between boat types. In particular, they show that larger motor boats usually (94.7%) buy their gasoline from a fuel dock, and smaller boats usually (75.9%) buy their gasoline from a service station. This difference is quite similar to differences found in the boat storage and facility use data.

The Boater

Although we can calculate the average and median scores form the boater responses, this by no means represents the typical boater. For the most part, the boaters surveyed do not fall into a neat bell-curve, rather, there is more of a uniform distribution throughout data range. For this reason, if an average is given, it is also accompanied by a range or groupings of data. Results are also separated into only motorboat and sailboat users. The data from the other vessels are in the database, but were not present in large enough numbers to be significant.

Question # 33: "How many years have you been boating on the Columbia River?"

Experience	Motor Boat	Sailboat
Average	17.4 years	22.4 years
Median	15.0 years	21.0 years
< 10 years	92 (37%)	6 (17%)
10-20 years	80 (32%)	11 (31%)
21 years +	79 (31%)	18 (51%)

On average, boaters had 17.5 years of boating experience on the Columbia River, but there were wide variations among owners of different types and sizes of vessels. For example, the average sailboater had been boating five years longer than the average powerboater. The difference is even greater when one looks at the *median* years of experience of both groups: 15 years for the powerboater versus 21 years for the sailboater. Generally, owners of larger vessels—over 26 ft. in length—had 7.4 years more experience (average: 23 years) than owners of smaller—26 ft. and under—boats (average: 15.6 years).

Question # 1: "In the last 12 months, on how many days did you use your boat?"

Days per year	Motor Boat	Sailboat
less than 20	58 (23%)	2 (6%)
21-30	64 (25%)	7 (20%)
31-40	50 (20%)	3 (9%)
41-50	29 (12%)	4 (11%)
> 50	50 (20%)	19 (54%)

This data show that sailboaters use their boats much more often than motorboaters —a median of over 50 days per year compared to 31-40 days. This is probably due to the numerous yacht club or boating club sponsored evening races, but it could also be associated with the experience of the boater. Sailboaters were a more experienced group,

possibly implying that they are also an older group. If this is the case, older boater, e.g., retirees, would have more time, and therefore more opportunity for recreational boating.

Question # 38: "Do you usually travel with a group of boats?"

	Motor Boater	Sailboater
All Boats	66 (26%)	18 (51%)
26 ft.	36 (17%)	1 (06%)
> 26 ft.	32 (73%)	17 (94%)

This question examined the social nature of boating. We see from this result that sailboat users are much more likely to be members of a group than motorboaters. When separated by size class, the differences become even more apparent. Boaters with larger vessels are more likely to be members of a group, and boaters with large sailboaters the most likely boaters to be in a group. These data help support the idea mentioned above that the increase in boating days are possibly due to club-sponsored events.

Residence of Surveyed Boaters

Surveyed boaters came primarily from Washington and Oregon. There were two boaters from California and one from Idaho. The number of boaters from Washington and Oregon are organized by city or geographic region on page IV-8 and IV 9. This list was edited to save space by combining adjacent smaller communities with a larger one to create a single entry. For example, Columbia City OR was considered to be St. Helens, and areas distant from the Columbia River, (e.g., Olympia, Seattle, and Tacoma) were combined to form a regional entry, (e.g., the Puget Sound Region).

Recreational boaters who use the Columbia River, for the most part, live in communities on or near the river; eighty-five percent of those surveyed reside in counties contiguous to the river and the majority of these folk—58%—live in the Vancouver-Portland metropolitan area. Some boaters do come from more distant locations, particularly the Puget Sound region, but these primarily are fishermen drawn to the mouth of the river to participate in the recreational salmon fisheries. Surveys were distributed only to boaters using facilities on the Washington shore; consequently, Oregon boaters constituted a minority of respondents (32%). They were, however, the majority of surveyed boaters using transient moorage in Washington (52%), usually in large groups, from one or more Oregon yacht clubs.

Figure 4.1
Residence of Surveyed Boaters
Washington Cities

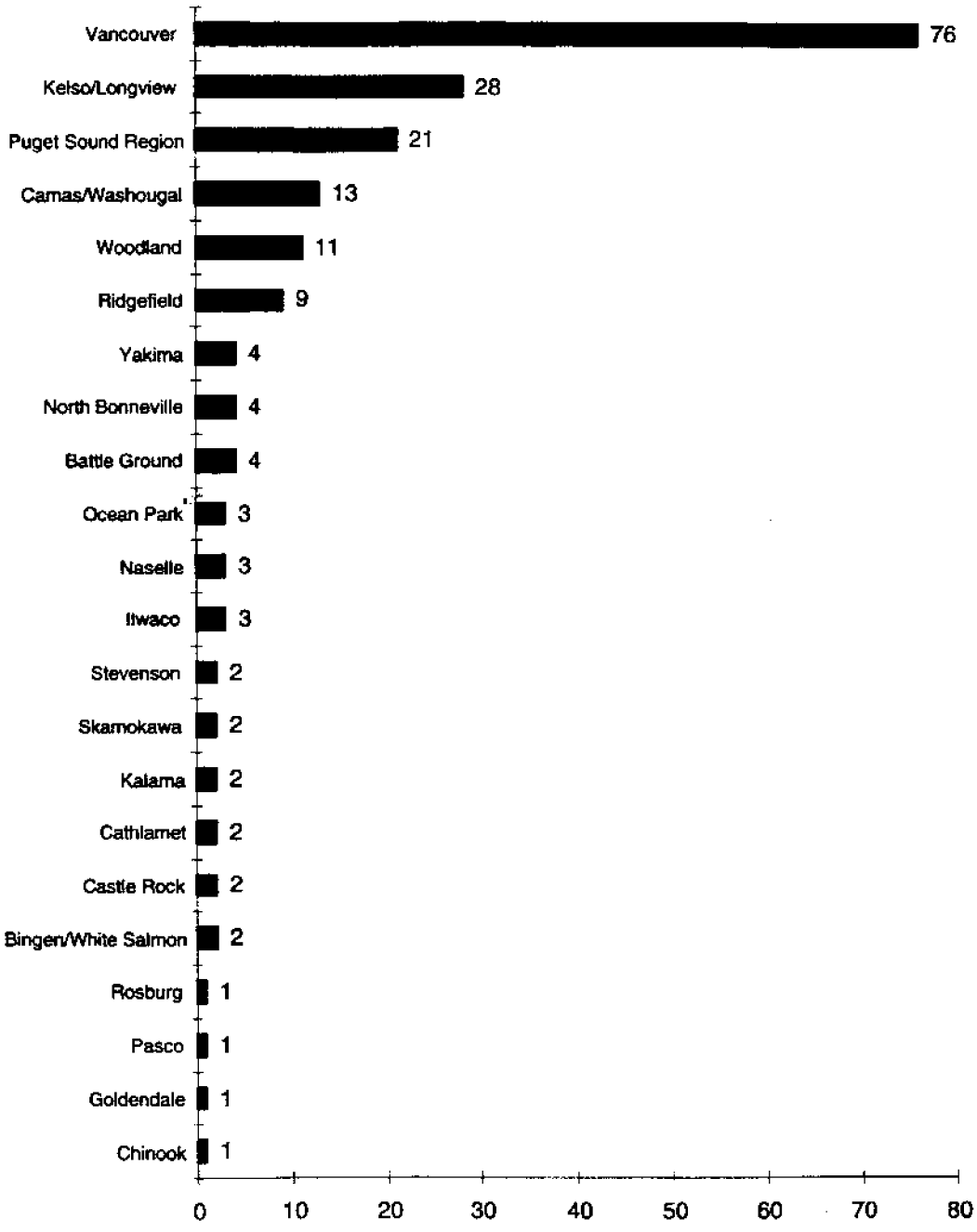
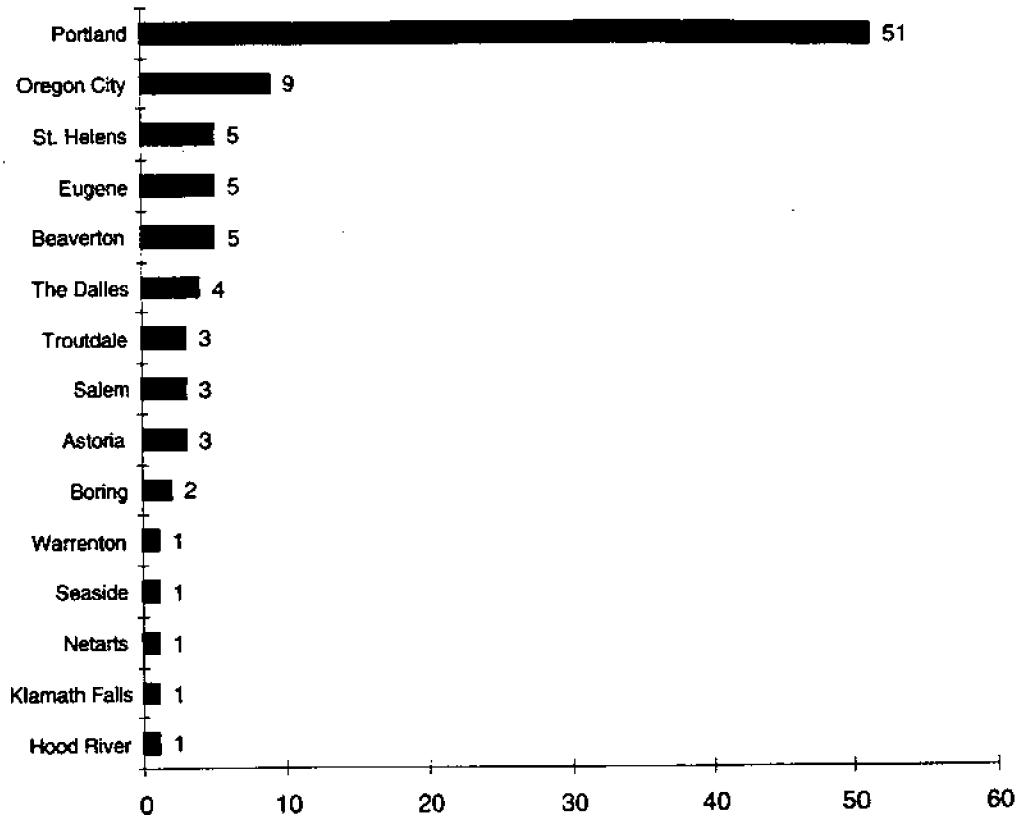


Figure 4.2
Residence of Surveyed Boaters
Oregon Cities



Boater Utilization by Launch or Moorage Site

Among the boaters surveyed, 58% were from the Vancouver-Portland metro area and its suburbs. Moreover, 87% of the users came from counties along the Columbia River, including counties in Oregon. This means, in general, that the Columbia River is used primarily by Columbia River residents, and that, as the largest community, the metro areas supplies the greatest number of users.

Detailed residence information of boaters using the surveyed access sites is found in Appendix F. These results show a pattern of use that will be very important for determining the location of new boating access facilities. The most apparent piece of information gained is that, in the majority of cases, 80% or more of the users reside outside the local community and, in most cases, outside the county.

This is important because it shows that the size of the local population, or population of the county is not necessarily indicative of the use rates of existing facilities or the need for new facilities in that area. The only exception was in Clark County, which had the highest local use rates (80%). Only 20% of the boaters came from other counties.

Boater Residence vs. Access

Using a combination of question responses, the type of boating access used was compared with the boaters residence. These data are presented in table 4.6. Of the 200 boaters who reported using a Columbia River launch ramp at least once in the last 12 months, 81% were Washington residents and only 16.5% were from Oregon. In addition, 52% percent of the 147 transient moorage users surveyed were Oregon residents, while only 46% were from Washington.

Table 4.6: Boater residence vs. boating access

	All Boaters		Ramp Users		Transient Moorage Users	
Region of Residence	No. of Boaters	% of Boaters	No. of Boaters	% of Boaters	No. of Boaters	% of Boaters
Unknown	7	2.3%	4	2.0%	3	2.0%
California	2	0.7%	1	0.5%	0	0.0%
Oregon/Col. R.	88	29.0%	26	13.0%	70	47.6%
Oregon/Other	8	2.6%	7	3.5%	6	4.1%
Idaho	1	0.3%	0	0.0%	1	0.7%
Puget Sound	23	7.6%	20	10.0%		0.0%
Washington/Col. R.	169	55.8%	138	69.0%	66	44.9%
Washington/Other	5	1.7%	4	2.0%	1	0.7%
Number of Boaters Responding	303	100.0%	200	100.0%	147	100.0%

When combined with the residential data of the individual sites, we see that the utilization of the river is fairly spread out. For example, table 4.6 shows that 85% of the boaters on the Columbia reside in a Columbia River county and Appendix F shows the on average, 80% of the boaters come from outside the county. This means that while Columbia River residents are the primary user of the river, they do not usually boat in their own back yard. Instead, they trailer or cruise great distances to explore or enjoy different sections of the river.

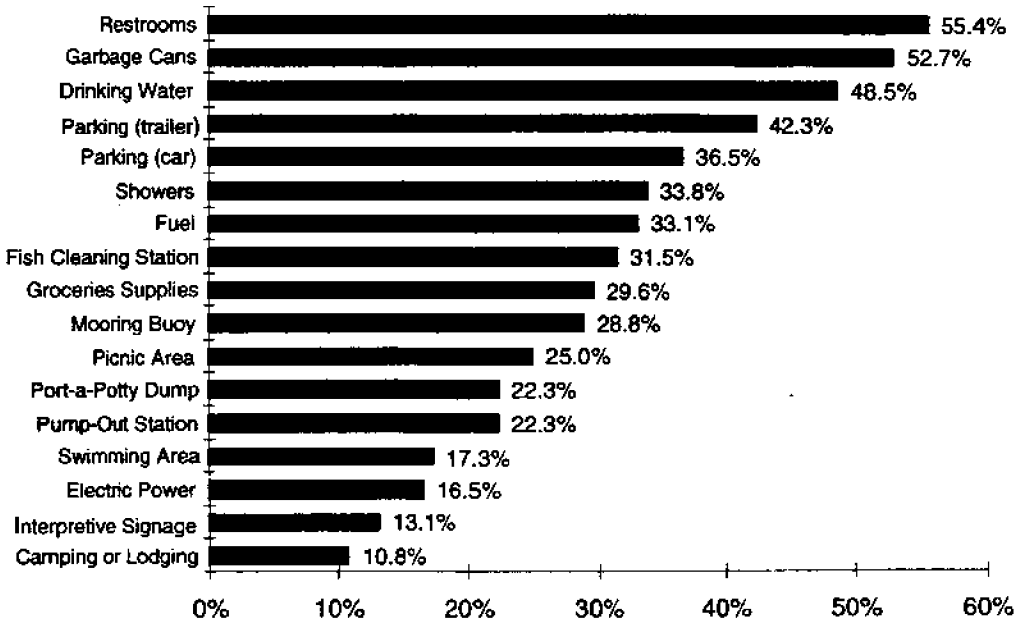
Although a similar analysis was not done in Oregon, in this study, investigators had the opportunity to visit a site on the other side of the river. While spending the night at Rainier Marina, investigators counted and identified boat trailers and boaters using the boat ramp. Investigators recorded the state registration of 32 trailers: of these, 23 (70%) had Washington plates and 9 (30%) had Oregon plates. This is probably due to the lack of boating access facilities in Longview.

Boater Recommended Services and Amenities

Boaters were asked a number of questions regarding the boating access facilities they were using on the survey day. The responses for these questions are mentioned in the site summary reports in Chapter Five. This section examines at the general desirability of boating related services and amenities.

Question #30: "In general, what sort of services or activities do you think should be offered at or near the type of facility you are using today?"

Figure 4.3
Percent of Boaters Requesting Services or Amenities



This figure represents the percentage of all surveyed boaters requesting a given service or amenity. As such, it provides an average measure of desirability for each individual service or amenity. However, boaters in different reaches did not necessarily have the same preferences. In all cases, restrooms, garbage cans, and drinking water were highly desired services or amenities, but the desirability of other services and amenities varied with river reach.

In Reach One, fish cleaning stations, trailer parking and camping or lodging had much higher than average rates of desirability. Services and amenities such as fuel, groceries and supplies mooring buoys, pump-out station, swimming areas, and interpretive signage had much lower rates of desirability.

Reach Two was the most typical in its ratings of desirability. No services or amenities were rated significantly higher in their desirability, but fish cleaning stations and camping or lodging had much lower rates.

In Reach Three, trailer and car parking, showers, and groceries and supplies were above average in their desirability, and mooring buoys had a much lower rate. This may be an indication that the area is predominantly used by smaller vessels.

In Reach Four, trailer parking was the most highly desired service or amenity. Car parking, fuel, groceries and supplies, and picnic areas had much higher than average rates of desirability. Services and amenities such as showers, mooring buoys, pump-out station, and camping or lodging had much lower rates of desirability.

In Reach Five, fuel, groceries and supplies, and mooring buoys were above average in their desirability. Services and amenities such as trailer and car parking, fish cleaning stations, picnic areas, and camping or lodging had much lower rates of desirability. This may be an indication that the area is predominantly used by larger vessels.

In Reach Six, mooring buoys were the most highly desired service or amenity. Pump-out stations, swimming areas, electric power, and interpretive signage had much higher than average rates of desirability. Services and amenities such as trailer parking and fuel had much lower rates of desirability.

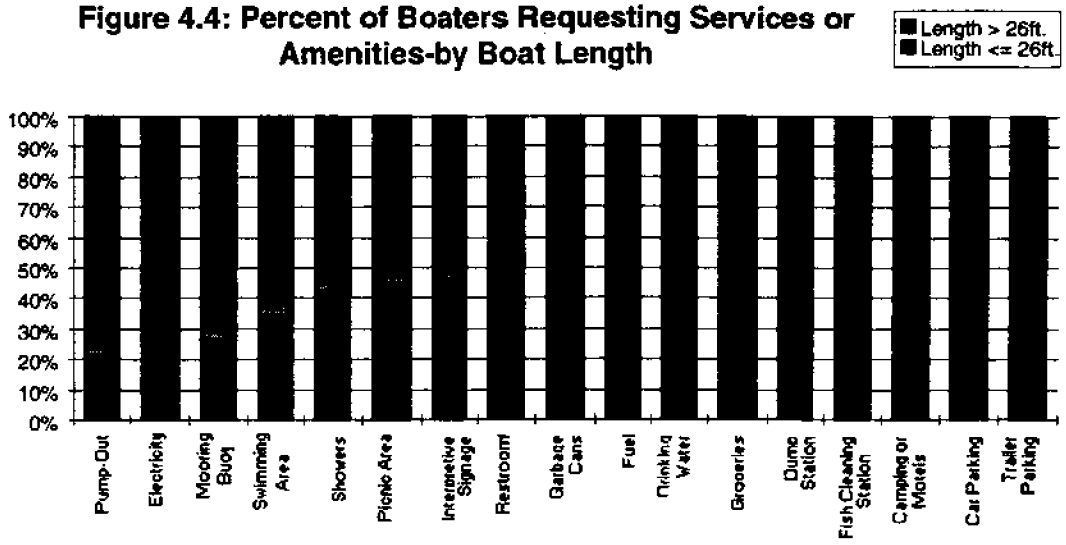
In Reach Seven, car parking, showers, fish cleaning stations, mooring buoys, pump-out stations, port-a-potty dump, swimming areas, electric power, and camping or lodging had much higher than average rates of desirability. There were no services and amenities with lower rates of desirability. The reader should note that this reach had the smallest number of respondents (18). Because the rates of desirability were so much different than the other reaches, it is possible that this small sample had the effect of exaggerating the desirability ratings of services and amenities on this reach.

Services and Amenities by Boat Length

Investigators believed that there would be a difference in the desirability ratings of services and amenities at different types of boating access facilities, such as transient moorage and boat ramps. Unfortunately, the data did not neatly separate into these two groups. For example, 45% of all boaters used both types of facilities, and several sites offered a variety of boating access facilities. This made it impossible for investigators to determine which type of boating access facility the respondents were considering when they marked their choices for services and amenities.

Since less than 7% of the ramp users had vessels longer than 26 ft., investigators thought this would more accurately discriminate between the desirability of services and amenities at launch ramps and transient moorage. The acknowledged assumption here is that the larger vessels (greater than 26 ft.) are always transient moorage users while the smaller vessels (less than or equal to 26 ft.) are almost always boat ramp users.

Figure 4.4: Percent of Boaters Requesting Services or Amenities-by Boat Length



Although there are some similarities, these results show some large differences in services and amenities desired by larger and smaller vessels. These differences however, are quite reasonable. Larger vessels use transient moorage more often, resulting in a larger need for electricity and mooring buoys. They almost always have a holding tank (98% of surveyed boats) which need to be emptied at pump-out stations.

Conversely, smaller boats are trailered vessels and have a need for car and trailer parking. Smaller boats also generally lack sleeping berths (only 26%), and by direct experience, investigators found that sleeping berths on smaller vessels leave much to be desired. With this in mind, its easy to see why they have a greater need for camping or motels. Smaller vessels were also responsible for 84% the boaters who fished, which explains the need for fish cleaning stations.

Recreational Activities

The Columbia River is a large river system with many recreational opportunities. Investigators were interested in determining how popular the various activities were and where those activities took place.

Question # 6: "Which of the following activities will you pursue while boating on this trip?"

Activity	Number of Boaters
Fishing	147
Cruising (Day Trip)	110
Nature Viewing	115
Cruising (Overnight Trip)	69
Water Skiing	45

River Town Shopping/Sightseeing	50
Camping	35
Other	30

These recreational activities did not take place evenly across the river. There are a variety of reasons for this. For example, some parts of the river have better opportunities for fishing than other areas (e.g., near the mouths of tributaries), some areas are more scenic than others, and some parts are calmer than others. Table 4.7 shows how the variety of recreational activities are spread out over the study area. The number represents the percentage of boaters in that reach who were engaging in that activity. Boaters often selected more than one activity.

Table 4.7: Percent of Boaters Within Each Reach Pursuing Recreational Activities

	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Reach 7	All Reaches
Fishing	87.3%	51.9%	59.1%	42.9%	32.8%	54.5%	33.3%	55.7%
Cruising Day Trip	19.7%	48.1%	40.9%	62.9%	55.2%	42.4%	33.3%	41.7%
Nature Viewing	29.6%	63.0%	27.3%	60.0%	46.6%	45.5%	44.4%	43.6%
Cruising Overnight	19.7%	22.2%	18.2%	11.4%	36.2%	45.5%	27.8%	26.1%
Water Skiing	0.0%	7.4%	36.4%	31.4%	34.5%	6.1%	5.6%	17.0%
River Town Visit	21.1%	33.3%	4.5%	28.6%	13.8%	6.1%	27.8%	18.9%
Camping	11.3%	14.8%	27.3%	11.4%	13.8%	6.1%	16.7%	13.3%
Other	8.5%	14.8%	9.1%	11.4%	6.9%	9.1%	38.9%	11.4%
Number of Boaters Responding	71	27	22	35	58	33	18	264

Among all boaters using the river, fishing, day cruising, and nature viewing were the dominant recreational activity, but the individual river reaches varied greatly in their patterns of use. Part of this is due to geography. For example, fishing coincides with the confluences of the larger tributaries of the Columbia while water skiing primarily occurs on urban reaches of the river. In other cases, the availability of facilities is the limiting factor. These factors tend to give a river reaches clear dominance in a particular activity. For example, fishing is most popular in Reach One, river town visits in Reach Two, camping in Reach Three, and overnight cruising in Reach Six. Although many activities vary greatly, there are some similarities. For example, water skiing is highest in reaches Three, Four and Five which have approximately the same rates of use. Also, day cruising and nature viewing appear to be linked, i.e., they have approximately the same use rates. However, there is no linkage with overnight cruising.

The smaller boats (26 ft. and under) were used predominately for fishing, followed by day cruising, nature viewing, water skiing and camping. Owners of larger boats (over 26 ft.) reported engaging in overnight cruising, nature viewing, day cruising, and visiting river towns. Social activities seemed to be a more important ingredient for these boaters since two thirds of them reported boating in groups compared to less than one fifth of smaller boat owners.

Conditions Spoiling Boating Experience

Some recreational activities such as cruising overnight and river town visits, or nature viewing and fishing are quite compatible. However, other activities such as fishing or nature viewing and water skiing can be in conflict if performed too close together and have a negative impact on one or the other boater's recreational experience. However, such conflicts are not the only conditions that can negatively impact a boater's enjoyment of the river. Investigators used the same "conditions" listed in the Oregon studies, but also listed as their own category, the more popular write-in responses supplied by boaters as an "other condition." The results are shown below.

Question # 8: "Circle all of the conditions that spoil your boating experience."

Conflict or Concern	Number of Boaters
Crowded Conditions	173
Wind and Waves	128
Shallow Water	71
Conflicts with other Users	71
Distance Between Services	45
Changing Water Levels	44
Distance Between Fuel Facilities	37
Fish Net Fouling	25
Security or Personal Safety	20
Barges or Cargo Vessels	20
Dams or Locks	16

Additionally, like in the Oregon study, an "other" category was available to give boaters an opportunity to write in any condition not listed. The most popular of these "other" conditions were:

Other Conditions	Number of Boaters
Personal Watercraft Users	17
Lack of launch facilities	14
Rude/Inconsiderate Boaters	11

The reader should note that the number of boaters writing-in personal watercraft users exceeds those selecting dams and locks. This indicates the potential for a serious condition affecting the boating experience, but because it was a write-in category, a direct comparison cannot be made. For future surveys, PWC should be provided as a choice.

Reported Conditions by River Reach

The percentage of boaters in each river reach reporting each of these conditions are listed in table 4.8. Crowded conditions followed by wind & waves were the most frequently cited conditions that affect the boating experience in each individual reach, but the other conditions tended to vary by river reach.

Table 4.8: Conditions that Affect the Boating Experience—by River Reach								
	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5	Reach 6	Reach 7	All Reaches
Crowded Conditions	62.0%	59.3%	54.5%	78.8%	74.1%	66.7%	62.5%	66.5%
Wind & Waves	46.5%	51.9%	50.0%	57.6%	51.7%	45.5%	37.5%	49.2%
Conflicts With Other Boaters	22.5%	25.9%	22.7%	27.3%	36.2%	30.3%	18.8%	26.2%
Shallow Water	19.7%	25.9%	18.2%	42.4%	41.4%	18.2%	12.5%	25.5%
Changing Water Levels	5.6%	7.4%	4.5%	27.3%	22.4%	33.3%	25.0%	17.9%
Lack of Services	22.5%	14.8%	18.2%	12.1%	19.0%	15.2%	6.3%	15.4%
Lack of Fuel Docks	9.9%	18.5%	9.1%	15.2%	15.5%	24.2%	6.3%	14.1%
Net Fouling	8.5%	14.8%	4.5%	3.0%	6.9%	6.1%	43.8%	12.5%
Barges & Cargo Vessels	4.2%	14.8%	4.5%	9.1%	12.1%	3.0%	6.3%	7.7%
Fear for Personal Safety	4.2%	7.4%	9.1%	9.1%	13.8%	6.1%	0.0%	7.1%
Dams & Locks	2.8%	3.7%	9.1%	0.0%	10.3%	9.1%	12.5%	6.8%
Personal Watercraft Users	0.0%	7.4%	0.0%	9.1%	12.1%	0.0%	6.3%	5.0%
Lack of Launch Facilities	14.1%	7.4%	0.0%	3.0%	1.7%	0.0%	0.0%	3.7%
Rude or Inconsiderate Boaters	2.8%	0.0%	9.1%	3.0%	6.9%	3.0%	0.0%	3.6%
Number of Boaters Responding	71	27	22	35	58	33	18	264

In Reach One, distance between services was the only other additional concern that was above the average. Conflicts with other boaters and shallow water were the other main concerns.

In Reach Two, conflicts with other boaters, shallow water, and distance between fuel facilities were the other commonly reported conditions.

Reach Three had comparatively few reported conditions. The distance between services, conflicts with other users and (surprisingly) dams & locks were the only commonly reported conditions.

In Reach Four, shallow water, conflicts with other boaters, and changing water levels were the other commonly reported conditions.

Reach Five, conflicts with other boaters and shallow water (which includes sand built up at the bottom of a ramp) were the other commonly reported conditions.

In Reach Six, changing water levels, conflicts with other boaters, and distance between fuel facilities were the other commonly reported conditions.

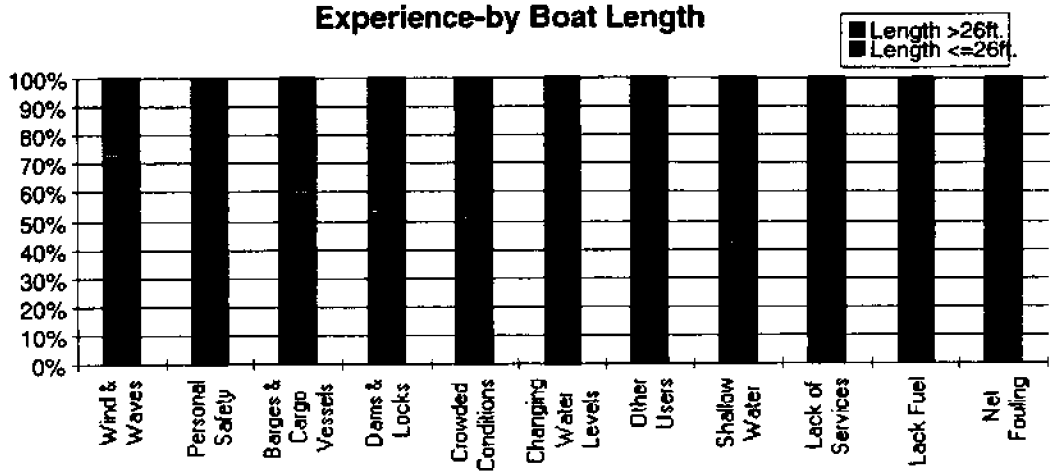
In Reach Seven, net fouling is the other dominant condition exceeding even wind and waves as a dominant condition. Changing water levels was the next highest reported condition. This reach had the largest reporting of dams & locks, but this was still a minor condition affecting the boaters experience.

Some conditions had an insignificant impact in many areas, but boaters did not necessarily limit their selection to conditions affecting boating in the reach in which they were surveyed. For example, dams & locks have little actual impact on boaters in Reach One; but since boaters surveyed there frequently boat in more upriver reaches, it is still a factor affecting their boating experience.

Reported Conditions by Boat Length

In addition to River Reaches, there were different dominant conditions impacting boaters with different boat lengths.

Figure 4.5: Conditions Affecting the Boating Experience-by Boat Length



There was some variation in boaters' responses to conditions affecting their boating enjoyment when boat length class is considered. "Wind and waves", "personal safety" and conflicts with "barges and cargo vessels" present more harm to boats 26 ft. and under than to larger vessels. Conversely, "net fouling", "lack of fuel", "lack of services", and "shallow water" worry owners of boats over 26 ft. in length given their deeper drafts, exposed propellers, and longer trips on the river. Of more or less equal concern to all boaters were "conflicts with other users", "changing water levels", "crowded conditions" and "dams and locks".

Need for Boating Facilities

The major area focus of this study was to determine the need for boating access facilities. A number of questions were directed to this end. Responses to these questions were all appear in Table 4.9.

Question # 18: "Do you have a need for additional moorage facilities along the Columbia River?"

Question # 19: "How far apart would you like these facilities to be located?"

Question # 20: "Where would you place additional transient moorage facilities?"

Question # 21: "Do you have a need for additional launch facilities along the Columbia River?"

Question # 23: "How far apart would you like these facilities to be located?"

Table 4.9: Facility need vs. boat length and type

	Motorboat 26 ft.		Motorboat > 26 ft.		Sailboat 26 ft.		Sailboat > 26 ft.	
Transient Moorage Need	#	%	#	%	#	%	#	%
yes	53	25.4%	36	81.8%	3	50.0%	18	62.1%
no	25	12.0%	5	11.4%	2	33.3%	5	17.2%
no response	131	62.7%	3	6.8%	1	16.7%	6	20.7%
average distance (in RM)	15.3 miles		16.8 miles		11.3 miles		16.2 miles	
Launch Ramp Need	#	%	#	%	#	%	#	%
yes	129	61.7%	5	11.4%	1	16.7%	2	6.9%
no	50	23.9%	3	6.8%	0	0.0%	3	10.3%
no response	30	14.4%	36	81.8%	5	83.3%	24	82.8%
average distance (in RM)	12.4 miles		11 miles		insufficient data		insufficient data	
Total Number of Vessels	209		44		6		29	

For this question, PWC were considered to be small motorboats. These results show again that the responses of larger boats differ significantly from those of smaller boats. Earlier we saw how boat ramps and transient moorage tended to be used by boaters with different boat length. From this table, we see a similar result in that boaters with smaller motor boats having a need for additional launch facilities (62%) but less of a need for additional transient moorage facilities (25%). In contrast, both larger motorboats and sailboat have a great need for additional transient moorage facilities (82% and 62% respectively), but much less of a need for launch facilities (11% and 7% respectively). Small sailboats had a small sample, but they also had more need for transient moorage than for launch facilities (50% and 16% respectively).

Impact of Boating Access Improvement

Question # 27: "If there were additional transient moorage or boat launch facilities on the Columbia River, which of the following would be true?" (I would use the river more often; I would take longer trips; I would boat to different places; I would not change my boating pattern)

Question # 28: "Would additional transient moorage or boat launch facilities make the Columbia River too Crowded?"

Table 4.10: Impact of boating access improvement—by boat length and type								
	Motorboat 26 ft.		Motorboat > 26 ft.		Sailboat 26 ft.		Sailboat > 26 ft.	
Additional Facility Result	#	%	#	%	#	%	#	%
boat more often	93	44.5%	24	54.5%	2	33.3%	8	27.6%
take longer trips	61	29.2%	22	50.0%	2	33.3%	13	44.8%
boat to different places	121	57.9%	40	90.9%	2	33.3%	23	79.3%
no change	47	22.5%	1	2.3%	2	33.3%	5	17.2%
Too crowded-yes	37	17.7%	3	6.8%	1	16.7%	2	6.9%
Too crowded-no	150	71.8%	39	88.6%	3	50.0%	23	79.3%
Total Number of Vessels	209		44		6		29	

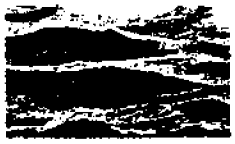
If there were additional facilities built, the most common effect of boater behavior would be that boaters would "boat to different places." This was the most common response among all types of boaters, but large-sized motorboaters gave it the highest response rate (82%) followed closely by large sized sailboaters with a 79% response rate. Motorboaters of both size classes responded with almost twice the frequently of larger sized sailboaters that they would "boat more often." This response pattern possibly indicates that crowded or difficult to reach facilities keep these boaters at home more often. On the other hand, both large motorboaters and sailboaters would "take longer trips" and boat to different places more than small motorboaters. This possibly indicates that these larger vessels are inhibited by the lack of fuel, pump-outs, and other boater services.

In all cases, boaters overwhelmingly responded that additional facilities would not make the Columbia River too crowded. This when combined with the fact that "crowded conditions" is the boater's most common concern supports the idea that recreational boating needs to be more evenly distributed along the river to reduce congestion.

The last words of this analysis belong to people who paid the bill—the boaters. This quote comes directly from the comments of one boater.

> Federal Fuel Tax Refund should be used for acquisition of marine parks, oil waste and pump out facilities and access ramps. Washington has much superior service opportunities than Oregon, but Oregon is doing a better job of development because of the setting aside areas for that purpose. Don't waste a portion of the gas tax refund on excessive policing as Oregon does. The San Juan Marine Parks are a testimonial to people with vision acquiring recreational opportunities for future generations. We need more people with this kind of vision" (Anonymous).

Inventory & Analysis



CHAPTER FIVE : Public Boating Access Inventory and Analysis

Introduction

This chapter contains the inventory and analysis of all public motor boat access sites along the Columbia River from the mouth (RM 0) to the Dalles Dam (RM 192). It is a key component required to properly manage the siting of new public boating access facilities on the Columbia River. This inventory and analysis gives management agencies the information they need to view the whole Lower Columbia River as a single recreational resource rather than individual sections of river associated with a community (the usual case) or with an especially scenic areas (e.g., Rooster Rock and Beacon Rock). With this information, facilities can be developed where they are needed most, or are most useful to -the boating community, rather than being developed in an ad hoc fashion.

As a recreational resource, the Columbia River has enormous potential, but not all areas have the same utility. In addition to providing an inventory and condition reports of existing boating access facilities, data from the boater survey were used to help determine popular or preferred recreational activities along the different reaches of the river. Responses from the survey were also used to identify locations where the surveyed boaters most needed new boating access facilities to be developed. These boater responses were one of the criteria used to develop the list of potential boating access sites. This list was prioritized during the Columbia River Boating Access Workshop (May 10, 1996) and will be used to help guide the funding priorities of boating facilities planning agencies in Washington and Oregon.

River Reach Section Organization

This chapter is divided into seven sections, each corresponding to an individual river reach. Each river reach contains a river reach summary, an inventory of all existing public boating access facilities organized by river mile, and a list of potential boating access sites, also organized by river mile.

The reader should note that the inventory of existing public boating access facilities is separate from the inventory of potential sites. This was important to preserve readability of the existing site summary pages. However, because of the river mile organization, it may be confusing when transitioning from the existing site to the potential site section. To avoid confusion, the reader should note that existing sites use a two page summary and potential sites have only a one page summary.

River Reach Summaries

Each river reach section begins with a two page summary that contains: (i) a map of the reach with marking the location of existing and potential boating access sites as well as sites where surveys were distributed; (ii) a physical description of the land, water, and shoreline, some general comments about the availability of boating access and boating services on the reach, and the general potential of the area for improvement including, if any, the constraints on improving access along the reach; (iii) a bar-chart showing the percent of respondents to the boater survey who participated in each of the various recreational activities available to them on the Lower Columbia River, an analysis of the responses, the numbers of boaters who responded, and the average number of activities in which the boaters participated appears under the chart; and (iv) a table summarizing the location and number of existing and potential access points on each reach of the river, the availability of parking, and where applicable, the average boater evaluation of each facility is presented.

Existing Boating Access Sites

Following the river reach summary is an inventory and analysis of existing public boating access sites. Each existing site uses a two-page format. The first page presents general information about the site, describes the type of access, services, and amenities offered, including their condition, and summarizes any known planned improvements. This is followed by the boaters' evaluation of the site, their evaluation scores, and their common recommendations for improvement. (For a complete list of all boaters' recommendations, see the appropriate "site condition report" in Appendix E). A final paragraph describes recommendations made by the investigators. On the second page, two photographs of the site are displayed.

Potential Boating Access Sites

Following the inventory of existing sites are a group of sites that boaters and/or investigators found to be physically suitable for developing a public boating access facility. These sites were identified using several sources: the boater survey; interviews with boaters at the site; and inspections conducted along the river by land, by boat, and from an airplane. The one page site summary included a description of the site, a recommendation for development, and a photograph of the site.

Criteria For Site Selection

Potential sites were selected primarily for their physical attributes. These included navigability and water depth (i.e., areas free of shoaling); wind, ship wake, and wave protection; overall site aesthetics; and, especially for transient moorage sites, the location and availability of recreational amenities such as access to river communities, sandy beaches, camping, or boater services.

There are other important considerations to be addressed before assigning priorities for developing any of these sites. Demand factors such as boater population,

growth in boat ownership, and use rates within the service area; detailed information about land ownership and restrictions on its use; presence of archeological or cultural sites and constraints; and environmental restrictions. These are among the factors that were considered by participants in the May 10, 1996 Columbia River Boating Access Workshop.

Term Definition

This chapter uses some special terms, numerical ratings, and jargon. To avoid defining these when they occur, they are defined below:

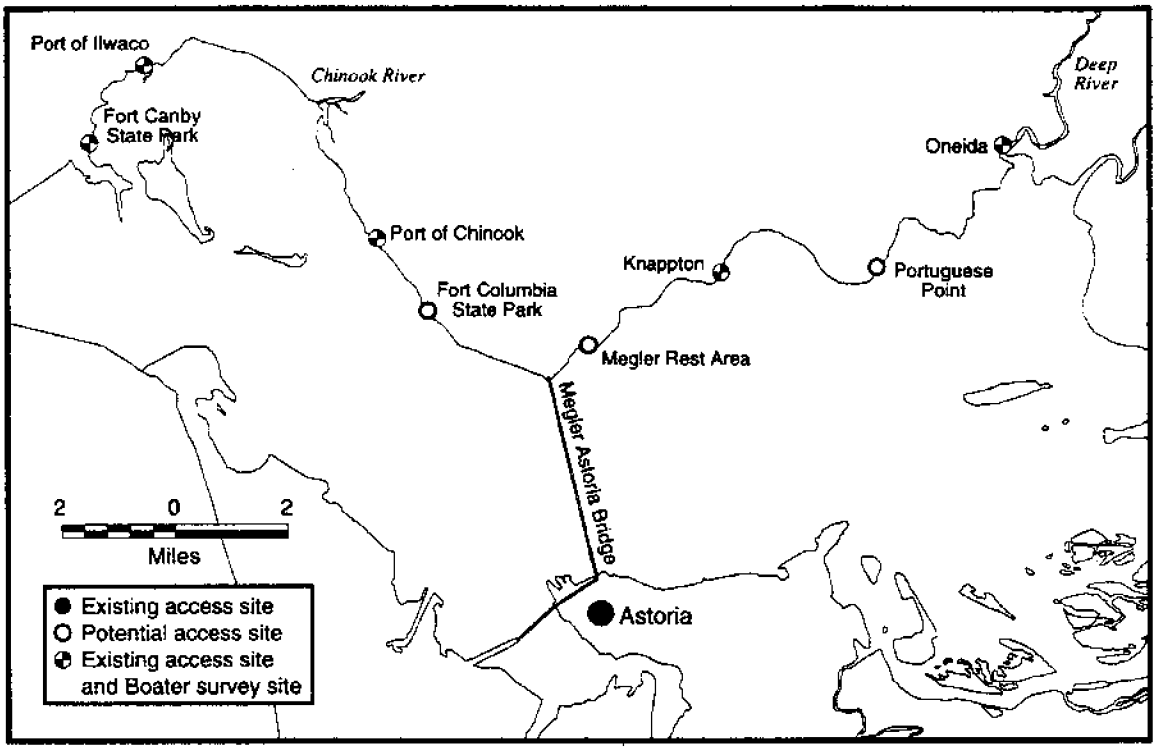
Numerical ratings, e.g. (3.9): This type of number refers to the average score given to the facility or to an attribute of the facility. In the boater survey, boaters were asked to evaluate the quality of the facility and the services offered at the site where the survey was administered. The number in parentheses represent the average score given for that category (e.g., overall quality, restrooms, water depth, etc.). Boaters selected their score from a scale ranging from 1 (unacceptable) to 5 (excellent). The attribute measured precedes the number.

Numerical rating, e.g. (7): The number represents the number of boaters who made a recommendation for improvement. The recommendation precedes the number.

Barrier free improvements: This term refers to facilities that appeared to have made an attempt to improve access for handicapped users. This does not necessarily mean that the facility meets current or previous ADA standards, only that the facility has made an attempt to improve access.

Water depth: When listed, depth readings refer to water depths at mean lower low water (MLLW). These are either actual depth soundings taken during the boat trip and adjusted to MLLW, or, where no soundings were taken, depths were taken from the River Cruising Atlas, which lists depths at MLLW.

RIVER REACH ONE RIVER MILE 0 TO 23

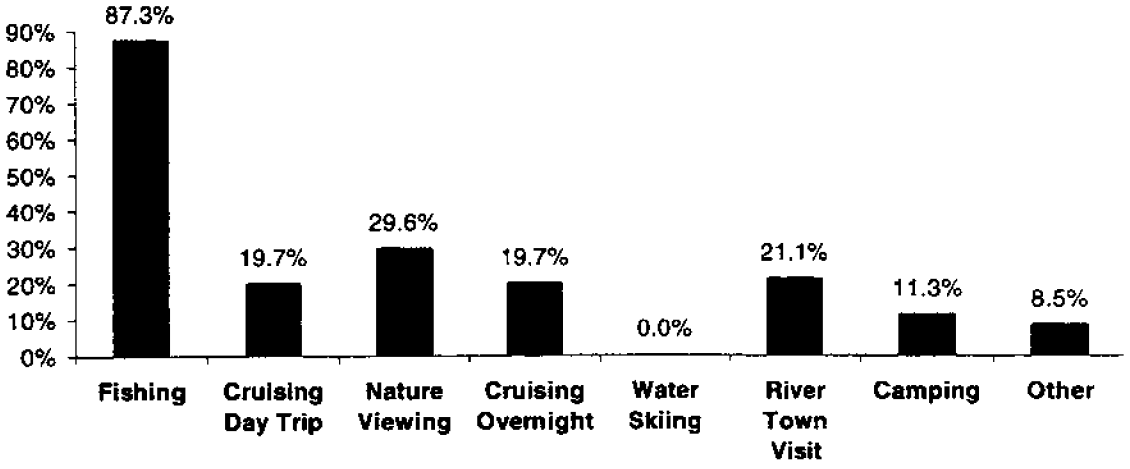


This reach encompasses the Columbia River estuary where ocean influences affect recreational boating in important ways: (i) Columbia River Bar (RM 0) produces treacherous water conditions for vessels of all sizes; (ii) the tidal range varies between 8 to 13 feet, the most extreme anywhere on the river; and (iii) extensive shoals and shallow bays present navigation hazards, but provide excellent fish habitat. This river reach is also the widest part of the Columbia River and strong winds blowing across long fetches generate short, steep seas, particularly in the area west of the Astoria/Megler Bridge. Despite these hazards, the river attracts some of the state's highest concentrations of recreational salmon fishermen who use this reach to either access the ocean fishery, or the popular Buoy 10 fishery.

The navigation channel follows the Oregon shore for much of this reach, making much of the Washington side free from heavy boat wakes and commercial traffic congestion. Boaters east of the bridge can also obtain good shelter from westerly winds and waves. Many of the coves and points throughout this reach provide a safe area for moorage, but boaters must still watch out for the numerous sand bars and exposed or sunken pilings common in this reach. Boating services such as fuel and pump-out facilities are available only in the western half of this reach.

The Washington shore is dominated by steep high bluffs with few access roads—features that limit development of new shore-based access points. This is also a relatively unpopulated reach which limits the number of communities available to provide boater services. Reach One ends just east of Grays Bay, where the river begins to narrow and where we begin to see a number of islands. This is also where the main channel bends toward the Washington shore.

Percent of Boaters Participating in Recreational Activities: River Reach One



Reach One Activity Notes:

The Boaters in River Reach One chose an average of two activities each. The predominant activity in this reach was fishing. Boaters, on average, enjoyed more than one activity, but these were probably secondary to their main reason for boating in this reach: sport fishing. Salmon fishing dominated the lower reach while the sturgeon fishing dominated the upper reach. There were 71 boaters surveyed in this reach.

River Reach Facilities on the Washington Side Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists and lifts	Transient Moorage: # of slips	Transient Moorage: Dock Length (ft.)	Parking Spaces: Auto	Parking Spaces: Trailer	Average Boater Evaluation
2	FORT CANBY STATE PARK	2	0	0	0	6	36	3.9
3	PORT OF ILWACO	2	3	30	500	1,638	60	3.5
6.3	PORT OF CHINOOK	2	1	0	300	200	50	3.0
10	FORT COLUMBIA STATE PARK	Potential Transient Moorage: Boater Recommended						n/a
14	MEGLER REST AREA	Potential Boat Ramp: Boater Recommended						n/a
17	KNAPPTON	Primitive	0	0	0		4	1.8
19	PORTUGUESE POINT	Potential Transient Moorage						n/a
22	ONEIDA	1	0	0	0		25	2.5
24	ALTOONA	Potential Boat Ramp and Transient Moorage						n/a

Fort Canby State Park — River Mile: 2.0

Type of Access: Boat Ramp

Observations:

Fort Canby is a large multi-use state park. It has 250 camp sites, a day use area, ADA accessible restrooms and showers, and a boat ramp that offers the closest access to the Ocean and Buoy 10 fisheries. Boaters launching from the park's two lane launch ramp are well protected from wake and waves by a wooden breakwater and have access to a courtesy dock, but they are susceptible to strong winds that frequent the area. The small but well designed launch area offers 2 restrooms, 36 trailer and 6 auto spaces in a paved and lined (but faded) parking lot, an adequate staging area, trash cans, and the only fish cleaning station on the Washington side of the study area. There are also a convenience store and 30 unpaved overflow parking spaces near the entrance road to the launch area. Ft. Canby is quite popular. It can serve its boaters adequately on most days, but on busy fishing days, the facility can becomes quite crowded forcing some boaters to find alternate launch sites.

The site has two 10 ft. asphalt launch ramps separated by a courtesy dock. The launch fee is $4.00. No overnight parking is allowed. Fort Canby's main problem is its lack of sufficient structural maintenance. The launch ramps are heavily pitted. The bottom of the ramps are also beginning to silt up giving some of the larger boats difficulty at low tides. The courtesy dock is in good condition, but has a few loose planks. The gangway to the dock is not barrier free.

Fort Canby State Park has plans to resurface the launch ramps. They would also like to add a few launch lanes.

Boater Evaluation:

Twenty one boaters gave Ft. Canby a high overall rating (3.9). Boaters were most satisfied with the noise level (4.4) and the wind and wave protection (4.3). The lowest scores were for fees (3.0), car parking (3.0), and trailer parking (3.2). The most recommended improvement was to increase ramp lane width (7). Boaters felt that it was too easy to slip off the existing 10 ft. lanes. Other common recommendations were to increase the parking (3), increase dock length (2), dredge the bottom of the ramp (2), and to improve the fish cleaning station (2). Of all the boaters surveyed, ten selected Fort Canby as the launch site they would most like to see improved, making it the fourth most requested site. Two boaters selected this site as a location to develop a new transient moorage facility.

Recommendations:

Parking needs to be increased. Another overflow lot should be developed. Fort Canby should also develop a transient moorage facility. There are a series of old pilings near the ramp that would be a suitable location. The park should also post signage at the ramp informing boaters that there are showers and additional restrooms available in the main park.

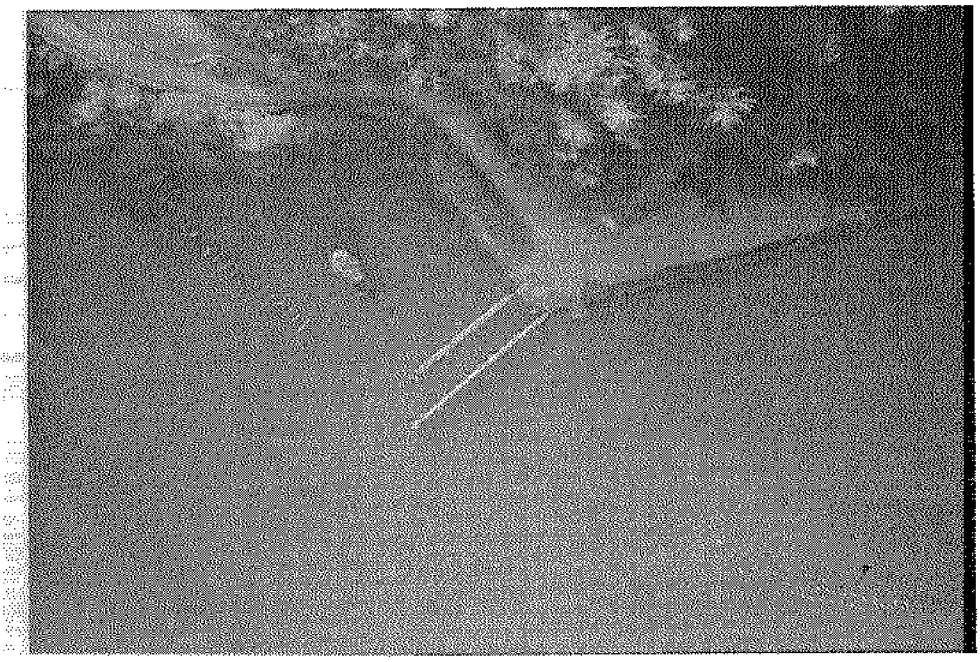


Figure 1 (a): Boat ramp and parking area. The area along the pilings to the left of the launch ramp is suitable for potential transient moorage.

Figure 1 (b): Foot of boat ramp. Cracks and extensive pitting are apparent on the launch lanes.

Port of Ilwaco — River Mile 3

Type of Access: Transient Moorage; Hoist; Lift; Boat Ramp; Marina

Observations:

The Port of Ilwaco is located on the west side of Baker Bay, a large shallow bay near the mouth of the Columbia. As the first public port on the Columbia, its large and well-protected harbor, which offers excellent protection from wind and wakes, has been a welcome site to many boaters seeking refuge from the unpredictable and often dangerous conditions that exist near the mouth of the Columbia River. This large facility was once the home port of a large commercial fishing fleet and was quite profitable. With the decline of the fishing industry, many of those vessels moved away leaving Ilwaco with many empty moorage slips. However, this loss opens up opportunities for recreational boaters. In addition to the boating access facilities, Ilwaco offers a fuel dock with gasoline and commercial diesel, on site fishing supply and convenience stores, restaurants, lodging, and trash cans. There is abundant parking for both cars and trailers. For boaters who prefer to seasonally moor their boats, there is a separate trailer storage area. The gangways are barrier free.

Boating access at Ilwaco includes two boat hoists with a courtesy dock, a travel lift associated with a self service boat yard, and plenty of parking. The hoists and lift are aging, but receive good maintenance and are in good condition. Their East Main dock has water and electricity and is reserved for transient moorage. This dock is in sound condition. Although many of their docks suffer from cosmetic and structural damage, maintenance has been improving. During the site investigation, a 36 ft. concrete boat ramp bordered by two courtesy docks was under construction. This facility has been completed bur not observed.

Future plans are designed around an overall improvement of public access. These include the construction of a fishing and viewing pier, 50 additional transient slips, showers, and a hand launch area.

Boater Evaluation:

Eleven boaters gave Ilwaco an overall rating of 3.5. They were most satisfied with the wind and wave protection (4.1) and the car parking (3.9). The lowest scores were for the restroom (2.6) and the access fees and the courtesy dock (2.9). The most common requests were to build a boat ramp (2) and to construct public showers (2). Fortunately, the ramp is being built and showers are already planned. Boaters also expressed a concern that Ilwaco's moorage and launch fees are high when compared to Astoria and other facilities, and that the port officials do not provide an "atmosphere" that is perceived as friendly to recreational boaters. The general population of surveyed boaters was not very interested in improving Ilwaco; only one boater chose it as a site to improve transient moorage.

Recommendations:

Ilwaco should consider placing additional restroom at several convenient locations. Port officials should perform a market analysis to compare their fees with other boating facilities. Because of the wind and shallow water in Baker Bay, Ilwaco may want to explore the potential of providing a launch site and services for windsurfers. However, there are many old pilings in the area. This could be a hazard and may limit the area's utility as a windsurf site. The port may also expand their recreational boater market share if it were to make appropriate managerial changes to make recreational boaters feel wanted and welcomed.

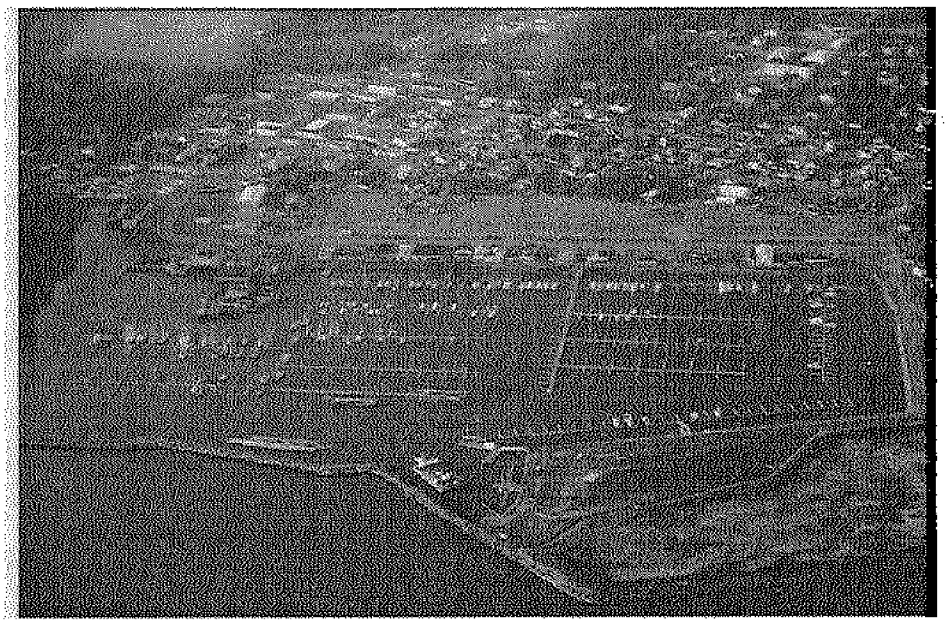


Figure 2 (a): Aerial view of Ilwaco. The boat ramp and boat hoists are on the lower left.

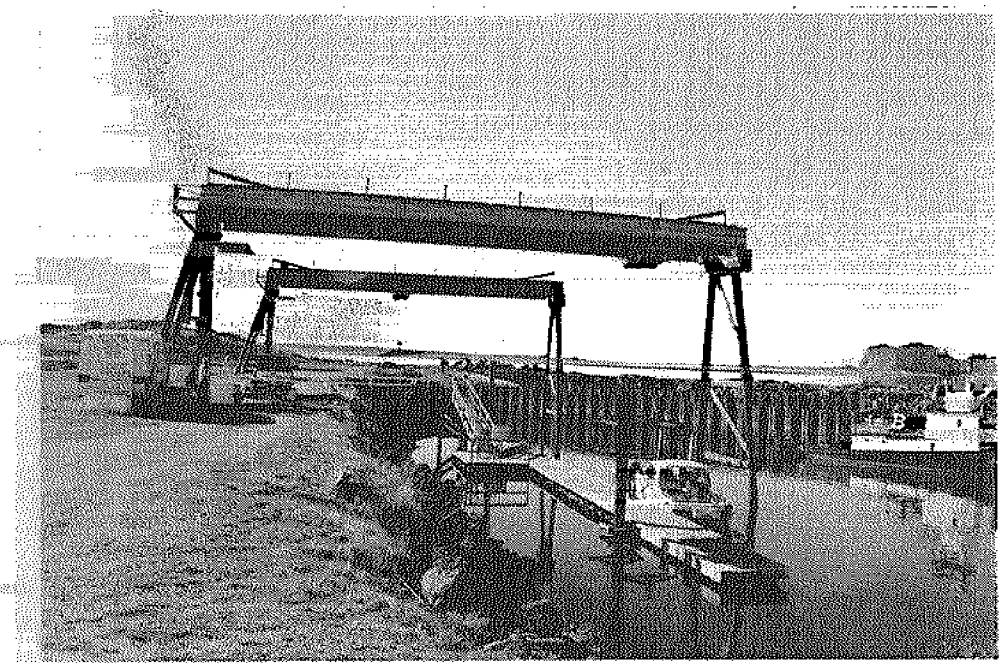


Figure 2 (b): Boat hoist. New ramp construction area appears on the right.

Port of Chinook — River Mile 6.3

Type of Access: Boat Ramp and Hoist; Transient Moorage; Marina

Observations:

The Port of Chinook lies on the eastern edge of Baker Bay. Like Ilwaco, it was once a prosperous fishing port. Today, the port is struggling to survive as the fishing industry shrinks. Much of the port is in disrepair, and there are few signs of economic activity. There is the port itself and the services it provides, a few fishing boats, a fish processing center, and a private campground across the street. The town's main street is just three short blocks from the port, but even this shows very little economic activity. Except for fishing, there is little to attract transient boaters or other tourists to this area. Moreover, the frequent fog and narrow shipping channel tends to detract from its popularity. The port offers some boating services and amenities, fuel (gasoline and commercial diesel), restrooms, and trash cans, but it does not have a dump or a pump-out station. Another problem is that several boating facility guides and port directories fail to list the Port of Chinook as a boating access site, and some boaters may not know the site exists.

The boat ramp has good directional signage. It is a 30 ft. asphalt and concrete ramp lined by two courtesy docks. It is in poor condition due to structural damage. Large cracks and uneven patch jobs are its most noticeable feature. Some patched areas are so smooth that vehicles lose traction during boat retrieval. The ramp fee is $3. The hoist is old, but seems to be well maintained. The hoist fee starts out at $6 for both launch and retrieval. The docks in general are in urgent need of repair and maintenance. The courtesy docks are held in place with ropes tied around pilings, and the planks and floats show signs of wear and rot. There is an unmarked transient dock in similarly poor condition. Parking is abundant in dirt lots, but not marked or well organized.

The port district plans to construct a triple lane ramp and to provide power to 24 additional moorage slips.

Boater Evaluation:

Eleven boaters gave this facility a good overall rating of 3.0. They were most satisfied with fees, noise, and wind/wave protection (3.9 each). The lowest scores were for the restrooms (2.4), maintenance (2.6), and water depth (2.7). Common boater-recommended improvements included repairing the docks, improving the ramp, and adding a fish cleaning station (3 each), and upgrading the restrooms (2). Boaters also commented that the channel was too shallow and not well marked, and that they have been stuck on the bottom or have damaged their boats. The general population of surveyed boaters has some interest in improving Chinook. With 5 recommendations, it tied in ninth place as a site boaters most wanted improved. It only received 2 recommendations as a transient moorage site to improve.

Recommendations:

The area around Chinook is largely underutilized, creating an opportunity to diversify and better serve the recreational boater. Presenting Chinook as a historical waterfront community could give transient boaters and other tourists a reason to visit the community, creating a market for improved tourist services (lodging, restaurants, etc.). Chinook should also take steps to insure that it is included in the registry of ports and boating access guides. Because Baker Bay is shallow and windy, it could make a good windsurf and personal watercraft recreational area.

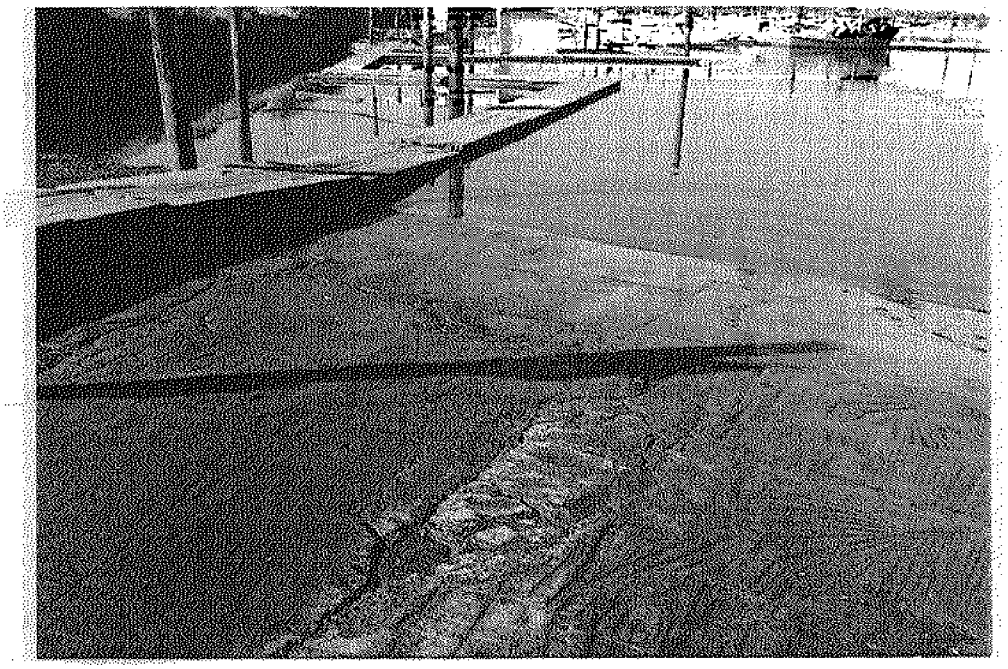


Figure 3 (a): Foot of boat ramp. Cracks and previous patch jobs are apparent. Courtesy dock is uneven.

Figure 3 (b): End of the right courtesy dock. There are no tie-up cleats, wood planks are old, and a rope is used to hold dock in place.

Knappton River Mile 17

Type of Access: Primitive Boat Ramp

Observations:

Knappton is the site of an old fish cannery, about four miles east of the Astoria Bridge, but all that remains of the old over-water structure are a large concrete block and numerous pilings. Illustrating the extent to which boaters will go to launch their vessels, some unknown individual boaters have taken steps, albeit illegally, to turn it into an informal and non-standard launch site. They have cut a path through the pilings, pulled and removed some of the larger rocks, laid some gravel in the launch area, and have even attempted to smooth out the 4 ft. 45 degree drop vehicles and trailers must navigate to get access to the water. Even with these modifications, it can be a risky place to launch. Boaters commented that they generally paddle out past the pilings to reduce the chance of engine and hull damage and that a 4-wheel drive vehicle should be used to gain access to the site. Once they successfully overcome these hazards, boaters enjoy calmer waters and reduced travel time to their fishing spots as compared to Chinook, the next closest launch site.

There are no official access structures. There is a rock and gravel beach and a large number of pilings in the water. A path through the pilings has been cut, but submerged rocks and piles could damage a boat. The site is only usable by only shallow draft vessels. Parking, entering, and exiting the site are also problems. There is only room for about 4 trailered vehicles on site. Users also park in a vacant lot across the highway, or park on the shoulder of the highway. Boaters must pull directly on to or off of the highway, creating potentially dangerous traffic conditions.

Washington Department of Fish and Wildlife, which has had Knappton under consideration as a launch site for many years, has recently obtained ownership of the site. The department also has plans for its development, but it could be several more years before the necessary funding and permits are in place.

Boater Evaluation:

Six boaters evaluated this site giving it the lowest overall score in the study (1.8). The highest score was for noise (4.5). All other scores were much lower ranging from 1.0 (maintenance) to 2.3 (safe boating). Although this site had low rating, the general population of surveyed boaters saw a great deal of potential value in its development. It received 13 recommendations making it the most requested launch site to developed, but was only recommended twice as a site to develop transient moorage. Boaters also felt that for a small fraction of the money spent on planning at this site, actual improvements could have been made.

Recommendations:

Funding priority for this site should be reconsidered. Since official development of the site could take several years, investigators recommend making some improvements immediately to improve boater access and safety. This could be accomplished by simply removing an additional a row or two of pilings to form a larger access lane and by smoothing out the 4 ft. drop between the turnout and the launch area. However, these improvements could draw additional users, increasing the road hazard. In addition to ramp development, the outer edge of pilings has deep (7 ft.) semi-protected water suitable for development of a transient moorage float. Interpretive signage should also be placed at the site explaining the historical significance.

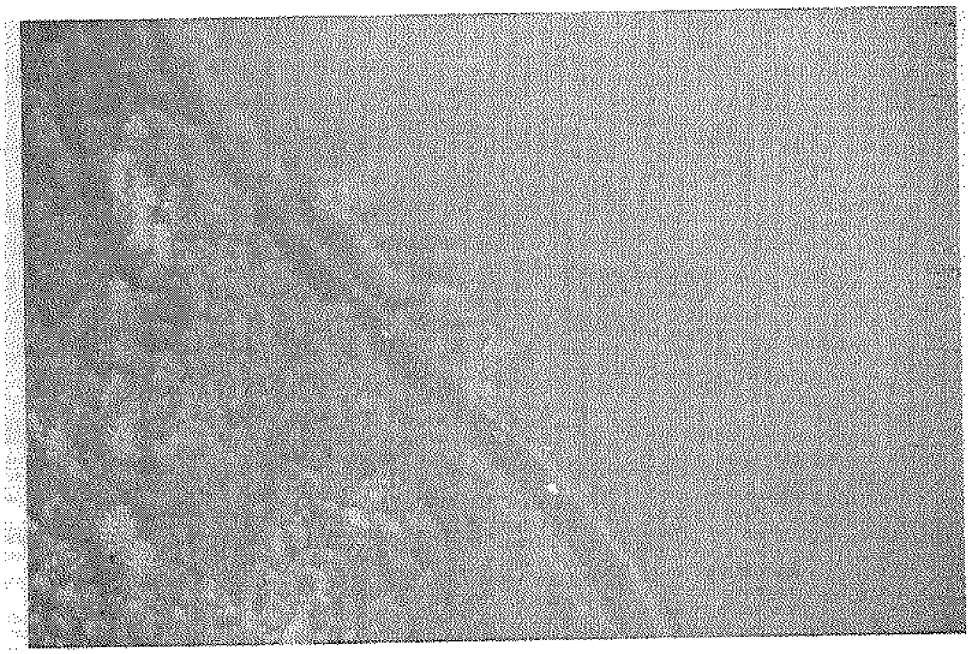


Figure 4 (a): Aerial view of Knappton. The site is very small. Access is directly off Highway 4, creating traffic hazards.

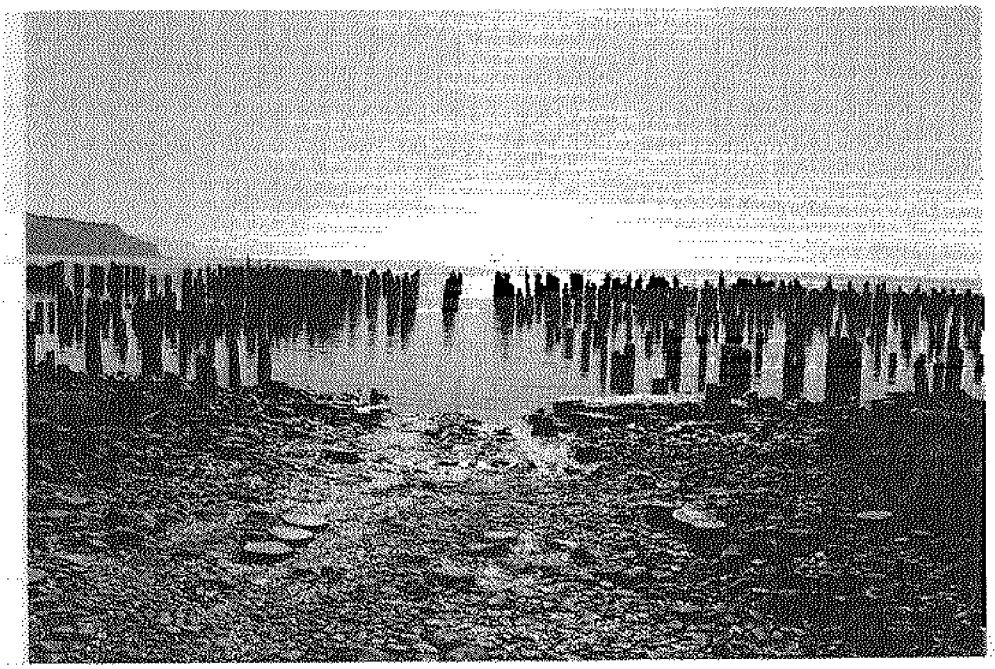


Figure 4 (b): Boater-improved "ramp". Boaters have removed pilings and obstacles from the beach to better access the river.

Oneida — River Mile 22

Type of Access: Boat Ramp

Observations:

Three miles south on Oneida Rd off Hwy. 4 is a privately run campground/RV park and boat ramp. There is no signage along Hwy. 4 to indicate this site exists. This is a popular fishing site. Boating services and amenities include a ramp and courtesy dock, a gravel parking lot, trash cans, and during the fishing season 2 portable restrooms are made available. There is also a plywood table that is used as a fish cleaning station. The primitive camping area has room for approximately 50 visitors. The boat ramp gives access to Deep River and the Columbia River. Deep River has a 7 ft. deep channel and is easily navigable to Brix Bay. Boaters then follow a 2 mile curving channel through shallow tide flats marked by 5 navigation aids and a continuous row of piles (probably designed to guide the river current and help maintain channel depth) to the Columbia.

The 10 ft. wide asphalt ramp is in good condition. It is subject to damage from propeller and impeller wash and boaters are required to launch and recover without engine power. The narrow L-shaped courtesy dock has extensive structural damage. Several planks are cracked and the short individual sections are held together by rubber straps resulting in an unstable platform. The parking area has room for about 25 vehicles.

The owner had planned to improve the site and acquired the necessary permits to improve the courtesy dock and install several moorage slips. However, at the time of this survey, he had decided to sell the property.

Boater Evaluation:

Seven boaters evaluated the Oneida site and gave it an overall rating of 2.5. Boaters were most satisfied with the Noise (4.3) and the Staging Area (4.2). They were most dissatisfied with the Courtesy Dock (1.5), Fish Cleaning Station (1.8), Restrooms (1.9), and fees (2.0): boaters thought the $5 launch fee and $10 camping fee were too high. Common recommended improvements included widening the ramp area (3), improving the parking area (3), and repairing and increasing the dock space (2). Oneida was a fairly popular site among all the boaters surveyed; it was chosen 9 times as a specific launch site to improve. It was only chosen twice as a transient moorage site to develop.

Recommendations:

Because this site would give recreational boaters a desirable access to many popular fishing spots and other recreational opportunities on the Deep and Columbia Rivers, and because there is no other public access in the vicinity, this site should be considered for acquisition and development by a public agency. The ramp area should be widened, the courtesy dock should be improved, and transient moorage slips should be built. The campground should also be improved and permanent restrooms should be built.

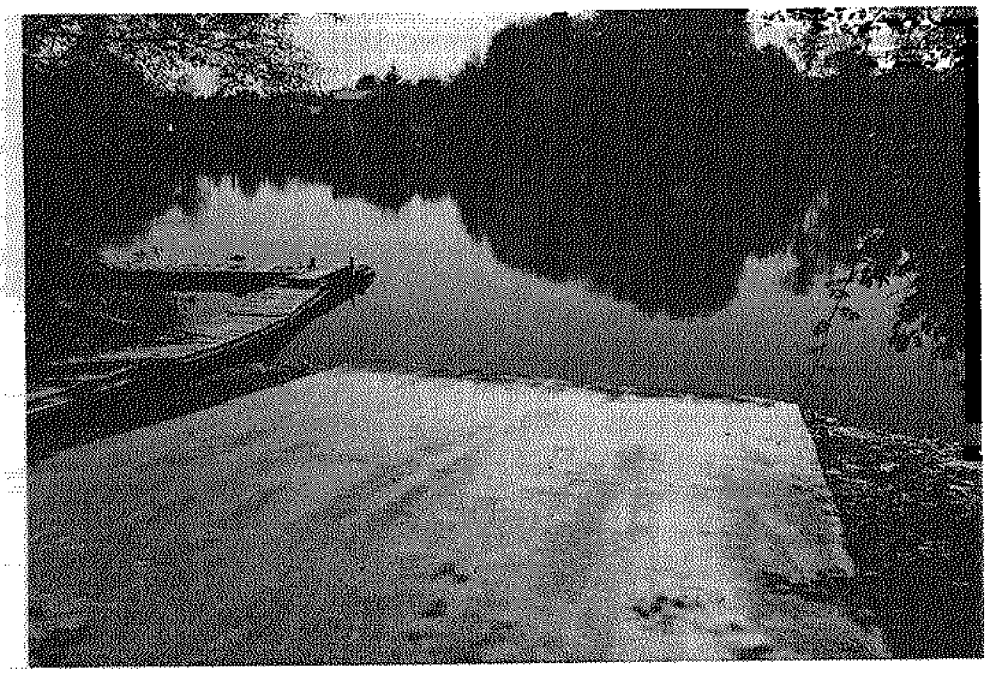


Figure 5 (a): A view of the boat launch and courtesy dock. There are no tie-up cleats on the dock.

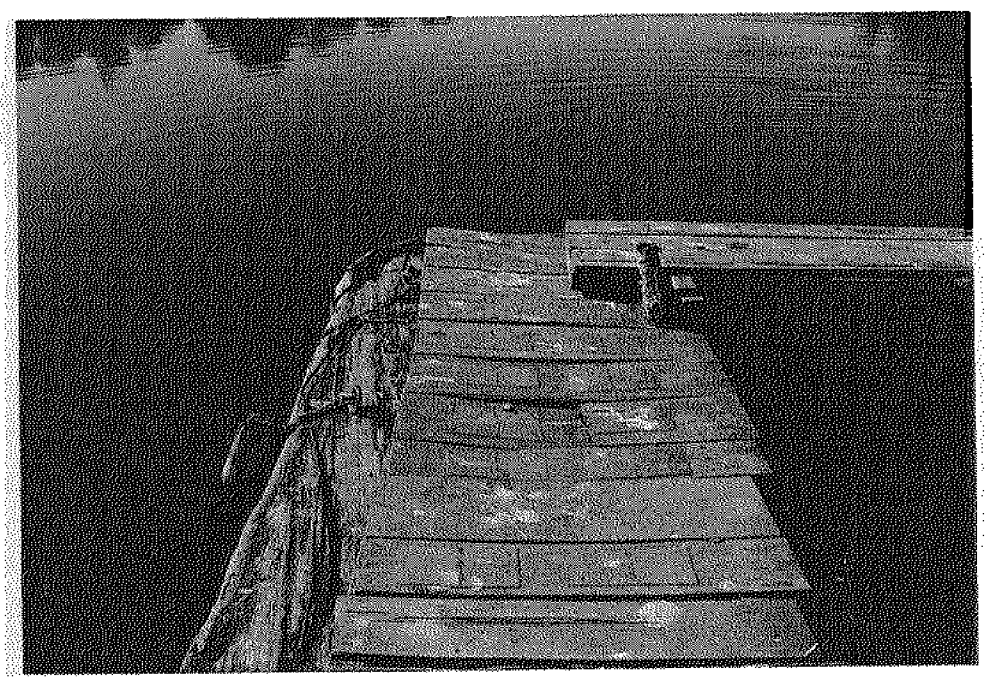


Figure 5 (b): Close-up of the courtesy dock. The boards on this log float are weak, patched, or broken.

Fort Columbia State Park — River Mile 10

Type of Access: Potential Transient Moorage

Observations:

Fort Columbia is a former coast artillery post managed by Washington State Parks as a day-use area and interpretive center, located at Chinook Point between Chinook and Point Ellice (the Megler-Astoria Bridge). It is near the eastern edge of Baker Bay and shares many of its characteristics: there are areas of intertidal mud flats and shoals, and unpredictable weather. The site does not offer any wind or wave protection. It has a large water-front area, but because of the shallow water, boating access is limited. Some boaters have used the beaches as a hand launch site, but it is inaccessible to most other recreational boaters. There are no recreational boater services or amenities available at this site.

Recommendations:

One boater recommended this site for develop as a transient moorage facility. However, because shallow water and lack of wind and wave protection would make this an expensive site to develop, investigators do not recommend this site for development. Moreover, there is existing, but inadequate, transient moorage and boater services available at the Port of Chinook. Instead of constructing a new facility at Fort Columbia, investigators recommend improving existing facilities and providing additional amenities at the Port of Chinook.

Figure 6: Photo Not Available

Megler Rest Area — River Mile 14

Type of Access: Potential Boat Ramp

Observations:

One mile east of the Megler-Astoria Bridge off Hwy. 4 is a Washington Department of Transportation rest area. It has 50 parking spaces, two permanent restrooms, a picnic area, and a trash can. There is a small one acre wooded area and small protected cove on the western edge of the rest area. According to the River Cruising Atlas, the cove has adequate (5 ft.) water depths and siltation does not appear to be a problem, but exposed and submerged piles could present a navigation hazard. To the west, Point Ellice forms a natural barrier and there is a noticeable reduction in the strength of the prevailing winds and the unpredictable waves common in most of this reach.

Recommendations:

Three boaters recommended building a boat ramp at the Megler rest area, and two boaters recommended building one near the Megler-Astoria Bridge. Investigators recommend constructing a double-lane boat ramp with a courtesy dock, a staging area, and some trailer parking spaces west of the rest area. The rest area could be used for overflow parking. During site investigations, the rest area was not observed to be heavily used, which suggests that a mixed use with boaters should not present a problem. Exposed and submerged pilings would have to be removed to improve boater safety and a turning lane for westbound traffic should be constructed to reduce traffic hazards.

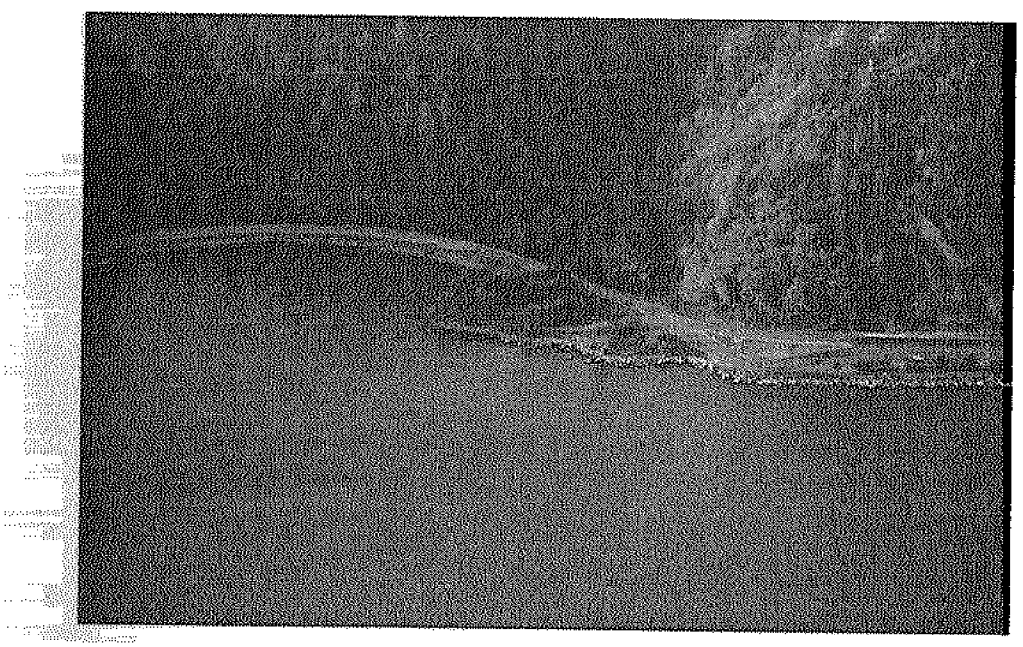


Figure 7: Aerial view of Megler Rest Area. Wooded area to the left of the rest area is recommended for a launch ramp.

Portuguese Point — River Mile 19

Type of Access: Potential Transient Moorage

Observations:

Portuguese Point is a steeply sloped bluff forming the western edge of Grays Bay. If offers good protection from the prevailing westerly winds and is distant from the shipping channel. Shoaling, snags, piles and intertidal mud flats hinder access to the shoreline and there are no public roads to access the area, but there is a good 20+ ft. deep submarine canyon starting at Rocky Point and running parallel to the shore past Portuguese Point and Grays Point. Except for this canyon and a channel to Deep River, Grays Bay is quite shallow. The inner and smaller Brix Bay has even more extensive shoaling and intertidal mud flats. Grays River does not have a navigation channel.

Recommendations:

This site was not recommended for development by boaters, but one boater did recommend developing transient moorage upstream from the Megler-Astoria Bridge. Portuguese Point has transient moorage potential because it offers deep water and good protection from the unpredictable weather conditions common in the Columbia, but there are no near-by communities to offer boater services. Presently, there are no adequate sites for a shore-based facility, but if some uplands were acquired, the site could be turned into a boat camping facility. Unless a shore-based facility can be developed, investigators only recommend placing mooring buoys in the deep and sheltered location between Portuguese Point and Rocky Point.

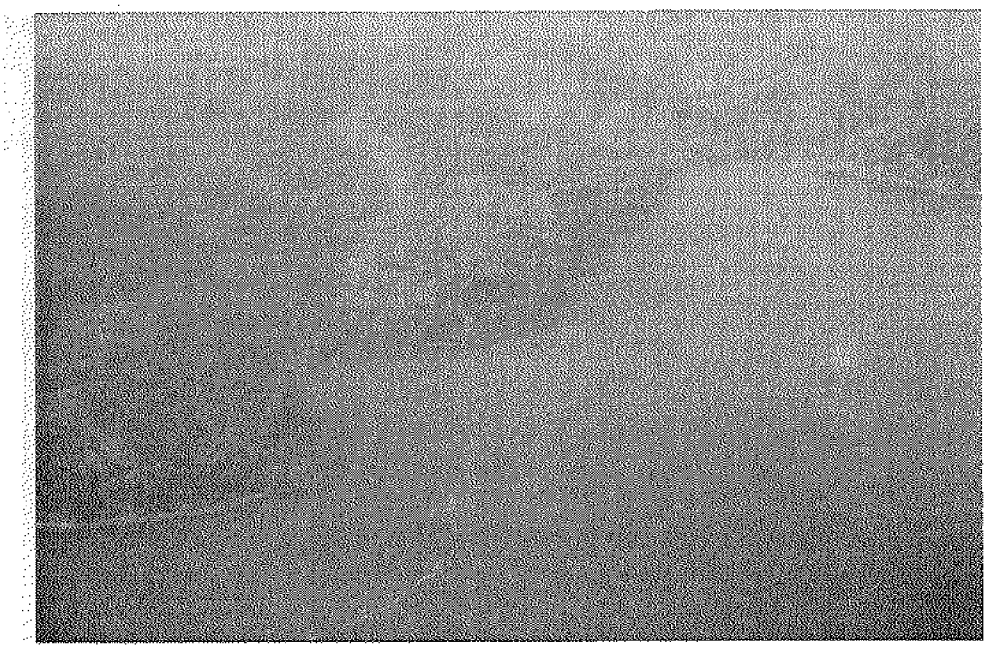
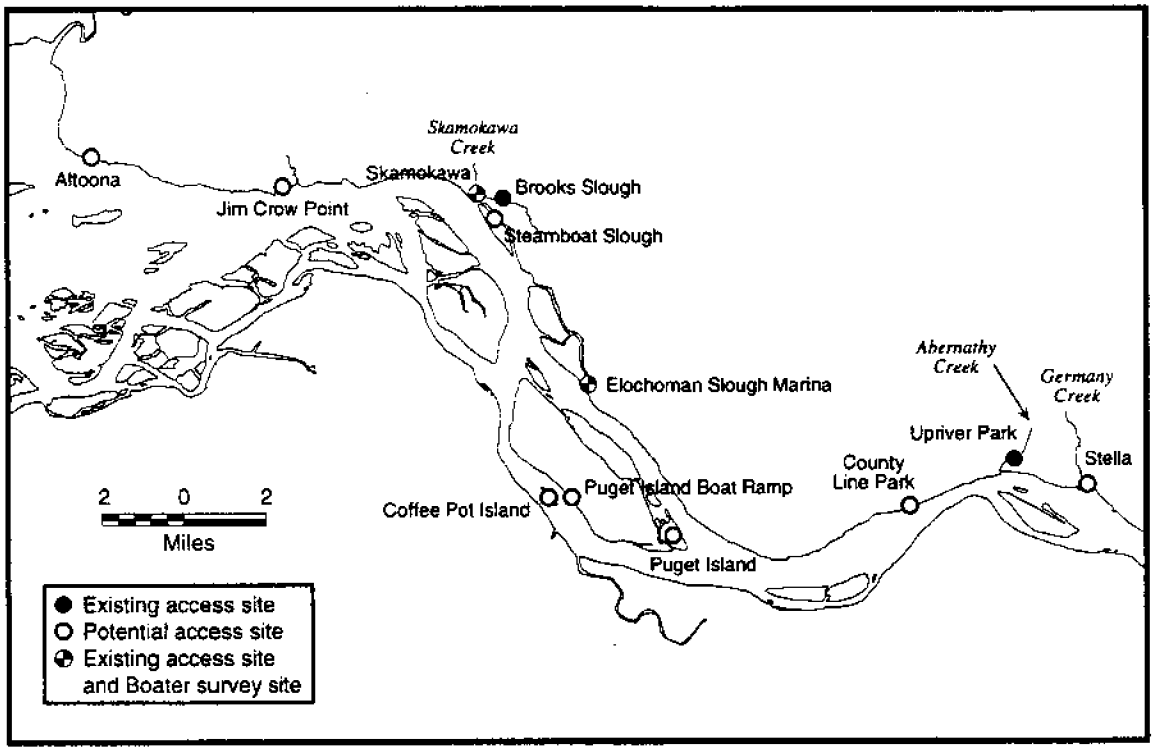


Figure 8: Aerial view of Portuguese Point (lower left) and Rocky Point (upper right). There are no areas with good land access.

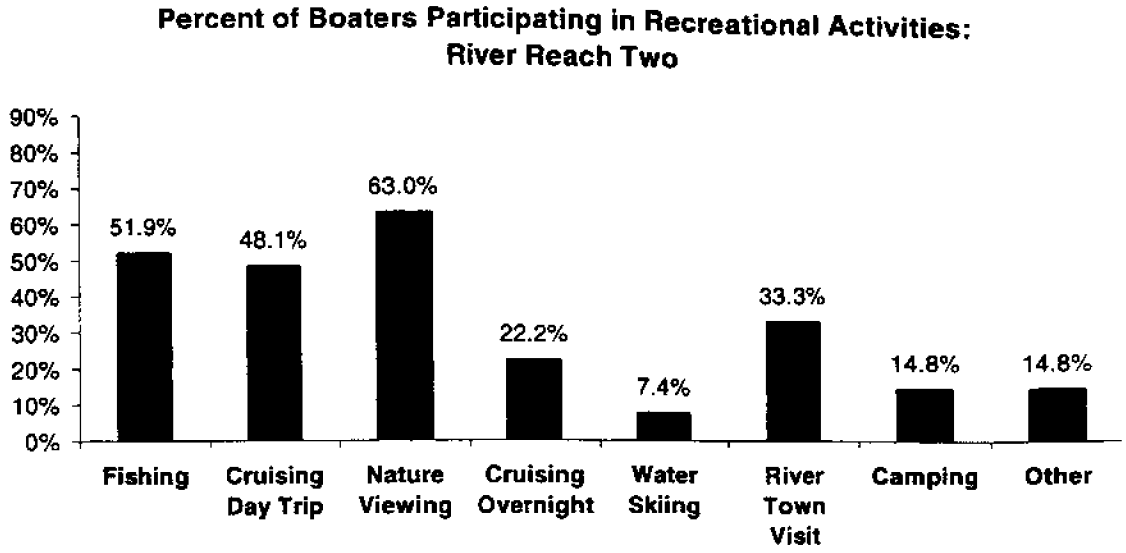
RIVER REACH TWO RIVER MILE 23 TO 57



Reach Two begins east of Harrington Point and ends at the western tip of Willow Grove. It includes Stella and the entrance to Coal Creek Slough. This river reach has the largest number of islands in the study area and it contains the Lewis and Clark and the Julia Butler Hansen National Wildlife Refuges. These features provide boaters with many navigable channels and sloughs with excellent opportunities for nature viewing and cruising. The first part of this reach is similar to Reach One: the river is still wide and the shoreline is steep, but islands are the dominant physical feature. Tidal influence begins its gradual decline, but it is still an important factor. Near the end of this reach, at Stella RM 57, the tidal influence ranges from 5 ft. to 7 ft.

The navigation channel hugs the Washington shore until it bends around Puget Island toward Oregon. The Cathlamet Channel is a navigable waterway on the Washington side of Puget Island where several boating services, including fuel, a dump station, and a pump-out are available. The second part of the reach starts at Cape Horn. Here the river narrows and there are fewer islands and steeper cliffs. In this section, the shoreline is sparsely populated and there are no boater services.

Although it is a long river reach, boater access to it is limited and consequently, it is not used heavily. Much of the Washington shore is quite steep and there are few communities that have boating access facilities or even adequate access roads to the Columbia. Moreover, many of those few areas with good access have been developed for upscale residential uses. Most potential sites must deal with commercial vessel traffic and ship wakes. One site, on the south side of Puget Island, has been approved for site acquisition (IAC grant # 96-374A) where the Port of Wahkiakum #2 plans to develop a boat ramp. The reach ends just West of Longview where the shoreline becomes increasingly urbanized.



Reach Two Activity Notes:

Boaters in River Reach Two chose an average of 2.6 activities each. In this reach, we see a more evenly distributed pattern of use. Nature viewing becomes the highest use, but fishing is still popular. Day cruising is probably linked with the above activities and river town visits. The towns of Skamokawa, Cathlamet, Westport, and Clatskanie are available for river town visits. There were 27 boaters surveyed in this reach.

River Reach Facilities on the Washington Side
Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Transient Moorage: Dock Length	Parking: Auto	Parking: Trailer	Average Boater Evaluation
28	JIM CROW POINT	0	0	0	0			Potential TM
33	SKAMOKAWA	1	0	0	40		6	3.6
33.5	STEAMBOAT SLOUGH	Potential Boat Ramp and TM: Boater Recommended						n/a
34	BROOKS SLOUGH RAMP	1	0	0	0		15	n/a
40	ELOCHOMAN SLOUGH MARINA	2	1	open slips	100	100	30	3.9
41	COFFEE POT ISLAND	Potential Transient Moorage						n/a
46	PUGET ISLAND	Potential Transient Moorage: Boater Recommended						n/a
52	COUNTY LINE PARK	Potential Boat Ramp: Boater Recommended						n/a
54.5	UPRIVER PARK (ABERNATHY CREEK)	1	0	0	0		4	n/a
56.5	STELLA	Potential Ramp and TM: Boater Recommended						n/a

Skamokawa River Mile 33

Type of Access: Boat Ramp; Transient Moorage

Observations:

Skamokawa lies at the junction of three waterways, Skamokawa Creek, Brooks Slough and Steamboat Slough which connect to form a small harbor. Skamokawa was given the nickname the Venice of the Columbia and was once a quite active community. The Army Corps of Engineers even maintained a commercial shipping channel into Skamokawa harbor. However, the commercial significance of this community has long since passed and the channel has been de-authorized. Today, Skamokawa Vista Park and Redmen Hall, the restored school house which contains the Lower River Life Interpretive Center, provides some recreational opportunity, but there is little else left in this historic town for the tourist. A drive by the downtown area shows that most of the businesses, including the only general store, have closed. The harbor also contains a sunken derelict and some dilapidated buildings. The park maintains the boat ramp. This is a well marked access point with a marker along Hwy. 4 and a large display inside the park showing the ramp's location. Boaters services include a dump station, a shower, drinking water, and barrier free restrooms. There are no services available at the transient dock.

The boat ramp is a 12 ft. concrete plank ramp. The exposed surface is in good condition, but the gravel filled spaces between the piles are starting to erode. At the bottom of the ramp, some planks are out of alignment. The water also gets fairly shallow at low tides and causes problems for larger vessels. A small unpaved area along the fence is used for parking and can hold up to fifteen small trailers. The transient dock is behind the Post Office and gives access to downtown Skamokawa. The dock however, is structurally damaged. Its planks and floats show extensive rot.

A developer has had plans approved to build waterfront condominiums and a sea kayak center in part of the downtown area. Although the ramp is adequate for its existing use, its present location is not amenable for improvements: the water levels are too shallow at low tide, there is not enough space available to put in a courtesy dock, and parking would be difficult to expand.

Boater Evaluation:

Nine boaters evaluated the boat ramp giving it an average overall condition of 3.6. Boaters gave the highest scores for noise and congestion (4.5). The lowest scores were for water depth (2.6) and access to site (3.1). The most recommended improvement involved ramp maintenance (3). A specific improvement was to dredge the bottom of the ramp. Other recommendations were to construct a courtesy dock (2), and widen the ramp area (2). The transient dock was not evaluated. The general population of surveyed boaters were interested in Skamokawa. Six boaters chose the Skamokawa as a launch ramp they would most like to see improved making it the sixth most requested site. Five boaters also selected Skamokawa as a site to develop transient moorage, making it the fourth most requested site.

Recommendations:

If Skamokawa wants to attract more recreational boaters, it needs a better launch facility. Since Skamokawa is also near cruising, nature viewing, and fishing opportunities, a transient dock with boater services would also attract recreational boaters. Steamboat Slough has deep protected water, and there are several potential locations to develop a boating access facility.

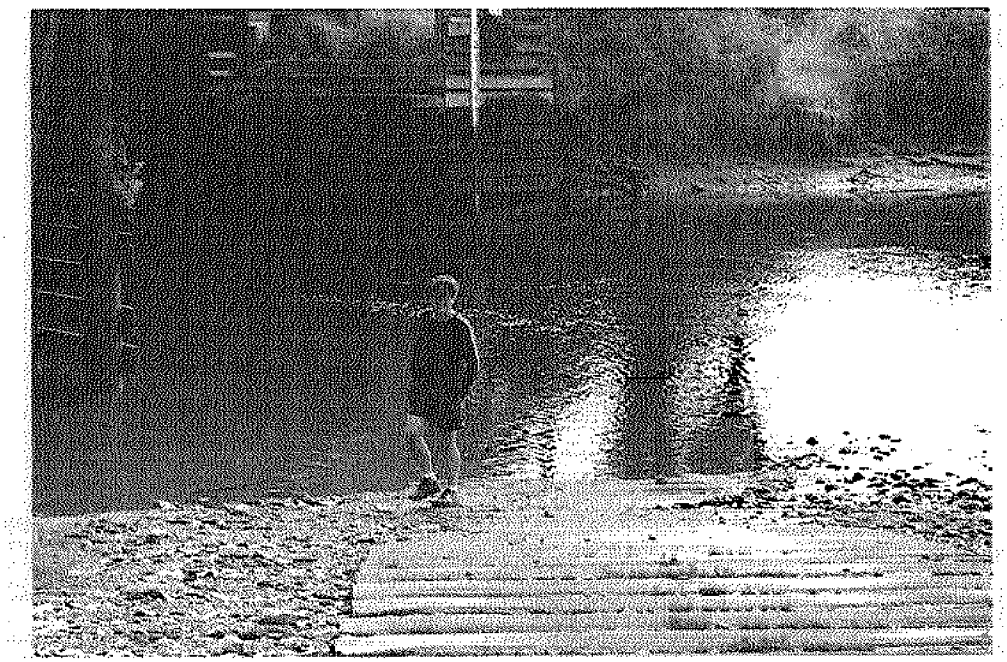


Figure 9 (a): The boat ramp at Skamokawa Vista Park gives access to Skamokawa Creek. Siltation is occurring on the right side of the ramp.

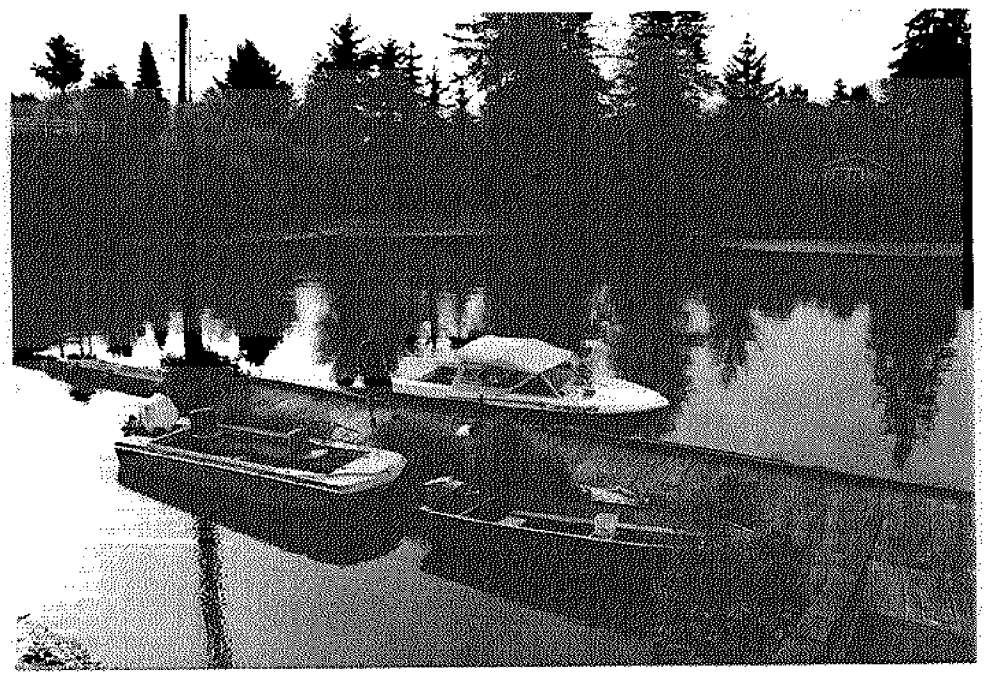


Figure 9 (b): The Skamokawa transient dock and the south side of Skamokawa harbor. Vegetation is growing around the edges of the dock.

Brooks Slough Ramp — River Mile 34

Type of Access: Boat Ramp

Observations:

Washington State Fish and Wildlife maintains this small fishing access point about a mile east of Skamokawa. It is a well protected site giving access to Brooks Slough, a shallow waterway that winds through the scenic Julia Butler Hansen National Wildlife Refuge and empties into Skamokawa harbor. The slough is navigable to Skamokawa harbor, but the water is shallow (1 to 2 ft.) at low tides limiting access to shallow draft vessels. Investigators did not test the depth of the upper slough. There is also a bridge with an 18 ft. clearance near the entrance to the slough. The site has a small parking area, an area for shore fishing, and the boat ramp, but there are no services available.

The 12 ft. concrete plank ramp was repaired during the course of this study. It is now in sound condition, but there is still a problem with shallow water during low tides. Because of the shallow water, this site should only be used by small motor boats and hand launched craft. The parking area is unpaved and has room for up to fifteen vehicles. From the land, the site has easy access, but there are no access markings from the highway. Boaters also need to pull directly into and out from the site creating potentially dangerous traffic conditions.

This site was recently repaired. No other improvements are planned for this site.

Boater Evaluation:

No surveys were handed out at this site, therefore, it was not evaluated. Among all the boaters surveyed, one chose this site as the access point s/he would most like to see improved. This site was not recommended as a transient moorage facility.

Recommendations:

Since better access is available in nearby Skamokawa, Brooks Slough is not a good candidate for Columbia River access. It should be considered only as access to the wildlife refuge. As a refuge access point, there should only be minimal improvements. Investigators recommend providing better access markers from Hwy. 4 and a portable toilet. Informational signage about the refuge and the types of plants and animals in the area could also be developed.

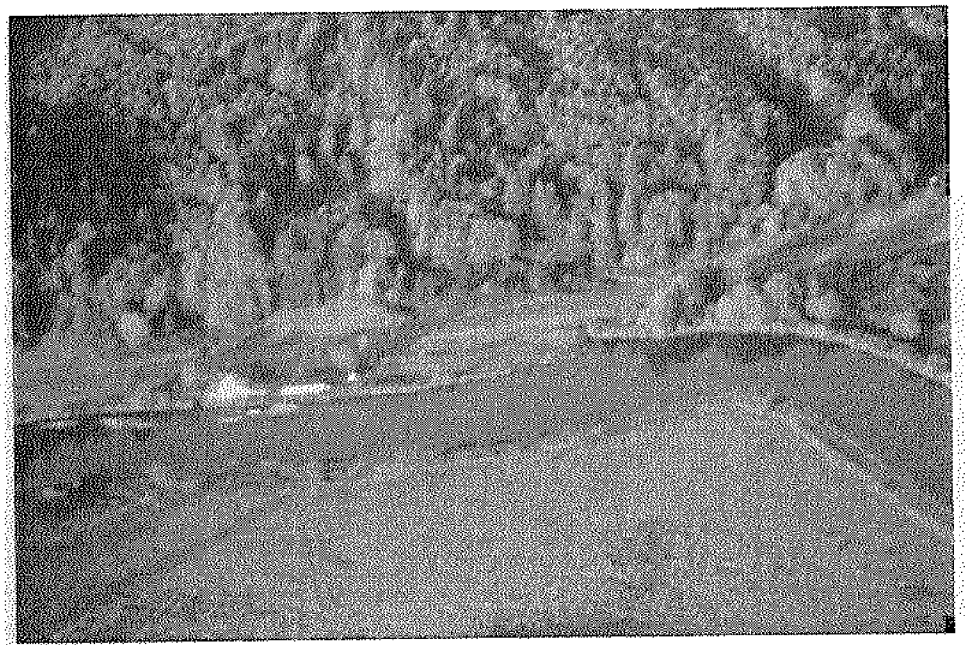


Figure 10 (a): Aerial view of Books Slough. The parking area and ramp are to the right of the white house.

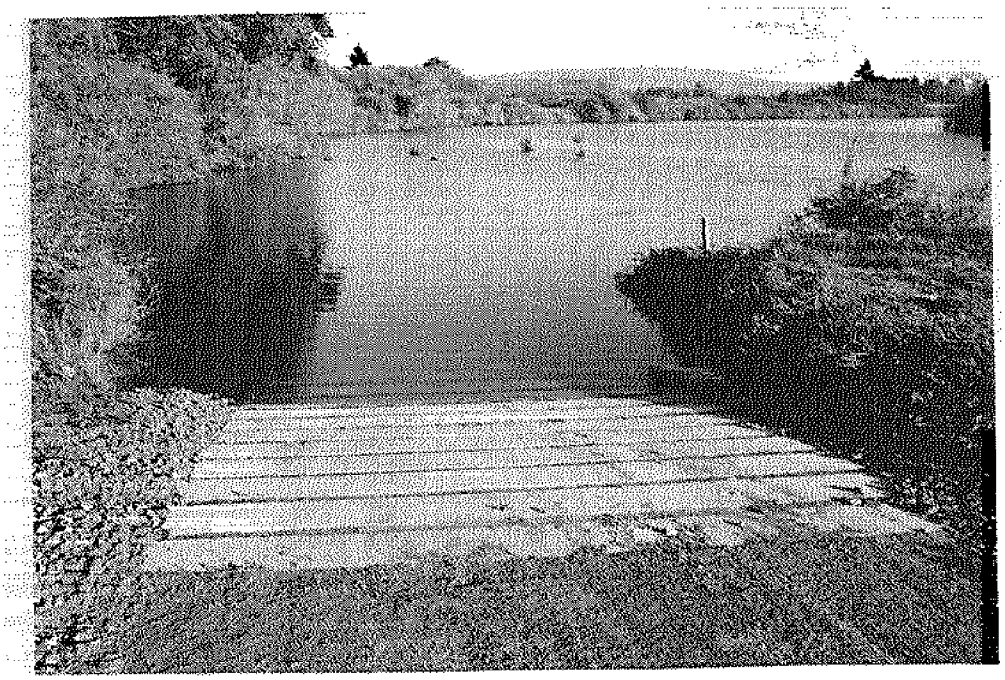


Figure 10 (b): The newly refurbished ramp at higher tide.

Elochoman Slough Marina — River Mile 40

Type of Access: Boat Ramp; Transient Moorage; Marina

Observations:

The Elochoman Slough Marina is in the town of Cathlamet and is well marked with boating access signs from Highway 4. It lies just inside the entrance to Elochoman Slough and has a fuel sign noticeable from the Cathlamet Channel. The Army Corps of Engineers provides a 10 ft. deep navigation channel to the marina, but boaters have complained that it is not dredged often enough to maintain an adequate depth. Cathlamet is the most active community in this reach and provides many useful services for the recreational boater. It offers convenience stores, lodging and historical interpretation of the town and railroads. The marina also has ample parking and on-site restrooms, showers, camping, a dump and pump-out station, trash cans, and even a large BBQ area for group functions. It should be noted that this is the only facility on this reach that offers fuel (gasoline and non-commercial diesel) and a pump-out station.

The ramp is a 36 ft. concrete slab. It is wide enough for three lanes, but it is only used as a double. There are courtesy docks on both sides of the ramp. The ramp has some pits and cracks but is still sound. It also has good water depth and is usable throughout the tidal range. The parking area is quite worn and needs to be repaved and lined. If boaters are careful, there is room for about 30 trailers. There is also a large grassy overflow area for high-use days. The 100 ft. transient dock is well maintained and in good condition. The other docks in the marina show varying degrees of wear, but most only suffer from weeds growing through the planks and along the sides. The pump-out station is at the rear of the marina making access a little inconvenient. This part of the marina also has the oldest docks and shows some structural damage.

The port district adopted a comprehensive development scheme in October 1994. Plans include building additional docks to increase the available permanent and transient moorage. The port also plan to build a tour boat dock on the Cathlamet Channel to attract river town tourists.

Boater Evaluation:

Boaters were quite satisfied with Cathlamet, giving it an overall rating of 3.9. The highest score was in wind and wave protection (4.8). The lowest scores were for the restroom and showers (3.3). Congestion and maintenance were close behind with a score of 3.5. The most recommended improvements were to increase the moorage capacity (3) and to repair the docks (3). Other requests were to improve water depth at the entrance (2), to upgrade the restrooms and showers, to maintain the pump-out station, to lower the use fees for county residents, to build a fish cleaning station, and to provide more electrical hook-ups and camping and R/V spaces. Among all the boaters surveyed, Cathlamet was moderately popular with 4 boaters each recommending it as a launch site to improve and as a transient moorage site to improve.

Recommendations:

When the port installs its new docks, it should also relocate the pump-out station to an area of deeper water and easy access. In addition, if the port and the community wants to fully benefit from the tour boat dock, they should consider expanding the existing historical interpretation displays to better attract the touring community.

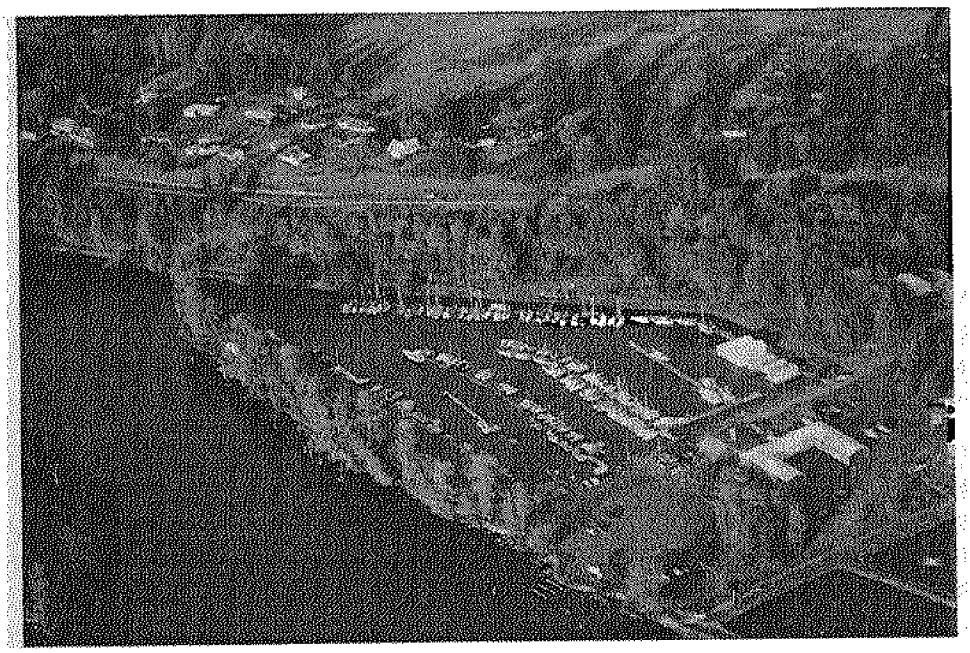


Figure 11 (a): Aerial view of Elochoman Slough and the marina. Camping is available along the wooded breakwater adjacent to the ramp.

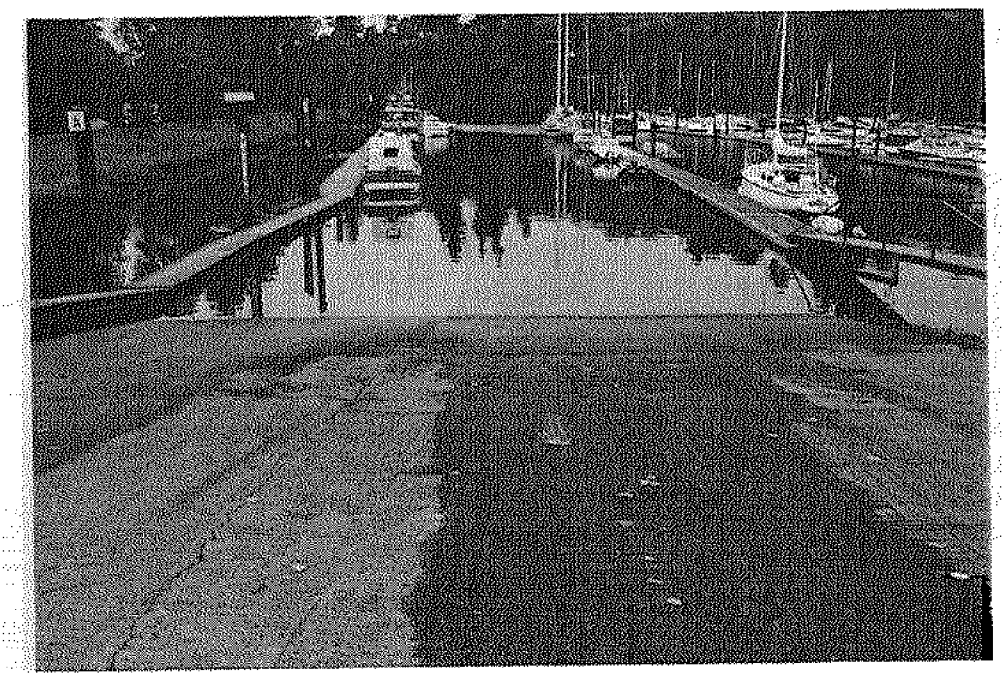


Figure 11 (b): Close-up of the ramp and courtesy docks. Some cracks are present near the bottom of the ramp.

Upriver Park: Abernathy Creek River Mile 54.5

Type of Access: Boat Ramp

Observations:

Upriver Park is an unmarked boating access point located off Abernathy Road, 9 miles west of Longview on Hwy. 4. This park is managed by the Washington Recreation and Park Association. It has a small (three acre) primitive campground and a boat ramp to Abernathy Creek, but there are no other services or amenities available. It is a well-protected and scenic area in a riparian setting, but it appears to be under utilized. The campground is somewhat overgrown and was only being used once during the three times investigators checked the site. There was no indication during the study period that the boat ramp was used. Abernathy Creek gives access to the Columbia River, but boaters must first travel under the Hwy. 4 Abernathy Creek Bridge. Water depths are 8 ft. at the bridge, but gradually diminishes to approximately 2 ft. near the ramp. Past the bridge is Abernathy Point, a popular bank fishing spot with good water depths. A trash can has been placed at Abernathy Point.

The park has a 12 ft. concrete plank ramp. The ramp is in good structural condition, i.e., the planks are well aligned and spaces between them contain adequate amounts of gravel, but it is being overgrown with grasses and other plants. The river is shallow near the ramp and should only be used by shallow draft vessels. There is no courtesy dock. Moreover, because of the small size of the creek, it is doubtful that one can be installed. A small circular gravel area is available as a staging area. There is also room for about 5 trailers, not including those potentially parked at the camp sites.

There are no known improvements planned for this site.

Boater Evaluation:

There were no surveys given out at this site. However, among all the boaters surveyed, three recommended this as a site they would most like to see improved. This is not a very significant number when compared to some of the other more recommended sites, but there are no access markers for this site and is probably not as well known.

Recommendations:

This area is an ideal camping location. A public agency should consider acquiring the site and provide better and additional service oriented toward boaters and non-powered users desiring a place to stay for a couple days. Abernathy Point is not designed for camping, but people already camp there; several tents were observed during site investigations. However, accessing the point from Hwy. 4 creates potentially dangerous traffic conditions. If better services were available at Upriver Park, these users could camp and park more safely. Camp sites should be marked, fire pits installed, and a vault or composting toilet installed to make the site more useful. State Parks should also provide a trail to Abernathy Point. The ramp would be more usable if the silt at the bottom was cleaned out to give better access to the channel. However, the site would still be only suitable for 2 ft. or at most 3 ft. draft vessels.

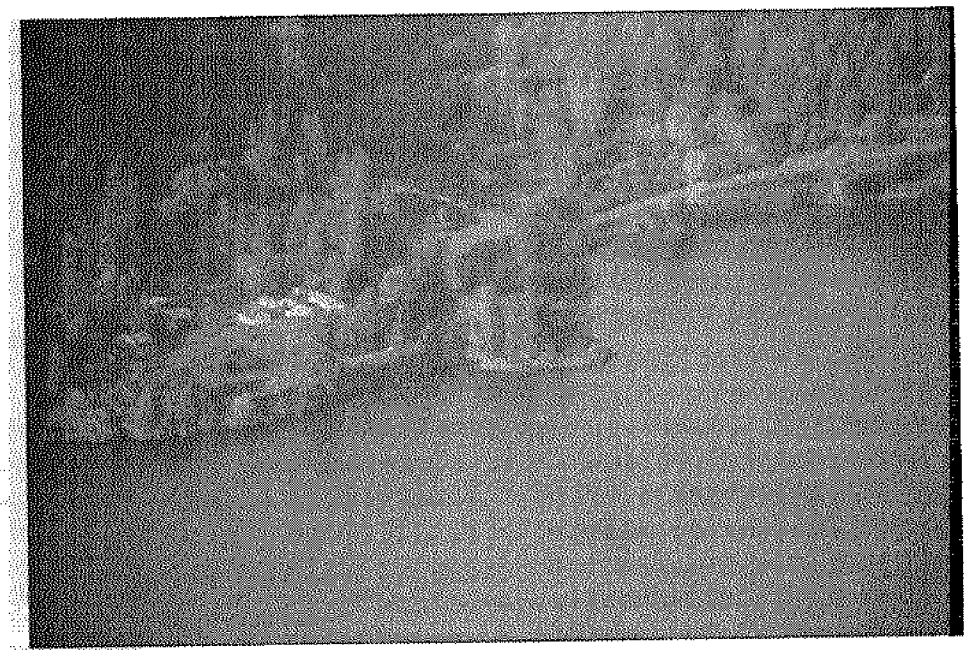


Figure 12 (a): Aerial view of Abernathy Point and Abernathy Creek. The camping area and boat ramp are located beyond the second bend of the creek.

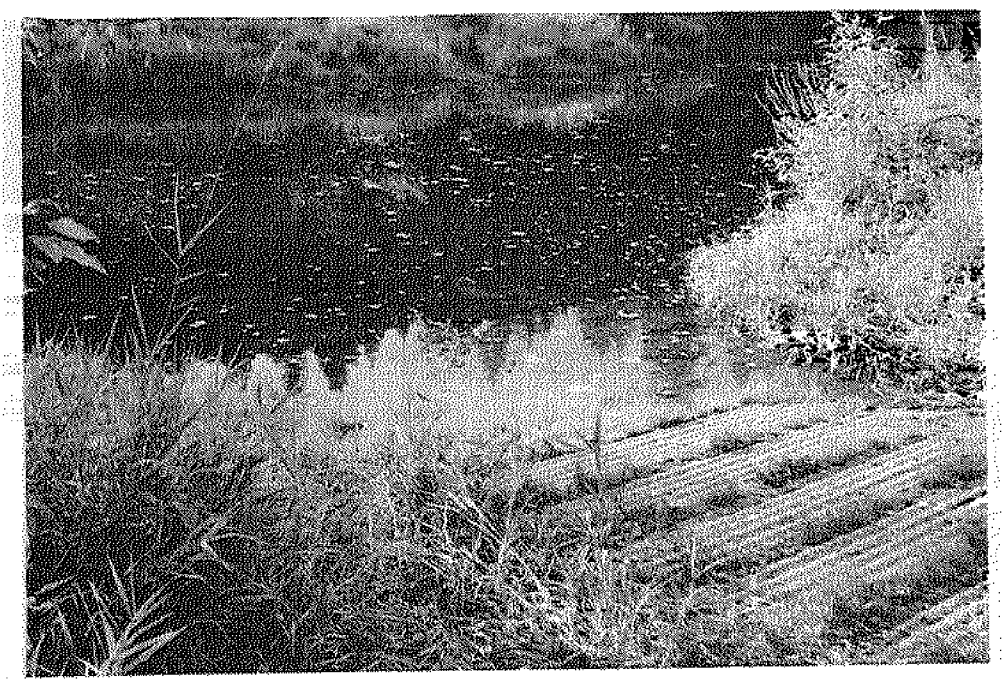


Figure 12 (b): Close-up view of the ramp at a higher water level. Vegetation has overgrown the area.

Altoona

River Mile 24

Type of Access: Potential Boat Ramp and Transient Moorage

Observations:

Altoona is a small historic fishing and cannery community. However, there is presently little economic activity. Several dilapidated structures lie over the water on piles, but there appear to be some newer structures as well. The area has adequate water depths, but old exposed and submerged pilings could create a navigation hazards for recreational boaters. The coastline is also exposed to winds and to ship wakes from the shipping channel which lies within a half-mile of the shore. Altoona is quite secluded and largely undeveloped. It is distant (11 miles) from Hwy. 4, the main access road in this region, and from grocery stores and gasoline stations, and does not offer any boating services or amenities. The access road gives access to the shore, but is in poor condition. The area is however, heavily wooded and quite scenic. This site was only observed from the air.

Recommendations:

One boater recommended developing a boat ramp at Altoona. Investigators recommend proposing a single lane boat ramp with courtesy dock, parking for 15 to 20 trailers, and a transient moorage float, possibly attached to the courtesy dock. A boating facility at Altoona would provide excellent access to the cruising and nature viewing opportunities in the Lewis and Clark National Wildlife Refuge and the surrounding islands, and a transient moorage facility would give cruising boaters a convenient place to rest. These boating facilities, with accompanying boater services, would also bring some economic activity to this struggling community. Altoona could also capitalize on its historical significance to attract river town visitors. Although there are many benefits for developing a boating facility in Altoona, residents like being secluded and may resist the effort.

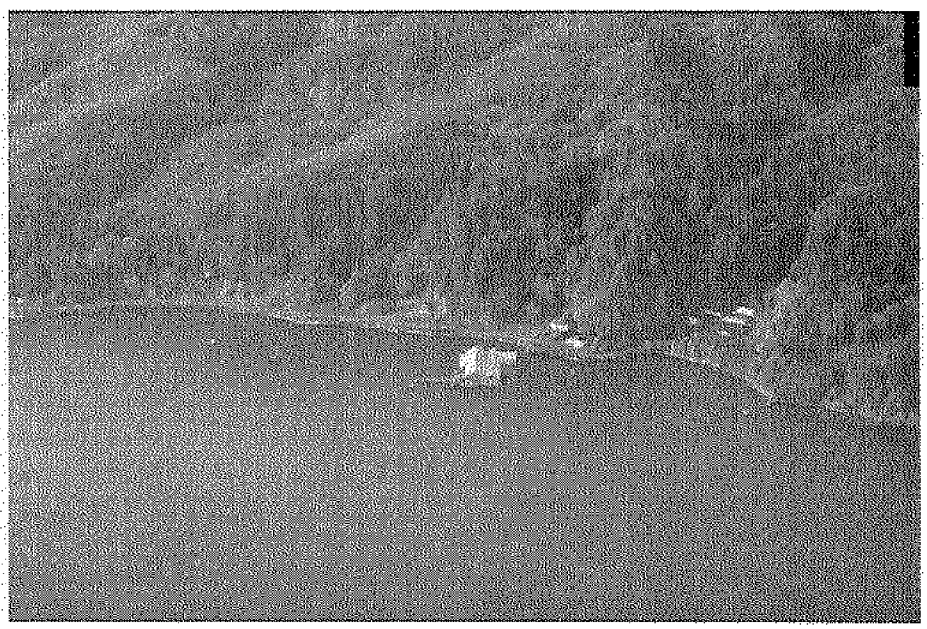


Figure 13: Aerial view of Altoona. Pilings from old cannery structures frequent the waterfront.

Jim Crow Point — River Mile 28

Type of Access: Potential Transient Moorage

Observations:

A large sandy beach was noticed on the east side of Jim Crow Point during the lower river aerial survey. This site was not investigated by land. The high wooded point provides this area with good protection from the prevailing westerly winds. Some wake protection is provided by the Jim Crow Sands one-quarter mile off shore, but the site is still exposed to ship wakes. The shipping channel is one-half mile away. The area inside Jim Crow Sands has 20 ft. + water depths. There is no access to the site by public roads. The surrounding area is heavily forested and is quite scenic. The site and much of the surrounding area is owned by Hansen Industries which has discouraged boaters from camping on its beach.

Recommendations:

This site was not recommended by boaters, but has the potential for a primitive transient moorage and boat camping facility. Investigators recommend acquiring the area around the beach and constructing a small transient dock with access to the shore. Primitive camping should be allowed on the beach. This site would be a convenient place to stop while exploring the Islands of the Lewis and Clark National Wildlife Refuge. The nearest existing boating services available are in Cathlamet (12 miles away), but if recommended improvements were to be developed in Skamokawa, boater services would only be 5 miles away.

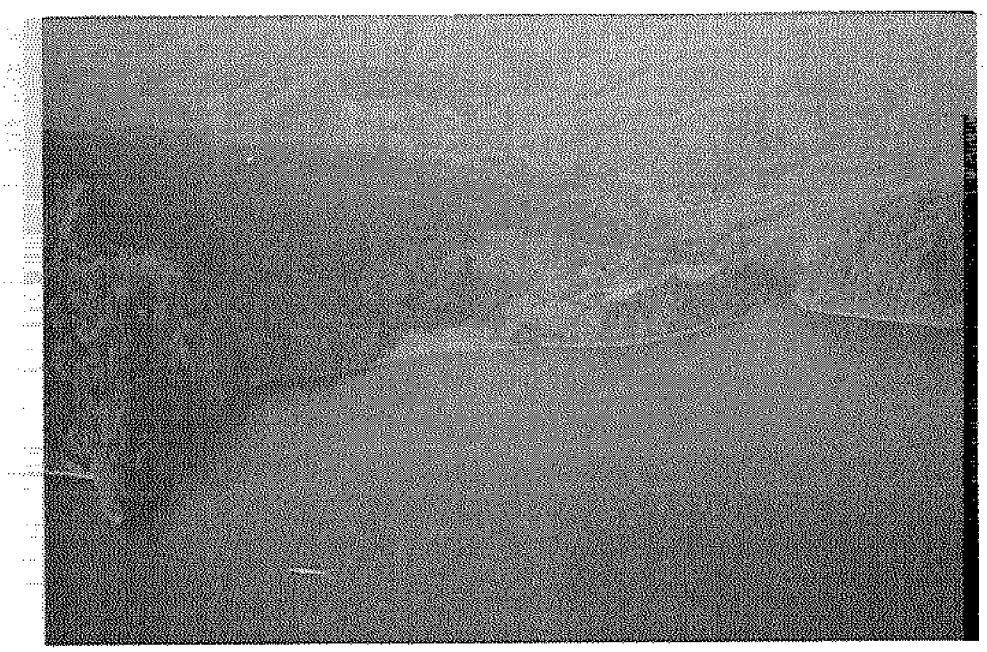


Figure 14: Aerial view of Jim Crow Point. Jim Crow Creek is on the right.

Steamboat Slough — River Mile 33.5

Type of Access: Potential Boat Ramp and Transient Moorage

Observations:

Steamboat Slough is a small navigable channel formed by Price Island. It empties into Skamokawa Harbor and flows through parts of Skamokawa and the Julia Butler-Hansen National Wildlife Refuge. It is approximately two miles long and has a minimum of 14 ft. water depths inside the channel, but 4 ft. sand bars exist near the mouth limiting navigation at low tides. The slough is presently used as moorage by some commercial vessels, but maintenance dredging would probably be needed to insure adequate navigability. It is a well protected from winds and ship wakes, but there is a strong current. The current helps maintain adequate water depths in the slough, but would have to be addressed if a boating access facility is developed.

Recommendations:

One boater recommended Steamboat Slough for transient moorage development. Investigators recommend acquiring land and constructing a two-lane boat ramp with a courtesy dock, a small moorage facility, and a transient moorage dock. A pump-out station and a fuel dock should also be constructed. Skamokawa would benefit greatly from a good boating access facility, and since Skamokawa's existing facilities are not suitable for improvement, Steamboat Slough should be considered as an alternative site. To insure good land access and to avoid impacting the National Wildlife Refuge, the facility should be constructed near the northwest end of the slough.

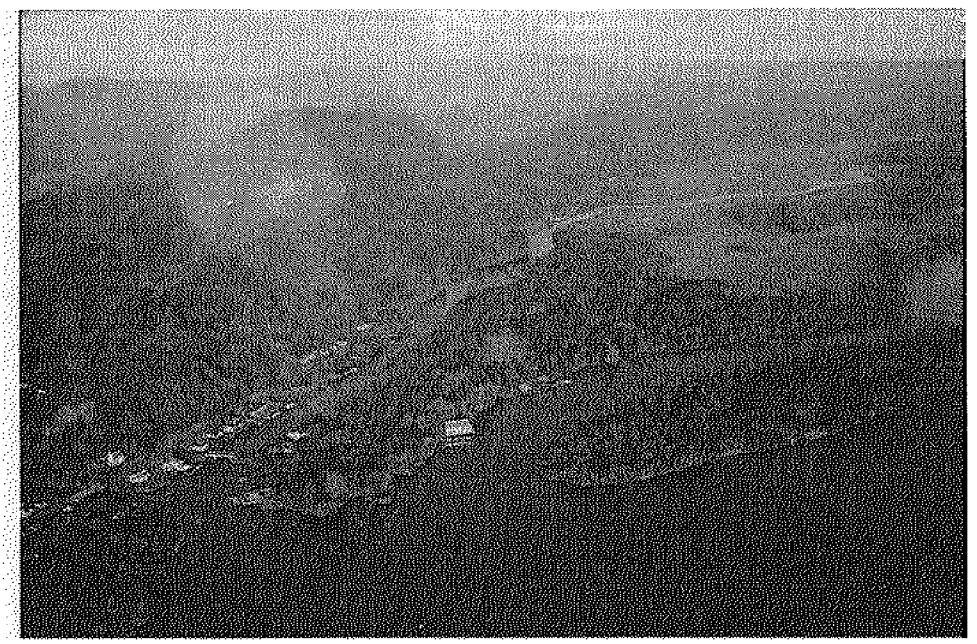


Figure 15: Aerial view of Steamboat Slough. Skamokawa harbor and Brooks Slough are on the left.

Coffee Pot Island — River Mile 41

Type of Access: Potential Transient Moorage

Observations:

Coffee Pot Island is a small island between Puget Island and Oregon on the Washington side of the river. It is near the Wahkiakum County Ferry terminal and the planned Puget Island Boat Ramp which was recently approved (1/96) for a boating facility grant. A navigable channel between Puget Island and Coffee Pot Island has adequate (15+ ft.) water depths for navigation. This area offers good protection from wind and commercial vessel wakes. Coffee Pot Island is approximately two-miles long. The west end is narrow but has nice beaches on both sides. The east end of the island is wider and more vegetated and is used as a dredge spoil disposal site. There are some pilings in the area, but these do not pose a navigation hazard. The northeastern side of the island has large areas of shoaling and the 1 ft. and 2 ft. depths would be a boating hazard.

Recommendations:

Three boaters recommended developing a transient moorage facility on Coffee Pot Island. Investigators recommend constructing a transient moorage float with beach access near the northwest end of the island where water depths of 8 ft. 40 ft. from the shore are found. A primitive campground with a vault or composting toilet and designated fire pits should be developed on the island. Trash cans would be helpful, but would entail periodic pick-up. An alternative is to let the boaters self-police the area. Informative signage on the proper way to dispose of trash and human waste would not be as effective, but would reduce maintenance costs.

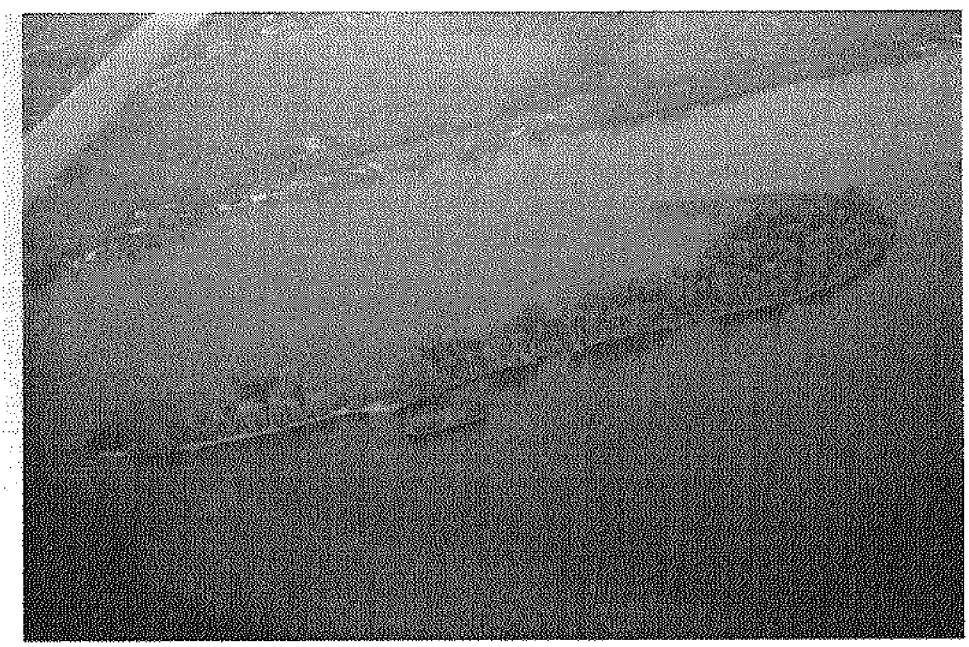


Figure 16: Aerial view of the Columbia River side of Coffee Pot Island.

Puget Island River Mile 46

Type of Access: Potential Transient Moorage

Observations:

Much of Puget Island is diked and has supports agriculture and tree farms. Residential development is especially concentrated along the shoreline. The eastern tip of the island was observed being used for dredge disposal (10/95). This area experiences winds similar to those in the Gorge and is popular with windsurfers. The island's undiked areas are composed of wetland, wooded and sandy beach habitats amenable to nature viewing, however many of these areas are susceptible to frequent floods. The southeast corner has good beaches, but faces the navigation channel presenting a problem with ship wakes. Several beach shanties were observed here. The northeast corner has better wind and wake protection and fewer low lying areas subject to flooding.

Recommendations:

If a transient moorage and camping facility on Coffee Pot Island is not feasible, a facility on the northeast side of Puget Island, near the dolphins south of Nassa Point, should be considered as an alternative. A camping facility should also be considered for the boaters and sailboarders who frequent this site. This facility would have to be carefully sited due to the potential for high winds and flooding. This location is preferred over the others on the island because it offers deep water, some wind protection and is distant from the shipping channel. It is also close to good nature viewing areas and to the Elochoman Slough Marina to provide boater services. No boaters recommended this site.

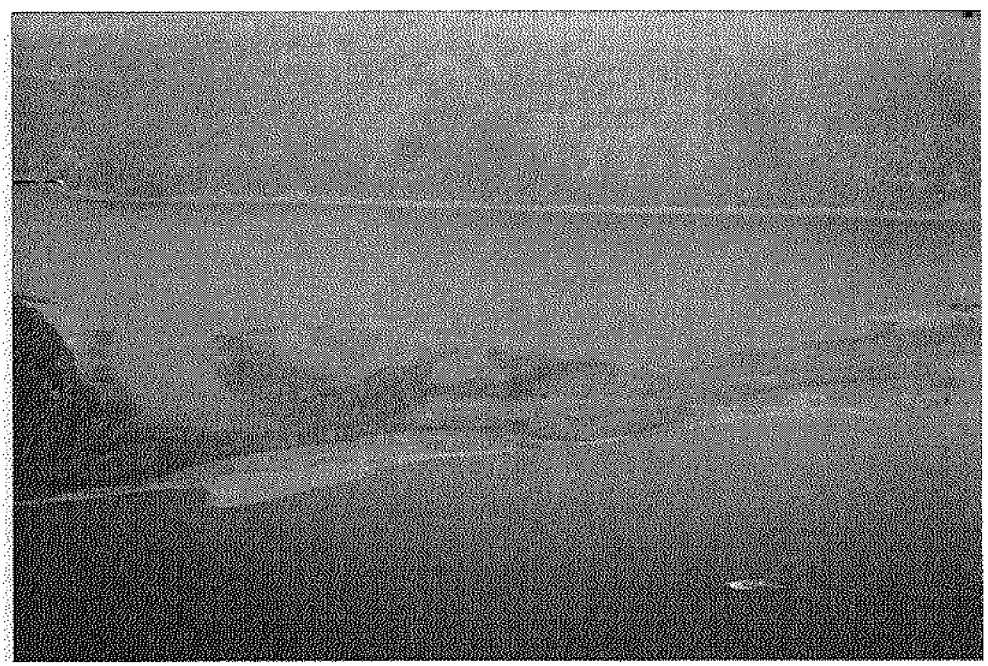


Figure 17: Aerial view of the eastern edge of Puget Island. The north side has adequate water depth and access to sandy beaches.

County Line Park — River Mile 52

Type of Access: Not Recommended

Observations:

County Line Park is a popular swimming, bank fishing, R/V and camping facility at the Wahkiakum and Cowlitz County line along the Columbia River. The park abuts Hwy. 4 and has convenient access, but pulling into or out of the park could present a traffic hazard. The park is nicely wooded and has adequate day-use and camping facilities. The parking and R/V area has a hardened shoreline, but the area to the east has open sandy beaches. The beaches are used by swimmers and hand-launched vessels. The site is exposed to wind and ship wakes, and the shipping channel is less than two hundred yards away.

Recommendations:

Although two boaters recommended County Line Park for a boat ramp, investigators cannot recommend this site for development. In an interview with the Army Corps of Engineers, investigators were advised not to propose developing boating facilities within two hundred yards of the shipping channel for safety reasons. This would preclude developing either a boat ramp or a transient moorage dock at this site.

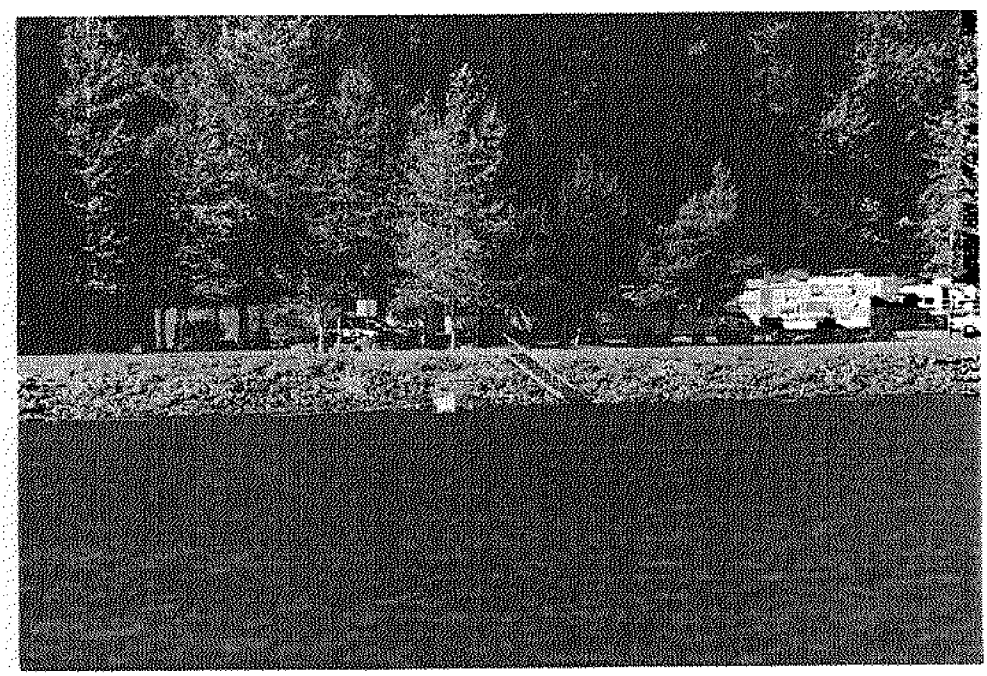


Figure 18: The west end of the park has a hardened shoreline and access stairs to the water. There is no official transient moorage facility.

Stella River Mile 56.5

Type of Access: Potential Boat Ramp

Observations:

Stella is an old, historic, waterfront town along Hwy. 4, 8 miles west of Longview. However, there is presently little economic activity. There is a museum, but it was not open during the site investigation. The western side of the town has about 20 acres of undeveloped waterfront on a point at the confluence of Germany Creek. The side facing the Columbia has a rocky beach and adequate water depths, but the Western edge, at the confluence of Germany Creek, shows some shoaling. The rocky beach was observed to be used by swimmers. This site offers scenic views of the Columbia and Crims Island and an undeveloped section of the Oregon shore.

Recommendations:

Three boaters recommended Stella for transient moorage development and six boaters recommended it for boat ramp development, making it the sixth most requested location. Even though Stella is only 250 yards from the shipping channel, as long as it is properly developed, a boating access facility could be constructed. Investigators recommend acquiring the western portion of the undeveloped waterfront and constructing a boat ramp along the western edge of the point. There is some shoaling in this area and some dredging would be needed for construction. Occasional maintenance dredging would probably be needed. A turning lane from Hwy. 4 would be needed to minimize traffic hazards. A transient moorage float could be constructed along the sheltered area just inside Coal Creek Sough, but access to Stella would involve walking along Hwy. 4 therefore investigators do not consider this to be a priority.

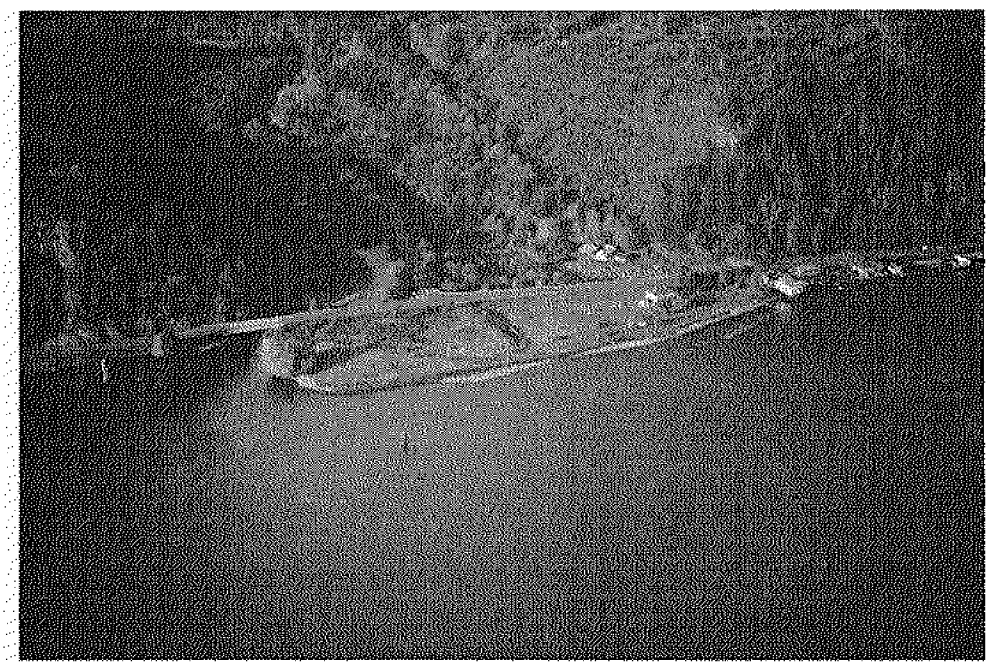
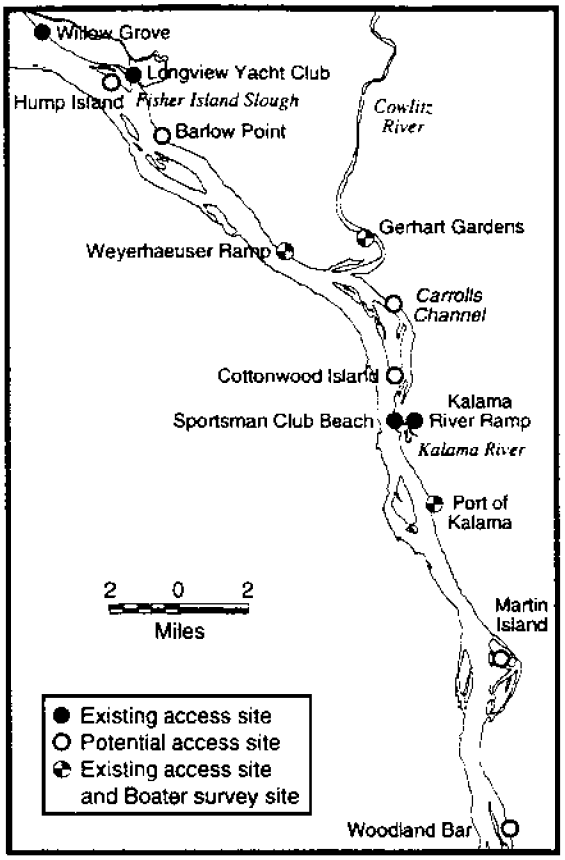


Figure 19: Aerial view of Stella (right) and Germany Creek (left). The area right of the creek is recommended for a boat ramp.

RIVER REACH THREE RIVER MILE 57 TO 83

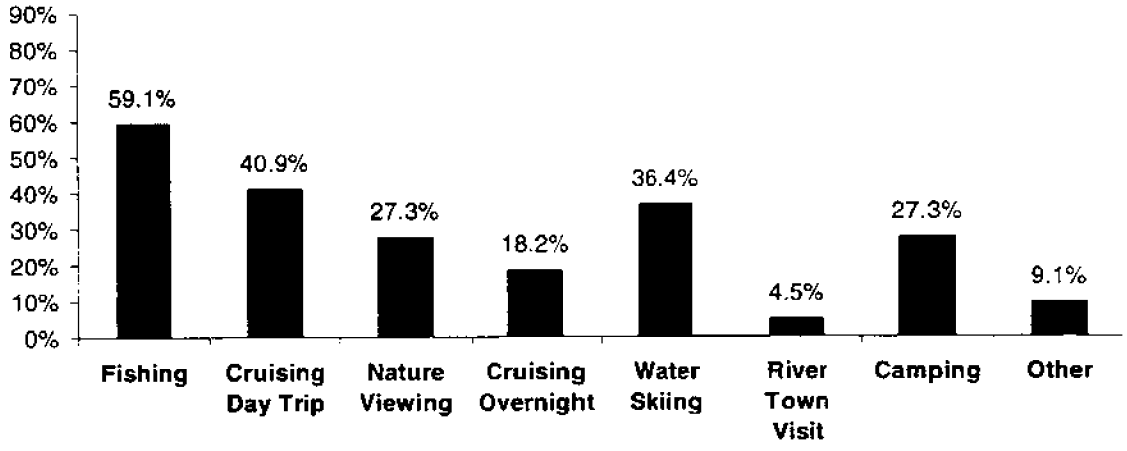


Reach Three has varied physical characteristics. Although its width remains fairly constant, the river swells around a few scattered islands forming some navigable sloughs and channels that provide opportunities for cruising and nature viewing and boat camping. The Cowlitz and Kalama Rivers empty into this reach and there are popular fishing sites at these confluences. The industrial port communities of Kelso/Longview and Kalama have heavily developed shorelines, but most of the shoreline land is in agriculture and dairy farms, with areas of rural residential development. Tidal ranges continue their gradual decline: at RM 83, just before the Woodland Bar, the average range is approximately 3 ft with 4 ft extremes.

The shoreline in much of this reach is part of a wide flood plain that presents easier opportunities for access than in the previous reaches. However, since the river is also fairly narrow, the Washington and Oregon shorelines are impacted by vessel wakes, except when protected by an island. Fortunately, many of the channels and sloughs formed by the islands are navigable and provide safe anchorage. The islands are also commonly used as primitive camp sites. Fuel is available near both ends of this reach, but the only pump-out facility is in Kalama. This reach has many boating access points, but they are not well spaced. Moreover, two of the access sites are primitive beach launches.

Longview is the largest community on this reach. It is heavily industrialized and does not have an official public boating access facility on the Columbia. It was seriously impacted by ash washed down the Cowlitz River following the eruption of Mt. St. Helens. Subsequent shoaling forced a boat ramp and marina to close. Much of the shoreline in this reach is in private ownership or reserved for industrial use.

Percent of Boaters Participating in Recreational Activities: River Reach Three



River Reach Three Activity Notes:

Boaters in River Reach Three choose an average of 2.3 activities each. Fishing was the dominant activity, and was particularly popular at the confluence of the Cowlitz and Kalama Rivers. However, other activities were well represented including cruising, nature viewing, water skiing and camping. Rainier and Kalama were available for river town visits, but neither seemed to be popular. There were 22 people surveyed in this reach.

River Reach Facilities on the Washington Side Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Dock Length	Parking: Auto	Trailer	Average Boater Evaluation
58	WILLOW GROVE PARK	2	0	0	0	261	14	n/a
59	HUMP ISLAND				Potential TM			n/a
60	LONGVIEW YACHT CLUB	0	1	6	100	0	0	n/a
62	BARLOW POINT				Potential Ramp			n/a
63.5	WEYERHAEUSER RAMP	2	1	0	0		75	3.8
68	GERHART GARDENS	1	0	0	0	44	58	n/a
70	CARROLLS CHANNEL			Potential Ramp and TM				n/a
71	COTTONWOOD ISLAND				Potential TM			n/a
73	SPORTSMAN CLUB BEACH	1	0	0	0		5	n/a
73	KALAMA RIVER RAMP			0	0		20	n/a
75.1	PORT OF KALAMA	3	0			24	300	4.1
80.5	MARTIN ISLAND				Potential TM			n/a

Willow Grove Beach — River Mile 58

Type of Access: Primitive Boat Ramp

Observations:

Willow Grove Beach is a 60 acre county park 7 miles west of Longview. There are a few road signs leading visitors to the park, but it is a 4 mile drive and several turns do not have directional signage. It is a nice recreational area with scenic views of the Columbia River. There are several types of recreational facilities: covered group areas, BBQ and picnic facilities, trash cans, and two permanent buildings each with drinking water and two multi-stall restrooms. Parking is plentiful. There are 275 parking spaces and several individual lots have spaces reserved for the handicapped. Restrooms also have barrier free improvements. Unfortunately, there is only minimal access for boaters. The park is four miles away from convenience stores and lodging, and there are no dump or pump-out facilities nearby. These deficiencies limit the park's utility for transient boaters. The park is also adjacent to the ship channel which makes the beach susceptible to wakes and waves. There are several signs warning swimmers of this danger.

There is no boat ramp at this site, but since the beach is used as a primitive launch site, the park provides 14 trailer parking spaces. The launch area is on the west side of the park. Since boaters must launch directly from the beach, it is only useable by shallow draft vessels: mainly jet skis. A four wheel drive vehicle is also recommended. Transient boaters can tie up on the beach to enjoy the park, but camping is not allowed.

According to local boaters, he county once planned to develop a boating launch and mooring facility at Willow Grove, but local residents objected and the plan was withdrawn. The county has began discussing this idea again, but no plans have been proposed. The area is also a beach nourishment site used by the Army Corps of Engineers. Filling permits have already been issued by National Marine Fishery Service.

Boater Evaluation:

No surveys were handed out at this site, and thus, it was not evaluated. However, among all the boaters surveyed, five selected this area as the location they would most like to see a launch ramp developed. This was the fifth most requested site. Two boaters also chose this site as a location to develop transient moorage. In addition to these specific site requests, the Longview area in general received 22 requests for boat ramp development and 12 requests for transient moorage development. Although specific locations were not given, these responses suggest a great need for additional facilities in this vicinity.

Recommendations:

Longview has a great need for boating access sites, and this site would still make a good mixed use facility. Although exposure to wind and waves drive up development cost, a protected launch ramp and transient moorage facility would be a great benefit to boaters. To reduce the chance of plan failure, efforts should be made to include the local Willow Grove residents in the early stages of the planning phases. The county should also reserve an area for camping and should work with the business community to develop a convenience store or concession stand at or near the site. In addition, more access signs to the site are needed.

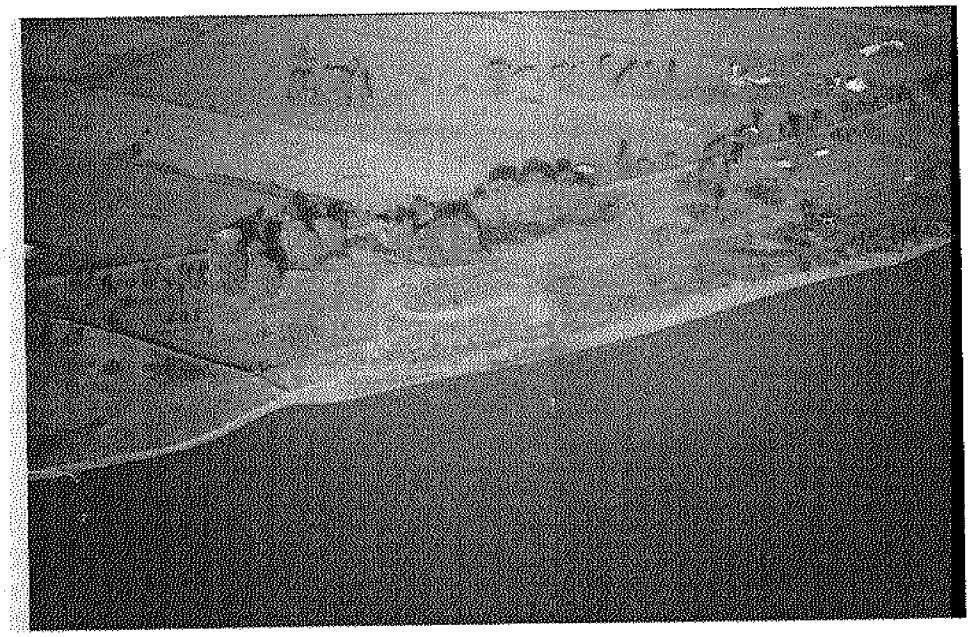


Figure 20 (a): Aerial view of Willow Grove Park. The trailer parking lot is in the center. The park extends to the right.

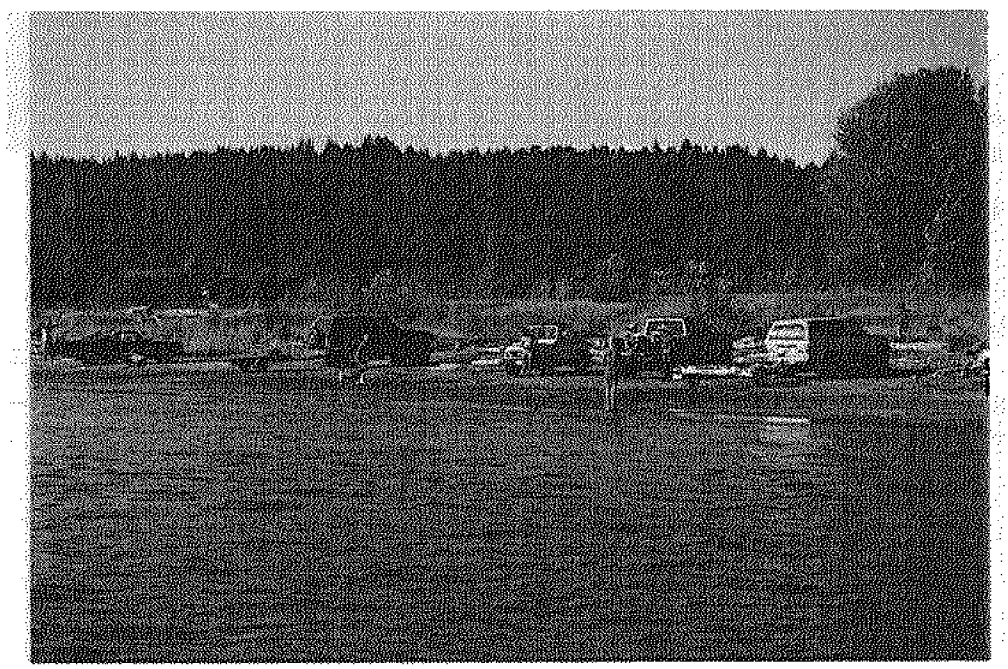


Figure 20 (b): View of Willow Grove from the water. Shallow draft vessels such as personal water craft launch from the beach.

Longview Yacht Club — River Mile 60

Type of Access: Boat Hoist; Transient Moorage

Observations:

The Longview Yacht Club is a private boating facility. However, its boat hoist and transient moorage slips are available to the public. The yacht club is located inside Fisher Island Slough and gives easy access to the Columbia River. Fisher Island provides excellent wind, wake and wave protection. The slough has enough water flow to help maintain good water depths (8 ft. minimums), and needs dredging only about every 15 years. Access from the land is much more limited: there are no boating access markers for this site, and there is no on-site parking for either cars or trailers. The yacht club, however, does offer many boater services including two permanent restrooms, a dump station, showers, and drinking water. More importantly, it has the only fuel dock between Cathlamet and Kalama. Both gasoline and diesel are available. However, distance from other services limits the recreational value of this site for transient boaters. For example, it is two miles from a park, at least two miles from convenience stores and restaurants, and six miles from lodging. It is also too far from a historical or downtown area to be a convenient stop for river town visits.

The boat hoist and courtesy dock are open to the public. However, the fee is $1.00 per foot of boat length. The hoist is more expensive than other hoists along the river and is probably too expensive for boaters to use on a daily basis. Moreover, there is a lack of parking. Visitors and members can park on the shoulder of Willow Grove Road, but space would quickly fill up if the public started to use this facility. The club's six transient docks are also open to the public. The $3.00 fee is inexpensive compared to other transient fees, and electricity is included.

The club's improvement plans include building more guest slips and moving their electrical lines underground. There are no plans to develop a boat ramp.

Boater Evaluation:

No surveys were handed out at this site, thus it was not evaluated. However, as mentioned earlier, the Longview area was the subject of numerous requests for additional boat ramp and transient moorage development.

Recommendations:

Although the additional transient moorage would be useful to the public, this is a private facility. It is therefore not eligible for state boating access funds. However, the county or city could form a partnership with the Longview Yacht Club and add more public boating access at or near the site. If this is not possible, the city or county should consider building their own facility in Longview Slough, since the area does have excellent physical characteristics to support recreational boating.

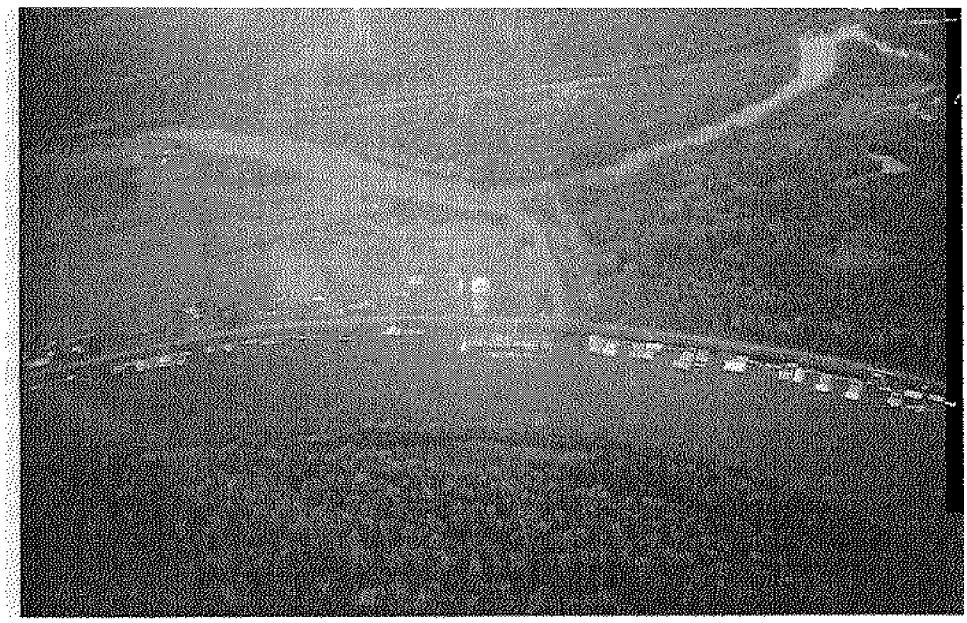


Figure 21 (a): Aerial view of Fisher Island Slough. There are numerous over-water structures. Longview Yacht Club near the center.

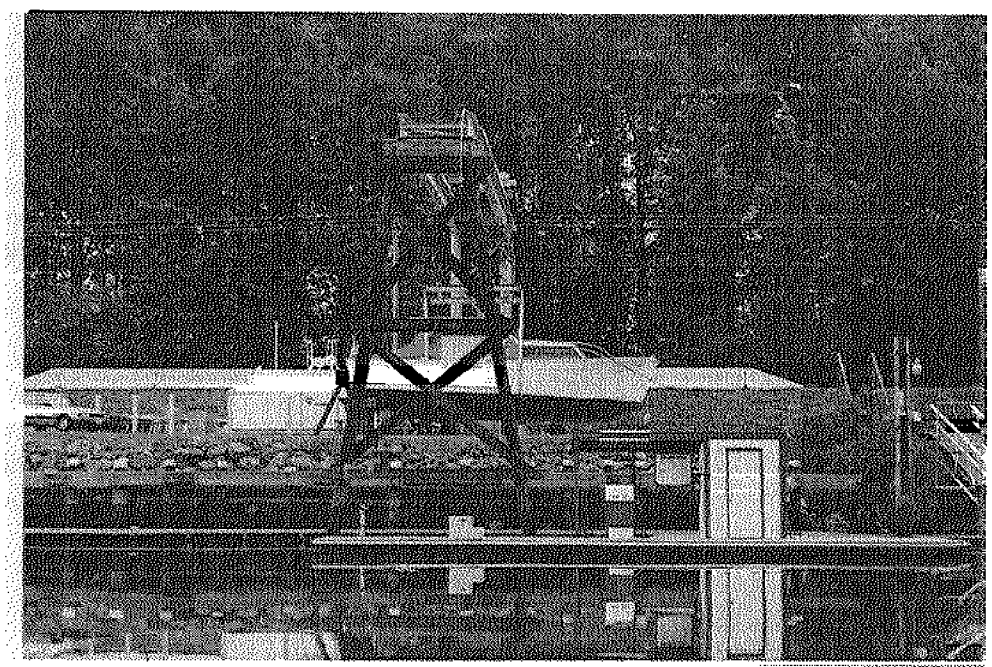


Figure 21 (b): Longview Yacht Club is a private facility, but boat hoist and fuel dock are available to the public.

Weyerhaeuser Ramp — River Mile 63.5

Type of Access: Boat Ramp

Observations:

The Weyco ramp is a private facility located near the Weyerhaeuser chlorine plant off Industrial Way (mile marker 4.1). It is presently open to the public and provides direct access to the Columbia River. There are no boating access signs to inform boaters of this site, but it is still well known locally. This is a simple facility: a boat ramp and courtesy dock, a staging area with a parking area on either side, and a trash can. There are no other services or amenities within easy walking distance. Although wind, waves, and wakes make it difficult to launch at times, it is a popular site. It is the only remaining launch site in Longview that provides adequate access to the Columbia River.

The 32 ft. twin lane ramp is made up of individual concrete slabs 16 ft. wide and either 4 ft or 9 ft long with 6 inch sand filled spacing between slabs. The ramp is still in good condition. but much of the sand between the slabs has eroded. This could cause structural damage in the future. The bottom of the ramp has started to silt up, making it difficult for larger vessels to launch. The 60 ft. courtesy dock is in good condition, but at low tide, more than half the dock is grounded and unusable for mooring vessels. There are two unpaved parking areas with room for a total of about 75 vehicles if properly spaced.

There are no plans to improve this site. Moreover, because the site's proximity to the chlorine plant creates potential liabilities should there be accidental discharges occur, Weyerhaeuser is considering closing this access point to the public.

Boater Evaluation:

Investigators briefly visited this site on three occasions and placed surveys on the windshields of boater's vehicles. Only five boaters evaluated this site, and although the scores will be used in the evaluation, this is a low number and comparisons with the other facilities might not be valid. The boaters who evaluated the site were well satisfied with this facility (overall rating 3.8). The highest rating was in access to the site (4.5). The courtesy dock and maintenance received the lowest score (2.0). The most frequent recommendations were to widen the ramp area and to add more trailer parking (3 each). With an existing double ramp and up to 75 trailer spaces on this site, this response surprised investigators. Other recommendations were to dredge the bottom of the ramp (2), to increase the length of the courtesy dock, and to add a restroom. Among all the boaters surveyed, this site did not rate very high. Three boaters selected this site as the one they would most like to see improved.

Recommendations:

This site is on private property, precluding publicly-funded improvements. However, until another site is developed in Longview, the city and county should work with Weyerhaeuser to keep the site open for public boating access. If Weyerhaeuser would permit it, they should also offer to place and maintain a portable restroom at the site.

Figure 22 (a): The Weyerhaeuser courtesy dock is short, but in good condition. There are no cleats or tie-up devices on the ramp side of the dock.

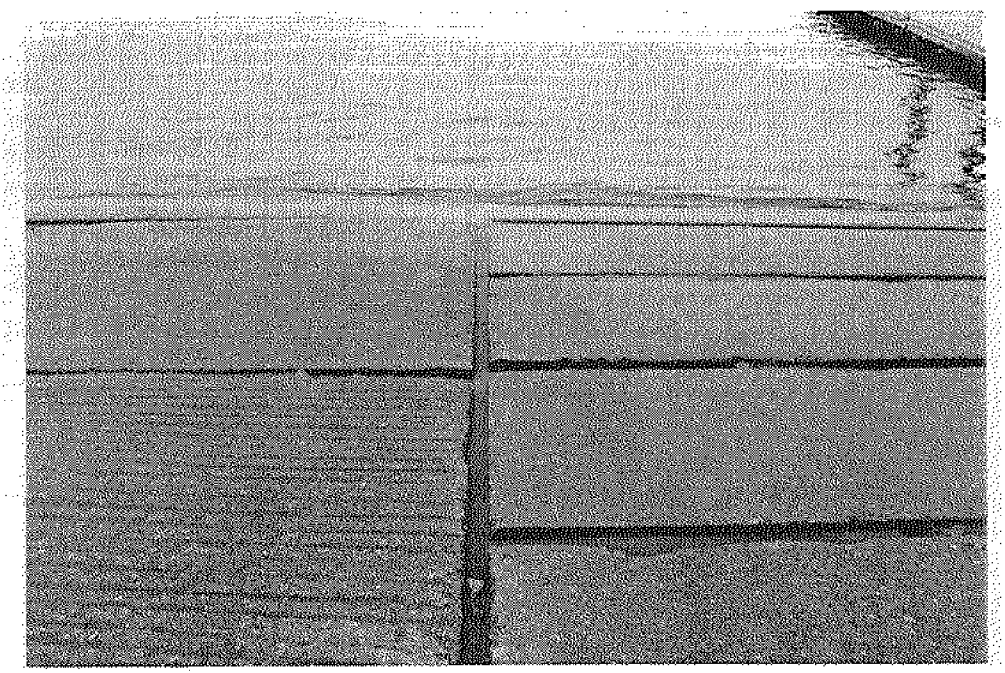


Figure 22 (b): Some scouring is occurring along the upper sections of the Weyerhaeuser Ramp. Sand and silt are being deposited at the bottom of the ramp.

Gerhart Gardens — River Mile 68

Type of Access: Boat Ramp

Observations:

Gerhart Gardens is a large, multi-use waterfront park on the Cowlitz River, about two miles from the Columbia River. There are large grassy areas, swimming beaches, picnic areas, trash cans, and a boat ramp. There are two permanent restrooms at the site, but they were locked at the time of the investigator's visit. A single portable unit was available as a substitute. Unfortunately, this ramp is located on the inside of a meander and began to silt up shortly after it was built in 1988, probably due to a combination of residual Mt. Saint Helens ash and present day logging operations. The mouth of the Cowlitz River is also quite clogged with silt. The shallow water makes it a popular fishing area, but restricts boat passage. Locals know of some marginally navigable channels, but these are not marked. Although the Cowlitz has an authorized 100 ft. wide 8 ft. deep navigation channel, maintenance dredging operations have not been carried out since the eruption of Mt. Saint Helens. The soft shallow bottom has become valuable fish habitat which creates additional problems for dredge operations.

The ramp is a 54 ft. concrete slab and has three V-cut 14 ft. launch lanes separated by two 6 ft. walkways. There is no courtesy dock. The ramp is damaged. Some of the V-cuts are worn and the bottom of the middle lane is reported to be missing, creating hazards for trailers. Another problem is siltation. The downstream lane has completely silted up and sand is exposed throughout much of the tidal range. The other lanes can be used by shallow draft boats, but only with caution. There is no fee to use this ramp.

The county plans to dredge in the immediate area of the ramp. This project was completed December 1995. No other improvements are planned.

Boater Evaluation:

The site is rarely used. During the study, investigators talk with two boaters. In addition, two surveys were received from this site. This is not a significant enough number to compare with the other facilities: therefore, actual scores will not be given. The evaluation does, however, gives an idea of the strength and weakness of this site. Boaters were most satisfied with the parking and restrooms. They were least satisfied with the water depth and maintenance. Dredging the bottom of the ramp and adding a courtesy dock and a fish cleaning station were the recommended improvements. Surveyed and interviewed boaters were quite concerned that a waterfront community the size of Longview did not have an adequate boating access facility. Local users were pleased that the ramp will finally be dredged, but believe the ramp will silt up again within one year. Gerhart Gardens received 18 recommendations making it the most requested launch facility to improve! It was not recommended for transient moorage.

Recommendations:

The Army Corps of Engineers, and Longview, and Cowlitz County should work together to devise a method to protect the ramp area from future siltation. A courtesy dock should also be constructed. Because of the siltation problems on the Cowlitz River, it may not be economical to restore Gerhart Gardens in the long term. In this case, Longview and Cowlitz County should abandon Gerhart Gardens as a boating access site and quickly move to construct a new one at either Willow Grove, Fisher Slough, or Barlow Point.

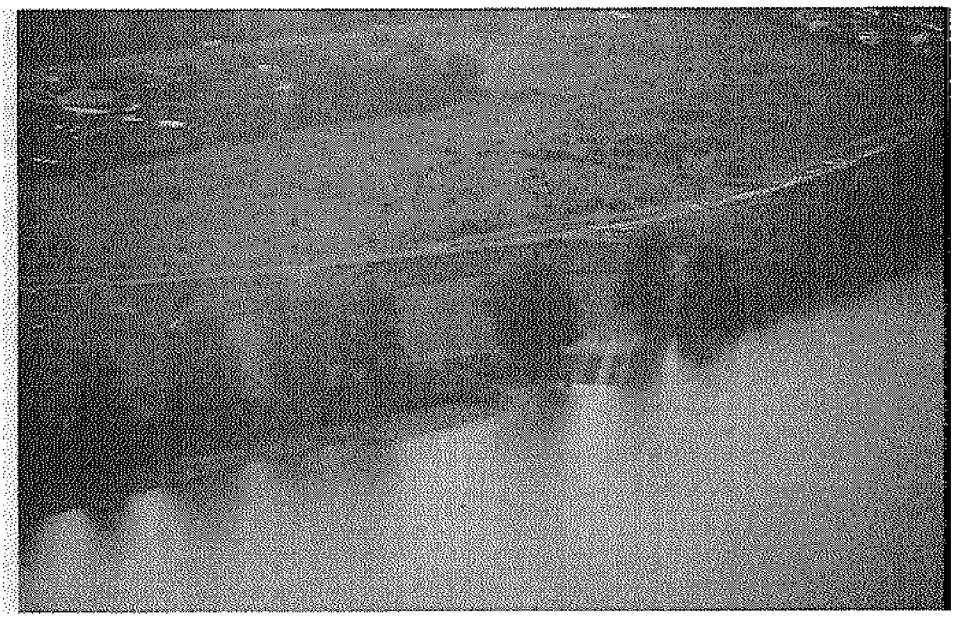


Figure 23 (a): Aerial view of Gerhart Gardens. There is extensive siltation in the area. This photo was taken before the area was dredged.

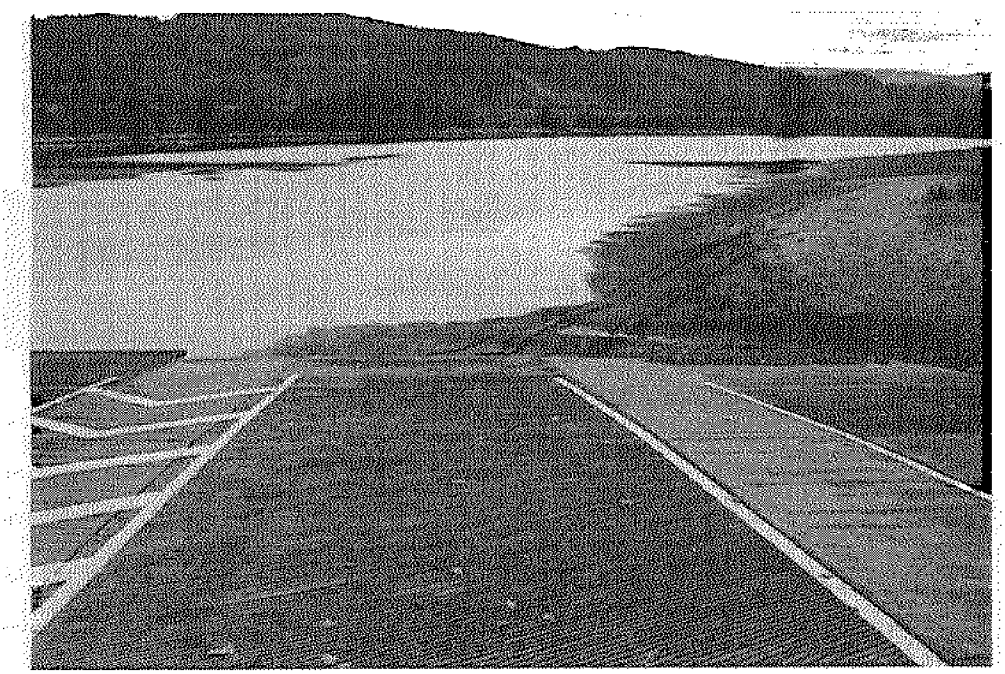


Figure 23 (b): A close-up of the ramp at low tides. Regular maintenance dredging or siltation prevention structures are needed to preserve access.

Sportsman Club Beach — River Mile 73

Type of Access: Primitive Boat Ramp

Observations:

This unmarked, primitive access site, owned by the Port of Kalama, is located at the end of Sportsman Club Road. A private club borders the south side of the site and the port is developing a large area one-quarter mile north of the site. A cleared, but otherwise unimproved, one acre area serves as a staging and parking area, and a wide gravel and sand beach is used for launching. This site gives direct access to the Columbia River. There are no services or amenities on site or in the local vicinity, but there is a small market one and one-half miles away and lodging three miles away. This site is only one mile (by road) from the Kalama River Ramp.

Because it is a primitive beach launch, the site is only usable by small motorboats and hand-launched craft. There is no official parking or staging area. Vehicles commonly park along the eastern edge of the site or along the tree line adjacent to the beach. There is room for approximately 10 trailers.

There are no planned improvements for this site.

Boater Evaluation:

No surveys were handed out at this site, therefore, it was not evaluated. However, several boaters were observed launching at this site and interviewed. Although this is a primitive site and it is exposed to winds and wakes, according to the boaters, it is preferred over the nearby and recently improved Kalama River Ramp because it gives direct access to the Columbia River. Access to the Columbia River from the Kalama River Ramp involves navigating through unmarked channel in the heavily shoaled mouth of the Kalama River.

Recommendations:

Unless a channel is established and maintained to provide a safe access from the Kalama River ramp (see next entry) to the Columbia River, this site should be developed into an official boating access facility. Construction of a single launch ramp with a courtesy dock is recommended. A small breakwater should be constructed to protect the ramp from boat wakes which are reported to reach up to 3 ft. at this location.

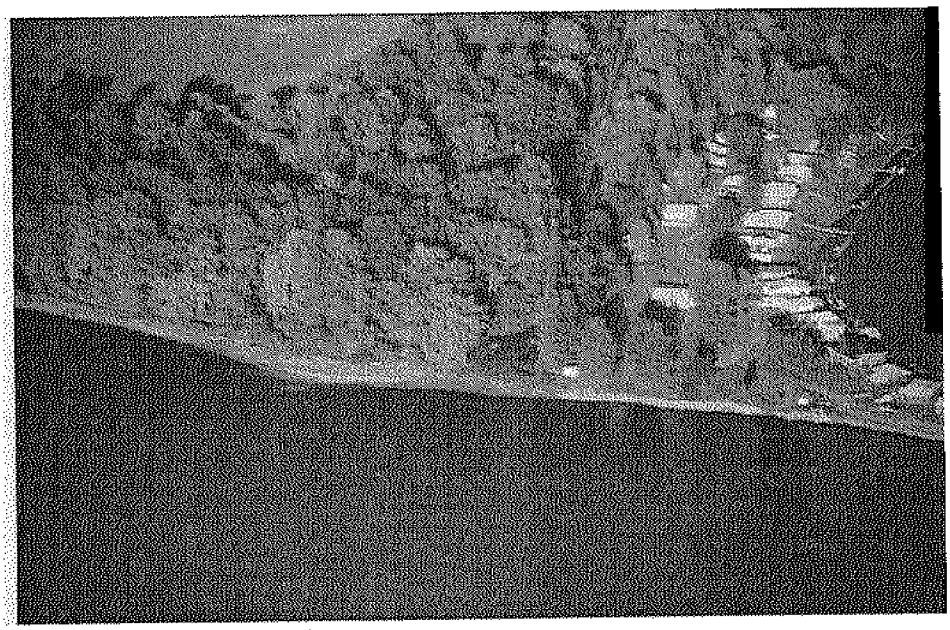


Figure 24 (a): Aerial view of Sportsman Club Road road end and beach. The Kalama River is on the right.

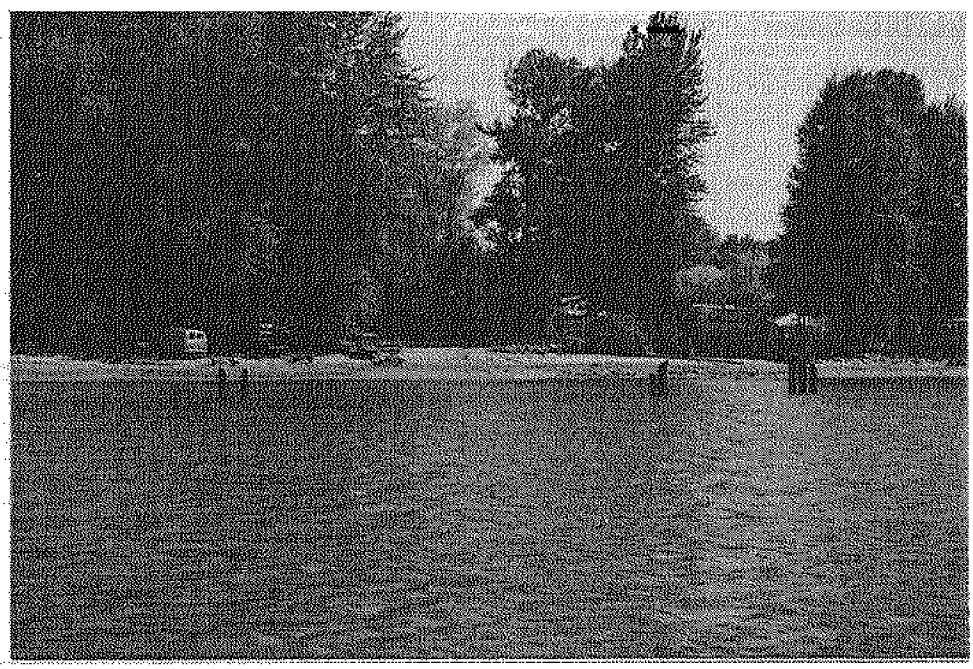


Figure 24 (b): Shallow draft fishing boats use this primitive beach launch site to gain access to the mouth of the Kalama River.

Kalama River Ramp — River Mile 73

Observations:

This ramp is located off I-5 exit #32 Kalama River Road, but there are no boating access or directional signs to help boaters locate this ramp. The site gives access to the Kalama River. It has excellent natural protection and good fishing opportunities, but cruising is limited and an extensive sand bar at the river mouth restricts access to the Columbia River, one mile away. Locals however, are familiar with a few unmarked channels. This one acre site was originally a primitive beach launch area, but during the course of this study, Washington Department of Fish and Wildlife began developing the area into a standard fishing access site. The project has experienced cost overruns and there may not be enough money left in the project budget to construct the vault toilet. There are no other services in the immediate vicinity, but there is a small market one mile away and lodging two and a half miles away.

This site is under construction. Washington Department of Fish and Wildlife had completed a 12 ft. concrete pile ramp last time investigators visited the site (12/95). This ramp has least a 4 ft. draft at low water, making it usable year-around. A gravel parking lot is planned, and will have room for about 20 vehicles.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. Among all the boaters surveyed, one recommended improving this launch site. It was not recommended for transient moorage. Several boaters interviewed elsewhere also expressed a desire to see an access channel dredged to the Columbia. However, Washington Department of Fish and Wildlife has objected to dredging in an effort to protect fish habitat.

Recommendations:

Construction of a restroom is necessary to preserve sanitation and water quality at the site. A courtesy dock and fishing platform along the hardened shoreline would also be useful. Better access to the Columbia is needed. One possible solution is to mark the natural channels. In addition, the actual costs and impacts of dredging an 8 ft. by 50 ft. channel should be determined compared with other channel maintenance methods (e.g. training dikes).

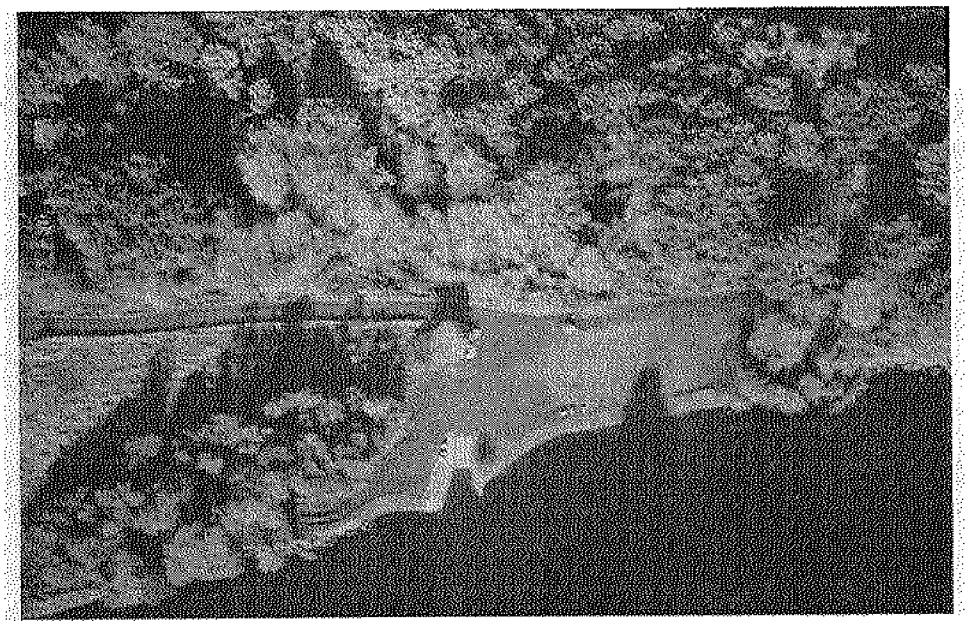


Figure 25 (a): Aerial view of the nearly completed Kalama River Ramp and public fishing access area.

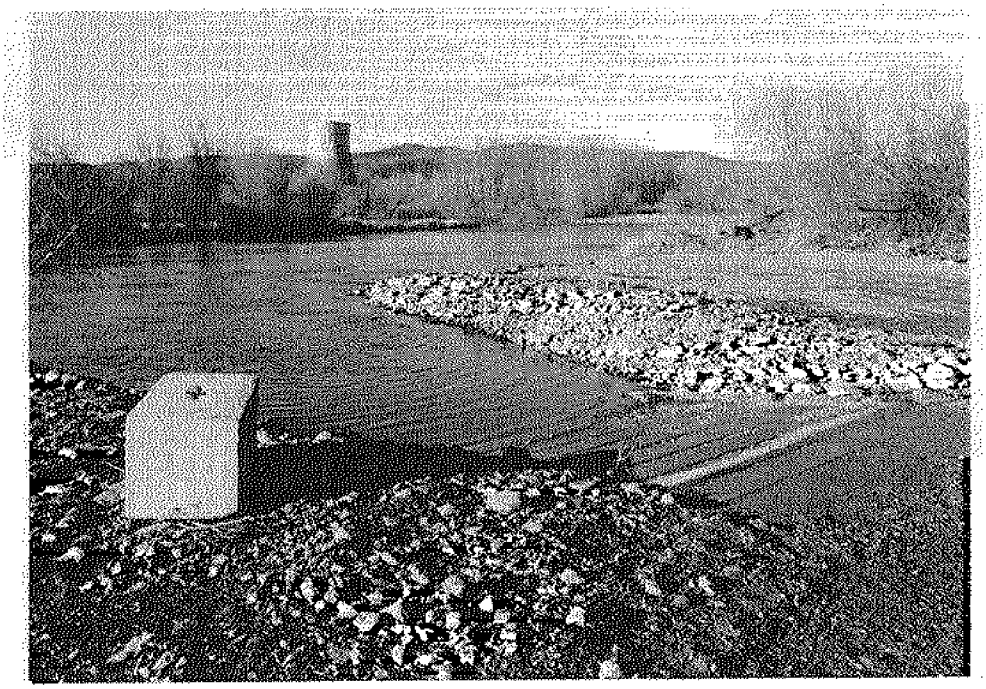


Figure 25 (b): Close-up of the recently completed concrete plank boat ramp.

Port of Kalama Marine Park — River Mile 75.1

Type of Access: Boat Ramp; Transient Moorage

Observations:

The port of Kalama has an excellent boating access facility. A rubble-mound breakwater gives the marina good protection from winds and wakes. The port has informative signage on I-5. In addition, there are boat ramp access signs to inform and direct boaters from the north end, but they are missing at a key intersection (just after the rail road tracks) on the southern approach. Two sections of this facility are relevant to this study. The north end has the marina, boat ramp, transient moorage, a fuel dock (gasoline and non-commercial diesel) and a pump-out station. A restroom is available in the port office during business hours. There are two large gravel parking areas on each side of the port office. Parking is also available along the outer edge of the breakwater. A pedestrian overpass crosses I-5 giving easy access to stores and lodging. At the south end of the marina is the camping and R/V park with restrooms, showers, drinking water, picnic areas, trash cans, and a dump station. There is good barrier free access to the docks and launch area. There is also a barrier free trail along the river toward the R/V park.

The 36 ft. concrete launch ramp is in sound condition. It is wide enough for three lanes, but it is not lined and only two vehicles were observed to launch at one time. There is no fee to use the ramp, but a donation box is provided. Docks line both sides of the ramp forming a walkway and a courtesy dock. They are in sound condition. The fuel dock is connected to the south courtesy dock. Parking is abundant (up to 200 trailers and 24 cars), but the lots are not lined and cars can take up trailer spaces. A 200 ft. transient dock is in the back of the marina. There is a $5 to $7 per day fee. Electricity is not available. The dock itself is sound, but during low water periods, 4 ft. depths occur which limits its usefulness to transient vessels.

There are no improvements planned by the port at this site. However, the port recognizes the need for additional moorage and is looking for a site to build a new marina.

Boater Evaluation:

Twenty-one boaters evaluated Kalama and were very satisfied with the facility, giving it the highest overall rating of any facility in the study (4.1). Boaters were most satisfied with the access to the site (4.7) and with the water depth (4.5). They were least satisfied with the showers (2.4), restrooms (3.1), and the courtesy dock (3.3). One safety concern regarding the courtesy dock was that it was too close to the fuel dock. Common suggestions were: to build a restroom near the launch site (5), to regulate trailer and non-trailer parking (4), to increase transient moorage (2), and to move the transient dock closer to the entrance (2). Some boaters were not aware that showers were available. Other problem areas mentioned included a need for more maneuvering room (the marina is somewhat compact), and the shallowness of the transient area. Among all the boaters surveyed, 9 choose Kalama as a transient moorage to see improve making it the third most recommended site. One boater recommended adding mooring buoys outside the marina's berm.

Recommendations:

The port should have an informative display showing the location of all its facilities and amenities. Mooring buoys outside the marina would be poorly protected and are not recommended. The back of the marina should also be dredged to improve access for larger vessels. The port should be encouraged in its efforts to develop a new marina.

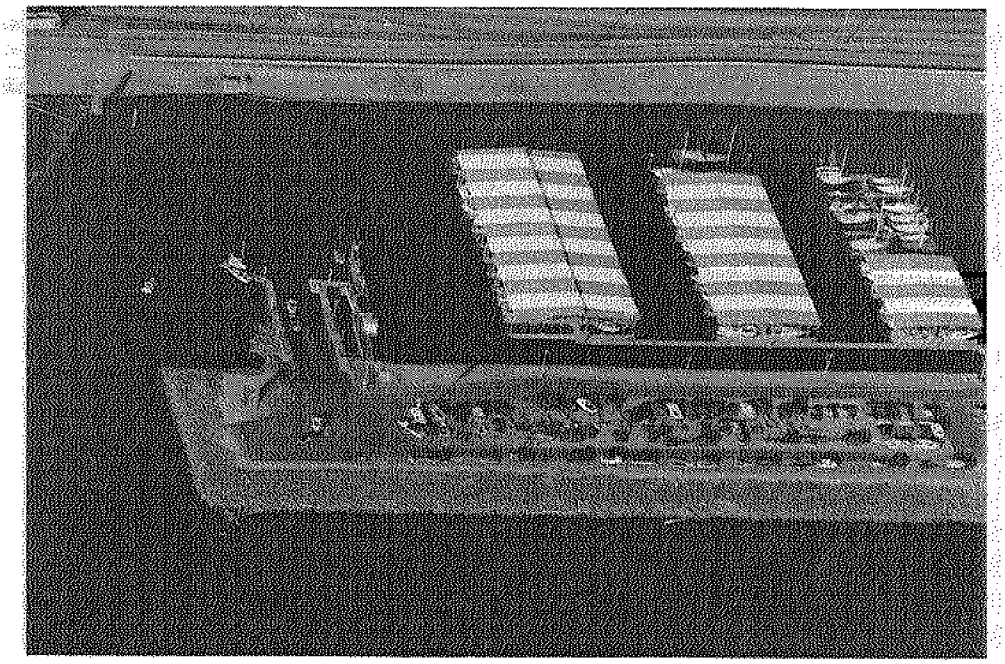


Figure 26 (a): Aerial view of the north end of the Kalama Marina. There is a large staging and parking area. The fuel dock is to the right of the ramp.

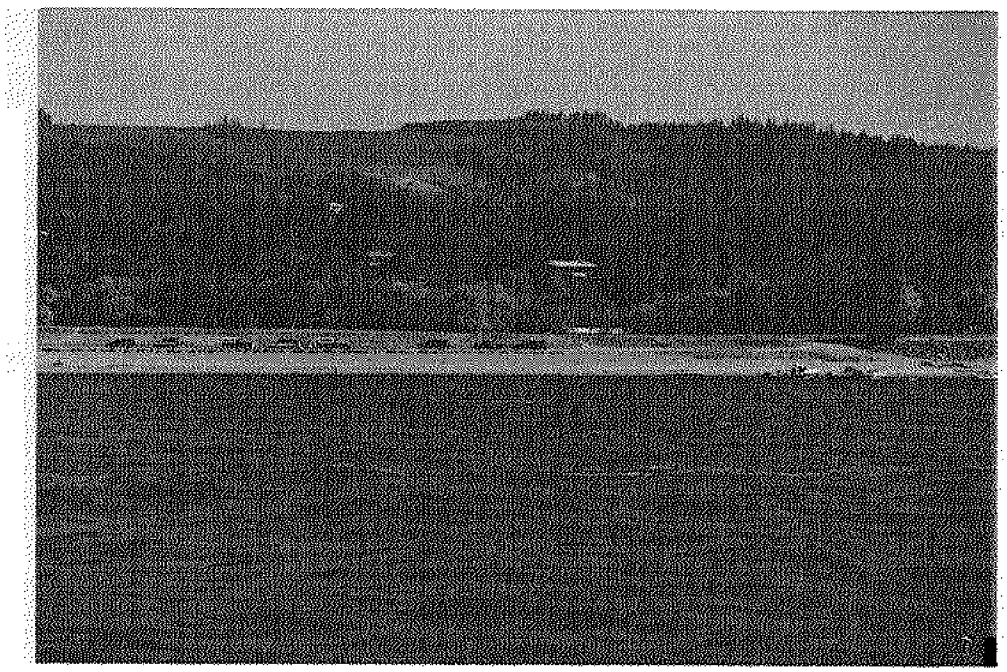


Figure 26 (b): The south end of the port property offers camping and beach access. There is no transient moorage, but boats can tie-up to the beach.

Hump Island

River Mile 59

Type of Access: Potential Transient Moorage

Observations:

Hump and Fisher Island are off the Fisher Island Slough and are attached by a land bridge. Hump Island is a narrow dredge spoil island which faces the Columbia River. Wakes and waves from the Columbia have eroded the southwest side of the island forming 10 to 20 ft. bluffs, but there are paths to the beach and the river. The northeast side is well protected from winds and ship wakes. The northern side of the island is well protected and there are adequate (8 ft.) water depths 20 ft. from the shore along the western third. The northern shoreline is vegetated, but paths through the tangled trees lead to large open areas with scenic views. Litter, fire pits, and other signs of camping were observed. Navigation past the western third of the island is hampered by shallow water and rows of piles used in the past for log storage.

Recommendations:

Although Hump Island was not recommended by boaters, investigators believe it would make a good location for a transient moorage float. The site has adequate water depth, good wind and wake protection, sandy beaches, scenic views, and open areas already used for camping. Investigators recommend constructing a transient moorage float with shore access along the western third of the northwest side of the island to make the existing recreational use of the island more convenient. Trash cans would be helpful, but would entail periodic pick-up. An alternative is to ask the boaters to self-police the area. Informative signage on the proper way to dispose of trash and human waste may not be as effective, but would reduce maintenance costs. Adjacent Fisher Island does not have any open areas and is not suitable for development.

Figure 27: Aerial view of Hump and Fisher Island. Transient moorage is proposed below the western tip of Fisher Island.

Barlow Point — River Mile 62

Type of Access: Potential Boat Ramp

Observations:

Barlow Point is being considered by Cowlitz County and the City of Longview as a location to develop a much-needed boat ramp. The site is presently a dairy farm and cows were observed in the river. The site is close to the shipping channel and boat wakes impact the shoreline. There is no wind protection. While the site is not very scenic, it would give easy access to several scenic islands, channels, and sloughs. Fuel and a dump station are available two miles away at the Longview Yacht Club. Lodging and supplies are available approximately three miles away in downtown Longview. Adjacent to a well maintained road, the site would be easily accessible.

Recommendations:

One boater recommended developing transient moorage and two boaters recommended developing a boat ramp at this site. Twenty-two other boaters recommended a launch facility in the general area of Longview. Barlow Point itself is only 200 yards from the Shipping Channel, but this distance increases to 400 yards one-quarter mile northwest of the point, where investigators recommend constructing a two-lane boat ramp. A courtesy dock and restroom should also be installed. Since there are no other boater services or recreational amenities at or near this site, a transient dock is not recommended. There appears to be shoaling in this area; some initial dredging and wind and wake protection would be required to construct and to reduce damage to the ramp; and periodic maintenance dredging may also be needed.

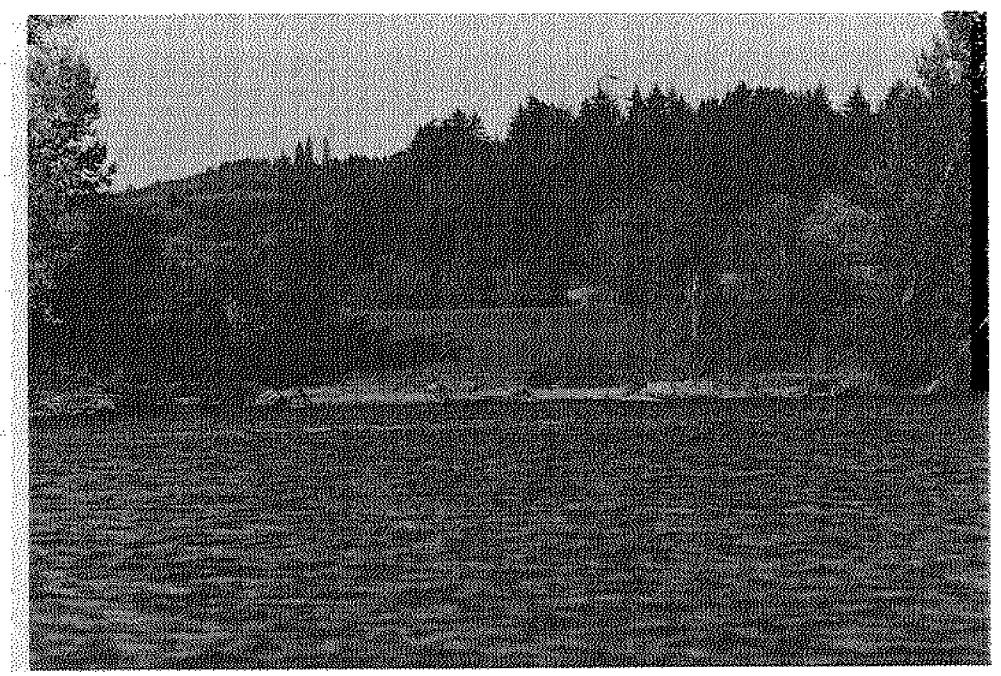


Figure 28: A clearing one-quarter mile downstream from Barlow Point. This fairly flat and level site is the proposed location for a boat ramp.

Carrolls Channel — River Mile 70

Type of Access: Potential Boat Ramp and Transient Moorage

Observations:

Carrolls Channel is a five mile long navigable waterway between Cottonwood Island and the Washington shore. It empties into the confluence of the Cowlitz and Columbia River and creates popular fishing spot. Most of the area around this confluence is affected by heavy shoaling. However, a 9 ft. deep channel exists near Cottonwood Island. The mainland shore northeast of the channel is being cleared and leveled by the Port of Longview for industrial development. The area south of this development has deep water (14 ft.); it is close to fishing, cruising, nature viewing, and camping locations, and is well protected from winds and ship wakes. I-5 and Burlington Northern Railroad tracks border the lower third of the channel.

Recommendations:

Two boaters recommended Carrolls Channel for a transient moorage facility. Although this specific site was not recommended, twenty-two boaters recommended developing a launch site in the general area of Longview. Carrolls Channel is a wide, deep, well protected waterway and would be a good location to develop a full-scale boat moorage and access facility. It has a moderate current which would reduce the need for maintenance dredging. Investigators recommend constructing a marina with at least two launch lanes and a transient moorage facility south of the proposed industrial development site. If this recommendation not feasible, the investigator's alternate recommendation is to construct a simple two-lane boat ramp with a transient moorage dock.

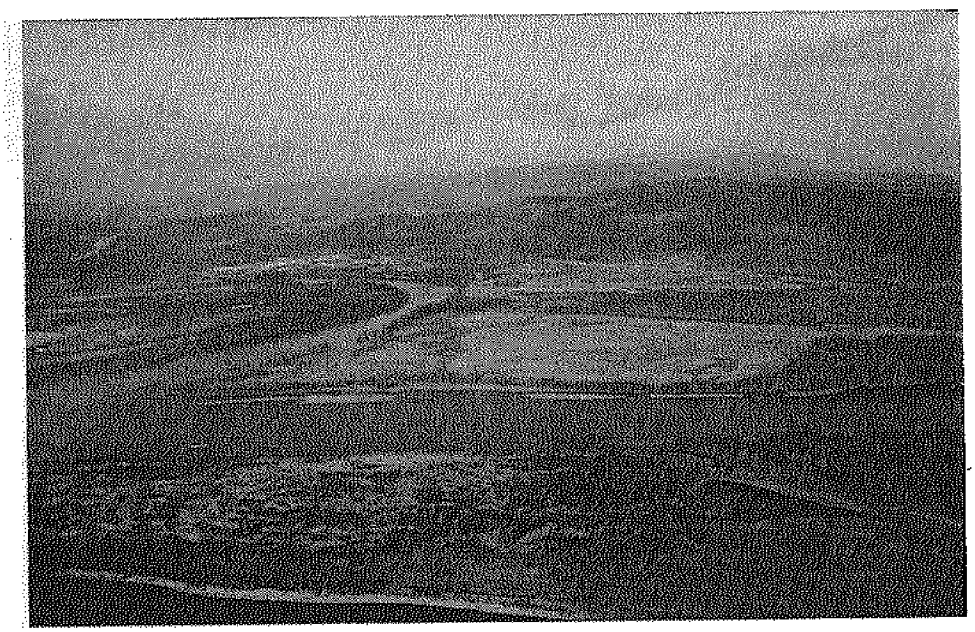


Figure 29: Carrolls Channel and Cottonwood Island. The wooded area to the right of the cleared area is recommended for a boating access facility.

Cottonwood Island River Mile 71

Type of Access: Potential Transient Moorage

Observations:

Cottonwood Island is formed in part by dredge spoils and is still used as a disposal site. It has excellent sandy beaches and some vegetation giving hiking, nature viewing, and hunting opportunities. It is also close to popular fishing spots. The southern tip of the island near a dolphin was investigated as a potential transient moorage site. This area has adequate visual screening from I-5 and the Burlington Northern Railroad tracks. There are also fine views, good wind and wake protection, adequate water depth near the beach (14 ft.), and a large sandy beach. The Port of Kalama is investigating Cottonwood Island as a site for marina development.

Recommendations:

Two boaters recommended placing a transient moorage facility along Carrolls Channel. Unfortunately, it cannot be determined if the boaters wanted this facility attached to the mainland or to Cottonwood Island. Twelve boaters also recommended Longview in general for transient moorage development. Investigators recommend developing a transient moorage dock near the southeast edge of Cottonwood Island with access to the beach. Trash cans would be helpful, but would entail periodic pick-up. An alternative is to let the boaters self-police the area. Informative signage on the proper way to dispose of trash and human waste would not be as effective, but would reduce maintenance cost.

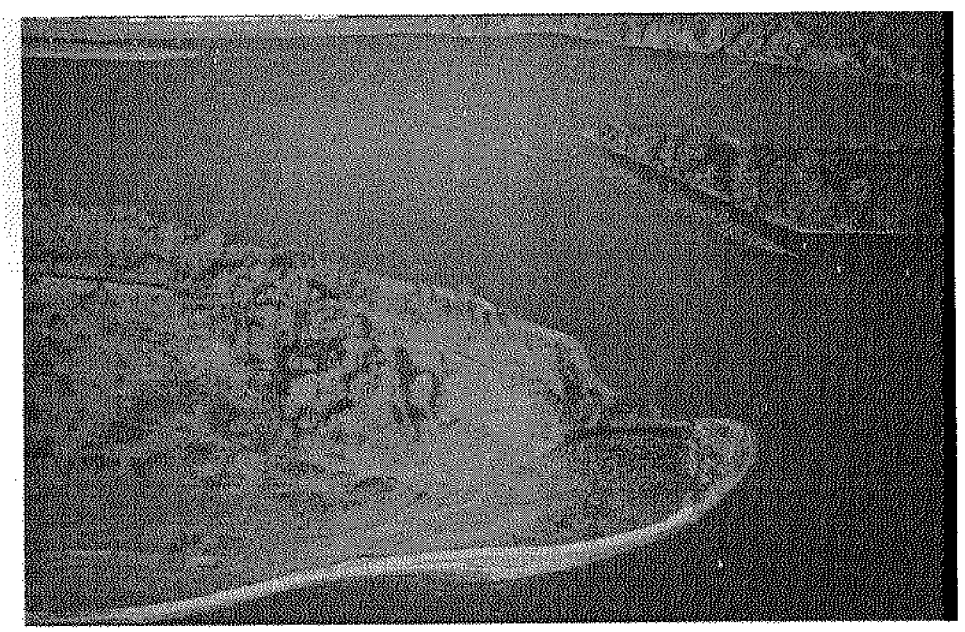


Figure 30: Aerial view of sandy beaches at the southern tip of Cottonwood Island and the entrance to Carrolls Channel.

Martin Island

River Mile 80.5

Type of Access: Potential Transient Moorage

Observations:

Martin Lake is a natural body of water used for log storage. It is located in the middle of Martin Island and has an access channel to Martin Slough. Martin Slough is navigable from its northern entrance at the Columbia River to Martin Lake with 9 ft. + depths, but its southern entrance is heavily shoaled and is not navigable. I-5 borders the east shore of Martin Slough detracting from its visual amenity, but the island has some scenic areas. The access channel has 8 ft. depths and the lake is 15 ft. deep. This lake is occasionally used by yacht clubs as an unofficial transient moorage site. The Port of Kalama is considering Martin Island as a location to construct a new public marina and boating access facility.

Recommendations:

Four boaters recommended Martin Island for transient moorage development. Investigators believe Martin Island is a little too close to the Kalama Marina to be a strong candidate for a full-scale marina development. It would, however, be a suitable site for a transient moorage facility with shore access. Therefore, investigators recommend acquiring Martin Island and constructing a transient moorage and boat camping facility. The site could remain primitive to reduce maintenance costs, but some upkeep would still be required. The Kalama marina is only five miles away and would provide necessary boater services such as fuel, pump-out and dump stations, and supplies.

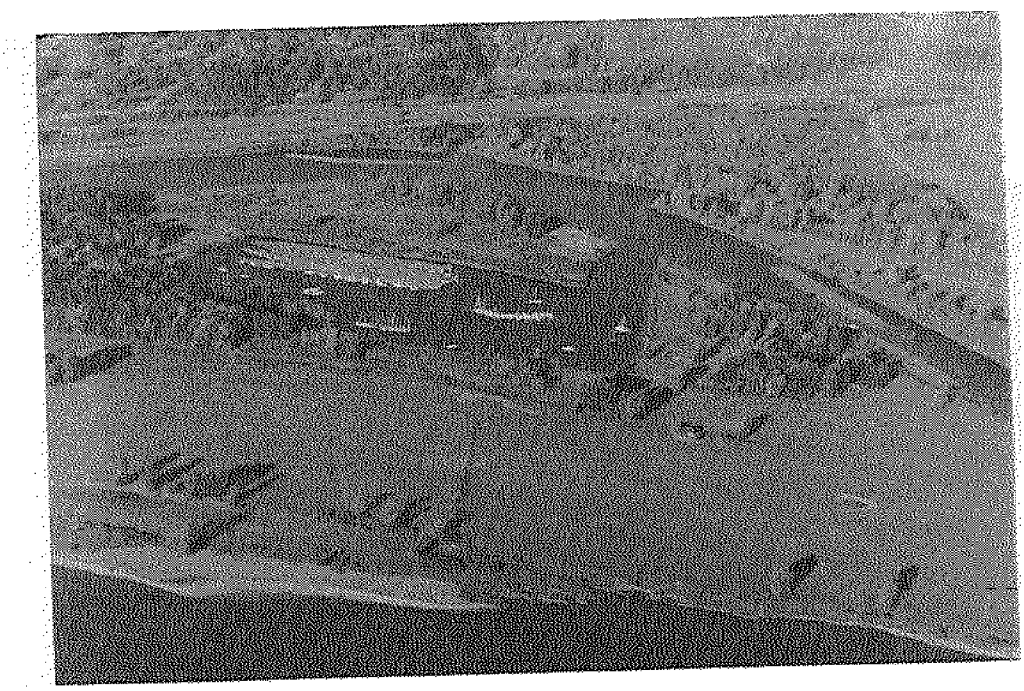
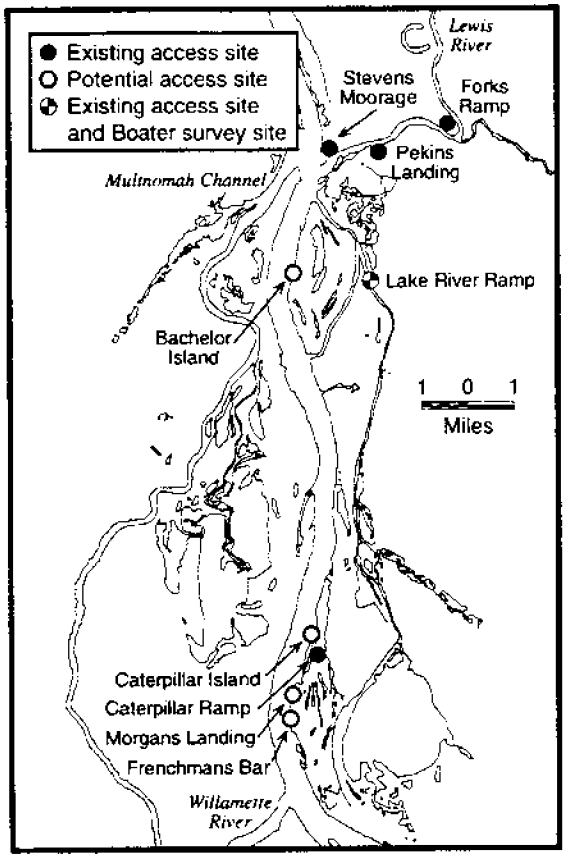


Figure 31: Aerial view of Martin Island. The site is used for log storage, but boaters also use the site for transient moorage.

RIVER REACH FOUR RIVER MILE 83 TO 102

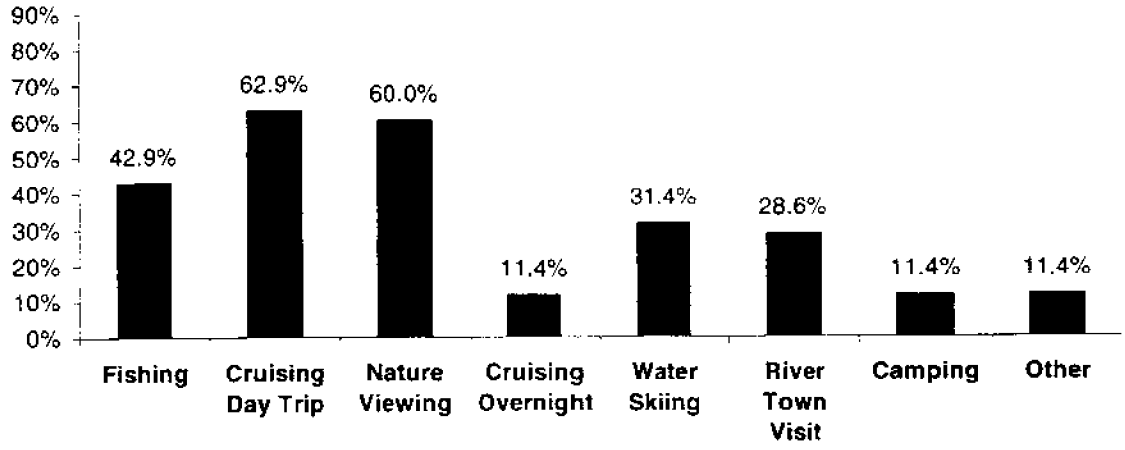


Although this is the shortest reach of the study area, it has the widest flood plain with many secondary channels and sloughs. These physical attributes greatly expand the navigable surface area and provide increased opportunities for recreational boating. Two major tributaries join the Columbia in this reach: the Lewis and Willamette Rivers. The mouth of the Lewis is particularly popular for fishing. Multnomah Channel winds around Sauvie Island, the largest island in the study area. This large island along with Bachelor Island, the Ridgefield National Wildlife Refuge, and other smaller islands provide a large and diverse area for nature viewing. This reach begins at Columbia City, just north of the Woodland Bar and ends at Kelly Point where the tidal range averages 2 ft, with 2.5 ft. extremes.

This reach is bordered by lowlands which are protected by a series of dikes. The river is also fairly narrow, subjecting exposed shorelines to vessel wakes. There are some excellent sandy beaches where shanties and other temporary structures are a common sight. Fresh water lakes, wetlands, and farmlands are also common along this reach. Much of the shore is undeveloped and there are poor access roads to most of the river and few boater services. For example, there are no pump-outs available in this reach. Saint Helens and Woodland are popular destinations. Because the Ridgefield Marina has closed, there is no fuel available on the Washington side. However, fuel and supplies are available in Saint Helens, Oregon.

Road access to the river is difficult along much of this reach. Existing and potential sites are distant from highways and main roads, and much of the land is either private, a wildlife refuge, or is port land dedicated to other uses. Existing public boating access sites are protected from ship wakes and winds, but potential sites are generally exposed.

Percent of Boaters Participating in Recreational Activities: River Reach Four



River Reach Four Activity Notes:

Boaters in this reach choose an average of 2.6 activities each. In this reach, we see a much higher day cruising and nature viewing use pattern, probably because of the large islands and numerous channels and sloughs. Low camping and overnight cruising rate may be from a lack of official facilities. Saint Helens was the most popular river town destination. There were 33 boaters surveyed in this reach.

River Reach Facilities on the Washington Side Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Transient Moorage: Dock Length	Parking: Auto	Parking: Trailer	Average Boater Evaluation
87	STEVENS MOORAGE	1	0	0	0	10	15	n/a
87	PEKINS FERRY MOORAGE	2		20	300		30	n/a
87	FORKS RAMP	2	1				40	n/a
88.8	BACHELOR ISLAND	Potential Transient Moorage: Boater Recommended						
90	LAKE RIVER BOAT LAUNCH	2	0	0	60	30	30	3.3
85	WOODLAND BAR	Potential Ramp and TM: Boater Recommended						
97.5	CATERPILLAR ISLAND	Potential Transient Moorage: Boater Recommended						
98	CATERPILLAR RAMP	1	0	0	0		20	n/a
98.5	MORGANS LANDING	Potential Ramp: Boater Recommended						
99	FRENCHMANS BAR	Potential TM: Boater recommended				36		

Stevens Moorage (Lewis River) River Mile 87

Type of Access: Boat Ramp

Observations:

Stevens Moorage, previously known as Be-Be's, is an unmarked primitive R/V campground with a boat ramp located on the north side of the mouth of the Lewis River. It is used primarily by fishermen. The site is difficult to find from the land. Woodland is the nearest town and freeway exit, but it is five miles away and there are no access signs to direct boaters to the site. The site is, however, quite scenic and gives good access to both the Lewis and Columbia Rivers. Managers at the site said that the 6 ft. deep sand bar at the mouth of the Lewis does not pose a problem for navigation to the Columbia. Amenities at the site include a dirt and gravel parking area and informal camping spaces. There are approximately 15 R/V sites. The camping fee is $4 per day. There are also three portable toilets, a swimming area, and trash cans. Nearest lodging and groceries are 5 miles. Wetlands exist on the west side of the site and limit development potential.

The 12 ft. concrete slab ramp has some cracks and pits, but these are largely cosmetic. The ramp fee is $3. The courtesy dock is a simple log raft that is not attached to the shore and therefore has limited utility. There is room for approximately 10 trailers in addition to those parked at the RV. sites. The site is occasionally used by hand-launched vessels.

The owner planned to install some moorage slips, but so far has not received the permits had difficulties in receiving the proper permits.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. However, it did generate a minimal amount of interest among the general population of surveyed boaters. Two boaters selected Stevens Moorage as a launch site to improve, but none recommended it as a site to develop transient moorage.

Recommendations:

This site is on private property, precluding publicly-funded improvements. Although a launch facility would be useful to boaters, there are no services or amenities useful to transient boaters.

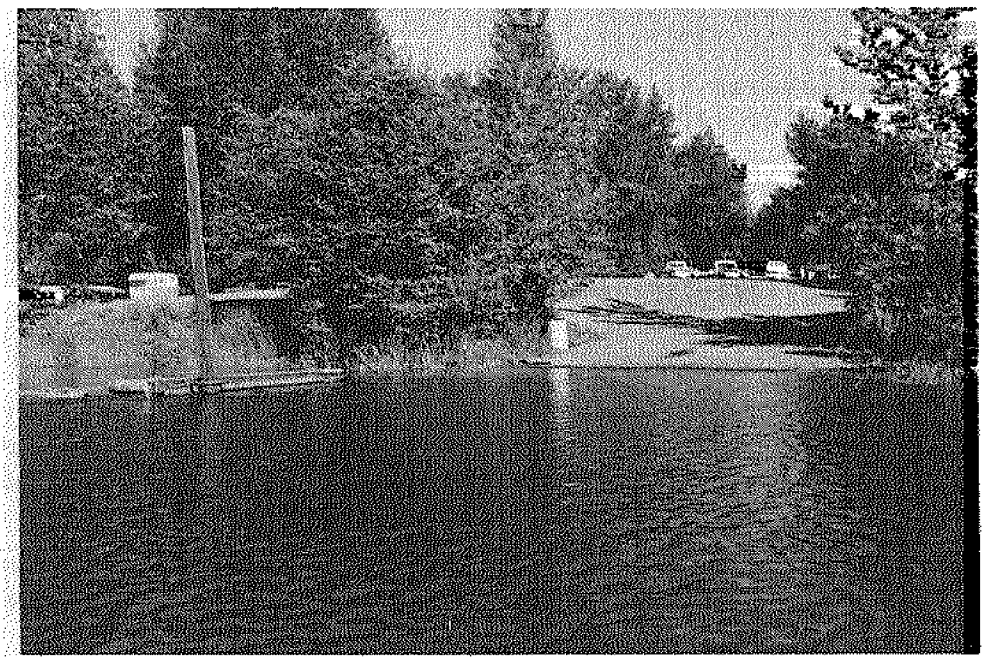


Figure 32 (a): Boat ramp and log raft courtesy dock at Stevens Moorage. There are no moorage facilities.

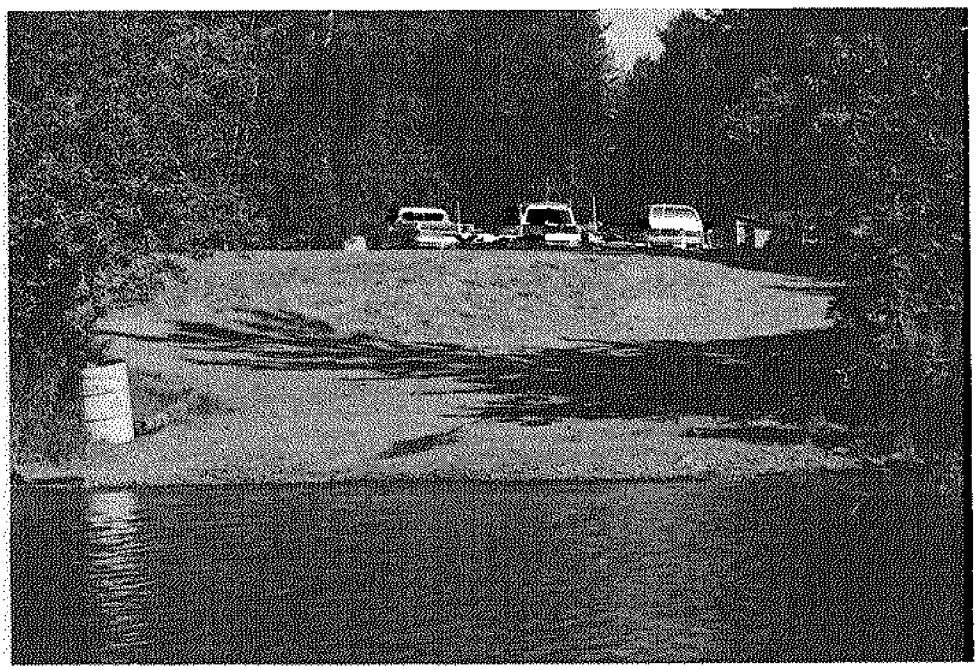


Figure 32 (b): Close-up view of the ramp at high tide.

Pekins Ferry Moorage (Lewis River) River Mile 87

Type of Access: Boat Ramp; Transient Moorage

Observations:

Pekins Ferry Moorage is a private boating access site. It is located at the end of Peking Ferry Road, about three miles up the Lewis River. Land access to the site is difficult. It is two miles west of I-5 exit 16 and four and one-half miles from the town of Ridgefield along back roads without any boating access markers. The site is well protected and has good deep water. The mouth of the Lewis has a 6 ft deep sand bar at mean-lower-low water, but is usually not a problem to navigate. This site offers tent and R/V camping, a boat ramp and permanent moorage. Open permanent slips are treated as transient spaces. Other amenities include drinking water, and trash cans. The camp fee is $7 per day. No other services or amenities are in the local vicinity. Groceries, lodging and supplies are available in Ridgefield.

The 20 ft. concrete ramp is patched in many places. It is still usable but appears to be heavily damaged. The launch fee is $4. The floating walkway to the docks could serve as a courtesy dock. Unoccupied slips are available to transient boaters. The docks are old and in need of upgrading. The moorage fee is $4 per day.

In speaking with the owner, investigators found that he likes the current use of the property. However, increasing taxes may force the owner to either sell or to construct residential housing on the site.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. It was not a site recommended by the general population of surveyed boaters.

Recommendations:

This site is on private property, precluding publicly-funded improvements. Although a launch facility and transient moorage would be useful to boaters, there are no services or amenities in the general vicinity. This limits its utility as a boating access facility.

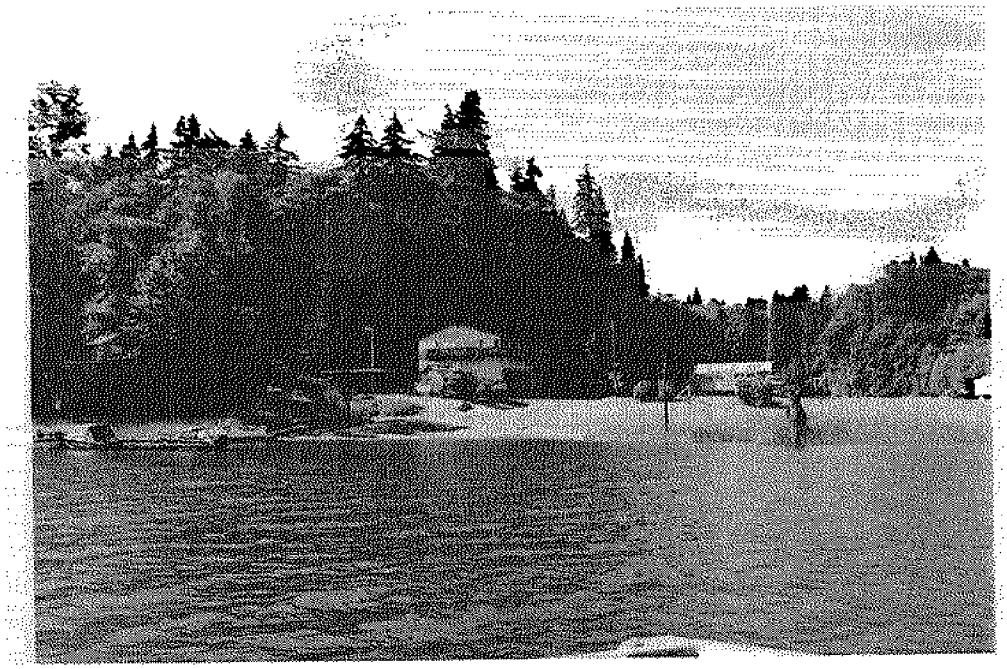


Figure 33 (a): Pekins Ferry Moorage is a private boating access and camping facility. Camping area is on the right

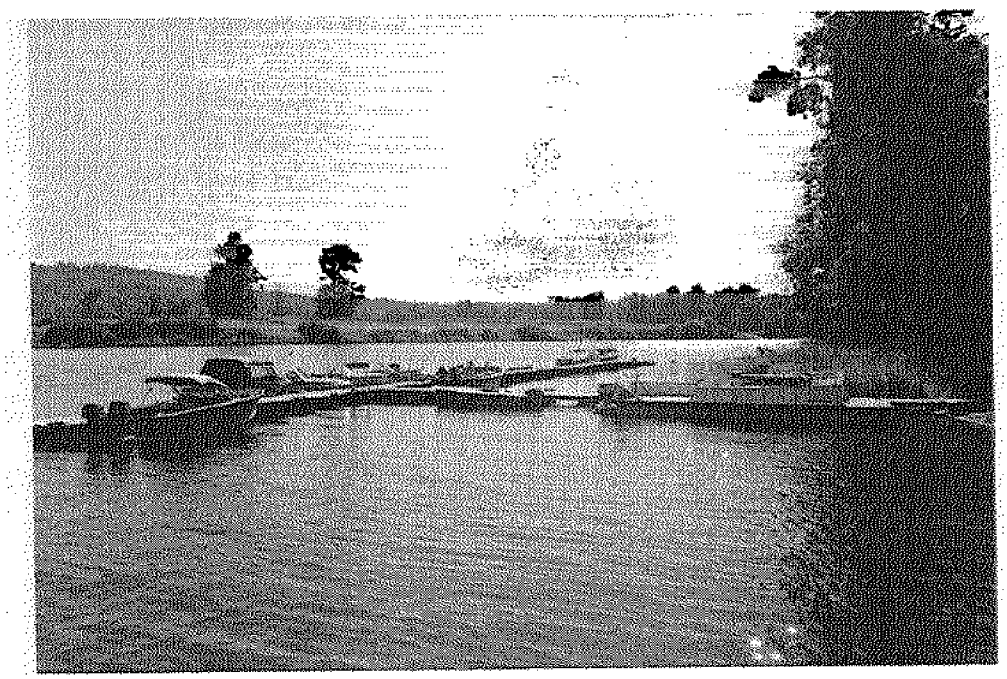


Figure 33 (b): Pekins Ferry Moorage. A small moorage facility on the Lewis River. There are no other boater services offered at this site.

Forks Ramp (Lewis River) River Mile 87

Type of Access: Boat Ramp

Observations:

The Washington Department of Fish and Wildlife maintains this standard fishing access point. It is three and one-half miles south of Woodland and about four miles up the Lewis River. The site has excellent natural protection and good deep water close to the shore. The mouth of the Lewis has a 6 ft. deep sand bar at mean-lower-low-water, but is usually not a problem to navigate. Access from land is inadequate. Its distance from Woodland and I-5 and the lack of boating access signage makes the site difficult for new users to find the site. This is a primitive site with a gravel parking and staging area and a vault toilet. No other services or amenities are available in the vicinity. Groceries, lodging, and other services are available in Woodland. No boaters were observed to use the ramp during site investigations.

The 12 ft. concrete plank ramp is in sound condition. Water depths at the bottom of the ramp are good throughout the tidal range, even for larger vessels. There is no launch fee. The gravel lot is unmarked, but if spaced properly, there is room for about 50 trailers.

There are no known improvements planned for this site.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. None of the general boaters surveyed recommended this site for improvement.

Recommendations:

This site would probably be used more often if it had boating access signage on I-5 and the access roads to the site. A courtesy dock parallel to the shore would be useful to both boaters and fishermen. This site might be amenable to primitive transient moorage and a camping facility.

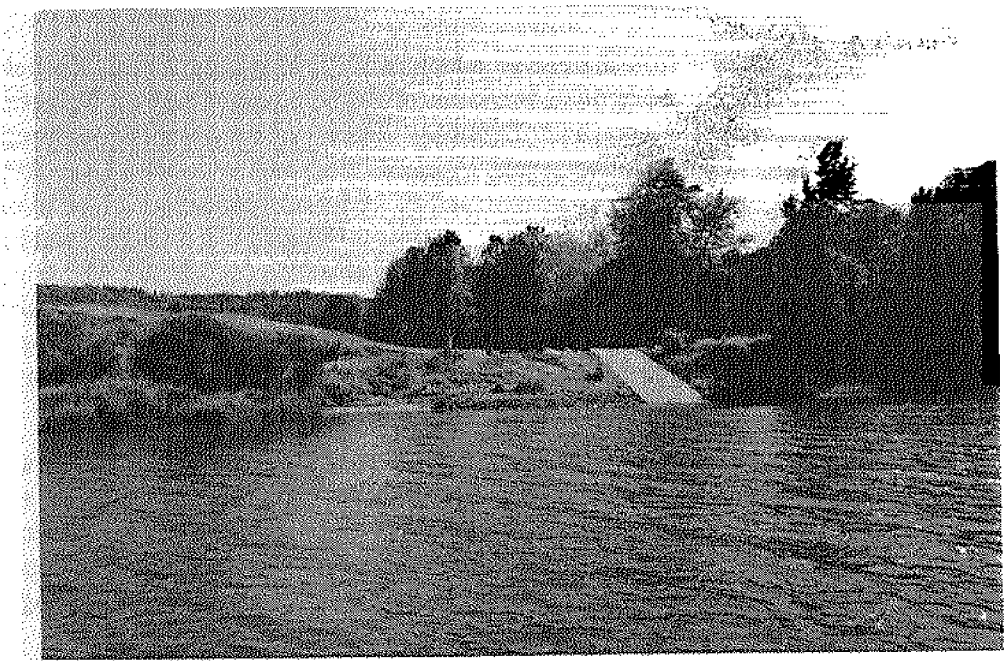


Figure 34 (a): Forks Ramp viewed from the Lewis River.

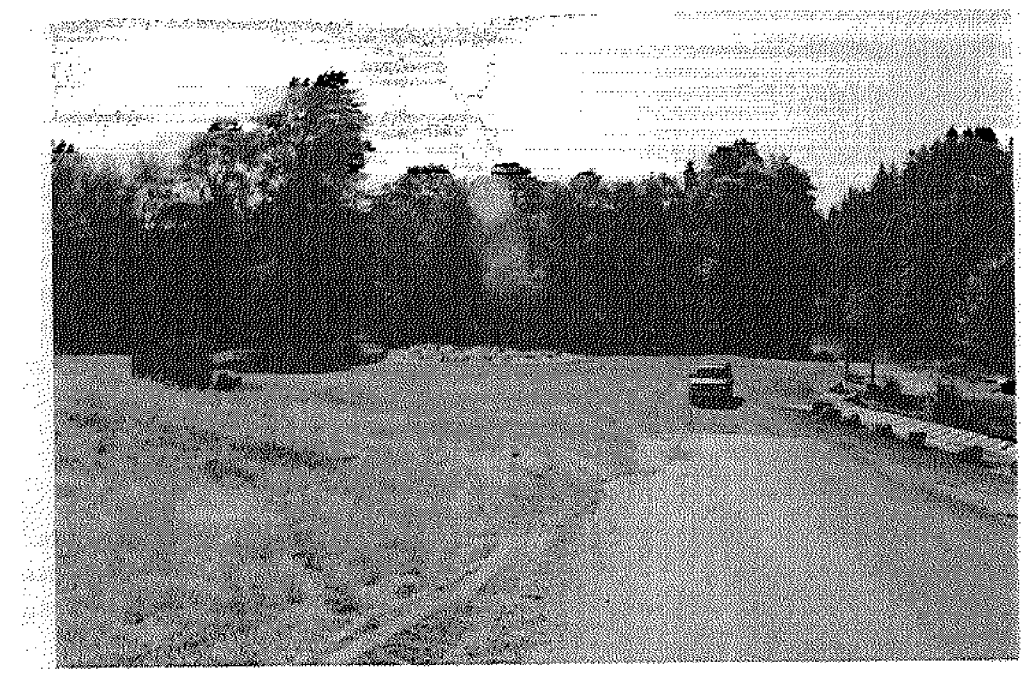


Figure 34 (b): A standard Washington Department of Fish and Wildlife public fishing wildlife access area with a ramp, gravel parking area, and a vault toilet.

Lake River Ramp — River Mile 90

Type of Access: Boat Ramp

Observations:

The City of Ridgefield maintains a popular launch facility along Lake River. Bachelor Island Slough and Lake River form the inland boundaries of Bachelor island and the Ridgefield National Wildlife Refuge, and give access to the Columbia. However, Bachelor Island Slough is shallow and is only navigable at higher water levels. A scenic three-mile trip down Lake River gives the best access to the Columbia River. At the Lake River mouth, boaters are close to the beaches along Bachelor and Sauvie Islands, the Lewis River, the Multnomah Channel, and Saint Helens. For transient boaters, groceries, lodging, and supplies are available in the town of Ridgefield, only four blocks away. The ramp is served by two parking areas, two permanent barrier-free restrooms, drinking water, and trash cans. Adjacent Ridgefield Marina has a fuel dock and convenience store, but the facility was closed and in bankruptcy at the time of the study.

There are two 16 ft. V-cut concrete ramps separated by a courtesy dock. Both are sound, but the courtesy dock has some cosmetic damage. There is a $2 launch fee. A power line spans the ramp preventing most sailboats from rigging their masts in the staging area. The two gravel parking areas are not well organized. There is room for up to 30 trailers and 30 cars if properly spaced, but vehicles frequently take up more space than necessary. A gangway and floating walkway leads to a 60 by 30 ft. dock that is used primarily as a picnic area and secondary courtesy dock, but it would also be suitable for transient moorage. The dock shows structural damage, but is still usable. The walkway to the dock has recently been repaired; however, it still shows some structural damage.

The Port of Ridgefield plan to continue its repairs of the walkway and floating dock. There are no other planned improvements for this site.

Boater Evaluation:

Thirty-one boaters evaluated Ridgefield and gave it an overall score of 3.3. The highest scores were for the restrooms (4.4) and the wind and wave protection (4.3). The lowest scores were for the courtesy dock (2.3) and trailer (2.8) and car (2.9) parking. The courtesy docks were in good condition, but 5 boaters indicated that they wanted the docks improved or lengthened. Parking is the biggest problem. The most recommended improvement was to pave and line the parking lot (14). Other recommendations were to add launch lanes (7) and to dredge a channel to the Columbia River (3). Among all the boaters surveyed, 13 recommended Ridgefield as a launch site to improve making it the second most requested site. It also received 8 recommendations to develop transient moorage, making it the third most requested site.

Recommendations:

This access point would benefit most from a better organized and regulated parking lot. If the port wanted to expand the facility and add launch lanes, additional parking would needed. It would also be helpful if a small convenience store was placed at the site. This would provide a desired amenity as well as facilitating better security at the site.

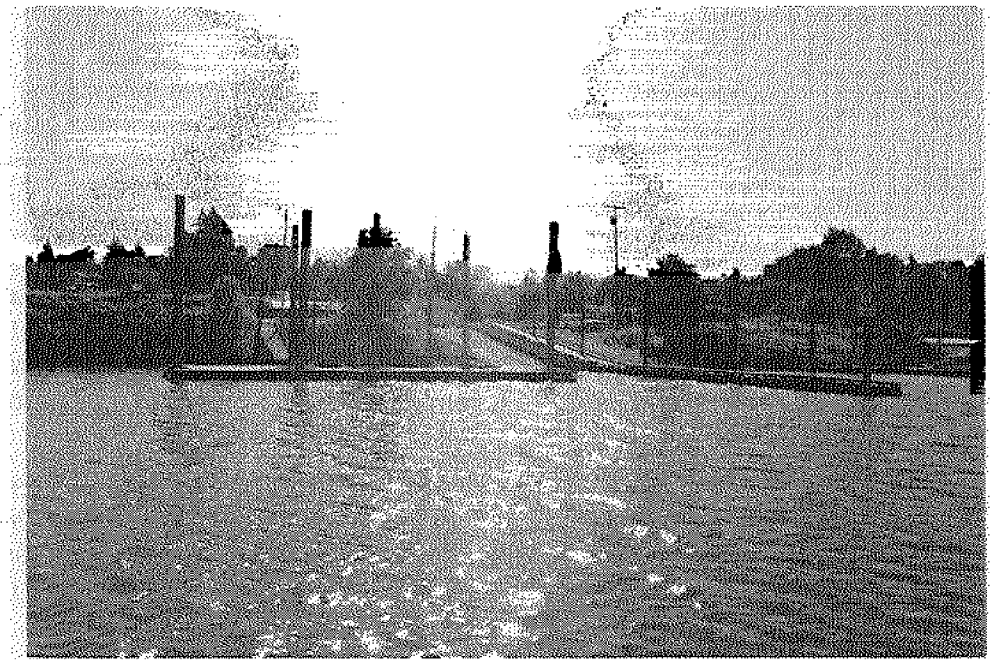


Figure 35 (a): Lake River Ramp viewed from Lake River. A floating dock with its own gangway is on the left.

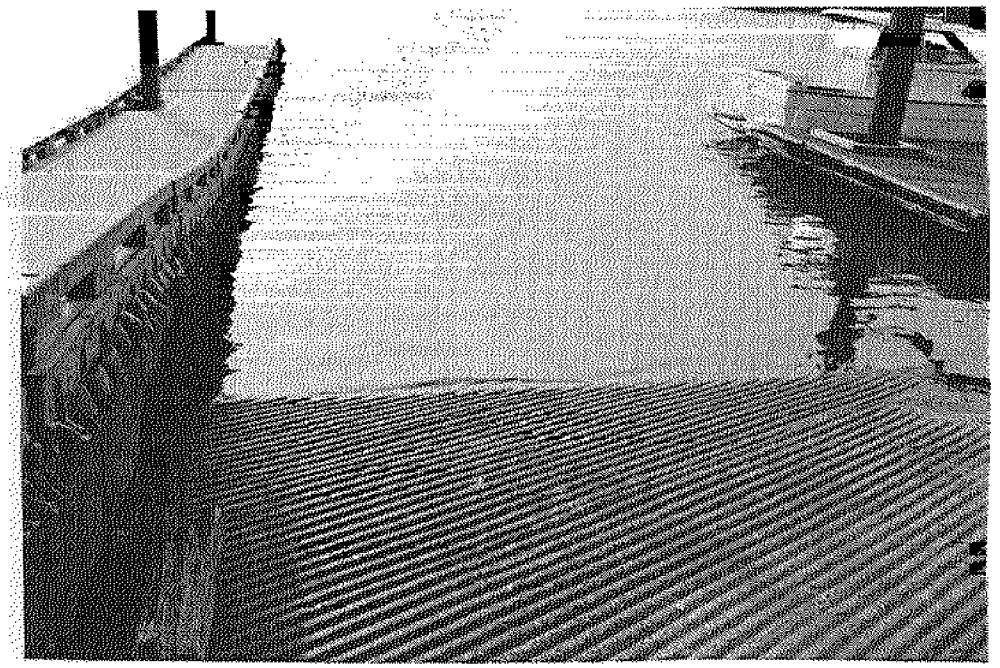


Figure 35 (b): A close-up of the ramp and courtesy dock. Both are in good condition. The dock on the right needs repair.

Caterpillar Ramp — River Mile 98

Type of Access: Boat Ramp

Observations:

This unmarked access point is located on NW Lower River Road at mile marker 8.7. It is a standard Washington Department of Fish and Wildlife fishing access site with a ramp, a gravel parking area, and a vault toilet. Caterpillar Island provides excellent natural protection from wind and wakes. Caterpillar Slough has 15+ ft. water depths, but relies on Army Corps of Engineers dredging (5 yr. cycle) to maintain the channel. Kadow's Caterpillar Marine is a private moorage facility one mile upstream, but has no public services. Caterpillar Island, Ridgefield National Wildlife Refuge, and the Multnomah channel are near by to provide recreational opportunities, but the site is distant from boating services and recreational amenities such as camping, groceries and lodging. The site's isolation also limits security and several boaters complained of burglary and vandalism. This site does not appear to be very popular. During the four site investigations, investigators saw at most six vehicles using the site.

The 12 ft. concrete plank ramp is in sound condition. Water depths at the bottom of the ramp are adequate throughout the tidal range, even for larger vessels. There is no launch fee. If spaced properly, there is room for about 30 trailers, but the site is not lined and drivers frequently take up more space than necessary. An overflow area, with room for about 15 vehicles, is available across the street.

There are no known improvements planned for this site.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. However, one boater chose this site as the one most desired to be improved. The lack of security at this site was the most common complaint expressed by boaters.

Recommendations:

A courtesy dock is needed. A dock parallel to the shore would give boaters a useful facility and fishermen a better point for bank fishing. A trash can is also needed. Local fishermen in other areas take responsibility for emptying trash cans. They might be willing to do the same here.

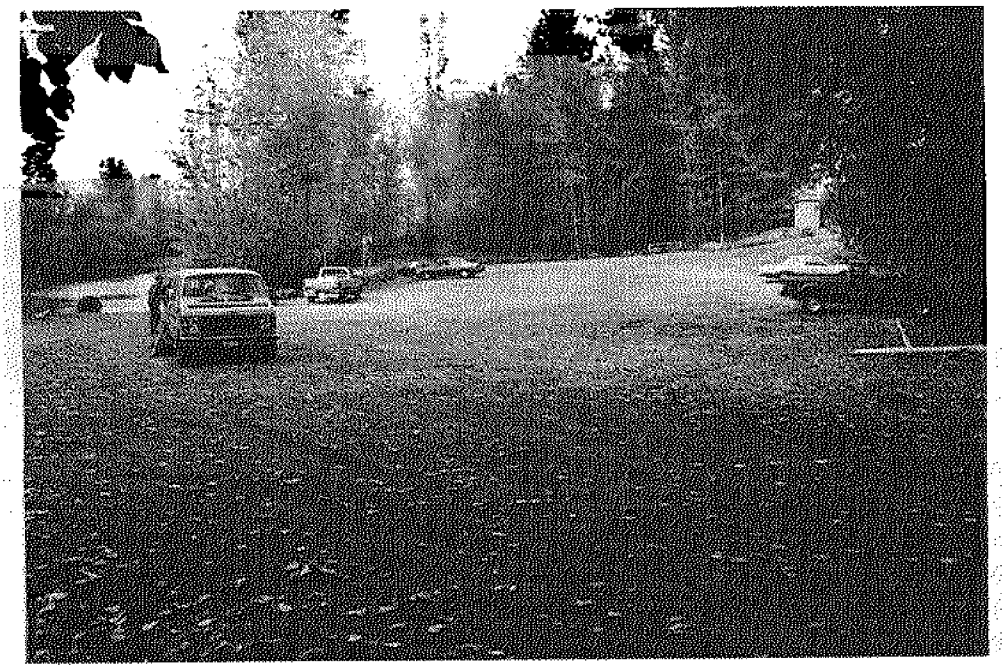


Figure 36 (a): The amenities offered at Caterpillar ramp are limited to a parking area and a vault toilet (right). A van preparing to use the launch ramp.

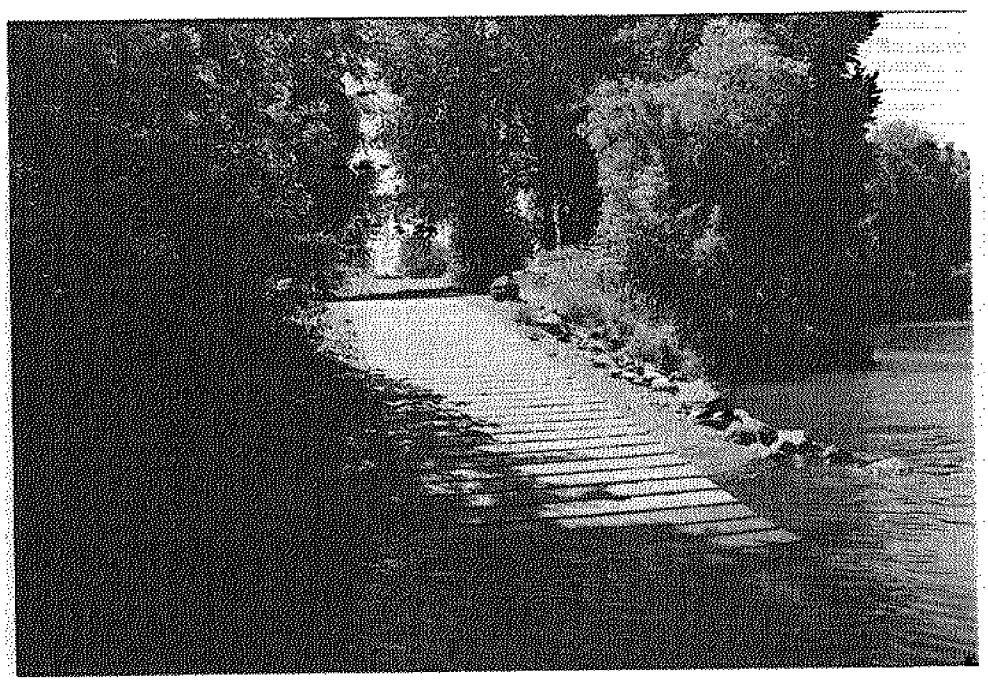


Figure 36 (b): A close-up of the concrete plank ramp.

Woodland Bar — River Mile 85

Type of Access: Potential Boat Ramp and Transient Moorage

Observations:

The Port of Woodland owns a large portion the Columbia River Waterfront down river from the mouth of the Lewis River. Most of this land is undeveloped and appears to be unused, but portions are used for dairy cows. Abundant spent shotgun shells give the appearance that hunting is a common activity. The Woodland Bar area, between Columbia City and Saint Helens, is an old log storage area with rows of pilings every 200 yards. It is presently zoned heavy industrial. The Bar provides good wind and wake protection, and although there is some shoaling near the shore and some shallow areas, there are also areas with adequate water depths (8 ft. +) for recreation boating. Some boaters have used this site as a primitive launch site. A long dike (Dike Road) protects the low lying farm lands adjacent to Woodland Bar, but it generally leaves less than 100 yards of useable land on the waterfront.

Recommendations:

Nine boaters selected either Woodland Bar or Woodland in general as a site to construct a boat ramp and three boaters recommended constructing a transient moorage facility. The Mouth of the Lewis River has a small private boat ramp and there is a Washington Fish and Wildlife boat ramp three miles up the Lewis. Since public access to the Columbia is limited and desired in this area, investigators propose constructing a two-land boat ramp with a courtesy dock and a transient dock. Moreover, since there is a shortage of moorage slips in the area, investigators recommend that the Port consider developing a full service marina at this site.

Figure 37: Photo not available

Bachelor Island — River Mile 88.8

Type of Access: Potential Transient Moorage

Observations:

This island forms a buffer between Ridgefield and the Columbia River. There is mixed ownership, but part of it is a National Wildlife Refuge and restricts access. There is no road access to the island. The mainland side of the island is well protected from winds and wakes. The shoreline is diked to help maintain a navigable channel and does not have any sandy beaches. The Columbia River side, however, has several excellent sandy beaches and several beach shanties were observed; indicating that the area is used for camping. Unfortunately, this side of the island has poor wind and wake protection. The Bachelor Island Shoal is furthest from the shipping channel, and while the area has mostly 3 ft. water depths, the southern portion of the shoal has 9 ft. depths and sandy beaches. Both ends of the island also have sandy beaches and deep water, but are closer to the shipping channel.

Recommendations:

Four boaters recommended developing transient moorage at Bachelor Island. Since it is already used as an unofficial camping and day use site, an official site should be developed to direct users away from sensitive and unsafe areas. The site with the best physical characteristics for a transient moorage facility with beach access is on the southern tip of Bachelor Island Shoal. This site had adequate water depth, and is about a half-mile from the shipping channel. Although it is a poorly protected site and the transient float would be impacted by ship wakes, the proposed transient dock would be the same distance from the shipping channel as Rainier Marina and should not pose an insurmountable problem.

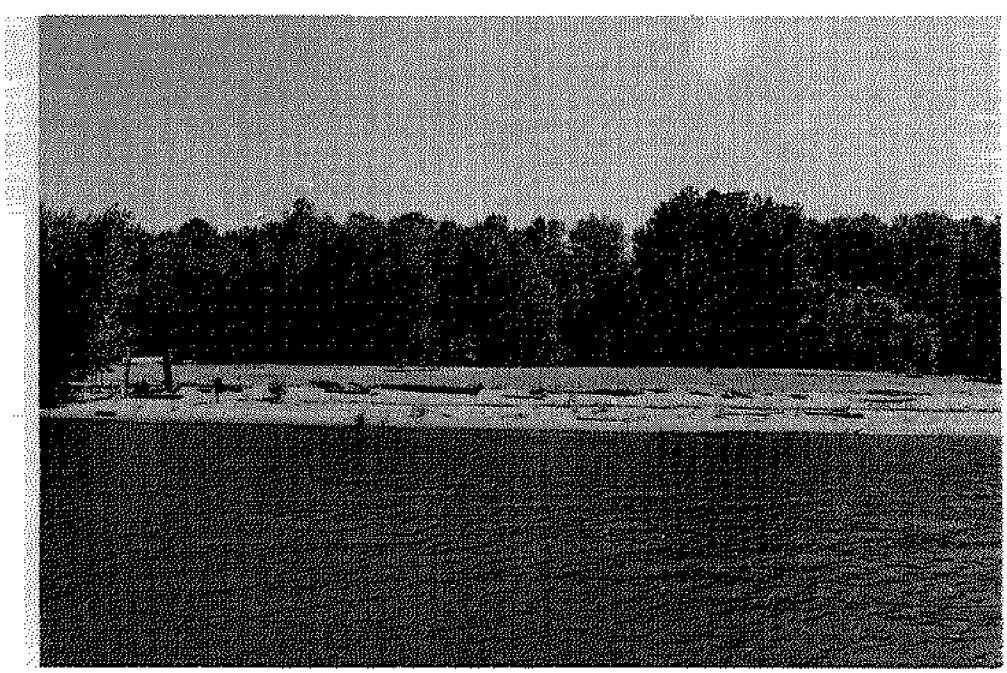


Figure 38: A typical sandy beach and scenic views on Bachelor Island.

Caterpillar Island River Mile 97.5

Type of Access: Transient Moorage

Observations:

Caterpillar Island forms a narrow slough and helps protect both a Washington Department of Fish and Wildlife boat ramp and a private marina. The island is approximately one-mile long and one-quarter mile wide, is nicely wooded with a variety of vegetation, and has an excellent sandy beach on the north end. During the investigator's boat trip, several boats were observed tied up to the beach indicating existing day use of the site and possibly camping as well. The side facing the Columbia River is exposed, but the mainland side of the island is well protected from winds and ship wakes. The slough is navigable, but tends to silt up. The two entrances to the slough are dredged approximately every five years.

Recommendations:

Caterpillar Island appears to serve as a good primitive boater only day-use and camping site. To improve access, investigators recommend constructing a transient moorage float on the northeast side of the island with a gangway for beach access. A composting or vault toilet would be a useful and desirable amenity. Trash cans would be helpful, but would entail periodic pick-up. An alternative is to let the boaters self-police the area. Informative signage on the proper way to dispose of trash and human waste would not be as effective, but would reduce maintenance cost. This site was not recommended by boaters.

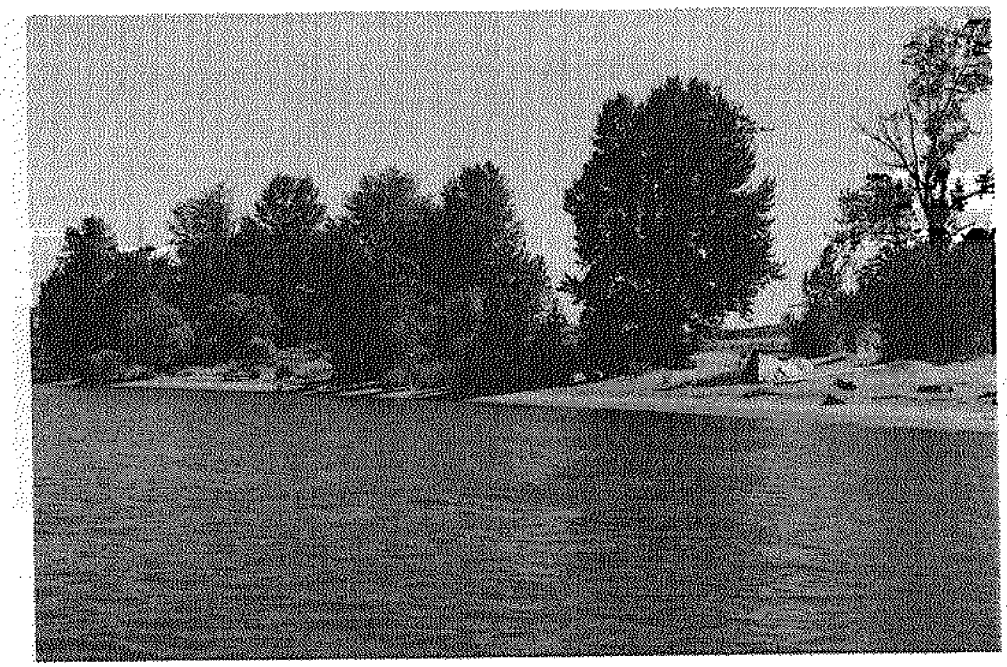


Figure 39: North end of Caterpillar Island from Caterpillar Slough. There is existing recreational usage on this island. The shanty is an example of a temporary wind-break and camping structure.

Morgans Landing River Mile 98.5

Type of Access: Potential Boat Ramp

Observations:

Morgans Landing is a popular beach camping and fishing site that is on private property. The site is poorly protected from winds and ship wakes, but there some excellent beaches. The owner charges an entrance fee to use the site, and several semi-permanent structures and beach shanties were observed. There were no access or directional signs for this site and investigators were unable to locate it from the land. It was however, closely observed from the water. A washed out and abandoned road end was observed to the south. A right-of-way still exists indicating the potential for a boating access site. The water depth is adequate and shows no signs of shoaling.

Recommendations:

One boater recommended developing a boat ramp at Morgans Landing. It was not recommended for transient moorage. This site merits further investigation, however, it is not recommended very highly because there is an existing public boat ramp at river mile 98. Although most of the area is private property, the road end is public and could be expanded to the water to form a boat ramp. If additional property could be purchased to allow for sufficient parking, this would make a convenient boating access facility. It would have to be protected from winds and ship wakes. However, if additional property is not available, the road end should still be expanded and converted to a public access viewing platform. The surrounding area is private property and would not necessarily be available for camping or day use, therefore; a transient dock is not recommended.

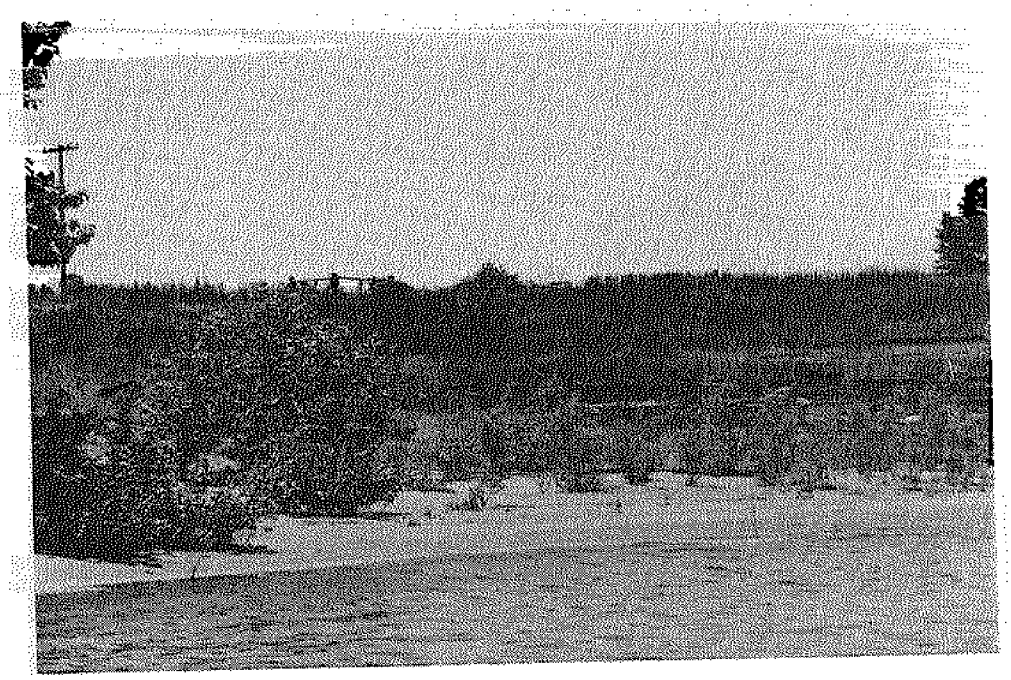


Figure 40: The beach at Morgans Landing. The old road end is located behind the fence (left side of photo).

Frenchmans Bar River Mile 99

Type of Access: Potential Transient Moorage

Observations:

Frenchmans Bar is a primitive public day use area run by Clark County Department of Parks and Recreation. Beach access from the gravel parking lot involves a 300 yd. walk over a dike and through some scenic woodlands along a dirt trail. A portable toilet and a trash can are available in the parking lot. No other services or amenities are near-by. The shipping channel hugs the Oregon shore at this point giving Frenchmans Bar a quarter mile buffer; however, this site is still affected by ship wakes and winds. There are excellent sandy beaches in this area suitable for picnics, swimming, or for giving hand launched craft access to the water. The upland wooded area is level and has several hiking trails.

Recommendations:

Four boaters recommended Frenchmans Bar as a site to develop a transient moorage facility. Eight boaters recommended it as a site to develop a boat ramp. Since a boat ramp is available one-mile away (Caterpillar Ramp), investigators do not recommend this site for a boat ramp. However, since it is scenic and isolated from urban areas, it would make a good primitive transient moorage facility with beach access, investigators do recommend constructing a transient moorage facility. Transient boaters would be exposed to winds and ship wakes, but no more that that experienced at Rainier Marina. Clark County Department of Parks and Recreation could increase the utility of this park by developing part of the upland area for camping and adding a restroom, a few more trash cans, and posting interpretive signage of the local flora and fauna along the trails.

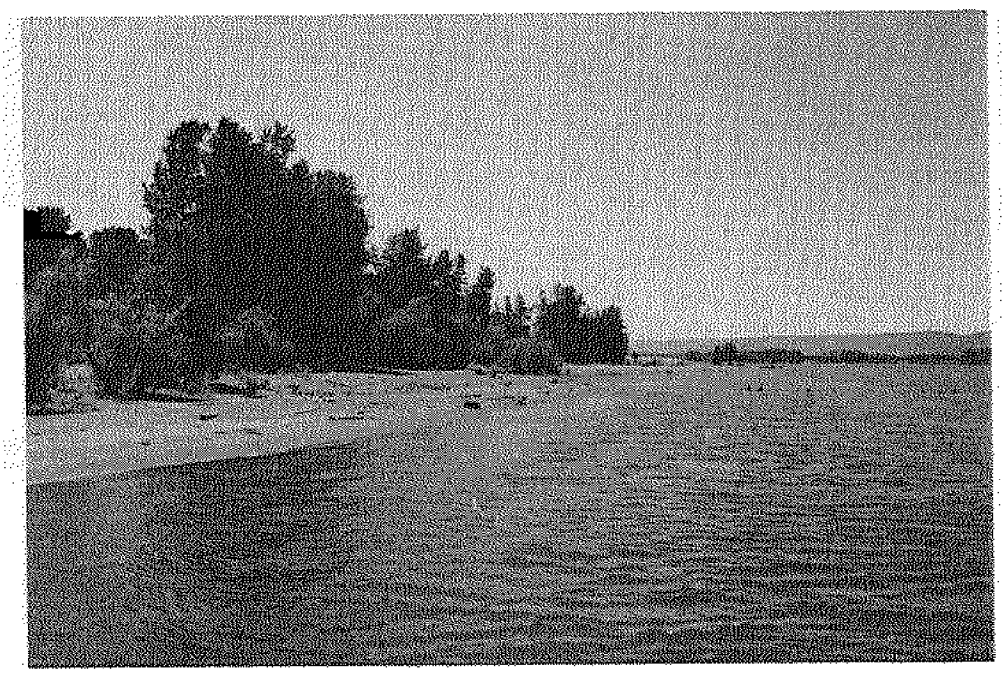
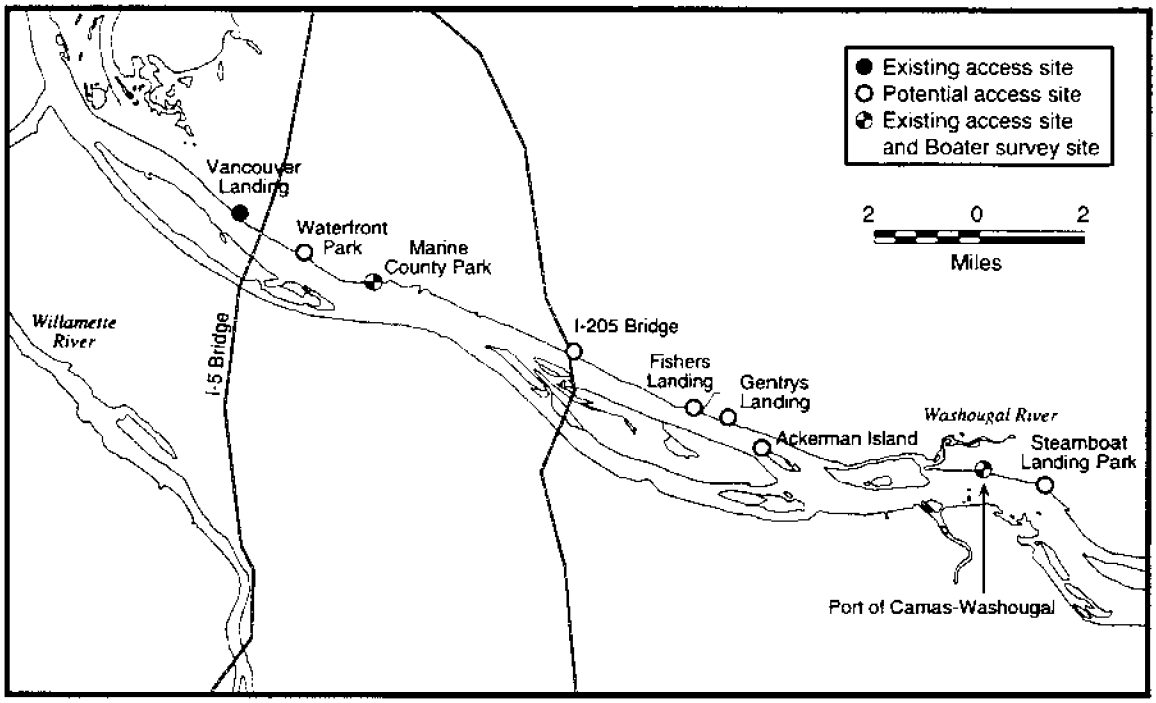


Figure 41: Good water, pleasant beaches, and scenic views at Frenchmans Bar.

RIVER REACH FIVE RIVER MILE 102 TO 123

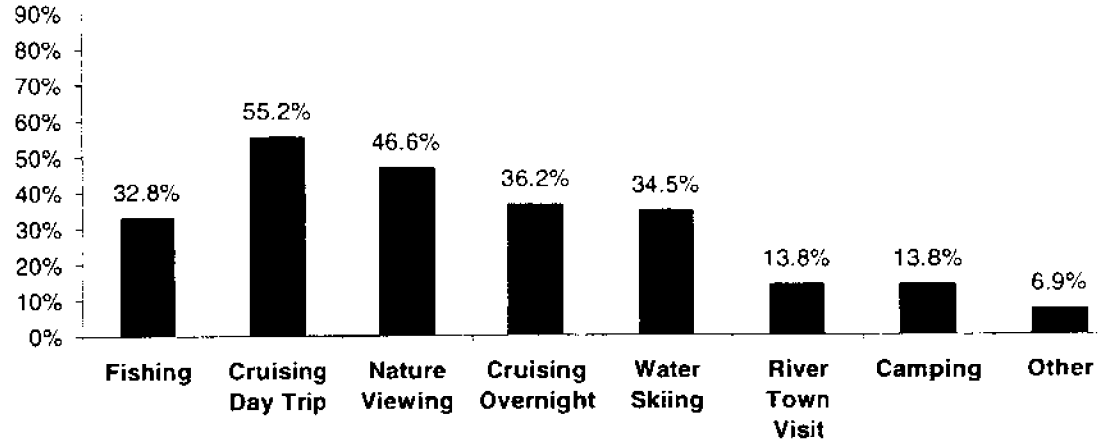


This reach lies between Kelly Point and Cottonwood Point. It is commonly referred to as the Metro Area because it incorporates the area around Portland and Vancouver, the two largest communities on the Columbia River. There are several long narrow islands on this reach, the largest of which, Hayden and Government Islands, are on the Oregon side of the river. Hayden Island has a navigable channel, but Government Island has many shallow areas in its back channel. This reach has the most developed shoreline in the study area. Uses include industrial ports, public and private marinas, residential zones, and parks. Several large and small islands exist providing numerous recreational opportunities. Tidal range has a minimal influence in this reach. The range at Washougal is 0.9 ft.

The Washington shore is exposed throughout most of this reach. There are many sandy beaches used by boaters during warm weather. Lady Island is the largest on the Washington side of the river and protects the Camas shoreline from the ship wakes and wind. There is a deep channel along the middle of the island, but it shallows rapidly near each end, limiting its use to boaters. There are few public boating access sites for the metro-population. The only site to offer boating services in Washington is the Port of Camas-Washougal–the last available fuel source for boaters before Hood River, fifty miles away. There are several boating access sites, including transient moorage docks, available in Oregon.

Most of the waterfront is in private ownership which limits the potential to provide public boating access sites. Moreover, a substantial portion of the waterfront is already developed for commercial or residential uses. For example, Burlington Northern maintains railroad tracks that are close to the water-front. Potential areas are also impacted by the shipping channel and would need to be protect the site from boat wakes. Zoning regulations have also limited the potential for developing boating access sites.

Percent of Boaters Participating in Recreational Activities: River Reach Five



River Reach Five Activity Notes:

Boaters in this reach selected an average of 2.4 activities each. In this reach, popular activities such as day cruising and water skiing create potential conflicts with other popular activities such as fishing and nature viewing. Fishing has declined in importance, but overnight cruising has greatly increased, probably due to the transient moorage facilities in Oregon. There were 58 people surveyed in this reach.

River Reach Facilities on the Washington Side Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Transient Moorage: Dock Length	Parking: Auto	Parking: Trailer	Average Boater Evaluation
106	VANCOUVER LANDING	0	0		120	0	0	n/a
107	WATERFRONT PARK			Potential Boat Ramp		60	0	n/a
108	VANCOUVER MARINE PARK	5	0	0	0	50	45	3.6
112.5	I-205 BRIDGE	Potential Boat Ramp: Boater Recommended						n/a
115.5	FISHERS LANDING	Potential Boat Ramp: Boater Recommended						n/a
116	GENTRYS LANDING	closed	0	closed	closed			n/a
117	ACKERMAN ISLAND	Potential Transient Moorage						n/a
121.5	PORT OF CAMAS-WASHOUGAL	4	3	open slips	1000	80	108	3.7
123	STEAMBOAT LANDING PARK	Potential Transient Moorage						n/a

Vancouver Landing — River Mile 106

Type of Access: Transient Moorage

Observations:

The City of Vancouver manages this transient dock as part of their overall Columbia River Resource Project. The dock gives boaters direct access to the Red Lion Inn, and is within walking distance from a convenience store, a farmers market (open Saturdays between April-October), and from the beginning of downtown Vancouver. The Vancouver community transit system offers a free zone so it is easy for transient boaters could tie up and visit the downtown area. Vancouver Landing is also the start of Vancouver's walking promenade, a 2 1/2 mile trail that gives visual access to the Columbia River, several historical landmarks and scenic areas such as Apple Tree Park and Waterfront Park, and the business district. Vancouver Landing is adjacent to the upper turning basin and is close to the shipping channel, and is exposed to winds and ship wakes. A self-serve pump-out facility is not available at this site, however, the port provides a fee-based pump-out service for cruise ships and other commercial vessels. This service is available for recreational vessels as well, but they must call ahead first.

The 120 ft. transient dock was built in 1994 and is in excellent condition. It is well maintained and very clean. Visitors can tie up for up to 72 hours. There is no charge to use the transient dock. The gangway to the dock has barrier free improvements, but is fairly steep. The large courtyard above the transient dock gives good visual access to the Columbia River and is the site for several community events such as the chili cook-off. During large events, promoters provide portable toilets. There are no permanent restroom facilities.

The city plans to provide maps and other information to aid visiting recreational boaters. It has also considered installing a pump-out facility, but there are no concrete plans to do so at this time.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. However, one boater recommended improving Vancouver Landing.

Recommendations:

Investigators support the city's plans to improve services and amenities to better attract transient boaters. A sanitary pump-out and an information booth with maps of the city, locations of the various historical landmarks and special attractions, as well as a "things to do" brochures should be installed as soon as possible. This would be useful to both transient boaters and the visitors using the walking promenade. A permanent restroom would also be a useful amenity

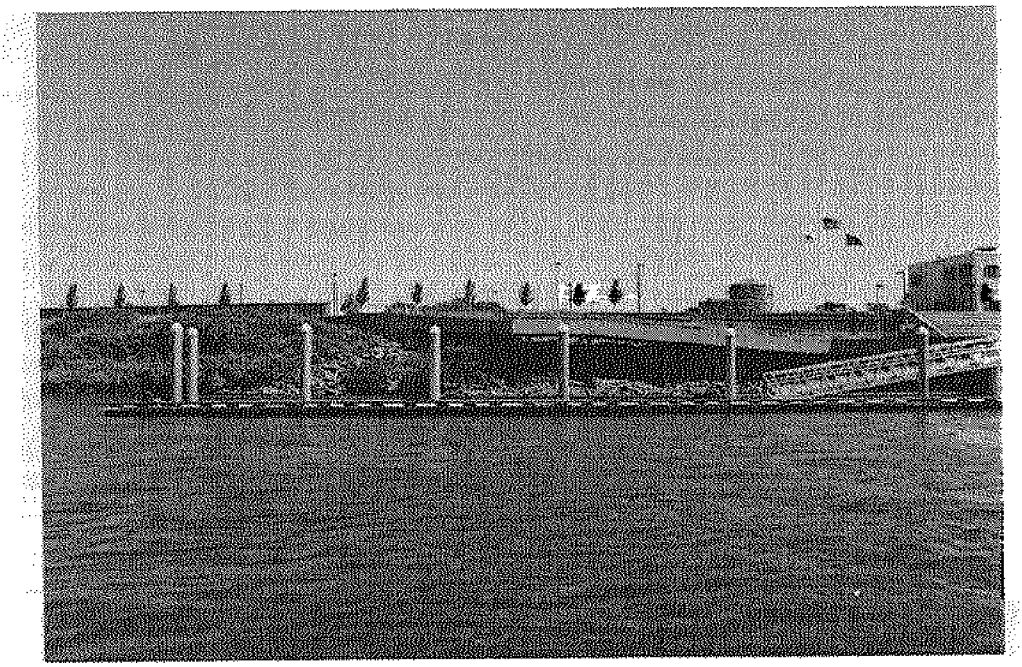


Figure 42 (a): Vancouver Landing-an example of a newer transient moorage facility. The dock gives access to many historical landmarks and downtown Vancouver.

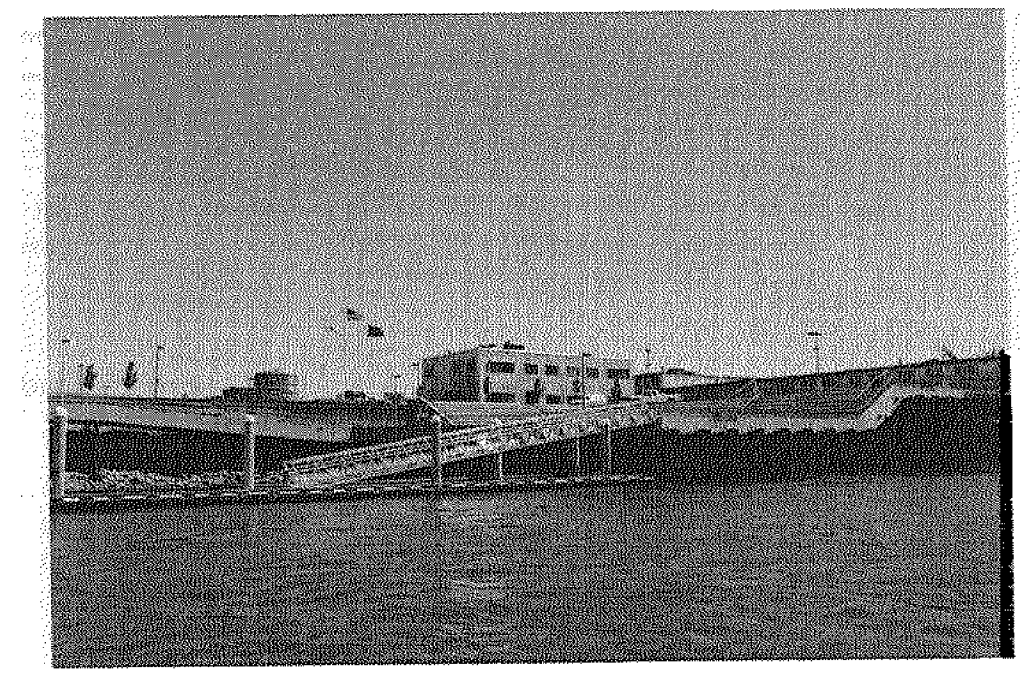


Figure 42 (b): Barrier free improvements at Vancouver Landing give wheelchair access to the open viewing area and the transient dock.

Marine Park — River Mile 108

Type of Access: Boat Ramp

Observations:

This large multi-use park, commonly referred to as Portco, is well-marked with boating access and directional signage and gives direct access to the Columbia River. It is also the only public boating access facility in the City of Vancouver and is, therefore, quite crowded. There are two courtesy docks that provide some protection from winds and wakes, but the site is exposed and conditions can get rough. Nonetheless, it is a popular site and provides a variety of recreational opportunities. In addition to the boat ramp, the park contains a beach area, a three-story viewing tower, World War II historical interpretation, trash cans, and a day-use picnic area. Barrier free restrooms and drinking water are also available. Parking is separated into trailered and non-trailered areas. These lots are paved and lined, but the markings have faded. There are some spaces reserved for the handicapped. A grassy overflow area is available for busy days.

The ramp is an 85 ft. horizontally grooved concrete ramp striped to demarc five 17 ft. lanes. The ramp has cosmetic damage. The lane markings are faded and the ramp has some cracks and pits, but it is still in good condition. Sand has built up at the bottom of the ramp making it difficult to launch and retrieve at lower water levels. Courtesy docks line both sides of the ramp and are in good condition. Parking is well organized, but it is insufficient for the demand. There is only room for 50 auto and 40-45 trailers. A $4.00 fee parking fee is charged to trailers enter the boating access area.

There are no planned improvements for this site.

Boater Evaluation:

Thirty two boaters evaluated Marine Park and gave it an average overall rating of 3.6. The highest scores were in access to the site (3.9) and personal safety (3.8). The lowest scores were in congestion (2.7) and trailer parking (2.7). Boaters had a number of recommendations for improvement. The most common were to dredge the bottom of the ramp (7), to increase parking (6), to separate personal water craft users from other boaters (4), to have better parking regulations and enforcement (3), to re-stripe the parking area, and to place rubber rubbing strips on the courtesy docks (2). Marine Park was also popular among all the boaters surveyed. With 12 recommendations, it was the third most requested launch site to improve. For transient moorage, Marine park was not specifically named, but 11 boaters selected Vancouver in general as a site they would most like to see transient moorage developed.

Recommendations:

Parking should be expanded significantly. Since this is the only launch facility inside the city limits, Vancouver should improve this site, or develop a new facility to satisfy unmet boating access demand. Marine Park needs to resolve use conflicts among the various boating communities. One possible solution would be to reserve a large space for personal water craft. This area could also be an economic benefit to the community if it were used to support personal water craft competitive events. A campground should developed at or adjacent to this site to provide users with a desired amenity.

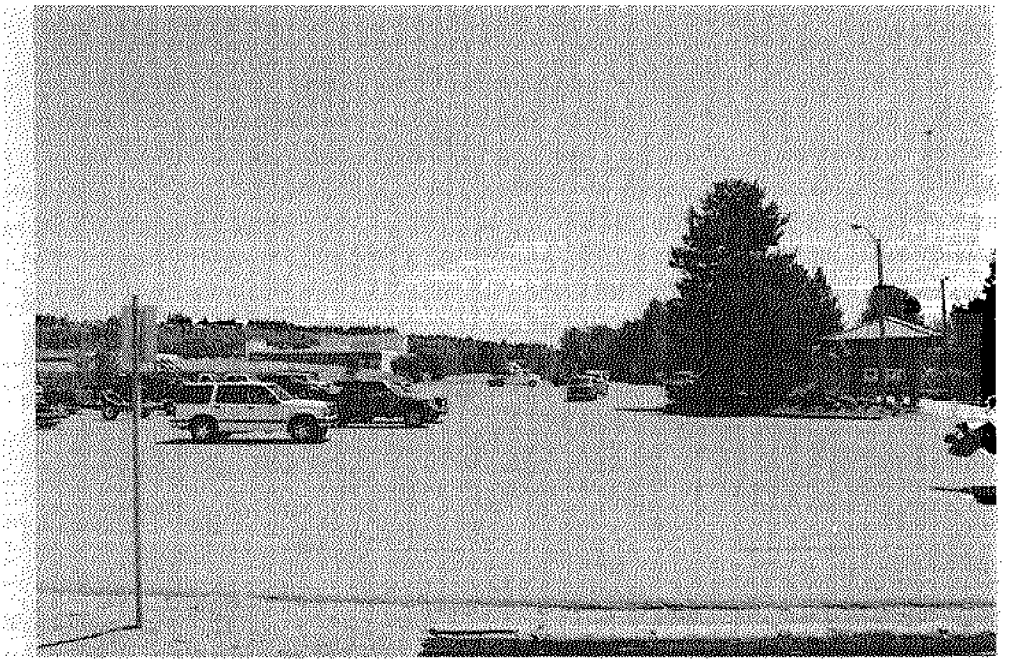


Figure 43 (a): The access road (center), staging area (right), and inadequate parking area (left) at Marine Park. The World War II interpretive display is on the distant right.

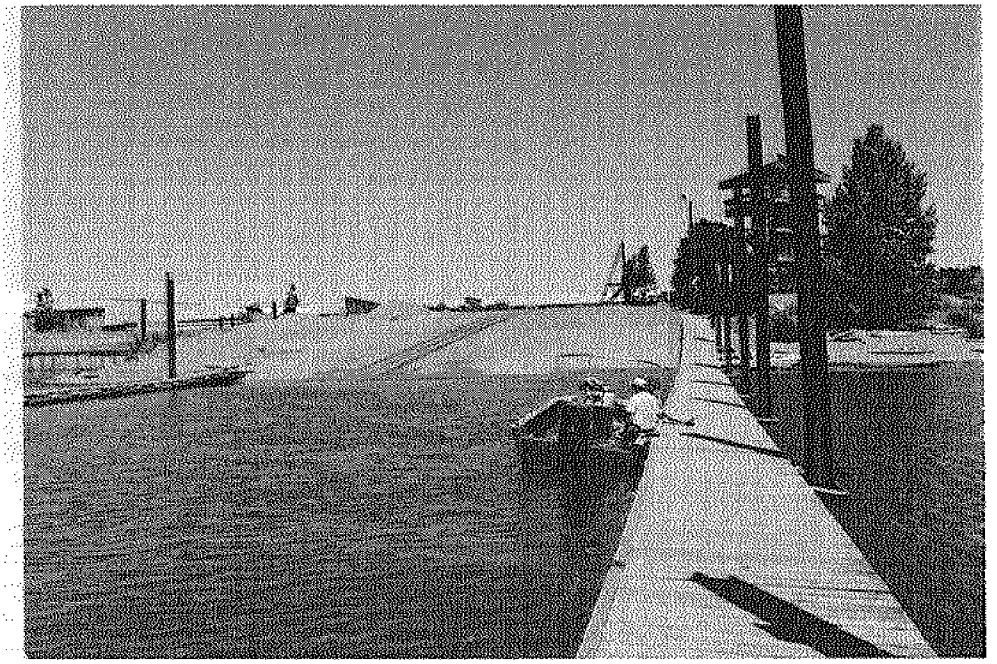


Figure 43 (b): Boating access at Marine Park. The launch ramp is in good condition, but has faded lane markers. The two courtesy docks are in good condition. The viewing platform is on the distant right.

Port of Camas-Washougal River Mile 121.6

Type of Access: Boat Ramp; Transient Moorage; Marina

Observations:

Good boating access signs inform and direct boaters to this site. The Port of Camas-Washougal is a large facility and has many on site amenities including restrooms, showers, drinking water, a convenience store, and trash cans. Lodging and supplies are available six blocks away in the town of Washougal. Boaters also have access to fuel (gasoline and non-commercial diesel), and both a dump and a pump-out station. The nearest boating access facility upstream with these amenities is 50 miles away at Hood River. The gangways and restrooms have barrier free improvements. This site is exposed, but a long dock in the front of the marina provides fair wave and wake protection. However, there is no protection from wind. There are two parking areas. A paved area by the marina office is for non-trailered vehicles. An unmarked grass and dirt lot, while not specifically designated, has spaces long enough to accommodate trailers.

The boat ramp is a 52 ft. wide asphalt and concrete ramp with courtesy docks on either side and one down the middle. It is striped to provide four 12 ft. launch lanes. There are large pits and cracks near the bottom of the ramp, but the courtesy docks are in good condition. There is a $3.00 launch fee. The transient dock forms the outer edge of the marina and provides the wake and wave protection. The dock needs additional maintenance, but is still in good condition. Boats tied to it, however, bear the brunt of the effects from waves and wakes. There is a $5 to $7 daily moorage fee. Unoccupied slips in the marina are also available to transient boaters.

There are no planned improvements for the marina area, but the port is trading some land with the Washington State Parks & Recreation Commission to provide it with about two miles of continuous waterfront acreage at and around Cottonwood Point, about three miles to the east, for the purpose of developing a day use park and overnight camping area.

Boater Evaluation:

Twenty five boaters evaluated this site and gave it an average overall rating of 3.7. The highest scores were for trailer parking (4.2) and maintenance and personal safety (3.9). The lowest scores were for the courtesy dock (2.9), congestion (3.0), and the fees (3.1). Common recommendations were to dredge the bottom of the ramp (5), to provide a person to inform and direct staging vehicles (4), to repair the docks (3), to repave parking and launch lane lines (2), to expand and enforce the no-wake zone (2), and to add more dock space (2). The general population of surveyed boaters were also interested in Camas/Washougal. With 10 recommendations, it tied in fourth place as a launch site boaters most wanted to see improve. Four boaters also chose this site as the transient moorage facility they would like to see improved.

Recommendations:

One problem not mentioned by the boaters is the location of the fuel dock. It is in a congested area and creates risk to adjacent moorage slips due to river currents. Investigators recommend relocating the fuel dock to a safer location. Unless the port is willing to install a rubble mound breakwater to provide better wake and some wind protection, the only other recommendations investigators have is to act on the recommendations offered by the users.

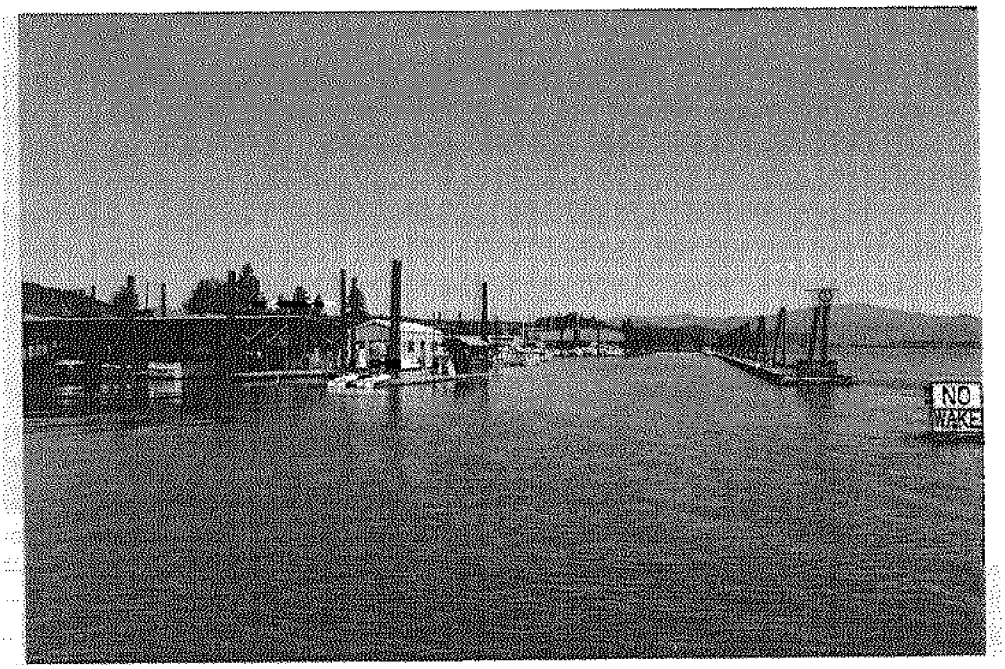


Figure 44 (a): A view of Parkers Landing from the water. The transient dock and breakwater is on the right, and the fuel dock is on the left. Boaters frequently ignore the No Wake rule.

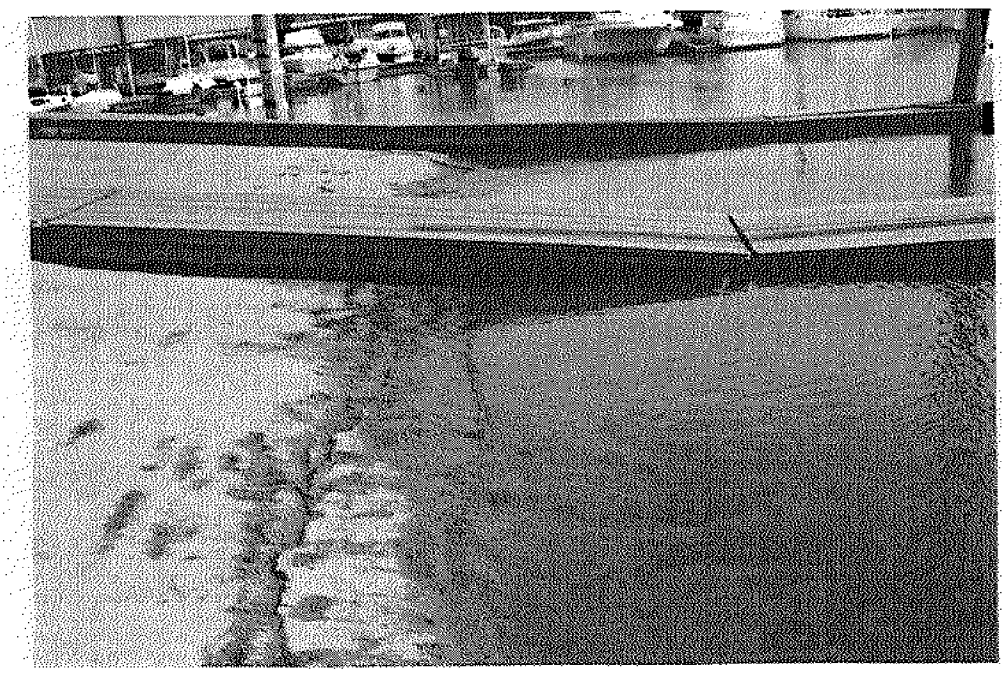


Figure 44 (b): The launch ramps and courtesy docks at Parkers Landing. The bottom of the ramp is in need of repair. The docks are in good condition, but lack tie-up structures.

Waterfront Park — River Mile 107

Type of Access: Potential Boat Ramp

Observations:

Waterfront Park is a grassy day-use area adjacent to Vancouver's waterfront trail. The 7 acre park has 60 parking spaces, several benches and trash cans, but no picnic tables. Lodging is 3 blocks away, groceries are 2 miles away, and two restaurants are on the north end of the park. At the south end is a beach and swimming area. There is also the concrete pad of an old two-lane boat ramp. In developing the park, designers blocked off the ramp. Vancouver Marine Park with five launch lanes is located one-mile upstream. At the northern side of the park, an old set of concrete steps descend to the water. The shipping channel is 100 yards away and there is no wind or wake protection.

Recommendations:

Although this site was not mentioned, eleven boaters wanted additional facilities in Vancouver. Because additional waterfront land is expensive to acquire, it is hard to justify blocking off an existing site. Vancouver Marine Park is only one-mile upstream, but it is heavily congested and experiences conflicts between user groups, e.g., between cruising boaters and personal watercraft (PWC) users. Since separating PWC from other launching vessels would alleviate some of these conflicts, investigators recommend reopening the old ramp but only for PWC and hand launched vessels. A transient moorage dock was considered at the north end, but is not recommended due to the close proximity of the shipping channel and Vancouver Landing.

Figure 45: Waterfront Park has a barrier free access trail to the beach. The remains of the old ramp are on the distant right.

I-205 Bridge

River Mile 112.5

Type of Access: Potential Boat Ramp

Observations:

This is a 3.5 acre waterfront parcel of land under the I-205 bridge was investigated for its potential to support a boat ramp. It is right-of-way under the I-205 bridge is owned by Washington Department of Transportation. This site is located in a residential area and there are low density residential developments on either side of the property. However, the large lots are wooded and the houses were not visible. Access to the site involves crossing railroad tracks. This land is undeveloped and has good access to the river. The water is deep and the bottom slopes fairly steeply toward the shipping channel which is only 100 yards away. The site offers little wind and ship wake protection and is has a strong current flowing past it.

Recommendations:

Eight boaters recommended constructing a boat ramp at this site. A boat ramp could be constructed at this site, but there would be several of problems: first, this site is only 100 yds. from the shipping channel; second, the current flows strongly past the site; third, local residents may object. Although these problems exist, Vancouver is in serious need of additional boat ramps. If constructed, this ramp would need wind, wake and current protection. For example, a breakwater could be constructed upstream of the site to deflect the river current around the nearest bridge support. Safety signs also should be displayed on the breakwater. In addition, the concerns of the local residents would need to be addressed.

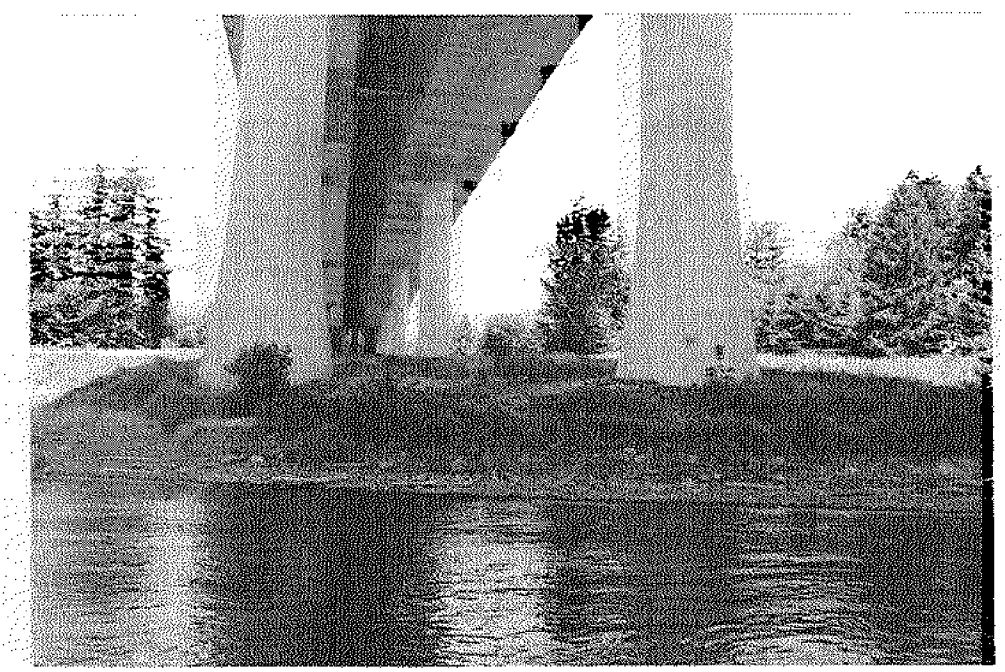


Figure 46: The open space under the I-205 bridge is recommended for boat ramp development. Public right-of-ways could be the answer to providing boating access in otherwise inaccessible areas.

Fishers Landing (SE 164th Ave.) River Mile 115.5

Type of Access: Potential Boat Ramp and Transient Moorage

Observations:

Fisher Landing is a small (approximately one acre) park owned and maintained by Clark County Department of Parks and Recreation. SE 164th Street continues almost to the waterline where it appears to end in the remains of a single lane asphalt launch ramp. However, this old ramp has become so deteriorated that it is no longer usable. The asphalt stops about a foot below the high water line. Beyond the remains of this asphalt ramp, there is a several inch drop-off along with large rocks, gravel, and pieces of asphalt that could create boating hazards. A 20 by 30 ft. section of old pilings lies just downstream side of this site. A gated residence borders the east side and a series of single family waterfront homes are being developed west of the site. The site has little wind and wake protection. The shoreline is hardened and there are no sandy beaches.

Recommendations:

Two boaters recommended constructing transient moorage and three recommended constructing a boat ramp at this site. Although this site is small, it would make a nice community park and boat ramp. Unless additional land can be purchased (e.g. the adjacent waterfront lot currently for sale), parking will be extremely limited. Users would have to park along both sides of 134th Street. Investigators recommend clearing out the remains of the old ramp and constructing a new single lane boat ramp (double lane if additional property is acquired), a courtesy dock, and an additional dock for fishing and public viewing. There are no services, amenities or recreational opportunities near-by, so it is not known why boaters wanted a transient moorage facility.

Figure 47: The remains of an old asphalt boat ramp and dock at Fishers Landing at a low water level. The ramp drop-off and large rocks prevent current boating access.

Gentrys Landing — River Mile 116

Type of Access: Potential Boat Ramp, Transient Moorage, and Marina

Observations:

Gentrys Landing was once a profitable private marina which was open to the public. Amenities included a fuel dock, ice and water, and a boat ramp. According to the former owner, Tom Gentry, the marina was sold in 1976, and a combination of competition and poor management pushed the marina into bankruptcy. The property was recently purchased by a new corporation desiring to restore the marina, but environmental problems such as old fuel tanks and regulatory issues and other costs made the project prohibitively expensive. Today, the marina is rotting and the boat ramp is used to store automobiles. To further complicate restoration efforts, the property is now zoned for single family homes. The site is exposed to winds and ship wakes and is only 150 yards away from the shipping channel.

Recommendations:

Vancouver does not have a marina and few public boating access facilities with access to the Columbia River. Because of such a lack of facilities extreme measures may be warranted to preserve this ramp and moorage facility. The Port of Vancouver, the City of Vancouver, Clark County, or any combination of the three should acquire and rezone the property, and restore the marina. But acquiring the site is only half the problem. Federal and state regulatory agencies would also have to help by reducing permit and compliance costs. Investigators recommend bringing all interested and affected parties together to see if an agreement can be reached that would allow the restoration of this boating facility.

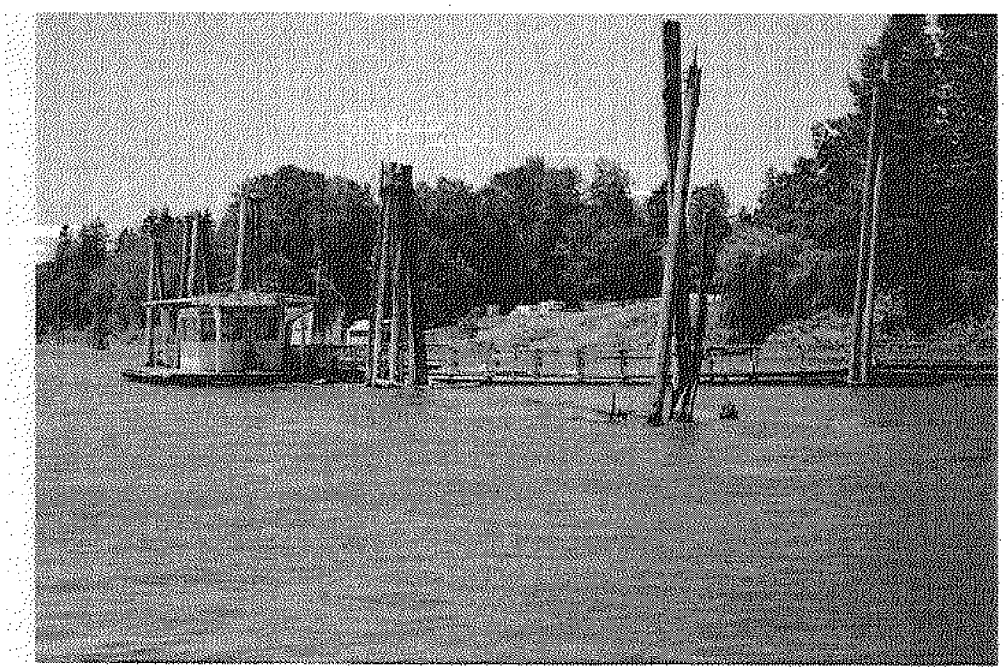


Figure 48: Gentrys Landing contains the remains of an old boating access and moorage facility.

Ackerman Island River Mile 117

Type of Access: Potential Transient Moorage

Observations:

Ackerman Island is a small wooded island between Government and Lady Island. The western edge of the island has a pleasant sandy beach. During the boat trip, several boaters were observed using the beach as a day use recreational area and possibly as a camping area. Some shoaling occurs out past the downstream tip of the island, but the water is deeper along both its sides. The southern side is exposed to winds and ship wakes. The northern side of the island is well protected from ship wakes, but wind could still be a factor. The channel between Ackerman Island and the Washington shore has some shoaling, but with caution, is still navigable. The water depths along a series of dolphins on the north side of the island were 8 ft.

Recommendations:

Although this site was not recommended by boaters, investigators recommend installing a transient moorage float with a gangway to the beach landward of and between the western most dolphins on the north side of the island. In addition, buoys should be placed to mark the areas of shoaling. A primitive camping facility should be developed on the island. Trash cans would be helpful, but would entail periodic pick-up. An alternative is to let the boaters self-police the area. Informative signage on the proper way to dispose of trash and human waste would not be as effective, but would reduce maintenance cost. A vault or composting toilet facility would also be useful. Additional boater services are available at Parkers Landing, only four miles away.

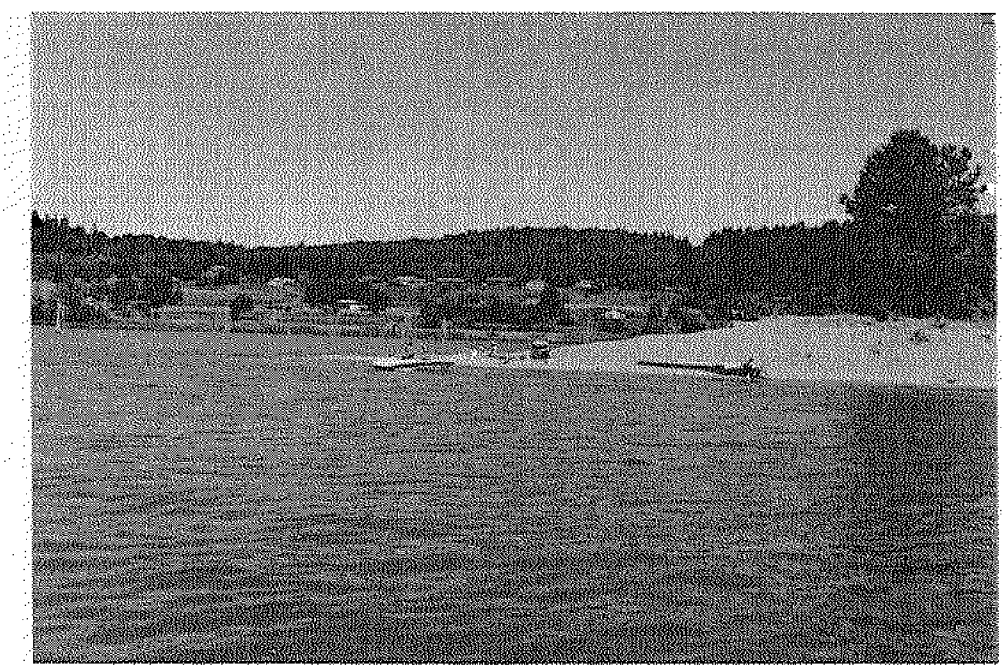


Figure 49: Existing recreational activity on Ackerman Island. The dolphins in the distance mark the area of deep calm water proposed for a transient moorage dock.

Steamboat Landing Park — River Mile 123

Type of Access: Potential Transient Moorage

Observations:

This scenic waterfront park, which should not be confused with the private Steamboat Landing marina, is a Washington Department of Natural Resources Aquatic Lands Enhancement Act (ALEA) site that provides viewing and fishing access from a 400 ft. dock. The gangways and a 30 foot high viewing platform with display boards for wildlife interpretation have barrier free improvements. There is a portable toilet at the site, but it is only maintained during high use periods. The dock is U-shaped with approximately 100 ft. sides and a 200 ft. dock parallel to the shore that has excellent water depths. There is, however, poor wind and wake protection. The site is maintained by the City of Washougal.

Recommendations:

This site was not recommended by boaters; however, investigators recommend installing a transient dock attached to the main section of the existing public access dock. This would give boaters access to an excellent viewing platform. In addition, groceries, lodging and supplies are available one-half mile away in the town of Washougal. Fuel, a dump-station, and a pump out are available at Parkers Landing, 2 miles away. There would be potential conflict with fishermen. To reduce this potential, signage should be posted to distinguishing between the fishing and moorage docks, and a no-wake zone should be enforced.

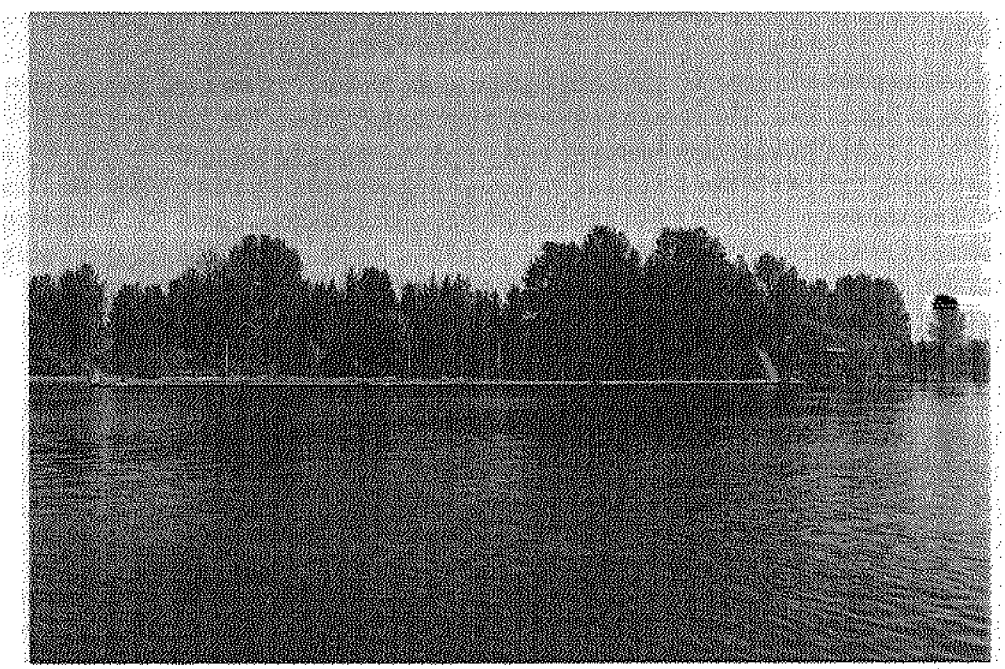
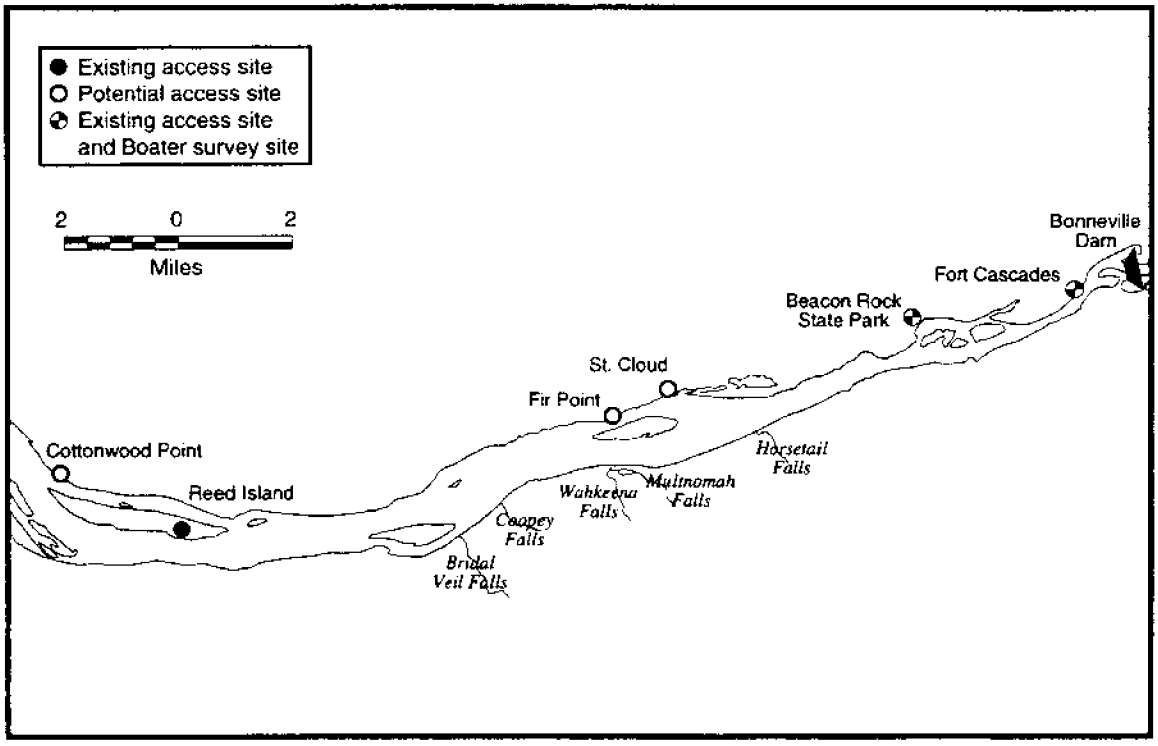


Figure 50: Public access at Steamboat landing Park includes a viewing platform (right) and a fishing dock (center). The dock could be extended to provide an area for transient moorage.

RIVER REACH SIX RIVER MILE 123 TO 145

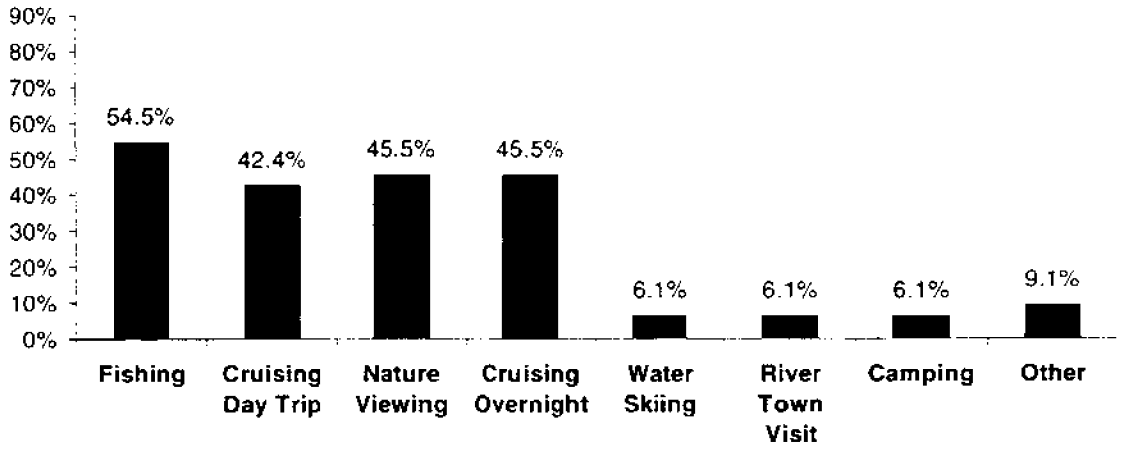


Reach Six encompasses the lower portion of the Columbia Gorge and presents many stark contrasts to Reach Five. The dominant feature is the vertical basalt cliffs on either shore. The river also begins to narrow, although there are some increases in width around the few islands in this reach. In the last five-miles, the river is less than a half-mile wide and in several locations, is less than one quarter-mile wide. This restricted channel causes the river current to become quite rapid. The steep topography creates two other effects: first, the walls create venturi effect and the increased wind velocities can make cruising in this area sometimes dangerous; second, the cliffs provide the area with many scenic waterfalls. Although the official tidal range, taken at Warrendale, was 0.6 ft, water levels are more affected by spill rates over the Bonneville Dam.

Except when protected by islands, the shores are affected by vessel wakes from commercial shipping. The islands provide boaters with some recreational opportunities on this reach, but only Skamania and Pierce islands have adequate navigable channels on the back side. There are only limited boater services available on this reach: transient moorage and a dump station. There are no pump-out or fuel facilities.

The steep shorelines, private ownership and development of the waterfront, and the Burlington Northern railroad tracks that tend to hug the shoreline, all combine to limit physical access to the river. With limited access from the land, there are few opportunities to develop additional boating access facilities. There are few local communities to serve boaters on this reach and few opportunities to expand services.

Percent of Boaters Participating in Recreational Activities: River Reach Six



River Reach Six Activity Notes

The boater activities fit well with the types of services and amenities available in this reach. The water is generally too rough for water skiing, and few river towns and camping areas are available. Fishing has greatly increased probably due to the numerous sand bard in the area. This reach offers some excellent views of waterfalls and other features such as Beacon Rock. This probably accounts for the high rates of nature viewing and day cruising. There were 33 people surveyed in this reach.

River Reach Facilities on the Washington Side Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Dock Length	Parking: Auto	Trailer	Average Boater Evaluation
124.5	COTTONWOOD POINT				Potential TM	25		n/a
125	REED ISLAND	0	0	0	0	0	0	n/a
135.1	FIR POINT			Potential Ramp and TM				
136.4	ST. CLOUD			Potential Ramp and TM: Boater Recommended		20		
141.5	BEACON ROCK	2	0	0	350	15	20	3.0
144	FORT CASCADES	1	0	0	0	0	32	n/a

Reed Island — River Mile 125.5

Type of Access: Primitive Transient Moorage

Observations:

Washington State Parks owns and manages a campground on Reed Island. It is Washington's only campground accessible solely by boat on the Columbia. It was once a decent site, but increased water levels and flow from drawdowns have substantially eroded the leading edge of the island. Originally, there were five camp sites with picnic tables, several garbage cans, and a restroom. Today, all that remains is a single campsite and table. The rest have been washed away. However, boaters still visit the area and the single campsite was in use during the site investigation. Boaters would have difficulty mooring at the upstream end of the island. A large flat shallow shelf prevents boats from landing up on the beach. Safe, deep water for mooring or anchorage is available two hundred yards out from the beach. The middle of the island on the Columbia side has better water depths and boats were observed tied up on the beach. The downstream one-third of the island is a Great Blue Heron rookery. This is classified as sensitive habitat and should be avoided. Although there are no services here, near-by Port of Camas-Washougal provides boaters with needed services and amenities.

There is no official transient moorage facility at this site. Boats do, however, tie up directly to the beach.

Washington State Parks will still monitor and maintain the island, but has no "official plans" to improve the facility or to reduce erosion.

Boater Evaluation:

No surveys were handed out at this site, thus this site was not evaluated. Among all the boaters surveyed, it was not a very popular site. One boater recommended it for transient moorage development.

Recommendations:

Reed island will continue to erode unless it receives some protection. A series of training dikes should be placed to direct river flow into the main channel and around the back side of Reed Island. This would protect the island itself, and it would also protect the shallow shelf which was observed to be excellent fish habitat.

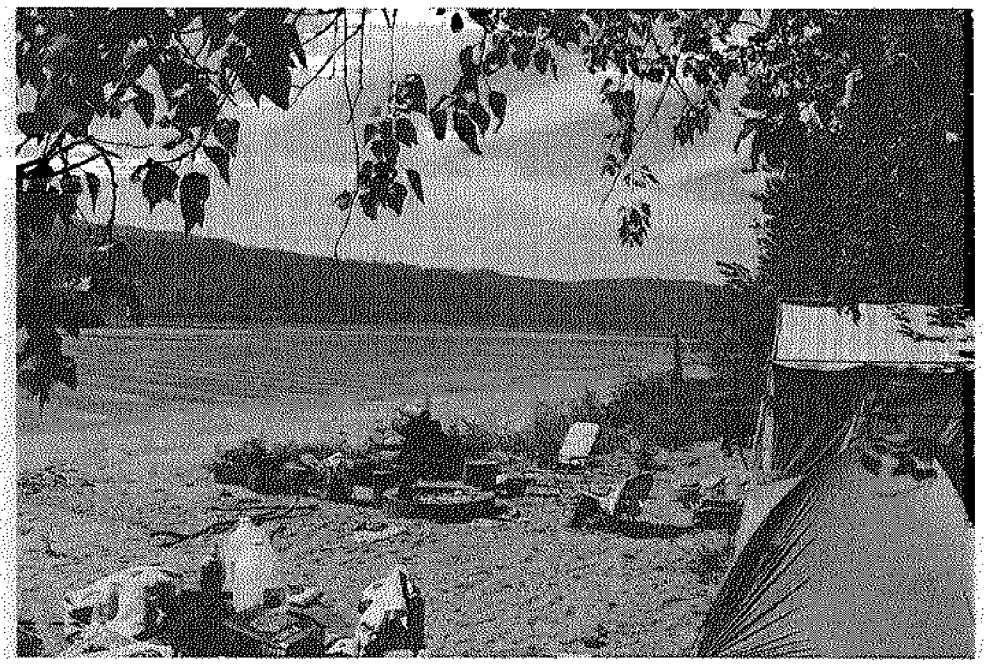


Figure 51 (a): A scenic view from Reed Island's only remaining campsite. All other campsites and the restroom have been washed away.

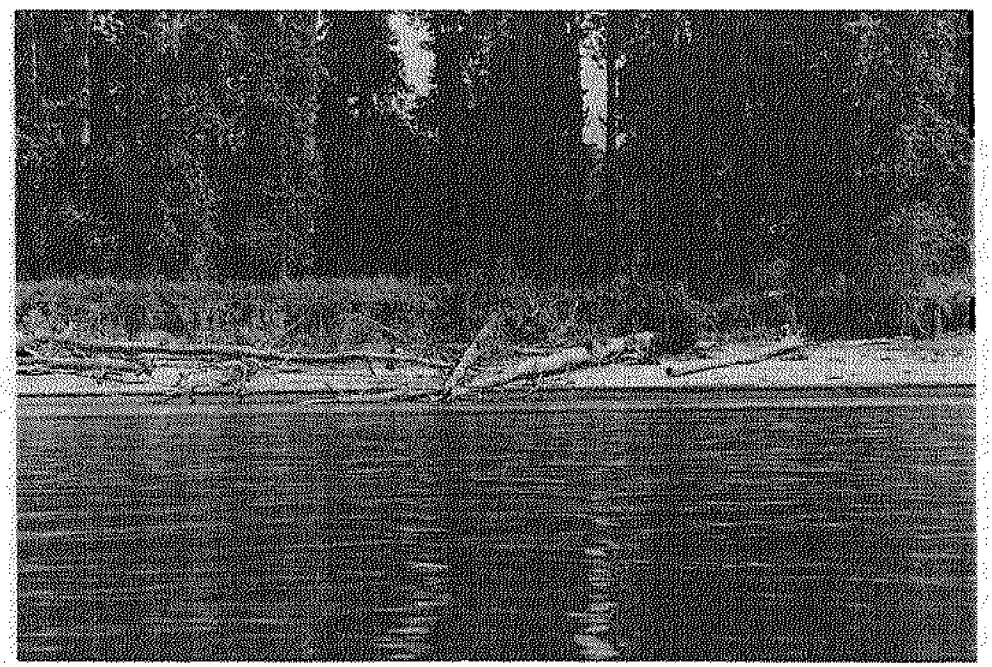


Figure 51 (b): Examples of erosion damage near the middle of Reed Island.

Beacon Rock — River Mile 141.5

Type of Access: Boat Ramp; Transient Moorage

Observations:

Beacon Rock is Washington's only dedicated transient moorage facility located outside a marina. It is managed by Washington State Parks and Recreation and offers scenic views, excellent wind and wake protection, and several types of boating services and amenities, including a launch ramp, a transient dock, a dump station, restrooms, trash cans, drinking water, and a camping and picnic area. A small grocery store is available a mile away. However, there are both land and water access problems with this site. The access road to the site also narrows to one lane and takes a sharp, blind turn under a railroad bridge. This limits both the length of trailer and height of the boat that can access the site, and creates a potentially dangerous traffic condition. The roadway and supporting embankment are also eroding in this area below the bridge. This area routinely washes out during winter storms. On the water side, a strong current flows around Pierce Island making it difficult for boat launch and retrieval.

The 28 ft. two-lane V-cut concrete ramp shows some structural damage and appears to be poorly sited. For example, the current has undercut the north side. The launch fee is $4.00 and there is a $5.00 per car/trailer overnight fee. There is an 80 ft. courtesy dock, and parking for 20 trailers on an uneven dirt and gravel lot. Some boaters have commented that the courtesy dock is on the wrong side of the ramp and that their boats can be damaged when the current sweeps them into the dock. The parking lot is located along the shoreline, taking up potential view areas. The L-shaped transient dock can hold 60 to 70 boats, rafted 3 deep. The moorage fee is $8 ($11 for boats over 26 ft.) per day. Both the courtesy dock and transient dock show some warping due to the strong current.

Washington State Parks plans to repair the access road. There are also plans to install a pump-out station, to replace the restroom, and to expand the supply of drinking water.

Boater Evaluation:

Twenty-four boaters evaluated Beacon Rock and gave it an overall scores (3.0). Boaters were most satisfied with the noise (3.8) and water depth (3.6). They were most dissatisfied with the trailer parking (1.9), fees (2), and the wind/wave [current] protection (2.5). Although congestion rated a 3.0, the most recommended improvement was to add more dock space (7) or mooring buoys (2). Other common recommendations were to improve the parking area (6), to install a jetty or other device to reduce the effects of the current (3), to lower or eliminate fees (3) [boaters were particularly angry at the fee structure because most Oregon sites are free], to improve the access road (3) and to add showers (3). With 18 recommendations as a transient moorage site to improve, Beacon Rock was the most popular site among all the boaters surveyed. With 10 recommendations, it tied for fourth place as the most desired launch site to improve.

Recommendations:

Transient moorage would be improved with additional dock space. The plans for a pump-out station would also be a welcomed improvement. At the campground and boat ramp, the plans to replace the restroom and improve the water supply are needed, but Beacon Rock also needs to have its parking area expanded and reorganized so that it leave the shoreline available for walking and viewing. In addition, the effects of the strong current need to be reduced and past damage repaired.

Figure 52 (a): Beacon Rock on Memorial Day weekend, 1995. The boat ramp and courtesy dock are below the transient dock.

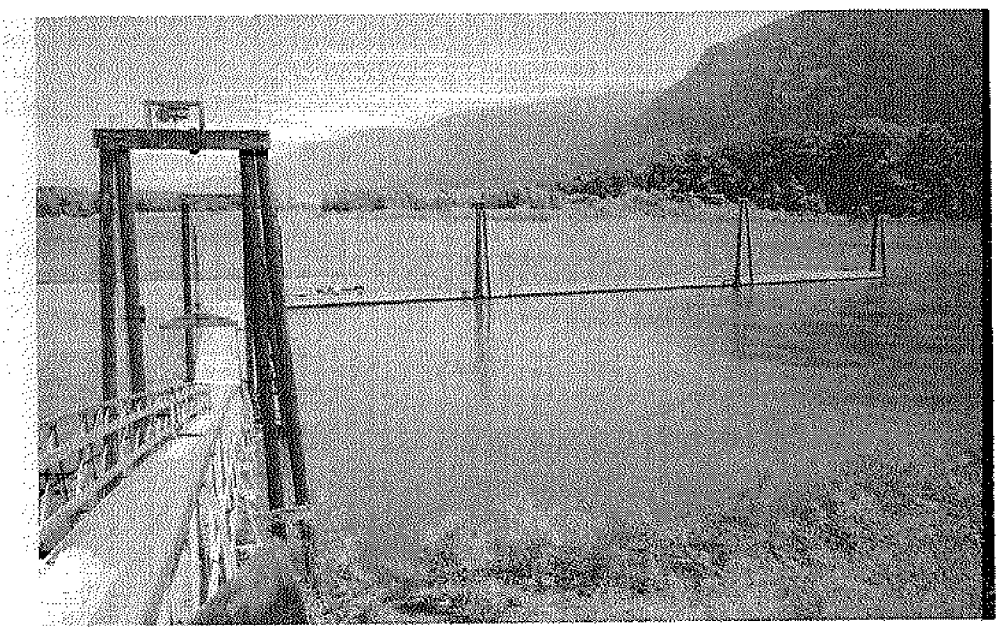


Figure 52 (b): The gangway to the Beacon Rock transient dock has barrier free improvements. The area is quite scenic.

Fort Cascades — River Mile 144

Type of Access: Boat Ramp

Observations:

Fort Cascades is a mixed-use recreation area off Hwy. 14 at Dam Access road (mile marker 38.7) operated by the Army Corps of Engineers. There are no boating access signs on Hwy. 14, but once inside the park, boaters are directed by good signage to the ramp a mile away. The access roads are narrow but paved. The launch area is well maintained and consists of a ramp and courtesy dock, a paved parking lot, a portable toilet, and trash cans. No other services are available in the park. The town of North Bonneville is 3 miles away by road. The ramp gives access to the Columbia River. Boats launch into a small, fairly calm cove with natural protection from the prevailing westerly winds, but the river becomes quite swift and deep 20 yards past the courtesy dock. These are extremely dangerous waters. Warning signs and boating safety rules are posted.

The 14 ft. concrete plank ramp is sound and has sufficient water depths at the bottom of the ramp for even large vessels. There is no launch fee. The courtesy dock is in sound condition, but over half of its length is grounded and unusable leaving only 33 ft. for mooring vessels. The parking lot is striped for 32 trailers and has 2 handicapped spaces. All spaces are trailer length. There are no spaces designated for autos. Maneuvering space is limited and damage to both vehicles and trailers is common.

There are no planned improvements for this site.

Boater Evaluation:

Two boaters evaluated Fort Cascades. This is not a significant enough number to compare with the other facilities; therefore, actual scores will not be given. The evaluation does, however, give an idea of the strength and weakness of this site. Boaters were most satisfied with the noise, water depth, car parking, and the courtesy dock. They were least satisfied with trailer parking and access to the site. The improvements recommended were to increase the size of the parking area (2), and to place rub rails on the dock to prevent scratches. Among all the boaters surveyed, this site did not rate very well. It received two recommendations as a launch site to improve. It was not recommended as a site to construct transient moorage.

Recommendations:

North Bonneville is only a mile away as the crow flies, but is 3 miles away by road. A more direct route to North Bonneville would make it easier to obtain groceries and supplies. Parking should be reorganized and increased.

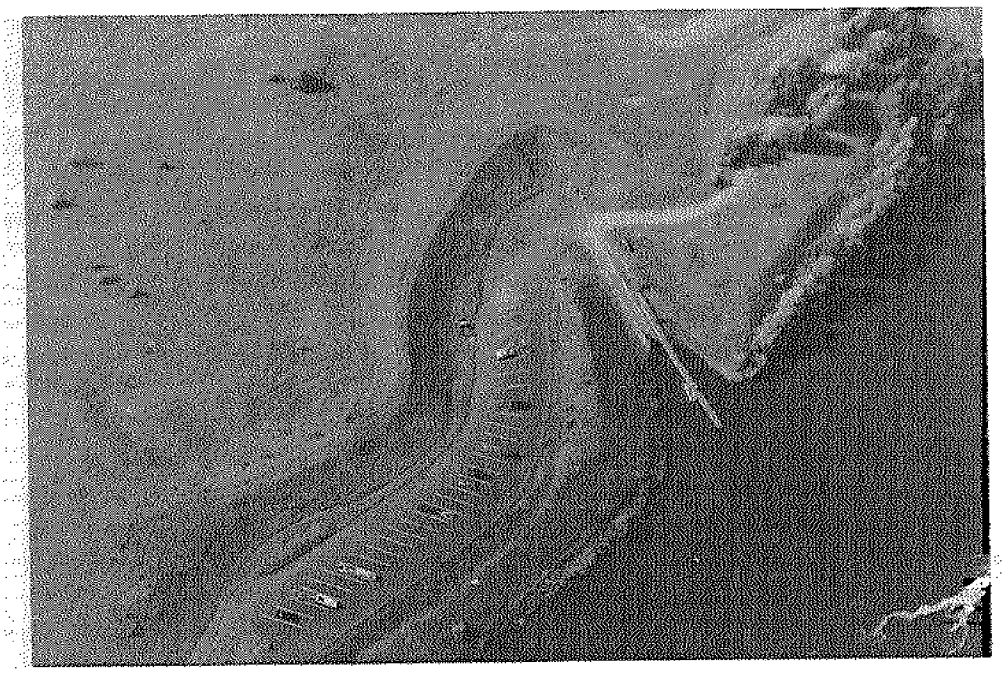


Figure 53 (a): Aerial view of the simple, but well maintained facility at Fort Cascades.

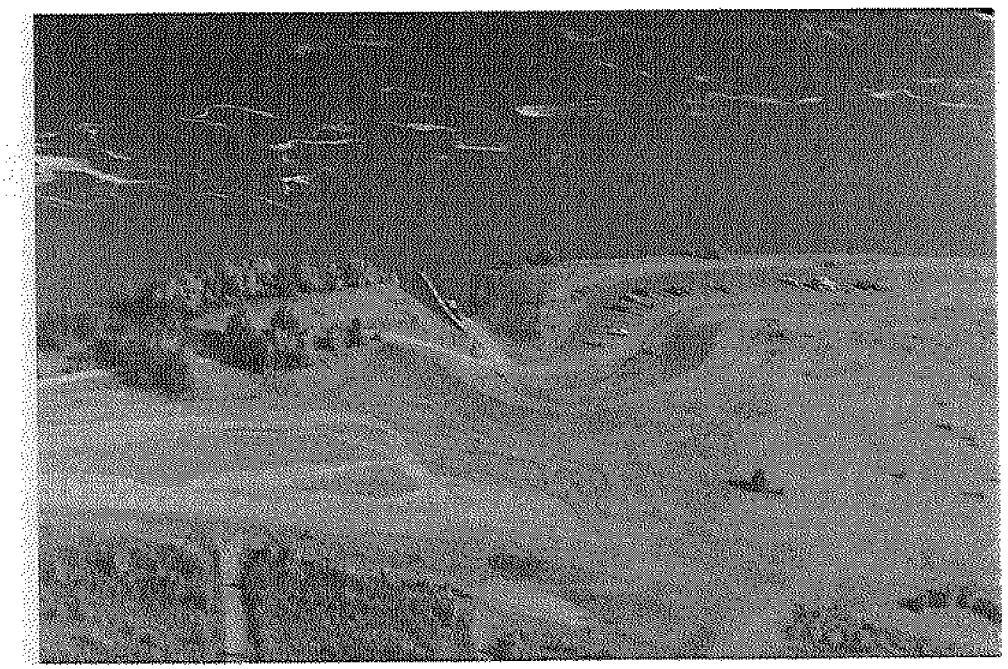


Figure 53 (b): Aerial view of Fort Cascades showing the boat ramp's proximity to strong, swift, and potentially dangerous river conditions.

Cottonwood Point River Mile 124.5

Type of Access: Boat Ramp

Observations:

At the time of the study, the area around Cottonwood Point was the focus of discussion concerning a land swap between the Port of Camas/Washougal and Washington State Department of Parks and Recreation. The land deal would exchange the port-owned 45 acre parcel of waterfront property for a state park-owned 40 acre parcel with industrial value. This land deal would give State Parks 3 miles of waterfront property comprising a combination of wetlands, woodlands, open grassy areas, and sandy beaches. State Parks would then plan to develop a day-use park and an area for overnight camping. The area is well protected from ship wakes, but a long western fetch creates some exposure to winds. There is some shoaling in certain areas off the shore. Access to the beach involves climbing steps over a dike and walking along a dirt path.

Recommendations:

The land-swap should be supported. In addition, investigators recommend installing a transient moorage dock with access to the day use beach and camping area. Investigators also recommend making some barrier free improvements to improve access to the beach. The shallow areas of shoaling should be either marked with navigation buoys or dredged. Opposite this site is Reed Island, where an additional transient dock was considered. The downstream third of the island has deep enough water for a transient moorage dock with island access, however, this is the location of a great blue heron rookery. Therefore,this development is not recommended.

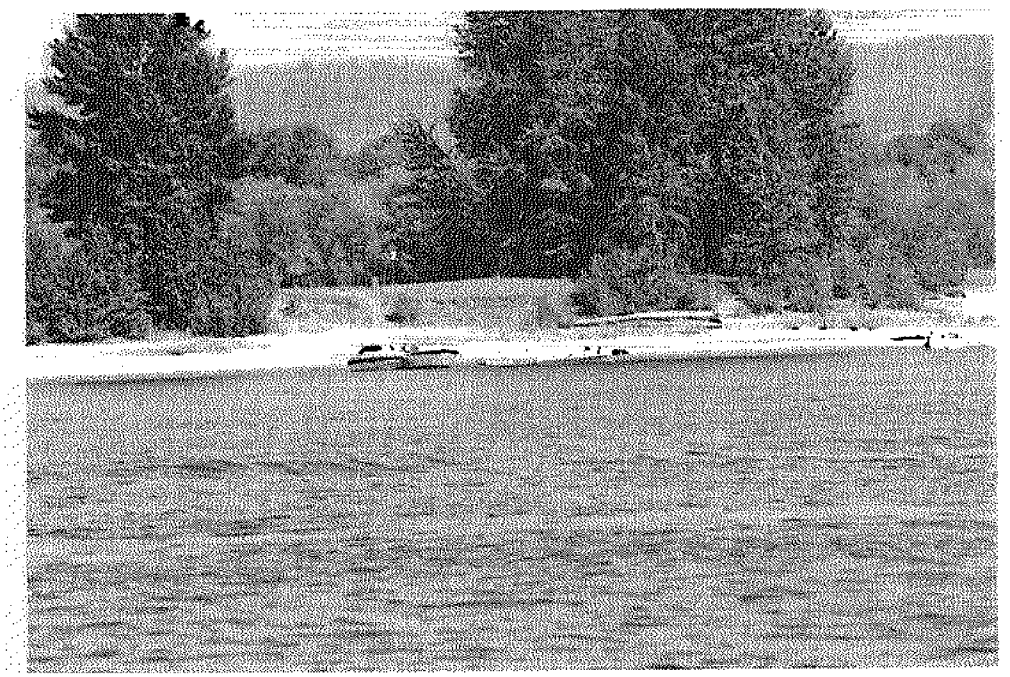


Figure 54: There is an existing day-use facility at Cottonwood Point. Boaters also tie-up to the beach.

Fir Point — River Mile 135.1

Type of Access: Boat Ramp

Observations:

Fir Point is behind the downstream end of Skamania Island. It has good water depths, a flat, grassy knoll, and very scenic views. Skamania Island provides this site with good wake and some wind protection. The channel between Fir Point and Skamania Island has deep (20 ft. +) water and is easily navigable. Fir Point appears is classified as a special management area (SMA), recreation intensity class 2, as mentioned in the "Management Plan for the Columbia River Gorge National Scenic Area". This limits the type of recreational facility that can be developed. The property is also in private ownership and it may be difficult to acquire. The shoreline appears to be armored and there are no sandy beaches.

Recommendations:

This site was not recommended by boaters. However, since the nearest boat ramps are 10.5 miles downstream and 6 miles upstream, investigators recommend acquiring this site and developing a boat ramp, transient moorage, and a day-use and/or camping facility. This reach is quite scenic, but there are few public boating access points. Investigators give priority to trying to develop a boating access facility at publicly owned St. Cloud. However, if that is not possible, state and local agencies should acquire this site and try to obtain a variance to construct a single lane boat ramp, a transient moorage facility and day use area. If the variance is not given, this site could still be used for transient moorage. The site would probably be expensive to acquire, but since there are so few potential public boating access sites on this stretch of the river, it should be considered.

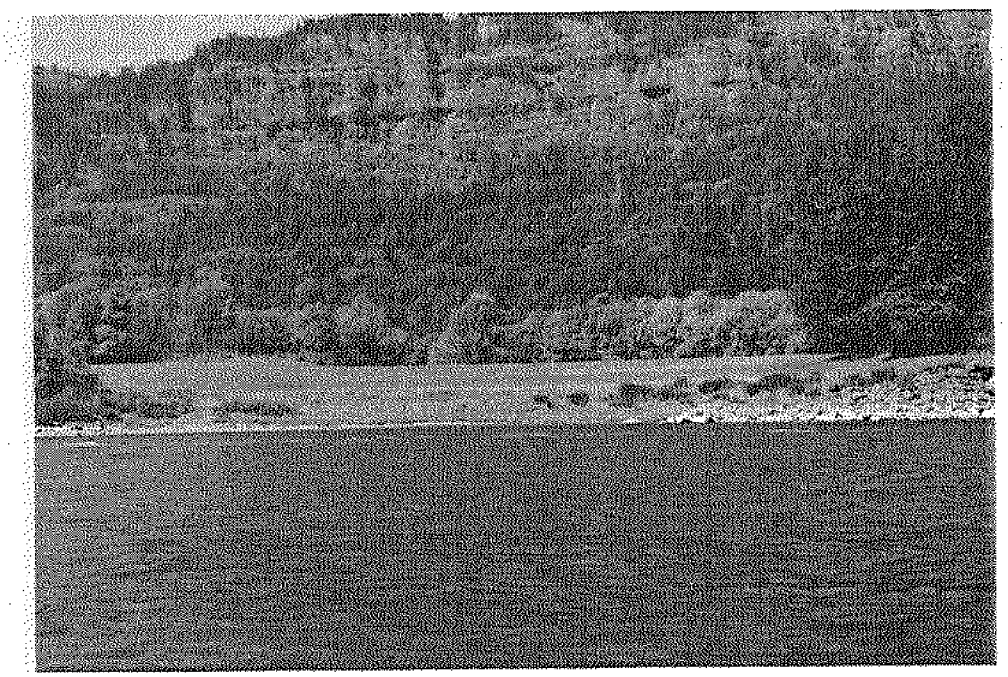


Figure 55 (b): Fir Point has a flat, well protected site behind Skamania Island that is suitable for a boat ramp and transient moorage facility.

St. Cloud — River Mile 136.4

Type of Access: Boat Ramp

Observations:

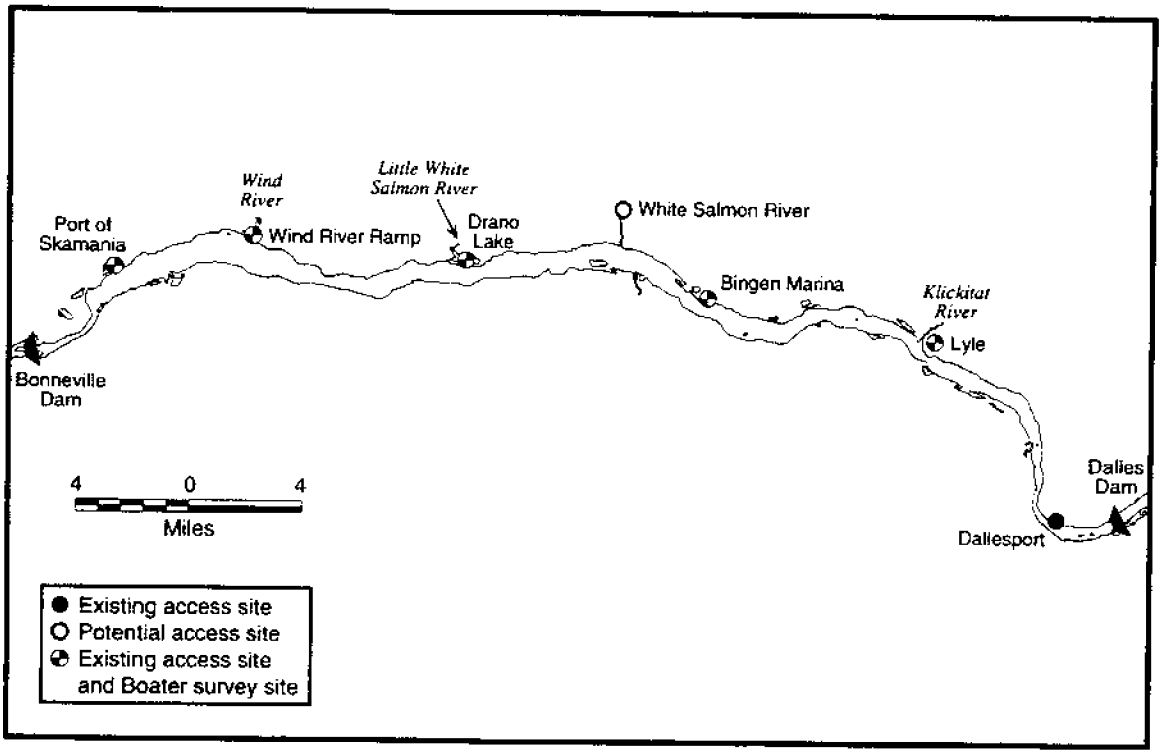
St. Cloud is a day use area and campground managed by the US Forest Service near the upstream tip of Skamania Island. It has 4 camp sites, barrier free hiking trails and a vault toilet, and 20 parking spaces. The area is quite scenic and affords many interesting sights such as Multnomah Falls. The site is also adjacent to the Franz Lake National Wildlife Refuge. Its rocky beach is not suitable for many recreational activities, but it is scenic and provides good access to the water. This site was not investigated by boat, therefore there are no depth soundings. According the River Cruising Atlas, there is a deep navigable channel behind Skamania Island that provides excellent access to the site, but upstream, the water is much shallower with 3 and 5 ft. stretches that would restrict the access by larger vessels.

Recommendations:

Three boaters recommended constructing a boat ramp at this site. Although less protected from winds and wakes, constructing a boating facility at this site might be preferable to acquiring and developing the privately owned site at Fir Point. According to the "Management Plan for the Columbia River Gorge National Scenic Area," St. Cloud is in a special management area (SMA), recreation intensity class 2. A transient dock for up to 10 boats is allowed under the current plan. Investigators therefore recommend constructing a transient dock with beach, camping, and day-use area access. Unfortunately a boat ramp is not permitted in SMA class 2. Therefore, a variance would be required to construct this needed facility. If a variance for this site could not be obtained, a transient dock should be installed and efforts to develop a ramp should focus at Fir Point.

Figure 56 (b): Photo not available.

RIVER REACH SEVEN RIVER MILE 146 TO 192

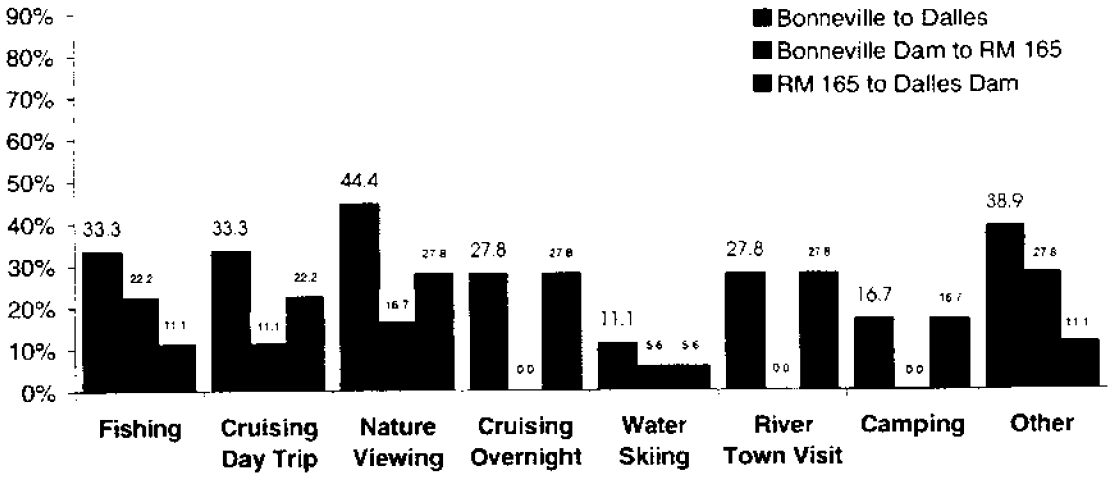


Reach Seven, the area between Bonneville Dam and the Dalles Dam, is dominated by steep topography, high unpredictable winds, and wave conditions second only to those found at the Bar in their danger to boaters. Two distinct vegetation regions are found in this reach. In the first region, ending past Bingen, the rainfall pattern is similar to other reaches and the landscape is heavily vegetated. Upstream from Bingen, the rain-shadow of the Cascades creates a barren landscape. River width varies from one-quarter mile to one-mile with some areas having very swift currents. There is no tidal influence above Bonneville Dam, but water levels do fluctuate with dam spill rates.

This reach has several scattered waterfront communities on the Washington side which range from 5 to 15 miles apart. A boat ramp is available in most of these waterfront communities, but there are no fuel or pump-out facilities and only Bingen has a transient moorage dock. Oregon has several transient moorage facilities and has the only fuel dock available in the reach. Some commercial vessels navigate through this reach, but wind and waves are greater problems than boat wakes. A few rivers flow into this reach of the Columbia creating some good fishing locations at their mouths.

There are few opportunities to increase boating access in this reach. The steep shorelines restrict access to many areas of the Columbia River and offer poor protection from the strong winds of this region. Railroad track and Hwy. 14 causeways also tend to restrict access to lowlands, river mouths, and embayments by both boats and automobiles. Even where causeways have bridge openings, the size of vessels that can pass is still limited. Several existing and potential public boating access sites have been purchased and transferred to Native American Tribal control as compensation for the damage the dams inflicted on the usual and accustomed fishing sites once used by the Tribes. The Army Corps of Engineers is seeking additional fishing access sites "in-lieu" sites.

Percent of Boaters Participating in Recreational Activities: River Reach Seven



This reach had the largest variety of user groups and a great difference in the number of adequate facilities. Investigators therefor divided this reach into two sub-reaches. The first sub-reach is heavily has a heavy swindsurf use pattern, hence the large "other" activity percentage. Of the 10 people surveyed, there were 4 were sailboarders, 1 kayak or canoeist, and 5 motor boaters. This section shows a variety of use patterns, but had one of the smallest rate of multiple activity selection (1.5 activities per boater). Moreover, the sailboarders were the multi-use boaters, while all but one boater selected fishing as their only activity.

There were 8 boaters surveyed in the second sub-reach: 6 motorboaters, 1 sailboarders , and 1 sailboater. This reach had the largest multi-use pattern with boaters selecting an average of 3.4 activities each. Fishing was comparatively lower in importance among the motor boaters, possibly due to the inadeguacy of launch facilities in that area.

River Reach Facilities on the Washington Side
Summary Information

River Mile	Facility Name	Number of launch lanes	Number of hoists or lifts	Transient Moorage: slips	Dock Length	Parking: Auto	Trailer	Average Boater Evaluation
150	STEVENSON	1	0	0	0		15	n/a
154	WIND RIVER	2	0	0	350	15	19	n/a
162	DRANO LAKE	1	0	0	0	0	40	2.4
168	BIG WHITE SALMON	Potential Boat Ramp: Boater Recommended						
171.5	BINGEN	1	0	0	210	12	30	3.2
180.7	LYLE	primitive	0	0	0		14	n/a
189.5	DALLESPORT	primitive	0	0	0		5	n/a

Port of Skamania-Stevenson Ramp River Mile 150

Type of Access: Boat Ramp

Observations:

The Port of Skamania has three boating access facilities in the City of Stevenson providing access to the Columbia River: Bob's Beach, a cruise ship dock, and a boat ramp. Bob's Beach is a sailboard park. It has good boating access signage but is limited to sailboarders and other hand launched vessels. Amenities there include changing rooms and a portable toilet. The sternwheeler and cruise ship dock is not "officially" available for transient moorage. Public access is prevented by a locked gate. The boat ramp east of the port office is the only official boating access point available to motor boaters and sailboaters. However, there are no boating access signs directing boaters to this ramp. A small point provides some natural protection from westerly winds, but strong easterly winds and waves also exist in the Gorge making it difficult at times to launch and retrieve. The small site has unpaved and unmarked parking, a trash can, and the ramp. A portable toilet is seasonally available. Groceries, lodging and supplies are available a few blocks away.

The 14 ft. asphalt and concrete ramp is in good condition. There is no ramp fee. There is no courtesy dock. The gravel parking area can hold 15 vehicles.

The Port of Skamania has a long term vision which includes improving the ramp and adding moorage, but there are no official plans to do so at this time.

Boater Evaluation:

No surveys were handed out at this ramp, thus this site was not evaluated. Among all boaters surveyed, only a few were interested in improving the Stevenson ramp. The facility received two recommendations as a launch site to improve, and one recommendation as a transient moorage facility to develop.

Recommendations:

Because public boating access is limited in this area, the Stevenson site should be improved. The ramp should be expanded to a double lane with a courtesy dock, it should have wind and wave protection, and it should include a transient dock with shore access. The addition of a pump-out and fuel dock would be a welcomed improvement to this stretch of the river.

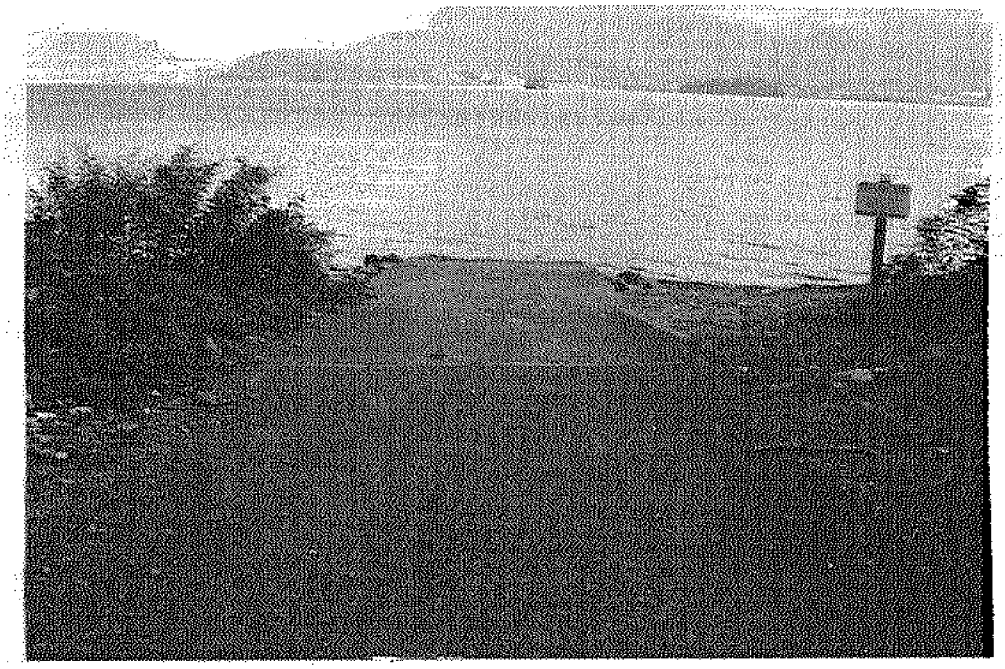


Figure 57 (a): The simple boat launch facility at the Port of Skamania. The sign on the right warns boaters of the strong unpredictable winds common in this area.

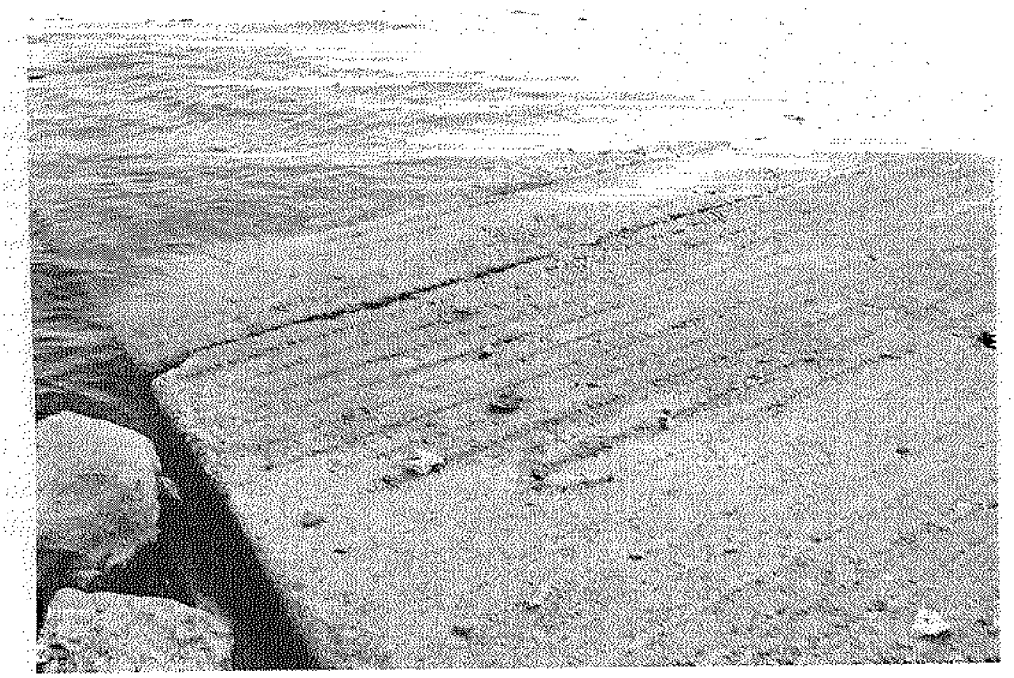


Figure 57 (b): Close-up view of the ramp at the Port of Skamania. The ramp shows some wear, but it is still in good condition.

Wind River — River Mile 154

Type of Access: Boat Ramp

Observations:

There are two boating access sites near the City of Home Valley: a waterfront park in Home Valley used solely by board sailors and other hand launched craft, and a boat ramp built by Washington Department of Fish and Wildlife and maintained by the Skamania County. There are no boating access signs for the boat ramp, but it is visible from Hwy. 14 and is easily accessible at the end of Old Hatchery Road. It lies just inside the mouth of the Wind River, has excellent protection from high winds and waves, and provides good access to the Columbia which is only a quarter-mile away. The fixed Hwy. 14 bridge over the Wind River forces tall sailboats to lower their masts. This simple site has paved parking and two barrier free vault toilets, but no other amenities. Lodging and supplies are available a half-mile away in Home Valley. There is some siltation in the area west of the ramp, but this does not seem to pose a navigation problem.

The 24 ft. ramp is made up of two 12 ft. concrete plank launch lanes with a courtesy dock on the north side. The ramp shows some cosmetic damage. There are some shallow cracks and pits on the planks, and some of the gravel between the planks has been eroded. The ramp is still in good workable condition, but these problems, unless repaired, could eventually lead to structural damage. There is no launch fee. The courtesy dock has some cosmetic damage. Wooden skirts around the piling brackets have fallen off, and bird droppings littered the dock, but it was in good structural condition.

The 1992 Columbia River Gorge Management Plans recommended expanding the parking area, adding a small transient dock, and developing overnight camping. The county does not have any plans for improvement.

Boater Evaluation:

This site is reported to have heavy use during fishing season, but there was little activity during the two site inspections and during the survey phase of the project and only one survey evaluation was returned. This is not a significant enough number to compare with the other facilities therefore, actual scores will not be given. The boater's evaluation does, however, gives an idea of the strength and weakness of this site. The responding boater gave an excellent score (5.0) for safe boating, noise, wind/wave protection, access to the site, car and trailer parking, and the restroom. The boater was least satisfied with the staging area (1.0) and maintenance (2.0). For improvements, the boater recommended repairing the courtesy dock. The general population of surveyed boaters showed comparatively little interest in improving the Wind River ramp, which was only recommended once as a launch site to improve.

Recommendations:

The county should improve general maintenance and make general repairs on the ramp and dock. They need to post boating access signage. The County should also try to implement the 1992 Columbia River Gorge Management Plan recommendations for improvement. The adjacent property north of this site would be a scenic and convenient location for a camping facility.

Figure 58 (a): A boating access facility at Wind River. The parking lot is on the right. There are no tie-up devices on the courtesy dock.

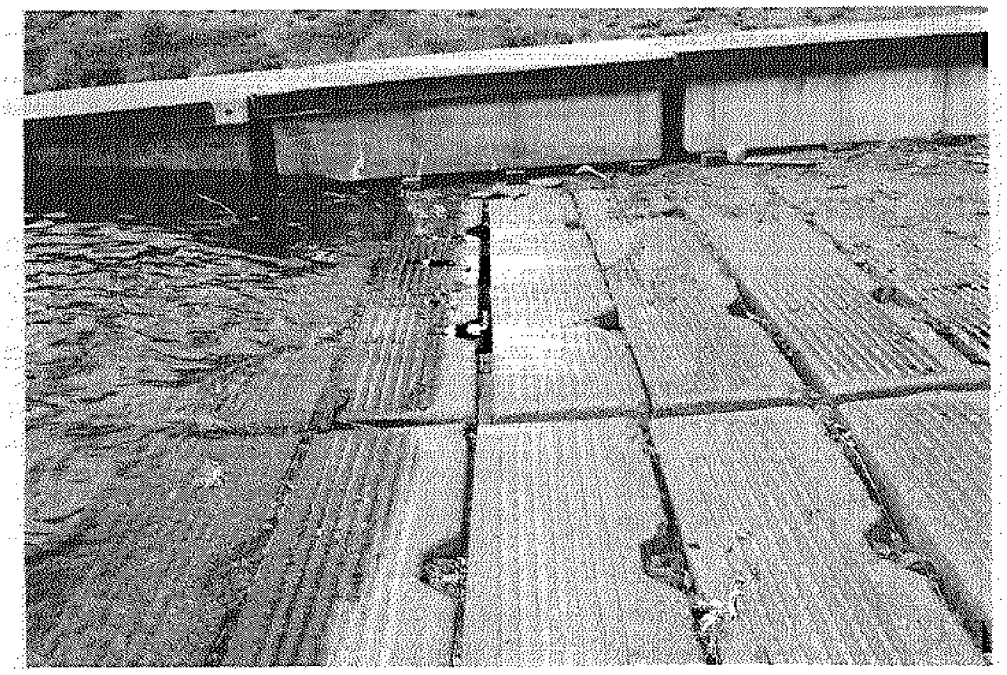


Figure 58 (b): Close-up view of the ramp. Some scouring between the planks has occurred and should be repaired.

Drano Lake — River Mile 162.5

Type of Access: Boat Ramp

Observations:

Drano Lake is an embayment separated from the Columbia River by the Hwy. 14 causeway. A small parking area and ramp was constructed of the North side of the dike at mile marker 57.2. A navigable bridge opening at the West end of Drano Lake provides boaters access to the Columbia, but low clearance presents a navigation hazard for some sailboats. The causeway provides good wave protection, but high winds can still be a problem and may inhibit launching or recovery. Water depths at the ramp are generally adequate, but large submerged rocks have created launch and recovery problems for some boaters. The site has a portable toilet, gravel parking, and a trash can, but no other services or amenities. Many boaters were observed to R/V camp in the parking lot. The nearest towns where boaters could obtain fuel, groceries, lodging, and/or supplies are Bingen and Stevenson, both approximately 7 miles away.

The 14 ft. concrete plank ramp is in poor condition. The ramp foundation has partially failed: almost all the gravel between the heavily damaged planks has been eroded, and the planks are out of alignment and some are broken into two or more pieces. There is no launch fee. The gravel parking lot is not organized, but if properly spaced, about 40 trailers can be accommodated.

Skamania County Parks Department plans to expand the parking area and to add an additional launch lane, a courtesy dock, and a restroom.

Boater Evaluation:

Only five boaters evaluated this site, and although the scores will be used in the evaluation, this is a low number and comparisons with the other facilities might not be valid. Boaters were dissatisfied with this facility, giving it an overall rating of 2.4. This is the lowest score for an official launch site. Boaters gave the highest marks for noise (3.3) and personal safety (3.3). The lowest scores were for wind/wave protection (1.5) and maintenance (1.6). The recommended improvements were to increase the size of the facility, add a launch lane of the east end, and to charge a camping and launch fee (2 each). Other recommendations were to prohibit camping, and to add a permanent restroom. The general population of surveyed boaters showed a moderate interest in Drano Lake. It received recommendations as a launch site to improve and four recommendations as a site to develop transient moorage.

Recommendations:

This area shows a demand for camping. In addition to improving this site as planned, the county should investigate providing a camping area around Drano Lake.

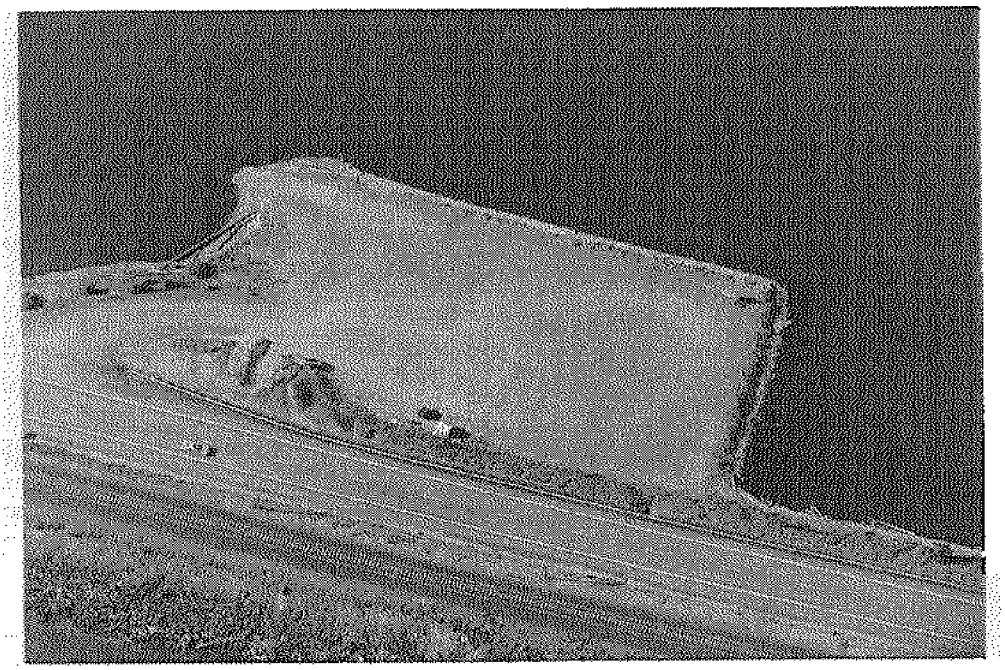


Figure 59 (a): Aerial view of the boating access facility at Drano Lake. A portable toilet and trash can are the only amenities.

Figure 59 (b): A close-up view of the concrete plank launch ramp at Drano Lake. The ramp is structurally damaged.

Port of Klickitat-Bingen — River Mile 172

Type of Access: Boat Ramp; Transient Moorage

Observations:

The Port of Klickitat offers a variety of recreational services and amenities at its Bingen facility including a windsurf park, an eleven-space R/V park, a boat ramp, transient moorage, and a large wetland for nature interpretation. Access to the marina is not very good: the boating access and directional signs are poorly located and the gravel access road travels through a heavy industrial (logging) zone. Amenities include two permanent and five portable restrooms, picnic tables, a swimming area, drinking water, and trash cans. Presently, the permanent restrooms are closed and under repair. A gravel trailer parking area was recently constructed (11/95), and there is a paved parking area for cars and R/Vs. Groceries, lodging, and supplies are available in town 3/4 miles away. Tent camping is allowed, but only as part of an R/V group. The camping fee is $10 for an R/V and $5 for an additional tent. Because of county regulations, camping on the grassy windsurf area is prohibited. The marina offers excellent protection from winds and waves. There is excellent water depth in the boat basin (16 ft.) and the Army Corps of Engineers maintains a 7 ft channel to the boat basin. Unfortunately, fuel is unavailable, and there are no dump or pump-out stations. These deficiencies limits its utility as a transient moorage facility.

The 14 ft. concrete ramp is in good condition, but it is hard to use during low water levels. There is no launch fee. The courtesy and transient docks show structural damage. In some areas, planks are loose and cracked, and the canvas bumper strip has fallen or worn off. The gangways to the courtesy and transient dock do not have barrier free improvements.

The port plans a large scale improvement of the marina. These improvements include a barrier free two lane launch ramp with a centered courtesy dock, 100 boat slips and a transient moorage dock, and moorage for 50 to 100 floating town homes. The port would also like to provide some educational interpretation around their wetland.

Boater Evaluation:

Six boaters evaluated Bingen giving it an average overall score of 3.2. Boaters were most satisfied with the fees (5.0), water depth (4.7) and the wind/wave protection (4.7). They were least satisfied with maintenance (1.7), restrooms (2.0), courtesy dock (2.0), and personal safety (2.5). The common recommendations were to improve site maintenance (5) and to improve or add dock space (3). One boater recommended improving site security. Among all the boaters surveyed, Bingen received 1 recommendation as launch site to improve. However, with 5 recommendations, it was the fifth most requested transient moorage facility to improve.

Recommendations:

In addition to the marina development plans, the port should continue its efforts to develop viewing platforms and interpretive signage along the wetland.

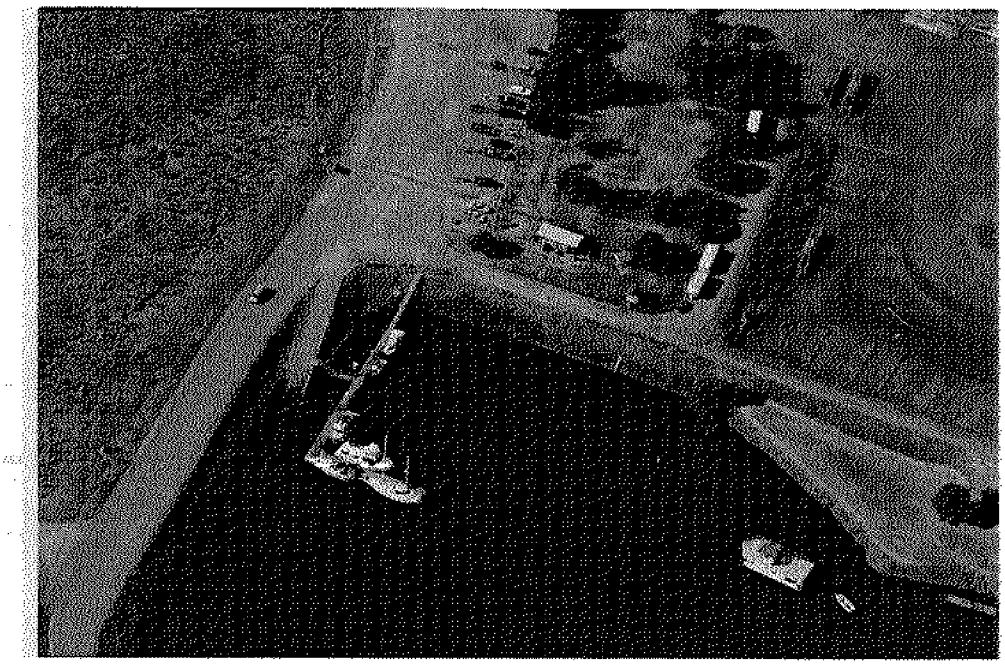


Figure 60 (a): Aerial view of the Bingen Marina. The grassy area (upper center) is the R/V park. A separate trailer parking area has been developed.

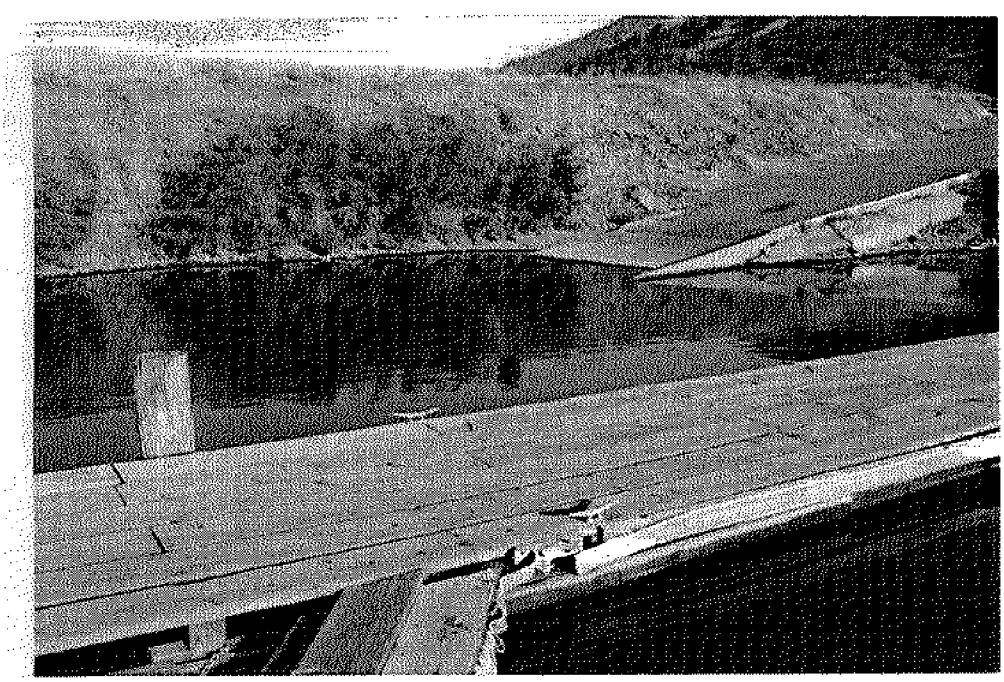


Figure 60 (b): The single lane launch ramp and courtesy dock at Bingen Marina. The courtesy dock has tie-up cleats. The dock's rubbing strips need some repair.

Lyle

River Mile 181

Type of Access: Boat Ramp; Potential Transient Moorage

Observations:

The Lyle ramp was sought as a Treaty Access Fishing Site (TAFS), but it is owned by Klickitat County which wanted it to remain a public launch area. The ramp is located on the east side of a narrow canyon. The TAFS was then located at an adjacent parcel overlooking the canyon and ramp area. Lyle has the only public boat ramp on the Columbia within a nine-mile radius, yet it is a very inadequate facility. Access is very poor: there are no directional signs to inform boaters of the site or to help access them it. The uneven dirt road is heavily rutted and crosses over railroad tracks and presents several confusing forks for the boater to navigate. The site has good wind protection, but is partially subject to waves. The west side of the canyon offers the best protection. Swimming is unsafe in this area and warning signs are posted. The surface at the ramp area is a mix of packed dirt, rocks, and gravel. Informal parking occurs along the canyon walls. Two portable toilets are the only services or amenities available at the site, but the town of Lyle is only one-half mile away. The site does not appear to be regularly maintained.

The 11 ft. concrete pad ramp is in poor condition. Heavy sand deposition occurs on the east side of the canyon and has covered most of the ramp, effectively making this site akin to a beach launch area. There is no official parking area, but space along the canyon walls will hold about 14 vehicles.

There are no planned improvements for this site.

Boater Evaluation:

Surveys were placed on windshields of vehicles at this site, but none were returned. Boaters at a local coffee shop recommended placing a ramp of the west side of the canyon where sand deposition would not be as much a problem. Of the general population of boaters surveyed, three selected Lyle as a launch site to improve. Lyle also received two recommendations as a transient moorage site to develop. The point of land east of the site was recommended. Neither of these rated very high in comparison, but most of the boaters surveyed did not boat in this area and may not have known about this facility.

Recommendations:

As the only access point in the area, this site represents an important opportunity for improvement and expansion. Much needs to be done. A new two lane ramp with a courtesy dock should be constructed of the west side of the canyon. Signage and a better access road are also needed. Transient moorage could be developed along the point, one-quarter mile east of the ramp. This point provides protection from westerly winds and has deep water. The transient dock should be attached to land providing boaters with easy access to Lyle.

Figure 61 (a): Aerial view of the Lyle ramp. The site is not well organized.

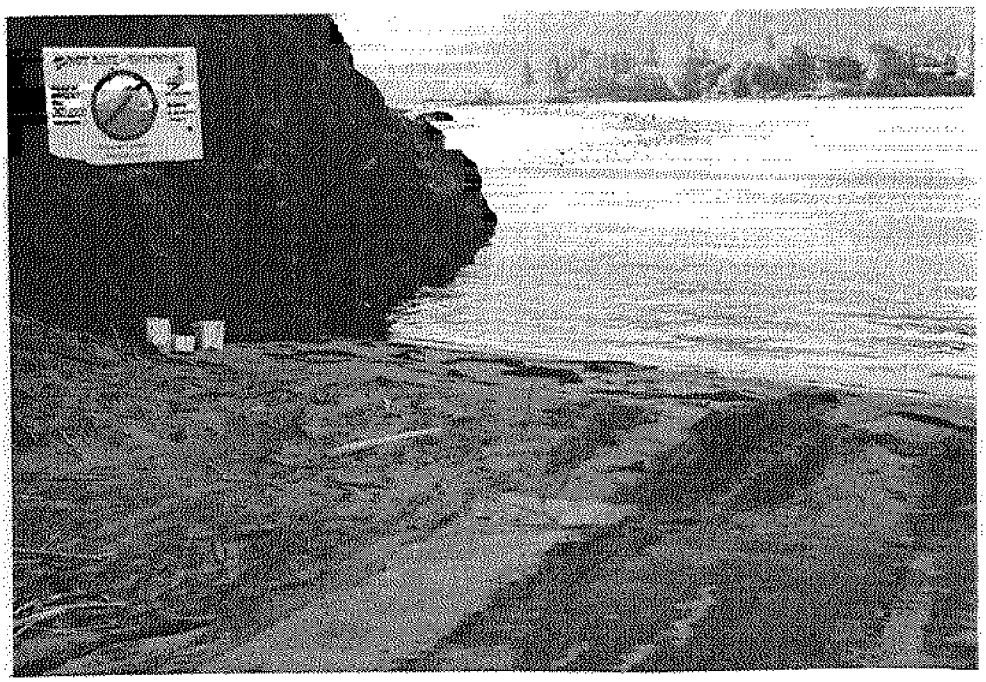


Figure 61 (b): Close-up view of the Lyle ramp. Sand has completely covered up the bottom of the ramp. The sign on the left warns swimmers of dangerous water conditions.

Dallesport — River Mile 189

Type of Access: Primitive Boat Ramp

Observations:

This primitive launch ramp at Dallesport has no access markers nor was it listed on any of the boating inventories reviewed. It is located at the end of Old Ferry Road, two miles south of downtown Dallesport. It is an exposed site with no protection from the east. A small rocky point gives both fishing access and minimal protection from the west winds and waves. Water depth is adequate, but there are a few large rocks in the launch lane. The site is at an old ferry terminal of which nothing remains except a large partially submerged concrete pad (possibly a foundation) northeast of the launch ramp. No services or amenities are available. Fuel, groceries and supplies are available in downtown Dallesport. A small convenience store is located one mile from the site.

This is a primitive beach launch with approximately 24 ft. of launch area. It has a rock and gravel surface with rock outcroppings, some of which pose hazards to boats and trailers. Boaters must back down a long (400 ft) narrow (16 ft.) unimproved dirt path to gain access to the river. As boaters near the launch area, this path widens out to about 24 ft. There is no launch fee. There is no courtesy dock.

There are no planned improvements for this site.

Boater Evaluation:

There were no evaluations passed out at this site, thus this site was not evaluated. Among all boaters surveyed, it was neither recommended as a launch site to improve nor as a transient moorage site to develop.

Recommendations:

There are no adequate boating access facilities in this area of the river. Boaters must cross the bridge to Oregon or travel upriver beyond the Dalles Dam. Unless a better site can be developed, this one should be improved. The access road should be widened to provide safer access and an official launch ramp should be developed. A parking area should be developed at the top of the site. The rocky point should be extended to provide additional protection to the ramp. It could also be used as a fishing access point.

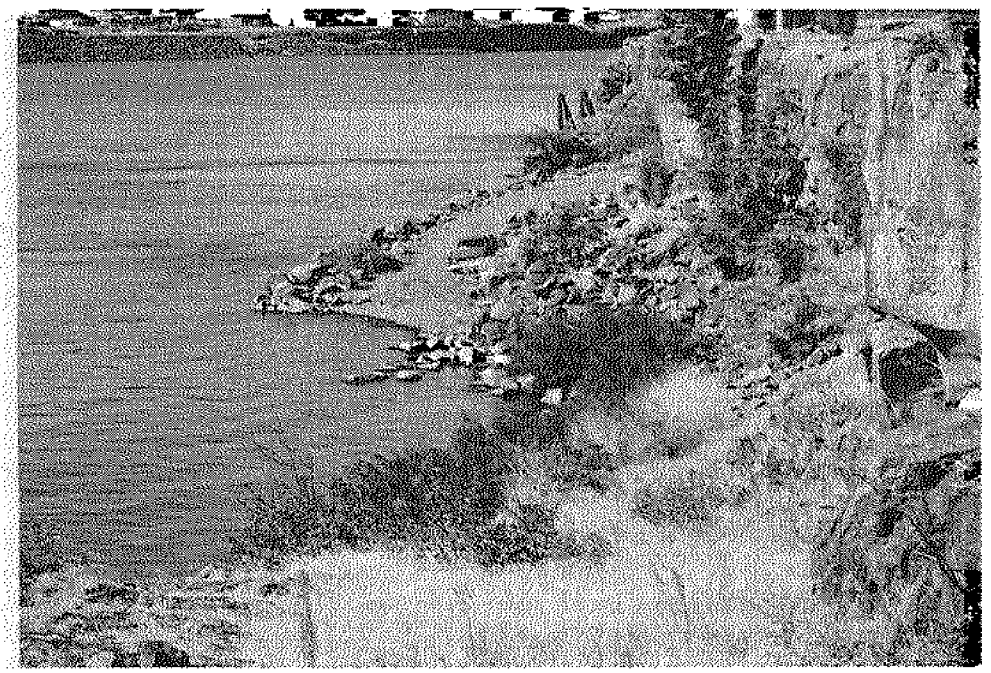


Figure 62 (a): The primitive boating access facility at Dallesport. Access to the site and parking are quite restricted. There are no amenities at this site.

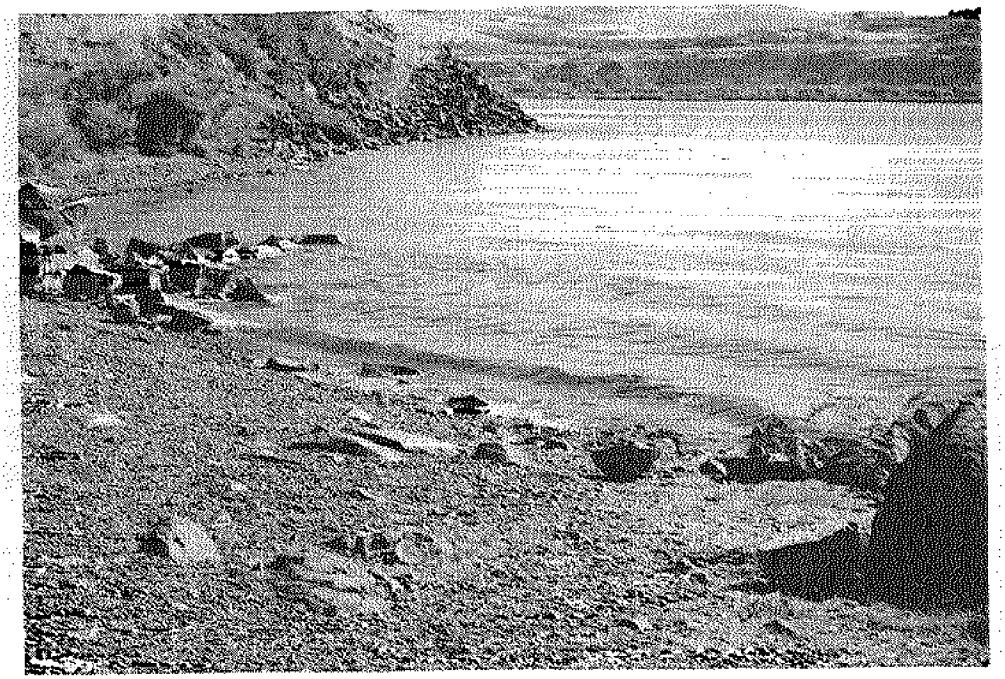


Figure 62 (b): Close-up view of the launch site at Dallesport. Exposed and submerged rocks reduce the utility of this site.

Big White Salmon River River Mile 168

Observations:

The White Salmon River separates Skamania and Klickitat counties. On the east side of the river (Skamania County) is a two lane boat ramp. This facility is under Indian Tribal control and is unavailable for public use. The east side of the river (Klickitat County) is lined with a variety of small boats. This is a popular bank and boat fishing site. Although there is a public boat ramp is available just 4 miles away in Bingen, high winds and waves can make even this short trip unsafe for small fishing boats. Consequently, many boaters lower their small boats down a steep hill side on the east side of the river and tie-off to the various rocks and trees along the cliff face. Under the bridge on the Skamania side is a long bench built by fishermen to provide a fishing platform. Some fishermen have been keeping the area free of trash, but others have fouled the steep rocky surface with human waste.

Recommendations:

Three boaters recommended constructing a boat ramp on the Big White Salmon River. Although there are no potential access sites near the mouth of the river, the US Fish and Wildlife Service manages a 48 acre parcel of land approximately 2 miles upriver. According to the "Management Plan for the Columbia River Gorge National Scenic Area," this site is a general management area (GMA) recreation intensity class 3 which allows the development of a boat ramp. Investigation recommend that a two-lane boat ramp with parking 25 vehicles comprising a small to moderate day-use facility be added to the plan. Washington Department of Fish and Wildlife is also considering a site on the west side of the river, but this was not investigated. In addition, a portable toilet is needed near the fishing platform to improve sanitation.

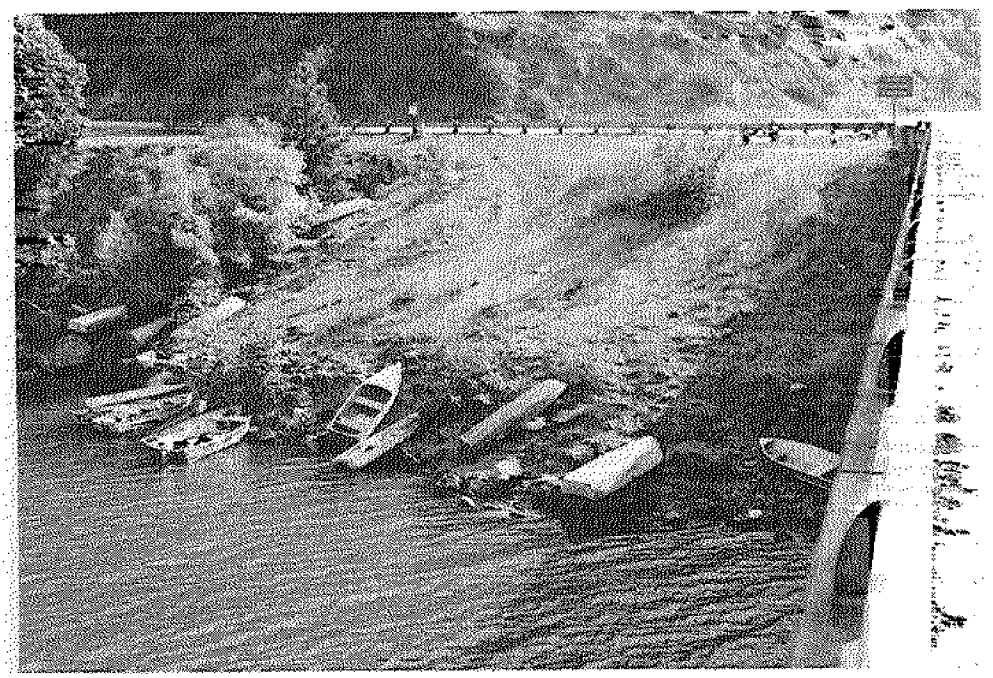


Figure 63: Boaters take some extreme measures to gain access to the Big White Salmon River. The potential boating access site is two miles upstream.

Conclusions & Implementation

Chapter Six: Conclusions and Implementation

Improving boating access facilities

The investigators, with the help of the boaters surveyed in the summer and fall of 1995, identified twenty-eight new sites on the Washington shore of the Columbia River between Dallesport and the Columbia River Bar that had potential to be developed for the benefit of motor boaters. Of these, thirteen were suitable for transient moorage only, 5 for launch ramps only, and 9 were suitable for both ramps and transient moorage. One additional site was recommended as both a transient moorage and hand-launch site.

The investigators visited the thirty-three existing launch ramps and transient moorage sites on the river, noting the services available to boaters and assessing the condition of the facilities. Where repairs and improvements were needed, these were identified and are described in Section V of this report.

Every site appeared to satisfy the minimum selection criteria for recreational opportunity, accessibility, wind and wave protection, and water depth; however, more detailed engineering studies would need to be conducted at "new" sites where no access facilities currently exist. The investigators made no attempt to rank sites in order of priority for acquisition, development, or improvement. Instead, they recommended involving Columbia River boating facility providers directly in developing a short list of sites for improvement over the short term.

Implementing the Study's Recommendations

A bi-state Columbia River Boating Access Workshop, was convened at Jantzen Beach, Portland, on May 10, 1996, to review the findings of this study, together with earlier Oregon studies, addressing motor boating access needs on both shores of the river from Pasco to the Columbia River Bar. Local, state and federal boating facility providers and funding agencies, boating association representatives and boating law enforcement officers were invited to participate in this one-day event. Of the seventy individuals who participated, the majority were local boating facility providers eligible for state grants administered by IAC and the Oregon State Marine Board.

The purpose of this workshop was to develop a short list of recommended bi-state public recreational boating access facilities to be developed on the lower Columbia River over the next five years. The listing would include both transient boater facilities and boat launch ramps. The four boating access studies were used to inform workshop focus groups about the adequacy of existing access, boaters' opinions on which sites should be improved to address their unmet needs, and specific kinds of improvements boaters would like made. With the help of experienced facilitators, each focus group addressed one or more of four river reaches. Reaches I and II were combined in one focus group in an attempt to equalize the number of participants in each group.

Reach I: Tri-Cities, WA, to the Deschutes River, OR.
Reach II: Columbia River Gorge National Scenic Area
Reach III: Sandy River, OR, to west of Longview (WA)
Reach IV: West of Longview to the Columbia Bar

Each focus group had a large scale river reach map showing existing facilities on both sides of their reach of the Columbia River. Group participants discussed the needs in their reach for new or improved public recreational boating access facilities, nominated a list of candidate sites, and then balloted to identify the top priority sites for consideration by funding agencies, facility providers and others over the next five years. Top priority sites were posted on a wall-sized map of the Columbia River, and during a final plenary session of the workshop, each focus group's facilitator presented the rationale for their group's choices.

The two states' boating facilities funding agencies expect that the workshop results will encourage potential sponsors to propose boating access projects that meet defined bi-state, priority needs and avoid unnecessary duplication. The studies, combined with the workshop process, will minimize the amount of information sponsors would be required to provide in support of proposed projects.

Workshop results

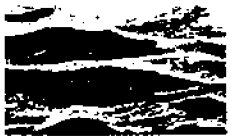
Table 6.1: Boating access site list prioritized by workshop participants

River Mile	Facility	New Ramp	Im-prove Ramp	New Trans. Moor.	Im-prove Trans. Moor.	Remarks
3	Port of Ilwaco, Wash.				X	
6	Hammond Mooring Basin, Ore.		X	X		
13	Youngs Bay, Ore.	X				
17	Knappton, Wash.	X				
22	Oneida/Deep River, Wash.		X	X		
30	Aldrich Point, Ore.			X		mooring buoys
33	Skamokawa, Wash.		X			
40	Elochoman Slough, Wash.				X	
43	Westport Slough, Ore.		X			
46	Puget Island, Wash.	X				
50	Wallace Island, Ore.			X		mooring buoys
58	Willow Grove, Wash.	X		X		
61	Walker Island, Ore.			X	X	mooring buoys
67	Rainier, OR		X		X	
70	Carroll's Channel			X		
80.5	Martin Island			X		
94	Mid-Sauvie Island	X				
97.5	Caterpillar Island				X	
98.5	Morgan's Landing		X			
122	Port of Camas/Washougal				X	
116	Gentry's Landing		X			

River Mile	Facility	New Ramp	Im-prove Ramp	New Trans. Moor.	Im-prove Trans. Moor.	Remarks
124	*Cottonwood Beach*					
141	*Rooster Rock (#12)*					
142	*Beacon Rock*				X	
147	*Bradford Island (#14)*					
149	*Cascade Locks*					
151	*Stevenson Boat Ramp*					
154	*Wind River*					
155	*Home Valley*					
160	*Wyeth*					
162	*Drano Lake*					
181	*Mayer*					
181	*Lyle (new)*	X				
181	*Lyle Point (new)*	X				*mooring buoys*
190	*The Dalles Boat Basin (#29)*					
	The Dalles (new)	X				
202	*Celilo (#3)*	X				
205	*Heritage Park*					
210	*Maryhill State Park*				X	
?	**Chiwana Basin*			X		
?	**The Mud Hole*			X		
?	**Central Pre-Mix site*			X		
?	**Hedges Slough (Finley)*			X		
?	**Hover Park*			X		

Note: Sites listed in *italics* were identified as "top sites" but were not prioritized by workshop participants because of their concerns about inadequate geographic representation in the focus group.
Sites in *italics* preceded by an *asterisk* were identified by participants in River Reach I and had not been recommended in the corresponding university study. Before undertaking their improvement, agencies should seek an independent appraisal of their suitability.

Appendices



Appendices

Appendix A: Bibliography

Books, Agency Reports, and Local Management Plans

Austin, Bruce C., Robert Brugger, J. Conner Davis, and Linda Siefert. *Recreational Boating in Dade County:* 1975-76. Sea Grant Special Record No. 9. University of Miami. March, 1977.

Benkendorf Associates. *Port of Wahkiakum Comprehensive Scheme.*

Burr, Susan. *Recreational Boating on the Mid-Columbia River (St. Helens to The Dalles): Planning for a Network of Public Transient Tie-up Facilities.* Oregon State Marine Board, OSU Extension/Sea Grant, Salem, June, 1993.

Cerveny, Sarah. *MRM Internship Report Draft. A case study of recreational boating on the upper Columbia River (The Dalles to Tri-Cities). Needs analysis and planning for a network of public transient tie-up facilities.* Oregon State University College of Oceanic and Atmospheric Sciences, Marine Resource Management Program, Corvallis, OR, September, 1995.

Clark County: *Clark County Park, Recreation & Open Space Plan.* June 1994.

Columbia River Gorge Commission and The USDA Forest Service. *Management Plan for the Columbia River Gorge National Scenic Area.* White Salmon, WA, September, 1992.

Cowlitz County Park and Recreation Advisory Board: *Comprehensive Park & Recreation Plan for Cowlitz County, Washington.* Cowlitz County Park and Recreation Advisory Board. June 1994.

Cowlitz-Wahkiakum Governmental Conference. *Port of Kalama Park and Recreation Plan: Draft.* August 1984.

Cowlitz-Wahkiakum Council of Governments. *Longview Comprehensive Plan.* 1993.

Cowlitz-Wahkiakum Council of Governments. *Wahkiakum Port District No. 2 Comprehensive Park and Recreation Plan.* Amended July 1994.

Cowlitz-Wahkiakum Governmental Conference. *Wahkiakum County overall Economic Development Plan: Preliminary Draft.* June 10, 1995.

Delorme mapping. *Washington Atlas and Gazetteer.* Freeport Maine. 1992.

Economic Consultants Oregon, Ltd. *Commercial and recreational boating facilities in Oregon estuaries: inventory and demand analysis.* Department of Land Conservation and Development. Salem, OR 1979.

Evergreen Pacific Publishing. *River Cruising Atlas: Columbia Snake Willamette.* 1991.

Falotic, Rocco R. *Statewide Boating Survey, 1978*: Oregon State University, School of Oceanography. Corvallis OR February, 1979.

Forbes, Marilyn(ed.). *Parks and Recreation Master Plan: A Component of the City of Vancouver, Washington Comprehensive Plan 1985-91.*

Fraser, Michael B. *Columbia River estuary marina study.* Columbia River Estuary Study Task Force. Corvallis, OR: Oregon State University, Marine Resource Management Program, March 1978.

Furror, Warner. *Water Trails of Washington.* Signpost Books 1978.

Gilmore Research Group. *The 1988 Puget Sound Recreational Boaters Survey.* Seattle, WA, January, 1989.

Goodwin, Robert F. and Timothy J. Farrell. *Washington State Marina Directory.* Washington Sea Grant Marine Advisory Services, Univ. of Washington, Seattle, WA, 1991.

Goodwin, Robert F. *Recreational boating in Washington's coastal zone: the market for moorage.* Institute for Marine Studies, Univ. of Washington, Seattle, WA, May, 1982.

Griffes, Peter L.(ed.). *Pacific Boating Almanac: Pacific Northwest & Alaska.* Western Marine Enterprises Inc. Los Angeles CA. 1991.

Helstrom Publications. *Henning's Guide to Boat Ramps.* Helstrom Publications. Portland Oregon, 1991.

Jones, Phillip N. *Columbia River Gorge: a complete guide.* Mountaineers, 1992.

Klickitat County Port District No. 1: *Klickitat County Port District No. 1: Comprehensive Park and Recreation Plan.* 1987. Revised as *Bingen Marina Development Plan.* Washington 1994.

Law, Martin (Editor). *Boating Guide to the Lower Columbia and Willamette Rivers.* Oregon State Marine Board, OSU Extension/Sea Grant, Washington Sea Grant Marine Advisory Services, Washington State Parks, Corvallis, OR, 1992.

Marc-5 Enterprises. *Washington Boat Launch Ramps: Clark - Cowlitz - Lewis - Skamania - Wahkiakum - and Pacific Counties 3rd edition.* Battle Ground, WA. 1994.

Marine Publishing Inc. *The Great Waterway 1992.* Seattle Washington. p. 18.

North Bonneville Parks and Recreation Committee: *North Bonneville Five Year Comprehensive Park and Recreation Plan.* April, 1983; Updated May, 1990.

Northwest Marine Trade Association And Washington State Parks And Recreation Commission Boating Safety Program. *Public boating facilities in Washington State.* Washington State Parks and Recreation Commission, Olympia, WA, second edition, 1988.

Oceanographic Institute of Washington. *Survey of Marine Boat Launching and Moorage Facilities in Washington.* Oceanographic Institute of Washington, Seattle, WA, August, 1978.

Oregon Marine Board. *Six-Year Statewide Boating Facilities Plan. 1993-1999.* Salem, OR, October, 1993.

Oregon State Marine Board. *Oregon Boater's Handbook.* Salem, OR. June 1, 1992.

Oregon State Marine Board. *Oregon Boating Facilities Guide.* Salem, OR. June, 1995.

Oregon State University Extension Service Sea Grant Advisory Program. *Boating in coastal waters.* Oregon State Marine Board. Corvallis, OR, 1976.

Povey, David: *Columbia River Gorge Windsurf Economics: 1990 Season.* University of Oregon. September, 1990.

Regional Planning Council of Clark County: *Comprehensive Park and Recreation Plan: Town of Ridgefield, Washington.* September, 1984.

Skamania County, Washington: *Park and Recreation Comprehensive Plan for 1990 Through 1997:* Skamania County, Washington. May, 1991.

Tyler, Sheldon. *Port of Camas-Washougal Master Plan.* March, 1986.

US Army Corps of Engineers: *Draft Phase two Evaluation Report and Environmental Assessment: Columbia River Treaty Fishing Access Sites.* Vol. I and II. Portland District, January 1995.

Vars, R. Charles Jr. *Recreational Boating in Western Oregon.* Oregon State University Sea Grant Program. Corvallis OR. 1979.

Washington State Interagency Committee for Outdoor Recreation. *Assessment and Policy Plan 1995-2001.* Washington State Interagency Committee for Outdoor Recreation, Olympia, WA, November, 1995.

Washington State Interagency Committee for Outdoor Recreation. *Voices of Washington: Public Opinions on Outdoor Recreation and Habitat Issues.* Washington State Interagency Committee for Outdoor Recreation, Olympia, WA, November, 1995.

Washington State Interagency Committee for Outdoor Recreation. *Washington Outdoors: Assessment and Policy Plan 1990-1995.* Washington State Interagency Committee for Outdoor Recreation, Tumwater, WA, April, 1990.

Washington State Interagency Committee for Outdoor Recreation. *Boating facilities program plan.* Washington State Interagency Committee for Outdoor Recreation, Olympia, WA, March, 1995.

Washington State Parks & Recreation Commission, Boating Programs Office. 1990 *Washington State Recreational Boating Facilities.* Olympia, WA, June, 1991.

Washington State Parks and Recreation Commission. *Public Boating Facilities in Washington State*. Washington State Parks and Recreation Commission, Boating Safety Program. Olympia, WA. 1988.

Washington State Parks Boating Safety Program. *Washington State Boater's Guide: Rules, regulations and safety afloat*. Outdoor Empire Publishing Inc. Seattle WA. 1992.

Pamphlets and misc.

Goldendale Chamber of Commerce. *Goldendale Washington.*

Hoechst Celanese. *Kalama Emergency Preparedness Committee*. Kalama WA, 1991.

Port District No. 1 of Wahkiakum County. *Elochoman Slough Marina.*

Port of Camas Washougal. *Just What is the Port of Camas/Washougal.* Washougal WA.

Sternwheeler Publishing Co. Inc. *Lewis River Visitor's Guide, 1994-1995: Gateway to the Lewis River Valley*. p 18, 26, 35. 1994.

US Army Corps of Engineers. *Bonneville Lock and Dam: Lake Bonneville/Oregon and Washington.* Public Information, US Army Corps of Engineers. Portland District, 1987.

US Army Corps of Engineers. *Campground Information: Charbonneau Park-Fishhook Park-Hood Park-Windust Park.* US Army Corps of Engineers, Walla Walla District. US Government Printing Office 1995—690-415.

US Army Corps of Engineers. *Columbia River Projects: Bonneville-The Dalles-John Day.* Public Information, US Army Corps of Engineers. Portland District, 1982.

US Army Corps of Engineers. *Dalles Lock and Dam, The: Lake Celilo/Washington and Oregon.* Public Information, US Army Corps of Engineers. Portland District, 1988.

US Army Corps of Engineers. *How to Lock Through.*

US Army Corps of Engineers. *John Day Lock and Dam: Lake Umatilla, Oregon/Washington.* Army Corps of Engineers, Portland District. 1989.

US Army Corps of Engineers. *McNary Lock and Dam: Lake Wallula, Oregon/Washington.* US Army Corps of Engineers, Walla Walla District.

Washington State Parks and Recreation Commission. *Your Guide to State Parks in the Goldendale Area.* P&R P45-603-B. May 1991.

Appendix B: Site Evaluation Form

Name: _____ GPS Data, State: _____, _____
Owner: _____ Mail Address: _____
Location: _____ City, County, Zip: _____
Phone: _____ Type of Facility: _____
Waterway: _____ Facility Size: _____
River Mile: _____ Waterfront Feet: _____
Wind/Wave Protection: _____
Basin Depth, Channel Depth: _____
Dredging Need, Frequency: _____

Facility Information
Dock Length: _____ Guest Dock: _____ Courtesy Dock: _____
Dock Condition and Notes: _____

Number of Slips: _____ Number of Guests Slips: _____
Slip Condition and Notes: _____

Number of Buoys: _____ Length of Transient Float: _____
Transient Moorage Condition and Notes: _____

Number of Boat Ramps: _____ Ramp Type: _____
Ramp Condition and Notes: _____

Boat Hoist: _____ Travel Lift: _____
Hoist/Lift Condition and Notes: _____

Parking Spaces: _____ Space for Auto/Trailers: _____
Parking Conditions and Notes: _____

Access Information
Access to Site: _____
Access from Water: _____
ADA Improvements: _____

Use, Service, and Amenity Information
Hand Launch: _____
Interpretive Signage: _____
Restroom Type and #'s: _____ Staging/Rigging Area: _____
Drinking Water (Y/N): _____ # of Showers: _____ # of Camping Sites: _____
# of Picnic Tables: _____ Distance to Groceries: _____ Distance to Lodging: _____
Swimming Area (Y/N): _____ Fish Cleaning Station: (Y/N): __ Garbage Cans (Y/N): _____
Gasoline (Y/N): _____ Public Diesel: _____ Power Amperage: _____
Port-a-Pot Dump: _____ Pump-Out Station: _____

Notes of quality, location, conflicts with use, services and amenities: _____
_____

Service Fees
Launch Fee: _____ Moorage Fee: _____ Camping Fee: _____
Electric Fee: _____ Dump Fee: _____ Pump-Out Fee: _____

Planned Improvements: _____
Priority: _____; Conflicts: _____
Potential Improvements: _____
Notes: _____

Appendix C: The Survey Instrument

UNIVERSITY OF WASHINGTON

BOATER SURVEY

WASHINGTON SEA GRANT PROGRAM / IAC

Dear Boater:

Here is your chance to influence how boating facilities funds should be spent to improve boaters' access to the Columbia River from Washington's shore. The University of Washington (Washington Sea Grant Program) and the State of Washington Interagency Committee for Outdoor Recreation (IAC) want your input through this boater survey.

Please take the questionnaire home with you, fill in the answers to the best of your ability and mail it back to us in the pre-paid business reply envelope provided. Boaters from Oregon and other states, please respond too.

Your answers are confidential—no one can know who filled out the survey you return to us. Please remember: This is your chance to make known your views about boating access on the Columbia River to the agency that distributes motorboat access facility funds.

Washington Sea Grant Program · 3716 Brooklyn Ave. NE · Seattle, WA 98105 · (206) 543-6600

Please give us some information about your boat use on the Columbia River.

1. In the last 12 months, on how many days did you use your boat? (Circle one.)

   1. less than 20 2. 21-30 3. 31-40 4. 41-50 5. more than 51

2. During the next 12 months will you boat (1. more than 2. less than 3. about the same) as you did the last 12 months?

3. How many days **per season** did you use your boat?

   1. last summer (May '94–Apr '94) _____ 3. winter (Nov '94–Jan '95) _____
   2. last autumn (Aug '94–Oct '94) _____ 4. spring (Feb '95–Apr '95) _____
   5. **(estimate)** summer (May '95– Jul '95) _____

4. During the last 12 months, about how many times did you use the following facilities?

   Transient moorage (tie up and off equals one use): _____

   How long did you tie up on your last stay? _____ (hrs.)

   Boat ramp (in and out equals one use): _____

   Boat hoist (in and out equals one use): _____

   Travel lift (in and out equals one use): _____

   Where is your **most common** launch point? _____

5. What is your ultimate destination point on **this trip**? _____

   What will be the duration of **this trip**? _____ (parts of days count as one day)

   What round trip distance do you expect to travel **this trip**? _____ (in river miles)

6. Which of the following activities will you pursue while boating this trip? (Circle all that apply.)

   1. fishing
   2. cruising (day trip)
   3. nature viewing
   4. cruising (overnight trip)
   5. water skiing
   6. river town shopping/sightseeing
   7. camping
   8. other _____

These next few questions deal with locations you visit and potential concerns you have about the different areas and different Columbia River.

7. On average, how many days **per year** do you boat in the following areas?

   1. The Columbia Bar to Skamokawa _____
   2. Skamokawa to Longview _____
   3. Longview to Lewis River _____
   4. The Lewis River to the Willamette River _____
   5. Metro area (the Willamette River to Camas-Washougal) _____
   6. Camas-Washougal to Bonneville Dam _____
   7. Bonneville to the Dalles Dam _____

8. Circle all of the conditions that spoil your boating experience.

   1. crowded conditions
   2. barges/cargo vessels
   3. wind/waves
   4. distance between services
   5. net fouling
   6. distance between fuel facilities
   7. dams/locks
   8. changing water levels
   9. shallow water
   10. fear for personal safety
   11. conflict with other boats or recreational users
   12. other (please specify):

   _____

9. Do you purposely avoid boating in any area of the Columbia River from The Bar to The Dalles? 1. yes 2. no

   If yes, what areas? _____

   If yes, why? _____

10. If dams along the Columbia River affect your boating activities, circle the statements that apply to you.

    1. I don't know how to communicate with the lock master.
    2. I don't know how to lock through.
    3. No safe place to wait before locking through.
    4. I don't know how to deal with commercial traffic.
    5. The dams limit distance of trips.
    6. The dams make trips longer in duration.
    7. I fear for the safety of my boat.
    8. Other (please specify): _____

Please tell us how you feel about this specific boating facility.

11. How far did you travel to reach this site? _____ (miles)

12. How many times have you used this particular facility in the last 12 months? ____

13. Please rate the quality of the design and services of this facility (where you received the questionnaire). Circle one (1 = unacceptable, 5 = excellent, N/A = not applicable here).

	unacceptable ..... **excellent**					
1. congestion	1	2	3	4	5	N/A
2. personal safety	1	2	3	4	5	N/A
3. safe boating	1	2	3	4	5	N/A
4. noise level	1	2	3	4	5	N/A
5. maintenance	1	2	3	4	5	N/A
6. wind/wave protection	1	2	3	4	5	N/A
7. access to site	1	2	3	4	5	N/A
8. water depth	1	2	3	4	5	N/A
9. open space/ rigging area	1	2	3	4	5	N/A
10. car parking	1	2	3	4	5	N/A
11. trailer parking	1	2	3	4	5	N/A
12. restrooms	1	2	3	4	5	N/A
13. showers	1	2	3	4	5	N/A
14. hand launch area	1	2	3	4	5	N/A
15. courtesy dock	1	2	3	4	5	N/A
16. fish cleaning station	1	2	3	4	5	N/A
17. fees	1	2	3	4	5	N/A
18. overall site quality	1	2	3	4	5	

14. What improvements, if any, do you think should be made at this facility?

_____

15. Is there another launch or moorage facility you prefer over this one?

1. yes 2. no

If yes, where? _____

If yes, why didn't you use it today? _____

_____

If yes, how many extra miles did you have to travel to use this facility? _____

Questions 16–26 deal with users of boat ramps or transient moorage facilities on the Columbia River.

TRANSIENT MOORAGE QUESTIONS: If you do not use transient moorage, go to # 22

16. **Would you** allow other boats to raft to your boat? 1. yes 2. no
    Would you raft to another boat? 1. yes 2. no

17. **Do you** believe access to public mooring facilities should be on a first come, first served basis or through reservations? 1. first come, first served 2. through reservations

18. **Do you** have a need for additional moorage facilities along the Columbia River?
    1. yes 2. no

19. How far apart **would you** like these facilities to be located? _____ (river miles)

20. **Where would you** place additional transient moorage facilities ?
    Locations: _____

21. Which existing transient moorage facility would you most like to see **improved**?
    _____

BOAT LAUNCH QUESTIONS: If you do not use launch facilities, please go to question # 27

22. **Do you** have a need for additional launch facilities along the Columbia River?
    1. yes 2. no

23. How far apart **would you** like these facilities be located? _____ (river miles)

24. **Where would you** place additional boat launch facilities?
    Locations: _____

25. Which existing boat launch facility would you most like to see **improved**?
    _____

26. Should boat launch facilities be shared by trailer-launched vessels **and** hand-launched vessels? 1. yes 2. no

Next, we would like to ask some questions about the overall quantity and quality of boating facilities along the Columbia River.

27. If there were additional transient mooring or boat launching facilities on the Columbia River, which of the following would be true? (Circle all that apply.)

    1. I would use the Columbia River more often.
    2. I would take longer trips.
    3. I would boat to different places.
    4. I would not change my use pattern.

28. Would additional transient moorage or boat launch facilities make the Columbia River too crowded? 1. yes 2. no

29. Should small craft water trails (a series of mapped sites with docking and interpretive signage) be developed on the Columbia River? 1. yes 2. no

30. In general, what sort of services or activities do you think should be offered at or near the type of facility you are using today? (Circle the applicable facility and all services or activities that apply.)

    1. swimming areas
    2. mooring buoys
    3. electric power
    4. restrooms
    5. showers
    6. drinking water
    7. fuel
    8. groceries/supplies
    9. camping/motels
    10. parking (car)
    11. parking (trailer)
    12. interpretive signage
    13. picnic areas
    14. garbage cans
    15. fish cleaning station
    16. pump-out station
    17. port-a-potty dump
    18. other (please specify): _____

Finally, we would like to ask some questions about you and your boat to help us interpret the results.

31. What is your residential zip code? _____

32. In what state is your boat registered?

    1. Washington
    2. Oregon
    3. not registered
    4. other (please specify): _____

33. How many years have you been boating on the Columbia River? _____

34. What is the length of your boat? _____

35. What is the draft required by your boat? _____ ft.

36. What type of boat are you using today?

1. sailboat without a motor
2. sailboat with a motor
3. motor boat
4. personal watercraft
5. sailboard
6. kayak or canoe

37. How many people, including you, usually travel on your boat? _____

38. Do you usually travel with a group of boats? yes ____ no ____

Name of group: _____

Typical number of boats in group: _____

39. Does your boat have any of the following facilities? (Circle all that apply.)

1. port-a-potty
2. head with holding tank
3. cooking facilities
4. sleeping berths

40. Where do you normally store your boat? (Choose one only.)

1. on land — location (city): _____
2. in a dry stack — location (city): _____
3. in a mini storage — location (city): _____
4. in water year-round — location (moorage facility): _____
5. in water seasonally — location (moorage facility): _____

41. Does your boat use fuel? (If no, skip to end of survey.) 1. yes 2. no

42. If yes, what type of fuel do you use? 1. gasoline 2. diesel

43. Approximately how many gallons will you use this trip? _____ (gallons)

44. Where do you normally buy the fuel for your boat?

1. roadside service station (county, city): _____
2. marina/fuel dock (county, city): _____

Please feel free to make any additional comments or suggestions for improving boating access to the Columbia River.

Thank you for your participation in this survey.

Your comments:

Location code:

Appendix D: Questionnaire Delivery Sites

The following boating access sites were manned throughout the day. In many instances, some boaters had already launched by the time surveyors reached the site. In these cases, a survey was placed on the boater's windshield. Surveyors generally stayed at the site for approximately six hours. In the areas not supervised, local managers agreed to pass out the surveys throughout the day. The number that follows is the number of surveys that were returned from that site.

Full Time Survey Site	**# of Surveys returned**
Fort Canby State Park:	21
Port of Ilwaco	11
Port of Chinook	11
Oneida (not supervised)	7
Skamokawa Vista Park (not supervised)	8
Elochoman Slough Marina	25
Port of Kalama	21
Lake River Ramp [Ridgefield]	29
Marine County Park (not supervised)	30
Port of Camas-Washougal	25
Beacon Rock	24
Bingen	8

A rover visited and dropped surveys off at sites that investigators believed were not be popular enough to warrant full time attention. Investigators choose the following sites to be the responsibility of rovers. The number that follows is the number of surveys that were returned from that site. Note: the ramp at Lyle was visited and surveys were placed boater's windshields, but none were returned.

Rover Survey Site	**# of Surveys returned**
Knappton	6
Weyerhaeuser Ramp	5
Gerhart Gardens	2
Fort Cascades	2
Port of Skamania	4
Wind River	2
Drano Lake	5
Lyle	0

Most other boating access sites were visited by the rover, but at the time of the site investigations, the site may not have been in use. The following sites were either not visited during the survey period, or during the survey period, no boaters present and no surveys were passed out. These sites include:

Additional Boating Access Sites
Brooks Slough
Upriver Park
Willow Grove
Longview Yacht Club (not surveyed)
Kalama River Ramp
Sportsman Club Beach
Stevens Moorage
Pekins Landing (not surveyed)
Forks Ramp (not surveyed)
Caterpillar Ramp (not surveyed)
Vancouver Landing (not surveyed)
Reed Island (not surveyed)
Dallesport

Appendix E: Site Based Evaluation and Boater Recommended Improvements

The following pages contain detailed information about the site based evaluation scores mentioned in chapter five. The first few locations had too few boater responses and the evaluation scores were not tabulated, but boater recommendations are listed. For the other sites, a chart of the average scores given for each category are listed. These charts are followed by boater recommended improvements along with the number of boaters who made that recommendation.

Gerhart Gardens (N=2)

1 Courtesy dock and fish cleaning station
1 Dredge bottom of ramp

Fort Cascades (N=2)

1 Increase parking area

Port of Skamania (N=4; all windsurfers)

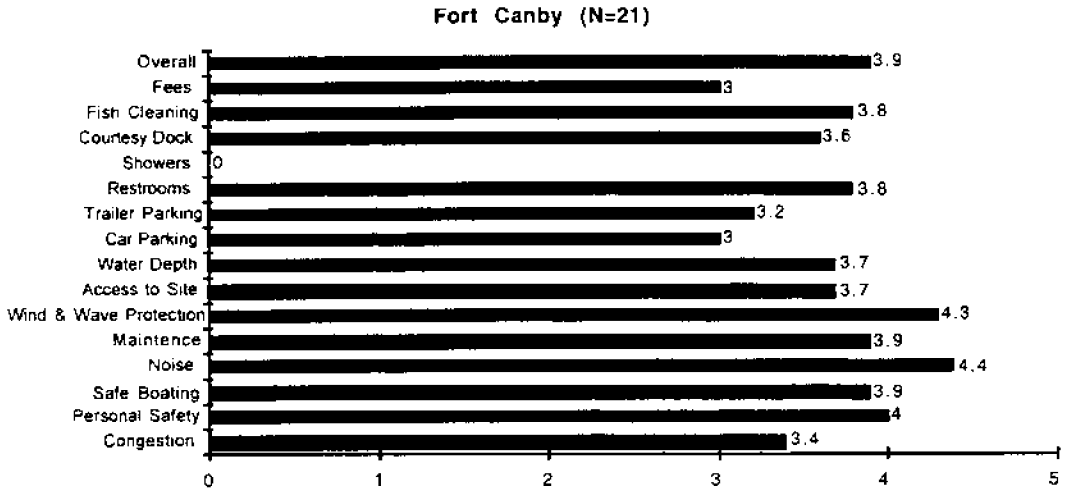
1 Add more parking
2 Add drinking water
2 Add restrooms
2 Add showers

Wind River (N=2)

1 Repair docks

Fort Canby State Park: RM 2

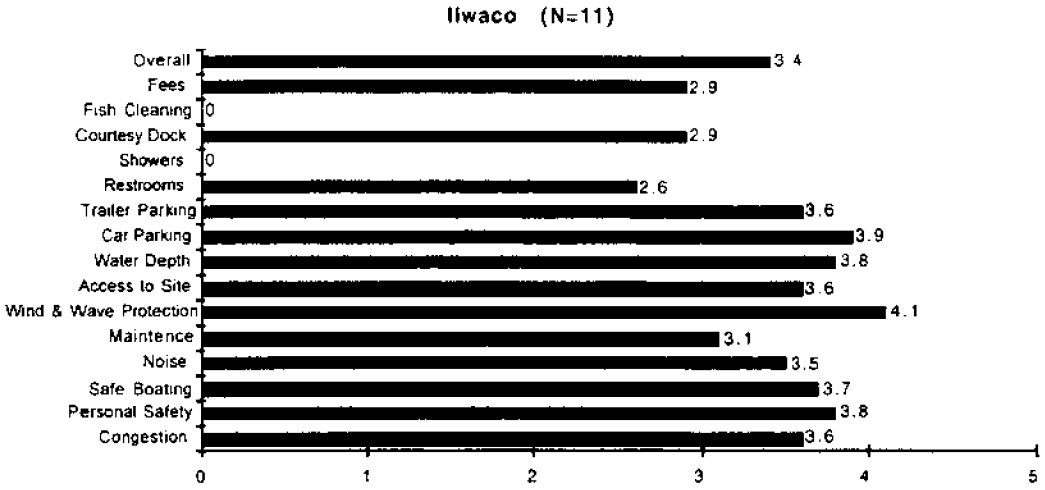
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a motor flushing station	1
improve launching road to water	1
Improve staging area	1
Lower fees	1
Make ramp steeper	1
Take out metal rings on pilings	1
Dredge area for low tide and larger boat access	2
Improve fish cleaning station	2
Increase courtesy dock length	2
Increase parking	3
Increase ramp size	7

Port of Ilwaco: RM 3

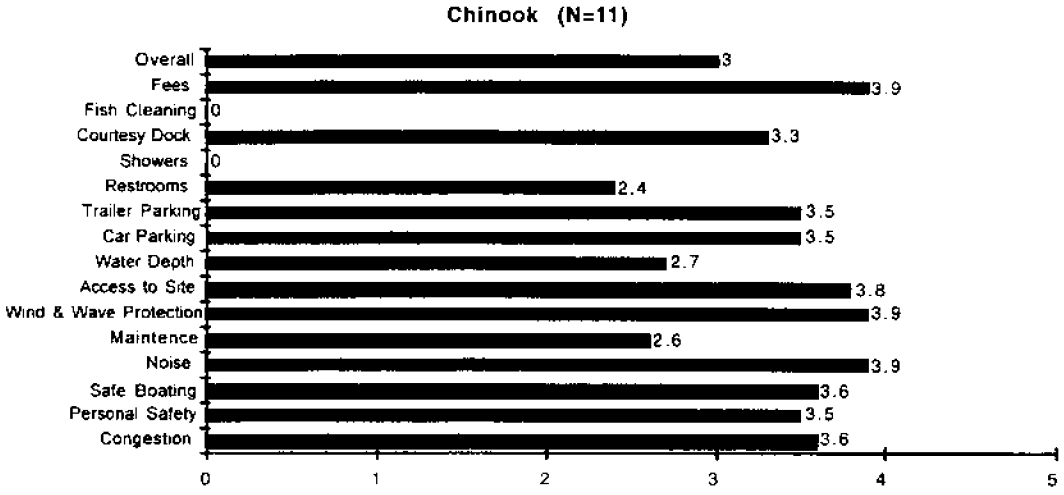
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a fish cleaning station	1
Improve channel maintenance	1
Improve channel markers	1
Increase number of electrical hook-ups	1
Increase port office hours during busy season	1
More seclusion from commercial traffic/noise	1
Reduce fees	1
Add showers	2
Build a boat ramp	2

Port of Chinook: RM 6.3

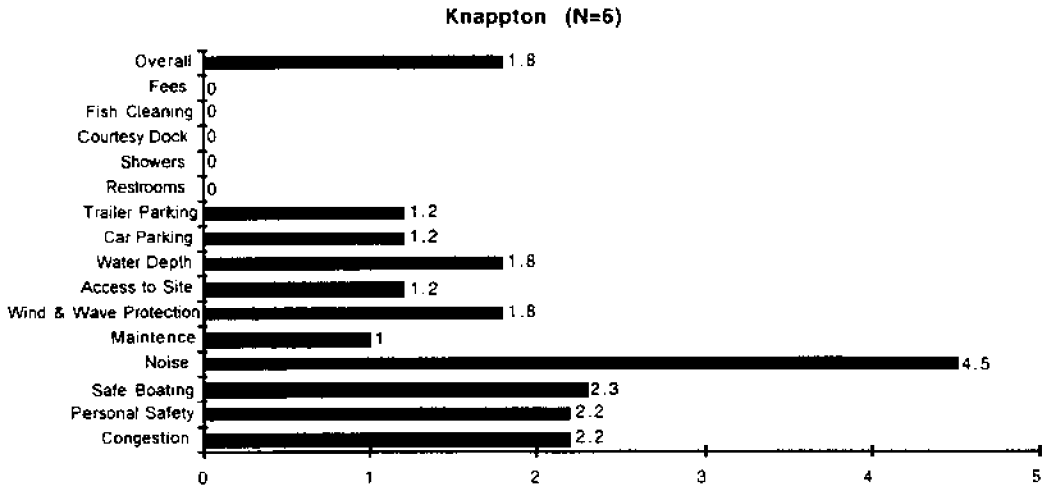
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a motor flushing station	1
Add camping	1
Improve channel markers	1
Add restrooms	2
Add a fish cleaning station	3
Improve ramp	3
Upgrade docks	3

Knappton: RM 17

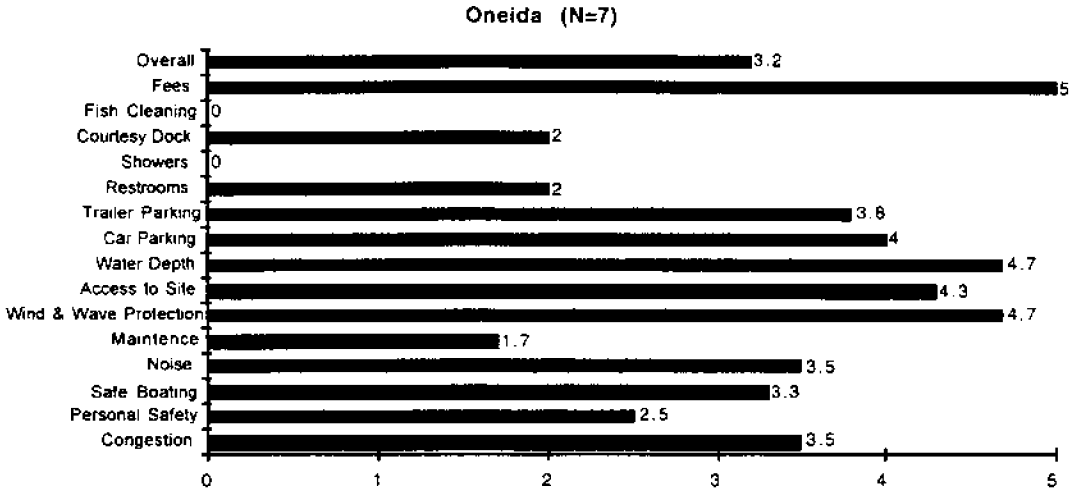
Boater Evaluation



Boater Recommendations	Number of Boaters
Increase parking	2
Remove some pilings	2
Construct an official boat ramp	3
improve road access to site	4

Oneida: RM 22

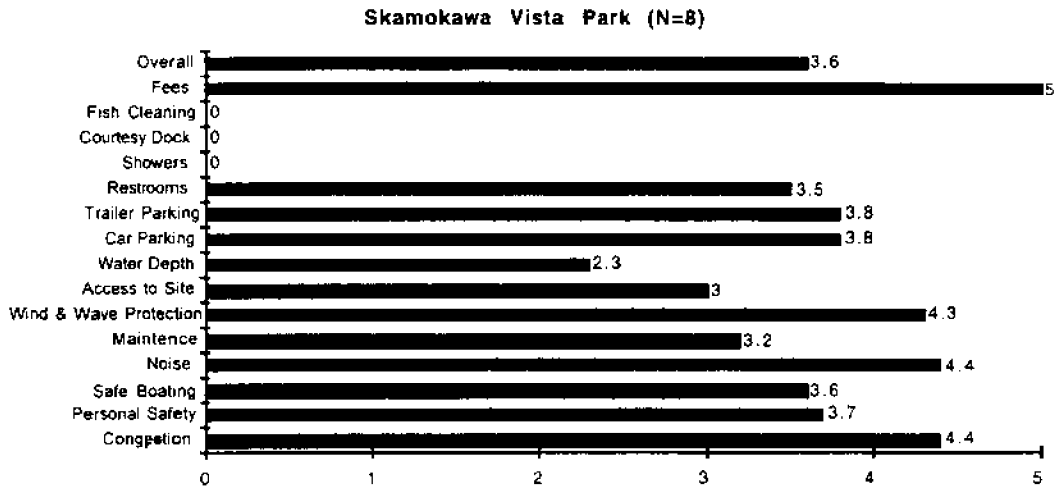
Boater Evaluation



	Boater Recommendations	Number of Boaters
1	Add a fish cleaning station	1
1	Add drinking water	1
1	Add restrooms	1
1	Improve maintenance	1
2	More dock space	2
3	Improve parking area	3
3	Widen ramp area	3

Skamokawa Vista Park: RM 33

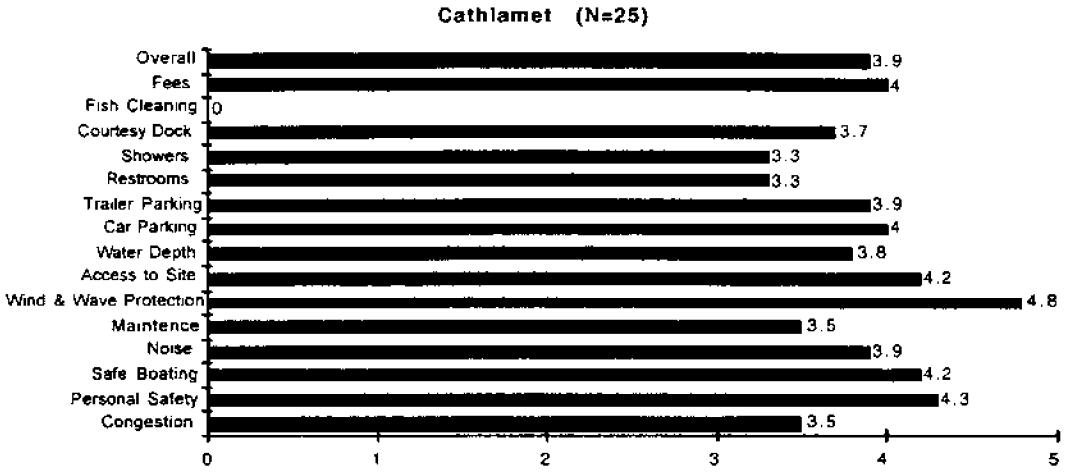
Boater Evaluation



	Boater Recommendations	Number of Boaters
1	Add a courtesy dock	1
1	Add courtesy dock	1
1	Dredge bottom of ramp	1
2	Widen ramp area	2
3	Improve ramp & shore maintenance	3

Cathlamet (Elochoman Slough Marina): RM 40

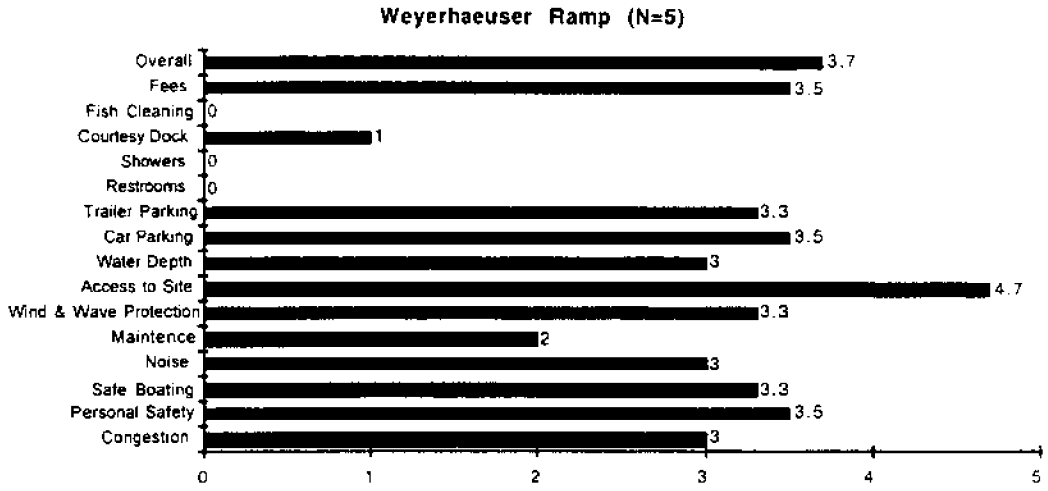
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a fish cleaning station	1
Add more camping and RV spaces	1
Add more electricity	1
Improve restrooms	1
Improve showers	1
Improve site maintenance	1
Increase dock space	1
Lower fees	1
Maintain pump-out station	1
Move fuel dock to safer location	1
Improve water depth/Dredge area	2
Increase moorage capacity	2
Repair docks	3

Weyerhaeuser: RM 63.5

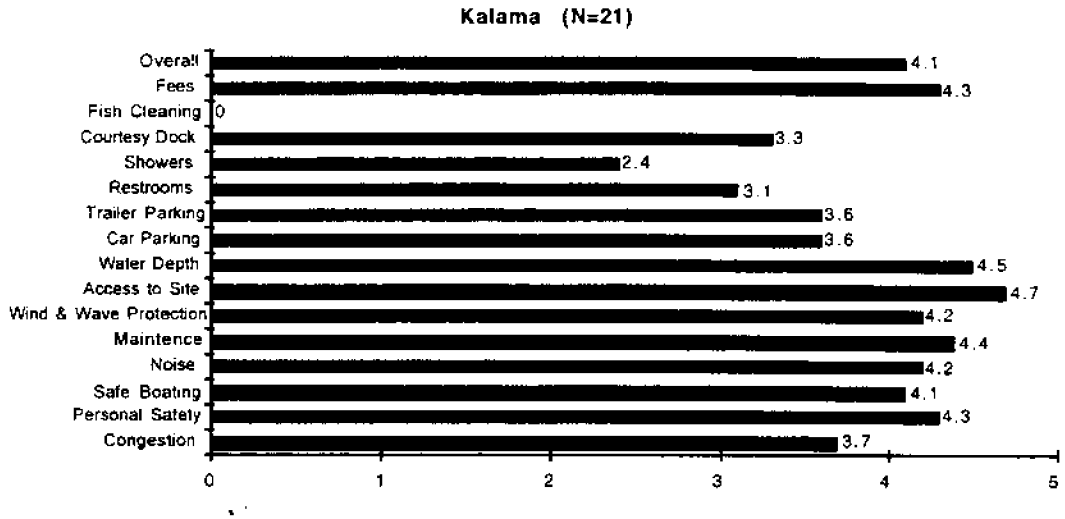
Boater Evaluation



	Boater Recommendations	Number of Boaters
1	Add restrooms	1
1	Increase dock space	1
2	Dredge bottom of ramp	2
3	More trailer parking	3
3	Widen ramp area	3

Port of Kalama: RM 75.1

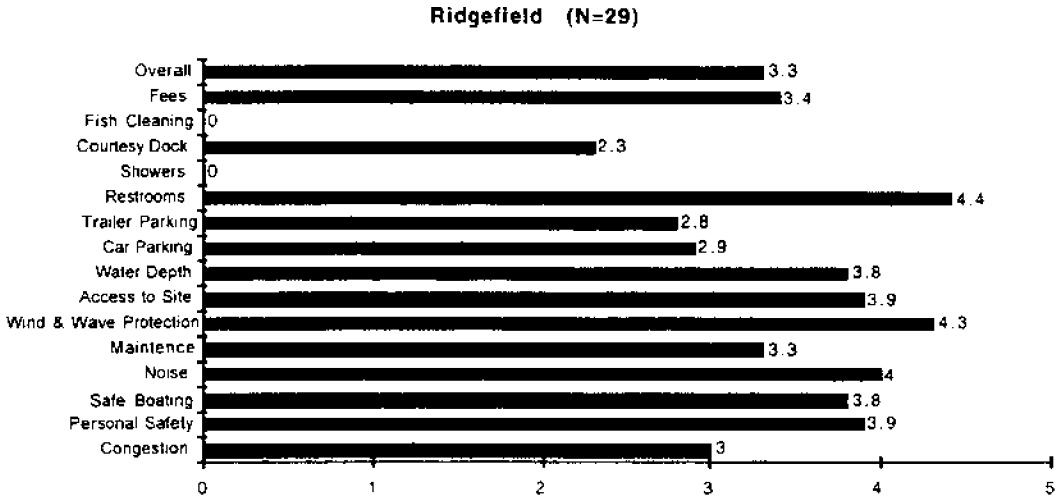
Boater Evaluation



Boater Recommendations		Number of Boaters
1	Add a port-a-pot dump	1
1	Add a trailer storage area	1
1	Boat ramp is too steep	1
1	Build a shower near ramp	1
1	Increase courtesy dock length	1
1	Make garbage cans more accessible	1
1	Man gas pump more often	1
1	Restrict jet skis	1
1	Widen ramp area	1
2	Improve parking	2
2	Increase guest moorage	2
2	Move transient dock closer to entrance	2
2	Put a restroom by ramp	2
2	Separate and regulate trailer and non-trailer parking	2
3	Build a restroom near launch	3

Lake River Boat Launch (Ridgefield): RM 90

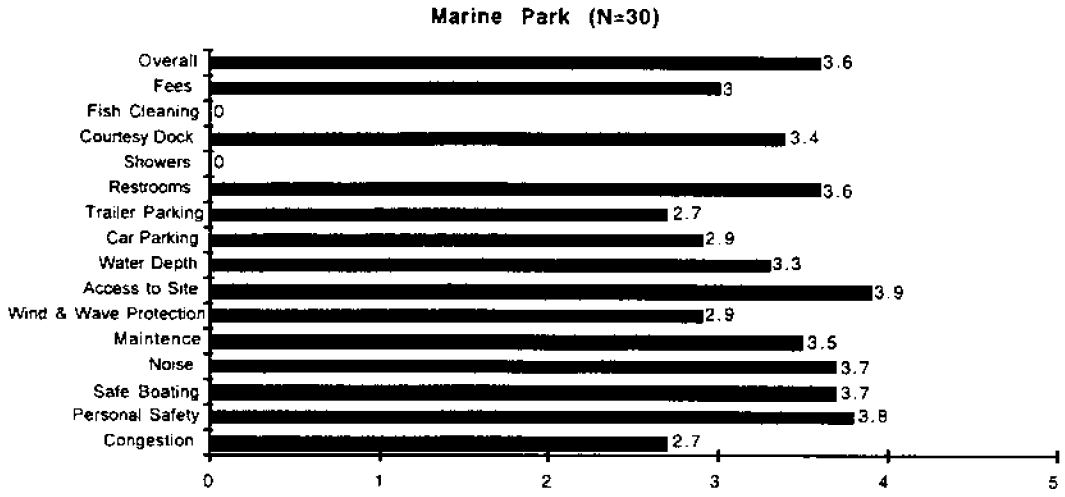
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a concessionaire	1
Get rid of electric hand dryers	1
Improve security	1
Provide rules and enforcement	1
Reduce fees for county residence	1
Underground the electrical overheads at top of ramp	1
Build new transient docks	2
Improve courtesy dock	2
Improve staging area	2
Dredge channel to Columbia River	2
Increase dock space	3
Widen ramp area	7
Pave and line parking area	14

Marine Park (Portco): RM 108

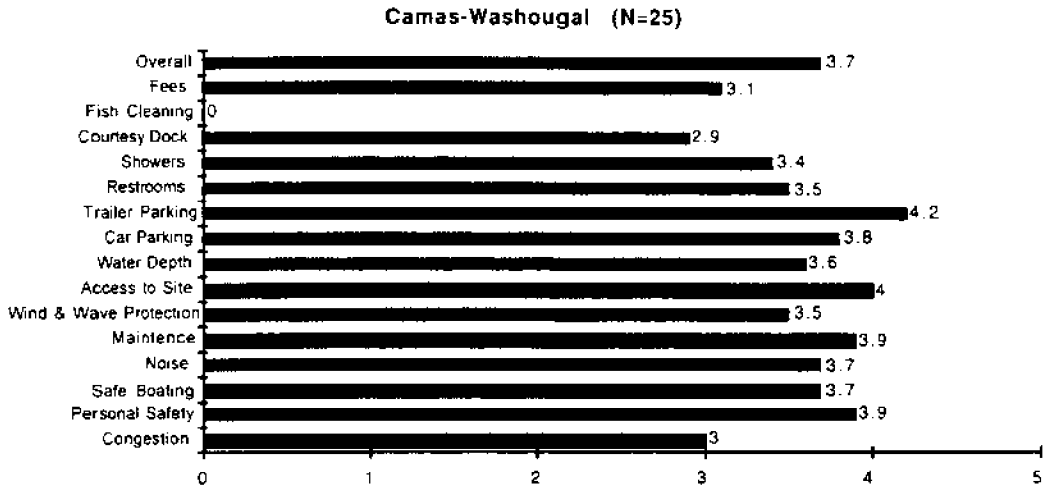
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a public phone	1
Add a wave and wake barrier	1
Add bathroom doors and higher walls for stalls	1
Add more restrooms	1
Build an alternate launch site	1
Enlarge site	1
Enlarge staging area	1
Improve security	1
Increase dock space	1
Pave parking area	1
Place a courtesy dock down center of ramp	1
Reduce parking fees	1
Widen ramp area	1
Clearly mark parking spaces	2
Put rubber bumpers on dock	2
Better parking regulation and enforcement	3
Restrict Jet Skiers-make a "jet ski only" area	5
Increase parking	6
Dredge bottom of ramp	7

Port of Camas-Washougal: RM 121.5

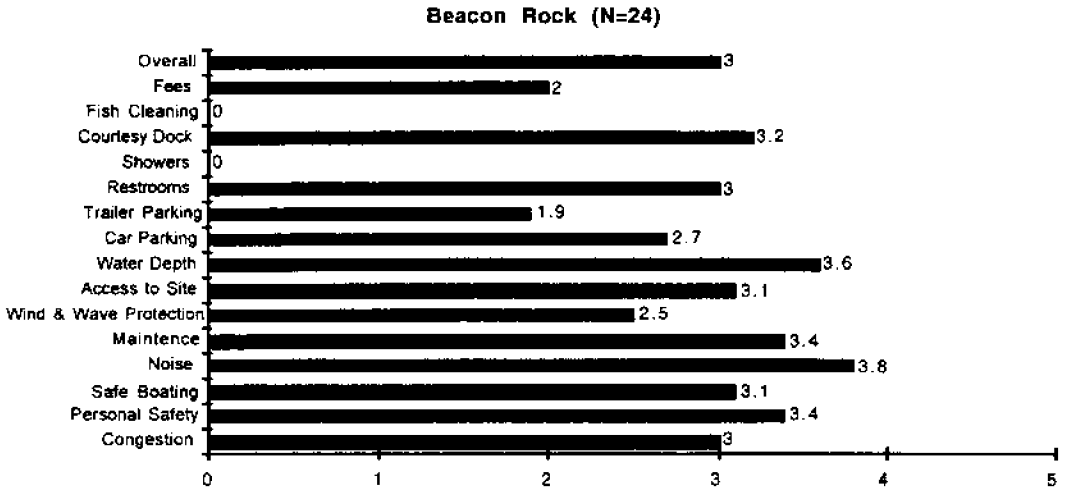
Boater Evaluation



Boater Recommendations	Number of Boaters
Add a fish cleaning station	1
Add a general store: food, pop, boat equipment	1
Add a pump-out station	1
Add more launch lanes	1
Add restrooms	1
Add showers	1
Construct a breakwater	1
Construct a pier	1
Enlarge site	1
Expand no wake zone	1
Improve Marine law enforcement	1
Increase parking	1
Open Parker House Restaurant	1
Remove fences on trails	1
Add more dock space	2
Eliminate fees	2
Restripe parking and lane lines	2
Repair and improve docks	4
Provide staging education and control	4
Dredge bottom of ramp	5

Beacon Rock State Park: RM 141.5

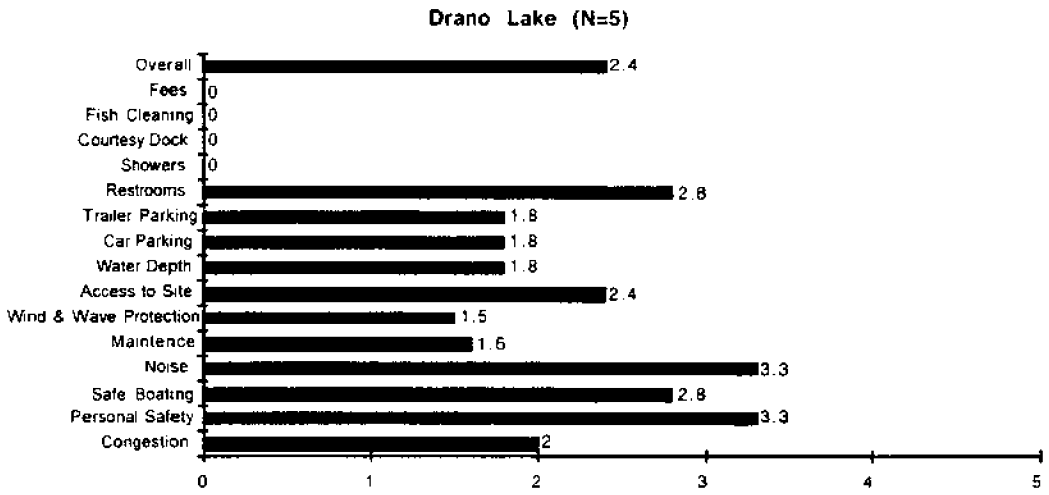
Boater Evaluation



Boater Recommendations	Number of Boaters
Add drinking water	1
Add mooring buoys	1
Don't charge rafted boats	1
Install fuel dock	1
Improve boat launch	1
Improve courtesy dock	1
Put rubber bumpers on dock	1
Add electricity	2
Improve restrooms	2
Add showers	3
Improve access road	3
Lower fees	3
Reduce effect of water current	3
Improve parking area	6
Add more dock space	7

Drano Lake: RM 162

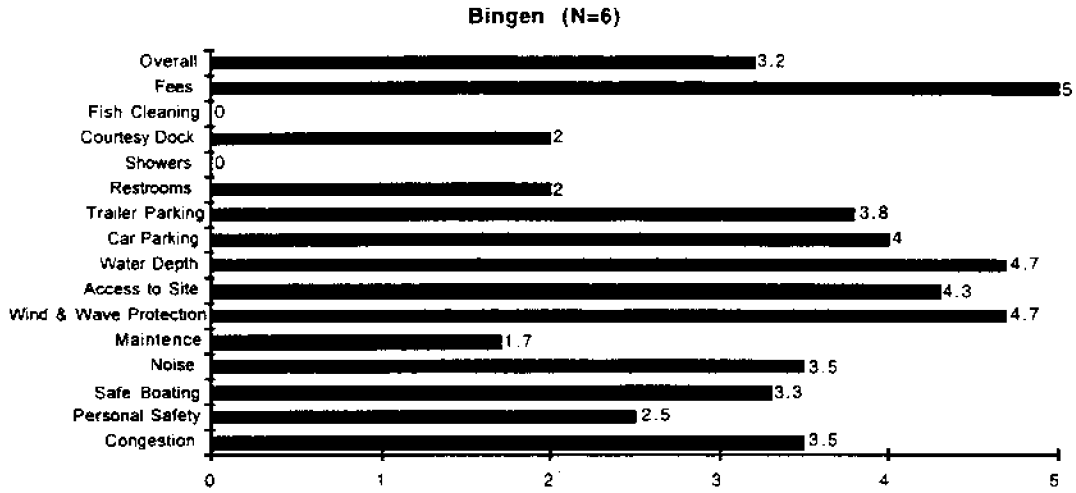
Boater Evaluation



Boater Recommendations	Number of Boaters
Add permanent restrooms	1
Charge camping fee	1
Charge launch fee	1
Prohibit camping	1
Remove rocks at bottom of ramp	1
Add a launch lane on east end	2
Increase facility size	2

Port of Bingen: RM 171.5

Boater Evaluation



Boater Recommendations	Number of Boaters
Add electricity	1
Add buoys outside basin	1
Add restrooms	1
Add showers	1
Allow camping near hand launch site	1
Charge daily use fee	1
Dredge area	1
Improve boat trailer parking	1
Improve security	1
Put more cleats on docks	1
Remove old pilings	1
Add more dock space	2
Improve site maintenance	5

Appendix F: Facility use and Boater Residence

This next section gives detailed information about the residence of the respondents using surveyed boating access facilities on the Columbia River. The most apparent piece of information gained is that, in the majority of cases, eighty percent or more of the users reside outside the local community and, even outside the local county. The number, (e.g., 9%) equals the percent of boaters residing in that community or region. The codes "R" "H", "L" and TM" mean the site has a boat ramp, a boat hoist, a travel lift, or transient moorage respectively.

Beacon Rock (R & TM): Twenty-three boaters were surveyed at Beacon Rock, none were really local. Two boaters (9%) came from Washougal, which was the nearest community. These boaters used this site an average of 16 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Puget Sound Region	3	7
Vancouver	7	8
Portland	11	2

Bingen (R & TM): Eight boaters were surveyed at Bingen. One boater resided in White Salmon, Skamania County(13%). This boaters used this site 12 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Vancouver	1	9
Puget Sound Region	1	2
Oregon	5	5

Cathlamet (R & TM): Twenty-three boaters used Cathlamet. Only two were from the local community (9%). These boaters used this site an average of 15 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Castle Rock	1	6
Woodland	1	5
Puget Sound Region	2	15
Kelso/Longview	2	11
Vancouver	4	10
Oregon	11	3

Chinook (R, H, & TM): Eleven boaters were surveyed at Chinook. Two of those were from the local communities of Chinook and Naselle (18%). These boaters used this site an average of 40 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Oregon	1	3
Yakima	1	30
Camas-Washougal	1	4
Kelso/Longview	2	3
Puget Sound Region	4	12

Drano Lake (R): Five boaters were surveyed at Drano Lake. There were no local boaters (0%). The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Bingen	1	5
Goldendale	1	50
Yakima	3	6

Fort Canby (R): Twenty one boaters were surveyed at Fort Canby. Four were from the local communities of Ilwaco and Ocean Park (19%). These boaters used this site an average of 24 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Battle Ground	1	3
Pasco	1	3
Camas/Washougal	1	5
Kelso/Longview	2	12
Oregon	3	5
Puget Sound Region	4	5
Vancouver	5	10

Ilwaco (R, H, TL, & TM): Eleven boaters were surveyed at Ilwaco. There were no local users (0%). The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Woodland	1	3
Kelso/Longview	2	5
Puget Sound Region	3	1
Oregon	5	7

Knappton (R): Six boaters were surveyed at Knappton. Two boaters were from the local community of Naselle (33%). These boaters used this site an average of 45 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
California	1	60
Ridgefield	1	4
Puget Sound Region	2	46

Oneida (R): Seven boaters were surveyed at Oneida. One boater came from the local community of Rosburg. This boater used the site 35 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Longbeach	1	35
Oregon	1	3
Puget Sound Region	1	20
Vancouver	1	3
Longview	2	9

Marine Park (R): Thirty-one boaters were surveyed at Marine Park. This location had the largest local use rate. Twenty-five of the users were from Vancouver (80%). These boaters used this site an average of 23 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Battle Ground	1	40
Ridgefield	1	10
Oregon	4	10

Port of Camas-Washougal (R & TM): Twenty-four boaters were surveyed at the Port of Camas-Washougal. Four of these were from Camas or Washougal (17%). These boaters used this site an average of 40 times over the last 12 months. Vancouver is in the same county, so if we add their thirteen boaters, the county use jumps to 71%. These boaters used this site an average of 17 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Ocean Park	1	40
Oregon	2	13

Port of Skamania (R): The Port of Skamania only serviced sailboarders. No motorboaters were surveyed. One came from Stevenson (25%). This boater used the site 12 times over the last 12 months. The residence of other sailboarders were:

Residence	# of Boaters	Average Yearly Use
California	1	4
Oregon	2	50

Ridgefield (R): Thirty boaters were surveyed at Ridgefield. Ten were from the local communities of Ridgefield and Woodland (33%). These boaters used this site an average of 21 times over the last 12 months. If we consider all the boaters from Clark County, e.g., fourteen from Vancouver, one from Camas/Washougal, and two from Battle Ground, this number increases to 90%. Combined, these boaters used this site an average of 15 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Oregon	3	1

Skamokawa Vista Park (R): Nine boaters used the boat ramp at Skamokawa Vista Park. Two of those were from the local community (13%). These boaters used this site an average of 20 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Woodland	1	10
Puget Sound Region	1	15
Kelso/Longview	5	3

Weyerhaeuser Ramp (R): Four boaters used the Weyerhaeuser site. Three of those boaters were from the local community (75%). These boaters used this site an average of 30 times over the last 12 months. The residence of other boaters were:

Residence	# of Boaters	Average Yearly Use
Ridgefield	1	30

Appendix G: Boater requested locations for new and improved boating access sites

Locations and number of boaters requesting new launching facilities

River Mile	Location	# of Boaters
24	Altoona	1
88-91	Bachelor Island	1
? (48 or 132)	Cape Horn Area	1
2	Columbia River Coast Guard Station	1
?	Cooks Beach	1
189.5	Dallesport	1
110	East of Portco S-1	1
98.5	Morgans Landing	1
140	Skamania Landing	1
40-46	Puget Island	1
150	Stevenson Co.-ply	1
100	Vancouver-Lower River Road: NW of Alcoa	1
101.5	Willamette River	1
13.5	Astoria Bridge	2
62	Barlow Point	2
52	County Line Park	2
3	Ilwaco	2
54	Mill Creek	2
115.5	164th Avenue - Fishers Landing	3
14	Megler Rest Area	3
104	Port of Vancouver	3
136.4	St. Cloud	3
102	West Vancouver	3
168	Big White Salmon River	4
106.5	I-5 Bridge	4
87	Lewis River	5
58	Willow Grove	5
56.5	Stella	6
102-110	Vancouver	6
99	Frenchmans Bar	8
112.5	I-205 Bridge	8
85	Woodland	9
17	Knappton	16
66	Longview	22

Locations and number of boaters requesting improved launch facilities

River Mile	Location	# of Boaters
31	Aldrich Pt.	1
171.5	Bingen	1
34	Brooks Slough	1
98	Caterpillar Island	1
61	Coal Creek Slough	1
127	Corbett	1
?	Dalton Point	1
100	Hadleys Island	1
167	Hatchery	1
3	Ilwaco	1
73	Kalama River	1
107	Swan Island	1
197	Avery	2
144	Fort Cascades	2
8	Fort Steven	2
115	Government Island	2
87	Stevens Moorage (Bee Bee's)	2
150	Stevenson	2
154	Wind River	2
54.5	Abernathy Creek	3
129	Rooster Rock	3
63.5	Weyerhaeuser Ramp	3
162	Drano Lake	4
180.7	Lyle	4
40	Cathlamet	5
6.3	Chinook	5
67.5	Rainier	5
33	Skamokawa	6
22	Deep River	9
141.5	Beacon Rock	10
121.5	Camas/Washougal	10
2	Ft. Canby	10
108	Marine Park	12
90	Ridgefield	13
68	Gerhart Gardens	18

Locations and number of boaters requesting new TM facilities

River Mile	Location	# of Boaters
14	Astoria	1
88-91	Bachelor Slough	1
62	Barlow Point	1
153	Carson	1
40	Cathlamet	1
61	Coal Creek Slough	1
161	Cooks	1
55	Crims Island	1
60	Fisher Island	1
117	Flag/McGuires Islands, OR	1
10	Ft. Columbia	1
152	Government Cove, OR	1
155	Home Valley	1
120	Lady Island	1
135	Meger Astoria Bridge: upstream	1
177	Memaloose Area	1
54	Mill Creek	1
68	Mouth of Cowlitz	1
101.5	Mouth of Willamette River	1
41	Puget Island (Wauna)	1
125-127	Reed Island	1
75	Sandy Island, OR	1
33-35	Steamboat Slough	1
150	Stevenson	1
100	Vancouver-Lower River Road: NW of Alcoa	1
61	Walker Island, OR	1
115.5	Fisher's Landing (164th St.)	2
120	Camas	2
68-72	Carrolls Channel	2
22	Deep River	2
2	Ft. Canby	2
17	Knappton	2
62-63	Lord Island	2
180.7	Lyle	2
87	Mouth of Lewis River	2
105	Port of Vancouver	2
41	Puget Island (Little Island)	2
58	Willow Grove	2

112.5	Between I5 & I205	3
131	Sand Island, OR	3
56.5	Stella	3
85	Woodland	3
88-91	Bachelor Island	4
162	Drano Lake	4
99	Frenchmans Bar	4
80.5	Martin Island	4
87-102	Sauvie Island, OR	4
33	Skamokawa	5
90	Ridgefield	8
102-110	Vancouver	11
64-68	Longview	12

Locations and number of boaters requesting improved TM facilities

River Mile	Location	# of Boaters
9	Hammond, OR	1
3	Ilwaco	1
10.5	St. Johns, OR	1
?	Steak Isle	1
106	Vancouver	1
6.3	Chinook	2
113	Commodores Cove	2
100	Hadleys Landing, OR	2
116.5	Bartletts Landing	3
121.5	Camas/Washougal	4
40	Cathlamet	4
67.5	Rainier, OR	4
86	St. Helens, OR	4
171.5	Bingen Marina	5
129	Rooster Rock, OR	6
75.1	Kalama	9
116	Government Island, OR	11
141.5	Beacon Rock	18

Appendix H: Contact list

Investigators contacted a number individuals who generously shared their knowledge of the Columbia River and potential and existing boating access sites and provided valuable assistance in preparing this report. Some people were probably left out and investigators apologize in advance for not mentioning them.

Larry Chapman
Ft. Canby State Park

Rich Costello
Dept. of Fish and Wildlife
PO Box 43135
Olympia, WA 98504-3135

Anita Gahimer
Manager
Port of Skamania County
PO Box 413
Stevenson, WA 98648

Tom Gentry
Previous owner of Gentrys Landing

Paul George
Washington State Parks and Recreation Commission
PO Box 42650
Olympia, WA 98504-2650

Richard Goodell
US Army Corps of Engineers
Portland District

Robert F. Goodwin
Coastal Resources Specialist
University of Washington
School of Marine Affairs
Seattle, WA 98195-6715

Tim Halderman
Clark County Parks and Recreation

Paul Malmberg
Regional Manager
Washington State Parks & Recreation Comm.
11838 Tilley Rd. S.
Olympia, WA 98512-9167

Jim Mast
Manager
Port of Wahkiakum Co. No. 1
PO Box 651
Cathlamet, WA 98612

Steve McClain
Manager
Port of Wahkiakum #2
PO Box 220
Skamokawa, WA 98647

Rusty Moe
Vancouver Parks and Recreation

Ron Musser
US Army Corps of Engineers
Portland District

Howie Odden
Cowlitz Co Parks
207 Fourth Avenue
Kelso, WA 98626

Ken O'Hollaren
Executive Director
Port of Longview
PO Box 1258
Longview, WA 98632

Randy Person
Washington State Parks & Recreation Comm.
7150 Cleanwater Lane
Olympia, WA 98504-2650

Jim Presser
Area Manager
Battle Ground Lake State Park
18002 NE 249th Street
Battle Ground, WA 98604

Lisa Randlette
WA DNR Aquatic Lands
PO Box 47027
Olympia, WA 98504-7027

David Ripp
Manager
Port of Woodland
PO Box 87
Woodland, WA 98674

William J. Rompa
Manager
Port of Ridgefield
PO Box 55
Ridgefield, WA 98642

Elmer Stacy
Manager
Port of Klickitat
PO Box 306
Bingen, WA 98605

Doug Strong
State Parks and Recreation Commission
PO Box 42650
Olympia, WA 98504-2650

Sheldon Tyler
Manager
Port of Camas-Washougal
24 A Street
Washougal, WA 98671

Appendix I: Workshop Attendees

The following individuals took part in the 1996 Columbia River Boating Access Workshop and helped developed the prioritized list of potential boating access sites.

Charles Ashcroft
Director
Columbia County Forests
Columbia County Courthouse
St. Helens, OR, 97051

Greg Baker
Executive Director
Port of Hood River
PO Box 239
Hood River, OR 97031

Janine Belleque
Oregon State Marine Board
435 Commercial St N
Salem, OR, 97310

Rich Bemm
Parks Director
City of Longview
PO Box 128
Longview, WA 98632-7080

Don Bennett
Fish & Wildlife Biologist
Oregon Department
17330 SE Evelyn St
Clackamas, OR, 97015

Bernie Bills
Port of Vancouver
PO Box 1180
Vancouver, WA 98666

Jeffrey Birmingham
Clatsop County Parks
1100 Olney Ave
Astoria, OR, 97103

Russ Burtner
Park Director
City of Kennewick
PO Box 6108
Kennewick, WA 99336-0108

Kent Cash
Cowlitz County Public Works
207 Fourth Ave N
Kelso, WA, 98626

Sarah Cerveny-Grimm[1]

Don Christensen
Vice Chair
Oregon State Marine Board
435 Commercial St. NE
Salem, OR, 97310-0650

Don Clark
Interagency Committee for Outdoor Recreation
PO Box 40917
Olympia, WA 98504-0917

Betty Clemens
Manager
Port of Ilwaco
PO Box 307
Ilwaco, WA 98624

Pat Clinton
Coastal Planner
CREST
750 Commercial St, Rm 214
Astoria, OR, 97103

[1]Author: *MRM Internship Report Draft. A case study of recreational boating on the upper Columbia River (The Dalles to Tri-Cities)*

Pat Corcoran
Community Development Specialist
Oregon State University
213 Ballard Extension Hall
Corvallis, OR, 97331

Rich Costello
Washington Department
PO Box 43135
Olympia, WA 98504-3135

George Cress
Director of Planning
Port of Longview
PO Box 1258
Longview, WA 98632

Bruce DeYoung
Coastal Recreation Business Specialist
Oregon Extension/Sea Grant
OSU College of Business
Corvallis, OR, 97331-2603

Laura Eckert-Johnson
Director
Interagency Committee for Outdoor Recreation
PO Box 40917
Olympia, WA 98504-0917

Greg Ermis
Marina Manager
Port of Camas-Washougal
24 A Street
Washougal, WA, 98671

Jim Eychaner
Assistant Manager, Planning Services
Interagency Committee for Outdoor Recreation
PO Box 40917
Olympia, WA 98504-0917

Jim Fox
Special Assistant to the Director
Interagency Committee for Outdoor Recreation
PO Box 40917
Olympia, WA 98504-0917

Anita Gahimer
Manager
Port of Skamania County
PO Box 413
Stevenson, WA 98648

Robert Goodwin
Coastal Resources Specialist
Washington Sea Grant Program
3716 Brooklyn Avenue NE
Seattle, WA, 98105-6716

Doug Hagedorn
Landscape Architect
Clark County Parks Department
PO Box 5000
Vancouver, WA 98668

Byron Hanke
Executive Director
Port of Vancouver
PO Box 1180
Vancouver, WA 98666

Dale Hansen
Member
Clover Island Yacht Club
3202 W 47th Ave
Kennewick, WA, 99337

Dorothy Hansen
Clover Island Yacht Club
3202 W 47th Ave
Kennewick, WA, 99337

Steve Harbell
Coast Field Agent
Washington Sea Grant Program
Pacific County Extension Office
South Bend, WA 98586

Scott Hege
Port Director
Port of The Dalles
3636 Klint
The Dalles, OR, 97058

Alyssa Hennessy
Planner
Cowlitz-Wahkiakum Council of Governments
Admin. Annex
Kelso, WA, 98626

Jurgen Hess
Planning/Design Officer
Columbia River Gorge Commission
902 Wasco Avenue, Ste 200
Hood River, OR, 97031

Shelley Hudson
Marina Manager
Port of St. Helens
PO Box 598
St. Helens, OR 97051

Wally Jajou
URS Consultants
500 NE Multnomah, Ste 1000
Portland, OR, 97232

Ray Jewell
Northwest Outboard Trailer Sailors
PO Box 1516
Portland, OR 97207

Mike Jones
Field Administrator
Port of St. Helens
PO Box 598
St. Helens, OR 97051

Lt. Terry Jones
Multnomah County Sheriff's Office
River Patrol
12240 NE Glisan St
Portland, OR, 97230

Claudia Kelley
Washington Sea Grant Program
3716 Brooklyn Avenue NE
Seattle, WA, 98105-6716

Buz Kirchner
Northwest Outboard Trailer Sailors
PO Box 1516
Portland, OR 97207

Dan Kromer
O & M Manager
METRO Regional Parks and Greenspaces
600 NE Grand
Portland, OR, 97232

Pat Lee
Planning & Capital Development
METRO Regional Parks and Greenspaces
600 NE Grand
Portland, OR, 97232

Donna Mason
Chair
Interagency Committee for Outdoor Recreation
PO Box 40917
Olympia, WA 98504-0917

Jim Mast
Manager
Port of Wahkiakum Co. No. 1
PO Box 651
Cathlamet, WA 98612

Brian McCavitt
Park Ranger
Bonneville Lock and Dam
Cascade Locks, OR, 97014

Steve McClain
Director
Wahkiakum County Parks
PO Box 543
Cathlamet, WA 98612

Tom O'Connor
Oregon State Marine Board
435 Commercial St NE
Salem, OR, 97310-0650

Dave Obern
Supt. of Boating Facilities
Oregon State Marine Board
435 Commercial St. NE
Salem, OR, 97310-0650

Howie Odden
Assistant Director
Cowlitz County Parks
207 Fourth Avenue No
Kelso, WA, 98626-4189

Carol Olsen
Port of Wahkiakum Co. No. 1
PO Box 651
Cathlamet, WA 98612

Jim Pacheco
University of Washington
Box 355685
Seattle, WA, 98195

Mel Patch
Vice Commodore
Tollycrafters Northwest
7420 N Chase
Portland, OR, 97217

Chip Pierson
U.S. Corps of Engineers
Portland, OR 97208

Clay Piper
Wasco County Sheriff's Office
The Dalles, OR,

Jim Presser
Area Manager
Battle Ground Lake State Park
18002 NE 249th Street
Battle Ground, WA, 98604

Mike Ramsey
Aquatic Resources Division
Washington Department
PO Box 47027
Olympia, WA 98504-7027

David Ripp
Manager
Port of Woodland
PO Box 87
Woodland, WA 98674

William Robinson
Harbormaster
City of Warrenton
PO Box 250
Warrenton, OR 97146-0250

Don Rueppell
Board Member
Northwest Marine Trade Association
1900 N. Northlake Way Suite 223
Seattle, WA 98103-9087

John Scarola
Goldendale Area Manager
Washington State Parks
50 Hwy 97
Goldendale, WA, 98620

Jim Schwitter
Executive Vice President
Columbia River Yachting Association
12050 N Jantzen
Portland, OR, 97217

Wayne Shuyler
Assistant Director
Oregon State Marine Board
435 Commercial St. NE
Salem, OR, 97310-0650

Gary Simmons
Commodore
Tollycrafters Northwest
1004_34th St
Washougal, WA, 98671

Jo Sohneronne
WA Department of Ecology
PO Box 47600
Olympia, WA 98504

Michael Spranger
Asst. Director for MAS
Washington Sea Grant Program
3716 Brooklyn Avenue NE
Seattle, WA, 98105-6716

Mark Stenberg
Planner
SCORP, Oregon Parks and Recreation
1115 Commercial St NE
Salem, OR, 97310

Tom Turk
Columbia County Sheriff's Office

Mary Vasse
Planner
Columbia River Gorge Commission
White Salmon, WA, 98672

Rolf Walenstrom
Northwest Outboard Trailer Sailors
PO Box 1516
Portland, OR 97207

Bob Warrick
Deputy
Skamania County Sheriff's Office
PO Box 790
Stevenson, WA 98648

Jack Wicker
Marina Manager
Port of Kalama
PO Box 70
Kalama, WA 98625

Jack Wiles
Area Manager
Oregon Parks and Recreation
PO Box 500
Portland, OR 97201

Joe Wilson
Park Director
City of Richland
PO Box 190
Richland, WA 99352-0190

Ken Withers
Columbia County Sheriff's Office

Dona Wolfe
Manager, Clean Vessel Program
State Parks and Recreation Commisssion
Olympia, WA, 98504-2650