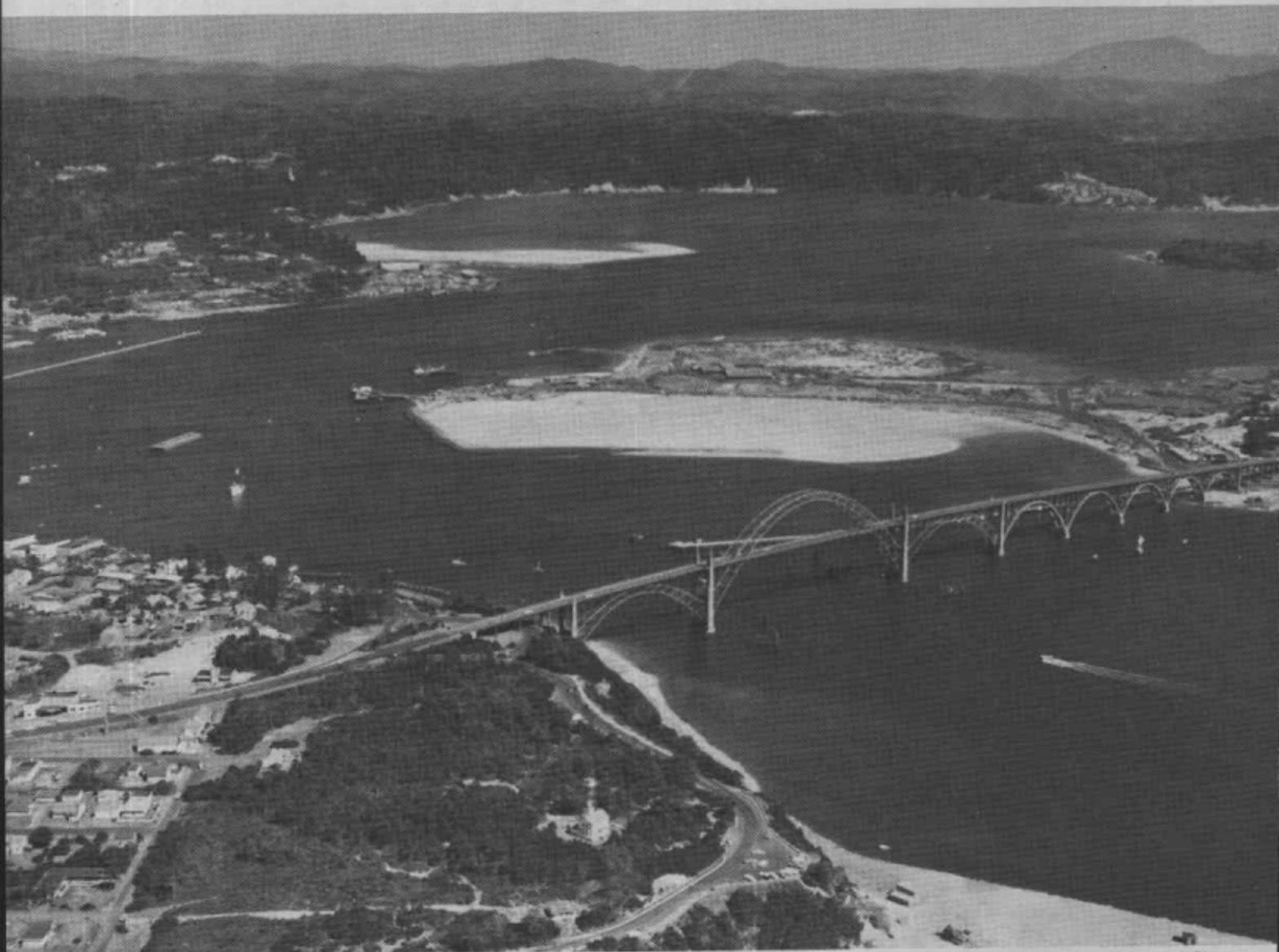


OREGON'S SUBMERGED and SUBMERSIBLE LANDS

Oceanography Dept
MSC

A STUDY OF OWNERSHIP HISTORY
CONFLICTING CLAIMS OF TITLE
LEGISLATIVE RECOMMENDATIONS



Oregon State Highway Department Photo



Advisory Committee to the State Land Board 1969-1970

CHANGES IN BILL NUMBERS

The bills listed on the inside of this cover were designated originally for introduction in the House prior to convening of the Legislature. As a consequence, they were given "pre-session" House Bill numbers. References in the text of this report carry the pre-session assigned House Bill numbers.

Subsequently, after the convening of the legislature and the publication of this report, a decision was made to introduce all of the bills in the Senate. Thus the House Bill numbers are no longer correct and the House-to-Senate conversion numbers are shown.

- SB 156** Abandoned riverbed quitclaim plan—
(HB 1070) adverse possession concept
- SB 157** Relating to determination of upper limits of navigability as
(HB 1071) it may have existed in 1859 relevant to state ownership of beds
and banks of navigable waterways
- SB 158** Relating to quitclaiming abandoned riverbeds and reserving
(HB 1072) aggregate deposits to the state
- SB 159** Relating to alternative measurement by weight in tons for
(HB 1073) royalty computation on material removed from submerged
and submersible lands
- SB 196** Relating to repurchase of tidelands
(HB 1075)
- SB 295** Relating to estuarine zoning—ecological factors to be con-
(HB 1074) sidered.

COVER

An aerial view of the Yaquina Bay Estuary. This is the site of Oregon State University's Sea Grant Marine Science Center. It is located on filled land in the upper center of the photograph. The Yaquina Estuary is considered one of the most important of Oregon's 14 significant estuaries.

Its marine life productivity, its Sea Grant School, its potential for urban and industrial development, its recreational attractions, caused it to be selected by the Department of the Interior for a special study. This study, which includes land use as well as aquatic environment and long range economics, is being conducted in cooperation with the Department of Housing and Urban Development, the Urban Planning Assistance Program, the Yaquina Bay Regional Planning Commission, the Lincoln County Planning Commission, the Board of Lincoln County Commissioners, the Marine Science Center, the U. S. Corps of Engineers, U. S. Department of the Interior, and the Division of State Lands.

Two cities are maturing on the Yaquina Estuary shores. Commercial and sports fishing are burgeoning facets of its industrial and recreational industry.

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November 15, 1970

Honorable Members
State Land Board
Fifty-sixth Legislative Assembly

This Committee is pleased to submit its report covering a partial completion of the work assigned by HJR 40. The mission was to investigate Oregon's claims to the submerged and submersible lands of its navigable waterways; to seek solutions to conflicting claims of ownership by private individuals, political subdivisions, and industrial groups who are riparian owners on Oregon's navigable waterways.

Uncertainty exists relating to riparian rights of access and use as contrasted with the proprietary claims of the state in its role of preserving the public interest and maintaining the doctrine of public trust.

The Committee's work ranged over the history of Oregon's acquisition and disposal of its submerged and submersible lands, use of its navigable waterways, the shifting of beds of navigable streams, and the conflicting claims of ownership between the state and riparian owners affected. Problems relating to navigation in fields not pre-empted by the federal government, public easements to a common fishery on submersible land conveyed to private ownership, industrial and recreational uses in Oregon's estuarine resources were also examined.

Legislative recommendations developed from the Committee's studies represent a broad consensus and hopefully point toward solving some of the conflicts and problems encountered. Many of the problems studied may ultimately be solved only through court action. There appears to be no felicitous solution to conflicting ownership claims. Justice and equity may be somewhat at odds with a need for practicality and consideration of mutual ameliorations.

Your careful consideration of the findings and recommendations of the Committee is respectfully solicited.

Very truly yours,

Robert L. Elfstrom
Chairman

The preparation and publishing of this report was financially aided through a federal grant from the Water Research Act of 1964 under Title II (P.L. 88-379) Proposal No. C-2177; Grant No. 14-31-0001-3378; Amount \$20,000.

*Advisory Committee to the
Oregon State Land Board*

Available from the
Joint Committee on Legislative Administration
State Capitol
Salem, Oregon

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Enrolled
House Joint Resolution 40

Sponsored by COMMITTEE ON NATURAL RESOURCES

Whereas considerable uncertainty exists as to the nature and extent of the state's interest in the submerged and submersible lands of Oregon's navigable waterways; and

Whereas this uncertainty endangers the rights of all citizens as to their use of these public lands; and

Whereas many Oregon businesses and private individuals own land along navigable waters and at the present time there is much doubt as to the extent of their rights of access and use of the navigable waters; now, therefore,

Be It Resolved by the Legislative Assembly of the State of Oregon:

(1) There is created an Advisory Committee to the State Land Board, consisting of nine members. The President of the Senate shall appoint three members from among the members of the Senate and the Speaker of the House of Representatives shall appoint four members from among the members of the House of Representatives. The President and Speaker each shall appoint one member of the public, subject to confirmation by a majority of the members of the State Land Board. The committee shall undertake a study of Oregon's submerged and submersible lands.

(2) The study undertaken pursuant to this resolution shall include the regulation, control, usage and ownership of Oregon's navigable waterways, and submerged and submersible lands, with a view to proposing changes in existing laws of this state, or directives, relating to navigable waterways and submerged and submersible lands, and shall include but not be limited to:

(a) Conflicting ownerships, particularly involving public and private ownerships and riparian rights;

(b) Conflicting uses, such as recreational, industrial and navigational, and their effect on the state's proprietary interests;

(c) This state's rights and responsibilities, and the rights of riparian landowners, with respect to navigable waterways and submerged and submersible lands;

(d) The law of this state and of other states and nations, statutory and otherwise, relating to the subjects studied by the committee.

(3) The committee may employ such professional and administrative staff and clerical personnel as it considers necessary to carry out the study directed by this resolution, and fix the amount of compensation of such individuals. Any professional staff employed or retained by the committee shall be individuals who have demonstrated an interest in and familiarity with the subjects studied by the committee.

(4) Claims for expenses of the committee shall be audited, and warrants drawn, as provided by law, payable out of funds appropriated for this purpose by section 1, chapter _____, Oregon Laws 1969 (Enrolled House Bill 2111).

(5) The committee shall submit a report containing the results of its study, and any recommended legislation, to the State Land Board and to the Fifty-sixth Legislative Assembly, on the date prescribed for submission of reports by other interim committees to the Fifty-sixth Legislative Assembly, but not later than January 1, 1971.



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- E. Navigable and non-navigable lakes and reservoirs in Oregon
- F. Apportionment of the Common School Fund

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PREFACE

The task which faced the Advisory Committee to the State Land Board was one of considerable complexity and scope. It was to make a comprehensive investigation and study of the many aspects of conflicting ownership claims and use of Oregon's submerged and submersible lands. This problem has been explored to some extent by an earlier interim committee on Public Lands, however, the emphasis of that committee was directed more to the dry land problems of the state than to its submerged and submersible lands.

To cope with the assignment, the committee organized itself into three subcommittees. Each subcommittee assumed a responsibility for a major emphasis of interest in the broad assignment. It was quickly discovered that the interest of each, even though having a special emphasis, overlapped considerably.

As a result of this, the entire committee, in each instance of a subcommittee meeting, assembled as a whole committee. This system of meeting as a whole committee was believed to be an aid in expediting the review and evaluations of the findings and recommendations of the separate subcommittees. The reports of the subcommittees are not separated in the Committee Report.

During the study and investigations, more than 100 witnesses interviewed, representing individuals, industries, conservation organizations, educational interests, persons of professional expertise in the related fields of study, experts in governmental agencies whose work involved submerged and submersible land problems and representatives of recreational groups.

Concurrent with the investigation and to enable the committee to more understandably cope with the problems, particularly those that related to conflicting jurisdictions, the staff was directed to assemble the Oregon Admissions Acts, Selected Constitutional provisions, Supreme Court citations, Attorney General Opinions and all of the Oregon Revised Statutes that related to submerged and submersible lands of Oregon.

This compilation was published, and while the supply lasts, copies are available through the Joint Committee on Administration. This was believed to be a necessary preliminary aid in the study of the problems and their history relating to the submerged and submersible lands of Oregon.



Oregon State Highway Department Photo

Fig. 1. Meandering pattern of Willamette River showing accretion, reliction and avulsive action.



Oregon State Highway Department Photo

IDENTIFICATION OF THE PROBLEM

The assignment given the Committee by HJR 40 revolves primarily around three problems. The first is illustrated by Figure 1, a low-angle aerial photo of the Willamette River south of Corvallis. This is a classic illustration of how a stream meanders on its journey to the sea. Lateral oscillations of the stream's current wear away one bank (erosion) and build up another (accretion). The stream in this process may recede from one shoreline (reliction). During this process the stream actually extends its length by increasing the size of its curves to the degree it eventually resembles an oxbow. The stream may then abruptly shorten its course by breaking through one of these oxbows (avulsion). This process is recurring with the passing of time throughout the reaches of the stream.

Through the centuries our navigable streams have been abandoning old beds, creating new ones, leaving sloughs in their wake which often fill with sedimentation, leaving a dry riverbed.

The state claims where the stream was and where it is. This is by the authority of the federal grant of the beds and banks of all navigable waterways, as the clippings on pages 10, 11, 12 and 13 reveal. The navigable reaches of the Willamette, particularly in its upper navigable portions, have made numerous major changes in its beds and banks. These lateral displacements of the river create conflicting claims of ownership and constitute the crux of the riverbed ownership problem.

The question would be asked - what is the scope of the problem? This, at best, is illustrated by observing Figure 1 which shows as an example the Willamette riverbed and abandoned channels as it was meandered by the General Land Office in 1852,

and the latest survey of the channel done in 1961. What are some of the most serious problems caused by these changes? The channel changes caused a confused property ownership and a blurred taxation problem that would seem to be almost impossible and very costly to untangle by the usual survey methods and court procedures.

It is unfortunate that the river was not surveyed at the time of statehood. This at least would simplify some of the ownership conflict claims involving river changes between 1852 and 1859. We find titles are clouded, we find title insurance companies wary of issuing policies and we find mortgage and lending companies cautious. We find in some instances county boundaries confused, and we find, as a pragmatical solution, "cross-assessing" practiced. This is the practice of collecting taxes on properties located on one county's side of the river but officially considered to be within the boundaries of the other. Much of this appears in Lane and Linn Counties. One farmer whose ranch extends into two counties explained that he was assessed in one county but not in the other for the old bed that crosses his land in both counties. Undoubtedly the county not assessing the old riverbed is seeking to avoid refunds later.

In the state's claim to the abandoned riverbeds, it appears to place considerable confidence in the 1852 channel meander lines as providing the boundaries for the land the state claims. This results in the sale of lands in which the state may have doubtful ownership and perhaps the ignoring of lands that the state may actually own as the result of river changes from the 1852 survey location. See Figure 2.

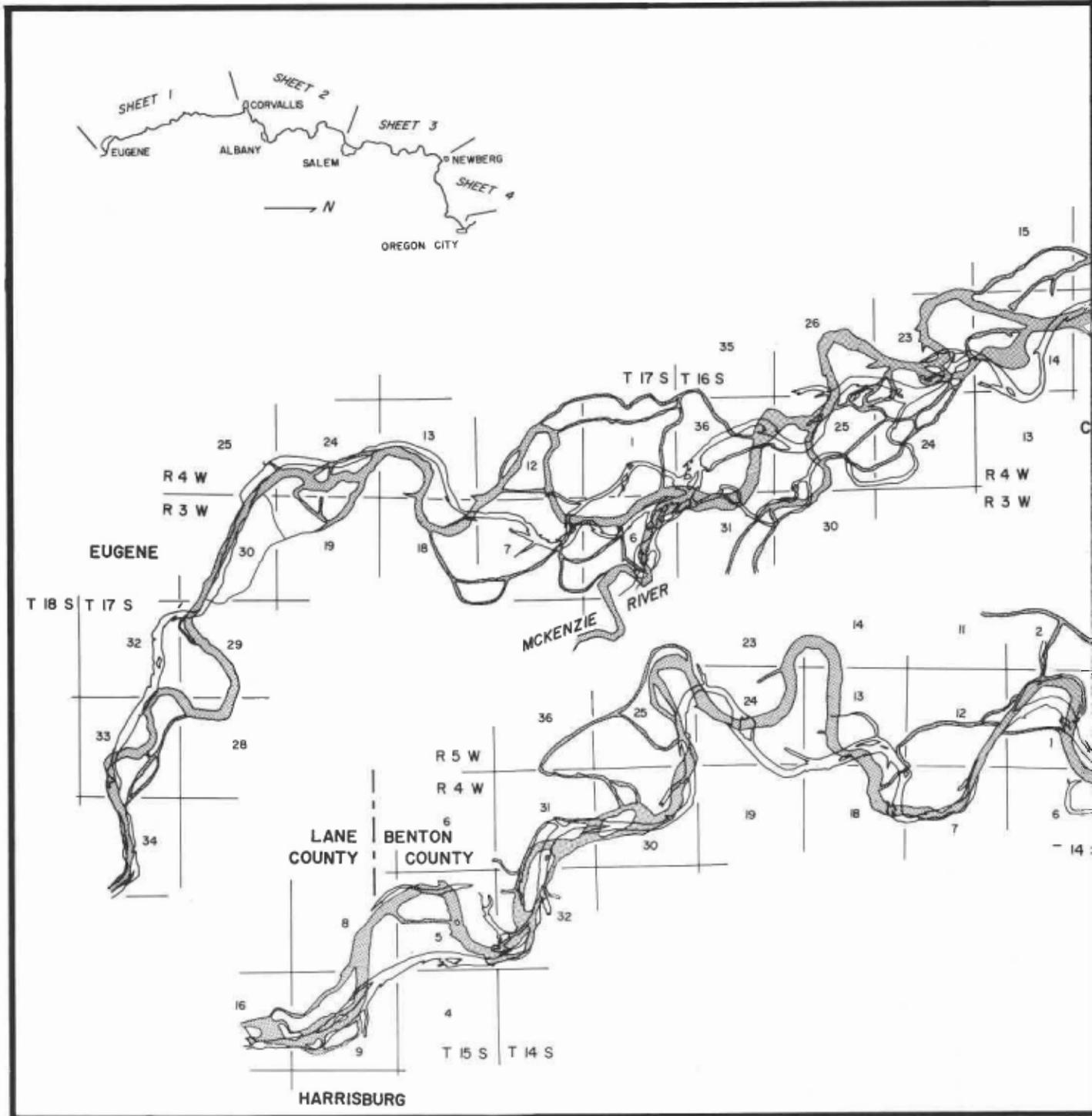
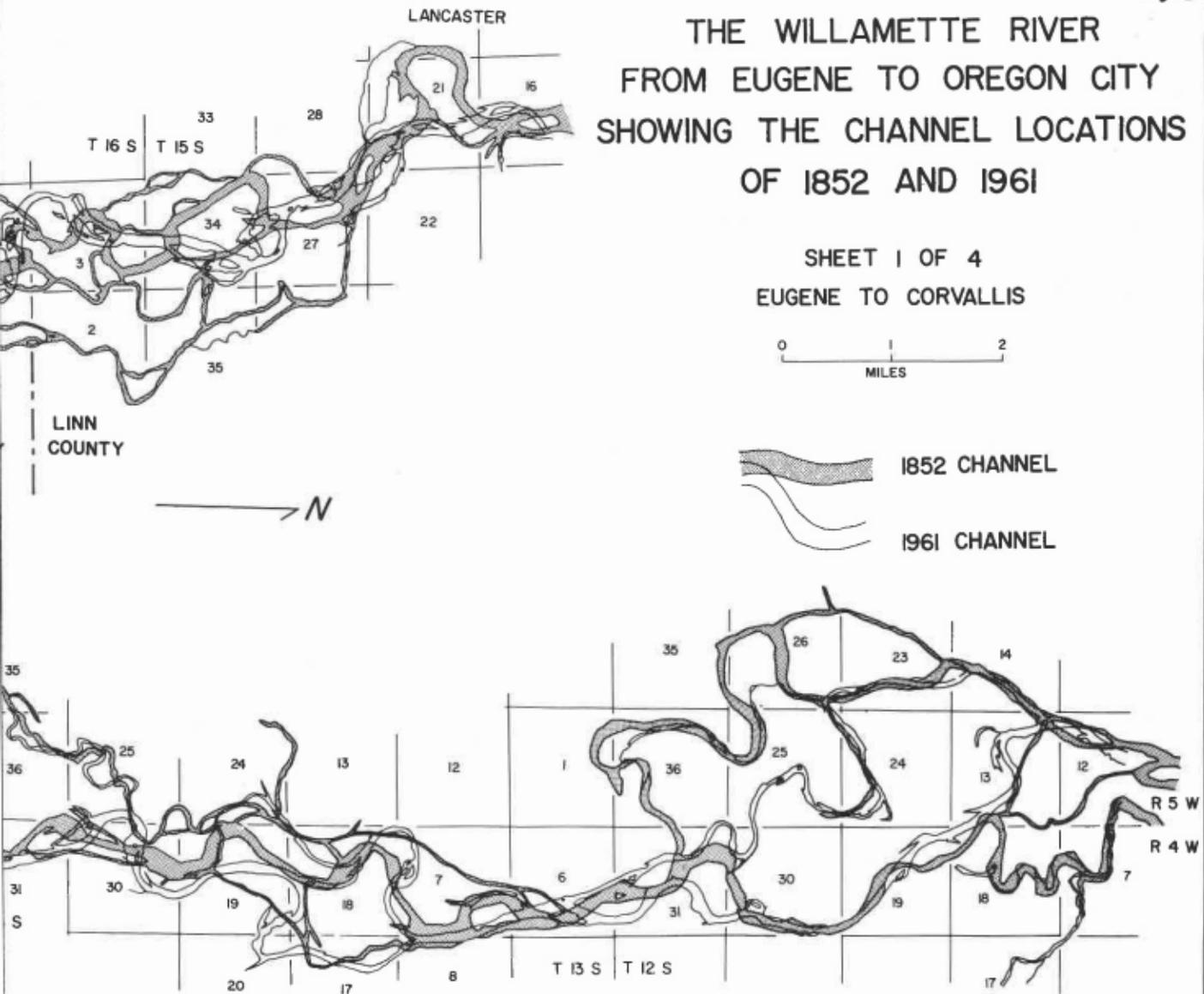
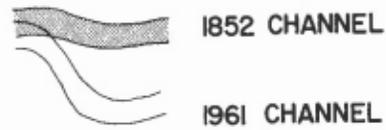


Fig. 2

THE WILLAMETTE RIVER FROM EUGENE TO OREGON CITY SHOWING THE CHANNEL LOCATIONS OF 1852 AND 1961

SHEET 1 OF 4
EUGENE TO CORVALLIS



SOURCE: 1852 CHANNEL FROM U.S. GENERAL
LAND OFFICE SURVEY MAPS
1961 CHANNEL FROM U.S. ARMY CORPS
OF ENGINEERS PHOTOMAPS



Oregon State Highway Department Photo

Fig. 3. Garibaldi Bay showing fills over submerged and submersible land.

Problems relating to conflicting claims of ownership between riparian (owners of the water course bank) and state, involve those created both by acts of man and acts of nature.

Conflicts in claims of ownership between the riparian owner and the state over new lands created by filling submerged or submersible land subsequent to 1859, developed generally through acts of man. Figure 3 shows new land created by filling submerged and submersible land in Garibaldi Bay and illustrates an example of one facet of the filled lands problem. New land created by filling state-owned submerged land is generally considered to belong to the state.¹ The act of selling submerged land is subject to question. State owned submersible land, however, is subject to sale with the 1872 imposed restrictions. Even though the filled land problem may involve fewer parcels of property than is affected by the abandoned beds and banks of navigable rivers, it may be considered much more complicated and in many instances more valuable. It is more complicated because of the involvement of the port districts. They, by an act of the legislature in 1900, expanded in 1907 and reinforced in 1963, have authority over submerged and submersible land equal to that of the state.²

Adding to the complication of determining ownership is the fact that the legislature in 1874 granted to the riparian owners the land to the low water mark of the Willamette; the Coos, the Coquille, and the Umpqua Rivers were included by an act of the legislature in 1876. Also, prior to 1903, the state accepted adverse possession proceedings. In 1903 a legislative act was passed which precluded the state from further accepting such proceedings. However, many lawyers argue that even though the state accepted adverse possession proceedings prior to 1903, there is a serious question as to whether or not the state should have done so as it appeared to do violence to common law.

A second factor that complicates this problem relates to the ambiguity of laws regulating "wharfage" and the abuses that occur because of the ambiguity.³

A third factor relates to an 1872 act, called the Tidelands Sales Act, which provided that a public easement to a common fishery follow the title of all tidelands sold by the state.⁴

It appears that this restriction was written on the documents of conveyance from 1872 until 1878 and then discontinued as a general practice (note Figure 5 underlined portion by the report writer). This raises some very interesting legal questions which relate to whether or not navigational servitude ranks the common fishery; what is navigational servitude in application to land fills; and whether a wharf is actually a wharf within the generally accepted legal definition of serving navigational needs. There is also an interesting question raised by the Deputy Attorney General who, in testimony before the committee, suggested that owners of riparian land, if when filling submerged and submersible land cause destruction of a common fishery, may be liable to the state for damages.

1. *Winston Bros. v. State Tax Commission* (1957) 156 Or. 505, 62 P.2d 7

"On its admission into the Union, title to lands underlying navigable waters passed to state of Oregon by virtue of its sovereignty, subject to trust for public uses of navigation and fishery, and erection thereon of wharves, piers, lighthouses, beacons, sea walls, and jetties, and other facilities of navigation and commerce, and state could not sell such lands so as to prevent public use of such waters for navigation and fishing..."



Oregon State Highway Department Photo

Fig. 4. Salmon Harbor at Winchester Bay, showing multiple use of estuarine zone.

The third problem relates primarily to conflicting uses rather than to ownership, however, riparian ownership is incidentally involved in many problems of navigable waterways. The conflicting uses, of course, are of concern to the state mainly in those fields not preempted by federal agencies. Federal agencies seem to be continuously extending their authority into fields historically thought to be within the purview of state sovereignty. Conflicting uses as set forth in 2(b) of the mission are "recreation, industrial, and navigational and their effects on the state's proprietary interest". Inasmuch as the common fishery is second in the public interest only to navigational servitude, counsel suggested it should be considered in conflicting use.

This problem, as illustrated by Figure 4, shows Winchester Bay a waterway where the fishery, both recreational and commercial, could eventually vie with the urbanization and industrialization of the adjacent land and filled land. It is possible that urbanization and industrialization could be a subsidiary interest in lieu of one of conflict concerning use of the fishery resource. This problem as do others, overlaps. In Figure 3 we see fills on submerged land possibly claimed by the state, wharfage or what may be claimed as wharfage is evident and there are questions of public easements to the common fishery.

-
2. Attorney General Opinion 32
OPS Att'y. General 363
"A port which has created new land adjacent to its riparian lands is the owner thereof and the State Land Board has no discretion of those lands."

3. 30 OPS Att'y. General 452
"Waters including wharves within

In the matter of conflicting use, we received testimony from waterborne transportation authorities that the proliferation of moorages and houseboats on the Columbia River caused vessels engaged in international trade to substantially decrease their normal river speed more than a dozen times during each trip up and down the Columbia River from Portland to the sea. This added a number of hours to the time required for the passage. In view of operating costs of these sea-going ships range from \$3,000 to \$5,000 per day, this delay or "slow-down" could become a substantial factor in the competitive position of the Port of Portland - Dock Commission.

The committee received testimony that the debris and sinker logs shedding off from lografts and lografting work, was becoming an increasingly dangerous and costly menace to both commercial and pleasure boat uses.

Another area where there appeared to be conflicting uses, was in our estuaries. The major concern related to preserving aquatic productivity, reconciling this with industrial use and urbanization; recognizing the demands and opportunities for recreational enjoyment of these water resources. Some of our estuaries have a capacity to support multiple uses. Others may not. A discussion of this problem is in the chapter on Recommendations and Findings.

port districts are subject to control and regulation by the port with the same power and authority as lies in the State of Oregon."

4. Letter Opinion, July 31, 1970 relating to state sale of tidelands and deed restriction providing for public easements to the common fishery.

TIDE

STATE OF OREGON.

In consideration of Forty one V-²⁸₁₀₀

Dollars paid to the Board of Commissioners for the sale of School Lands, the State of Oregon doth grant, bargain, sell and convey unto Wm Fickner

his Heirs and Assigns, the following described premises, to wit: Beginning at the meander corner of claim N^o 37, in Sections 4 and 5, T. 33, S. R. 15, West, said claim being Wm Fickner's Donation claim, 340 chains East of the South West corner of said claim, thence S. 20° 35' E. 765 chains, N. 21° 50' E. 12.25 chains, S 83° E. 17.60 chains, N 54° E. 4.70 chains, S 78° 46' E. 6.10 chains North 8.15 chains to the South East corner of claim N^o 37, thence following the meanders of South boundary of claim N^o 37, to place of beginning, N. 81° W. 4.58 chains to meander corner, bet. Secs 4 and 5, S. 65° W. 1.63 chains, S. 45° W. 10.00 chains, N. 45° W. 7.00 chains, West. 4.00 chains S. 64° W. 9.00 chains, S. 30° W. 7.40 chains, to place of beginning, containing 20 ⁶/₁₀₀ acres of Tide Land belonging to the State of Oregon, in Curry County, and printing or abutting upon the Donation Land claim, N^o 37, of Wm Fickner in Secs 4 & 5, T. 33 S. R. 15. The lands herein conveyed are sold under the Act, entitled "An Act to provide for the sale of tide and overflowed lands on the seashore and coast" of the State of Oregon, approved October 24, 1872, and all other acts applicable thereto.

To Have and to Hold, the said premises, with their appurtenances, unto the said Wm Fickner his Heirs and Assigns forever; and that the State will warrant and defend the same from all lawful claims whatsoever.

Witness the Seal of the State affixed this 16th day of February 1874

Wm Fickner Governor.
J. F. Chooudel Secretary.
Treasurer.

FACSIMILE, EXCEPT FOR UNDERLINED PORTION, OF STATE-OWNED TIDELANDS CONVEYANCE DOCUMENT SHOWING REFERENCE TO LEGISLATIVE ACT OF 1872 WHICH, AS AMENDED, PROVIDES FOR PUBLIC EASEMENTS TO THE COMMON FISHERY ON ALL TIDELANDS SOLD BY THE STATE. Fig. 5 (a)

STATE OF OREGON.

In consideration of *Five hundred and twenty five*
Dollars paid to the Board of Commissioners for the
sale of School Lands, the State of Oregon doth grant, bargain, sell and convey
unto *Edward Coleman*

his Heirs and Assigns, the following described premises, to-wit:

Beginning at the river bank 250 feet
North of the South East Corner of Section
15 Township 1 South Range 10 West Will-
amette Meridian measuring thence North 80°
West 13 Chains; thence North 41° West 6.50
Chains; thence North 26° East 8.00 Chains;
thence South 80° East 13 Chains; thence South
10.00 Chains to the place of beginning con-
taining 13^{1/2} acres of tide land parcel
located in Tillamook County State of
Oregon

TO HAVE AND TO HOLD the said premises, with their appurtenances, unto the
said *Edward Coleman*

his Heirs and Assigns forever: and that the State will warrant and defend
the same from all lawful claims whatsoever.

WITNESS the Seal of the State, affixed this 29 day of

July 1875
S. F. Ashworth Governor.
S. F. Chaswell Secretary.
Treasurer.

FACSIMILE OF STATE-OWNED TIDELANDS
CONVEYANCE DOCUMENT OMITTING 1872
PROVISIONS WHICH RELATED TO PUBLIC
EASEMENTS TO THE COMMON FISHERY.
NOTICE OF THIS RESTRICTION WAS OMIT-
TED ON ALL LAND CONVEYED, INCLUDING
AND AFTER 1878. HOWEVER, ATTORNEY
GENERAL RULES, LETTER OP. 7-31-70,
RESTRICTION PREVAILS. Fig. 5 (b)

THE NEWS CLIPPINGS DATING FROM 1966 ON THIS AND THE FOLLOWING TWO PAGES ARE ILLUSTRATIVE OF THE PROBLEMS RELATING TO SUBMERGED AND SUBMERSIBLE LANDS THAT MOTIVATED THE CREATION OF THE ADVISORY COMMITTEE TO THE STATE LAND BOARD AND THE PREPARATION OF THIS REPORT.

Fig. 6 Group

The Oregonian, February 3, 1968

13-Point Plan Studied On Submerged Lands

The Public Lands Interim Committee heard a grab-bag of testimony Friday as it continued hearings on submerged and submersible lands.

The hearings were in the Port of Portland Board Room in Portland and were continued until Saturday morning. The hearings continue previous discussion on the subject at Portland and Astoria.

At the conclusion of testimony by 13 witnesses, the committee adjourned to executive session, with Land Board staff excluded, and considered action on a 13-point program proposed by Dale Mallicoat, director of the board.

The committee also considered two pieces of legislation proposed by the Oregon State Public Port Authorities.

At the conclusion of the 9 a.m. to 5:30 p.m. session, the committee had finished reviewing only six of Mallicoat's 13 points when it adjourned.

Statute Requested

Mallicoat's recommendations and the board action:

1. A request for a "simple statute" asserting the state's

ownership of submerged and submersible lands. Staff counsel Robert Oliver was directed to draft simple, sample legislation along these lines. Sen. Vernon Cook, D-Multnomah County, said the board should set up some sort of arbitration board to grant citizens clear title to lands in hardship cases which might arise from fresh interpretation or new law.

2. Asks for a repeal of "all free grants of land such as railroad right of ways, ditches, powerline easements, free fill material" and other privileges "to riparian owners, whether they be private or port" (authorities). Counsel was directed to assemble pertinent legislation for future study.

3. Asks repeal of grants of free fill material from public waters. Accepted. Cities and ports currently have such rights which could be affected.

Privileges Criticized

4. Asks that "special privileges to port districts be substantially reduced; a removal of current privilege to obtain filled land for a token price unless it is used for a direct

and broad public purpose." Accepted. The thrust of this recommendation is at the privilege of ports to "acquire public land at low cost and resell at their own price and pleasure," Mallicoat said.

5. A restudy of wharfing privileges as extended in current law. Counsel was directed to prepare a rough draft of new legislation, "starting with full control in the state and making exceptions."

6. Asks a "statutory settlement" of "old and ragged land ownership problems created by filling waterfront lands long ago." The committee will discuss this further Saturday.

The thrust of this recommendation goes to a continuing controversy in Astoria over lands, ostensibly owned by the State and lying below the high tide mark which were filled beginning in the 1840s and later sold.

The problem is complicated by the fact that if the state held title to the lands because they bordered a navigable waterway then transfer could not have been legal. Title remain clouded because the state does not lose rights through the adverse possession of an individual.

Withdrawal Suggested

One suggestion was that the land board institute a friendly suit as a test to ownership of some of the parcels. Much of the land in question is now part of downtown Astoria.

Another suggestion was that the state withdraw its claim to the lands and encourage arbitration of remaining disputes so the commercial and industrial future of the city is not jeopardized.

Bill Would Clarify Title to River Land

State Sen. Al Flegel, D-Roseburg, says he may introduce legislation to clarify the titles of lands along rivers and bays that have been placed in question because of a shift in the river channel or bay shores.

Flegel's action was triggered by discussions between the State Land Board and Douglas County, over filled lands along Winchester Bay near Reedsport. The lands, some filled by nature and some by man, have been used by Salmon Harbor for recreation facilities.

The Land Board feels it has title to the man-made fill areas, and should be paid for the lands — or have a land exchange with the county. The board isn't pressing any claim to the natural fill areas, however.

3 Types Involved

Three types of changes in land titles are involved, and Flegel is apparently directing his legislation to two of them.

Lands that have gradually been added to the uplands because of gradual shifts in a river or bay are natural accretions, and automatically pass to the upland owner under common law. Flegel's proposed legislation wouldn't get involved in this area.

In several places across the state — most notably Astoria — man-made fills have added land to the uplands and in some cases the fills have been built upon by upland owners. The Land Board feels it may own these fill areas because of state ownership of rivers and bays. Flegel's proposal would vest title of the man-made accretions in the upland owner, not the state.

The third instance is when a river has changed course drastically, leaving an old dry river bed. In this case the ownership of the old river bed stays in the state's hands, while ownership of the new river bed goes into the hands of the private property owner whose property has been flooded. Flegel's proposal could—he said Thursday he is not sure that it will—vest title of the old river beds in the hands of the owner of the adjacent land.

Flegel said that justice demands that lands that have been used for years by private or public agencies, including in some cases the addition of expensive facilities, should be in the hands of those agencies and not the Land Board.

Oregon Statesman
Sept. 15, 1968

Title to Filled Land Favored For Occupants

The Legislative Public Lands Interim Committee voted Saturday to introduce a bill to allow the State Land Board to give filled-in lands to the private parties that have been occupying them for many years.

The Land Board said it wants to get more facts before it takes a position.

The measure would apply to filled lands on rivers and bays, but not on the ocean.

Old Provision Stands

The original state constitution in 1859 said that the state acquires title to all land that has been filled along state waters. That provision never has been changed.

This vitally affects Astoria, where 400 acres of the downtown section consists of land filled along the Columbia River. The businesses in this area have assumed they have title, but it really belongs to the state.

Dale Mallicoat, the land board's administrator, testified "that I have never seen such a complex problem as the one in Astoria.

"The Land Board feels that the dispute might better be resolved in the courts, rather than by legislation".

Members of the Land Board are Gov. Tom McCall, Secretary of State Clay Myers, and State Treasurer Robert Straub.

Wants Offshore Law

Mallicoat said there is a need for laws to give the Land Board authority to make offshore leases.

He said he has had requests to grow abalone on the coast, to establish oyster beds, and to extract minerals from sea water.

There is no authority, he said, for the Land Board to grant such permission.

He said there is great interest in extracting gold and other minerals from the ocean bottom, and urged the Legislature to deal with the problem of granting leases for this purpose.

Mallicoat asked for a change in a 1967 law which allows port districts to acquire filled lands at little or no cost.

This law, he said, enabled the Port of St. Helens to acquire \$209,000 worth of filled land from a power company at little or no cost, without the state having anything to say about it.

He asked the Legislature to firm up the state's authority to require leases of waterfront property.

"We will have to have stronger public control to avoid massive future conflict," he said.

Capital Journal
August 5, 1954

Supreme Court Rules Against Land Board

Property Formed by Accretion Belongs to Adjoining Owners

By JAMES D. OLSON

Land formed by accretion caused by a change in the channel of a river becomes the property of adjoining property owners and not the state of Oregon, the state supreme court ruled Thursday.

The case in question was filed by Ersel L. and Ethel G. Gubser, owners of property situated on the main channel of the Willamette river between Yamhill and Oregon counties. The suit was directed against David C. Town and others who had leased the land from the State Land board as a duck blind. The opinion held a previous verdict enjoined the defendant from trespassing on the property by Circuit Judge Charles W. Redding who presided at the case in McMinnville. The verdict also assessed a fine of \$1 against the defendants.

River Bed

The area was formerly on the west bank of the Willamette river. The reason of a change in the channel the land became submerged and as the channel became shifted in its new bed, the old land gradually filled in, creating dry land on the west bank of the river adjoining the property owned by the Gubbers.

Property Owners Upheld

Associate Justice George Ross, who wrote the opinion held that the evidence clearly indicated that this was the result of natural accretion and that such land would therefore accrue to the plaintiffs.

River Survey Shows State May Own Land

The State Land Board says the state may own hundreds of acres of privately farmed land in the Willamette Valley.

It has completed a study of 13 miles of the Willamette River in Lane and Linn counties.

Since the river was first surveyed a century ago, the river channel has shifted.

The law says that when a channel changes, the state owns the former river bed.

State officials say these old

beds could be used in the new Willamette River park system.

The land surveyed so far is from Eugene to Harrisburg. Officials took 1967 aerial maps and overlaid them on century-old surveys. They will move north next.

Dale Mallicoat, state lands director, says the upper part of the river changes its channel more than the lower part.

Land board members say they do not want to cause alarm to those who may be farming old riverbed. They will notify the landowners of stretches they believe belong to the state.

Secretary of State Clay Myers said he believes the state should

cooperate with landowners in working out solutions.

State Treasurer Robert Straub, father of the Willamette River Park system, said exchanges of land could be made to acquire riverbank property or easements for the park system.

Gov. Tom McCall and Myers said they hope occupants of old riverbed lands will refrain from building on the areas until any disputes are settled.

Oregon Statesman - May 24, 1968

No Decision Reached On Astoria Tideland

The battle over who owns former tidelands in front of the big aluminum plant to be built at Astoria opened with a skirmish Thursday at a State Land Board hearing in the Capitol.

The Port of Astoria and the City of Astoria were opposing two riverfront developers over the question of ownership. Action by the board was delayed until its June 11 meeting.

However, land board director Dale Mallicoat said he felt the proposal of the two developers was unacceptable to the state.

State May Skip

All persons agreed that the titles to deeds to such lands were cloudy in most instances.

According to the State Constitution, the state owns the tidelands. However, over the years filled lands were sold by counties and cities without paying the state.

Mallicoat in testimony last year pointed out that much of downtown Astoria formerly was submerged land.

Amos Heacock, president of the International Transportation Equipment Lessors, and George Haines, Ocean Investment Co., opposed the plans of the Astoria Port Authority to develop the land.

Claim Deeds Illegal

Heacock and Haines say the land was illegally decided to private owners without the state

gaining any revenue. State lands are supposed to be used for the benefit of the State Common School Fund.

The two men propose the state take over the property now held by private owners and levy rentals equal to the present taxes. They said they would accept such an arrangement.

The port district feels the status quo should be recognized because people on the former submerged lands have developed their properties in good faith, believing they had valid ownership.

Mallicoat says inaction on the part of the Land Board over the years has allowed state land to be lost from the Common School Fund.

Land Board Probes Astoria Waterfront 'Squatters'

By MATT KRAMER
Associated Press Writer

The Astoria waterfront along the Columbia River is worth millions of dollars in canneries, docks and business buildings.

But the occupants may be squatters with no right to be there.

Most of the buildings are on filled-in land.

"We can find no convincing evidence that the state has parted with its ownership of the underlying riverbed upon which these fills have been made," says Dale Mallicoat, state lands director.

Mallicoat has had investigators looking into titles and for evidence of where the low water mark was before the fills were made. Except for where the state has given up title, it can claim any fill on the area that once was below the low water mark.

He became aware of the situation two years ago and has been looking into it ever since—that is, whenever he has manpower free to investigate, which is not often.

Mallicoat says the state does not intend to be punitive or to

harass those who occupy the land. He says he just wants to settle the title, so that all concerned can lay definite plans.

"I have never observed a land problem that is quite as complex as this one at Astoria," Mallicoat says. "They started filling these lands even before the turn of the century and apparently have been at it intermittently ever since. I sometimes despair that any sound solution can be devised, but perhaps there may be ways to bring some measure of settlement so that at least we can deal rationally with the future."

He says there are two likely ways to solve the problem:

—A series of court suits to settle the title on each piece of property along the waterfront.

—A legislative act to drop any state claim to the sites.

He adds that the State Land Board, consisting of Gov. Tom McCall, Secretary of State Clay Myers, and Treasurer Robert W. Straub, does not want the legislature to act until Mallicoat has time for more research.

Mallicoat has been in touch with a number of Astorians, in-

cluding Mayor Henry Steinbock and City Manager Dale Curry, who favor legislation to take away any state claim.

Mallicoat says he does not plan any court suit in the near future. In fact, he says, more lengthy research is needed before any action can be taken, and in the end the state's case could be dropped as being too shaky.

If the legislature wants, it could take the matter away from the Land Board by passing a law declaring the state has no further interest in the land.

Mallicoat notes, too, that Astoria is not likely to be the only instance of this. He says that as his investigators get time to look at other shores along navigable waters they will find similar situations where the title is clouded.

Ore. Statesman
Sept. 21, 1966

Ownership Not Extended by Fill on River

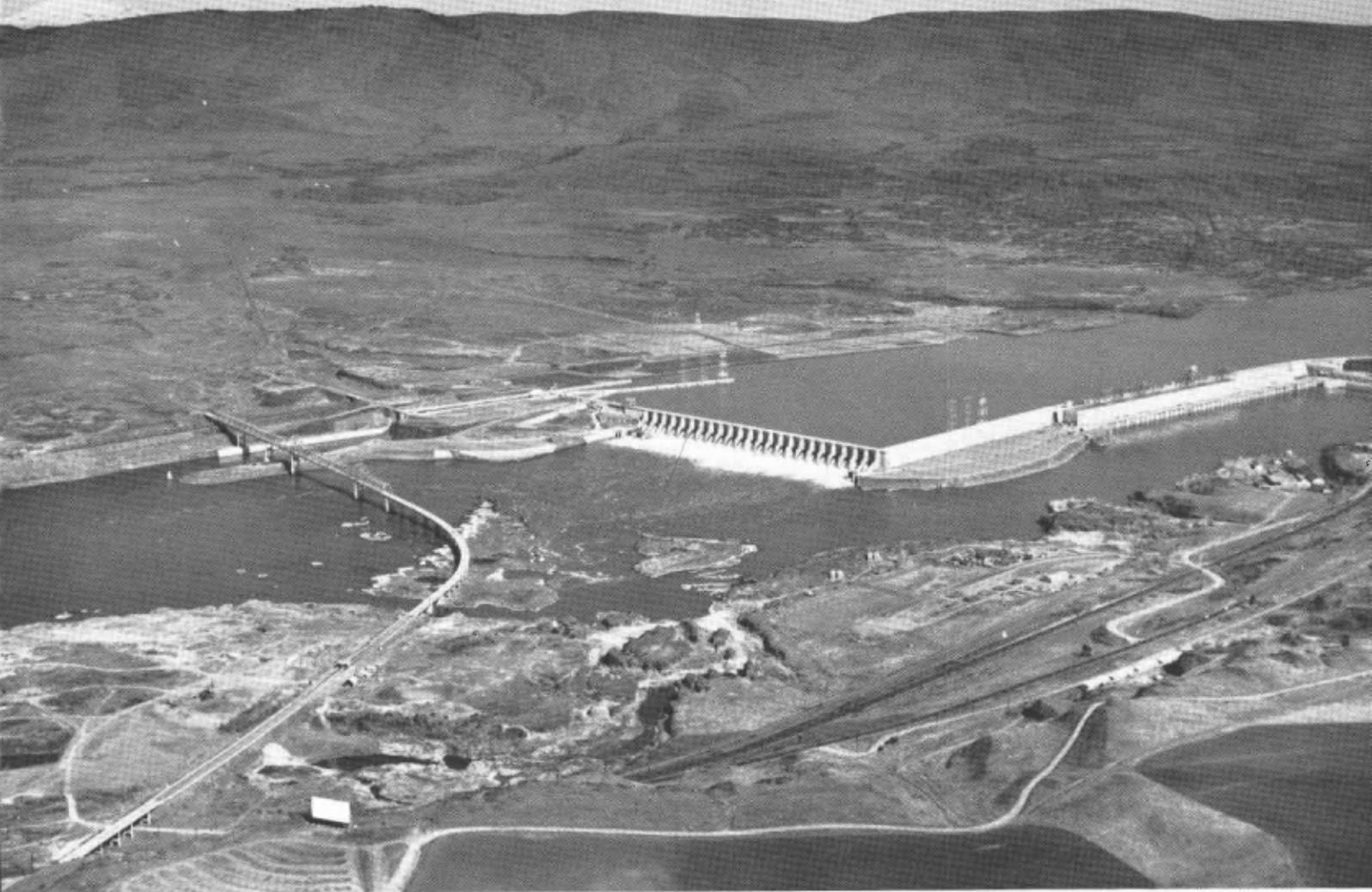
State Land Board clerk Dale Mallicoat said Tuesday that land fills made along the state's navigable waters don't automatically extend ownership.

Mallicoat said recent investigations made by his office have disclosed many cases where waterfront land owners have attempted to extend their property ownership by filling.

Mallicoat said if the new land has been created upon state-owned riverbed the new property belongs to the state, and it has to be purchased at prevailing market prices.

He said, "a lot of title headaches along our public waters could be avoided if the waterfront owners would check first with the State Land Board."

The state owns the beds of all navigable rivers, lakes and the Pacific Ocean to three miles offshore.



Oregon State Highway Department Photo

Fig. 7. The Dalles Dam and segment of lake created by it. Ownership of the beds and banks of lakes behind Oregon's increasing number of dams raises a legal question now being review by the Attorney General.

BRIEF HISTORY OF STATE ACQUISITION OF SUBMERGED AND SUBMERSIBLE LANDS

Unlike legal literature relating to public uplands, the available literature relating to submerged and submersible lands is much less extensive.

However, throughout our nation's history the separate states have exercised in their sovereignty proprietary rights of ownership in lands and other resources lying beneath the navigable waters within their boundaries. During the period of more than 195 years, this belief has been supported by 54 Supreme Court decisions, hundreds of lower court opinions, rulings by Attorneys General of the United States and the separate states, the U. S. Department of Interior, the War Department, the Navy Department, lawyers, legal historians and publicists. All have held this principle as a well settled law of the land.⁵

The principle of state sovereignty is reminiscent of the old Justinian Code of the Fifth Century, A.D. -- and more recently of old English Common Law.⁶

Oddly, legal historians claim that initial concepts of navigability and riparian rights in the laws of the United States were predicated on a misapplication of the doctrine of English Law. Originally, navigability was based on admiralty jurisdiction and it applied to waters affected by the ebb and flow of the tides. It is easy to understand how this concept developed in England. The geography of the land and the dimensions of the island caused most of the rivers in it to be navigable only to the point influenced by the ebb and flow of the tide.

This, of course, is not true in America. We have many streams navigable for

hundreds of miles beyond significant influences of the tide, also large bodies of inland water such as our great lakes and other lakes. Perhaps the most significant case on this issue occurred in 1851 brought under the act of February 26, 1845 (5 stat. 726), discussed on page 521 of Shore and Sea Boundaries, Vol. II, by Shalowitz, which extended the admiralty jurisdiction of the federal district courts to include certain cases upon the lakes and navigable waters connecting them.

This case reinforced the recognition of navigability beyond the effect of ebb and flow of the tides. It is evident, the court said, ".That a definition that would at this day limit public rivers in this country to tidewater rivers is utterly inadmissible. We have thousands of miles of public navigable water including lakes and rivers in which there is no tide. And certainly there can be no reason for admiralty power over a public tidewater, which does not apply with equal force to any public water used for commercial purposes and foreign trade." The court, in this case, expressly overruled its former restrictive decisions and adopted the more liberal principle that the test of navigability is the actual navigable capacity of the waterway, not the extent of its tidal influence.

5. *Port of Seattle v. Oregon & W.R.R.Co.* (1921) (255 U.S. 56, 63)

6. *Cooper's Justinian Lib. 2, Title 1, Section XX.*

Several landmark decisions occurred just prior to Oregon's admittance to the Union, therefore they are most significant in the interpretation of the grant which gave to the State of Oregon the beds and banks of all navigable waterways. Navigability and riparian rights are inextricably interwoven.

The generally accepted legal basis for the state's ownership of tidelands and navigable waters traces to the original 13 colonies. At the conclusion of the Revolution they assumed absolute ownership of all lands beneath tidal waters and navigable rivers within the state's boundary, similarly to the manner of the English Kings. Exceptions were such portions thereof, as had been previously granted out by the former sovereign.

The original 13 states did not surrender their lands beneath tidal waters and navigable waters to the federal government either by the federal constitution or otherwise.

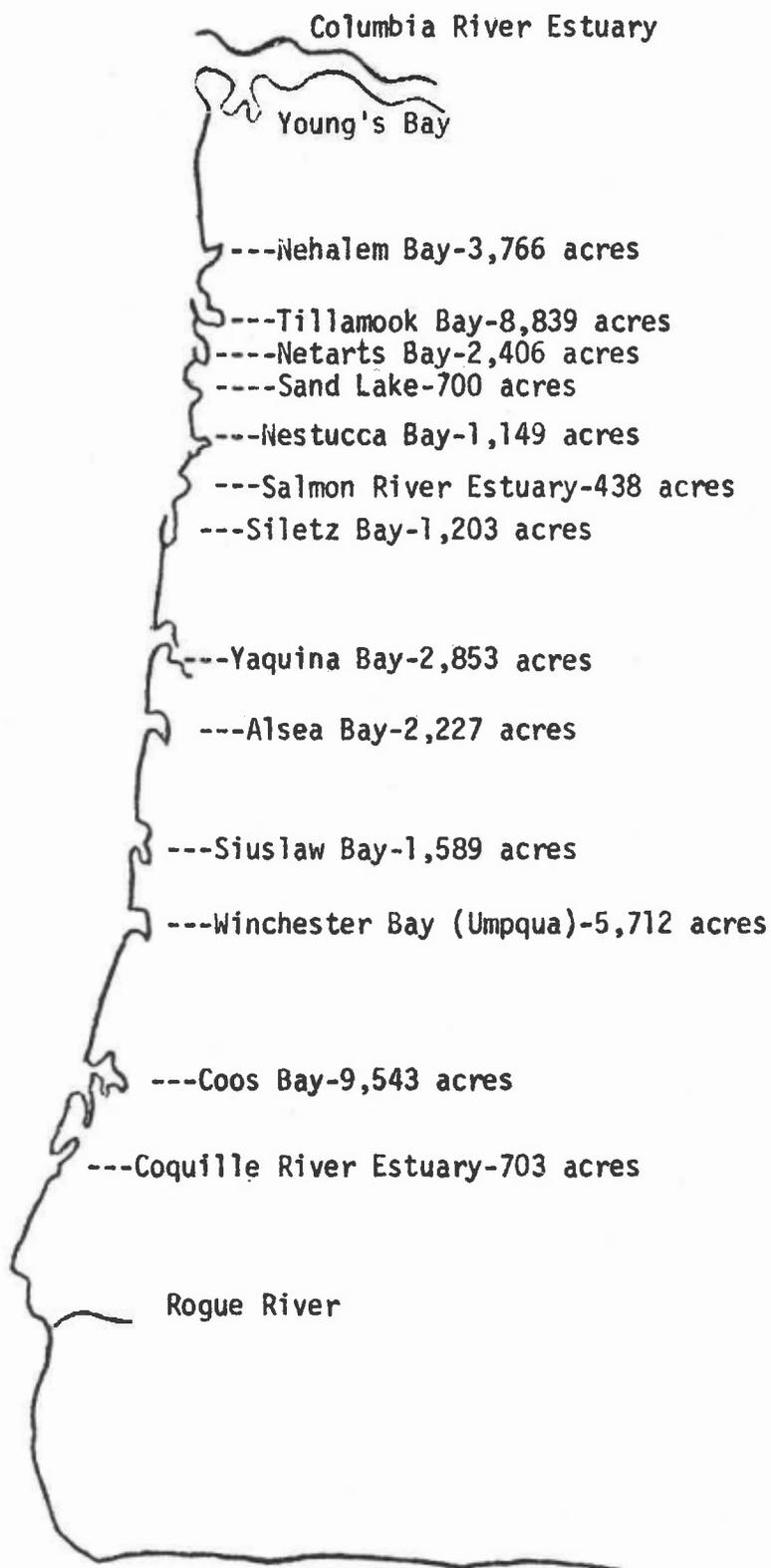
The case of Pollar v. Hagen (1845), 3 How. (44 U.S.) (212, 228) holds that all states subsequently admitted to the Union became the owners of the lands beneath their tide and navigable waters, equally with the original 13 states. It follows then with some exceptions that all of the states of the Union are the absolute owners of the lands beneath tidal waters and navigable waters within their respective boundaries excluding, of course, land that the states have sold or granted or that have been ceded, conveyed, or condemned by the U.S. government for purposes of national defense, navigation, and conservation.

Little interest was taken in this resource of Oregon until the Tidelands

Sales Act of 1872 was adopted along with amendments in a subsequent session of the Oregon Legislature. In addition to the beds and banks of navigable streams, the Oregon Admissions Act, to quote in part, designated the western boundary of Oregon as "...beginning one marine league (three nautical miles at sea)...". This provision of the Admissions Act granted to Oregon about 800,000 acres of submerged offshore land, and according to figures submitted by the Parks & Recreation Section of the State Highway Division, there is another 6,500 acres of intertidal lands, exclusive of headlands and estuaries. The Columbia River estuary, shared with the State of Washington, is considered separately and consists of about 80,000 acres. See Fig. 8, Estuaries.

Our other estuaries, of which 14 are considered significant, total somewhere between 46,000 and 50,000 acres. There is considerable disagreement on the number of acres involved in our estuaries because the estimation is dependent on where the upper boundary line is drawn. Also there is dependency on the oscillations of the stream, the building up of deltas, sandspits, bars, and similarly their removal or diminishment by current and freshet actions, fills, revetments, and wing-dams.

Early history of the state indicates that no one acted in haste or was highly concerned about Oregon's submerged and submersible lands. These lands, not being subject to cultivation under existing knowledge, were not considered particularly valuable. Early Oregon settlers thought of desirable land in terms of arable lands of the valleys. Most of this was thought to be in western Oregon at the time. While some irrigation was known in the middle 1800's, the pioneers did not think in terms of irrigable land or timberland. Timber, until late in the 19th century, was considered an obstacle to farming.



It appears that the state first became conscious of its public lands during the regime of Lafayette Grover who served as governor from 1868 to 1876. He made the securing of the state's land grants something of a keynote of his administration. However, by that time the Salt Springs Grant of 46,000 acres had been lost by default and the swampland grant nearly so. Land grants, not counting the submerged and submersible land, received from the United States government totalled about 11,658,355 acres. This included wagon road construction grants of 2,453,932 acres, railroad construction land grants of 4,812,298 acres, swampland grants of 351,743 acres, public buildings 6,400 acres, agricultural land grant college 90,000 acres, the state university 46,000 acres, and grants for the common school fund 3,404,302 acres, and for charitable penal and reformatory institutions 136,080 acres, and for internal improvements 500,000 acres.⁷

There was approximately 1,280,000 acres lost because there were no companies or capitalists who would undertake the construction of the roads involved in the grant. Originally, and for many years after its admittance to the Union, it was a primary conception of Oregon's leaders that the public lands should be sold as a source of revenue for the state. Later the federal government broadened the land disposal concept in a design to encourage settlement and development of the country.⁸

7. Gaston, *The Centennial History of Oregon, 1811-1911*, Vol. I, p.480.

8. Shalowitz, *Shore and Sea Boundaries*, Vol. II, p.446

This gave birth to the pre-emption law of the Homestead Act, the Townsite Acts, the Railroad Grant Acts, the Reclamation Acts, the Mineral Lands Acts, all of which were exemplifications of this broadened concept for public land disposal. Oregon's lands were sold in competition with the millions of acres of federal land readily available. The lands of Oregon were not valued for their future potential worth. Much of the land was sold when the population was sparse and the land plentiful. In spite of claims to the contrary, prices were fair for the times. Frauds existed and many were disclosed and participants were punished to a greater degree than is experienced by wrongdoers today.

Interest in wetlands was low key. Much of it was sold for \$1.25 per acre which was considered competitive at the time. Prices eventually advanced to about \$7 per acre. However, unlike dry lands which were generally sold without restrictions, the submersible lands of the intertidal coast area were sold under the Act of 1872, and carried a restriction of a public easement which is in effect to this day.⁹

While the work of this committee is concerned with the submerged and submersible lands and the problems that have arisen over conflicts in riparian ownership, overlapping jurisdictions, and the doctrine of public interest, the dry lands are mentioned simply because they are illustrative of the attitude that prevailed at the time concerning virtually all public lands, wet or dry.

The lack of concern for Oregon's submerged and submersible lands is further exemplified by the literature that treats of the time. For example, there is very little discussion of submerged and submersible lands in Joseph Gaston's monumental Centennial History of Oregon. These lands are only lightly mentioned in the

somewhat controversial Committee on Interior and Insular Affairs 1960 publication entitled, "Disposition of the Public Domain in Oregon". The Commonwealth Review, published by the University of Oregon of which the July 16th edition is committed largely to the State Land Board, gives only a passing sentence to submerged and submersible lands, the administration of which is an important responsibility of that board. Most of the literature on this subject is of quite recent origin.

Problems have come to the state both through the acceptance of the submerged and submersible lands with regard to their disposal and the management of those retained. Riparian owners of four of Oregon's important rivers, if the document of conveyance was dated prior to 1874, were granted by the Oregon Legislature all land lying between the high and low water mark. These rivers were first the Willamette, and later the grant was extended to the Coos, Coquille, and the Umpqua. The grant was considered reasonable at the time because of the flat valley floors, which, if the high water line concept was strictly adhered to, could cause serious clouds on the titles of the farmland, covering thousands of acres which were flooded during every high water period.

In the past it was thought that lands under tidewaters were incapable of cultivation or improvement, at least in the manner of lands above the high water mark. However, they were of value to the public for purposes of commerce, navigation and the common fishery. It long has been held that their improvement by individuals when legally permitted is incidental and subordinate to the public use and right of the common fishery - shell

fish. This accounts for the inclusion in the early handwritten documents of conveyance the public easement right to this common fishery. This set of circumstances is the reason why the title and control of these submerged and submersible lands were vested in the sovereign for the benefit of the whole people. See figures 5 (a) (b)

At common law, the title and dominion of lands flowed over by the tides were in the name and ownership of the king for the benefit of the nation. Upon the settlement of the colonies, like grants passed to the grantees in the royal charters and in trust for the communities to be established.

Upon the acquisition of a territory by the United States, whether by cessation by one of the states or by a treaty with a foreign country, or by discovery and settlement, the same title and dominion passed to the United States for the benefit of the whole people and in trust for the several states to be ultimately created out of the territory.

The problems of conflicting ownership claims and jurisdictions applying to navigable lakes is in the purview of the assignment. The committee took note of this problem, caused an inventory to be assembled, but lack of time prevented study of the issue. See Fig. 7 and Appendix E.

Testimony was received from Art King, Oregon State University Extension Service, who pointed up this problem, claiming the state's interest had long been neglected in this matter, particularly regarding lakes located on the eastern slope.

Through the aid of several state agencies, primarily the office of the State

9. Op. Att'y. Gen. June 19, 1946, p. 503 and letter opinion tentative July 31, 1970



Oregon State Highway Department Photo

Fig. 9. Diamond Lake, illustrative of the problem of ownership of beds and banks of navigable lakes in Oregon.

Engineer, a list of Oregon lakes and reservoirs has been assembled on Appendix E of this report. There appears to be about 6,149 lakes and reservoirs in Oregon, depending upon where one draws the classification line as to surface area and all year stability. See Fig. 9.

In the instructions published by the General Land Office for the survey of public lands in September 1869 on pages 523 and 524 under the heading of "The Meandering of Navigable Streams", it directs "*You are also to meander, in the manner aforesaid, all lakes and deep ponds of the area of 25 acres and upward; also navigable bayous. Shallow ponds ready to be drained or likely to dry up are not to be meandered.*" See Fig. 10.

Court opinions have not been consistent as to whether or not a meandered lake is to be considered a navigable lake.^{10,11}

It appears from reading literature on the subject and comparing it with Oregon court decisions on navigability of lakes, that the State of Nebraska has fared better with the federal government than Oregon in being able to gain favorable determinations relating to navigability of lakes within its borders.

A conflict in jurisdiction appears to exist concerning those bodies of water in Oregon which were not meandered in connection with the early surveys of such bodies of water by the General Land Office. The question is, do the lands beneath navigable bodies of water located in the public domain, belong to the state or to the United States? Also, if the title to the beds of such bodies of water was lawfully patented or conveyed by the United States to any person, does this condition affect legal navigability? Usually a patent or conveyance of land by the United States is not effective unless a survey has first been made. Does the conjunctive use of these two conditions relate to navigability?¹²

The whole question of ownership of beds and banks of lakes and determination of navigability needs to be further studied in the interest of the Common School Fund. Rumor has it that approximately 900 lakes actually were meandered and considered to be capable of navigability in the State of Oregon, however, no records supporting this rumor have been discovered either in federal or state archives. A number of lakes were named in the law case commonly known as Harney-Malheur-Mud Lake adjudication. There were implications of navigability. It may be possible to gain some information on the subject of navigability of lakes by inspecting the lakes listed on Appendix E. An exception exists from operation of Section 3 of Title II of the Submerged Lands Act, known as Public Law 31. The exception provides that land beneath navigable waters held, or any interest which is held by the United States for the benefit of any tribe, band or group of Indians or for individual Indians is excepted from provisions relating to rights of states. The committee assigned the investigation of this particular exception, insofar as it may apply to the beds and banks of any navigable waters in Oregon which may be claimed by Indians, to Peter Richter, 3rd year law student, funded under provisions of Title II, P.L. 88.379. Exerpts from his paper start on Appendix C of this report.

Increasing conflicts occurring over the years involving public-owned beds and banks of navigable streams, estuaries, tidelands, and to an undetermined degree, the inland waters of our lakes, has created a tremendous interest among those concerned with natural resource management versus those concerned with economic development. Solutions to the questions that have arisen through these conflicts will call for answers oriented to both social, immediate costs and future economic benefits as well as to the scientists and conservationists.

Another problem which came to the attention of the committee but which also, because of the lack of time, was not explored in depth and which is illustrated in Figure 11 is the unceasing erosion of the shoreline. Much of this has been accelerated by man-made aids to navigation, such as jetties, which have altered shoreline currents and affected coastal hydrology.

Dr. John Byrne, Marine Science Center, did a study on this subject and found that rates of erosion have varied from zero to rates of nearly 50 feet per year. Areas containing housing as well as stretches of the Oregon highway have been victims of the erosion caused by these actions of the sea.

10. U.S. v. State of Oregon, 55 S.Ct. 610, 295 U.S. 1 (1935)

11. Luscher v. Reynolds, 153 Or. 625, 56 P.2d 1158 (1936)

12. Shalowitz, interpretation Submerged Lands Act (PL 31)

THE MEANDERING OF NAVIGABLE STREAMS.

1. Standing with the face looking *down* stream, the bank on the *left* hand is termed the "left bank," and that on the *right* hand the "right bank." These terms are to be universally used to distinguish the two banks of a river or stream.

2. Both banks of *navigable* rivers are to be meandered by taking the courses and distances of their sinuosities, and the same are to be entered in the field-book.

At those points where either the township or section lines intersect the banks of a navigable stream, *posts*, or, where necessary, *mounds of earth or stone*, are to be established at the time of running these lines. These are called "meander corners;" and in meandering, you are to commence at one of these corners on the township line, coursing the banks, and measuring the distance of each course from your commencing corner to the next "meander corner," upon the same or another boundary of the same township, carefully noticing your intersection with all intermediate meander corners. By the same method you are to meander the opposite bank of the same river.

The crossing distance *between* the *meander corners* on same line is to be ascertained by triangulation, in order that the river may be protracted with entire accuracy. The particulars to be given in the field-notes.

3. You are also to meander, in manner aforesaid, all *lakes* and deep ponds of the area of twenty-five acres and upward; also navigable bayous. *Shallow* ponds, readily to be drained, or likely to dry up, are not to be meandered.

You will notice all streams of water falling into the river, lake, or bayou you are surveying, stating the width of the same at their mouth; also all springs, noting the size thereof and depth, and whether the water be pure or mineral; also the head and mouth of all bayous; and all islands, rapids, and bars are to be noticed, with intersections to their upper and lower points to establish their exact situation. You will also note the elevation of the banks of rivers and streams, the heights of falls and cascades, and the length of rapids.

Fig. 10



Oregon State Highway Department Photo

Fig. 11. Shoreline near Cape Perpetua illustrating erosion caused by wind and sea.

FINDINGS AND RECOMMENDATIONS

To clear privately owned land titles on parcels clouded by the State of Oregon's unproven ownership claims to abandoned beds and banks of navigable waterways contained within private property boundaries and upon which taxes have been levied and collected for a total period of ten years or more, the committee recommended, with one dissent, that the state provide a "quitclaim" procedure containing reservations as set forth in HB 1070. The dissent, in the form of a letter addressed to the chairman of the committee, appears at the end of the findings and recommendations of this report.

This recommendation is similar to the recommendation of the 1967 Interim Committee on Public Lands on the subject of abandoned beds and banks of navigable bodies of water and is parallel in its broad concept to the "adverse possession" recommendation of the Public Land Law Review Commission, regarding public lands that would be subject to adverse possession procedures if similar circumstances prevailed among private landowners.

The concept of this legislation, as finally adopted, has many restrictions to protect the public interest. These restrictions relate to recreational values, aggregate or mineral deposits, which, if

the state deemed existed in commensurate values, would serve as a basis for denying the issuance of a quitclaim deed. The state, however, would be required to prove its claim to ownership. The provision relating to the tax status requirement generated considerable discussion for the simple reason that in some counties in the Willamette River Basin, assessors who had been collecting taxes on abandoned beds and banks of river bottoms from landowners whose property embraced such beds and banks, discontinued assessing and collecting taxes on this land after the initial 1966 publicity which raised the issue of the state's claim to title to the land.

The committee considered many approaches to this problem and in selecting the approach of placing the state in a position to accept adverse possession proceedings, a procedure it accepted earlier and continued until 1903. It was realized by the committee this proposal was not a panacea for all of the ownership conflicts and that the recommendation affecting this class of land would be subject to charges of "give-away". However, the many serious questions relating to whether or not the state actually owns various abandoned beds and banks of the Willamette River, which was the example studied, appeared to be so blurred, undefined, and expensive to solve that this recommendation was considered as the best realistic basis for a pilot plan undertaking.

The fact of where the river was is actually second in legal significance as to when it was there. If it was there prior to statehood, the legal questions are different than if after statehood. There is a third question which also complicates title determination or ownership of beds and banks of a stream. That question relates as how it got where it was, and how it managed to get where it now is. (note related photographs) Was it by avulsive action, or was it by the slow process of accretion and reliction? The changes wrought by the great flood of 1861 further complicate the legal aspects of the river's movements. And historical records, charts and memories often disagree - at best the facts are most unclear.

The committee studied the proposal of having surveys made of the estimated 202 miles of the navigable reaches of the Willamette River. An examination of survey costs approved by the Division of State Lands disclosed that nearly \$100,000 was expended to survey a stretch of the Willamette River, less than five miles in length, and the survey did not in any way settle the controversy over ownership. This controversy is now in court and at least an additional \$100,000 has been added to the costs with little hope of a remunerative settlement. Costs to defendants in such actions are most burdensome. Defendants cannot match the fiscal resources of the state in such actions.

The committee felt that while surveys would indeed furnish valuable information to the Division of State Lands, the survey would not be final in proof of ownership. The question then arose as to whether or not it would be remunerative or economical to undertake such a program. An estimate of \$200,000 was advanced by the Division

of Lands as an approximate figure for surveying the navigable reaches of the Willamette. Based on past experience, the committee considered the figure to be overly optimistic. Furthermore, after the accomplishment of a survey, it would simply serve as a basis for future expensive court actions. In view of the fact that there are more than 100 navigable rivers in the State of Oregon, the estimated figure, if extended for surveying all navigable channels, could be astronomical. The net values received would be disproportionately small. There is also the factor of disruption of the continuity of many farm enterprises where the farm lands are transected by the abandoned beds and banks of navigable streams of doubtful ownership.

Available to interested members of the legislature, illustrating the scope of the problem and applying only to the Willamette River, is a publication of aerial mosaics covering the stream from Springfield to Portland. It was prepared in 1967 and is available from the State Archivist.

The committee also reviewed the so-called Texas plan, of essentially having the state ownership follow the course of the stream. The practical application of this principle to Oregon, where the stream bed involves many small parcels of land with different ownerships as contrasted with the general situation of extremely large parcels of land that prevails in much of Texas, made the plan seem unfeasible. Also, it was inconsistent with the common law followed in Oregon.

It should be borne in mind, when considering this problem, that a large percentage of the farmers in the Willamette

Valley were not aware that the abandoned riverbeds on their property were subject to an ownership claim by the State of Oregon. Knowledge of this, as carried in 1966-68 editions of the news media, was virtually traumatic according to testimony received from landowners. This was especially true of the many farms that had been in one family ownership for fifty to a hundred years or more. HB 1070 relates to past changes in courses of navigable waterways.

To solve similar problems, should there be future shifting of navigable stream courses, the committee recommended legislative enactment of HB 1072. This also would provide a quitclaim procedure by the state, based upon a petition by the landowner applicant. Payments received are to go to the Common School Fund. Similar reservations are written into the bill relating to recreation, aggregate, and mineral deposits.

The consensus of testimony received from engineers and representatives of state and federal agencies relating to operation of flood control structures on our navigable waterways, was to the effect avulsive changes in the future would be substantially less both in frequency and magnitude than those of the past.

The problems developing from future oscillations of our navigable streams will be much simpler than those of the past. River charts are accurate, surveillance can be more effective, and actions can be taken while memories and recollections are fresh and timely.

This recommendation, similar to HB 1070, is embraced in the minority view carried at the end of the recommendations.

To solve another problem relating to conflicting claims of ownership of lands created by the filling of submerged and submersible lands in our navigable waterways, the committee recommended that the so-called Astoria Bill quitclaim concept be extended to include like situations in other areas of the state. The bill number is SB 29.

The quitclaim concept differs in this instance from the procedure recommended for abandoned beds and banks of navigable rivers. The quitclaiming of beds and banks of navigable rivers would be done directly by the Division of State Lands, however, on the matter of filled lands over state-claimed submerged and submersible lands, the quitclaiming would be done through the county courts or commissions where the filled lands existed. The provisions of this extend to governmental entities and they are heavily involved, as well as to persons.

Similar to the changes in the abandoned beds and banks of navigable waterways, some of the fills on the submerged and submersible lands claimed by the State of Oregon occurred anywhere from a few years past to a hundred years or more. In at least one instance, the State of Oregon actually participated in the land filling. This was to aid the City of Astoria after the calamitous riverfront fire.

In other instances, the riparian owner was the unwilling recipient of land filling. This occurred through dredging by the U.S. Corps of Engineers to improve river channels in navigational servitude. The spoil was deposited on the shores of the riparian owner as the only convenient place for its disposal. This particular problem has widespread involvement on the Columbia River, particularly in all counties

bordering the river where extensive dredging has been undertaken. Clatsop and Columbia Counties are particularly affected.

The concept followed by the State of Oregon is that new land developed by the depositing of spoil on submersible land belongs to the state, even though it takes from the riparian owner, without due process, his riparian right of access to the waterway on what was formerly a waterfront property. The view taken by the State of Oregon in this matter is not uniformly followed. An important element in the doctrine of eminent domain is the "taking". This is usually a question of fact, which raises the question of what constitutes a "taking". No generalization is possible other than to note that any interference with ownership, enjoyment, or the value of private property is usually considered a "taking". Thus, a destruction or impairment of a landowner's riparian rights in a navigable stream that cannot be justified on the basis of some superior public right is considered a taking.^{13, 14}

Frankly, the Astoria Plan has not been accepted in the manner in which it was anticipated. Less than 20 applications under the provisions of the Astoria Law have been filed with the Clatsop County Commissioners. Some of this delay is caused by waiting to see what actions may develop from the studies of this committee. Others credit the

13. *Yates v. Milwaukee*, 10 Wall 497 (77 U.S. 1870)

14. Clark, *A Treatise on the Law of Surveying and Boundaries* (3rd ed.) 566-601 (1959)

delay to the fact that some business leaders have argued, and certainly with a persuasive basis, that the state through land ownership claims, certainly is not going to dispossess a major segment of the City of Astoria and therefore it is unnecessary for landowners in the state-claimed area to pay the added fees required to clear titles to their property. There is also the adverse influence of a title insurance agency, according to testimony given the committee.

This proposed bill would apply to waterfront parts of Portland, St. Helens, the environs of Astoria outside the city limits, ports of Newport, Florence, Coos Bay, Coquille, parts of Lincoln City, other populated centers both incorporated and unincorporated, which are built on estuary or filled property claimed by the state. It is a resource of the Common School Fund.

Through much of this discussion, we have been speaking of the beds and banks of navigable streams, however the committee finds that the head or upper limits of navigability on many navigable waterways has never been determined. The authority of the federal government pre-empts most facets of navigability insofar as the surface of navigable waterways is concerned. However, the ownership of the beds and banks is the matter that needs to be adjudicated. The committee is recommending enactment of HB 1071 which provides a hearing procedure that is quite similar to that contained in SB 300 of the 1969 session which passed both houses but was lost in a conference committee. It is modeled substantially after the Oregon administrative procedures act, advocated by the Oregon State Bar Association as a first remedy to settle this problem. See Appendix D.

It is to be noted that the procedure recommended for the conduct of hearings in determining head of navigability differs from the Oregon administrative procedures act and presumably gives more weight to evidence and equity. Some attorneys argue that there are technical flaws in the procedure.¹⁵ Others advocate it as fair.

Also, a court appeal procedure is provided which undoubtedly will govern in the more contentious cases. It is believed, however, that many of the navigability determinations can be made by negotiation or through the hearings procedure that is being recommended as a part of the bill.

At the present time, the head of navigability is arbitrarily determined by the Director of the Division of State Lands based on the best information made available to him. In the past, questions have been raised as to whether or not the determination of the head of navigability, as proclaimed by the Division of State Lands, for the collection of royalties and leasing of river bottom areas has been based on solid claims of state ownership, or has actually invaded private domains.

On the matter of navigational use of our waterways in those areas not covered by the federal regulations, the committee's attention was called to a problem of many obstacles in streams that were a hazard to navigation. These navigational hazards

included both fixed and floating objects. To aid in minimizing these two related problems, the committee recommended adoption of SJM 3.

Testimony was received emphasizing the tremendous damage to property and the actual loss of life because of boats colliding with floating obstacles. Also the hazards to navigation of such fixed obstacles as abandoned docks and dolphins were discussed.

The recommended Memorial to Congress calls for a snagboat to be assigned to the Columbia River and Willamette River as an aid in the removal of partially submerged logs and other items considered dangerous to small boats. Not only has serious damage to boats occurred but a number of fatalities have resulted from watercraft colliding with floating or partially submerged logs, according to testimony given to the committee.

On the matter of enforcement of the state's proprietary and regulative orders, it was found that presently the Water Resources Board holds the enforcement role. There was doubt in the minds of the committee as to whether or not the Water Resources Board was in fact sufficiently oriented, staffed, or funded to do an effective enforcement job. Therefore, SB 28 was adopted, which transferred the primary enforcement of Land Board decisions to the Land Board, leaving the Water Resources Board in the appellate status.

15. Letter, Attorney General's Office 12-23-70.

It appeared that this view was shared by the Director of the Division of State

Lands. The committee was of the opinion that enforcement should conform generally with the programs existing in other state departments where the permit or licensing authority is also the enforcement authority.

The committee was made aware of many instances where tideland owners who, because of the virtually national concern for estuary protection, were prevented from filling and developing submersible lands which they had purchased. There were instances reported where the owners and assigns had owned some of these lands for nearly a hundred years. They may now be denied making use of them. It was found that cases paralleling this situation existed in many other states, and that several coastal states were pioneering programs for repurchase of such wet lands and placing them in marine preserves for the benefit of all the public and for preservation of the common fishery. The committee recommended a proposal to repurchase these lands. It is embodied in HB 1075.

It is permissive, not mandatory, in character. The funding for the bill is inadequate for any large undertaking but basically it serves as a declaration of state policy and may help to solve problems of equity with owners who have been denied the permit to fill their submersible lands.

Technically, access to these lands for the common fishery existed with the public ever since the lands were originally sold by the state but after 1878 it apparently was not listed on the document of conveyance. (See related Figures 5 a,b, on pages 8 and 9. In fact, the committee found that the Land Board discontinued noting this condition on the documents of conveyance that

have been issued subsequent to 1878, thus many purchasers acquired the land without realizing that a public easement existed. These purchasers and their assigns have been unaware of the existence of the public easement until this matter was called to the attention of the public by this committee. As a matter of fact, many owners have rejected this concept of public easement at the present time because of its omission from the document of conveyance.

Considerable controversy has existed over the manner in which material removed from the river should be measured as a basis for paying Common School Fund royalties to the state. Members of the aggregate industry alleged that they have been charged for the number of cubic yards that passes through their books and that this is a substantially greater amount than that which is taken from the river. This, they explained, is caused by processing. For example, each time gravel is crushed or processed or sorted, the quantity "fluffs" or expands in bulk and that it is not fair to charge the person an added fee for the expansion that occurs in processing. Based on this premise, a weight formula in lieu of the volume in cubic yards formula, is being proposed, and embodied in HB 1073.

As a matter of fact, this bill simply makes legal a conversion practice adopted late in 1970 by the Land Board and eliminates any possible questions as to legality of using a weight factor in auditing for royalties.

The committee took testimony on the problems that may be encountered relating to regulation of the use of the state-owned submerged and submersible lands falling

within the three-mile limit of the coast. Legislation on this subject with reference to oil and mineral exploration was passed by the previous legislature. The committee decided that legislative proposals for the future should be deferred until the operation of laws now in effect were time-tested and evaluated. If inadequacies were evident, they could be corrected by a subsequent legislature. No recommendation other than to further test present laws was adopted. Problems relating to pollution potential were noted but the consensus, based on testimony received, was to the effect that this was more of a Department of Environmental Quality problem than of this committee.

On the matter of Oregon's estuaries, of which Oregon has a short supply, (see Figure 8, the committee found from scientific testimony that man's actions generally tended to destroy estuary productivity essential to the maintenance of the valuable offshore fishery. It was believed zoning was the logical approach to use of the estuarine resources, so HB 1074, amending the present zoning law, was adopted by the committee.

The committee also found that interest in the nation's estuarine and coastal zone resources has been growing tremendously in recent years, particularly at the federal level, both in congressional and judicial fields. 16, 17

16. Fish and Wildlife Coordination Act, National Environmental Policy Act, 1969.

17. Zabel and Russel v. Tabb (CA 5, No. 27555, July 16, 1970, D.J. File 90-1-23-1334.

The federal government enacted the estuary protection law (P.L. 90-454) which gave to the Secretary of the Interior special authority and responsibilities for studying estuaries; and for developing the means to protect, conserve and restore them. Enactment of this law was based on the concept that estuaries are among the nation's essential resources; that they constitute a unique part of America's natural heritage; and that they are of value to all of the people, not merely to the residents of the coastal zone. In short, we now have the federal government heavily involved in estuary management.

Each of Oregon's estuaries is unique in itself. This is caused by the difference in the amount of salinity, water temperature, current patterns, soils in their beds and banks, and available supplies of nutrients. Marine scientists contend that estuaries, because they contain a combination of fresh water and sea water nourished by nutrients from both, are richer than either by itself. This diversity of nutrients and character supports an enormous sea wealth in a wide variety of fish, birds, mammals, and of course the supporting animal and plant organisms, the latter being a vital part of the fish food net.

In the early development of our state, the legislature understandably adopted policies designed to encourage sale and development of our state-owned tidelands and shorelands. Very early in our state's history, some coast settlers began harvesting oysters on our tidelands.

Gradually, public interest in our tidelands changed and the state policies, while reacting slower, have changed with them.

However, the laws passed early in the state's history, the 1870's, granting public easements to the common fishery over any tidelands sold by the state, still remain virtually unchanged and have been in continuous effect, though unbeknown to many persons, including tideland purchasers.

There now appears to be three layers of government involved in estuaries, local government through planning and zoning commissions, the state through its federal grants, statutes and policies, and the federal government through public laws calling for action from its water-land related agencies.

At the present time there appears to be a rather large proliferation of federal studies revolving around and probing Oregon's estuaries. Some of these studies are responsive to public laws at the federal level. Some of them are regional in scope, others are directed at the entire coastal area of the United States, including the Great Lakes. Some involved state responses and cooperation.

Also, there were various state studies undertaken, in addition some studies at the local level. Some of the studies seek new knowledge, others point toward refining knowledge already on hand. They all involve general implications of economic activity pointed toward estuarine zone planning and management. Fish, wildlife, aesthetic and outdoor recreational factors are the values emphasized. Senators Hatfield and Packwood were joint sponsors of S.3460 introduced into the 91st Congress with the goal of establishing a national policy for the coastal zone planning and development and to assist the states in establishing coastal zone

management programs. This act is the result of recommendations of the Commission on Marine Science Engineering and Resources that was put into operation in 1966. Part of the problem now relates to avoiding over-reaction, yet solve the conflicting use problems in an orderly manner.

Another problem to which the committee addressed itself was the organizational structure of the Land Board. In the early days of our statehood and this is equally applicable to other states, there appeared to be a disinclination to give the executive of the state sufficient power to operate efficiently. This inclination was probably reminiscent of the fear historically inspired by dictators and kings. However, today in a democracy with its checks and balances, the tendency is to give the governor more power and hold him more accountable. Abolishing the Land Board, which is now composed of a triumvirate exercising equal power, the Governor, the Secretary of State and the Treasurer, and place the responsibility solely with the Governor follows the thinking of strengthening the executive department.

In view of the fact that abolishment of the board calls for a constitutional amendment, this recommendation is in the form of a resolution and if adopted by the Legislature, will place the issue before the electorate. The Secretary of State is on record favoring this move. (SJR 3)

Another factor that may have influenced the committee is that more often than not, the members of the Land Board are competing with each other for public office. It was believed that this condition of rivalry was not always conducive to thorough and attentive management of the resources involved.

The committee believed that a five-man commission appointed by the Governor and responsible to him, functioning in the same manner as other boards and commissions of the state, would provide a more fruitful management of the resources involved. The bill setting up the five-man structure would be operative, if enacted, only should the amendment to the Constitution abolishing the Land Board be adopted by the people. It carries the number SB 27.

At the request of the Director of the Division of State Lands, the committee ordered the drafting of a legislative proposal designed to plug loopholes in the wharf law and minimize opportunities for abuses under the broad provisions of the act. This act which was passed in the early days of Oregon's statehood¹⁸ was designed to encourage the development of facilities for navigation to aid in marketing and transporting Oregon's products. These at the time were largely agricultural, lumber, fish, furs and woolens. The bill carries the description of LC 95.

Testimony and evidence received by the committee indicate that there are instances when the use of this act has been more for the purpose of making landfills related to activities and uses never contemplated in the original act and of very questionable value to navigational servitude. It was argued that such uses often were of community value. However, they often result in diverting receipts that would normally accrue to the Common School Fund.

18. Enacted Oct. 17, 1862, amended 1963 relating to port districts.

The bill relating to wharves was not received by the committee in time for a hearing or for the committee to express an action. There is a likelihood that the measure will be introduced by an individual member of the committee simply to bring the problem officially to the attention of the legislature.

In nearly every decision made by the committee, the committee had to consider its ultimate impact on the Common School Fund. Even though the state holds the proprietary interest in the submerged and submersible land resource, it is the Common School Fund that is designated as the beneficiary of all receipts from sales, leases and use of the submerged and submersible lands on our navigable waterways, as well as from the material removed from the beds and banks of navigable streams.

Therefore, the committee thought it was appropriate to include within this report some of its findings regarding the school fund. On Appendix F you will note a history of the school fund receipts covering the distribution since its inception. You will note it has ranged from a low of 64 cents per census pupil in 1879 to a high of \$7.13 per census child in the 1963-64 biennium. The distribution was \$5.12 during the 1967-68 biennium. For the current biennium it will range between \$1.50 and \$2. The people of the State of Oregon amended the State Constitution in 1967, permitting the school fund receipts to be used for management and improvement of the resource. This use of money for management and improvement is one of the reasons why the distribution of funds reflected a sharp reduction. The estimated cash value of the irreducible Common School Fund totals approximately \$19 1/2 million. Added to this is the value of 132,500 acres of state-owned forest lands, estimated to be

\$136,606,764 and the grazing lands appraised at about \$7,000,000. Inventory estimates of merchantable aggregate and values of submerged and submersible lands have never been compiled. These resources are held and managed for the benefit of the Common School Fund.

The per pupil cost in Oregon, and this means those actually attending school, averaged an estimated \$880 for the 1968-69 biennium. Thus, the contribution to school support derived from the Common School Fund is a relatively small fraction of the total per pupil cost.

The total amount of school land is about 770,000 acres, not counting the submerged and submersible lands. Forest lands are administered by the State Department of Forestry. In the fiscal year ending June 30, 1970, the sum of \$2,875,992 was added to the irreducible school fund. From this amount the Division of State Lands administrative expenses are paid. The budget is \$412,996. Earnings from the irreducible school fund distributed to the schools totaled \$1,298,433. The receipts from the grazing lands averaged roughly 10 cents per acre with a total for the biennium of about \$122,000. In an effort to increase the grazing and forage values of these lands, the state budgeted \$150,000 for the biennium. Results of expenditures or increases in revenues resulting from that endeavor have not been assessed nor reported as of this time.

The investments of the irreducible school fund cash are managed by the State Treasurer. The Director of the State Veterans Department participates in the management of the farm loan mortgage program. This leaves to the Land Board for sole

administration the grazing lands, escheats, abandoned property, sale of material removed from the abandoned beds and banks of streams, and leasing of riverbeds for log rafting, moorages, etc., as their primary duties. A review of the Land Board budget and the receipts received from rents, leases, royalties, escheats, and abandoned property appear to bear a disproportionate relationship to administrative costs. The operation should be subjected to a very careful program examination to determine if some duties could be more appropriately managed by other agencies such as (1) transferring escheats and abandoned property to the Inheritance Division of the State Department of Revenue (2) consider grazing land for selective sale under conditions relating to its present use and classification (3) transferring of mortgage lending to the Department of Veterans' Affairs (4) the placing of all land titles under a central agency.

While no action was taken on this matter there appeared to be a body of thought that the schools would fare better if the Common School Fund were integrated into the basic school support system and the funds distributed to the schools under the same formula. This would result in an economy through simplification of the distribution program and, according to school authorities who testified before the committee, be in the interests of greater equity and savings in administration.

The committee did not seek a bill designed to accomplish this integration. It is understood that the Legislative Fiscal Committee has been making an exhaustive study of this program and the committee felt that any efforts on the part of its staff would simply be a duplication of effort.

Concerning sale of grazing lands, there is a school of thought in fiscal management affairs that believes the school fund would immeasurable benefit if the grazing lands were properly disposed of and if various functions conducted by the Land Board were placed in other appropriate departments. The overhead costs of operating the Division of Lands when compared with the earnings for the actual responsibilities accomplished by the Division reveal an uneconomical situation.

The magnitude of the task assigned the committee was greater in scope than could be covered in depth in the 16-months time granted to this committee by the 55th Legislature. Thus a system of priorities was determined. And a number of areas that warranted study and examination were bypassed. The committee adopted a recommendation and a Resolution has been drafted, SJR 4, that the committee be continued.

In the event the committee is to be continued and the federal funds granted to the committee to be retained, it is urgent that early action be taken to preserve the federal funding and the continuity of the committee goals. Amending action to the Resolution could be taken later in the session, if desired, should new facets of problems that would normally come within the purview of the committee became evident.

One of the assignments in the mission which lack of time permitted only cursory study by the committee, was the directive to study the laws of other states relating to submerged and submersible lands.

The committee assembled the laws of eleven states, however, all fifty of the United States were contacted. An in-depth comparison of the various and sundry laws of all of the states equating them to the problems of Oregon would take research work for a number of months.

Initially it was planned to do this research with federal funding, using graduate law students, however, the funds were not received by the committee until December 15. There was some caution and wariness on the part of the staff and the committee members to make a complete committal of the federal funds until they were received. There is still due from the initial grant the sum of \$10,000. This has not been received at the time of writing this report.

The broad, complex problem of riparian ownership conflicts with claims of the state, and users of navigable waterway surfaces received considerable study. Legislative proposals relating to facets of this riparian problem were adopted. However, additional study will be necessary to develop equitable solutions for riparian owners whose waterfront access is virtually being "taken" by the state as a result of dredge spoil dumping on submersible land abutting their riparian property. This problem is growing in scope and intensity. Eight bills, in addition to those discussed in this report, were embraced in drafting requests. Due to lack of time to complete drafting or conduct hearings, actions were deferred on the concepts. It was the consensus that in the event the committee were to be continued these subjects would be at the top of the study priority list.

MINORITY REPORT SUBMITTED BY COMMITTEE MEMBER RICHARD D. BACH

At the time I voted against recommending proposals LC83 (House Bill 1070) and LC100 (House Bill 1072) to the 1971 session of the State Legislature, I asked to be given an opportunity to present my views on this subject.

A solution to the problem of title to abandoned riverbed lands was one of the prime functions assigned to our Committee by HJR 40, and at the outset, I would like to state that I have no objection to the stated objectives or purposes of LC83 and LC100. I will fully support their passage in the Legislative Assembly in the event my own proposal should prove to be unacceptable. With all due respect to the very competent members of our Advisory Committee, however, I believe that the procedures established by LC83 and LC100 are unnecessarily confusing, costly and complicated.

As I have stated on a number of occasions during our deliberations, I believe the State of Oregon has no need for proprietary ownership of the bed and shores of our navigable lakes and rivers (except perhaps in the case where a specific state agency has acquired specific submerged or submersible lands for a particular purpose in connection with its statutory functions).

I had proposed to deliver a lengthy and learned discourse in support of my contentions, but Mr. Paul J. Speck, in his report to our Advisory Committee entitled

"The Public Trust Doctrine in Oregon" says it far better than I could. In particular, I would like to commend your attention to that portion of Mr. Speck's treatise beginning on page 20 in which he states:

"Significantly, the sine qua non of these presumptions, and indeed the entire public trust concept as interpreted at common law, is the public's interest in the use of the waters for navigation and related purposes. These public rights however, continue to exist regardless of who owns the land, whether it be the state or a private party. To say, therefore, that it is the lands that the state holds in trust is somewhat of a misnomer. The state can bring an action to abate an obstruction to navigation whether it owns the land or not. Retention of ownership by the state, therefore, affords the public no greater protection than if the land is privately held. There appears to be no reason why the State of Oregon could not vest title in riparian owners or sell its lands and at the same time provide protection for traditional public rights in the use of the waters."

My proposal, then, to solve once and for all the problem of title to land which is now or may hereafter become no longer submerged or submersible due to changes in the course of a river is simply stated as follows:

The State should relinquish its proprietary title to the bed and shores of all navigable rivers within the State to the adjacent riparian owners, reserving an easement for the waters of the river wherever they may be at any given time and confirming the State's power as trustee to regulate the use of the water for all legitimate public purposes, including recreation, commerce, navigation, fisheries and water quality. The State could also reserve the right to sell any gravel or other minerals to be found in the bed of the river as it may exist at any given time.

If the river were later to change its course, such easement would terminate and full title to the abandoned river would revert in the riparian owner without any claim of interest

by the State. Such legislation would clarify, for all time, the somewhat confused status of title to dry lands adjacent to navigable rivers and eliminate any apparent claim of interest that the State may now have. Such procedure would obviate the necessity of spending countless hours and much expense as is now required to clear such title or as would be required if LC83 and LC100 were to be enacted into law.

I have not attempted to draft any specific bill to accomplish the foregoing proposal but would be pleased to confer with legislative counsel in drafting such legislation if the Advisory Committee or the Legislature so desired. I would appreciate it if this proposal were submitted to the legislative committee which will hold hearings on LC83 and LC100, and I am prepared to testify before such committee at its convenience. I believe that my proposal is sound, constitutional and feasible of implementation. I also believe that this means of solving the problem of title to abandoned riverbed lands will be acceptable to the members of the Legislature and the people of Oregon if presented in a proper fashion.

I would like to take this opportunity to thank you and the other members of our Advisory Committee for the opportunity afforded me to serve the Legislature and the people of Oregon. It has been a rewarding experience for me personally and one that I will always recall with appreciation. If the Legislative Assembly sees fit to continue the work of the Committee under an extension of HJR 40, and if my services are desired, I will be pleased to be of further assistance.

Very truly yours,



Richard D. Bach

NEHALEM AND TILLAMOOK BAY ESTUARIES

Two of the few remaining Oregon estuaries largely in state ownership that still retain much of their original potential for aquatic productivity so necessary for the support of Oregon's important fishery.

Oregon divested itself of much of its tidelands prior to the turn of the century. Grants and sales were encouraged by state law and policy, example, an Act passed by the Oregon Legislature February 21, 1891



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TILLAMOOK BAY Photographed 18 JULY 1969  69-4

authorized and required the Governor, Secretary of State and State Treasurer, acting as the Board of Commissioners For The Sale of State Lands to sell the remaining unsold tide and swamplands (Columbia and Coos Rivers) to citizens of the State of Oregon. Quantities were limited to 320 acres to any one person. Prices originally commenced at about \$1.25 per acre and eventually advanced to about \$7 per acre. Efforts are now underway to protect the productive remaining estuarine areas by zoning and development controls. See Committee Bills, HB 1074 and HB 1075.

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Principal Investigator's Note:

The Advisory Committee to the State Land Board retained the legal services of Alex Parks who specializes in land-water relationship law having published books on this subject. Three legal questions were assigned to him. In summary they were:

(1) *The effect of the definition of "navigability" as applied to Oregon waters with special regard to state control of material removal and other allied purposes.*

(2) *Rights, if any, of an upland riparian owner to the use of surface waters adjacent to his shoreline:*

(a) *When submersible lands abutting his shoreline are*

leased to third parties by the state;

(b) *When the state has not leased such submersible lands to third parties.*

(3) *Right of the State of Oregon to sell or otherwise alienate its riparian lands.*

(a) *Assuming such right, upon what terms and conditions may such sale or alienation be accomplished.*

His memorandum exploring the assigned questions follows.

APPENDIX A

MEMORANDUM

SUBJECT: Right of the State of Oregon to sell or otherwise alienate its riparian lands

- (a) Assuming such right, upon what terms and conditions may such sale or alienation be accomplished

There is no question of the State's right to sell, lease or otherwise alienate its riparian lands, subject, however, in certain instances, to the qualification that if to do so will impair the public's right of navigation and fishery, such sale or alienation is a breach of the public trust and casts doubt upon the efficacy of the transfer.

AUTHORITIES

Oregon Constitution, Article VIII, Section 5 (as amended May 28, 1968)

Barney v. City of Keokuk, 94 U.S. 324, 24 L Ed 224

Bowlby v. Shiveley, 22 Or. 410, 30 P. 154, 152 U.S. 1, 38 Led 331, 14 Sup Crt 548 (1894)

Corvallis & Eastern R.R. Co. v. Benson, 61 Or. 359, 121 P. 418, 235 U.S. 691, 59 Led 428, 35 Sup. Crt. 206

Taylor Sands Fishing Co. v. State Land Board, 56 Or. 157, 108 P. 779

Eagle Cliff Fishing Co. v. McGowan, 70 Or. 1, 137 P. 766, distinguished 248 U.S. 589, 63 Led 435, 39 Sup. Crt. 5

Cook v. Dabney, 70 Or. 529, 139 P. 721

Casner, American Law of Property, Vol. 3

Water and Water Rights, Robert Clark, Vol 1 (1967)

* * * * *

Prior to May 28, 1968, there appeared to be some question of the authority of the State Land Board to employ business-like principles of management, conservation and disposition of state lands. H.J.R. No. 7, 1967, adopted by the people on May 28, 1968 appears to have corrected this omission in authority. Quoted below is the recent 1968 amendment to Section 5, Article VIII. Matter deleted from the original section is shown in brackets; new matter is shown by underlining:

"Sec. 5. (1) The Governor, Secretary of State [,] and State Treasurer shall constitute a State Land Board [of Commissioners] for the [sale] disposition and management of [school, and University] lands [,] described in Section 2 of this Article, and other lands owned by this state that are placed under their jurisdiction by law [and for the investment of the funds arising therefrom, and]. Their powers [,] and duties [,] shall be [such as may be] prescribed by law. [Provided that no part of the University funds, or of the interest arising therefrom shall be expended until the period of ten years from the adoption of the Constitution, unless the same shall be otherwise disposed of by the consent of Congress for common school purposes.]

(2) The board shall manage lands under its jurisdiction with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management.

That the purpose of the 1968 amendment was to broaden the State Land Board's management and disposition powers clearly appears in the legislative history of H.J.R. No. 7. (1)

(1) Committee records, House State & Federal Affairs Committee, February 6 and 8, 1967; Official Voter's Pamphlet, Primary Election, 1968, pp 4-7

It will be noted that the original section referred to the power of the old Board of Commissioners for the "sale" of such state lands; the new section broadens this power to include "management and disposition". The definition, of course, of "disposition" is considerably broader and includes, in addition to the power to sell, the power to lease, waive, relinquish, quitclaim, etc.

The basic right of any state to sell or otherwise alienate its tidelands, is well covered in the leading case of Barney v. City of Keokuk, supra:

"Whether, as rules of property, it would now be safe to change these doctrines where they have been applied, as before remarked, it is for the several states themselves to determine. If they choose to resign to the riparian proprietor rights which properly belong to them in their sovereign capacity, it is not for others to raise objections."

Casner, V.3, p.242 - American Law of Property states:

"It is generally held that each state can dispose of subaqueous land of which it is the owner, except that in the case of navigable waters, it may not do so when the grant is contrary to the public interest."

Casner, P. 265 supra:

"What the state can convey depends in large part on the nature of its ownership. The views as to the character of ownership vary all the way from one recognizing it as Jus Privatum with a full power of disposition (citing Taylor Sands Fishing Co. v. State Land Board, 56 Ore. 157,), to one of purely a Jus Publicum with no power of alienation (Ill. Central v. Ill. 36 L.Ed. 1018). In between these extremes are decisions based

upon a Jus Publicum but often verging upon a recognition of the state's ownership amounting to a Jus Privatum. Among these may be noted those holding that its title is held by it in trust for the public purpose of safeguarding the rights of navigation and commerce (here citing Cook v. Dabney, 70 Ore 529), fishing, bathing. . ."

Casner, page 267, supra, makes an interesting projection of the trend of judicial decisions concerning this problem:

"But whether the state owns the Jus Privatum or the Jus Publicum does it have a power of sale; and if so to what extent does a conveyance by the state, bar public rights? . . . The King acquired his ownership as a prerogative of his sovereignty and held these lands subject to the Jus Publicum, but with full power to convey title. The disputed question in the English cases was not whether the Crown could grant the fee to underwater lands but as to the uses to which they would still be subject in the hands of its grantees. Are not the American decisions working back to this principal --- a recognition of the Jus Privatum in the state, with reasonable powers of alienation, but qualified by a Jus Publicum, held in certain respects by the riparian owners and in other respects by the public at large and subject to a conditional limitation in fee absolute to the riparian owners in case of accretion or reliction." (Emphasis added)

Casner, page 270, supra, states what appears to be the Oregon rule, that is, the theory of Jus Privatum as contrasted to the Trust Theory:

"In those states which have never adopted the trust theory but which follow literally the English doctrine of Jus Privatum in the crown subject only to certain easements in the public (no Oregon citations here), there appears to be no doubt the title may be conveyed (here cited Eagle Cliff Fishing Co. v. McGowan, 70 Ore. 1, --Corvallis, etc. v. Benson, 61 Ore. 359), subject to the reasonable rights of the public as determined in each case, (here again cited the Eagle Case) or even free in some cases from all public rights. (Emphasis added)

It is clear that the State of Oregon adheres to the Jus Privatum theory, and that it has full power to convey the lands in question, but such conveyance will at least be subject, in some degree, to the Jus Publicum. In Oregon, the Jus Publicum apparently consists of the protection of navigation and fishing. Clark's comment on alienation of state property, under the Jus Privatum theory is as follows:

"But no state has adhered to the view that the public interest may be alienated in fee to private persons without regard to the utility and need of the property for navigation, and without assurance that the property will be used to promote at least a quasi-public purpose such as railroad transportation or municipal use.***"

Clark further points out (footnote 83) as follows:

"In 3 American Law of Property, §12.32, note 7 (Casner ed. 1952), a number of cases are cited in support of recognizing that the state owns the jus privatum in these lands, with full power of disposition. But even those cases fall short of contradicting the statement (above) in the text---indeed several of those cases support that text, e.g., Nedtweg v. Wallace, 237 Mich. 14, 208 N.W. 51 (1926), affd. 211 N.W. 647 (1927) (no interference with public use, and no surrender of the jus publicum); Citizens' Electric Co. v. Susquehanna Boom Co., 270 Pa. 517, 113 Atl. 559 (1921) (the property was taken by eminent domain); Armour & Co. v. Newport, 43 R.I. 211, 110 Atl. 645 (1920) (the public easement was sustained).

Local statutes must be checked for their effect upon the state's power of disposition, but they too must be read with caution and with regard to their subsequent judicial treatment. For example, in People v. Steeplechase Park Co., 218 N.Y. 459, 113 N.E. 521, Ann. Cas. 1918B 1099 (1916), a statute authorized unqualified, unrestricted grants of tidelands. The main opinion in the case supported the statute without qualification. But the concurring opinion was written for the purpose of stating that

grants under the statute must not unduly interfere with navigation or be otherwise seriously detrimental to the public interest. Two judges concurred in both the main opinion and in the concurring opinion and, therefore, must be taken as supporting the limitation expressed in the latter. Three judges dissented on the ground that in the instant case there should have been read into the grant an implied reservation of public rights. It thus appears that six of the seven judges embraced the view that there was no unqualified and unrestricted power to deal with traditional public interests notwithstanding the statute. See Lansing v. Smith, 4 Wend. (N.Y.) 9, 21 Am. Dec. 89 (1829); Long Sault Development Co. v. Kennedy, 212 N.Y. 1, 105 N.E. 849, Ann. Cas. 1915D 56 (1914); Saunders v. New York Cent. & H.R.R. Co., 144 N.Y. 75, 38 N.E. 992, 43 Am. St. Rep. 729, 26 L.R.A. 378 (1894); and see numerous citations of cases in Ann. Cas. 1918B 1107-1114; Ann. Cas. 1915D 69.

The position in Oregon is aptly illustrated in Corvallis and Eastern R. Co. v. Benson, supra, wherein the Court stated:

"It is well settled that the tidelands laid bare, and anon flooded by the sea as it ebbs and flows, became the property of the State on its admission into the Union. In the title thus conferred upon the State, there are two elements--the jus privatum or private right, and the jus publicum, or public authority. The former is a species of private property which a state holds in the same way that an individual citizen owns land which he has acquired from the United States by any of the methods provided for the sale of the public domain, or from any private person by purchase and conveyance. This private property in tidelands, the State by its legislative assembly, may grant to any one in any manner, or for any purpose, not forbidden by the constitution, and the grantee will thereby take the title described in the grant as absolutely as if the transaction were between individuals; one conveying his private lands to the other. The State however, cannot abdicate or grant away the other element of its title to tidelands--the jus publicum, or public authority over them. This is the dominion of government or sovereignty in the State, by which it prevents any use of lands bordering on the navigable waters within the State which will materially interfere with navigation and commerce thereon. For, by the tenets

of the common law, as well as by the terms of the act of Congress of February 14, 1859, c. 33, 11 Stat. 383, admitting Oregon as a state into the Union, the rivers and waters forming a boundary between it and other states "and all the navigable waters of said State shall be common highways and forever free as well to the inhabitants of said State as to all other citizens of the United States."

In the Corvallis case, the Court cited the decision of Justice

Lord in the case of Bowlby v. Shively, 22 Oregon 410, as follows:

"When the State of Oregon was admitted into the Union, the tidelands became its property, and subject to its jurisdiction and disposal; that in the absence of legislation or usage, the common-law rule would govern the rights of the upland proprietor, and by that law the title to them is in the State; that the State has the right to dispose of these in such manner as she might deem proper, as is frequently done in various ways, and whereby sometimes large areas are reclaimed and occupied by cities, and are put to public and private uses; state control and ownership therein being supreme, subject only to the paramount right of navigation and commerce. The whole question is for the State to determine for itself. It can say to what extent it will preserve its rights of ownership in them or confer them on others. Our State has done that by the legislation already referred to, and our courts have declared its absolute property in and dominion over the tidelands and its rights to dispose of its title in such manner as it might deem best, unaffected by any legal obligation to recognize the rights of either the riparian owners or those who had occupied such tidelands', other than it chose to resign to them, subject only to the paramount right of navigation and the uses of commerce." The principles announced in that case have never been disturbed by any decision of this court, and they are yet to be challenged by any ruling of the federal courts. They are part of the jurisprudence of the State, and have become a settled rule of property. They constitute the foundation of many holdings, both great and small, and to overturn them now, if, indeed, they ever could have been disturbed, would be to invoke confusion where certainty ought to be thoroughly established.

The defendant contends that the State holds the legal title to and dominion over tidelands by virtue of the sovereignty, and in trust for all the people for the purpose of navigation, fisheries, and commerce, and that the title that the State holds, to its tidelands is incident to and a part of its sovereignty which cannot be surrendered or alienated, except for some public purpose, or any reasonable use for the public benefit. The fallacy of these contentions at this juncture is that they make no distinction between the jus privatum and the jus publicum, both of which are elements in the State's complete title. It is the jus publicum, or governmental prerogative alone, which the State holds in trust and cannot repudiate or lay aside. On the other hand, like any other owner, it may transfer its tidelands, so far as the jus privatum is concerned, always with the condition implied by law that the grant is subject to the paramount rights of navigation and commerce over the waters.

The principal case relied upon by the defendants is that of the Illinois R. Co. v. Illinois, 146 U.S. 387 (13 Sup. Ct. 110; 36 L.Ed. 1018). The state of Illinois had granted to the railroad company a right of way 200 feet wide from Cairo to Chicago, over the lands and waters of the state, and by consent of the latter city, so far as its interests were concerned, the right of way was located along the margin of Lake Michigan, and an embankment was raised and so protected from the violence of storms on the lake as to make the way safe as a roadbed. From water front lots, adjacent to the levee and owned by it, the company built docks extending out to the deep water of the lake. Afterwards the Illinois legislature passed a law granting to the company the bed of the lake along a mile and a half of the city water front and extending with that width a mile out into and including most of the outer harbor. This law was repealed by subsequent legislation. The Supreme Court of the United States held that the repeal was a valid exercise of legislative power, on the ground that the abrogated law undertook to invest the company with rights manifestly inimical to navigation and commerce, in that it assumed to grant away lands subjacent to the navigable waters of the lake. At the same time and in the same case, the court protected the company in its use and enjoyment of its embankment, although it occupied part of the original margin of the lake and the water thereof, and in the maintenance of its docks, subject to the condition that they should not extend into the lake beyond the point of practical naviga-

bility. In Lewis v. Portland, 25 Or. 133, 168 (35 Pac. 256; 22 L.R.A. 736; 42 Am. St. Rep. 722), the case of Illinois Central R. Co. v. Illinois, 146 U.S. 387 (13 Sup. Ct. 110; 36 L. Ed. 1018), was construed by this court, in the opinion of the then Chief Justice Lord, not to be in conflict with the doctrine that the State may part with the private title to its tidelands, subject to its sovereign prerogative of so regulating their subsequent use that navigation and commerce upon the navigable waters will not be materially impeded.

And so in the other cases cited in opposition to plaintiff's bill. They all recognize the authority of the State to grant the jus privatum in its tidelands, which the grantee may hold and enjoy as private property in subordination to the jus publicum, continually inherent in the State, to regulate the use of such lands, so that there shall be no material encroachment upon commerce and navigation. It is settled, therefore, that the State of Oregon had an estate in the tidelands within its boundaries which was properly the subject of a grant to private parties. It remains to determine whether in the present instance, the State of Oregon has parted with that estate in the lands in question."

The case of Cook v. Dabney, supra, has been cited in relation to the foregoing problem, and it must be noted that the Court mentions the word "trust".

"It is true that upon the admission of the state into the Union, it was vested with the title to the lands under navigable waters, subject, however, at all time to the rights of navigation and fishery. To all intents and purposes the title of the state was burdened with a trust, so to speak, in favor of those two occupations."

The word "trust" as used by authorities and text writers on this subject, usually connotes a severe restriction on the right of the state to convey its lands, whereas the words "jus privatum" indicate an absolute right of conveyance, subject to lesser restrictions. Although the word "trust" is used in Cook v. Dabney,

the Court obviously meant that a trust was involved only to the extent that navigation and fishery would be protected if any conveyance was made by the state. Under the rule of Jus Privatum, a theory embraced by the State of Oregon, the same results are achieved, and the only difference is in the labels. Justice Lord construed the term "trust" and "jus privatum" in Bowlby v. Shively, by saying:

Upon the first question, the court holds that the tide lands---the land in controversy being such ---belong to the state by virtue of its sovereignty. Some contention is made that the phrase which describes the ownership of the state as being "by virtue of its sovereignty," indicates that the title held by the state to such lands is as trustee for the public, and not as absolute owner, capable of conveying private rights therein, subject only to the paramount right of navigation; but the use of this phrase in that case was not designed to convey that meaning, when considered with reference to the whole decision. The contention was that the title of the tide lands, before the admission of the state into the Union, was in the United States, and subject to its disposal; and as it had granted away by its patent the tide lands in question before the state was admitted, no rights of the state ever attached to them. The court refused to accede to this view, but adopting the reasoning of Pollard's Lessees v. Hagan, supra, held that the state, upon its admission into the Union, became the owner of the tide lands, not as a grantee of the United States, but by virtue of the sovereignty, that the state had the right to dispose of such tidelands under the provisions of the statutes referred to providing for their sale, and that its grantees took this subject only to the paramount right of navigation existing in favor of the public. The decision, therefore, is based on the idea that the state has a jus privatum in the tide lands distinguishable from the jus publicum, which it may sell so as to convey private interests therein; hence the phrase, by virtue of its sovereignty, was not intended to preclude any private use by the state's grantee which did not interfere with the public rights."

* * * * *

Based upon the predicate that the state has a legal right to sell or otherwise alienate riparian lands to which it holds title, upon what terms and conditions may such sale or alienation be accomplished?

The solution is more practical than legal. It is difficult, of course, to conceive of a fact situation in which a conveyance of a portion of an "avulsed" former riverbed could be construed to impede or interfere with the public's right of navigation or fishery are even remotely involved. The same is equally true of "filled" lands, accreted lands, and lands exposed by reliction --- assuming all of such categories of lands have been exposed and dry for sufficient period of time to warrant a conclusion that the situation has become stable.

A different question entirely is presented with respect to submerged and submersible lands. These lands are, of course, either entirely or periodically covered by water. That being the case, it must be presumed that the general public has some right of navigation and fishery over them. Although the extent of this right in Oregon may be somewhat unclear,⁽²⁾ certainly the right does exist and the state's authority to lease, convey or otherwise alienate title thereto is subject to it.

(2) Under the Oregon cases it appears to be limited to navigation and fishery

As a matter of policy, whether the state desires to sell or to lease such lands is beyond the scope of this Memorandum. In either circumstance, the procedure followed should be that which enhances the probability that the courts would sustain the conveyance or alienation as against an attack that the jus publicum is being impaired. Consequently, there should be no conveyance or alienation of such lands unless:

- (1) A reasonable factual determination, sustained by competent evidence, has been made that such alienation would not impair the right of the public in navigation and fishery; or
- (2) Any instrument evidencing such alienation contains a reservation in the following or similar phrase:

"Subject, however, at all times to the rights of the public in navigation and the fishery"

The former method would impose upon the state the burden of absolutely assuring itself that at no conceivable time would the grantee be able to utilize the lands, by building structures or otherwise, so as to impair the public's rights; the latter method would impose upon the grantee the burden of accepting the lands subject to the paramount right of the public to enjoin the erection of structures as an unlawful purpresture or force the removal thereof as a nuisance.

DATED this 11th day of March, 1970.

PARKS, TEISER & RENNIE

MEMORANDUM

SUBJECT: The effect of the definition of "navigability" as applied to Oregon waters with specific regard to state control of material removal and other allied purposes.

Whether or not a stream or other body of water in the state is "navigable" controls ownership of the bed of the particular stream or body of water in question. The test of "navigability" is a Federal question; i.e., regardless of what the Oregon courts have said about streams or other bodies being navigable or non-navigable, for the purposes of ownership of the bed of the stream the Federal test governs. Subject to the state's plenary power to control material removal from waters of the state --- whether navigable or non-navigable --- in prevention of pollution, preservation of the water resource, etc., the state has a right to sell or lease such materials, rock, gravel, etc. as it may wish from the beds of navigable streams and other bodies of water as it owns the beds of such navigable streams and other bodies of water.

AUTHORITIES

The Genesee Chief, 53 U.S. 443, 13 L.ed. 1058 (1851)

The Daniel Ball, 77 U.S. 557, 19 L.ed. 999 (1870)

United States v. Oregon, 295 U.S. 1, 79 L.ed 1267 (1935)

Barney v. City of Keokuk, 94 U.S. 324, 24 L.ed 224 (1876)

Guilliams v. Beaver Lake Club, 90 Or. 13, 175 P. 437

Logan v. Spaulding Logging Co., 100 Or. 731, 190 P. 349

In United States v. Oregon, supra, the Court laid to rest the question of which test of navigability should be used to determine ownership of the beds of navigable streams. The Court said:

"* * * * upon the admission of a state to the Union, the title of the United States to lands underlying navigable waters within the state passes to it, as incident to the transfer to the State of local sovereignty, and is subject only to the paramount power of the United States to control navigation in interstate and foreign commerce. But if the waters are not navigable in fact, the title of the United States to land underlying them remains unaffected by the creation of the new state. (Citing cases). Since the effect upon the title to such lands is the result of Federal action in admitting the state to the Union, the question, whether the waters within the state under which the lands lie are navigable or non-navigable, is a Federal, not a local one. It is, therefore, to be determined according to the law and usages recognized and applied in the Federal courts, even though, as in the present case, the waters are not capable of use for navigation in interstate or foreign commerce. (Citing cases). (Emphasis supplied).

Prior to 1851, the issue of ownership of land under navigable inland fresh waters was not settled. When Justice Taney in The Genesee Chief, supra, declared that the admiralty power of the United States applied to any waters used for commercial purposes and foreign trade, the way was opened for a more definite definition of "navigability" in The Daniel Ball, supra. In

that case, Justice Field laid down the rule of navigability which remains unchanged today:

"A different test must, therefore, be applied to determine the navigability of our rivers, and that is found in their navigable capacity. Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water. And they constitute navigable waters of the United States within the meaning of the Acts of Congress, in contradistinction from the navigable waters of the States, when they form in their ordinary condition by themselves, or by uniting with other waters, a continued highway over which commerce is or may be carried on with other States or foreign countries in the customary modes in which such commerce is conducted by water."

Next was settled the issue of the ownership of land beneath navigable fresh waters. In Barney v. City of Keokuk, supra, the U.S. Supreme Court, relying upon the criteria established in Genesee Chief, The Daniel Ball, and others, stated:

"These cases related to tidewater, it is true; but they enunciated principles which are equally applicable to all navigable waters."

Thereafter, in practically all American jurisdictions, aside from Nebraska, the rule was established that lands beneath the high-water mark of waters which were navigable under the Federal test when the state was admitted are presumed to belong to the state in which such lands were located.

This is not to say that there are not some rules of special or local application with respect to ownership of land under nontidal navigable waters in other states. For example, the original British colonies that became states have land titles originating in colonial charters. In the southwest and Florida, many land titles derive from Spanish and Mexican grants. As Texas was a sovereign nation in the period between its independence from Mexico and admission as a state, some land titles in Texas date back to Spanish, Mexican and, in some instances, conveyances from the Republic of Texas.

With respect to the original colonies, it has been rationalized that when the colonies became independent, they naturally succeeded to all the rights of the King. Since these included ownership of the seashores and the colonies did not convey their shores to the Federal government, they must have retained ownership.

It is recognized, of course, that many western states (including Oregon) purported to adopt a test of navigability depending upon the susceptibility of the waters to any public use such as the flotation of logs (see Guilliams v. Beaver Lake Club, 90 Or. 13, 175 P. 437 and Logan v. Spaulding Logging Co., 100 Or. 731, 190 P. 349). Where the question is the public's interest in the use of the water itself, which is not capable of private ownership, such a definition may well be desirable. However, such a broad definition inevitably leads to difficulties

if it is utilized to determine the ownership of lands underneath streams which are not navigable under the Federal test. It would be anomalous indeed if a state could, by the device of declaring any stream "navigable" simply because the waters are susceptible of a public use, take title to the bed of the stream when, in fact, the stream is not "navigable in fact" and the state acquired no title to it upon its admission to the Union. This would be, of course, the appropriation of private property without compensation.

In summary, and at the risk of oversimplification, it may be stated:

(1) Oregon owns absolute title to the beds of all navigable waters within the state, whether tidal or non-tidal, which were navigable in fact under the test in The Daniel Ball at the time Oregon was admitted to the Union as a state.

(2) Subject to other applicable legislation affecting pollution, ecology, water resources, etc., the paramount right of the Federal government to control navigation in interstate and foreign commerce, and the right of the public in navigation and fishery, the State of Oregon has an absolute right to sell, lease or convey minerals, rocks, gravel and other materials from the beds of such navigable waters.

DATED: this 11th day of March, 1970.

PARKS, TEISER & RENNIE

MEMORANDUM

SUBJECT: Rights, if any, of an upland riparian owner to the use of surface waters adjacent to his shoreline:

- (a) When submersible lands abutting his shoreline are leased to third parties by the state
- (b) When the state has not leased such submersible lands to third parties

A "riparian" upland owner is one whose property lines run to or at least touch the line of ordinary high water on navigable water; i.e., the very definition of "riparian" pertains "to the bank", and not the "bed" of navigable waters. When the state is the owner of the submersible lands on navigable waters and is not using such submersible lands for a public purpose, the riparian owner has certain well recognized rights of access to navigable waters including the right to construct proper wharves, piers, piling, etc. in aid of navigation in the submersible and submerged lands in front of his uplands. When, however, the state leases such submersible lands, the lessee becomes the "riparian" owner and, as such acquires all of the rights of a "riparian" owner to the exclusion of the former upland owner who failed to utilize his preferential right to lease.

AUTHORITIES

Smith Tug & Barge Co. v. Columbia-Pacific Towing Corp.,
443 P2d 205, 86 AdvSh 913 (1968)

Lyon v. Fishmongers Company, 2 L.R. App. Cas. 662, 682
(1872)

Illinois Central R.R. Co. v. Illinois, 146 U.S. 287,
36 L.ed. 1018, 13 Sup. Crt. 110 (1872)

Coquille Mill & Merchantile Co. v. Johnson, 52 Or. 547,
98 P. 132, 132 Am. St. Rep. 716 (1908)

Cook v. Dabney, 70 Or. 520, 139 P. 721

Bowlby v. Shively, 22 Or. 410, 30 P. 154, 152 U.S. 1,
38 L.ed. 331, 14 Sup. Crt. 548 (1894)

Stevens Point Boom Co. v. Reilly, 44 Wis. 295 (1878)

Eagle Cliff Fishing Co. v. McGowan, 70 Or. 1, 137 P. 766,
distinguished 248 U.S. 589, 63 L.ed. 435, 39 Sup Crt. 5

Fellman v. Tidewater Mill Co., 78 Or. 1, 152 P. 268 (1915)

State Land Board v. Sause, et al, 217 Or. 52, 342 P2d 803,
explained 86 AdvSh 932, 91 ALR2d 863 (1959)

McCarthy v. Coos Head Timber Company, 208 Or. 371 302
P2d 238 (1956), explained 86 AdvSh 931

* * * * *

The recent case of Smith Tug & Barge Co. v. Columbia-Pacific Towing Corp., supra, (1968) appears almost dispositive of the questions raised.

In that case the defendant Columbia purchased Sharkey or Sandy Island in the Columbia River, near Goble. Title went to

high-water mark. The State of Oregon owned between the high and low water marks of the land. The state also had title to the bed of the river below low-water mark. The water around the island was highly desirable for log storage. The State leased, or attempted to lease, "the land surrounding the island and lying between the low- and high-water marks." Plaintiffs bid and acquired the land under lease and defendant did not bid, although it had a statutory right to do so. Plaintiffs brought a declaratory judgment and asked the trial court to declare that they had the exclusive right to the use of all land abutting upon or adjacent to the island below the low-water mark, as well as land below the high water mark.

The Court stated:

"The parties' claims are unique in property law in that they are both claiming the right to use the water, to which they claim no title or easement by grant. Their claim is grounded solely upon the proposition that their lease of the tide-lands --- in the case of the plaintiffs --- and its ownership of the upland --- in the case of the defendant Columbia-Pacific Towing Corp. --- carries with it the right to use the water and the submerged land below the water which is adjacent to the upland."

The plaintiffs lost the case because of a defect in bidding procedure, but as to riparian rights, the Court in essence held in favor of the plaintiffs.

The rationale of the Smith case indicates an owner or lessee of riparian property has certain rights which are naturally incident to owning property on the water.

"We have finally come to the conclusion that when the State has leased or conveyed the tidelands bordering on tidal waters the riparian rights are lodged in the tidelands owner or lessee. This includes the right to build structures on the bed below the low-water mark and the right to moor logs on the water." (Emphasis added).

Further, at p. 207:

"The land lying above the high-water mark and the low-water mark in tidal waters is described as tidelands. The Oregon statute, to describe the land between the high-water mark and the low-water mark in both tidal and non-tidal waters, uses the phrase 'submersible lands,' and we shall likewise use such phrase to describe such lands. ORS 274.005 (4). Oregon statutes use the phrase "submerged lands" to describe the land lying below the low-water mark whether in tidal or non-tidal waters. ORS 274.705 (8) and 274.005 (5)."

"But the rights of a riparian proprietor, so far as they relate to any natural stream, exist *Jurae Naturae*, because his land has, by nature, the advantage of being washed by the stream. . . ."

"With respect to the ownership of the bed of the river, this cannot be the natural foundation of riparian rights properly so called, because the word 'riparian' is relative to the bank, and not the bed, of the stream; and the connection, when it exists, of property on the bank with property in the bed of the stream depends, not upon nature, but on grant or presumption of law . . ." citing Lyon vs. Fishmongers' Company, 1 L.R. App. Cas. 662, 682 (1876).

The Court then cited Farnham, Waters and Water Rights (1904) as follows:

"In all states where the common law has not been changed, the owners of land abutting on bodies of water are accorded certain rights by reason of their adjacency which are different from those belonging to the public generally, and are comprehended within the general term 'riparian rights.'" (Citing Farnham, Waters and Water Rights, 478 (1904). (Emphasis added).

Relying upon Coquille Mill & Merchantile Co. v. Johnson, the Court then reaffirmed that a riparian owner has a right to construct in navigable waters adjacent to his property, a boom to store logs and that such a right was assignable.

Quoting from Coquille, the Court continued:

". . . riparian owners on navigable fresh rivers and lakes may construct, in shoal water in front of their land, wharves, piers, landings, and booms, in aid of, and not obstructing navigation. This is a riparian right being dependent on title to bank and not upon title to bed of a river."

Then, quoting from Stevens Point Boom Co. v. Reilly, supra, the Court stated:

'Distinguished from appropriation and occupation of the soil under the water, a riparian owner upon navigable water, whether or not he owns the soil usque ad medium filum aquae, and unless prohibited by local law, has a right to construct in shoal water, in front of his land, proper wharves or piers in aid of navigation, through the water far enough to reach actually navigable water; this being held to further the public use of the water to which the public title under the water is subordinate; and therefore to be, in the absence of prohibition, passively licensed by the public, and not a purpresture'".

The Court discussed Eagle Cliff Fishing Co. v. McGowan, supra, in which the plaintiff was the lessee of tidelands on the lower Columbia in tidewaters. The defendant was fishing with set nets just below the low water mark in front of the plaintiff's leased tidelands. Because of the nets, the plaintiff's access from his leased tidelands to the water was obstructed. The Court quoted with approval from Eagle Cliff as follows:

"As an incident to the lawful occupation of lands, one border of which is the low-water line of the Columbia River, the plaintiff had the private right of access at such sites to and from that stream."

"* * * * Subject to the paramount right of navigation, the state, pursuant to legislative enactments, has been authorized to sell and convey any part of its lands lying between ordinary high water and low water, and the grantee of such tidelands is the riparian proprietor to the exclusion of the upland owner. (Citing cases) (Emphasis added)

The Court continued:

"Fellman v. Tidewater Mill Co., 78 Or. 1, 152 P. 268 (1915) was a suit by the owner of a submersible lands against a mill operator who had driven piling to construct a log boom in front of plaintiff's tidelands. The boom was on the Siuslaw River, but the opinion does not state whether above or below tide-water. The mill operator did not have title to the adjacent land. The Court held the submersible land owner had the right of access to deep water and found for the plaintiff."

Although the Court was dealing in the Smith case with tidelands, it is clear from the opinion that the same rule applies on non-tidal navigable waters. See Montgomery v. Shaver, 40 Or. 244, 66 P. 923 (1901) from which the Court, in the Smith case, gave the following quotation in speaking of the so-called wharfing statute:

"* * * * The statute is, however, declarative of the right or privilege which existed at common law, the exercise of which might be regulated by statute; but so long as it was not prohibited it existed as a private right derived from the passive or implied license by the public.**** So, that the enactment of Section 4227 gave positive authority where it previously existed passively and by implication."

The basic holding in Smith deserves repetition:

"We have finally come to the conclusion that when the State has leased or conveyed the tidelands bordering on tidal waters, the riparian rights are lodged in the tidelands owner or lessee. This includes the right to build structures on the bed below low-water mark and the right to moor logs on the water."

This rather all-encompassing statement contains within it certain basic corollaries. For example, if the lessee or grantee of the tidelands from the state has lodged within him the "riparian rights", then these rights must inhere to the exclusion of the former upland owner. Secondly, if the lessee or grantee has the right to build structures on the bed of the river below low-water mark and the right to moor logs to such structures, then he has the concomitant right to block the right of access to the water of the former upland owner. The converse also is true; i.e., no other party can block the lessee or grantee from mooring logs or building structures.

The Court, it should be noted, was careful to express a caveat concerning the right of the general public under the jus publicum but did not find it necessary to specifically define such "public rights" although quoting at the same time from Clark, Waters and Water Rights (1967) to the effect that the jus publicum embraces. . .

"* * * * the rights of the public to navigate, to fish, and to pass over the tidelands and submerged coastal lands, these being the principal public demands for the use of the sea-coast.****"

The accuracy of the latter portion of Clark's statement is subject to doubt, certainly in Oregon at this time. True, the general public's right to navigate and to fish may be exercisable but so long as the riparian owner's structures and/or log booms do not obstruct the navigable portion of the channel and thus preclude navigation and fishing, the right of the public to navigation and fishery must be exercised in harmony with the correlative rights of the riparian owner to a reasonable and proper use of the shore and adjacent waters. The respective rights of the riparian owner on the one hand, and the public on the other, can exist without collision if the riparian owner does not unreasonably impede the rights of navigation and fishery; by the same token, the rights of the public in navigation and fishery cannot be exercised unreasonably such that members of the public can trespass on the uplands of the riparian owner or his property rights impaired.

[In this respect, we are here discussing the relative rights of parties such as the riparian owner, a possible upland owner, and the state vis-a-vis one another. It should be observed that the riparian owner's right to construct structures and install piling below the low-water line is subject to the right of the Federal government, acting through the U.S. Corps of Engineers, to require a permit to do so. In a real sense, the Corps of Engineers is protecting the public's right of navigation as no permit will be granted where the structures would impede or unreasonably interfere with navigation.]

* * * * *

What are the rights of an upland riparian owner where the state has not leased the submersible lands in front of his property between high and low water lines?

The question is answered by recent Oregon decisions. When the state is the owner of the submersible lands and either is not using them or has not leased or sold them to third parties, the upland riparian owner has a right of access to deep water and a right of reasonable use of the submersible land. This right exists until the state exercises its power to develop the lands or conveys them to someone else.

AUTHORITIES

State Land Board v. Sause et al, 217 Or. 52,
342 P2d 803 (1959)

McCarthy v. Coos Head Timber Company, 208 Or.
371, 302 P2d 238 (1956)

In the Sause case, the Court in answering the defendant's contention that the owner of uplands has no riparian property interest in the abutting tideland but only a statutory preference [to meet the highest bid to rent the tideland from the state] quoted from the McCarthy case as follows:

"* * * This proposition requires some qualification. We must agree that our decisions indicate that the State may dispose of tide-lands as to deprive the uplands owner of any right thereto. Nevertheless, there are well-recognized rights in the upland owners which are not derived from the statutory preference right and which have been recognized by the courts for many years. We refer to the common-law right of access to deep water. We are not here concerned with any question of the power of the State by proper

procedure to limit or destroy the right of access without giving compensation when it deeds or leases tidelands to others than the upland owner. We cite the following authorities to show that both courts and legislature have repeatedly recognized a public policy to protect the interest of upland owners in abutting tide-lands. . ." (Emphasis added)

In the Sause case, the decision went even further than in McCarthy. The Court said in Sause:

"But the power to sell a fee simple interest in the tidelands is not inconsistent with a defeasible right of access and reasonable use thereof - a right which exists only until the state exercises its power to develop the lands or conveys them to someone else."

And further, at page 77:

"The land, at the locus in quo, according to the record, has no use and no value except as a means for exacting payment from the upland owner for the benefit of the state. In such a case, in balancing the defeasible right of access by the upland owner to navigable waters and his reasonable use thereof, against the interest of the public to the use of the tideland, it is clear that the use of the lands at the locus in quo by the defendants is reasonable and not injurious to the public use. We believe that the above approach to the problem is a reasonable one. It would be anachronistic if the State of Oregon should adopt a rule of law in 1959 which would treat the State as the King of England was treated in his proprietary capacity before the war for independence. It is our belief that the State has failed to establish that the defendants are committing any wrong upon the locus in quo which entitle it to the relief which it seeks. The evidence fails to show that the State has any need whatever for the strip of purported tideland. The defendant's use of it, if the land is deemed tideland, does not interfere with navigation - to the contrary, it is an aid to navigation. The State, assuming that the strip is tideland, is its owner. If it ever requires the land's use for any public purpose, it can obtain its possession." (Emphasis added)

From the foregoing, it will be seen that the right of the state to insist that an upland riparian owner must lease the submersible lands in front of his property from the state is a very doubtful right indeed. That this was the policy of the State Land Board for some years there is no doubt but its inherent power to compel lease payments from riparian owners using the submersible lands in front of their properties when the state itself is developing such lands is lacking.

PARKS, TEISER & RENNIE

147

130
150
107

of Mill Creek & comprising the village of Salem that is very stony and gravelly much of which appears to be overflowed by Mill Creek in flood times except Salem which is not much overflowed. The stream are about 7 to 8 miles in diameter and all rounded & smooth
Timber

There are some small prairies which generally have a few trees on them but most of the township is openings through & thick timbered. The low bottoms are thickly timbered with the White Bark of Cedars Maple & Ash & Willow & undergrowth the same except the high bottoms are prairie having thick bunches & strips of timber of Fir with a little White Bark Maple & undergrowth the same. The timber in the part of the township is mostly Fir & most of the remainder of the township is all oak openings with Fir and Fir grass & this is about of the

Township 7 S Range 3 W Willamette River
Courses ch 16

Thence down stream a left bank
into of east channel
N 78° 30' 00" W 25 chs a stave bar set back
N 8° 9' 00" W 9 or 10 chs. This last course
was over nearly bare stave & ground

N 88° 17' 00" W
North 22 85 To first in line between sec 10 & 15

In section 10

N 55° W 56 00
N 48° 17' 00" W To the mouth of the west channel
Thence of stream on right
bank of west channel

N 55° W 10 00
N 70° W 3 00
N 45° W 22 00
N 45° W 30 10 To place of beginning
The banks on the East side of
the land are high & about

Above is an actual copy of 1851 surveyor notes made by William Ives in accordance with U. S. General Land Office Contract No. 9. These notes were excerpted from an 18 page document reflecting the Willamette River meander work that commenced November 14, 1851 and finished December 6, 1851.

The length of the river covered in the survey is approximately 10 miles. It

is in Township 7 South, Range 3 West, bisecting what is now the City of Salem.

Comparison of these early surveys, primitive and hurried as they were, shows an interesting accuracy regarding old riverbeds in some reaches of the river when compared with surveys made a quarter of a century later. Others reflect gross inaccuracies.

Principal Investigator's Note:

Involved in virtually every facet of problems coming before this committee, there was the matter of the public interest (Jus Publicum) as distinguished from the right and dominion of a private owner (Jus Privatum).

In this sense a sovereign state may have a double involvement in a property such as the submerged and submersible lands

covered by navigable waters within its boundaries.

In view of the complexities of this problem, it was assigned to Paul Speck, third-year law student at the University of Oregon, selected by Professor Jon Jacobson of the University of Oregon Law School. His work was funded from the Title II Federal Grant received by this committee under provisions of P.L. 88-379. His research paper follows.

APPENDIX B

THE PUBLIC TRUST DOCTRINE IN OREGON

by
Paul J. Speck

Advisory Committee to the
State Land Board
Nov. 30, 1970

INTRODUCTION

The public trust doctrine has been employed by both federal and state courts to protect lands beneath navigable waters and traditional public uses of those waters such as navigation and fishing. As a carry over doctrine of the English common law it is applicable to modern problems involving navigable waters to the extent that the reasons for its existence continue to be present and have not been altered by either statutory or constitutional provisions.¹ The concept therefore bears the distinct markings of English history, but varies state to state in its relevance and applicability depending on the force and effect given it by state court of highest appeal. The public trust doctrine has no fixed or universally accepted meaning, at least in contemporary America, and is best recognized as a generic term, capable of a multitude of interpretations and adaptations. To speak of the public trust responsibilities of the state therefore, is to speak generally about a body of law consisting of numerous court decisions, and possibly statutory and constitutional provisions, that protect public rights in the use and enjoyment of navigable waters and, in some cases the land beneath them, either in terms of imperatives or through more subtle judicial prerogatives such as presumptions and statutory construction.

It is the express purpose of this paper to explore

the public trust responsibilities of the State of Oregon to its submerged and submersible lands, if indeed such responsibilities can be spoken of as a trust, and to analyze Oregon court decisions in terms of theory and history in an effort to isolate the "essence" of the public trust doctrine within this state. Before commencing this analysis, however, it would seem appropriate that the history of this doctrine be sketched so that the theoretical basis of present state responsibilities and public rights may be fully comprehended.

COMMON LAW HISTORY OF TRUST THEORY

The public trust concept finds its origins in Roman law. As essential to natural law it was believed that "air, running water, the sea, and consequently the seashore were common to all."² This concept of common ownership more or less disappeared during the Dark Ages when feudatories dominated the political structure, and it was not until after Magna Carta in 1215 that public rights in navigable waters again received judicial recognition.³ Rather than reinstitute the Roman concept of common ownership, however, the English courts adopted an easement theory which permitted the retention of ownership of lands in tidal waters by the Crown, but at the same time allowed the public certain definable rights in the use and enjoyment of the waters, including both the

rights of navigation and fishery.⁴ Accordingly, the Crown's interest in the navigable waters was said to have a twofold nature:

first, the jus publicum, a right of jurisdiction and control for the benefit of its subjects, which is similar to the jurisdiction over public highways by land, though the right of soil may be in the owners of the adjoining estates, and for the protection of which the king, as the head of the realm, may interpose when the rights of the public are impaired; second, the jus privatum, or right of private property, which is subject to the jus publicum, and which cannot be used by the Crown or conveyed to a subject discharged of this public trust, or so as to justify any interference with the public rights of navigation and fishery.⁵

It is this right of jus publicum that has generally become equated with the trust concept, namely that the private right of the Crown "is burdened with a trust or charge in favor of the public."⁶

Though it seems well settled that the Crown could not by its own act abridge either the rights of navigation or fishery, nor confer title in abridgment of these rights, there does not appear to have been any action against the Crown should it breach this trust. There were recognized, however, two separate wrongs directly related to the Crown's responsibilities: (1) public nuisance for violation of public rights, and (2) purpesture for encroachment upon the Crown's property. As stated by Gould:

If a littoral proprietor, without grant or license from the Crown, extends a wharf or building into the water in front of his land it is a purpesture, though the public rights of navigation and fishery may not be impaired. If such a structure causes injury to the public right, it is a common nuisance and abatable as such, even though erected under license from the king, for he cannot license a common nuisance. ⁷

Whether or not a particular structure was a nuisance, however, was a question of fact.⁸ Even though a method was established for authorization of structures in navigable waters this preliminary determination was not final and an action for nuisance could be brought on indictment.⁹ It would seem proper to conclude, therefore, that any structure licensed by the Crown was at sufferance to the rights of the public and subject to abatement by either the Crown or by private citizens who suffered injuries distinct from the public in general.¹⁰

Though the Crown was said to hold its title subject rights of the public, Parliament was in no fashion limited by the same principle. It was within the full power of Parliament to grant rights in derogation of traditional public rights or to enlarge those rights.¹¹ Thus a structure that would ordinarily constitute a nuisance could, by virtue of Parliamentary authorization, be made legal. It is important that this overriding power of Parliament be kept well in mind, since it is precisely this point that has apparently confused many state courts with respect to the nature of the public trust.

ADOPTION WITHIN THE UNITED STATES

With the formation of the United States each state became the repository of sovereignty formerly vested in the Crown and Parliament, subject only to the powers relinquished to the federal government through the Constitution.¹²

Since theoretically the people were themselves the sovereign, they had

the absolute right to all their navigable waters and the soil beneath them for their own common use. . . . A grant made by their authority must therefore manifestly be tried and determined by different principles from those which apply to grants of the British Crown, where the title is held by a single individual in trust for the whole nation. 13

As the state existed as the representative of the people's sovereignty it could exercise that power in any fashion not restricted by either the state constitution or federal action under the commerce power. The state legislature, therefore, was free to act towards its bays, estuaries, rivers and streams in any fashion it wished subject to its constitutional limitations. As a consequence, many states determined that ownership in lands beneath navigable waters resided in the riparian owner, but nevertheless chose to recognize the continued existence of the traditional common law rights of navigation and fishery.¹⁴

Though theoretically the state legislature was free to dispose of the soil it owned beneath navigable waters,¹⁵ some confusion and diversity of opinion has arisen over the years both between state courts and within individual state courts. This confusion and diversity is most probably a result of the fact that the disposal of state lands beneath navigable waters is a state question.¹⁶ Furthermore, as the conveyance of such lands is a state question, United States Supreme Court decisions also share this disparity since that court is bound to determine any question involving state lands according to state law.

As an illustration of this diversity of opinion consider the following three cases: Illinois Central Railroad v. Illinois,¹⁷ Appleby v. City of New York,¹⁸ and Shively v. Bowlby,¹⁹ none of which has been overruled with respect to their public trust holdings.

In Illinois Central the legislature for the State of Illinois had granted to the railroad a large amount of submerged land on the Chicago waterfront of Lake Michigan. It was an absolute conveyance giving the railroad full and complete power to use and dispose of the land as it wished. In holding that the legislature was incompetent to make such a grant the court recognized the power of the state to grant lands beneath navigable waters, but at the same time found that the state's power to alienate submerged lands was subject to a public trust. The state legislature could not alienate submerged lands so as to "substantially impair the public interest in the lands and waters remaining."²⁰ In summarizing its decision the court said:

The legislature could not give away nor sell the discretion of its successors in respect to matters, the government of which, from the very nature of things, must vary with varying circumstances. The legislation which may be needed one day for the harbor may be different from the legislation that may be required at another day. Every legislature must, at the time of its existence, exercise the power of the State in the execution of the trust devolved upon it. We hold, therefore, that any attempted cession of the ownership and control of the State in and over the submerged lands on Lake Michigan . . . was inoperative to affect, modify or in any respect to control the sovereignty and dominion of the State over the lands, or its ownership thereof There can be no irrevocable contract in a conveyance of property by a grantor in disregard of a public trust, under which he was bound to hold and manage it. 21

One year after the Supreme Court decision in Illinois Central, the court made a second major pronouncement on the public trust in Shively v. Bowlby.²² The case involved conflicting claims between the upland owner (Shively), who claimed title to adjacent tidelands and a portion of the bed of the Columbia River by virtue of the Donation Act of 1850, and Bowlby, who claimed title to the same tidelands under an 1874 Oregon legislative act providing for the sale of tide and overflow lands. The court held that Bowlby's title was superior to Shively's because on admission into the union the state acquired title to the tidelands and therefore the jurisdiction over and right to dispose of such lands; furthermore, the court stated that the United States had never intended to convey any lands beyond the high water mark.

Though the case differed factually from Illinois Central in that tidelands were in issue rather than submerged lands, the court was nevertheless given a forum from which to recite the history and nature of land ownership beneath navigable waters. Recognizing the applicability of the common law,²³ Mr. Justice Gray concluded that the state's interest in lands below the high water mark was twofold: (1) the jus privatum embodying the characteristics of private ownership, and (2) the jus publicum representing public rights and privileges including navigation and fishery.²⁴ The state was said to have title and control of the lands beneath tidewaters for the benefit of the people primarily

because the waters were of great importance to the public for the "purposes of commerce, navigation, and fishery."²⁵ Despite this apparent limitation on the state's title, the court nevertheless impliedly recognized the power of the legislature to dispose of state owned tidelands when it said

. . . the title and rights of riparian or littoral proprietors in the soil below high water mark or navigable waters are governed by the local laws of the several States, subject, of course, to the rights granted by the United States by the Constitution. 26

In Appleby v. City of New York²⁷ the plaintiffs, who were the executors for Charles Appleby, sued to restrain the city of New York from dredging land beneath navigable waters allegedly conveyed to Appleby by deed in fee simple from the city, including both the jus privatum and the jus publicum. The case was appealed to the United States Supreme Court on the basis of state impairment of contract. The court held that it was within the power of the legislature to convey both the jus privatum and the jus publicum, that the New York Legislature had so conveyed the land, and that if the city wanted access to plaintiff's land it would have to acquire it by condemnation. In reaching this decision the court noted:

The State, in place of the crown, holds the title, as trustee of a public trust, but the legislature may, as representative of the people, grant the soil, or confer an exclusive privilege in tidewaters, or authorize a use inconsistent with the public right, subject to the paramount control of congress, through laws passed, in pursuance of the power to regulate commerce, given by the federal Constitution. 28

It also stated that the mere grant of submerged land will not include rights in derogation of the public unless the state legislature specifically grants such rights,²⁹ and, therefore, that any exclusive privilege granted by the state is subject to the rule of strict construction and the claimant "must be able to show clear warrant of law in support of his claim, and inferences or implication will not be indulged in to sustain it."³⁰ Finally, the court concluded that in addition to the fact that the legislature's intention to abandon the jus publicum had to be clearly evidenced, some element of promotion of the public interest also had to be present.³¹

Reviewing the three cases just discussed, Illinois Central, Shively, and Appleby, it seems apparent that the decisions are not consistent. Illinois Central recites what has now become the "lands and waters remaining" test,³² indicating that it is the extent to which the state departs with ownership and control of submerged lands that is the measure of the state's trust responsibilities; Shively suggests that any conveyance of lands beneath navigable waters is subject to the public rights of navigation and fishery; and Appleby indicates that it is within the full authority of the state legislature to grant both the jus privatum and the jus publicum.

While it is possible to argue that these seemingly different pronouncements of the nature of the public trust were occasioned by different fact situations, it

appears that there are some real conflicts. In Appleby the full extent of legislative power is recognized, that is to say that there can be no limitations on the legislature other than those imposed by the state and federal constitutions.³³ If the legislature chooses to act contrary to the traditions of common law, that is its lawful prerogative. Illinois Central, on the other hand, implies that there is a restriction on the capacity of the legislature in that it cannot grant such a large portion of land as would interfere to too great an extent with the public interest in navigable waters. Finally, Shively suggests that there can be no conveyance of lands that would interfere with the public rights of navigation and fishery, though it does imply that the lands may be alienated. Thus while all three decisions recognize that the legislature does have the power to convey lands beneath navigable waters, there is some real disagreement over both the conditions of the conveyance and the extent, in terms of area, to which such land may be conveyed. It is precisely these latter two problems that define the parameters of today's public trust doctrine.

Since it is obviously futile to look to United States Supreme Court decisions for a nicely packaged elaboration of the public trust doctrine, their value lies as a basis for comparison with state decisions and as a demonstration of the conflicting opinions characterizing the doctrine.

THE PUBLIC TRUST DOCTRINE IN OREGON

Oregon Supreme Court decisions, like their federal counterpart, have no real consistent conception of public trust obligations. Rather they indicate a general misunderstanding, or, at best, a misstatement of the state's obligations. Probably the major weakness in Oregon cases is a failure to distinguish between the powers and functions of the state on the one hand, and those of the legislature on the other.³⁴ This fundamental weakness coupled with an unusual proportion of dicta make a reading of these cases extremely difficult. A careful perusal of Oregon cases reveals that the court has either specifically held, implied, or incorporated by reference the following statements regarding the public trust theory:

(1) The legislature cannot convey state owned submerged lands. 35

(2) The legislature may convey or dispose of submersible and submerged lands, but it may not do so in derogation of the traditional public rights of navigation and fishery. 36

(3) The state has the full authority to regulate the sale, use and disposal of tidelands, subject to the paramount right of navigation secured to the public. 37

(4) The state owns tidelands in a proprietary capacity and may dispose of those lands subject only to the paramount right of navigation in the federal government, but it holds submerged lands in its sovereign capacity as trustee for the public and cannot sell, dispose or grant a right to use that would interfere with the public right of navigation. 38

(5) The state's title to tidelands between high and low water mark includes both the jus publicum and the jus publicum, but the state can only convey the jus privatum.³⁹

(6) The state acquired title to all tidelands by virtue of its sovereignty on admission into the Union, but holds that title subject to the public right of navigation and the common right of the citizens to fish therein. 40

(7) The legislature may not grant land to such a large extent as would impair the power of succeeding legislatures to regulate public rights of navigation. 41

(8) The state's title to the beds of navigable rivers is held in trust and it cannot grant or make any use of them that would impair or impede navigation. 42

(9) The state holds lands underlying navigable waters in trust for the benefit of the people of the state and it has a right and duty to protect and conserve these submerged lands. 43

(10) The state holds title to lands under navigable waters subject to the public right of navigation and the common right of the citizens of this state to fish. 44

When taken together these decisions present a confusing tangle of sometimes contradictory, othertimes complimentary, least frequently consistent statements of the public trust doctrine. The source of this confusion is probably twofold: (1) differing fact situations, and (2) a misunderstanding of the nature and origins of the state's obligations.

Differing fact situations have necessarily led the court into stating the public trust doctrine from different perspectives and with varying degrees of specificity. For example, in Port of Portland v. Reeder⁴⁵ the port wanted to construct a large turning basin for ships but doing so required the removal of defendant's houseboat facilities which occupied waters over lands defendant claimed to own. The court held that the port had a right to cause their removal as a nuisance, since it could not be said that the defendant acquired any vested right to use the waters in

derogation of navigation. Though his title extended to low water, defendant's riparian rights did not include the right to obstruct navigation and even if he had title to the bed of the river over which part of his facilities extended, it would still be at sufferance to the public right of navigation. Thus the main thrust of the court's decision went to the limitations on defendant's title and concomitantly to the rights he acquired as a riparian owner on a navigable stream.⁴⁶

In contrast, State Land Board v. General Construction Co.⁴⁷ speaks to the obligations of the state as distinguished from the limitations on private title. In that case the State Land Board sued the defendant construction company for allegedly trespassing on the channel of the Columbia River and converting material therefrom to its own use in Washington. The court held that defendant could not do so without payment, and in so deciding recognized that the riparian state had a right and duty "to protect and conserve the submerged lands of which it is a public trustee"⁴⁸

Though these two cases differ both in perspective and specificity, they nevertheless both constitute statements of the nature and extent of the public trust, the former by implication⁴⁹ and the latter directly.

While differing fact situations have always created interpretation problems, the Oregon "trust" cases are further complicated by the imprecise usage of terms. Illustrative of this verbal failure is the variety of phrases that comprise

the "subject to" portion of the state's title. It has been said that the state holds title to lands beneath navigable waters "subject to":

(1) "the paramount right of navigation secured to the public;" 50

(2) "state regulation and control, under the condition, however, of not interfering with the regulations which may be made by congress with regard to public navigation and commerce;" 51

(3) "the paramount rights of navigation and commerce over the waters;" 52

(4) "every easement growing out of the right of navigation inherent in the public;" 53

(5) "paramount right of navigation existing in the public, and the right of Congress to regulate commerce between the States;" 54

(6) "the public right of navigation and the common right of the citizens of the state to fish therein"55

Since the "subject to" phrase prescribes the limitations on the state's title and therefore the public trust responsibility of the state,⁵⁶ the definitional variations of these phrases creates an exceedingly difficult problem of interpretation. For example, does the paramount right of navigation (#1) mean an inherent right (#4) as is suggested in Hinman v. Warren,⁵⁷ or does it refer to the power of Congress over navigation (#2)? Is the public's right of navigation a common law right subject to legislative change or is it a right of constitutional dimensions? Does the right of navigation include only the right of free and unobstructed passage or does it also include the many incidents of navigation such as hunting, fishing, swimming and other public uses?

Another problem confronting an attempt^{to} systematically analyze Oregon public trust decisions is the fact that the court has distinguished the state's responsibilities according to the particular type of land involved. Despite the fact that the state received title to the lands beneath its navigable waters from high water mark to high water mark in both fresh and salt waters, by virtue of its sovereignty,⁵⁸ the court has subsequently distinguished between (1) tidelands (2) submerged lands (3) lands between high and low water mark, and (4) river bed lands, or lands below low water mark. In distinguishing these four physically different portions of a navigable body of water, which, incidentally, are all subject to federal regulation regardless of their characterization,⁵⁹ the Oregon court has also distinguished the responsibilities of the state.

Winston Bros. Co. v. State Tax Com.⁶⁰, for example, held that tidelands were held by the state in its proprietary capacity, but that lands "underlying the navigable waters of the state" were held by the state in its sovereign capacity.⁶¹

Similarly, Gatt v. Hurlburt⁶² held that land between the high and low water mark was held by the state in a proprietary capacity, but the bed of the river, that is, the land below low water mark, was held by the state in its sovereign capacity "as trustee for the public . . ."⁶³

The holdings in these two cases and those quoting them approvingly⁴ patently conflict with those cases recognizing only that the state's title to land beneath navigable

waters is composed of a jus privatum and a jus publicum without making a secondary distinction between tidelands and submerged lands, or, alternatively, submersible and submerged lands.⁶⁵

Finally, and most importantly, the cases are not clear as to which governmental body they are referring to when they say the "state" is subject to certain public rights of navigation. There is a strong indication in several cases that the limitations go to the legislature as well as to the state agency in charge of the maintenance and disposal of state lands. Corvallis & E.&R. Co. v. Benson⁶⁶ suggests unequivocally that the jus publicum limits the power of the legislature. Significantly, however, that case does not hold that the state legislature may not dispose of state owned submerged lands, but rather that it cannot dispose of them in derogation of public rights. Several other cases, including Corvallis Sand & Gravel v. State Land Board⁶⁷ and Winston Bros.⁶⁸ also suggest that, at least with respect to submerged lands, the legislature is limited in its capacity to either convey or authorize their conveyance in derogation of public rights of navigation. Indeed, it is possible to read all Oregon cases beginning with Bowlby v. Shively⁶⁹ to the effect that the jus publicum places a limitation of the legislature to convey its lands beneath navigable waters. This interpretation, however, as previously suggested, and as will be demonstrated is not theoretically correct.

Finally, it should be noted that no Oregon case states without qualification that the legislature may not sell either submersible or submerged lands because such a sale would constitute a breach of the public trust.⁷⁰

In spite of these indications that the jus publicum places limits on the capacity of the legislature to alienate lands beneath navigable waters, there are other indicia leading to the conclusion that the jus publicum does not in any fashion limit the legislature, but rather that it only affects the state agency duly authorized to handle the maintenance and sale of such lands.

Pacific Milling & Elevator Co. v. City of Portland⁷¹ cites several cases which explicitly distinguish between the functions of the state and the powers of the legislature.⁷² This case support coupled with the refusal of the court to find any legislation in violation of the public trust, though both the sale of submerged and submersible lands has been authorized without any specific reservation of public rights to the use of the waters,⁷³ would indicate that the court recognizes the tenuous nature of any challenge to legislative action based on a common law theory.

In summary, it appears that the State of Oregon's public trust obligations, if they can be termed that, are shrouded by court decisions that vary in perspective, use imprecise and confusing language, inconsistently distinguish submerged and submersible lands, and fail to denote just which governmental body of the state is subject to the public trust.

Attempting to analyze the Oregon public trust cases on a word by word basis yields nothing but confusion and more problems. It would seem therefore that the best tack to take in determining what should be the trust responsibilities of the state is to start from the beginning, ignoring for the moment the complications of state history, and concentrate on the theoretical basis for contemporary public trust responsibilities. It is only by such a methodological-chronological analysis that the essential characteristics of the public trust doctrine may be revealed.

ESSENTIAL CHARACTERISTICS OF THE PUBLIC TRUST

It seems uncontradicted that on admission into the Union in 1859 Oregon acquired title to all lands beneath navigable waters to the high water mark by virtue of its sovereignty.⁷⁴ The State of Oregon, therefore, as a governmental entity, held title to the lands as the representative of the people. As Gould put it

. . . the State represents the people and the ownership is that of the people in their united sovereignty. ⁷⁵

In the most fundamental sense the state held title to these lands for the people to be made use of as the people through their legislature decided they should be used. Since there was no state constitutional provision limiting the powers of the legislature to dispose of the lands, except that it had to do so in the public interest, the legislature

was free to grant, sell or otherwise dispose of this public property subject only to the paramount power of Congress over navigation and commerce.⁷⁶ Any statement, therefore, that the legislature was under some affirmative duty not to convey lands, in absence of some constitutional restraint, was and is erroneous.

Though the legislature was free to dispose of the lands themselves, the inherent importance of the waters as a medium for transportation, commerce, fishing and other related uses placed a practical restraint on the nature of the title it was willing to transfer. The lands could be granted in fee simple,⁷⁷ but such title was not presumed to include the right to use those lands in derogation of the public's traditional rights in navigable waters in absence of an express provision otherwise.⁷⁸ Because the public had long enjoyed the use of navigable waters as a common law right, it was quite proper for the courts to establish this rule of strict construction.⁷⁹ Thus while it was entirely within the power of the legislature to decide that the lands should go to the riparian owners, or that tidelands rather than submerged lands should be sold,⁸⁰ any such action, whether by direct act of the legislature, or indirectly through general authorization, would be construed as consonant with the public rights of navigation as interpreted at common law or otherwise statutorily modified.

Certainly if acts of the legislature were subject

to a rule of strict construction, it followed a fortiori that the state agency authorized to manage and dispose of the state's land beneath navigable waters was subject to the same, if not stricter, judicial scrutiny.⁸¹ Consequently neither the State Land Board nor the Division of State Lands were given authority to grant lands in derogation of public rights.⁸² Any person taking title from the state, therefore, necessarily took subject to traditional public rights in navigable waters.

It would seem, therefore, that the public trust is not in fact a trust, but rather a composition of presumptions, resulting from a rule of strict construction, that the judiciary has developed and applied and which consist of the following:

(1) A legislative grant of authority to a state agency, or a specific legislative act, to sell or lease state lands beneath navigable waters does not include the right to sell, or the intent to sell, those lands in derogation of the public right of navigation.

(2) No sale, grant, or lease made by the state through the State Land Board or the Division of State Lands will include rights and privileges in derogation of public rights in navigable waters.

(3) Title taken by a previous grantee of the state will be presumed to be subject to the public right of navigation.

Significantly, the sine qua non of these presumptions, and indeed the entire public trust concept as interpreted

at common law, is the public's interest in the use of the waters for navigation and related purposes. These public rights, however, continue to exist regardless of who owns the land, whether it be the state or a private party.⁸³ To say, therefore, that it is the lands that the state holds in trust is somewhat of a misnomer. The state can bring an action to abate an obstruction to navigation whether it owns the land or not.⁸⁴ Retention of ownership by the state, therefore, affords the public no greater protection than if the land is privately held. There appears to be no reason why the State of Oregon could not vest title in riparian owners or sell its lands and at the same time provide protection for traditional public rights in the use of the waters.

In summary, it appears that the Oregon legislature could grant lands even in derogation of public rights, but a presumption against such a transfer would be applied by the court. Because the State Land Board and the Division of State Lands are created by legislation, the general presumption that the legislature will not transfer lands in derogation of traditional public rights will also extend to their authority. Any action by either agency in contravention of public rights is therefore unauthorized and enjoined, unless specific authority can be shown to justify such action.⁸⁵ It follows that any title taken by private parties as grantees of the state is subject to a similar limitation, since a grantee of the state can take no greater title than the state can give.

In determining the respective responsibilities of the state and its grantees, therefore, the essential question comes down to: What are the public rights that the state must recognize in any transfer of lands beneath navigable waters? And conversely, subject to what limitations does the state's grantee take title? Aside from the paramount power of the federal government, both the state's responsibilities and the limitations on the grantees' title will depend on the definition of navigability as it is this definition that determines the nature and scope of the public's rights in the use and enjoyment of the waters.

The Oregon court has stated in a number of cases that the state holds title to land beneath navigable waters subject to the public rights of navigation and fishery.⁸⁶ To the extent that such a restriction existed at common law and has not been statutorily superseded this is probably true. It would seem that the better statement is simply to recognize that the state's title is subject to the public right of navigation and all the incidents thereto. Both the Wisconsin and Minnesota courts have recognized this viewpoint in their statement of the trust doctrine, and have concluded that the public's right of navigation includes such incidental uses as boating, bathing, fishing, hunting, and recreation.⁸⁷

If the definition of navigation is as inclusive as the Wisconsin and Minnesota courts suggest, the presumption against a transfer in derogation of these rights could

effectively limit some previously unrestricted riparian uses of navigable waters. However, the type of conduct that would constitute a violation of public rights will vary from case to case, since whether or not a particular interference with public rights is serious enough to be remediable is a fact determination to be decided under the balancing test of public nuisance law,⁸⁸ unless, of course, the particular right is statutorily protected.⁸⁹ Though under Oregon law an obstruction to navigation is prima facie a nuisance,⁹⁰ there is no assurance, nor any indication at present, that the court would decide that an interference with an incidental right of navigation would also constitute a prima facie nuisance. On the other hand, with the increasing frequency of statutes recognizing the public interest in the ecological integrity of its waters, it seems likely that the public interest in the use and enjoyment of the waters will outweigh private uses, such as filling, that heretofore may have been overlooked.

CONCLUSION

While the public trust doctrine at common law placed effective limitations on the Crown, these limitations have been somewhat obscured by state court decisions in the United States. Though some courts have suggested that the public trust places limitations on the power of the legislature to convey lands beneath navigable waters, this

view conflicts with the basic theory of state government that recognizes plenary power in the state legislature to the extent that it is not constitutionally limited. The trust theory does, however, place definite restrictions on the state agency authorized to sell and maintain submerged and submersible lands. These restrictions arise from the basic presumption that the legislature will not intend a conveyance of lands in derogation of traditional public rights in the use and enjoyment of the waters, a presumption which stems from the inherent importance of the free navigability of the waters. Any land conveyed by the state, therefore, is and has been subject to the public right of navigation. However, though the grantee of the state takes subject to the public right of navigation, not every interference with that right will be enjoined, since the test is one of public nuisance that involves a balancing of the conflicting interests. In conclusion, it would seem that the public trust doctrine still retains vitality and continues to protect traditional rights in navigable waters.

FOOTNOTES

1. Cordon v. Gregg, 164 Or.306, 97 P.2d 732 (1940); 15A C.J.S. Common Law § 2 (1967).
2. Public Trust in Tidal Areas: A Sometimes Submerged Traditional Doctrine, 79 YALE L.J. 762, 763 (1970).
3. Id. at 765.
4. Id. at 768.
5. J. GOULD, LAW OF WATERS § 17 at 34 (1883) [hereinafter cited as GOULD].
6. Id. § 20 at 41.
7. Id. § 21 at 45.
8. Id.
9. Id. at 46.
10. See Id.
11. GOULD § 21 at 47. See Nelson, State Disposition of Submerged Lands Versus Public Rights in Navigable Waters, 3 NAT. RES. LAWYER 491, 495-496 (1970); Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 MICH. L. REV. 473, 476 (1970).
12. Shively v. Bowlby, 152 U.S. 1 (1893); Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212 (1845); Martin v. Waddell, 41 U.S. (16 Pet.) 367 (1842).
13. Martin v. Waddell, 41 U.S. (16 Pet.) 367, 410-411 (1842); cf. GOULD, § 32 at 72-73 who states "[T]here are here no rights but those of the public on the one hand and of individuals on the other. For this purpose the State represents the people, and the ownership is that of the people in their united sovereignty."
14. See GOULD, §§ 32-37.
15. Id.; See Illinois Central Railroad v. Illinois, 146 U.S. 387 (1892); Hardin v. Jordan, 140 U.S. 371 (1891).
16. Apleby v. City of New York, 271 U.S. 364 (1925).
17. 146 U.S. 387 (1892).

18. 271 U.S. 364 (1925).
19. 152 U.S. 1 (1893).
20. Illinois Central Railroad v. Illinois, 146 U.S. 347, 452 (1892).
21. Id. at 460.
22. 152 U.S. 1 (1893).
23. Id. at 14.
24. Id. at 11-13.
25. Id. at 57.
26. Id. at 40.
27. 271 U.S. 364 (1925).
28. Id. at 383 citing New York v. New York & Staten Island Ferry Co., 68 N.Y. 71, 78 (1877).
29. cf. Gould v. Greylock Reservation Commission, 350 Mass. 410, 215 N.E. 114 (1966); see New York v. New York & Staten Island Ferry Co., 68 N.Y. 70, 71-80 (1877); also Sax, The Public Trust in Natural Resource Law: Effective Judicial Intervention, 68 MICH L. REV. 473, 492-496 (1970).
30. Appley v. City of New York, 271 U.S. 364, 383 (1925).
31. Id. at 384.
32. See Nelson, State Disposition of Submerged Lands Versus Public Rights in Navigable Waters, 3 NAT. RES. LAWYER 491 (1970).
33. See Appley v. City of New York, 271 U.S. 364 (1925).
34. See p. 4 supra.
35. cf. Corvallis Sand & Gravel Co. v. State Land Board, 244 Or. 184, 439 P.2d ⁵¹⁵ (1967).
36. Bowlby v. Shively, 22 Or. 410, 30 P. 154 (1892); see Fort of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955).
37. Hinman v. Warren, 6 Or. 408 (1877).
38. Corvallis Sand & Gravel Co. v. State Land Board, 244 Or. 184, 439 P.2d 515 (1967); Winston Bros. v. State Tax Com., 156 Or. 505, 62 P.2d 7 (1937).
39. Corvallis & E.&R. Co. v. Benson, 61 Or. 359, 121 P. 418 (1912); Fort of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955).

40. Hume v. Rogue River Packing Co., 51 Or. 237, 92 P. 1065 (1908); Lewis v. City of Portland, 25 Or. 133, 35 P. 256 (1893).
41. See Port of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955).
42. Gatt v. Hurlburt, 131 Or. 554, 284 P. 172 (1930).
43. State Land Board v. Western-Pacific Dredging Corp., 244 Or. 184, 416 P.2d 667 (1966); State Land Board v. General Construction Co., 90 Or. Adv. Sh. 639, 465 P.2d 731 (1970).
44. Columbia River Fisherman's Protective Union v. City of St. Helens, 160 Or. 654, 87 P.2d 195 (1939); Monroe v. Withycombe, 84 Or. 328, 165 P. 227 (1917).
45. 203 Or. 369, 280 P.2d 324 (1955).
46. For other decisions that speak in terms of limitations on title rather than obligations of the state see note 40 supra.
47. 90 Or. Adv. Sh. 639, 465 P.2d 731 (1970).
48. Id. at 642-643 citing Obrecht v. National Bypsum Co., 361 Mich. 399, 105 N.W.2d 143 (1960).
49. Since the grantee of the state can take no greater title than the state can give, it follows that the limitations on his title reflect those of the state. See Port of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955). To the extent therefore that the public trust consists of limitations on the state's authority to deal with submerged and submersible lands, the court's interpretation of limitations on private title also indicates the substance of the public trust.
50. Bowlby v. Shively, 22 Or. 410, 30 P. 154, 156 (1892).
51. Id. at 159.
52. Corvallis & E. & R. Co. v. Benson, 61 Or. 359, 121 P. 418, 423 (1912).
53. Hinman v. Warren, 6 Or. 408, 411 (1877).
54. Pacific Milling & Elevator Co. City of Portland, 65 Or. 349, 133 P. 72, 82 (1913).
55. Hume v. Rogue River Packing Co., 51 Or. 237, 92 P. 1065, 1068 (1908).
56. Note 49 supra.

57. 6 Or. 408 (1877).
58. See *Shively v. Bowlby*, 152 U.S. 1 (1893); *Pacific Milling & Elevator Co. v. City of Portland*, 65 Or. 349, 133 P. 72 (1913).
59. See *U.S. v. Chicago, M., St., P. & P. R. Co.*, 312 U.S. 592 (1940), *Shively v. Bowlby*, 152 U.S. 1 (1893); 33 U.S.C.A. § 1 (1957).
60. 156 Or. 505, 62 P.2d 7 (1937).
61. Id. at 510-511.
62. 131 Or. 554, 284 P. 172 (1930).
63. Id. at 560-561, 284 P. at 174.
64. See, e.g., *Corvallis Sand & Gravel v. State Land Board*, 244 Or. 184, 439 P. 2d (1967).
65. See *Port of Portland v. Reeder*, 203 Or. 369, 200 P.2d 324 (1955); *Pacific Milling & Elevator Co. v. City of Portland*, 65 Or. 349, 133 P. 72 (1913); *Corvallis & E.R. Co. v. Benson*, 61 Or. 359, 121 P. 418 (1912); *Lewis v. City of Portland*, 25 Or. 133, 35 P. 256 (1893); *Bowlby v. Shively*, 22 Or. 410, 30 P. 154 (1892).
66. 61 Or. 359, 121 P. 418, 426 (1912), ". . . no legislation can impair the jus publicum of the state . . ." (emphasis added)
67. 244 Or. 184, 439 P.2d 667 (1967).
68. 156 Or. 505, 62 P.2d 7 (1937).
69. 22 Or. 410, 30 P. 154 (1892). This reading is possible since this decision and others quote *Illinois Central Railroad v. Illinois*, 146 U.S. 387 (1892), approvingly, which explicitly holds that the legislature is limited in the extent to which it may convey lands.
70. See, e.g., *Corvallis & E. & R. Co. v. Benson*, 61 Or. 359, 121 P. 418 (1912).
71. 65 Or. 349, 133 P. 72 (1913).
72. See p. 8 supra.
73. See generally, Or. Rev. Stat. ch. 274. As an exception to this general statement it should be noted that the public's oyster easement is preserved.
74. *United States v. Oregon*, 295 U.S. 1 (1934); *Shively v. Bowlby*, 152 U.S. 1 (1893).

75. GOULD, § 32 at 72.
76. Fox River Co. v. Railroad Commission, 274 U.S. 651 (1927); United States v. Cress, 243 U.S. 316 (1917).
77. See Corvallis & E. & R. Co. v. Benson, 61 Or. 359, 121 P. 418 (1912).
78. See Appleby v. City of New York, 271 U.S. 364 (1925).
79. This rule of strict construction has frequently been exercised by the Supreme Court of Oregon. See, e.g., Port of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955).
80. The Oregon Legislature in fact made this choice in 1872 when it authorized the sale of tidelands. The preamble of that act recited that natural encroachments were interfering with the beneficial use of those lands and that their sale would hopefully remedy the problem by encouraging construction of navigational facilities. See General Laws 1872 at 129.
 Nearly a century later the legislature also provided for the sale of submerged lands. See generally Or. Rev. Stat. ch. 274 (1969).
81. Responsibility for the state's submerged and submersible lands rests with the State Land Board and the Division of State Lands. See generally Or. Rev. Stat. chs. 273 & 274 (1969).
82. Id.
83. Public rights in the use and enjoyment of waters depends not on state ownership, but rather on whether or not the water is navigable, the navigability of the stream, in turn, determining the extent of those rights. See e.g. Guilliams v. Beaver Lake Club, 90 Or. 13, 175 P. 437 (1918); Shaw v. Oswego Iron Co., 10 Or. 371 (1882).
84. Both the state and the federal government have this power. At common law an obstruction would constitute a purpresture or a public nuisance, both of which were removable by the state. Cf. p. 4 supra. See also Port of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955); Lewis v. City of Portland, 25 Or. 133, 95 P. 256 (1893); cf. Wilbour v. Gallagher, 462 P.2d 232 (1969).
 There is little question that the power of the federal government to control and regulate navigable waters is superior to the rights of the state or anyone holding title under the state. It follows, therefore, that if a structure obstructs navigation it is subject to removal even though it is private property and originally not unlawful. Blake v. United States, 181 F. Supp. 584 (1960); United States v. Commodore Park Inc., 324 U.S. 386 (1944).

85. cf. Gould v. Greylock Reservation Commission, 350 Mass. 410, 215 N.E.2d 114 (1966).
86. Columbia River Fisherman's Protective Union v. City of St. Helens, 160 Or. 654, 87 P.2d 195 (1939); Monroe v. Withycombe, 84 Or. 328, 165 P. 227 (1917); Hume v. Rogue River Packing Co., 51 Or. 505, 92 P. 1065 (1908); Bowlby v. Shively, 22 Or. 410, 30 P. 154 (1892).
87. See City of Madison v. Tolzman, 7 ² W 570, 97 N.W. 2d 513 (1959); Munninghoff v. Wisconsin Conservation Commission, 255 Wis. 252, 38 N.W.2d 712 (1949); Doemel v. Jantz, 180 Wis. 225, 193 N.W. 393 (1923); Diana Shooting Club v. Kohl, 156 Wis. 261, 145 N.W. 816 (1914); Lamprey v. State, 52 Minn. 181, 53 N.W. 1139 (1893); cf. Luscher v. Reynolds, 153 Or. 625, 56 P. 1158 (1936).
88. See Port of Portland v. Reeder, 203 Or. 369, 280 P.2d 324 (1955).
89. See State Land Board v. Sause, 217 Or. 52, 342 P.2d 803 (1959). Whether or not an obstruction to navigation or other interference with a public right incident to navigation must be abated depends on whether or not the particular use of the property causing the interference outweighs the public's interest in having the waters free of the interference. It would seem that such a situation is analogous to air pollution cases where the public interest is also very demanding. Cf. York v. Stallings, 217 Or. 13, 341 P. 2d 529 (1959). But see Wilbour v. Gallagher, 462 P.2d 232 (1969), where the Washington court apparently rejects any balancing of interests and holds that any obstruction must be removed. See also Justice O'Connell's dissenting opinion in Corvallis Sand & Gravel v. State Land Board, 244 Or. 184, 439 P.2d 515, 584 (1967) where he states ". . . it is necessary to ascertain in each case the interest of the public on one hand and the interest of the person asserting a claim against it on the other, and after weighing these interests decide which of them should, under the circumstances, be given preference."
90. This writer recognizes that many state obligations and limitation analogous to the public trust theory may be found in present statutory law. As this would constitute a paper in itself, I have chosen to restrict most of my discussion to the common law and basic theory.

The Principal Investigator's Note:

Relating to the report on Indian interests in submerged and submersible lands in Oregon.

The submerged lands act, identified as P.L. 31, 83rd Congress, First Session, and recorded in 67 stat. 29, provides protection for Indians in instances where the United States holds lands under navigable water in trust for their benefit. This applies whether the Indians are organized in tribes, bands, groups, or individuals.

In the Supreme Court case of the Choctaw Nations v. the State of Oklahoma, decided April 27, 1970¹⁹ where the United States Supreme Court held for the Indians and while not precisely on point tends to be persuasive to the validity of Indian claims supported by past treaties and agreements.

Based on the above cited public law, the U.S. Supreme Court decision, plus the fact that there may have been Indian rights to navigable beds and banks in Oregon waterways heretofore overlooked, this subject of investigation was assigned to Peter Richter, third-year law student at the University of Oregon. His work was funded from the Title II Federal Grant received by this committee under provisions of P.L. 88-379.

It was the opinion of the committee that the subject of Indian involvement was embraced in the purview of the broad mission of the committee relating to determining ownership of beds and banks of Oregon's navigable waterways. The consensus was that additional investigative work was indicated to support firm conclusions.

IMPLICATIONS OF INDIAN TREATIES
RELATING TO OWNERSHIP OF BEDS OF NAVIGABLE STREAMS
IN OREGON

A recent court decision dealing with Indian ownership of submerged portions of navigable waterways has brought the committee's attention to possible conflicts between Oregon's claim to submerged lands and private claims of ownership that may arise out of the existence of past and present Indian reservations.

The following summary suggests that after an examination of treaties granting land to Indians in Oregon, court decisions relating to Indian ownership of land, and Department of Interior, Bureau of Indian Affairs literature, there are no submerged lands under navigable waterways which are subject to Indian claim in Oregon.

The United States Supreme Court in Choctaw Nation v. Oklahoma, 90 S. Ct. 1328 (1970), determined that the treaty granting land to the Cherokee and Choctaw nations also conveyed title to the bed of the Arkansas River, a navigable stream at the location in question. The formations of the Choctaw and Cherokee reservations were unique in that when the United States conveyed the land it promised the Indians virtually complete sovereignty, and guaranteed the nations that "no part of the land granted to them shall ever be embraced in any territory or state." Choctaw, supra, 90 S. Ct. at 1337. Most Indian treaties give only an exclusive use and occupancy with legal title remaining in the United States. See United States v. Tillamooks, 341 U.S. 48 (1951); Federal Indian Law, U.S. Dept. of Interior, U.S. Government Printing Office, 206 (1958); 69 Harvard Law Review 147. That portion of the Arkansas River and its bed which lay completely within a metes and bounds description of the reservation was found to belong to the Indians primarily because: (1) There was no explicit exclusion of the bed as there were other portions of the reservation; (2) The treaty was worded in terms of one undivided tract of land; (3) Treaty language to the effect, "down the Arkansas", "down the main channel", and "up the Arkansas", included that portion of the riverbed; (4) Any doubtful expressions should be resolved in the Indians' favor; and (5) No part of the land granted was ever to become a part of any territory or state.

An examination of all treaties forming Indian reservations in Oregon reveals that none used language similar to the Choctaw-Cherokee treaties. See 10 Stat. 1018, 1122, 1125, 1132, 1143; 12 Stat. 945, 964, 981; 14 Stat. 752; 16 Stat. 708. The reservations established by these treaties all provided for the allotment of land in severalty and for reservations of territory described by such phrases as "such portions... as may

be assigned to them for present use shall be held... as an Indian reservation", "district which shall be designated for permanent occupancy", or "until otherwise directed by the President of the United States." (emphasis added) There appears a possible intent to grant a portion of any navigable stream only in the Warm Springs reservation. See 12 Stat. 964. The primary question in that case is if that portion of the Deschutes River which forms the reservation boundary was navigable in fact at the time of Oregon's admission into the Union.

In order to put the question of ownership of navigable stream beds in focus it is important to examine the historical developments of federal versus state ownership of land.

The ownership by the United States of lands in territorial status extended to lands underlying all bodies of water, and where unreserved the title thereto was held to pass to a state upon admission to the Union. As the Supreme Court said in *Shively v. Bowlby*, 152 U.S. 1 at 49 (1893):

The Congress of the United States, in disposing of the public lands, has constantly acted upon the theory that those lands, whether in the interior, or on the coast, above high water mark, may be taken up by actual occupants, in order to encourage the settlement of the country; but that the navigable waters and the soils under them, whether within or above the ebb and flow of the tide shall be and remain public highways; and being chiefly valuable for the public purposes of commerce, navigation and fishery, and for the improvements necessary to secure and promote those purposes, shall not be granted away during the period of territorial government; but, unless in case of some international duty or public exigency, shall be held by the United States in trust for the future States, and shall vest in the several States, when organized and admitted into the Union, with all the powers and prerogatives appertaining to the older States in regard to such waters and soils within their respective jurisdictions; in short, shall not be disposed of piecemeal to individuals as private property, but shall be held as a whole for the purpose of being ultimately administered and dealt with for the public benefit by the State, after it shall have become a completely organized community."

If navigable waters have not been reserved an Indian tribe has but a right of use in common with citizens of the state. See U.S. v. Holt State Bank, 270 U.S. 49, 59 (1926). A series of decisions set the criteria which must be examined to determine if waters and beds have been reserved to a tribe.

1. First importance attaches to the treaty or statute forming a reservation. See Northwestern Bands of Shoshone v. U.S., 324 U.S. 335, 353 (1945).
2. It is presumed that the bed to a navigable stream is not conveyed to the tribe but is kept in trust for the state. In U.S. v. Holt State Bank, supra 270 U.S. 49 at 58 the Court says: "There was nothing in this (the treaty) which even approaches a grant of rights in lands underlying navigable waters; nor anything evincing a purpose to depart from the established policy, before stated, of treating such lands as held for the benefit of the future state."
3. An intent to confer ownership of non-navigable stream beds may be shown by the context of the boundary description. In Brewer-Elliott Oil and Gas Co. et al v. United States et al, 260 U.S. 77 (1922), the Court stated that when Congress reserved land to the Osage Indians, and the west boundary was "the main channel of the Arkansas River", title was to land in the river bed out to the main channel.
4. In most decisions dealing with boundaries on navigable waters the courts rely to some degree upon a particular interest of the Indians in the submerged lands in finding that the lands were a part of the reservation. In Alaska Pacific Fisheries v. U.S., 248 U.S. 78 (1918), the Court held that the bed of the tidelands and deep water were included in a reservation described as a group of islands because of the essential nature of the fisheries to the Indians' welfare.

The Quillayute Indians in Moore v. U.S. 157 F. 2d 760 (9th Cir. 1946) depended on tidelands for their food and industry. The court said that the intent of the treaty was to protect and allow expansion of the Indians' sea-going industries by reserving the sandspit, tidal lands, and bed and waters of the estuary to the Indians.

Of the Indian treaties affecting land in Oregon, only the treaty establishing the Warm Springs Reservation could be read to include any of the criteria suggested for determining whether title to a navigable stream bed is included in the grant.

The initial determination as previously stated, must be whether the boundary river, the Deschutes, was navigable at the time of Oregon's admission into the Union. This is a factual determination for a court.

Although an intent to confer ownership of the stream bed could be shown by the context of the boundary description, see number 3 above, none of the criteria for granting title to navigable stream beds are met by the Warm Springs treaty. The lands are set apart as a reservation "until otherwise directed by the President", thus eliminating any intent of permanency within the words of the treaty; there is no particular interest of the Indians shown in the stream bed; and, specifically, the Warm Springs Treaty does not meet the most important requirements set out in the Choctaw case. There was no guarantee that the Warm Springs reservation would not someday be embraced within a state, and the Indians of the Warm Springs Reservation were not granted sovereignty. On the contrary, they were put directly under the care and protection of the United States government. See 12 Stat. 964.

Peter Richter

NAVIGABLE WATERWAYS OF OREGON

APPENDIX D

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Alsea Bay	-	3.0	Flows into Pacific Ocean at Waldport, Oregon.
Alsea River	10.0	-	Flows into Alsea Bay at Waldport, Oregon.
Big Creek Slough	1.5	-	Upstream end at Knappa, Oregon.
Big Elk Creek	4.0	-	Tributary of Yaquina River. Mouth at Elk City, Oregon.
Blind Slough	0.5	-	Part of Yaquina River. 3 mi. downstream from Toledo, Oregon.
Blind Slough Incl. Gnat Creek	2.5	-	Tributary of Knappa Slough. Ten miles upstream from Astoria, Oregon.
Booneville Channel	4.0	-	Tributary of Willamette River. Three miles upstream from Corvallis, Oregon.
Bradbury Slough	3.0	-	Side channel Columbia River. Five miles north of Clatskanie, Oregon.
Butler Creek	1.0	-	Tributary of Smith River. Mouth 1 mile from Reedsport, Oregon.
Calapooya River	0.5	-	Tributary of Willamette River. Mouth at Albany, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Calendar Slough	1.5	-	Side channel Columbia River. Upstream end 1 mile downstream from Knappa, Oregon.
Cathlamet Bay	-	2.0	Part of Columbia River. 3 mi. upstream from Astoria, Oregon.
Catching Slough	6.0	-	Tributary of Coos River. Mouth 2 mi. east of Coos Bay, Oregon.
Chetco Cove	-	1.5	Bay of Pacific Ocean at Brookings, Oregon.
Chetco River	3.0	-	Flows into Pacific Ocean at Brookings, Oregon.
Clackamas River	0.2	-	Tributary of Willamette River at Oregon City, Oregon.
Clatskanie River Incl. Beaver Slough	5.0	-	Includes Beaver Slough. Tributary of Columbia River at Clatskanie, Ore.
Clifton Channel	4.0	-	Side channel of Columbia River at Clifton, Oregon.
Coalbank Slough	2.0	-	Tributary of Isthmus Slough at Coos Bay, Oregon.
Columbia River	215.6	-	To NPP upstream limit. Boundary between Oregon and Washington. Contains Bonneville Lock (mile 145.5) and The Dalles Lock (mile 192.5).
Columbia Slough	7.7	-	Tributary of Willamette River. Mouth 2 miles downstream from Portland north city limit.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Coos Bay	-	15.0	Flows into Pacific Ocean 15 channel miles downstream of Coos Bay, Oregon.
Coos River	14.7	-	Includes South Fork. Flows into Coos Bay at Coos Bay, Oregon.
Cooston Channel	2.0	-	Part of Coos Bay. Mouth opposite North Bend, Oregon.
Coquille River	36.0	-	Flows into Pacific Ocean at Bandon, Oregon.
Depoe Bay	-	0.3	Cove of Pacific Ocean at Depoe Bay, Oregon.
Depoe Slough	1.0	-	Tributary of Yaquina River at Toledo, Oregon.
Dougherty Slough	1.0	-	Tributary of Hoquarton Slough, Tillamook, Oregon.
Drift Creek	1.5	-	Tributary of Alsea River. Mouth 1 mile east of Waldport, Oregon.
Drift Creek	1.0	-	Tributary of Siletz Bay. Mouth 1 mile south of Taft, Oregon.
Driscoll Slough	0.2	-	At Westport, Oregon.
Duncan Slough	5.0	-	Tributary of Siuslaw River, 5 miles upstream from Florence, Oregon.
Flesher Slough	0.5	-	Tributary of Yaquina River. Mouth 5 miles downstream from Toledo, Oregon.
Frantz Creek	0.5	-	Tributary of Smith River. Mouth 2.0 miles from Reedsport, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Gardiner Channel	3.0	-	Part of Umpqua River at Gardiner, Oregon.
Gilbert River	3.0	-	On Sauvie Island. Tributary of Multnomah Channel.
Goble Channel	3.0	-	Side channel of Columbia River. Downstream end at Goble, Oregon.
Governmental Island Channel	8.0	-	Part of Columbia River. Channel south of Government Island. Downstream end at International Airport.
Haynes Slough	2.0	-	Tributary of Coos Bay. Mouth 2 miles north of North Bend, Oregon.
Hoquarton Slough	3.0	-	Tributary of Tillamook Bay at Tillamook, Oregon.
Hudson Slough	1.0	-	Tributary of Smith River. Mouth 3 miles NE of Reedsport, Oregon.
Isthmus Slough	9.0	-	Tributary of Coos Bay with mouth at Coos Bay, Oregon.
Joe Ney Slough	1.5	-	Tributary of Sough Slough (Coos Bay) Mouth at Charleston, Oregon.
John Day River	3.0	-	Tributary of lower Columbia River. Mouth 3 miles east of Astoria, Oregon.
Kentuck Slough	0.5	-	Part of Coos Bay. Mouth opposite North Bend, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
King Slough	1.4	-	Tributary of Yaquina Bay. Mouth 2 miles SE of Newport, Oregon.
Klatskanine River	2.0	-	Tributary of Youngs River. Mouth 7 miles SE of Astoria, Oregon.
Knappa Slough	2.0	-	Tributary of Lower Columbia River. Mouth 9 miles east of Astoria, Oregon.
Lawson Creek	0.5	-	Tributary of Siuslaw River. Mouth 3 miles upstream from Florence, Oregon.
Lewis and Clark River	8.0	-	Tributary of Lower Columbia River. Mouth in Youngs Bay 2 miles south of Astoria, Oregon.
McCaffery Slough	1.0	-	Tributary of Yaquina River. Mouth 3 miles SE of Newport, Oregon.
McIntosh Slough	1.0	-	Tributary of Umpqua River at Reedsport, Oregon.
Miami Cove	-	0.8	Part of Tillamook Bay at Garibaldi, Oregon.
Mill Creek	1.0	-	Tributary of Umpqua River. Mouth 12 miles upstream from Reedsport, Oregon.
Millicoma River	8.5	-	Branch of Coos River. Upstream end at Allegany, Oregon.
Multnomah Channel	21.0	-	Tributary of Columbia River. Upstream end at Portland west city limit.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Neawanna River	2.0	-	Tributary of Necanicum River at Seaside, Oregon.
Necanicum River	3.0	-	Flows into Pacific Ocean at Seaside, Oregon.
Nehalem Bay	-	4.0	From Wheeler, Oregon to Pacific Ocean.
Nehalem River	8.5	-	Upstream from Wheeler, Oregon, to 1.0 mile above Mohler, Oregon.
Nehalem River (North Fork)	5.0	-	Tributary of Nehalem River. Mouth 1.0 mile from Nehalem, Oregon.
Nestucca Bay	-	3.0	Flows into Pacific Ocean 2 mi. south of Pacific City, Oregon.
Nestucca River (Big)	6.0	-	From 1.0 mile south of Pacific City to Cloverdale, Oregon.
Nestucca River (Little)	1.6	-	Mouth 2 miles SE of Pacific City, Oregon.
Netarts Bay	-	5.0	Flows into Pacific Ocean. Mouth at Netarts, Oregon.
North Slough	3.0	-	Tributary of Coos Bay. Mouth 2 miles north of North Bend, Oregon.
Ollalie Creek	1.0	-	Tributary of Yaquina River at Toledo, Oregon.
Oregon Slough	6.0	-	Part of Columbia River 1 mile south of Vancouver, Washington.
Otter Slough	1.0	-	Tributary of Smith River. Mouth 5 miles upstream from Reedsport, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Pony Slough	1.2	-	Tributary of Coos Bay at North Bend, Oregon.
Pacific Ocean	-	257.0	Navigable water in Pacific Ocean along Oregon Coast.
Pooles Slough	2.0	-	Tributary of Yaquina River. Mouth 4 miles upstream from Newport, Oregon.
Port Orford	-	0.2	Bay on Pacific Ocean at Port Orford, Oregon.
Prairie Channel	10.0	-	Side channel of Columbia River. Mouth 3 miles east of Astoria, Oregon.
Randolph Slough	2.0	-	Side channel of Coquille River. 4 miles NE of Bandon, Oregon.
Rogue River	27.0	-	Flows into Pacific Ocean at Gold Beach, Oregon.
Salmon River	3.0	-	Inactive project. Mouth 4 mi. north of Oceanlake, Oregon. Minor waterway.
Sandy River	2.0	-	Tributary of Columbia River. Mouth across Columbia River from Camas, Washington.
Santiam River	9.0	-	Tributary at Willamette River. Mouth 23 miles upstream from Salem, Oregon.
Scappoose Bay	-	1.6	Tributary of Multnomah Channel (Col. River)-1.0 mile from St. Helens, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Scholfield Creek	6.0	-	Tributary of Umpqua River. Mouth at Reedsport, Oregon.
Siletz Bay	-	2.0	Flows into Pacific Ocean at Taft, Oregon.
Siletz River	20.0	-	Flows into Siletz Bay at Kernville, Oregon.
Siuslaw River	19.0	-	Flows into Pacific Ocean 5 miles downstream from Florence, Oregon.
Siuslaw River (North Fork)	2.0	-	Tributary of Siuslaw River. Mouth 1 mile upstream from Florence, Oregon.
Skipanon Channel	2.6	-	Tributary of Lower Columbia River at Warrenton, Oregon.
Smith River	21.0	-	Tributary of Umpqua River - Upper 6 miles of project is inactive. Mouth is 1 mile north of Reedsport, Oregon.
Smith River (North Fork)	1.0	-	Minor waterway - tributary of Smith River. Mouth 17 river miles from Reedsport, Oregon.
South Channel or Burnside Channel	3.0	-	Side channel of Columbia River. Downstream end 3 miles east of Astoria, Oregon.
South Inlet	1.0	-	Tributary of Siuslaw River. Mouth 2 miles upstream from Florence, Oregon.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
South Slough	5.0	-	Tributary of Lower Coos Bay. Mouth 1 mile north of Charleston, Oregon.
Svenson Slough	2.0	-	Tributary of Lower Columbia River. Mouth 6 miles east of Astoria, Oregon.
Swan Island Lagoon	1.5	-	Part of Willamette River in city of Portland, Oregon.
Tillamook Bay	-	8.0	Flows into Pacific Ocean 2 mi. west of Garibaldi, Oregon.
Tillamook River	5.0	-	Tributary of Tillamook Bay at Tillamook, Oregon.
Trask River	2.0	-	Tributary of Tillamook Bay at Tillamook, Oregon.
Umpqua River	25.0	-	Flows into Pacific Ocean 11 river miles from Reedsport, Oregon.
Walker Island Channel	4.0	-	Side channel of Columbia River. Upstream end 2 miles downstream of Rainier, Oregon.
Wallace Slough	3.0	-	Side channel of Columbia River. Upstream end 3 miles north of Clatskanie, Oregon.
Walluski River	3.0	-	Tributary of Youngs River. Mouth 2 miles south of Astoria, Oregon.
Westport Slough	4.5	-	Tributary of Columbia River at Westport, Oregon.
Willamette River	183.2	-	Tributary of Columbia River. Portland to Eugene, Oregon, contains Willamette Falls Locks at mile 26.3. Upstream 51 miles not maintained.

Waterway	Navigable length in miles	Length of main channel or sailing course in miles	Remarks
Willamette Slough	1.0	-	Tributary of Willamette River at Salem, Oregon.
Willanch Slough	0.5	-	Part of Coos Bay. Mouth opposite North Bend, Oregon.
Wilson River	3.0	-	Tributary of Tillamook Bay at Tillamook, Oregon.
Winchester Bay	-	0.6	Tributary of Umpqua River at Winchester Bay, Oregon.
Yamhill River	7.0	-	Lock has been removed at Mile 7.0. Tributary of Willamette River. Mouth 29 river miles above Oregon City Locks.
Yaquina Bay	-	4.0	Flows into Pacific Ocean at Newport, Oregon.
Yaquina River	19.0	-	Tributary of Yaquina Bay. Mouth 3 miles SE of Newport, Oregon.
Youngs Bay	-	2.5	Tributary to Lower Columbia River at Astoria, Oregon. Minor waterway.
Youngs River	8.3	-	Tributary to Youngs Bay. Mouth at Astoria, Oregon. Minor Waterway.

NAVIGABLE AND NON-NAVIGABLE LAKES AND RESERVOIRS OF OREGON - APPENDIX E

NORTH COAST BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

196 Lakes and Reservoirs-Area 1,850 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Abbot Lake	4	8N 10W	Marie, Lake	1	1N 10W
Adams Lake	22	6N 1W	Meadow Lake	93	3S 6W
Adams, Lake	29	5N 1W	Middle Lake	9	7N 8W
Astoria Res.	4	8N 9W	Miles Lake	13	4S 10W
Astoria Res.	32	7N 8W	Muckle Lake	18	5N 1W
Battle Lake	4	3S 9W	Neahkahnne Lake	6	3N 10W
Bay City Res.	1	1N 10W	North Lake	5	4S 8W
Beaver Lake	1	8N 10W	Oak Ridge Lake	23	6N 1W
Benham Slough	5	5N 1W	Potato Lake	2	6N 10W
Blue Lake	2	2N 7W	Resting Lake	12	5N 1W
Box Lake	10	6N 1W	Scout Lake	1	7N 4W
Cedar Lake	1	4S 9W	Sears Lake	16	4S 10W
Cemetery Lake	10	8N 10W	Seaside Res.	8	6N 10W
Chamberlain Lake	10	3S 10W	Shag Lake	5	8N 10W
Clear Lake	8	8N 10W	Skookum Lake	5	2S 8W
Clear Lake	3	1N 10W	Slusher Lake	20	7N 10W
Coffenbury Lake	52	8N 10W	Smith Lake	48	8N 10W
Cole Creek Res.	3	1S 9W	Smith Lake	36	1N 10W
Cottonwood Lake	15	6N 1W	Soapstone Lake	10	4N 9W
Crabapple Lake	10	8N 10W	South Lake	7	4S 8W
Creep and Crawl Lake	5	8N 10W	Spring Lake	12	1N 10W
Crescent Lake	18	2N 10W	Spruce Run Lake	3	4N 7W
Cullaby Lake	216	7N 10W	Stanley Lake	17	6N 10W
Deley Lake	16	5S 11W	Sunset Lake	99	7N 10W
Davis Slough	17	6N 1W	Swan Lake	39	6N 1W
Deer Island Slough	147	5N 1W	Swish Lake	13	8N 10W
Grassy Lake	4	4N 10W	Taylor Lake	10	7N 10W
Hebo Lake	5	4S 9W	Thorn Lake	9	5N 1W
Hidden Lake	3	1N 10W	Tillamook Res.	1	2S 9W
Horsepasture Lake	13	5N 1W	Tillusqua Fish Hatch. (Ponds)	1	8N 7W
Klaskanine Fish Hatch. (Ponds)	2	7N 8W	Town Lake	14	4S 10W
Kyle Lake	2	8N 10W	Triangle Lake	5	7N 10W
Leinenweber Lake	3	8N 10W	West Lake	36	7N 10W
Long Lake	12	8N 10W	Wheeler Pond	4	3N 6W
Lost Lake	15	4N 7W	Wickiup Lake	25	7N 7W
Lost Lake	3	7N 6W	Wild Ace Lake	14	8N 10W
Lytle, Lake	57	2N 10W	Unnamed (123)	446	

Note: Includes "sloughs" having no apparent outlet, thereby having the characteristics of a flood plain lake.

WILLAMETTE - SHERIDAN BASIN

SURFACE AREA OF LAKES OR RESERVOIRS
in acres

2385 Lakes and Reservoirs - Area 60,594 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Aarons Lake	70	3N 1 W	Blue Lake	10	12S 8 E
Abernethy Lake	4	23S 5 $\frac{1}{2}$ W	Blue Lake	13	23S 5 E
Abiqua Lake	1	8S 2 E	Blue River Res.	975	16S 4 E
Aebi Res.	2	7S 6 W	Bongo Lake	6	22S 5 $\frac{1}{2}$ E
Aerial Lake	3	18S 7 E	Boot Lake	6	19S 7 E
Alameda Lake	3	24S 5 E	Bounty Lake	2	17S 7 E
Alford Pond	2	14S 4 W	Bowerman Lake	5	12S 8 E
Alforja Lake	3	12S 7 E	Bradley Lake	1	25S 3 E
Alice Lake	1	12S 8 E	Breitenbush Lake	48	9S 8 E
Alpine Lake	5	24S 5 E	Bremer Res.	2	5S 1 E
Amos and Andy Lake	10	25S 5 $\frac{1}{2}$ E	Briscoe Res.	3	3S 3 E
Anderson Res.	1	5S 4 W	Brittany Lake	3	21S 6 E
Ann, Lake	23	11S 8 E	Bronc Res.	1	4S 1 W
Aquatic Gardens (2)	6	8S 3 W	Brook Lake	2	8S 8 E
Ashahr Lake	13	11S 4 W	Bruno Lakes (2)	1	10S 7 E
Avorill Lake	12	9S 8 E	Bryant Lake	3	16S 4 W
Babe Lake	1	9S 8 E	Bryce Lake	10	4N 1 W
Beys Lake	9	10S 8 E	Buck Lake	10	5S 8 E
Bear Lake	6	9S 8 E	Bull Run Lake	434	1S 8 E
Beaver Lake	20	12S 4 W	Bull Run Res. #1	450	1S 6 E
Beaver Lakes (2)	1	2S 8 E	Bull Run Res. #2	411	1S 5 E
Beaver Lakes (3)	6	13S 5 E	Bump Lake	4	8S 8 E
Benson Lake	17	15S 7 $\frac{1}{2}$ E	Burger Lakes (2)	5	8S 3 W
Betty Lake	46	22S 6 E	Burglund Pond	1	3S 4 E
Big Lake	226	14S 7 $\frac{1}{2}$ E	Burnt Lake	6	2S 8 E
Big Cliff Res.	132	9S 4 E	Butler Creek Res.	2	1S 3 E
Big Martin Lake	14	3N 1 W	Butte Lake	1	8S 3 E
Big Slide Lake	3	8S 6 E	Bybee Lake	275	2N 1 E
Billys Lake	1	20S 6 E	Campers Lake	6	15S 7 $\frac{1}{2}$ E
Binford Res.	2	1S 3 E	Cardiac Lake	4	21S 5 $\frac{1}{2}$ E
Bingham Lake	4	11S 8 E	Carlton Lake	200	3S 4 W
Bingo Lake	4	22S 5 $\frac{1}{2}$ E	Carman Res.	65	14S 7 E
Birthday Lake	2	22S 5 $\frac{1}{2}$ E	Carrol Res.	23	18S 6 W
Blair Lake	22	20S 5 E	Cast Lake	4	2S 8 E
Blue Lake	58	1N 3 E	Cemetery Res.	2	1S 1 W
Blue Lake	16	1S 7 E	Cervus Lake	11	20S 6 E

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Chambers Lakes (2)	29	17S 8 E	Crystal Springs Lake	8	1S 1 E
Chandler Lake	4	6S 6 W	Cunningham Lake	155	4N 1 W
Chautauque Lake	2	2S 2 E	Curry Lake	6	5S 3 W
Cheadle Lake	84	12S 2 W	Dallas Res.	43	8S 6 W
Chetlo, Lake	18	21S 5 $\frac{1}{2}$ E	Daly Lake	10	12S 6 E
Chiquito Lake	3	12S 8 E	Dana Lake	1	21S 6 E
Cincha Lake	1	12S 7 E	Davey Lake	2	9S 8 E
Clackamas Lake	2	5S 8 $\frac{1}{2}$ E	Devis Lake	3	12S 8 E
Claggett Lake	6	9S 8 E	De Jong Res.	3	6S 5 W
Clear Lake	3	5S 4 E	Denude Lake	5	18S 7 E
Clear Lake	35	6S 3 W	Detroit Res.	3,580	10S 5 E
Clear Lake	152	14S 7 E	Devils Lake	1	3S 8 E
Clear Lake	16	17S 5 E	Devils Lake	7	20S 5 E
Cleo Lake	5	12S 7 E	Dew Lake	1	17S 7 E
Cliff Lake	21	19S 7 E	Dexter Res.	1,025	19S 1 W
Coffee Lake	2	16S 7 $\frac{1}{2}$ E	Dillon Lake	2	18S 6 E
Cole Res.	10	4S 3 W	Dinger Lake	25	5S 8 E
Collins Lake	1	3S 8 E	Dinibenian Res.	1	1N 1 W
Colorado Lake	26	11S 4 W	Doane Lake	24	1N 1 W
Colt Lake	6	18S 7 E	Dober Res.	16	1S 3 W
Compeny Lake	23	1N 3 E	Donaca Lake	1	12S 5 E
Conin Lake	4	21S 6 E	Dorene Res.	1,840	20S 2 W
Conner Lake	5	4S 3 W	Double Peaks Lake	3	9S 8 E
Cooper Lake	2	5S 8 $\frac{1}{2}$ E	Dry Lake	1	13S 6 E
Copeped Lake	8	19S 7 E	Duffy Lake	26	12S 7 E
Corner Lake	15	19S 7 E	Dumbbell Lake	2	2S 8 E
Corrigan Lake	4	24S 5 E	Dumbbell Lake	8	19S 7 E
Cervallis Res.	2	12S 5 W	Dunlap Lake	8	9S 6 E
Cottage Grove Res.	1,158	21S 3 W	East Fisher Lake	2	18S 7 E
Cougar Lake	6	6S 4 E	East McFarland Lake	7	20S 6 E
Cougar Lake	2	13S 6 E	East Quinn Lake	4	20S 5 $\frac{1}{2}$ E
Cougar Res.	1,230	16S 5 E	Eastern Brook Lake	10	20S 6 E
Crabtree Lake	6	11S 3 E	Edna Lake	2	20S 6 E
Craig Lake	4	13S 7 $\frac{1}{2}$ E	Edward Lake	1	20S 6 E
Craig Lake	1	15S 7 $\frac{1}{2}$ E	Egger Res.	1	2S 3 W
Crampton Res.	1	1S 4 E	Eileen Lake	5	16S 7 $\frac{1}{2}$ E
Crane Lake	120	3N 1 W	Elbow Lake	5	21S 5 $\frac{1}{2}$ E
Crawfish Lake	2	22S 1 E	Elf Lake	2	15S 7 E
Crown Lake	11	9S 7 E	Elk Lake	66	9S 6 E
Crystal Lake		1S 1 E	Elkhorn Lake	3	9S 4 E

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Elwert Res.	1	2S 2 W	Gold Lake	90	22S 6 E
Emerald Lake	6	6S 4 E	Goodfellow Lakes (3)	47	2S 7 E
Emerald Lake	1	21S 5 $\frac{1}{2}$ E	Goodman Lake	3	15S 5 W
Emma Lake	2	20S 6 E	Goose Lake	10	6S 3 W
Enid Lake	1	3S 8 E	Goose Lake	7	19S 7 E
Ernie Lake	2	21S 6 E	Gordon Lakes (2)	13	14S 4 E
Estacada Lake	58	3S 4 E	Gosling Lakes (2)	8	20S 5 $\frac{1}{2}$ E
Ettinger Pond	8	1S 2 W	Graham Lake	4	15S 5 W
Fairview Lake	56	1N 3 E	Grassy Lake	7	3N 1 W
Fall Creek Res.	2,200	10S 1 E	Green Lake	4	21S 5 $\frac{1}{2}$ E
Faraday Lake	42	3S 4 E	Green Res.	3	18S 2 W
Fay Lake	8	12S 7 E	Green Peak Lake	6	12S 7 $\frac{1}{2}$ E
Fennell Lake	2	10S 2 W	Green Peter Res.	3,720	13S 2 E
Fern Ridge Res.	9,360	17S 5 W	Grenet Lake	4	12S 7 $\frac{1}{2}$ E
Fig Lake	3	21S 5 $\frac{1}{2}$ E	Griffith Res.	1	18S 5 W
Finley Lake	2	9S 8 E	Guiles Lake	21	3N 1 W
Finney and Egan Lake	8	6S 3 W	Gus Lake	6	22S 6 E
Fir Lake	8	12S 7 E	Hand Lake	8	15S 7 $\frac{1}{2}$ E
Fir Lake	1	24S 5 $\frac{1}{2}$ E	Hanks Lake	6	11S 8 E
First Lake	2	9S 8 E	Happy Lake	9	23S 5 E
First Lake	6	11S 3 W	Harkens Lake	19	14S 5 W
Fish Lake	39	8S 8 E	Harriet, Lake	18	6S 7 E
Fish Lake	33	13S 7 E	Harrison Lake	8	5S 5 W
Force Lake	13	1N 1 E	Hartwick Res.	10	2N 4 W
Forest Grove Res.	1	1N 4 W	Harvey Lake	18	20S 6 E
Fork Lake	1	9S 8 E	Haskins Creek Res.	23	3S 5 W
Foster Res.	1,220	13S 1 E	Hawkins Lake	6	22S 6 E
Fourth Lake	5	10S 3 W	Hayden Lake	19	8S 4 W
Franzen Res.	14	8S 2 W	Head Lake	4	9S 8 E
Frog Lake	14	5S 6 E	Heart Lake	8	14S 6 E
Frying Pan Lake	31	4S 8 E	Helen Lake	6	20S 6 E
Gander Lake	45	20S 5 $\frac{1}{2}$ E	Henrici Lake	62	4N 1 W
Garden Lake (3)	17	19S 3 W	Herb Lake	2	18S 7 E
Garlinghouse Lake	3	14S 5 W	Hickman Lake	12	2S 7 E
Gay Lake	10	3N 1 W	Highway Lake	15	5S 7 E
Gertrude Lake	2	23S 2 E	Hidden Lake	1	3S 8 E
Gibson Lake	4	9S 8 E	Hidden Lake	19	18S 5 E
Gifford Lake	2	9S 8 E	High Lake	1	6S 6 E
Gleaze Lake	1	15S 7 E	Hills Creek Res.	2,735	21S 3 E
Gnat Lake	3	19S 7 E	Hillsboro Res.	2	1S 5 W

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Honey Lakes (18)	27	17S 7 E	Koehler Res.	1	7S 1 E
Horse Lake	32	18S 7 E	Krag Lake	5	19S 7 E
Horsefly Lake	2	22S 6 E	Kuitan Lake	5	15S 7 E
Horseshoe Lake	7	4S 3 W	Kyllo Reservoir	5	5S 1 E
Horseshoc Lake	7	11S 4 W	Lake of the Woods	6	11S 8 E
Horseshoe Lake	18	19S 7 E	Lancelot Lake	4	17S 7 E
Howell Lake	9	2N 1 W	Last Lake	10	21S 5 $\frac{1}{2}$ E
Howkum Lake	3	22S 6 E	Latigo Lake	1	12S 7 E
Hubbard Lake	20	5S 3 W	Lava Lake	63	13S 7 E
Huckleberry Lake	6	20S 4 E	Ledge Lake	3	19S 7 E
Hulbert Lake	10	15S 5 W	Lonore, Lake	5	8S 6 E
Humbug Lake	23	8S 4 W	Leone Lake	5	9S 7 E
Hunts Lake	6	11S 8 E	Lily Pad Lake	1	7S 6 E
Husband Lake	4	16S 7 $\frac{1}{2}$ E	Lindh Lake	5	19S 7 E
Huxley Lake	4	4S 6 E	Lindow Reservoir	3	1S 2 W
Indian Lakes (2)	2	9S 8 E	Linton Lake	57	16S 7 $\frac{1}{2}$ E
Indian Prairie Lake	15	10S 2 E	Little Cincha Lake	1	12S 7 E
Indigo Lake	15	25S 5 $\frac{1}{2}$ E	Little Crater Lake	1	5S 8 $\frac{1}{2}$ E
Irish Camp Lake	2	16S 7 E	Little Duffy Lake	2	12S 8 E
Island Lake	2	15S 7 E	Little Martin Lake	5	3N 1 W
Island Lake	3	19S 7 E	Lizard Lake	1	11S 8 E
Jackson Res.	5	2N 2 W	Lizard Lake	3	25S 4 E
Jackson Res.	6	1S 2 W	Loletta Lakes (2)	4	25S 3 E
Jonny Lake	3	12S 8 E	Long Lake	25	20S 5 $\frac{1}{2}$ E
Jewit Lake	93	1N 2 E	Lookout Lake	2	18S 7 E
Jo Jo Lake	2	10S 7 E	Lookout Point Res.	4,260	19S 1 E
Joann Lake	7	22S 5 $\frac{1}{2}$ E	Lopez Lake	3	23S 5 E
Jorn Lake	36	12S 8 E	Lorin Lake	7	22S 5 $\frac{1}{2}$ E
Jude Lake	6	8S 8 $\frac{1}{2}$ E	Lost Lake	45	13S 7 E
Junction Lake	20	19S 6 E	Love Lake	5	15S 4 W
June Lake	9	25S 5 $\frac{1}{2}$ E	Lower Lake	13	8S 8 E
Keene Res.	3	5S 3 W	Lower Berley Lake	4	13S 7 $\frac{1}{2}$ E
Keesneck Lake	12	9S 4 W	Lower Eddeleo Lake	108	21S 5 $\frac{1}{2}$ E
Kellogg Lake	14	1S 1 E	Lower Erna Bell Lake	41	20S 6 E
Kidney Lake (7 Ac. included in Honey Is.)	17	17S 7 E	Lower Horse Lake	6	18S 7 E
King Lake	1	21S 5 $\frac{1}{2}$ E	Lower Island Lake	5	22S 5 $\frac{1}{2}$ E
Kinglet Lake	1	21S 5 $\frac{1}{2}$ E	Lower Marilyn Lake	22	22S 6 E
Kinzel Lake	1	4S 8 E	Lower Quinn Lake	14	20S 5 $\frac{1}{2}$ E
Kiwo, Lake	24	21S 6 E	Lower Rigdon Lake	18	21S 6 E
Knight Res.	1	12S 6 W	Lower Salmon Lake	7	21S 5 $\frac{1}{2}$ E

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Lula Lake	3	12S 7 E	Moose Lake	11	13S 4 E
Lusted Res.	1	1S 4 E	Mosquito Lake	3	24S 5 E
Mac Lake	22	19S 7 E	Mowich Lake	56	12S 8 E
Malarkys Lake	31	3N 1 W	Mud Lake	5	19S 7 E
Marion Lake	360	12S 8 E	Mud Lake	6	20S 6 E
Marten Lake	3	18S 7 E	Mud Puppy Lake	3	10S 6 E
Martin Lake	8	19S 7 E	Murrays Pond	1	3S 1 W
Martins Lake	11	14S 5 W	Nan Scott Lake	21	11S 7 E
Maude Lake	3	12S 7 $\frac{1}{2}$ E	Nash Lake	26	17S 7 E
Maxwell Lake	1	13S 7 E	Neet Lake	1	24S 5 E
McBee Lake	33	13S 5 W	Neil Lake	2	15S 6 W
McBee Lake	3	18S 7 E	Neknoberts Lake	3	9S 8 E
McFarland Lake	41	20S 6 E	Nelsons Pond	1	8S 3 W
McLaughlin Pond	1	5S 1 W	Nightshade Lakes (4)	11	19S 7 E
McNary Lake	208	4N 1 W	North Dixie Lake	2	12S 8 E
Melakwa Lake	28	16S 7 E	North Fork Res.	44	1N 7 E
Melis Lake	4	12S 8 E	North Fork Res.	308	4S 4 E
Memaloose Lake	5	5S 5 E	North Torrey Lake	6	20S 6 E
Memaloose Lake	1	20S 4 E	Notch Lake	2	23S 5 E
Meridian Lake	6	9S 3 W	Noti Creek Res.	13	18S 6 W
Merrill Lake	6	19S 7 E	Oliver Lake	7	14S 5 W
Meyers Pond	9	1S 3 W	Opal Lake	13	9S 5 E
Mickey Lake	3	21S 6 E	Opal Lake	11	25S 5 $\frac{1}{2}$ E
Middle Lake	8	9S 8 E	Oswego, Lake	405	2S 1 E
Middle Erma Bell Lake	46	20S 6 E	Otter Lake	9	20S 6 E
Middle Horse Lake	3	18S 7 E	Palmer Lake	8	1N 7 E
Midget Lake	1	11S 8 E	Pamelia Lake	50	11S 8 E
Midnight Lake	8	23S 5 $\frac{1}{2}$ E	Pansy Lake	7	8S 6 E
Mildred Lake	2	9S 8 E	Papoose Lakes (10)	8	9S 8 E
Mile Lake	6	18S 7 E	Parish Lake	8	12S 6 E
Millionaire Lake	28	4N 1 W	Park Lake	2	10S 8 E
Mink Lake	144	19S 7 E	Park Lake	2	18S 7 E
Mirror Lake	5	3S 8 E	Patjens Lakes (3)	16	14S 7 $\frac{1}{2}$ E
Mission Lake	29	6S 3 W	Pawnee Lake	2	9S 8 E
Moar Lake	26	2N 1 W	Peasley Lake	2	10S 7 E
Monty Lake	1	12S 8 E	Pelkey Lake	1	7S 3 E
Moody Lake	5	19S 7 E	Penn Lake	14	19S 7 E
Moolack Lake	10	20S 5 $\frac{1}{2}$ E	Petes Lake	2	18S 7 E
Moon Lake	1	23S 3 E	Pettit Res.	7	7S 1 W
Moonlight Lake	5	18S 7 E	Photo Lake	5	21S 5 $\frac{1}{2}$ E

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Pidgeon Lake	2	22S 3 E	Rose Lake	7	8S 4 W
Pika Lake	2	12S 7 E	Roslyn Lake	139	2S 5 E
Pine Ridge Lake	5	12S 7 E	Round Lake	12	3N 1 W
Pinet Lake	4	12S 7 E	Round Lake	8	8S 7 E
Piper Lake	4	20S 6 E	Round Lake	23	21S 5 $\frac{1}{2}$ E
Platt Lake	5	18S 7 E	Russ Lake	6	8S 8 $\frac{1}{2}$ E
Plaza Lake	4	4S 7 E	Russell Lake	7	10S 8 E
Plumb Lake	10	19S 7 E	Ruth Lake	2	20S 6 E
Popp Res.	3	1S 3 W	S Lake	6	19S 7 E
Porky Lake	34	19S 7 E	Sad Lake	1	11S 8 E
Porter Lake	10	12S 5 W	Salmon Creek Res.	4	5N 2 W
Porter Lake	3	13S 5 W	Sand Lake	10	2N 1 W
Presley Lake	2	11S 7 E	Sandy Lake	11	19S 7 E
Prill Lake	5	12S 8 E	Santiam Lake	16	12S 8 E
Prince Lake	5	15S 7 E	Sapphire Lake	3	21S 5 $\frac{1}{2}$ E
Pyramid Lake	6	5S 7 E	School Section Lake (2)	26	2N 1 W
Pyramid Lake	3	9S 8 E	Scott Lake (3)	24	15S 7 $\frac{1}{2}$ E
Questionmark Lake	7	19S 7 E	Scout Lake	6	10S 8 E
Racetrack Lake	25	3N 1 W	Seal Lake	27	3N 1 W
Rainbow Lake	8	2N 2 W	Second Lake	25	10S 3 W
Rainbow Lake	5	4S 5 W	Separation Lake	3	17S 6 E
Rainbow Lake	13	10S 6 E	Serene Lake	25	5S 7 E
Ralphs Lake	1	12S 8 E	Sevcik Pond	12	3S 1 E
Ramsey Lake (2)	90	2N 1 W	Shadow Lake	6	22S 6 E
Rays Lake	12	3N 1 W	Shale Lake	1	11S 8 E
Red Lake	5	9S 8 E	Sheep Lake	5	9S 8 E
Red Butte Lake	3	12S 8 E	Sheep Lake	2	9S 8 E
Reed Lake	2	1S 1 E	Shellrock Lake	17	5S 7 E
Reflection Lake	2	24S 5 $\frac{1}{2}$ E	Sherman Res.	6	4N 2 W
Reimer Res.	15	7S 5 W	Shining Lake	13	4S 6 E
Rest Lake	17	3N 1 W	Short Lake	1	9S 7 E
Rhody Lake	3	8S 3 E	Si Lake	7	8S 8 E
Rimrock Lake	2	9S 8 E	Skookum Lake	3	6S 5 E
Ring Lake	2	9S 8 E	Skookum Lake	1	20S 6 E
River Forest Lake	8	2S 1 E	Skookum Lakes (2)	31	3S 2 W
Robinson Lake	10	15S 7 E	Slideout Lake	5	9S 8 E
Rock Lake	2	10S 8 E	Slipper Lake	11	19S 7 E
Rock Lake	11	19S 6 E	Smith Lake	643	2N 1 E
Rock Lakes (5)	21	5S 7 E	Smith Lake	4	20S 6 E
Rockpile Lake	8	24S 5 $\frac{1}{2}$ E	Smith Res.	170	14S 6 E

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Smith Res.	2	18S 5 W	Toms Lake	1	12S 8 E
South Dixie Lake	2	12S 8 E	Toni Lake	1	12S 7 E
Spinning Lake	4	9S 8 E	Too Much Bear Lake	4	23S 5 $\frac{1}{2}$ E
Spirit Lake	10	21S 5 E	Top Lake	12	18S 7 E
Spirit Lake	2	21S 5 $\frac{1}{2}$ E	Top Lake	6	19S 7 E
Sportsman Lakes (2)	6	9S 7 E	Torrey Lake	70	20S 6 E
Spring Lake	1	16S 7 $\frac{1}{2}$ E	Trail Bridge Res.	118	15S 6 E
Spruce Lake	3	24S 5 $\frac{1}{2}$ E	Train Lake	1	13S 7 E
Spy Lake	3	19S 7 E	Triangle Lake	6	8S 8 E
Squaw Lakes (7)	14	4S 6 E	Trillium Lake	63	3S 8 $\frac{1}{2}$ E
Steelman Lake	88	3N 1 W	Truthaven Res.	3	4S 2 E
Stewart Lake	4	11S 5 W	Tule Lake	3	12S 6 E
Stewart Res.	19	6S 4 W	Tumble Lake	20	9S 5 E
Sturgeon Lake	3,175	3N 1 W	Turpentine Lake	9	12S 7 E
Summit Lake	10	6S 8 E	Tustin Lake	3	4S 4 W
Sump Lake	2	21S 5 $\frac{1}{2}$ E	Twin Lakes (2)	25	8S 6 E
Sunrise Lake	2	24S 5 $\frac{1}{2}$ E	Twin Lakes (2)	2	13S 7 E
Sunset Lake	13	18S 7 E	Upper Berley Lake	6	13S 7 $\frac{1}{2}$ E
Sunset Lake	1	24S 5 $\frac{1}{2}$ E	Upper Eddeleo Lake	46	21S 5 $\frac{1}{2}$ E
Surprise Lake	3	5S 6 E	Upper Erma Bell Lake	13	20S 6 E
Surprise Lake	4	6S 5 E	Upper Island Lake	6	22S 5 $\frac{1}{2}$ E
Surprise Lake	2	8S 8 E	Upper Marilyn Lake	23	22S 6 E
Swellow Lake	1	11S 8 E	Upper Quinn Lake	14	20S 5 $\frac{1}{2}$ E
Swan Lake	7	20S 5 $\frac{1}{2}$ E	Upper Rigdon Lake	22	21S 6 E
Swan Lakes (2)	14	11S 3 W	Upper Salmon Lake	10	21S 5 $\frac{1}{2}$ E
Swindle Lake	1	9S 8 E	Veda Lake	2	4S 8 E
Taylor Lake	4	13S 3 W	Vera Lake	1	19S 7 E
Temple Lake	8	12S 7 E	Verde Lake	1	22S 5 $\frac{1}{2}$ E
Tenas Lakes (6)	5	15S 7 E	Virginia Lake (5)	12	2N 1 W
Teto Lake	10	12S 8 E	Vivian Lake	16	23S 5 E
Third Lake	8	10S 3 W	Vogel Lake	12	19S 7 E
Thompson Res.	32	12S 7 W	Wahanna Lake	50	20S 6 E
Thornton Lake	11	11S 4 W	Waldo Lake	6,142	21S 6 E
Timber Lake	6	5S 6 E	Wall Lake	5	9S 8 E
Timber Linn Lake	6	11S 3 W	Wall Res.	2	7S 5 W
Timothy Lake	1,339	5S 8 E	Walker Res.	7	3S 3 W
Timpanogas Lake	43	25S 5 $\frac{1}{2}$ E	Walker Res. (3)	46	6S 5 W
Tiny Lake	2	22S 6 E	Walterville Res.	15	17S 1 W
Tokatee Lakes (2)	3	17S 7 E	Warner Lake	5	15S 2 W

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Waverly Lake	10	11S 3 W	Williams Lake	4	5S 4 E
Welches Pond	2	2N 3 W	Williams Lake	2	20S 6 E
Welcome Lakes (2)	7	8S 6 E	Willow Hole	10	3N 1 W
Welling Res.	4	2S 4 E	Willow Lake	9	6S 3 W
West Lake	2	8S 6 E	Wilson Lake	20	10S 4 W
West Fisher Lake	2	18S 7 E	Winchester Lake	3	20S 5 $\frac{1}{2}$ E
Whig Lake	14	20S 6 E	Wind Lake	2	3S 8 E
Whiskey Lake	2	11S 8 E	Winegar Res.	1	9S 5 W
Whitaker Lake	12	13S 5 W	Winkle Lake	27	13S 5 W
Whitewater Lake	2	10S 8 E	Zircon Lake	3	21S 5 $\frac{1}{2}$ E
Whitier Lake	11	4N 1 W	Zowie Lake	2	19S 7 E
Widgeon Lake	3	12S 7 E			
Willards Pool	8	7S 1 E	Unnamed Lakes (1732)	5,693	

HOOD BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

76 Lakes and Reservoirs - Area 35,680 Acres

NAME	AREA	LOCATION	
Bear Lake	4	2N	9E
Black Lake	7	2N	8E
Bonneville Res.	21,500	2N	7E
Button Pond	1	3N	11E
Celillo, Lake	13,500	2N	14E
Chase Res.	4	2S	13E
Evans Res.	25	1S	12E
Foley Lakes Res. (2)	7	2N	13E
Green Pt. Lower Res.	13	2N	9E
Green Pt. Upper Res.	32	2N	9E
Hicks Lake	2	1N	8E
Iris Lake	6	3N	9E
Ketchum Res.	4	1N	11E
Koberg Pond	5	3N	11E
Lake Camp Baldwin	4	2S	11E
Lost Lake	250	1S	8E
McClure Lake	50	3N	12E
McDonald Res.	1	1N	14E
Mosier Pond	2	2N	11E
Mud Lake	1	1N	8E
North Lake	8	2N	8E
Ottertail Lake	2	1N	8E
Oval Lake	2	3S	10E
Rainy Lake	10	2N	8E
Salisbury Slough	50	2N	12E
Scout Lake	3	1N	8E
Sky Ranch Res.	1	2N	11E
Taylor Lake	6	2N	13E
Teacup Lake	1	3S	9E
Tooley Lake	30	2N	13E
Wahnum Lake	57	1N	8E
Warren Lake	4	2N	9E
Wilson Lake	5	2N	12E
Unnamed (42)	85		

Note: Bonneville Res. and Celillo Lake do not lie entirely within the Hood Basin.

DESCHUTES BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

810 Lakes and Reservoirs - Area 148,901 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Alice, Lake	8	9S 85E	Charlton Lake	130	21S 6E
Allen Creek Res.	79	14S 21E	Chinook, Lake Res.	3,600	11S 12E
Antelope Res.	72	18S 19E	Cigar Lake	2	9S 8E
Antelope Flat Res.	170	18S 19E	Clark Lake	1	20S 65E
Badger Lake	45	3S 10E	Clear Lake	555	4S 9E
Bailey Res.	4	17S 19E	Clover Creek Res.	80	20S 21E
Barbie Lakes (2)	2	20S 65E	Cody Res. #1	2	4S 11E
Bare Lake	2	18S 9E	Cody Res. #2	2	4S 11E
Barnes Butte Res.	35	14S 16E	Cody Pond #3 Res.	2	4S 12E
Bingham Lakes (4)	35	25S 6E	Cody Pond #4 Res.	2	4S 12E
Blaze Lake	1	20S 65E	Cody Pond #5 Res.	2	4S 12E
Blow Lake	51	19S 8E	Comma Lake	15	20S 7E
Blowdown Lake	3	20S 7E	Corral Lake	2	17S 8E
Blue Lake	28	8S 85E	Crane Prairie Res.	4,940	21S 8E
Blue Lake	56	13S 8E	Crawford Res.	2	14S 16E
Bobby Lake	80	22S 6E	Crescent Lake	3,640	24S 6E
Booth Lake	8	13S 8E	Crescent Lake	10	24S 65E
Boulder Lake	14	4S 10E	Cultus Lake	1,140	20S 7E
Boulder Lake	56	9S 85E	Dark Lake	25	9S 85E
Box Canyon Res.	2	11S 11E	Dark Lake	16	13S 8E
Brahma Lake	10	20S 65E	Davis Lake	3,005	22S 7E
Brennan Res.	7	17S 24E	Deer Lake	52	20S 7E
Brewer Res.	100	11S 15E	Demaris Lake	5	17S 8E
Buckner Res.	5	13S 14E	Dennis Lake	9	20S 65E
Buether Res.	13	3S 16E	Devils Lake	19	18S 8E
Cabot Lake	6	11S 8E	Diamond View Lake	11	24S 6E
Cache Lake	7	13S 8E	Dick #1 Res.	14	16S 20E
Camas Prairie	6	7S 85E	Doris Lake	72	19S 7E
Camelot Lake	2	18S 7E	Dry Creek Res. #1	13	16S 16E
Camp Lake	7	17S 8E	Dry Creek Res. #2	59	16S 16E
Camp Creek Res.	47	19S 19E	Dry Creek Res. #3	56	16S 16E
Campground Res.	2	23S 23E	Dry Creek Res. #4	13	16S 16E
Carl Lake	20	11S 8E	Dry Creek Res. #5	15	16S 16E
Carver Lake	19	17S 8E	Dugout Lake	2	14S 8E
Cathy Lake	2	20S 7E	East Lake	1,010	21S 13E
Catlin Lake	2	12S 8E	East Hanks Lake	5	20S 7E
Chambers Lakes (2)	11	17S 8E	Edwin R. Merrel #1 Res.	12	4S 13E

DESCHUTES BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Elk Lake	380	18S 8E	J. M. Wilson Res. #1	9	4S 17E
Eloise Lake	1	9S 8E	J. M. Wilson Res. #2	5	4S 17E
Fawn Res.	42	24S 65E	Jack Lake	4	12S 8E
Fehrenbacker Res. #2	53	20S 18E	Jay Lake	11	20S 7E
Fisher Res.	17	13S 15E	Jefferson Lake	5	11S 8E
Fly Lake	16	12S 11E	Jefferson Mill Pond Res.	10	10S 13E
Found Lake	5	21S 65E	Jessebel Lake	4	20S 65E
Four O'Clock Lake	3	14S 8E	Joe Bibby Res.	12	4S 16E
Frank Res.	7	17S 20E	Joe Fisher Res.	35	13S 15E
Freezeout Res.	36	20S 24E	John W. Buether Res.	5	3S 16E
Frog Lake	20	4S 9E	Johnny Lake	17	21S 7E
Garske Res.	5	20S 21E	Josephine Lake	2	20S 65E
George Lake	6	14S 8E	Junco Lake	1	18S 8E
George Gray #1 Res.	3	5S 13E	Keeney Creek Res.	14	17S 20E
Glenden Lake	1	20S 65E	Keith Cyrus Res.	8	15S 10E
Golden Lake	1	17S 8E	Kershaw Lake	3	20S 7E
Green Lake	2	4S 9E	King Res.	20	13S 20E
Green Lakes (4)	105	17S 8E	Kinnikinnig Lake	1	20S 7E
Grindstone Res.	40	18S 25E	Kluchman Creek Res.	13	18S 12E
Hand Lake	11	13S 8E	Lady Lake	2	20S 65E
Happy Valley Res.	14	7S 12E	Lava Lake	340	19S 8E
Harlequin Lake	3	20S 7E	Lava Camp Lake	2	15S 8E
Harvey Lake	28	9S 8E	Leech Lake	32	19S 7E
Haystack Res.	225	12S 13E	Lenish Lake	16	21S 7E
Heather Lake	4	20S 65E	Lillard Res.	77	19S 24E
Hendricks Res. #1	1	3S 13E	Lily Lake	16	21S 6E
Hendricks Res. #3	2	3S 13E	Lindick Lake	6	20S 65E
Hidden Lake	10	21E 65E	Link Lake	16	13S 8E
Hilda, Lake	9	9S 8E	Little Lake	2	13S 8E
Hirsch Res.	2	19S 16E	Little Cultus Lake	170	20S 7E
Horse - Heaven Res.	22	16S 19E	Little Lava Lake	110	19S 8E
Horseshoe Lake	16	14S 8E	Little Three Creek Lake	11	17S 9E
Hortense Lake	3	14S 8E	Little Willow Creek Res.	58	11S 15E
Hosmer Lake	250	18S 8E	Lodgepole Lake	3	20S 7E
Houston Res. #1	3	19S 17E	Logan Butte Res.	28	19S 20E
Huston Lake	47	15S 14E	Lois Lake	2	20S 7E
Irish Lake	32	20S 6E	Long Lake	29	9S 8E
Island Lake	30	9S 85E	Long Lake	16	13S 8E
Island Lake	10	13S 8E	Lost Lake	8	9S 85E

DESCHUTES BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Lower Rosary Lake	38	23S 65E	North Twin Lake	105	21S 8E
Lucky Lake	29	19S 8E	Ochoco Res.	1,000	15S 17E
Lyle Res.	8	10S 15E	Odell Lake	3,420	23S 65E
Maiden Lake	4	23S 6E	Olallie Lake	190	9S 8E
Mainline #1 Res.	21	17S 21E	Oldenberg Lake	23	25S 6E
Mainline #2 Res.	20	17S 21E	Palmer Res.	26	16S 25E
Mainline #3 Res.	25	17S 21E	Paulina Lake	1,400	21S 12E
Mangriff Lake	2	9S 8E	Pelton Regulating Res.	160	10S 12E
Marg Lake	7	14S 23E	Peterson Res.	2	17S 20E
Marie, Lake	11	9S 85E	Peterson Creek Res.	13	14S 21E
Marks Lake Res.	11	13S 19E	Phantom Lake	3	20S 7E
Martin Lake	5	13S 75E	Pine Creek Res.	29	17S 19E
Mary, Lake	8	9S 85E	Pine Hollow Res.	235	4S 12E
Maury Mountain Res.	34	18S 21E	Potters Ponds (2)	34	8S 11E
McKenzie Canyon Res.	30	14S 11E	Pretty Lake	3	24S 6E
Meadow Lake	18	14S 8E	Prineville Res.	3,010	17S 16E
Meek Lake	14	24S 55E	Pringle Flat Res.	83	19S 19E
Merle Lake	7	20S 7E	Rabbit Valley Res.	300	16S 22E
Merwin Res.	25	17S 22E	Raft Lake	8	20S 7E
Merwin Res. #2	14	16S 22E	Ream S. Res.	13	17S 20E
Middle Hanks Lake	5	20S 7E	Red Slide Lake	2	20S 65E
Middle Rosary Lake	8	23S 65E	Rickman S Camp Creek Res. #2	89	19S 19E
Miller Lake	6	17S 20E	Riffle Lake	4	20S 65E
Miller Res.	11	5S 11E	Rim Lake	5	17S 9E
Mills Res.	37	16S 24E	Rock Creek Res.	105	4S 11E
Mirror Pond	27	17S 12E	Rock Rim Lake	4	20S 65E
Monon Lake	98	9S 8E	Rockpile Lake	2	12E 8E
Moraine Lake	11	17S 8E	Round Lake	23	13S 8E
Morrow Res.	6	4S 12E	Round Mountain #1 Res.	1	20S 21E
Mrs. R. P. Miller Res.	30	17S 20E	Saddle Lake	6	24S 65E
Muskrat Lake	6	20S 7E	Sarah, Lake	13	9S 85E
Navaho Lake	4	20S 7E	Scout Lake	8	13S 8E
Nep-Te-Pa Lake	2	9S 8E	Sherwood Creek Res.	4	17S 19E
Newsom Creek #1 Res.	12	17S 19E	Shirley Lake	4	11S 8E
Nip and Tuck Lakes (2)	9	25S 6E	Shoun Res.	3	16S 19E
Nootnagel Res.	17	15S 9E	Shunway Lake	8	16S 14E
North Corral Lake	6	20S 7E	Simon Lake	2	20S 7E
North Matthieu Lake	6	15S 8E	Simtustus, Lake Res.	560	10S 13E
North Rosary Lake	7	23S 65E	Sister Res.	1	15S 10E

DESCHUTES BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Sisters Mirror Lake	7	18S 7E	Trout Lake	28	8S 85E
Smarts S Res. #1	1	4S 11E	Tum Lake	2	18S 9E
Snowshoe Lake	15	19S 7E	Tumalo Lake	13	18S 10E
South Corral Lake	4	20S 7E	Twelve Mile Res.	55	19S 23E
South Dagus #1 Res.	1	19S 22E	Twelve Mile Res.	22	19S 24E
South Twin Lake	105	21S 8E	Twelve Mile Res.	40	19S 25E
Sparks Lake (2)	320	18S 8E	Twin Lakes (2)	63	4S 9E
Spoon Lake	1	9S 8E	Tygh Valley Pond Res.	16	4S 13E
Square Lake	49	13S 8E	Upper Lake	17	9S 8E
Stag Lake	18	23S 65E	Upper Snowshoe Lake	28	19S 7E
Stormy Lake	4	20S 65E	Upper Tumalo Res.	165	16S 11E
Strider Lake	3	20S 7E	View Lake	8	9S 8E
Summit Lake	2	13S 75E	Von Borstel Pond #1 Res.	4	4S 17E
Summit Lake	690	24S 55E	Walton Lake	17	13S 20E
Summit Prairie Res.	490	14S 21E	Wasco Lake	18	12S 8E
Sundew Lake	3	20S 7E	West Hanks Lake	7	20S 7E
Swampy Lakes (4)	3	18S 10E	Wickup Res.	110,640	22S 8E
Table Lake	8	11S 8E	Willow Creek Res.	14	12S 15E
Tam Lake	1	17S 9E	Windy Lakes (12)	52	25S 55E
Taylor Lake	37	20S 6E	Winopee Lake	63	19S 7E
Teddy Lakes (2)	44	20S 7E	Wolf Mountain Res.	285	16S 25E
Three Creek Lake	73	17S 9E	Yancey Res.	50	15S 17E
Timber Lake	19	9S 8E	Yapoah Lake	7	15S 8E
Timmy Lake	1	20S 65E	Yoran Lake	30	23S 6E
Top Lake	3	9S 8E	Unnamed (503)	1,669	
Tranquil Lake	1	20S 7E			

JOHN DAY BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

95 Lakes and Reservoirs - Area 932 Acres

NAME	AREA	LOCATION			NAME	AREA	LOCATION		
Balance Lake	10	10S	33E	32	Muddy Station Res.	10	8S	19E	29
Baldy Lake	7	8S	36E	28	Nelson Res.	1	12S	21E	28
Bates Res.	2	11S	35E	21	Officer Res.	23	18S	28E	20
Big Lake	8	7S	19E	7	Olive Lake	140	9S	34E	15
Blann Meadows Res.	24	11S	23E	14	Pinchot Res.	5	13S	27E	35
Bull Prairie Res.	24	7S	26E	7	Prairie Springs Res.	2	13S	27E	3
Canyon Meadows Lake (Res.)	31	15S	33E	29	Rickman Res.	5	18S	28E	23
Clark Lake	7	8S	23E	9	Ringmeyer Res.	8	15S	26E	4
Crawfish Lake	17	7S	36E	23	Rock Creek Lake (Res.)	86	13S	24E	22
Edward Hines Pond No. 1	2	13S	30E	27	Roosevelt Res.	2	13S	27E	35
Edward Hines Pond No. 2	2	13S	30E	27	Rotten Lake	9	7S	19E	7
Fopiano Res.	42	11S	23E	27	Rowe Creek Res.	31	9S	21E	11
Fred Creek Lake	4	13S	24E	3	San Juan Pond No. 1 (Res.)	3	13S	31E	22
Frog Lake	2	14S	35E	33	San Juan Pond No. 2 (Res.)	2	13S	30E	27
Hoover Creek Res.	2	6S	21E	22	San Juan Pond No. 3 (Res.)	1	13S	30E	27
Hubbel Lake	1	8S	23E	3	Seneca No. 1 Res.	6	11S	28E	17
Irby Fishpond (Res.)	1	1S	22E	30	Slide Lake	11	15S	34E	8
John Collins Res.	23	12S	23E	28	Stevenson Lake	6	11S	19E	32
Jumpoff Joe Lake	2	9S	33E	2	Stewart Res.	9	13S	27E	35
Kinzua Res.	3	7S	22E	12	Strawberry Lake	33	14S	34E	31
Kottmeier Res.	4	4S	32E	19	Upper Res.	54	9S	34E	22
Krupke Res.	31	12S	24E	19	Upper Slide Lake	3	15S	34E	8
Leverenz Res.	3	5S	31E	13	Waller Res. No. 1	1	10S	26E	1
Little Slide Lake	3	15S	34E	8	Waller Res. No. 2	1	9S	26E	36
Little Strawberry Lake	4	15S	34E	6	Waller Res. No. 3	24	9S	26E	36
Lost Lake	4	9S	34E	8	Weissenfluh Res.	3	5S	31E	13
Maxwell Res.	1	12S	21E	27	Wineland Lake	11	7S	24E	5
Mays Res.	30	9S	18E	36	Yokom Res.	6	13S	29E	15
Mogone Lake	35	12S	32E	7	Unnamed (38)	107			

Note: Lake Umatilla not included

UMATILLA BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

101 Lakes and Reservoirs - Area 3,234 Acres

NAME	AREA	LOCATION		
Cold Springs Res.	1,550	4N	29E	3
Cutsforth Res.	5	1S	25E	15
Lower Sand Spring	6	4N	26E	3
Manns Pond	17	4N	28E	34
McKay Res.	1,286	2N	32E	34
Meacham Lake (Res.)	16	1S	35E	9
No. 1 Storage Pond (Res.),	42	1S	32E	5
Poplar Springs Res.	2	4N	35E	35
Sand Lake	15	3N	26E	14
Threemile Falls (Res.)	28	5N	28E	28
White Res.	12	6N	34E	18
Unnamed (90)	255			

Note: Lake Umatilla and Lake Wallula not included.

GRANDE RONDE BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

232 Lakes and Reservoirs - Area 3,912 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Aneroid Lake	48	4S 45E	Jubilee Lake Res.	98	4N 39E
Arnoldus Loop Res.	9	1S 39E	Kinney Lake	25	3S 46E
Bear Lake	5	3S 43E	La Grande Res.	32	5S 37E
Billy Jones Lake	5	3S 44E	Lackeys Lake	1	4S 42E
Blue Lake	17	4S 44E	Ladd Canyon Pond	2	5S 38E
Bonny Lakes (2)	6	4S 45E	Ladd Marsh (3)	8	3S 38E
Cameron Log Pond Res.	1	2S 38E	Langdon Lake Res.	42	4N 38E
Catched Two Lake	3	4S 43E	Langdon Lake Res.	42	4N 38E
Cheval Lake	6	4S 43E	Laverty Lakes (2)	6	3S 43E
Chimney Lake	19	3S 43E	Lee Lake	14	4S 44E
Conley Lake	120	2S 39E	Legore Lake	2	3S 44E
Crescent Lake	8	4S 44E	Lily Lake	1	4S 44E
Davis Dam Res.	3	4S 39E	Little Frazier Lake	5	5S 45E
Dead Horse Lake	8	1S 47E	Little Strom Lake	8	2S 43E
Deadman Lake	9	3S 44E	Long Lake	52	4S 43E
Diamond Lake	8	5S 43E	Maxwell Lake	16	4S 43E
Dollar Lake	4	4S 45E	Merritt Res.	3	1N 39E
Douglas Lake	28	4S 44E	Minam Lake	47	4S 44E
Echo Lake	11	3S 44E	Mirror Lake	20	4S 44E
Elmer, S Res. No. 1	15	2S 40E	Moccasin Lake	20	4S 44E
Elmer, S Res. No. 2	10	2S 40E	Morgan Lake	59	3S 37E
Elmer, S Res. No. 3	7	2S 40E	Papoose Lake	2	3S 46E
Erickson Lake	2	5S 36E	Pocket Lake	12	4S 44E
Fleet, S Loop Res.	28	2S 39E	Pop Lake	3	5S 44E
Frances Lake	46	3S 44E	Prospect Lake	12	5S 44E
Frances Lake	6	5S 46E	Rainbow Res. No. 1 & 2 (2)	2	6S 36E
Frazier Lake	11	5S 45E	Razz Lake	8	4S 44E
Glacier Lake	46	5S 44E	Roger Lake	5	4S 45E
Grande Ronde Lake	11	4S 36E	Ruckman, S.	10	1S 39E
Green Lake	17	3S 43E	Soldier Lake	2	5S 45E
Henderson Pond Res.	2	4S 42E	Spence Res.	10	3S 38E
Hobo Lake	10	3S 43E	Steamboat Lake	37	4S 43E
Horseshoe Lake	25	4S 44E	Swamp Lake	8	4S 43E
Hot Lake Res.	34	4S 39E	Thomason Meadow Res.	3	3N 47E
Ice Lake	60	4S 44E	Tombstone Lake	16	5S 43E
Jewett Lake	2	4S 45E	Twin Lakes (2)	17	6S 46E
John Henry Lake	14	3S 43E	Twin Lake	18	3S 37E

GRANDE RONDE BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Unit Lake	7	4S 45E	Wallowe Lake Res.	1,950	3S 45E
Upper Davis Dam Res.	5	4S 39E	Warm Lake	5	5S 46E
Upper Lake	3	4S 44E	Wood Lake	8	3S 43E
Vogel Pond	1	4S 39E	Unnamed (144)	599	
Waller Res. No. 4	2	1N 43E			

POWDER BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

180 Lakes and Reservoirs - Area 6,067 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Anthony Lake	20	7S 37E	Homesite Res. #1	6	7S 41E
Arrow Lake	2	5S 43E	Homesite Res. #2	10	7S 47E
Bacher Creek Res.	11	8S 43E	Huddleson Res.	10	5S 38E
Balm Creek Res.	112	7S 43E	Johnson Res.	6	7S 42E
Bear Lake	10	5S 44E	Killamacue Lake	25	8S 37E
Bearwallow Res.	18	7S 46E	Kolb Res.	1	9S 40E
Bennett Res.	20	11S 41E	Laird Res.	14	8S 46E
Benson Res.	15	14S 44E	Licklider Res.	4	9S 40E
Black Lake	6	7S 37E	Little Park Res.	42	6S 41E
Bridge Res.	3	8S 39E	Little Summit Lake	4	8S 37E
Cached Lake	3	5S 44E	Lodge Res.	1	10S 41E
Camp Creek Res.	85	13S 38E	Long Creek Res.	2	14S 37E
Clear Creek Res.	42	6S 45E	Looking Glass Lake	31	5S 43E
Clear Lake Res.	4	8S 38E	Lost Lake	10	8S 37E
Constance Res.	10	9S 42E	Lost Lake Res.	10	6S 46E
Crater Lake	17	6S 44E	Love Res.	105	9S 42E
Crow Res.	38	8S 47E	McMurren Res.	1	8S 42E
Culver Lake	8	5S 44E	Meadow Lake	6	8S 37E
Curtis Lake	4	6S 44E	Mehlhorn Res.	23	6S 46E
Downie Lake	2	8S 36E	Metsker Res.	4	12S 44E
Duck Lake	22	5S 47E	Middle Slough Res.	1	8S 39E
Dutch Flat Lake	5	7S 37E	Middle Slough Bridge Res.	4	8S 39E
Eagle Lake	30	5S 44E	Mitchell Res.	3	8S 40E
East Lakes Res. (2)	17	6S 45E	Moon Lake	2	5S 44E
Echo Lake	30	5S 43E	Moore Res.	5	11S 43E
Elliot Res.	3	8S 40E	Morfitt Res.	34	13S 37E
Elliott Res.	2	12S 39E	Motley Res.	2	7S 45E
Elms Res.	25	13S 37E	Mud Lake	1	6S 46E
Fish Lake	50	6S 46E	Mud Lake	4	7S 37E
Goodrich Lake	23	9S 38E	Mud Lake Res.	2	7S 45E
Goose Lake	1	8S 43E	Munn Res.	18	12S 36E
Haines Pond #1	2	7S 39E	Murray Res.	13	14S 38E
Haines Pond #2	3	7S 38E	Nault Res.	3	11S 40E
Hanby Res.	8	12S 37E	Number 1, Res.	3	10S 39E
Haskell Res.	6	10S 39E	Number 2, Res.	4	10S 39E
Heart Lake	8	5S 43E	Olive Lake	2	5S 43E
Hidden Lake	20	5S 44E	Palmer Res.	2	9S 42E
Highway 203 Pond	1	8S 40E	Palmer and Denham Res.	1	10S 40E
Hoefler Lakes (2)	3	7S 36E	Phillips Lake	2,700	10S 38E
Holden Res.	14	8S 39E	Pine Lakes (3)	20	6S 45E
Horse Lake	10	6S 47E			

POWDER BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Pine Creek Res.	30	8S 38E	Stices Gulch Mining Co. W. Fk. Res.	1	11S 40E
Powell Creek Res.	1	11S 43E	Stoddard Res.	8	7S 44E
Prowell Res.	7	11S 40E	Sugarloaf Res.	20	6S 46E
Red Mtn. Lake	6	8S 37E	Summit Lake	18	8S 37E
Red Mtn. Res.	2	6S 45E	Taylor Res.	1	10S 43E
Rock Creek Lake	25	8S 38E	Thief Valley Res.	744	6S 40E
Ruddle Res.	2	12S 38E	Toney Res.	5	7S 39E
Salt Grass Res.	6	8S 40E	Traverse Lake	19	5S 43E
Saw Mill Gulch Res.	14	8S 43E	True Blue Res. #1	1	11S 43E
Shaw Res.	55	z 5S 39E	True Blue Res. #2	1	11S 43E
Shaw North Res.	16	10S 39E	Twin Lakes (2)	11	9S 38E
Shaw South Res.	3	10S 39E	Unity Res.	923	12S 37E
Smith Lake	19	9S 40E	Van Patten Lake	24	7S 37E
Sparta Pond	2	8S 44E	Vogel Res.	5	10S 39E
Steele Res. #1	3	6S 46E	Welch Res.	3	9S 43E
Steele Res. #2	3	6S 46E	Whited Res.	40	13S 36E
Stevens Res.	1	9S 41E	Whited Middle Fk. Res.	8	12S 36E
Stices Gulch Mining Co. E. Fk. Res.	1	11S 40E	Widman Res.	7	9S 43E
Stices Gulch Mining Co. Main Res.	2	11S 40E	Willow Creek Lake	1	8S 38E
			Wirth Res.	3	7S 41E
			Wyott Res.	3	8S 44E
			Unnamed (53)	179	

Note: Brownlee Res., Hells Canyon Res. and Oxbow Res. not included.

OWYHEE BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

198 Lakes and Reservoirs - Area 18,518 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Anawalt Res.	2	29S 41E	Deadman Res.	2	35S 43E
Andersen Res.	26	33S 40E	Deary Res.	32	32S 45E
Antelope Res.	2	36S 45E	Deer Butte Res.	8	28S 42E
Arritola Res.	38	33S 46E	Dennison Res.	1	25S 40E
Bar Cross Basin Res.	1	25S 45E	Dixon Rocks Res.	1	30S 43E
Barlow Res.	1	29S 46E	Dog Lake Res.	1	30S 42E
Bas Res.	1	23S 45E	Dowell Res.	135	27S 38E
Batch Lake	42	29S 44E	Downy Canyon Res.	1	29S 45E
Beaver Charlie Res.	1	37S 48E	Dry Creek Res.	2	31S 42E
Bench Res.	3	23S 45E	Dry Creek Res.	2	31S 43E
Bench Res.	1	27S 43E	Dry Creek Res.	3	34S 44E
Big Dry Lake Res. No. 1	2	33S 45E	Dry Hole Res.	5	35S 43E
Big Dry Lake Res. No. 2	4	33S 45E	Dry Lake Res.	1	29S 43E
Big Ridge Res.	1	29S 46E	Duke Res.	1	36S 48E
Birch Creek Res.	4	23S 45E	Eiguren Res.	1	33S 44E
Black Butte Res.	3	32S 45E	Eiguren Res. No. 1	9	30S 41E
Blevens Res.	61	33S 42E	Eiguren Res. No. 2	6	30S 41E
Blowout Res.	3	27S 43E	Gallagher Res.	1	26S 40E
Board Corral Res.	1	24S 45E	Glover Res.	10	27S 43E
Bogus Rim Res.	2	29S 42E	Goodyear Res.	8	28S 45E
Brewster Res.	2	34S 46E	Greenley Res.	29	31S 44E
Bull Creek Res.	2	35S 42E	Groundhog Res.	2	28S 44E
Bull Creek Res.	2	37S 48E	Harper Road Res.	1	23S 40E
Butte Res.	10	24S 41E	Hawks Nest Res.	1	28S 45E
Canyon Res.	1	37S 47E	Holdout Res.	2	27S 44E
Carter Res.	2	28S 45E	Horse Brush Res.	1	37S 44E
Cherry Creek Res.	5	34S 46E	Horse Hill Res.	26	39S 45E
Chevally Res.	60	28S 46E	Indian Camp Res.	2	29S 42E
Clark Res.	35	28S 40E	Indian Canyon Res.	4	33S 45E
Clark Res. No. 2	92	28S 41E	Indian Fort Res.	1	32S 43E
Claude Res.	1	27S 43E	Iron Point Res.	1	28S 41E
Cold Wind Res.	1	38S 46E	Jaca Res.	45	33S 45E
Collumbaugh Res.	5	35S 44E	Joaquin Res.	1	33S 45E
Cook Stove Basin Res.	6	26S 41E	Johnny Creek Res.	1	31S 37E
Copeland Res.	36	25S 41E	Junction Res.	1	38S 44E
Corless Res.	8	25S 41E	Juniper Point Res.	4	33S 46E
Coyote Holes Res.	3	35S 44E	Keeney Creek Res. No. 1	1	23S 42E
Crater Lake	15	28S 43E	Kent Res.	18	26S 42E
Crowley Res.	42	26S 39E	Lambing Camp Res.	1	32S 44E

OWYHEE BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Lava Sinks Res.	2	29S 42E	Parker Res.	54	33S 46E
Little Crater Res.	1	29S 42E	Pascaul Res.	3	30S 42E
Little Grassy Res.	3	32S 43E	Peacock Creek Res.	1	35S 43E
Little Groundhog Res.	3	34S 46E	Peacock Pond Res.	3	34S 43E
Little Juniper Res.	2	30S 42E	Pinnacle Res.	1	25S 45E
Little Sandy Res.	1	29S 46E	Plateau Res.	2	32S 44E
Little Shellrock Res.	1	27S 44E	Pole Creek Res.	12	37S 46E
Little Washboard Res.	1	23S 42E	Prospect Res.	1	28S 42E
Littlefield Res.	6	24S 40E	Rattlesnake Res.	3	38S 44E
Lodge Res. No. 1	7	28S 43E	Red Line Res.	2	29S 41E
Lone Tree Res.	91	30S 46E	Riley Horn Res.	10	28S 42E
Long Canyon Res.	4	34S 46E	Rim Res.	2	31S 44E
Long Gulch Res.	1	25S 45E	Rimrock Res.	2	33S 44E
Lookout Lake	54	40S 47E	Rock Res.	2	34S 44E
Lookout Res.	2	39S 47E	Rock Creek Res.	4	32S 45E
Lower Batch Lake	20	29S 44E	Rufino Butte Res.	3	23S 41E
Lower Cow Creek Lake (Res.)	600	28S 44E	Ryegrass Res.	608	30S 38E
Lynde Res.	5	31S 42E	Saddle Butte Res.	2	25S 45E
Maher Res.	186	36S 48E	Scott Res.	1	32S 42E
McCain Res. No. 1	2	27S 44E	Scott Res.	18	33S 44E
McCain Res. No. 2	2	27S 44E	Seldom Res.	5	33S 45E
McCain Creek Res.	1	27S 44E	Shellrock Res.	1	27S 44E
Middle Fork Rim Res.	1	35S 46E	Short Canyon Res.	1	33S 45E
Morcom Res.	1	28S 42E	Skull Spring Res.	1	24S 39E
Mud Creek Res.	2	28S 42E	Slipper Res.	2	33S 45E
Mud Creek Res. No. 1	2	28S 42E	Somerfille Res.	67	32S 44E
Mud Flat Res.	230	33S 44E	South Dry Creek Res.	1	24S 41E
Murdock Res.	1	31S 44E	Spring Creek Res.	1	37S 47E
Napoleon Res.	19	39S 47E	Squaw Flat Res. No. 1	3	35S 45E
No Catchum Res.	1	30S 42E	Star Valley Res.	1	40S 46E
Noon Res.	3	31S 44E	Stearns Res.	2	28S 46E
North Fork Res.	5	34S 46E	Stimmel Res.	29	34S 46E
North Oregon Hill Res.	3	37S 48E	T. C. Res.	1	29S 45E
Odel Res.	15	26S 42E	Tableland Res.	1	28S 45E
Oke Res.	3	22S 46E	Three Forks Rim Res.	1	34S 45E
Old Burn Res.	1	38S 42E	Tin Can Res.	2	23S 40E
Oliver Res.	12	29S 44E	Toppin Creek Res.	3	38S 48E
Oregon Lake Creek Res.	3	37S 48E	Trail Res.	2	34S 46E
Owyhee, Lake (Res.)	13,900	22S 45E	Tuesday Res.	6	28S 42E
Owyhee Reseeding Res.	2	32S 42E	Twin Res. No. 1	35	36S 48E

OWYHEE BASIN

	AREA	LOCATION	NAME	AREA	LOCATION
Twin Res. No. 2	42	36S 48E	White Rock Res.	4	29S 41E
Twin Buttes Res.	2	40S 46E	White Wash Res.	2	29S 41E
Twomile Res.	10	40S 43E	Whitehorse Res.	2	34S 45E
Upper Cow Creek Lake (Res.)	1,032	28S 44E	Whitehorse Creek Res.	2	34S 45E
Upper Duncan Res.	3	33S 44E	Wild Rose Res.	1	27S 43E
Upper McNulty Res.	2	5S 41E	Wildcat Creek Res.	4	24S 40E
Upper Saddle Butte Res.	2	25S 45E	Windy Res.	2	23S 40E
Wednesday Res.	1	28S 42E	Unnamed (24)	408	
West Black Butte Res.	2	32S 44E			

GOOSE & SUMMER BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

600 Lakes and Reservoirs - Area 104,957 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Abert Lake	6,670	34S 21E	East Res.	2	23S 17E
Adams Mill Pond	9	33S 18E	East Walker Res.	3	23S 17E
Airstrip Res.	1	28S 14E	Egli Rim Res.	2	28S 16E
Ana Res.	68	30S 17E	Egli Rim Res. #2	1	29S 16E
Andy Hill Res.	14	39S 18E	Expand Res. #30	2	41S 24E
Barn Waterhole	2	29S 14E	Farleighs Folly Res.	3	39S 19E
Barry Res.	2	40S 25E	Fenimore Res.	12	39S 19E
Basalt Res.	1	29S 13E	Fish Lake	7	37S 23E
Benjamin Lake	770	24S 20E	Fish Lake	6	38S 18E
Blue Lake Res.	4	33S 17E	Fish Lake	70	39S 25E
Bluejoint Lake	6,500	33S 26E	Fisher Lake	280	38S 25E
Brattain Res.	1	32S 20E	Flagstaff Lake	3,630	34S 25E
Brattain Res. #10	1	31S 21E	Fork Res.	2	29S 26E
Brattain Res. #12	1	31S 22E	Goose Lake	30,210	41S 20E
Bull Field Res.	1	33S 17E	Grassy Lake	1	30S 15E
Cabin Waterhole	1	30S 28E	Greaser Res.	550	39S 25E
Calderwood Res.	140	38S 25E	Greasey Res.	10	40S 26E
Campbell Lake	740	34S 25E	Guinee Res. #1	1	28S 17E
Campbell Lake	20	35S 17E	Guinee Res. #2	1	28S 17E
Canterbury Res.	61	34S 25E	Guinee Res. #3	2	28S 17E
Card Res.	1	39S 26E	Hagadorn Waterhole	2	29S 14E
Chirty Res.	1	24S 23E	Hahilly Res. #4	1	40S 24E
Christmas Valley Lake	10	27S 17E	Halfway Lake	20	28S 12E
Colvin Lake	32	35S 22E	Hammersly Canyon Creek Res.	1	39S 20E
Cork Res. #7	1	40S 24E	Harrison Res.	1	24S 14E
Cottonwood Lake	27	29S 15E	Hart Lake	7,750	36S 24E
Cottonwood Res.	455	38S 19E	Heckman Res. #2	2	35S 20E
Cottonwood Meadow Res.	40	38S 18E	Hickey Res.	53	39S 22E
Coyote Flat Res.	2	26S 20E	Hidden Res.	1	25S 21E
Crested Res.	2	27S 14E	Hill Res.	4	39S 18E
Crump Lake	8,120	38S 24E	Hilltop Res.	5	35S 26E
Crump Res.	30	39S 23E	Hinge Res.	1	40S 25E
Dallas Lake Res.	94	38S 16E	Horsehead Lake	125	39S 25E
Den Res.	2	26S 13E	Iron Point Res.	1	35S 21E
Division Res.	2	23S 17E	Jacks Lakes (2)	350	30S 16E
Dog Lake	205	40S 17E	Juniper Bedground Res. #24	2	40S 24E
Draws Res.	4,520	39S 17E	Juniper Lake Res.	60	25S 22E
Dry Creek Waterhole	1	28S 15E	Kittredge Res.	1	23S 16E
Dutchy Lake	70	30S 16E	La Brie Lake	1	31S 15E

GOOSE & SUMMER BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
La Sater Res. #1	2	27S 13E	Obsidian Res. #7	2	41S 24E
La Sater Res. #2	2	27S 13E	Open Flat Res.	4	27S 14E
Lake Res.	1	28S 13E	Oregon Lake Res.	17	24S 19E
Lakebed Res.	1	27S 13E	Painters Res.	20	24S 18E
Lane Res. #1	1	40S 22E	Paradise Lake	1	37S 18E
Lane Res. #2	1	40S 22E	Parks Res.	2	27S 15E
Lane Res. #3	1	40S 22E	Pelican Lake	190	39S 24E
Lane Res. #4	1	40S 22E	Pete Lake	2	36S 20E
Lane Res. #5	1	40S 23E	Porter Res.	1	24S 16E
Lane Res. #7	1	40S 22E	Friday Lake	8	35S 21E
Lard Res.	3	40S 26E	Friday Res.	225	37S 24E
Leyva Lakes (3)	12	30S 16E	Rand Res.	1	30S 26E
Little Benhamin Lake	14	23S 19E	Red Line Res.	2	28S 18E
LJH Res.	1	40S 26E	Renner Lake	540	41S 18E
Loggerhead Coral Res.	1	31S 28E	Renner Res.	14	40S 19E
Long Lake	155	38S 26E	Rest Lake	105	30S 16E
Lowe Res.	3	26S 9E	Rest Lake	75	30S 17E
Lower Chewaucan Marsh	125	35S 20E	Rick Res.	1	39S 26E
Mattis Res.	1	26S 13E	Rim Rock Res.	52	36S 22E
Moss Res.	31	35S 22E	Robinson Lake	71	38S 25E
Mud Lake	310	39S 26E	Rock Res.	2	30S 26E
Mud Res.	1	39S 26E	Rock Camp Bedground Res.	1	30S 27E
Muddy Creek Res.	165	39S 19E	Rocky Waterhole	2	29S 13E
Mugwump Lake	200	35S 25E	Rocky Waterhole	2	29S 16E
Musser Res.	1	25S 21E	Rogers Res.	1	39S 23E
No. 1 Res.	1	35S 19E	Ross Foster Res.	5	32S 16E
O'Keefe Res.	2	40S 23E	Roysland Res.	36	34S 25E
O'Keefe Res.	1	40S 23E	Sandwich #9 Res.	2	41S 24E
O'Keefe Res.	1	40S 23E	Schumacher Res.	2	26S 13E
O'Keefe Res. #2	1	40S 22E	Schumacher Res. #1	3	27S 14E
O'Keefe Res. #3	1	40S 22E	Schumacher Res. #5	2	27S 13E
O'Keefe Res. #4	1	40S 23E	Sentinal Res.	1	39S 26E
O'Keefe Res. #5	1	40S 23E	Seres Res.	1	27S 13E
O'Keefe Res. #8	1	40S 23E	Sevan Res.	57	27S 17E
O'Leary Res. #3	2	29S 18E	Sheep Lick Res.	1	29S 17E
O'Leary Res. #4	2	28S 18E	Six Pack #10 Res.	2	41S 24E
O'Leary Res. #5	1	29S 17E	Slice Res.	1	40S 26E
O'Leary Res. #1, John	1	35S 20E	Slide Lakes (2)	7	33S 16E
O'Leary Res. #2, John	1	35S 20E	Sophies Res.	2	30S 26E
Oatman Res.	2	27S 13E	South Res.	1	24S 16E

GOOSE & SUMMER BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
South Arm Res.	94	40S 16E	Trail Res.	2	39S 26E
South Slope Waterhole	1	31S 23E	Turpin Lake	215	34S 25E
South Spring Res.	4	29S 13E	Twelve Mile Res.	1	41S 23E
Squaw Lake	20	29S 16E	Twin Lakes (2)	13	33S 18E
St. Patrick Mountain Res. #1	2	29S 18E	Two Sheep Waterhole	2	29S 15E
St. Patrick Mountain Res. #2	2	28S 18E	Upper Campbell Lake	920	34S 25E
State Game Res.	2	38S 22E	Valley Res.	1	40S 25E
State Game Res. #2	2	37S 23E	Wakefield Res. #4	1	39S 23E
State Game Res. #6	2	28S 18E	Wakefield Res. #5	1	38S 23E
State Game Res. #6	1	29S 19E	Wakefield Res. #6	1	39S 23E
State Game Res. #7	1	29S 18E	Wakefield Res. #7	1	40S 23E
Stingley Res.	1	25S 16E	Ward Lake	20	28S 13E
Stone Corral Lake	970	34S 26E	Washed Waterhole	3	29S 14E
Stover Res.	1	40S 19E	West Res.	1	23S 16E
Stratton Waterhole	1	27S 13E	Wet Weather Waterhole	1	29S 15E
Sucker Creek Res. #22	4	40S 24E	White Rock Res.	79	37S 20E
Summer Lake	20,260	32S 17E	Willow Creek Res.	7	40S 18E
Supply Res.	15	24S 20E	Wilson Lake	2	36S 21E
Swamp Lake	880	35S 25E	Windy Waterhole	1	29S 15E
Swamp Res.	1	39S 26E	Withers Lake	5	33S 17E
T. C. Res.	2	41S 24E	Woodward #2 Res.	2	33S 17E
Tallgrass Res.	3	27S 13E	ZX #2 Res.	2	30S 21E
Ted Res.	3	28S 13E	ZX #3 Res.	2	31S 21E
Tee Res.	1	40S 26E	ZX #5 Res.	1	29S 20E
Thomas Creek - Goose Lake Res.	240	40S 20E	ZX #7 Res.	1	30S 20E
Thompson Valley Res.	1,760	30S 14E	ZX #8 Res.	2	30S 19E
Thunder Egg Lake	1	40S 21E	Unnamed (384)	5,080	

KLAMATH BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

533 Lakes and Reservoirs - Area 114,341 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Agency Lake	8,845	35S 7 $\frac{1}{2}$ E	Devil Lake	85	40S 10E
Albertson Reservoir	100	41S 16E	Dog Hollow Reservoir	90	37S 14 $\frac{1}{2}$ E
Alkali Lake	722	39S 11 $\frac{1}{2}$ E	Donna Lake	2	34S 5E
Antelope Reservoir	205	40S 14 $\frac{1}{2}$ E	Eb Lake	2	37S 6E
Aphis, Lake	4	36S 5E	Echo Lake	4	37S 6E
Arkansas Reservoir	91	39S 16E	Elizabeth, Lake	5	34S 5E
Aspen Lake	3,684	38S 7E	Ewauna, Lake	386	38S 9E
Avalanche Lake	2	37S 6E	Fivemile Reservoir	2	40S 13E
Badger Lake	11	36S 5E	Florence, Lake	1	34S 5E
Barton Reservoir	2	38S 11 $\frac{1}{2}$ E	Fly Lake	1	34S 5E
Beaverdam Lake	10	38S 16E	Fourmile Lake	652	36S 5E
Beetle Rest Reservoir	2	34S 7E	Francis, Lake	5	35S 6E
Bernice, Lake	2	36S 5E	Freye Lake	4	36S 5E
Bert Lake	2	35S 5E	Furber Marsh (12)	61	40S 8E
Big Dobe Reservoir	160	39S 13E	Gerber Reservoir	3,800	39S 13E
Big Swamp Reservoir	41	38S 16E	Gerber Lake Reservoir	30	40S 14 $\frac{1}{2}$ E
Blue Lake	24	35S 16E	Gladys, Lake	4	35S 6E
Boggs Lake	83	40S 14E	Griffith Reservoir	1	41S 6E
Botens Reservoir	3	39S 8E	Gulch Reservoir	13	41S 12E
Bryant Mountain Reservoir	18	40S 13E	Harold Reservoir	1	37S 12E
Bumphead Reservoir	125	40S 14 $\frac{1}{2}$ E	Harpold Reservoir	112	40S 13E
Camp 3 Reservoir	1	40S 6E	Harriette, Lake	35	37S 6E
Campbell Reservoir	167	36S 15E	Harris Reservoir	2	34S 9E
Caper Reservoir	5	41S 12E	Heart Lake	20	38S 16S
Captain Jack Lake	31	40S 12E	Heavenly Twin Lakes (2)	29	34S 5E
Center Lake	4	35S 5E	Hemlock Lake	5	37S 6E
Chapman Reservoir	5	37S 11 $\frac{1}{2}$ E	Henry, Lake	2	32S 14E
Clover Lake	2	37S 6E	Hill Reservoir #1	1	40S 10E
Como, Lake	7	37S 6E	Hill Reservoir #2	1	40S 10E
Copeland Reservoir	75	40S 14E	Hill-Johnson Reservoir	2	40S 10E
Cox Reservoir	1	38S 11E	Holbrook Reservoir	55	38S 16E
Coyote Lake	3	37S 6E	Howard Prairie Lake	1,960	38S 4E
Crater Lake	13,186	30S 6E	Hyatt Reservoir	821	39S 3E
Cronin Reservoir	9	40S 15E	Hyde Reservoir	62	36S 14E
Davis Lake	5	39S 16E	Isherwood Lake	17	34S 5E
Dead Horse Lake	32	35S 16E	Janice, Lake	1	36S 5E
Deep Lake	4	34S 5E	John C. Boyle Reservoir	565	40S 7E
Deer Lake	4	34S 5E	Johnny Lake	5	38S 11 $\frac{1}{2}$ E
Dehlinger Reservoir	2	40S 10E	Johnson Reservoir #1	1	40S 10E

KLAMATH BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Keno Reservoir	40	38S 12E	Notch Corral Waterhole	2	41S 14 $\frac{1}{2}$ E
Kilgore Reservoir	161	40S 14 $\frac{1}{2}$ E	Nuss Lake	125	39S 10E
Kingry Marsh	1	33S 15E	Oatman Lake	87	39S 7E
Klamath Marsh (6)	8,121	31S 9E	Obenchain Reservoir	98	36S 14E
Klippie Lake	18	33S 14E	Orris Pond	1	36S 5E
L Lake	4	34S 5E	Pankey Lake	42	39S 13E
Lake of the Woods	1,213	37S 5E	Parsnip Lakes (4)	9	40S 3E
Lapham Reservoir	26	39S 16E	Petes Puddle	1	38S 16E
Little Reservoir #1	1	37S 15E	Pitch Lake	10	39S 15E
Little Reservoir #5	4	37S 15E	Pitt Lake	19	38S 16E
Little Hyatt Reservoir	7	39S 3E	Pope Reservoir	26	40S 13E
Little Squaw Flat Reservoir	77	39S 15E	Puck Lakes (2)	28	34S 5E
Liza, Lake	2	34S 5E	Punky Lake	22	34S 5E
Lofton Lake	14	38S 16E	Quillwort Pond	1	31S 6E
Lofton Reservoir	41	38S 16E	Ritter Reservoir	34	38S 11E
Logger Waterhole	1	40S 14 $\frac{1}{2}$ E	Ritter Reservoir	7	38S 11E
Long Lake	52	35S 5E	Round Lake	734	39S 7E
Long Lake	112	40S 13E	Round Valley Reservoir	315	39S 14E
Lost Lake	2	35S 5E	Ruden, Lake	2	34S 5E
Lost River Reservoir	230	39S 10E	S.E. Waterhole	5	41S 14 $\frac{1}{2}$ E
Louse Lake	22	32S 14E	Sevenmile Marsh	7	33S 6E
Lower Pitt Lake	7	38S 16E	Short Lake	81	38S 11E
Malice Lake	2	36S 5E	Simms Reservoir	9	40S 12E
Margurette Lake	13	34S 5E	Sleepy Reservoir	2	39S 5E
Martin Lake	1	34S 5E	Snokey Lake	40	36S 11E
McCartie Reservoir	1	38S 12E	Snow Lakes (2)	3	34S 5E
McFall Reservoir	15	40S 12E	Sonya, Lake	8	34S 5E
McKendree Reservoir	2	38S 14E	South Pass Lake	11	37S 6E
Meadow Lake	41	38S 10E	Spreader Reservoir	1	40S 14 $\frac{1}{2}$ E
Midway Reservoir	7	40S 14 $\frac{1}{2}$ E	Spring Lake	424	40S 9E
Miller Lake	104	27S 6 $\frac{1}{2}$ E	Squaw Lake	28	36S 5E
Mirror Pond	2	36S 5E	Strawberry Reservoir	214	40S 16E
Mosquito Lake	3	34S 5E	Swan Lake	782	37S 10E
Muckney Lake	121	36S 11E	Sycan Marsh (42)	995	32S 13E
Mystic Lake	2	37S 6E	Threemile Flat Reservoir	162	41S 14E
Natasha, Lake	6	34S 5E	Trapper Lake	17	34S 5E
No - se - um, Lake	3	34S 5E	Tsuga Lake	1	34S 5E
Noble Reservoir	241	39S 13E	Tull Reservoir	76	39S 15E
Noble Reservoir #1	8	39S 13E	Twenty-one Reservoir	4	40S 14 $\frac{1}{2}$ E
Nobel Canyon Reservoir	4	39S 13E	Upper Klamath Lake (Includes Hanks, Shoalwater, and Squaw Point Marshes)	58,922	36S 7 $\frac{1}{2}$ E
Norris Pond	4	36S 5E			

KLAMATH BASIN

NAME	AREA	LOCATION		NAME	AREA	LOCATION	
Upper Midway Reservoir	60	40S	14 $\frac{1}{2}$ E	Williams Reservoir #2	2	39S	12E
Waban, Lake	3	37S	6E	Willow Valley Reservoir	725	41S	14 $\frac{1}{2}$ E
Walker Lake	2	39S	16E	Wind Lake	2	34S	5E
Ward Reservoir	1	40S	5E	Wizard Lake	5	34S	5E
Weston Lake	2	37S	6E	Wolf Lake	2	36S	5E
Whiteline Reservoir	323	37S	8E	Woodpecker Lake	4	36S	5E
Whitmore Reservoir	10	36S	14E	Worden Reservoir	1	39S	11E
Wild Billy Lake	119	35S	12E	Zeb Lake	2	37S	6E
Williams Reservoir #1	1	39S	12E	Unnamed (294)	2,482		

ROGUE BASIN

SURFACE AREA OF LAKES AND RESERVOIRS
in acres

290 Lakes and Reservoirs - Area 3,845 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Agate Res.	216	36S 1 W	Fish Lake	443	37S 4 E
Alford Res.	1	38S 1 W	Fish Lake	6	40S 5 W
Alta, Lake	17	34S 5 E	Frog Lake	3	33S 5 E
Apple Rogue Res.	2	36S 6 W	Frog Lake	4	36S 13W
Barker Res.	4	35S 6 W	Game Lake	5	36S 12W
Bassett Res.	4	32S 2 E	Gardener Res.	7	36S 2 E
Beal Lake	5	35S 5 E	Grass Lake	28	33S 5 E
Bieberstedt Res.	1	35S 1 E	Grassy Pond	2	35S 4 E
Bigelow Lakes (2)	4	40S 6 W	Gribble Res.	2	35S 2 W
Bigham Res.	5	35S 2 W	Guidottie Res.	3	37S 2 E
Billings Res.	2	39S 1 E	Hammel Res. #2	11	35S 1 W
Blue Lake	10	35S 5 E	Harper Res.	7	36S 1 E
Blue Canyon Lake	2	35S 4 E	Harrison Res.	18	37S 1 E.
Bolan Lake	9	41S 6 W	Hartley Res.	3	39S 5 W
Bradshaw Res.	44	37S 1 E	Hemlock Lake	7	34S 5 E
Bradshaw Res. #2	7	37S 2 E	Hinkle Lake	4	41S 5 W
Brewer Res.	2	37S 3 W	Hixson Res. #1	1	37S 3 W
Bush Res.	5	35S 2 W	Hixson Res. #2	1	37S 3 W
C. A. Magerle Res.	1	35S 3 W	Hobart Lake	6	40S 3 E
Carey Lake	7	35S 5 E	Holmes Res.	1	38S 2 W
Cedar Pond Res.	1	38S 5 W	Holst Lake	4	34S 5 E
Charley Horse Res.	6	38S 3 E	Holzhauser Res.	4	38S 5 W
Cliff Lake	8	34S 5 E	Hoover Res.	54	36S 1 W
Cook Res.	1	38S 5 W	Horseshoe Lake	23	35S 5 E
Corp Res.	2	39S 2 E	House Res.	1	37S 6 W
Coulter Res. #1	2	35S 2 W	Humphrey Res. (2)	2	35S 1 W
Coulter Res. #2	3	35S 2 W	Hunter and Best Res. #1	2	38S 3 W
Dailey Res.	60	33S 3 E	Hunter and Best Res. #2	2	38S 3 W
Dee Lake	20	35S 5 E	Indian Lake Res.	55	34S 1 E
Del Rio Res.	1	36S 3 W	Indian Lake Res.	10	40S 8 W
Dividend Bar Res.	2	41S 3 W	Island Lake	46	35S 5 E
East Tannen Lake	5	41S 6 W	Ivern, Lake	5	33S 5 E
Emigrant Lake	712	39S 2 E	Jacksonville Res.	3	37S 3 W
Engler - Huson Mill Pond	12	35S 6 W	James Res.	1	35S 2 W
Esterly Lakes (3)	18	40S 8 W	James Res. #2	5	35S 2 W
F. P. #1 Res.	5	37S 1 E	James Res. #3	9	35S 2 W

ROGUE BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Kennison Res.	1	34S 6 W	Nelson Res. #1	7	37S 1 W
Kettle Lake	2	41S 2 W	No. 2 Res.	2	36S 3 W
Kirkham Res.	1	35S 2 W	North Lake	8	33S 5 E
Koellner Res. #1	3	35S 2 W	Nygren Res. #1	4	37S 1 E
Koellner Res. #2	2	35S 2 W	Nygren Res. #2	1	37S 1 E
Korner Res.	3	35S 2 W	Osborne Creek Res.	35	36S 1 E
Lake Creek Res.	52	37S 2 E	Owen Res.	4	36S 1 E
Lake of the Woods	2	34S 12W	Pear Lake	18	35S 5 E
Lane and Shepard Res. #1	1	34S 1 W	Peyton Res.	3	33S 2 E
Lane and Shepard Res. #2	2	34S 1 W	Pierce Res.	23	37S 1 E
Larsen Creek Res.	1	37S 1 W	Price Res.	2	35S 3 W
Lester James Res.	8	35S 2 W	Quackenbush Res.	7	35S 2 W
Lincoln Savage Res.	1	37S 5 W	Red Lake	31	35S 5 E
Lippert Res. #1	6	38S 5 W	Reeder Gulch Res.	20	39S 1 E
Lippert Res. #2	6	38S 5 W	Rogue West Lake Res.	8	36S 6 W
Log Pond #3	16	37S 2 W	Rogueland Farm Pond	2	36S 6 W
Lost Lake	9	37S 2 E	Rosenberg Res.	5	39S 8 W
Lost Lake Res.	21	37S 2 E	Rough and Ready Lakes	3	39S 10W
Mack Res.	1	35S 2 W	Rough and Ready Mill Pond	9	40S 8 W
Manley Res.	3	38S 4 E	Round Lake	4	35S 4 E
Martin Res.	2	36S 2 W	Sams Valley Res.	50	35S 2 W
Mayes Res.	2	36S 1 W	Secesh Res.	4	33S 5 W
McCann Res.	2	35S 5 W	Secluded Lake Res.	1	35S 2 W
McCormick Res.	5	36S 2 W	Selmac Lake	157	38S 7 W
McKee Lake	5	35S 4 E	Simpson Res.	8	35S 2 W
Meadow Lake	2	35S 5 E	Small Res.	1	37S 5 W
Medco Pond #3	40	37S 1 W	Smith Res.	1	36S 4 W
Merlin Res.	2	35S 6 W	South Lake	9	34S 5 E
Merry K. Res.	2	35S 6 W	Sowell Res.	5	39S 8 W
Middle Lake	25	34S 5 E	Spruce Lake	4	30S 5 E
Military Slough	12	36S 2 W	Squaw Lakes (2)	83	41S 3 W
Miller Lake	5	40S 5 W	Squaw Lake Res.	70	41S 3 W
Miller Res.	3	39S 5 W	Stanley Res.	21	36S 1 E
Monogram Lakes (4)	3	40S 1 W	Star Lake Res.	13	35S 2 E
Moore Log Pond	2	41S 9 W	Stone Slumps (3)	2	38S 5 W
Moore Res.	2	35S 2 W	Straus Res.	3	35S 2 W
Mud Lake	5	35S 5 E	Strong Res.	4	33S 6 W
Mud Lake	23	38S 2 E	Summit Lake	4	35S 4 E
Murry Creek Log Pond	1	37S 5 W	Summit Lake	2	41S 3 W
Musselman Res.	2	40S 8 W	Swagerty Res.	5	36S 1 W

ROGUE BASIN

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Tall Timber Res.	3	38S 7 W	West, Lake	5	29S 5 E
Tannen Lake	10	41S 6 W	Whetstone Pond	11	36S 1 W
Tobiason Res.	1	37S 5 W	Whetstone Borrow Res.	10	36S 1 W
Todd Res.	1	35S 1 W	Whetstone Creek Res.	9	36S 1 W
Trader Res.	2	39S 5 W	Whittier Res.	2	39S 5 W
Trammell Res.	2	35S 1 E	Willow Lake	322	35S 3 E
Twin Ponds (2)	2	35S 4 E	Wilson Res.	5	37S 2 W
Wade Res.	24	36S 2 E	Woodcock Res.	1	37S 5 W
Waterman Res.	2	39S 7 W	Woodrat Knob Res.	30	36S 1 E
Webb Res.	4	38S 5 W	Woolfolk Res.	34	35S 1 E
Wee Bonnie Loch Glen Res.	1	36S 6 W	Yankee Res.	55	36S 1 E
Wertz - Hurst Res. #1	2	38S 2 E	2,000,000 Res.	2	37S 1 W
Wertz - Hurst Res. #2	3	38S 2 E	Unnamed (113)	379	

UMPQUA BASIN

SURFACE AREA OF LAKES & RESERVOIRS
in acres

176 Lakes and Reservoirs - Area 5,599 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Alligator Lake	1	28S 2E	Harbor Log Pond	14	30S 6W
Alsea Log Pond	5	29S 6W	Hawkins Lake	2	26S 7W
Beaver Lake	2	30S 1W	Hayward Log Pond	13	32S 6W
Beaver Pond	6	25S 2E	Heart Lake	1	30S 2W
Beaver Swamp	2	28S 3E	Hemlock Lake	40	27S 1E
Brady Pond	1	32S 5W	Herbert Log Pond	8	30S 5W
Buckeye Lake	11	29S 2E	Hiles Reservoir	2	30S 6W
Buell Reservoir	3	28S 6W	Hillman Reservoir	2	30S 5W
Burchard Lake	10	22S 9W	Holm Reservoir	2	25S 5W
Bullup Lake	4	25S 3E	Horse Lake	6	28S 6E
Calamut Lake	15	25S 5 $\frac{1}{2}$ E	Hubbard Pond	2	27S 7W
Castor Lake	5	28S 2E	Hutson Reservoir	3	27S 6W
Cavitt Lake	4	28S 2W	Iverson Log Pond	5	28S 8W
Charline, Lake	4	25S 5 $\frac{1}{2}$ E	Iverson Log Ponds (2)	3	27S 6W
Clearwater No. 1 Forebay	17	27S 4E	Keystone Log Pond	5	30S 5W
Clearwater No. 2 Forebay	9	26S 3E	Lake in the Woods	4	27S 1E
Cleveland Log Pond	4	28S 7W	Lehew Reservoir	2	30S 4W
Cliff Lake	7	29S 3E	Lemolo Forebay	23	26S 3E
Cooper Creek Reservoir	200	25S 5W	Lemolo Lake	415	26S 5E
Corder Log Pond	5	30S 6W	Lewis Reservoir #1	1	31S 3W
Cultus Lake	10	28S 2W	Lewis Reservoir #2	1	31S 3W
Del Rio Ponds (2)	20	26S 6W	Linda Lake	1	25S 5 $\frac{1}{2}$ E
Denley Reservoir	16	25S 5W	Little River Log Pond	50	26S 3W
Diamond Lake	3,012	27S 6E	Loon Lake	145	23S 10W
Diane, Lake	3	21S 4W	Lost Lake	4	25S 3E
Dillard Log Pond	41	28S 6W	Lucile, Lake	10	27S 6 $\frac{1}{2}$ E
Dixonville Log Pond	130	27S 4W	Maidu Lake	17	27S 6 $\frac{1}{2}$ E
Doerner Reservoir	3	26S 7W	Mar Linn Log Pond	57	26S 6W
Dollar Log Ponds (2)	25	32S 6W	Marie, Lake	14	22S 13W
Drain Log Pond	18	22S 5W	Marsh Reservoir	2	27S 7W
Drew Lake	1	32S 2W	Marsh Creek Pond	2	20S 8W
Elkton Pond	10	22S 8W	Martin Log Pond	21	25S 5W
Engle & Worth Log Pond	2	29S 5W	McComas Reservoir	4	27S 7W
Fish Lake	95	29S 3E	Mosquito Lake	4	28S 3E
Fish Creek Forebay	9	26S 3E	Mt. Baldy Log Pond (2)	15	22S 5W
Fish Creek Reservoir	5	27S 3E	Nordic Log Pond	13	27S 5W
Flag Reservoir	1	22S 6W	Pacific Log Pond	11	28S 6W
Fuller Lake	3	25S 3E	Paris Reservoir	7	26S 2W
Gardiner Reservoir	6	21S 12W	Paris Reservoir	5	27S 4W
Grier Reservoir	5	26S 8W	Park Lake	2	27S 6W

UMFQUA BASIN

NAME	AREA	LOCATION		NAME	AREA	LOCATION	
Patrick Log Pond	2	30S	6W	Toketee Lake	102	26S	3E
Platt "I" Reservoir	50	25S	5W	Triangle Lake	4	29S	3E
Poole Lake	2	29S	3E	Twin Lakes (2)	22	27S	2E
Poth Reservoir	1	25S	5W	Umpqua Log Pond	30	28S	6W
Round Prairie Log Pond	5	29S	6W	Updegrave Reservoir	14	26S	4W
Sampson Lake	10	27S	3W	Vaughn Log Pond	1	32S	5W
Scott Pond	1	30S	5W	Wadsworth Reservoir	5	29S	4W
Skookum Lake	10	28S	4E	Wasson Lake	3	21S	9W
Smith Reservoir	1	28S	7W	Whistlers Bend Reservoir	34	26S	4W
Smith River Log Pond	2	22S	5W	Winchester Log Pond	10	26S	6W
Smith River Log Pond	15	22S	6W	Winchester Reservoir	84	26S	6W
Stomar Reservoir, Lake	27	30S	6W	Wolf Lake	4	28S	3E
Stump Lake	20	27S	4E	Wylie Reservoir	1	28S	7W
Sutherlin Log Pond	130	25S	6W	Yellow Lake	3	20S	7W
Sutherlin Log Ponds (4)	82	25S	5W	Yoder Reservoir	3	28S	7W
Sun Studs Log Pond	15	27S	6W	Yoncalla Log Ponds (2)	44	23S	5W
Teal Lake	2	28S	6E	Youngs Bay Log Pond	6	27S	5W
Toad Lake	3	29S	3E	Unnamed (53)	183		

SOUTH COAST BASIN

SURFACE AREA OF LAKES AND RESERVOIRS
in acres

149 Lakes and Reservoirs - Area 4,828 Acres

NAME	AREA	LOCATION	NAME	AREA	LOCATION
Azalea Lake	2	33S 12W	Lyons Res.	22	24S 13W
Babyfoot Lake	3	38S 9W	Marie, Lake	14	22S 13W
Bandon Res.	1	28S 14W	Marsh Log Pond	5	32S 15W
Beale Lake	52	24S 13W	Millicoma River Pond	8	25S 11W
Bluebill Lake	13	24S 13W	Mingus Park Lake	3	25S 13W
Bone Mountain Pond	2	30S 10W	Mud Lake	1	33S 12W
Bradley Lake	22	29S 15W	Myrtle Point Log Pond	20	28S 12W
Brookings Log Pond	18	41S 13W	New Lake	108	30S 15W
Butterfield Lake	16	24S 13W	North Tennile Lake	858	23S 12W
Cawrse's Mill Pond	2	30S 10W	Oregon Coast Log Pond	3	40S 14W
Chetco Lake	1	39S 11W	Panther Lake	1	37 ¹ / ₂ S 12W
Clear Lake	280	22S 12W	Pettys Lake	5	40S 12W
Clear Lake	25	23S 13W	Pistol River Log Pond	1	38S 14W
Coquille Log Ponds (5)	61	27S 13W	Poney Creek Res.	36	25S 13W
Coquille Res.	7	28S 12W	Port Orford Log Pond	39	32S 15W
Coquille Res. No. 1	2	28S 12W	Powers Pond	22	31S 12W
Croft Lake	63	30S 15W	Rink Creek Res. No. 1	2	28S 12W
Denn Res.	5	29S 9W	Round Lake	7	27S 14W
Dry Lake	1	33S 12W	Sandpoint Lake	54	24S 13W
Edna, Lake	34	22S 12W	Saunders Lake	49	23S 13W
Eel Lake	349	23S 12W	Schlatter Log Ponds (2)	4	28S 11W
Elk Lake	2	23S 11W	Schuttpelz Lake	6	23S 13W
Euchre Creek Pond	22	35S 14W	Second Creek Res.	2	25S 13W
Evan's Res.	7	37S 14W	Sherwood Log Pond	4	30S 12W
Evan's Res.	3	37S 15W	Shortridge Res.	1	30S 15W
Fahys Lake	29	28S 14W	Smith Res.	15	26S 13W
Ferry Creek Res.	8	40S 13W	Snag Lake	17	24S 13W
Floras Lake	279	31S 15W	South Coast Mill Pond	4	40S 14W
Fourth Creek Res.	5	25S 14W	South First Creek Res.	2	25S 13W
Garrison Lake	117	32S 15W	Spirit Lake	47	24S 13W
George Res.	1	28S 12W	Spring Creek Res.	2	28S 14W
Grass Lake	15	39S 12W	Squaw Lake	3	33S 11W
Hall Lake	12	23S 13W	Tarheel Res.	16	25S 14W
Horsfall Lake	273	24S 13W	Teal Lake	5	22S 12W
Johnson Log Pond	82	28S 13W	Tennile Lake	1,187	23S 12W
Jordan Lake	4	25S 13W	Third Creek Res.	3	25S 13W
Laurel Lake	53	29S 15W	Upper Empire Lake	17	25S 13W
Little Vulcan Lake	2	39S 11W	Vaughan's Mill Pond	1	38S 14W
Lost Lake	4	26S 8W	Vulcan Lake	4	39S 11W
Lower Empire Lake	27	25S 13W	Unnamed (65)	326	

MID-COAST BASIN

SURFACE AREA OF LAKES AND RESERVOIRS
in acres

128 Lakes and Reservoirs - Area 8,126 Acres

NAME	AREA	LOCATION
Aikerley Lake	8	18S 12W
Alder Lake	2	17S 12W
Ault Mill Log Pond	4	15S 7W
Buck Lake	5	17S 12W
Buttermilk Lake	3	11S 8W
Carter Lake	37	20S 12W
Carter Lake	3	19S 12W
Clear Lake	148	18S 12W
Cleawox Lake	94	19S 12W
Collard Lake	42	18S 12W
Coon Lake	2	6S 11W
Derrick Lake	2	10S 9W
Devils Lake	629	7S 11W
Elbow Lake	16	20S 12W
Erhart Lake	1	20S 12W
Esmond Lake	18	19S 8W
Hamer Lake	5	10S 8W
Hidden Lake	6	13S 11W
Hult Log Storage Res.	55	15S 7W
Klickitat Lake	3	12S 8W
Lily Lake	20	17S 12W
Little Lake	5	16S 19W
Little Lake	1	16S 7W
Loon Lake	2	20S 12W
Lost Lake	9	20S 12W
Marr, Lake	3	17S 12W
Mercer Lake	340	17S 12W
Mill Creek Res.	3	11S 10W
Munsel Lake	86	18S 12W
Newport Res. (2)	55	10S 11W
Olalla Res. (2)	136	11S 10W
Olalla Res.	64	10S 10W
Reed Res.	1	8S 11W
Siltcoos Lake	2979	19S 12W
Sutton Lake	108	17S 12W
Tahkenitch Lake	1523	20S 12W
Threemile Lake	71	21S 12W
Triangle Lake	276	16S 7W
Valsetz Lake	366	8S 8W
Valsetz Res.	1	8S 8W
Woahink Lake	726	8S 8W
Unnamed (85)	268	19S 12W

APPENDIX F

Table 6

APPORTIONMENT OF THE COMMON SCHOOL FUND

1871-72 - 1969-70

School Year of Apport.	Amt. Apportioned		School Year of Apport.	Amt. Apportioned	
	Total	per census child		Total	per census child
1871-72	\$ 39,452.71	\$1.16	1909-10	\$308,300.65	1.85
72-73	32,419.75	.887	10-11	329,744.64	1.92
73-74	33,367.28	.862	11-12	347,124.48	1.92
74-75	24,855.24	.611	12-13	352,481.16	1.86
75-76	29,857.68	.69	13-14	360,711.30	1.83
76-77	38,551.17	.794	14-15	373,490.95	1.85
77-78	34,236.81	.657	15-16	360,066.00	1.75
78-79	48,135.60	.90	16-17	369,483.96	1.77
1879-80	36,137.12	.64	17-18	382,012.38	1.86
80-81	45,903.55	.77	18-19	275,301.72	1.83
81-82	51,778.44	.84	1919-20	408,745.35	1.95
82-83	45,651.20	.70	20-21	432,267.88	2.02
83-84	48,353.20	.70	21-22	384,985.60	1.7394
84-85	55,400.25	.75	22-23	422,088.60	1.85
85-86	59,046.75	.75	23-24	400,299.51	1.73
86-87	74,571.30	.90	24-25	391,363.04	1.64
87-88	87,217.00	1.00	25-26	373,273.50	1.50
88-89	108,271.00	1.25	26-27	385,636.50	1.53
1889-90	130,337.20	1.40	27-28	400,739.04	1.56
90-91	144,372.15	1.45	28-29	406,160.57	1.57
91-92	153,151.90	1.45	1929-30	408,479.46	1.57
92-93	162,066.50	1.45	30-31	411,607.38	1.58
93-94	84,451.50	.70	31-32	385,023.48	1.48
94-95	107,693.82	.87	32-33	315,733.20	1.20
95-96	133,281.75	1.05	33-34	289,332.60	1.00
96-97	136,104.15	1.05	34-35	313,933.29	1.21
97-98	135,154.24	1.04	35-36	322,780.00	1.25
98-99	156,903.60	1.20	36-37	324,563.75	1.25
1899-1900	199,905.88	1.51	37-38	351,349.68	1.32
1900-01	207,457.34	1.56	38-39	324,613.20	1.20
01-02	165,697.96	1.22	1939-40	307,743.53	1.136
02-03	214,639.35	1.55	40-41	304,361.30	1.15
03-04	230,011.20	1.60	41-42	303,004.02	1.14
04-05	239,439.20	1.61	42-43	325,659.48	1.22
05-06	260,176.50	1.70	43-44	321,419.56	1.21
06-07	265,992.20	1.70	44-45	294,148.05	1.05
07-08	247,289.13	1.57	45-46	268,664.40	.90
08-09	256,067.20	1.60	46-47	274,399.58	.91
			47-48	258,318.72	.81
			48-49	235,659.21	.695

(Apportionment of the Common School Fund continued)

School Year of Apport.	Amt. Apportioned	
	Total	per census child
1949-50	\$225,606.17	\$.645
50-51	254,261.55	.69
51-52	270,068.61	.73
52-53	282,750.17	.73
53-54	289,310.46	.715
54-55	305,484.56	.73
55-56	363,516.65	.8275
56-57	386,511.15	.85
57-58	415,406.05	.874
58-59	398,180.52	.82
1959-60	420,898.80	.84
60-61	473,694.22	.90
61-62	558,211.09	1.04
62-63	595,852.83	1.09
63-64	4,036,627.46	7.13
64-65	1,466,773.92	2.59
65-66	1,975,205.15	3.30
66-67	2,317,216.17	3.87
67-68	3,189,164.23	5.12
68-69	1,700,331.07	2.72
<i>Estimate</i> 1969-70	<u>971,105.72</u>	<u>1.54</u>

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