AN INVENTORY OF FILLED LANDS IN NEHALEM RIVER ESTUARY

July 1972

ADVISORY COMMITTEE TO THE STATE LAND BOARD

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Prepared by the Advisory Committee's Engineering Staff under the direction of

Stanley F. Hamilton, P.E.
Staff Engineer
Oregon Division of State Lands

This report was funded by the Advisory Committee to the State Land Board and a grant from the U.S. Department of Labor's Emergency Employment Act of 1971
Nehalem Bay is Oregon's 5th largest estuary in total area, and 8th largest in tideland acreage. The headwaters of the river are located in the northwest section of Oregon. From there, they flow in a easterly direction and then turn north and eventually west before finally discharging into the Pacific Ocean south of Brighton, Oregon.

The Nehalem River has four principal tributaries: the North Fork of the Nehalem River, Salmonberry River, Rock Creek and Wolf Creek, and drains an area of more than 845 miles.2/

This estuary has a total area of 3766 acres1/ of which 1180 acres2/ are tidelands. During the 120 years that Oregon has been a state, 1087 acres3/ of tidelands have been deeded to private owners.

The Nehalem River is navigable for some 8.5 miles upstream of Wheeler, Oregon (about 1.0 miles above Mohler, Oregon).4/ The North Fork of the Nehalem River is navigable for a distance of 5.0 miles above its mouth which is located 1.0 miles above Nehalem, Oregon.4/

The effect of the tidewater in the Nehalem River extends to Eck Creek approximately one-fourth mile above Roy Creek Park and on the North Fork of the Nehalem River to Henderson Creek in Township 3N, Range 9W - Section 6.4/

Among the resources directly supporting the economy of the basin, lumbering and logging are of the first importance. The bottom land bordering the river and its tributaries are devoted to agriculture, dairy farming and cattle raising.

The sports fisherman will find an ample supply of softshell clams, crabs, salmon, steelhead trout, flounder, perch and many more, although at present there are no commercial fishing ventures. Many facilities for sportsmen use and enjoyment of the seashore, mountains, forest, lakes and streams have been provided by private enterprise and by the Federal and State agencies.

1/ Crisis in Oregon estuaries
3/ Total acreage deeded to private owners by State Land Board
4/ U.S. Army Corps of Engineers
5/ Oregon State Water Resources Board
The purpose of this study was to determine the location, extent, ownership, history, owners of record, and use of landfills in the Nehalem River. Filled lands or new lands and related terms are defined by Oregon Statute Law which in many cases paraphrases English Common Law. A few of the more important definitions pertaining to filled lands are shown below:

274.905 Definitions for ORS 274.905 to 274.940

As used in ORS 274.905 to 274.940, unless the context requires otherwise:

(1) "New lands" means those lands, as distinguished from bridges, wharves, quays and similar structures, protruding above the line of ordinary high water, whether or not connected with adjoining or opposite upland or riparian lands on the same side of the thread of the stream, which have been created upon submersible or submerged lands by artificial fill or deposit.

(2) "Public body" means the State of Oregon or any port organized under the laws of this state or any dock commission of any city of this state.

ORS 274.005 (7) "Submerged lands," except as provided in ORS 274.705, means lands lying below the line of ordinary low water of all navigable waters within the boundaries of this state as heretofore or hereafter established, whether such waters are tidal or nontidal.

(8) "Submersible lands," except as provided in ORS 274.705, means lands lying between the line of ordinary high water and the line of ordinary low water of all navigable waters and all islands, shore lands or other such lands held by or granted to this state by virtue of her sovereignty, wherever applicable, within the boundaries of this state as heretofore or hereafter established, whether such waters or lands are tidal or nontidal.

Selected terms pertaining to tidelands and tidal boundaries are defined in Appendix A.

A brief summary of the procedure used to obtain information about the landfill in the Nehalem River is shown below:

1. Obtain copies of all U.S. Army Corps of Engineers permits for landfills or related projects in the study area.
2. Obtain aerial photographs covering entire study area from U.S. Army Corps of Engineers, U.S. Forest Service, Oregon Highway Dept.

3. Obtain reasonable complete set of U.S. Coast and Geodetic Survey charts of the study area.

4. Prepare a comparison overlay showing earliest and latest shorelines. Tentatively locate landfills on overlay using permit data, aerial photographs, and large changes in the shoreline as shown by the overlay. The list of charts used is shown at the end of this report.


6. Visit local County Courthouse to obtain ownership and tax data.

7. Compile data and complete report.

All of the information collected during this study has been summarized in a table showing ownership data, a plate showing location and relative size of each landfill, and an appendix showing detailed sketches of each landfill.

Table 1 shows ownership and other informative data. Each landfill has been designated by a two-part number -- the first part being an arbitrary number assigned during this study, and the second part being the Tillamook County tax lot number. In addition to ownership and location, this table lists the area of the fill and indicates whether a Corps of Engineers' permit was issued.

The relative size and location of each fill discussed in Table 1 are shown on Plate 1 which appears at the back of this report. In addition, detailed drawings of each landfill parcel and a brief summary of pertinent data concerning the fills appears in Appendix B.
SUMMARY

The location of the mean low water line discussed in this report was established from interpretation of aerial photographs (1971 series) and visual observation of a series of tide cycles. In some cases these fills abut the Railroad fill (which was constructed on tide-lands but is not covered in this report) which restricts the tidal limits on a large portion of the Nehalem Bay. Along the fill, the mean high tide line and mean low tide line generally coincide because of the steep side slopes.

In the Nehalem estuary, there is a total of 27.38 acres of landfill located on submerged and/or submersible lands. Of this total, 20.11 acres lie on submerged land and 7.24 acres lie on submersible land.

It is interesting to note that at least a portion of all the landfills in the Nehalem estuary lie on state-owned submerged land with the exception of the landfill located on Parcel 6-5000. Furthermore, only one U.S. Army Corps of Engineers' landfill permit has been issued for the Nehalem estuary area. This permit authorized construction of landfills on Parcels 3-4100, 4300, 4400, 4500. The total tideland area included in this landfill was 10.9 acres.

Most of the landfills in the Nehalem estuary are relatively small in area and residential or recreation oriented, with very little emphasis on industry or commercial deepwater navigation.

We wish to take this opportunity to thank all the people and agencies which provided portions of the necessary information enabling the completion of this report. In particular, we wish to extend our gratitude to the following:

U.S. Army Corps of Engineers, Portland District
Oregon Historical Society, Portland, Oregon
Oregon State Water Resources Board
Tillamook County Assessor
Tillamook County Surveyor
The Port of Nehalem
Tillamook County's Helpful Citizens
Maps and Charts used in this study

U.S.C. and G.S. charts for the years

1887  1933
1917  1963
1971

Tillamook County Assessor's maps

U.S. Army Corps of Engineers' Aerial photos

1939  1963
1962  1965

Oregon State Highway Dept. Aerial photos

1970
1971
APPENDIX A

DEFINITIONS OF TERMS PERTAINING TO
TIDELANDS AND TIDAL BOUNDARIES
Definitions Used by
U. S. Coast and Geodetic Survey
from
Shore and Sea Boundaries
by
Aaron L. Shalowitz

Mean Higher High Tide. - Same as Mean Higher High Water.

Mean Higher-High-Tide line. - Same as Mean Higher-High-Water line.

Mean Higher High Water. - The average height of the higher high waters over a 19-year period. See Higher High Water, Nineteen-year Tidal Cycle.

Mean Higher High Water Line. - The intersection of the tidal plane of mean higher high water with the shore. See Mean Higher High Water.

Mean High Tide. - Same as Mean High Water.

Mean High Water. - The average height of the high waters over a 19-year period. All high waters are included in the average where the tide is either semidiurnal or mixed. Where the type of tide is predominantly diurnal, only the higher high-water heights are included in the average on those days when the tide is semidiurnal. See mixed tides, semidiurnal tides, diurnal tides, Nineteen-year Tidal Cycle.

Mean High-Water Line. - The intersection of the tidal plane of mean high water with the shore.

Mean High-Water Mark. - Same as Mean High-Water Line.

Mean Lower Low Water. - The average height of the lower low waters over a 19-year period. The tidal plane used on the Pacific Coast as a datum for soundings on the hydrographic surveys and nautical charts of the Coast and Geodetic Survey.
Mean Low Water. - The average height of the low waters over a 19-year period. All low water heights are included in the average where the type of tide is either semi-diurnal or mixed. Where the type of tide is predominantly diurnal, only the lower low water heights are included in the average on those days when the tide becomes semidiurnal.

Mean Low-Water Line. - The intersection of the tidal plane of mean low water with the shore.

Mean Sea Level. - The average height of the surface of the sea for all stages of the tide over a 19-year period, usually determined from hourly height readings. A determination of mean sea level that has been adopted as a standard for heights is called a sea level datum.

Mean Tide Level. - Same as Half-tide Level. A tidal datum midway between Mean High Water and Mean Low Water.

Ordinary High Water. - A nontechnical term considered by the Coast and Geodetic Survey to be the same as the tidal plane of mean high water.

Ordinary Low Water. - A nontechnical term considered by the Coast and Geodetic Survey to be the same as the tidal plane of mean low water.

Diurnal Tide. - Tides having a period or cycle of approximately one tidal day. Such tides exhibit only one high and one low water during a tidal day; the predominant type of tide in the Gulf of Mexico.

Semidiurnal Tides. - Tides having a period of approximately one-half a tidal day; the type of tide that is predominant throughout the world, with two high waters and two low waters each tidal day. Tides along the Atlantic Coast are of this type.

Mixed Tides. - Tides in which the presence of a diurnal wave is conspicuous by a large inequality in either the high or low-water heights, or in both, with two high waters and two low waters occurring each tidal day. Tides along the California (and Oregon) Coast are of the mixed type.

Tidelands. - The land that is covered and uncovered by the daily rise and fall of the tide. More specifically, it is the zone between the mean high-water line and the mean low-water line along a coast, and is commonly known as the "shore" or "beach." Referred to in legal decisions as between ordinary high-water mark and ordinary low-water mark. Tidelands presuppose a high-water line as the upper boundary.
General Shore Profile
Relationship to Tidal Range

Typical Tidal Range

Sea Approach

Beach or Shore

Coast Terrain Exits

Cliffs

Dunes

Upland

Submerged Lands

Tideland

Highest Recorded Tide

M.H.H.W.

M.H.W.

Half Tide

MLW

MLLW

Lowest Recorded Tide

Which is owned or was sold by the State of Oregon
Nehalem River

(T2, 3N - R10W)

Total area:
Tideland:
Tideland sold:
Navigable length:

3766 acres ¹/²
1180 acres ²/³
1087 acres ³/³

Nehalem River 8.5 miles - Upstream from Wheeler, Oregon, to 1.0 mile above Mohler, Oregon
Nehalem River (North Fork) 5.0 miles - Tributary of Nehalem River
Mouth 1.0 mile from Nehalem, Ore. ⁴/

Nehalem River Eck Creek approximately 1/4 mile above Roy Creek Park
Nehalem River (North Fork) Henderson Creek in T3N - R9W - Sec. 6. ⁴/

Port District:
Port of Nehalem

Tide Data

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¹/ Crisis in Oregon estuaries
²/ Crisis in Oregon estuaries (U.S.C. and G.S. charts)
³/ Total acreage deeded to private owners by State Land Board
⁴/ U.S. Army Corps of Engineers
APPENDIX B
SKETCH PLATES OF LANDFILL PARCELS
T2N R10W SEC. 17

TOTAL FILLED AREA: 0.63 AC.

PARCEL #1 TAX LOT # 100
OWNER: PUBLISHERS PAPER CO.
LAUGFILL CONSTRUCTION DATE: 1958 TO 1970
USE: MARINA

T2N R10W SEC. 17

TOTAL FILLED AREA: 0.72 AC.

PARCEL #2 TAX LOT # 100
OWNERS: PUBLISHERS PAPER CO.
LAUGFILL CONSTRUCTION DATE: 1958 TO 1970
USE: MARINA
T2N RIOW SEC. 3

EBB ← FLOOD

NEHALEM BAY

MLW

MHW

S.P.R.R.

US 101

TOTAL FILLED AREA: 0.26 AC.

PARCEL #5 TAX LOT #600
OWNERS: WILLIAM J. KAMP
LANDFILL CONSTRUCTION DATES: 1900 TO 1920
URL: PRIVATE WORKSHOP

PARCEL #6 COMPOSITE
SEE DETAIL SKETCHES FOR PERMISSIVE DATA REGARDING EACH PARCEL
FARM # 8 TAX LOT # 100, 300, 1700, 1800, 2400
OWNERS: ELEANOR WIMER (100)
LEO STOLDT (300)
ROY SUASITUM (1700 & 1800)
CHARLES ANDREWS (2400)
LAUFTILL CONSTRUCTION DATES: 1928 TO 1970 SEE TABLE FOR INDIVIDUAL DATES
USE: SEE TABLE 1
TAX LOT 100 FILLED AREA: 0.02 ACRES
" 300 " 0.02 "
" 1700 " 0.02 "
" 1800 " 0.01 "
" 2400 " 0.05 "
TOTAL FILLED AREA: 0.12 ACRES
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TOTALS: 20.11 | 7.27 | 27.38
STATE OF OREGON
ADVISORY COMMITTEE TO THE
STATE LAND BOARD
LANDFILL INVENTORY

NEHALEM RIVER
T2 & 3S ROW
PACIFIC OCEAN TO MOHLER
COMPARISON:
1887 C & GS CHARTS
1972 C & GS CHARTS

1887 MEAN HIGH WATER
1972 MEAN HIGH WATER
SHADOWED AREA DENOTES FILLED LAND
LANDFILL AREA = 27.36 ACRES