AN INVENTORY OF FILLED LANDS

IN

NESTUCCA RIVER ESTUARY

August 1972

ADVISORY COMMITTEE TO THE STATE LAND BOARD

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

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Nestucca River Basin, located in Tillamook, Yamhill, and Polk counties, Oregon, about 75 miles south of the Columbia River mouth, drains an area on the western slope of the Coast Range. The basin is bounded by the Pacific Ocean on the west, the Tillamook and Trask River divides on the north, the Coast Range divides on the east, and the Neskowin Creek and Salmon River divides on the south. The drainage area of the basin is approximately 317 square miles. The major streams of the basin are the Nestucca River and the Little Nestucca River which flow into the Nestucca estuary and then discharge directly into the Pacific Ocean immediately south of Cape Kiwanda.

The Nestucca estuary has a total area of 1000 acres of which 578 acres are legal tidelands. Since statehood, the State Land Board has deeded some 299 acres of tidal lands to private owners.

The navigable length of the Nestucca River is 6.0 miles and the Little Nestucca River 1.6 miles. These distances are recorded from the mouth of each river respectively.

The effect of the tidewater on the Nestucca River extends to the Cloverdale Bridge, and on the Little Nestucca River to the confluence of Fall Creek, 0.8 miles above Meda Loop Bridge.

Nestucca estuary is subject to severe flooding conditions which are principally due to congestion at the outlet caused by shifting sand dunes.

The Nestucca Rivers are a sportsman's paradise during the spring and fall when the salmon, steelhead and cutthroat trout are abundant. This area accounts for 24% of the sport catch of salmon and steelhead for the entire north coast basin.

The purpose of this study was to determine the location, extent, ownership, history, owner of record, and use of landfills in the Nestucca Bay. Filled lands or new lands and related terms are defined by Oregon Statute Law which in many cases paraphrases English Common Law. Several 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 the 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 landfills in Nestucca River is shown below.

1) Obtain copies of all U.S. Army Corps of Engineers (U.S.C.E.) permits for landfills or related projects in study area. Compile and tabulate data.

2) Obtain aerial photographs covering entire study area from U.S. Army Corps of Engineers, U.S. Forest Service, Oregon State Highway Dept., and other agencies.

3) Obtain reasonably complete set of U.S. Coast and Geodetic Survey (U.S.C. & G.S.) charts of 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 shoreline as shown by the overlay. The list of maps and charts used is shown at the end of this report.
5) Visit estuary to verify location of landfills. Document size, location, and use of fills.

6) Visit County Courthouse to obtain ownership and assessment data if available.

7) Compile 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 landfill 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 and a brief summary of pertinent data concerning the fill appears in Appendix B.

1/ Oregon State Water Resources Board
2/ Division of State Lands
3/ Division of State Lands (area between M.H.W. & M.L.W.)
4/ Total acreage deeded to private owners by State Land Board
5/ U.S. Army Corps of Engineers' Data
SUMMARY

There are only 0.83 acres of landfill located on submerged and submersible lands of the Nestucca River. About 0.5 acres of this 0.83 acres are located on state-owned submerged lands (Parcel Number 1-700). Tillamook County was the owner at the time that the fill was constructed. However, the state has since acquired the land. The major portion of the landfills were constructed for the purpose of erosion control on residential properties.

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 groups:

U.S. Army Corps of Engineers, Portland District
Oregon State Water Resources Board
Oregon Division of State Lands
Tillamook County Assessor
Maps and Charts used in this Study

U.S.C. and G.S. Chart for the year 1971
U.S. Army Corps of Engineers' aerial photos
   (1948)
Oregon State Highway aerial photos
   (1971)
Lane County Assessor's maps
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 semi-diurnal.

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

Highest Recorded Tide

Lowest Recorded Tide

Submerged Lands

Sea Approach

Beach or Shore

Coast
Terrain
Exits

Upland

Tideland

Which is owned or was sold by the State of Oregon
Nestucca Bay  (T4, 5S - R 11 W)

Total area:  1000 acres  
Tidelands:   578 acres  
Tidelands sold:  280 acres  
Navigable length: Nestucca R. (Big) 6.0 miles - 
                From 1.0 mile south of Pacific City to Cloverdale, 
                Oregon 
                Nestucca R. (Little) 1.6 miles - mouth 2.0 miles 
                SE of Pacific City, Oregon 

Tidewater: Nestucca R. (Big) Cloverdale Bridge 
           Nestucca R. (Little) Confluence of 
           Fall Creek, 0.8 miles above Meda 
           Loop Bridge 

Port District: Port of Tillamook Bay

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<th>Tide Data</th>
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<td>M.L.L.W.</td>
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1/ Division of State Lands
2/ Division of State Lands (Area between M.H.W. and M.L.W.)
3/ Total acreage deeded to private owners by State Land 
   Board (includes 125 acres overflow land)
4/ U.S. Army Corps of Engineers Data
APPENDIX B
SKETCH PLATES OF LANDFILL PARCELS
<table>
<thead>
<tr>
<th>PARCEL</th>
<th>OWNERSHIP</th>
<th>CONSTRUCTED</th>
<th>ORIGINAL</th>
<th>USE</th>
<th>PERMIT</th>
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TOTAL 0.15 0.68 0.83
STATE of OREGON
ADVISORY COMMITTEE TO THE
STATE LAND BOARD
LANDFILL INVENTORY
of the
NESTUCCAA RIVER
T4t 5S RIO W

Map base from the OREGON
STATE HIGHWAY DEPARTMENT
SHADED AREA DENOTES FILLED LAND