

AN INVENTORY OF FILLED LANDS

IN

TILLAMOOK BAY ESTUARY

August 1972

ADVISORY COMMITTEE TO THE STATE LAND BOARD

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direction of

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the State Land Board and a grant from the U.S.
Department of Labor's Emergency Employment Act of 1971

Tillamook Bay, Oregon's second largest estuary, covers an area of 8289 acres.^{1/} There are 4163 acres of tidelands^{2/} and 4126 acres of submerged land. At the present time, the State Land Board has deeded 1840 acres of these tidelands to private owners.^{3/}

The Bay, which is located in the northwest portion of Oregon, is six miles long and three miles wide. It discharges directly into the Pacific Ocean two miles west of Garibaldi, Oregon.

The Tillamook sub-basin is drained by five rivers which begin in the coast range and have a combined area of 574 square miles.^{4/} The navigable length of these five rivers is as follows: Kilchis River 2.0 miles, Miami River 0.5 miles, Tillamook River 16.0 miles, Trask River 2.0 miles and Wilson River 3.0 miles.^{5/} The daily tides affect the Kilchis River 0.3 miles above U.S. 101, the Miami River 0.4 miles above U.S. 101, the Tillamook River 0.1 miles above U.S. 101, the Trask River to the new bridge on U.S. 101, and the Wilson River to the Southern Pacific Railroad bridge.^{5/}

More than eighty percent of Oregon-produced oysters come from Tillamook Bay. Sport and commercial clam digging and crabbing are also important activities in the bay. Sport fishing for salmon and commercial crab, salmon, shrimp and groundfish fisheries located offshore contribute substantially to the area's economy.

The purpose of this study was to determine the location, extent, ownership history, owner of record and use of filled lands in the Tillamook Bay Estuary. 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 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 Umpqua 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.

Information collected during this study which pertains to landfill ownership, has been summarized in Table I. Detailed sketches of each landfill are shown in Appendix B, and a plate showing the location and relative size of each landfill is located at the end of this text. (The shaded areas on the sketches and plat denote landfills.) Included in Appendix B, you will find an additional plat showing the shoreline changes for the years 1867 and 1971 for comparison purposes.

Table I shows ownership and location 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 I are shown on Plate I at the back of this report. In addition, detailed drawings of each landfill parcel and a brief summary of pertinent data concerning the fill appears in Appendix B.

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

SUMMARY

There are 102.63 acres of landfill on submerged and submersible lands in the Tillamook Bay Estuary. Of this 102.63 acres, 0.57 acres are located on state-owned submerged land. The remaining 102.06 acres are on submersible lands.

The majority of these landfills were constructed from 15 to 50 years ago with only one fill being constructed after 1958. The major portion of the fills are industry-oriented with no particular emphasis on navigation.

We wish to take this opportunity to thank all the 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 agencies:

U.S. Army Corps of Engineers, Portland District
Oregon State Water Resources Board
Oregon Division of State Lands
Tillamook County Assessor
Port of Bay City
Port of Tillamook Bay

Maps and Charts Used in this Study

U.S.C. & G.S. Charts for the years

1867	1963
1904	1958
1930	1971

U.S. Army Corps of Engineers' aerial photos

1939
1967

Oregon State Highway Department aerial photos

1971

Tillamook County Assessor's Maps
Department of Revenue Forest Cover 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 semidiurnal 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.

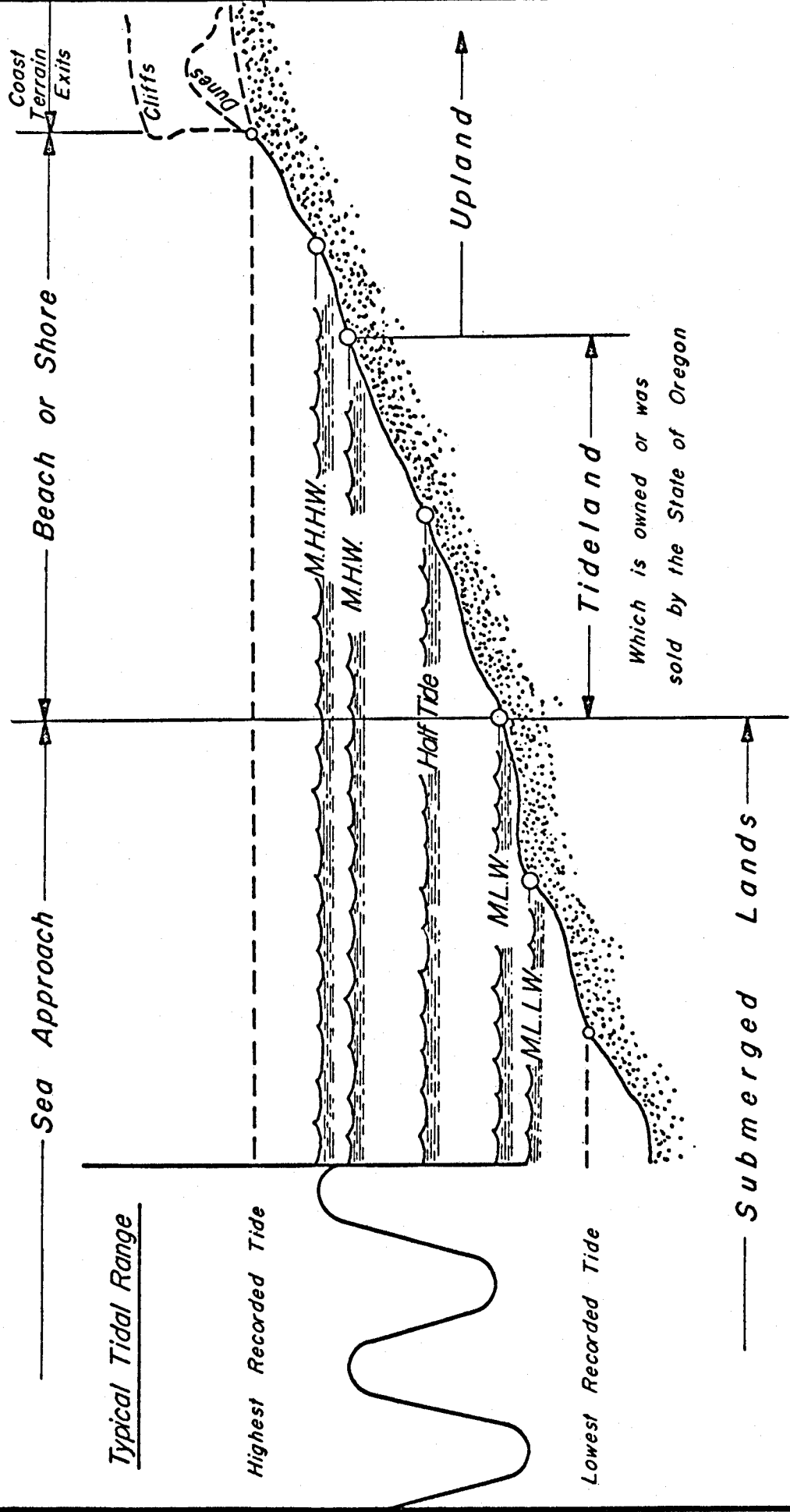
Diurnal Tide. - Tides having a period or cycle of approximately one tidal day. Such tides exhibit only one high and one low water during a tidal day; the predominant type of tide in the Gulf of Mexico.

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



Tillamook Bay (T 1N, LS - R 10W)

Total Area: 8289 acres 1/
 Tideland: 4163 acres 2/
 Tideland Sold: 1840 acres 3/
 Navigable Length: (a) Kilchis R. - 2.0 miles 4/
 (b) Miami R. - 0.5 miles
 (c) Tillamook R. 16.0 miles
 (d) Trask R. - 2.0 miles
 (e) Wilson R. - 3.0 miles

Tidewater: 5/

(a) Kilchis R. - 0.3 miles above U.S. 101
 (b) Miami R. - 0.4 miles above U.S. 101
 (c) Tillamook R. 0.1 miles above U.S. 101
 (d) Trask R. - New U.S. 101 Bridge
 (e) Wilson R. - Southern Pacific R.R. Bridge

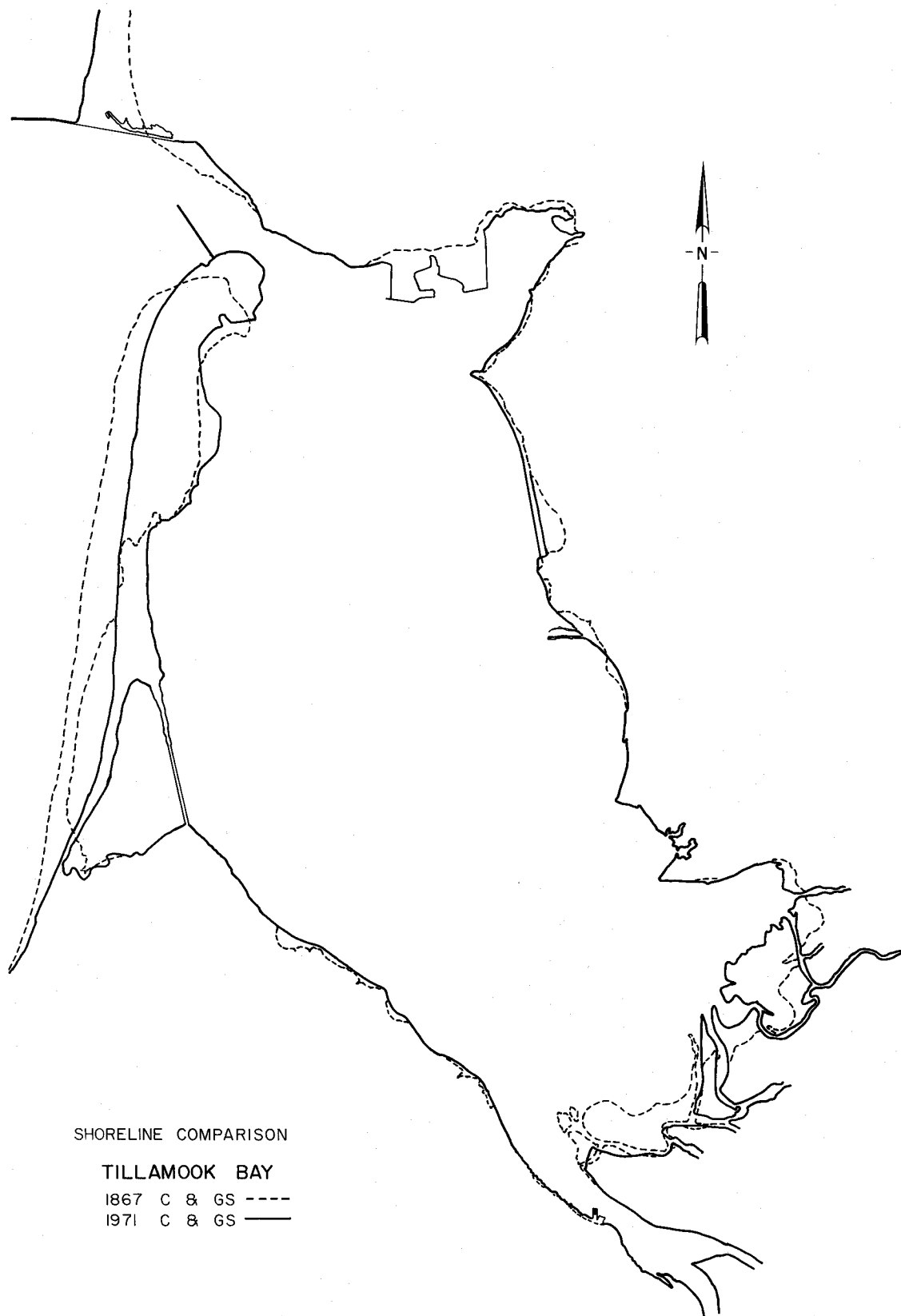
Port District: Port of Tillamook Bay
 Port of Bay City

Tide Data

Stage	<u>Barview</u>		<u>Bay City</u>		<u>Tillamook</u>	
	<u>M.L.L.W.</u>	<u>M.S.L.</u>	<u>M.L.L.W.</u>	<u>M.S.L.</u>	<u>M.L.L.W.</u>	<u>M.S.L.</u>
M.H.W.	+6.8	+3.41	+6.4	+3.38	+6.0	+3.90
M.L.W.	+1.1	-2.29	+1.0	-3.02	+0.8	-1.30
M.L.L.W.	0.0	-3.39	0.0	-3.02	0.0	-2.10

- 1/ Oregon Division of State Lands
2/ Oregon Division of State Lands (Area between M.L.W. and M.H.W.)
3/ Total acreage deeded to private owners by State Land Board
4/ U.S. Army Corps of Engineers
5/ U.S. Army Corps of Engineers

APPENDIX B
SKETCH PLATES OF LANDFILL PARCELS



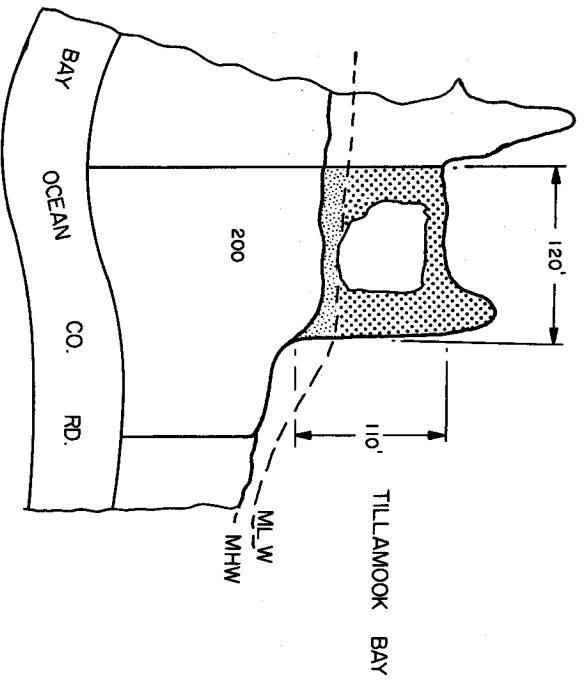
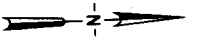
SHORELINE COMPARISON

TILLAMOOK BAY

1867 C & GS ----

1971 C & GS —

T 1 S R 10 W SEC. 22

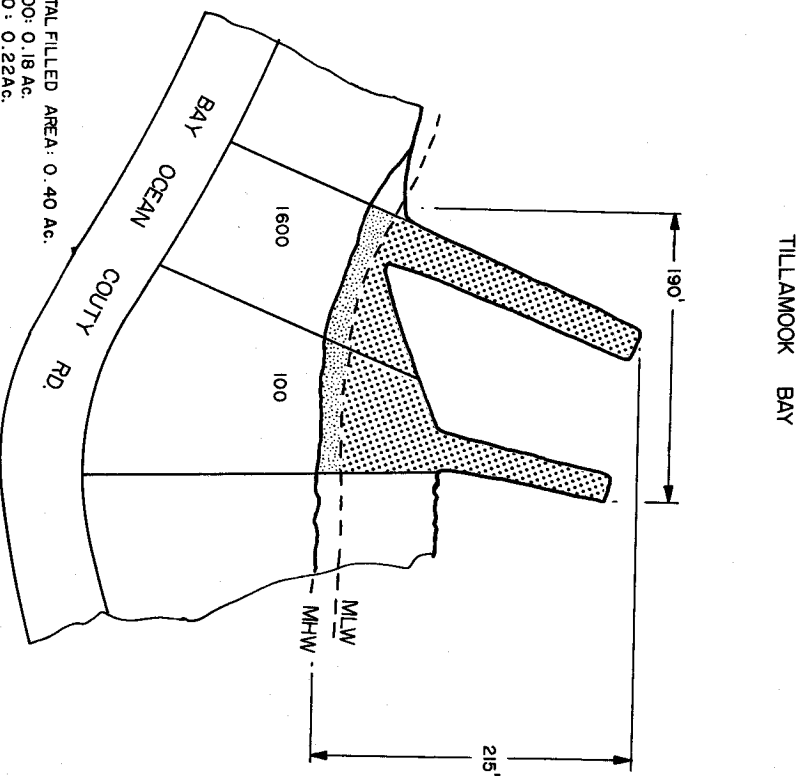
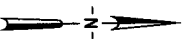


TOTAL FILLED AREA: 0.19 ac.

PARCEL #1
Tax Lot 200
Owner: Dorothy Harris
Construction Dates: 1945 to 1946
Use: Commercial

LANDFILL ON SUBMERGED LANDS
LANDFILL ON TIDELANDS

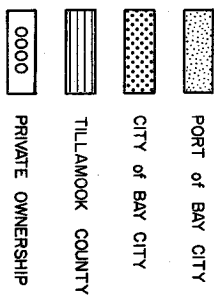
T 1 S R 10 W SEC. 22



TOTAL FILLED AREA: 0.40 Ac.
1600: 0.18 Ac.
100: 0.22Ac.

PARCEL #2
Tax Lots 100 - 1600
Owner: Tillamook County 100 - 1600
Construction Dates: 1947 to 1948
Use: Boat Launch

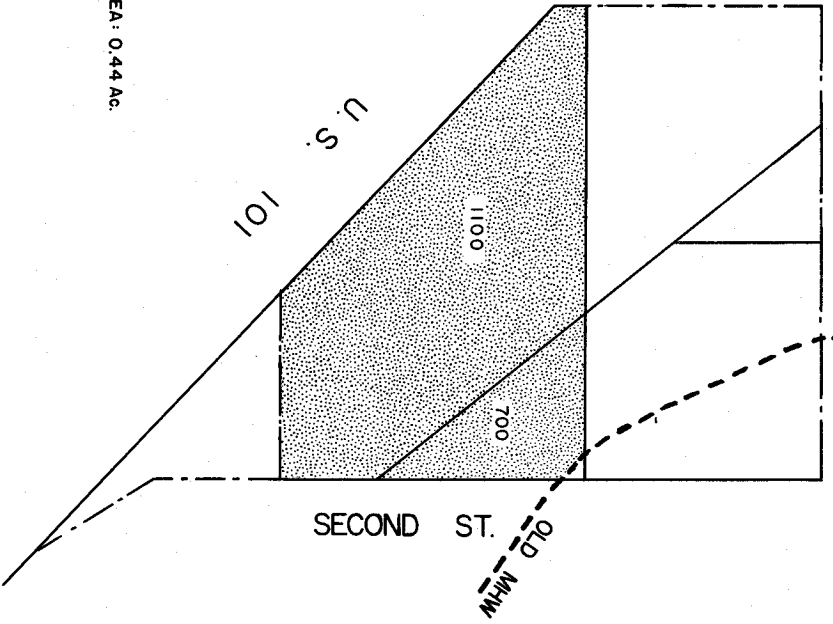
TIN R10W SEC. 34 WM



PARCEL #3
Tax Lot no. - None
Owner: Port of Bay City
City of Bay City
Tillamook County
Construction Dates: 1920 to 1958
Use: Port of Bay City - Dredg. spoils
City of Bay City - City
Tillamook County - Vacant
Sts.
lot

TIN RLOW SEC. 34 WM

"A" ST. (proposed)

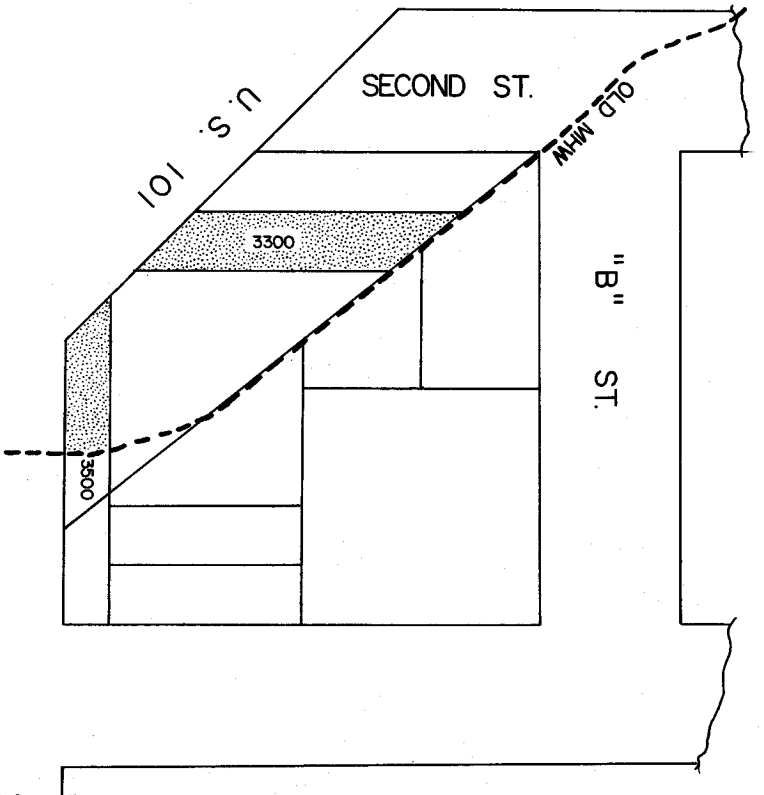


TOTAL FILLED AREA: 0.44 Ac.
700: 0.07 Ac.
1100: 0.37 Ac.

PARCEL # 3
Tax Lots: 700 - 1100
Owner: Emma Ward 700 - 1100
Construction Dates: 1957 to 1958
Use: Residential

TIN RLOW SEC. 34 WM

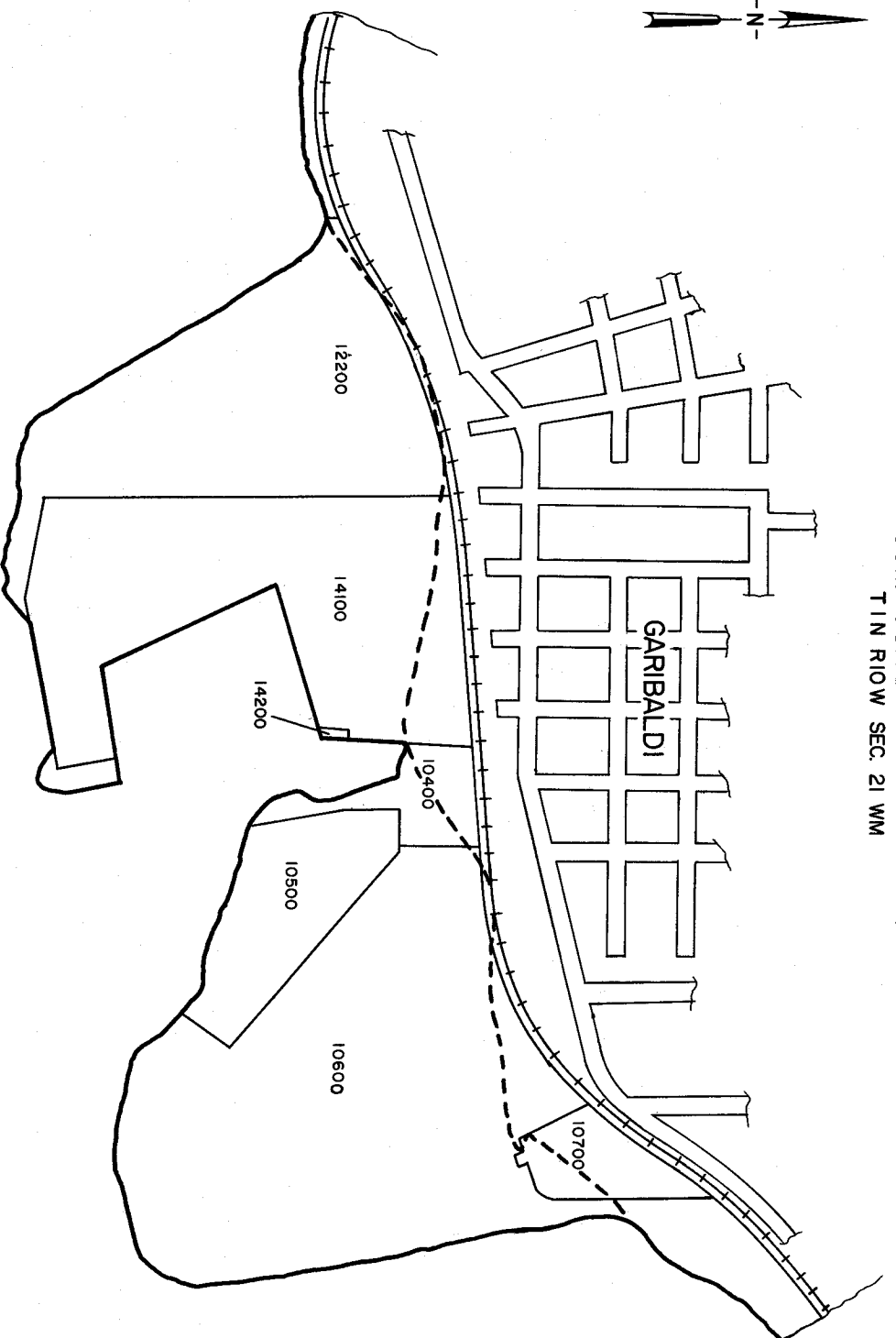
"B" ST.



TOTAL FILLED AREA: 0.09 Ac.
3300: 0.06 Ac.
3500: 0.03 Ac.

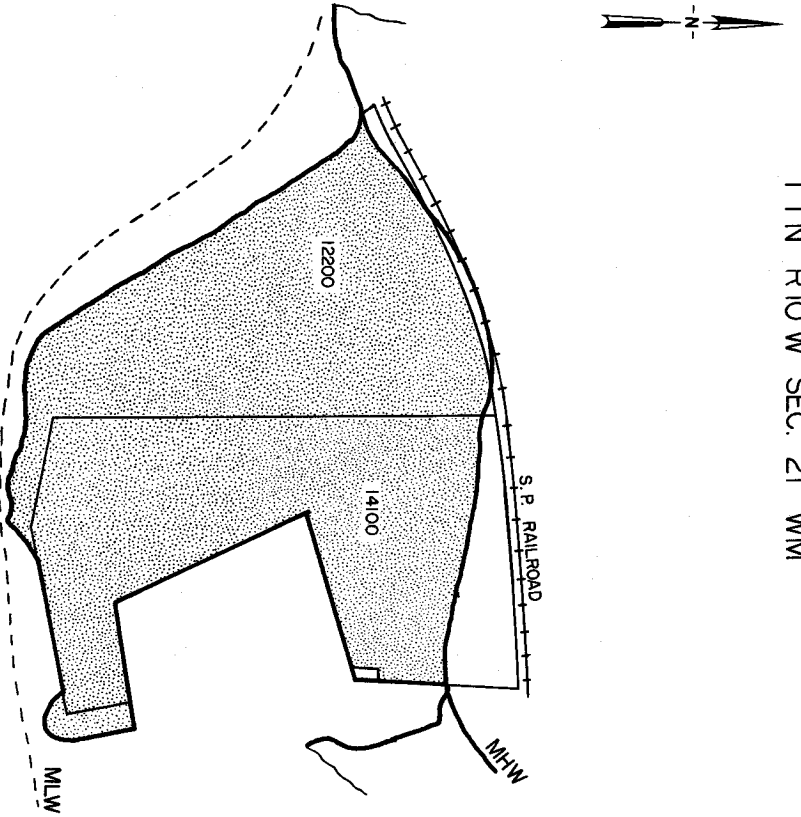
PARCEL #3
Tax Lots 3300 - 3500
Owner: Ernest Schindler 3300
Ruth Simmons 3500
Construction Dates: 1920 to 1921
Use: Vacant lot

COMPOSITE of PARCEL *4
TIN RLOW SEC. 21 WM



NOTE: U.S. HIGHWAY 101 & SOUTHERN PACIFIC
R.R. R/W ARE EXEMPT FROM THIS STUDY

TIN RIO W SEC. 21 WM



TOTAL FILLED AREA: 45.60 Ac.

12200: 22.60 Ac.

14100: 23.0 Ac.

Parcel #4

Tax Lots 12200 - 14100

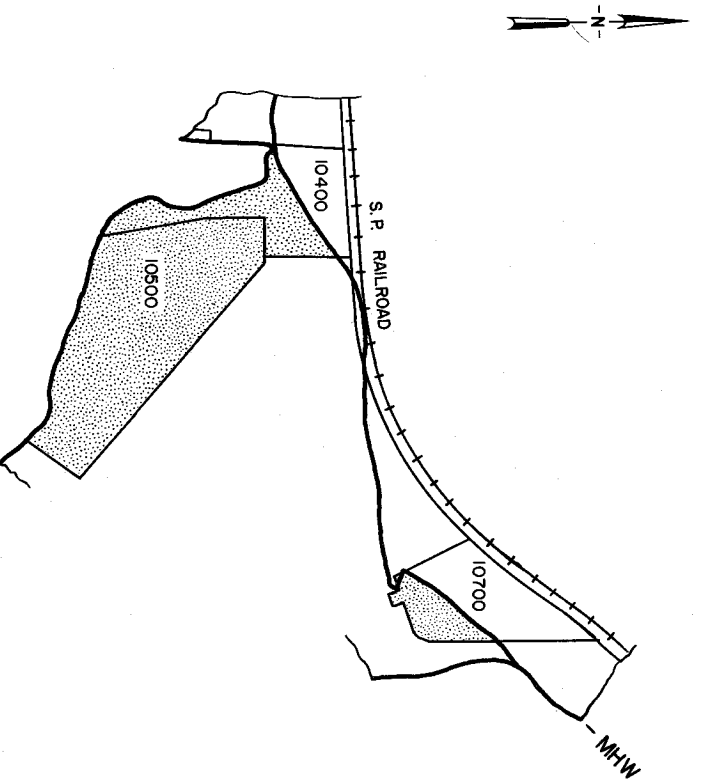
Owner: Port of Bay City 12200 - 14100

Construction Dates: 12200 - 1947 to 1948

14100 - 1940 to 1941

Use: Marina

TIN RIO W SEC. 21 WM



TOTAL FILLED AREA: 11.30 Ac.

10400: 2.13 Ac.

10500: 8.10 Ac.

10700: 1.07 Ac.

PARCEL #4

Tax Lots: 10400 - 10500 - 10700

Owner: Robert Hamann 10400

Robert Hamann 10500

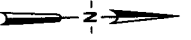
Oreg. Wash. Plywood Co. 10700

Construction Dates: 10400 - 1923 to 1924

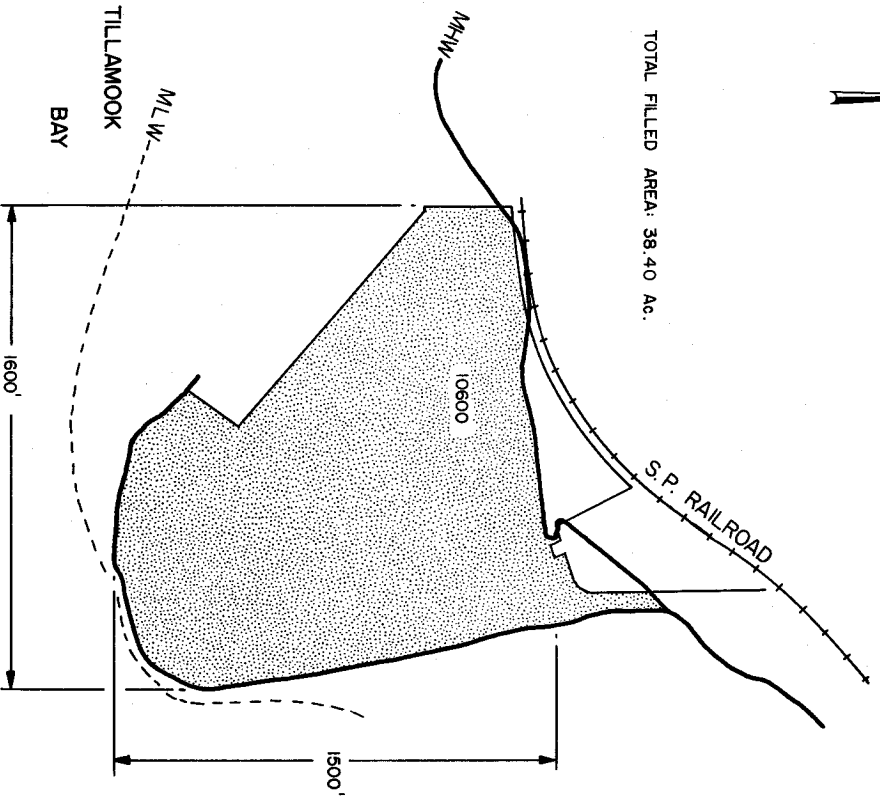
10500 - 10700 - 1921 to 1922

Use: Mill Site

TIN RLOW SEC. 21 WM

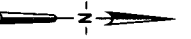


TOTAL FILLED AREA: 38.40 AC.

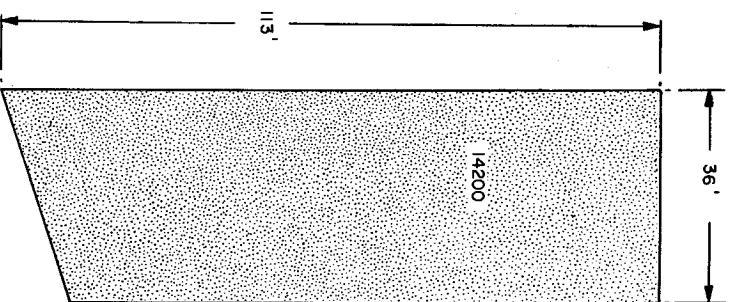


PARCEL #4
Tax Lot 10600
Owner: Oregon Wash. Plywood Co.
Construction Dates: 1923 to 1924
Use: Mill Site

TIN RLOW SEC. 21 WM

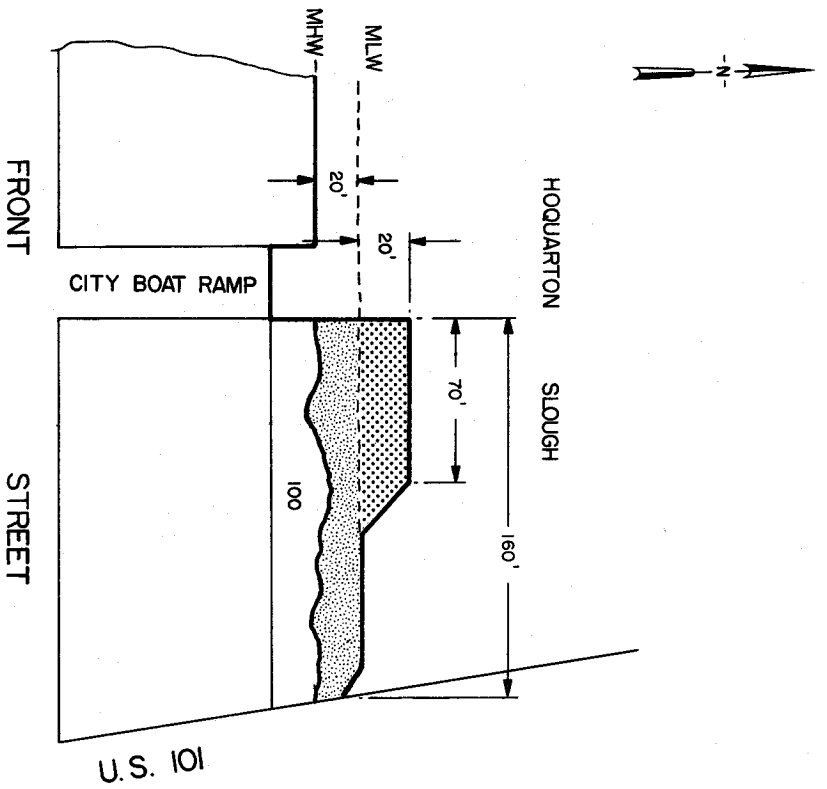


TOTAL FILLED AREA: 0.09 AC.



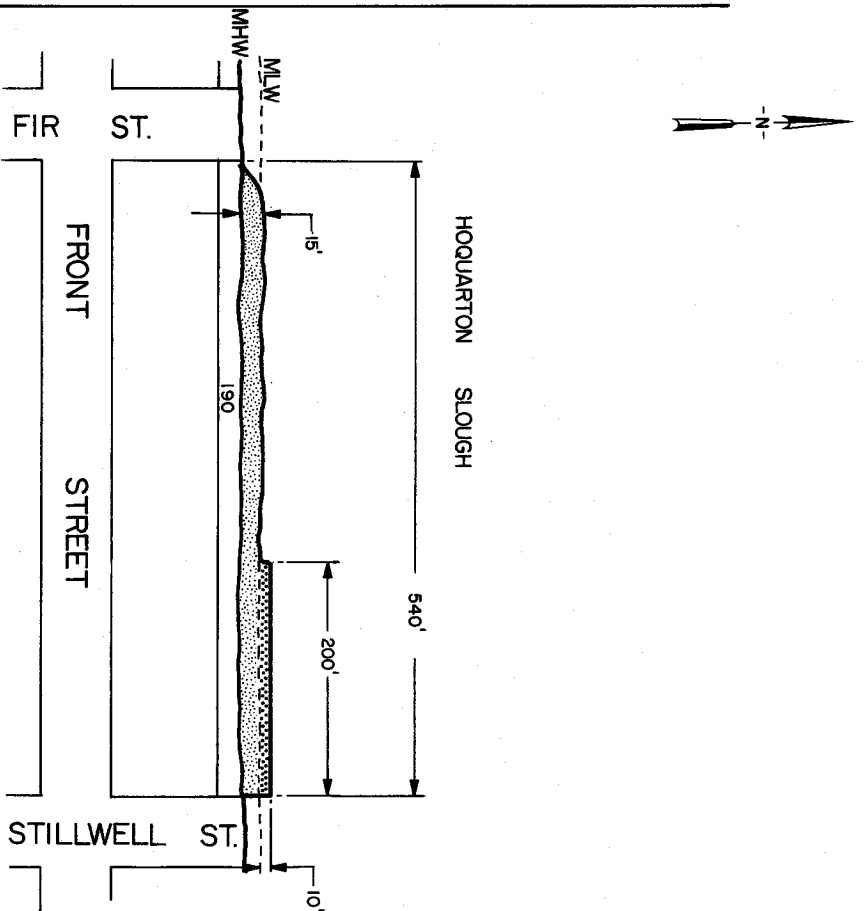
Parcel #4
Tax Lot 14200
Owner: U.S. Coast Guard
Construction Dates: 1940 to 1941
Use: Marina and Coast Guard Station

T1S R10W SEC. 25 WM



PARCEL #5
 Tax Lot 100
 Owner: City of Tillamook
 Construction Dates: 1962 to 1963
 Use: Boat Launch and City Park
 TOTAL FILLED AREA: 0.11 Ac.

T1S R10W SEC. 25 WM



PARCEL #6
 Tax Lot 190
 Owner: City of Tillamook
 Construction Dates: 1940 to 1941
 Use: Ruins
 TOTAL FILLED AREA: 0.24 Ac.

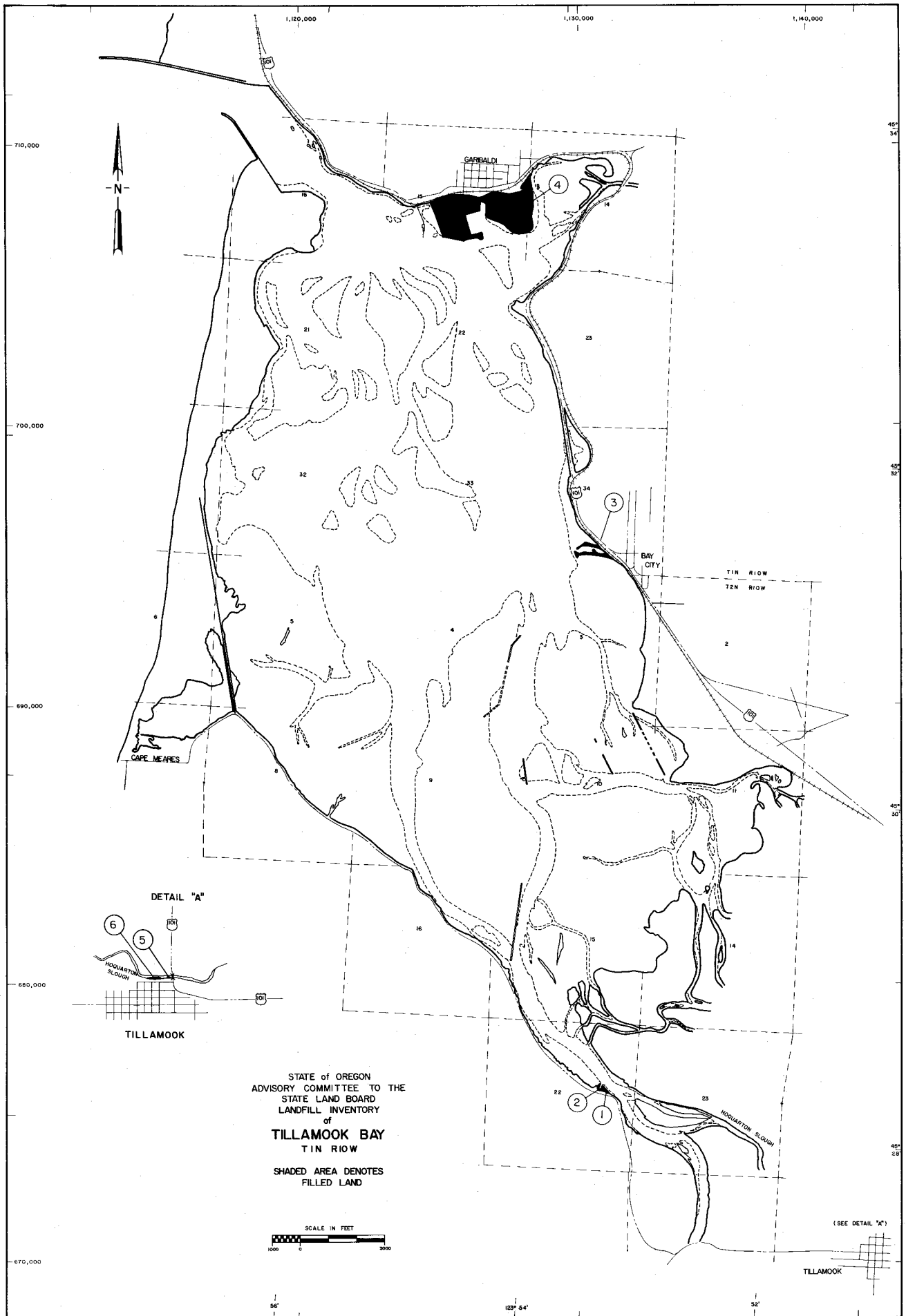


TABLE I
OWNERSHIP & LANDFILL DATA
TILLAMOOK, OREGON

PARCEL	OWNERSHIP		CONSTRUCTED		USE		PERMIT		FILL ACREAGE		
	PRESENT	WHEN FILLED	STARTED	COMPLETED	ORIGINAL	PRESENT	NUMBER	CLASS	SUBMERGED	SUBMERSIBLE	TOTAL
1 - 200	Dorothy Harris	G. H. Foland	1945	1946	Property Extension	Commercial	None	None	0.15	0.04	0.19
2 - 100	Tillamook County	Tillamook County	1947	1948	Boat Launch	Boat Launch	None	None	0.19	0.03	0.22
2 - 1600	Tillamook County	Tillamook County	1947	1948	Boat Launch	Boat Launch	None	None	0.14	0.04	0.18
3 - Port	Port of Bay City	Port of Bay City	1920	1958	Dredging Spoils	Dredging Spoils	None	None	--	1.73	1.73
3 - City	City of Bay City	City of Bay City	1920	1958	Dredging Spoils	City Streets	None	None	--	3.93	3.93
3 - County	Tillamook County	Tillamook County	1920	1958	Dredging Spoils	Vacant Lot	None	None	--	0.11	0.11
3 - 700	Emma Ward	Bay City	1957	1958	Dredging Spoils	Residential	None	None	--	0.07	0.07
3 - 1100	Emma Ward	Bay City	1957	1958	Dredging Spoils	Residential	None	None	--	0.37	0.37
3 - 3300	Ernest Schindler	Ernest Schindler	1920	1921	Dredging Spoils	Vacant Lot	None	None	--	0.06	0.06
3 - 3500	Ruth Simmons	Tony Reed	1920	1921	Dredging Spoils	Vacant Lot	None	None	--	0.03	0.03
4 - 12200	Port of Bay City	Port of Bay City	1947	1948	Dredging Spoils	Vacant Lot	None	None	--	22.60	22.60
4 - 14100	Port of Bay City	Tillamook County	1940	1941	Marina	Marina	None	None	--	23.00	23.00
4 - 10400	Robert Hamann	Robert Hamann	1923	1924	Mill Site	Mill Site	None	None	--	2.13	2.13
4 - 10500	Robert Hamann	Whitney and Co.	1921	1922	Mill Site	Mill Site	None	None	--	8.10	8.10
4 - 10700	Ore.Wash.Plywood Co.	Whitney and Co.	1921	1922	Mill Site	Mill Site	None	None	--	1.07	1.07
4 - 10600	Ore.Wash.Plywood Co.	Whitney and Co.	1923	1924	Mill Site	Mill Site	None	None	--	38.40	38.40
4 - 14200	U.S. Coast Guard	Port of Bay City	1940	1941	Marina	Marina	None	None	--	0.09	0.09
5 - 100	City of Tillamook	City of Tillamook	1962	1963	Boat Launch & Cty.Park	Boat Launch & Cty Park	NPP285/70a	Misc. - 1	0.04	0.07	0.11
6 - 190	City of Tillamook	City of Tillamook	1940	1941	Power Plant	Ruins	None	None	0.05	0.19	0.24
								TOTAL	0.57	102.06	102.63

1/ These fills were constructed during two different time periods
(1920-21 and 1957-58)