Proposed Modification of the Tillamook Bay and Bar Project
Tillamook, Oregon
Presented to:

Colonel Clarence D. Gilkey
District Engineer, U.S. Army
Corps of Engineers
Portland, Oregon

April 16, 1975

Tillamook County Board of Commissioners
Port of Tillamook Bay
Port of Bay City

Lynn D. Steiger & Associates
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INTRODUCTION

This proposal by Tillamook County, the Port of Bay City and the Port of Tillamook Bay, on modification of the federal authorized project for Tillamook Bay and Bar, Oregon is submitted to Colonel Clarence D. Gilkey, District Engineer, U.S. Army Corps of Engineers, Portland, Oregon. The proposal has been prepared in response to a resolution adopted on May 6, 1969 by the Committee of Public Works of the U.S. Senate. This resolution directs the Corps of Engineers to "review existing reports, with a view to determining whether any modification of the recommendations contained therein are advisable at the present time". This has resulted in the allocation of federal funds to study the need for navigation improvements on Tillamook Bay.

After several months of dedicated effort, the Tillamook Bay Task Force, comprised of local citizens interested in the future of Tillamook Bay, has prepared a land and water use plan for the area. During the many discussions of water use of Tillamook Bay, numerous concerns were identified, especially with regard to rapid silting of the estuary and the feasibility of restoring the estuary to past productive levels. Proponents feel that the proper approach to these problems requires a comprehensive study of the estuary.

Accordingly, we have requested that the May 6, 1969 resolution be amended. This amendment would give the Corps of Engineers the authority to conduct a comprehensive multi-purpose study of water utilization in the Tillamook Estuary including, but not limited to, navigation, flood control, restoration, fisheries, water quality, beach erosion and recreation.

This proposal addresses both resolutions by presenting a minimum navigation improvement in the Tillamook Estuary and discusses the need and potential benefit of a multi-purpose study.

The term "project" is used to refer to the activities and improvements provided by the federal government for the Tillamook Bay and Bar. All specifications are given at mean lower low water. Exhibit 1 is an aerial mosaic of Tillamook Bay which should assist in providing a point of reference.

MULTI-PURPOSE BENEFIT

The principle purpose for a multi-purpose study would be to investigate the possibility of restoring Tillamook Bay to past productive levels and provide optimum utilization of natural resources while maintaining the natural amenities of the area. The minimum navigation improvement out-
lined in this statement and other navigation improvements on Tillamook Bay would be an important element of a multi-purpose study.

Potential multi-purpose benefits include a reduction in flood levels on tributary streams, increased saltwater intrusion, increased channel scouring, bay-wide navigation, enhancement of aquatic habitats, establishment and expansion of maricultural and aquacultural enterprises, research and efficient utilization of estuarine resources. The over-riding objective of implementing a multi-purpose project should be to provide an opportunity for the residents of Tillamook County and the State of Oregon to expand and improve the economic and social conditions in the Tillamook area.

Because of the scope and magnitude of a comprehensive estuary study, it is likely that numerous local, state and federal agencies would directly participate in various study phases through the use of a multi-disciplinary study team. We feel most assuredly that important benefits indirect to navigation can result from channelization into the south bay and that the identification and proper assessment of these benefits can only be determined by a comprehensive estuary study.

In recent years, numerous proposals for restoration of Tillamook Bay have been expounded. Exhibits 2-12 are statements submitted by local, state and federal agencies calling for multi-purpose investigation and determination of potential benefits to the Tillamook area.

EXISTING PROJECT TILLAMOOK BAY AND BAR

Historically, authorized federal navigation projects for Tillamook Bay and Bar are listed as follows:

<table>
<thead>
<tr>
<th>River &amp; Harbor Act</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 11, 1888</td>
<td>Improvement of Hoquarton Slough and a dry-docking bar located near the mouth of the Slough by building dikes.</td>
</tr>
<tr>
<td>July 13, 1892</td>
<td>Dredging a channel 200 feet wide and 6 feet deep between the north and middle channels above Bay City and construction of a control dike in the upper bay.</td>
</tr>
<tr>
<td>July 25, 1912 Mar. 4, 1913 Completed 1933</td>
<td>Construction of the north jetty (5,700 feet long); dredging of the Bay City Channel, 16 feet deep and 200 feet wide.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mar. 2, 1919</td>
<td>Completed in 1917. Local interests contributed $\frac{1}{2}$ of the cost of north jetty and agreed to maintain a channel 9 feet deep (at high water) between Bay City and Tillamook.</td>
</tr>
<tr>
<td>Mar. 3, 1925</td>
<td>Further improvement of Hoquarton Slough not recommended. The 9-foot channel (at high water) between Bay City and Tillamook abandoned.</td>
</tr>
<tr>
<td>June 30, 1948</td>
<td>Channel to Bay City abandoned. Project modified to include an 18-foot bar channel; an inner channel 18 feet deep by 200 feet wide to a turning basin 500 feet wide at Miami Cove. A channel 16 feet deep by 200 feet wide from Miami Cove to a turning basin 500 feet wide at Hobsonville. The latter channel deferred until a sawmill of substantial capacity is erected in the vicinity of Hobsonville.</td>
</tr>
<tr>
<td>Completed 1958</td>
<td>Dredging of a small boat basin and approach channel at Garibaldi to a depth of 12 feet.</td>
</tr>
<tr>
<td>Oct. 27, 1965</td>
<td>Construction of the south jetty initiated.</td>
</tr>
</tbody>
</table>

The present project provides for:

1. A 5,700-foot north jetty and a 8,000-foot south jetty at the estuary mouth.
2. An 18-foot bar channel and 18 foot by 200 foot wide inner bay channel to a turning basin 500 feet wide at Miami Cove.
3. A boat basin and approach channel at Garibaldi.
(4) A 1.4-mile sand and rock fill structure erected to close the breach in the Bayocean Peninsula.

Exhibit 13 illustrates the existing project on Tillamook Bay. Improvements which have been completed to date on the authorized project are as follows:

North jetty was completed in 1933. The channel from entrance to Miami Cove was completed in 1927. Construction of Bayocean closure was completed in 1956. Dredging of small boat basin and approach channel at Garibaldi was completed in 1958. Rehabilitation of the north jetty was completed in 1965. Construction of south jetty first contract initiated April, 1969, was completed September, 1971. Second contract awarded May, 1972. Completed November, 1974.

Approximate total expenditures for work through June 30, 1974, is 16 million dollars, total maintenance costs are 1.5 million dollars and total rehabilitation costs, 2.84 million dollars. Local contributions total $598,000. Maintenance dredging is scheduled annually on the entrance channel, although over the past five years only 1,400 cubic yards of sediment has been removed. Dredging in the inner bay has been deferred until a substantial need is demonstrated.

The status of the authorized project is summarized below:

(1) Construction of the south jetty has been terminated at the completion of the second contract. The present length is 6,400 feet, 1,600 feet short of the authorized length of 8,000 feet.

(2) Conditions over the bar during construction of the south jetty have been unstable with shoaling taking place in several locations. Additional monitoring will be necessary to assess the affects of the incomplete south jetty and to determine long-range implications.

(3) The Garibaldi (inner bay) Channel is not maintained to its authorized depth and width. However, channel depths are sufficient to accommodate barge traffic to the recently-constructed Garibaldi barge dock during high water.

(4) The Miami Cove turning basin is filled with
sediment and is not usable in its present condition.

Sediment has been deposited in the Garibaldi boat basin and approach channel, hindering navigation and restricting usage to small commercial and sport vessels drawing less than six feet of water.

Close comparison of coast and geodetic survey charts reveals significant and dramatic changes in channel and tide flat locations and shoreline configurations. Exhibits 14-16 are reproductions of survey charts.

PROJECT USES AND CAPACITIES

In addition to the federal investment for navigation improvements, the Port of Bay City operates and maintains a boat basin at Garibaldi and has recently constructed a barge dock facility. Garibaldi is the present center of water-oriented development on Tillamook Bay with fishing as the principle commercial and recreation activity. The Port leases property to five processing plants and fish buyers.

Permanent moorage spaces are provided to 24 charter boats, 108 commercial boats and 156 recreation crafts. The basin operates at capacity, with peak season weekend usage in excess of 600 boats. Launching facilities are provided (Exhibit 17).

Numerous additional facilities (parking areas, sawmills, restaurants, retail stores, a trailer park and motel) located on Port properties at Garibaldi have caused serious congestion problems during peak recreation months. It is unlikely that expansion of the present facilities will be adequate to accommodate present and future needs.

The barge dock facility at Garibaldi will primarily be used to ship finished and rough-cut lumber. The structure is designed to accommodate a single barge and it is estimated that at maximum capacity, four lumber barges may be loaded each month. Very little land is available to provide necessary storage, warehousing and support services for the dock facility.

Other water-oriented improvements on Tillamook Bay are found at Bay City, including a launching ramp, small basin (unusable because of silting) and oyster processing plant. A second launching ramp and oyster processing plant is located on the Bayocean Road, west of Tillamook city. Additional launching areas are located on tributary streams.
Tillamook Bay is presently heavily used by commercial fishermen, charter and sport boats. In addition, tugs and barges have been carrying rock inbound across the bar during construction of the south jetty. In past years, shipment of commodities by barge, ship or raft has been important to the Tillamook economy. In recent years, however, movement of commodities has largely been by truck and rail. This can be attributed to the general decline in the forest products industry and, at least in part, to dangerous bar conditions and a lack of navigation channels in the bay to accommodate modern vessels. With the construction of the south jetty and dock facilities at Garibaldi, movement of outbound lumber and forest products will likely begin in late spring, 1975.

Despite the decline in waterbound commodity shipments, small vessel bar crossings at the Tillamook Bay entrance have increased substantially. In 1974, the total number of outbound crossings numbered 10,929 for the May through October peak season. Exhibit 18 summarizes small boat crossings for the past three years.

**PROPOSED MINIMUM MODIFICATIONS**

Proposed modifications represent a minimum navigational improvement on Tillamook Bay. If the purpose and scope of the Corps' study is expanded to include multi-purpose needs, this minimum modification will likely be altered. In essence, the proposed modification is a starting point from which additional modifications can be based. Specifications are shown on Exhibit 13 and are listed as follows:

1. Construction of a channel approximately 4.2 miles in length from the inner bay channel at Garibaldi to Kilchis Point on the southeast shore of Tillamook Bay. This channel must have minimum specifications of 150 feet wide and 16 feet deep to accommodate barge traffic.

2. Construction of an approach channel 12 feet deep at Bay City to serve the existing basin and expanded facilities.

3. Construction of a turning basin and approach channels at Kilchis Point.

4. Maintenance and/or completion of the existing authorized project to authorized specifications.
REASONS FOR MODIFICATIONS

Proposed channel improvements have been recommended after several months of discussion and after preparation of development guidelines by the Tillamook Bay Task Force. The Task Force endorses the modifications and fully supports Corps' study and investigation of the feasibility of constructing navigation channels into south Tillamook Bay. The Task Force has also voiced strong support for a comprehensive multi-purpose study of the estuary.

Principle reasons for the project modification are summarized as follows:

(1) To provide satisfactory water access to marine/commercial, industrial and recreational facilities at Bay City.

(2) To make available to industry a deep-water barge dock at Kilchis Point which can accommodate the existing and anticipated needs for the Tillamook area (Exhibits 19 & 22).

(3) To provide commercial, charter and sport boat moorage areas at Bay City which will accommodate the existing and anticipated demand for additional moorage space.

(4) To assist in providing separation of incompatible uses and in providing a stimulus for improved land use in the Garibaldi waterfront area.

(5) To expand the recreation potential in south Tillamook Bay and to provide increased opportunities for recreation-related services.

(6) To insure that acceptable sites and transportation systems are made available to industry so that the Tillamook economy will have the opportunity to expand and diversify.

(7) To capitalize upon the existing federal project and previous federal expenditures.

(8) To provide safer crossing conditions over the entrance channel.
The most immediate benefit to be derived from the modification will be the opportunity for expanded moorage space and marine commercial services at Bay City and subsequent reduction in pressures from overcrowding at Garibaldi. Also of immediate benefit will be increased commercial and sport boat navigation on Tillamook Bay.

**PROJECT MODIFICATION COSTS**

Costs of the proposed minimum channel improvement is based on removal of 1.6 million cubic yards of sediment. Total construction costs are estimated to be in the vicinity of 2.1 million dollars. *Annual maintenance will likely be required.* This estimate does not include the costs for maintaining the existing authorized project (Exhibit 20).

**RELATED SHORELINE CHARACTERISTICS**

Shoreline development at Bay City and Kilchis Point is of primary importance to the overall justification for a channel extension into south Tillamook Bay. Following is a summary of shoreline characteristics and potential uses in both locations (Exhibit 8):

**Bay City**


Comprehensive Plan: Marine commercial, marine recreation, commercial and residential.

Zoning: Marine commercial, marine recreation on the shoreline.


Geology: Sedimentary and alluvial.

Slope: 0-9 percent.


Potential Uses: Development of moorage facilities in the existing boat basin and to the north along the shoreline, construction of a floating breakwater north of Hayes Oyster Company, marine commercial services west of Highway 101, expansion of launching facilities, development of a highway rest area to the south, development of parking and dry boat storage areas east of U.S. Highway 101, pedestrian walkway and crossing at U.S. Highway 101.

Concerns: Traffic congestion, disruption of aquatic habitats and land acquisition.

Kilchis Point

Area Boundaries: North Bay City city limits, Hathaway Slough, U.S. Highway 101 and Tillamook Bay.

Comprehensive Plan: Residential and agricultural.

Zoning: Residential trailer, low-density residential, agricultural, forestry and recreation.


Geology: Floodplain alluvium (clay and gravel).

Slope: 0-9 percent.


Ownership: Private (five principle landowners).
Land Use: Rural residential, limited grazing and forest.

Potential Uses: Development of a barge dock on the south shore of Kilchis Point, construction of storage areas and warehouses, access to U.S. Highway 101, construction of a rail spur, industrial and limited commercial development on those portions of Kilchis Point suitable for development.

Concerns: Disruption of aquatic habitats, land acquisition and conversion, destruction of a semi-natural area.

LOCAL REQUIREMENTS

Approval and construction of a federal authorized project requires that local agencies meet certain criteria set down by the federal government and administered by the Corps of Engineers. Most important is the provision for matching funds and spoil disposal sites.

Spoils Disposal

Local sponsoring agencies are responsible for obtaining sites for disposal of dredged material. Potential sites have been identified by the Tillamook Bay Task Force. Each site will have to be evaluated independently, based on specific spoils disposal plans. These sites are shown in Exhibit 13 and listed in approximate order of suitability as follows: (1) off-shore disposal; (2) ocean beach disposal; (3) South Bayocean Peninsula; (4) Kilchis Point; (5) Barview; (6) behind dikes on the south bay floodplain; (7) Miami Cove (limited); and (8) Bay City (limited). Land sites which can accommodate a large volume of spoils are located at Barview, on the Bayocean Peninsula and on Kilchis Point.

Local Funds

Local funds must be provided to match federal appropriations for construction of certain facilities. Local matching funds are, however, not required for navigation and flood control projects. The percent of local match for recreation is 50%; coastal protection, 30%; fish and wildlife for the benefit of man, 50%; and fish and wildlife for the benefit of animals, 25%. In addition, local agencies must provide land easements and rights of way, and must pay the costs of any necessary reloca-
tions. Matching fund stipulations apply to actual construction of the project and are not required for investigation and study.

Because of the large local contribution that would be necessary to implement a multi-purpose restoration and development program on Tillamook Bay, funding would necessarily be sought from all possible sources.

ECONOMIC CHARACTERISTICS

Tillamook Bay is located 60 miles south of the Columbia River, approximately halfway between the Port of Astoria and the Port of Newport. The area tributary to Tillamook Bay is left undefined for discussion purposes, but is generally that contiguous geographical area in which raw materials and finished products move to or from the Tillamook region.

The boundaries of the tributary area differ considerably for each commodity and are dependent on the ability and efficiency of industry to secure raw materials and market areas. Accordingly, the area tributary to Tillamook Bay for the commercial fisheries industry is dependent on the location of fish species during certain times of the year. The wood products industry presents a more definable tributary area through the use of timber-shed boundaries. Tillamook is located in the North Coastal Timber Shed which includes Clatsop, Columbia, Tillamook, Washington, Yamhill, Polk, Lincoln and Benton Counties. Mills operating at Tillamook will likely purchase and sell logs within this region.

An accurate determination of the Tillamook tributary area will be necessary to estimate the potential benefits to be derived from a navigation improvement.

The Tillamook economy is dependent on a stable supply of natural resources. Over 30% of the Tillamook labor force is employed in resource-dependent industries such as forest products, agriculture, food processing and fish processing.

Forest Products

The production and processing of wood fiber is the most important sector of the Tillamook economy. Major manufacturers of plywood, lumber and veneer include Crown Zellerback, Publishers Paper and Louisiana Pacific Corporation. Tillamook county has experienced an increase in lumber production since 1958. During the past decade, the average annual increase in production has been 1% in logging, 2% in plywood and veneer, and 3% in lumber. Recent mill closures will, however, have a significant impact on future production levels. Portions of the data presented in
this section have been adapted from the "Economic Survey and Analysis of the Oregon Coastal Zone" (1974), prepared for the Oregon Coastal Conservation and Development Commission by the Economic Study Team. This publication is the most recent and complete compilation of economic data for Tillamook County.

Mills presently operating in the Tillamook area currently depend entirely on truck and rail transportation for the shipment of raw materials and manufactured products. These firms have in recent decades had little opportunity to utilize water transport because of hazardous bar conditions and inadequate inner bay facilities. The recently constructed south jetty and barge dock at Garibaldi will result in outbound shipment of finished lumber with a significant savings in transportation costs. Additional cost savings will likely be incurred with improvement and construction of inner bay navigation channels and the construction of additional shore facilities. As a general rule, door-to-door water transport results in a 20% savings over surface transportation rates (Exhibit 21).

In 1972, the value added by forest products manufacturers totaled 29.3 million dollars with over 152 million board feet of lumber produced. Mills in the Tillamook area are also important producers of shingles, shakes, chips, plywood and veneer. The following table lists the number and capacity of mills presently located in the Tillamook area. Mills not operating because of the present economic situation are listed in anticipation of their re-opening with a change in market conditions.

Mills In The Tillamook Area Operating
In 1972
(Per 8-Hour Shift)

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sawmills</td>
<td>8</td>
<td>486,000 bf</td>
</tr>
<tr>
<td>Plywood Veneer</td>
<td>2</td>
<td>560,000 bf</td>
</tr>
<tr>
<td>Shakes &amp; Shingles</td>
<td>8</td>
<td>466 squares</td>
</tr>
</tbody>
</table>

Source: Economic Survey and Analysis of the Oregon Coastal Zone (1974)
Of major importance in justifying a navigation improvement is the anticipated long-range expansion in the forest products industry as a result of an increase in log supplies and demand for wood fiber. At the present time, over 75% of the sawmill log consumption is old growth timber. With maturation of young stands, an increase in the total allowable cut can be anticipated after 1985.

Commercial forestland ownership in Tillamook County and the origin of logs consumed is summarized in the following table:

<table>
<thead>
<tr>
<th>Forest Land Ownership and Log Supply</th>
<th>Tillamook County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres (Thousands)</td>
</tr>
<tr>
<td>All Ownerships</td>
<td>615</td>
</tr>
<tr>
<td>National Forest</td>
<td>90</td>
</tr>
<tr>
<td>State Forest</td>
<td>316</td>
</tr>
<tr>
<td>BLM</td>
<td>52</td>
</tr>
<tr>
<td>Forest Industry &amp; Misc.</td>
<td>160</td>
</tr>
</tbody>
</table>

Adapted from: Economic Survey and Analysis of the Oregon Coastal Zone (1974)

Careful analysis of the above table will reveal that the State Forest lands produce only a small portion (11.8%) of the total log supply presently consumed. This is largely the result of fires which destroyed millions of board feet of timber on state lands between 1930 and 1952. The young productive trees which are now growing in the Tillamook State Forest will be harvested in future decades, providing a stable and expanded supply of logs to mills in the Tillamook area.

The "allowable cut" or the amount of timber which can be harvested on
a sustained basis is summarized as follows:

<table>
<thead>
<tr>
<th>Tillamook County Allowable Cut (million board feet) 1975-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>![Table]</td>
</tr>
</tbody>
</table>

1/ Computed on even-flow basis.
2/ Anticipated sustained yield per decade after 2025 is 610 million board feet per decade.

Source: Personal communication with forest managers.

Projections in the allowable cut indicate a sizeable increase in timber supplies over the next fifty years. These figures represent a minimum supply, as mills in the Tillamook area may purchase timber from outside the county.

Log flows for Tillamook County are not well documented, but it is estimated in 1972 that 18 million board feet were trucked to mills in Lincoln County, 12 million board feet were trucked to Clatsop County, and less than 500,000 board feet moved by truck to mills in Washington and Yamhill Counties. Approximately 168 million board feet are used by mills located within the county. With recent mill closures, this pattern of log flows is likely to be greatly distorted and will need further investigation.

At the present time, lumber, plywood, chips, shingles, shakes and logs are shipped by truck and rail to market areas and reloading terminals in Western Oregon. A large volume of chips moves by truck to Crown...
Zellerbach Paper Mill, located at Wauna on the Columbia River, and to Publishers Paper in Oregon City and Newberg. Portions of the finished and rough-cut lumber manufactured at Tillamook have in the past been trucked to Astoria, Toledo or Portland and reloaded on barges for shipment to West Coast ports and Pacific Rim countries. The new barge facility at Garibaldi will likely accommodate immediate needs for waterbound shipment of lumber; however, the facility is inadequate to handle the large volume of chips presently produced in the area. With the disproportionate increase in surface transportation costs over water transport costs, a need exists for additional shore facilities to provide mills in the Tillamook area an opportunity to compete with mills which have established water access.

With the anticipated acceleration in timber regeneration and the development of better management techniques and faster growing species, an intensification in forest yield will insure a stable supply of logs to mills located at Tillamook. Increased demand for forest products and the necessity for reduced transportation costs will create a demand for additional manufacturing and waterborne shipping facilities on Tillamook Bay (Exhibit 22).

Agriculture

Dairying has traditionally been an important sector of the Tillamook economy, providing a measure of stability to the local area. The importance of the Tillamook Creamery Association for agricultural production and employment should not be underestimated. A large volume of hay, feeds and fertilizer is shipped via truck to the Tillamook area from major producers in the Columbia Basin. Potential exists for bringing hay and pelletized feeds and fertilizers to the area via barge at reduced savings in overland transportation costs.

The present lumber dock at Garibaldi is not suitable for storage of bulk commodities and expanded dock facilities and storage areas will be necessary. Movement of these commodities by barge requires further investigation.

Commercial Fisheries

Commercial fishing has undergone growth in recent years, with processing plants operating at capacity during peak season months.

During 1973, 3.1 million pounds of fish were landed at Tillamook with an estimated value of 1.14 million dollars at fisherman level. The
The following table summarizes offshore and in-bay catches for the period of 1966-1974:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Species lbs.</th>
<th>Value ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>1,004,623</td>
<td>$2/</td>
</tr>
<tr>
<td>1967</td>
<td>2,798,297</td>
<td>2/</td>
</tr>
<tr>
<td>1968</td>
<td>1,336,055</td>
<td>2/</td>
</tr>
<tr>
<td>1969</td>
<td>3,878,019</td>
<td>980,000</td>
</tr>
<tr>
<td>1970</td>
<td>3,147,124</td>
<td>890,000</td>
</tr>
<tr>
<td>1971</td>
<td>3,115,941</td>
<td>904,000</td>
</tr>
<tr>
<td>1972</td>
<td>3,258,876</td>
<td>935,000</td>
</tr>
<tr>
<td>1973</td>
<td>3,148,866</td>
<td>1,145,000</td>
</tr>
<tr>
<td>1974</td>
<td>3,455,364</td>
<td>2/</td>
</tr>
</tbody>
</table>

1/ In-bay and offshore species.
2/ Data unavailable.

The strategic location of Tillamook Bay, approximately midway between the Columbia River and Central Coast fishing grounds, has placed an overwhelming demand on the limited Garibaldi facility. Tillamook Bay offers some important economic access advantages to the coastal fishing fleet, especially during the latter part of the fishing season.
It is highly likely that any additional commercial moorage space provided as a result of a federal modification would be filled immediately. Requests for moorage space at Garibaldi number approximately 50 per season (Exhibit 17).

Navigation and subsequent development in south Tillamook Bay will result in a general expansion of the commercial fishing industry. This expansion will have direct bearing on in-bay and offshore fish landings and will assist the oystermen in navigating to oyster-growing areas. With expanded moorage and processing facilities and a stable fisheries resource, an increase in commercial fish landings can be anticipated.

Recreation

Recreation is an essential and important part of the Tillamook economy. As indicated by several community and agency surveys, recreation in the Tillamook area has grown and will continue to grow in importance. An accurate measure of recreation use and recreation potential in Tillamook Bay was obtained in 1971 through a survey conducted by the Oregon State Marine Board. This survey concluded that boating on Tillamook Bay would increase 75% upon completion of the south jetty and additional marina and shoreside facilities. Over 4,800 boaters who were surveyed in 1971 indicated a strong preference for moorage facilities on Tillamook Bay. An update of this survey would be desirable.

Another measure of the increased recreation use on Tillamook Bay is the number of small vessel crossings of the Tillamook Bar. The U.S. Coast Guard reports that in 1974 there were 10,924 outbound small vessel crossings, an increase of 1,500 vessels since 1970 (Exhibit 18). At the present, 24 licensed charter craft are operating out of Garibaldi. Charter boat operators have expressed a strong desire for channel improvements and maintenance of existing facilities (Exhibits 23 & 24). With the proposed navigation improvements, recreation use of the south bay will likely increase. Sport boats will use the 4.2 mile channel for troll fishing and the channel will provide water access to clam beds, opening new areas of the bay for recreation use and small boat navigation. Proposed moorage expansion of the existing boat basin and facilities will only partially fill the need for sport boat moorage space. It will be necessary to look to other areas of the bay to meet future needs and requirements.
LONG-RANGE GOALS AND POTENTIAL

Long-range needs of the Tillamook area, as identified by the Tillamook Bay Task Force, are heavily dependent on modification of the federal project in the Tillamook estuary for successful fulfillment.

Of critical importance is the need for an accurate determination of the economic potential of the Tillamook area. In this regard, Jack Jarvis & Co., Inc., Economic Consultants, has prepared a work program (Exhibit 25), detailing those sectors and elements of the local economy which require investigation. This work program is based largely on long-range needs and potentials, rather than existing or immediate needs. We invite Colonel Gilkey and the Corps of Engineers to review this work program with a view to determining if it is feasible to incorporate any portion of the program with the Corps' plan of study for this project modification.

CONCLUSION

The filling of the estuary with sediment and degradation of aquatic habitats, combined with a need for marine-oriented and marine-dependent shoreline facilities, demonstrates conclusively that improvements are necessary for the economic and social well-being of the Tillamook Bay area.

Proposed minimum modifications to the federal project and the request for a comprehensive estuary study are the result of an optimistic local population that believes the Tillamook area will grow and find solutions to its many pressing economic problems.
March 17, 1975

Colonel Clarence D. Gilkey
District Engineer
United States Corps of Engineers
2850 S. E. 82nd Avenue
Portland, Oregon 97208

Dear Colonel Gilkey:

This office is familiar with the preliminary findings of the Tillamook Bay Task Force. These local citizens, including representatives of industry and representatives from state, local and federal government have exerted considerable effort and have done a competent job in developing their preliminary findings.

Oregon's estuaries are one of its most valuable assets and these findings which propose the re-establishing of these estuaries closer to their original state will enhance the marine life resources and also reduce the flood levels of the five rivers that pour into Tillamook Bay as well as to restore commerce to the Bay to the productive level of previous years, is highly desirable.

I support this project and hope that the United States Corps of Engineers will also.

Sincerely,

Governor

RWS/mdh

cc: Dennis Oster
    C/O Tillamook Board of Commissioners
    P. O. Box 266
    Tillamook, Oregon
April 3, 1975

Colonel Clarence D. Gilkey
District Engineer
U.S. Army Corps of Engineers
2850 SE 82nd Av
Portland, OR 97208

Subject: Proposed modifications to the Federal project in the Tillamook estuary

Dear Colonel Gilkey:

This letter emphasizes the continuing interest of the Oregon State University Sea Grant College Program in studies which will lead to more complete and rational use of Tillamook Bay and the complex of physical, natural, and economic resources of this ecosystem.

More specifically, we support the concept of a study to investigate multi-purpose benefits, including but not limited to navigation, flood control, restoration, fisheries, water quality, beach erosion and recreation.

The Sea Grant Program has been privileged to work with the people of Tillamook through the Tillamook Bay Task Force, the County Commission, Port Commissions, federal and state agencies, recreationists, commercial fishermen, and oystermen on segments of the complex set of problems and opportunities in Tillamook Bay. These involvements have ranged from studies on the history of Bayocean with special emphasis on sand transport to dredging studies with the Corps of Engineers in the Garibaldi basin, to a 14-year history of involvement with the Bay's oyster industry.

A particular concern relates to the concept of renovation—rebuilding the Bay to the production levels of several decades ago—before the effects of fires and floods exacted the toll which is apparent today. This concern was stated to Mr. Ted Cornett in a letter dated September 7, 1972 (enclosed).

Tillamook Bay is a prime economic and natural resource for the citizens of Tillamook County and Oregon. In its present condition, although highly valuable, it may gradually and steadily decline in productiveness. We look forward to working with you to reverse the decline and increase the capacity of this system to provide economic and recreational values for the people of the Nation.

Very truly yours,

William Q. Wick, Director

The Oregon State University Sea Grant College Program is supported cooperatively by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce, by the State of Oregon, and by participating local govern-
September 7, 1972

Mr. Ted Cornett
Port of Tillamook Bay
Tillamook, Oregon 97141

SUBJECT: Reasons for and benefits that might be derived from renovation of the Tillamook Bay ecosystem.

Dear Ted:

As we discussed in May, I am concerned that certain Oregon estuaries may require extensive renovation in an attempt to reestablish the ecosystem. A prime example of this need is found in Tillamook Bay. We all recognize that estuaries are filling in in a gradual, perhaps dignified manner. Man's activities tend to accelerate this process to the point of possible destruction of the system. The watershed of Tillamook Bay has been subjected to catastrophic fire damage during the last 50 years. This, combined with salvage logging and other uses of the watershed, has resulted in a tremendous silt and sediment load deposit in the Bay.

The Tillamook Bay of today does not resemble the Tillamook Bay of 1900. Is there a way to reestablish the estuarine system? It would seem to me that if a positive cost-benefit relation could be shown, a multi-step program could be activated.

Stage 1 would involve some of the work going on now in reestablishing the river channels on the Wilson, Trask, Tillamook and perhaps Kilchis.

Stage 2 would involve reestablishing the flow channels through the Bay, including making the appropriate gradients and curves necessary to stimulate the original system. This would contrast with the straight-line, sharp-angle approaches which are not natural and which tend to speed runoff without the additional value of trapping nutrients, etc.

Stage 3 could accompany the second and would involve shaving the Bay down to former tidal levels. An example of this would be on the west side, where the 1952 Bay Ocean breakthrough occurred. I haven't measured the gradient, but my eye tells me that 4 to 6 feet of sand blew in during the break. If this were removed to the outer beaches, we should be able to establish productive intertidal lands as they were before. It is my understanding that this was some of the prime oyster growing ground and clam production ground in the Bay.
An approach as described here would be very expensive, and to some might seem to be disruption of the environment. The environment, however, has been artificially disrupted already. We would be attempting to reestablish the former productive Tillamook Bay system. Let's talk more specifically about this plan at your convenience.

Very truly yours,

Bill

William Q. Wick, Head
Marine Advisory Program,
Sea Grant
(Professor)
March 25, 1975

Mr. E. L. "Ted" Cornett
President
Port of Tillamook Bay
Tillamook P.U.D.
Tillamook, Oregon 97141

Dear Mr. Cornett:

Just wanted to thank you for taking the time to meet with Bob Moore last week. Due to the Senate schedule, it is not possible for me to be in Oregon as much as I would like. In my absence, Bob Moore is helping me in gathering information as to the problems, concerns and progress of the communities in Oregon, and I appreciate your cooperation in this endeavor.

I have kept in close contact with the situation on Tillamook Bay over the years. Rest assured that you will have my support for local efforts to improve the navigation potential of the Bay. I will be contacting the Corps of Engineers regarding the extension of the south jetty to the originally authorized 8,000 feet. I have asked Bob Moore to attend the Corps' April 16th meeting in Tillamook in order that I might have firsthand knowledge of local interest in the future of the Bay.

Please feel free to contact Bob if I may be of assistance to you.

Cordially,

Bob Packwood

BP/rmb

cc: Mr. Basil Edmunds, Manager, Port of Bay City
    Mr. Eckard Toy, Manager, Port of Tillamook Bay
    Mr. George Smith, Port Commissioner
March 18, 1975

Tillamook County Board
of Commissioners
P. O. Box 266
Tillamook, Oregon 97141

Gentlemen:

Thank you for your letter of February 28, telling me of your intention to hold a public meeting to discuss modifying the existing authorized navigation project for Tillamook Bay. I intend to work hard in Congress to provide federal funding for the south jetty extension and am interested in the proposed hearing. If I cannot attend, I will endeavor to have a senior staff assistant attend. Please forward records of the hearing to me for my background information.

I would appreciate it if you would continue to keep me informed of developments concerning this matter.

With best wishes,

Sincerely,

LES AuCOIN
Member of Congress

Exhibit 5
March 17, 1975

Colonel Clarence D. Gilley
District Engineer
U. S. Army Corps of Engineers
2850 S. E. 82nd Avenue
Portland, Oregon 97208

Dear Colonel Gilley:

I have always felt the only purpose of a letter from someone such as myself through long association and sharing in background knowledge in a specific project, is to lend justification to endorsing or opposing a certain project. Thusly, with my background knowledge, I do here now tender a strong endorsement of the proposals listed below:

(1) Construction of the proposed modification based on navigation emphasis—transportation savings and expanded potential for industry in the Tillamook area.

(2) A study to determine the feasibility and advisability of a channel for navigation into South Tillamook Bay.

(3) A study to investigate multi-purpose benefits, including but not limited to navigation, flood control, restoration, fisheries, water quality, beach erosion and recreation.

Sincerely,

Senator

WSO:p

cc: Mr. Dennis Oster
Col. Clarence D. Gilkey,
District Engineer,
U.S. Army Corps of Engineers,
2050 SW 62nd Ave.,
Portland, Oregon 97202

Dear Sir:

The Port of Nehalem hereby gives whole-hearted support to the request by the Port of Bay City, The Port of Tillamook Bay and the County of Tillamook to initiate a study by the Corps of Engineers on the advisability and feasibility of modifying the existing authorized navigation project in Tillamook Bay. We believe that if this study is not made and hopefully the improvement of conditions in Tillamook Bay carried out that the results would be progressively devastating to the economy of the entire County.

We believe that the need for a channel of proper specifications to accommodate barge traffic from adjacent to the present channel at Garibaldi to the vicinity of Kilchis Point has existed for a long time. Further we believe that a turning basin at Kilchis Point would be necessary.

We believe further that a side channel should most certainly be constructed to serve the city of Bay City, making possible a more nearly full industrial and recreational use of the waterway.

One beneficial side effect of docks and wharves on aquatic life has been found to be that these structures provide a shady cover under which fish and other marine life can hide from their natural enemies.

We believe that the potential benefit of the recently completed jetties at the mouth of Tillamook Bay would be at least partially lost if these improvements are not authorized and completed.

We agree with local interests that the reasons for the
requested modifications are numerous and multi-disciplinary.

The Port of Schallen, located as it is in the northern end of Tillamook County, is keenly interested in any plan which will be of benefit to the County as a whole. We therefore urge the Corps of Engineers to act favorably on this request to determine the feasibility and advisability of the modification in Tillamook Bay.

Very truly yours,
PORT OF TILLAMOOK COUNTY

[Signature]

L. P. Lysted, Secretary.
March 26, 1975

Colonel Clarence D. Gilkey,
District Engineer
U. S. Army Corps of Engineers
2850 S. E. 82nd Street
Portland, OR 97208

Dear Colonel Gilkey:

This letter is to add support from the Clatsop-Tillamook Intergovernmental Council to the Tillamook Area Sponsors in their request to the Corps of Engineers for initiation of a study on the advisability and feasibility of modifying the existing authorized navigation project for Tillamook Bay.

In addition to the fact that the South Jetty has been finished to 6,500 feet, several reports exist which speak to long range potentials of the Tillamook Bay area. The Economic Survey and Analysis of the Oregon Coastal Zone by a Special Economic Study Team of the Oregon Coastal Conservation and Development Commission discusses the fishery potential including expansion of existing groundfish and shrimp fisheries. For example, two large concentrations of shrimp biomass are located offshore from Tillamook Bay. However, the report notes the need for adequate boat harbor facilities with adequate channels before the fishery resource can become an increasing factor in the economy.

Another resource potential for the Tillamook Bay area is the maturation of the Tillamook Forest. The 1972 Murray report titled Development Program For Tillamook Bay, Oregon cites an estimate from the State Forestry Board that the annual allowable cut from state lands in Tillamook County will be over 100 million board feet after the year 2010, up from the present average of 36 million board feet per year.

Another study (Oregon Coastal Port Development Plan by Murray and Associates) points out the demand for additional marine and shoreside facilities for recreational boating.
It appears that additional marine development will be needed on the Bay and for this reason we support a study to determine the feasibility and advisability of a channel for navigation into South Tillamook Bay.

Several objectives of the Council's Interim Regional Plan lend support to the proposal including:

1. Employment: Actively seek and encourage economic development in the region compatible with the environment.

2. Employment: Encourage construction programs such as water and sewer systems, transportation facilities and recreation areas that will provide employment.

3. Open Space: Recognize the potential of the region as a tourist recreation area and provide for a balanced development of tourist-oriented facilities which will enhance and stabilize the region's economic base.

4. Open Space: Cooperate fully with other state, county, and local agencies in providing maximum orderly development of recreational facilities and programs compatible with the economy and natural resources of the District.

I hope this letter will be of assistance in your determination of the proposed modifications to the Federal project in the Tillamook estuary.

Sincerely,

Jack Lesch
Director

JL:bha
cc: Dennis Oster
    c/o Tillamook County Board of Commissioners
    P. O. Box 266
    Tillamook, OR 97141
April 1, 1975

Clarence D. Gilkey, Colonel
Department of the Army
Portland District, Corps of Engineers
P. O. Box 2946
Portland, Oregon 97208

Dear Sir:

The Tillamook County Chamber of Commerce would like to go on record advocating further study of the Tillamook Bay estuary, by the District Corps of Engineers.

Namely, the Chamber feels an imperative need for a channel into the South Tillamook Bay to help alleviate existing flooding conditions, aid in future water transportation needs, and boat safety.

Secondly, a South Tillamook Bay Channel is a logical step toward stream clearance of the rivers of the area, to their original state for the benefit of migratory fish, further flood control, and navigation.

Sincerely,

L. S. Andrus
Manager
COL Clarence D. Gilkey  
District Engineer  
U. S. Army Corps of Engineers  
2850 S. L. 82nd Avenue  
Portland, Oregon 97208  

Dear Colonel Gilkey:  

File 257  

This is in response to a letter received from the Tillamook County Board of County Commissioners and other local public agencies, concerning proposed Corps of Engineers' studies and work at Tillamook Bay, Oregon.  

The Oregon State Marine Board supports "a study to investigate multipurpose benefits, including but not limited to navigation, flood control, restoration, fisheries, water quality, beach erosion and recreation."  

Sincerely,  

[Signature]

[Name]
Director  

[Handwritten note]:  

JIl:dh  

cc: Mr. Dennis Oster
March 18, 1975

To: KESSLER R. CANNON
Director
Tillamook County Board of Commissioners
P. O. Box 266
Tillamook, Oregon 97141

RE: WQ - Tillamook Bay

Gentlemen:

This is in response to your letter of March 14, 1975, and attachments relative to a possible Corps of Engineers study of expanded navigational channels inside Tillamook Bay.

On March 5, 1975, the Department of Environmental Quality was represented at a meeting in Portland, with Port representatives and other agencies, to discuss both the advantages and possible disadvantages of extending the navigational channel to Kilchis Point inside Tillamook Bay. It was the general consensus among those present that no decision could be made without a detailed background study of the proposal. Likewise, it was a general consensus that allowing the study was in no way an endorsement of the extended navigational channels. Acceptance or rejection of the project proposal would come only after evaluating the study results.

The Department of Environmental Quality, therefore, has no opposition to the study, and we take a neutral position until such time that the study results are presented for evaluation. In view of this position, we will not be represented at the upcoming meeting on this subject in Tillamook on April 16, 1975.

Cordially,

KESSLER R. CANNON
Director
Glen D. Carter, Administrator
Program Development Division
Water Quality Program
The Tillamook estuary supports numerous species of aquatic life and is an important part of the fish production area of the Oregon coast. In addition, the bay is one of the major wintering areas for waterfowl on the Oregon coast. A substantial recreational fishery occurs in estuarine and offshore areas that is dependent upon these productive habitats.

Estuaries and associated aquatic environments are very complex ecological systems. Man's activities can and have upset the fragile balance. Control of water quality, land and water uses, and physical modifications are important factors that must be considered in proper estuarine management. Also the economic needs of the community and state are vital considerations.

The Oregon Wildlife Commission staff supports a study on the advisability and feasibility of modifying the existing authorized navigational project for Tillamook Bay if natural resource concerns...
are included in the study proposal. Potential benefits of the project would be improved flushing which could increase salinity in upper bay areas, allow for better passage of suspended matters through the bay and improve overall water quality by decreasing the tidal cycles needed for flushing. In addition, recreational fishing could perhaps be enhanced within the new channel area. The project would also increase the opportunity for development of additional small boat moorage facilities in the bay. Most of the answers to the above questions can only be addressed through a detailed hydraulic study of the proposed channel extension.

A study should also address potential environmental impacts of the proposed project which would be related to both the short-term and long-term spoil disposal of dredged materials. Also the development of shoreline areas will occur with an extended channel. These indirect impacts must be evaluated.

Although the Wildlife Commission supports the Corps' study, we must point out that modification of physical conditions in the estuary and near shore areas could also negate some fish and wildlife values. Thus, a detailed hydraulic study of the proposed channel extension must be an intrical part of the evaluation program.

Our staff will work closely with the Corps during the study phase of the proposed project modifications. When these data are available, we will develop a formal position and specific recommendations for the project.
Thank you for the opportunity to comment at this hearing. The Wildlife Commission is anxious to cooperate fully with the Corps, Ports, and Tillamook County in the management of this important estuary.
AUTHORIZED & PROPOSED CHANNELS
TILLAMOOK BAY, OREGON

PORT OF TILLAMOOK BAY
PORT OF BAY CITY
TILLAMOOK COUNTY
March, 1975

Italics: Existing Authorized Project
All channel depths at mean lower low water.
* Proposed Spolius Disposal Site
Channels Not to Scale

North Jetty
5700 ft.

South Jetty
6400 ft.
(Authorized 8000 ft.)

Bar Channel: As Wide As Practicable
Garibaldi Channel: 200 ft. Wide, 18 ft. Deep
Miami Cove Turning Basin: 500 ft. Wide

Boat Basin & Approach Channel
12 ft. Deep

Closure Structure

Channel Modification:
150 ft. Wide, 16 ft. Deep
Minimum Specifications

Approach Channel
12 ft. Deep

Turning Basin & Approach Channel

Maintain All Channels To Authorized Depths

Exhibit 13
April 2, 1975

Dennis Oster
Oregon Pioneer Building
320 S. W. Stark - Room 518
Portland, Oregon 97201

Dear Sir:

Following is the information you asked for as per our conversation in March.

Breakdown for vessels which purchased moorage space during 1974 = 288 total

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<tr>
<td>Total commercial moorages</td>
<td>108</td>
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<tr>
<td>Total sport moorages</td>
<td>156</td>
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<tr>
<td>Total charter moorages</td>
<td>24</td>
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<tr>
<td>Paid commercial moorage</td>
<td>108</td>
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<tr>
<td>Paid sport moorage</td>
<td>156</td>
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<tr>
<td>Paid charter moorage</td>
<td>24</td>
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The estimated spaces at maximum basin development is 288. There is no more waterspace available for additional moorages.

We maintain no waiting list but approximately 50 persons inquire about renting moorages during the season. Availability of moorage is on a first come, first served basis.

Very truly yours,

PORT OF BAY CITY

BRT/ss
cc: Mr. Mike Morgan
    Col. Clarence D. Gilkey

Benny R. Taylor,
Harbor Master

Exhibit 17
Mr. Dennis Oster  
Tillamook County Board of Commissioners  
P.O.Box 266  
Tillamook, Oregon 97141  

Dear Mr. Oster:

Regarding your request for information concerning Bar Crossings of Tillamook Bay Bar, following is a list of crossings for 1972, 1973, and 1974. The 1972 listing is broken down into Pleasure Craft/Commercial Vessels. I'm sorry we cannot break down the different vessels for 1973 and 1974. Also I should inform you that bar crossings are recorded only during the months of May through October.

(a) 1972 2,950 Commercial  
(b) 1973 10,262 Total  
(c) 1974 10,929 Total

I hope this information will be of some benefit to you. Please do not hesitate to ask for any additional help or information that we may be able to furnish.

[Signature]

BMC G. E. SPRY  
Officer in Charge  

Exhibit 18
Colonel Clarence D. Gilkey  
District Engineer  
U. S. Army Corps of Engineers  
2850 S. E. 82d Avenue  
Portland, OR 97208

Dear Colonel Gilkey:

Tillamook Peoples Utility District support the proposal of the Ports of Bay City and Tillamook Bay for channel improvements from Garibaldi to Kilchis Point.

With the increase in size of step-down transformers and voltage regulators required on the District's system, it would be most practical to ship these pieces of equipment by barge from the East Coast to our Tillamook service area. Ocean shipping from the East Coast to Astoria and barging to Tillamook should cost less than one-half as much as rail transportation since these bulky pieces of equipment require special routing to avoid tunnels and low bridges.

If barge traffic were available to Kilchis Point, the District would probably utilize such service not less than three times each year.

The installation of this navigation channel undoubtedly will assist in removing portions of the sedimentation build-up in Tillamook Bay, particularly from the mouth of the Kilchis, Wilson, and Trask rivers.

We very strongly support any improvement you may make in navigation channels within the bay or sediment removal.

Yours very truly,

TILLAMOOK PEOPLES UTILITY DISTRICT

[Signature]

Jack H. Madison, Manager

JHM: jb

cc: Dennis Oster
April 7, 1975

Mr. Dennis Oster
320 S. W. Stark
Portland, Oregon 97201

Dear Mr. Oster:

At your request, we have made a review of your proposed project of constructing a channel from Garibaldi to Kilchis Point, a distance of approximately 4.2 miles. The channel, as you indicated, would be 150 ft. wide to a depth of -16 ft. and, as we see it, would have side slopes of 3 to 1. Using the limited information available and our limited knowledge of the channel location, we have made an estimate that the project would involve dredging of approximately 1,650,000 cubic yards.

The spoils areas indicated, especially on the ocean front, would require considerable pumping distance and special effort such as use of a booster pump. The proposed spoil area located at Kilchis Point has a limited capacity of only 720,000 cubic yards. The remaining 930,000 yards would have to be pumped to the Bayocean Peninsula. Considering the location to which equipment would have to be mobilized and the scope of the work, it would appear that a reasonable cost estimate of performing the proposed excavation would amount to approximately $1.25 per cubic yard or to a total cost of approximately $2.1 million.

It is our observation that the project is entirely feasible construction-wise. Also, the development of such a channel would be a boost to the economy of the area by increasing the outlet for seagoing commerce, especially in view of the improved federal project at the entrance of Tillamook Bay. We certainly advocate development of such projects. We also consider that the impact on the environment would be minimal as compared to the benefits derived by development of your proposed project.

We wish you the best of luck and we would be pleased to further assist in your planning if you feel we can be of help.

Very truly yours,

WESTERN-PACIFIC DREDGING CORPORATION

E. B. Ellis, Office Engineer

WESTERN-PACIFIC PILEDRIVING CO.

WESTERN-PACIFIC DREDGING CORP.
WILLAMETTE TUG & BARGE CO.
WILLAMETTE HI-GRADE CONCRETE CO.

Ship Assisting  Towing  Barging  Land and Water Cranes  Marine Salvage  Hydraulic, Bucket and Clamshell Dredging  Cofferdams
Submarine Pipelines  Land Reclamation  Marine Construction  Piledriving  Intakes and Outfalls  Land and Water Substructures
Ready-mix Concrete  Sand and Gravel  Crushed Rock  Fill Material  Truck-Rail-Barge Delivery

Exhibit 20
April 4, 1975

Colonel Clarence D. Gilkey
District Engineer
Department of the Army
Corps of Engineers
P. O. Box 2946
Portland, Oregon 97208

Dear Sir:

We are very interested in assisting the Tillamook port districts with their request for a further jetty and harbor improvements study by your office. Our opinion is that the jetty project should be completed contemporaneously with the planned channel to the new dock, plus the reestablishing of project water depth in the turning basin. These projects should be given basic priority at this time.

Our current tug and barge rates off the Oregon coast to Southern California ports are 20% below surface transportation rates on the door-to-door basis. Our rates to the State of Hawaii, Guam and The Trust Territory Islands are 10% below the self-propelled vessel operators' rates serving this offshore area.

Wood chips will move from Tillamook Bay to Oregon and Washington destinations at 75% of surface transportation costs. We have recently quoted on this basis to three major companies.

Very truly yours,

SAUSE BROS. OCEAN TOWING CO., INC.

Henry Sause, Jr.
President

Exhibit 21
March 19, 1975

Tillamook County Board of Commissioners
P O Box 266
Tillamook, Oregon 97141

Dear Sirs:

I am answering your letter of February 24, 1975, to Mr. Gil Oldenkamp, manager at our Tillamook sawmill. The letter reached my office Friday, March 14. The exact reason for the delay I am not sure.

Firstly, I want to commend the Members of the Board for the spirit and attitude in which you approach problems. There are so many areas today that have been attacked by the economical slump, but attempting to do absolutely nothing. This is not true with you gentlemen.

Corporations, small companies, workmen and their children have been effected by the situation of our country. We have the finest men and women in the world in office today, but they must learn to work together. Many people forgot the importance of teamwork and become individuals. Consequently, it is hurting our nation.

The expansion of navigational facilities would certainly add to the economics of Tillamook County. With the heavy export market that Louisiana-Pacific has, we would certainly use these facilities whenever possible.

One thing that could heavily effect this, would be the proposal in the State of Oregon to set aside 50% of the State Timber for small businesses. As we all know, the majority of operations in the Tillamook area are large businesses and the majority of small businesses are in the Willamette Valley. Consequently, they would be trucking the timber that grows only a few miles from Tillamook to other locations. If this happens, there would not be enough timber to allow the present large business mills to operate at maximum capacity. This would drastically cripple the now stable and excellent work force in the area and have an effect on your loading facilities.
If we can be of any further assistance to you on this matter or any other matter, please do not hesitate to contact me.

Sincerely,

Earl H. Smith
General Manager
Columbia Corridor Division

EHS:jr

cc: Mr. Vear Hansen
March 21, 1975

U.S. ARMY CORPS OF ENGINEERS
2850 SE 82nd Avenue
Portland, Ore. 97208

Colonel Clarence J. Gilkey:

We are strongly supporting the Tillamook County Board of Commissioners in their efforts to help the economic resources that would be derived from the proposed modifications in Tillamook Bay.

The continuation of the South Jetty and the dredging of the Channel would most certainly relieve the flooding disasters in this area and increase the fishing and boating industries. This would provide additional per capita for the welfare of the community. In the commercial Charter business, the improved channel and bar conditions could double the per capita in the community from this business alone, so we certainly know that there is room for additional commercial boating industries and shipping facilities that could derive from the requested dredging and docking facilities, which in turn would bring a greatly needed per capita into Tillamook County.

It is of our opinion that the lumber and dairy industries could most certainly utilize the shipping industry in transporting materials, instead of the high cost of overland transportation.

Your serious consideration of the requested modifications in the Tillamook Bay is greatly needed.

Sincerely,

Dale C. Fuller

Dale C. Fuller

cc: Dennis Oster
March 21, 1975

Colonel Clarence D. Gilley, Dist. Engineer
U. S. Army Corps of Engineers
2850 S. E. 82nd Avenue
Portland, Oregon 97111

Dear Sir:

My letter is in answer to the Tillamook County Board of Commissioners letter regarding a meeting to be held April 16 at 7:30 P.M. in the Tillamook City Hall.

I feel that we are badly in need of a Channel for Navigation into South Tillamook Bay as we are a distressed area in Garibaldi and this would greatly help to bring industry into our area. If this Channel were to be dredged as far as Kilchis Point it would help the lumbering industry in and around Garibaldi to have a cheaper means of transportation for their logs as well as other things to be shipped.

I am a skipper and the owner of Joe's Deep Sea Fishing, Garibaldi and I know that the basin at Garibaldi is badly in need of dredging as well as the Channel out to the bar. On very low tides it is very hard to get the boats that draw much water away from the docks and many times we have to move them down to the end of the docks in order to take our early morning trips.

Anything that can be done to bring employment back to our area will be greatly appreciated by Tillamook County.

Yours very truly,

Joseph W. Stanek

c/c
Dennis Oster
RECOMMENDED WORK PROGRAM
Economic Analysis of Marine-Related Development Impacts
Tillamook Bay and Bar Project
Tillamook County, Oregon

1. Tillamook Bay Study Area Profile
   o Locational relationships
   o Study area access and circulation
     o Water
     o Rail
     o Highway
   o Industry and other employment sources
   o Characteristics of selected sub-areas within the Tillamook Bay Area

2. Tillamook County Growth Influences
   o Population growth
   o Selected population characteristics
     o Age
     o Education
     o Income
     o Mobility
   o Housing growth
   o Selected housing characteristics
     o Household size
     o Tenure
     o Housing value and rents
   o Labor force trends
   o Employment growth and distribution
   o Locational influences

3. Commercial Fishing Trends
   o Seafood consumption
   o Fishery resource: the Central Oregon Coast fishing grounds
   o Oregon harvest
   o Selected Pacific Northwest port harvests
   o Tillamook Bay harvest

4. Commercial Fishing Characteristics
   o Oregon coastal fishing industry
   o Tillamook Bay fishing industry
   o Survey of Oregon Central Coast commercial fishermen to
determine interest in using improved facilities at Tillamook Bay

Exhibit 25
Page 1 of 5
5. Seafood Processing Industry
   o Processing operations
   o The wholesale market for processed fish and shellfish products
   o Industry employment characteristics
     o Trends
     o Seasonality
   o Land and space use
   o Operational experience
   o Seafood processing support facilities

6. Estimated Increase in Commercial Seafood Harvest and Processing Activities if Proposed Bay Improvements are Implemented

   o General considerations
   o Projected landings
   o Projected fleet growth
   o Moorage requirements (wet and dry)
   o Gear and equipment storage
   o Boat repair and boat building facilities
   o Ice making and cold storage facilities
   o Wholesale and retail facilities serving the commercial fishing trade
   o Seafood processing facilities
   o Direct industry employment impact

8. Forest Products Trends
   o Demand for Western Oregon forest products
   o The forest resource
   o Significant limitations in the source of supply
   o Western Oregon annual cut and production volume
   o Tillamook County cut and production

9. Forest Products Industry Characteristics
   o Industry profile - Western Oregon
   o Industry profile - Tillamook County
   o Raw materials sources
     o Tillamook County
     o Other sources
o Forest products markets
  o Finished wood products
  o Semi-processed wood products
  o Byproducts
o Employment
o Access to transportation
  o Water
  o Rail
  o Highway
o Survey of manufacturers' growth plans and opinions regarding
  Bay improvements

10. Facilities Required to Serve the Forest Products Industry
o General considerations
o Projected production volumes through 1990, assuming
  implementation of Bay channelization project
o Dockside materials handling facilities
o Dockside cargo storage
o Barge repair facilities
o Direct industry employment impact
o Other considerations

11. Agriculture
o Tillamook County resource base
o Agricultural trends
  o Demand
  o Output
  o Employment
o Trends in agricultural output
  o Dairy products
  o Livestock
  o Crops
  o Processed cheese manufacture
o Demand/price elasticity relating to mode of agricultural
  supplies transportation
o Benefits likely to be realized by agriculture, through 1990,
  if proposed improvement project is implemented
o Direct employment impact

12. Tillamook Bay Area Recreation
o State Park visitation trends
o Recreational fishing
o Charter boat fishing
o Pleasure craft ownership and usage
o Trends in vacation–second home ownership
o Retail/commercial facilities serving the tourist–recreation industry
  o Transient housing
  o Food and beverage outlets
  o Retail stores
  o Other facilities
o Other indicators of recreationist visitation
o Estimated tourist–recreation visitation, 1975–1990
o Outlook for recreational fishing and boating in Tillamook Bay Area
  o Tourist–recreation projections, assuming implementation of proposed Bay improvements

  o Moorage/marina facilities, wet and dry
  o Charter boat facilities
  o Motor hotel facilities
  o Potential for waterfront recreational resort development
  o Retail/commercial facilities to serve the marine-oriented recreation market
  o Impact on vacation–second home construction
  o Other facility requirements
  o Summary of tourist–recreation impact

  o Recapitulation of primary employment and trade impacts
  o The multiplier effect: projected incremental patronage demands on Tillamook Area retail/service/commercial facilities, 1980–1990
  o Supportable secondary expansion of area business facilities likely to result from implementation of the proposed Bay channelization project

15. Land Use Considerations Pertaining to Expansion of Housing and Business Facilities
  o Bay City area
16. Identifiable Economic Costs Associated with Expanded Area Economic Activity
   o Bay improvement costs
   o Investment in expanded business facilities
   o Incremental cost of increased highway usage
   o Incremental cost of public recreation facilities usage
   o Incremental cost of community services
     o Education
     o Police and fire protection
     o Other public administration

17. Summary of Primary and Secondary Impacts, 1975–1990
   o Population growth
   o Employment growth
   o Personal income growth
   o Business income growth
   o Intangible community benefits