THE PORT OF BELLINGHAM

1920 - 1970

JAMES H. HITCHMAN

Center for Pacific Northwest Studies

Occasional Paper #1

The Port of Bellingham 1920 - 1970

by

James H. Hitchman

Occasional Paper Number One

Center for Pacific Northwest Studies

Western Washington State College

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Table of Contents

List of Tables and Maps

Page

I Tables (continued)

II Maps

EDITOR'S PREFACE

Western's Center for Pacific Northwest Studies, now entering on its second year of life, set as one of its initial goals, the publication of two series of papers: a series of Occasional Papers, in which scholars of the Center and others will publish the results of research projects undertaken on various aspects of the Pacific Northwest; and a series of Bibliographical Papers, which will provide inventories of archival and other collections in the Center, as well as bibliographies on selected Pacific Northwest topics.

Through the efforts of Dr. Herbert C. Taylor, Jr., Dean for Research and Grants, the Research Advisory Committee has made available funds for the publication of the first of the series of Occasional Papers.

A timely and incisive study of the Port of Bellingham's first fifty years as a public authority, Dr. Hitchman's short monograph will provide the general public with a clear story of the port's development, and the student with a scholarly, well-documented account of a public authority in action.

James W. Scott,
Director

PREFACE

The purpose of this history of the Port of Bellingham is to delineate the main features of port activity from 1920 to 1970. Although the chief aspects of bay and county water-oriented enterprise are outlined, no attempt has been made to render an encyclopedic chronicle of all events on Bellingham Bay. The theme followed is the port commission's exercise of its powers to develop an outport in the Northwest corner of the United States. I have always been interested in the sea and living on Bellingham Bay during the past six years has impelled me to learn about the port and to contribute this account of local history to posterity. The endeavor of men and women to make a living from the salt waters of Whatcom County is a story worth preservation.

It is a pleasure to acknowledge the assistance received on this project for the past two years. The study would have been impossible without the generosity of Mr. Thomas Glenn, the Port Manager. The patient and friendly help of Mrs. Dorothy Clinard has been invaluable. Other members of the port staff have answered many questions and assisted in other ways: Mr. T. P. Scholz, Mr. Carl Erlandson, Mr. George Livesey, Mrs. Mel Reasoner, Mrs. Lucille Jungblom, Mr. John Adams, Mr. Loren DeWitt, Mr. Bill Lausch, Mr. Bill Bond, Mr. Bill Gardner. Mr. Jack Baker, Bellingham Fire Chief and Mr. Dave Langford, his assistant, let me scan their Harbormaster files. Mr.

Robert Stephens, Director of the Bellingham Chamber of Commerce, provided access to chamber records. Dr. David Thomas of the Whatcom Information Service willingly shared some of his collected data. U. S. Army Corps of Engineer personnel in Seattle could not have been more cooperative: Mr. Steve Foster, Mr. Warren Waterman, Mr. H. J. Imbery, Mrs. Agnes Hagan and Mrs. M. A. Gorman. It was a distinct pleasure to work with Bill Freeman, an old friend, in the Corps records. Mr. John Raymond of the State Department of Ecology helped in citing material.

I am especially indebted to Mr. Eugene Hoerauf, college cartographer, for his cooperation and expertise in making maps and measuring waterfront land usage. The reference staffs at the Bellingham Public Library and Western Washington State College located many essential sources. Mr. Hugh Cory, Mr. L. Bowen and Mrs. Michaelyn Dixson of the Whatcom County Treasurer's office extracted some needed statistics. Many correspondents have shared their knowledge of and interest in ports; they are mentioned in the Bibliography with gratitude. Several business leaders in Whatcom County provided interviews and information. They are listed in the Bibliography with appreciation. Professor Harry Ritter assisted with translation. Professor Michael Mischaikow shared some of his information on regional economics.

I also wish to thank Professor James Scott, Director of the Center for Pacific Northwest Studies, for his encouragement and

willingness to publish this as the Center's first occasional paper. The support of Dr. Roland DeLorme, chairman of the Department of History is gratefully acknowledged. He and Professors Barry M. Gough and Robert Monahan greatly improved the manuscript with their comments. This study was undertaken independently and is in no sense a sponsored, official history of the port. I am grateful, however, to Dean Herbert C. Taylor, Jr., and the Bureau for Faculty Research for making publication possible. Mrs. Margaret Cochrane and Mrs. Jane Clark typed the manuscript. The work of Mr. Ken Anderson and the college printing shop is appreciated.

Any errors of fact or interpretation are mine and I would welcome any corrections or suggestions readers would care to make.

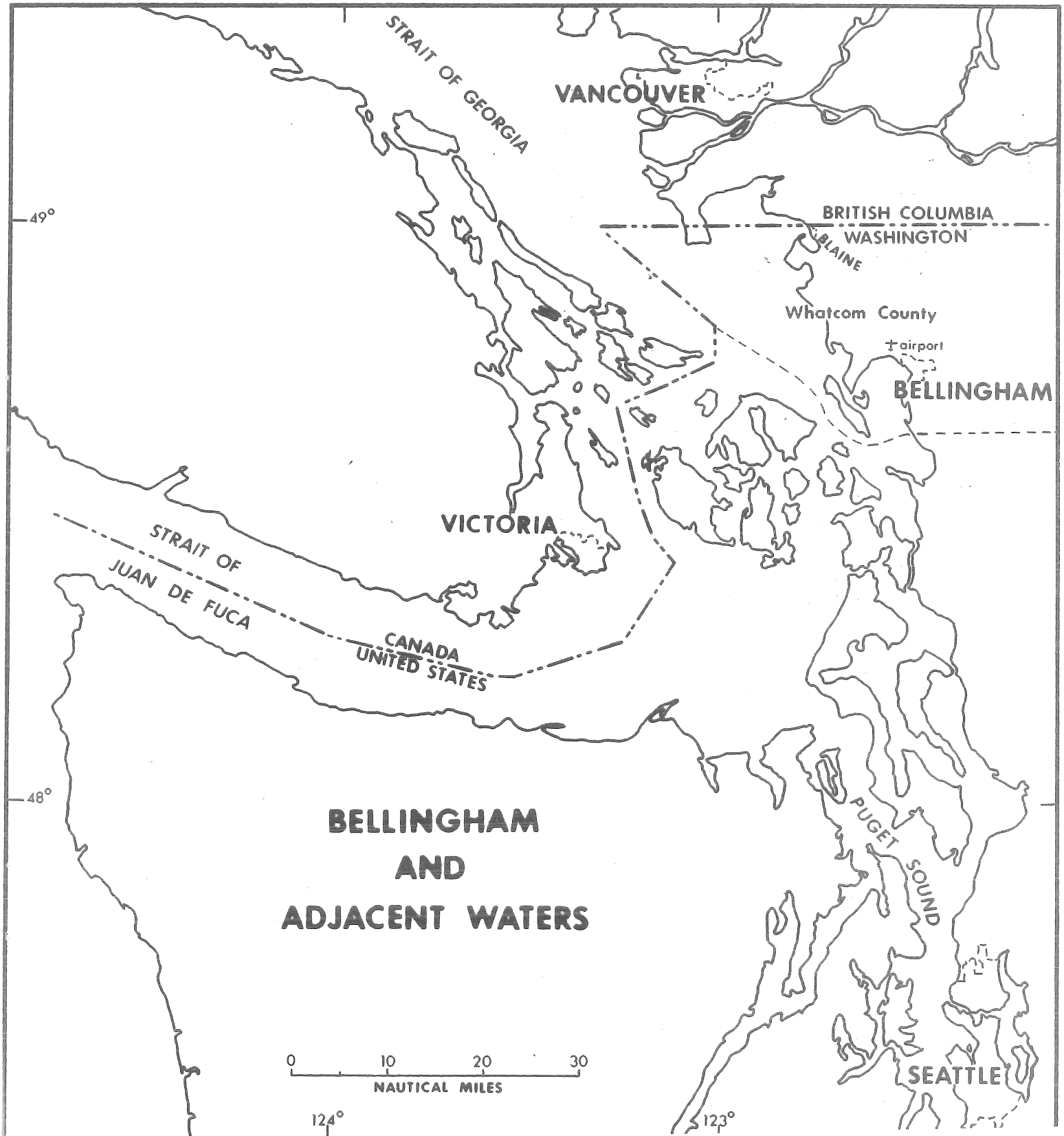
Bellingham, June, 1972.

I

Introduction

The sea has strongly influenced American history. In colonial times, shipmasters sailed their sturdy little brigs to many European and Caribbean ports and by 1784, Yankee enterprise had opened trade with China at Canton. In 1789-1792, Captain Robert Gray weathered Cape Horn and landed on the Pacific Northwest Coast, searching for furs to insert in the China trade. From the 1840's through the 1920's, waterborne traffic thrived on Puget Sound, the Columbia River and Washington's Pacific coast as stately lumber schooners, picturesque steamboats, sleek ocean liners and rugged freighters carried their cargoes between ports. They were joined by tugs, fishing boats and ships of the U. S. Navy and Coast Guard, puffing away at their tasks. Many of these vessels were built in Puget Sound shipyards. After 1900, trade from the State of Washington's ports assumed a prominent place in the waterborne commerce of the United States.

Men and women attracted to the waters of Washington launched various maritime endeavors. The efforts of waterborne commerce, the drama of the waterfront, the enjoyment of cruising among the San Juan Islands and the nature of port organization contain much regional history. Ports have been neglected as historical topics compared to treatments of ships and personalities, but they are vital to the people of Washington. Central to port history in the twentieth


STRAIT OF GEORGIA
VANCOUVER
49°
BRITISH COLUMBIA
WASHINGTON
BLAINE
Whatcom County
airport
BELLINGHAM
VICTORIA
STRAIT OF
JUAN DE FUCA
CANADA
UNITED STATES
48°
BELLINGHAM
AND
ADJACENT WATERS
PUGET SOUND
SEATTLE
0 10 20 30
NAUTICAL MILES
124°
123°

century is the concept of the port authority, or commission, as a public corporation. The purpose of this study is to select one port and describe the way the Port Commission of Bellingham developed facilities and diversified business during its first fifty years in Whatcom County.

Indians plied Bellingham Bay for centuries, Francisco Eliza and George Vancouver scanned the bay in 1791-1792, Henry Roeder and Russell Peabody started a sawmill there in 1853. From the 1850's through World War I, shipping on Bellingham Bay consisted mainly of timber, fish, coal, supplies for shops and passenger service. In 1920, the voters of Whatcom County created a port commission with jurisdiction covering the county. The port commission gradually obtained property in Blaine Harbor as well as Bellingham Bay, but additional private interests have always conducted water-based business in the county separate from port operations.

The Port of Bellingham is located on the northeast shore of Bellingham Bay, 108 nautical miles from the Pacific Ocean, 80 miles north of Seattle, 22 miles south of the Canadian border, 55 miles from Vancouver, British Columbia. Bellingham Bay is about twelve miles long and three miles wide, open to the south and southwest. The harbor approaches range in depth from 96 to 24 feet except in the northern part, where tide flats merge with the delta of the Nooksack River. Tide and current changes are minimal; the prevailing winds are from the southeast, although summer westerlies and winter northerlies occur. Deepwater vessels pilot the Strait of

Juan de Fuca, Haro Strait, Strait of Georgia, Bellingham Channel and Rosario Strait for access, while shallow draft vessels may conn the Swinomish Channel and Hale Passage. Waterfront facilities of the port are located at Whatcom Creek Waterway, I and J Street Waterway, Squalicum Creek Waterway, South Bellingham and Blaine. Railroads connecting with Bellingham have been the Chicago, Milwaukee and St. Paul, Great Northern, and Northern Pacific.[1]

Although the port has exceptionally good access by water and is closer to British Columbia and the Pacific Ocean than most Puget Sound ports, it is hampered by lack of a large hinterland. The Canadian border, the mountain ranges, the greater size of Seattle and Vancouver, with their more populous hinterlands, transportation connections and commonwealth ties, have combined to prevent Bellingham from becoming a major port and city. Bellingham's hinterland is confined essentially to Whatcom County. Bellingham and Blaine are not transshipment points with rail and air connections to large consumer areas; they are at one end of the United States transportation system. Nevertheless, within these limits, the Port of Bellingham has grown in the past fifty years. Historically, the economy of the county has depended on forest, sea and agricultural products, joined in the mid-twentieth century by various manufactures such as aluminum and petroleum that can be carried economically on ships. Population increase, with more production and exchange of goods, has been one of the supporting causes of port growth.[2]

Table I

Population Figures for Bellingham, Whatcom County and State

	Bellingham	Whatcom County	Washington State
1920	25,535	50,600	1,351,621
1930	30,823	59,128	1,563,396
1940	29,314	60,355	1,736,000
1950	34,112	66,733	2,379,000
1960	34,688	70,317	2,853,214
1970	39,797	81,377	3,341,399

The slow population increase was due to the coming of new industry and the aesthetic appeal of the region to many persons from other, more crowded areas. The port commission, utilizing the geographical advantages of Bellingham Bay and Blaine Harbor, encouraged this growth.

II

The Port Authority Concept

The origins of the port authority cannot be traced with any great certainty. Ports have existed for centuries, but the American port authority concept is modern, traceable to the Port of London authority in 1909. The port authority idea may also be seen in the Mersey Docks and Harbours Board at Liverpool in 1858, in 19th century French administration, the 16th century Hanseatic League, medieval Genoa and Venice, ancient Carthage and Alexandria. The word "port" means gateway in Latin and a working definition of port is, "A place which regularly provides accommodations for the transfer of passengers and/or goods to and from water carriers." A port usually provides shelter, storage and handling facilities. Ports have been conceived of as geographical entities, public highways, community utilities and business enterprises. Functionally, ports are usually navigation agencies, trade promoters, waterfront developers and transportation authorities. There are various types of port administration in the United States: municipal, state, district, but not national. Major interests in a port may be identified as carriers, storage agencies, shippers, handlers, vessel service agencies, financial institutions, industry, recreation, local, state and national governments.[3]

Generally, port authorities in the United States began after 1900 because businessmen perceived that a community of interests was

preferable to monopoly or cut-throat competition. Also, the movement to public ownership was due to the increasing tendency of Congress to require communities receiving Federal aid in harbor and waterway improvements to maintain public terminals. Furthermore, World War I left a large merchant marine, more experience with government agencies and an awareness of the port's role in connecting world markets. Nonetheless, municipal or public enterprise was nothing new in the United States; the modern port authority might find an ancestor in the canal and turnpike projects of the early 19th century.[4]

The public authority is a significant development in 20th century government. There are several types: public utilities, transit authorities, government credit agencies. Examples of specific public authorities are the Tennessee Valley Authority, British Broadcasting System and Inland Waterways Corporation. A public authority may be defined as

> a public corporation, responsible for its services to the people through their elected representatives, but free from political pressures and routine bureaucratic restrictions in order that it may bring the best techniques of management to the operation of self-supporting or revenue-producing public projects.[5]

Another definition of a port authority is this: "The body established by law to have specified powers including the right to act with respect to a defined area of responsibility." Although a child of government, the port authority is "essentially a business enterprise. It engages in business promotion, supported by the prestige and power of government...." The need for planning to compete in

world trade, utilize limited waterfront areas, resolve the problems of "massive capital requirements" and endure the lag time in investment return, led to the adoption of the port authority.[6]

The Port of New York authority, established in 1921 by a compact between the New York and New Jersey legislatures, is often considered to be the prototype of American port commissions. This authority was established to bring order out of chaos as World War I traffic revealed the failure of competing private interests. However, a number of limited port agencies had already been established: San Francisco, 1862; New York, 1871; New Orleans, 1896; Philadelphia, 1885. The Canadians established their National Harbours Board in 1911. The Puget Sound region also displayed interest in port authorities after 1900.[7]

The Seattle Port Commission began in 1911, earlier than the New York-New Jersey authority. Influential citizens and private associations had campaigned to secure state legislation allowing port districts to be formed on county lines. Along with persons in many other ports, people in Seattle were worried about railroads controlling the waterfront and transportation rates. The timber industry, the Alaska gold rush in 1897, rail and sea connections made by Great Northern and others, the growing trade with Japan, and above all, the opening of the Panama Canal, stimulated Seattle to begin a port agency. Other Puget Sound ports followed Seattle's lead in the next few years.[8]

The Port of Bellingham came into existence in 1920 to attract

business. At that time, it was the last Puget Sound port of consequence to form under the 1911 law. Much of the impetus came from a chain reaction to other ports that had already acted. Although several Bellingham and Whatcom County groups promoted the idea of a port authority, most of the initiative came from the Bellingham Chamber of Commerce. A committee of the chamber obtained signatures to place the issue on the ballot and publicized the topic in the county. Insofar as the records disclose, there was no fear of private monopoly along the waterfront and no progressive reformers fought to put the harbor under public control. Bellingham businessmen wanted a port commission to stimulate an economy that had been lagging since the end of World War I. They also hoped to establish a terminal and fight against railroad rates that were going up while timber prices dropped. The reasons, then, were economic,based on Bellingham's recurring need to bolster its sagging fortunes.[9]

The port commission idea had been proposed before 1919 and in that year, the Chamber of Commerce produced a rationale in their publication, The Show Window. They quoted Robert Dollar of the Dollar Steamship lines (American) who stressed the trade possibilities of the Pacific rim. The Secretary of the National Rivers and Harbors Congress blessed the project, stating that Bellingham had fine deepwater access, but needed better docks and terminals. The chamber viewed the port commission as a business enterprise:

> [A] port commission regulated by the people in the district,serves in the capacity of managing directors of a corporation....The functions of the commission are exactly parallel to those of a general manager of a large, private

> corporation and they are answerable to those who elect them in the same degree.[10]

The chamber pointed out that a port commission had helped Seattle increase its trade and that Grays Harbor and Vancouver, Washington, were submitting bond issues for port development to the voters. They also emphasized that vessels usually spent about $2500 for each 1000 tons of freight when in port, an additional boon to city businesses. Supposedly, New York business had made offers of trade if facilities were developed and New York shipping firms had given assurances that Bellingham would become a port of call. Bellingham's proximity to Alaska, Vancouver Island and the Orient, in contrast with other Puget Sound ports, was the chamber's recurring theme.[11]

A big impediment to the campaign was removed when the Blaine Chamber of Commerce ended its opposition, after it was proposed that Blaine Harbor be added to the port district. During the summer of 1920, the chamber publicized passage of the Vancouver and Grays Harbor bond issues and related how Astoria had prospered since the 1913 inception of its port commission. The chamber claimed that, as of July, Bellingham "now stands alone as the only city of pretension on the Pacific Coast" without a port commission. Whether Bellingham would thrive or falter was now up to voters. A port could make the difference.[12]

The major question concerning the port was whether it would pay for itself. The Show Window assured citizens that all well-established ports on the Pacific Coast sustained themselves. Certain

of the port's financial success, the chamber affirmed that it would not be a burden on the county. In September, 1920, the voters passed the measure by a 77 percent margin, 7944 to 2300. The Bellingham Herald proclaimed the result as "the most stupendous victory for any project ever launched in Whatcom County."[13]

The port commission met on September 25, 1920, with H. B. Paige elected chairman, W. E. Terrill and E. B. Smith, commissioners. They established a budget of $57,000 for salaries of employees and office rental. Going to the voters, they requested a tax levy as they had no means of raising the revenue from operations. Contrary to the Port of New York authority, which by law had to be self-supporting, and contrary to the claims of the Chamber of Commerce, the Port of Bellingham began with indebtedness. It was started because the law allowed the use of taxation for enterprise, based on the assessed valuation of the county.[14]

The powers of the port commission are derived from the 1911 law which has been amended periodically. Sweeping powers for the limited purpose of port development are given to port districts. The Federal government has jurisdiction over navigable waters. The State of Washington has title to the beds and shores of navigable waters. Harbor lines between Federal and local jurisdictions are marked on charts of Bellingham Bay. The state will lease property for not more than 30 years at a time to private interests.[15]

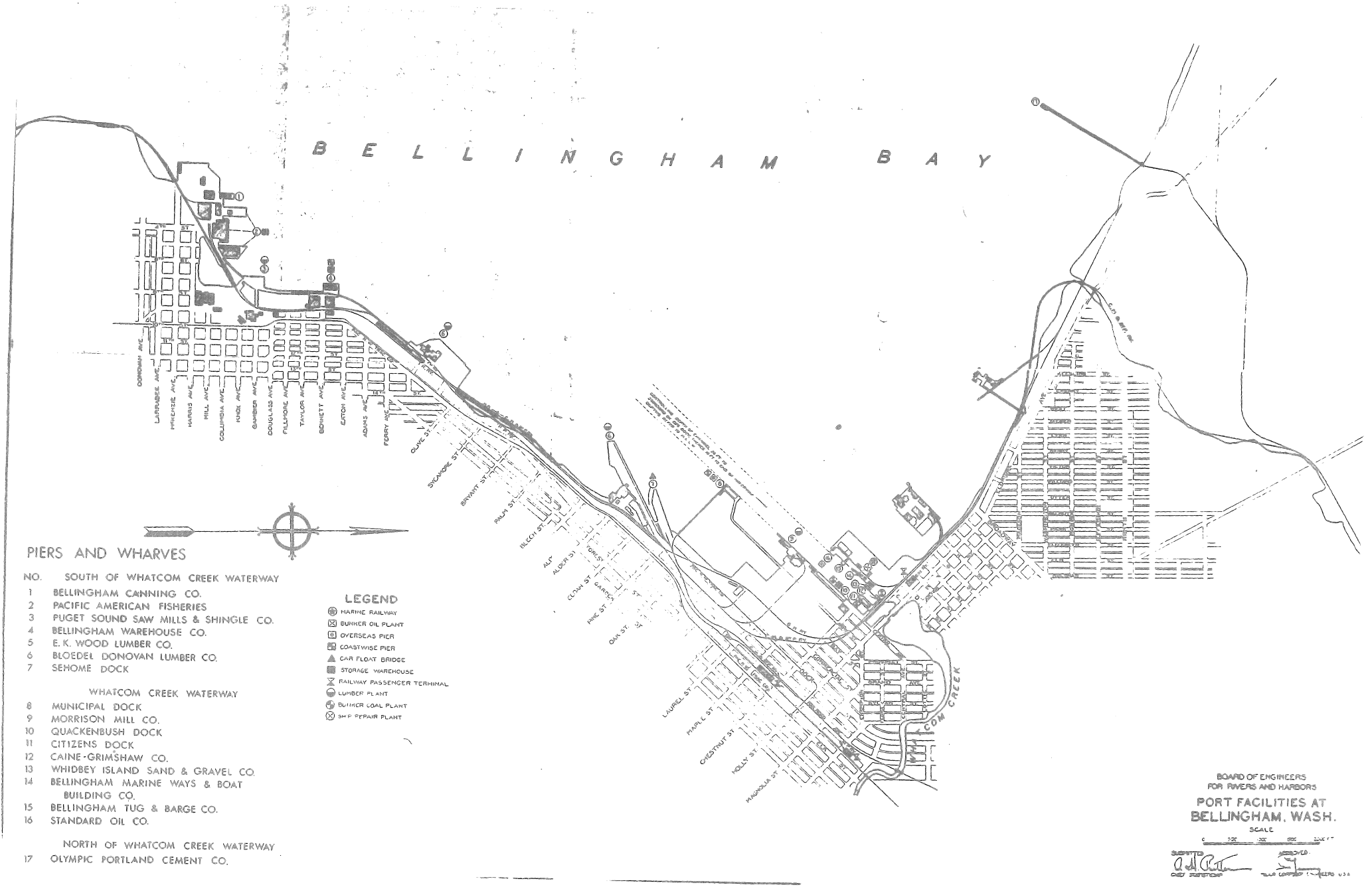
The powers of a port district in Washington are those of a municipal corporation. A port can purchase or acquire by condemnation

land, property, property rights, leases, easements necessary to its purposes, and may exercise eminent domain. It can tax property, and its property cannot be taxed. It can levy and collect assessments on property it leases. A port may acquire, operate, improve and sell these facilities: sea walls, recreational facilities, docks, landings, warehouses, elevators, cold storage plants, tanks, bunkers, canals, bridges, ferries, subways, airports, handling facilities, industrial improvements. A port, by law, must establish a comprehensive scheme of development and secure voter approval. It must take proposals to the voters before taxing from one to two mills on each dollar of assessed valuation in the county. A port can establish local improvement districts, or industrial development districts within its domain. Ports can borrow money and issue general obligation bonds, payable out of taxes, based on from one-quarter (unvoted) to three-quarters of one percent (voted) of the actual valuation of the county. A port can issue revenue bonds, payable out of the income from a particular project or port revenues.[16]

Despite these broad powers, there are specified controls on ports. Materials have to be procured on the open market and the lowest competent bid must be accepted. Ports can sue and be sued. Strict state auditing procedures are applied. The port and the State Department of Natural Resources cooperate regarding leases. Port records and meetings are open to the public. A code of ethics section in the law forbids conflicts of interests. The county treasurer is the port treasurer. Commissioners must stand for reelection at

regular intervals. Furthermore, ports have to comply with Federal requirements to qualify for aid.[17]

The port normally deals with an array of government and private agencies. Among state agencies are the Bureau of Municipal Corporations, Department of Ecology, Department of Natural Resources and the Legislature. The county commissioners and city government focus on land use, sanitation, fire and police protection and utilities. The Shoreline Management Act of 1971 requires port officials to secure approval from the city, county and state before carrying out a construction project. Federal agencies with an interest in ports are Congress, the U.S. Army Corps of Engineers, Customs Service, Public Health Service, Coast Guard, Department of Immigration, Board of Plant Quarantine, Federal Maritime Administration, Interstate Commerce Commission, Federal Aviation Agency. The Federal government pays attention to ports for reasons of national security and international trade, in addition to pork-barrel lobbies. Among local agencies are the Whatcom County Council of Governments, the Whatcom County Development Council, and the Chamber of Commerce. The Grange, dairy and poultry associations also maintain contact with the port. The Washington Public Ports Association is the professional organization for the state's ports.[18]



PIERS AND WHARVES

NO.	SOUTH OF WHATCOM CREEK WATERWAY
1	BELLINGHAM CANNING CO.
2	PACIFIC AMERICAN FISHERIES
3	PUGET SOUND SAW MILLS & SHINGLE CO.
4	BELLINGHAM WAREHOUSE CO.
5	E. K. WOOD LUMBER CO.
6	BLOEDEL DONOVAN LUMBER CO.
7	SEHOME DOCK
	WHATCOM CREEK WATERWAY
8	MUNICIPAL DOCK
9	MORRISON MILL CO.
10	QUACKENBUSH DOCK
11	CITIZENS DOCK
12	CAINE-GRIMSHAW CO.
13	WHIDBEY ISLAND SAND & GRAVEL CO.
14	BELLINGHAM MARINE WAYS & BOAT BUILDING CO.
15	BELLINGHAM TUG & BARGE CO.
16	STANDARD OIL CO.
	NORTH OF WHATCOM CREEK WATERWAY
17	OLYMPIC PORTLAND CEMENT CO.

LEGEND

- MARINE RAILWAY
- BUNKER OIL PLANT
- OVERSEAS PIER
- COASTWISE PIER
- CAR FLOAT BRIDGE
- STORAGE WAREHOUSE
- RAILWAY PASSENGER TERMINAL
- LUMBER PLANT
- BUNKER COAL PLANT
- SHIP REPAIR PLANT

BOARD OF ENGINEERS
FOR RIVERS AND HARBORS

PORT FACILITIES AT BELLINGHAM, WASH.

SCALE

SUBMITTED
CHIEF ENGINEER

APPROVED
MAJOR GENERAL, U.S.A.

III

Physical Development

In 1892, the Federal Government approved three waterways in the harbor: Whatcom Creek, I and J Street, and Squalicum Creek. These areas were marked for future dredging, bulkheading and piers. Between 1904 and 1910, local authorities and the Army Engineers dredged Whatcom Creek Waterway, and filled much of the area around the head of the waterway for street development. The Army Engineers had statutory authority to supervise river and harbor development; consequently, local interests lobbied with Congress and the Corps of Engineers for approval of projects and appropriation of funds. In 1920, activity on Bellingham Bay was dominated by private interests, among the largest being the Pacific American Fisheries, Bloedel Donovan Lumber Mills, Olympic Portland Cement Company, E. K. Wood Mills, and Puget Sound Sawmills and Shingle Company.[19]

In 1921, the port commission prepared a comprehensive plan of harbor development. Slack trade forced the commission to delay for a year. In October 1922, however, the port commission adopted a plan of three units or areas on Bellingham Bay and one at Blaine. Unit I was around Taylor Avenue on the South Side, II was Whatcom Creek Waterway and III Squalicum Creek Waterway. This was done after consulting the Army Engineers and railroad managers. The commission promised that the plan would not immediately affect private ownership of property on the bay. Hearings were held and the voters approved on

December 2, 1922, by a vote of 3,966 to 1072.[20]

The passage of the comprehensive plan was not accompanied by any bond issue or property acquisition. However, the port did build a ferry landing in 1923 and began to procure pieces of property on the waterfront. Then, in November, 1924, the commission purchased for $89,280, the Municipal Dock which had been built by the city in 1918 on Whatcom Creek Waterway. This was to be paid partially from the general operating fund, mostly by assuming the city's bonded indebtedness and issuing general obligation bonds, payable from a tax levy. Then followed extension of the dock, a new warehouse and further dredging of Whatcom Creek Waterway.[21]

The port commission claimed in 1926 that San Francisco was the only other port on the coast that did not tax for operating expenses. This is not borne out by the evidence: in most years, income and revenue did not even cover operating expenses, much less capital improvements. Without tax support, the port would have died.[22]

In 1926, the port adopted, and the voters approved, a plan to purchase land, build wharves,and dredge the Squalicum Creek area. The sum of $250,000 for property acquisition was to be paid by 30-year general obligation bonds at five percent interest, based on a tax levy. The Bellingham Terminals Syndicate and Bellingham Bay Improvement Company had dredged part of the Squalicum Creek Waterway and started a fill of 22 acres, urging the port to take control. The port acceded, and by 1931, had built a breakwater, marine ways, a

webhouse and moorage for fishing boats. O. N. Munn, port engineer, facilitated the operation, working closely with the syndicate.[23]

In 1933-34, taking advantage of the New Deal's work projects, the port deepened the water around Squalicum fill and built a breakwater along its front. The port paid the costs of equipment and materials, the Federal government paid for labor. In the double emergency of the depression and seasonal storms, the work began immediately. In November of 1934, a severe storm damaged the jetty, so the port and the Emergency Relief Administration repaired it, affording more work for men in the county.[24]

In 1935, the port commission approved the construction of a small boat harbor at Blaine for the fishing fleet. In 1936, they joined this project with a proposal for a 30' depth and small boat floats in Whatcom Creek Waterway, and a road from Squalicum fill to the Marietta road. In 1936, development of south Bellingham property began when voters approved $75,000 worth of land acquisition and construction for a small boat harbor in the cove later occupied by United Boatbuilders. The port also allowed a bathing beach at Squalicum's west side in the interwar years, so long as it did not interfere with the commission's stated focus on industrial and shipping facilities.[25]

During World War II, the port commission, led by long-time commissioner O. E. Beebe, secured voter approval for a bond issue of $500,000 to be used in expanding the small boat harbor at Squalicum and building a cold storage plant there in cooperation with Talbot Shipyards who wanted to remain active after the war. By 1967, over

$1.8 million had been invested in four separate projects on the cold storage plant, financed with revenue bonds and paid for by the lessee.[26]

In 1947, the port commission continued expansion with the purchase of the Bloedel Donovan mill site for $75,000 as that company closed down its bay operations. Later, the port began to fill and prepare the site for industrial leases. The port also coalesced various proposals into a city-port-Federal plan to expand Squalicum boat harbor, with more floats, webhouses, and breakwater. The city spent $100,000, the port contributed $250,000 and the Federal government expended $1,500,000. Representatives of the fishing fleet and the citizens' committee of the Chamber of Commerce, headed by Conrad Barker, John Pierce, John Westford, D. K. Ireland and G. W. Gannon gathered support for the plan. The project was carried out by 1958, along with further expansion at Blaine, so that about 500 boats could be moored at Squalicum and 400 at Blaine.[27]

The Bellingham Yacht Club and Squalicum Yacht Club relocated at Squalicum, following the consolidation of pleasure boats. Growing out of the Fairhaven and New Whatcom Yacht clubs of the 1890's, the Bellingham Yacht Club had moved around over the years from Whatcom Creek to Chuckanut Bay to the foot of Cornwall Avenue, then to its club on port property at Squalicum, in 1962. The Bellingham Boat Owners' Association had been at the South Side, then moved to Squalicum Harbor in the early fifties, changing the club's name to that of the harbor.[28]

In 1957, the port assumed control of the Bellingham airport from the county for the price of $1.00. Then the port commission began to pour money into the airport, conceiving it as a transportation service to the county. Flying tenants began to rent space and this attracted businesses desiring quick passenger service for their personnel. The port also offered land for industrial sites near the freeway. The airport did not pay for itself, in contrast to most of the other industrial districts of the port.[29]

In 1962, the port placed before the voters of Whatcom County a proposal to raise the district's ceiling of debt from one to three percent of the assessed valuation. The voters approved, 72.8% in favor, whereupon the port commission issued nearly $2 million worth of bonds to improve and expand its ocean shipping terminal on Whatcom Creek Waterway. This was part of a master plan recommended by a national consulting firm (Tippetts, Abbett, McCarthy and Stratton). The expansion program lengthened the port dock, dredged in front, filled behind for storage area, built an office building and railroad spur, and waged an intensive sales program both at home and abroad to attract shipping and industry. The installation of two mobile gantry cranes allowed quicker handling of bulkier cargo units.[30] In 1964, a salt storage pad, conveyor, chemical storage tank, and rail barge transfer facility were erected, with connections to the adjacent Georgia-Pacific chemical plant. They achieved this with revenue bonds of $700,000, further expanding the port's newly named North Terminal.[31]

In 1966, the port topped this bold program with purchase of

the Pacific American Fisheries' assets and facilities as that corporation ceased operations on Bellingham Bay. The port's purpose here was to ensure a deepwater dock on the South Side, with rail and truck connections. This cost $598,000, paid largely out of general obligation bonds. Added expenditures followed as new warehouses were built, resulting in the port's South Terminal.[32]

From 1968 to 1970, the port finished other tasks, such as a building at Squalicum for office rentals, a small recreation park and boat launching ramp on the South Side. The commission also planned a large development of the area between I and J waterway and Squalicum for expanded moorage and a marine park. However, in 1970, this plan was delayed due to the Federal government's budgetary cutbacks.[33]

As the port attracted industry with its land and facilities, so it became aware of pollution. Beginning in 1962, port officials studied pollution data, put anti-pollution clauses in leases and asked the state for guidelines. Bellingham Bay appeared polluted in 1967; the State Department of Ecology classified the inner harbor as "C" (fair) and the outer harbor as "B" (good). Class C considered the waters suitable for boating, passage of fish, cooling and other selected uses, but not for shellfish reproduction, swimming or wildlife habitation. Classification B stipulated general recreation, shellfish reproduction, fishing and industrial water supply. The port had no police powers; these were exercised by the State Department of Ecology.[34]

By 1970, the Port of Bellingham owned about 2000 acres of property, with 500 available for industrial site development. This

amounted to about one quarter of the waterfront land within the city limits of Bellingham, two-thirds of the waterfront from Post Point to Columbia Cement Company property. The port's credit and organizational capability caused this virtually steady physical development over fifty years. These diversified facilities stimulated industry and shipping.[35]

IV

Waterfront Industry

Through the years, the Port of Bellingham sought waterfront industry and shipping, deriving income from both land rental and cargo handling.

The comparative size of port operations may be seen in the typical budgets of the succeeding decades. Figures are approximate.[36]

Table 2

Operations Budgets

1920's	$ 60,000	1950's	$800,000
1930's	$117,000	1960's	$2,000,000
1940's	$144,000		

As the county valuation has grown, so the capital assets of the port increased through the years.[37]

Table 3

Capital Assets

1927	$447,671	1951	$3,477,522
1936	$935,610	1970	$11,566,062
1944	$1,399,999		

Bonded indebtedness has accompanied the assets. In the 1920's and 1930's, the port was spending around $26,000 per year to retire bonds; in the forties this figure dropped, then rose to $70,000 in the fifties, reaching $190,000 in 1966.[38]

Table 4

Bonded Indebtedness

1927	$ 250,000
1937	279,000
1950	243,000
1968	5,300,000

Generally speaking, with the exception of a few years in the late 1920's and late 1960's, the port operated at a loss. The annual tax levy was used to make up the difference between expenditures and income. The following figures do not include the additional levy for bond retirement, which usually equalled the levy for operations.[39]

Table 5

Tax Levies

1925	$60,000	1955	$110,000
1932	50,000	1969	246,754
1945	63,606		

Part of the port income is derived from renting moorages, land and facilities to private owners and businessmen. The figures for the number of leases and lease revenue indicate growth, especially in the 1960's.[40]

Table 6

Number of Leases

1936	15	1954	61
1942	28	1970	101

Table 7[41]

Income from Leases

1924	$ 1,200 (approximate)	1955	$122,000
1936	13,631	1965	186,987
1949	58,000		

These figures do not include moorage collected: e.g., in 1965, moorage fees yielded $47,000, including Blaine Harbor.[42]

Table 8

Number of Fishing and Pleasure Boats

1920's	125 (approximate)	
1930's	200	"
1949	302	
1970	697	251 fishing, 446 pleasure

The income from leases generally equalled income from shipping until the 1950's, when it increased over tonnage receipts. In the late 1960's, rents and tonnage receipts greatly increased and became more nearly equal.

In addition to being a landlord, the port was also a buyer. It bought goods and services from scores of local businesses, such

as Morse Hardware, Croy Construction, Griggs Stationary, Diehl Ford, Ireland and Bellingar Insurance, Columbia Valley Lumber Co., Oeser Cedar, Bellingham Builders Supply and Puget Sound Power and Light.

The port leases of space and facilities to waterfront businesses were very attractive for access, utilities and taxation. Some examples of large employers on the waterfront through the years would be, for the 1920's, Bellingham Marine Railway and Boat Building Company; in the 1930's, Bellingham Furniture Manufacturers (employing 170 men), a project for which port manager E. M. Hopkins labored long; Talbot's Bellingham Iron Works and Shipyards during World War II; 1950's, Uniflite Boatbuilders, which in 1971 employed 460 persons and held a leading position among the nation's fiberglass boatbuilders. Weldcraft Steel & Marine, Bornstein's seafoods and Mt. Baker Plywood, a cooperative, were other, larger businesses started in the 1940's and 1950's.[43]

Other companies leased directly from the state and were not on port property, although they dealt from time to time with the port. Portland (Columbia) Cement started on the bay in 1913, operated continuously, but not on port property. Bellingham Tug and Barge, originating in 1912, had its own property, but leased log boom areas from the port. Starting in 1926, San Juan Pulp became Puget Sound Pulp and Timber in 1929, Georgia-Pacific in 1963, leased land directly from the state, leased log boom areas from the port and shipped over both its own and port docks. Alaska Packers at Blaine owned their own property, as did the Pacific American Fisheries and Bloedel

Donovan in Bellingham Bay. Puget Sound Freight Lines operated out of the old Citizens Dock at the head of Whatcom Creek Waterway, not on port property.[44]

The port did not consider itself in competition with business although there were exceptions. For example, the port operated its own pile driver and maintenance shop, because this arrangement was cheaper. On the other hand it did not sell gasoline, grain or other products. At times the port commission settled conflicting claims to property, such as the desire of Weldcraft in 1972 to change hands, expand and modernize its shipyard on a parcel of property which Bellingham Cold Storage wanted to use for more employee parking. The port commission decided in favor of Weldcraft, due to the increasing need for boat repair facilities. A more typical instance was the port use of its assets in the 1930's to build an elevator and storage facility for the County Cooperative Poultry Association, at their request, with costs returned through rental charges.[45]

In 1950, port manager Harry Isler attempted to fill the gap left by the declining timber industry when he sought to attract more fishermen. Isler had actively searched for more shipping as well, but on both counts met only partial success. In the late fifties, the county economy was in a slump and the capitalization required to attract new industry was so great that only the port had sufficient assets to help. The port commission bought land at Cherry Point, then sold it to a combination of aluminum companies, which paid the port exactly what it had paid for the land, $142,500. By the

mid-sixties, Intalco Aluminum Company was built and began to ship aluminum to world markets. Intalco was welcomed because of the taxes it would pay and the people it would employ. By 1971, conditions and attitudes had changed; Intalco suffered a temporary slump because of declining world aluminum prices and engaged in a multi-million dollar pollution control program.[46]

The port used its legal authority in other business matters as well. In 1960-62, when it was decided that the old Bloedel Donovan office buildings and site could not be developed for terminal purposes, they were sold to Frank Brooks Manufacturing and Haley International Cross Arm Company. The port commission also agreed to compromises on rates for rents, wharfage, etc. Rates were adjusted for pulp during part of the depression of the 1930's and several adjustments were made with George Wrang in the long negotiations over the alleged damage done to his yard by the diversion of Squalicum Creek in the 1930's. The port joined with firms in protesting rate changes to the state and Federal governments, such as those favoring truckers over water carriers. The port supported the Whatcom County Traffic and Rates Bureau and Whatcom County Development Council. Insurance agencies, such as Sorenson-Garrett, influenced the port by pointing out that sprinkler systems in warehouses for fire prevention would lower insurance costs. Finally, the port acted from time to time to assist firms needed on the bay, such as modifying the lease for the Bellingham Marine Railway & Supply Company because it was the only place for marine engine repair in 1935.[47]

The port is divided into industrial development districts for purposes of accounting, physical planning and financing. In the late 1950's, these industrial districts were designated: (1) Airport, (2) Loggie Fill (I and J Waterway), (3) Bloedel Donovan site, (4) Blaine, (5) Squalicum, (6) Port Dock, (7) South Side. In the 1920's and 1930's, port revenues came from a few land rentals, some moorage and the Municipal Dock. In the 1950's and 1960's, rent receipts rose steadily at Squalicum and the South Side. Virtually all of the districts returned profits, with the exception of the airport. In 1948, it was estimated that rents would yield $47,419 and the Municipal Dock, $41,450. By 1963, the income picture appeared as in Table 9.[48]

Table 9

Profit and Loss from Industrial Development Districts, 1963

	Operating Income	Operating Expenses	Maintenance & Repair	Net Income (loss)
Airport	$ 6,063.55	$17,885.01	$5,014.33	($40,699.56)
Loggie	25,662.99	1,060.78	3,474.15	5,246.62
Bloedel-Donovan Site	966.00	967.81	2.00	(3.81)
Blaine	13,232.90	9,916.54	8,304.00	(45,497.21)
Squalicum	147,833.20	40,653.75	11,767.71	18,210.00
Port Dock	202,384.20	115,443.84	25,517.51	12,309.14
South Side	15,456.00	2,912.81	4,796.59	(12,467.40) (includes depreciation)

In 1970, Squalicum alone returned a net profit of $204,457.03, the North Terminal, $439,730, the South Terminal, $61,678.64. However, 1970 marked a peak tonnage year for the port; 1971 and 1972 showed decreases in terminal revenues, with Squalicum remaining more constant in revenue.

Table 10

North Terminal Charges for 1970

Dockage	$ 41,768.99
Wharfage	168,639.89
Load and Unload	39,521.75
Handling	326,891.70
Storage	20,401.94

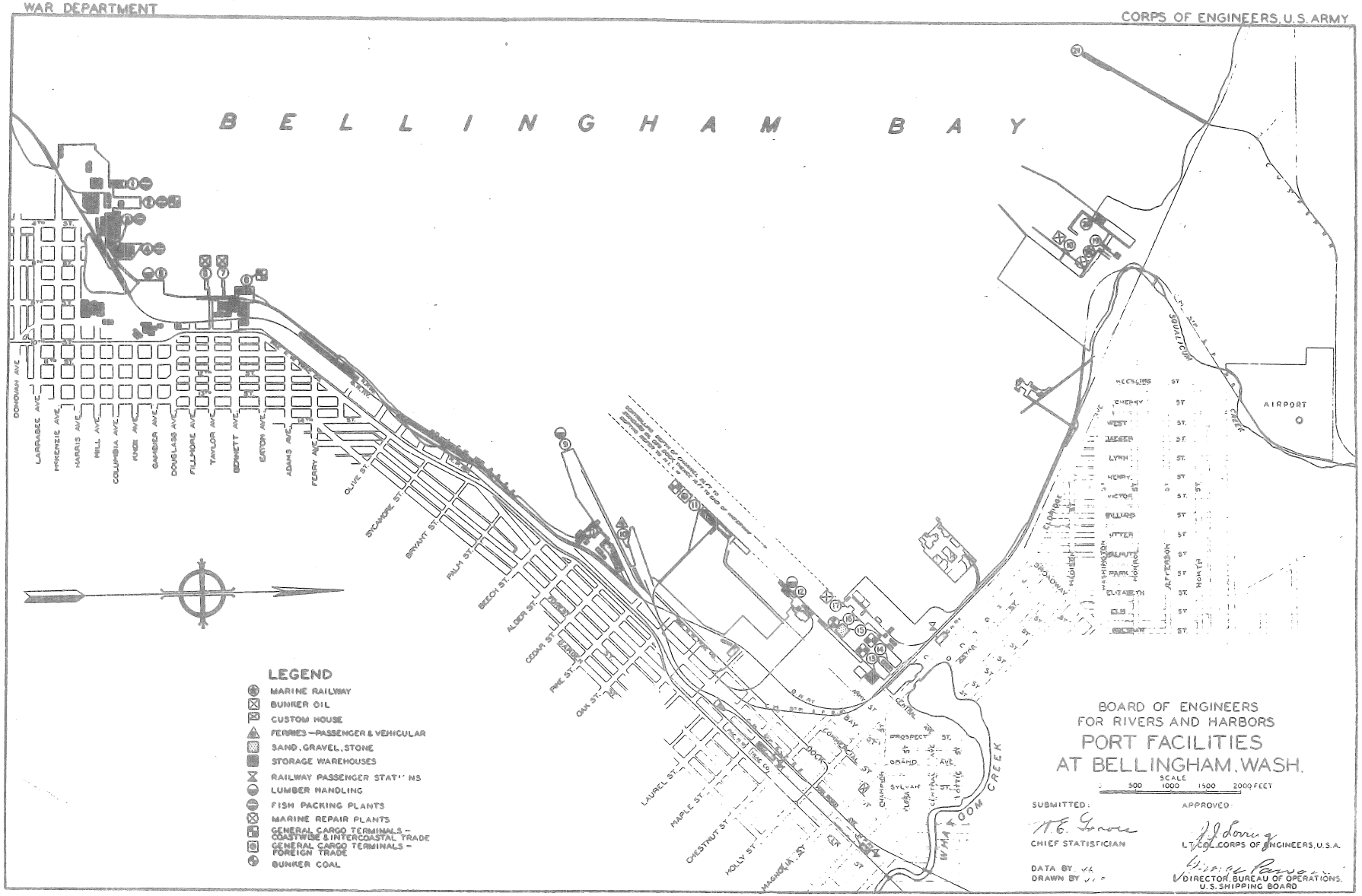
Thus the business of the port in land rentals rose steadily over the fifty-year period and often stood as a more reliable source of income for reinvestment and plant development than shipping.[49]

LIST OF PIERS, WHARVES, AND DOCKS AT BELLINGHAM, WASH., 1930

Reference Number on the Map	Name of terminal
1	Bellingham Canning Co. Pier
2	Pacific American Fisheries Pier
3	Pacific American Fisheries Wharf
4	Pacific American Fisheries Pier
5	Puget Sound Saw Mills & Shingle Co. Wharf
6	Gilmore Oil Co. (Ltd.) Dock
7	Texas Co. Dock
8	Bellingham Warehouse Co. Wharf
9	Bloedel Donovan Lumber Co. Pier
10	Chicago, Milwaukee, St. Paul & Pacific Ry. Car Ferry Slip
11	Port of Bellingham Dock
12	Morrison Mill Co. Dock
13	Quackenbush Dock
14	Citizens' Dock
15	Bellingham Builders Supply Co. Wharf
16	Bellingham Builders Supply Co. Wharf
17	Standard Oil Co. Wharf
18	Richfield Oil Co. Wharf
19	Bellingham Marine Ways & Shipbuilding Co. Dock
20	Clift Motor Co. Wharf
21	Olympic Portland Cement Co. Wharf

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



BOARD OF ENGINEERS
FOR RIVERS AND HARBORS

PORT FACILITIES AT BELLINGHAM, WASH.

SCALE
500 1000 1500 2000 FEET

SUBMITTED:

CHIEF STATISTICIAN

DATA BY
DRAWN BY

APPROVED:

LT. COL. CORPS OF ENGINEERS, U.S.A.

DIRECTOR, BUREAU OF OPERATIONS,
U.S. SHIPPING BOARD

V

Shipping

The tonnage of the port increased from 1920 to 1970, while the tonnage of the bay remained roughly constant. Between the wars, Bloedel Donovan Lumber Mills and Pacific American Fisheries were among the largest operations of their kind in the world. As the timber, fishing and passenger industries declined due to exhaustion of resources or increased competition, newer enterprises rose, such as Bellingham Cold Storage and Intalco, through the aegis of the port. The following tables indicate bay and port tonnages during the fifty-year period, with state, national and international seaport tonnages for purposes of comparison.

Table 11[50]

Waterborne Shipping, Total Tons
Bellingham Bay and Port
(Short Tons)

	Bay	Port	# Ships Bay	Port	Blaine	Bay Value
1897	43,131		1,107			
1902	87,118					
1910	358,204					
1915	531,971					
1920	534,131	11,640(1924)	696		16,667	$12 million
1925	1,498,371	43,419				42 million
1928	2,327,942		2,886			36 million
1930	1,837,167	60,983	1,620	97	5,505	30 million
1932	629,187					
1937	995,907	57,527(1936)				
1941	1,558,147	35,701	1,119		8,852	
1946	683,244	16,552	1,170			
1950	1,207,652	14,318		36		
1954	1,600,577	38,038		43		
1960	1,708,876	35,919	4,957	28		
1965	1,881,085	189,990		65		
1970	1,892,374	506,179	9,050 (1969)	264	11,656	91 million

Table 12[51]

Waterborne Shipping, State of Washington
(short tons)

	Everett	Anacortes	Olympia	Port Angeles	Grays Harbor	Longview	Vancouver Wa	Tacoma	Seattle
1920	809,468		332,804	176,433	636,571			2,497,050	5,226,569
1930	3,595,789		1,322,426	602,334	3,934,875			11,633,781	13,129,887
1940	4,183,180		1,325,100	1,665,898	3,366,513	1948 1,700,000		2,709,614	9,919,712
1950	3,230,355			1,335,693					1948 11,400,000
1960	3,222,402	7,710,329	1,058,462	1,984,594	1,770,061	2,977,280	2,005,783	5,324,244	13,391,467
1970	6,749,939	4,458,223	1,844,524	2,679,350	3,574,467	5,884,032	2,605,867	8,602,828	15,247,524

Table 13[52]

Waterborne Shipping, Selected U. S. Ports, and Vancouver, B. C. Total Tonnage
(short tons)

	1929	1948	1960	1970
Portland, Oregon		10,600,000	13,549,332	15,490,354
Boston	17,266,162			26,867,918
New York	169,393,436	135,000,000		174,008,108
New Orleans	16,248,192	28,500,000		123,674,208
Houston	12,981,113	38,900,000		64,654,263
Los Angeles	25,696,430	12,600,000	22,494,622	23,075,160
San Francisco	13,651,000	5,100,000	4,366,345	3,739,008
Chicago	17,808,925			48,254,387
Vancouver, B. C.	1,554,562+	10,056,953*	12,380,431	27,158,913
	8,026,839**			

* 1950

** 1930

\+ 1921

Table 14[53]

World Ports, Total Tonnage
(Metric Tons)

1970

Bremen/Bremerhaven	23,393,952	
Hamburg	46,958,921	
Antwerp	78,132,528	
Bilbao	12,361,000	
Le Havre	57,990,488	
Marseilles	74,072,712	
Piraeus	9,282,436	
Genoa	54,608,726	
Narvik	18,942,798	
Rotterdam	225,790,000	
Lisbon	9,689,779	
London	59,470,000	long tons
Liverpool	26,795,000	" "
Goteborg	23,562,645	
Buenos Aires	26,933,392	
Tripoli	23,518,000	
Durban	29,235,379	
Casablanca	13,394,546	
Kawasaki	91,750,252	
Nagoya	68,146,747	
Singapore	42,200,000	long tons
Sydney	16,919,390	" "

From 1920 to 1970, the bay ranked from fifth to eighth in volume and value of tonnage among State of Washington ports. Until the 1960's, private industry conducted from 75 to 90 percent of the bay shipping. However, in 1970, the port's share neared forty percent. The port percentage rose strikingly in the 1960's because of the major program adopted at that time. Bellingham became more diversified in its cargoes than many other state ports of similar size that relied mostly on timber. Seattle and Portland grew about the same amount in relation to each other and outgrew Bellingham. Starting late, Vancouver, B.C. became the largest port on the North American West Coast. In 1970, Rotterdam and New York were the largest ports in the world, revealing the continuing importance of North Atlantic ports to world trade.[54]

In the 1920's, Bellingham Bay shipping contained logs and timber, wood products, paper, coal, fish, condensed milk, cement, petroleum products, sand and gravel. Logs and lumber provided 74.4 percent of the exports, coal and logs constituted 99 percent of the imports and fish amounted to 27.5 percent of the total domestic receipts. There were twenty-five types of cargo carried.[55]

In the 1930's, there were forty types of cargo, with the greatest emphasis still upon forest products. Imports were received mainly from Pacific Canadian points, in order, coal, coke, pulpwood and wood pulp, logs and lumber. Of the exports, 72.8 percent were logs and lumber, going mostly to Japan. Intercoastal inbound traffic yielded sulphur from Galveston (57.6 percent), with iron, steel

and manufactures next. Outbound intercoastal shipments consisted principally (91%) of logs and lumber, chiefly to New York, Boston and Baltimore. Canned salmon went mostly to Philadelphia and New York, paper stock and manufactures to New York and Boston. Canned fruits, vegetables, animal and dairy products made up the balance of the commodities of local and intercoastal outbound traffic.[56]

Shipping during World War II saw the added dimension of lend-lease through the U. S. Department of Agriculture's Commodity Credit Corporation. Canned and cured meat, lard, tallow, jeeps, steel and other items proceeded to Russia from Bellingham. In 1945, of the 18 vessels calling at the Municipal Dock, ten were Soviet. After the war, Navy contract shipbuilding of tugs and minesweepers ended and general shipping dwindled.[57]

During the 1950's, 88 percent of the waterborne foreign commerce consisted of logs, lumber and other wood products imported from Pacific Canada. Pacific Canada was also the leading receiver of Bellingham's exports of woodpulp and logs. Noncontiguous trade was composed almost entirely of commodities moving to and from Alaska. Canned fish accounted for over 99 percent of receipts, shipments to Alaska were mainly cement, logs, lumber, piling and steel manufactures. Intercoastal trade consisted of woodpulp and canned goods to the Atlantic Coast, with sulphur received from the Gulf of Mexico. Coastwise trade was negligible. Local trade amounted to more than half of the port's entire waterborne commerce: inbound logs, petroleum, fish; outbound sand and gravel, fish, logs. Over

Table 15

1967-1971 Cargo Comparisons (whole short tons)

Cargo	1967	1968	1969	1970	1971
Aluminum	31,240	35,584	86,038	102,329	15,228
Aluminum Fluoride, Cryolite, Carbon Blocks	7,212	9,496	7,898	9,800	16,325**
Chemicals	56,102	62,701	82,942	73,919	68,204
Fertilizer	555	495	--	--	--
Fish	2,338	13,987	17,213	24,078	730
General Cargo	10,515	6,332	6,484	6,573	4,594
Hides	1,200	742	1,473	1,018	--
Logs & Piling	121,843	81,524	136,346	156,297	82,704
Lumber	5,022	3,302	2,112	975	256
Milk	1,620	1,063	1,416	1,579	--
Mobile Equipment	*	*	*	670	518
Paper Products	1,790	6,236	3,729	1,192	79
Pulp & Pulp Prod.	31,900	25,318	38,872	38,257	18,096
Salt	61,518	80,597	97,554	87,892	90,703
Vegetables & Fruits	627	1,064	1,863	1,600	28
Total	333,472	328,441	483,940	506,179	297,465
Of above totals, barge work accounts for:	51,178	84,278	105,695	91,526	78,358

* = included with general cargo

** = inclusion of 12,133 tons carbon blocks out.

90 percent of the bay's tonnage was still forest products.[58]

In the 1960's, cargo became more diversified, with about 67 types. Of port cargoes, logs led with 30.9 percent, aluminum 22 percent, salt 17.35 and chemicals, 14.6. Other items were fish, hides, lumber, milk, paper products, pulp and pulp products, fruit, vegetables, fertilizers, carbon blocks, cryolite, aluminum fluoride. Georgia-Pacific generated about 45 percent of the port water traffic, Intalco, 19.5 percent. Logs went to Japan, aluminum to Northwestern Europe, chemicals to California and Alaska.[59]

In the twenties, there were 114 lines, foreign and domestic, calling in Puget Sound, in the 1960's, about 43. In 1920-23, 23 shipping lines called at Bellingham: ten went to foreign ports, thirteen were intercoastal and coastwise. Among these lines were Admiral, Dollar, Grace, Matson, Alaska Steamship, Pacific American Fisheries, Moore-McCormick, Luckenbach, Pacific Mail, Canadian Pacific Railway, Puget Sound Navigation Company, San Juan Transportation Company, Chicago, Milwaukee and St. Paul Railroad. In 1970, some 15 lines called at Bellingham. Foreign outnumbered domestic, reflecting the decline of the American merchant marine: Grace, States Lines and American Mail; compared to Ned-Lloyd-Hoegh, Peruvian State Lines, d'Amico-Mediterranean-Pacific, Inter-Ocean Agencies, Hanseatic-Vasa, Yamashita-Shinnihon, Kaisha (Japan).[60]

Destinations and commodities of Bellingham Bay shipping changed from 1920 to 1970. Private business on the bay generally

exported more than it imported in the twenties and thirties, reversed this after 1940. The port usually exported more than it imported.

Table 16

Bellingham Bay Shipping, Local, Coastal, Foreign
(short tons)

	Internal		Local	Coastal & Intercoastal		Foreign	
	receipts	shipments		receipts	shipments	imports	exports
1920	269,657 (total)			99,355 (total)		125,109 (total)	
1927				952,571	732,430	64,241	94,434
1930	871,091 (total)			834,496 (total)		131,580 (total)	
1950	753,822 (total)			68,464 (total)		326,097 (total)	
1960	264,717	325,829	266,639	26,179	62,615	678,516	84,301
1970	430,650	229,543	270,109	40,392	140,048	423,205	358,427

Over the fifty-year period, foreign trade increased in importance compared to coastal and intercoastal. Local trade held constant mainly because of fishing and cold storage. Foreign trade rose because of Georgia Pacific's importation of chips from Canada, Intalco's imports of alumina from Australia and exports of aluminum all over the world. The Mobil and Atlantic Richfield refineries replaced lumber in foreign, coastal and intercoastal traffic in the late 1960's and early 1970's but their tonnages do not show in Table 16. They are shown in Table 22. Between the world wars, coastal and intercoastal shipping ranked high because it was economical to move timber and other products by sail and steamer.[61] In the 1960's, logs, petroleum, sand and gravel moved economically on water.

In the earlier years, steamers and schooners lined the docks at Pacific American Fisheries, E. K. Wood, Bloedel Donovan, Morrison, Puget Sound Saw Mills and other companies. Captain Matt Peasley of Vigilant and Captain Burmeister of Commodore became famous for their friendly rivalry. In 1925, Pacific American Fisheries had 54 calls, Bloedel Donovan 111, and Olympic Portland Cement, 103. In 1927, the Puget Sound Navigation Company's steamers Kulshan, Potlatch and Comanche, made 387 calls, carrying dairy products, eggs, box shooks (wooden boxes), fish, grain, peas, flour, fruit, and 52,853 passengers. The ferry, City of Los Angeles, made 161 trips, carrying 15,713 passengers and 4,638 automobiles.[62]

In 1923, the major foreign destinations of Bellingham forest products were, in order: Japan, South America, Australia, Cuba and West Indies, China, Northern Europe. Yet triple this amount went to California, Hawaii and the Atlantic Coast. In 1924, bay firms shipped 184,658, 927 feet board measure of timber, 69,126,000 bundles of shingles, 40,213,460 bundles of laths. Bloedel Donovan shipped 139 million board feet of lumber to domestic markets, 40,464 to foreign (lumber, box shooks, shingles, lath, sash, doors). During its history, 1898-1947, Bloedel Donovan manufactured close to six billion feet of lumber.[63]

Pacific American Fisheries, operating from 1899 to 1966, shipped three times as much to domestic markets as foreign. In 1925, Pacific American Fisheries shipped a total of 88,720 tons by water, piling, wood, fuel, general cargo, mostly in their own fleet of ships.

The salmon pack of Bellingham canneries for that year was as follows:

Pacific American Fisheries	11,922
Astoria and Puget Sound Canning	61,592
Bellingham Canning Company	69,107
	242,621 cases or 5,823 short tons

Eight thousand three hundred and eighteen tons of raw salmon were received.[64]

In 1925, the Muni Dock handled 21,546 tons out, 21,873 in. Outbound goods were powdered milk, canned milk, canned fruit, canned salmon, canned vegetables, scrap iron, box shook, cross arms, shingles, general merchandise, and lumber. Tonnage inward consisted of canned goods, sugar, salt, general merchandise, box shook and canned salmon. The Municipal Dock often shipped items on deepwater vessels for companies whose own busy docks were full.[65]

United States steamship lines conveyed most of the coastal and intercoastal trade because the Jones Act required such shipments in American hulls, but foreign trade in 1920-29 saw the American flag as well, different from the 1960's, when foreign bottoms carried most of the cargoes. Of the foreign ensigns in earlier years, the British and Canadian were most numerous. In 1933, of 641 deepwater vessels calling, 608 were American and 33 foreign. From 1960 to 1970, Japanese, Scandinavian, Italian, Greek, and Panama-Liberia-Honduras flags prevailed.[66]

There also used to be significant passenger traffic on the

ferries and steamers that shuttled to and from Seattle and among the San Juan Islands. In 1926, for example, some 75,000 passengers and 638 automobiles were carried; in 1930, 82,000 passengers and 5,825 cars. The Quackenbush dock handled 1684 tons in, 3307 out in nine vessels, among them San Juan, Islander, Cleo, carrying 43,520 passengers, general merchandise and foodstuffs. In 1930, 75 vessels, mostly Admiral and Luckenbach owned, called at the Pacific American Fisheries Docks, 1784 at the Citizens Dock, 78 at the G. F. Ambrose mill and 164 at Bloedel Donovan, and this a depression year. In 1937, as the depression lingered, PAF had 500 calls, Bloedel Donovan 144, Quackenbush 471 and the Muni Dock, 262. Passenger and mail traffic ceased on the bay during 1950, when Charles Countryman terminated Osage's runs to the San Juan Islands.[67]

In the 1960's, large vessel traffic revived, but the lumber schooners and "Hog Island" freighters of the interwar years were replaced by modern tankers calling at Cherry Point, and Liberty, Victory and Mariner type freighters at the North and South Terminals. After 1970, the Puget Sound Freight Lines, familiar beige, black and white Indian called no more at the head of Whatcom Creek Waterway, signalling the end of a century of Puget Sound's local water transportation for general cargo.

The following tables will suggest some of the companies and their tonnage activity at selected intervals in the fifty-year period. Blank spaces indicate in Tables 17, 18 and 19 that there was no tonnage for that category; for table 20, that the company did not report

(Bellingham Builders), went out of business or had not begun operations. It will also be noted that three companies are in all the tables, 21 ceased operations during the period and 13 began operations.

Table 17[68]

1924 Company Tonnages

	Tons Inward	Tons Outward
Pacific American Fisheries	37,595	64,560
Astoria & Puget Sound Canning Co.	1,420	5,017
Puget Sound Sawmill & Shingle Co.	25,862	49,707
Canadian Pacific Railroad	1,977	1,795
Olympic Portland Cement Co.	2,528	10,900
George V. Nolte	16,819	
Raw Salmon	5,799	
George F. Ambrose Co.	12,409	11,979
Municipal Dock	15,305	23,292
E. K. Wood Lumber Company	71,508	64,842
Whatcom Falls Mill Co.	46,955	
Bloedel Donovan Lumber Mills	64,618	176,475
Morrison Mill Co.	37,447	24,209
C. M. & St. Paul RR	124,095	220,850
Siemons Lumber Co.	6,231	
Quackenbush Dock	2,015	3,779
Standard Oil Co.	80,117	
Caine Grimshaw Company	29,342	2,746
Citizens Dock (PS Nav. Co.)	18,787	12,174
O. H. Seiple	3,750	750
Campbell River Logging Co.		99,000
Total	604,579	772,075

Total Inward	604,579
Total Outward	772,075
Grand Total	1,376,654 tons

Table 18[69]

1938 Company Tonnage

	Domestic Coastal In	Domestic Coastal Out	Foreign Imports	Foreign Exports	Local
Ambrose	125	1,000			250
Olympic Portland Cement	7,413	7,090			
Citizens Dock	9,850	4,402			
Quackenbush Dock	139	1,634			
Standard Oil	20,414				
Pac. American Fish.	42,242	41,649		9,148	
C.M. & St. Paul RR	55,410	41,550			
Municipal Dock	9,118	39,627			
Whatcom Falls Mill Co.	24,783		1,923		9,702
Astoria & P.S.Can.	2,511				1,357
Petroleum Nav. Co.	9,080			14,586	
P.S.Pulp & Timber	6,290	24,259	11,689	16,314	
Bloedel Donovan	192,484	145,320		16,197	
Total	379,359	306,531	13,612	56,239	11,309

Table 19[70]

1943 Company Tonnage

	Domestic Coastal In	Domestic Coastal Out	Foreign Imports	Foreign Exports	Local
Ambrose	17,000	14,000			1,400
Bloedel Donovan	255,818	48,901		3,733	
P.S. Freight Lines	50,578	13,927			
Bellingham Builders Supply	600				
Olympic Portland Cement	4,885	2,160			
Bellingham Warehouse Co.	46,867	11,667			
San Juan Transport Co.	425	1,265			
P.S. Pulp & Timber	159,928	210	7,734	9,691	
Municipal Dock	152	1,765	250	49,831	12
Bornstein					1,597
Wn. Coop Egg & Poultry					1,775
Pacific Coast Paper Mills	1,400	2,400	2,000		
Total	537,653	101,295	9,984	63,255	4,784

Table 20[71]

Company Tonnage

	1950	1955	1960	1970
Bellingham Builders	--	(1957)51,900	--	200,000
Bellingham Cold Storage	2,310	3,267	(1961)6,818	12,097
Bornstein	4,129	6,079	5,238	5,334
Bellingham Warehouse Co.	57,148	33,149	39,773	--
C.M.& St.P. R. R.	852,546	474,141	--	--
Northwest Fuel	4,403	16,709	14,470	--
Richfield	7,207	12,756	9,091	8,317
Signal	6,273	4,496	2,308	--
Standard	91,696	83,601	57,158	46,178
Texaco	3,244	11,374	6,867	1,978
Olympic Portland Cement	19,902	95,663	167,895	73,869
P.S. Freight Lines (Citizens Dock)	3,148	29,611	17,445	23,076
P.S. Pulp & Timber	278,923	599,192	756,945	322,454
Bumble Bee	--	--	--	780
Dahl Fish	--	--	--	5,214
Port	--	--	--	506,182
Total	1,330,929	1,370,038	1,084,008	1,205,479

Georgia-Pacific, another mainstay of the bay's economy, distributed bleached sulphite, pulp, alcohol, paperboard, lignin products, tissue products, chlorine, caustic soda, sodium chlorate, sulphuric acid, more to domestic than foreign markets. Raw materials such as logs for pulp, were purchased from company and state/federal land in Whatcom and Skagit counties and from British Columbia and Idaho. Salt was procured from Bermuda and Mexico.

Table 21[72]

Georgia Pacific Total Tonnage		Tons Shipped into Export Markets	
1927	3,300 tons	1938	9,222
1928	13,820	1943	35,123
1930	19,527	1948	18,365
1938	58,552	1950	13,615
1943	169,563	1955	23,601
1950	278,923	1960	37,226
1955	579,192	1965	34,805
1960	756,965	1970	60,703
1970	322,454	1971	38,516

The foregoing tables have suggested tonnages for Bellingham port, bay, Blaine and other ports, but they do not reveal the full extent of shipments from water-oriented industries in the county. A large amount of tonnage moved from these industries in trucks and trains. The port participated through leasing property to some of these firms. For example, Bellingham Cold Storage, one of the five

largest and most diversified firms of its kind on the Pacific Coast, reported the following tonnage shipments for 1969. They received frozen and fresh fish, berries and vegetables by boat and truck, shipped by truck and rail. Bellingham Cold Storage accepted 93 million pounds (46,500 short tons), 16,696,000 pounds of the total from boats, and shipped it all out on trucks and railroad cars. In 1970, the port received over 27,000 tons of salmon at the South Terminal, 21,000 by water and 7,000 by land, and shipped it all out, mostly overland. This is as much salmon tonnage as the Pacific American Fisheries used to handle in most seasons with the difference that current tonnage is stored, not canned, at the South Terminal. Of 13 port tenants reporting out of 45 questioned, 12 shipped via both land and water.[73]

Uniflite, which built 300 pleasure boats in 1970, sent most of its cruisers out on trucks, sold a few locally, moved others to Puget Sound and west coast harbors under their own power. About 40 percent of their market was on the east coast. Bellingham Builders (now Builders Concrete), not a port property, received sand and gravel on barges, shipped floats on barges and trucks, yet made most of its sales with ready-mix concrete in trucks.[74] Thus, the county water-oriented industry generated more shipping tonnage than purely water-borne commerce.

Intalco ordered 516,000 tons of alumina in 1970, which came in at Cherry Point. Mobil Oil opened a plant at Ferndale in the 1950's, was not connected to the port at all and shipped products on

trucks, tank cars, ocean tankers and through pipelines. The Intalco imports and the figures in the following table should be added to the port and bay total tonnage.

Table 22[75]

Mobil Tonnage

		Short Tons
1956		
Products Received		
Pipe Line		1,458,509
Marine		141,975
	Total	1,600,484
Products Shipped		
Marine		1,357,870
Truck Load		73,281
	Total	1,431,151
1964		
Products Received		
Pipe Line		1,747,459
Marine		403,975
	Total	2,151,434
Products Shipped		
Truck Load		105,618
Marine		1,907,642
	Total	2,013,260
1966		
Products Received		
Pipeline		1,826,774
Marine		515,284
Truck Load/Tank Car		16,061
	Total	2,358,119
Products Shipped		
Pipeline		794,193
Marine		1,283,661
Truck Load/Tank Car		73,610
	Total	2,151,464

The significance of the preceding table and paragraph is that county tonnage increased in the 1960's to equal bay tonnage. If the two were added together (port tonnage being part of bay tonnage), the total would be around four and one-half million tons per year, from 1966 to 1970. This is three and one-half times the total recorded for the bay, four times those of the port and two and one-half times any other published figures.

The volume and value of Bellingham Bay and Whatcom County tonnage have been described in the previous pages. The port's part has increased in fifty years, both in the county and on the bay. Some businesses have been replaced by others, while a few have continued for most or all of the half-century. The story is not one of continued growth, consequently, some causes for the periodic decreases and the rather static tonnage total of the bay should be mentioned.

1952

LIST OF PIERS, WHARVES, AND DOCKS AT BELLINGHAM, WASH.

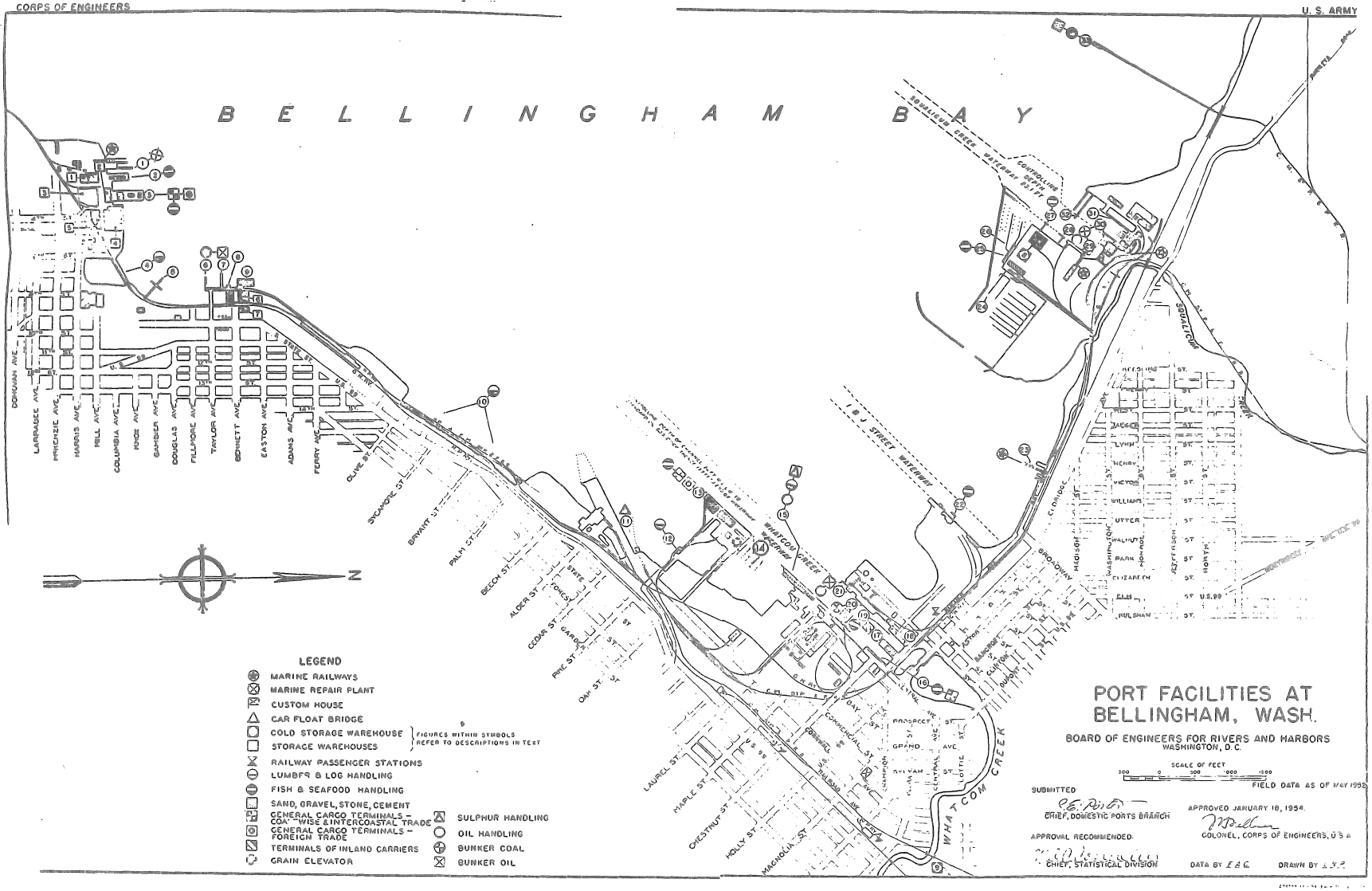
Ref. No.	Name of Facility
10	Bellingham Boom Co., Rail Log Dump
20	Bellingham Builders Supply Co. Wharf
2	Bellingham Canning Co. Dock
27	Bellingham Cold Storage Co. Ice Dock
4	Bellingham Plywood Corporation Log Dump and Boom
30	Bellingham Shipyards Co. Outfitting Pier
12	Bellingham Tug & Barge Co., Truck Log Dump
18	Bellingham Tug & Barge Co., Tug Office Wharf
3	Bellingham Warehouse Co., Pier B
8	Bornstein Seafoods Pier
16	Central Avenue City Transient Dock
17	Citizens Dock of Puget Sound Freight Lines
25	Columbia River Packers Association, Cannery Dock
19	Dahl's Fish Co. Wharf
9	Jeffers Wharf
11	Milwaukee Railroad Carfloat Slip
6	Mobilgas Marine Service Pier
13	Municipal Dock, Port of Bellingham
22	North Pacific Frozen Products Co. Fish Wharf
33	Olympic Portland Cement Co. Pier
1	Pacific American Fisheries Marine Railway Pier
29	Port of Bellingham Crane Dock
31	Port of Bellingham Ell Dock
14	Port of Bellingham Municipal Boat Harbor
28	Port of Bellingham Oil Wharf
5	Port of Bellingham South Side Fishermen's Dock
32	Port of Bellingham Squalicum Creek Waterway Web House Pier
15	Puget Sound Pulp & Timber Co. Wharf
26	Squalicum Creek Commercial Fishing Boat Mooring Station
24	Squalicum Creek Recreational Craft Marine Station Dock
21	Standard Oil Co. of California Wharf
7	Texaco Marine Service Pier
23	Wrang Shipyard Co. Mooring

LIST OF STORAGE WAREHOUSES AT BELLINGHAM, WASH

8	Bellingham Cold Storage Co., Inc.
6	Bellingham Warehouse Co., Warehouse No. 2
7	Bellingham Warehouse Co., Warehouse No. 3
4	Bellingham Warehouse Co., Warehouse No. 4
3	Bellingham Warehouse Co., Warehouse No. 7
2	Bellingham Warehouse Co., Warehouse No. 8
1	Bellingham Warehouse Co., Warehouse No. 9
5	Bellingham Warehouse Co., Warehouse No. 10
9	Whatcom County Dairymen's Association Warehouse

CORPS OF ENGINEERS

U. S. ARMY



PORT FACILITIES AT BELLINGHAM, WASH.

BOARD OF ENGINEERS FOR RIVERS AND HARBORS
WASHINGTON, D.C.

SCALE OF FEET
500 0 500 1000 1500

FIELD DATA AS OF MAY 1952

SUBMITTED

CHIEF, DOMESTIC PORTS BRANCH

APPROVED JANUARY 18, 1954.

COLONEL, CORPS OF ENGINEERS, U.S.A.

APPROVAL RECOMMENDED:

CHIEF, STATISTICAL DIVISION

DATA BY E.A.G.

DRAWN BY A.V.P.

VI

Assessment of Shipping

Decline of timber resources, the prohibition of fish traps and lingering management problems contributed to the closure of the mills and canneries. In times past, many passengers and goods moved in and out of Bellingham on the water. However, the completion of interurban railroads, truck and automobile roads, spelled the doom of much Puget Sound waterborne traffic. After the depression years, 1929-1940, it became increasingly difficult to compete in general cargo with trucks, railroads and even airlines. Labor-management problems and changes in world shipping arrangements caused a similar decline on the Pacific Coast from 1934 to 1950. In Bellingham and Blaine, during the 1950's, general and specialized cargo changed to land transport and no new commodities appeared; consequently shipping dropped to a low point.

Inflation and costs hindered ports in the 1960's, making it more difficult for shippers to compete in business. Tendencies in the American economy encouraged concentration and development of superports, fed by containers, which saved on handling costs. In 1972, the problem was how the major Pacific Coast superports could compete without destroying one another. Seattle, for example, hoped to become a major entrepot for trade between Japan and the midwestern United States, capitalizing on not only ocean and railroad terminals, but the real money-maker for the port, Seattle-

Tacoma airport. At the same time, the large ports hurt the smaller ports and in the future, Bellingham shipping may have to depend on non-containerized cargo, such as logs and aluminum.

The fifty-year period of port history shows heavy tonnage from 1924-1929, World War II, 1965-1970, fifteen years out of fifty. In 1971, a slump in world pulp and aluminum prices caused drastic cuts in the production at Intalco and Georgia-Pacific. These prices will continue to rise and fall over the years. Finally, there were gigantic strikes on the waterfront in the late 1930's, early 1950's and in 1971. Strikes and the ensuing agreements discouraged shipping. In 1971, for example, Vancouver, B. C., regularly had twelve to twenty-five ships waiting in English Bay to unload, while American westcoast ports were virtually empty. The future may not promise much increase in port shipping and the Port of Bellingham might find its terminals used more for storage and transshipment of goods by rail and truck, its energies turned to the development of industrial property, recreational and pleasure boat facilities. Nevertheless, 120 years of water traffic in forest products, fish, sand and gravel should continue indefinitely because they are a natural combination. To this bay and port picture must be added the alumina and petroleum shipments at Cherry Point which greatly increase the volume and value of county commerce.[76]

VII

Labor and Administration

The handling of shipping necessitated the organization of labor and administration. Bellingham Stevedore Company began at Bellingham in 1920, coastal unions came to the docks in 1934. While the port hired its own dockworkers, stevedoring service was performed by Bellingham Stevedore Company or Rothschild Stevedoring, who acted as labor contractors. Port employees partook of the port's own salary and benefit program and were not part of state civil service. The port participated with the Pacific Maritime Association in some fringe benefit programs for longshoremen, but was not a member of the PMA, the main bargaining agent of the shippers with Harry Bridges' International Longshoremen and Warehousemen's Union.

Longshore payrolls have gone up or down according to the volume of shipping over the years, but the number of longshoremen in local gangs in 1970 was less than in the 1920's and 1930's. In 1970, there were 68 registered longshoremen, plus five foremen and 384 casuals, earning a payroll of $1,083,292 in a total of 184,188 hours worked on all docks in the county. There were at least 10 gangs at ten men each in 1936, not a high tonnage year. In 1972, there were about fifty regulars and 25 B men (apprentices) registered. The increase in mechanized equipment and different unloading methods help account for the drop. The use of pallets and lift

trucks began before World War II, then came the gantry cranes, log loaders and containers. Some charges and wages are listed below. Wharfage for various items may be increased or decreased over basic price and some longshoremen who perform jobs requiring additional skills earn premium rates over the beginning rate, for example, gantry crane operators.[77] Wharfage may be defined as the charge made on freight passing over a wharf or overside vessels berthed at a wharf. Handling charges are those for moving freight from a ship's slings to a pile or stack. Loading and unloading charges are made on freight moving from a pile to cars or vice versa. Rates for the three categories are about the same.

Table 23

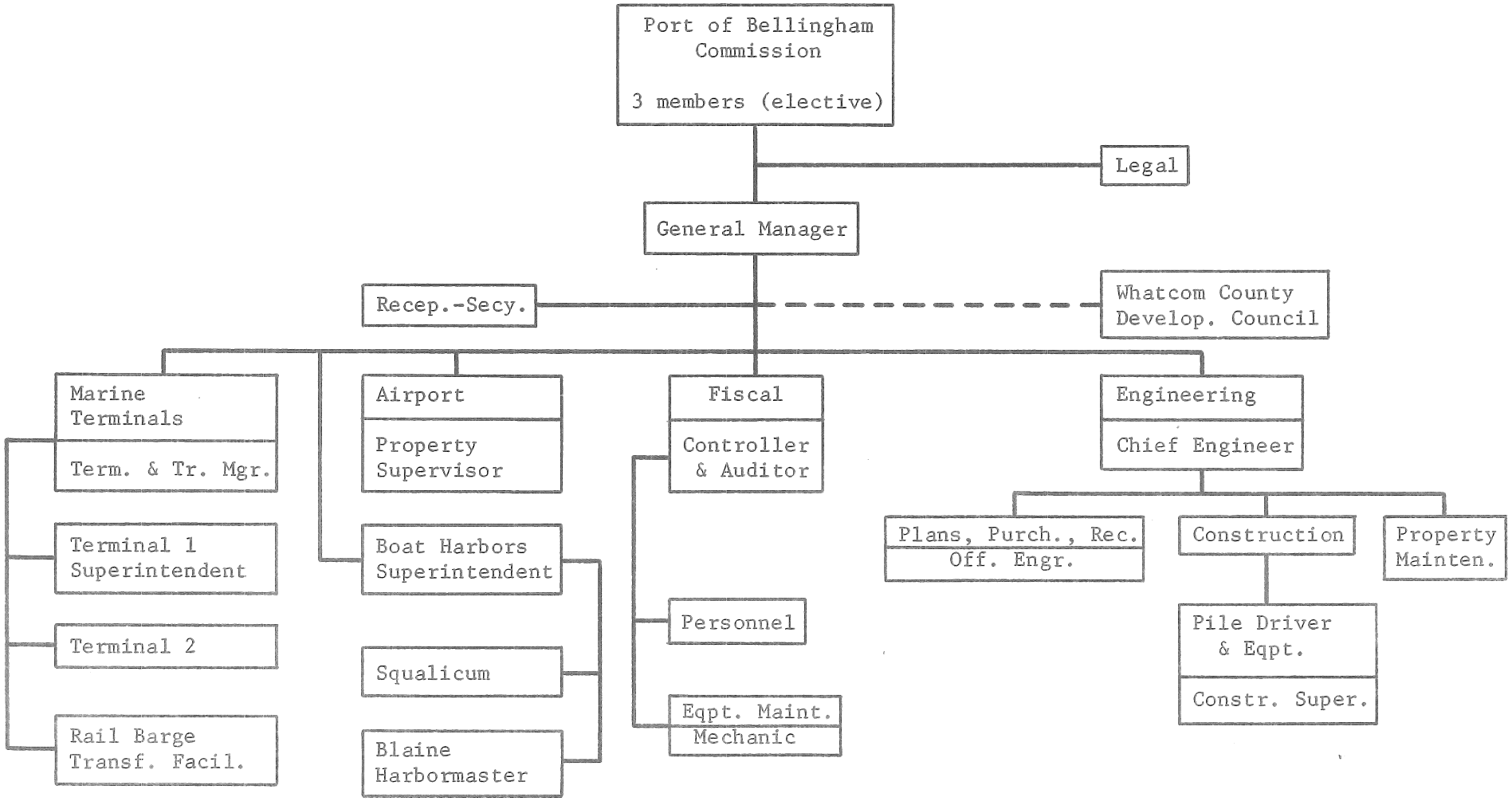
	Wharfage	Longshoreman Wages (hourly)
1925	.25 to .50 per ton	.80
1930	" " " "	.90
1940	" " " "	1.00
1950	" " " "	1.97
1960	-------	2.74
1970	1.00	4.28

Much of the Port of Bellingham's dynamic growth in the 1960's was due to the port leadership. Commissioners Peter Zuanich, T. B. Asmundsen and Robert Hyldahl, together with Manager Thomas Glenn and his staff provided continuity of leadership, enthusiasm and far-sighted planning in a genuine desire to serve the county. From a

group of five to eight persons in the early years, the port staff increased to about 35 persons in 1970. Indeed, the foregoing narrative suggests most of the continued development of the port through fifty "fat and lean" years has been due to the leadership of the managers and commissioners. Congruently, interest groups have urged port commission action many times: Chamber of Commerce committees, yachtsmen, water-oriented businessmen, purse seiners, and gillnetters associations.[78] The following table gives the organization of port personnel.

Table 24

Port Table of Organization
1970



1965 altered to 1970

PIERS, WHARVES, AND DOCKS AT BELLINGHAM, WASHINGTON

Ref. No.	Facility
12	Bellingham Boom Co. Truck Log Dump
25	Bellingham Builders Supply Co. Wharf
3	Bellingham Canning Co. Pier A
42	Bellingham Cold Storage Co. Wharf
44	Bellingham Cold Storage Co. Wharf
48	Bellingham Shipyards Co. Pier
22	Bellingham Tug & Barge Co.
4	Bellingham Warehouse Co. Pier B (Port South Terminal)
49	Borman's Boat Construction and Repair Mooring
28	Bornstein Sea Foods Wharf
41	Bumble Bee Sea Foods Cannery Wharf
6	Cascade Piling Co. Wharf
20	Central Avenue City Transient Dock
37	Crim Wharf
23	Dahl Fish Co. Wharf
8	Fairhaven Truck Log Dump
46	Frosty Fish Co. Wharf
18	Georgia-Pacific Corp. Truck Log Dump and Log Conveyor
19	Georgia-Pacific Corp. Wharf
30	H. & H. Products Log Conveyor
32	Holeman & Bensen Lumber Co. Log Conveyor
53	Intalco Aluminum Co. Wharf
24	Marine Sales & Equipment Co. Dock
13	Milwaukee Railroad Car Float Slip (B-D area, Haley, Brooks)
43	Mobil Oil Co. Dock
52	Mobil Oil Co. Ferndale Refinery Wharf
9	Mobil Oil Co. Pier
50	Mt. Baker Plywood Log Lift and Truck Log Dump
11	Northern Pacific Railway Pier
29	Olivine Corp. Dock
2	Pacific American Fisheries Machine Shop Pier (Port South Terminal)
1	Pacific American Fisheries Marine Railway Mooring (Port South Terminal)
5	Pacific American Fisheries Mooring
51	Permanente Cement Co. Pier
15	Port of Bellingham Car Float Slip
14	Port of Bellingham Chemical Wharf
47	Port of Bellingham Derrick Wharf
33	Port of Bellingham Fishing Boat Moorings
35	Port of Bellingham Gill Net Mooring
45	Port of Bellingham Oil Wharf
38	Port of Bellingham Outfitting Pier No. 4
34	Port of Bellingham Purse Seiners Pier No. 5
17	Port of Bellingham Small Boat Harbor
16	Port of Bellingham Terminal Wharf

PIERS, WHARVES, AND DOCKS AT BELLINGHAM, WASH. - Continued

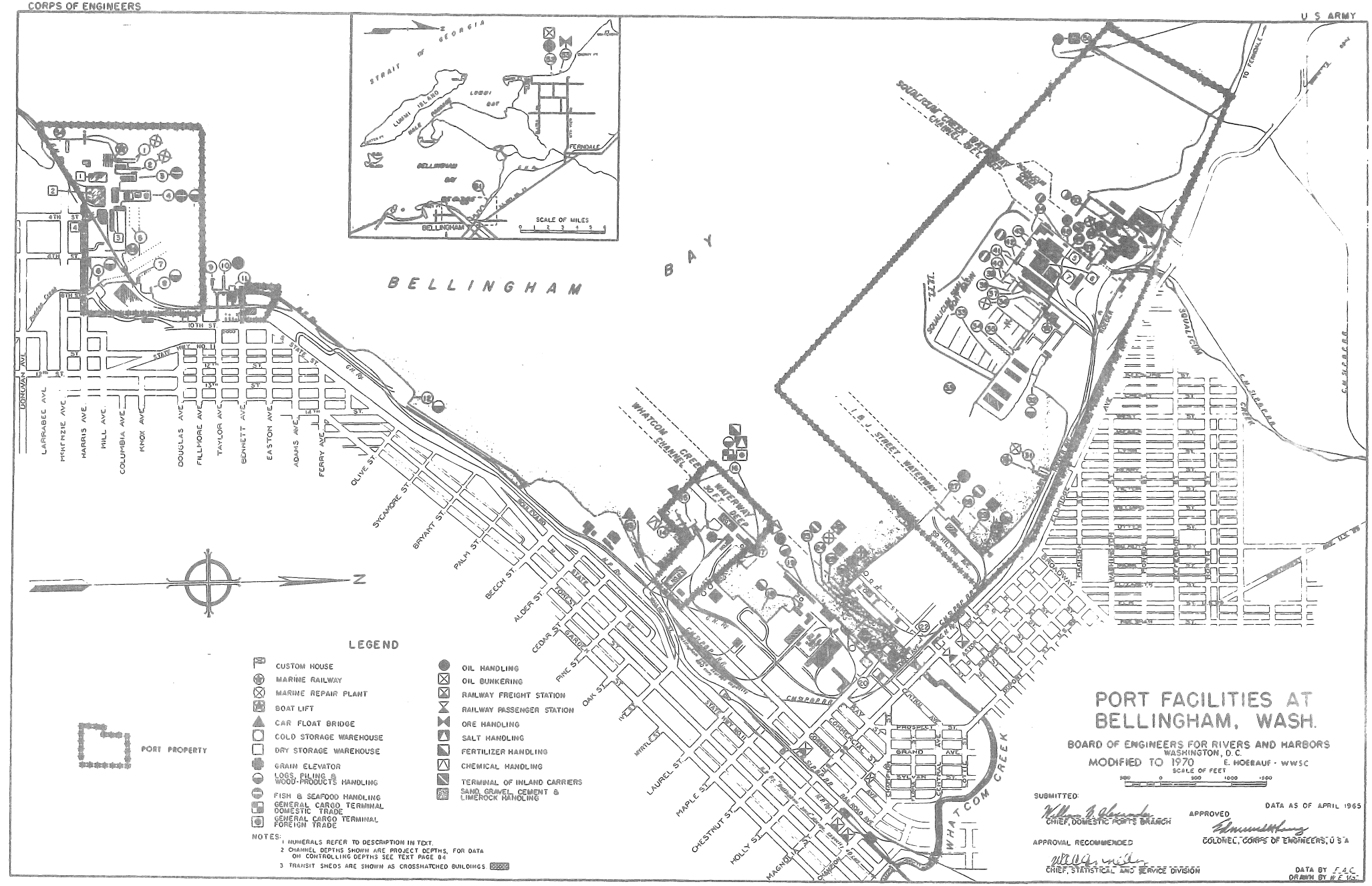
Ref. No.	Facility
21	Puget Sound Terminals Pier
40	Standard Oil Co. of California Pier
26	Standard Oil Co. of California Wharf
10	Texaco Pier
27	Time Oil Co. Wharf
7	United Boat Builders Pier
39	U.S. Coast Guard Mooring
36	Weldcraft Steel & Marine Co. Mooring
31	Wrang Shipyard Co. Mooring
54	Port Public Park
55	Proposed Harbor Expansion
56	Small Boat Launching

STORAGE WAREHOUSES AT BELLINGHAM, WASH.

Ref. No.	Name or Operator
5	Bellingham Cold Storage Company (Unit Nos. 1, 2, and 3)
6 & 7	Bellingham Cold Storage Company (Unit Nos. 4 and 5)
1	Bellingham Warehouse Company (Warehouse No. 9)
2	Bellingham Warehouse Company (Warehouse No. 7)
3	Bellingham Warehouse Company (Warehouse No. 4)
4	Bellingham Warehouse Company (Warehouse No. 10)

CORPS OF ENGINEERS

U S ARMY



PORT FACILITIES AT BELLINGHAM, WASH.

BOARD OF ENGINEERS FOR RIVERS AND HARBORS
WASHINGTON, D.C.
MODIFIED TO 1970 E. HOEBAUF - WWSC
SCALE OF FEET 500 0 500 1000 1500

SUBMITTED:
CHIEF, DOMESTIC PORTS BRANCH

APPROVED
COLONEL, CORPS OF ENGINEERS, U S A

APPROVAL RECOMMENDED
CHIEF, STATISTICAL AND SERVICE DIVISION

DATA AS OF APRIL 1965

DATA BY F.A.C.
DRAWN BY W.E.W.

VIII

The Value of the Port

Leadership, modern facilities, diversified cargo and waterfront industries have made the port valuable to the county. Cargo and tonnage figures have suggested the importance of port activity to the regional economy. There are other measuring devices. The profits and taxes of private firms engaged in harbor-related commerce constitute a high percentage of the total value of profits and taxes paid in Whatcom County. In 1970, Bellingham Cold Storage, Georgia-Pacific, Intalco and Mobil paid about one quarter of the property taxes in Whatcom County.[79] The inclusion of other waterfront industry would raise the percentage even higher.

In 1970, the total value of county sales was $524.2 million. Of 74 port tenants, 45 were given questionnaires and 13 reported a total sales of $109,000,000, or twenty percent of the county sales in 1970. A total of all tenant sales would make a higher percentage. Of more than 100 water-oriented businesses, Uniflite's net income for 1970 was $5.3 million from pleasure and commercial craft sales, $1.5 from military craft sales; their payroll was $2 million. Georgia-Pacific recorded $59,000,000 in net sales, had a payroll of 11.5 million and 1188 employees. Mt. Baker Plywood had 220 employees and a payroll of $2.5 million. Three hundred and fifty fishermen turned $5 million into the county economy in 1970. Vessels and gear had a fair market value of $3.2 million,

gross sales of fishery products by county processors reporting, totalled $16 million.[80]

The Port of Bellingham generated even more dollars in the county through handling the items listed below.[81]

Table 25

Value Generated by Port Handling of Commodities, 1970
($ average per short ton)

Aluminum	$20
Logs	16
Pulp	15
Powdered Milk	22
Salt	8
Industrial Chemicals	
Domestic	11
Foreign	22
Canned Salmon	37
Frozen Foods	37

Not all bay industry was surveyed, but among non-port firms, Builders Concrete (Bellingham Builders Supply) had a total sales of $3 million in 1970. In the same year, Mobil employed about 300 persons. The new Atlantic Richfield refinery, with a capacity of 100,000 barrels a day, cost over $100 million to build, became the largest taxpayer in the county in 1972. Intalco, one of the largest aluminum plants in the United States, had a capacity of 265,000 tons production, employed 1350 people with value of products at

$119,600,000 in 1970. While most of the large industries in the county are related to the port in some way, a few are not, such as Western Washington State College, employing around 1,000 faculty and staff, who, with students, spent close to $50 million locally and elsewhere in 1970.[82]

In 1970, the assessed valuation of the City of Bellingham was $53,529,221, that of the county, $158,655,817. Retail sales in that year for Bellingham were $92,547,000, less than the value of bay shipping, smaller than Intalco's sales. The value of manufactures in 1967 was $107.5 million, exceeding farming, fishing, retail. Thirteen percent of the county land was in farms in 1970, with a value of about $30 million in production. In 1927, the total value of manufactured products in Whatcom County was $20 million. Agriculture (dairies, poultry, fruits) amounted to $15 million. There were between three and four thousand farms then, about 2800 in 1970. In 1927, there were ten lumber and shingle mills employing 2000 men and women, paying $2,500,000 in wages. Three salmon canneries produced $4 million worth of salmon and the coal mine emitted 300,000 tons a year. While the values of fishing, agriculture and retail trade have jumped, the greatest increase has been in manufactures.[83] Most of these industries and the port mutually support each other. Based on the foregoing information, it is estimated that port related industry is responsible for 30 to 40 percent of Whatcom county sales.

Another method of assessing the value of the port measures the effect of waterborne and water-oriented commerce on jobs and wage

payments. Three types of employment are considered: direct employment, port dependent employment and port related employment. Port direct employment is required to carry out the activity within the harbor by port and associated industries that service the harbor and its commerce. Port dependent employment is generated in Whatcom County by harbor activity. Port related employment is created by businesses who depend on the port for imported materials or to export their goods.[84]

During 1968, there were 3469 employees with a payroll of $23,192,754 in these three categories. The total employed in Whatcom County was 19,383 and the county payroll was $127,339,397.[85]

Table 26

County Payroll, Port Related Industry

	Employees	Payroll
Direct	752	$5,763,906
Port dependent	736	4,838,882
Port related	1,981	12,589,966

Categories one and two, port direct and port dependent, accounted for 7.5 percent of the total jobs and eight percent of the total wage payments in the county. If the port related figures are added, the impact is fifteen percent of the jobs and twenty percent of the payroll. The average annual income for 1968 in Whatcom County was $6,569; for the port direct employee, it was $7,664, more than $1,000 higher. This indicates the higher level of skills required in port

employment, and suggests that the port's place in the county economy is extremely valuable.[86] Without the port, the county economy would have to make a major readjustment.

Examples of port direct employment would be loading and unloading, fishing, shipbuilding, tug and barge, customs service, port staff, truck and rail transport.[87]

Examples of port-dependent employment would be construction and contractors; manufacturers of wood products, food, stone; smelting and refining; communications and utilities; warehousing, insurance; real estate; banks; wholesale and retail trades such as grocers, taverns; hotel, amusement, repair services; Federal, county, state, city agencies; public schools.[88]

Port related employment would be building supply products such as Columbia Cement, Bellingham Builders Supply (Builders Concrete), Olivine Rock Corporation; food products such as Bellingham Cold Storage, Bumble Bee Seafoods, Bornstein Seafoods; the paper, pulp and chemical products of Georgia-Pacific. The above figures do not include Intalco, Mobil or the new Atlantic Richfield refinery. They also omit industries at Blaine harbor.

Just as it is impossible to trace precisely the volume and value of land transportation in and out of Whatcom County to compare it with water transport, so it is certain that port related industry generates more dollars than is supposed. Consequently, the above figures are suggestive, not definitive, and a different estimate of the port's employment value to the county would have to be revised

well above twenty percent.[89]

In 1968, the port direct and indirect industry generated $10.6 million in payroll spent in the county on these items, in order:[90]

food and tobacco	2.17
personal taxes	1.30
housing	1.28
household operation	1.25
transportation	1.18
clothing	.89
medicare	.57
recreation	.53
religious, welfare activities	.12
personal savings	.51
personal business	.45
personal care	.15
private education & research	.12
foreign travel	.06
	$10.58

There are intangible values to the port as well. The natural beauty of Bellingham Bay and Lake Whatcom, the proximity to the San Juan and Canadian Gulf Islands, together with moorage facilities provided by the port attract business and professional persons who desire to fish, cruise and race. Bellingham Bay, along

with Victoria, is one of the best areas for sailboat racing in the Pacific Northwest. There is a better chance for wind and less chance of adverse current than in most places. Yacht racing on Bellingham Bay began in the 1890's. During the ensuing years, the Bellingham Yacht Club sponsored the Pacific International Yachting Association regatta quadrennially, often drawing over 200 yachts from Olympia to Vancouver and Victoria on the 4th of July. In 1952, the B.Y.C. held the official Olympic Games trials for the Dragon class of keelboat. The National championships for International 14 dinghies were staged in 1961 and the North American Six Meter championships were decided on the bay in 1967. In 1969, the club hosted the American Intercollegiate championships, sailed in C-Lark dinghies, built in Seattle. The sport and fellowship of these regattas resulted in part from port cooperation with moorage, parking and haulout facilities.

Only six to ten wooden sailboats raced on the bay from 1920 to 1950, not like the halcyon 1890's, when Bellingham boats often won the international regatta. From 1950 to 1968, ten to fifteen sloops competed, but in 1969, fiberglass yachts began to fill moorage spaces and expand the racing schedule. In addition to forty racers, there were fifty cruising sailboats in the harbor: converted Bristol Bay cutters, assorted ketches, yawls, sloops, and schooners. Power cruisers outnumbered sailboats in Bellingham harbor after 1900, usually more than four to one. From the 1950's onward, Uniflites were in the majority, with Tolleycraft, Chris Craft and other planing

hulls also present. There were many wooden, displacement vessels berthed locally, built in Puget Sound, from thirty to seventy feet in length, affording pleasant cruising to Canadian and Alaskan waters.[91]

The port provided a haven for fishermen who consequently remained in Whatcom County. Among the active purse seiner skippers were Frank and Vince Muljat with Mary and Tajlum, the Glenovich family with Yankee, Yankee Boy and Yankee Girl. Fishermen with more seniority than most were Pete Xitco, in St. Zita and Pete Zuanich, port commissioner, with Admiral, built at Bellingham Shipyards in 1958. The Hansons, Vern, Harv, Warren and Joe, with Memento, Ursa Major, Joseph and Liberty, regularly fished regional waters. Ben Cain and his Sundowner headed the Gillnet Association. The Nelsons, Jim, Leroy, Stan, Les and Gary, along with Pete and Jack Radecich were other gillnetters operating out of Squalicum. Often on returning from a weekend cruise, the pleasure boaters would see the ruggedly graceful seiners and doughty little gillnetters heading out for the fishing grounds.[92]

The growth of pleasure boating and the continuance of fishing have stimulated the expansion of Squalicum Harbor and related industry, such as the Redden Net Co. "Chrysler Pete's" Marine Sales and Repair continued to flourish on Whatcom Creek Waterway, separate from port property. Conversely, this growth of pleasure boating and fishing could not have occurred without the cooperation of the port's officials and the protection of its moorage, storage and launching facilities.

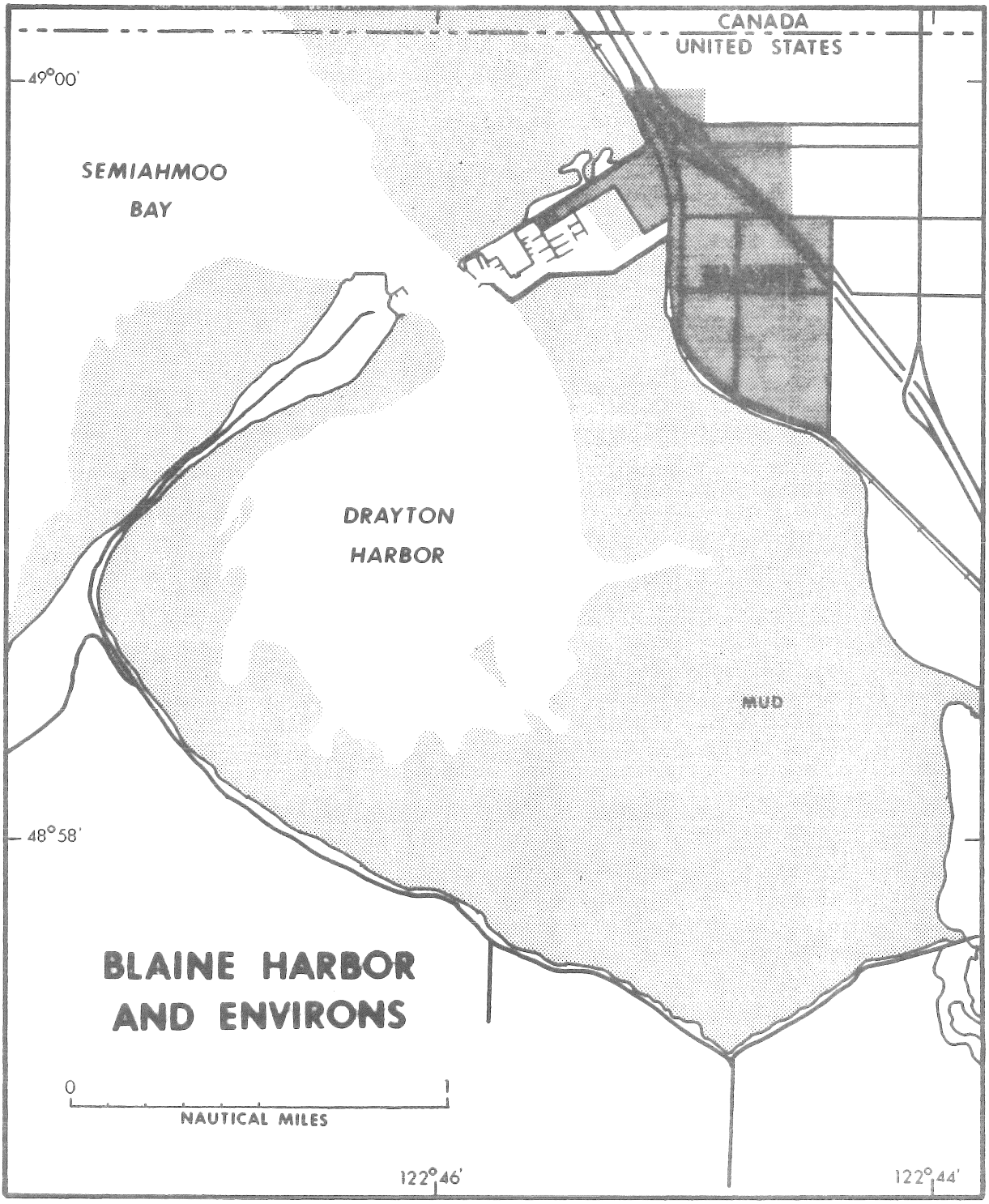
Another measure of the port's influence on the bay is to calculate the way the harbor front is used.

From 1925 to 1970, the amount of land under port control has increased and the amount of private waterfront land has decreased. Industry has multiplied and will continue to grow, although population pressure and interest might well dictate a higher percentage of land for recreational use. The port commission still has usable land for expansion, is not in the critical position of some ports, but the problems of fill, dredging, adequate bottom for piers, sanitation, utility and highway access continue to exist.[93]

Table 27

Land Use Percentages in Bellingham Bay
(Post Point to Portland Cement)

	1920	1970	
		Port	Non-Port
Fishing-moorage	2	4.3	0
Pleasure craft	1	7.1	0
Port	0	-	-
City Dock	5	-	-
Log storage	30	16.9	13.7
Private, undeveloped	15	-	1.4
Manufacturing	18	-	7.0
Shipping	-	8.8	7.6
Storage	8	4.7	1.9
Marine Repair & Service	-	11.1	1.3
Wholesale-Retail	2	-	-
Port unused	0	6.8	-
Fish & Seafood Handing	7	6.6	0.8
Water transport-passenger	2	0	0
Residence	0	0	0
Public recreation	0	1	1
Utilities	0	0	0
(Railroad)	-	-	-
Private docks	10	-	3
	100	66.3 +	33.7 = 100%


CANADA
UNITED STATES
49°00'
SEMIAHMOO
BAY
DRAYTON
HARBOR
MUD
48°58'
BLAINE HARBOR
AND ENVIRONS
0
1
NAUTICAL MILES
122°46'
122°44'

IX

Conclusion

The port's part in Bellingham Bay activity grew from nothing to a predominant position in fifty years. Without this leadership of the port commission, stimulated by commercial and industrial interests, harbor traffic would be far less than what it was years ago under private auspices. The Port Commission of Bellingham was founded in order to attract business. Its functions and powers generated a powerful force for industry and shipping, not merely because of planned waterfront use, but because of the powers of taxation and of eminent domain, which, in effect, constituted a case of enterprise using the public credit. The propriety of private and public enterprise using the public credit and resources in order to make a profit is questionable. In a way reminiscent of Alexander Hamilton's funding and assumption programs in the 1790's, the public debt of the county has been increased. On the other hand, the port has added to the county valuation, brought more income and employment into the county with facilities at prices people could afford. As Grover Cleveland once said, "We are confronted with a condition, not a theory," and the fact is that theories about free enterprise or socialism pale before the condition that the voters of the county have consistently approved the proposals of the port commission.[94]

The diversified terminal and moorage facilities reflect the port commission's use of the tax power and planning, in good times

and bad. The Corps of Engineers and Federal funds greatly assisted completion of local projects. Terminal facilities were rarely used to capacity due to the complications of strikes, shipping costs and superport competition; facilities outstripped trade. However, the small boat harbors were jammed with fishing and pleasure boats, creating demand for more expansion. The port also expanded into control of the airport and into recreational facilities.

Land use for industrial and retail tenants has increased greatly over the fifty-year period. Leases provided from a few thousand dollars to several hundred thousand dollars a year of steady income from many, diverse businesses along the three waterways, Squalicum fill and the South Side. This part of port operations may be expected to grow in the years ahead, at Squalicum, the airport and between Squalicum and I and J Street waterway.

The harbor trade has been somewhat diversified, new businesses have substituted for old, the port's percentage of bay tonnage has increased from two to three percent to around forty percent. While forest and sealife products have always been and will continue to be the mainstay of bay tonnage, in recent years, the county has added aluminum and petroleum. Foreign trade has increased over the years, while coastal and intercoastal, full of timber in the interwar years, has changed to petroleum predominance. Costs of shipping and competition from land and air transportation hampered waterborne commerce, but local fish traffic is still heavy as are the vital, continuing chip trade with Canada and log trade with Japan. The years of

heaviest trade were 1924-1929 and 1965-1970, with severe slumps in the 1930's and 1946-1958.

Future problems for the port will be serious, but not insuperable. The containerization at superports may confine Bellingham's shipping to where it consists mainly of non-containerized logs and aluminum, chemicals, sand and fish. Conversely, county petroleum shipments will rise and new enterprises may appear from time to time. Also, equipment and general cargo will continue with water-oriented industries. The deep waters off Cherry Point might attract a superport, as Canada has built at Roberts Bank, in the delta of the Fraser River. This would drastically change the county environment. The political and economic power of Seattle could prevent a superport in Whatcom County, but the main difficulty is lack of suitable commodities. Rather, the terminals will try to compete by offering specialized handling services for general cargo. Low market prices for pulp and aluminum, strikes and continued inflationary costs may intermittently dampen port activity. Pollution control and land usage will come under increasing regulation, improving the condition of the water and waterfront, which will raise costs for the taxpayer who is also a consumer. Taxpayers may object to port support, claiming that money spent by the port does not directly affect them. On the other hand, the county is growing in population and this might increase not only port business, but demand for port services.

Waterborne enterprise and the port form the right arm of Whatcom County's economy. Exact percentages of the value of the port

to the county do not reflect the full economic and intangible value of the port. The port's capacity to facilitate the fullest economic and aesthetic use of Bellingham Bay has not been reached. Finally, it is most likely that the voters will continue to believe that the port is valuable because it provides the legal authority and practical means of using the tax base to support a regional economy for the benefit of its citizens.

Appendix A

Appendix A

A Note on the Statistics of Port History

Tonnage Statistics. These are available from companies, the Fire Department (as Harbormaster), the port commission files, the Corps of Engineers, the U. S. Shipping Board, the U. S. Customs Districts, the U. S. Bureau of Domestic and Foreign Commerce. They all differ because they have different criteria and jurisdictions; they should not be accepted as absolutely accurate. The author has used the Corps of Engineer figures because they appear to be the most thorough and the most inclusive. Some companies will not report, some may not be too accurate, others may pad their figures. To be sure, the Engineers rely on these local reports, but their own field researchers and compilers, at least for Puget Sound, have the reputation of being very accurate. Eliot Grinnell Mears, in his Maritime Trade of Western United States, appendix D, criticizes Engineer statistics and prefers the supposedly separate figures of the Shipping Board. Yet the Maritime Act of 1920 required the Shipping Board and the Engineers to cooperate and this is reflected in their published reports from 1920-41. In the 1950's, the Maritime Administration of the Department of Commerce assumed the Shipping Board role. The chief weakness with Customs District or Bureau of Domestic and Foreign Commerce figures is that they omit a lot of local, internal traffic, especially the massive tonnages of towed logs in Puget Sound. Since 1942, the Engineers have cooperated with the recommendations for uniform reporting of the Federal Bureau of

Statistics. The Maritime Administration uses Corps of Engineer tonnage figures. The tonnages listed, then, are considered to be somewhat accurate, and are most useful to show ratios between years, commodities and ports. Nevertheless, there is no one source for all county water and land transport. Some agency should record these figures; the port is the logical one, if companies would cooperate.

Appendix B

Appendix B

A Note on the Sources of Port History

One of the valuable contributions of the Marine Historical Association at Mystic, Connecticut, has been the publication in 1967, of Untapped Sources and Research Opportunities in the Field of American Maritime History. This volume is full of thoughtful ideas by some of the leading naval and maritime historians and government transportation experts.

Not only are there many topics open in national maritime history, there is a great deal to be done in Washington maritime history. More histories of ports would enhance our understanding of the Puget Sound society and economy. We need more histories of companies related to Puget Sound, the Columbia River and Pacific Coast enterprise of the state.

Among the topics relating to ports that bear further study are rate making, port operations, labor relations, relations with other agencies, pork-barrelling between local representatives, Congress and the Corps of Engineers, engineering operations, ship operations, agent operations, litigation, legalities of leases, biographies of persons and companies, promotional ventures of port and private enterprise. More human interest stories of the waterfront would be welcomed. Sophisticated trade analyses are now in order. Competent economic and geographic studies of port and county industry would be of great service. Accounts of yachting in Puget Sound and Bellingham Bay are needed. Histories of Puget Sound and local

shipbuilding and fishing would be important contributions.

While county, city and company records are spotty and do not go back very far, port records are comparatively very full, especially port minutes, resolutions, tonnage reports and auditor's reports. As tonnage clerks and auditors change, so do styles, making it hard to standardize figures. Cargo by tonnage and type can be erroneously entered and requires careful scrutiny. Newspapers are an excellent source and can often fill a gap in the story.

Notes

Notes

1. U. S. War Department, U. S. Army Corps of Engineers, The Ports of Port Angeles, Anacortes, Everett and Bellingham, Port Series #37, part 2 (Washington: GPO, 1965), 83. Wharf facilities were built on creek waterways because bottom deposits were favorable to holding pilings, but they also necessitate frequent dredging, often at three-year intervals.

2. State of Washington, Department of Agriculture, Whatcom County Agriculture (Olympia, 1965), 3-6; Bellingham Herald, July 3, 1970; U. S. Dept. of Commerce, Bureau of the Census, County and City Data Book (Washington: GPO, 1949), 320ff., 404; Ibid., Census of Population, 1960, I, part 49, p. 14; Ibid., Statistical Abstract of the U.S., 1966, p. 12.

3. M. L. Fair, Port Administration in the United States (Cambridge, Md.: Cornell Maritime Press, 1954), 3.

4. Christian Science Monitor, June 9, 1971; A. J. Tobin, "Management Structure and Operating Policies in Public Authorities: The Port of New York Authority," Comité International de l'Organisation Scientifique, XIII, September, 1963, 1; U. S. War Dept., Corps of Engineers, U. S. Army, E. Brown, Jr., Shore Control and Port Administration (Wn: GPO, 1923), xi-xii; Fair, Port Administration, 41; interview, Professor Alfred Roe, Western Washington State College, December, 1971.

5. A. J. Tobin, "Authorities as a Governmental Technique," address, Rutgers University, March 26, 1953, 8, 10; Tobin, "The Public Authority in Profession Profile," Masters Degree in Business Administration, Dec., 1967, 1. The American Association of Port Authorities was established in 1911.

6. Fair, Port Administration, 43; Letter, H. C. Brockel to the author, December 15, 1971. The author began this research with the notion that port commissions sprang up because of the reforms of the Progressive Era, 1900-1917, in the shape of regulatory agencies as governmental referees against monopolies. Such case is not proven by the evidence found.

7. Fair, Port Administration, 4-12, 46-47. In 1970, there were 43 port commissions in the State of Washington.

8. Letter, Richard C. Berg to the author, December 13, 1971; C. B. Bagley, History of King County, Washington (Seattle: Clarke, 1929), I, 635-37; Seattle Times, November 15, 1953, October 10, 1954; Seattle Post Intelligencer, January 21, 1968, Aug. 27, 1911, Feb. 19, 1911, Sept. 6, 1911. There is important research to be done on the origins and operations of the Port of Seattle.

9. Bellingham Herald, Sept. 3, Sept. 13, Sept. 15, 1920; Bellingham and Whatcom County Directory, 1919-1920; Bellingham Chamber of Commerce, The Show Window, January, June, July, September, 1920. Officers of the chamber were A. W. Deming, President, C. A. Morse and C. F. Nolte. John A. Miller, executive secretary, prepared statistics and reports for the Port of Bellingham until 1923, when Roswell Stearns replaced him. Some people have suggested that the Bellingham Bay Improvement Company, a realty group, helped start the port; its officers were E. W. Purdy, president, C. W. Smith, vice-president-manager, E. G. Saxon, Secretary Treasurer.

10. The Show Window, June, 1920.

11. Ibid., Aug., 1920; Bellingham Herald, Sept. 13, 1920.

12. The Show Window, July, 1920.

13. Bellingham Herald, Sept. 16, Sept. 17, 1920; The Show Window, Aug., Sept., Dec., 1920.

14. Bellingham Herald, Sept. 25, 1920; Port Commission Minutes (PCM) Dec. 6, 1920; Port Commission Resolutions (PCR) 1 of Sept. 25, 1920, 2 of Oct. 4, 1920; T. J. Glenn and Dorothy Clinard, "A Capsule History of the Port of Bellingham," in Whatcom Seascapes, Susan Barrow, ed. (Bellingham: Whatcom County Museum, 1970). This book is helpful for its sketches on port personnel, commissioners, and shipbuilding. Paige was president of the Northwestern National Bank in Bellingham, Terrill in insurance and Hunter, president of the Campbell River Logging Mills. John A. Kellogg and H. C. Thompson were retained as port attorneys, the engineer was Fred McElmon and Taggart Aston acted as consulting engineer. Bill Daniel, "Bell Tones," Bellingham Herald, Aug. 30, 1970.

15. Brown, Shore Control, 1-3, 53-54.

16. Washington Public Ports Association, Port District Laws Manual (Olympia, 1968), sections 53.08.010, 53.08.020, 53.08.040, 53.08.070, 53.08.080, 53.36.020, 53.39.030, 79.01.504, 53.32.010, 53.20.010.

17. Ibid., 42.22.040, 53.08.90, 79.16.375, 53.08.120, 4.08.120; Tobin, "Public Authority in Profession Profile," 42-43; Fair, Port Administration, ch. 24, passim.

18. U. S. War Dept., Corps of Engineers, U. S. Army and U. S. Shipping Board, Port Series #7, The Ports of Seattle, Tacoma, Bellingham, Everett and Grays Harbor, Wn. (Wn: GPO, 1925), 24-41 (Hereafter referred to as CE, Port Series, date.)

19. Ibid., 377-80. Bellingham Herald, April 26, 1953. With a dredged depth of 26 feet at mean lower low water, ocean going ships could call at the dock. Dredging was not merely a "boondoggle," it allowed ships to stop, which was the life blood of the port. See Marilyn Sibley, The Port of Houston (Austin, U. of Texas, 1968) ch. 6. It is not known why businessmen did not choose the deeper waters of Cherry Point and Post Point, avoiding the silting problems, but presumably, they did not dream of huge supertankers and wanted the docks close to their businesses, downtown. Furthermore, there was less silting in 1920 because the forests had not been logged off.

20. The Show Window, Dec., 1921; PCM July 5, 1921, Dec. 7, 1922, May 5, 1921, PCR 12 of Oct. 7, 1922.

21. PCR 15 of Aug. 5, 1924, 18 of Nov. 5, 1924, 25 of Dec. 15, 1925; PCM Sept. 5, 1924, Oct. 6, 1924, Dec. 30, 1924.

22. PCR 33 of Dec. 8, 1926, PCM Oct. 5, 1926; Bellingham Herald, Nov. 12, 1926, Dec. 1, 1926.

23. PCM Sept. 7, 1927, Feb. 6, 1928, March 5, 1930, Oct. 6, 1930, Nov. 3, 1930, Jan. 12, 1931, July 18, 1931, May 13, 1969; Port of Bellingham Yearbook, 1927; Whatcom County Auditor file numbers 310.281, 468.006. George H. Bacon of BBI, J. J. Donovan of Bloedel Donovan, W. J. Newton, William McCush and W. R. Moultray became trustees of the syndicate, which raised $150,000 in the county to purchase the land from Hugh Eldridge and one Cramer. Messrs. Munn and Paige of the port attended their meetings. Port files, correspondence with syndicate. The port commission also built a dock and warehouse at Point Roberts in 1931; in 1969 they sold it for $1.00.

24. PCR 107 of Sept. 24, 1933, 111 of June 23, 1934, 117 of Nov. 14, 1934, PCM Aug. 6, 1934. In 1935, this type of emergency was declared to repair the Muni Dock and dredge the waterway. PCR 123 of Jan. 29, 1935, 128 of June 15, 1935; PCM June 5, 1935. PCM April 3, 1933, July 10, Aug. 5, 1935, show storm damage and repairs at Blaine.

25. PCR 134 of Feb. 10, 1936, 146 of April 5, 1937; PCM Aug. 29, 1935, Jan. 21, 1936, June 22, 1936, May 5, 1939. In 1938 the port improved Pine St. with a railroad spur, built a webhouse on the South Side, added floats and repaired docks at Squalicum, with PWA cooperation; PCM Aug. 8, 1938, Sept. 16, 1938. Bellingham Herald, June 23, 1940, showed 90 pleasure boats and 46 fishing craft moored at South Side.

26. PCR 225 of Jan. 11, 1944, 226 of May 9, 1944, 230 of Sept. 22,

1944; PCM Sept. 12, 1944. Glenn and Clinard, "Capsule History."

27. PCM Feb. 5, 1947, Aug. 10, 1948, Sept. 10, 1948. 1947 storm destruction of the South Side small boat harbor also helped convince the port commission to expand Squalicum Harbor in order to retain the fishing fleet. PCR 333 of Sept. 28, 1954, 351 and 352 of Aug. 17, 1956, 367 of July 19, 1957, 378 of Feb. 11, 1958, 383 of April 8, 1958. Bellingham Herald, Aug. 30, 1970. Frank Haskell was another effective port advocate in the Chamber of Commerce.

28. Ibid., Lottie Roeder Roth, History of Whatcom County (Seattle, 1926) I, 529-30.

29. PCR 376 of Nov. 12, 1957. Typical airport traffic: landings, 25,700; passengers, 9541; cargo, 99,959 pounds; Port Files, Annual Financial Report (AFR) 1964.

30. Port of Bellingham, Annual Report, 1957 (AR); PCR 358 of Feb. 13, 1957, 381 of March 11, 1958, 392 of Dec. 9, 1958, 394 of Jan. 13, 1959. Glenn and Clinard, "Capsule History." The maintained depth in 1970 was 30', which accommodated all but the largest of ships.

31. Glenn and Clinard, "Capsule History"; PCR 411 of May 10, 1960, 418 of Sept. 16, 1960, 422 of Nov. 9, 1960, 438 of Feb. 13, 1962, 459 of Oct. 9, 1962, 463 of Dec. 20, 1962, 464 of Jan. 15, 1963, 479 of July 14, 1964, 490 of Sept. 9, 1965. In 1965, the port dredged and improved the I and J St. waterway, with Federal aid. PCM July 15, 1965, PCR 492 of Oct. 12, 1965.

32. PCR 494 of Feb. 28, 1966, 523 of Aug. 16, 1968; PCM Jan. 31, 1966, Feb. 8, 1966. In 1925, Bellingham had 17 wharves and 6 warehouses, in 1968, 53 and 7. Groups bid for bonds composed of such firms as Dean Witter and Co., National Bank of Commerce, Merrill, Lynch, Pierce, Fenner and Smith, Seattle First National Bank, Blythe and Co. The port often invested industrial development funds in 90-day government bonds, to earn interest before being spent on capital project. PCM May 13, 1958. The depth at South Terminal was 34 feet and did not require as much dredging as North Terminal.

33. PCR 529 of April 8, 1969, 530 of May 13, 1969. PCM April 9, 1968. One of the ways a smaller port loses out is the example of the campaign in 1967 for the Alaska Ferry terminus, which Seattle won. PCM Dec. 12, 1967, Sept. 12, 1967.

34. In 1962, the port and city negotiated the location of the city

garbage dump, out of sensitivity to pollution and appearance. The fill at the Brooks Manufacturing site stopped and in 1963 the city and Georgia Pacific cooperated to begin a sanitary fill between E and G Streets in shallow water. The port did not participate. Interview, C. W. McDonald, July 25, 1972. In 1972, the city started a sewage plant on the South Side. PCM Sept. 12, 1962, Aug. 13, 1963, Oct. 8, 1963, Dec. 10, 1963, Jan. 10, 1967. State of Washington Water Pollution Control Commission. Water Quality Standards for Interstate and Coastal Waters. (Olympia: State of Washington, Dec. 4, 1967), 14.

35. Interviews, Thomas Glenn, March, 1971; Port files, Bellingham Port of Production, n.d.n.p.

36. PCR 23 of Sept. 4, 1925, 105 of Sept. 5, 1933, 239 of Sept. 11, 1945, 343 of Sept. 13, 1955; AR, 1954; AFR, 1968.

37. AR, 1951; AFR, 1963, 1965, 1970; Bellingham Herald, April 26, 1953. Port files, State Auditor Report, 1926.

38. PCR 57 of Sept. 8, 1930, 161 of May 3, 1938, 254 of Oct. 7, 1946, 343 of Sept. 13, 1955, 491 of 1966; AFR, 1968; Port of Bellingham, Annual Report, 1937.

39. PCR 23 of Sept. 4, 1925, 93 of Aug. 26, 1932, 239 of Sept. 11, 1945, 343 of Sept. 13, 1955; AFR, 1968.

40. AFR, 1969; AR, 1954; PCM Oct. 6, 1941, Oct. 3, 1935.

41. PCM Oct. 3, 1949, July 8, 1924, Oct. 3, 1935; AFR, 1965. For over 30 years, the lease charge was $900 per acre per year, PCM Jan. 10, 1956, June 11, 1923.

42. AFR, 1969; AR, 1949. In 1970, revenues from commercial boats at Squalicum were $23,000, pleasure craft, $45,000. In 1963, the figures were $15,750 and $13,200, respectively. In 1952, fishing moorage amounted to $1,904, pleasure, $5,262. Rates increased from $1.00 per foot per year in the fifties to .25 per ft. per month in the sixties, for pleasure boats, slightly lower for fishermen. Bill Daniel, "Bell Tones," Bellingham Herald, Dec. 26, 1971.

43. Port of Bellingham Yearbook, 1927; The U. S. Navy and Coast Guard also leased dock and office space from the port, PCM Feb. 9, 1958, AR, 1959; PCM Oct. 3, 1935, June 4, 1941, Jan. 21, 1933, Oct. 3, 1949; State Auditor Report, Jan. 1932 - April, 1933. One of the stated drawbacks for the lessee is that he does not own the land. Also, rates have increased in recent years to offset the tax "break" port businesses receive.

44. PCR 99 of May 13, 1933, 227 of Sept. 1, 1944, 127 of June 5, 1935.

45. PCM Nov. 9, 1932, Nov. 28, 1934, May 7, 1936, May 25, 1936, Oct. 10, 1961, Sept. 20, 1962, April 13, 1972; AR, 1961. The elevator was torn down in 1958, PCM March 11, 1958.

46. PCR 480 of July 22, 1964, 496 of March 8, 1966; AR, 1950; PCM Aug. 13, 1963, Dec. 10, 1963.

47. PCR 118 of 1934, 126 of June 3, 1935, 168 of April 7, 1939. PCM Oct. 3, 1932, Sept. 9, 1935, July 14, 1959, Nov. 12, 1963.

48. Port files, auditor profit and loss statement, 1970; PCM Oct. 6, 1947; AFR, 1963. For a brief period Cherry Point was designated IDD #8.

49. Port files, auditor profit and loss statement, 1970.

50. Port files, tonnage reports, harbor reports, 1920-70, interview with Dorothy Clinard, February 3, 1972; City of Bellingham, Fire Dept., Harbor Activities Reports, 1964-70; letter, Lewis Holcomb to the author, Jan. 25, 1972; Glenn and Clinard, "Capsule History"; CE, Port Series, 1925, pp. 212, 370, 412; 1931, pp. 74, 135, 198; 1952, pp. 110, 219, 181; CE, Annual Report, 1897, pp. 3478-3481; 1912, pp. 1256-1258; 1917, p. 1780; 1947, pp. 1306-1307. CE, Waterborne Commerce of the United States, 1960 (Wn.: GPO, 1960), pp. 45-47; 1970, pp. 100-101, 147.

    When sources vary, Corps of Engineer figures are used. Ship totals are actual, not both inbound and outbound; the number of ships for 1920-46 probably much higher because smaller craft were not counted then. The dollar values are estimates only and the real figure for 1970 is probably two-thirds higher, because the $92 million was based on 1 million tons of shipping. See Appendix A.

51. CE, Annual Report, 1929, p. 941 ff.; 1947, p. 1281 ff.; CE, Waterborne Commerce, 1960, pp. 55-84; 1970, pp. 83-93.

52. CE, Annual Report, 1929, p. 5ff. G. F. Mott, Survey of U. S. Ports (NY: Arco, 1951), 94, 104, 111, 133, 146, 184, 196, 208. Canada, National Harbours Board, Annual Report, 1967, p. 53; D. Kerfoot, Port of British Columbia (Vancouver, 1968). Letter, W. Duncan to the author, April 25, 1972.

53. "Le Trafic des ports du monde," Le Journal de la Marine Marchande, Dec. 1971. It has not been possible to obtain tonnage figures for The People's Republic of China and U.S.S.R. In

1929 Rotterdam had 21 million metric tons, Hamburg, 18 million; in 1938, London had 44.6 million long tons.

54. Letter, L. Holcomb to the author, Jan. 25, 1972.

55. CE, Port Series, 1925, 412, 415.

56. CE, Port Series, 1931, 131-143.

57. Port files, Report on Municipal Dock, 1945, file on Lend Lease, Harbor Report, 1943.

58. CE, Port Series, 1952, 175-184.

59. AFR, 1970; PCM Jan. 13, 1970, Jan. 12, 1971. Port files, cargo comparisons.

60. CE, Port Series, 1925, 409-410, 418; Port files, cargo reports; interview, Dorothy Clinard, Jan. 20, 1972.

61. CE, Port Series, 1925, pp. 416-418; 1931, pp. 133-135; 1952, pp. 179-81; AFR, 1970; CE, Waterborne Commerce, 1960, pp. 45-47; 1970, pp. 100-101; CE, Annual Report, 1931, 967. W. Gorter & G. Hildebrand, The Pacific Coast Maritime Shipping Industry (Berkeley, 1954), I, ch. 2, passim.

62. Port files, Harbor Report, 1927, 1925; D. H. Clark, 18 Men and a Horse (Bellingham; Whatcom Museum, 1969), 138-142.

63. Clark, 18 Men and a Horse, 138; Port files, Harbor Reports, 1923-25, 1934. Destinations of Bloedel Donovan lumber, lath, shingles in 1934: to Atlantic Coast, 29,282,908; Calif., 4,378,304; Hawaii, 2,593,442; Japan, 10,054,446; China, 11,298,964; Manchuria, 274,876; England, 2,135,909; So. America, 2,141,178; France, 360,000; Germany, 384,000; Holland, 161,000; Belgium, 451,000; Spain, 58,000; Italy, 360,000; Greece, 12,000; Africa, 307,000; Puerto Rico, 2,581,393; local, 85,918. Total: 66,924,141 board feet.

64. Port files, Harbor Report, 1925. These figures do not include the 14 PAF plants in Alaska and Canada.

65. Ibid.

66. Port files, cargo reports, Harbor Reports, various.

67. Port files, Harbor Report, 1925, 1930, 1937. Interview, C. W. McDonald, July 25, 1972; Chas. Countryman, July 26, 1972.

68. Port files, Harbor Report, 1924. The E. K. Wood Mills had

eight ships in their fleet, among them, Vigilant.

69. Port files, Harbor Report, 1938. These are only approximations, some companies did not report, others have been omitted due to light tonnage.

70. Port files, Harbor Report, 1943.

71. Port files, Harbor Report, 1950, 1955, 1960. City of Bellingham Fire Dept. Harbor Reports, 1970. Bellingham Builders figures separately reported by P. Gaasland.

72. Port files, Harbor Reports information from Bill Gardner, July 19, 1972; J. Allan Evans, "History of Puget Sound Pulp and Timber Co. Now Bellingham Division of Georgia-Pacific Corportion," Susan Barrow, ed., Green Gold Harvest (Bellingham: Whatcom Museum, 1969), 49-52. Information from George Boney, May 5, 1972. The main reason for the tonnage change between 1960 and 1970 is that part of GP shipments went over port docks after 1965, thus are not included in Table 15.

73. Information from Martin Asplund, March 2, 1972; Interviews with Dorothy Clinard and Bill Bond, Feb. 3, 1972. It has been impossible to trace the volume and value of land shipments in and out of the county because no agency maintains records. Thus, at present there is no way to state the bay-port percentage of county shipments.

74. Bellingham Chamber of Commerce, Foster and Marshall, Inc., City of Bellingham, Wa., Water and Sewer Revenue Bonds, 1972, 10. Information from Peter Gaasland, May 5, 1972.

75. Information supplied by O. C. Johnson, Feb. 29, 1972 and Robert Ferrie, May 4, 1972. These figures are not tallied by the port or city of Bellingham, and do not appear as part of the county totals in the Corps of Engineers' Waterborne Commerce.

76. Bellingham Herald, Jan. 16, 1972. Gorter and Hildebrand, Pacific Coast Maritime Shipping Industry, ch. 2; KING TV, "Seaport," April 4, 1972; CE, Port Series, 1925, pp. 418-19; 1931, p. 59; 1952, p. 172. Railroad rates were unfavorable to Bellingham until 1952, when they were changed to equal those at Everett, which enjoyed transcontinental rates.

77. Information supplied by Roger Sahlin, Feb. 22, 1972, Lance Brakefield, Feb. 29, 1972; CE, Port Series, 1925, pp. 388, 391; 1931, p. 16. PCR 300 of Aug. 8, 1950, 311 of Nov. 7, 1951. PCM April 11, 1938, March 10, 1964.

78. Barrow, Whatcom Seascapes, 4; Information supplied by Thomas Glenn.

79. Information from Whatcom County Treasurer's Office, March 16, 1972. It has been impossible to find tax figures for the 1920's, or any beyond the past ten years, because they are not retained by any county or state agency. Even port tenants pay taxes on buildings they own.

80. Foster and Marshall, Inc., City of Bellingham, 10, 13, 16. Washington Sea Grant Program, "Evaluation of the Fishing Industry in Whatcom County," Seattle, 1972. County sales figures provided by David Thomas, May 22, 1972. Some 2300 units reported. This total is probably low, e.g., Mobil profits are not included because the local refinery does not keep these figures, they are figured in the Mobil Corporation totals at another location. Because of the form of company records and their practices, it has been exceedingly difficult to arrive at cargo values. Data for value are not as available as data for volume of cargo. Information from George Boney, Sept. 11, 1972.

81. Table calculated by D. Clinard and T. Glenn. Table 19 means dollars generated by handling, not by manufacturing or selling. Port handling revenues find their way into the community through port direct businesses and employment. Criterion used in multiplier table is total dollars received by port from handling commodity.

82. Foster and Marshall, City of Bellingham, 16, 17; Bellingham Chamber of Commerce files, Market Facts, 1971; U. S. Dept. of Commerce, Bureau of Census, 1967 Census of Manufactures, Washington, Table 4 (Wn.:GPO, 1967); Washington, Dept. of Agriculture, Whatcom County Agriculture, 3-6, 24, 28; Bellingham and Whatcom County Directory, 1928. Interview, M. Mischaikow, May 4, 1972; other information supplied by Robert Ferrie, Peter Gaasland. U. S. Dept. of Commerce, County and City Data Book, 1967 (Wn.: GPO, 1967), 406-411. It is possible to suggest that port generated revenues multiply in the county as goods are sold. Some competent economist or geographer ought to make such a study. Cf. Port of Portland Economic Impact Study, 1970. E. Schencker, The Port of Milwaukee (Madison, Wisconsin, 1963); R. O. Goss, Studies in Maritime Economics (London: Cambridge U., 1960).

83. Ibid.

84. Port files, Public Affairs Services, Olympia, Wn., "Economic Impact Study--Port of Bellingham," Spring, 1970. The totals are more meaningful than the divisions.

85. Ibid.

86. Ibid.

87. Ibid.

88. Ibid.

89. Ibid.

90. Ibid.

91. Mr. and Mrs. Dan Olson related part of this yachting sketch.

92. Bill Lausch, Squalicum superintendent, supplied this information. The Bellingham unit of the U.S. Power Squadron has been very active, offering piloting and advanced courses to hundreds of boaters. Much of the leadership for good seamanship has come from Messrs. Ray Greene, Herb Hearsey, Jack May and Maurie Jensen.

93. The author is indebted to Eugene Hoerauf for his assistance in preparing this table, based on measurements of aerial photos and Corps of Engineer maps of 1925 and 1965. The idea was borrowed from C. Forward, "A Comparison of Waterfront Land Use in Four Canadian Ports: St. John, Saint John, Halifax and Victoria," Economic Geography, vol. 45, no. 2, April, 1969. Again, these percentages are intended to be suggestive, not definitive. Waterline usage was figured, not the land behind it. For example, railroad lines span the entire waterfront, but are not included, where log booms are, with other categories.

94. Some of the standard criticisms of port authorities are discussed in Tobin, "Authorities as a Governmental Technique," 27-28: ports are socialistic, compete unfairly with real estate interests, are not subject to enough control.

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BIBLIOGRAPHY

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Index

Index

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