

PORT OF PORTLAND'S DREDGING OPERATIONS BREAK ALL RECORDS

Channel Is 28 Feet Deep in Rivers, and Safe for All Size of Water Craft.

THE Port of Portland has done the largest amount of dredging in its history during the year just closing.

With its three big hydraulic dredges, the "Columbia," "Willamette" and "Portland" having a combined capacity of 30,000 yards of material a day, almost continuously at work, the channel between Portland and the sea at no point is now less than 28 feet, which is sufficient to accommodate any seagoing vessel that enters the Columbia.

Approximately \$206,000 was spent for dredging operations during 1913 and it is estimated that about the same amount will be expended during the forthcoming year. In addition the dredge "Columbia" will be equipped with a new steel hull at a cost of \$90,000, including the expense of transferring its machinery.

The port will also be called upon to shoulder another big expense in 1914, in order that continuous work may proceed upon the construction of the north jetty at the mouth of the Columbia.

Fearing that the federal appropriation may be exhausted in the spring, the Port of Portland has pledged itself to pay into the United States treasury the sum of \$475,000 to carry on the work until congress makes another appropriation in the fall of 1914.

The Port of Portland was created by an act of the legislature in 1891, in response to a general demand of the citizens of Portland. Monies spent by it are raised by taxation and are used, first to maintain a deep channel between Portland and the sea; secondly in the operation of a dry dock at St.

MONTH BY MONTH RECORD OF SHIPMENTS OF WHEAT, FLOUR, BARLEY AND LUMBER TO FOREIGN PORTS

	Wheat.		Flour.		Barley.		Lumber.		
	Bushels.	Value.	Barrels.	Value.	Bushels.	Value.	Feet.	Value.	
January	1,846,673	1,525,761	1,326,057	32,315	116,529	354,357	249,420	8,396,000	99,629
February	933,880	615,071	538,820	52,375	209,500	104,706	70,362	8,524,000	107,039
March	915,844	550,229	476,803	50,258	201,032	102,541	62,969	12,677,000	153,800
April	125,298	277,831	248,279	2,075	8,000			7,136,000	93,902
May	1,297,770	442,020	419,400	27,963	111,851			16,441,000	195,917
June	753,106	353,337	322,058	70,300	277,101	342,749	225,143	18,591,000	249,800
July	1,117,629	127,521	106,915	41,227	164,908	208,532	125,295	19,839,000	258,513
August	690,803	1,245,483	1,034,750	103,996	415,631	123,404	78,012	27,395,000	343,003
September	1,888,029	1,294,472	1,086,376	78,934	311,281	140,350	97,684	21,901,000	290,643
October	1,767,658	808,591	669,493	74,511	288,747	468,933	312,069	15,474,000	174,080
November	1,482,306								
Total	\$12,819,594	7,240,316	\$6,198,951	661,426	\$2,613,424	1,875,905	1,239,153	181,192,000	\$2,277,270

Exports of general cargo to all countries for 11 months, \$490,796.

Johns and thirdly to maintain an efficient pilotage service. The construction of the drydock was authorized in 1903 and in 1908 the port was empowered to assume the operation of a towage and pilotage service between Portland and the Pacific. When the port was created it was difficult to bring vessels of more than 16 foot draft to Portland, owing to the existence of bars and shallows which are always in evidence in rivers where freshets occur annually. Commerce therefore was imperiled.

Harbor Is Deep, Safe. But thanks to untiring efforts this danger no longer exists. The harbor is deep and wide, its facilities are classed among the best, and a clean avenue for water traffic exists from wharf to deep water outside the bar.

With the port ever growing in importance, and an increase in both the number and size of vessels entering the port, the channel has been deepened, widened, and straightened. Now ships drawing 27 feet need experience no difficulty in navigation. And the end is not yet! Where a 23 foot channel obtains at present, one 29 foot in depth will be dredged next year and another foot will be added to the depth the year following. This program is outlined in anticipation of a much deeper channel across Columbia's bar on the completion of the north jetty, now under construction.

The Port of Portland's dredge "Columbia" has aided Uncle Sam considerably this year also. Working from March until July the dredge dug a channel 11 feet deep, 300 feet wide and approximately 7000 feet long in Baker's Bay, at the mouth of the Columbia. This

was done to enable the big rock scows to land their loads at the north jetty docks for jetty construction. The "Columbia" returned to the work only a week or so ago for the purpose of completing the channel. The government is paying the bill in this regard.

Uncle Sam Directs Work. The river improvement work of the Port of Portland is done under the direction of the war department.

The local commissioners of the Port and the United States engineers cooperate in deciding the amount, manner, and location of work.

In a general way the improvement work and maintenance of the channel between Portland and Eureka, about 65

miles below Portland, has been done by and at the expense of the Port of Portland. The remainder of the channel work and the construction of the jetties has been and is under the sole direction of the federal government. The towage and pilotage service now maintained by the port is highly efficient and service rates are much lower than any other port on the Pacific coast. The port employs five bar pilots. Three sea going tugs and one stern wheeler river tug boat are in continuous operation.

The dry dock at St. Johns likewise offers opportunities for dry docking boats at a rate much cheaper than obtains anywhere else on the coast.

The port maintains a machine shop on the dock premises and in addition to

affording facilities for repairing vessels is also used by the port for attending to its own equipment.

Port's Property Worth Million.


The total cost of the equipment of the port, including its dredgers, the dredge tenders "Wenona" and "John McCracken," the launch "Astoria," the seagoing tugs "Wallula," "Oneonta," the pilot schooner "Joseph Pultzer," and the stern wheeler "Oklahoma," is \$19,056,48. The dry dock, which is valued at \$377,342.41, and the launch "Marie" valued at \$3325.58, brings the total investment to \$1,199,724.47.

The bonded indebtedness of the port is \$750,000, against which there is an accumulated sinking fund of something over \$265,000.

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PORT'S COASTWISE TRADE SHOWS INCREASE FOR YEAR

PORTLAND shipped during the first 11 months of the year a total of \$3,356,489 more of wheat, flour, barley and lumber to domestic ports than were set afloat for the same period last year.

Steamers and sailing vessels plying between Portland and other domestic ports during the 11 months of 1913 since January 1 took out cargoes of these principal commodities to the value of \$10,318,655, the greater part going to California ports. For the same period in 1912 there were shipped lumber, wheat, flour and barley to the value of \$6,968,170.

These shipments are exclusive of the various other commodities classed as general freight, of which there are large quantities shipped from this port every year to California, New York, Charleston, Philadelphia and Boston.

and which amount to many hundreds of thousands of dollars.

In all of the principal shipments this year the totals were greater than last year, as will be shown by the following figures, taken from the records of shipments at the Merchants' Exchange. They are as follows:

Domestic shipments for 11 months from January 1, 1913—Lumber, 210,484,984 feet, value \$2,420,590; wheat, 6,512,156 bushels, worth \$5,787,283; flour, 385,598 barrels, valued at \$1,601,840, and barley, 838,282 bushels, valued at \$509,148.

Shipments for the 11 months beginning January 1, 1912, were: Lumber, 157,448,257 feet, value \$1,656,716; wheat, 4,269,581 bushels, value \$3,730,196; flour, 340,533 barrels, worth \$1,437,657, and barley, 222,596 bushels, valued at \$143,601.

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OREGON CITY, OREGON

"All Its Eggs Are Not Placed in One Basket"

Several years ago it was determined to construct a number of electric generating plants for the sole purpose of providing

Reliable Electric Service

With this end in view, the Portland Railway, Light & Power Company has finally completed and put in operation ten of these huge plants.

They are located in Portland (2), Salem, Boring, St. Johns, Estacada, Cazadero, Oregon City, Bull Run and Silverton. All are intercommunicative, and thus are able to carry the load of a sick plant, whatever unforeseen condition may have arisen.

This provision for good service required a very heavy outlay of capital, but it has done much to give Portland its present reputation for being the BEST LIGHTED CITY on the Coast.

Experience has taught that where all is dependent upon the production of a single plant, accidents will occur and the service meet with interruptions.

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