31 March 1967

Department of the Army Portland District, Corps of Engineers Douglas W. Polivka, Chief Technical Liaison Office 613 Pittock Block, Portland 97205 227-7681, Ext 280

ARMY ENGINEERS INVITE PUBLIC TO VISIT PROJECTS DURING ENGINEERS' WEEK

To the average person the Army Engineers are "those people who build dams and dredge rivers." This is a lot like describing Switzerland as hilly or Venice as moist. It's true, but not complete. Dams and dredging are just two of a long list of activities carried on by the U.S. Army Corps of Engineers.

Colonel William J. Talbott, Portland District Engineer, has announced that during Engineers' Week, February 19 through 25, all Army Engineers projects under his jurisdiction will hold open house for the public.

"The theme of this year's Engineers' Week -- Engineering for the Human Environment -- could well be the theme for the Corps of Engineers in the Northwest," Colonel Talbott stated. "For that's exactly what we do. In this section of the country, where water and its utilization play such an important part, the Corps plans and supervises development of this vital natural resource to fill the present and future needs of the area."

The Army Engineers build dams and dredge rivers. But that's not all. They sell hay crops, hire teachers for work overseas for the military, operate a 94-year-old set of navigation locks and, sometimes, even buy real estate. They also build jetties, lease land for cattle grazing on an island at the mouth of the Columbia River, contract for operation of fish hatcheries, develop recreation areas and operate some of the most popular sightseeing points of interest in the entire Northwest.

Different as these activities might appear, they are almost all related to the Corps of Engineers' major task in the Northwest -- the development of the region's water and associated land resources.

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The sale of hay crops, for example, occurs when the Army Engineers acquire farm land in reservoir sites which are being developed, Rather than let the crops go to waste, the Army Engineers sell the hay to the highest bidders.

The same goes for the land leased for cattle grazing at Sand Island in the Columbia River. Not only does the lease earn money for the Government, but the cattle keep the grass trimmed.

The Portland Engineer District also interviews, hires and arranges transportation for teachers for dependents of Armed Forces personnel overseas.

The 94-year-old navigation locks are Willamette Falls Locks on the Willamette River at West Linn. Although old, the locks pass over one million tons of waterborne traffic each year. This year the Army Engineers are installing television systems at the project and replacing two of its gates to modernize the operation.

With a \$46 million budget in Oregon for this fiscal year which ends in June, the Army Engineers are many things to many people. To the sportsman-conservationist they are the ogres who interpose dams across the rivers. To the residents of a flood-stricken community they are the last hope to which they can turn to ease them through their troubles.

And to the citizen committee, planning for the future of their community, the Army Engineers provide guidance and counsel in matters of water usage.

The Corps of Engineers as an instrument of the Federal Government, is charged by Congress with the administration of our navigable waterways and with multiple purpose water resource control and development.

Thus the Army Engineers are Uncle Sam's construction agency. Their two largest jobs in Oregon are building dams and keeping the state's rivers and harbors open to waterborne traffic.

Last year the Army Engineers completed Fall Creek Dam and Reservoir near Eugene to raise to ten the number of flood control dams operating in the Willamette Valley. This year in June, Green Peter and Foster Dams

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near Sweet Home will be dedicated, bringing the total to 12. Blue River
Dam near Eugene is under construction, and several more are on the
drawing boards.

In the Rogue Valley the Army Engineers are moving ahead with plans and designs of three reservoir projects which will provide flood control, power and, of more importance to fishermen, enhancement of the fishing resource. During the summer months, with small flow and hot temperatures, some reaches of the Rogue River attain temperatures in the high 80's. This is detrimental to fish life. The Army Engineers will "air condition" the river by maintaining a larger minimum-flow which will reduce river temperatures to not more than 68 degrees—a much more livable temperature for the valuable salmon.

People in the Northwest don't need to be told the value of flood control dams. Not after the Christmas flood of 1964. In the Willamette Valley alone the total damage prevented by the Army Engineers dams was approximately twice the total cost to date--\$276 million--of all completed structures.

An equally important function of the Army Engineers is the maintenance of rivers and harbors. This is accomplished primarily by building and keeping jetties in repair, and by dredging.

The Portland Engineer District is responsible for maintaining 646 miles of river channels at 36 authorized projects, 12 of which are along the Oregon coast and 24 on inland waters.

The most important navigation project for the growth of the area is the \$23 million Columbia River 40-foot navigation channel project. Stretching from Portland and Vancouver to the sea, the project will be better able to accommodate larger ships (like the Manhattan) and larger payloads at less cost.

Dredging along the coasts of Oregon, Washington and California is accomplished by the Portland Engineer District's fleet of four seagoing hopper dredges and three pipeline dredges. In addition the Portland-based dredges perform work in Hawaii and the Panama Canal.

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Currently the hopper dredge Davison is in Vietnam under special assignment with the Navy, deepening rivers and harbors to aid the supply of material to U.S. and South Vietnamese forces there.

When the Army Engineers dredge a river one of their biggest problems is finding a place to deposit the spoils. Often they run their pipelines to the shore, creating new beaches. This often creates enormous sand piles much to the delight of local children.

The Army Engineers see no let-up in activities for the future. Colonel Talbott of the Portland U.S. Army Engineer District says, "No slackening of the present pace of development is anticipated for at least ten years.

"In view of the broad field of work that lies ahead, it's apparent that the Pacific Northwest by the next decade will be one of the most intensively developed regions in the United States."

He added that the public is cordially invited to visit Portland Engineer District projects--especially during Engineers' Week. Everyone will be welcome. Jerry Schmunk

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Department of the Army Portland District, Corps of Engineers Douglas W. Polivka, Chief Technical Liaison Office 613 Pittock Block, Portland 97205 227-7681, Ext 280

ARMY ENGINEERS PREPARE NEW INFORMATION FOLDER TO ANSWER QUESTIONS ABOUT COLUMBIA RIVER FISH

"Fish Facilities on the Lower Columbia and Snake Rivers," a new information folder prepared by the Portland U.S. Army Engineer District, will be distributed to the public for the first time at the Portland Boat, Trailer and Sport Show at the Memorial Coliseum, January 13-21.

The folder, which is being released to answer questions about fish common to the Columbia River system and to describe Corps of Engineers' efforts to improve fish runs, will be available at the Corps of Engineers' display in the Federal agencies area of the sport show.

Colonel Robert L. Bangert, Portland District Engineer, said the new folder contains pictures and descriptions of Columbia River fish, as well as a chart of the life cycle of the salmon. Included is a map of the Lower Columbia and Snake Rivers showing the various hydroelectric projects on the two rivers.

The information folder was printed as the result of a suggestion submitted by a Corps of Engineers employee at Bonneville Dam. Lloyd R. Kendoll, a fisheries biological technician, recommended that the folder be prepared to free dam personnel from answering the same questions day after day, and to aid students studying fish, conservation and the river.

Dams which will distribute the new folder are: Bonneville, The Dalles, John Day and McNary on the Columbia River, and Ice Harbor, Lower Monumental, Little Goose and Lower Granite on the Snake River.

Colonel Bangert stated, "The Corps of Engineers, in cooperation with state and Federal fishery agencies, is constantly striving to improve the Columbia River fishery. This is done through research and improved operating techniques so man may realize the full benefits from power and navigation, and at the same time continue to enjoy the river's recreation capability and valuable fish resources." Jerry Schmunk

Department of the Army
Portland District, Corps of Engineers
Douglas W. Polivka, Chief
Technical Liaison Office
613 Pittock Block, Portland 97205
227-7681, Ext 280

ARMY ENGINEERS HAVE LONG OREGON HISTORY

Although the Corps of Engineers has served the Oregon country in the area of water resources development since the 1860s, many people are still unfamiliar with the broad scope of its missions and functions. This is not without reason.

The name implies military, and the U.S. Army Corps of Engineers is, indeed, commanded by the Chief of Engineers under the Secretary of the Army. In actuality, the Corps is an army of civilians headed by Corps of Engineers' officers.

The Portland U.S. Army Engineer District--one of 42 in the Corps-is engaged exclusively in civil works. Funds are appropriated by Congress specifically for each project or study.

The Portland District is commanded by Colonel Robert L. Bangert, the 50th District Engineer dating back to Major Henry M. Robert who established the Portland District office on May 2, 1871. Major Robert is perhaps best known as the author of Robert's Rules of Order, one of the foremost books on parliamentary procedure.

Normally, no more than three military officers are assigned to the district at one time.

The name also says "engineers" and the Portland district is a part of the largest and most diversified engineering organization in the world. Here again, it is surprising to note the diversity of the disciplines and skills required due to the complexity and broad scope of the work.

Out of a total of approximately 1,300 employees, the engineering division has 245, the construction division 50, the project operations division 385, the navigation division 480, and executive and administrative 140.

There are economists, accountants, engineers, landscape architects, digital computer systems operators, attorneys, meteorological technicians, geologists, journalists, biologists, real estate appraisers, recreation planners, reservoir managers, lockmasters, river pilots and dredgemasters, to name a few.

The question is often asked, "How did the army become involved in civil works?" Simply stated, at the beginning it was essential. In the early days of the country, the United States obtained most of its engineers from Europe, there being no engineering schools here.

In 1802 the U.S. Military Academy at West Point was established. It was the only engineering school in the country, and the only source for educating engineers for the young nation.

Hence, the U.S. Army Corps of Engineers came into civil works in developing the waterways of the nation for commerce, providing flood control along its rivers.

It was ultimately responsible for such monumental works as the United States Capitol Building, the Washington Monument, the Panama Canal, Oak Ridge Proving Grounds, and the NASA complex.

Probably the first Army officers to visit the Pacific Northwest were the now famous William Clark and Merriwether Lewis, both captains. Their expedition was in the nature of a military undertaking financed by the United States War Department. Clark, more than Lewis was intimately acquainted with western conditions.

It was Lewis and Clark, who, starting at the mouth of the Missouri River in the spring of 1804, blazed the overland trail to the valley of the Columbia.

Not until the return of the explorers and their party in 1806 did the rich prospects of trade in the Oregon country attract eastern investors on a scale which started any noticeable westward movement. Other expeditions followed over the long and tortuous route which has now become legendary as the Oregon Trail.

An Army Engineer whose name is perpetuated in Pacific Northwest history is Captain Benjamin L. E. Bonneville who obtained leave from the War Department to lead a party of explorers to Oregon in 1832, partly in the interest of the fur trade.

His explorations served as a further stimulus to the westward flow of business and population. A graduate of the United States Military Academy at West Point in 1815, Captain Bonneville made a second journey to the Northwest in 1852 with orders to lay out and take command of Fort Vancouver Barracks.

Bonneville Dam on the Columbia River stands today as a memorial to this early engineer officer and his contribution to the region's development.

With the advent of steam transportation, the first surveys for rail transportation were made. Among those who engaged in these surveys for rail development of the Northwest Territory was a young Army Engineer, a graduate of the U.S. Military Academy, Lt. James H. Wilson. He later distinguished himself as the youngest Army commander in American history. He rose to General rank in the Civil War.

Lt. Wilson spent about a year as a topographic engineer, surveying the route from Puget Sound to the Columbia River. This became a part of the northern cross-country route with terminals at Puget Sound and the Great Lakes which Congress chose in 1864 in authorizing construction of a railroad. It became known as the Northern Pacific.

There are no reports of Corps of Engineers work available prior to 1866. At that time all lands west of the Rocky Mountains were under the Engineer Officer in San Francisco, work being carried on under the heading of "Rivers and Harbors of the Pacific Coast."

The first surveys by the Corps of Engineers in the Willamette River were made in October 1866, about the same time that surveys were conducted by the Corps of the upper Columbia River. Major P.S. Williamson was then in charge of the San Francisco District which, at that time, included the entire Pacific Coast.

In those early days, the District Engineer, in addition to carrying on the activities of the Corps of Engineers, was engineer for the 12th and 13th Lighthouse Districts, and a member of the Board of Engineers for the Pacific Coast.

The increasing importance of the Columbia River as an inland waterway in connection with the expanding economy of Oregon and the Pacific Northwest was recognized with the establishment of a Portland District office in 1871. Major Robert succeeded Major Williamson as superintendent of river improvement in Oregon and as engineer of the 13th Lighthouse District.

Beginning in 1884 there were two district offices in operation in Portland. In 1926 the first and second Portland Districts were consolidated into the Portland, Oregon, District. On May 1, 1935, the Portland District was divided into two districts, both in the city. Then in 1937 the first District took up offices in the Pittock Block and the second District moved to Bonneville, Oregon, to become the Bonneville District. It was later consolidated with the Portland District on January 1, 1941.

Early work of the Corps of Engineers included construction of Cascade Canal and Lock on the Columbia River from 1878-1896.

Dredging records only go back to 1900, but it is interesting to note that the first Federal project for improvement by dredging a deeper channel through Swan Island bar was in 1867. The dredge was loaned to the Army Engineers by the city of Portland.

In 1877 a 20-foot navigation channel was authorized from the mouth of the Columbia River to Portland. A 40-foot channel is presently about 50 percent complete.

Perhaps the single most important improvement in the interest of navigation which the Corps of Engineers undertook during its early operations was the construction of the big jetties at the mouth of the Columbia River.

For years the dangerous entrance to the river had been a serious menace to ocean craft and a handicap to the natural growth of the inland ports.

Construction of the great south jetty began in 1885 under the supervision of Captain C.F. Powell, Portland District Engineer. The north jetty was subsequently built and, with its completion in 1917, there was provided a safe channel entrance 40 feet deep at low tide and 4,000 feet in width. Congress then authorized the Corps of Engineers to develop one of the firest inland navigation channels in the 112 miles from Portland to the sea.

In 1903 the Corps of Engineers was authorized to construct The Dalles-Celilo Canal around navigation obstructions at that location. This project was completed in 1915.

In that same year the Willamette Falls Locks, located in West Linn across the Willamette River from Oregon City, were acquired by the United States Government from private interests. The locks had been built during the years 1870 and 1872, and had been in operation since 1873.

In an average year over 1,250,000 tons of commerce pass through the locks. There are about 9,500 lockages a year, two-thirds of which are for vessels traveling downstream. Most of the traffic is rafted logs towed by tugboats.

Out St. Helens Road from Portland on the way down the lower Columbia River Highway stand 12 gray buildings on the west side of the Willamette River. They comprise the U.S. Government Moorings at 8010 N.W. St. Helens Road.

The Moorings have a total acreage of 13.13 while the total area inside the harbor lines is 17.49 acres.

Primary purpose of the Moorings is to provide moorage and material storage for dredges and other floating plant owned and operated by the Portland U.S. Army Engineer District. In size the Moorings is second only to that of the Memphis District Moorings.

The Portland U.S. Army Engineer District has four seagoing hopper dredges and three non-propelled hydraulic pipeline dredges which dredge ports and ship channels to accommodate waterborne traffic, as authorized by Congress.

The four seagoing hopper dredges are the Biddle, the largest at 352 feet long with a crew of 101 men; the Harding at 308 feet; the Davison at 215 feet; and the Pacific, the smallest at 180 feet with a crew of 44 men. The Davison is currently on assignment to the U.S. Navy for work in Vietnam waters.

These seagoing ships work from Seattle, Washington, to San Diego, California, on the West Coast, and the Biddle and Davison have been to the Hawaiian Islands. The Davison has also dredged in the Panama Canal, Texas and Mississippi.

The three pipeline dredges are the Multnomah, Wahkiakum and Luckiamute. The first two are 24-inch pipeline dredges and measure 265 feet long. They operate in the Columbia River and at the mouth of the Willamette. The 12-inch pipeline dredge Luckiamute is 145 feet long and works in the Willamette River and the Cowlitz River which is in Washington. The Wahkiakum has traveled aboard a floating dry dock to Whittier, Alaska, where she performed harbor dredging work for the Alaska Engineer District.

Book value of the floating plant is estimated around \$6,722,000.

Expenditures on river and harbor work average about \$7,074,000 yearly. Repairs to the dredges each year average about \$1,631,000. There are 17 major items of plant at the Moorings and 43 additional items such as barges, launches and utility power scows.

As a result of Congressional action first taken in 1928 the Corps of Engineers has been charged with making comprehensive investigations of all important American rivers. Columbia Basin studies, which became known as the "308" Report, called for multiple purpose development of the region's water resources.

Bonneville Dam, built, maintained and operated by the Portland District, was the first multiple purpose project on the Columbia River completed in this comprehensive plan. Its completion in 1934-1942 made the operation of Cascade Locks unnecessary.

In the Willamette Valley, primarily in the interest of flood control, the Portland District has constructed Cottage Grove Dam on the Coast Fork Willamette River, Fern Ridge Dam on the Long Tom River, Dorena Dam on the Row River, Detroit and Big Cliff Dams on the North Santiam River, Lookout Point and Dexter Dams on the Middle Fork Willamette River, Hills Creek Dam on the Middle Fork Willamette, Cougar Dam on the South Fork McKenzie River, Fall Creek Dam on Fall Creek and Green Peter and Foster Dams on the Middle and South Santiam Rivers.

Detroit, Big Cliff, Lookout Point, Dexter, Hills Creek, Cougar, Green Peter and Foster Dams also have power generating facilities.

Currently under construction are Blue River Dam in Lane County and Lost Creek Dam on the Rogue River.

Largest of the Portland District's projects, The Dalles Dam on the Columbia River was completed in 1959. Its powerhouse is one-half mile long and contains 16 generators which can produce over 1,119,000 kilowatts of electrical power -- enough to care for the residential needs of a city over four times the size of Portland. Eight additional generating units are currently being installed.

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Department of the Army Portland District, Corps of Engineers Douglas W. Polivka, Chief Technical Liaison Office 613 Pittock Block, Portland 97205 227-7681, Ext 280

AT COLUMBIA RIVER MOUTH TO WASHINGTON STATE

The Portland U.S. Army Engineer District is ready to lease 725 acres of land in the state of Washington at the mouth of the Columbia River to that state's parks and recreation commission for a period of 25 years for recreation development.

Color William J. Talbott, District Engineer, said that most of the area has been withdrawn from public domain. The property was the site of Fort Canby which was an active military defense installation for many years through World War II. It was then transferred from military to civil works use.

The Federal Government will retain title to the property for use in channel stabilization at the mouth of the Columbia River.

Formal presentation of the lease by Colonel Talbott to Governor Evans or his representative, Charles H. Odegaard, Washington State Parks and Recreation Commission Director, is tentatively scheduled for Friday May 27. Odegaard will act as master of ceremonies for the event which will take place at the site.

Odegaard said he is most pleased with the news as his department is now able to put out for bids a major development at Fort Canby State Park.

"We have \$105,500 budgeted for development and have requested another \$59,100 from the Outdoor Recreation Fund for a total of \$164,600," Odegaard said.

"With this we will have a start on making the Long Beach Peninsula more . . .

2-- U.S. ARMY ENGINEERS READY TO LEASE 725 ACRES AT COLUMBIA RIVER MOUTH TO WASHINGTON STATE

one of the Northwest's major recreation areas," he added. "Attendance this past year, with practically no development, was 257,178 which ranked Fort Canby eleventh of all state parks."

The parks chief went on to state that he was thankful for the continued cooperation by the U.S. Army Corps of Engineers in providing such park sites to the state of Washington.

Army Engineers said most of the land abuts the north jetty in the vicinity of Ilwaco. The land was withdrawn from public domain on February 26, 1852 by Millard Fillmore, thirteenth President of the United States, for military purposes in connection with development of harbor defense at the mouth of the Columbia River.

Many evidences of military occupancy still prevail in the historic area. In leasing the property to the state of Washington for public use the Corps of Engineers is following the policy set forth by Congress in the Flood Control Act of 1944 as amended in 1962.

The site is expected to become one of the major recreational developments on the Pacific Coast. It is anticipated that with the opening of the new bridge across the Columbia River at Astoria this summer, travel up and down the coasts of Washington and Oregon will be greatly stimulated and that there will be a growing interest in the area at the river mouth.

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Corps of Engineers, U. S. Army Portland, Oregon, District Douglas W. Polivka, Chief Technical Liaison Branch 612 Pittock Block, Portland 5 CA 7-7681, Ext. 280

The Dalles-Celilo Canal Ends Use With Enviable Record
Release Upon Receipt

When The Dalles-Celilo Canal closed to through traffic because of The Dalles Dam it recorded more than $12-\frac{1}{2}$ million tons of traffic through its lock system.

At the time of closure petroleum pipelines from a point at the Seufert cannery to a boat basin above Big Eddy Lock were placed in operation so that barges could continue to move petroleum products in the river, pumping them past The Dalles Dam. The petroleum pipeline system was maintained until March 1.

From 1930 through 1955 traffic through The Dalles-Celilo Canal totaled 11,541,396 tons. There was no traffic through the canal in 1921, 1923, 1926, 1927 and 1928. Prior to 1930 only 1,413 tons were recorded.

In the 25-year period from 1930 to 1955, traffic has varied from 408 tons in 1931 to a high of 1,061,691 in 1955. The ratio of upstream traffic to downstream traffic is about three to one. The commerce leader moving upstream today is gasoline, followed by stove oil, diesel oil, miscellaneous petroleum products and miscellaneous commodities. Traveling downstream are gasoline, wheat and barley, sand and gravel, steel and miscellaneous commodities.

-2- The Dalles-Celilo Canal Ends Use With Enviable Record

The \$260,000,000 multiple-purpose The Dalles Dam will mark the fourth stage of navigation development of the Columbia River at Celilo Falls.

Before 1863, an old wagon-road portage was the only link between boats operating on the Upper river above Celilo and those terminaling at The Dalles.

The Oregon Steam Navigation Company in the spring of 1863 completed a 13-mile iron-railed portage line along what previously had been known as Thompson's portage between The Dalles and Celilo on the Oregon shore.

The Dalles-Celilo railroad operated regularly along this route and at a profit for a number of years. With the aid of a telegraph line, installed parallel to the track, the train could always be on hand to meet incoming boats to speed their cargo in either direction.

Increased traffic, especially on the upper river, soon justified construction of The Dalles-Celilo Canal which went into operation in 1915. The Army Engineers built the canal at a cost of \$4,840,000, just a little more than the initial appropriation for The Dalles Dam.

The Dalles Dam single-lift navigation lock is located on the Washington shore and is 86 feet by 675 feet in clear plan dimensions. It will provide a minimum 15-foot depth of water over the sills at maximum drawdown of the reservoir pools and lift shipping about 90 feet.

Necessary guide and guard walls and approach channels to the lock are being provided.

U.S. Army Engineer District, Portland Corps of Engineers Douglas W. Polivka, Chief Technical Liaison Branch 468 Pittock Block, Portland 5 CA 7-7681, Ext. 280

The Dalles Dam Dedication Will Recall Earlier Ceremonies
Release Upon Receipt (Photographs Furnished on Request)

In this busy centennial year, with Oregon paying tribute to its colorful history in pomp and pageantry, dedication of The Dalles Dam on Saturday, October 10, suggests both a fitting climax and a lasting memorial in the regional observance of a hundred years of progress.

Those who have been long on the Oregon scene will recognize in it more than just another dam dedication. They and their Washington neighbors who share the Columbia River will see in it some of the highest adventure that brightens the theme of the westward trek.

The Dalles Dam with all its might in terms of kilowatts comes to near maturity in an era when outer space, as unknown as the "great open spaces" that once beckoned, has fired the imagination of today's pioneer.

While its power output may overshadow other benefits, river men and those familiar with the Oregon story will look beyond. They will recognize in the huge project the fourth and probably final stage of navigation development in the turbulent reaches of the Columbia River below where once was Celilo Falls.

No area of the Columbia River is more fraught with historical meaning than The Dalles. It was here that wagon trains, after following the river's course for many miles, often abandoned the tortuous trail and continued their westward journey on rafts, making frequent portages.

No dam on the Columbia has introduced so great a change. In eliminating colorful Celilo Falls where Indian tribes had fished for centuries, it has removed a serious impediment to navigation. It has created new industry, served both by deep-water navigation and by the hydroelectric energy the dam's 14 generating units will produce.

From the time steamboat navigation on the upper Columbia River began, in about the year 1858, the eight-mile stretch of turbulent water between The Dalles and Celilo presented a problem to river navigators. Towboat operators view The Dalles Dam as the ultimate solution. There have been other solutions but none proved more than temporary.

A wagon road portage provided the first answer when pioneer river men sought a link between boats operating on the upper river above Celilo and vessels with their terminal at The Dalles. A great improvement over this was the 13-mile The Dalles-Celilo portage railroad which was completed by the Oregon Steam Navigation Company in 1863. It operated at a profit for a number of years. When a boat approached Celilo at the upriver end of the portage word was flashed over a telegraph line paralleling the track to the downriver terminal and the train left immediately to meet it. This was progress and a fitting ceremony was held to mark the innovation.

Decades later a much greater ceremony marked completion of The Dalles-Celilo Canal, now inundated by The Dalles Dam reservoir. The project cost \$4,840,000, a little more than the first appropriation for The Dalles Dam. Personages of high station and state and local public officials participated in the dedication ceremony which was held May 5, 1915. All hailed it as an epochal event. It appeared to be a permanent solution to transporting

passengers and freight around the difficult stretch of water, but with the passage of time as tugs and barges appeared on the river and the old stern-wheelers vanished from the scene, the narrow canal became a bottleneck-almost as obsolete as the portage railroad that preceded it.

Today navigation moves unimpeded over the earlier works of man and nature. Only minutes are required to pass barge tows from below the dam through the 86-by-675-foot navigation lock on the Washington shore to the deep pool beyond.

When fully completed with the initial 14 generating units operating in November 1960, The Dalles Dam will have a power rating of 1,119,000 kilowatts. Its estimated cost is \$250,000,000.

The project provides a 25-mile reservoir extending to John Day Dam, now in the initial stage of construction. In addition to power and navigation benefits, The Dalles' reservoir reduces the pumping lift required for irrigation of lands in that area and offers recreational opportunities, such as motorboating, sailing and water skiing.

Sixth dam to be constructed on the Columbia's main stem, the project consists of a single-lift barge lock, 23-gate concrete spillway, fish passage facilities, and a powerhouse with 14 main units to be installed initially and provision for eight additional units, the ultimate possible expansion. Its over-all length is 8,700 feet.

Construction was started in February 1952 under jurisdiction of the Portland District, U.S. Army Corps of Engineers. The navigation lock was opened to traffic in March 1957 and the first power units were placed in service in September of the same year.

4--The Dalles Dam Dedication Will Recall Earlier Ceremonies 8/28/59

When The Dalles Dam takes a bow on Saturday, October 10th, a nation will be watching. But the brief ceremony can capture only a few highlights of the eventful past which this project and others at the same site preceding it recall.

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CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
PORTLAND DISTRICT
628 Pittock Block
Portland 5, Oregon

NPPGP-3

September 12, 1950

NOTICE OF PUBLIC HEARINGS ON

- (1) Modification of Borneville Lock and Dam,
- (2) Further improvement of Columbia River between Celilo and McNary Dam.

The following resolutions have been adopted by the Committee on Public Works of the United States Senate:

"Resolved by the Committee on Public Works of the United States Senate, That the Board of Engineers for Rivers and Harbors, created under Section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby requested to review the report on the Columbia River at Bonneville, Oregon, published in Senate Commerce Committee Document, Seventy-third Congress, Second Session, containing report of the Chief of Engineers dated August 21, 1933, and subsequent reports, with a view to determining whether any modification of existing projects or recommendations is advisable at this time, with particular regard to modification of Bonneville Lock and Dam." (Approved May 12, 1950)

"Resolved by the Committee on Public Works of the United States Senate, That the Board of Engineers for Rivers and Harbors, created under Section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby, requested to review the report on Columbia River, Oregon and Washington, published in River and Harbor Committee Document Numbered 16, Seventy-third Congress, Second Session, and subsequent reports, with a view to determining whether the existing project should be modified in any way at this time." (Approved April 27, 1948)

In order that the required reports may fully cover the matter, two separate public hearings will be held at the Wasco County Court House in The Dalles, Oregon, on October 18, 1950, as follows:

- (1) Modification of Bonneville Lock and Dam, at 10:00 a.m., Pacific Standard Time,
- (2) Improvement of Columbia River between Celilo and McNary Dam, at 1:30 p.m., Pacific Standard Time.

For your information, the existing project at Bonneville provides for a single-lift ship lock 76 feet wide, 500 feet long, and with a minimum depth of 21 feet over the lower miter will at least the lower miter will at least the lower miter will be a lower miter.

opportunity to express their views concerning the character, extent, and need of the improvements desired. Sponsors of the improvements are urged to present pertinent factual material bearing upon the general plans of improvements desired, to show the economic justification of the undertakings. Opposing interests, if any, are also urged to state the reasons for their position.

Specific information desired for each hearing follows:

- (1) Dimensions of structures or channels desired,
- (2) Types, including drafts, of vessels proposed to be operated in the stretch of river under consideration.
- (3) Type, origin, and destination of water-borne commerce which would be affected by the desired improvement.
- (4) Amount of local cooperation that may be expected.

Oral statements will be heard but for accuracy of record all important facts and arguments should be submitted in writing, in duplicate, as the records of the hearing will be forwarded for consideration by the Department of the Army. Written statements may be handed to the undersigned at the hearing or be mailed to him beforehand.

Please bring the foregoing to the attention of persons known to you to be interested in these matters.

D. S. Burns, Junn

Colonel, Corps of Engineers, District Engineer.