

BY SHANNA STEVENSON

DIG THE CANAL

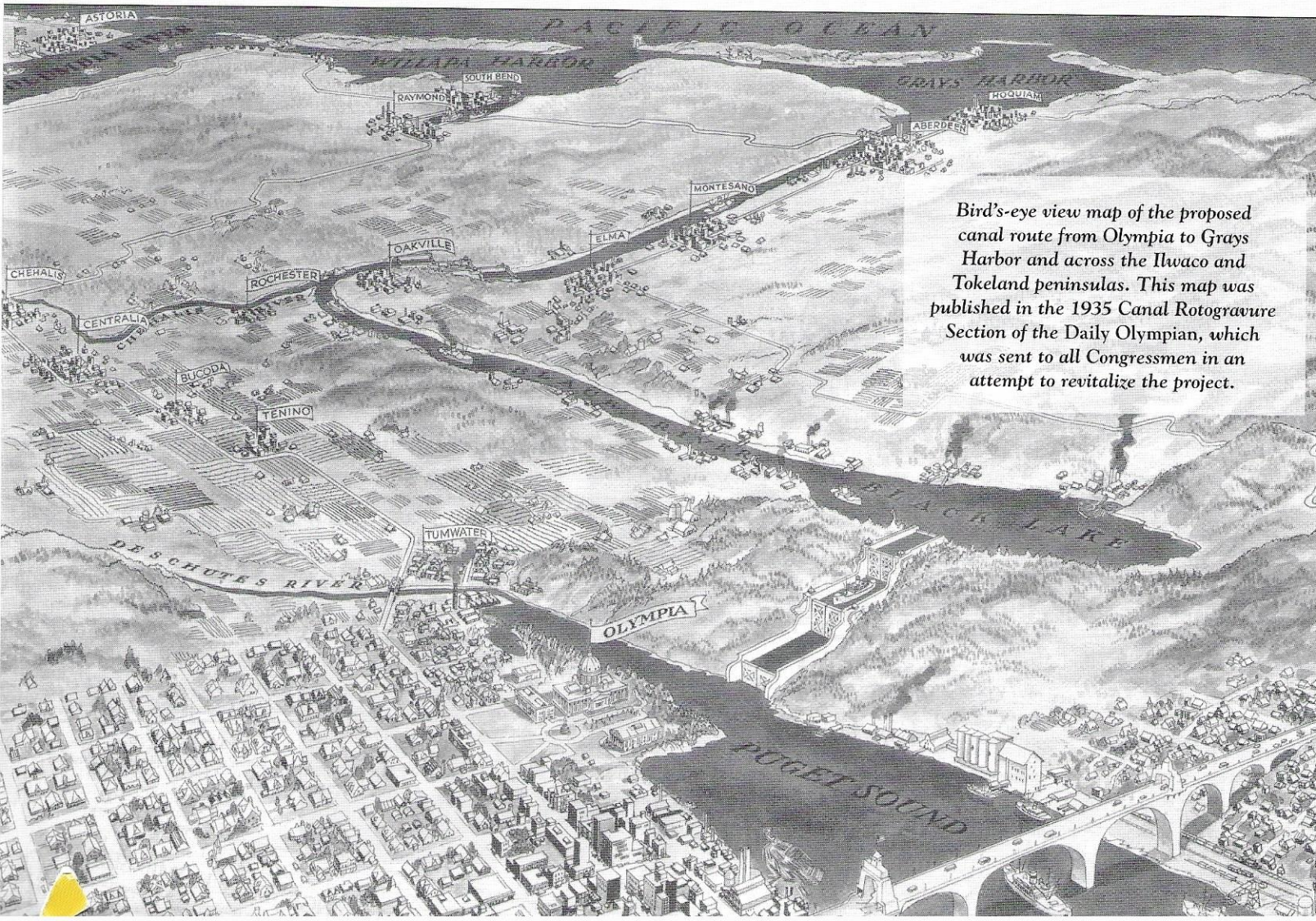
The Proposed Grays Harbor to Puget Sound Canal

The slogan of the day in Olympia during the summer of 1933 was “Dig the Canal.” Referencing neither the Suez nor Panama Canal, this motto promoted the often dreamt of but never completed Puget Sound to Grays Harbor to Columbia River Canal. The canal was to connect the most southern tip of Puget Sound at Budd Inlet with Grays Harbor through a series of canals and locks along the Black and Chehalis Rivers. A further waterway was planned to create an inland route to the Columbia River via

a channel southward from Grays Harbor to Willapa Bay and then from Willapa Bay to the Columbia River.

The idea by 1933 was not a new one. In fact, from earliest times, native peoples had canoed the waterway from Puget Sound to Black Lake and the Black River, thence to the Chehalis River and finally to Grays Harbor, using portages to connect the water routes. Some of the ruts made by Indian canoes being dragged over the portage are still evident just south of Littlerock in Thurston County. In 1824 a Hudson's Bay Company group traced the reverse course from Willapa Bay to Eld Inlet. John Work, an HBC employee, kept a diary in which he described the route. The Wilkes Expedition of 1841 also traced approximately the same pathway. By some accounts, Secretary of War Jefferson Davis proposed the canal as early as the mid 1850s as a defense measure.

In 1866 Chehalis valley residents built the steamer *Satsall* in Montesano,



Bird's-eye view map of the proposed canal route from Olympia to Grays Harbor and across the Ilwaco and Tokeland peninsulas. This map was published in the 1935 Canal Rotogravure Section of the Daily Olympian, which was sent to all Congressmen in an attempt to revitalize the project.

which navigated the Chehalis River, picking up produce along the way. The boat then entered the Black River and landed at what was known as "Shotwell's Landing," just south of Littlerock. From there, John Shotwell brought the produce to markets in Olympia. That same year federal surveyors A. J. Treadway and O. B. Iverson of the Olympia Land Office actually previewed the route from Percival Creek to where the Black enters the Chehalis River.

An engineer named Elias Payn moved to Olympia during the 1880s and with his wife, Aseneth, took up the cause of the canal. Payn wrote voluminous letters to the Rivers and Harbors Committee of the United States Congress and to almost anyone else who would listen. He published articles in several newspapers in the 1880s and '90s.

On March 9, 1895, the Washington State Legislature memorialized Congress, asking for a survey of a canal route as well as an estimate of the costs and an appropriation for the project. The 1898 Republican Party platform adopted a plank at its convention in September in favor of the canal survey, calling it a project that would be capable of "uniting all navigable inland seas and rivers of this State with the Pacific Ocean." In 1903 the state legislature again sent a memorial to Congress asking for the survey. Finally in 1907, after renewed interest in the canal following the Russo-Japanese War, the War Department was authorized by the Rivers and Harbors Act of March 1907 to make a survey of the canal route. The federal engineer in Seattle at the time, Hiram Chittenden, made an adverse report on the feasibility of the canal to the secretary of war: "It is evident that this project is not one of any pressing necessity or importance at the present time."

Undaunted, a group of Olympians decided to hire their own expert to study the canal. They contributed to a private subscription in 1909 to hire local engineer J. C. des Granges, who had worked on the Chicago drainage canal, to make a survey and estimate the cost of the Puget Sound project. Local residents

served as axemen, chainmen, and rodmen to assist in the effort. Engineer des Granges described the route, elevations, and locations of locks, and estimated the cost of the waterway at \$9.5 million.

Petitions, one with more than 70 signatures of the area residents, were sent

ditch. The project was heartily endorsed by communities along the route as well as the cities of Seattle and Tacoma. The proposal was for the canal to be "self-liquidating"—that is, it would be paid off through tolls. Spearheaded by longtime advocate and Olympia resident

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to the United States Senate urging the canal. The petitioners pointed out the need for the canal because of the vagaries of navigating the Straits of Juan de Fuca to reach Puget Sound. More legislative and congressional memorials followed in the ensuing years. Veterans of the Panama Canal work urged Washingtonians to keep an eye out for equipment from that project to use on the Puget Sound Canal.

In 1919, just a year before his death, canal champion Elias Payn was featured in an extensive article about the project in the *Seattle Post-Intelligencer*. By this time, the idea of the Puget Sound-Grays Harbor Canal had been enlarged to include the two canals connecting Grays Harbor with Willapa Harbor and Willapa Harbor with the Columbia River. The Corps of Engineers produced a map of these proposed routes in 1920.

The idea finally reawakened in earnest in the Great Depression years of the 1930s. Thousands of unemployed men and the availability of public works funds through the Reconstruction Finance Corporation seemed the perfect combination to resurrect the plan. Early in 1933 the Washington State Legislature again turned its attention to the project. State senator "Nifty" Garrett of Tacoma proposed legislation to appropriate \$50,000 for a survey of the canal and to appoint a five-member commission to oversee the work. Canal proponents also favored another memorial to Congress to take action on the canal.

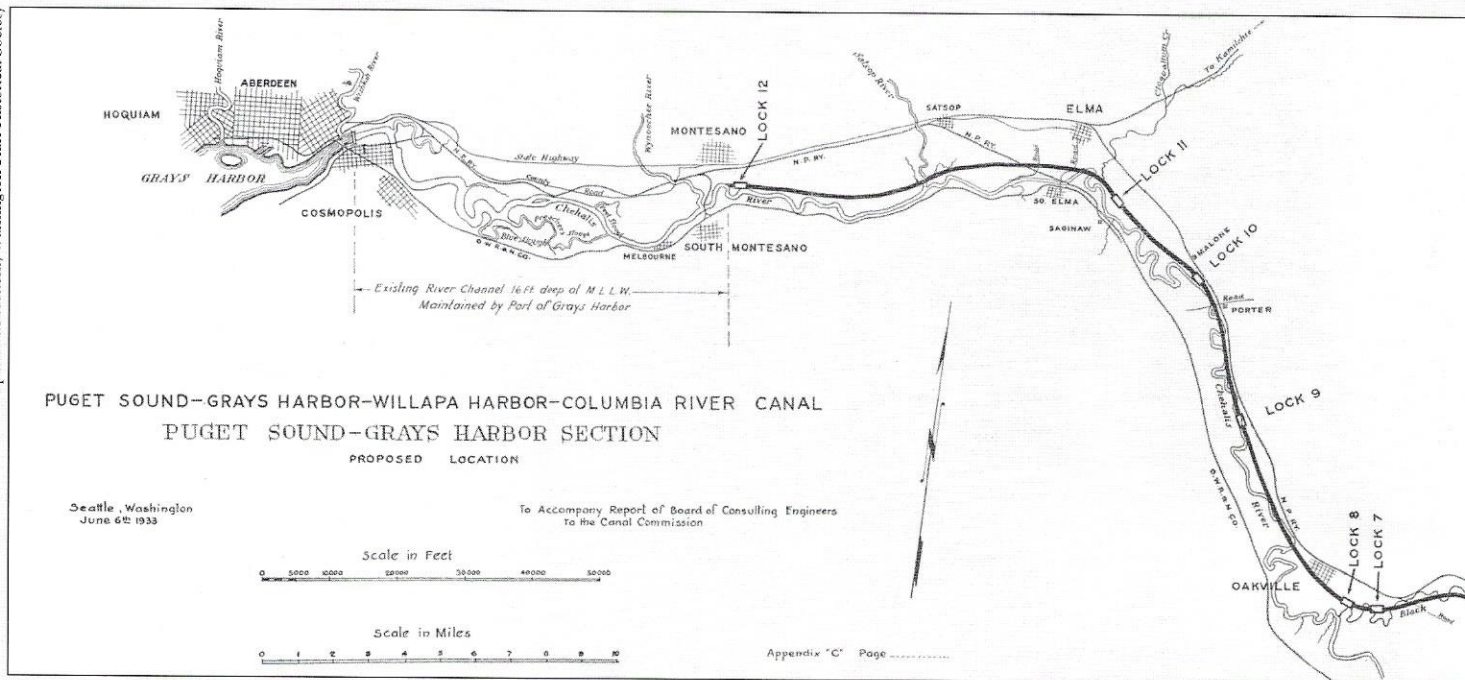
The lure of employing some 20,000 men in the project was held out as a bonus to other economic benefits of the

George Talcott, who had promoted the "des Granges Survey" of 1909, and engineer T. F. Kelly, committees from local chambers of commerce and others lobbied heavily for the bill.

Garrett's bill was redrafted, passed by the legislature, and signed by Governor Clarence Martin on March 9, 1933. Appointed to the five member canal commission were: Adolph Schmidt of the Olympia Brewery family in Tumwater; Clarence G. Blagen, Hoquiam, owner of the Grays Harbor Lumber Company (Blagen almost immediately resigned and was replaced by George W. Gauntlett); J. W. Lewis, Raymond, manager of Willapa Harbor Mills, representing Pacific County; Luther E. Gregory, a Seattle retired rear admiral and navy engineer; and W. H. Abel, a Montesano attorney.

Their job was to locate the route and make a recommendation on the economic feasibility of the project to the governor. The time line to complete the survey was a mere 90 days. After the report was submitted, the governor would have just 30 days to make a determination on the feasibility of the project. If deemed viable, the committee could then take actions to finance the project, including issuing bonds, acquiring land, and recruiting the necessary engineers and manpower for the job.

Using the high-tech equipment of the day, the commission utilized the National Guard and Washington State Roads Department to make aerial photographs of the route as a first step. The commission then enlisted geologist Henry Landes, a dean at the University of Washington, and four consulting



engineers—W. C. Morse, E. B. Hussey, Joseph Jacobs, and J. M. Clapp of Seattle—to write the report with T. G. McCrory as engineer to the commission.

After receiving the report in June 1933, the commission decided to recommend construction of all three canals to the governor. The Puget Sound to Grays Harbor section was to be 90 feet wide and 14 feet deep with a total lift of 90 feet above sea level. A series of locks would provide the elevation from Puget Sound to the Black River and as

course. Building the small size canal would require excavating 65.5 million cubic yards of earth and a construction period of three years.

The favored route was from Budd Inlet by way of Percival Creek, Black Lake, Black River valley to the Chehalis River, and down the Chehalis River valley into Grays Harbor—a distance of 48 miles. This section would cost \$28.6 million. From Grays Harbor another

concern was supplying the 482 cubic feet per second of water flow required for the locks to operate.

The economics of the venture were justified, the report claimed. The canal project would allow greater access to mills at Grays Harbor for processing the hemlock timberlands on the Olympic Peninsula, many thousands of acres of which were owned by the state and used for school construction funds. With the Puget Sound-Grays Harbor Canal, the route from San Francisco to Seattle would be shortened by 101 miles. The free interchange of trade from Grays Harbor to Willapa Harbor by means of the two peninsular ditches would circumvent the often-difficult trip across the Columbia River bar. By means of the canal, the Astoria fishing fleet could pass through to Puget Sound and navigate an inland passage to Alaska. The latter argument was to reinforce the idea that the canal was not merely a state but a national project and so it should not be dependent solely upon state funds. In fact, the commission recommended that the project be financed through federal funds.

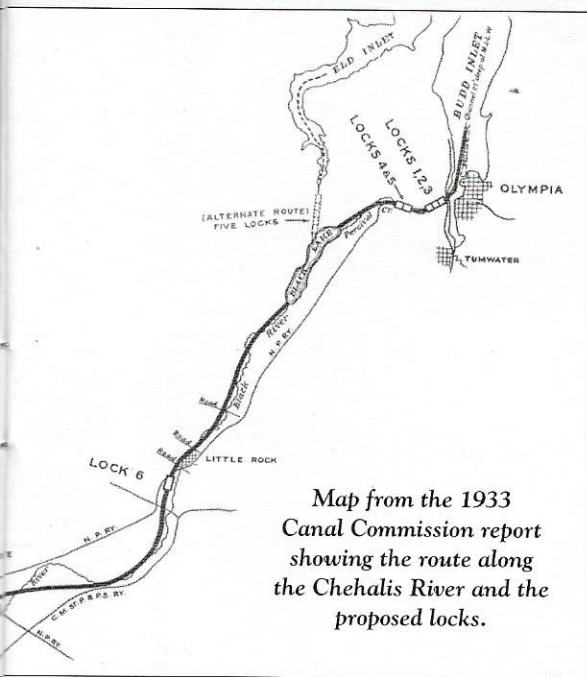
Commerce in general would benefit from the new passageway, the report claimed. Small craft, especially pleasure boats, passing through the canal were anticipated to be a large part of the traffic. The federal government had expended

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needed along the route. Their recommendation was to also include tidewater canals through Willapa Harbor to the Columbia. These canals were to extend 120 feet in width and 13 feet in depth. The system recommended would accommodate only lighter draft vessels at the proposed depth of the canals.

The estimate to build all of the canals was \$34 million, with annual toll receipts to begin at \$2 million per year and reach \$3 million within 10 years. It was estimated that 12 locks would be needed to raise vessels 90 vertical feet over the

canal was to cross 12 miles southeasterly to Willapa Harbor on the north side of the Tokeland Peninsula at an estimated cost of \$3.3 million. For \$1.9 million, the Willapa Harbor-Columbia River Canal would leave the harbor at Baker's Slough and continue for approximately five miles in a southerly direction to Bakers Bay. Water for the canal would come from the Black River and Percival Creek drainages, with the majority of the water from the Chehalis River. Other possible sources given were the Wynooche, Satsop, and Nisqually rivers. The greatest



Map from the 1933 Canal Commission report showing the route along the Chehalis River and the proposed locks.

millions of dollars to improve the harbors and waterways that would be connected by this project. Not the least of the benefits was the claim that 20,000 idle men could be put to work and help ease the burden of over \$1 million per month in aid that the State of Washington paid to the unemployed. It was estimated that 70,000 heads of families and 20,000 single men were out of work in the state in 1933. The canal would also provide a way for troops to be deployed from Fort Lewis to the Columbia River and for naval vessels to travel to the shipyard at Bremerton without making the journey through the Straits of Juan de Fuca.

Cold water was almost immediately thrown on the project by Washington's United States senator, C. C. Dill. According to the *Daily Olympian* in June 1933, Dill "turned a deaf ear to the pleas of tens of thousands of unemployed that they be given a chance to earn a living in order to satisfy a personal ambition, the building of the Coulee Dam."

Dill, a Spokane Democrat, had in fact set his sights on the construction of Grand Coulee Dam as a personal and political monument to his career. It was unlikely the state would land another federal project besides the projected \$60 million dam that Dill consistently promoted to President Franklin Roosevelt and the relief agencies in Washington, D.C.

Dill told Governor Martin that the two Willapa Harbor area canals had a better chance of being built but that the War Department would have to make a favorable recommendation on the plans for federal funding to be forthcoming.

When Dill and Martin met to discuss priorities for federal funding, Grand Coulee Dam and the Puget Sound-Grays Harbor Canal went head to head as competing major projects. Canal proponents claimed more unemployed could be put to work on the canal immediately whereas the funds for Grand Coulee Dam would go primarily for engineering. While Dill stated his support for the canal, he noted that federal surveys for Grand Coulee had been completed and approved, making it a higher federal priority.

In June 1933 the United States frigate *Constitution*, affectionately known to the public as "Old Ironsides," visited Puget Sound on a tour to boost morale and celebrate its refurbishing through the contributions of schoolchildren. The Olympia Chamber of Commerce made the visit part of the campaign for the canal when they issued \$2,000 worth of wooden "oyster money," with a drawing of "Old Ironsides" and the slogan "Dig the Canal" on the other.

Governor Martin made a proclamation in July that the entire canal system was justified and feasible. Funding then became the focus of the canal promoters' efforts. Supporters organized a bevy of lobbying efforts. One was the "Canal Frolic," held in July 1933 in Olympia. Labor unions and officials from all parts of southwestern Washington staged a parade and rally in Sylvester Park. Over a thousand people gathered to voice support for the canal and

hear state and local leaders promote the effort. Musician Eddie Carter, who was then appearing at a local theater, composed a theme song to the tune of "Auld Lang Syne." This followed a ditty put together by a local songwriter. Carter wrote:

*Twenty thousand men will work
And depression will be through
When we start to dig this big canal
This canal for me and you*

*Nifty Garrett, our great pal,
He worked each day and night
To put across this great big cause
And he worked with all his might.*

*Clarence Martin, our close friend,
Put his O.K. on this thing,
For he feels that this great big canal
To us good times will bring.*

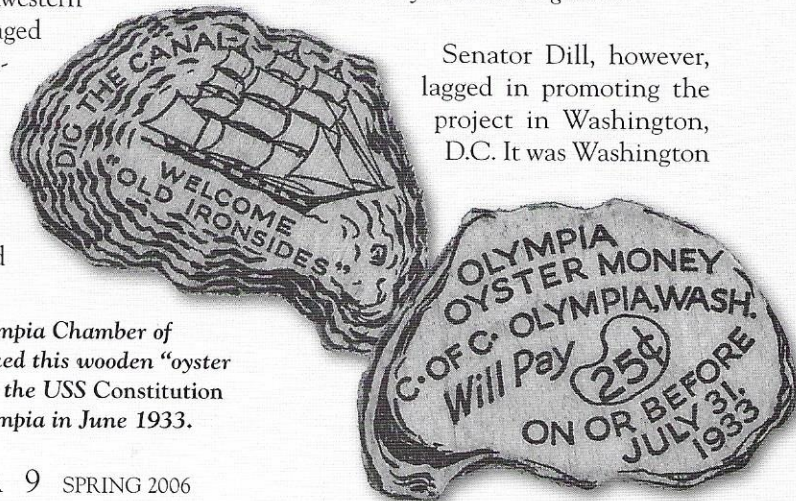
*Clarence Dill did not keep still
He shouted and he frowned,
We'll connect Grays Harbor and the rest
With our own great Puget Sound.*

*Homer Bone, our senator,
From up Tacoma way,
Has helped us with this mighty fight
And he's with us today.*

*Martin Smith, our congressman,
Is here with us today;
He, too, has fought the battle thru,
Now, let's take it all the way.*

*Let every one who's here today
Get up upon their feet and yell
We're gonna dig Olympia's
And Grays Harbor's big canal.*

Senator Dill, however, lagged in promoting the project in Washington, D.C. It was Washington



The Olympia Chamber of Commerce issued this wooden "oyster money" when the USS Constitution visited Olympia in June 1933.

Congressman Martin F. Smith, a Democrat from Hoquiam, who persuaded the United States Army Engineers to review the state canal commission's report. More than 100 canal boosters representing 20 communities welcomed the news. But that same month, under Clarence Dill's guidance, the Grand Coulee project received approval for federal funding.

The U.S. Army Engineers held hearings in Olympia and Aberdeen about the project in September 1933, with Colonel C. L. Sturdevant presiding. After collecting contributions from local businesses, residents, and labor leaders all along the canal route, canal promoters produced an impressive array of evidence and testimony in favor of the canal. Governor Martin, though, seemed loath to promote the project and arrived just as the hearing was adjourning in Olympia.

Civic groups all over southwestern Washington passed resolutions in favor of the project. They joined forces in October to form a booster club and produce a pamphlet outlining the benefits of the canal. One booster, Mrs. Betty Bowlsby, thought another poem might do the trick and ended her verses with "What's the matter? Where's the jam? All's O.K. with Uncle Sam—Come on! Let's go! Washington! Dig the canal! It can be done!" While specifications were already being drawn for Grand Coulee Dam, undaunted locals in November 1933 hosted another canal rally at the Olympia American Legion Hall, again featuring a united front of labor unions and local businesses.

The blow was struck on February 2, 1934, when the War Department's Office of Engineers declared, "This report finds that construction, as a Federal project, of any part of the proposed waterway is not justified at this time." Despite the rejection, local efforts continued in 1934 and 1935, during which time the National Rivers and Harbors Congress endorsed the project. In June 1935 the *Daily Olympian* published a rotogravure section that was sent to all members of

Congress to revitalize the canal project.

Representative Martin F. Smith again proposed the project as part of a national omnibus canals bill. Booster groups were reenergized by the development. Governor Martin again upheld the report of the canal commission to the legislature, which forwarded their recommendation to the State Planning Council for the federal public works program. But the project languished.

In May 1941 defense issues again

Legislators on the commission included Vic DeGarmo, Thurston County; A. L. Rasmussen, Pierce County; and Harry S. Elway, Jr., Grays Harbor County. Others were William Chatalas, King County; Arnold Wang, Kitsap County; and Eric Anderson, Grays Harbor County. Captain Merle Adlum was appointed as navigation consultant.

This group was also charged with studying the feasibility of a canal to connect Hood Canal and Puget Sound

IN THE MIDST OF THE (CANAL) DISCUSSIONS CAME THE IDEA FROM "OPERATION PLOWSHARES" TO DIG THE CANAL THROUGH THE USE OF NUCLEAR DEVICES.

brought the canal plan to the forefront. Promoters of the canal cited the needs of Fort Lewis, The Boeing Company and the Dupont Powder Factory for safe inland transport of ordnance, men, and materials. Destroyers and small naval craft from Bremerton could travel via the canal and submarines could safely maneuver through Grays Harbor and Willapa Harbor to the Columbia River. The Corps of Engineers restudied the 1933 route and produced yet another map. But the Corps' official findings in April 1942 stated, "The principal grounds, upon which the adverse conclusions are based, are that the cost of the improvement...would be materially greater than the value of the benefits that can be foreseen at this time."

The project was given new life in 1960 when a University of Washington professor cited the benefits of the canal as part of a Department of Commerce and Economic Development Study. Governor Albert Rosellini signed a bill in 1961 to study the proposal and resurvey the canal route. A 13-member commission was appointed, which included Mrs. Scott Bullitt; R. Bronsdon (Curly) Harris of the University of Washington; Gilbert Miller, from Lewis County; Earl Coe, director of the Department of Conservation; Sam Boddy, Jr. (later Robert E. Rose), State Commerce and Economic Development Department; Captain Delbert Kelly of Seattle; and Lester O'Day of Aberdeen.

between Allyn and Belfair, a distance of only 10,500 feet. They also looked at a third project, which was a 74-mile canal from Puget Sound to the Columbia River that would skirt Chehalis and Centralia and enter the Cowlitz River at Vader. The commission was to review the 1933 Puget Sound-Grays Harbor Canal Study in light of engineering advances and evaluate the possibilities of the canal's role in flood control, particularly on the Chehalis River.

After their reexamination of the project, the 1961 canal commission set the cost of the Puget Sound-Grays Harbor Canal at \$87 million. The canal was rerouted from Budd to Eld Inlet because of the development of Capitol Lake, which precluded using the 1933 route. The report recommended a change in the number of locks as well.

The cost for the waterway to connect Puget Sound and Hood Canal was set at \$49 million. This waterway was anticipated to be built at sea level and require no locks. In 1962, Washington Senators Warren Magnuson and Henry Jackson, along with Congresswoman Julia Butler Hansen, persuaded Congress to authorize an Army Corps of Engineers review of the 1941 Puget Sound-Grays Harbor Canal survey. They secured appropriations of \$20,000 in 1964, \$10,000 in 1965 and \$60,000 in 1966 for this work. By 1964 Corps' engineers were resurveying the route. Meanwhile, federal

standards were changing for criteria to justify construction of the canal. The old criteria required that if the value of a project was found to exceed its cost, comparing water-haul rates with overland freight rates, it was feasible. By 1966, future projections were required to determine what rates for the two modes of transportation would cost. Although Senator Magnuson succeeded in reversing the future estimate requirement, proving feasibility for the canal was difficult.

In 1963 the state legislature reauthorized the commission on a semi-legislative basis and in 1965 created a new canal commission with a goal of preparing a study for the Corps of Engineers to show the economic justification for the canal. Commission members were: Merle Adlum, Ray E. Davis, John A. Early, Ernest L. Perry, Wayne Smyth, H. Maurice Ahlquist (ex-officio), with R. W. Gibson as director.

In the midst of the discussions came the idea from "Operation Plowshares" to dig the canal through the use of nuclear devices. Using hydrogen bombs (euphemistically called "devices" by Lawrence Livermore Laboratories), the canal could be dug for \$.30 per ton! A briefing was held in Seattle hosted by the canal commission and Operation Plowshares in August 1965.

By early 1967 the Army Corps of Engineers gave an indication that the Grays Harbor to Willapa Bay leg of the canal could be feasible. Similarly, a report issued by the Washington Canal Commission in 1970 found that the Puget Sound to Grays Harbor portion

of the canal could not be economically justified but that the canals between Willapa Harbor, Grays Harbor, and the Columbia River could be economically successful. Costs for the Puget Sound-

the project, as did the Sierra Club and other environmental groups.

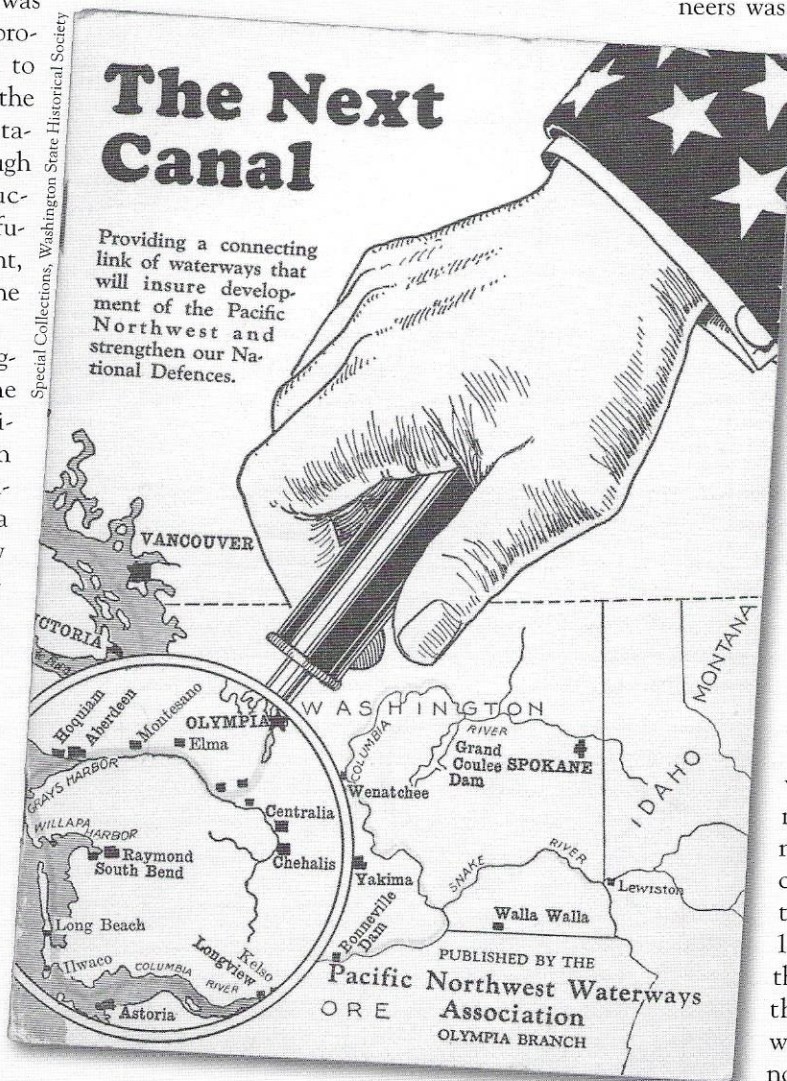
Governor Dan Evans vetoed the canal commission's appropriation in 1970. In 1972, when the Corps of Engineers was evaluating improvements

at Willapa Harbor, the canal in that area was again brought up by long-time supporters of the project, including Merle Adlum. The canal project was sporadically revived by attempts to fund additional studies in the 1970s, and in 1977 Governor Dixie Lee Ray's cabinet briefly brought up the idea. Despite the fact that it was never built, the landscape of the canal lives on in maps, artists' conceptions, and promotional materials generated by the idea.

From today's perspective, it seems incredible that so little attention was paid to the environmental effects of the canals before the 1970s. The canal project reflects the thinking of many in the 19th and 20th centuries—that the environment was there to be reshaped at will to accommodate economic objectives. If not for Senator C. C. Dill's eastern

Washington ambition to build the monumental Grand Coulee Dam, Olympia's undying boosterism might have made it possible for sailboats and other craft to make their way from Olympia to Portland on a regular basis through the Puget Sound-Grays Harbor Canal.

Shanna Stevenson is a long-time Olympia historian. Formerly the Historic Preservation Officer for Olympia, Thurston County, and Tumwater, she recently joined the Washington State Historical Society staff as coordinator of the Women's History Consortium.



One of the many booster materials produced on behalf of the canal, this booklet included all of the arguments presented to the Army Corps of Engineers by the Olympia Chamber of Commerce in September 1933.

Grays Harbor section were estimated at \$300 million, while the cost for the coastal work was set at \$106 million. The environmental impacts of the canals were also being more seriously evaluated. Oyster growers and cranberry producers near Willapa Bay expressed increasing concern about