

2021 Legislative Session

Requested Local Community Project Information Form

Important Notes: This is not a formal grant program. This form provides information for House and Senate members to request a separate appropriation in the capital budget for this project. Funding any project is at the discretion of the Legislature.

This document may be subject to disclosure under the Public Records Act (Chapter 42.56 RCW).

Funds are available on a reimbursement basis only and cannot be advanced.

All capital construction projects and land acquisition projects require [Governors Executive Order 05-05](#) review.

Projects may be subject to state prevailing wage law (Chapter 39.12 RCW). Requesting organization are encouraged to consult the Industrial Statistician (Jim Christensen: 360-902-5330 or Jim.Christensen@Lni.wa.gov) at the Washington State Department of Labor Industries to determine whether prevailing wages must be paid.

High-performance building requirements (Chapter 39.35D RCW) and Executive Order 13-03 regarding life cycle and operating costs in public works projects may also apply.

Chehalis River Sedimentation of Grays Harbor Estuary (Phase II.B, Chehalis River)

\$360,500

Sponsor(s): Walsh, Rep. Jim,

Where is the project physically located?

Address: 330 W Pioneer Avenue Suite D , Montesano 98563 Grays Harbor

District(s): 19 24

Coordinates: 46.960192, -123.828395

Project Contact

Contact: Mike Nordin , District Manager

Organization: Grays Harbor Conservation District

Website: <https://www.graysharborcd.org/>

Phone: 360/208-4451

E-mail: plutroll@willapabay.org

Address: 330 W Pioneer Avenue Suite D Montesano, WA 98563

Is the organization that will manage the funding different from the project contact organization?

No

If it is different, please provide the name of the organization or fiscal agent that will manage the funding.

Organization Information

Is the requesting organization registered with the state as a non-profit organization?

No

If answered no, is the applicant a local government? Yes

Project Information:

(1) Briefly describe the goal of the project.

Grays Harbor and Pacific Conservation Districts have recently completed an analysis to better understand sedimentation and erosion dynamics in Grays Harbor and Willapa Bays as relate to shellfish beds, and more importantly the loss of shellfish beds due to excess sedimentation. Shellfish aquaculture and related jobs are key to the local and regional economies of Pacific and Grays Harbor counties. See Twin Harbors Sediment Dynamics -- Final Report (<https://www.ezview.wa.gov/DesktopModules/Documents2/View.aspx?tabID=37263&alias=1973&mid=69455<>)

A significant challenge of the Conservation District's recent analysis was the ability to find current, scientific information regarding sedimentation contributions from the Chehalis River and it's main tributaries (Wishkah, Wynoochee, Satsop). The one scientific study of sedimentation from the Chehalis River to Grays Harbor estuary dates back to the early-1970's (nearly 50 years ago). Since that time, much has changed in the Lower Chehalis Basin with regard to land use, climate, science, local and regional economies, etc. For this reason, and to better plan for the future of the Harbor's aquaculture and shellfish industries, an updated scientific analysis is urgently needed. The goal of this project (Phase II.B) is produce an updated body of scientific information by September 2022 that will inform decision-makers on Chehalis river sedimentation rates, trends, and future scenarios to better enable long-range planning for Grays Harbor County's very important aquaculture and shellfish industries and the Port of Grays Harbor Marine Division.

(2) Describe coordination with local officials to include city or county planning and permit offices.

Heretofore, the Grays Harbor Conservation district has approached the overall effort (Phase I and Phase II) as a multi-jurisdictional partnership with Pacific and Grays Harbor Counties, WA State Department of Ecology, local and regional shellfish growers, WA SeaGrant, etc. This partnership will continue for this next Phase (Phase II.B).

(3) Describe consultation with affected tribes: current and future consultations necessary to start work on this project.

This project (Phase II.B) is a study. No ground disturbing activities will occur. That being said, Quinault Indian Nation and Chehalis Tribe will be included in the study as partners with knowledge and a vested interest in the outcome. Official 05-05 consultation will occur before the start of Phase II.B, and be done in close coordination and comprehensively with the Chehalis Basin Strategy where a concerted effort is underway to improve the overall 05-05 consultation effort (being led by WDFW).

(4) Describe coordination with Department of Archaeology & Historic Preservation.

The WDFW-led effort to improve 05-05 consultation across the Chehalis Basin described above (see answer to Question 27) includes DAHP. As such, early and comprehensive coordination with DAHP is expected.

(5) Describe coordination with the Department of Ecology necessary to meet requirements of SEPA.

SEPA review will be discussed with Ecology (Ecology is a partner in the Phase II.B study), and, if applicable for a study project like this, be complied with as instructed.

(6) Will the entire project be completed after this funding request? No

(a) Describe the estimated cost and schedule for each remaining phase of the project.

Following this Phase (Phase II.B), the remaining Phase III (implement preferred mitigation measures and best practices through responsible and relevant organizations) will be the final phase of the project. Phase III funds are at this time not known. Once Phase III costs are known (at the conclusion of Phase II.B) an overall funding strategy will be developed which will include local, state, and federal funding sources/options.

(b) Describe what discrete phase of the project will be completed with the funding from this request and how this phase will benefit the public.

This Phase and Funding Request (Phase II.B): Phase II.B study augments Phase II with current information on Chehalis river sedimentation contributions to Grays Harbor estuary as previous information was substantially out-of-date and singular as a source. The Phase II.B Study (Chehalis river sedimentation of Grays Harbor estuary sources and trends study) will cost \$350,000 and be conducted between July 1, 2021 and September 1, 2022. More specifically, a. Step 1 (Understand Sediment Dynamics and Contribution to Chehalis River) will cost \$225,000 b. Step 2 (Identify and Develop Sediment Management Mitigation Solutions with Community Engagement) will cost \$75,000 c. Step 3 (Design and Permit Preferred Mitigation Solutions) will cost \$50,000 The Overall Project: Grays Harbor and Pacific Conservation Districts initiated the following three phased process in 2015: a. Phase I (Why) – Conduct literature review, analysis, identification of Phase II next steps. [Done] b. Phase II (How) – Conduct mapping, modelling, and documentation of sediment and erosion dynamics in Grays Harbor and Willapa Bay and identify preferred mitigation measures. [Done minus Phase II.B augmentation] c. Phase III (Implementation) – Implement preferred mitigation measures and best practices through responsible and relevant organizations (public, private, not-for-profit, non-profit, etc.). [Future] Benefit The Public: Washington's shellfish industry has a long and important history in Southwest Washington. The industry is substantially important to the state, the region (Southwest Washington), and the local communities that depend on shellfish growing and processing. The Phase II.B study is essential to maintaining this important industry and the jobs it produces by providing key information that will enable better long-range planning and sector development. Additionally, the Phase II.B study benefits the long-term revenue-generating capacities of the Port of Grays Harbor by lowering operational costs overtime (e.g., less maintenance dredging) as well regionally significant aquaculture and shellfish industries by also lowering operational costs overtime (e.g., fewer shellfish bed closures and relocations).

(7) Start and Completion Dates:

Start July 1, 2021 and complete September 1, 2022.

(8) Eligible Project Type or Phase

Land Acquisition	\$0
Demolition and Site Preparation	\$0
Design	\$0
NewConstruction	\$0
Renovation	\$0
Other - Study	\$350,000
Total Funding Requested	\$360,500

NOTE: **Total Funding** includes a mandatory **Commerce Administrative Fee** of up to 3% (up to \$50,000)

(9) Is this a joint project? Yes

(a) If yes, has a joint operating agreement been signed? Yes

(b) If yes, list the partners for the project.

Grays Harbor Conservation District, Pacific Conservation District, Grays Harbor County, Pacific County, Pacific County Marine Resources Committee, Willapa Grays Harbor Oyster Growers Association, WA State Department of Ecology, QIN, Chehalis Tribe, Office of Chehalis Basin.

(10) Is the site owned, optioned for purchase, or under a lease? Chehalis river and its tributaries are public resources

(11) Does the applicant understand and agree that any and all real property owned, optioned for purchase, or under a lease, that is acquired, constructed, or otherwise improved using state funds approved by the Legislature must be held and used for the purposes stated in this application for at least ten years from the date of the final payment made for the project? Yes

(12) What amount and what percentage of local, federal and state funding has the applicant secured to date?

Phase I (conduct literature review, analysis, identification of Phase II next steps) was completed June 2015 and funded (~90%) by a \$50,000 grant from the Washington State Conservation Commission (Shellfish Cost-Share Program). Phase II (conduct mapping, modelling, and documentation of sediment and erosion dynamics in Grays Harbor Bay and Willapa Bay and identify preferred mitigation measures) was completed February 2021) and funded (~90%) by a \$463,500 grant (2019-2021 WA State Capital Budget Local Community Projects appropriation).

(13) Besides the amount being requested, what amount of local, federal or other state funding does the applicant plan on securing in the future in order to complete the project? Please list by program.

Following sources of matching funds have been pursued in the past and will be pursued again; however, due to the pandemic and it's effect on the shellfish industry, it's not considered likely that such matching will actually occur: a. Grays Harbor Conservation District -- \$10,000 (In-Kind support for Project Management/Oversight) b. WA State Conservation Commission -- \$15,000 (Being Pursued as a Match Source) c. Port of Grays Harbor -- \$15,000 (Being Pursued as a Match Source)

(14) Please list all past efforts to obtain state funding through the member requested local community project form, including the legislative session and the amount of funding obtained.

Through the 2019 legislative session, \$463,500 was secured through the member requested local community project form for Phase II.

(15) Once completed, how will the project fund its ongoing maintenance and operation?

Once Phase II.B is completed, ongoing maintenance and operation will continue to be the responsibility of those affected by Chehalis river sedimentation, namely the Port of Grays Harbor and local shellfish growers.

(16) Will this project have a revenue-generating component that would have community and state economic benefit? Please describe and quantify.

The project benefits the long-term revenue-generating capacities of the Port of Grays Harbor by lowering operational costs overtime (e.g., less maintenance dredging). The project benefits the long-term revenue-generating capacities of the regionally significant aquaculture and shellfish industries by also lowering operational costs overtime (e.g., fewer shellfish bed closures and relocations).

(17) Please quantify any long-term job creation that will result from this project.

Washington's shellfish industry has a long and important history in Southwest Washington. The industry is substantially important to the state, the region (Southwest Washington), and the local communities that depend on shellfish growing and processing. In 2010, the shellfish industry payroll was: a. Pacific County = \$45M and 1,580 jobs. b. Grays Harbor County = \$6M and 210 jobs. In 2015, Washington Sea Grant reported that the total value of shellfish production was: a. Washington State = 23.4 million pounds and \$92.1 million in revenue. b. Willapa Bay = 5.95 million pounds and \$15.6 million in revenue. c. Grays Harbor = 1.2 million pounds and \$3.96 million in

revenue. Northern Economics calculated an output multiplier of 1.8 and jobs multiplier of 1.4 (see "The Economic Impact of Shellfish Aquaculture in Washington, Oregon and California" April 2013 at https://www.ezview.wa.gov/site/alias__1492/37525/Excess-Sedimentation.aspx). Annual financial impact based on 30,000 acres in Willapa and 4,000 acres in Grays Harbor is \$1,500/acre and .052 jobs per acre based on the 2010 data previously stated. More acreage means more jobs and more revenue. Less acreage means less jobs and less revenue. Grays Harbor's loss of 700 acres translates into an annual loss of \$1,050,000 in revenue and 36.4 jobs. The Phase II.B study is essential to maintaining this important industry and the jobs it produces by providing key information that will enable better long-range planning and sector development.

(18) Are there any existing or anticipated community concerns about this project (i.e. conflict with land use, neighborhood concerns, other) that would prevent it from moving forward?

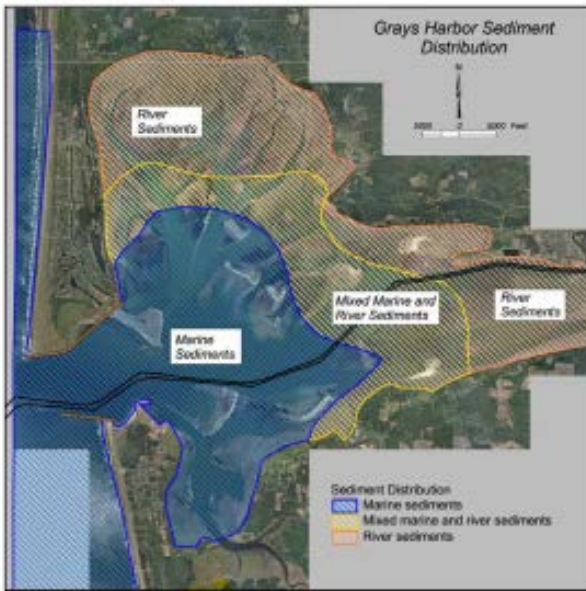
No concerns. To the contrary, developing a current, scientific understanding of Chehalis river sedimentation rates and sources to Grays Harbor estuary, as well as cost-efficient mitigation measures, will benefit the public and local community by helping: 1. The Port of Grays Harbor better plan and structure future dredging operations (timing, frequency, cost). 2. Grays Harbor County's aquaculture and shellfish industries better plan and structure their operations for the future (locations, relocations, jobs, products, etc.)

2021 (Twin Harbors Study)

TWIN HARBORS SEDIMENT DYNAMICS – FINAL REPORT

Data Analysis and Observations

Sediment from the Columbia River enters Grays Harbor and Willapa Bay as a marine source from the beaches and nearshore zone adjacent to the bay entrance. Sediment with distinctive heavy mineral components are found within Grays Harbor and Willapa, which originates from the respective inland watersheds as fluvial discharge (Scheidegger and Komar 1984). The depositional pattern in both Grays Harbor and Willapa Bay is dynamic, associated with seasonal variations in estuarine hydrography. Sand and gravel from local rivers are transported down the estuary with high fluvial discharge during winter months, while beach and nearshore sand is transported into the estuary by flood-tidal currents during summer months. Figure 24 and Figure 25, respectively, show the sediment distribution within Grays Harbor and Willapa Bay. Despite the seasonal migration of different sediment materials, sandy sediments from the Pacific Ocean dominate the outer bay while mud-rich deposits (greater than 50 percent silt and clay) dominate the inner bay and upper estuary.



Source: Scheidegger and Phipps 1976

Figure 24: Provinces of Sand Deposition in Grays Harbor



Figure 76 shows that the largest deposition occurs in the channel just outside the inlet and farther offshore. A considerable amount of sediment is deposited back into the navigational channel at the Crossover Reach/North Channel transition. The resuspended sediments also find their way to the northern and southern portions of the harbor, with a deposition on the order of millimeters, similar to the naturally occurring range from the InSAR data. The process is likely to be accumulative from year to year with the ongoing dredging/ disposal activities.

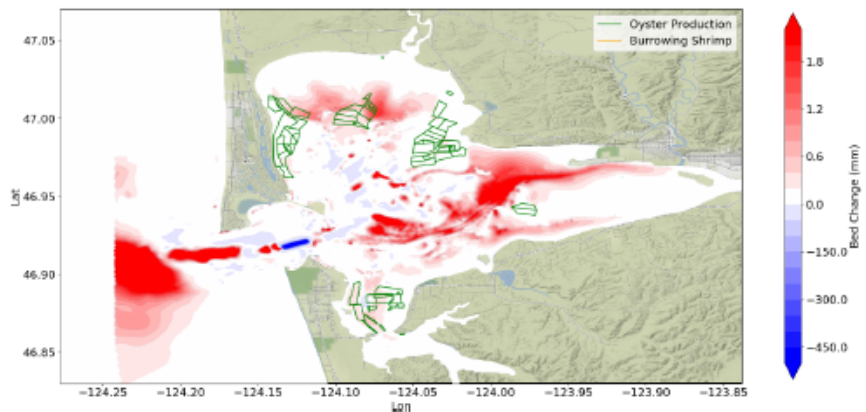


Figure 76: The Fate of Resuspended Sediments at the Chehalis Disposal Site During Active Winter Conditions



← Pages 3.17 and 6.8

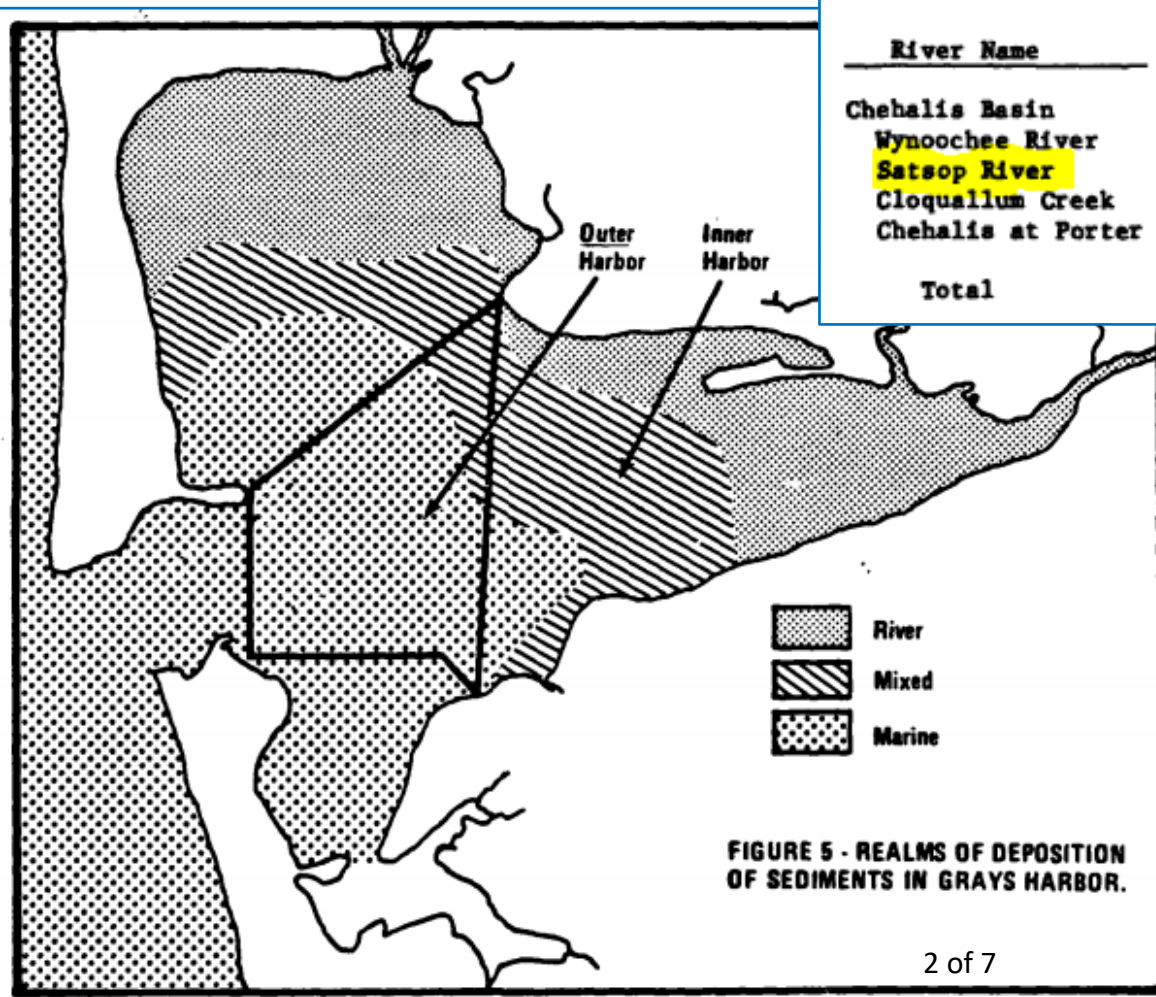
1974 Study

Click images to access,
pages 27 and 29

TABLE 9

AVERAGE ANNUAL SUSPENDED AND BEDLOAD SEDIMENT LEVELS
FROM RIVERS IN THE CHEHALIS BASIN
(NORMAN ASSOCIATES, 1974)

<u>River Name</u>	<u>Suspended Load (tons/year)</u>	<u>Bedload (tons/year)</u>
Chehalis Basin		
Wynoochee River	294,000	135,000
Satsop River	420,000	195,000
Cloquallum Creek	21,000	7,500
Chehalis at Porter	224,000	105,000
Total	959,000	442,500



2021 (3-year, \$4.2M Dredging)



DALLAS EDWARDS | CORPS OF ENGINEERS Maintenance dredging of the inner harbor at Grays Harbor will begin Jan. 4. About 1.8 million cubic yards of material will be removed from the federal navigation channel over the course of roughly three years.

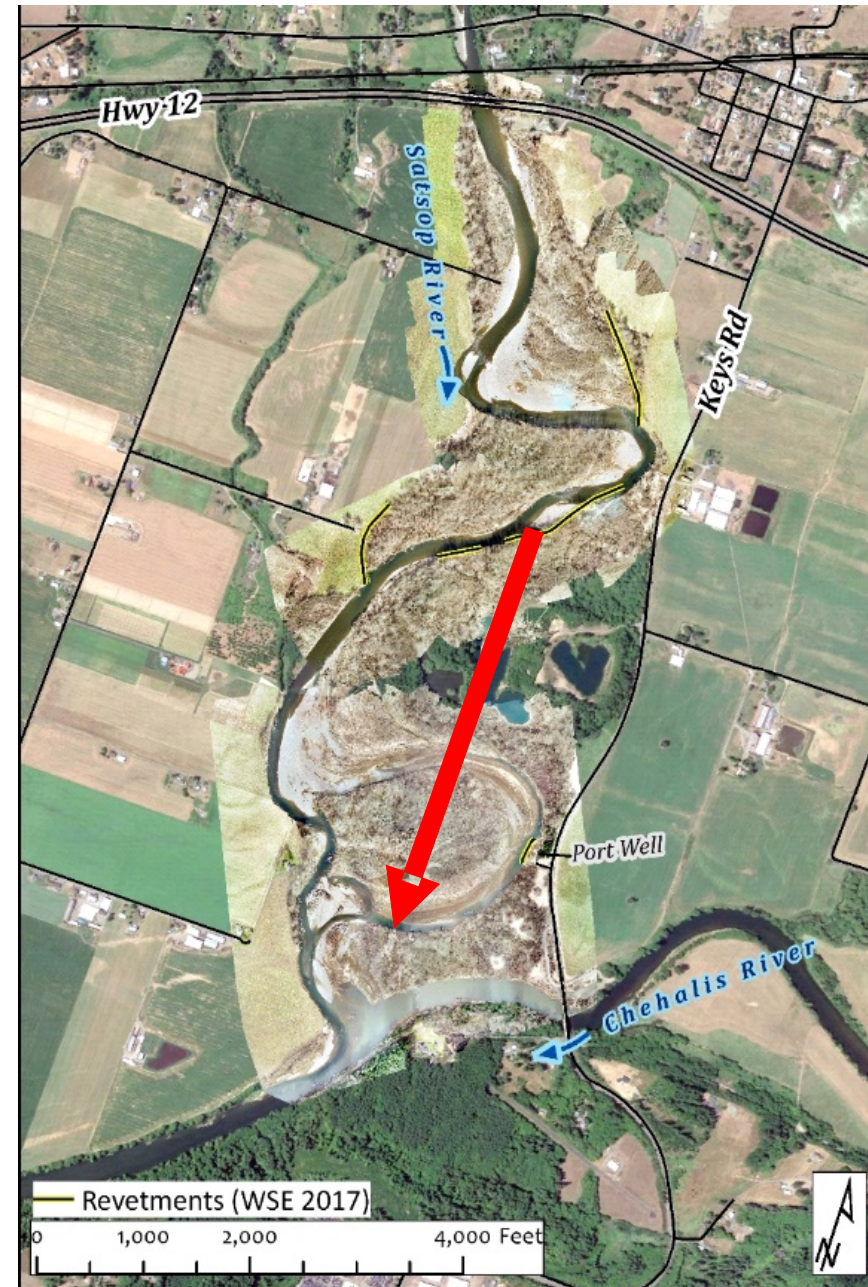
Corps of Engineers to start Grays Harbor maintenance dredging Jan. 4

Wed Dec 30th, 2020 4:15pm • **NEWS**

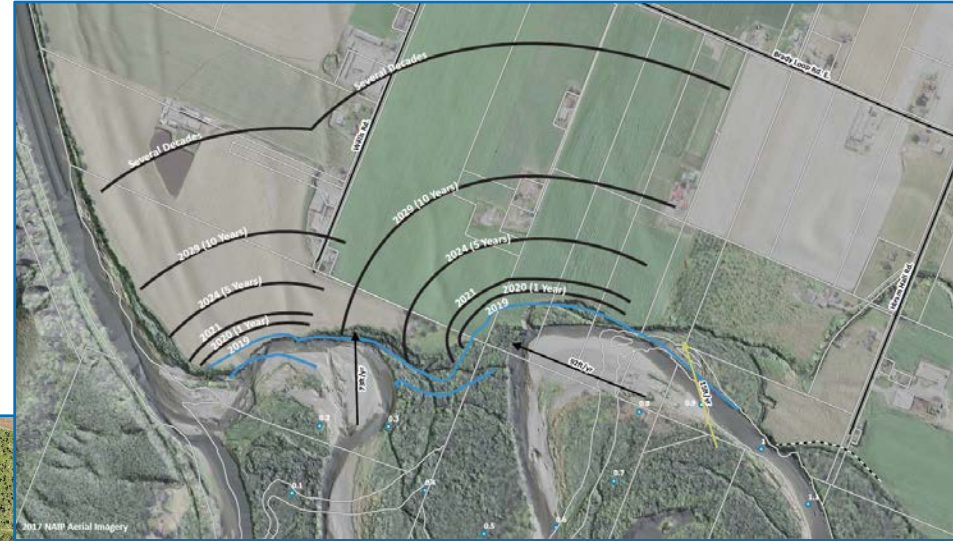
1953 (SW trajectory)



2019 (SE trajectory)



2021 (heightened erosion, sedimentation)



Member Request

Provide updated analysis (more current than 1974) of sediment contributions to Chehalis river from lower basin tributaries (current and projected).

Mitigating Chehalis River Sediment Contributions To Grays Harbor Estuary				
	Understand Sediment Dynamics and Contribution to Chehalis River	Identify and Develop Sediment Management Mitigation Solutions with Community Engagement	Design and Permit Preferred Mitigation Solutions	
Wishkah	\$75,000	\$25,000		
Wynoochee	\$75,000	\$25,000		
Satsop	\$75,000	\$25,000	\$50,000	
	\$225,000	\$75,000	\$50,000	\$ 350,000



2019



2021