



# LOWER SATSOP RESTORATION AND PROTECTION PROGRAM

Protect, Preserve, Restore

\* Farmland   \* Essential Infrastructure   \* River/Floodplain Functions & Habitat

October 31, 2019



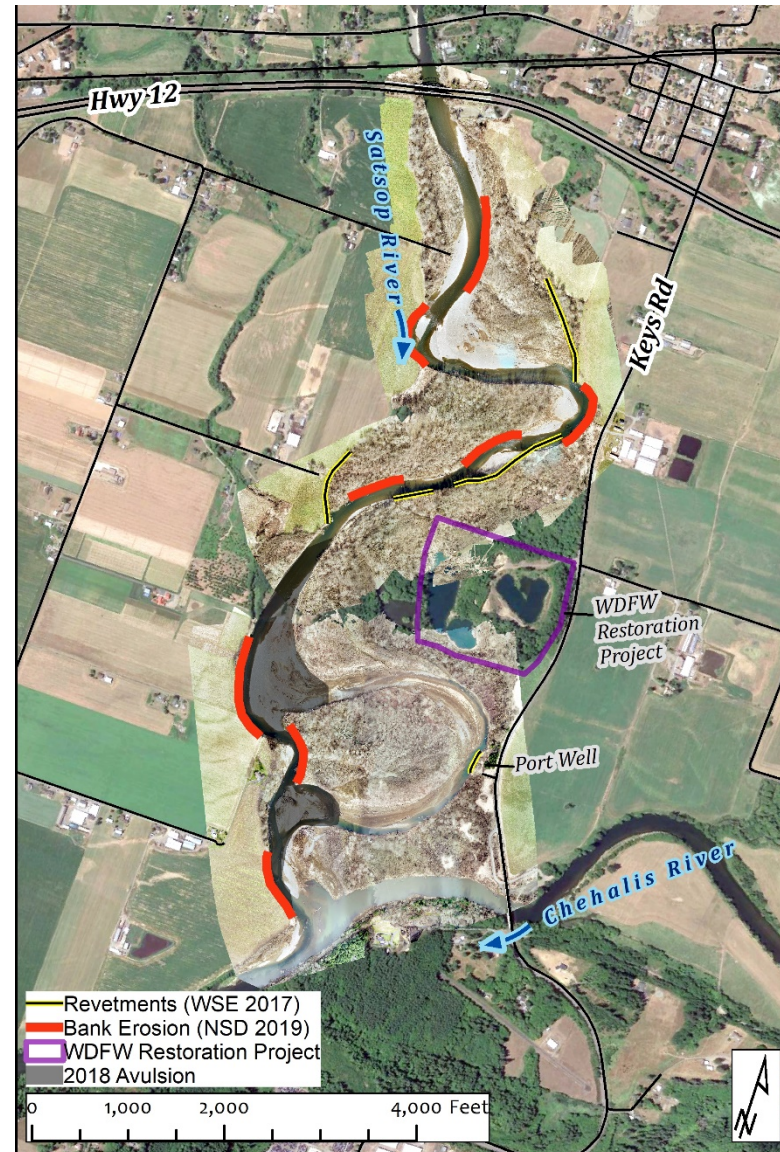
Grays Harbor  
Conservation  
District

*your window to healthy lands*



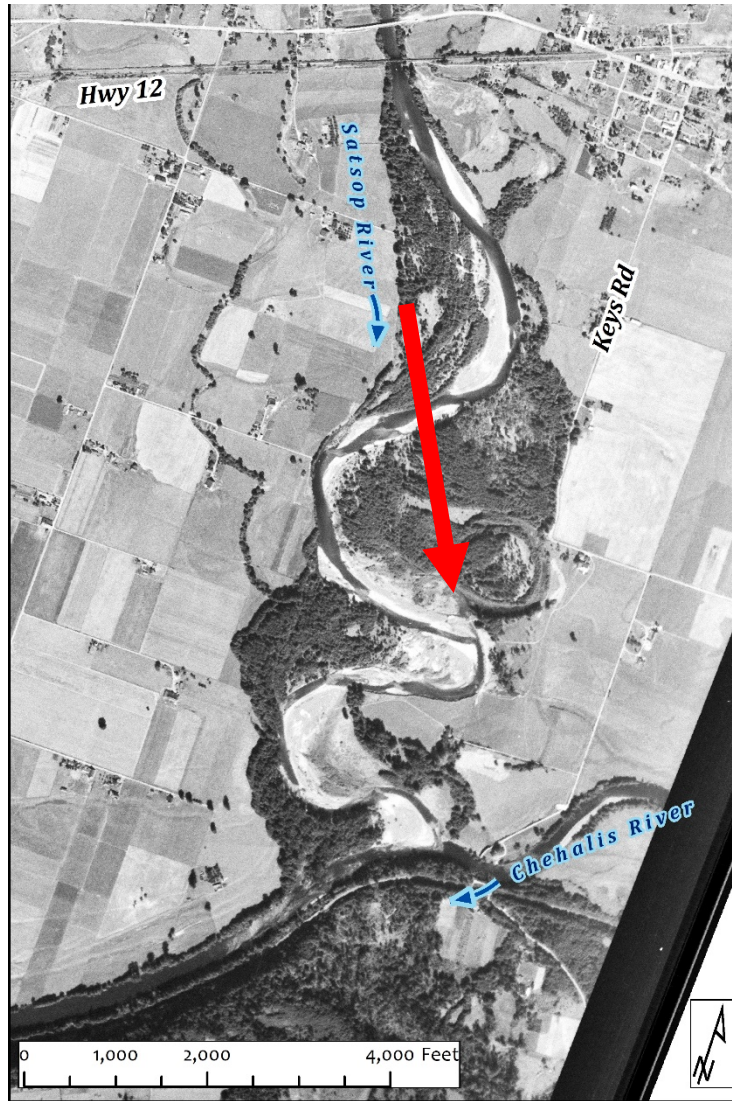
# Issues

- Bank Erosion
- Revetments
- Keys Road
- Port Well
- WDFW Restoration Project
- 2018 Avulsion
- Community Frustration



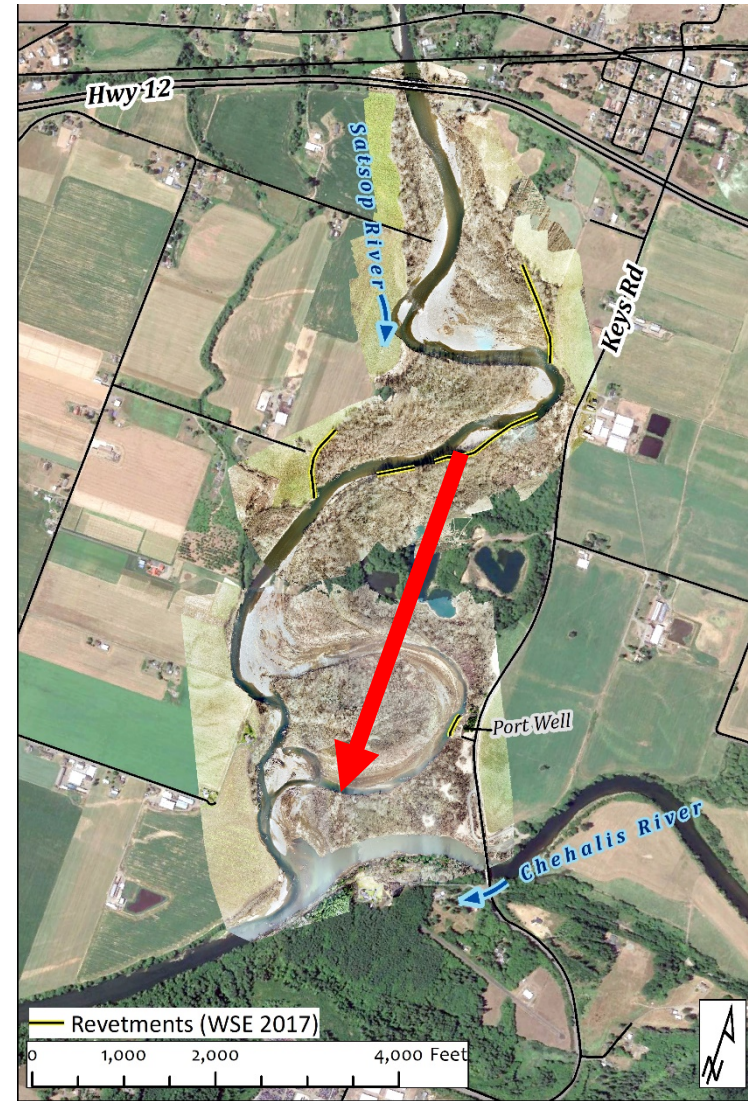


# Historical Context



2

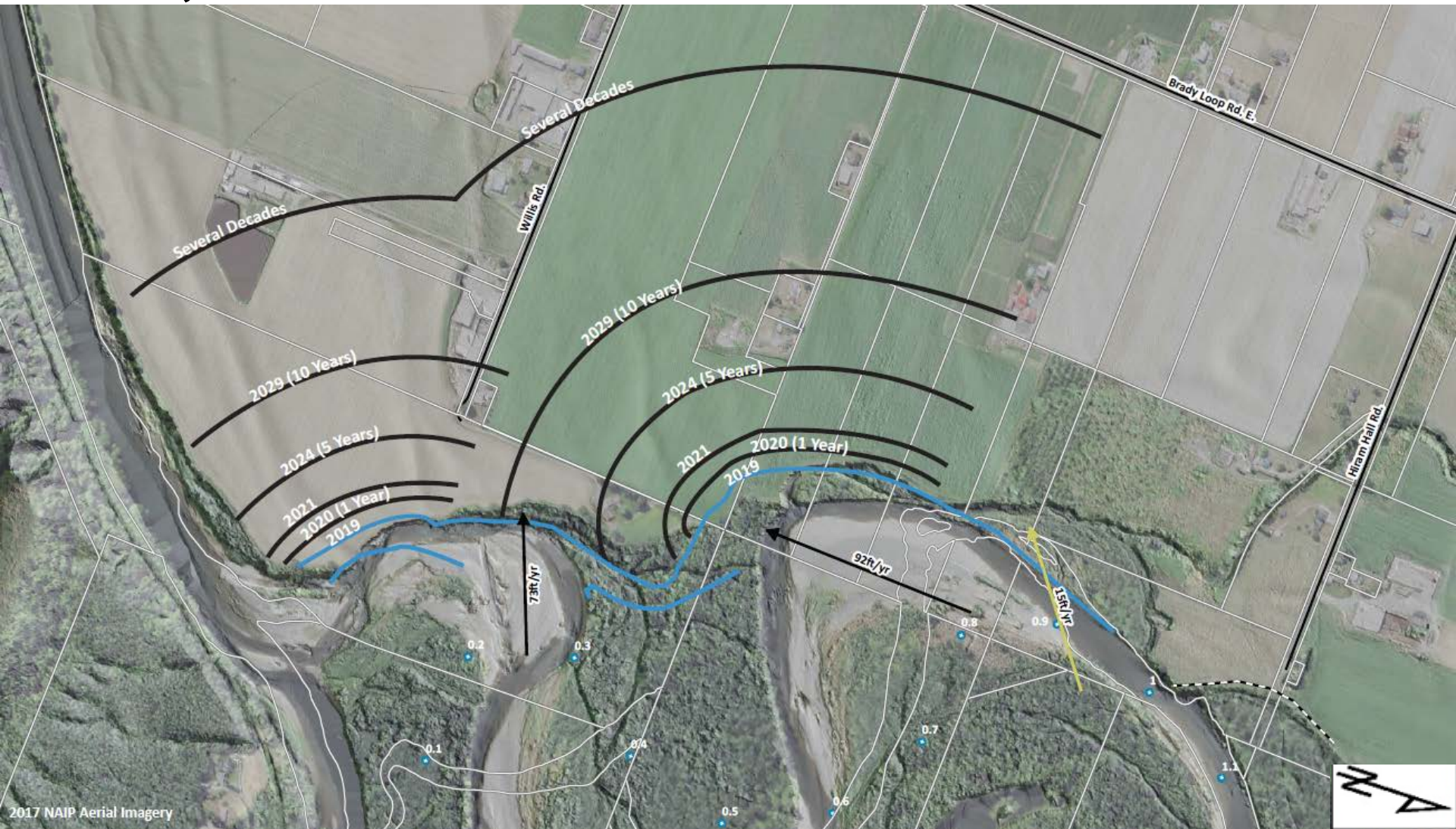
1953



2019



# Projected Erosion Without Treatment

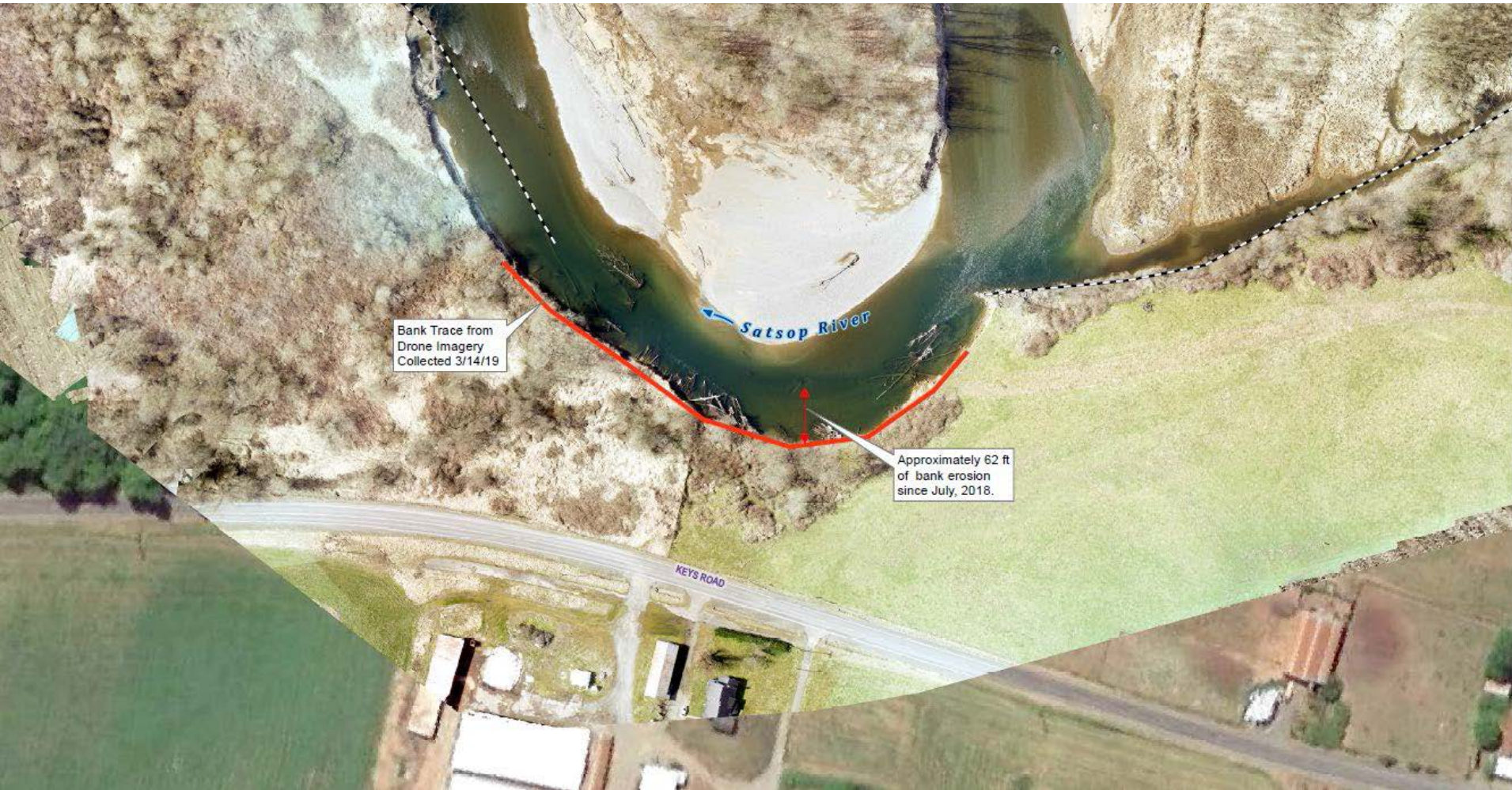


# Highly Erodible Agricultural Soils





# Essential Infrastructure Threatened (e.g., Keys Rd.)

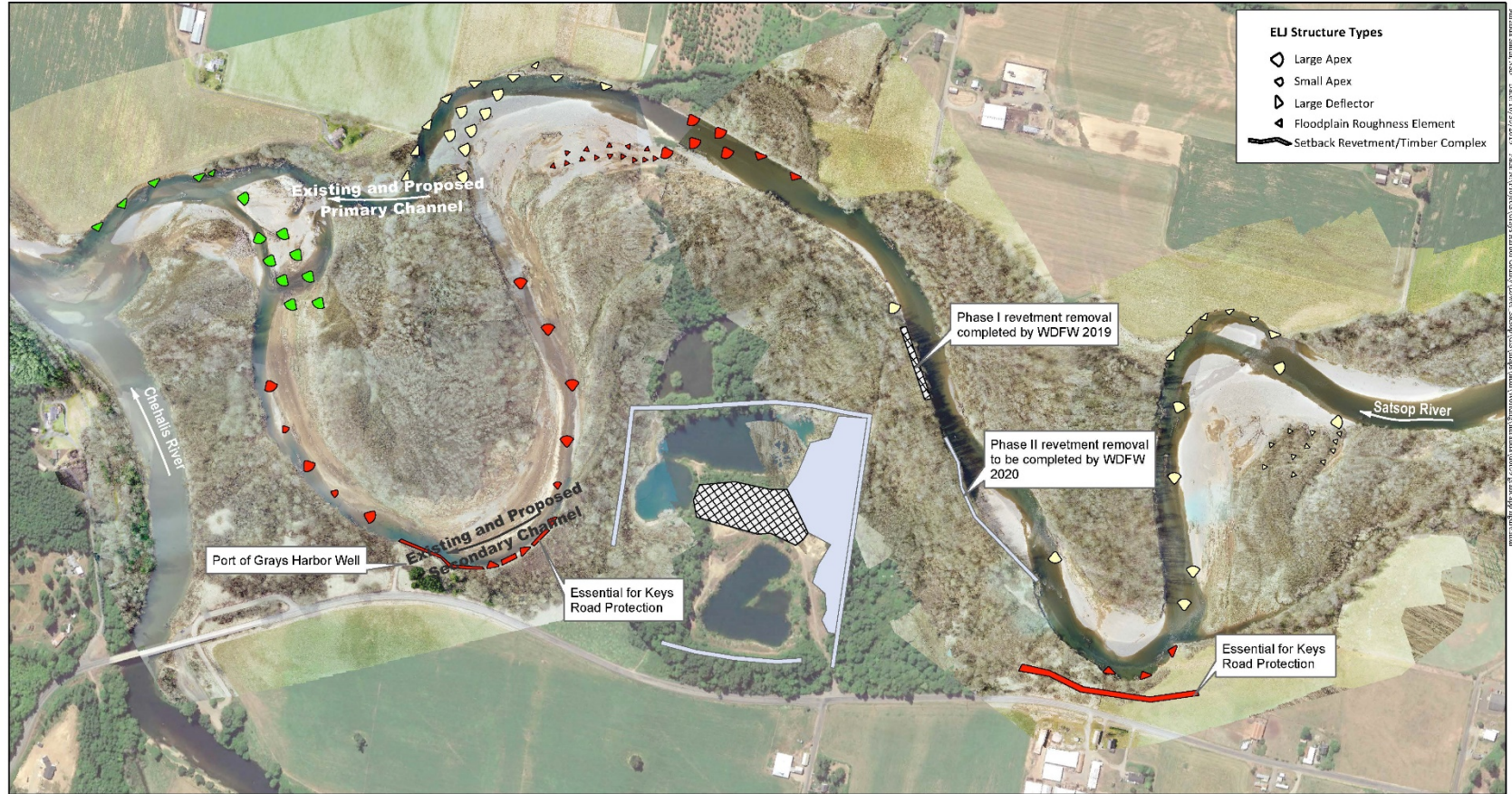








# Implementation Stage (Plan)

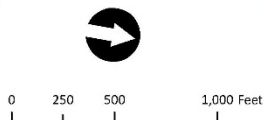


Lower Satsop Reach Scale Assessment and Design: Protecting Infrastructure, Restoring Floodplain Function, and Reducing Erosion and Sedimentation.

Preliminary Design Phased Construction Plan

Aerial Imagery 2017 NAIP with 2019 Drone Imagery

Lambert conformal conic projection, NAD 1983  
State Plane Coordinate System (WA South Zone)



CONSTRUCTION [Funded, Not Funded.]	WDFW "Restoration"	GHC "Restoration and Protection"
2019 -->	Phase I - Ponds, Revetment	
2020 -->	Phase II - Ponds, Revetment	Phase I - Keys Road, Port Well, Floodplain Restoration (A)
2021-22 -->		Phase II - Floodplain Restoration (B), Erosion Reduction (A)
2022-23 -->		Phase III - Floodplain Restoration (C), Erosion Reduction (B)
Future -->		Phase IV - Relocate Keys Road infrastructure (at end of useful life)





# Implementation Stage (Advisory Group)

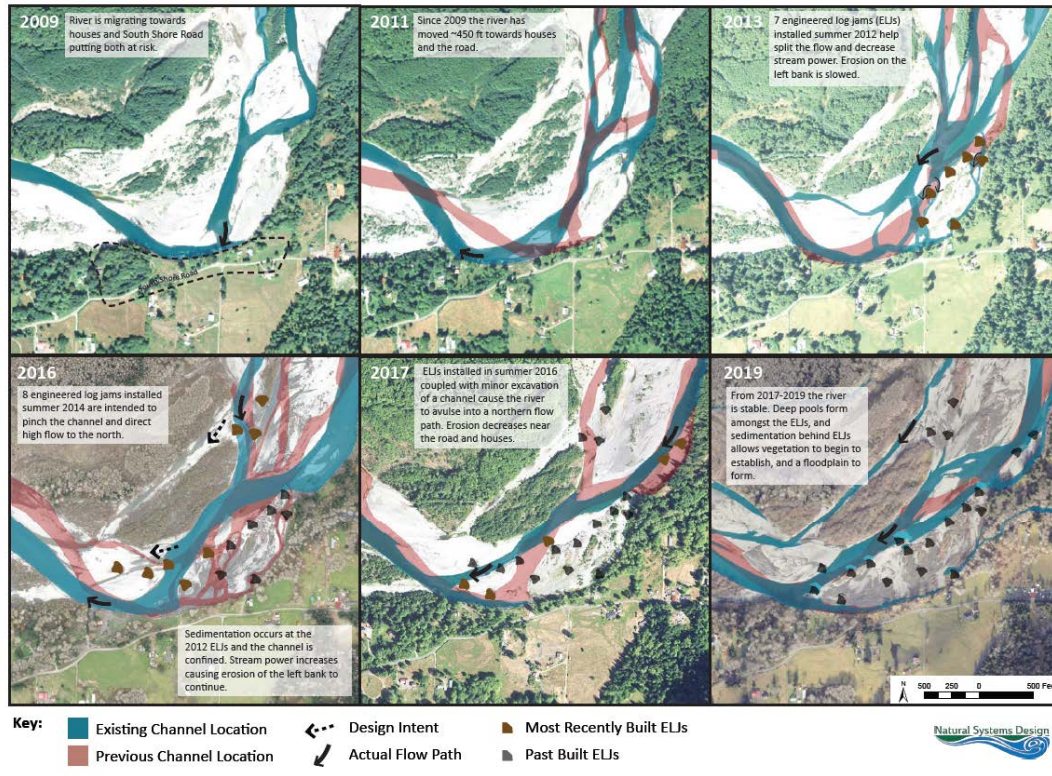




# Implementation Stage (Examples)

Timber complex →

Upper Quinault Channel Migration Lower PAS





# Apex Structure





# Deflector Structure





# Floodplain Roughness

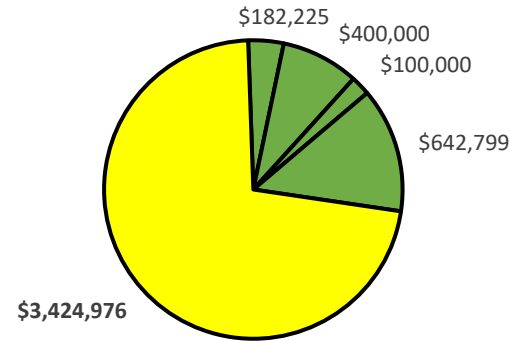




# Implementation Stage (Phase I Cost)

## GHC Phase I (2020) -- \$4,750,000

- Funds Secured -- 2019-21 State Capital Budget (\$182,225)
- Funds Secured -- GHC .09 Local Funds (\$400,000)
- Funds Secured -- GHC Road Fund (\$100,000)
- Funds Secured -- Flood Authority Local Projects Reobligation Funds (\$642,799)
- Funds Needed (\$3,424,976)



WDFW Phase II (2020)	Cost	Status
<b>2020:</b>		
• Phase II, (Construction) -- Ponds, Revetment	\$1,429,000 (WCRI)	Funded, Scheduled



# Implementation Stage (2019)



WDFW Ponds Restoration  
(remove spoils piles, shallow out ponds)



Lower WDFW Revetment  
(remove 200' rock toe, excavate 20' x 85' channel)



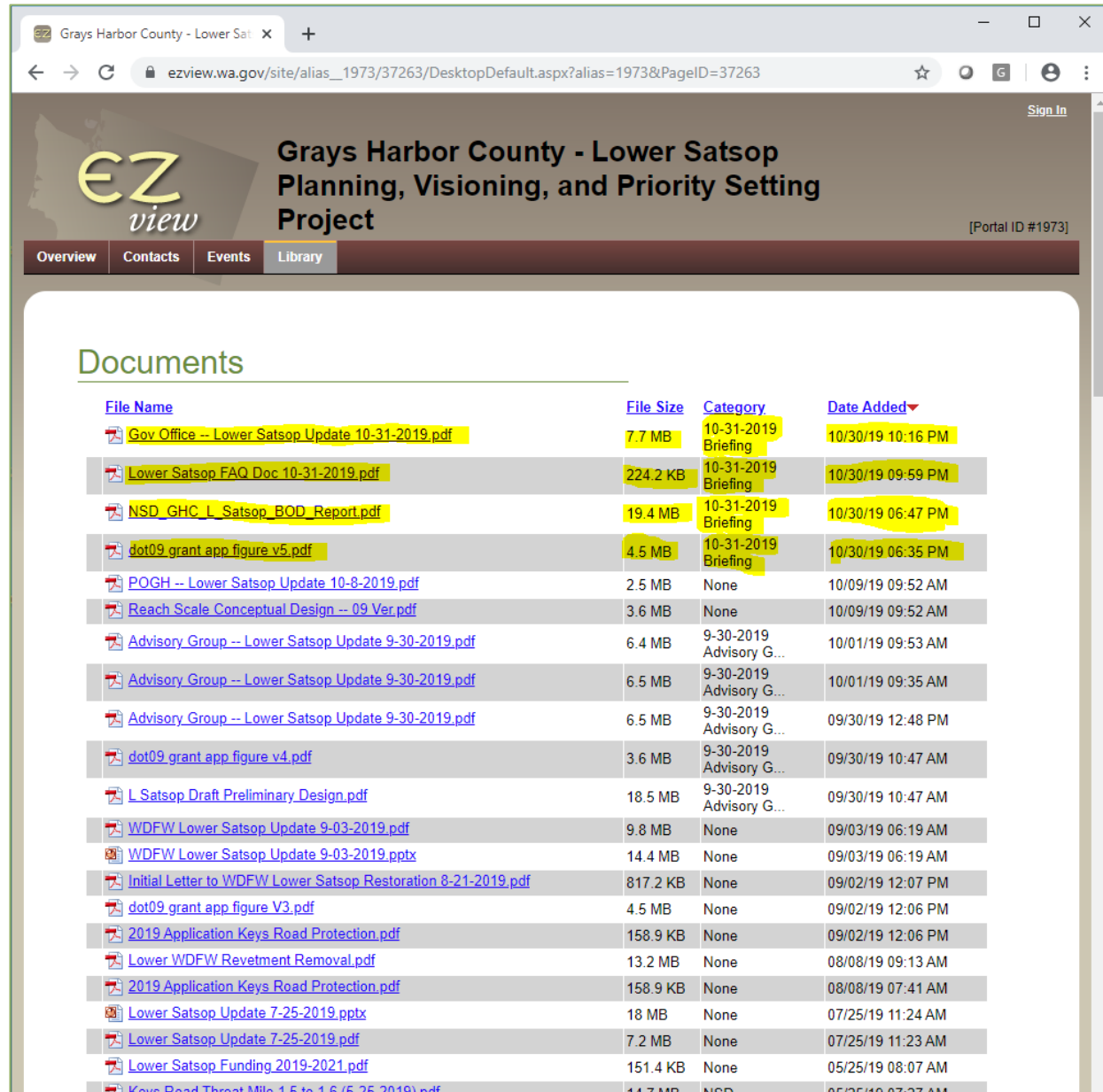
# Contacts

Organization	
Grays Harbor County	Rob Wilson 360/249-4222 <a href="mailto:RWilson@co.grays-harbor.wa.us">RWilson@co.grays-harbor.wa.us</a>
Grays Harbor Conservation District	Anthony Waldrop 360/249-8532 <a href="mailto:ghcdwater@gmail.com">ghcdwater@gmail.com</a>
WA Department of Fish and Wildlife	Michelle Cramer 360/902-2610 <a href="mailto:Michelle.Cramer@dfw.wa.gov">Michelle.Cramer@dfw.wa.gov</a>
Port of Grays Harbor	Alissa Shay 360/ <a href="mailto:ashay@portgrays.org">ashay@portgrays.org</a>
Natural Systems Design	Miranda Smith 206/480-1127 <a href="mailto:miranda@naturaldes.com">miranda@naturaldes.com</a>
Chehalis River Basin Flood Authority	Scott Boettcher 360/480-6600 <a href="mailto:scottb@sbgh-partners.com">scottb@sbgh-partners.com</a>



# Resource

[https://www.ezview.wa.gov/site/alias\\_\\_1973/37263/library.aspx](https://www.ezview.wa.gov/site/alias__1973/37263/library.aspx)



**Grays Harbor County - Lower Satsop Planning, Visioning, and Priority Setting Project**

[Portal ID #1973]

Overview | Contacts | Events | **Library**

### Documents

File Name	File Size	Category	Date Added
<a href="#">Gov Office -- Lower Satsop Update 10-31-2019.pdf</a>	7.7 MB	10-31-2019 Briefing	10/30/19 10:16 PM
<a href="#">Lower Satsop FAQ Doc 10-31-2019.pdf</a>	224.2 KB	10-31-2019 Briefing	10/30/19 09:59 PM
<a href="#">NSD_GHC_L_Satsop_BOD_Report.pdf</a>	19.4 MB	10-31-2019 Briefing	10/30/19 06:47 PM
<a href="#">dot09 grant app figure v5.pdf</a>	4.5 MB	10-31-2019 Briefing	10/30/19 06:35 PM
<a href="#">POGH -- Lower Satsop Update 10-8-2019.pdf</a>	2.5 MB	None	10/09/19 09:52 AM
<a href="#">Reach Scale Conceptual Design -- 09 Ver.pdf</a>	3.6 MB	None	10/09/19 09:52 AM
<a href="#">Advisory Group -- Lower Satsop Update 9-30-2019.pdf</a>	6.4 MB	9-30-2019 Advisory G...	10/01/19 09:53 AM
<a href="#">Advisory Group -- Lower Satsop Update 9-30-2019.pdf</a>	6.5 MB	9-30-2019 Advisory G...	10/01/19 09:35 AM
<a href="#">Advisory Group -- Lower Satsop Update 9-30-2019.pdf</a>	6.5 MB	9-30-2019 Advisory G...	09/30/19 12:48 PM
<a href="#">dot09 grant app figure v4.pdf</a>	3.6 MB	9-30-2019 Advisory G...	09/30/19 10:47 AM
<a href="#">L Satsop Draft Preliminary Design.pdf</a>	18.5 MB	9-30-2019 Advisory G...	09/30/19 10:47 AM
<a href="#">WDFW Lower Satsop Update 9-03-2019.pdf</a>	9.8 MB	None	09/03/19 06:19 AM
<a href="#">WDFW Lower Satsop Update 9-03-2019.pptx</a>	14.4 MB	None	09/03/19 06:19 AM
<a href="#">Initial Letter to WDFW Lower Satsop Restoration 8-21-2019.pdf</a>	817.2 KB	None	09/02/19 12:07 PM
<a href="#">dot09 grant app figure V3.pdf</a>	4.5 MB	None	09/02/19 12:06 PM
<a href="#">2019 Application Keys Road Protection.pdf</a>	158.9 KB	None	09/02/19 12:06 PM
<a href="#">Lower WDFW Revetment Removal.pdf</a>	13.2 MB	None	08/08/19 09:13 AM
<a href="#">2019 Application Keys Road Protection.pdf</a>	158.9 KB	None	08/08/19 07:41 AM
<a href="#">Lower Satsop Update 7-25-2019.pptx</a>	18 MB	None	07/25/19 11:24 AM
<a href="#">Lower Satsop Update 7-25-2019.pdf</a>	7.2 MB	None	07/25/19 11:23 AM
<a href="#">Lower Satsop Funding 2019-2021.pdf</a>	151.4 KB	None	05/25/19 08:07 AM
<a href="#">Keys Road Threat Mile 1.5 to 1.6 (5-25-2019).pdf</a>	11.7 MB	NSD	05/25/19 07:37 AM



# What's Next?

## 1. Upcoming Meetings/Briefings:

Date	Time	Location	Audience
9/30/2019	1:00 p.m.	Montesano, WDFW Regional Office	Lower Satsop Advisory Group
10/01/2019	10:30 a.m.	Montesano, Grays Harbor County Administration Building	Grays Harbor County Commissioners
10/03/2019	1:15 p.m.	Centralia, Train Depot	Chehalis Basin Board
10/08/2019	9:00 a.m.	Aberdeen, Port of Grays Harbor	Port of Grays Harbor
10/09/2019	10:30 a.m.	Olympia, 120 Union Avenue	The Nature Conservancy
10/31/2019	10:00 a.m.	Montesano, Grays Harbor County Administration Building	Rep. Brian Blake (19 <sup>th</sup> Leg. District) Rep. Jim Walsh (19 <sup>th</sup> Leg. District) Chris Davis (Governor's Policy Office)
11/??/2019	6:30 p.m.	Brady Firehall	Lower Satsop Community Members

## 2. JARPA = Late-December 2019/early-January 2020.