About the Surfrider Foundation

• We are a community of everyday people who passionately protect our playground – the ocean, waves, and beaches – that provide us so much enjoyment.

• Most visible activity in Westport is the **Clean Water Classic**

• Involved in many other projects: Marine Spatial Planning, county Shoreline Master Plans, Surfrider Leadership Academy, serving on the WCMAC, supporting MRCs, other campaigns throughout the state

• Relevant for today: **2014 Recreational Use Survey**
About the Survey

• Provide geospatial information on recreational use

• Estimate number of recreators on Washington beaches

• Estimate the economic impact of recreation on coastal communities and the state
Coastal Recreation Statistics

• ~41% of WA State residents visited the WA Pacific Coast in the last 12 months
• ~60% of those trip were for recreation purposes
• ~36% of all trips were to Grays Harbor County
• 4.1 million trips translated to an estimated $481 million dollars in direct expenditures
Want to learn more?

- http://washington.surfrider.org/rus
- http://www.msp.wa.gov/
- Casey Dennehy – cdennehy@surfrider.org
Brief History of Surfing
Breaks at Westport and Half Moon Bay
1990 Westport Cove
2004 Westport Cove
2006 Westport Cove
2012 Westport Cove
2016 Westport Cove
Brief Surf/Break History of Westport

The current configuration of recreationally used beaches in Westport, WA, is a result of interactions between nature and engineering projects dating back over 100 years. Highlights of this include:

• **1898-1902**: Initial Construction of the South Jetty in Westport, WA

• **1907-1916**: Initial Construction of the North Jetty in Ocean Shores, WA

• **1950-1956**: Construction of Point Chehalis Revetment and Groins

• **1921-1951**: Scouring and creation of Half Moon Bay
Brief Surf/Break History of Westport

- **1935-Present**: At least 11 major reconstruction, repair, or extension projects to jetties, groins, and shorelines

- **1942-Present**: Maintenance dredging of the channel and placement of sand to combat erosion, developing into annual dredging in 1994

- **1987**: Winter storms washed away the restroom, two picnic sties, and 25% of paved parking at Westhaven

- **1993**: Breach between South Jetty and Half Moon Bay

- **1998**: Settlement agreement between Surfrider Foundation and USACE

- **1994-2013**: Annual sand replenishment of Half Moon Bay by USACE
1998 Settlement Agreement

- Requires a **beach profile** of 1V on 60H, and ensures that revetment toe is **not exposed**

- Requires a **stockpile of sand** in case of emergencies

- **Requires both periodic onshore and offshore placement of sand** in Half Moon Bay for the life of the project (50 years) as well as bathymetric surveys prior to and following periodic nearshore disposal.

- Requires surveys of the **beach profile** at least every 2 years; annual **aerial surveys**; and routine **visual surveys** by both the City of Westport and the Army Corps of Engineers.
### Sand Placement

#### GRAYS HARBOR O&M DREDGED MATERIAL PLACEMENT VOLUMES (1994-2016)

<table>
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<tr>
<th>Year</th>
<th>South Jetty (Open water)</th>
<th>Half Moon Bay Beneficial Use Site (Nearshore)</th>
<th>South Beach Beneficial Use Site (nearshore)</th>
<th>HMB (Direct on beach)</th>
<th>TOTAL</th>
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What makes a wave break?
Bathymetric Cove Study by Abigail McCarthy

Gridded depth data from USACE raw bathymetry points
Bottom Slope of the Cove

For my first look at slope, the depth along the line of approach is plotted for the four separate years, showing that to some extent the beach along this line has gotten steeper since 1995, especially at the initial approach of the wave.
Benefits of Sand Replenishment

- Fulfills requirement as legally agreed upon in the **1998 Settlement Agreement**

- Is a USACE designated **beneficial use site** for sand replenishment

- Will provide a measure of **erosion protection** for the **City of Westport**

- Will provide a measure of **protection for grasslands**, wetlands, and park structures just inland of Half Moon Bay

- May increase **recreational activities in Half Moon Bay**, which would increase tourism
Goals of Project

1. Protect Point Chehalis Revetment and City of Westport

2. Partner with the Army Corps to ensure they dump sand consistently in Half Moon Bay (depending on bottom bathymetry) as well as continue to monitor erosion, beach profile, and bathymetric characteristics

3. Work toward restoring the wave in Half Moon Bay so it breaks further out

5. Develop research projects to analyze the data – will 2017 dumping make the wave better?

6. Investigate restoration projects like Scotchbroom removal
Questions or Comments or Share a Cove Story

Presented by Sasha Medlen & Casey Dennehy
Sponsored by Surfrider Capitol/Olympia Chapter

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