

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the upper half of the slide.

CHEHALIS RIVER BASIN FLOOD WARNING SYSTEM UPDATE

JULY 18, 2019

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WEST CONSULTANTS



2007

THE OREGONIAN/Bruce Ely



Photo by Bob Walter

2009



<http://www.komonews.com/weather/blogs/scott/37346554.html>

AP



<http://www.katu.com/news/37243024.html>

AP

NEEDS ASSESSMENT

- IMPROVE RIVER FORECAST
 - PRECIPITATION MONITORING
 - SNOW PACK MONITORING
 - IMPROVE STREAM GAGING
 - RESERVOIR LEVELS & RELEASE PLANS
 - DAM FAILURE WARNING
- IMPROVE COMMUNICATION
 - WEB-BASED DATA AND WARNING



DESIGN/BUILD FLOOD WARNING SYSTEM

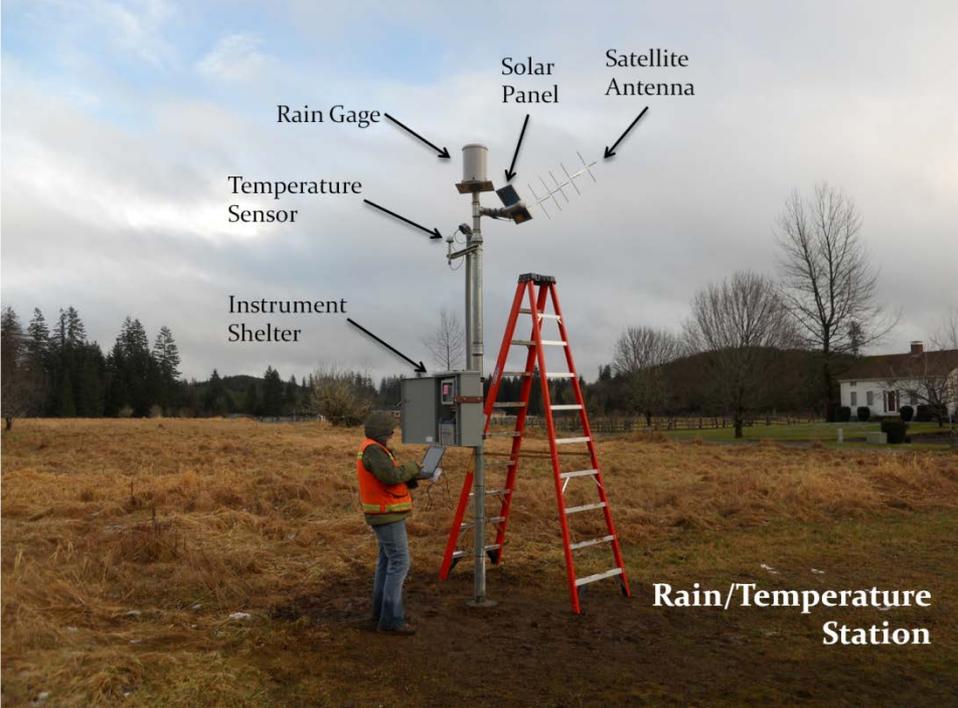
- GUIDING PRINCIPALS
 - COST EFFECTIVE
 - LEVERAGE EXISTING RESOURCES
 - IMMEDIATE BENEFITS



DESIGN/BUILD FLOOD WARNING SYSTEM

- IMPROVE MONITORING NETWORK
 - 8 RAIN/TEMPERATURE STATIONS
 - 2 RAIN/TEMPERATURE/STREAM STATIONS
- INTERNET DATA AND WARNING
- INUNDATION MAPPING



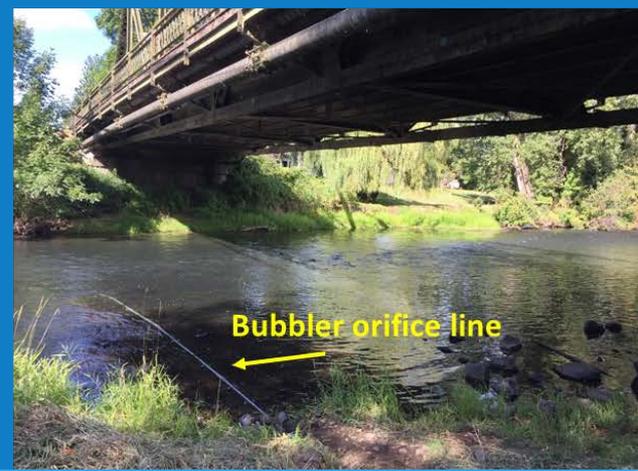


NEW GAGE SITES



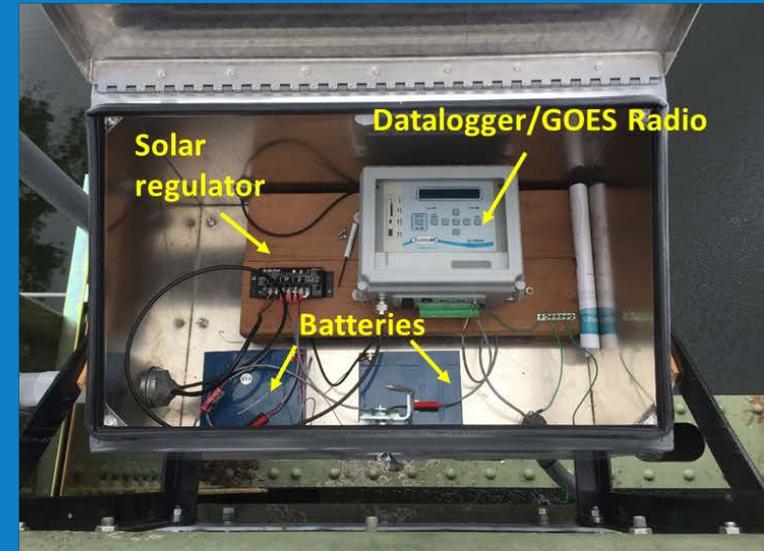


NWS GAGE UPGRADE – SKOOKUMCHUCK RIVER AT CENTRALIA, WA - 12026600





NWS GAGE UPGRADE - CHEHALIS RIVER AT CENTRALIA, WA - 12025500



NEW GAGES IN THURSTON COUNTY



Total Sensors in Chehalis System: 260

Chehalis River Basin Flood Warning System

Access real time Rainfall, River Levels, and other Flood related information below.

Rainfall Summary

River Summary

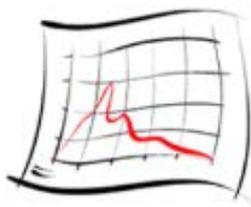
Additional Resources



Weather Forecast



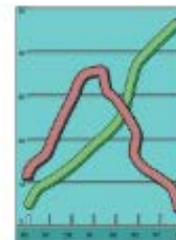
Rainfall Forecast



River Forecast



Flood Maps



Plot Gage Data



Gage Data Maps



Landslide



Radar Rainfall



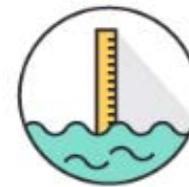
Road Conditions



USGS Gages

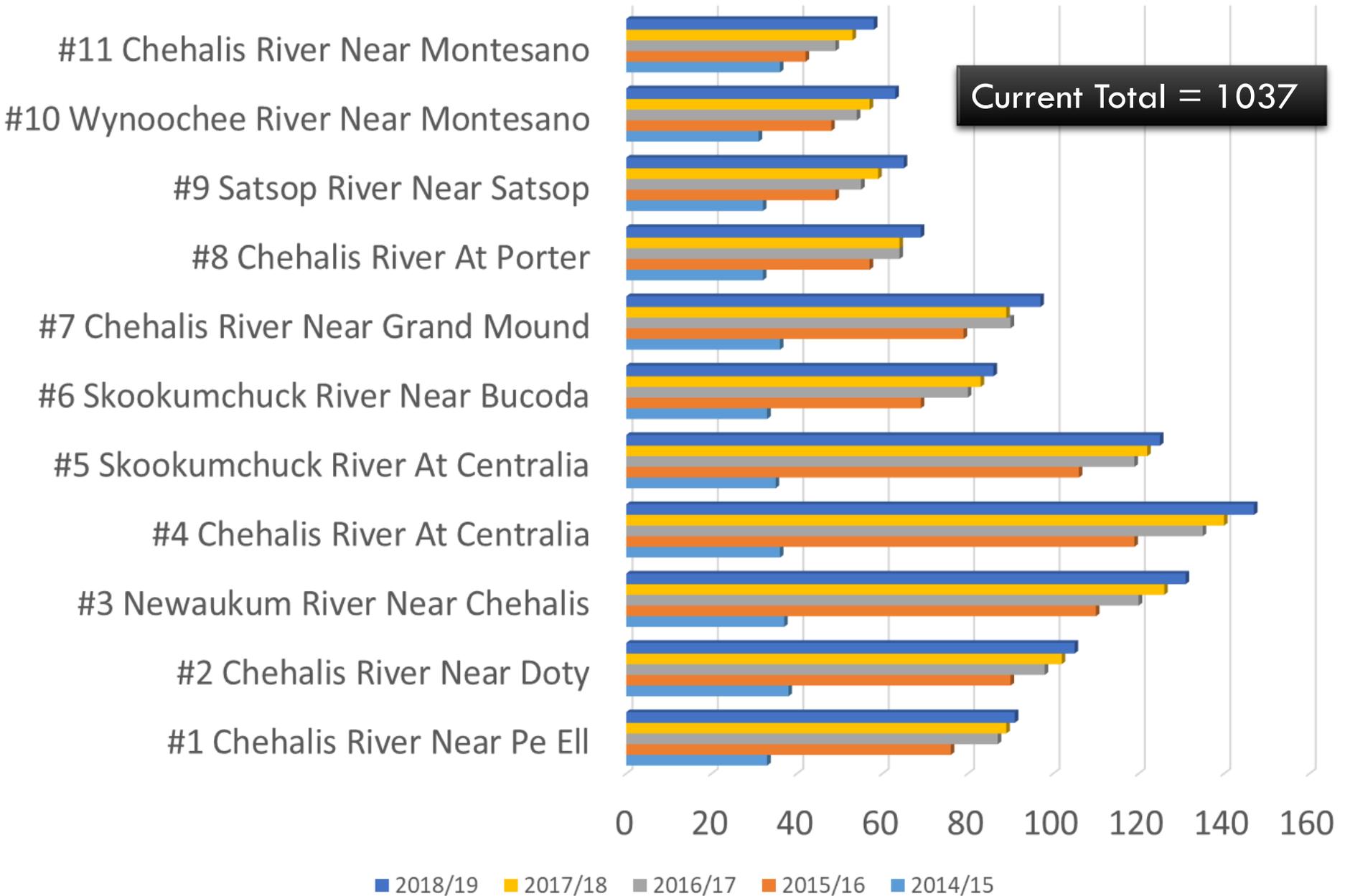


Atmospheric Rivers



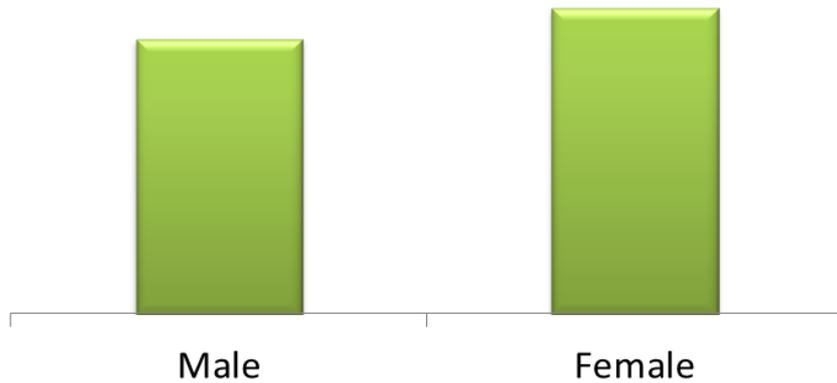
Chehalis Basin Gage
Height Conversion
Project

High Water Alerts

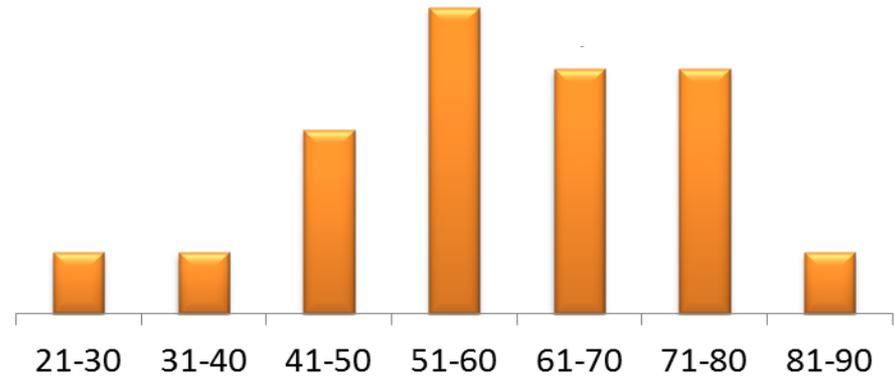


HIGH WATER ALARM USER SURVEY

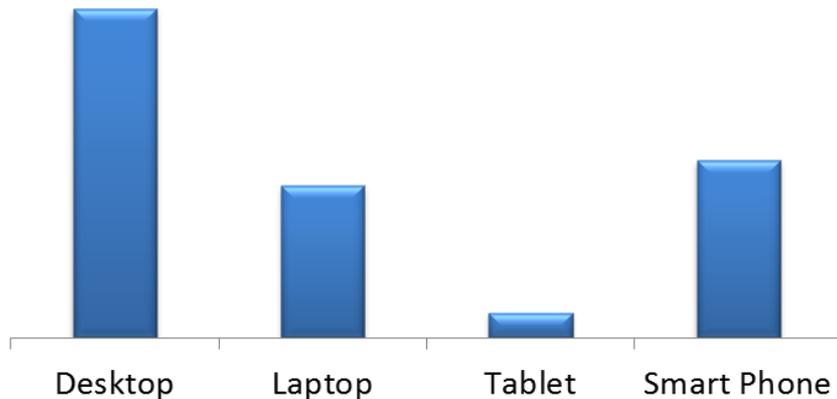
Gender



Age



Device



Purpose

News gathering	Travel concerns
Reside	General Interest
Elected Official	Job
Early warn	Testing
WSDOT EOC	Employee study safety
Relatives in Chehalis	General Interest
Weyerhaeuser	First responder
Lewis County Pub Wrks	Animal safety
Travel concerns	Elected Official
Employee safety	

KEY BENEFITS

- **SITUATIONAL AWARENESS**
- **EMPLOYEE/STAFF SAFETY**
- **RESIDENCE SAFETY**
- **TRAVEL PLANNING**
- **INCREASED WEBSITE USAGE**
- **INCREASE VISIBILITY OF THE FLOOD AUTHORITY**

INUNDATION MAPPING

No Flood



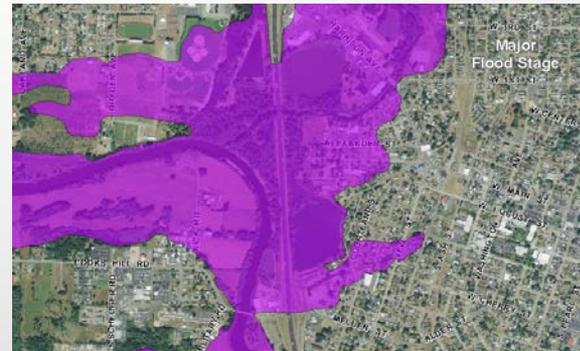
Moderate



Action



Major



Minor



Major



Chehalis River at Centralia, WA

Current NWS Forecast

53.27 ft

5/6/2014 11:30 AM
(observed value)

River Stage (ft)

Hover mouse over river stage to show corresponding flood map

- 61.0
- 61.6
- 62.6
- 63.6
- 64.6

Minor Flood Stage

- 65.6
- 66.6
- 67.6

Moderate Flood Stage

- 68.6
- 69.6
- 70.6
- 71.6

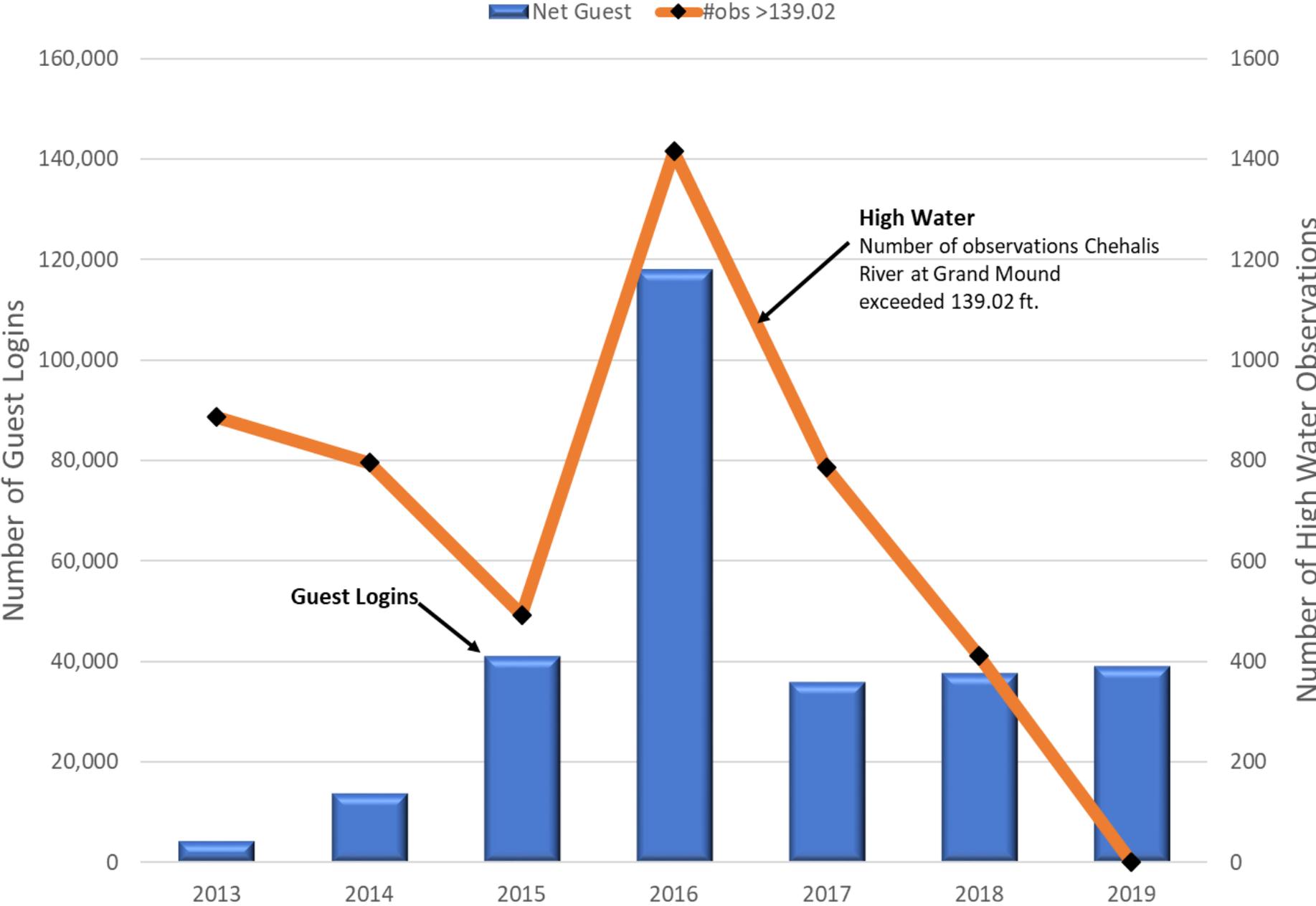
Major Flood Stage

- 72.6
- 73.6
- 74.6
- 76.1



Inundated area at river stage 69.6 ft.

Chehalis Web User Access



WEB CAMS

Wynoochee River at Montesano



Chehalis River at Mellen Street Bridge

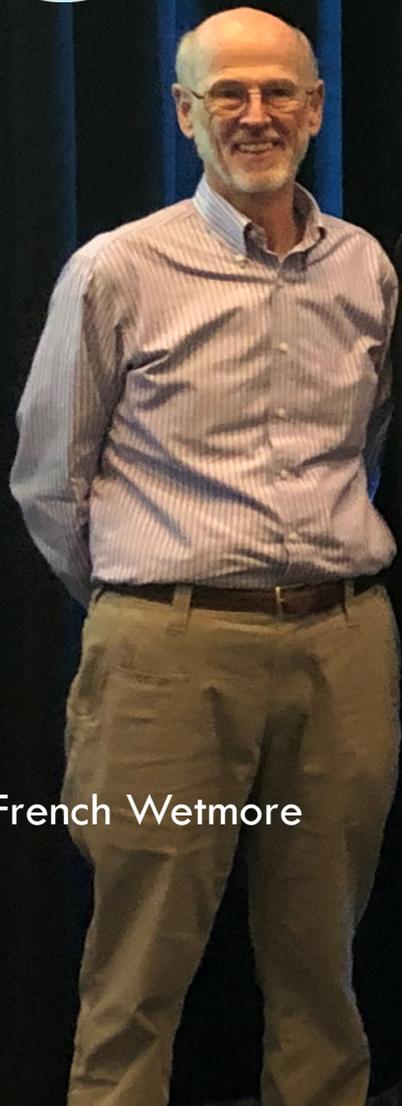


GETTING READY FOR THE 2019-20 FLOOD SEASON

- INSTALL 3RD WEBCAM AT SATSOP RIVER MONTE ELMA BRIDGE
- ADDRESS/RESOLVE PE ELL GAGE SITUATION
- IMPLEMENT OUTREACH CAMPAIGN
- RESOLVE NWS HADS QUESTIONS
- TRAINING WEBINAR IN OCTOBER/NOVEMBER



JAMES LEE WITT LOCAL AWARD FOR EXCELLENCE IN FLOODPLAIN MANAGEMENT



French Wetmore



Lara Fowler



Mark Sigler

Cleveland, Ohio



Orlando Howell



David Curtis