

CHEHALIS RIVER BASIN FLOOD WARNING SYSTEM

OCTOBER 29, 2019

SCOTT BOETTCHER

CHEHALIS RIVER BASIN FLOOD AUTHORITY STAFF

DAVID CURTIS

WARNING SYSTEM TECHNICAL CONSULTANT

December 2007



Photo by Bob Walter

January 2009



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

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

PROBLEMS/GOALS

- IMPROVE RIVER FORECASTING
- IMPROVE INFORMATION ACCURACY AND COMMUNICATION
- GOAL = NO SURPRISES!

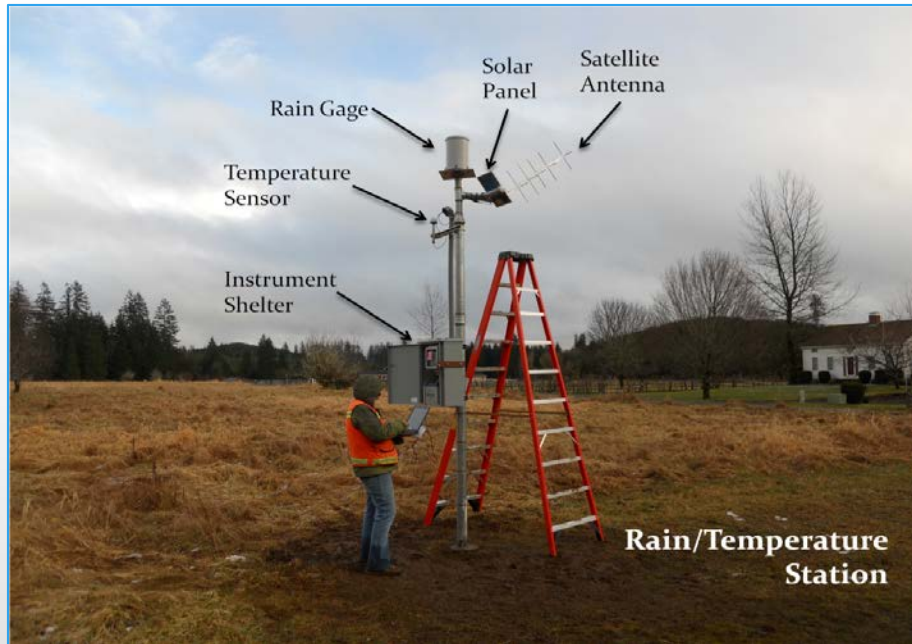
DESIGN/BUILD FLOOD WARNING SYSTEM

GUIDING PRINCIPLES

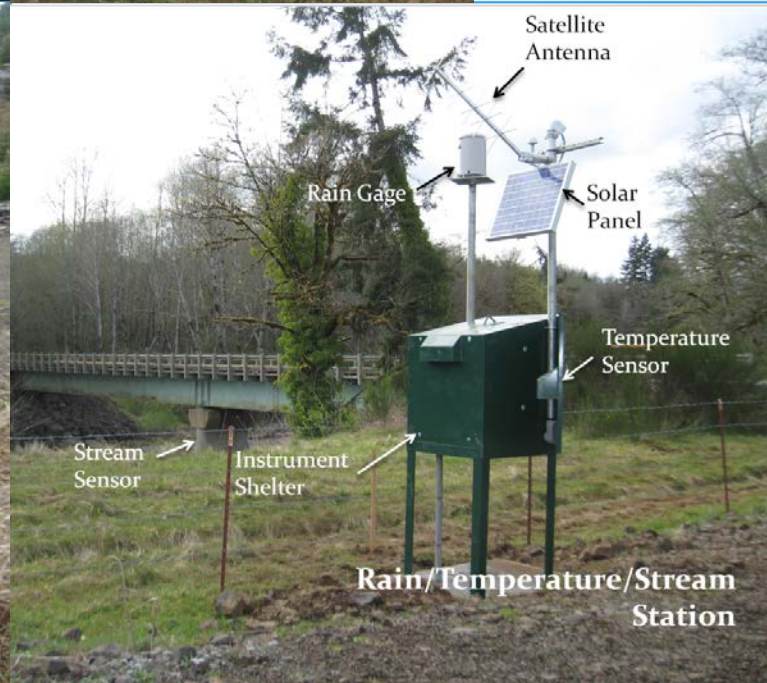
- COST EFFECTIVE
- LEVERAGE EXISTING RESOURCES
- IMMEDIATE BENEFITS

DESIGN/BUILD INITIAL FLOOD WARNING SYSTEM

- IMPROVE ON-THE-GROUND MONITORING NETWORK
 - ✓ 8 RAIN/TEMPERATURE STATIONS
 - ✓ 2 RAIN/TEMPERATURE/STREAM STATIONS
- INTERNET DATA AND WARNING
- INUNDATION MAPPING
- WWW.CHEHALISRIVERFLOOD.COM



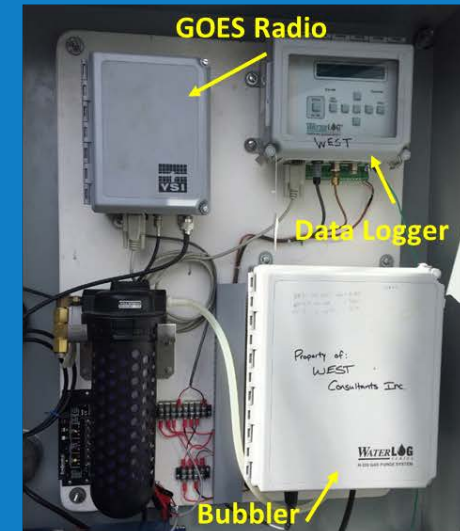
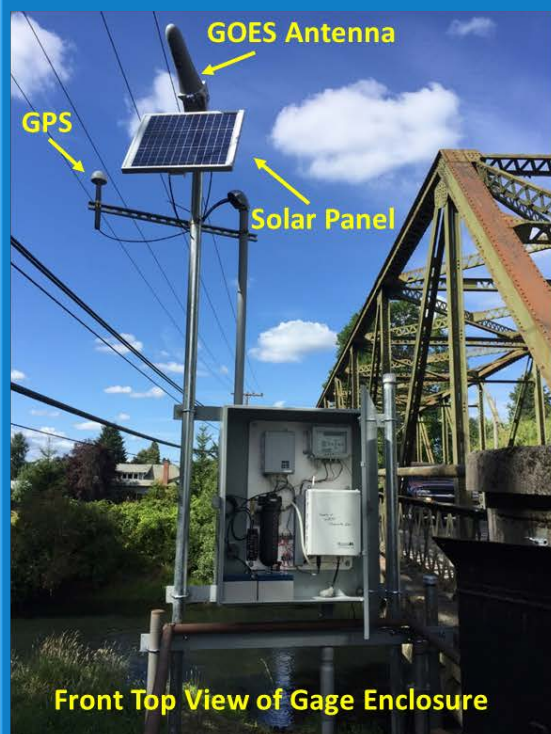
NEW BASIN GAGE SITES



REPLACE NWS GAGES



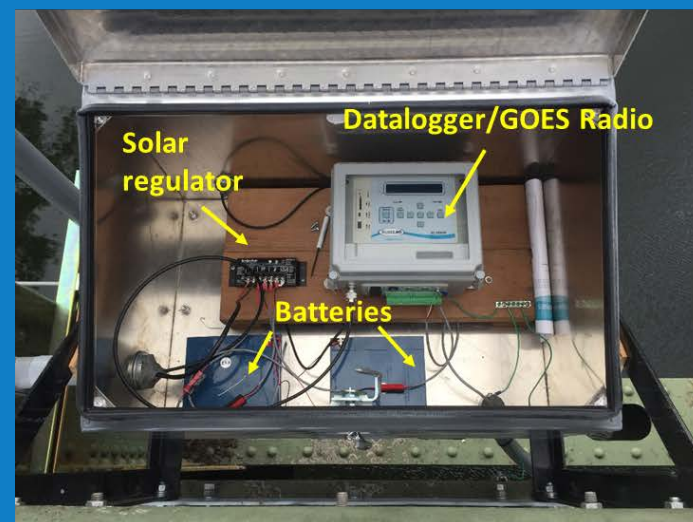
NWS GAGE UPGRADE – SKOOKUMCHUCK RIVER AT CENTRALIA, WA - 12026600



REPLACE NWS GAGES



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



NEW GAGES THURSTON COUNTY



Total Sensors in Chehalis System: 260

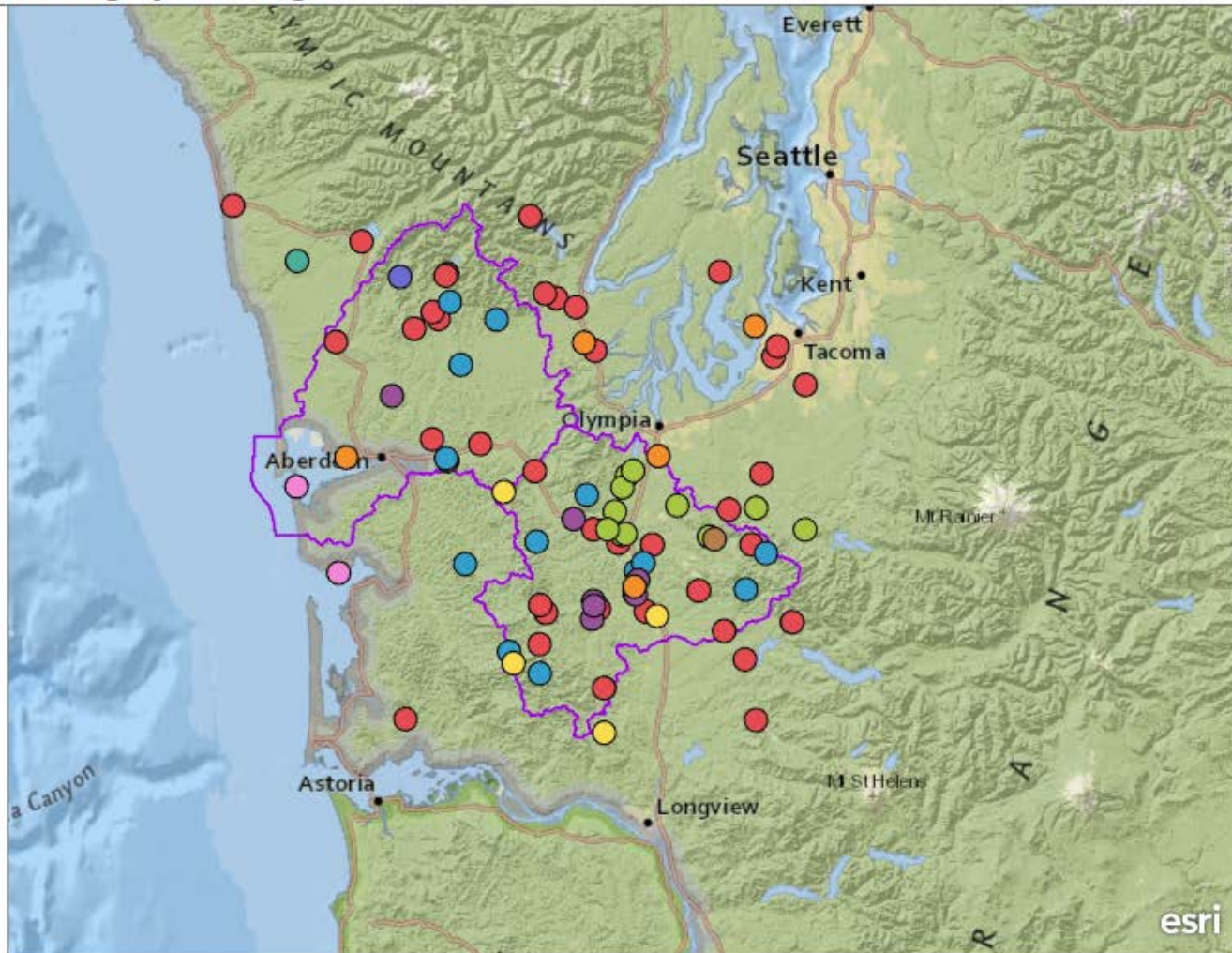
TOTAL= 89 GAGE SITES



Chehalis Basin Flood Warning System Gages

All Flood Warning System Gages 05-15- 2019

- U.S. Geological Survey
- Chehalis River Basin Flood Authority
- Thurston County
- WA State Department of Ecology
- National Weather Service/Federal Aviation Administration
- WA State Department of Natural Resources
- National Oceanic and Atmospheric Administration TIDES
- TransAlta
- U.S. Bureau of Indian Affairs
- U.S. Forest Service



Displays Chehalis Basin flood warning system gages by ownership.

NEW WEBCAMS (2019)

Wynoochee River at Montesano



Chehalis River at Mellen Street Bridge



WWW.CHEHALISRIVERFLOOD.COM

Chehalis River Basin Flood Warning System

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

Rainfall Summary

River Summary

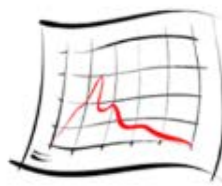
Additional Resources



Weather Forecast



Rainfall Forecast



River Forecast



Flood Maps



Plot Gage Data



Gage Data Maps



Landslide



Radar Rainfall



Road Conditions



USGS Gages

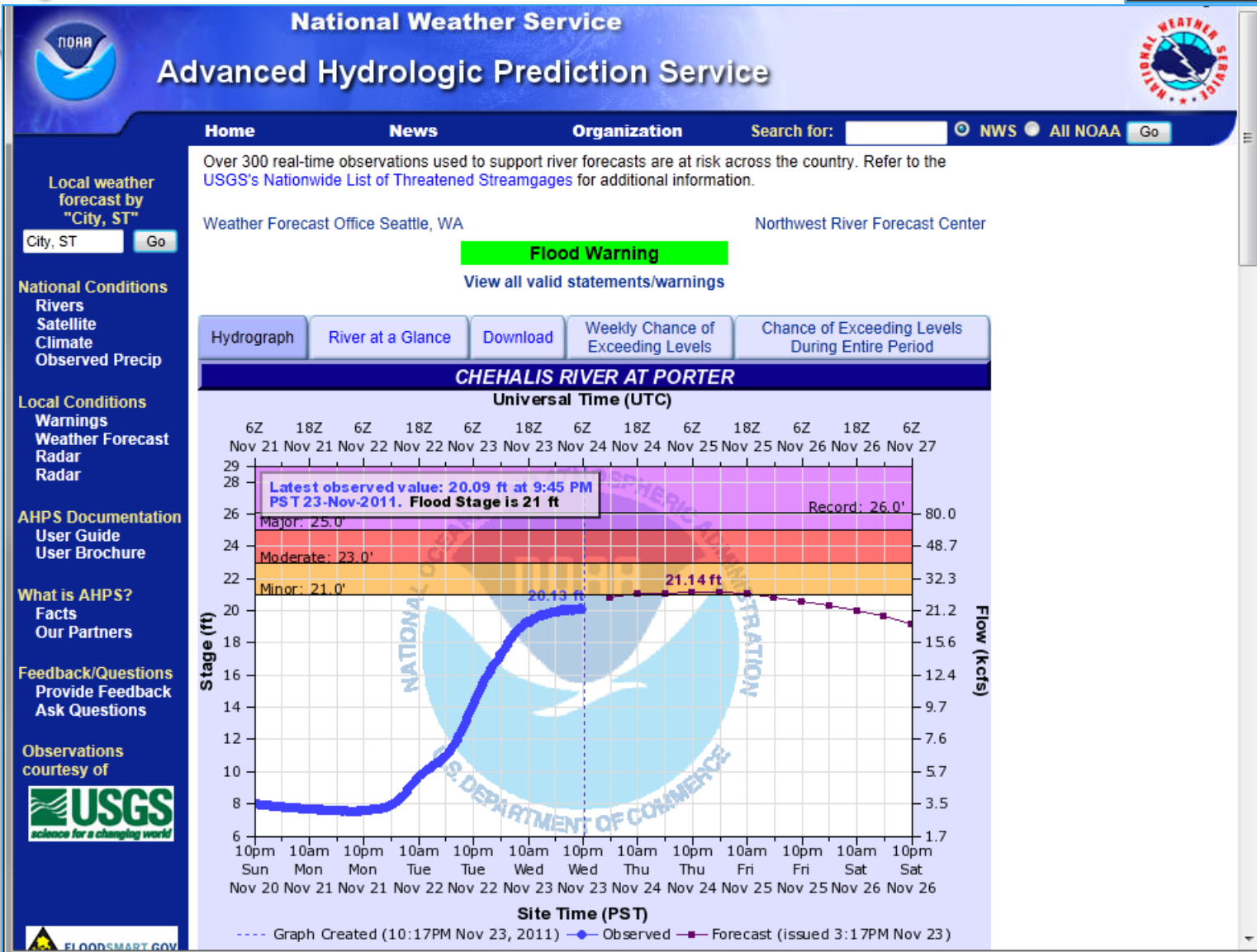


Atmospheric Rivers

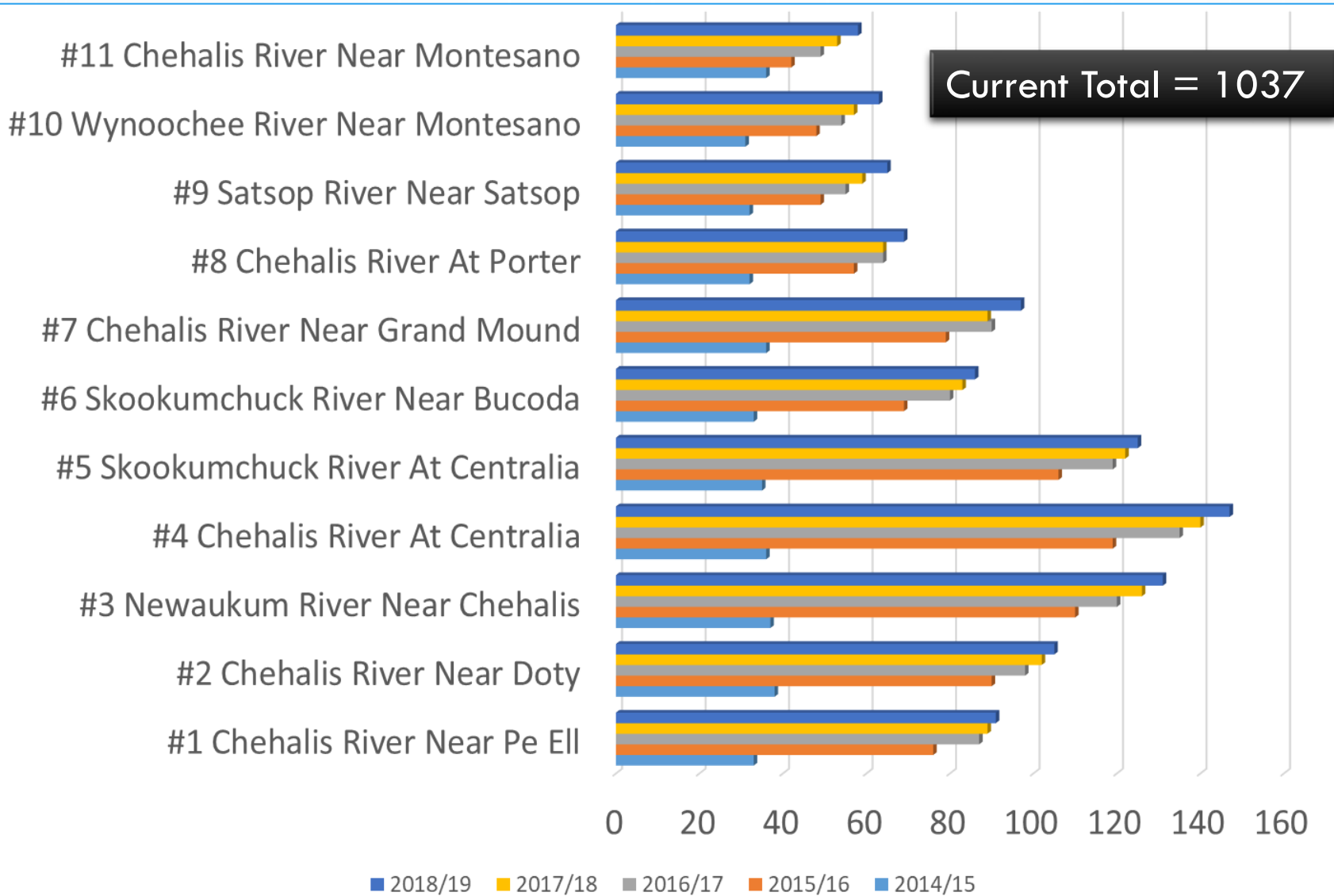


Chehalis Basin Gage
Height Conversion
Project

EMAIL GAGE ALERTS: RISING RIVER LEVELS

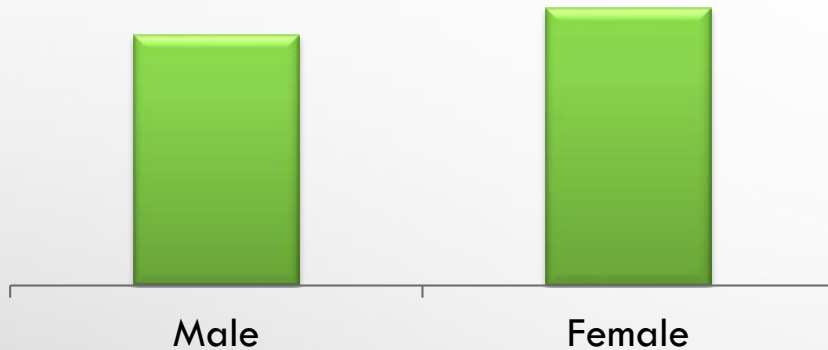


EMAIL GAGE ALERTS: SIGN-UPS

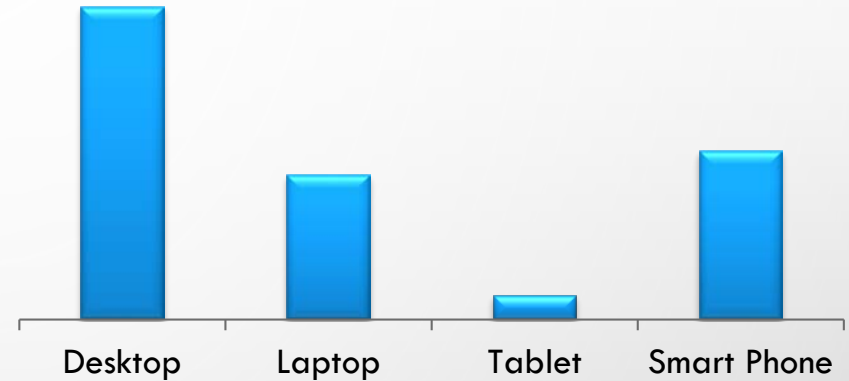


EMAIL GAGE ALERTS: USER SURVEY

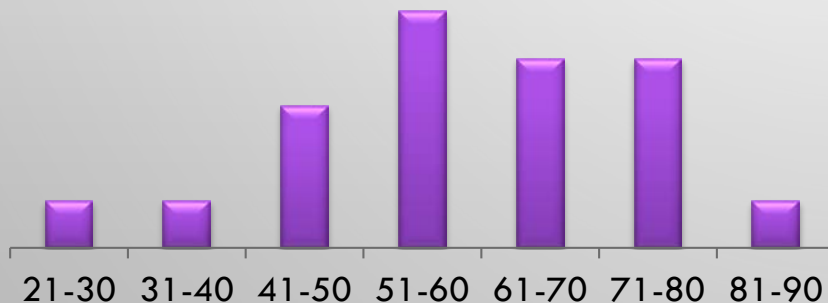
Gender



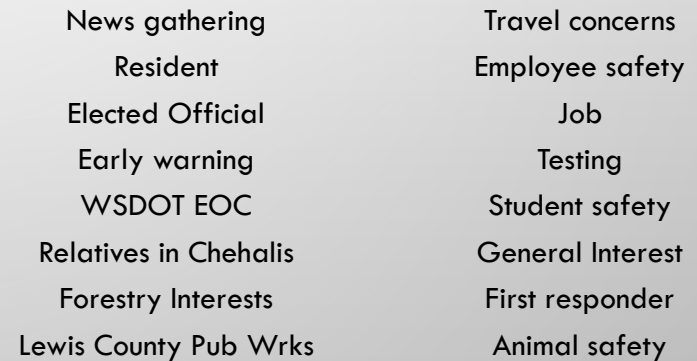
Device



Age



Purpose



EMAIL GAGE ALERTS: KEY BENEFITS



- SITUATIONAL AWARENESS
- EMPLOYEE/STAFF SAFETY
- RESIDENCE SAFETY
- TRAVEL PLANNING

EMAIL GAGE ALERTS: SIGN-UP NOW

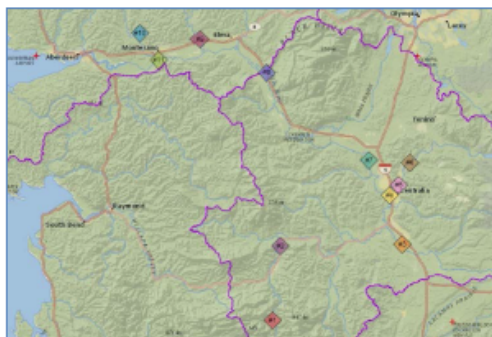


2019/20 Flood Season: Flood Warning System Email Alerts Sign-Up Today!



Chehalis River Basin Flood Warning System sends email alerts about rising river levels from the following gage sites:

- #1 Chehalis River Below Thrash Creek -- <https://bit.ly/2lsYxqE>
- #2 Chehalis River near Doty -- <https://bit.ly/2mZWtae>
- #3 Newaukum River near Chehalis -- <https://bit.ly/2mzvmSX>
- #4 Chehalis River at Centralia -- <https://bit.ly/2lvRsFM>
- #5 Skookumchuck River at Centralia -- <https://bit.ly/2luAPKO>
- #6 Skookumchuck River near Bucoda -- <https://bit.ly/2kTbszX>
- #7 Chehalis River near Grand Mound -- <https://bit.ly/MtJ56A>
- #8 Chehalis River at Porter -- <https://bit.ly/2mqoe8X>
- #9 Satsop River near Satsop -- <https://bit.ly/2kXJ5nI>
- #10 Wynoochee River near Montesano -- <https://bit.ly/2noosMn>
- #11 Chehalis River near Montesano -- <https://on.doi.gov/2lsFtZJ>



(Click [here](#) to open gage alerts map.)

Sign-Up to receive email alerts from any of the above sites by sending scottb@sbgh-partners.com and dcurtis@westconsultants.com:

- Your name.
- Your email.
- The gage site number(s) you are interested in.

Questions can be directed to Scott Boettcher (Chehalis River Basin Flood Authority Staff), scottb@sbgh-partners.com, 360/480-6600.

INUNDATION MAPPING

No Flood



Moderate



Action



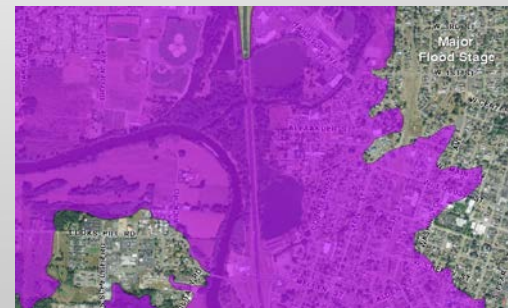
Major



Minor



Major



INUNDATION MAPPING



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



GETTING READY FOR 2019-20 FLOOD SEASON

- INSTALL 3RD WEBCAM AT SATSOP RIVER MONTE-ELMA BRIDGE
- IMPLEMENT OUTREACH CAMPAIGN
 - SCHOOLS
 - CHURCHES
 - UTILITY MAILERS
- CONSIDER TRAINING WEBINAR IN NOVEMBER

ON THE RIGHT TRACK



THANK YOU!

SCOTT BOETTCHER

CHEHALIS RIVER BASIN FLOOD AUTHORITY STAFF

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BE AWARE, BE PREPARED