The background is a light blue 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 text is centered in the middle of the page.

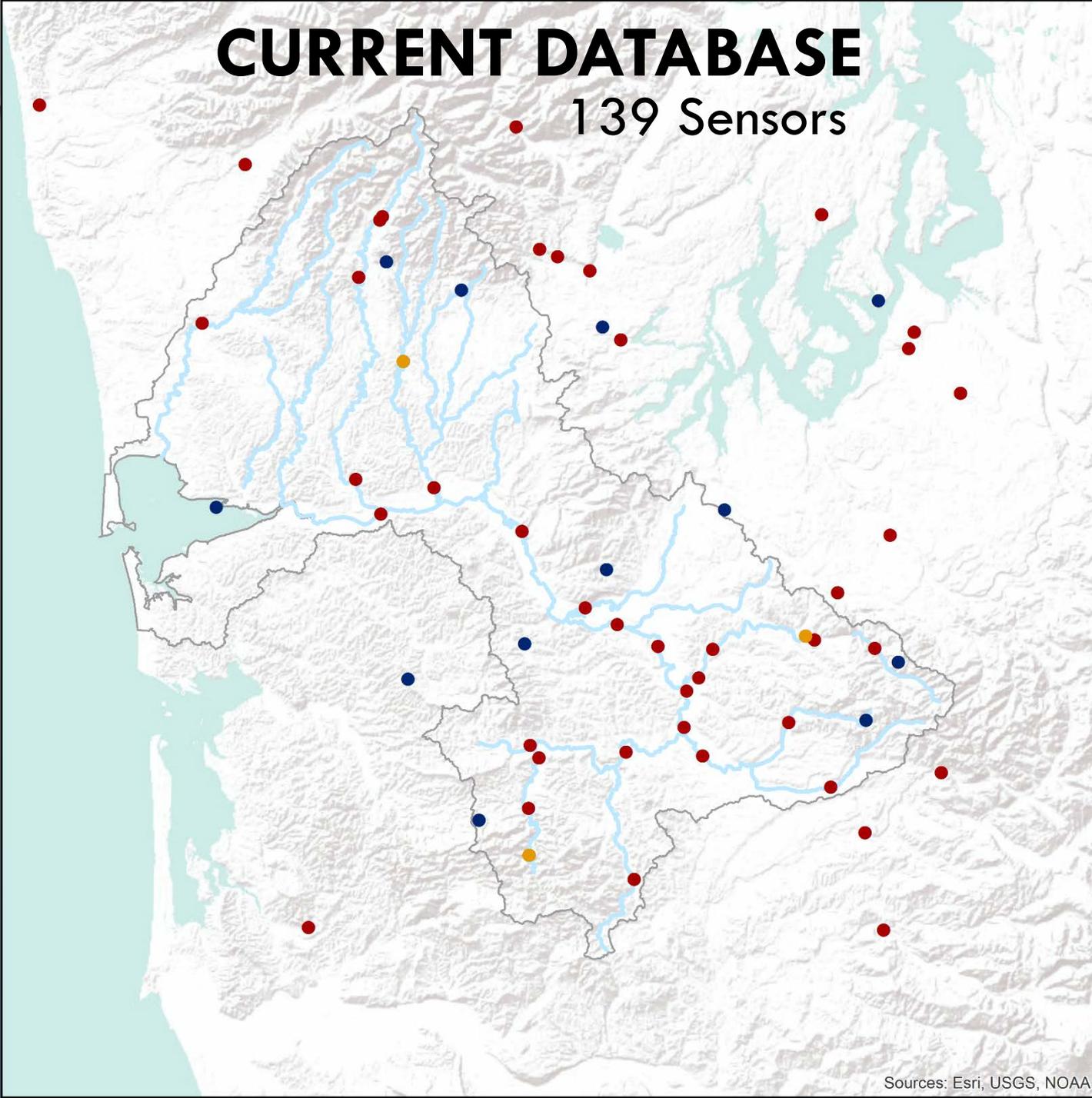
# **CHEHALIS RIVER BASIN FLOOD WARNING SYSTEM UPDATE**

WEST CONSULTANTS

DAVID C. CURTIS, PH.D, F.EWRI

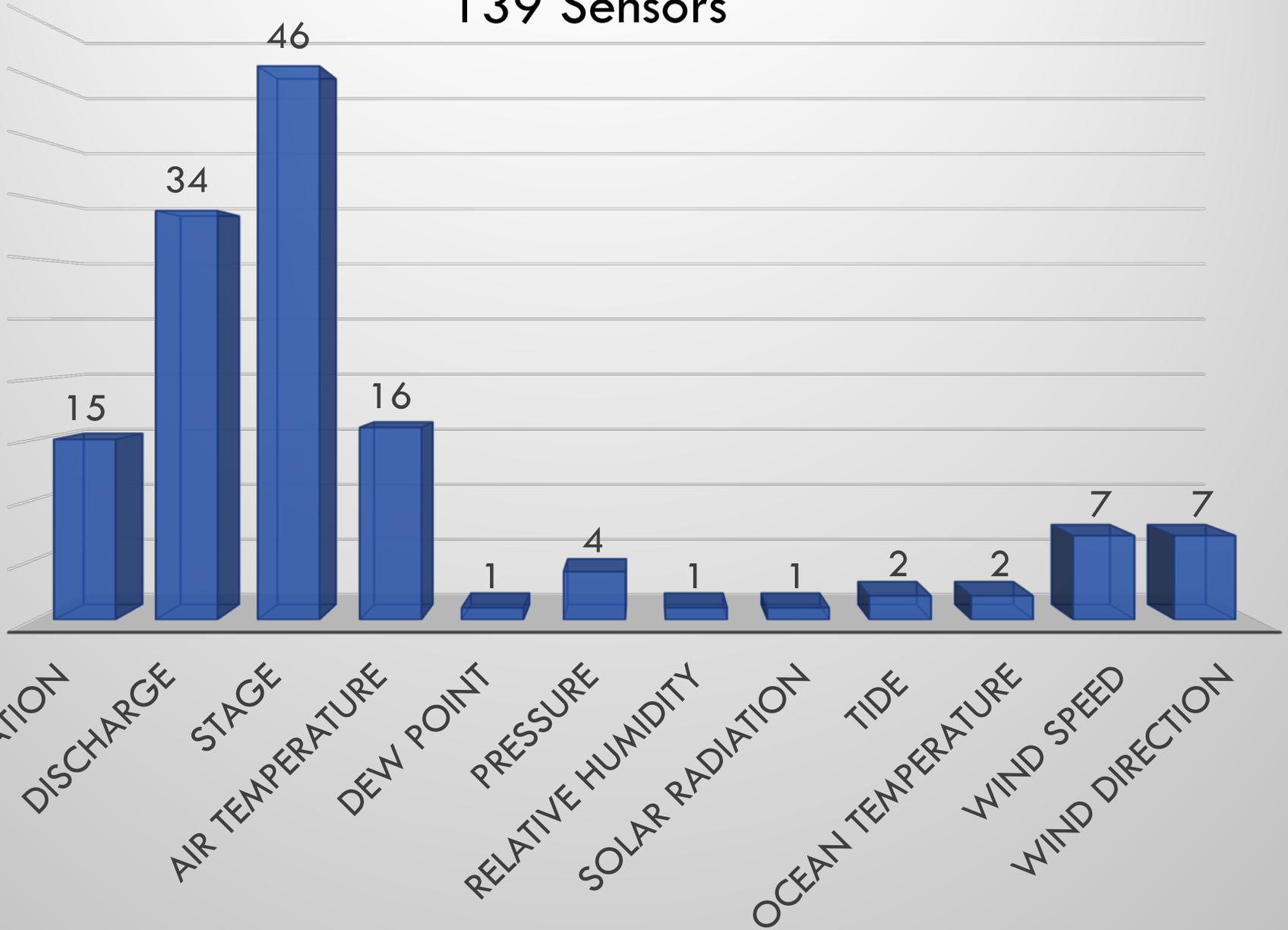
# CURRENT DATABASE

139 Sensors



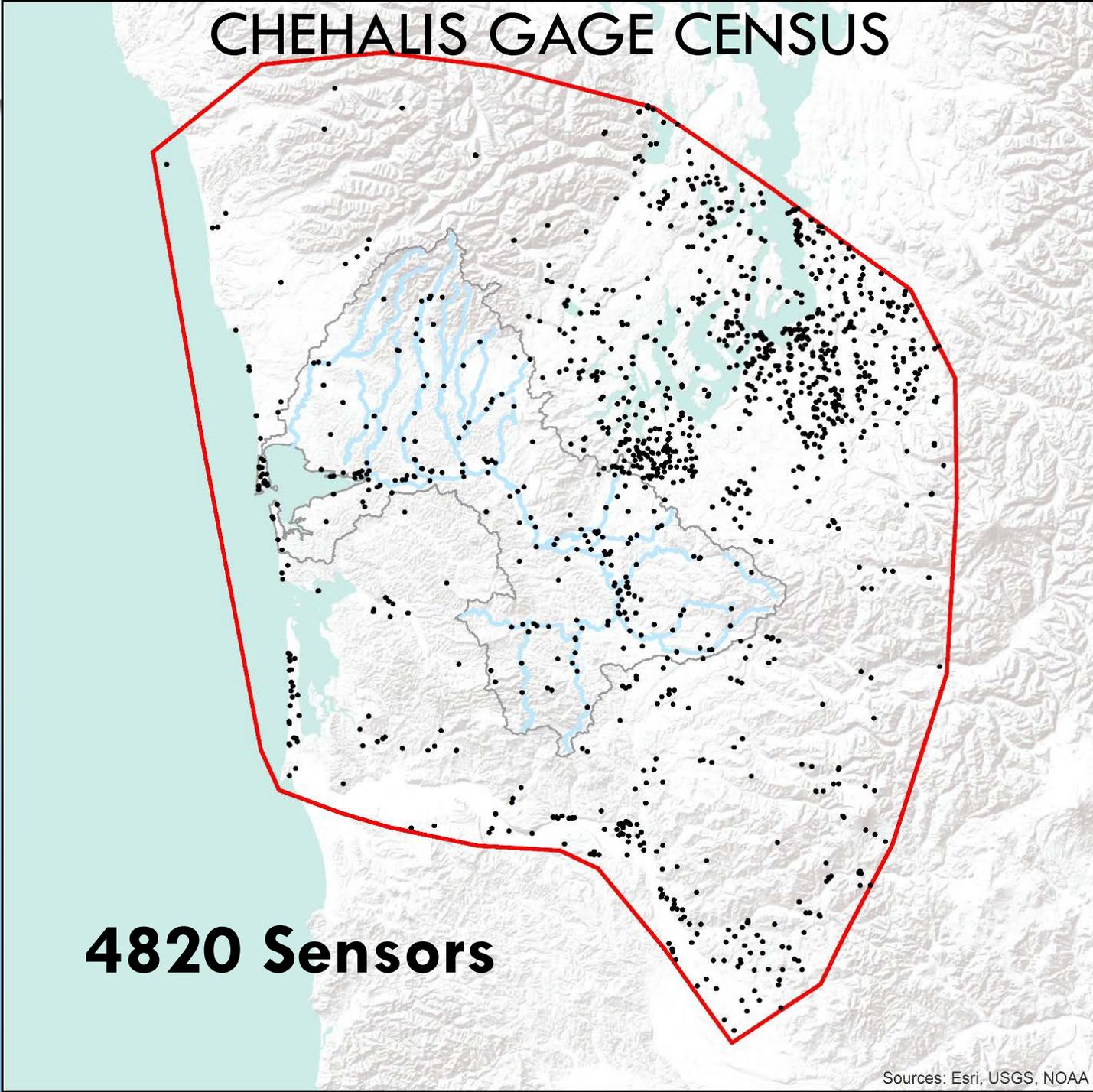
# Current Database

139 Sensors



# CHEHALIS GAGE CENSUS

**4820 Sensors**



# PRECIPITATION

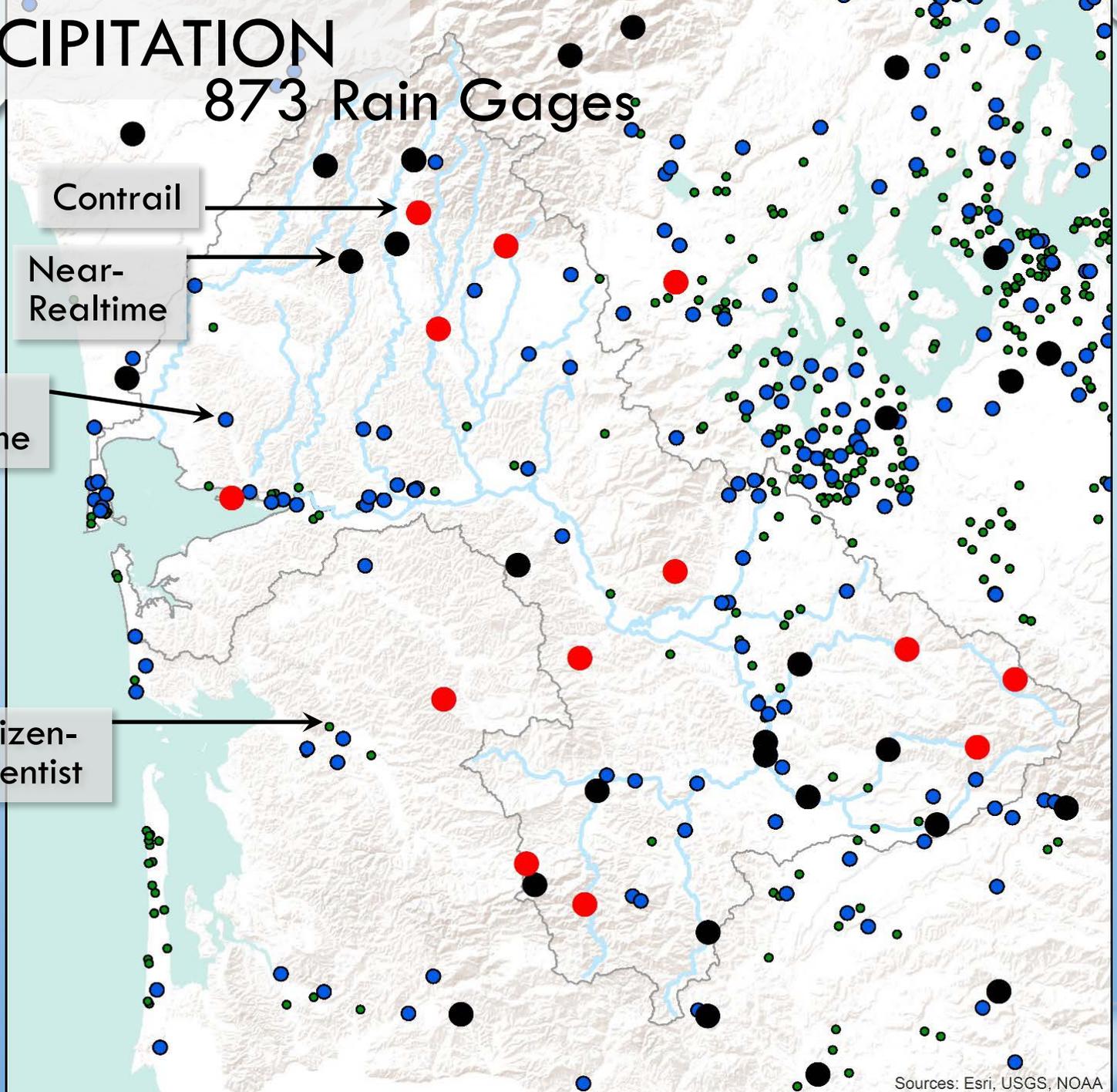
## 873 Rain Gages

Contrail

Near-  
Realtime

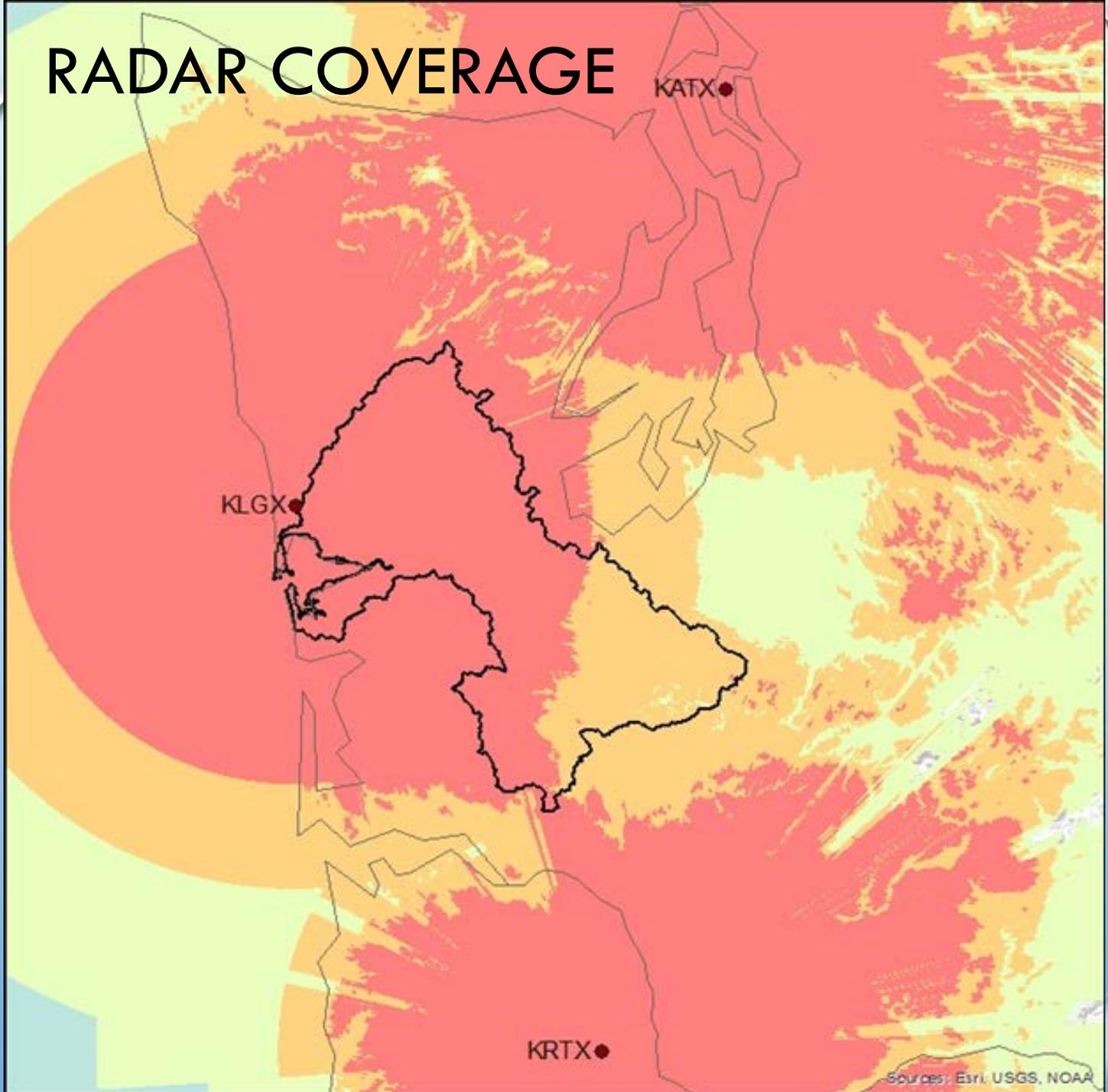
Non-  
Realtime

Citizen-  
Scientist

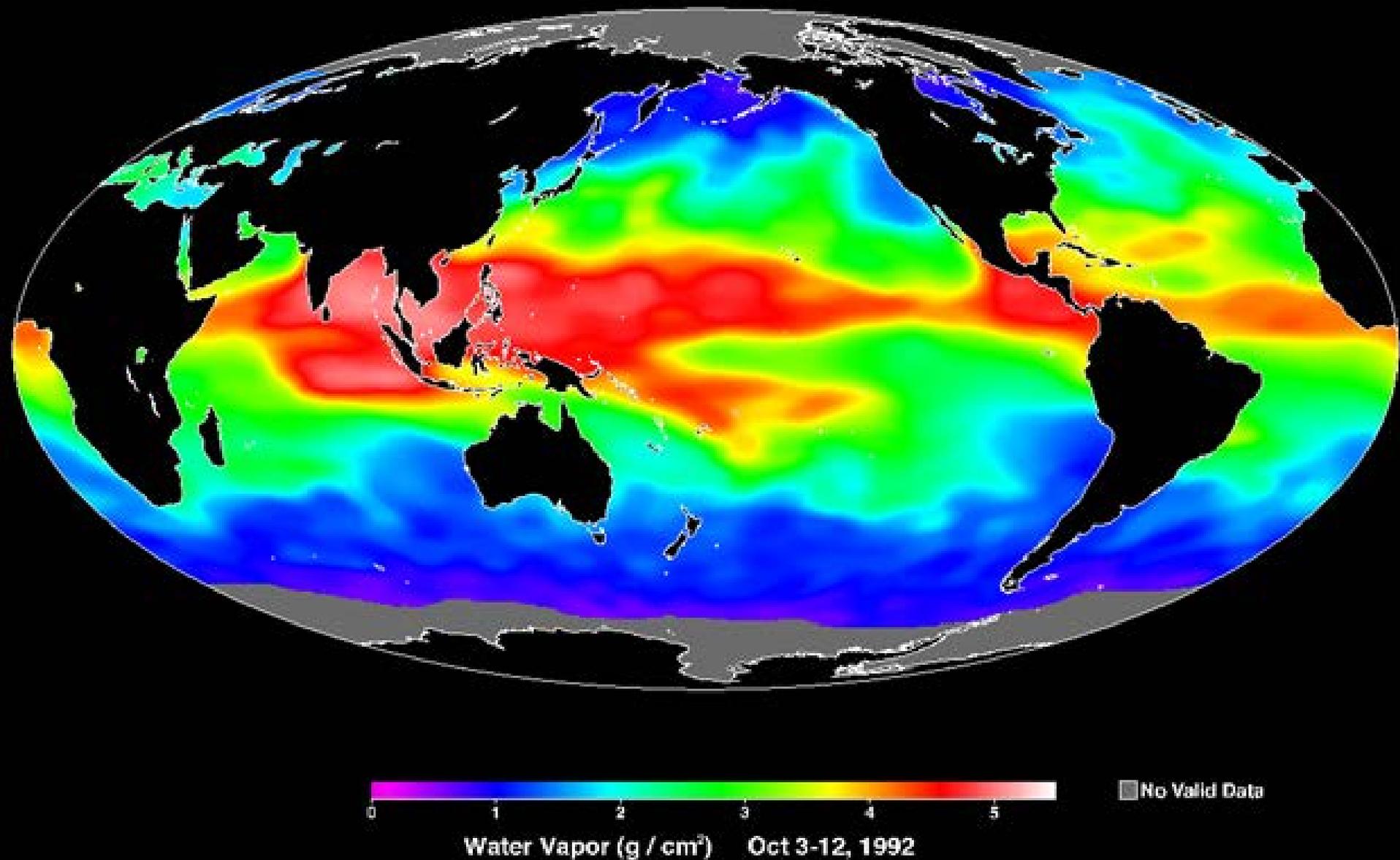




# RADAR COVERAGE



# WATER VAPOR





WHD6

P436

P401

SC03

RPT1

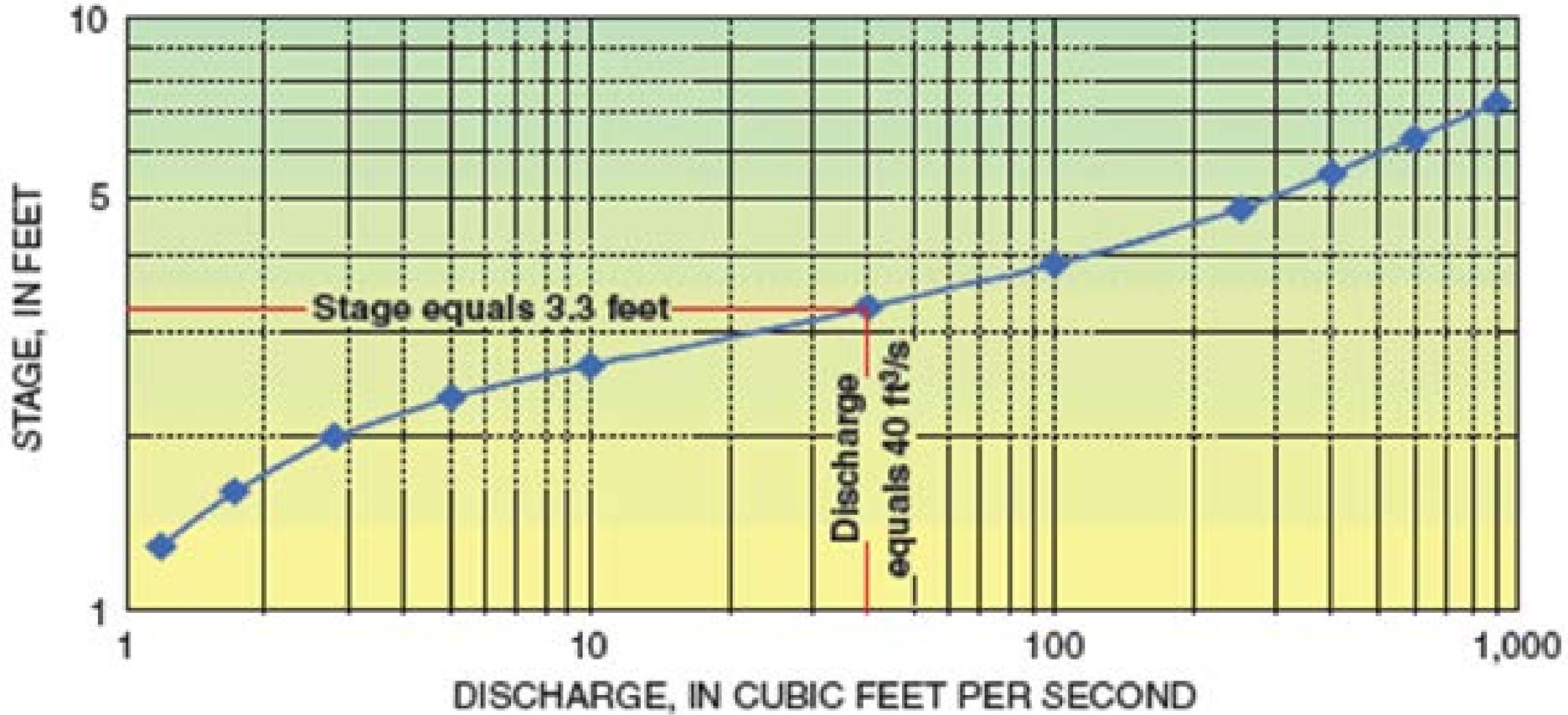
P398

P397

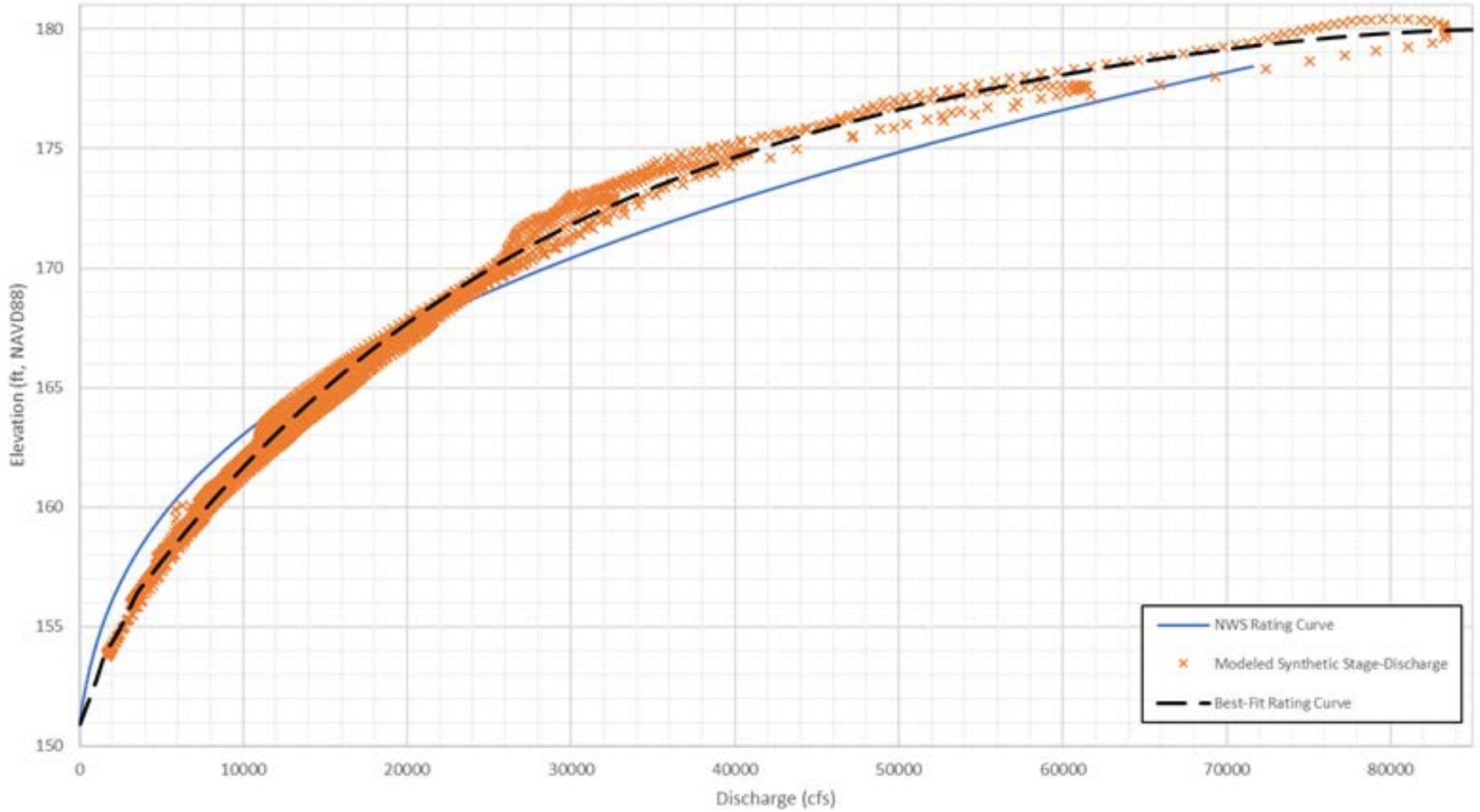
FTS6

GWN5

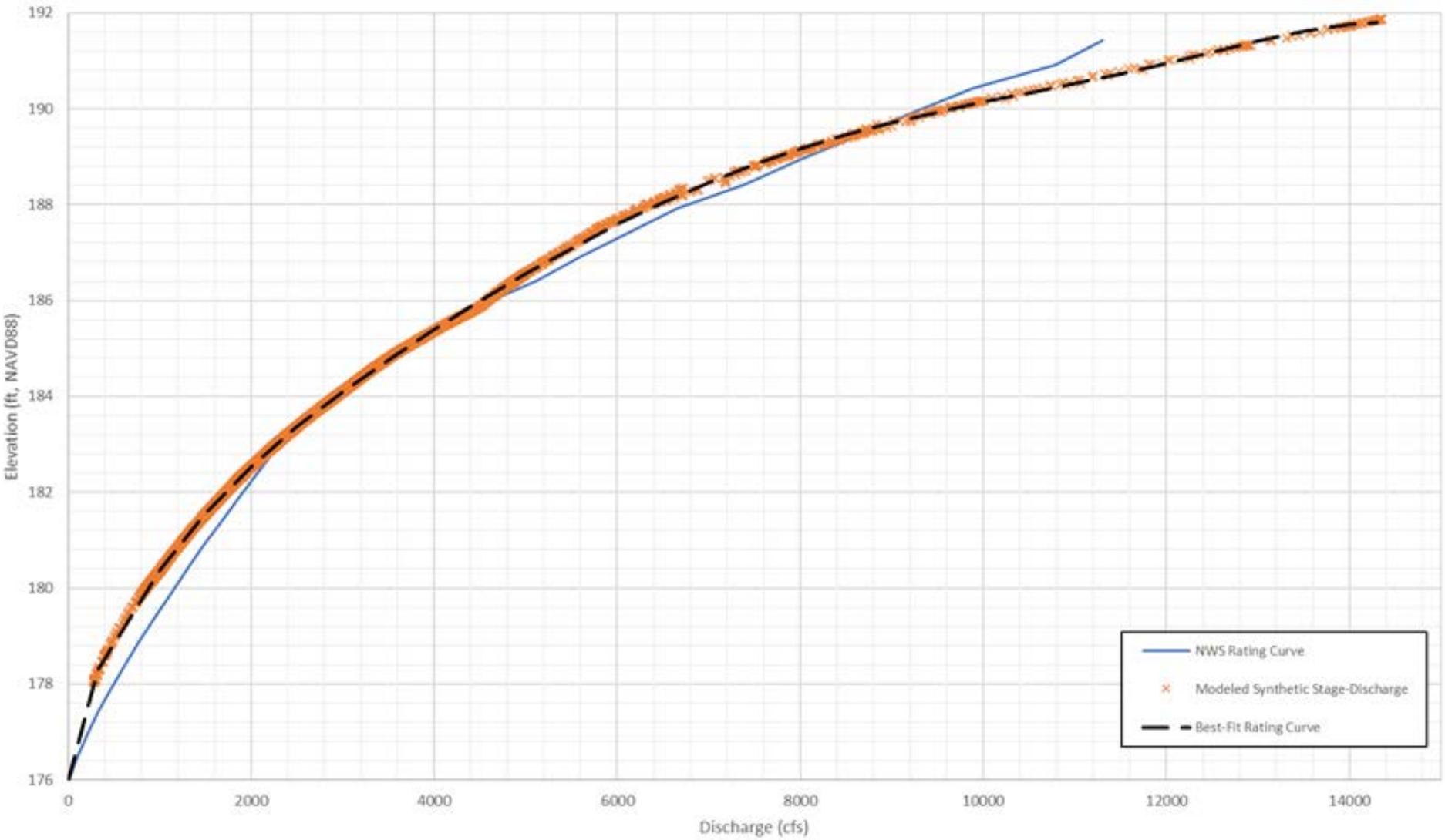
# RATING CURVES



### CHEHALIS--NEAR CENTRALIA (CENW1)



# SKOOKUMCHUCK--AT CENTRALIA (CTAW1)



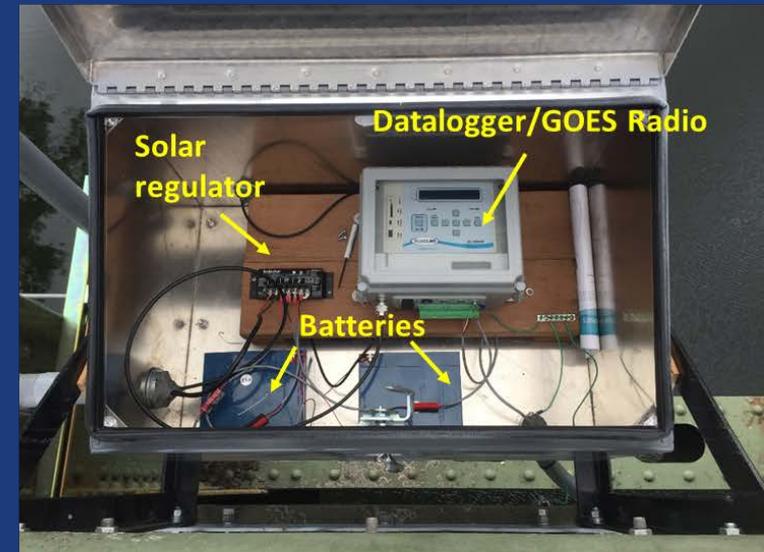


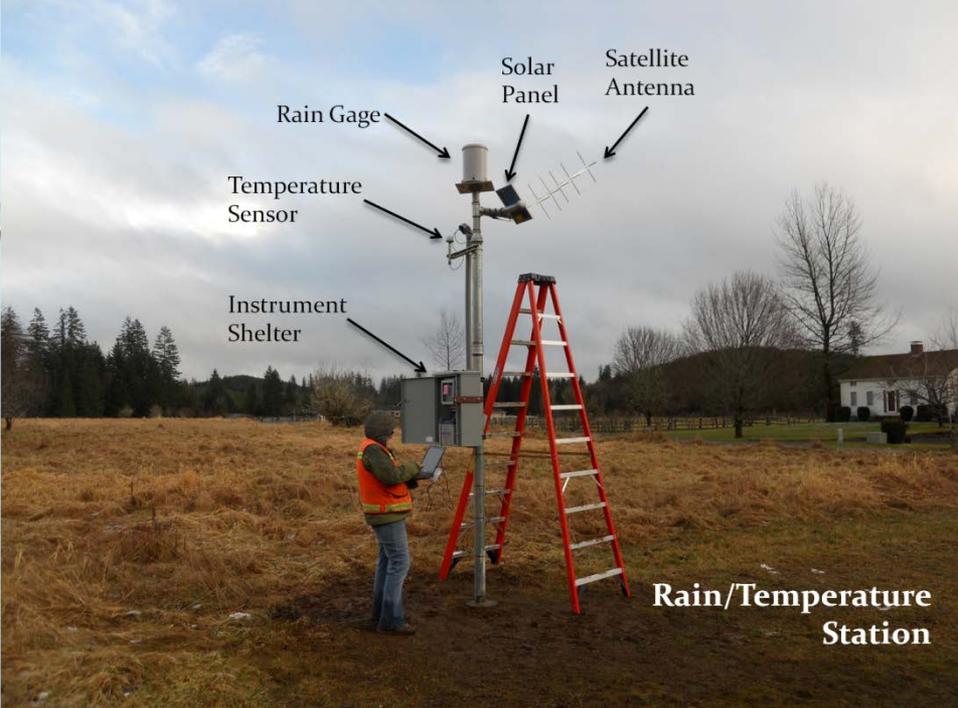
# NWS GAGE UPGRADE – SKOOKUMCHUCK RIVER AT CENTRALIA, WA - 12026600





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

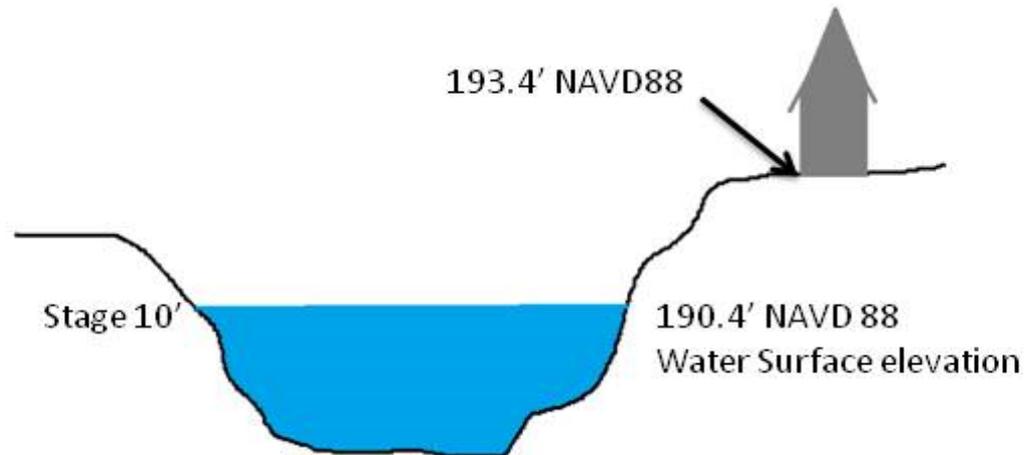
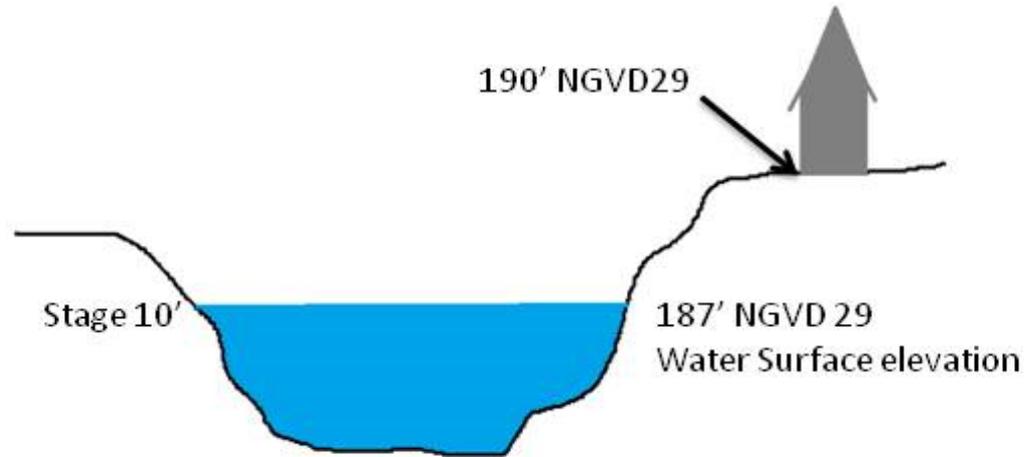




UPGRADE  
GOES  
RADIOS



# GAGE DATUM



Identified Organizations and Counties Affected by Change

National Weather Service

United States Geological Survey

Chehalis River Basin Flood Authority

Washington State Department of Ecology

Washington State Department of Transportation

Federal Emergency Management Agency

US Army Corps of Engineers

Confederated Tribes of the Chehalis Reservation

Quinault Indian Nation

Lewis County

Jefferson County

Mason County

Grays Harbor County

Thurston County

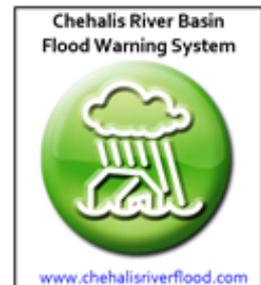
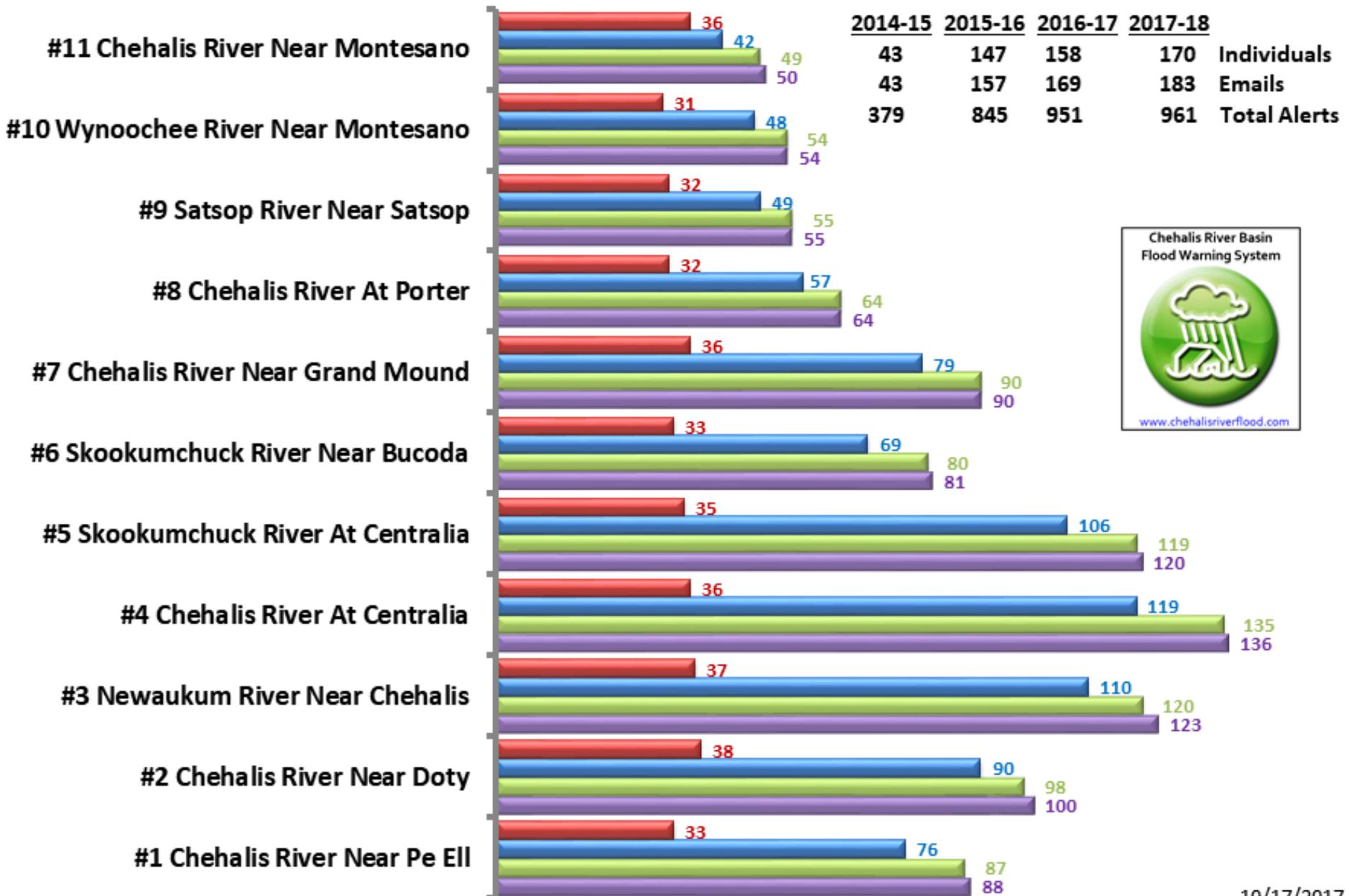
Cowlitz County

Pacific County

# ● GAGE INVENTORY RECOMMENDATIONS

- ADD ADDITIONAL AVAILABLE HADS, USGS, AND METAR GAGES
- ADD WSDOE STREAM GAGES
- UPGRADE NWS STREAM GAGES
- SURVEY STREAM GAGES TO NAVD 88
- OUTREACH AND EDUCATION FOR DATUM CHANGE
- UPGRADE GOES DCS RADIOS
- ADD CITY OF ABERDEEN STREAM GAGE
- ADD NWS RIVER FORECASTS TO HIGH WATER ALERTS
- CONSIDER GAGE ADJUSTED RADAR RAINFALL DATA

# Distribution of Requested Flood Alerts



# NEW FOR 2017-18

## RainTiles

### 3 Hr Rainfall



### 6 Hr Rainfall



### 12 Hr Rainfall



### 24 Hr Rainfall



 HAYWIRE RIDGE RAIN GAGE (D1...  
 Rain Increment (PC)



0.00 in

In Last 3 Hour

 HAYWIRE RIDGE RAIN GAGE (D1...  
 Rain Increment (PC)



0.00 in

In Last 6 Hour

 HAYWIRE RIDGE RAIN GAGE (D1...  
 Rain Increment (PC)



0.92 in

In Last 12 Hour

 HAYWIRE RIDGE RAIN GAGE (D1...  
 Rain Increment (PC)



1.12 in

In Last 24 Hour

 BEEVILLE RAIN GAGE - (MATLO...  
 Rain Increment (PC)



0.00 in

In Last 3 Hour

 BEEVILLE RAIN GAGE - (MATLO...  
 Rain Increment (PC)



0.00 in

In Last 6 Hour

 BEEVILLE RAIN GAGE - (MATLO...  
 Rain Increment (PC)



0.71 in

In Last 12 Hour

 BEEVILLE RAIN GAGE - (MATLO...  
 Rain Increment (PC)



0.78 in

In Last 24 Hour

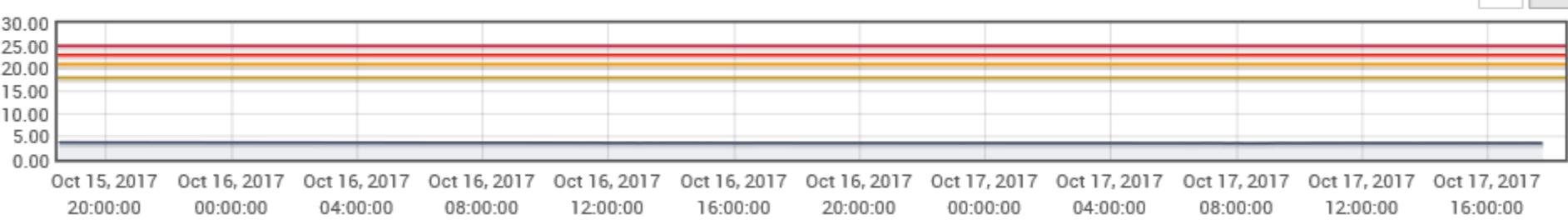
CHEHALIS RIVER AT CENTRALIA, WA (GOES) (D1501B1C) - Stage (HG)



CHEHALIS RIVER AT PORTER, WA (12031000) - Discharge (150619\_00060)



CHEHALIS RIVER AT PORTER, WA (12031000) - Gage height (150620\_00065)



CHEHALIS RIVER AT WWTP AT CHEHALIS, WA (12025100) - Gage height (150586\_00065)



# CHEHALIS RIVER AT CENTRALIA, WA (GOES) (D1501B1C)

October 10, 2017 - October 17, 2017

● Markers Legend

⌘ Latency +



# WHAT'S NEXT?

- OUTREACH
  - EMAILS TO HIGHWATER ALERT LIST
  - PROMOTE HIGHWATER ALERTS
  - UPDATE FREQUENTLY ASKED QUESTIONS HANDOUT
- WEBINAR (NOV 14<sup>TH</sup>)
- EMERGENCY PREPAREDNESS MEETING
- WINTER WEATHER OUTLOOK

# 'The Big Dark': Satellite image shows future rain clouds stretching from China to Puget Sound

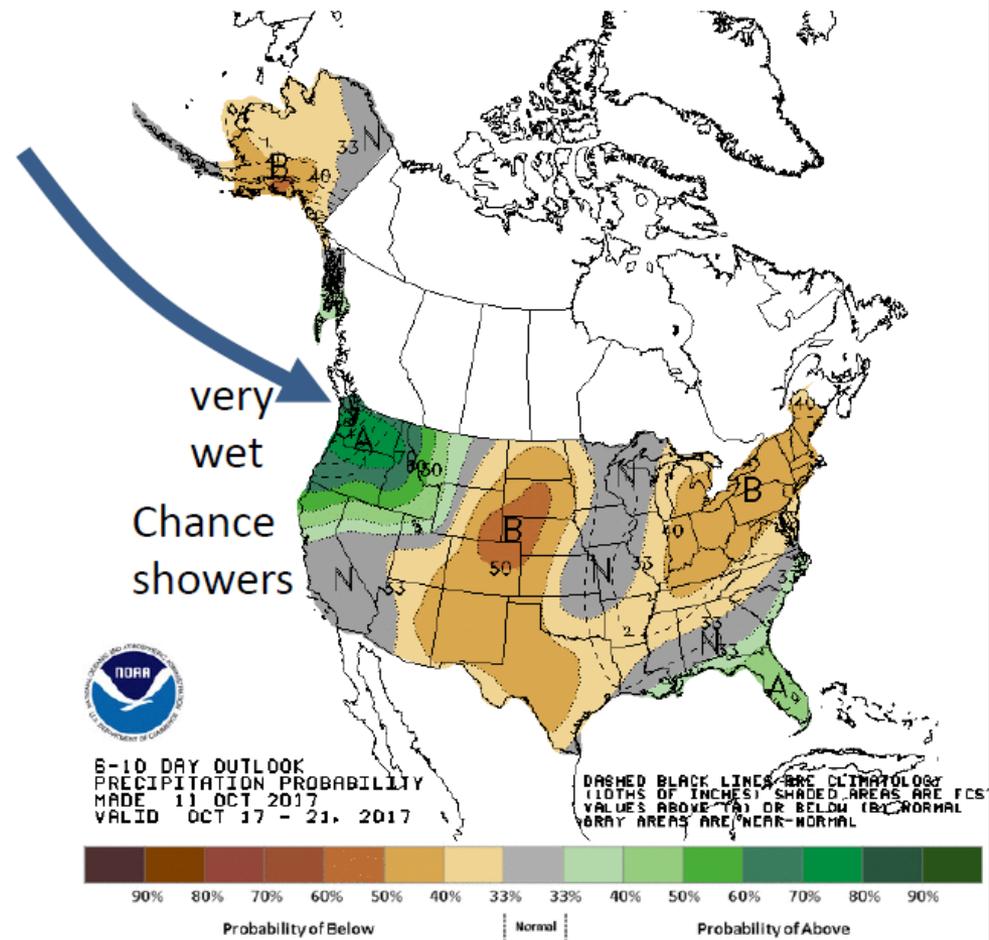
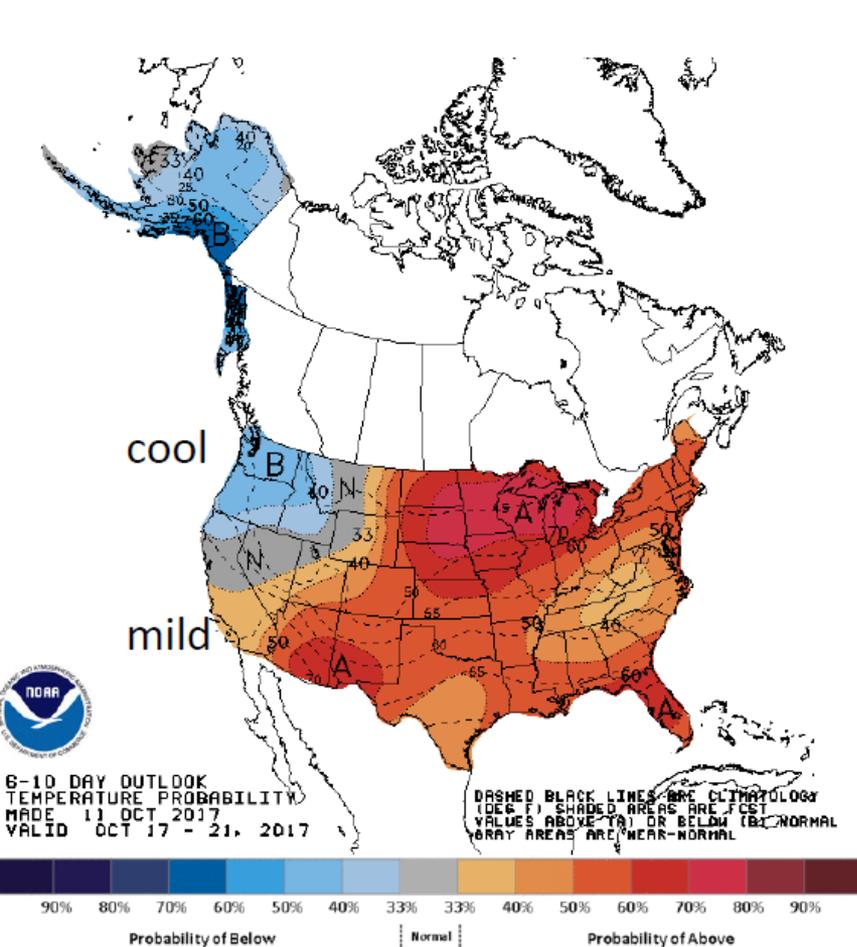
Originally published October 16, 2017 at 6:51 am | Updated October 16, 2017 at 4:24 pm



Satellite imagery shared by the National Weather Service shows clouds, full of moisture, stretching from China to British Columbia. (NASA)

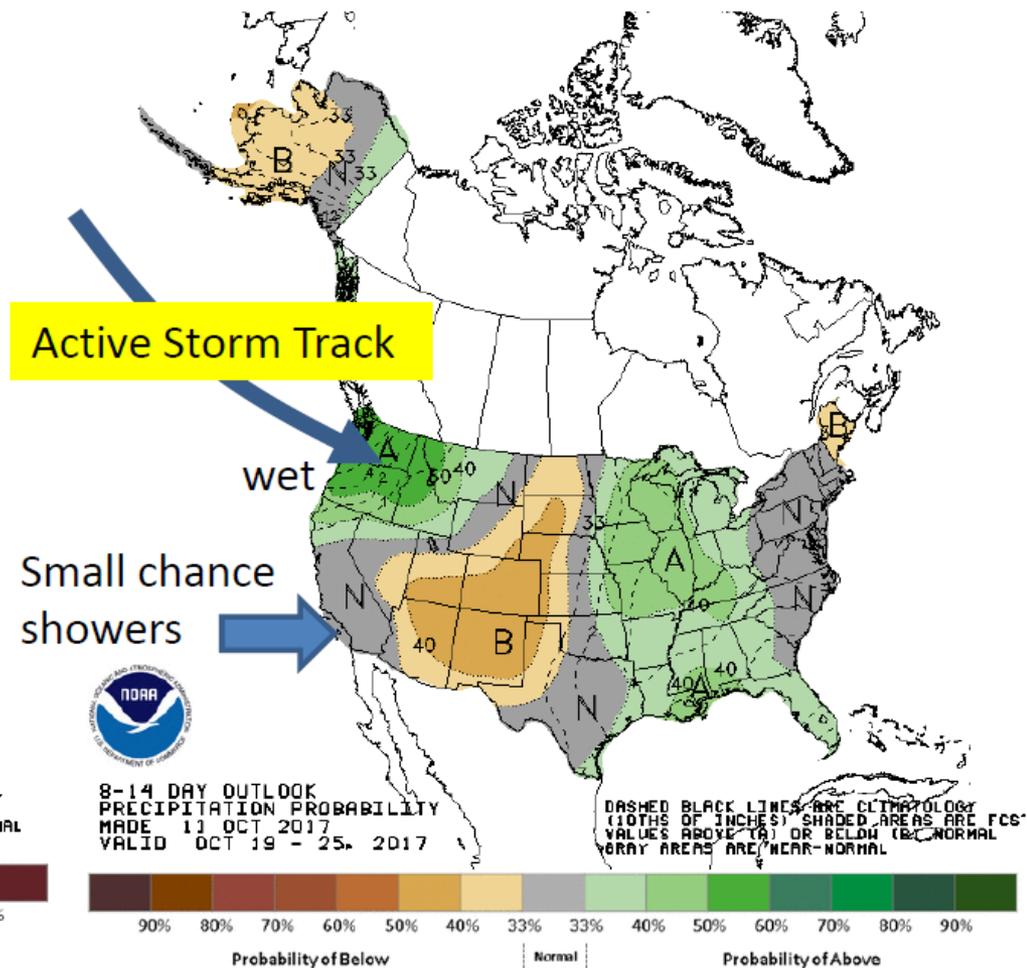
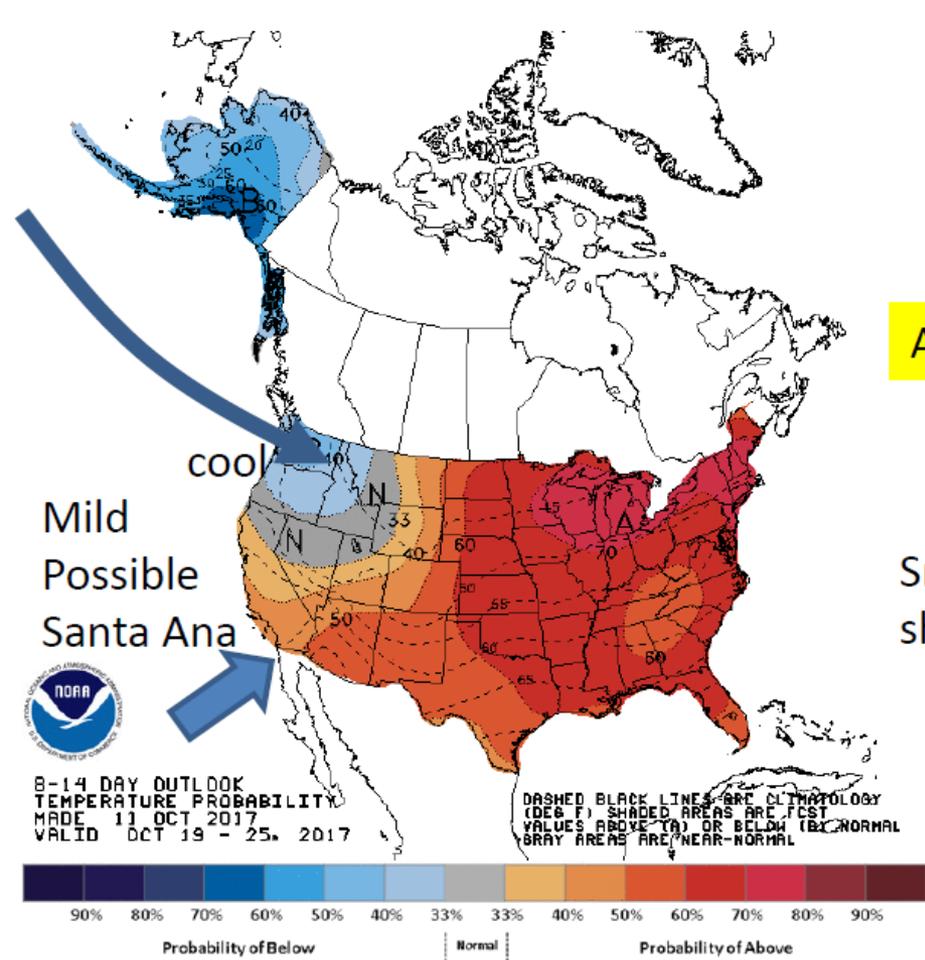
# Active storm track to the north

## October 17-21, 2017



# Storm Track to the north

## October 19-25, 2017

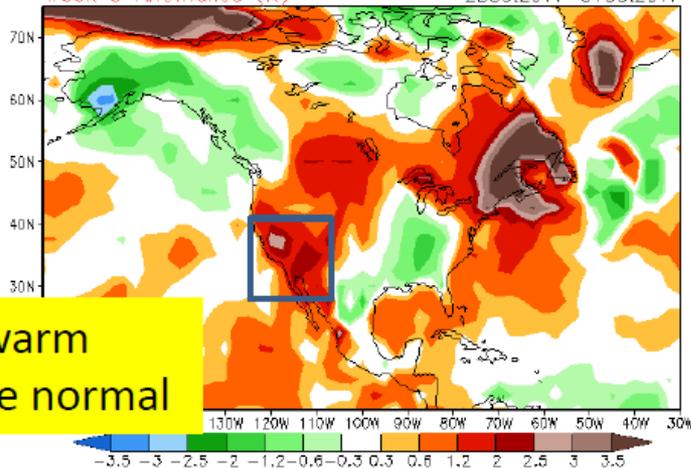


# Late October through early November above normal temperatures

CFSv2 Extended Range Temperature

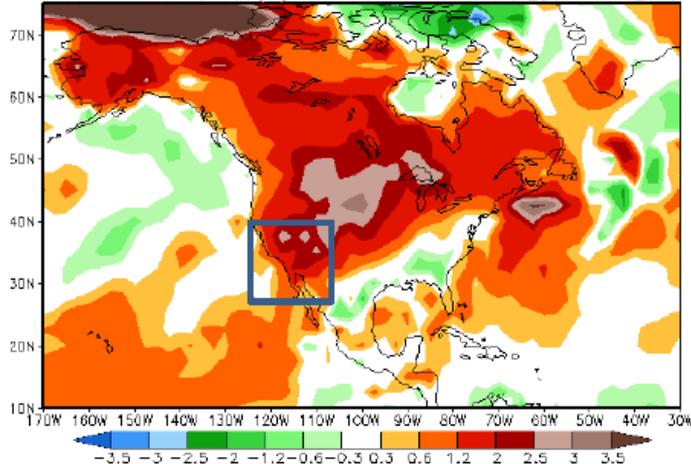
16 Member Ensemble Mean Forecast from 10Oct2017

Week 3 Anomalies (K) 25Oct2017–31Oct2017



warm  
above normal

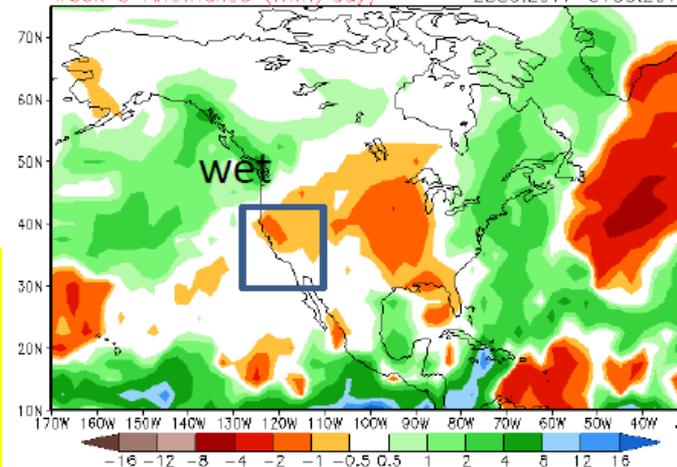
Week 4 Anomalies (K) 1Nov2017–7Nov2017



CFSv2 Weeks 3 & 4 Precipitation

16 Member Ensemble Mean Forecast from 10Oct2017

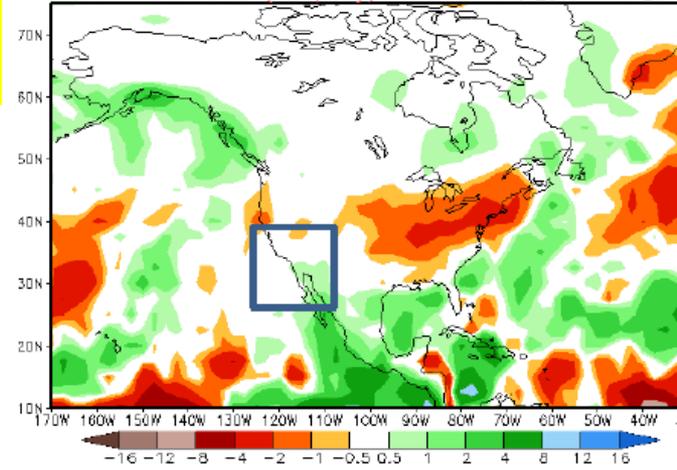
Week 3 Anomalies (mm/day) 25Oct2017–31Oct2017



wet

Continued  
wet PacNW  
and only  
chance of  
showers in  
Socal

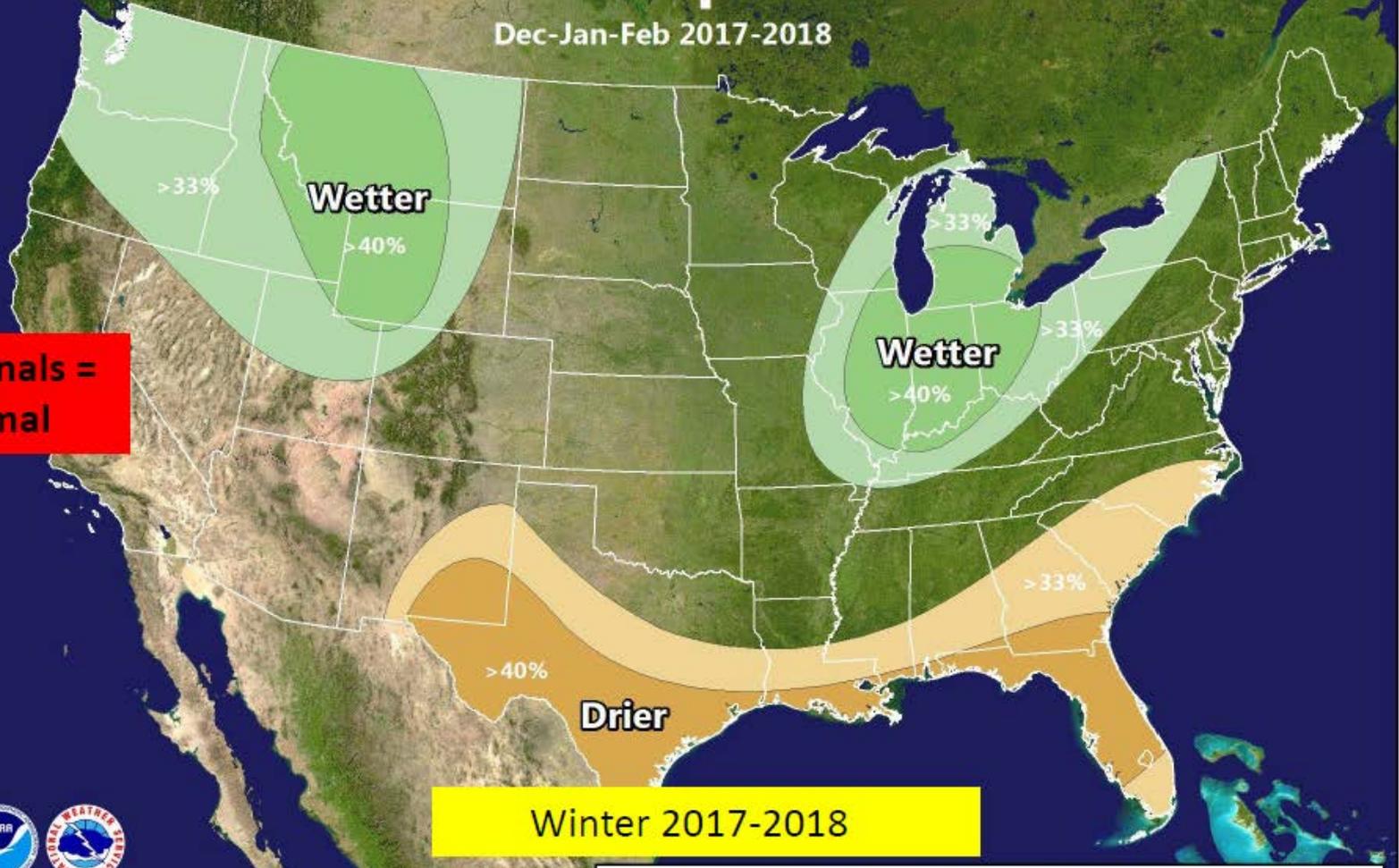
Week 4 Anomalies (mm/day) 1Nov2017–7Nov2017



# December through February 2017-18

## Three-Month Precipitation Outlook

Dec-Jan-Feb 2017-2018



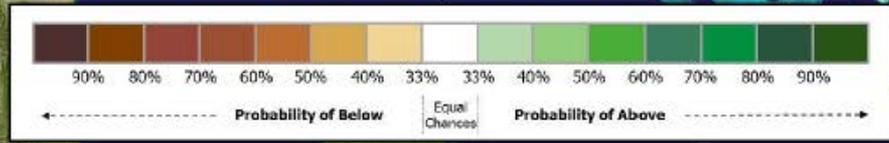
Weak Signals =  
near normal

Winter 2017-2018



Climate Prediction Center

Issued: 09/21/17





**QUESTIONS?**