

Chehalis River Flood Warning System Master Plan Update



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System updates since 2017

- Added gages (Several sources)
- Replaced NWS river gages near Centralia
- Gage datum changed to NAV88D
- Upgraded the GOES data transmitters
- Added webcams
- Added stream gage on Wishkah River at Aberdeen
- Installed staff gages in Aberdeen
- Installed gage at new China Creek flood control structure

China Creek

China Creek at Flow Control Structure

Reload

CHINA CREEK ABOVE FCS AT CEI

Stage (HG)



184.31 ft

an hour ago

CHINA CREEK ABOVE FCS AT CEI

Battery (VB)



12.7 V

2 hours ago



CHINA CREEK ABOVE FCS AT CEI

Rain Increment (PC_INC)



0.14 in

In Last 24 Hour

CHINA CREEK ABOVE FCS AT CEI

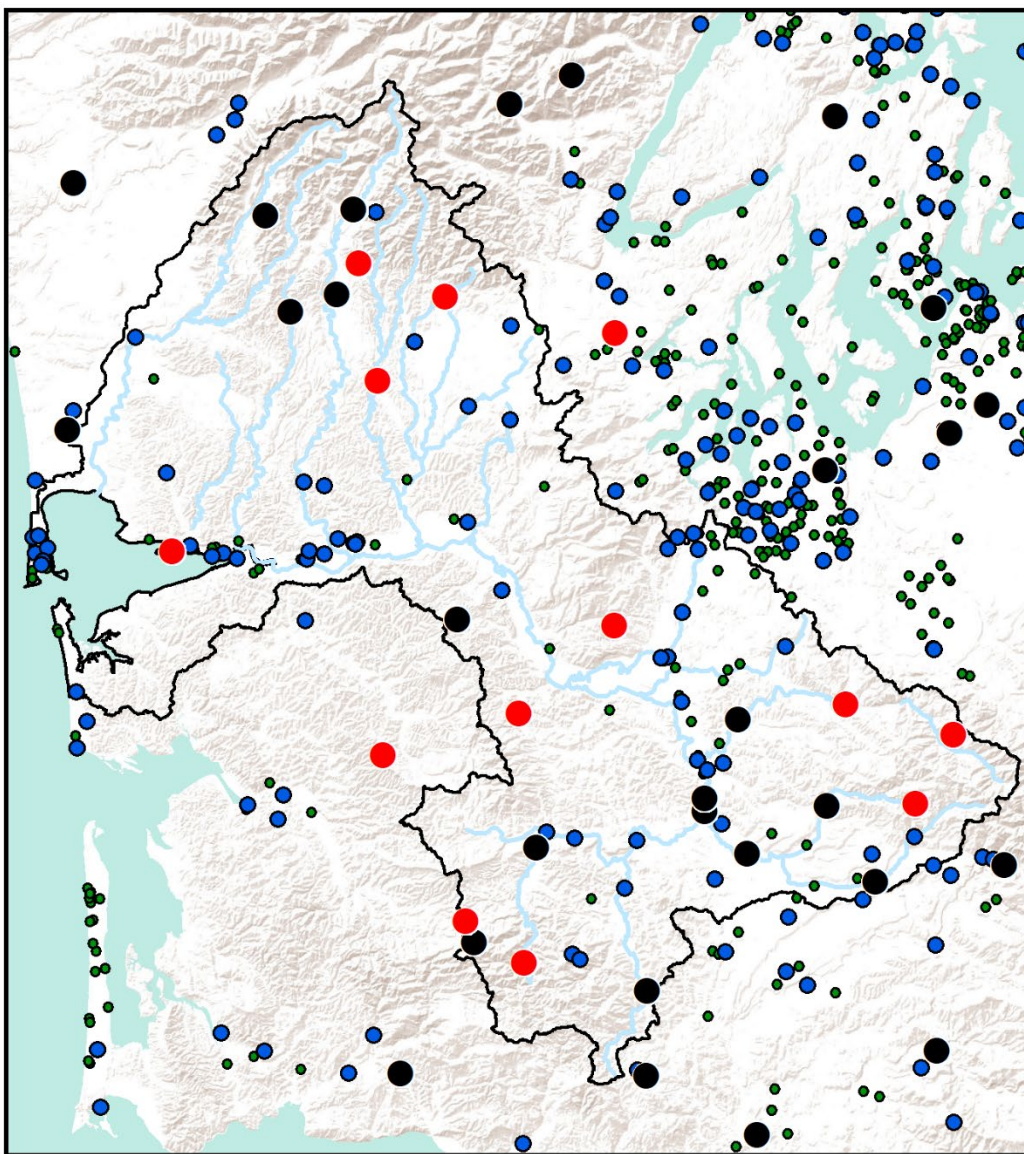
Rain Increment (PC_INC)



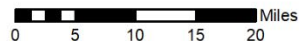
1.05 in

In Last 7 Day

Gauge Inventory

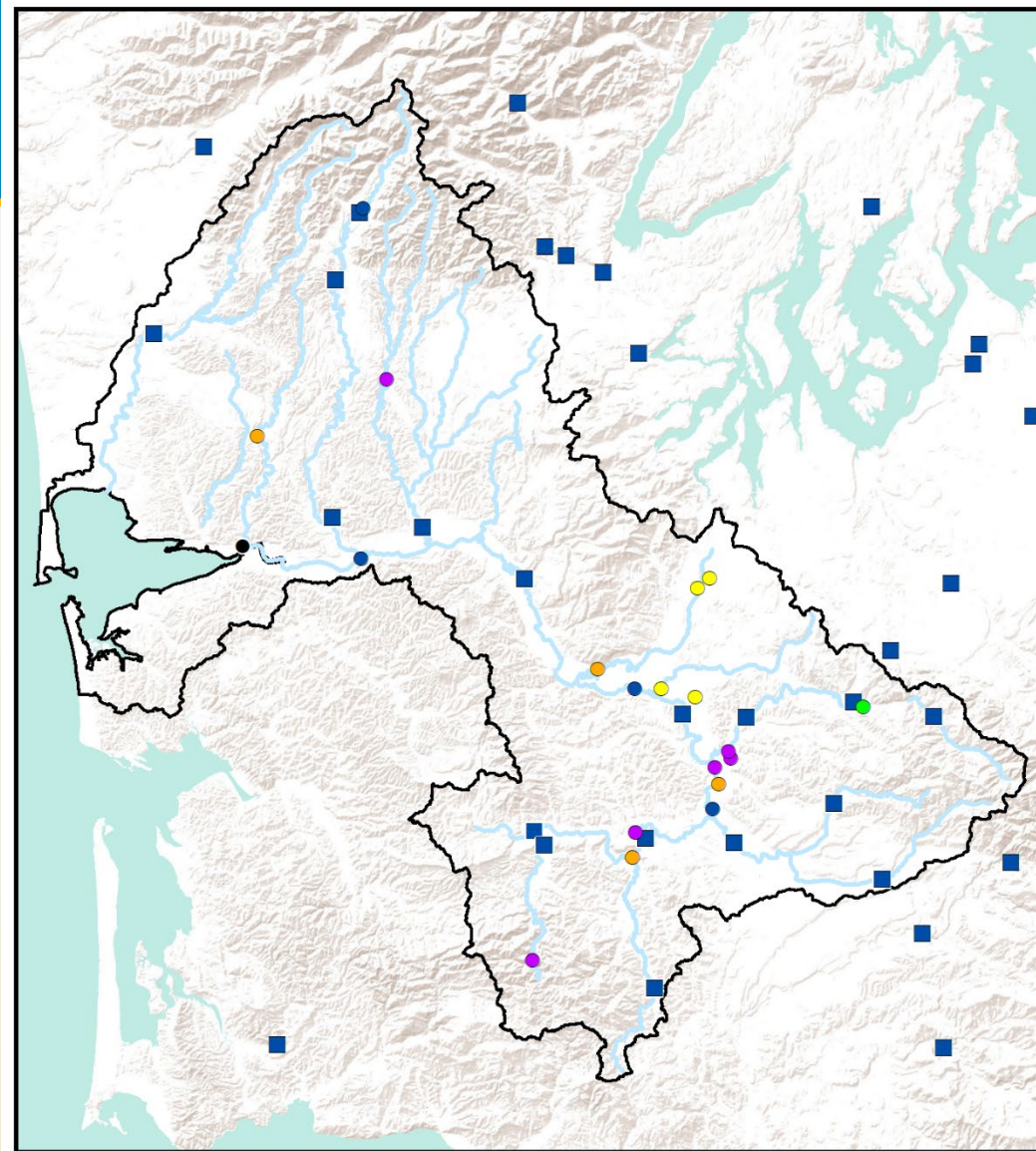


All Precipitation Gages in Inventory

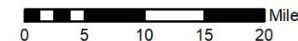


Sources: Esri, USGS, NOAA

- Included in Early Warning System
- Professional Near-Real-Time, Not Currently in Early Warning System
- Professional Not-Real Time
- Citizen Scientist
- Streams and Rivers
- Chehalis River Basin



Stream Gages Included in Contrail



Sources: Esri, USGS, NOAA, Thurston County

- | Stage-Only Sites | Stage & Discharge Sites |
|--|--|
| ● City of Aberdeen | ■ USGS |
| ● HADS (Flood Authority) | Streams & Rivers |
| ● HADS (WSDOE) | Chehalis River Basin |
| ● Thurston County | |
| ● TransAlta | |
| ● USGS | |

Preliminary Recommendations

- Fill gaps in precipitation and stream gauge network
- Transient snowpack monitoring
- Improve river forecasts in lower Chehalis
- Improve river forecasts at Skookumchuck Reservoir
- Equipment repair and replacement
- Verify rating curves at Centralia (Chehalis & Skookumchuck)
- Prioritize USGS stream gauges

Website Improvements

- Upgrade to Contrail Server
 - Spanish language version
 - Increased reliability
 - Maintenance tracking features
- Improve high water alert emails
- Update inundation maps with depths of flooding
- Add inundation maps – Bucoda
- Website training – YouTube videos

Other

- Post flood surveys
- Update Flood Insurance Maps for China Creek
- Verify observed flooding extents with inundation maps
- Create social media templates
- Incorporate citizen science

An aerial photograph showing a residential area heavily inundated with floodwater. The water is a murky, brownish color and has surrounded numerous houses, barns, and other structures. A prominent metal truss bridge spans across a section of the flooded area. In the background, a dense forest of evergreen trees covers a hillside. The overall scene depicts a significant natural disaster.

Questions?



Skookumchuck River at Centralia Gage