

Chehalis River Basin Flood Warning System

Why?

Following a devastating flood in December 2007, Chehalis River Basin stakeholders intensified efforts to mitigate flood risk in one of the most flood-impacted watersheds in the State of Washington by forming the **Chehalis River Basin Flood Authority (CRBFA)**.

CRBFA quickly determined improvements were needed to the existing flood forecast and warning system for the entire Chehalis River Basin. The region required a more reliable information network than what had become a “word of mouth” warning process.

The Players

On behalf of the CRBFA, WEST Consultants worked with community groups, Indian tribes, and local governments within the Basin to assess their current flood preparedness practices and needs. In addition, flood forecasting and related programs of the National Weather Service, the U.S. Geological Survey, the U.S. Department of Agriculture Natural Resources Conservation Service, and the WA State Departments of Ecology and Transportation were reviewed.

The findings led to a plan for improving the identification of flood threats, agency coordination, and communication with the public. The plan included an Internet-based data collection, visualization, and dissemination tool plus additional rainfall, temperature and river monitoring stations to fill gaps in existing observation networks in the Chehalis River Basin.



Chehalis River Basin Flood Authority:
Flood Warning System Brief Sheet



The System

A publicly accessible, Web-based flood data site is now available through Contrail. Rain, stream, reservoir, wind, temperature, and other weather information are collected, displayed, and used real-time. Users can access current Basin conditions along with latest National Weather Service river forecasts, local road closures from WA State Department of Transportation and other flood preparedness information from federal, state, and local sources.

Flood inundation maps show the public, as well as government officials where flooding is to be expected at each forecasted river stage. The website (www.chehalisriverflood.com) provides REAL TIME access to flooding data, putting the information in local context, allowing residents to be better prepared.

Information can be displayed on Web-enabled computers and mobile devices (smart phones, tablets).

Ten new automated rain gages, ten new temperature sensors, Skookumchuck Reservoir elevations, and two additional stream gages have been added to existing flood threat detection networks. Data from more than 160 weather and river sensors in the Basin and nearby areas are now available.





Frequently Asked Questions

www.chehalisriverflood.com

How do I find weather forecasts for my neighborhood?

Once at the home page, click on the Weather Forecast (thunder cloud) icon. That will link you to the National Weather Service Forecast page for the Seattle area. Click on the map to show the latest forecast for your locality.

How do I find rainfall forecasts for my neighborhood?

At Home page, click on Rainfall Forecast (rain cloud) icon to bring up 10-day forecast maps from the National Weather Service, Northwest River Forecast Center. The first column of maps shows precipitation. The following columns show maximum temperature (daily high temperature), minimum temperature (daily low temperature), and daily freezing level.

How do I find river level forecasts for my neighborhood?

At Home page, click on River Forecast (graph with red line) icon which will take you to National Weather Service Advanced Hydrologic Prediction Service. Click on gage icon closest to your neighborhood (i.e., Porter, Grand Mound, Centralia, Doty, and Pe Ell on the Chehalis; Bucoda and Centralia on the Skookumchuck, and the Newaukum near Chehalis) to view the most recent river hydrograph for that area so you can follow the river's level in your neighborhood.

A screenshot of the Chehalis River Basin Flood Warning System website. The top navigation bar includes links for Home, Weather Forecast, Rainfall Forecast, River Forecast, Flood Maps, Gage Data Graphs, Gage Data Maps, Chehalis Flood Authority, Road Conditions, USGS Gages, and Help. The main content area displays five icons: a lightning bolt in a cloud (Weather Forecast), rain falling from a cloud (Rainfall Forecast), a graph with a red line (River Forecast), a green circle with a water drop (Flood Maps), and a graph with a red line (Gage Data Graphs). Below these are five more icons: a map of Washington state (Gage Data Maps), a newspaper (Chehalis Flood Authority), a road sign with a car (Road Conditions), a bridge over water (USGS Gages), and a question mark (Help).

What other information can be found on this website?

Chehalis River Basin Flood Warning System website includes links to CRBFA, Chehalis River Basin Flood Resources, USGS gage data, County emergency management, landslide monitoring and WSDOT's travel advisory websites, as well as the latest Doppler radar readings, maps, and gage location information.

How do I find flood inundation maps for my neighborhood?

Follow the Flood Maps link (the circular green icon) from the home page and select your region from the “Select a gage location” pull down menu at the top of the flood basin map. For example, select Chehalis River at Centralia. The current river elevation or stage is shown in the upper left corner. Use the left/right arrow keys next to the river elevation to move forward and backward through the forecast period. To see the inundation maps, hover your computer mouse over the river stages in the left hand column. The inundation area for that stage appears. Zoom and pan for closer views.

Need More Information?

Scott Boettcher

Chehalis River Basin Flood Authority Staff

360/480-6600 -- scottb@sbgh-partners.com

Dave Curtis

Warning System Technical Consultant

916/932-7402 -- dcurtis@WESTconsultants.com