



# 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**. The Authority quickly determined improvements were needed to the existing flood forecast and warning system for the 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 Flood Authority, 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 (NWS), the U.S. Geological Survey (USGS), the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS), and the Washington 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.



## 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 in near real-time. Users can access current Basin conditions along with latest National Weather Service river forecasts, local road closures from WA 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](http://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](http://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 rain forecasts for my neighborhood?

At the home page, click on the Rainfall Forecast (rain cloud) icon to bring up 10-day forecast maps from the NWS, 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 the daily freezing level.

## How do I find river forecasts for my neighborhood?

From the home page, click on the River Forecast (graph with red line) icon which will take you to the National Weather Service Advanced Hydrologic Prediction Service. Click on the 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.



## How do I find my neighborhood flood map?

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. (That's one of the National Weather Service Forecast points.) 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.

## What other information can be found on this website?

The Chehalis Flood Authority Warning website includes links to the Chehalis Flood Authority, 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 location information for the gages being used to generate data.

## Need More Information?

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