United States Army Corps of Engineers (USACE)
Inundation Maps – 17 December 2025

https://geospatial.sec.usace.army.mil/arcgis/apps/dashboards/611d64e5172d4eb28017d7ab0f07fbde

MODELING SUMMARY

USACE Portland District – Willamette River – 17 December 2025

Effective forecast window: 17 Dec 2025 - 25 Dec 2025

To support USACE flood response, Flood Inundation Maps (FIMs) have been produced with the *Willamette CWMS model*. The FIMs will show the inundation for the current Northwest River Forecast Center (NWRFC) forecasted peak river flow. The model inundation extents are only intended to reflect conditions as far downsteam as the Salem gage. Anything north of this gage should be ignored. FIMs are generated with minimal review during flood events. They are made with the best and most recent data available at the time of model development, which may differ from actual conditions at the time models are run. The inundation maps will be updated daily, and if the NWRFC forecast changes significantly. If the forecast has not changed, no new maps will be created.

Mapping shows *forecasted* crests on the Willamette River.

Location	Flood Stage Levels	*Forecast* Flood Stage Crest (ft)	*Forecast* Flood Flow Peak (cfs)
Mehama	Minor- 11 ft	11.5 ft (~12/19 0400)	34,000
Jefferson	Moderate - 19 ft	18.0 ft (~12/19 1000)	83,000
Salem	Minor- 28 ft	22.0 ft (~12/19 2200)	107,000

The model uses RFC forecast updated 17Dec2025 at 1100 PST. Releases from upstream reservoirs, are held to their respective minimum flows to maximize the reduction of downstream impacts.

The inundation maps are created using HEC-RAS model results for inland areas. HEC-RAS results are uncertain because they depend on uncertain input parameters. In riverine flood events, these uncertain parameters include, but are not limited to, changing channel conditions, deployment of temporary flood protection measures, sedimentation, debris, and duration and intensity of precipitation.

Several caveats for RIM products are applicable:

1. Methods are approximate and were developed from pre-configured hydraulic model runs from the USACE RIM program.

2. Assumptions of constant flow hydrographs may be conservative with respect to volume and are not meant to predict an actual flood event that may occur at the same peak flow.
3. Estimates represent the theoretical water surface elevations developed from the best available data at the time of modeling. They may or may not accurately reflect present conditions in the river.
4. Real-time emergency operational measures that may be deployed to prevent flooding are not reflected in modeling.

This map and the data it represents are preliminary in nature and subject to change. This map is provided for general information purposes only and the United States provides no guarantee of accuracy or completeness. Inundation extents shown in the map outside the mainstem channel (e.g. along creeks, streams, and small waterways) may be over or underestimated compared to real-world conditions. Any extraction, manipulation, or other use of these data inconsistent with this disclaimer is at the sole risk of the user.

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MODELING SUMMARY

USACE Portland District – Tualatin River – 17 December 2025

Effective forecast window: 18 Dec 2025 - 25 Dec 2025

To support USACE flood response, Flood Inundation Maps (FIMs) have been produced with the *Willamette CWMS model*. The FIMs will show the inundation for the current Northwest River Forecast Center (NWRFC) forecasted peak river flow. FIMs are generated with minimal review during flood events. They are made with the best and most recent data available at the time of model development, which may differ from actual conditions at the time models are run. The inundation maps will be updated daily, and if the NWRFC forecast changes significantly. If the forecast has not changed, no new maps will be created.

Mapping shows *forecasted* crests on the Willamette River.

Location	Flood Stage Levels	*Forecast* Flood Stage Crest (ft)	*Forecast* Flood Flow Peak (cfs)
Dilley	Minor- 17.5 ft	17.5 ft (~12/20 00)	2,600
Farmington	Action Stage – 28 ft	29.0 ft (~12/20 1500)	6,270

The model uses RFC forecast updated 18Dec2025 at 1100 PST. Releases from the upstream reservoir are held at minimum flows to maximize the reduction of downstream impacts.

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3. Estimates represent the theoretical water surface elevations developed from the best available data at the time of modeling. They may or may not accurately reflect present conditions in the river.
4. Real-time emergency operational measures that may be deployed to prevent flooding are not reflected in modeling.

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