

# The Oregon Floods of February 6 - 9, 1996



# The Recipe for the Oregon Floods of February 6 - 9, 1996

- Heavy rains saturated ground soil and raised river levels throughout January 1996
- In late January, a heavy snowstorm padded snow packs throughout the region
- This was followed by a deep freeze that lasted for six to ten days
- Then this new layer of snow was quickly melted by a warm subtropical jetstream or atmospheric river which arrived on February 6 and brought record rainfall
- The combination of the rain, the saturated ground, and the melting snow packs engorged dozens of streams and tributaries, which in turn flooded into the region's major rivers

- The Willamette River crested at 28.6 feet (8.7 m) in downtown Portland, some 10.6 feet (3.2 m) above flood stage.
- The river came within inches of flowing over its seawall and flooding a large portion of Portland's downtown Tom McCall Waterfront Park.
- A major sandbagging effort involving civilians as well as the Oregon National Guard was launched throughout downtown Portland and was maintained until the floodwaters began to recede on February 9
- At least five rivers in Oregon crested at all-time highs during the floods



## Record Flood Peak Levels During February 1996 Floods

River Gage Location	Flood Stage (feet)	1996 Crest (feet)	Previous Record (feet)	Year of Previous Record
Sandy near Sandy	-	22.6	22.3	1964
Tualatin at Farmington	32.0	37.2	37.0	1933
South Yamhill at Whiteson	38.0	47.5	47.2	1964
Pudding at Aurora	22.0	30.5	30.0	1923
Nehalem at Foss	14.0	27.4	24.9	1990

# Maximum 4-day Precipitation Totals for Western Oregon Locations

Recording Gage Location	February 1996 (inches)	Record Amount (inches)	Year of Record or Previous Record
Astoria	8.88	8.24	1975
Corvallis	8.10	7.84	1974
Government Camp	11.30	13.84	1964
Hillsboro	6.70	5.91	1974
Newport	9.81	10.17	1965
Oregon City	7.51	7.29	1964
Portland Airport	7.00	5.10	1994

## Total precipitation and SWE meltwater from SNOTEL stations, February 5-9, 1996

Recording Site Name	Rainfall (inches)	SWE (inches)	Total Depth (inches)	River Basin	Elevation
Blazed Alder	18.3	1.8	20.1	Willamette	3650
Little Meadows	17.6	9.9	27.5	Santiam	4000
Marion Forks	11.1	12.2	23.3	Santiam	2600
North Fork	12.1	8.5	20.6	Bull Run	3120
Red Hill	14.5	5.4	19.9	Hood	4400
Saddle Mountain	20.4	14.0	34.4	Tualatin	3250
Seine Creek	14.0	8.0	22.0	Tualatin	2000

**Flood Photos from Oregon City  
(right); City of Tualatin (lower  
right); and City of Portland (lower)**

