Snowpack Evaluation Weather Research and Consulting Services, LLC

This is the June 1, 2021 Washington and Oregon snowpack report, along with comparisons to 2017, 2018, 2019 and 2020. This is the final report of the 2020-2021 snowpack.

The last half of May was a little cooler than usual with below normal precipitation across eastern Washington and most of Oregon. However, western Washington and southeastern Oregon did experience wetter than usual weather. Snow Water Equivalent (SWE) percentages rose in Washington compared to the median, but continued to drop in Oregon but at a slower pace. The Oregon SWE is now only 17% of median, even lower than last year's 24% on June 1. Most river basins in southern and eastern Oregon are snow free except for the very highest peaks. The SWE in the Cascades ranges from 84% in the Mt. Hood area to 34% in the Rogue/Umpqua River Basin. Meanwhile, the Washington SWE increased 18% and is now 132% of median. The Cascade and Olympic Mountains continue to hold a snowpack that is much above normal for June 1, while east of the Cascades, the Lower Yakima River has melted completely and the Spokane and Lower Snake River Basins are much lower than usual. The Washington SWE ranges from 358% in the Cedar/Snoqualmie River Basin to 0% in the Lower Yakima. The rapid snowmelt in Oregon and portions of eastern Washington should be of concern for an active and possibly severe fire season this summer. See our 2021 Fire Season Severity Report using the Spring Snowpack Index for more information.

A graphic of Snow Water Equivalent (SWE) percentages across the western United States is also included for comparison. Areas shaded in blue indicate above normal snowpack, green indicates near normal, and yellow, orange and red below normal. The best snowpack is located in Washington and Montana, but elsewhere the winter snowpack has pretty much melted. The statewide California snowpack (not shown on map but reported by the California Department of Water Resources) is 0% of normal, completely melted except for the highest peaks. This is even worse than last year's 3% on June 1.

If you have questions about this report, please contact Weather Research and Consulting Services, LLC using the links at the end of this report.

Oregon and Washington Snowpack Comparison as of June 1, 2021

Oregon

| | | (Percent of Normal) | | | | | |
|--------------------|-------------|---------------------|-------------|-------------|-------------|-------------|--|
| <u>River Basin</u> | <u>Date</u> | <u>2021</u> | <u>2020</u> | <u>2019</u> | <u>2018</u> | <u>2017</u> | |
| Owyhee | June 1 | 0 | 0 | 0 | 0 | 0 | |
| Malheur | June 1 | 0 | 0 | 0 | 0 | 0 | |
| Grande Ronde | June 1 | 5 | 101 | 157 | 6 | 173 | |
| Umatilla | June 1 | 0 | 0 | 0 | 0 | 0 | |
| John Day | June 1 | 0 | 0 | 0 | 0 | 0 | |
| Deschutes | June 1 | 41 | 35 | 51 | 20 | 121 | |
| Lower Columbia | June 1 | 82 | 49 | 23 | 19 | 150 | |
| Willamette | June 1 | 40 | 35 | 52 | 20 | 142 | |
| Rogue/Umpqua | June 1 | 34 | 31 | 65 | 22 | 178 | |
| Klamath | June 1 | 0 | 0 | 48 | 0 | 185 | |
| Lake County | June 1 | 0 | 5 | N/A | 0 | 457 | |
| Harney | June 1 | 0 | 37 | 226 | 0 | 219 | |
| State AVG | | 17 | 24 | 57 | 11 | 135 | |
| | | | | | | | |

Note: Red figures indicate the lowest snowpack average in the past 5 years.

Washington

| | | (Percent of Normal) | | | | | |
|--------------------|-------------|---------------------|-------------|-------------|-------------|-------------|--|
| <u>River Basin</u> | <u>Date</u> | <u>2021</u> | <u>2020</u> | <u>2019</u> | <u>2018</u> | <u>2017</u> | |
| Spokane | June 1 | 66 | 118 | 70 | 113 | 134 | |
| Columbia/Methow | June 1 | 124 | 90 | 35 | 109 | 160 | |
| Chelan/Wenatchee | June 1 | 96 | 52 | 18 | 75 | 139 | |
| Upper Yakima | June 1 | 204 | 50 | 5 | 49 | 94 | |
| Lower Yakima | June 1 | 0 | 77 | 51 | 69 | 127 | |
| Lower Snake | June 1 | 2 | 95 | 87 | 106 | 136 | |
| Lewis/Cowlitz | June 1 | 152 | 90 | 40 | 86 | 211 | |
| White/Green | June 1 | 137 | 88 | 43 | 79 | 114 | |
| Cedar/Snoqualmie | June 1 | 358 | 81 | 3 | 84 | 137 | |
| Baker/Skagit | June 1 | 109 | 81 | 24 | 83 | 120 | |
| Olympic | June 1 | 206 | 91 | 0 | 117 | 199 | |
| State AVG | | 132 | 83 | 34 | 88 | 143 | |



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