

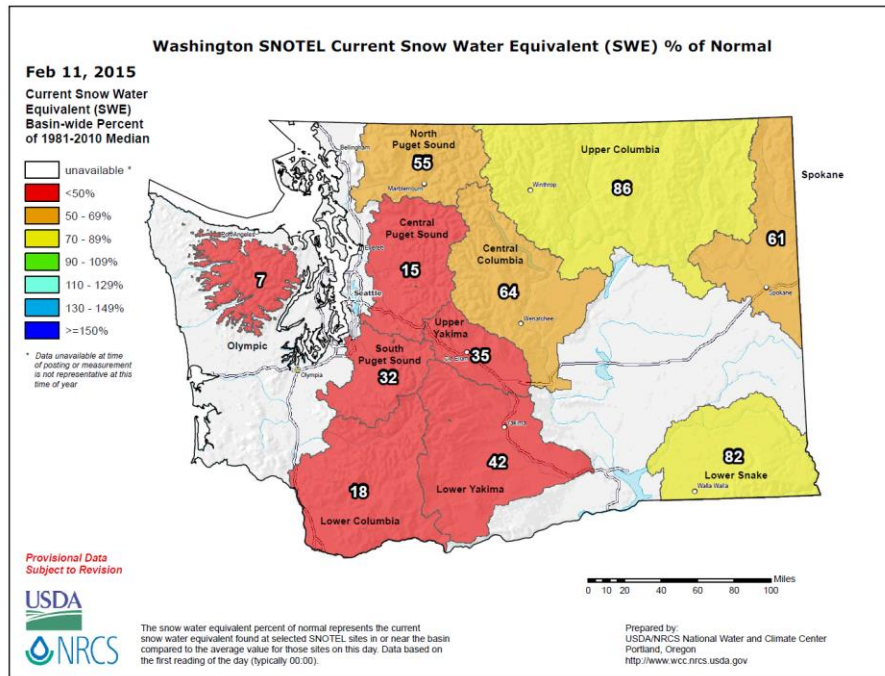


February 13, 2015

TO: Interested Parties
FROM: Donelle Mahan, Forest Practices Assistant Division Manager, Operations
SUBJECT: 2015 Fish Survey Season-Water Level and Streamflow Forecast

The Department of Natural Resources (DNR), in consultation with the Department of Fish and Wildlife (WDFW), provides the following forecast for statewide water abundance for the 2015 fish survey season. This information is provided to focus appropriate attention on potential drought conditions when scheduling and conducting fish surveys. Many factors can influence the extent and distribution of fish species in a watershed. Drought conditions can alter how fish species occupy or access streams.

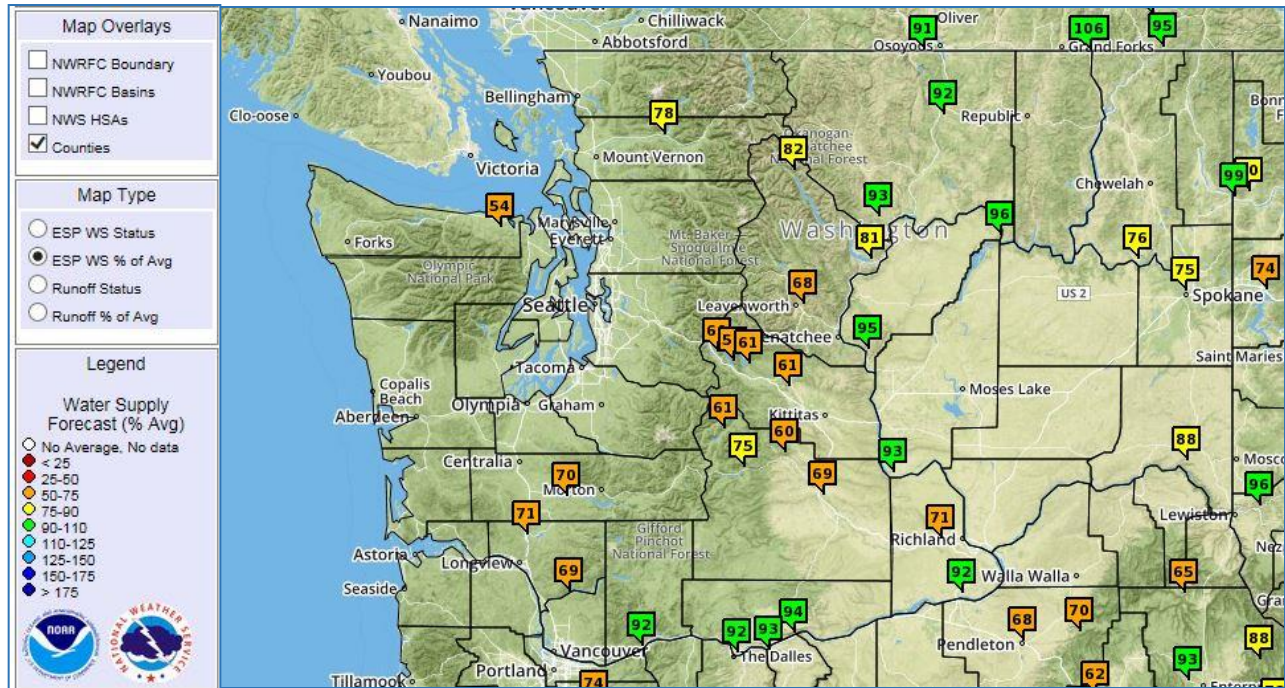
The Natural Resource Conservation Service (NRCS) estimated Washington State snow pack ("snow water equivalents") as of February 11, 2015 at 39 percent of normal statewide, ranging from 7 percent to 87 percent (please see map below). Current rainfall has saturated soils but as we move into the protocol survey season (March 1 - July 15) June and July stream flows may be minimal, which will affect stream survey conditions during these months. Under NRCS definitions, drought conditions may be present where basins have 70 percent or less of the basin's snow water equivalent. Under Washington state statute, drought conditions can exist at 75 percent or less of the basin's normal water supply.



http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/

1 Forest Practices Board Manual Section 13, Part 2 "Guidelines for determining Fish Use for the Purpose of Typing Waters" (see WAC 222-16-031 Interim Water Typing System)

Several forecasting products are reviewed by Washington water and fish managers when considering a drought declaration under state statute and rule². In addition to the aforementioned NRCS information, Washington references the National Oceanic and Atmospheric Administration’s (NOAA) Northwest River Forecast Center (NWRFC) forecast for water supply in Washington. The NWRFC February 11 water supply forecast is depicted in the following map. As of this week, water supplies are predicted to be between 50% and 75% of normal for many western- and central-Washington streams.



There is a high potential for low-flow conditions in some streams, particularly on the northern Olympic Peninsula, in south Cascades streams, and possibly in north-central Washington (depending on how conditions change through the spring). The presence of low flow conditions in streams may require that physical characteristics be used for stream typing due to the absence of water for protocol survey pools. Please consult with your DNR forest practices forester, WDFW habitat biologist, or Tribal biologist prior to electrofishing if the protocol survey will be conducted in an area with low flow conditions.

Landowners and interested parties should be mindful that drought conditions could develop during the survey season. Proponents of water type changes should provide information demonstrating how stream flows and fish use determinations were unaffected by low-water conditions, if present. Landowners and interested parties can find details regarding drought effects in specific basins by reviewing the following water supply forecast and stream flow resources:

The Natural Resource Conservation Service *Current Water Supply Outlook Report* is available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/wa/snow/waterproducts/supply/>

For drought status under the Washington State definition, as well as information about the state drought declaration process, review Ecology's 2015 drought web site at:

<http://www.ecy.wa.gov/drought/index.html>

Ecology also provides links to a variety of water supply data and forecasting web sites at:

<http://www.ecy.wa.gov/programs/wr/ws/wtrsapply.html>

For details regarding whether or not drought may affect a specific basin, please review the Northwest River Forecast Center (NWRFC) "Ensemble Streamflow Prediction (ESP) Water Supply Forecast as Percent of Average", available at <http://www.nwrfc.noaa.gov/ws/>.

Flows at specific Washington locations can be reviewed at: <http://waterdata.usgs.gov/wa/nwis/rt> and http://www.ecy.wa.gov/programs/eap/flow/shu_main.html. Please review stream flow conditions prior to conducting surveys in low-flow-affected areas.

If applicable, proponents should also provide information demonstrating how fish use determinations were unaffected by mass wasting or stream scouring events where a water type change is being proposed.

If you have questions about conducting fish surveys or water typing, please contact Forest Practices staff at one of the six DNR region offices below:

Northeast: (509) 684-7474

Northwest: (360) 856-3500

Olympic: (360) 374-2800

Pacific Cascade: (360) 577-2025

Southeast: (509) 925-8510

South Puget Sound: (360) 825-1631