Climate recap, June-August 2013

Summer 2013 was 3rd warmest on record in the Pacific Northwest (OR, WA, ID). The regionally averaged temperature was 66.4°F which is 2.9°F above normal. Summer precipitation, averaged over the region, was 2.63”, only 0.25” below normal. Records date back to 1895 (NCDC Climate at a Glance).

Precipitation

Average precipitation totals are typically low in the summer months and a few thunderstorms can produce a season’s worth of rain. Storm activity in August in parts of central and eastern Oregon and Washington and the Idaho Panhandle boosted precipitation totals above normal for the season. Northwest Oregon and Southern Idaho were drier than normal. July 2013 was the driest on record in Oregon.

Temperature

The Inland Northwest (eastern Oregon and western Idaho) was much warmer than normal, and the warmest areas were also the driest, as can be seen by comparing the red areas in the maps at right. Nighttime temperatures were warmer than normal, especially in August. Moisture brought up from the active Southwest Monsoon kept humidity levels elevated.

Pacific NW Impacts, June-August 2013

Fire

- Hot and dry weather made for a significant fire season in the Pacific Northwest. The Douglas Complex fire in SW Oregon elicited Oregon's largest fire response in a decade. The Beaver Creek fire in Idaho burned dangerously close to the towns of Hailey and Ketchum and caused the evacuation of nearly 2000 homes. Idaho had the most acres burned in the contiguous United States with 728,986.

Economy

- Oregon Department of Forestry incurred $71.8 million in firefighting costs. This is $16 million over budget.
- Nearly a quarter of the lands in the municipal watershed for the city of The Dalles, Oregon burned in the Government Flats fire, which may cause long-term erosion and sediment problems. Residents noticed a smoky taste in their drinking water (Oregon Public Broadcasting).

Tourism/Recreation

- The Oregon Shakespeare Festival in Ashland, Oregon had to cancel performances due to smoke (Oregon Public Broadcasting).
- In early August, 34 miles of the wild whitewater section of the Rogue River were closed due to smoke. Rafting companies on the Rogue River estimated losses at $100-150K per day for almost 2 weeks (Eugene Register-Guard, The Oregonian).
- Businesses in Sun Valley (Idaho) shut down; concerts and events were cancelled due to smoke (Oregon Public Broadcasting, Time).

Water Resources

- Extreme drought conditions (D3 on the US Drought Monitor) currently exist in eastern Oregon and western Idaho, for the first time since 2007.
- 18 Idaho counties and 5 Oregon counties have formal drought declarations.
- Reservoir levels are lower than average across most of eastern Oregon and southern Idaho.
Regional Outlook for Fall/Winter 2013

NOAA’s Climate Prediction Center outlook shows equal chances of above, below, or normal (33% probability for each) precipitation in Oregon, Washington, and Southern Idaho (EC on map). The odds for wetter than normal are slightly greater over the Idaho Panhandle (green on map on left).

Southeastern Oregon and southern Idaho have a greater chance of above average temperature (40%, brown on map). In the other parts of the region, there is equal chances of either above, below, or average temperatures (33% each).

The above average temperature projection intersects areas that are currently experiencing extreme or severe drought.

Most El Niño Southern Oscillation (ENSO) models predict ENSO-neutral conditions into early 2014. El Niño Southern Oscillation (ENSO), a pattern of variability in the tropical Pacific, provides much of the information for seasonal forecasts. In the PNW, El Niño winters tend to be warmer and drier, La Niña winters tend to be cooler and wetter, and ENSO-neutral tend to fall in between. For any state of ENSO, there are counterexamples to these tendencies. For instance, the period Jan-March 2013 occurred during ENSO-neutral conditions but was the 4th driest Jan-Mar on record in the PNW.

With a range of both temperature and precipitation possibilities, snow depth can vary substantially in ENSO-neutral years, with implications for both water resources and recreation. Using Northwest Weather and Avalanche Center (NWAC) data, Timberline (Mt. Hood/Oregon) historical snow depth is plotted for ENSO-neutral years (minimum, maximum, and mean) with the latest winter (2012-2013) for reference. 2012-2013 tracked right along the historical mean, despite drier than normal conditions at lower elevations.

The tool below is found at the Office of the Washington State Climatologist (OWSC) website: http://www.climate.washington.edu/snowdepth/ and is available for mountains in Oregon and Washington.

Inland Northwest Drought Forum

CIRC, Idaho Department of Water Resources, and the National Integrated Drought Information System are co-hosting a drought forum on October 18, 2013 in Boise, ID.

We will recap the 2012-2013 drought and the historical context of drought in the area, what we know about the seasonal forecast, and other drought impacts. We will also host a discussion on weather and climate information needs and coping with drought strategies. The intended audience for the forum is water managers and users in eastern Oregon and southern Idaho.

Registration is free and lunch is provided. We do ask that attendees register for the forum. There will be limited web streaming options for those who cannot make the trip to Boise.

For more information on the forum and to register, please visit: www.pnwclimate.org/INWdroughtforum