



**Ken Stahr,
Hydrographics
Section
Manager**

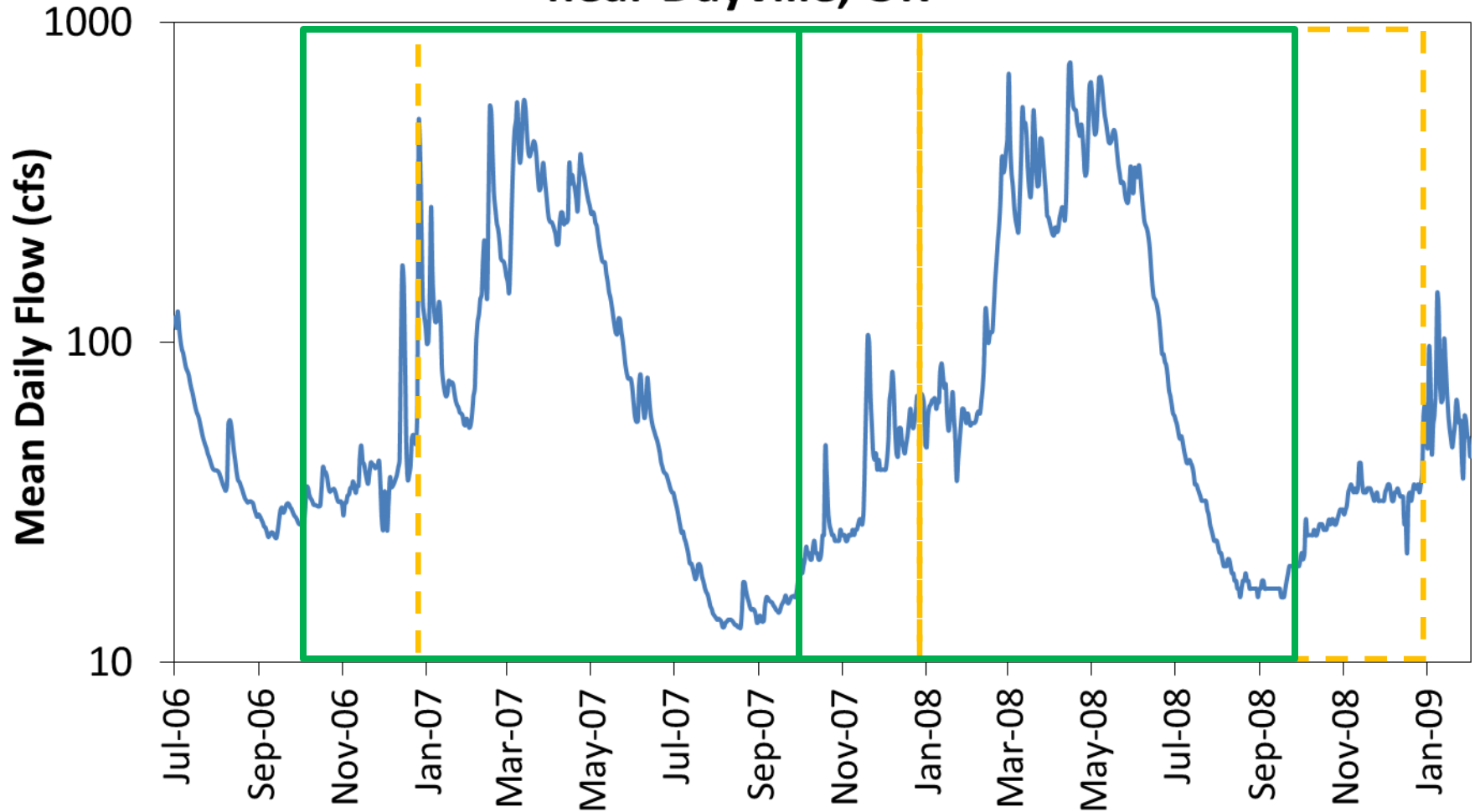
**Keith Mills,
Acting State
Engineer**

Surface Water Supply Conditions and Drought Declaration Process

February 2014

Water Year

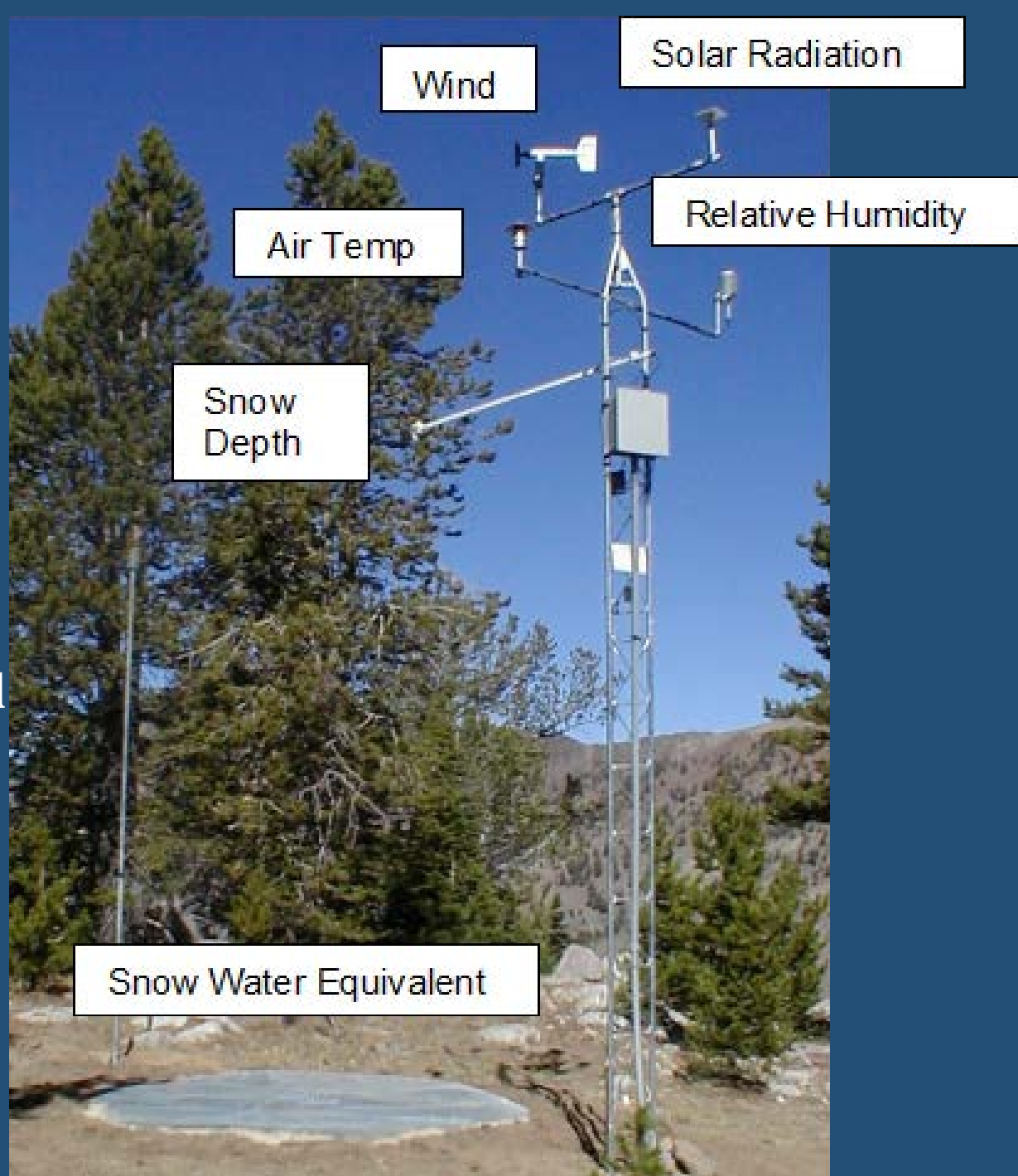
South Fork John Day River near Dayville, OR



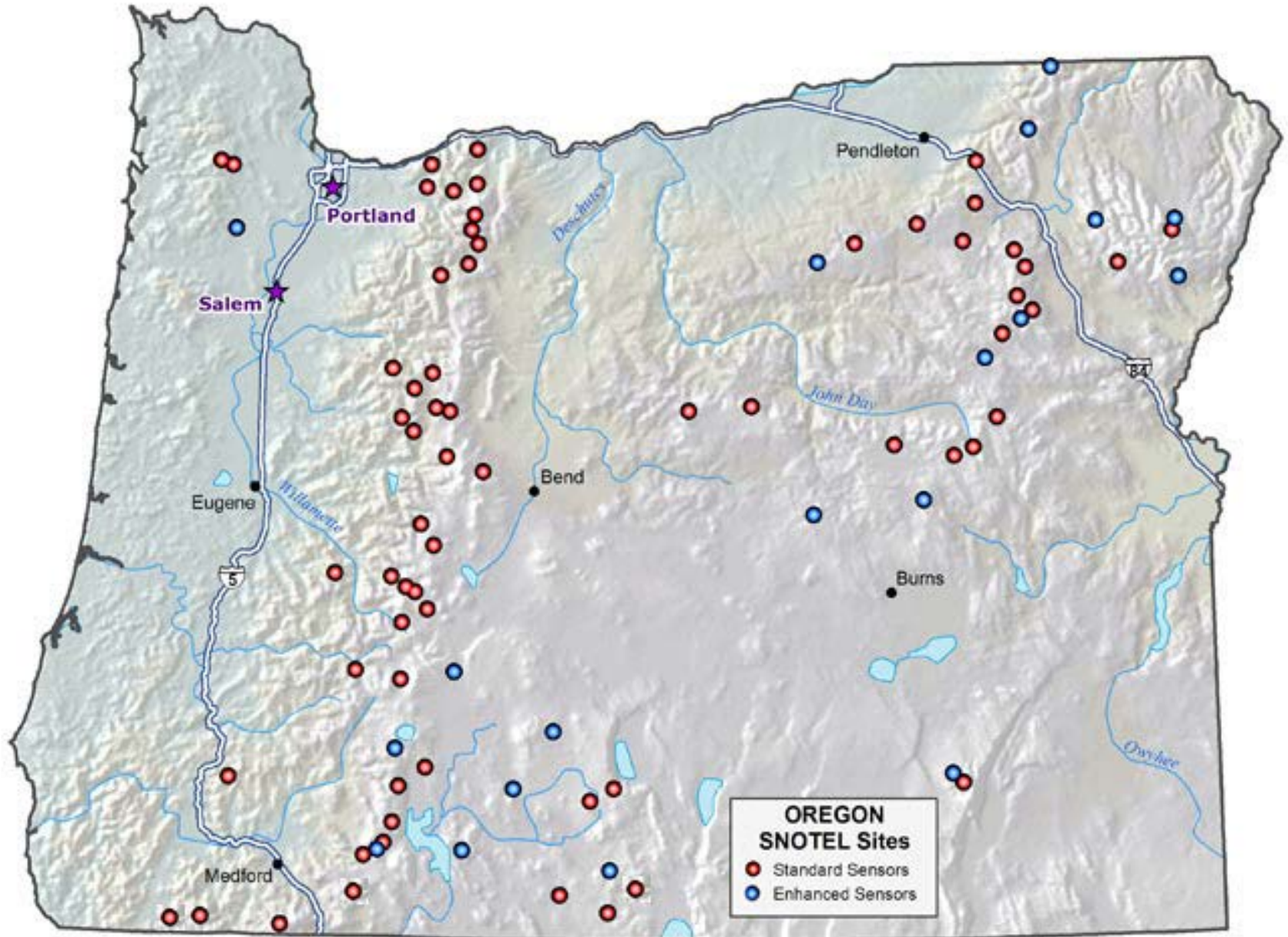
NRCS* Snow Telemetry (SNOTEL) Site

SWE:
Snow Water Equivalent;
amount of water melted
snow would produce

**NRCS – National
Resource Conservation
Service*



Oregon SNOTEL Sites



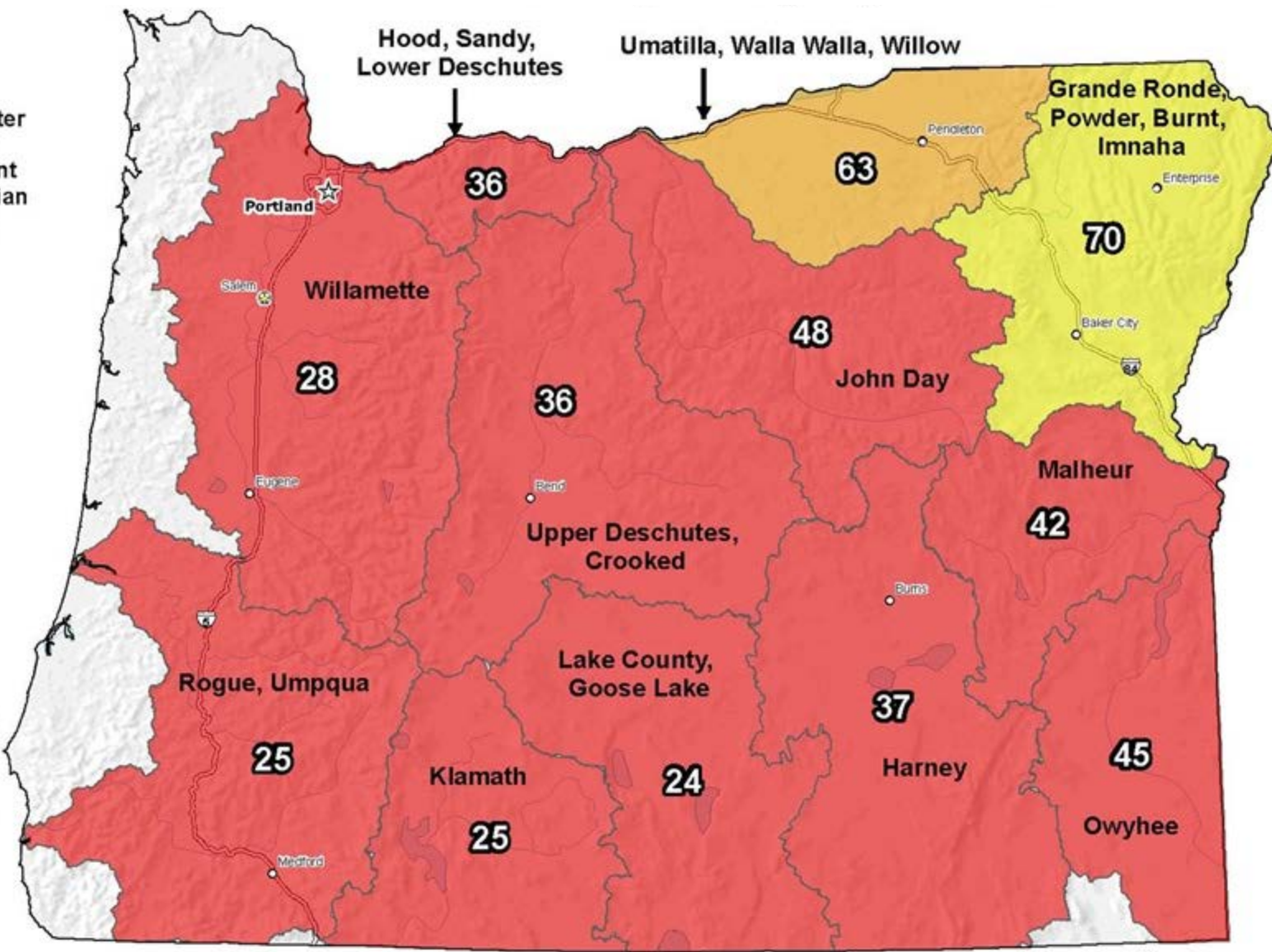
January 21, 2014 SNOTEL Snow Water Equivalent % Normal

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

Provisional Data
Subject to Revision



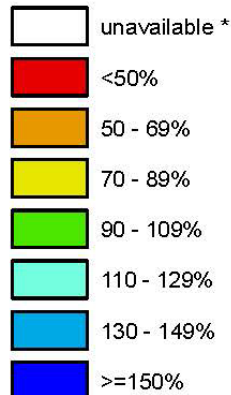
The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).



Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

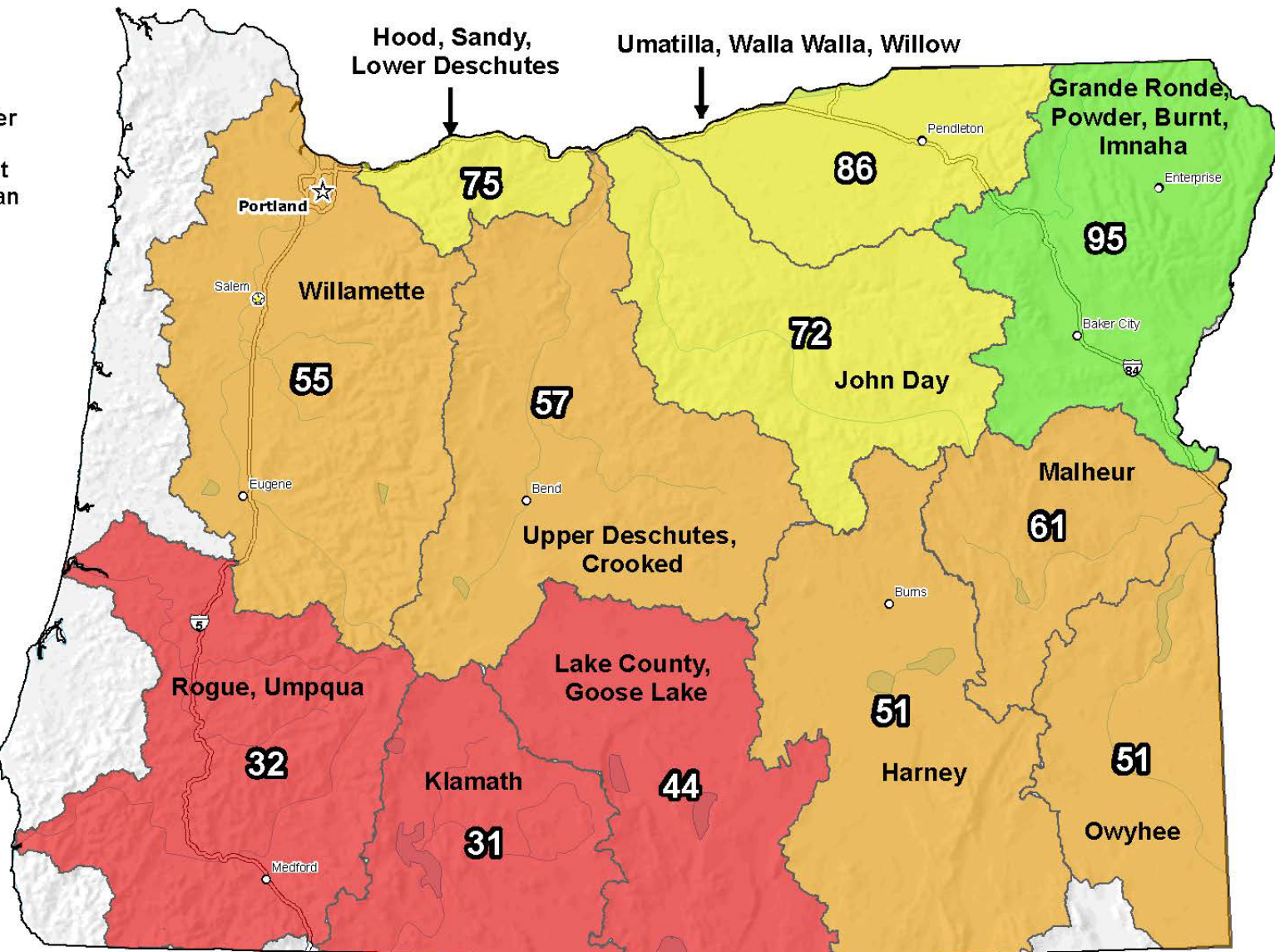
March 4, 2014 SNOTEL Snow Water Equivalent % Normal

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data
Subject to Revision**



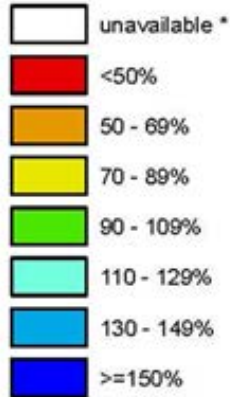
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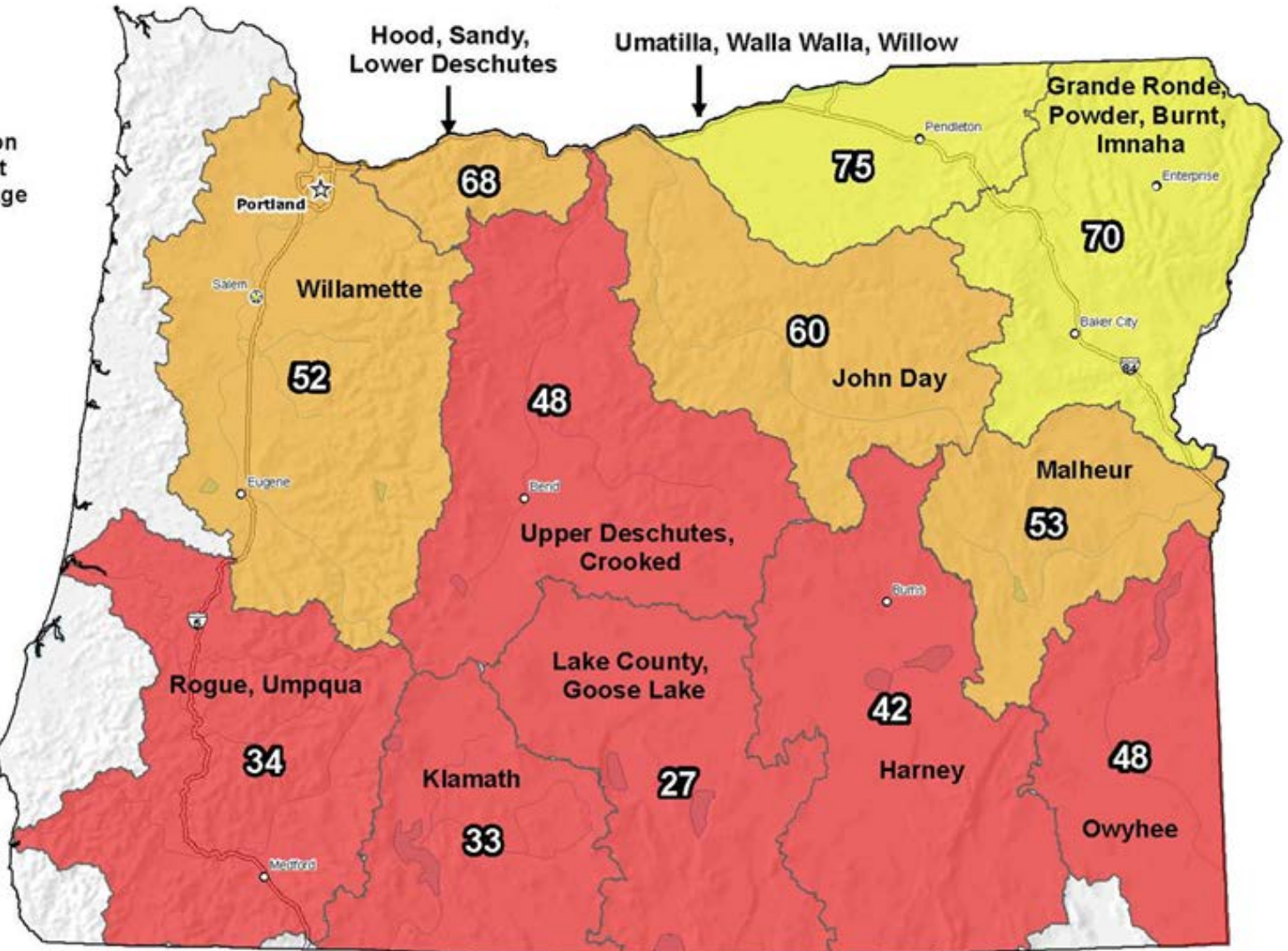
January 21, 2014 Cumulative Precipitation, % Normal

Water Year (Oct 1)
to Date Precipitation
Basin-wide Percent
of 1981-2010 Average

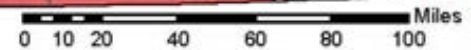


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Provisional Data
Subject to Revision



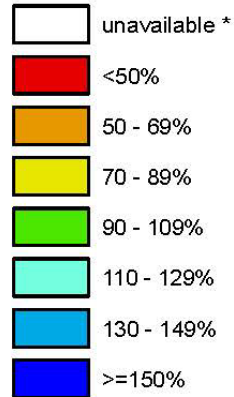
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).



Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
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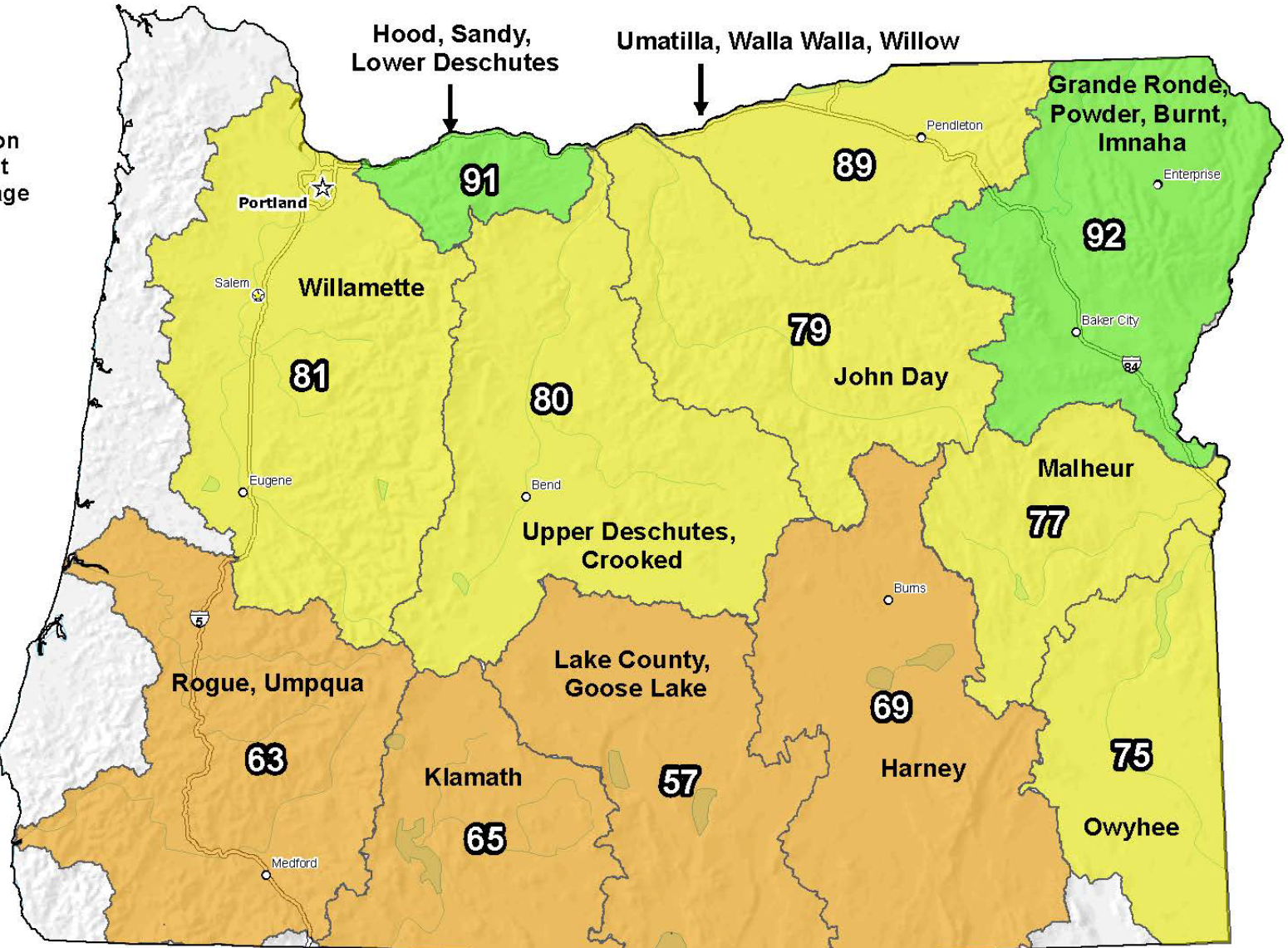
March 4, 2014 Cumulative Precipitation, % Normal

Water Year (Oct 1)
to Date Precipitation
Basin-wide Percent
of 1981-2010 Average



* Data unavailable at time
of posting or measurement
is not representative at this
time of year

**Provisional Data
Subject to Revision**



The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

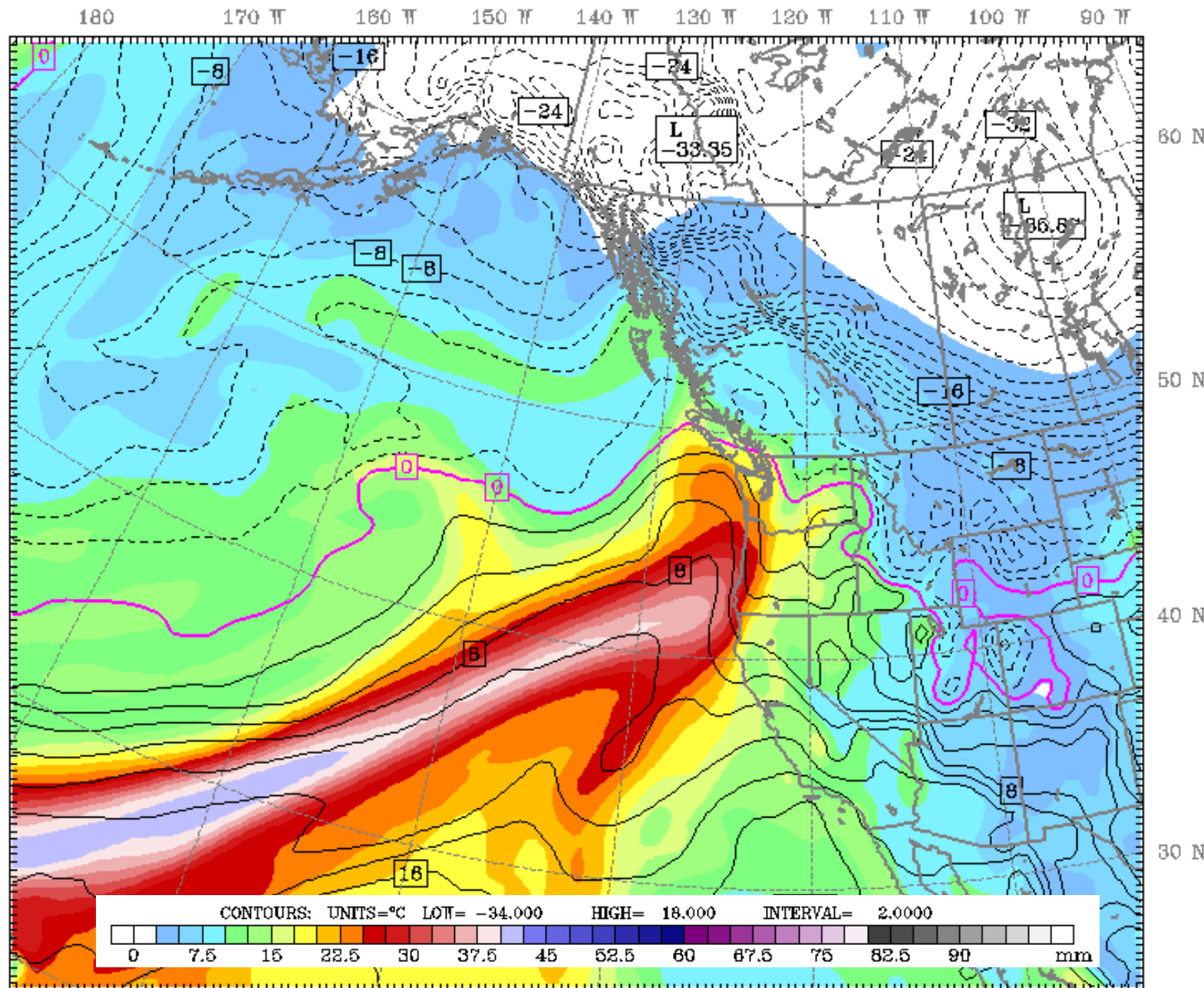


Prepared by the USDANRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Jim.Marron@por.usda.gov 503 414 3047

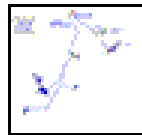
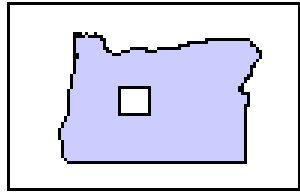
Atmospheric River

February 14th

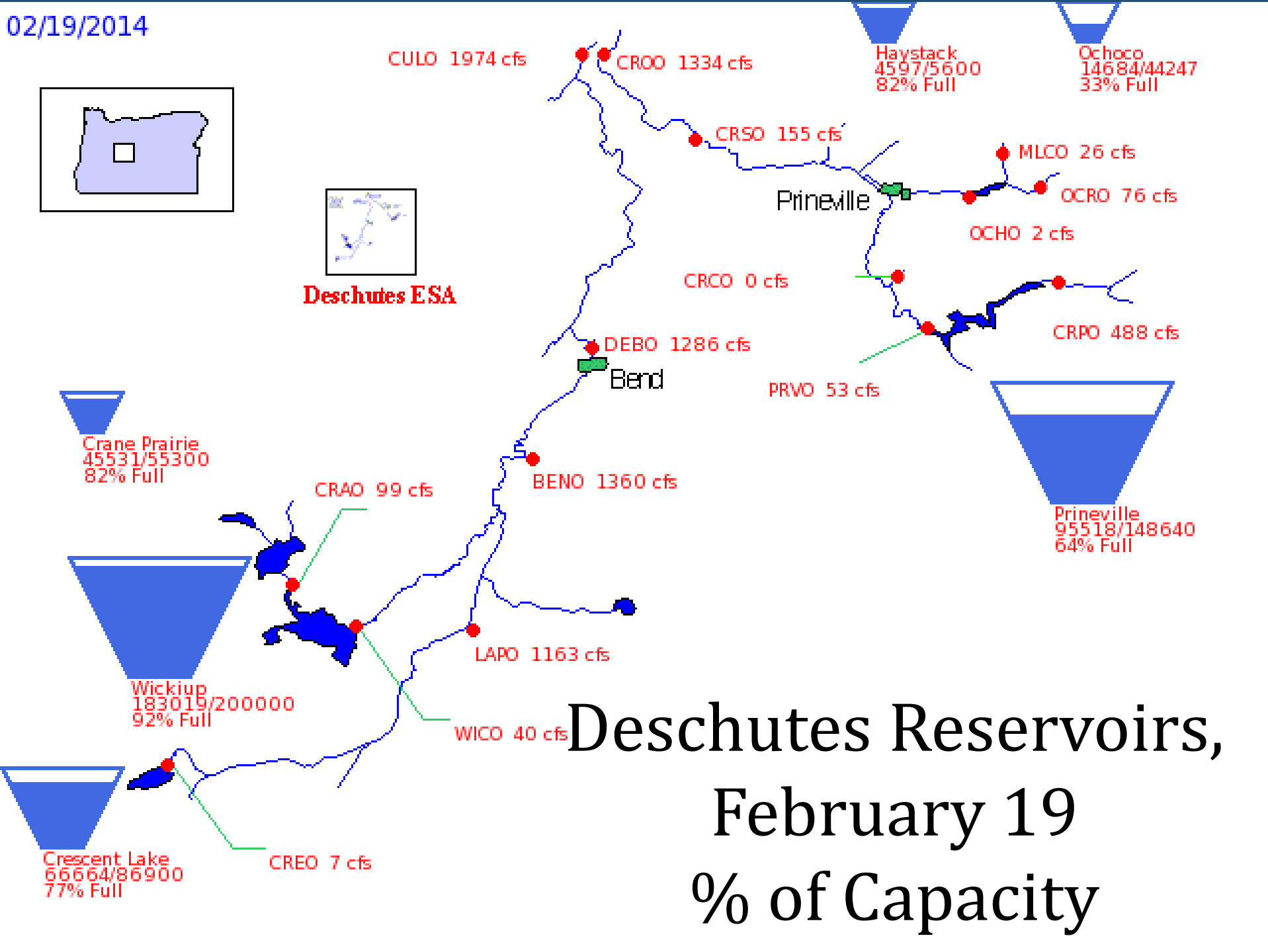
-Water vapor
(mm; color):
How much
water can
precipitate.



02/19/2014



Deschutes ESA

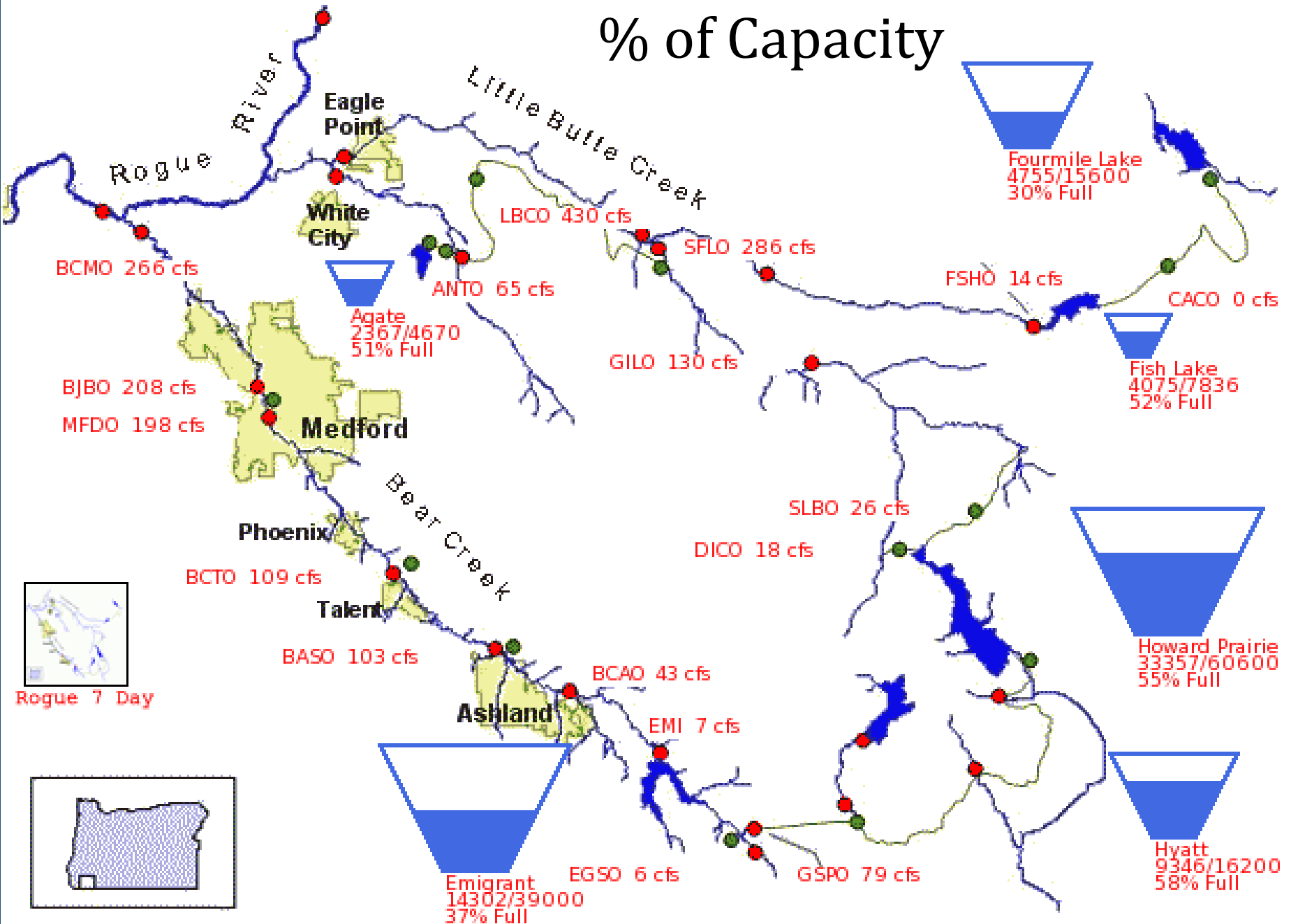


Deschutes Reservoirs, February 19 % of Capacity

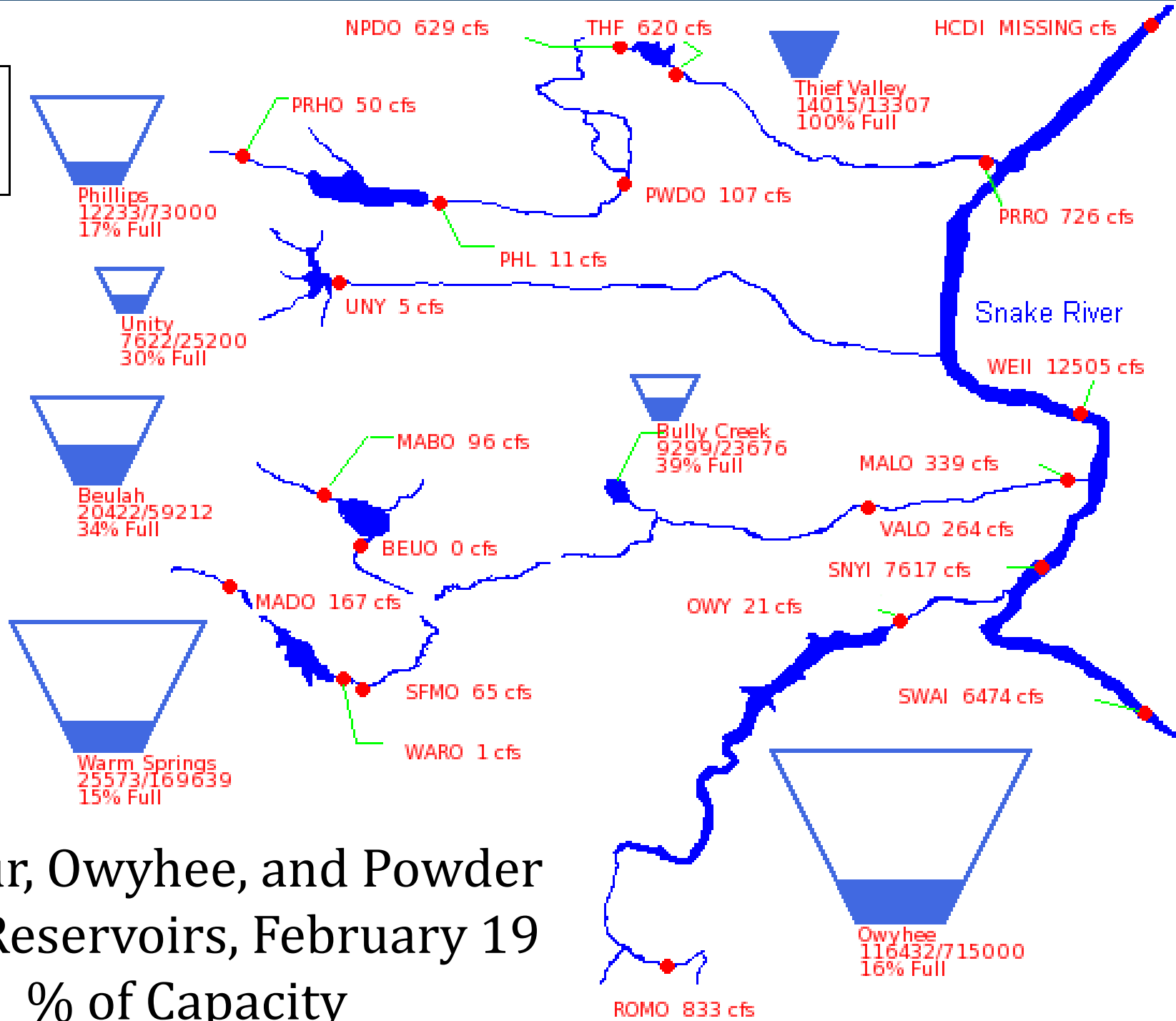
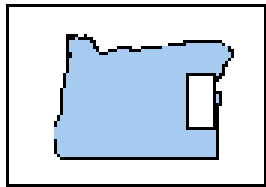
02/19/2014

Rogue Basin Reservoirs, February 19

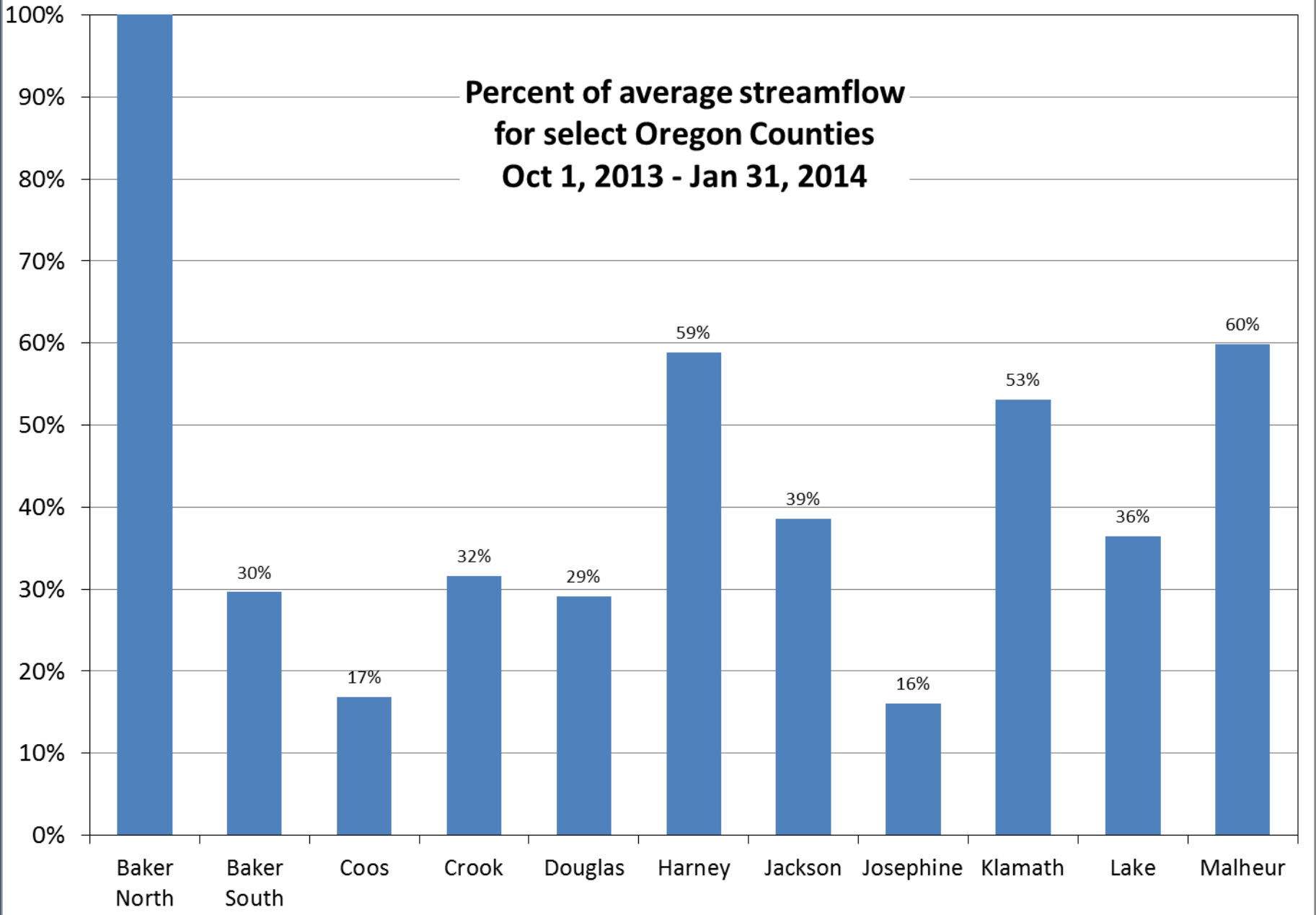
% of Capacity



02/19/2014



Malheur, Owyhee, and Powder
Basin Reservoirs, February 19
% of Capacity



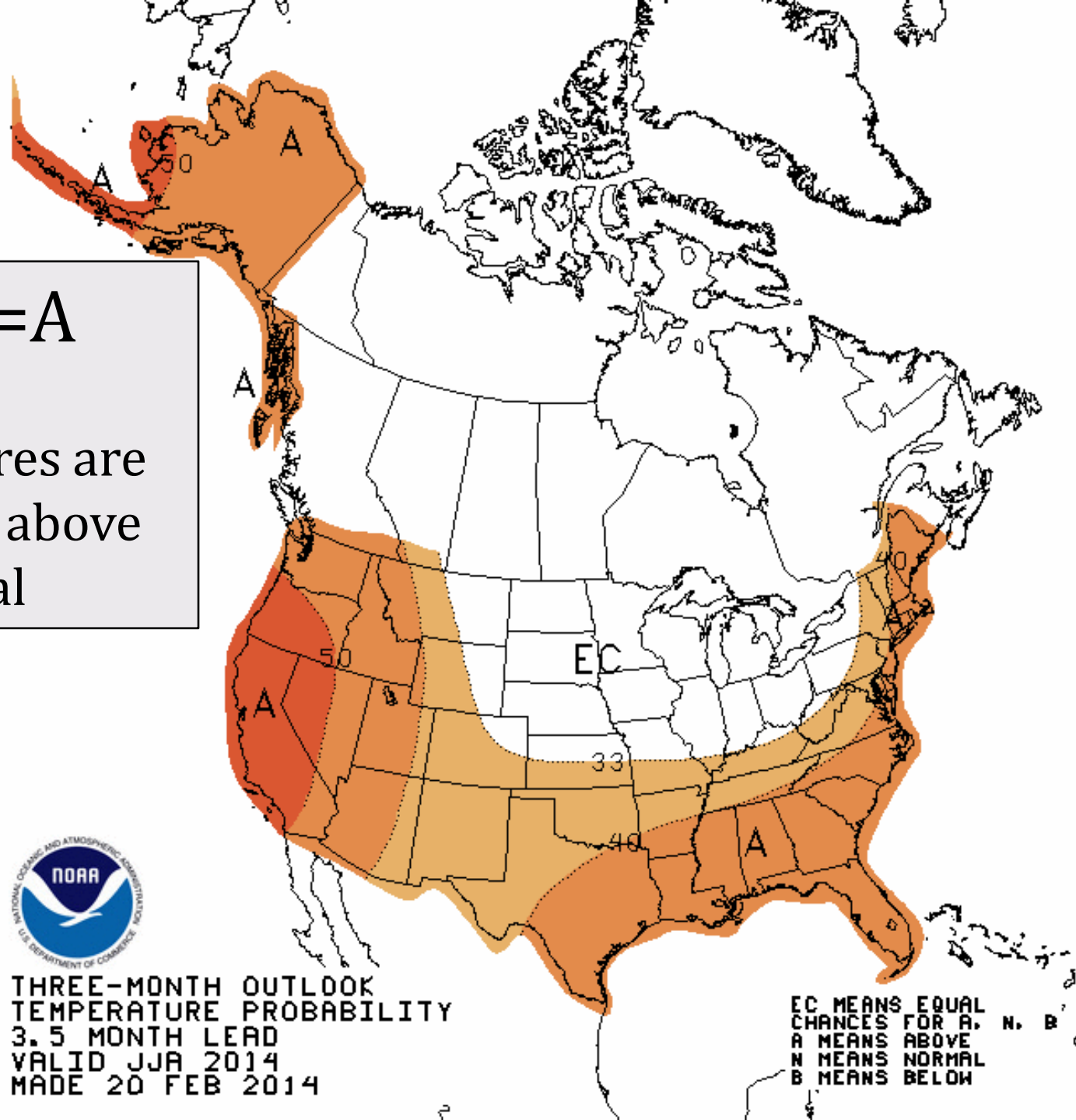
Temp=A

Temperatures are likely to be above normal



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
3.5 MONTH LEAD
VALID JJA 2014
MADE 20 FEB 2014

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW



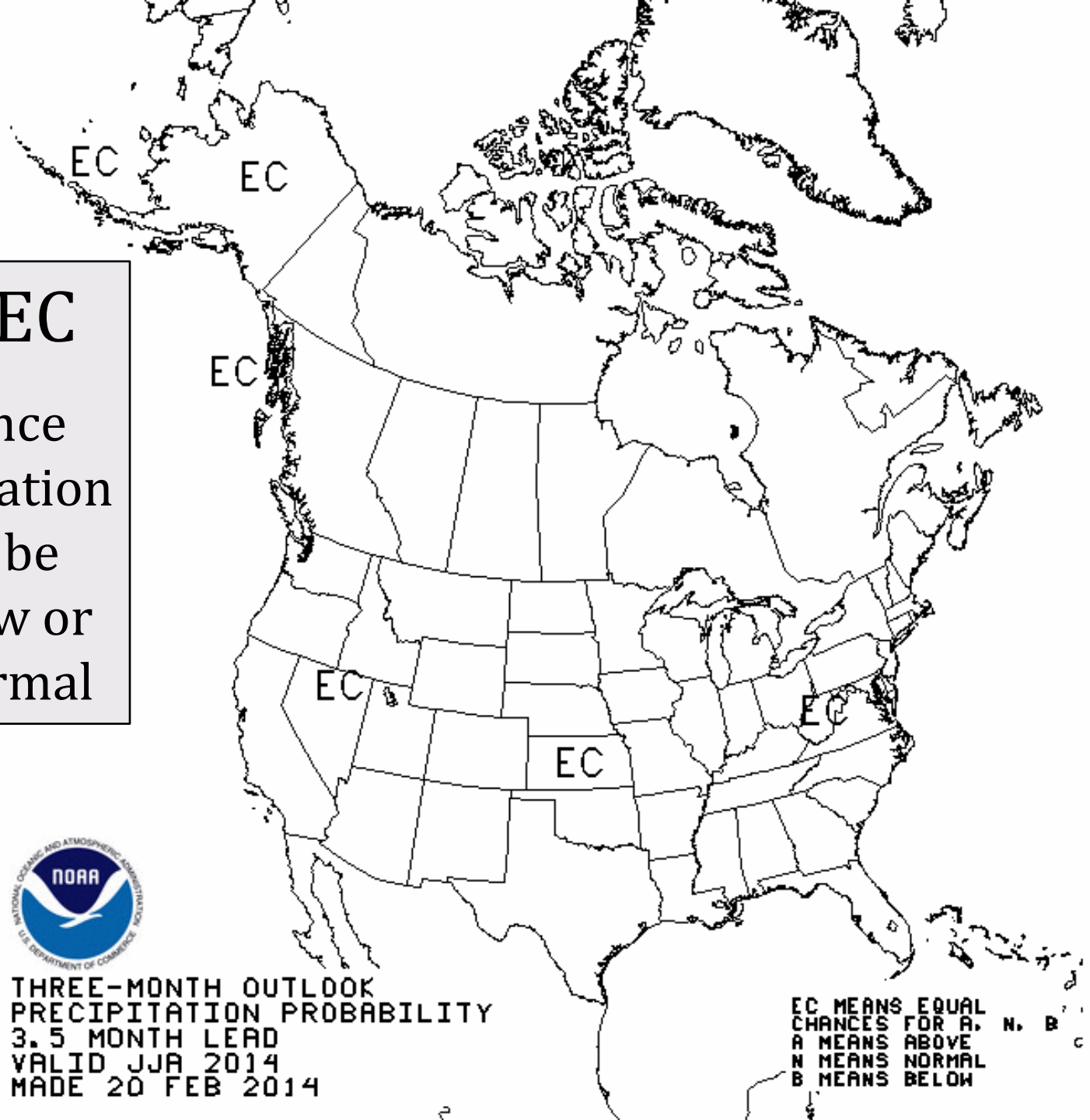
Precip=EC

Equal Chance
that precipitation
levels will be
above, below or
equal to normal



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
3.5 MONTH LEAD
VALID JJA 2014
MADE 20 FEB 2014

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW



February Forecast Summary

- **Snowpack well below normal**
- **Record snowfall required for normal**
- **Streamflow well below normal in southern Oregon**
- **Near normal streamflows in the Willamette, Umatilla and Grande Ronde Basins**

Regional Context

- **The governor of California declared a drought emergency for the entire State on January 17, 2014**

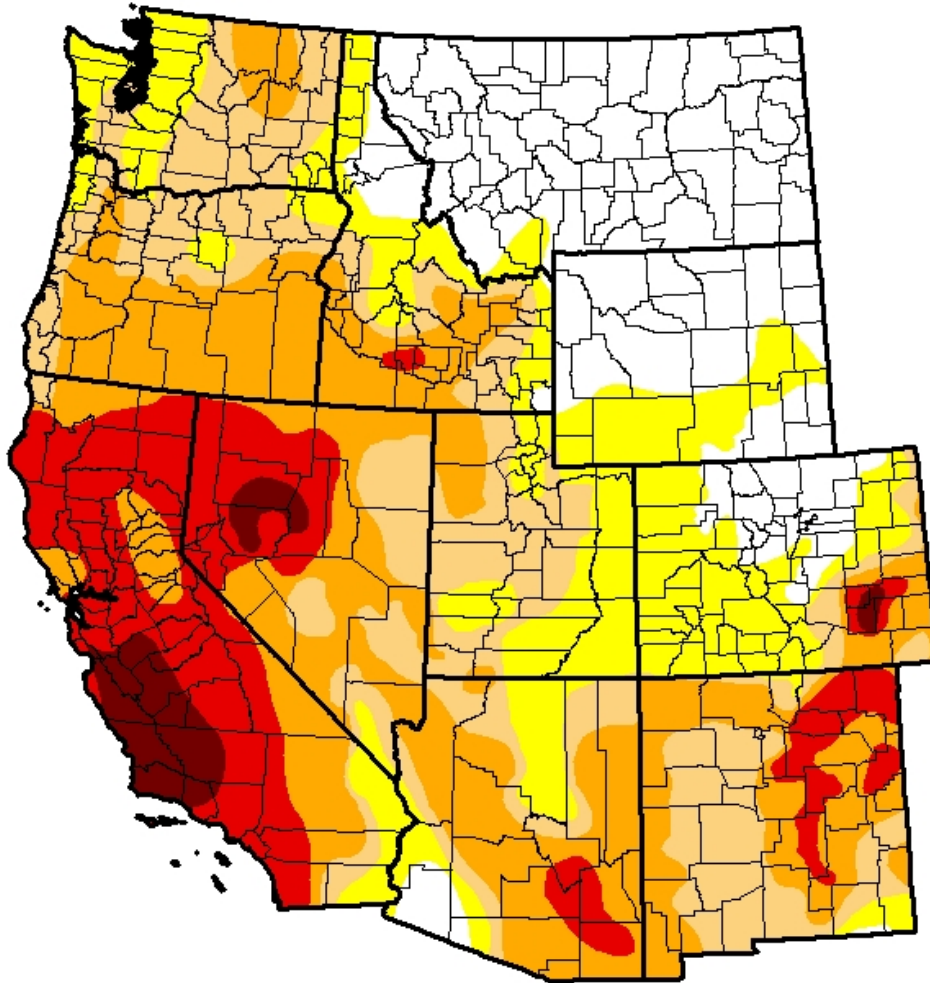
Current Drought Monitor

U.S. Drought Monitor West

February 18, 2014
(Released Thursday, Feb. 20, 2014)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|-------|-------|-------|-------|-------|------|
| Current | 21.76 | 78.24 | 59.88 | 40.17 | 14.89 | 2.58 |
| Last Week <i>2/11/2014</i> | 17.62 | 82.38 | 64.47 | 41.04 | 13.94 | 1.94 |
| 3 Months Ago <i>11/19/2013</i> | 27.36 | 72.64 | 53.20 | 32.23 | 7.56 | 0.63 |
| Start of Calendar Year <i>12/31/2013</i> | 22.20 | 77.80 | 51.44 | 31.11 | 7.75 | 0.63 |
| Start of Water Year <i>10/1/2013</i> | 25.25 | 74.75 | 58.96 | 34.18 | 5.57 | 0.63 |
| One Year Ago <i>2/19/2013</i> | 23.76 | 76.24 | 64.34 | 41.81 | 15.89 | 3.15 |



Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Miskus
NOAA/NWS/NCEP/CPC



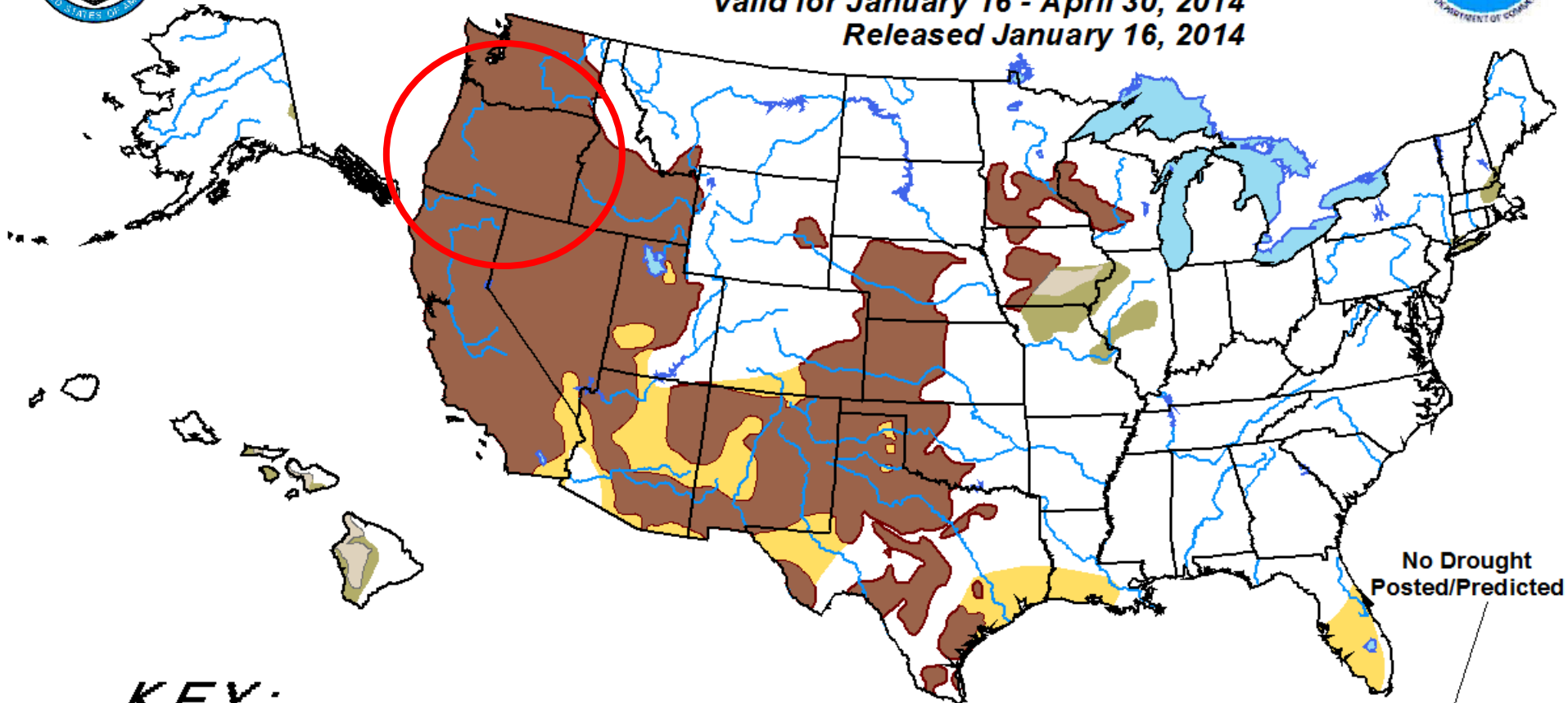


U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for January 16 - April 30, 2014


Released January 16, 2014




KEY:

 Drought persists or intensifies

 Drought remains but improves

 Drought removal likely

 Drought development likely

Author: Brad Pugh, Climate Prediction Center, NOAA

http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity).

For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain.

The Green areas imply drought removal by the end of the period (D0 or none)

Drought Declaration Process

- **Water Availability Committee**
- **Drought Council**
- **Governor's Declaration**






Water Availability Committee

- Subcommittee of the Drought Council
- Representatives
 - NRCS Snow Survey
 - NWS River Forecast Center
 - NWS Warning Office
 - Oregon Climate Service
 - ODF
 - USGS
 - OWRD





OREGON'S WATER AVAILABILITY COMMITTEE* WATER SUPPLY ASSESSMENT

FEBRUARY 2014

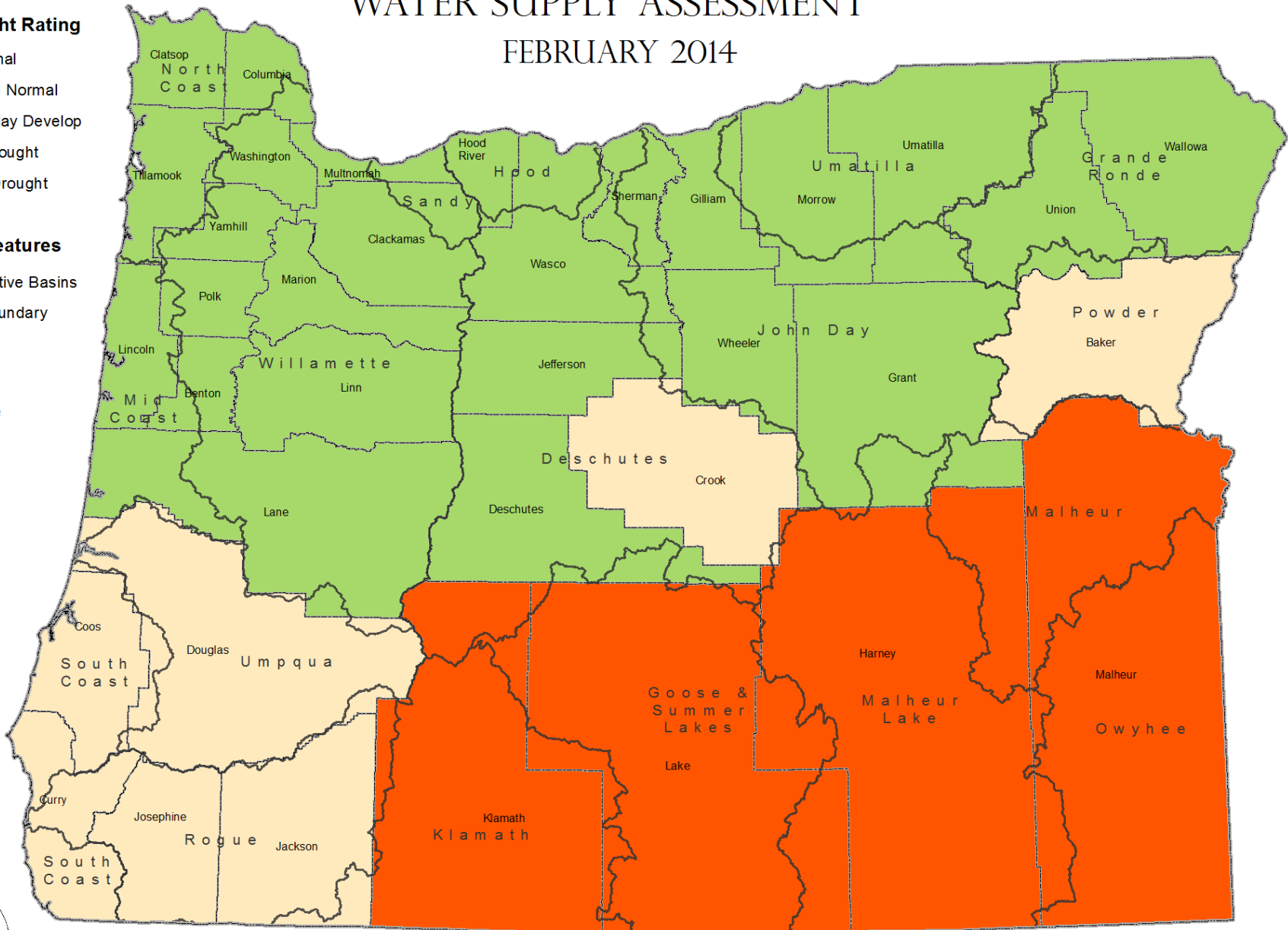
County Drought Rating

-  Near Normal
-  Drier Than Normal
-  Drought May Develop
-  Severe Drought
-  Extreme Drought

Geographic Features

-  Administrative Basins
-  County Boundary
-  Lakes
-  Streams

*Members Include State and Federal Science Agencies



Oregon Water Resources Department
725 Summer St. NE Suite A
Salem, OR 97301
<http://www.wrd.state.or.us/>

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



0 10 20 40 60 80 Miles

OWRD Hydrographics (eco), 2/11/2014
Projection: Oregon Lambert, NAD 83

Drought Declaration

Office of the Governor
State of Oregon



EXECUTIVE ORDER NO. 14 - 01

DETERMINATION OF A STATE OF DROUGHT EMERGENCY IN HARNEY, KLAMATH, LAKE, AND MALHEUR COUNTIES DUE TO DROUGHT AND LOW WATER CONDITIONS

Pursuant to ORS 401.165 and ORS 536.740, I find the continuing dry conditions, low snowpack, and lack of precipitation have caused natural and economic disaster conditions in the southeastern portion of the state. Projected forecasts are not expected to alleviate the severe drought conditions and the drought is having significant economic impacts on the affected counties' agricultural, livestock, and natural resources.

The dry conditions present hardships for these communities: Crops and agricultural and recreation investments are at risk; animals and plants that rely on Oregon's surface water supplies are threatened; and the risk of wildfires across the state is greatly increased. Current conditions are being monitored and analyzed by state agencies including the Department of Agriculture, the Department of Water Resources, and Oregon Office of Emergency Management.

A timely response to the severe drought conditions is vital to the safety of persons and property and economic security of the citizens and businesses of the affected Counties. I am therefore declaring a state of drought emergency in Harney, Klamath, Lake, and Malheur Counties and directing the following activities:

IT IS HEREBY ORDERED AND DIRECTED:

I. The Oregon Department of Agriculture is directed to coordinate and provide assistance in seeking federal resources available to mitigate conditions and affect agricultural recovery in the affected counties.

II. The Department of Water Resources is directed to coordinate and provide assistance and regulation for the affected counties as it determines is necessary in accordance with ORS 536.700 to 536.780.

III. The Office of Emergency Management is directed to coordinate and assist as needed with assessment and mitigation activities to address current and projected conditions in the affected counties.

- First 2014 Executive Order
- Four Southeast Oregon Counties
- ODA, OWRD and OEM direction

Next Steps

- **March 10, 2014 WAC meeting**
 - **Crook County declaration**
- **Conditions somewhat improved**
- **Monthly WAC meetings through at least June**

OWRD Drought Watch Home Page

The screenshot shows the Oregon Water Resources Department (OWRD) website. The browser address bar displays <http://www.oregon.gov/OWRD/pages/index.aspx>. The page features the Oregon.gov logo and a navigation menu. The main content area is titled "Water Resources Department" and includes a "Drought Watch" section. This section is highlighted with a red oval and contains a photograph of a dry landscape, a heading "Drought Watch", and a paragraph stating: "Oregon is currently experiencing dry conditions around most parts of the state, and Governor declared drought in several counties early in 2014. [Click here](#) to view our Drought Watch page for information on current conditions, the process for declaring a drought, and tools available when a drought is declared." Below this, there are two columns: "Agency Resources" with links for Well Constructors, Exempt Use Water Well Recording, Realtors®, Certified Water Right Examiners, Water Conservation, Drought Watch, Conservation and Supply Resources and Programs, Deschutes Basin Mitigation Program, Environmental Justice, Gold Mining: FAQ, and Assignments and Ownership Updates; and "Agency Spotlight" with the heading "Public Comment Received on Water Conservation, Reuse and Storage Grant Applications" and a paragraph detailing the department's response to public comments on grant applications, including a link to a summary of applications received. The right sidebar contains a list of navigation links such as Groundwater, Surface Water, Water Law, Water Rights Quick Links, Rulemaking, OWRD Legislative Updates, and Public Records Request, as well as a "Featured Links" section with items like Fee Schedule, Learn About Water Rights in Oregon, Water Rights Public Notice, Water Use Reporting, Agency Performance Measures, and Locate My Local Watermaster.



TEXT SIZE: A+ A- A • TEXT ONLY TRANSLATE Google™ Custom Search Find

Water Resources Department

- About Us
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- Adjudications
- Commission
- Dam Safety
- File Pickup
- Forms
- Groundwater
- Jobs at WRD
- Links
- Maps
- Publications
- Surface Water
- Transfers
- Water Law
- Water Management
- Water Rights
- Well Construction and Compliance

Drought Watch



Oregon is currently experiencing dry conditions around most parts of the state, and Governor declared drought in several counties early in 2014. [Click here](#) to view our Drought Watch page for information on current conditions, the process for declaring a drought, and tools available when a drought is declared.

< || > 2 of 2

Agency Resources

- Resources For:
- [Well Constructors](#)
 - [Exempt Use Water Well Recording](#)
 - [Realtors®](#)
 - [Certified Water Right Examiners](#)
 - [Water Conservation](#)
 - [Drought Watch](#)
 - [Conservation and Supply Resources and Programs](#)
 - [Deschutes Basin Mitigation Program](#)
 - [Environmental Justice](#)
 - [Gold Mining: FAQ](#)
 - [Assignments and Ownership Updates](#)

Agency Spotlight

Public Comment Received on Water Conservation, Reuse and Storage Grant Applications

The Department received nine grant applications for water conservation, reuse and storage projects totaling \$887,557. Public comment was solicited on these applications December 3, 2013 through January 3, 2014. Eight comments were submitted during this timeframe on the applications. The Department is now preparing funding recommendations to present to the Water Resources Commission for a decision at its regularly scheduled meeting in March 2014. A summary of the public comments will be available the first week of March.

[Click Here](#) for Summary of Applications Received

- Groundwater
- Surface Water
- Water Law
- Water Rights Quick Links
- Rulemaking
- OWRD Legislative Updates
- Public Records Request

Featured Links

- Fee Schedule
- Learn About Water Rights in Oregon
- Water Rights Public Notice
- Water Use Reporting
- Agency Performance Measures
- Locate My Local Watermaster

OWRD Drought Response Tools

- Preference of water rights use for human or livestock consumption
- Temporary supplemental groundwater right
- Temporary emergency permits, transfers and in-stream leases
- Special option agreements
- Temporary exchange of water source

Action Item

Preference to human and livestock use for Klamath County

Four Alternatives

1. Adopt draft temporary rules (Attachment 5)
2. Hold teleconference meeting in April
3. Find temporary rules are not needed
4. Direct staff to explore other options

Recommendation

**The Director Recommends
alternative 1; Adopt draft
temporary rules OAR 690,
Division 22**