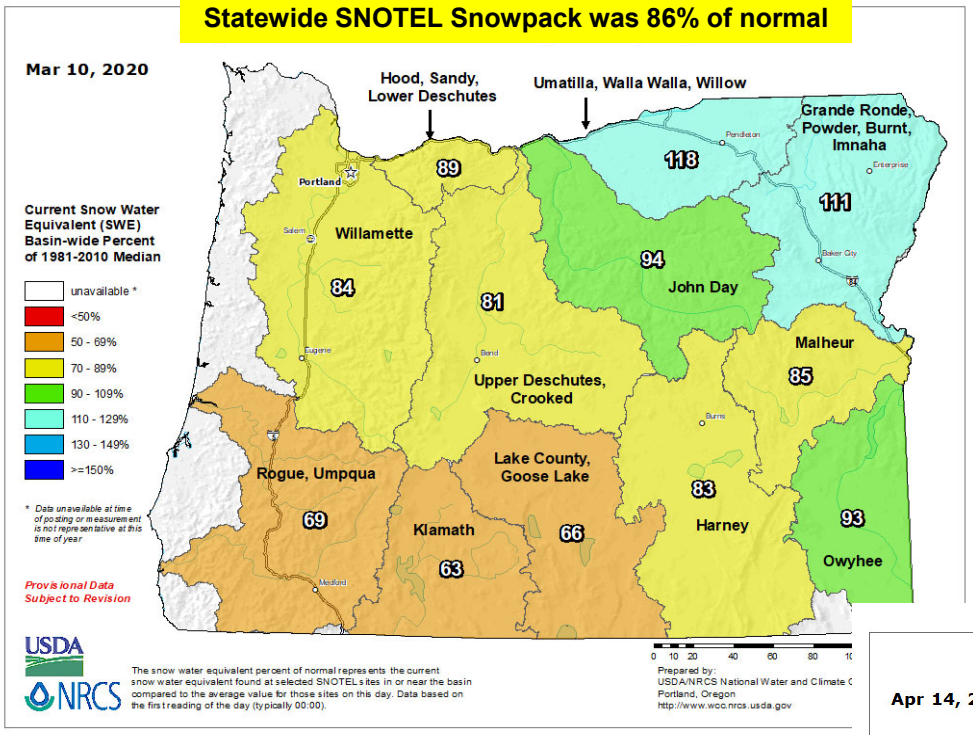
# Oregon Water Supply Availability Committee - April 14, 2020

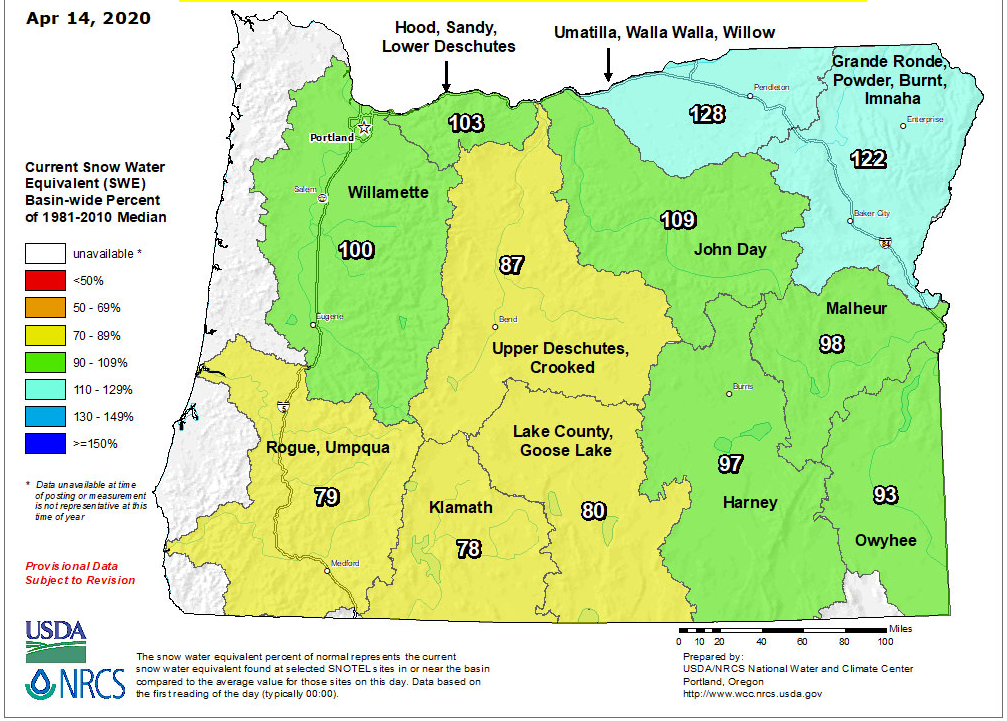
**Siskiyou Summit Snow Course**
**March 31, 2020**
**Elev = 4,560’**

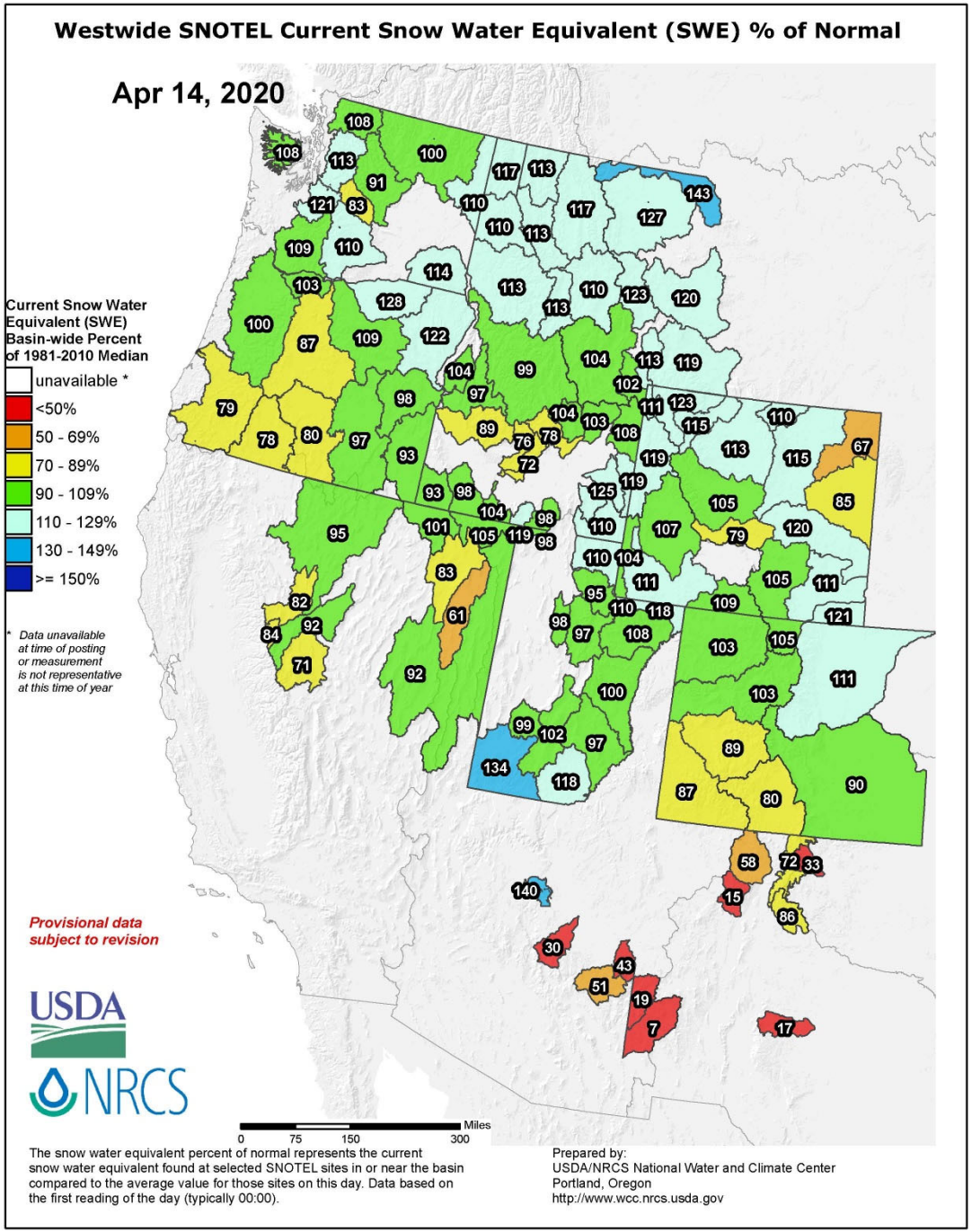
**H. Scott Oviatt**
**USDA – Natural Resources Conservation Service**
**scott.oviatt@usda.gov**
**503-414-3271**

## Statewide SNOTEL Snowpack was 86% of normal



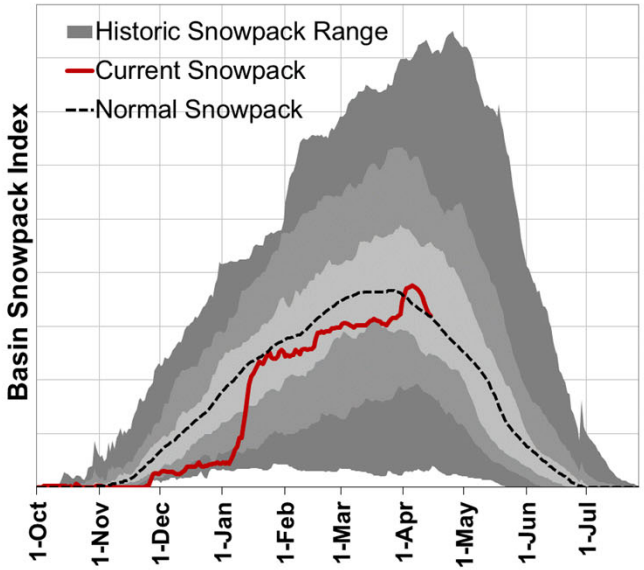

## Statewide SNOTEL Snowpack is 99% of normal



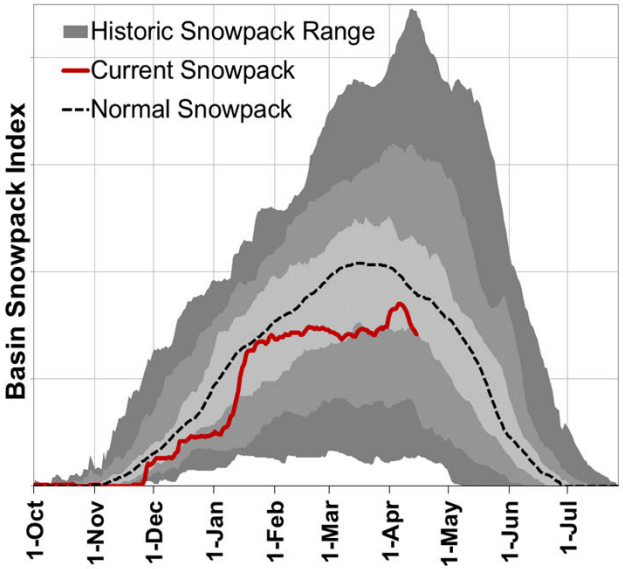

Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal
Apr 14, 2020
Current Snow Water Equivalent (SWE) Basin-wide Percent of 1981-2010 Median
unavailable *
<50%
50 - 69%
70 - 89%
90 - 109%
110 - 129%
130 - 149%
>= 150%
* Data unavailable at time of posting or measurement is not representative at this time of year
Provisional data subject to revision
USDA
NRCS
0 75 150 300 Miles
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:
USDA/NRCS National Water and Climate Center
Portland, Oregon
http://www.wcc.nrcs.usda.gov

# April 14, 2020

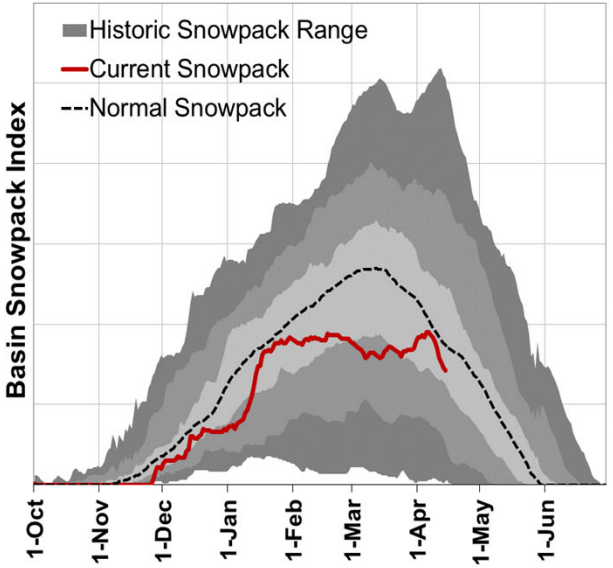
## Willamette



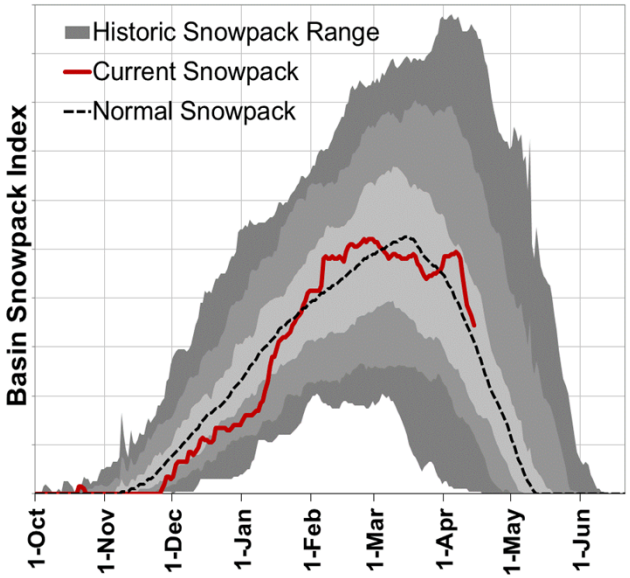

## Rogue/Umpqua



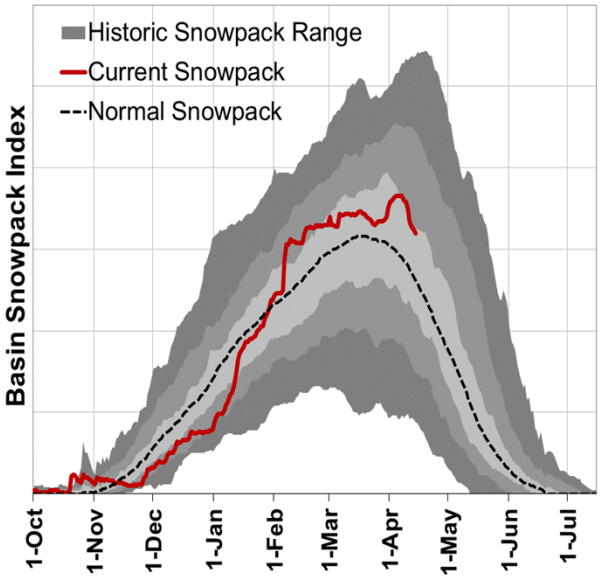

## Klamath



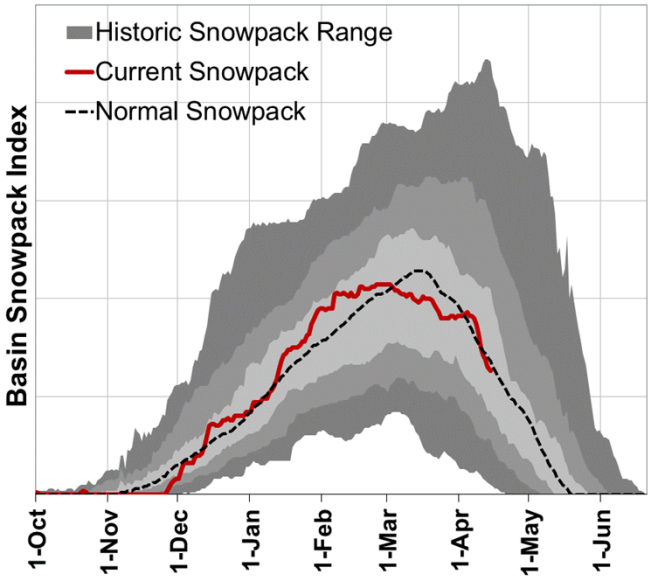

## John Day



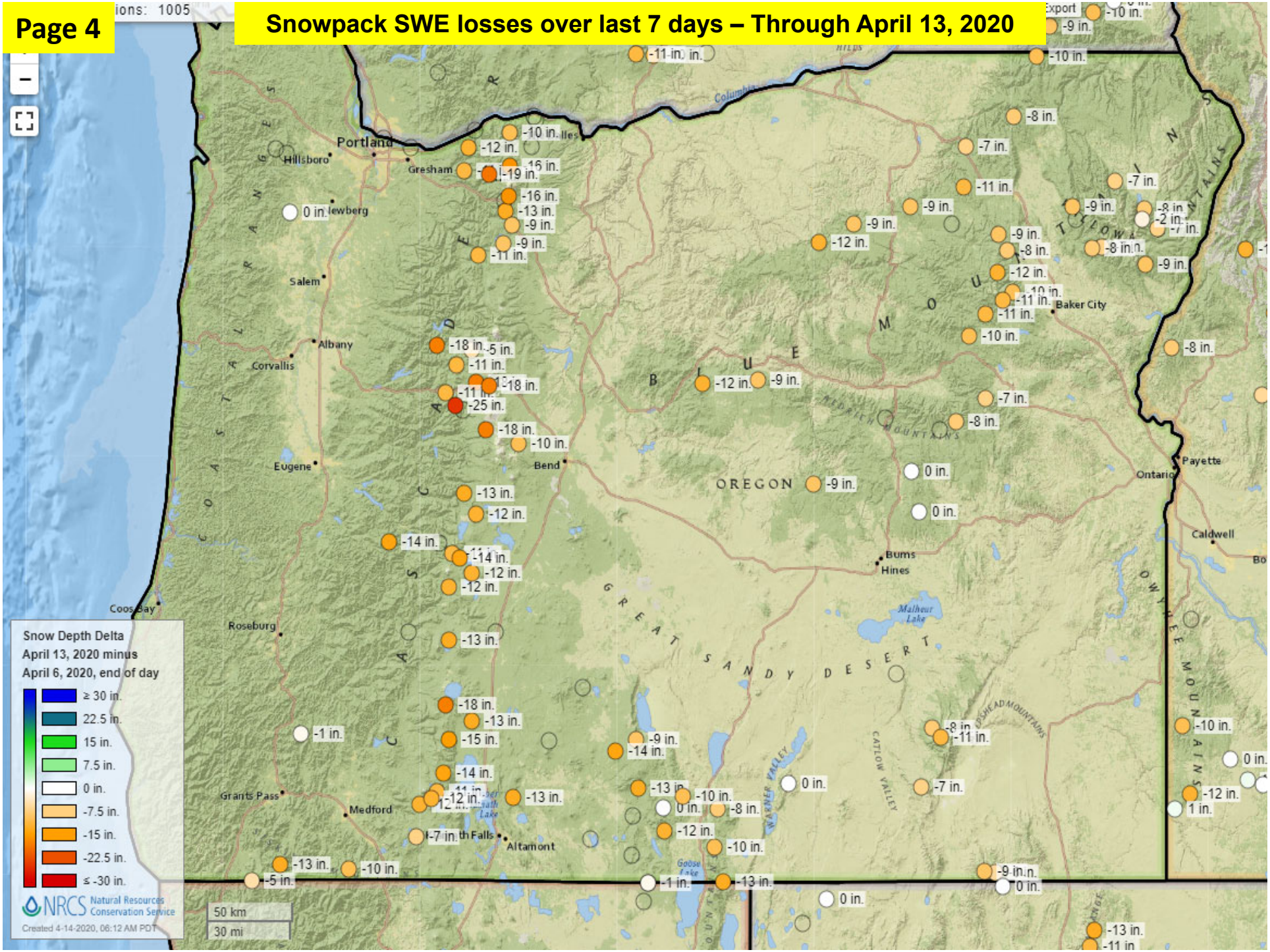

## Grande Ronde/Powder/Burnt



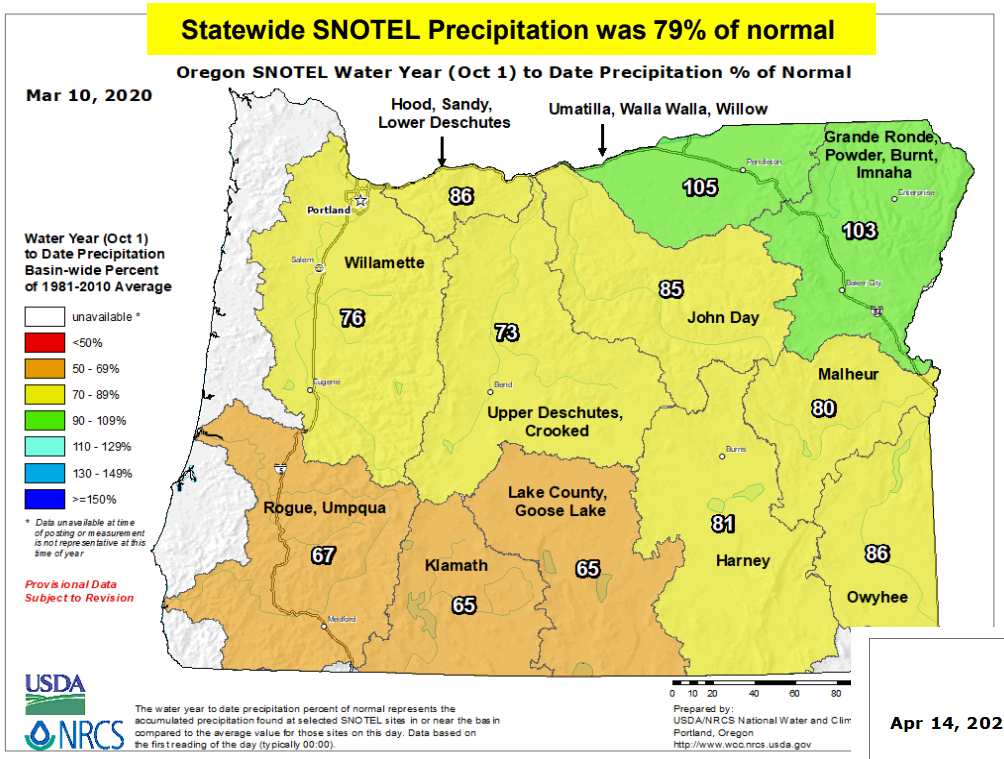

## Owyhee/Malheur



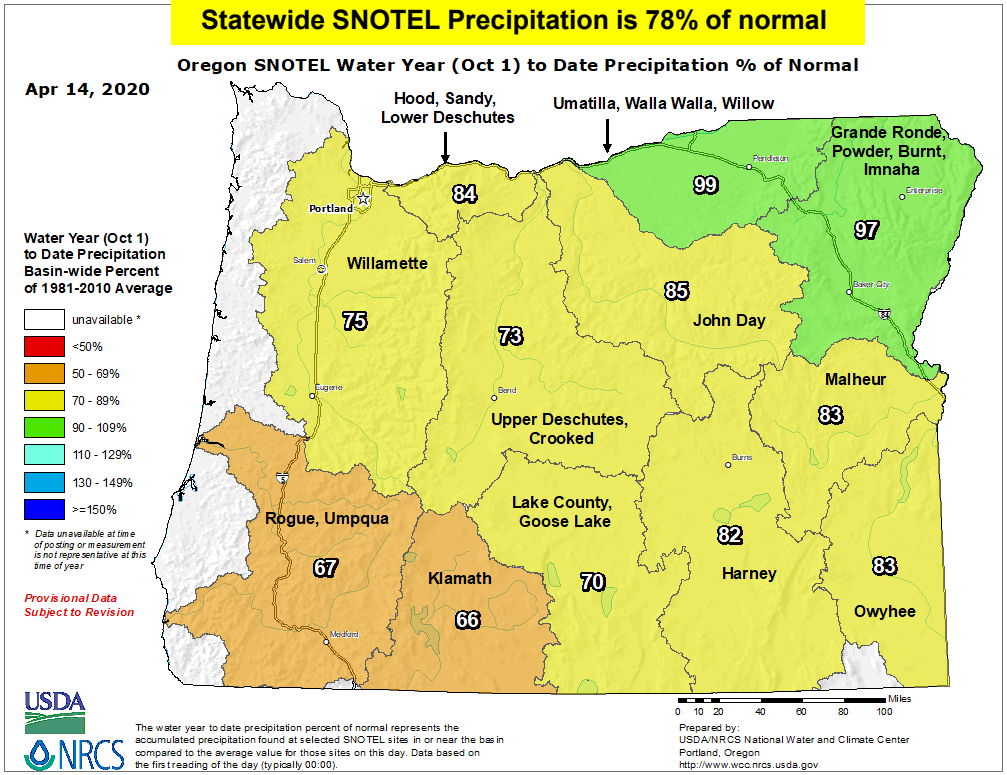
# Snowpack SWE losses over last 7 days – Through April 13, 2020

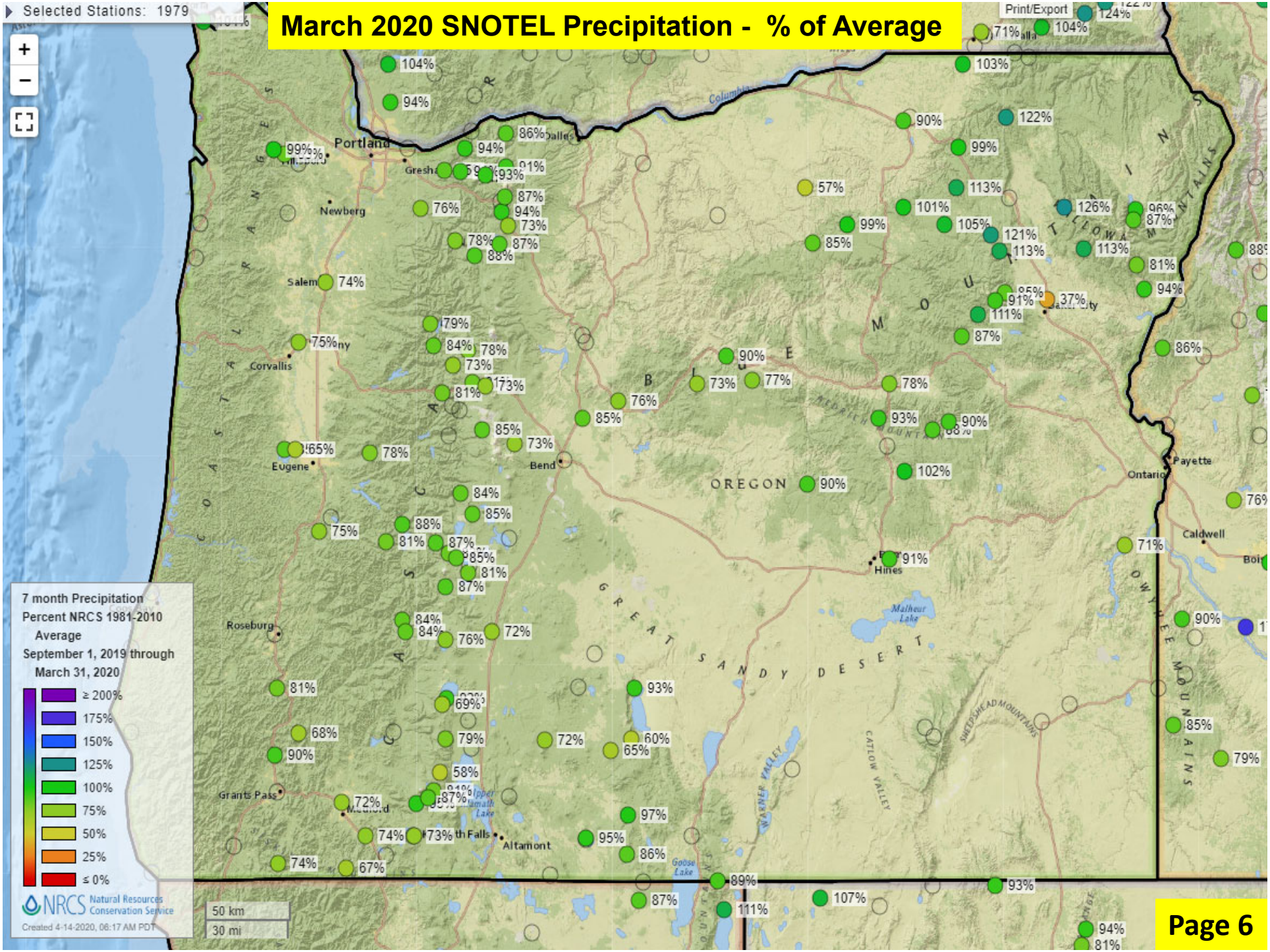


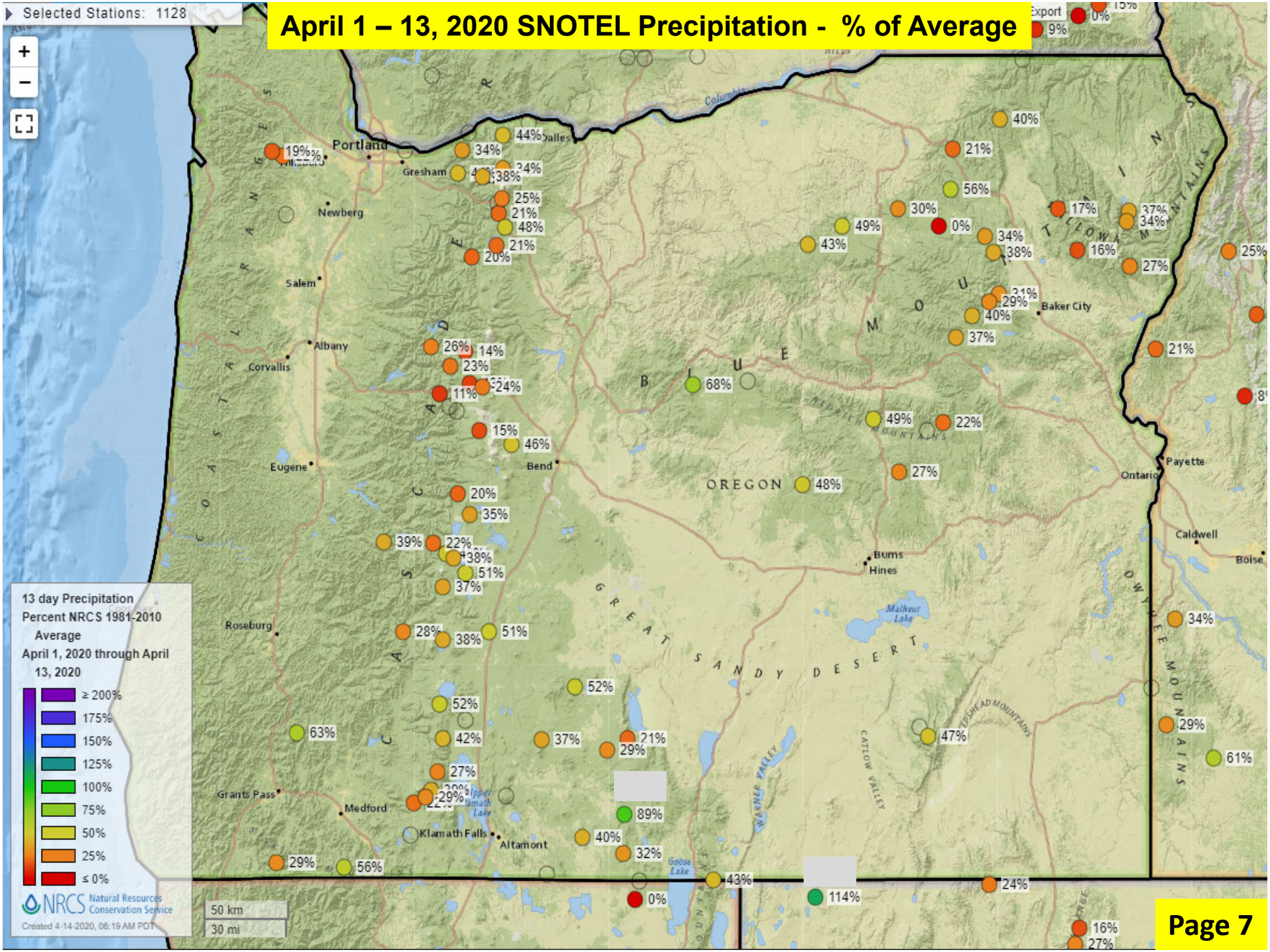
## Statewide SNOTEL Precipitation was 79% of normal

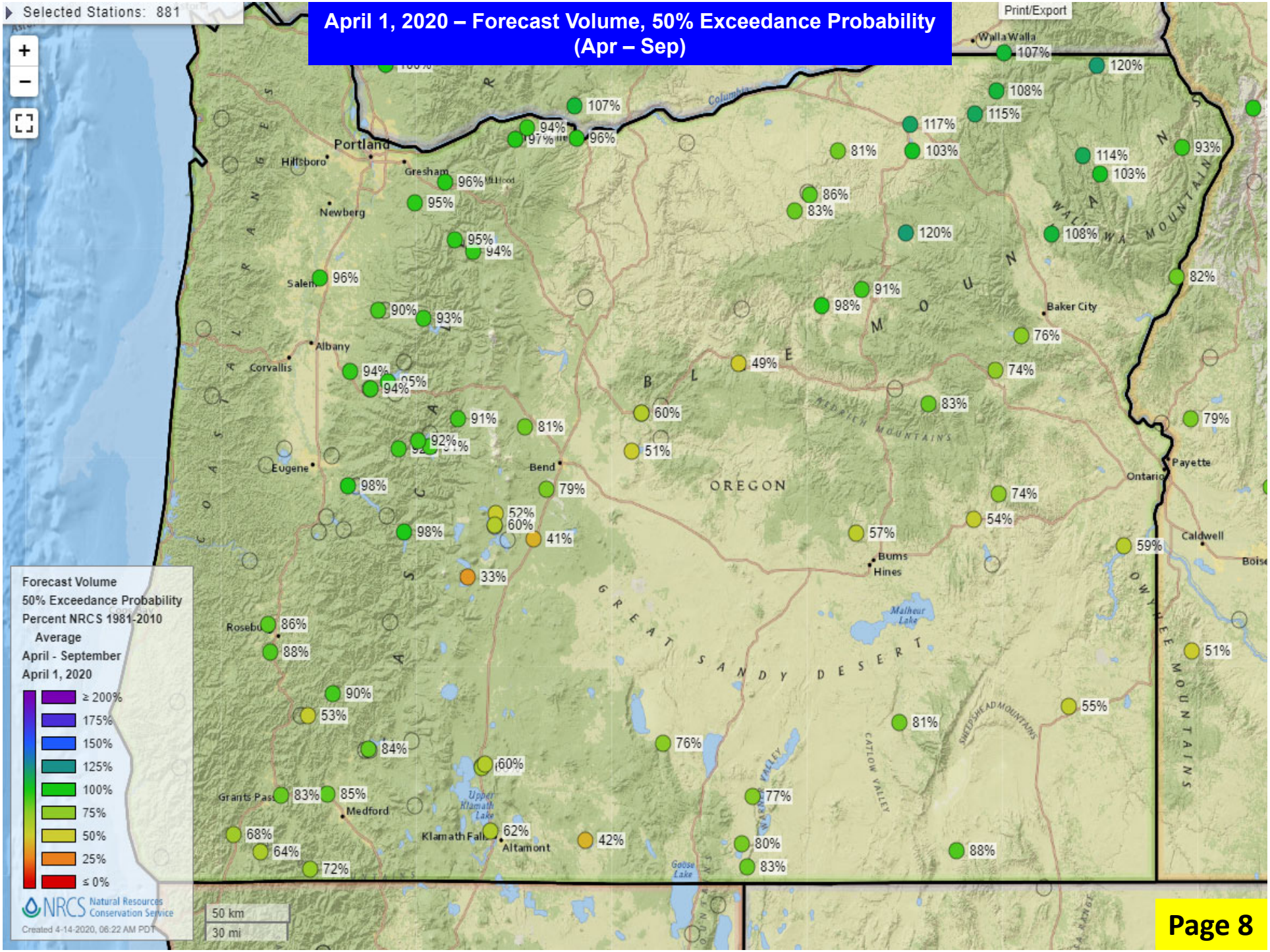



## Statewide SNOTEL Precipitation is 78% of normal




Selected Stations: 1979
March 2020 SNOTEL Precipitation - % of Average
Print/Export
7 month Precipitation
Percent NRCS 1981-2010
Average
September 1, 2019 through
March 31, 2020
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
NRCS Natural Resources Conservation Service
Created 4-14-2020, 06:17 AM PDT
50 km
30 mi
Portland
Salem
Eugene
Corvallis
Newberg
Roseburg
Grants Pass
Bend
Hines
Altamont
Ontario
Payette
Caldwell
OREGON
GREAT SANDY DESERT
COAST RANGES
CASCADES
BLUE MOUNTAINS
OWYHEE MOUNTAINS
Malheur Lake
Goose Lake
Upper Klamath Lake
WARNER VALLEY
CATLOW VALLEY
SHEEPSHEAD MOUNTAINS


Selected Stations: 1128
April 1 – 13, 2020 SNOTEL Precipitation - % of Average
13 day Precipitation
Percent NRCS 1981-2010 Average
April 1, 2020 through April 13, 2020
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
NRCS Natural Resources Conservation Service
Created 4-14-2020, 06:19 AM PDT
50 km
30 mi
Portland
Gresham
Newberg
Salem
Albany
Corvallis
Eugene
Roseburg
Grants Pass
Medford
Klamath Falls
Altamont
Bend
Burns
Hines
Baker City
Payette
Ontario
Caldwell
Boise
OREGON
Malheur Lake
Goose Lake
Upper Klamath Lake
GREAT SANDY DESERT
Page 7

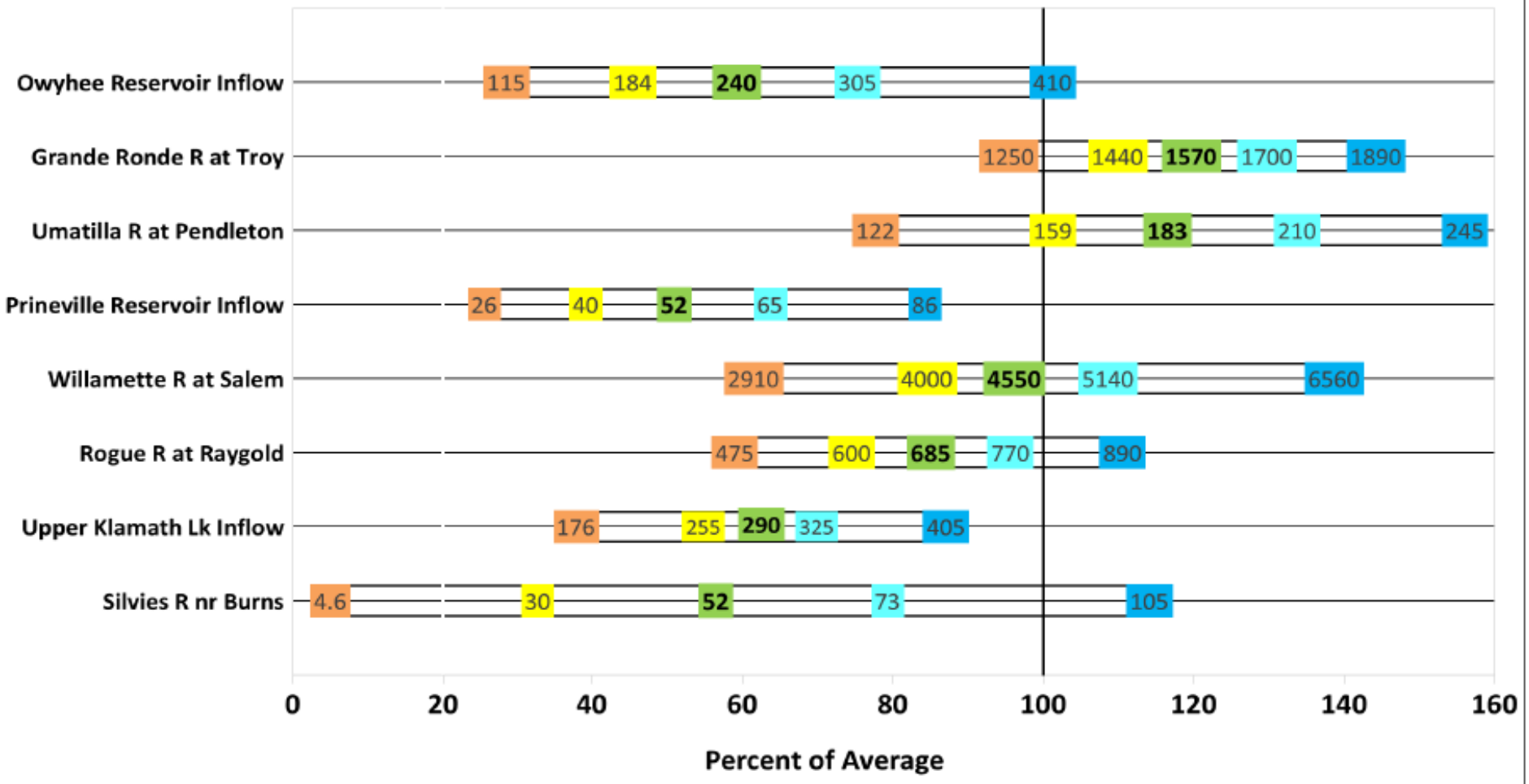

Selected Stations: 881
April 1, 2020 – Forecast Volume, 50% Exceedance Probability
(Apr – Sep)
Print/Export
Forecast Volume
50% Exceedance Probability
Percent NRCS 1981-2010
Average
April - September
April 1, 2020
≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
NRCS Natural Resources Conservation Service
Created 4-14-2020, 06:22 AM PDT
50 km
30 mi
Portland
Hillsboro
Gresham
Newberg
Salem
Albany
Corvallis
Eugene
Bend
Roseburg
Grants Pass
Medford
Klamath Falls
Altamont
Walla Walla
Baker City
Ontario
Payette
Caldwell
Boise
Burns
Hines
OREGON
GREAT SANDY DESERT
Malheur Lake
Upper Klamath Lake
Goose Lake
Columbia
107%
94%
97%
96%
96%
95%
95%
94%
96%
90%
93%
94%
94%
95%
91%
81%
92%
98%
79%
52%
60%
41%
98%
33%
86%
88%
90%
53%
84%
60%
83%
85%
68%
64%
72%
62%
42%
76%
77%
80%
83%
88%
81%
55%
57%
59%
51%
74%
54%
49%
74%
76%
83%
79%
60%
51%
91%
98%
120%
108%
81%
103%
86%
83%
117%
115%
107%
120%
108%
114%
103%
93%
82%

April 1, 2020

# Summary of Streamflow Forecasts across Oregon

## April through September Forecast Volumes at a Selection of Streamflow Points

## (Volumes listed in KAF)




**Legend:** ←----------Drier----------**Future Conditions**----------Wetter----------→

| 90% Exceedance Forecast (KAF) | 70% Exceedance Forecast (KAF) | 50% Exceedance Forecast (KAF) | 30% Exceedance Forecast (KAF) | 10% Exceedance Forecast (KAF) |
|---|---|---|---|---|
| There is a 90% chance that flows will exceed this volume. | There is a 70% chance that flows will exceed this volume. | There is a 50% chance that flows will exceed this volume. | There is a 30% chance that flows will exceed this volume. | There is a 10% chance that flows will exceed this volume. |

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**Siskiyou Summit Snow Course**
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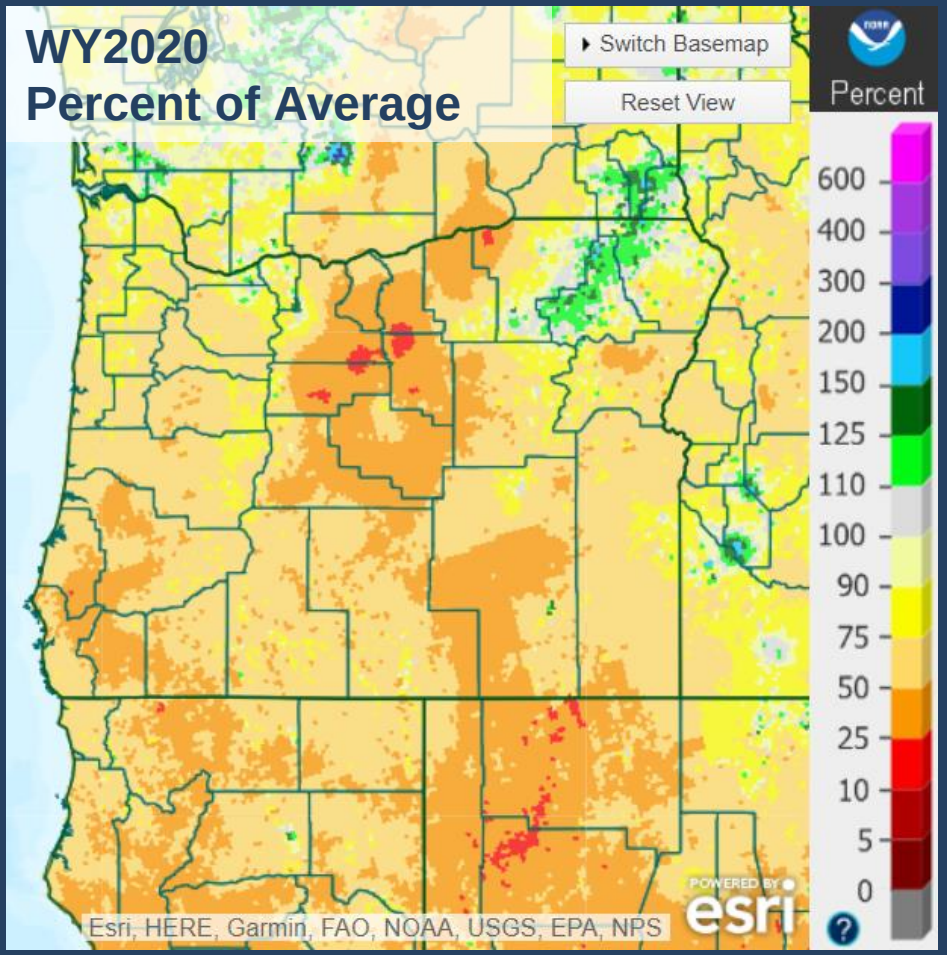
April 14, 2020

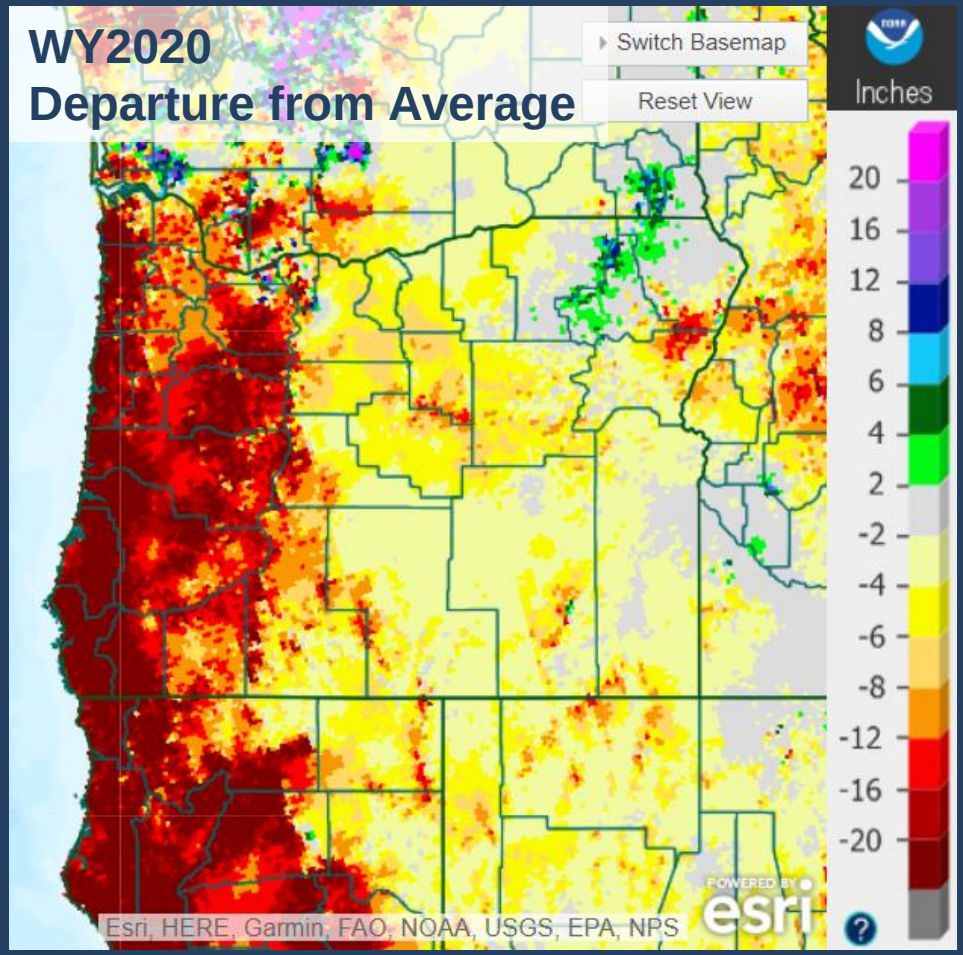
# Oregon WSAC

## National Weather Service Precipitation & Temperatures Update

Andy Bryant
NOAA/NWS Portland
Weather Forecast Office

# Water Year Precipitation

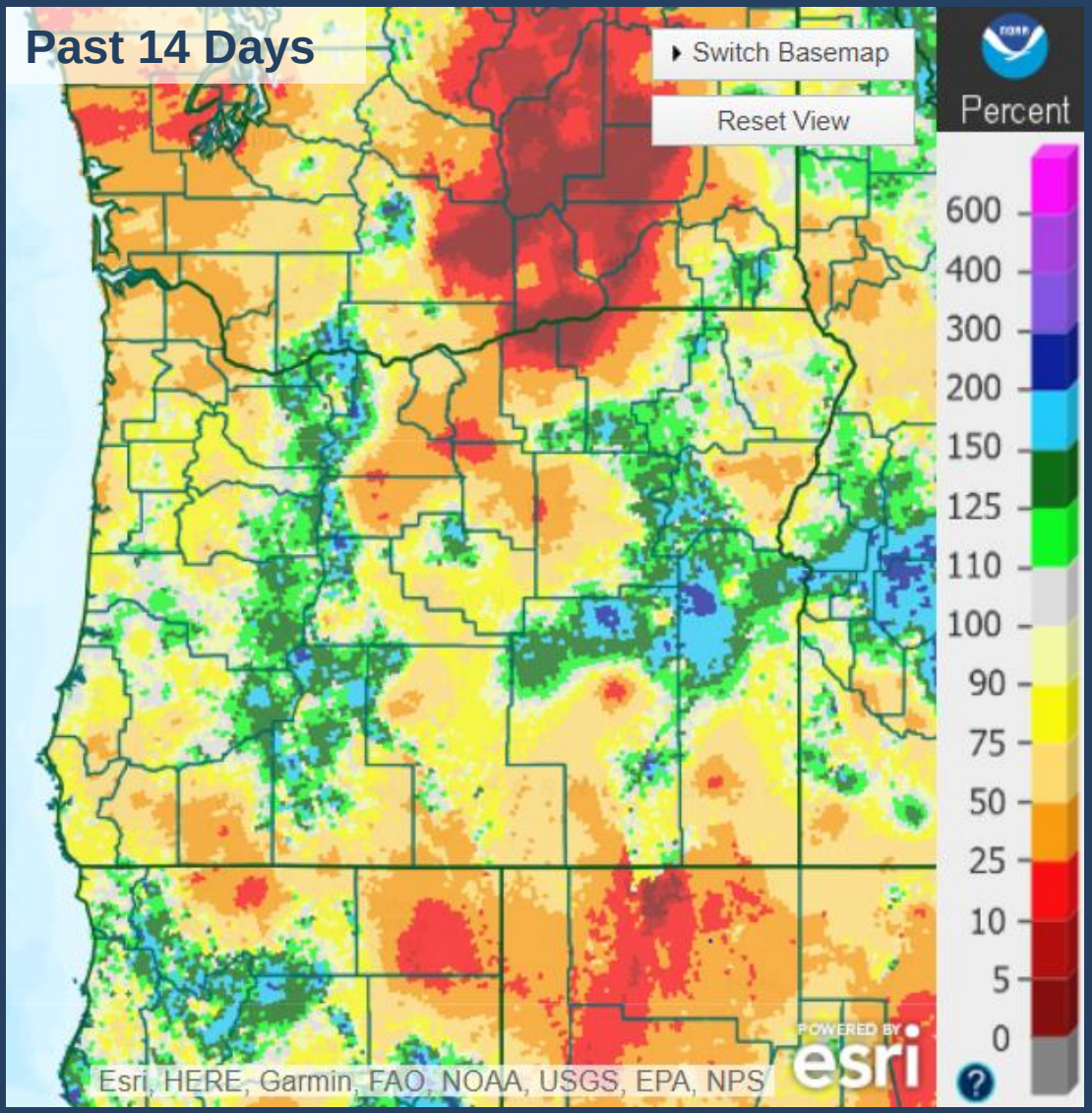


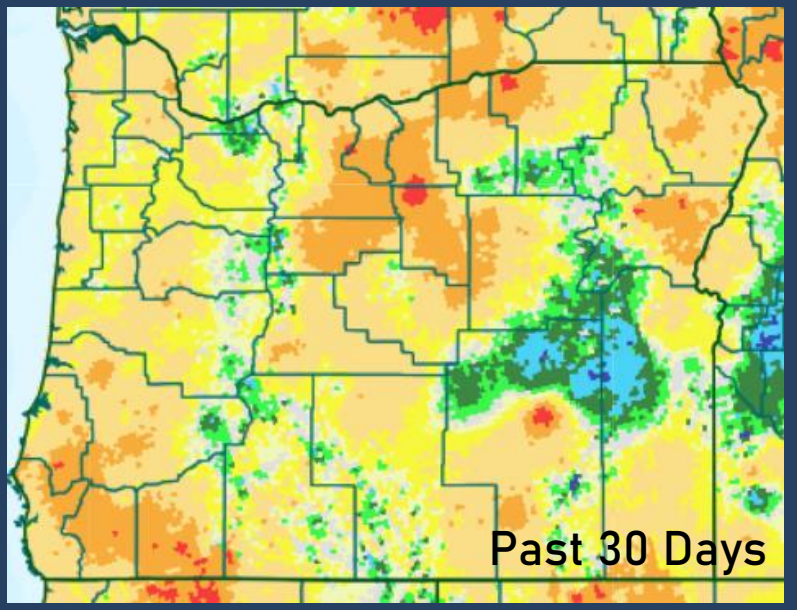



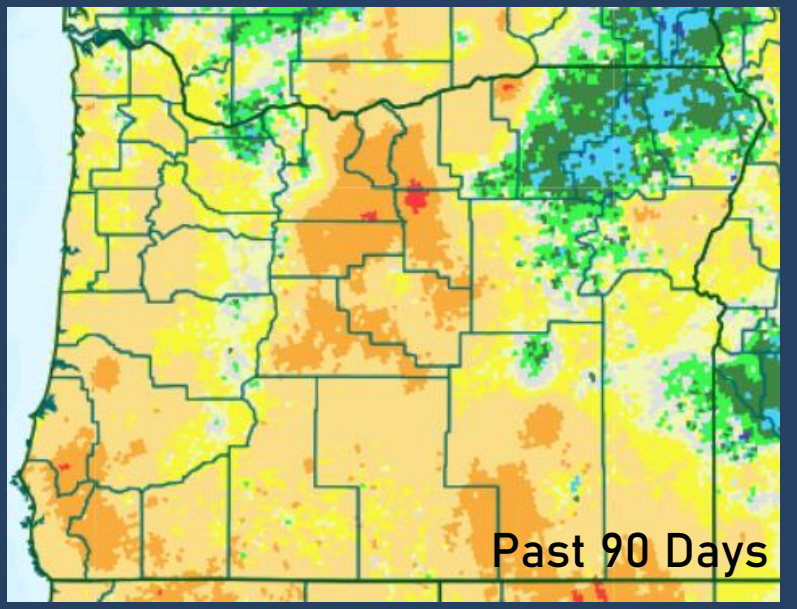

Precipitation Data as of April 13, 2020

Source: water.weather.gov/precip/index.php?location_type=wfo&location_name=pqr

# Precipitation % of Average



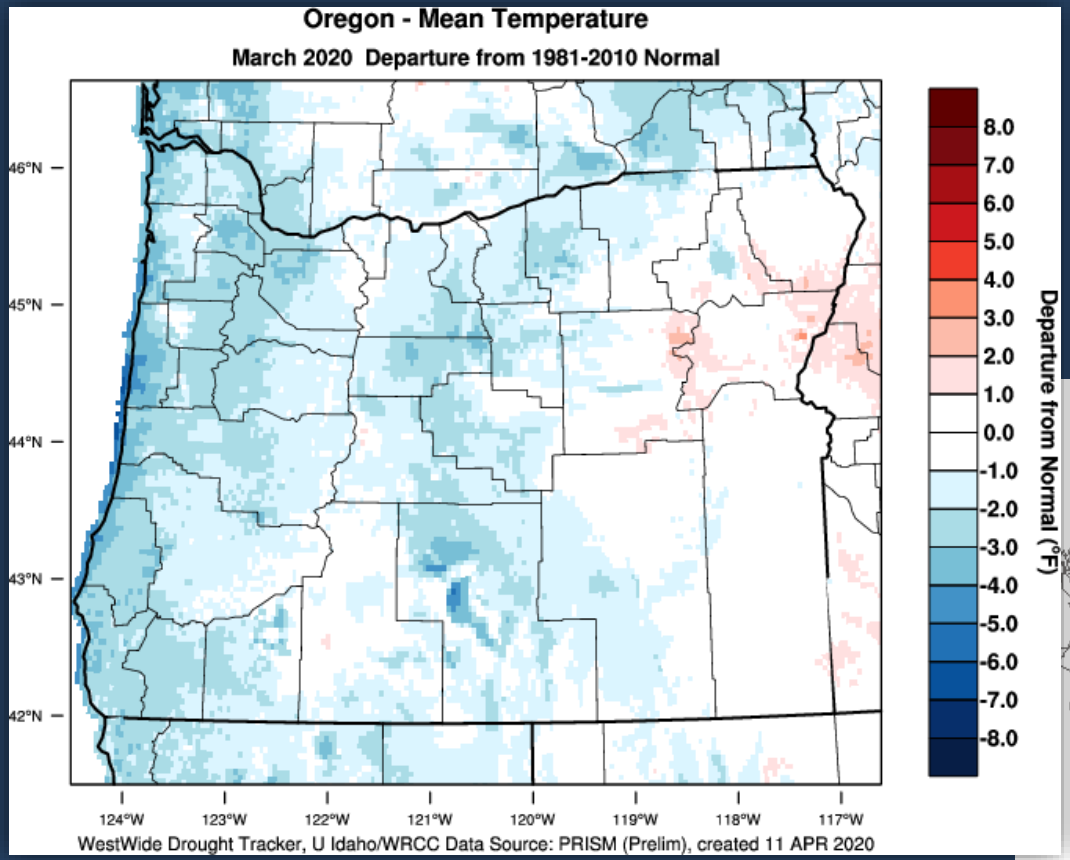

Precipitation Data as of April 13, 2020

Source: water.weather.gov/precip/index.php?location_type=wfo&location_name=pqr

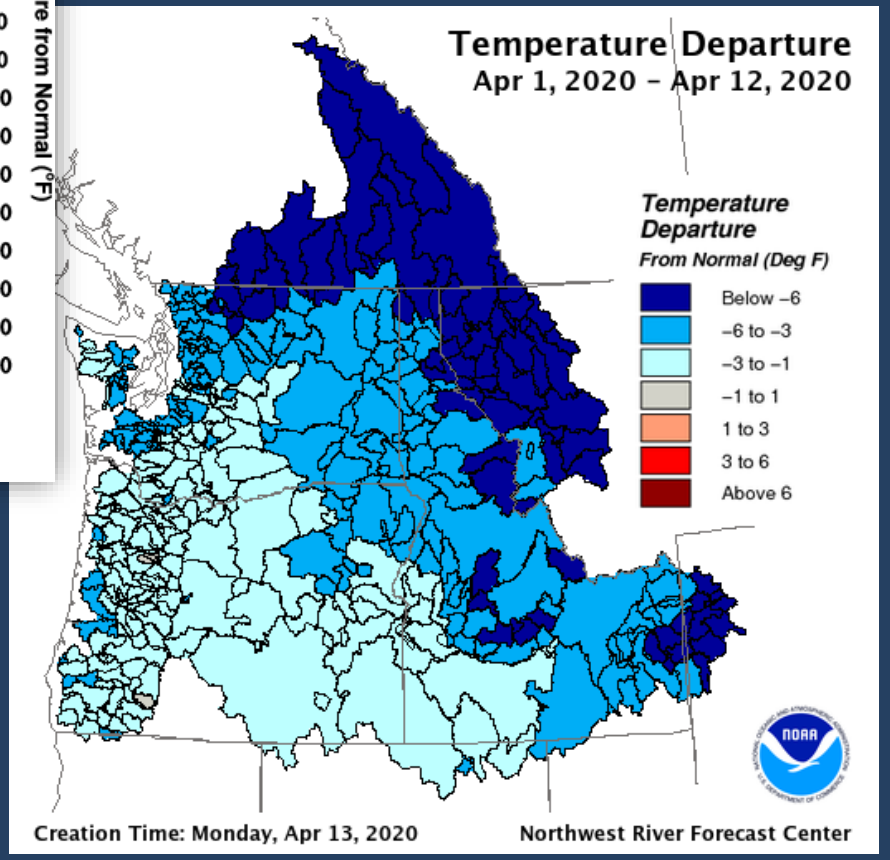
# Recent Temperatures



March 2020




April 1 – 12, 2020

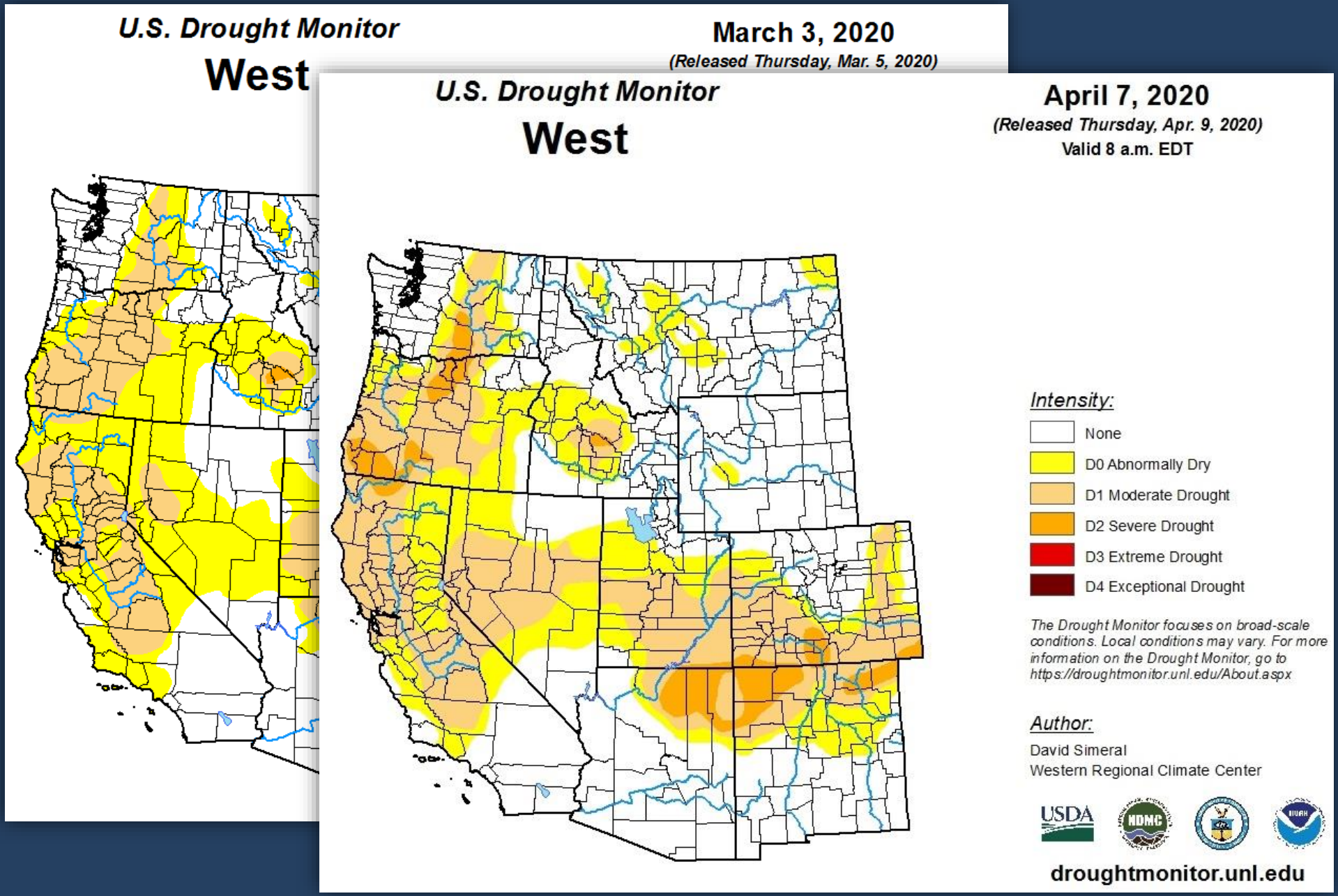



wrcc.dri.edu/wwdt/current.php?folder=mdn1

www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php?tab=2

# Drought Monitor

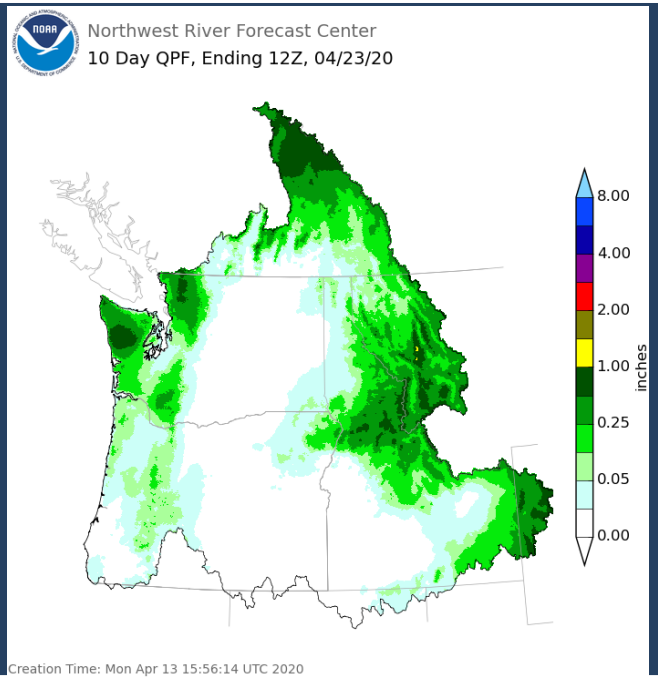


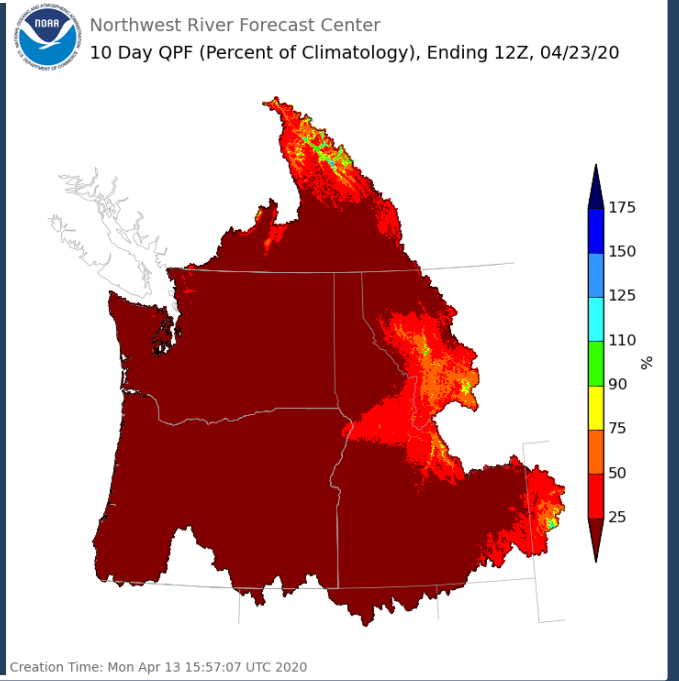


# Mid/Late April Outlook

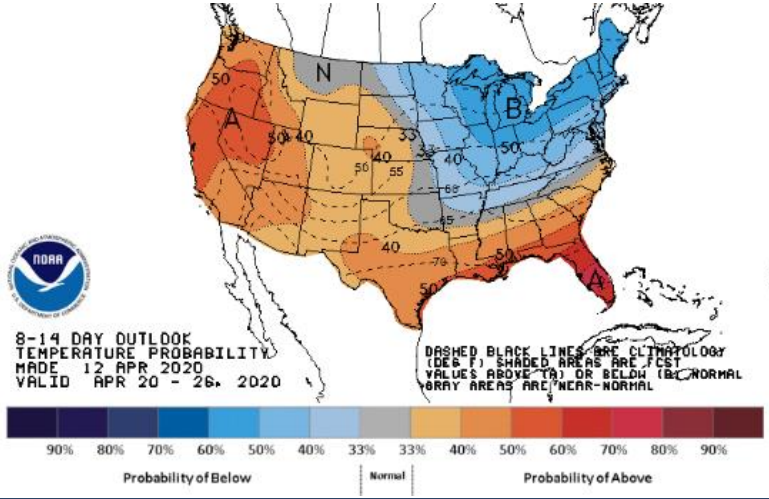


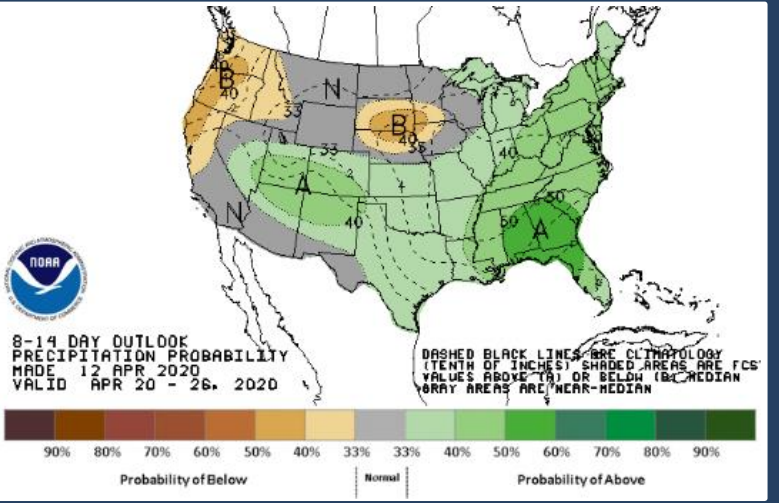
NWRFC
10-DAY
PRECIPITATION




CPC
8 – 14 DAY
OUTLOOK



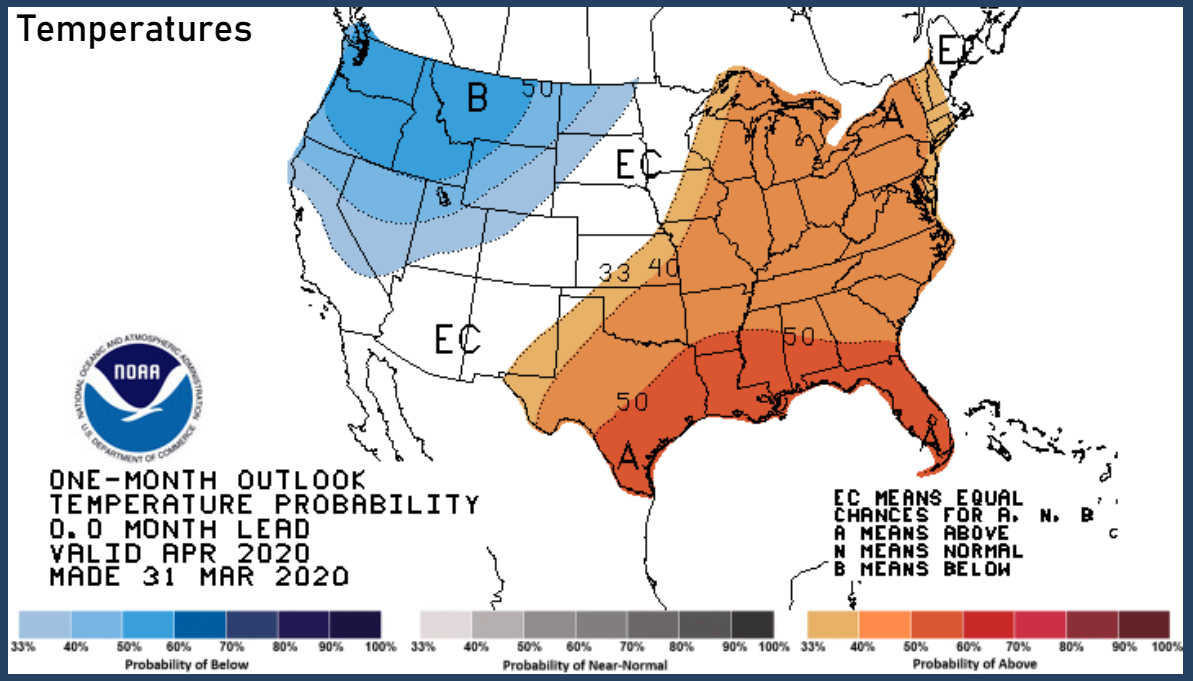



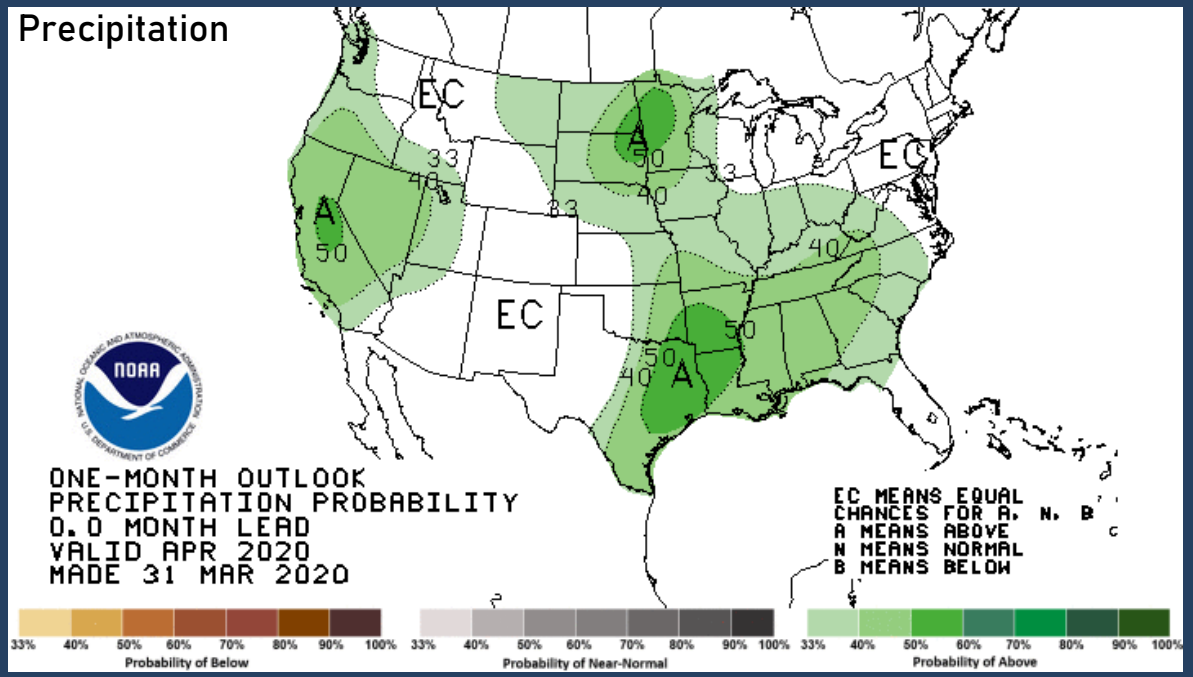

https://www.nwrfc.noaa.gov/water_supply/wy_summary/wy_summary.php?t

https://www.cpc.ncep.noaa.gov/products/predictions/814day/

# Climate Prediction Center Outlook

## April 2020

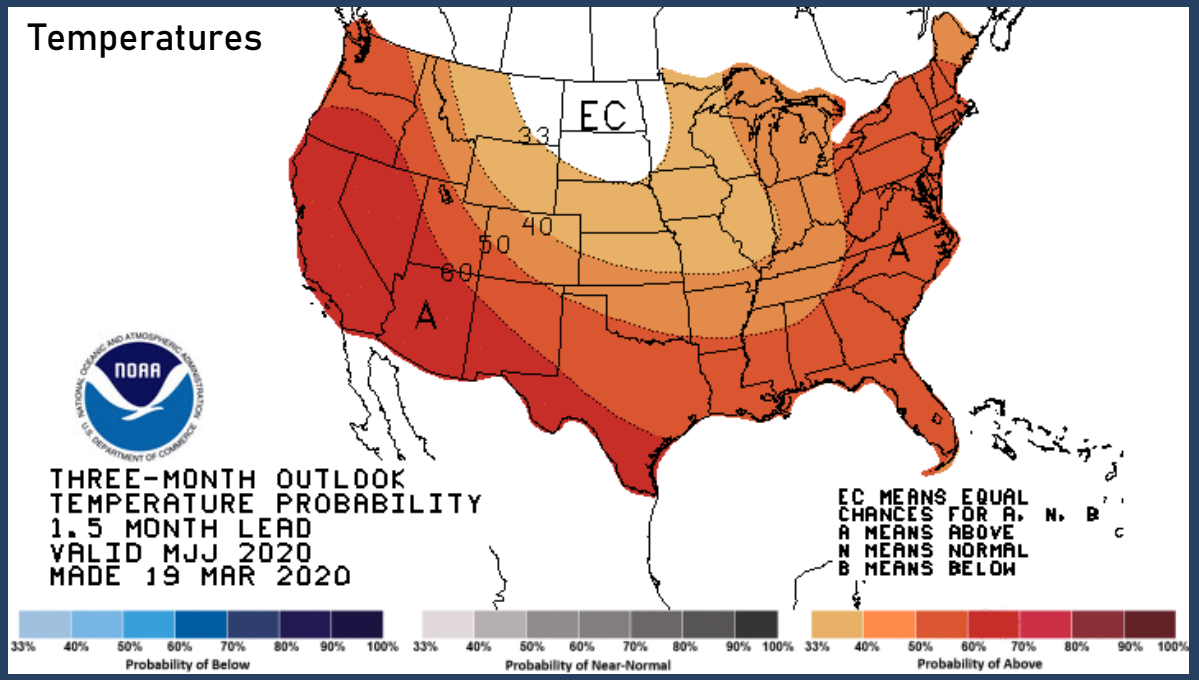


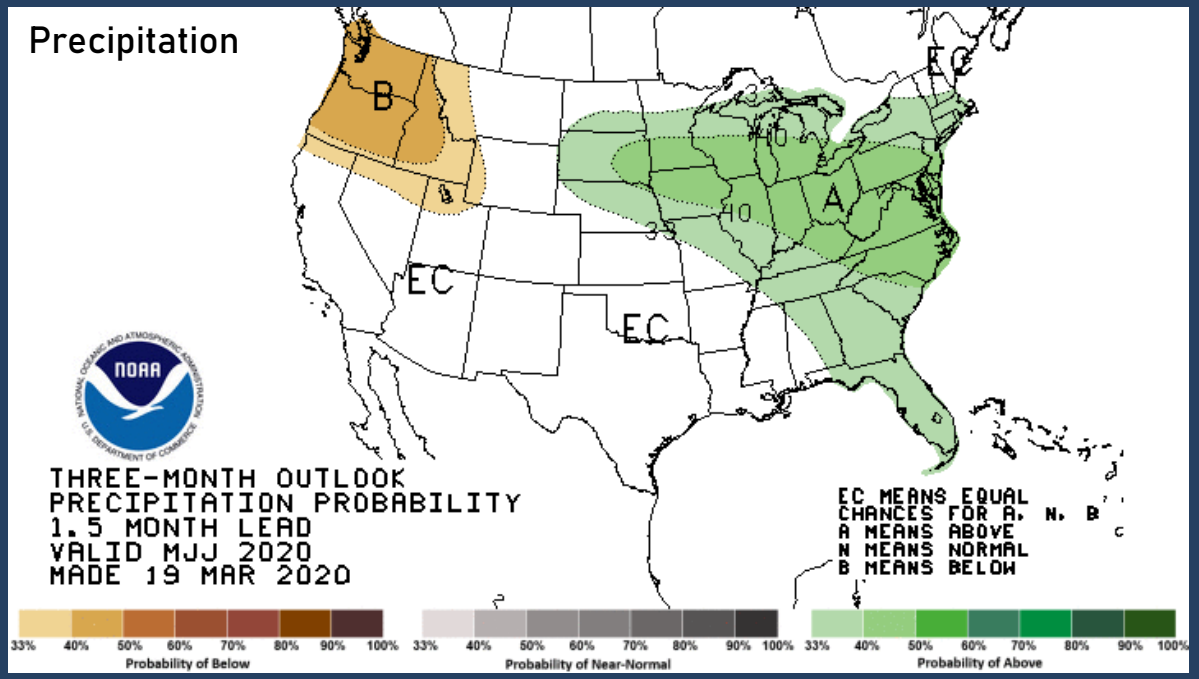




https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/

# Climate Prediction Center Outlook

May – June - July 2020



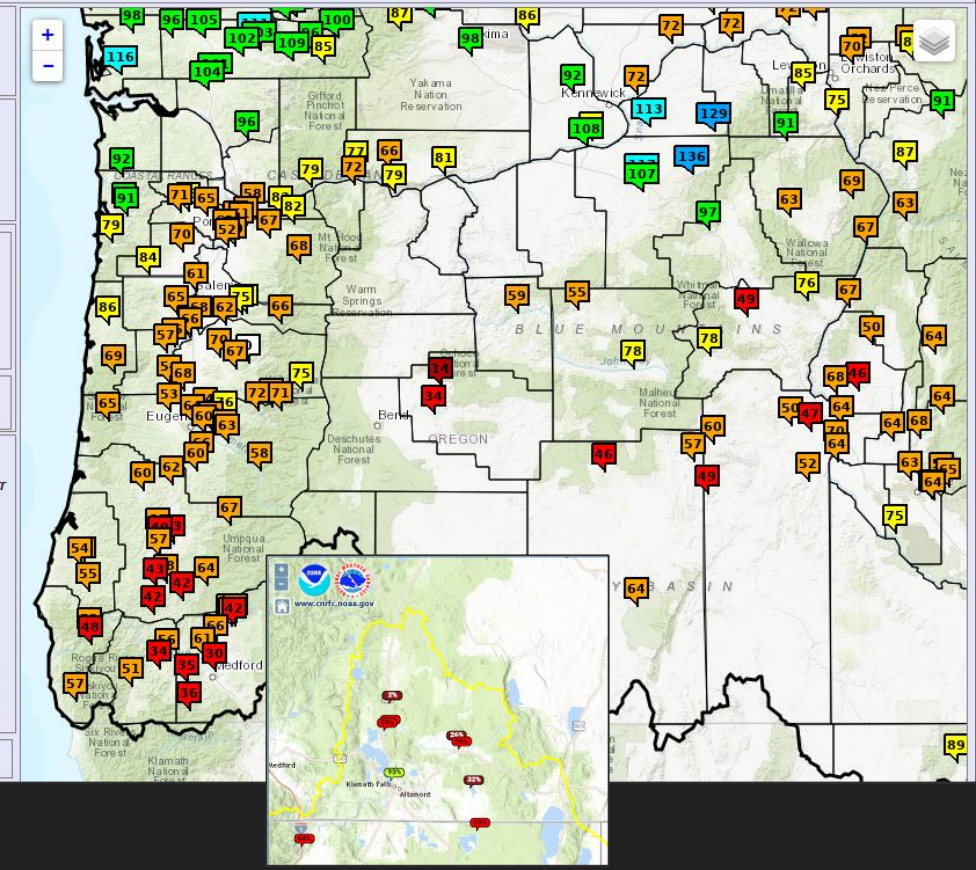




https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=2

# Northwest River Forecast Center
## Observed Water Year Natural Runoff

Water Supply | Observations | Weather Forecasts | Climate | NWRFC

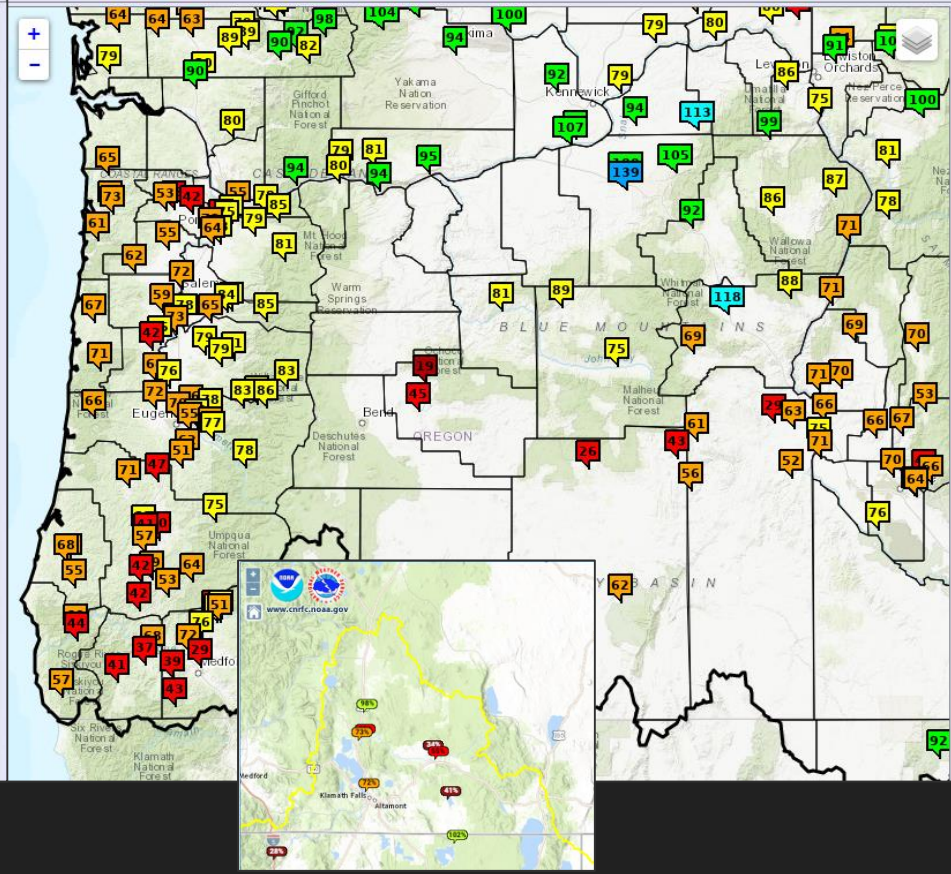
Zoom Out | --- Quick Zooms --- | ESP Issued: 2020-04-13 | Ensemble Date: 2020-04-13 | Permalink



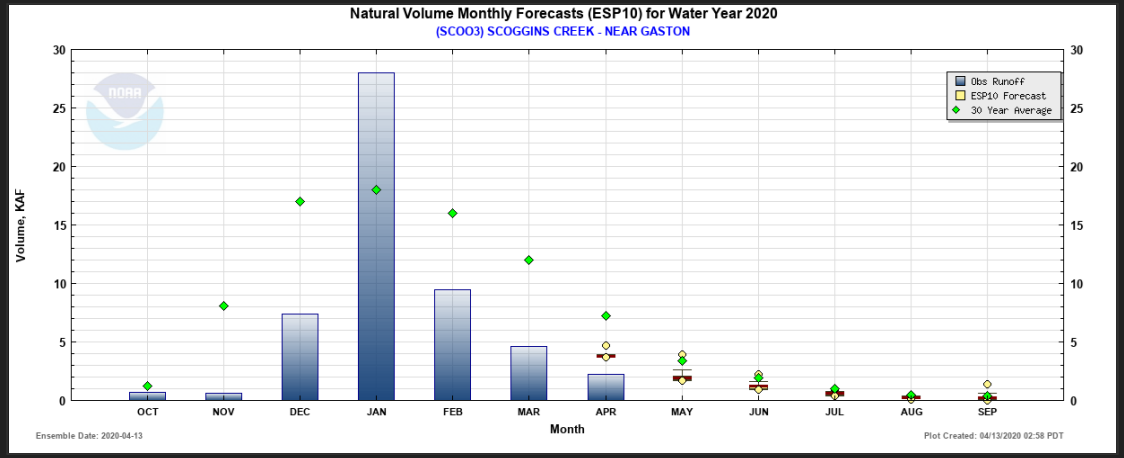

# Northwest River Forecast Center
## ESP Natural Forecast

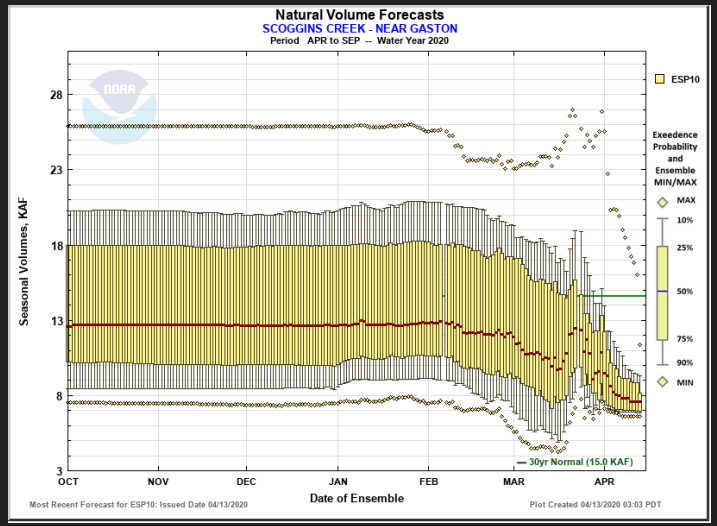
Water Supply | Observations | Weather Forecasts | Climate | NWRFC

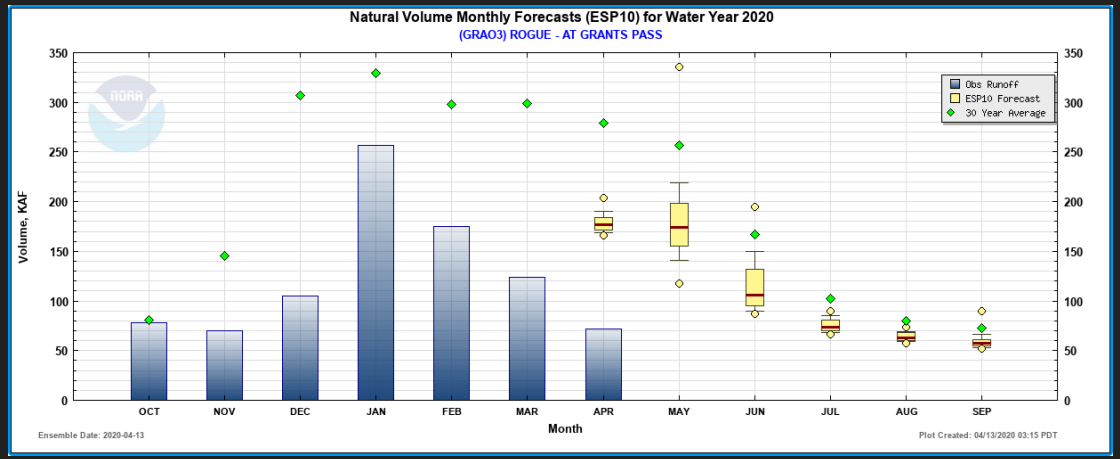
Zoom Out | --- Quick Zooms --- | ESP Issued: 2020-04-13 | Ensemble Date: 2020-04-13 | Permalink

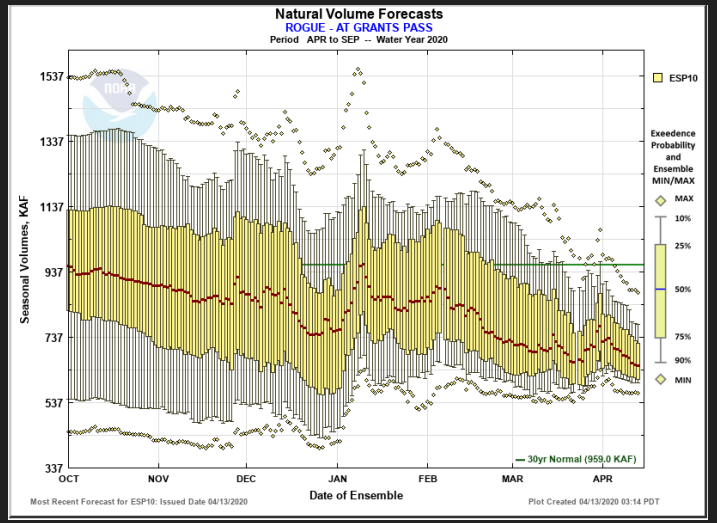


# West Side- January contributed the most to runoff so far this year

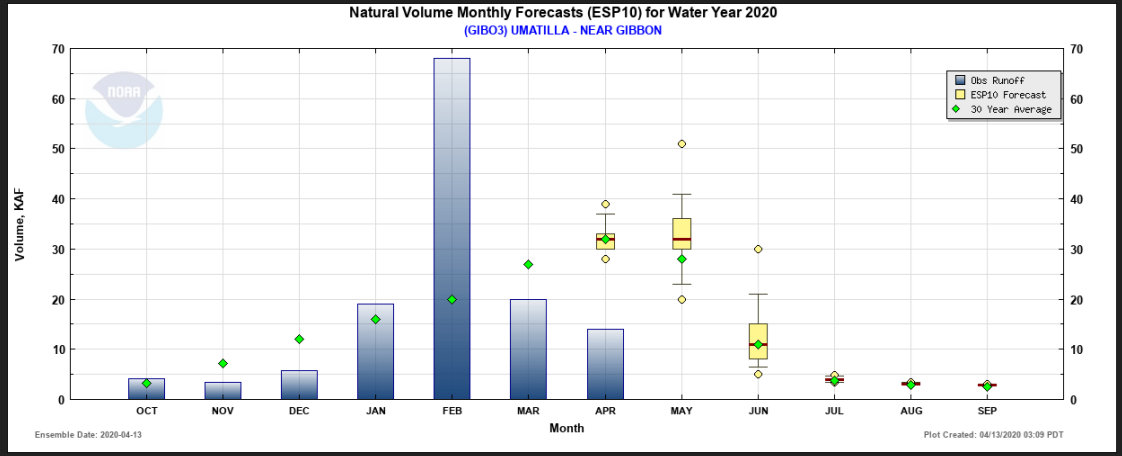


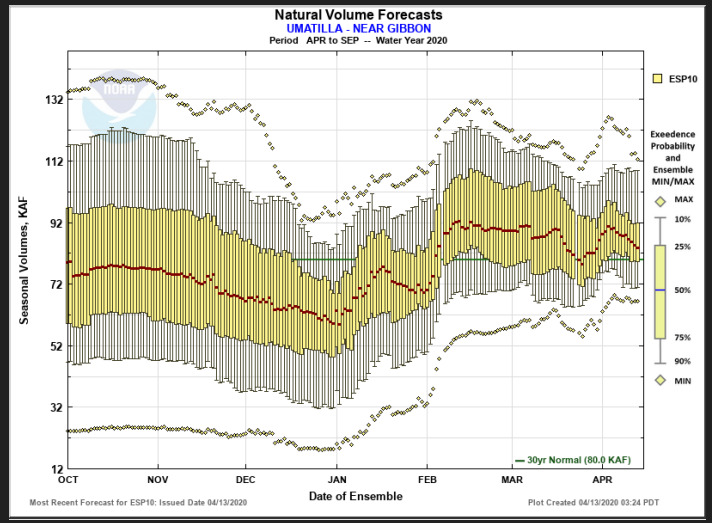



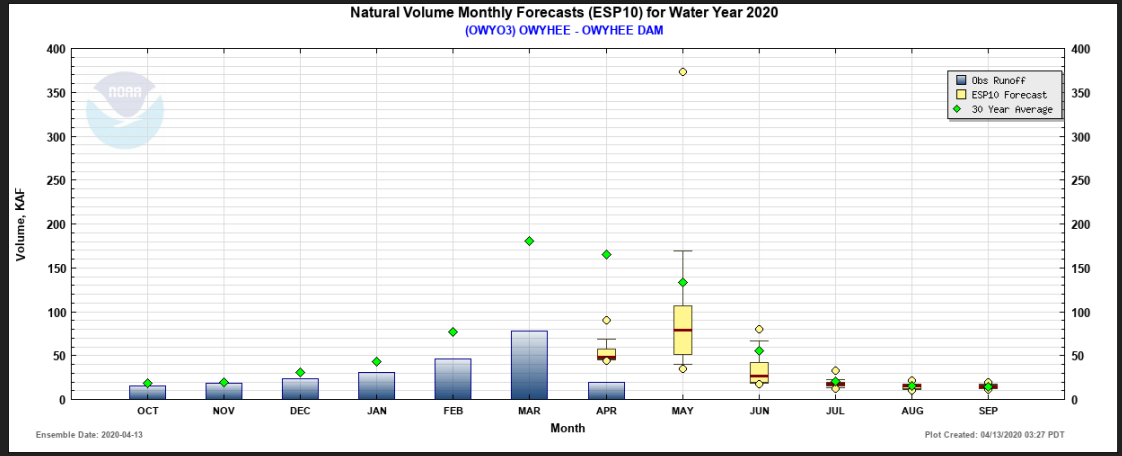



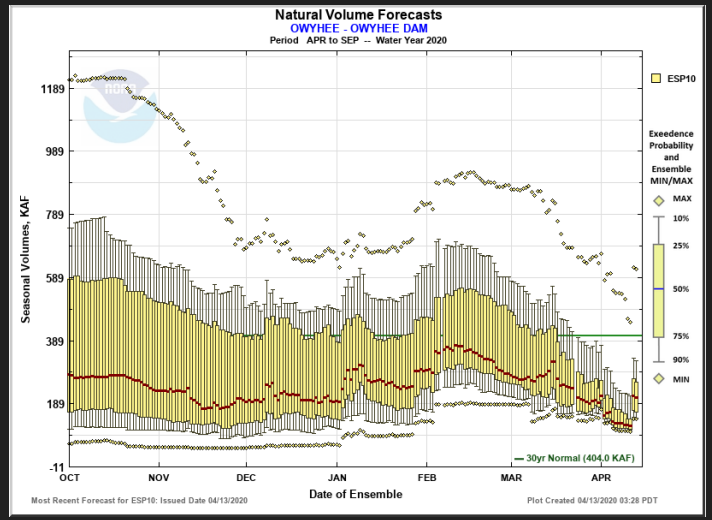
# East Side- February AR contributed greatly in the NE




# East Side- February AR did not reach very far south



Link to Northwest River Forecast Center ESP Natural Forecasts

https://www.nwrfc.noaa.gov/natural

Live Water Supply Briefings

| 2020 Schedule for *Live* Water Supply Briefings | | | | | |
|---|---|---|---|---|---|
| Jan | Feb | Mar | Apr | May | June |
| *9* | *6* | *5* | *2* | *7* | *TBD* |
| *All presentations held at 10:00am PDT/PST, unless noted otherwise* | | | | | |
| ***Click here for Registration Information*** | | | | | |

Monthly water supply briefings will be tentatively held January though late spring on the first Thursday of each month. Please refer to our online schedule which will be updated in the fall.

https://www.nwrfc.noaa.gov/water_supply/ws_schd.cgi

USGS
science for a changing world

# Oregon Water Supply Availability Meeting

April 2020

U.S. Department of the Interior
U.S. Geological Survey

USGS Update on Surface Water Conditions

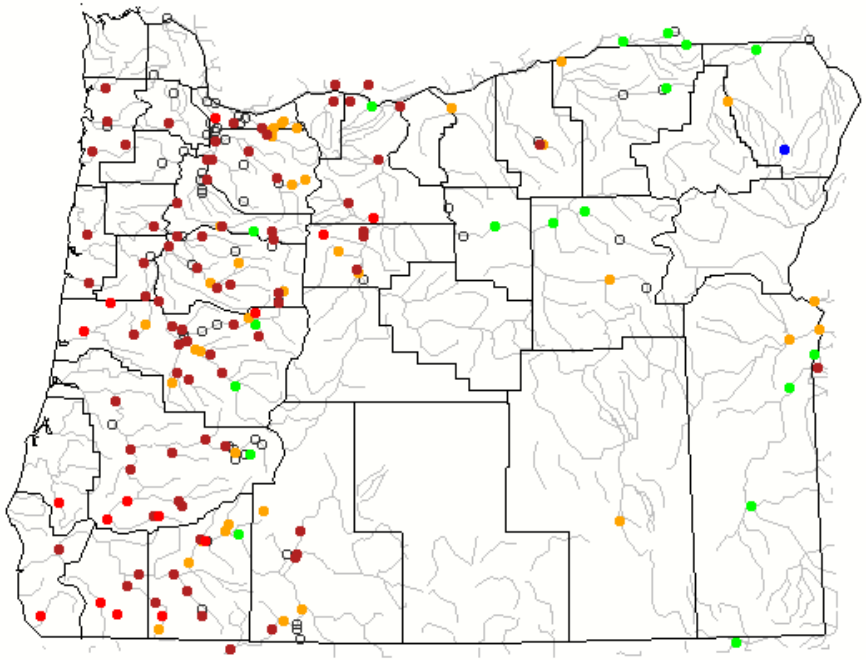
Carrie Boudreau & Marc Stewart
Oregon Water Science Center

Photo: Randy Spitzer, USGS gage 14320934

# Monthly Average Streamflow

## (as compared to Historical Record)

March 2020



USGS

Search USGS streamgage

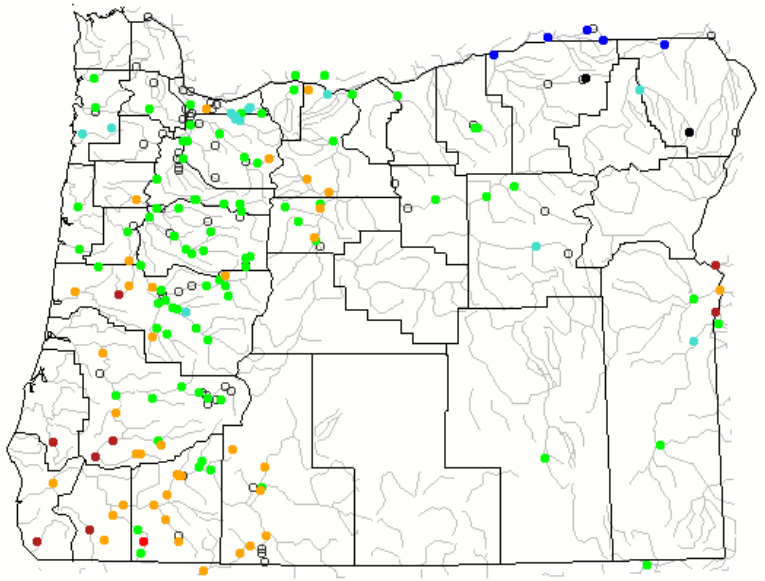
Choose a data retrieval option and select a location on the map

List of all stations | Single station | Nearest stations | Peak flow

| Explanation - Percentile classes | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Low | <10 | 10-24 | 25-75 | 76-90 | >90 | High | Not-ranked |
| | Much below normal | Below normal | Normal | Above normal | Much above normal | | |

USGS

February 2020

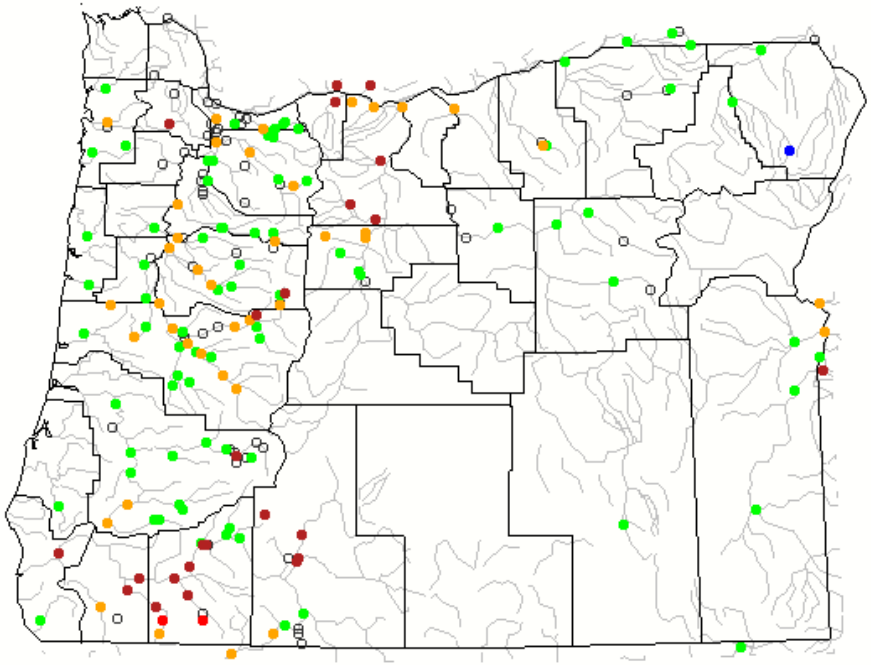


USGS

# 7-day Average Streamflow

## (as compared to Historical Record)

Sunday, April 12, 2020



USGS

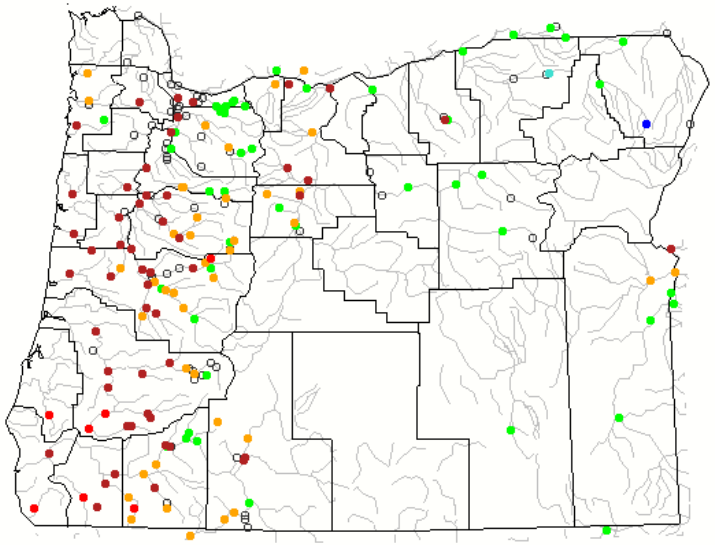
Search USGS streamgage

Choose a data retrieval option and select a location on the map

List of all stations | Single station | Nearest stations

| Explanation - Percentile classes | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Low | <10 | 10-24 | 25-75 | 76-90 | >90 | High | Not-ranked |
| | Much below normal | Below normal | Normal | Above normal | Much above normal | | |

Sunday, March 08, 2020



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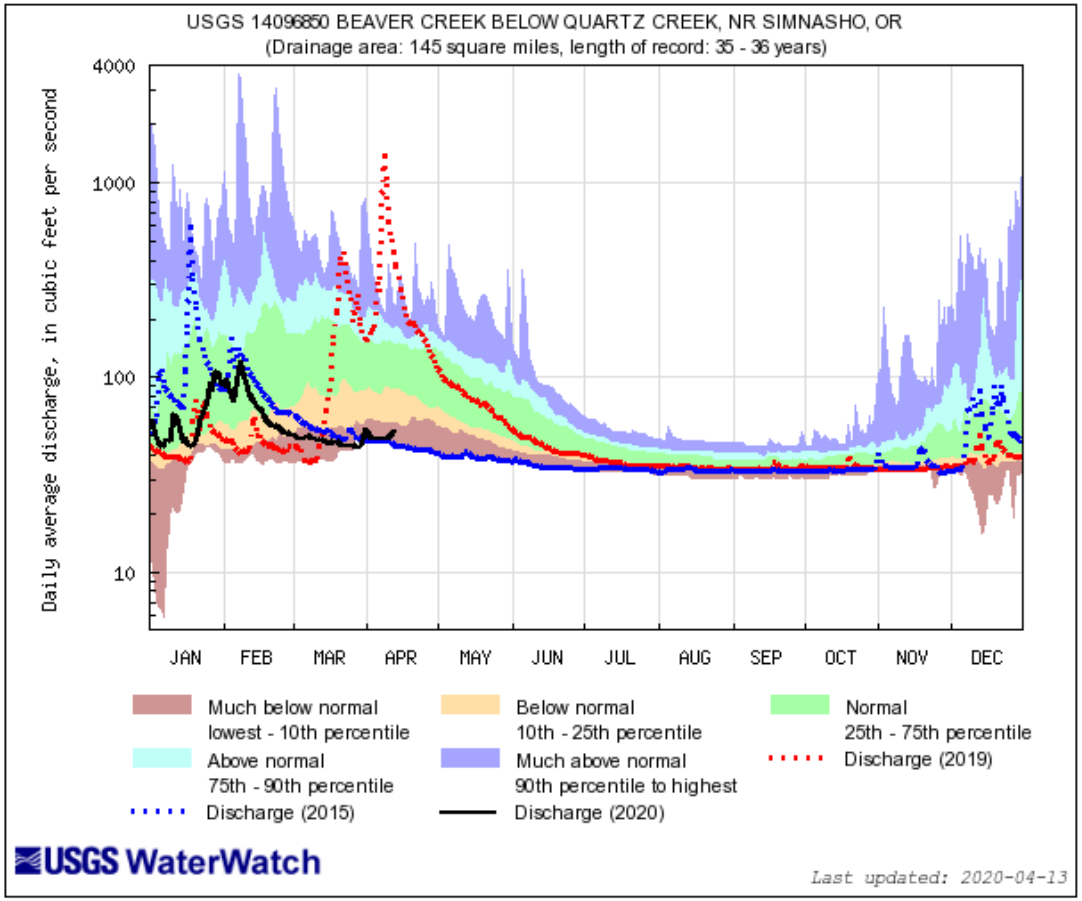
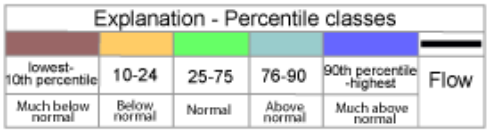
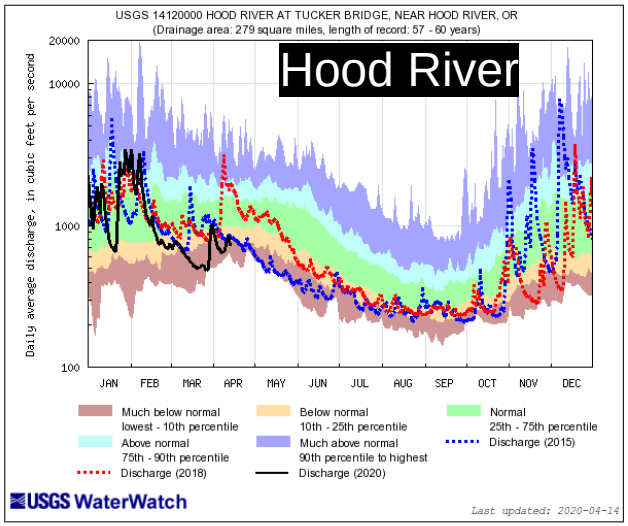
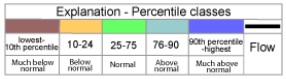
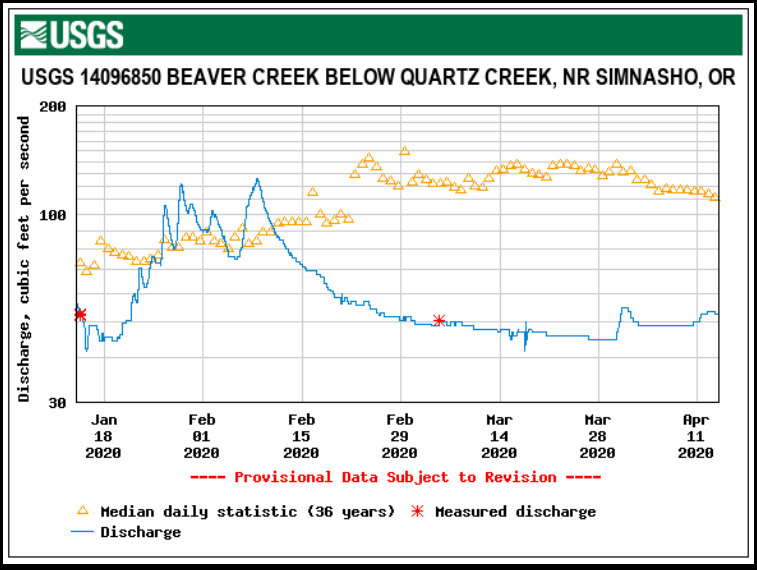
# 14096850 Beaver Cr blw Quartz Cr



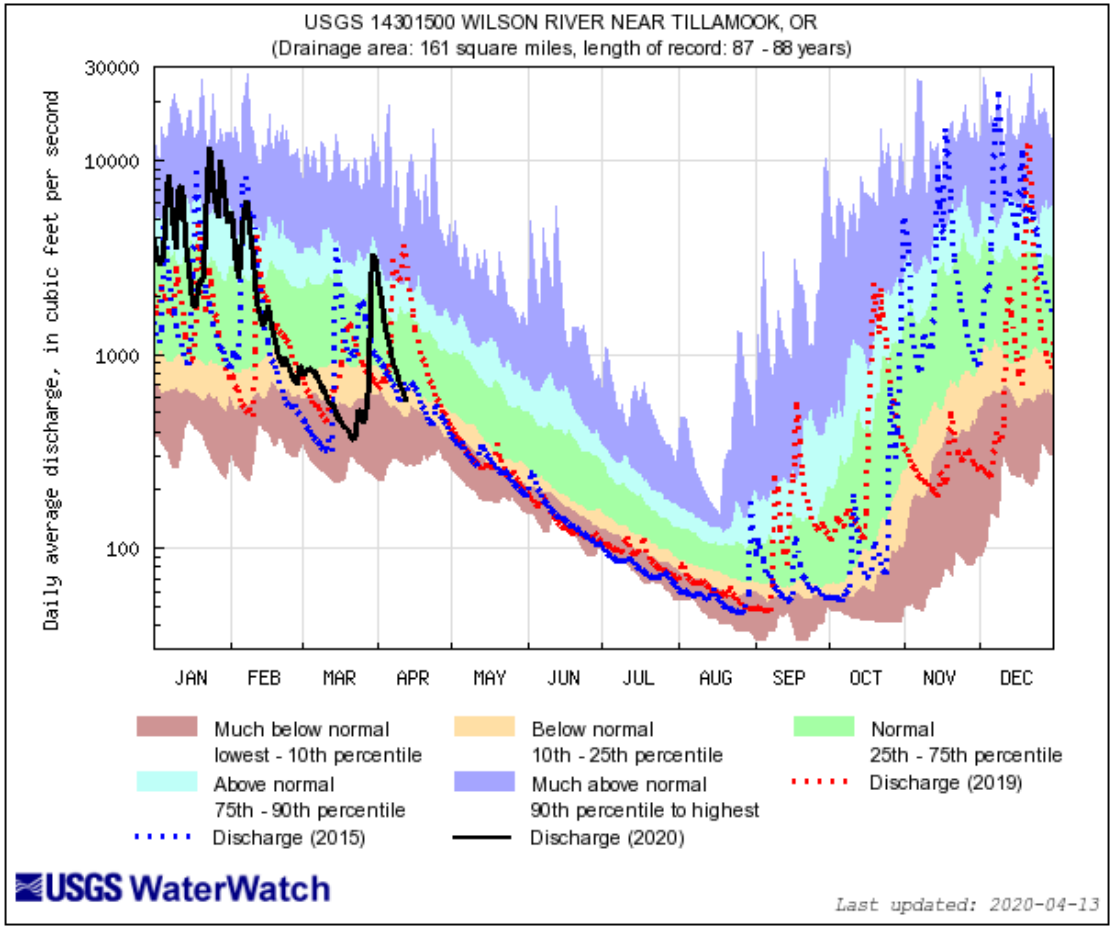



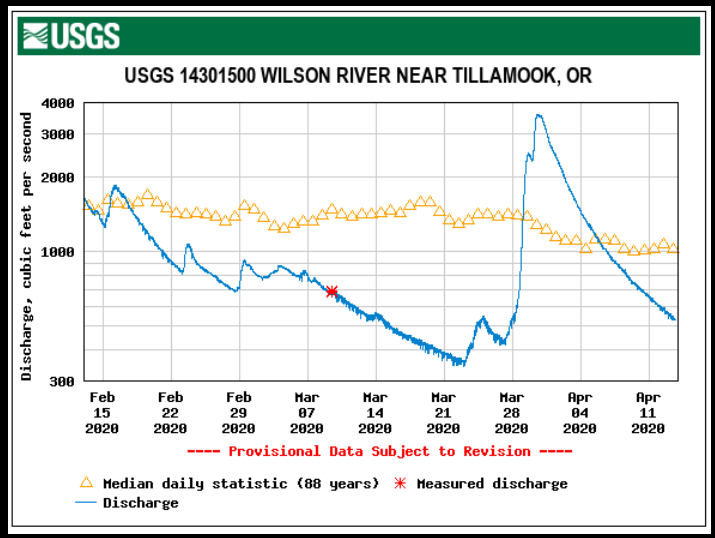




USGS

# 14301500 Wilson R near Tillamook




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
| Much below normal | Below normal | Normal | Above normal | Much above normal | |

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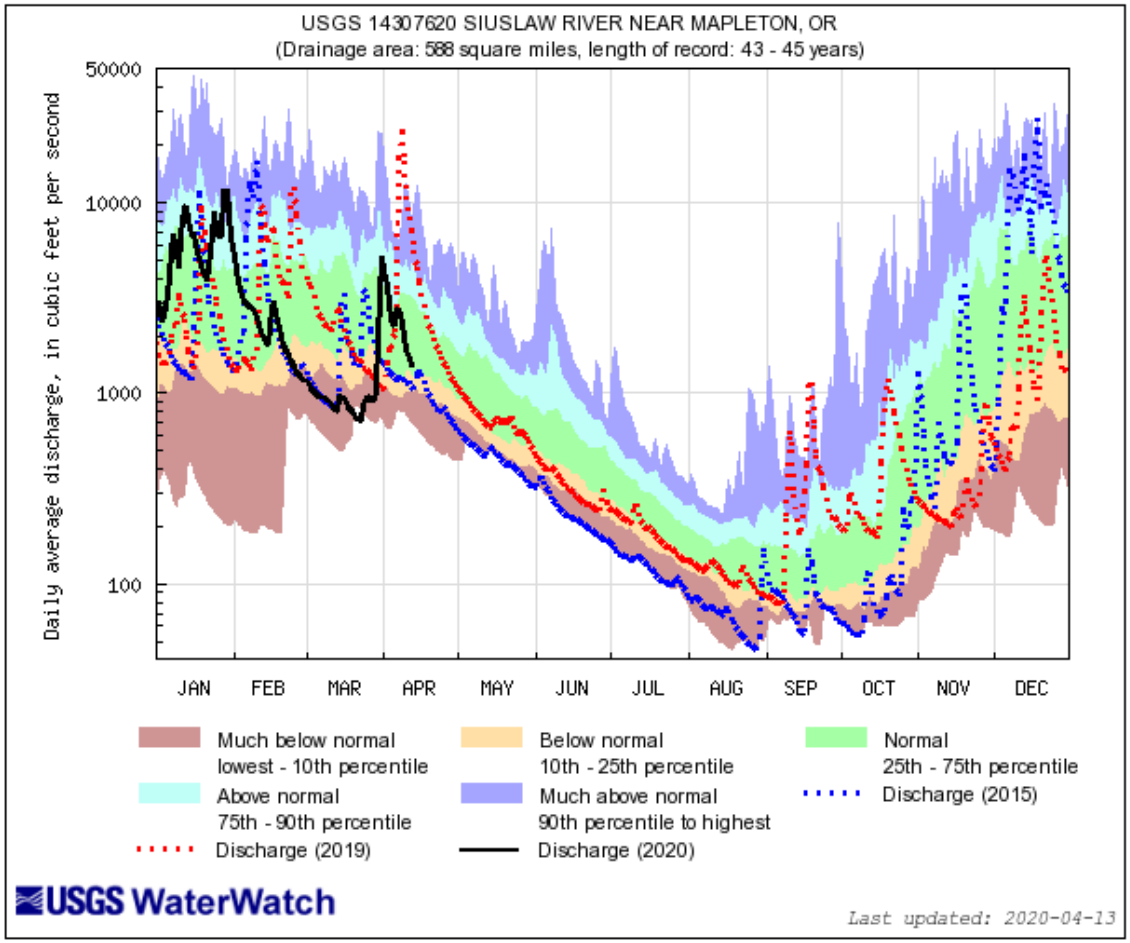
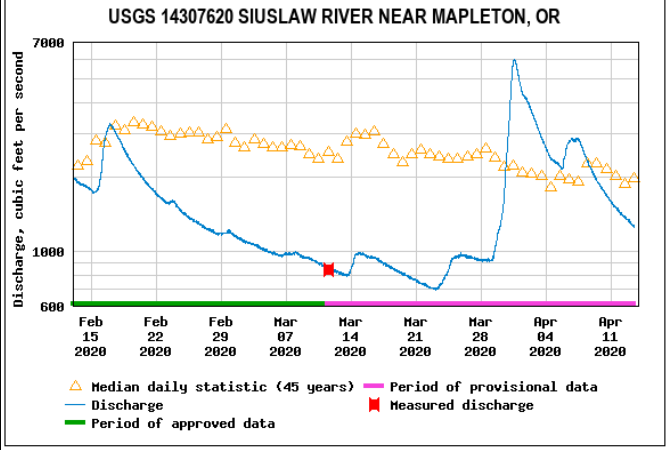
# 14307620 Siuslaw River nr Mapleton




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
| Much below normal | Below normal | Normal | Above normal | Much above normal | |

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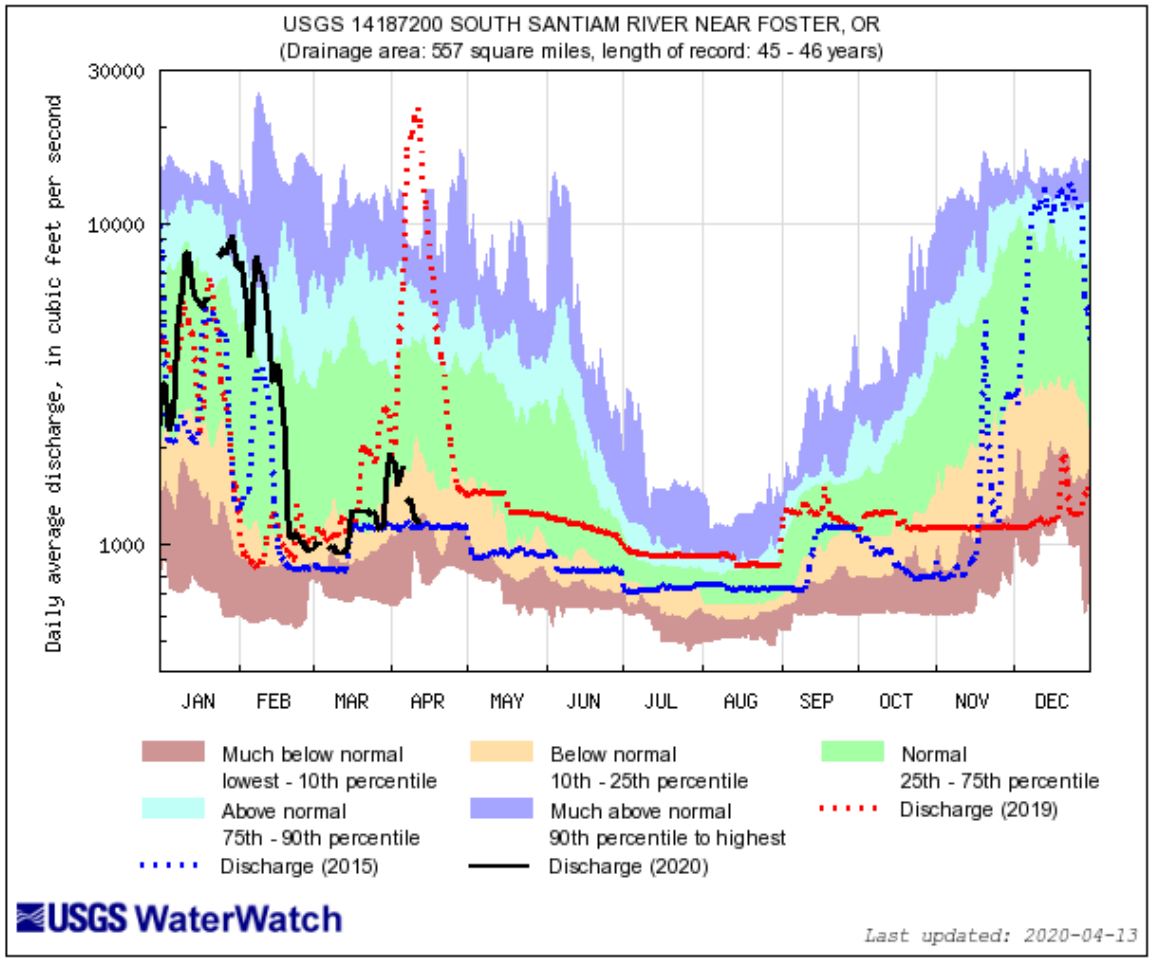
# 14187200 S Santiam near Foster




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
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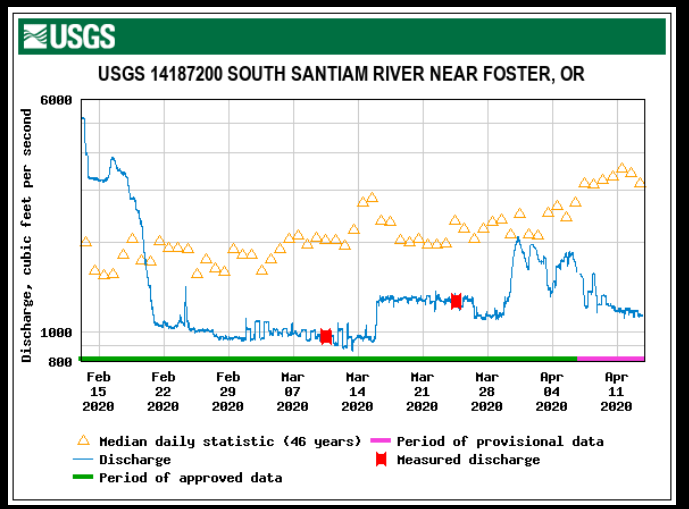


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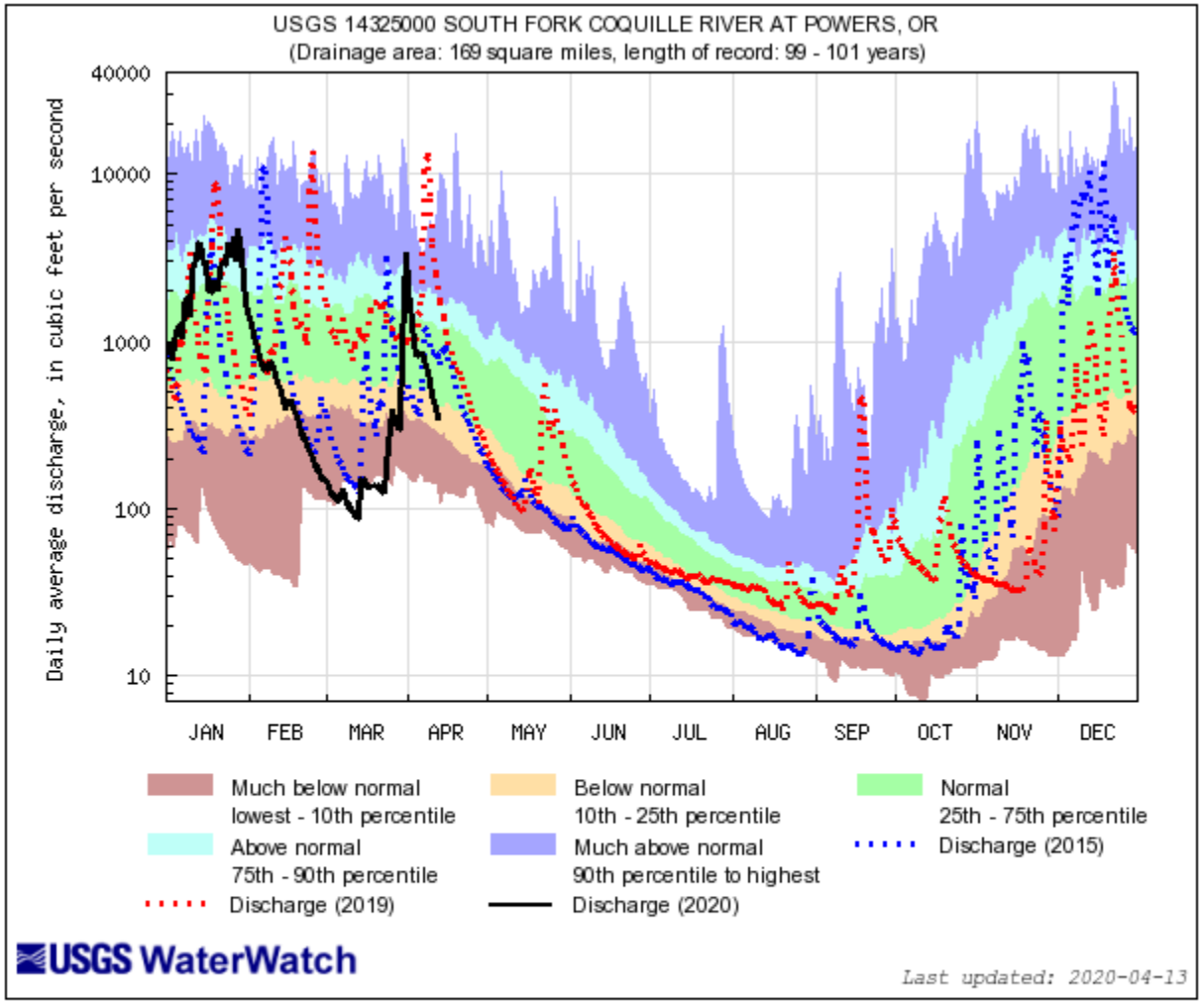
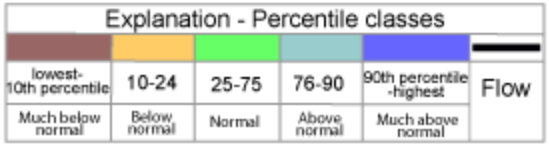
# 14325000 South Fork Coquille at Powers

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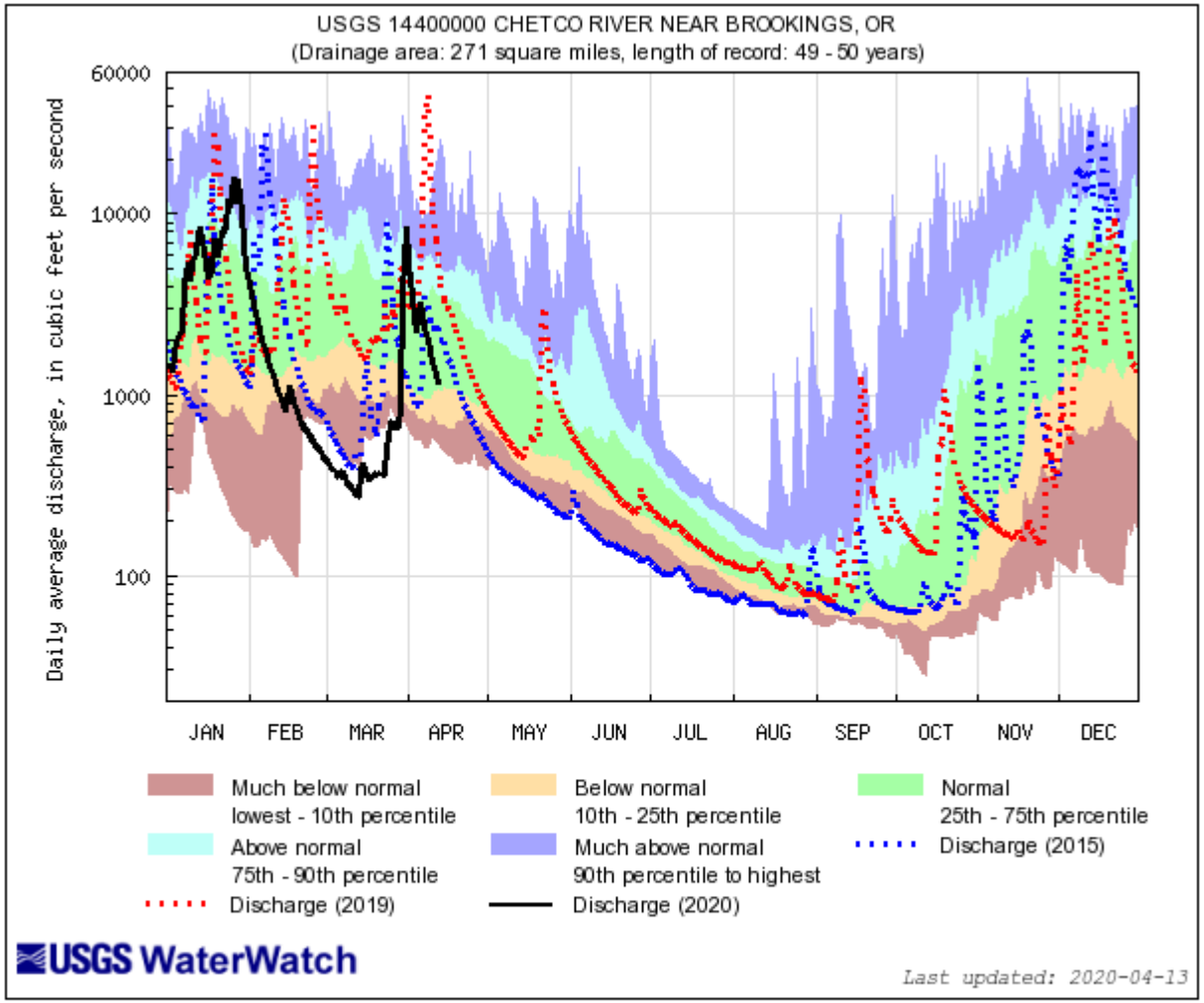
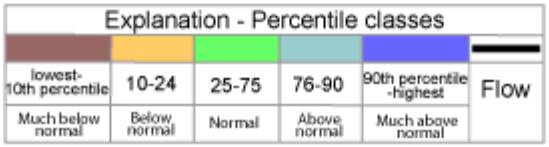
# 14400000 Chetco River nr Brookings

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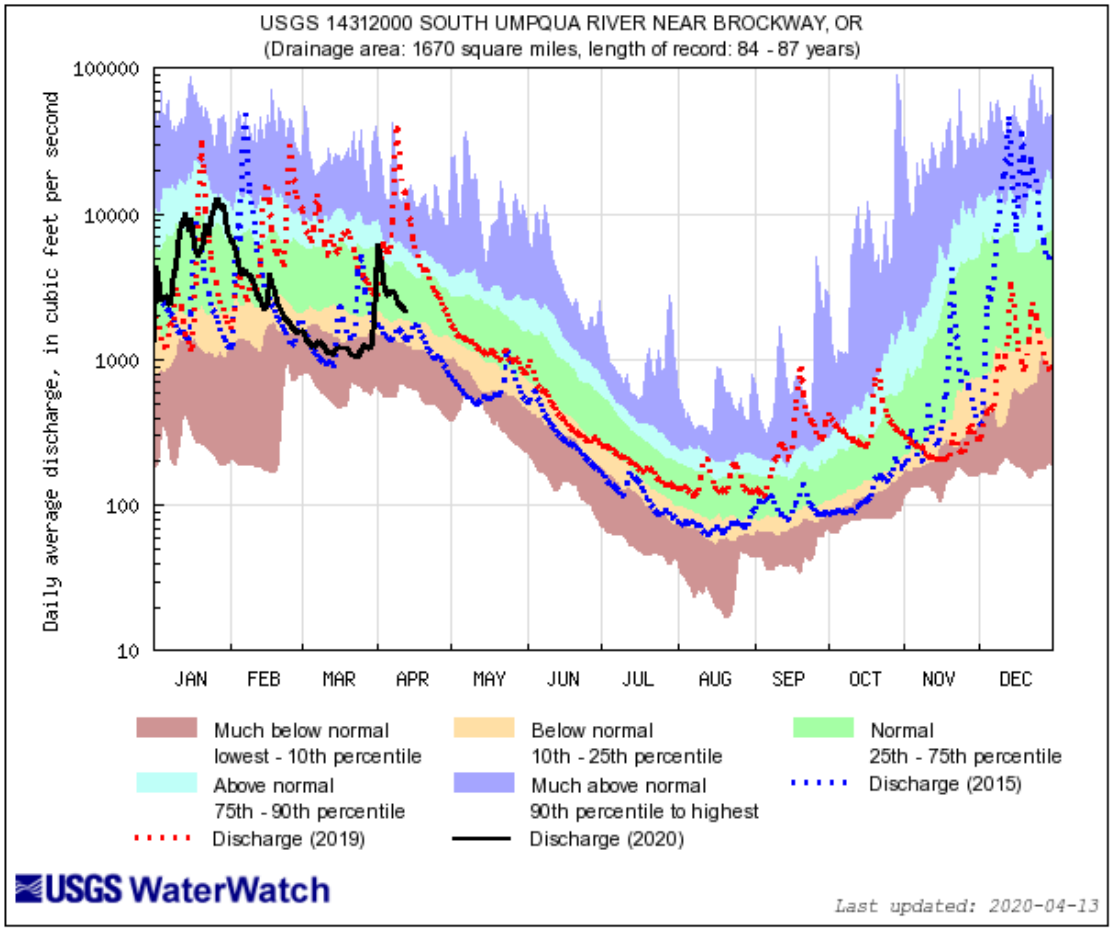
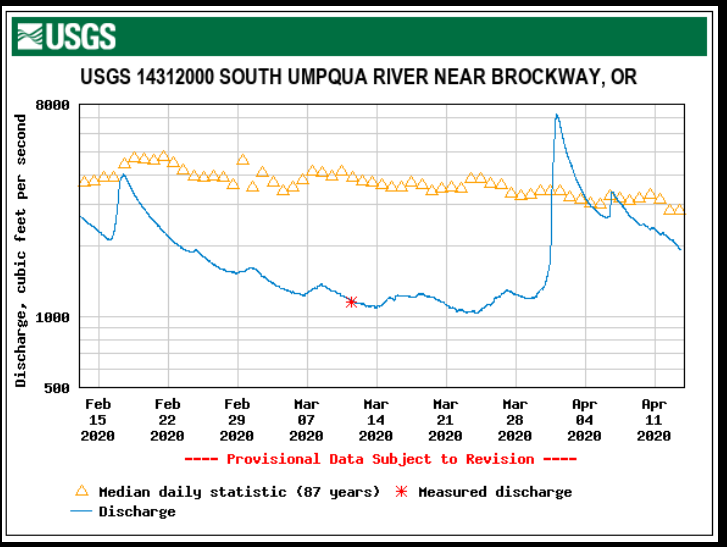
# 14312000 S Umpqua R nr Brockway




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
| Much below normal | Below normal | Normal | Above normal | Much above normal | |

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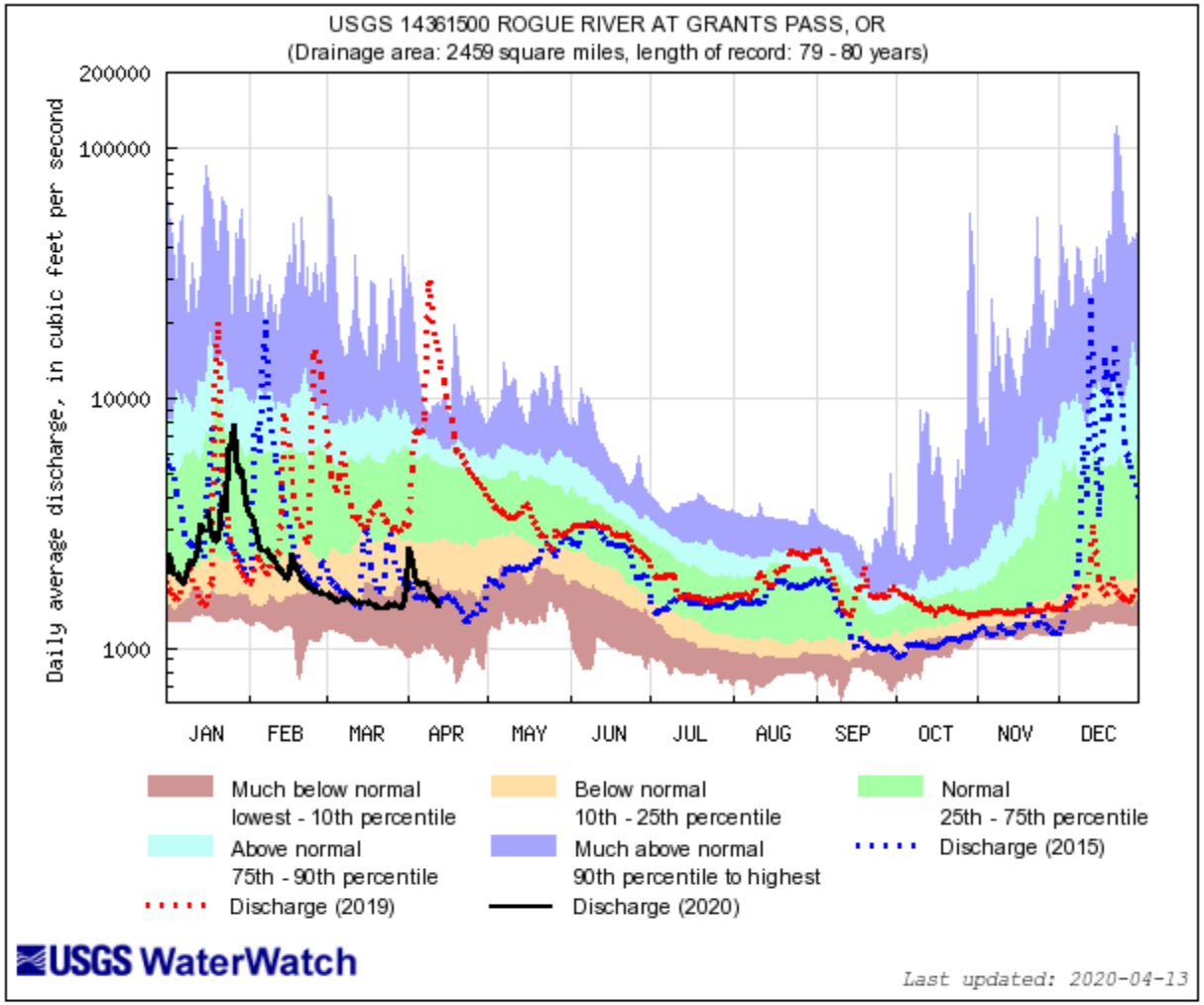
# 14361500 Rogue R at Grants Pass




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
| Much below normal | Below normal | Normal | Above normal | Much above normal | |

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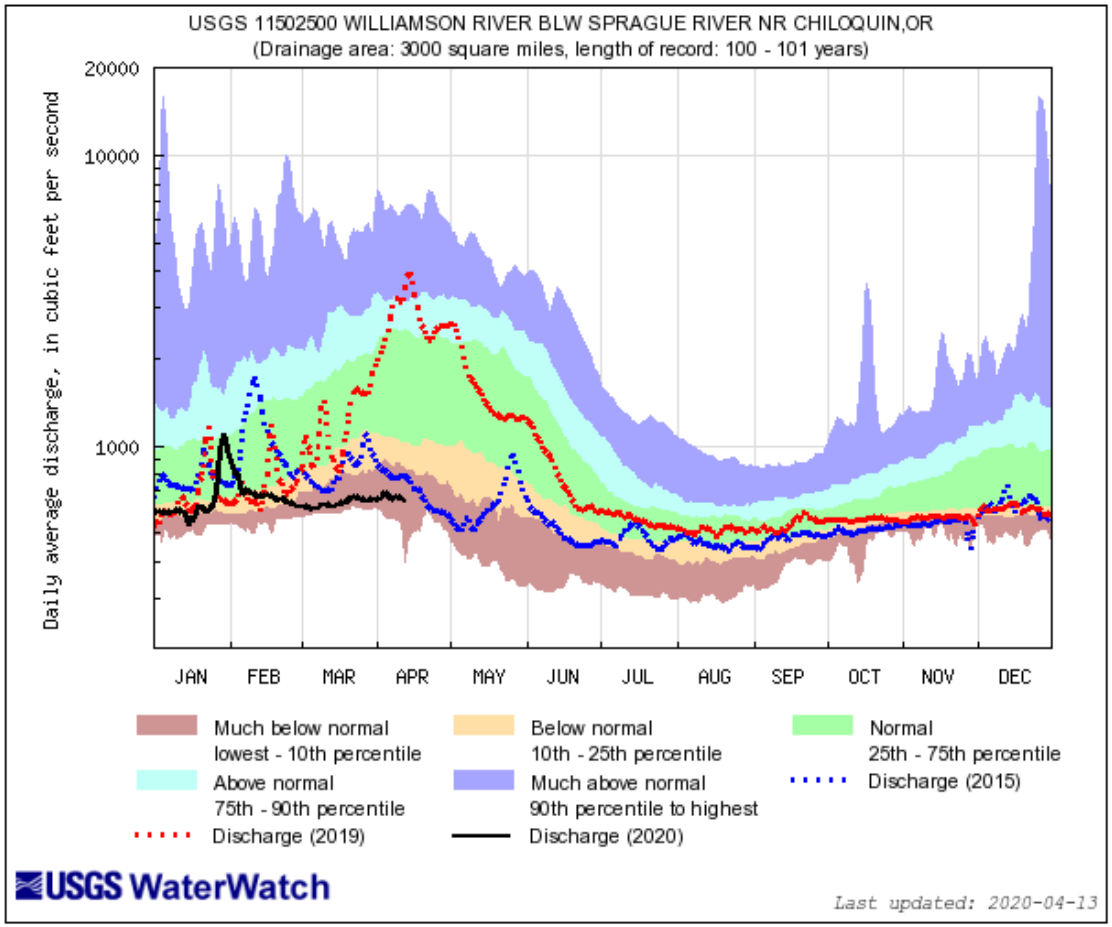
# Williamson River




| Explanation - Percentile classes | | | | | |
|---|---|---|---|---|---|
| lowest-10th percentile | 10-24 | 25-75 | 76-90 | 90th percentile -highest | Flow |
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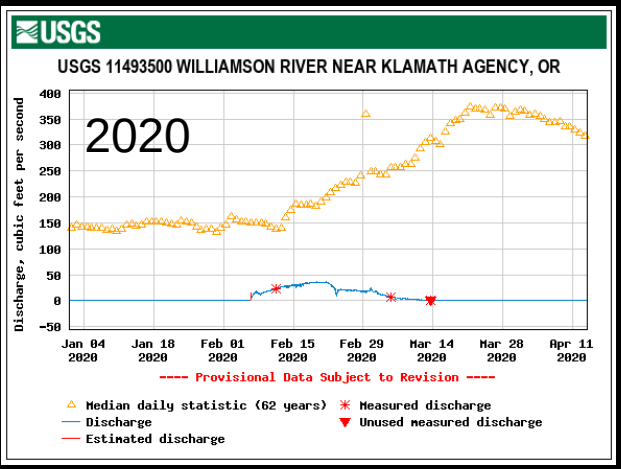


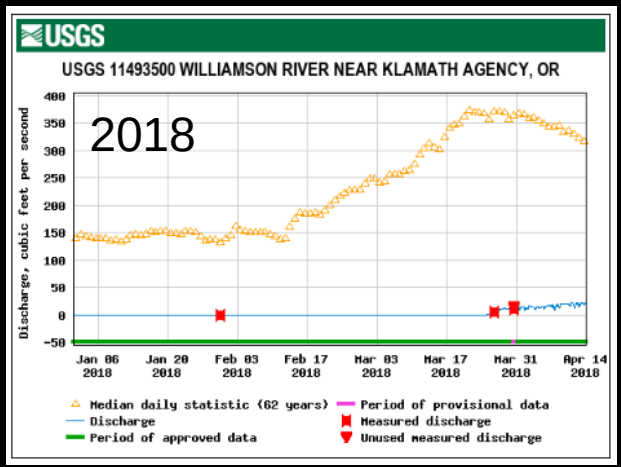


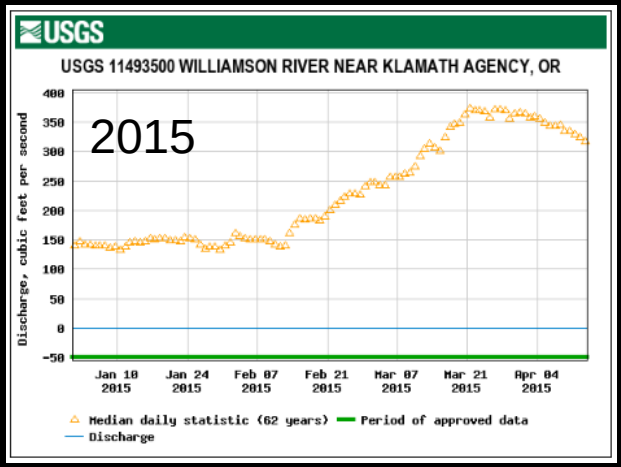


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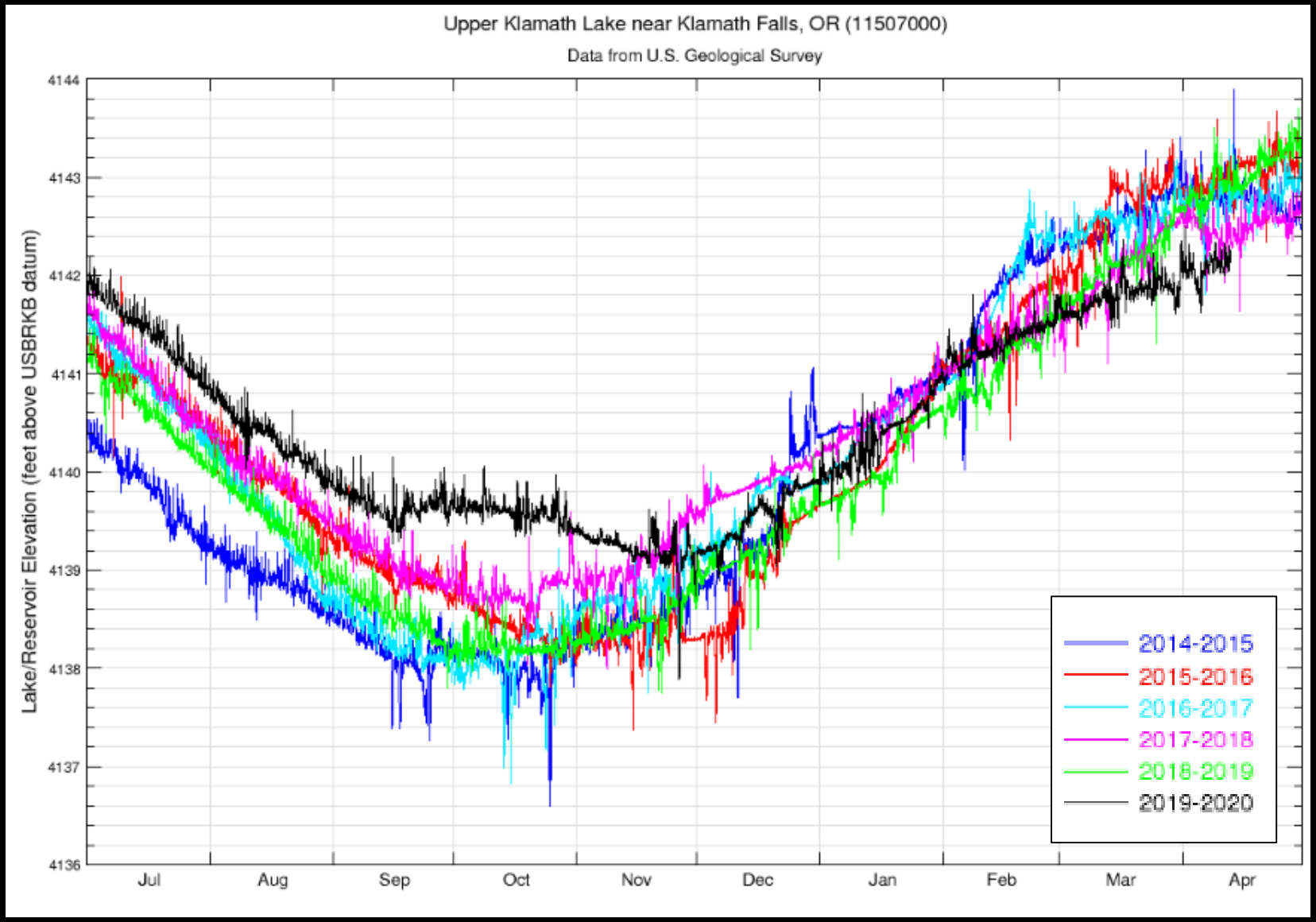
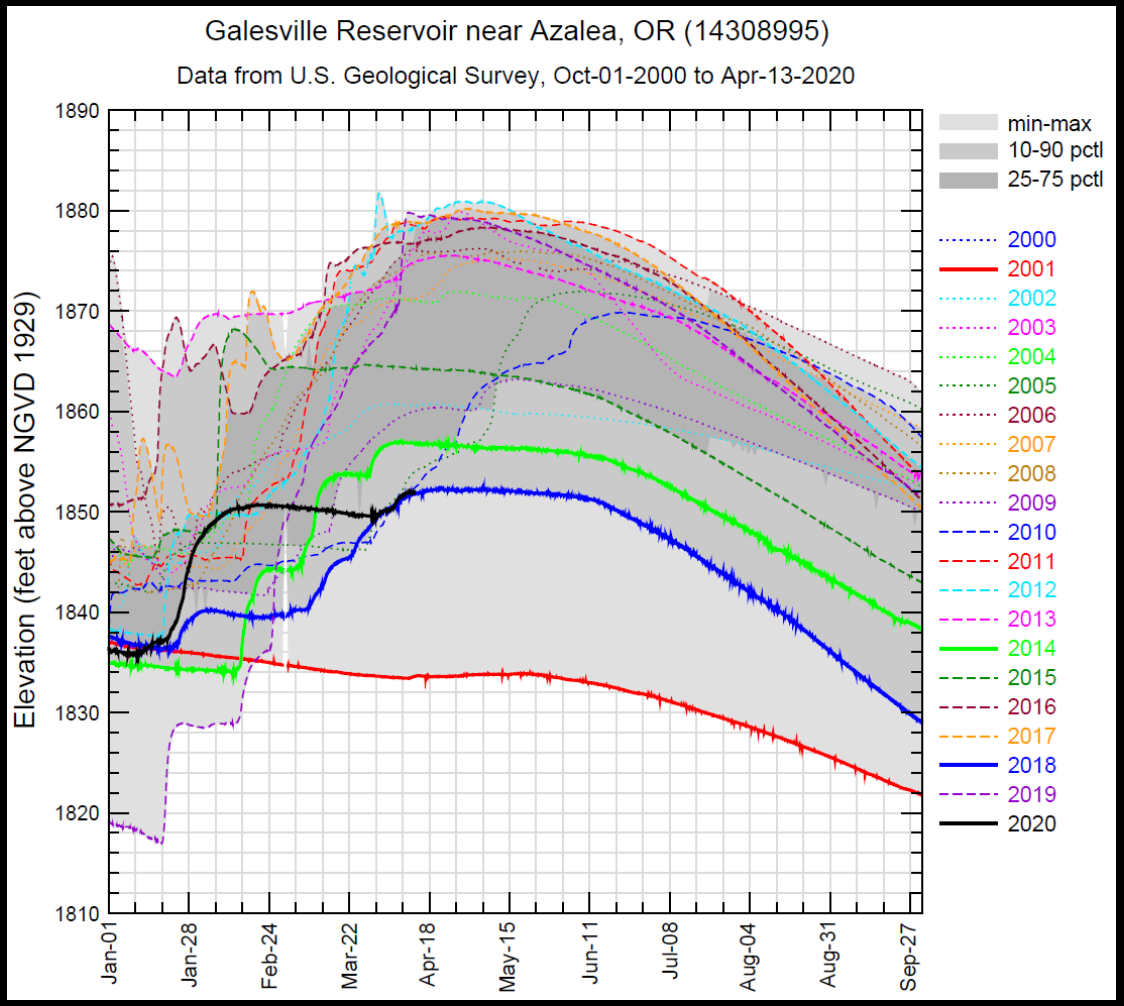
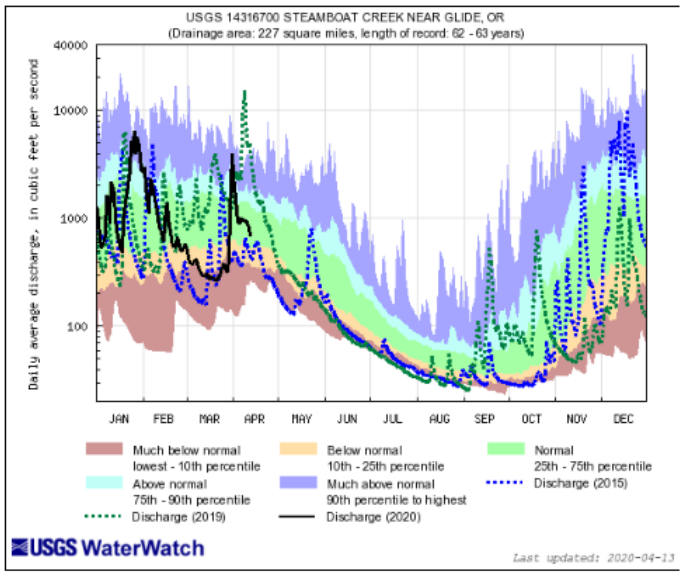
# 11507000 Upper Klamath Lake

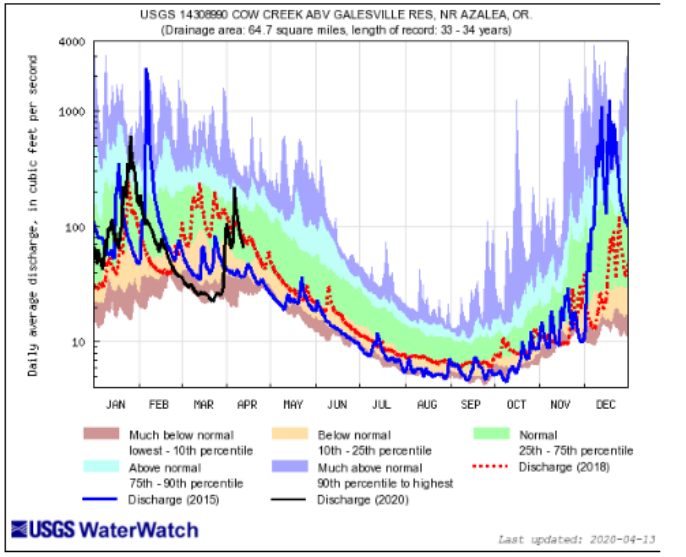



USGS



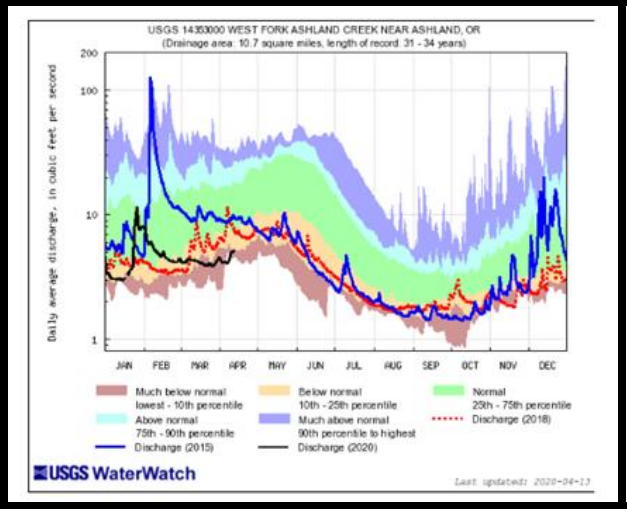

Steamboat Creek nr Glide



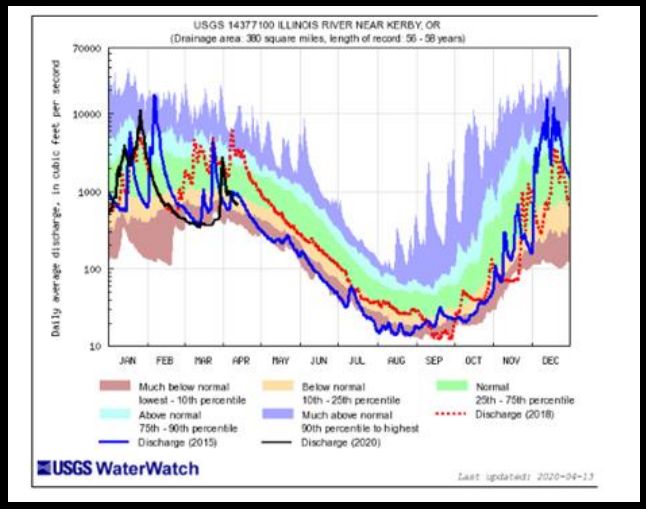

Cow Creek abv Galesville Res.

USGS

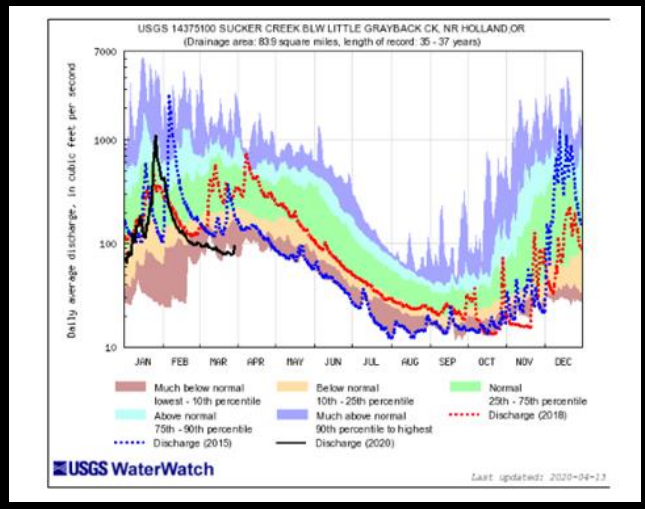
# Other Unregulated Sites (S. Oregon)



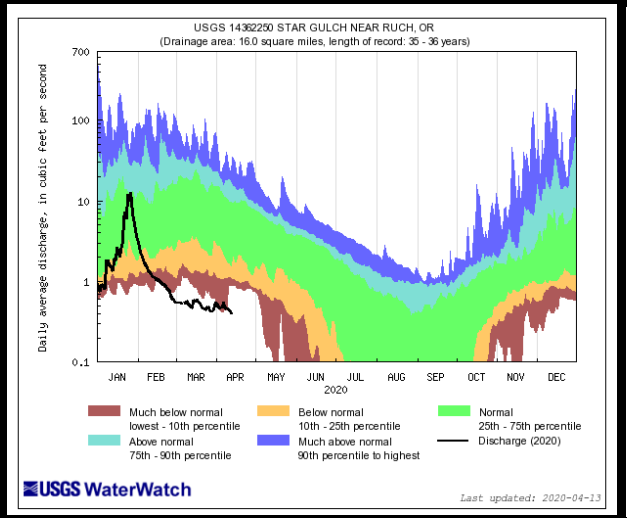

West Fork Ashland Cr



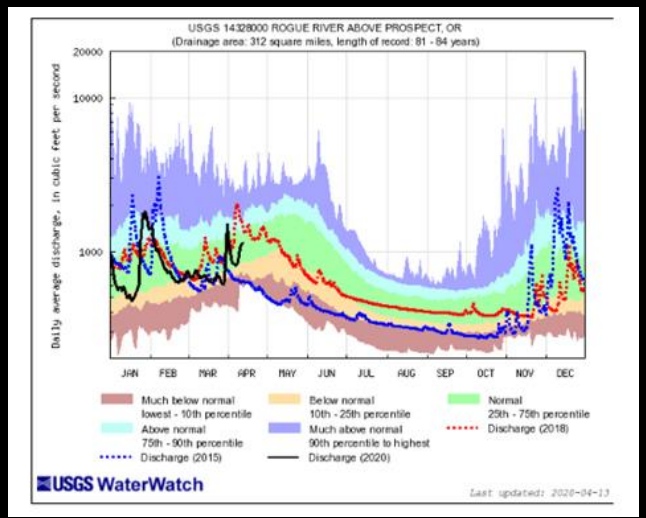

Illinois River nr Kerby



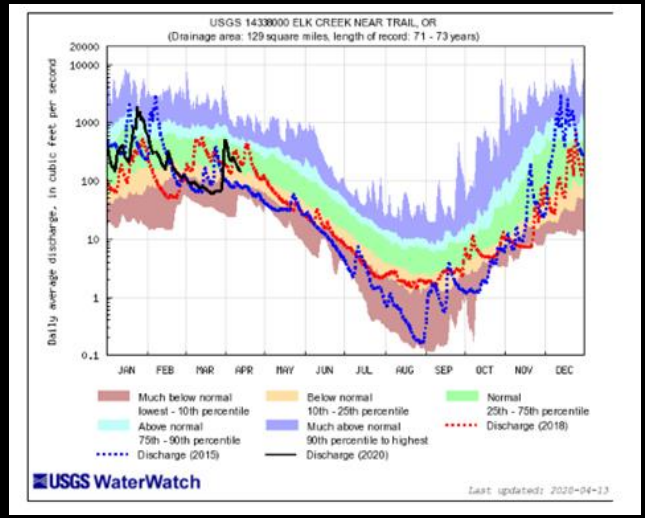

Sucker Creek nr Holland




Star Gulch nr Ruch




Rogue River Above Prospect




Elk Creek nr Trail (Rogue)

USGS

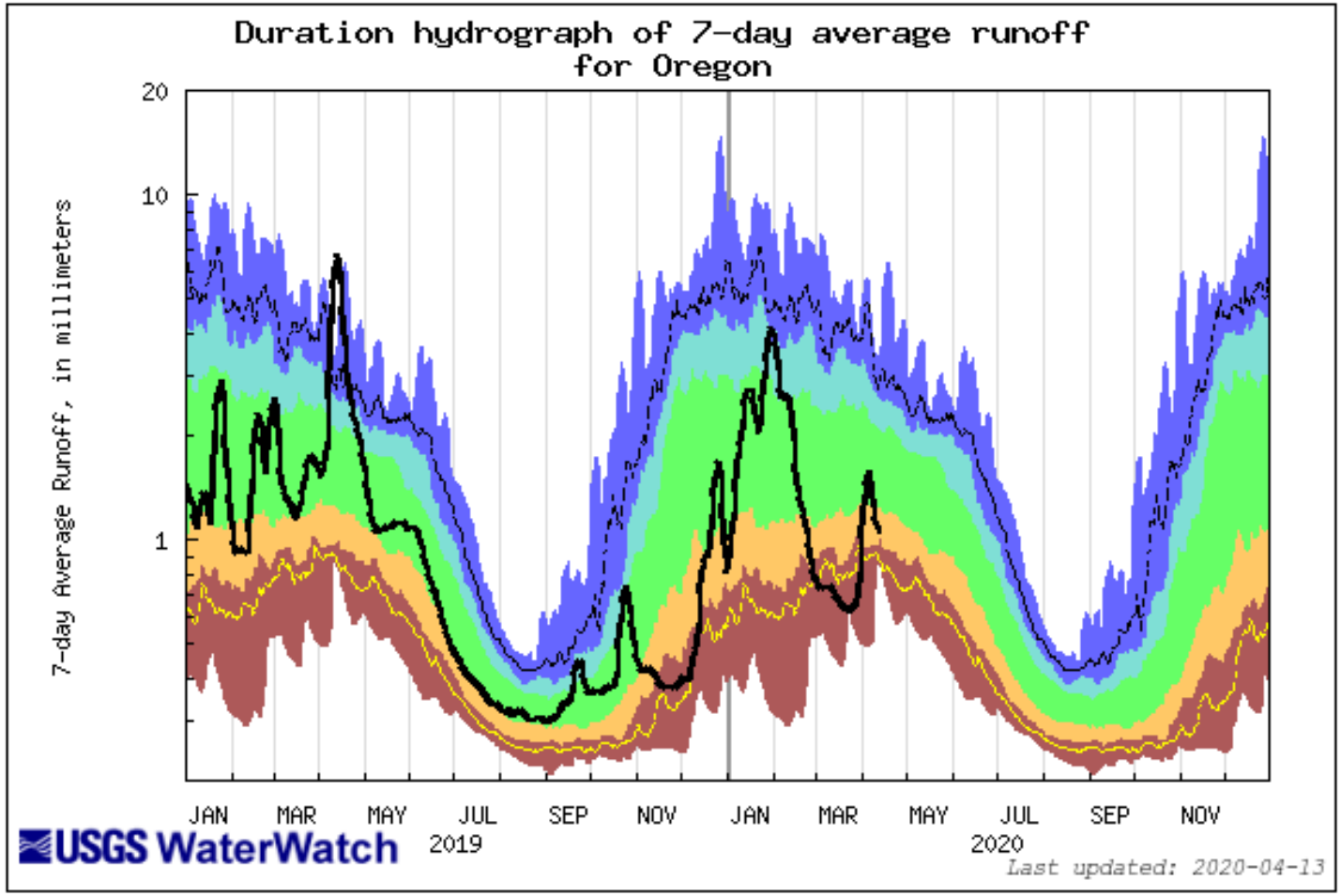
US GEOLOGICAL SURVEY, OREGON WATER SCIENCE CENTER
WATER AVAILABILITY REPORT FOR MARCH 2020

| Station | NRCS SWSI Basin | Monthly mean discharge: Cubic feet per second | Monthly mean discharge: Percent of average | Change in discharge from previous month (percent) | Accumulated Runoff For the Period Oct. to Mar.: Percent of average |
|---|---|---|---|---|---|
| Donner Und Blitzen nr Frenchglen | Harney | 64 | 38 | 12 | 68 |
| (*)Deep Creek above Adel | Lake County | 96 | 38 | 57 | 49 |
| (*)Chewaucan River near Paisley | Lake County | 85 | 40 | 42 | 54 |
| Williamson River near Chiloquin | Klamath | 640 | 37 | -7 | 60 |
| Owyhee River near Rome | Owyhee | 1,120 | 42 | 82 | 53 |
| (*)NF Malheur River near Beulah | Malheur | 130 | 49 | 73 | 70 |
| Grande Ronde R at Troy | Grande Ronde Powder/Burnt | 3,493 | 74 | -35 | 94 |
| Umatilla River nr Gibbon | Umatilla Lower John Day | 329 | 76 | -72 | 136 |
| John Day River at Service Crk | Upper John Day | 2,302 | 52 | 2 | 60 |
| (*)Little Deschutes River nr LaPine | Upper Deschutes | 93 | 44 | -7 | 58 |
| Hood River nr Hood River | Lower Deschutes Mt.Hood | 626 | 49 | -57 | 73 |
| Willamette River at Salem | Willamette | 11,703 | 43 | -63 | 63 |
| Wilson River near Tillamook | North Coast | 793 | 49 | -63 | 95 |
| Umpqua River near Elkton | Rogue/Umpqua | 3,773 | 34 | -58 | 58 |
| Rogue River near Agness | Rogue/Umpqua | 2,443 | 31 | -41 | 50 |
| SF Coquille River at Powers | South Coast | 289 | 22 | -46 | 55 |
| Chetco River near Brookings | South Coast | 793 | 22 | -40 | 56 |

All data should be considered provisional and subject to revision.
Percent of average computed using 30-year base period, water years 1981-2010.
(*) provided by Oregon Water Resources Department

4/1/2020

USGS




| Explanation - Percentile classes | | | | | | | |
|---|---|---|---|---|---|---|---|
| lowest-10th percentile | 5 | 10-24 | 25-75 | 76-90 | 95 | 90th percentile -highest | Runoff |
| Much below Normal | | Below normal | Normal | Above normal | Much above normal | | |

USGS

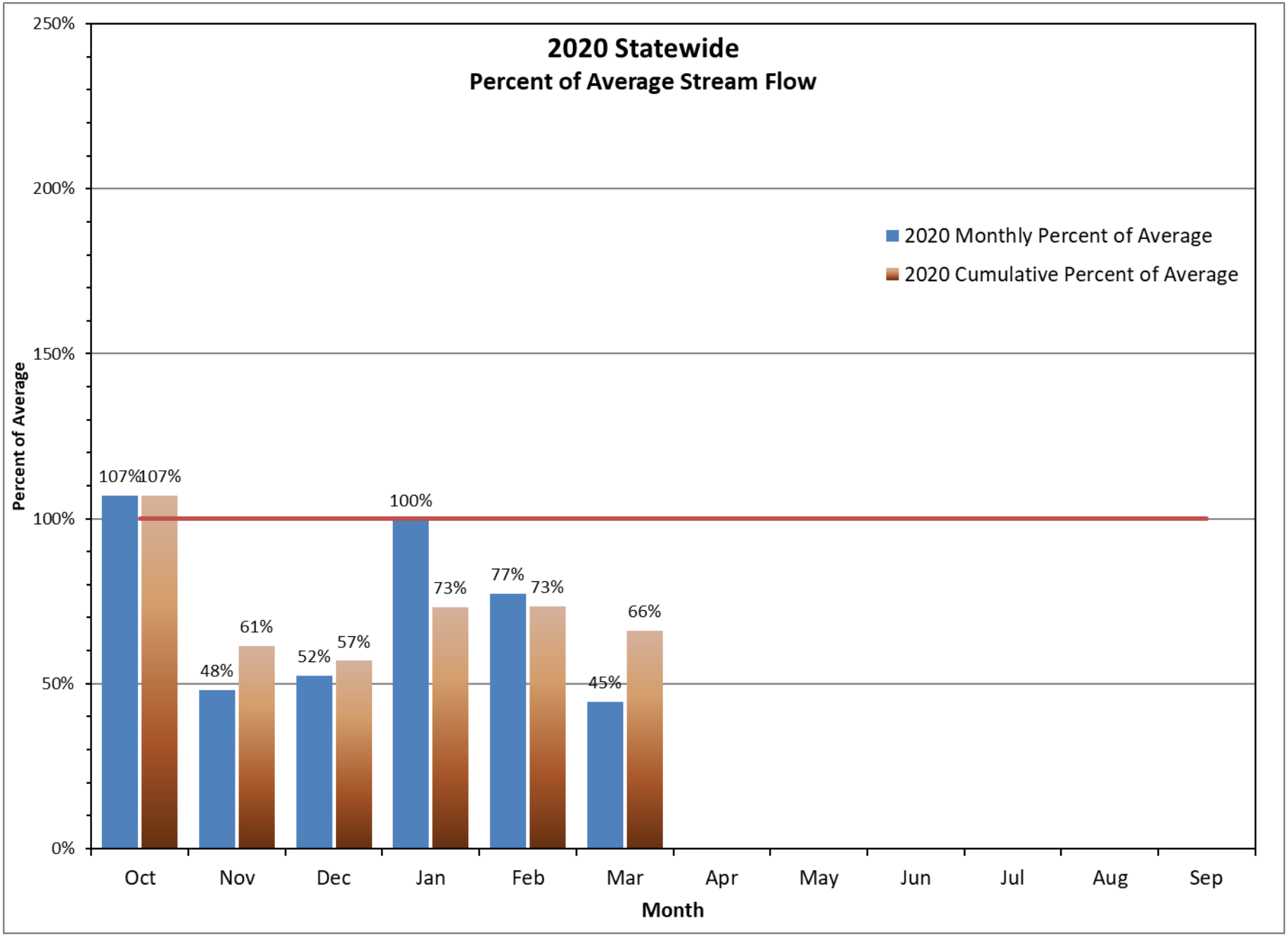
# Water Supply Conditions Report

# Water Supply Availability Committee

OREGON
WATER RESOURCES
DEPARTMENT


Ken Stahr
Oregon Water Resources Department

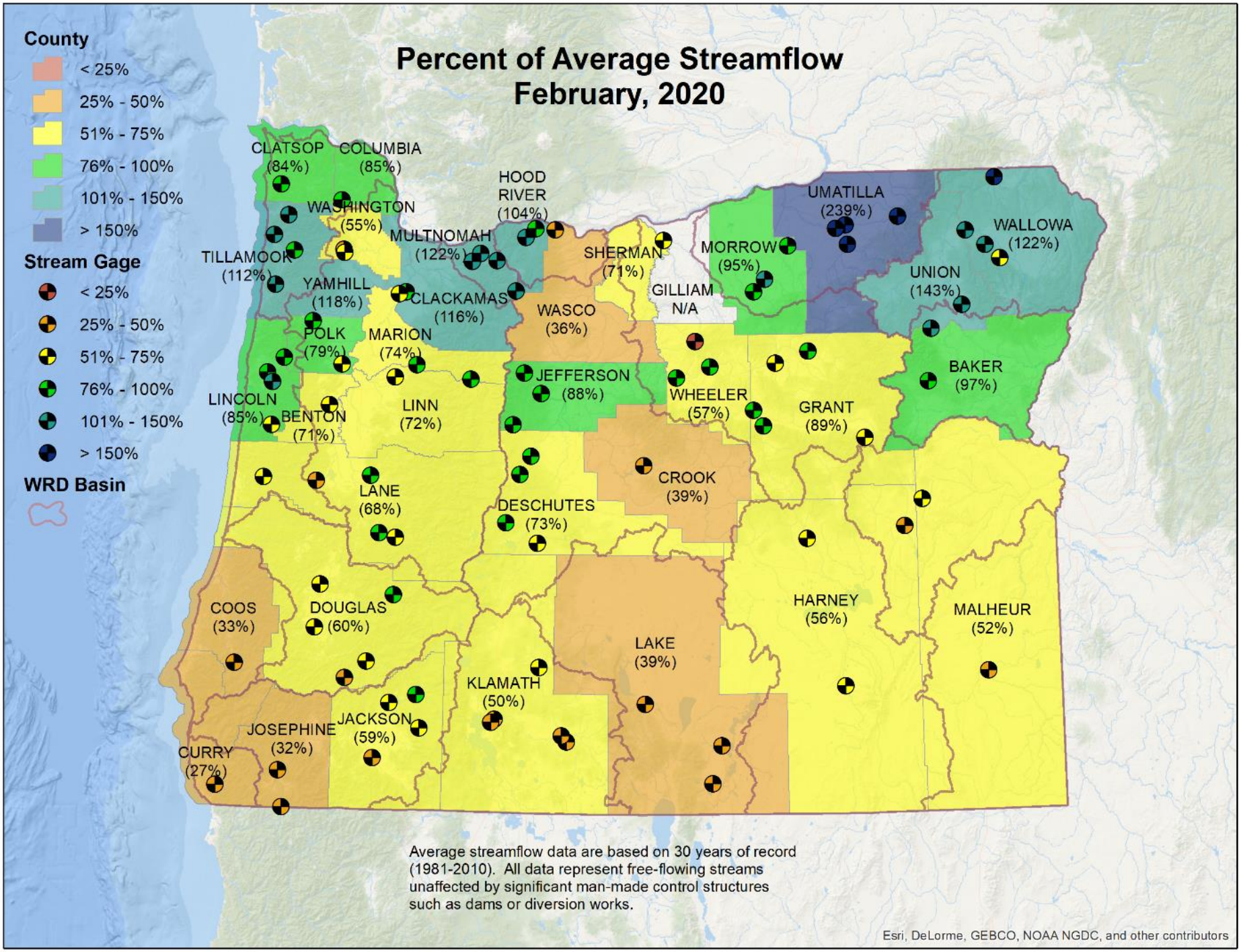
April 14, 2020


2020 Statewide
Percent of Average Stream Flow
2020 Monthly Percent of Average
2020 Cumulative Percent of Average
Percent of Average
250%
200%
150%
100%
50%
0%
107%
107%
48%
61%
52%
57%
100%
73%
77%
73%
45%
66%
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Month

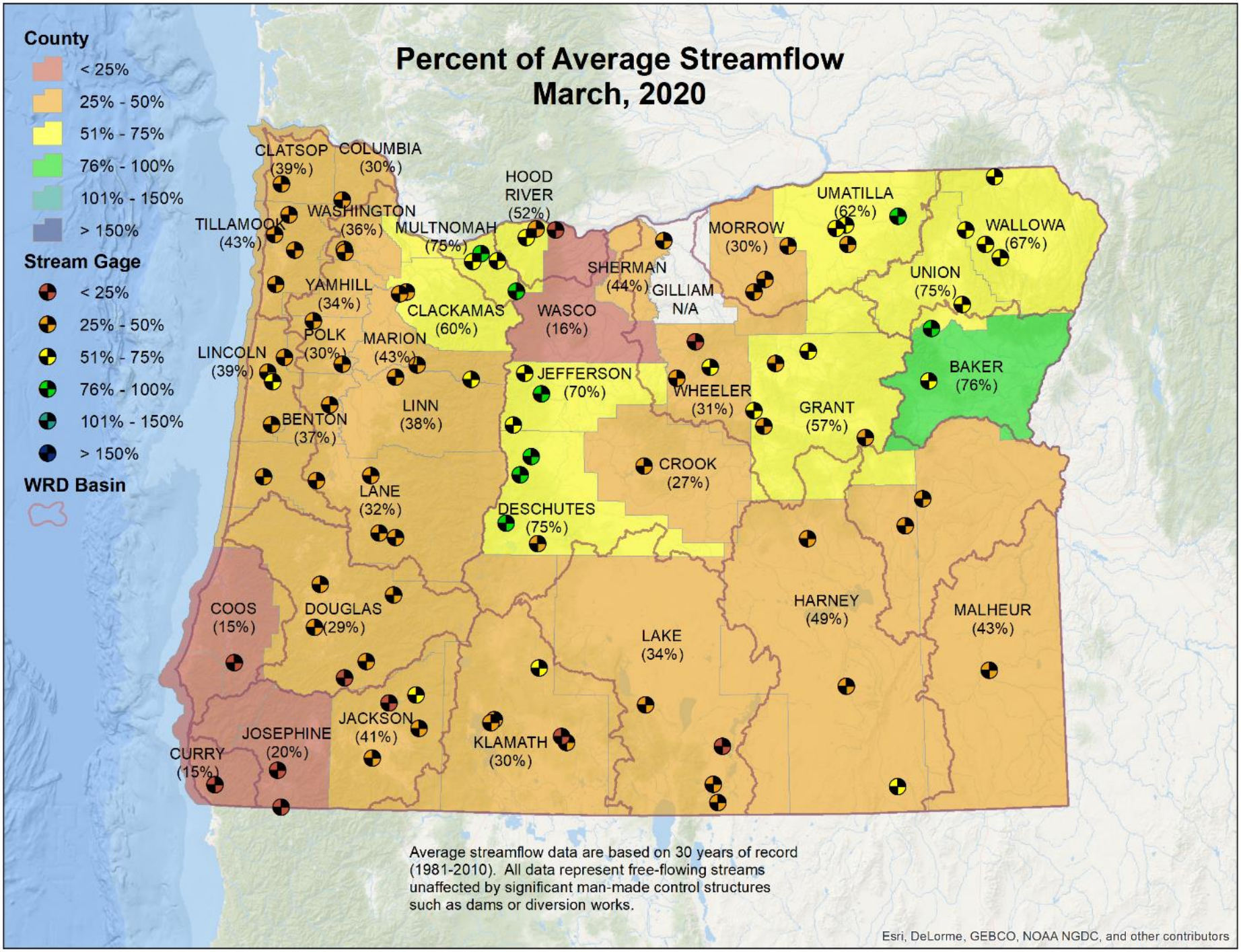
OREGON
WATER RESOURCES DEPARTMENT

| Basin | Water Year % of average thru March | % of average for March | % of average for 04/13/2020 | # of data points |
|---|---|---|---|---|
| West Side | 68% | 37% | 46% | 45 |
| East Side | 65% | 49% | 61% | 48 |
| State | 66% | 45% | 55% | 93 |

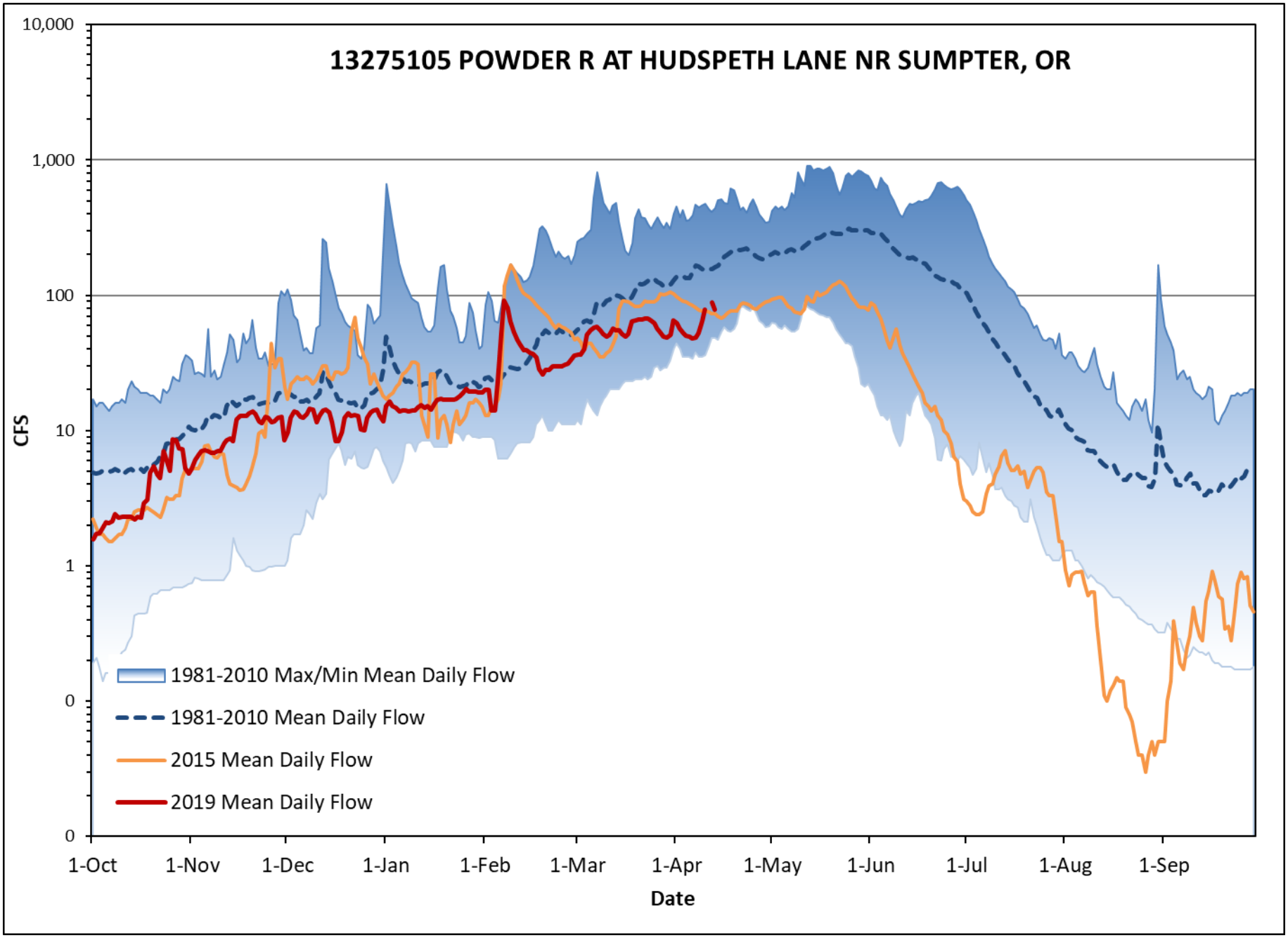
# Percent of Average Streamflow
# February, 2020

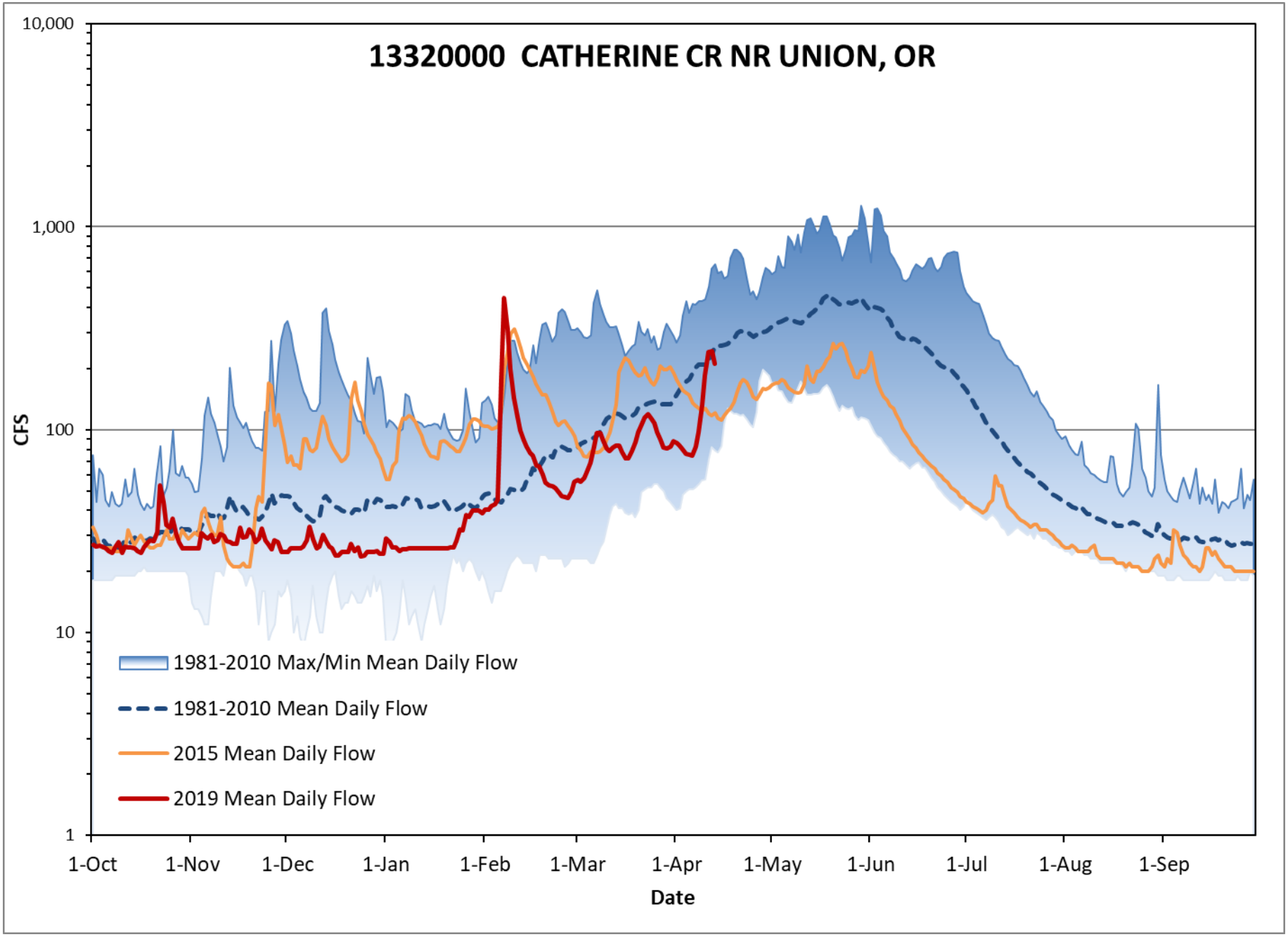


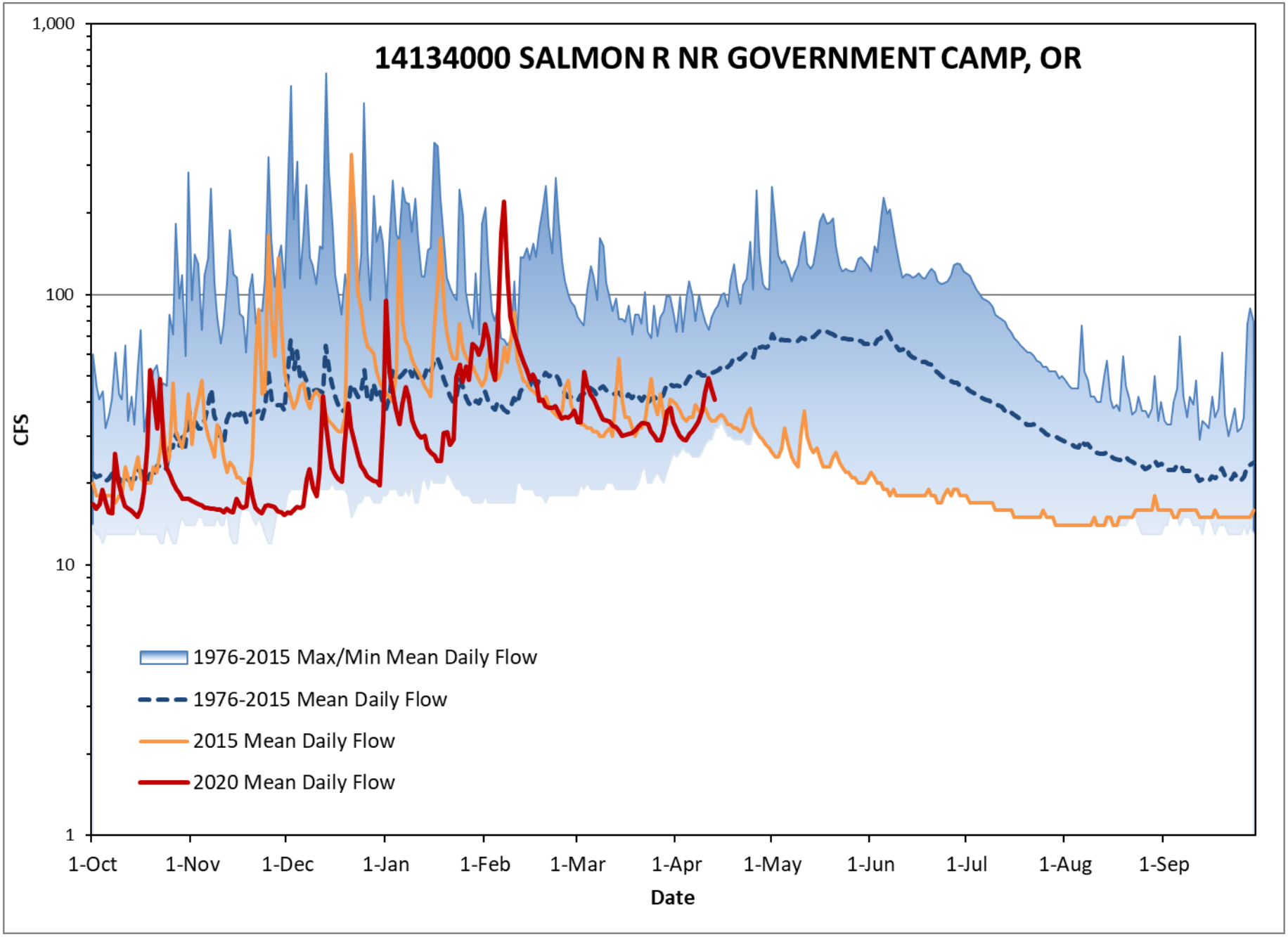
# Percent of Average Streamflow
# March, 2020

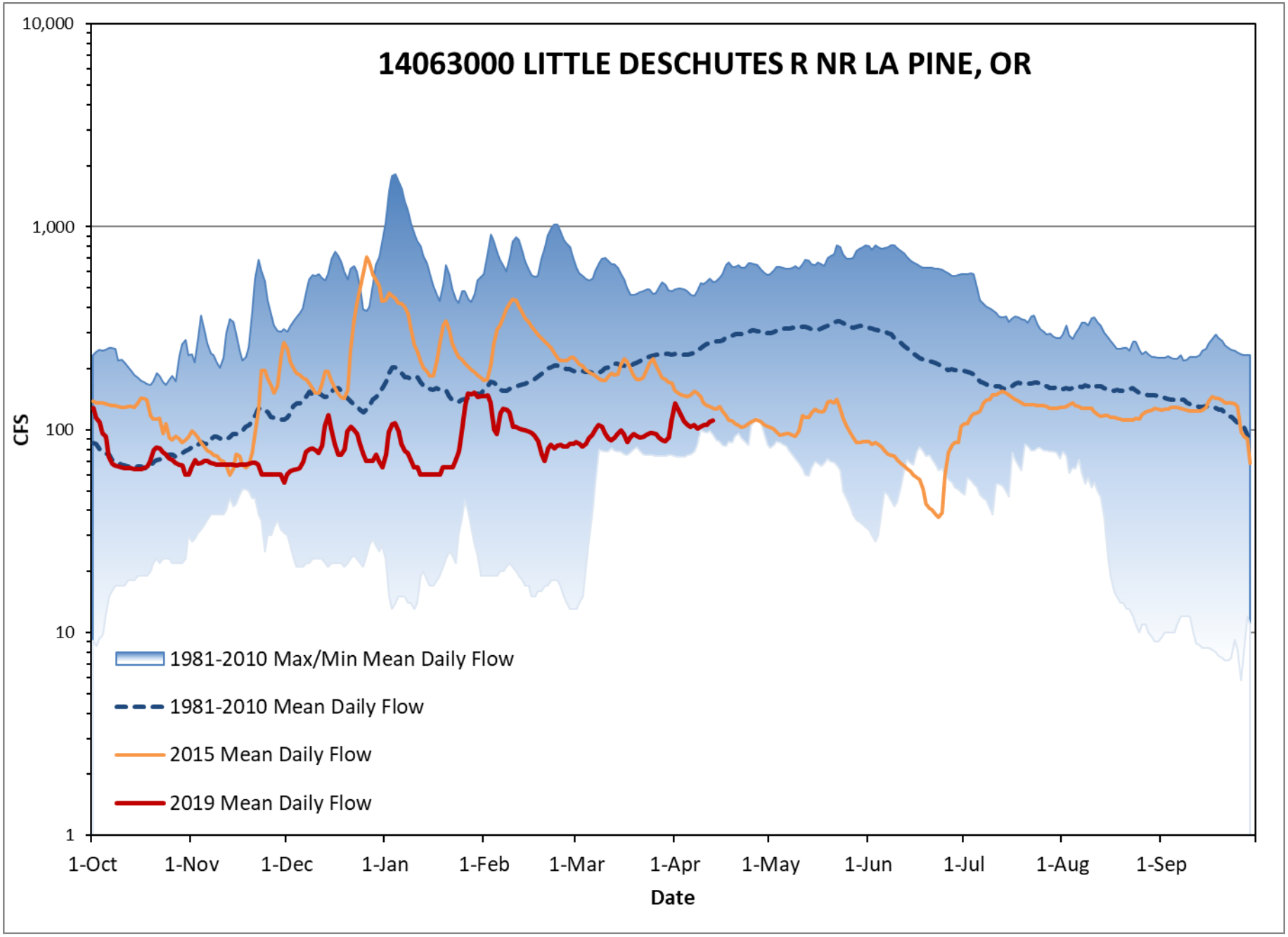



Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.


13275105 POWDER R AT HUDSPETH LANE NR SUMPTER, OR
10,000
1,000
100
10
1
0
0
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2015 Mean Daily Flow
2019 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
Date


13320000 CATHERINE CR NR UNION, OR
10,000
1,000
100
10
1
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2015 Mean Daily Flow
2019 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
Date


14134000 SALMON R NR GOVERNMENT CAMP, OR
1,000
100
10
1
CFS
1976-2015 Max/Min Mean Daily Flow
1976-2015 Mean Daily Flow
2015 Mean Daily Flow
2020 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
Date


14063000 LITTLE DESCHUTES R NR LA PINE, OR
10,000
1,000
100
10
1
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2015 Mean Daily Flow
2019 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
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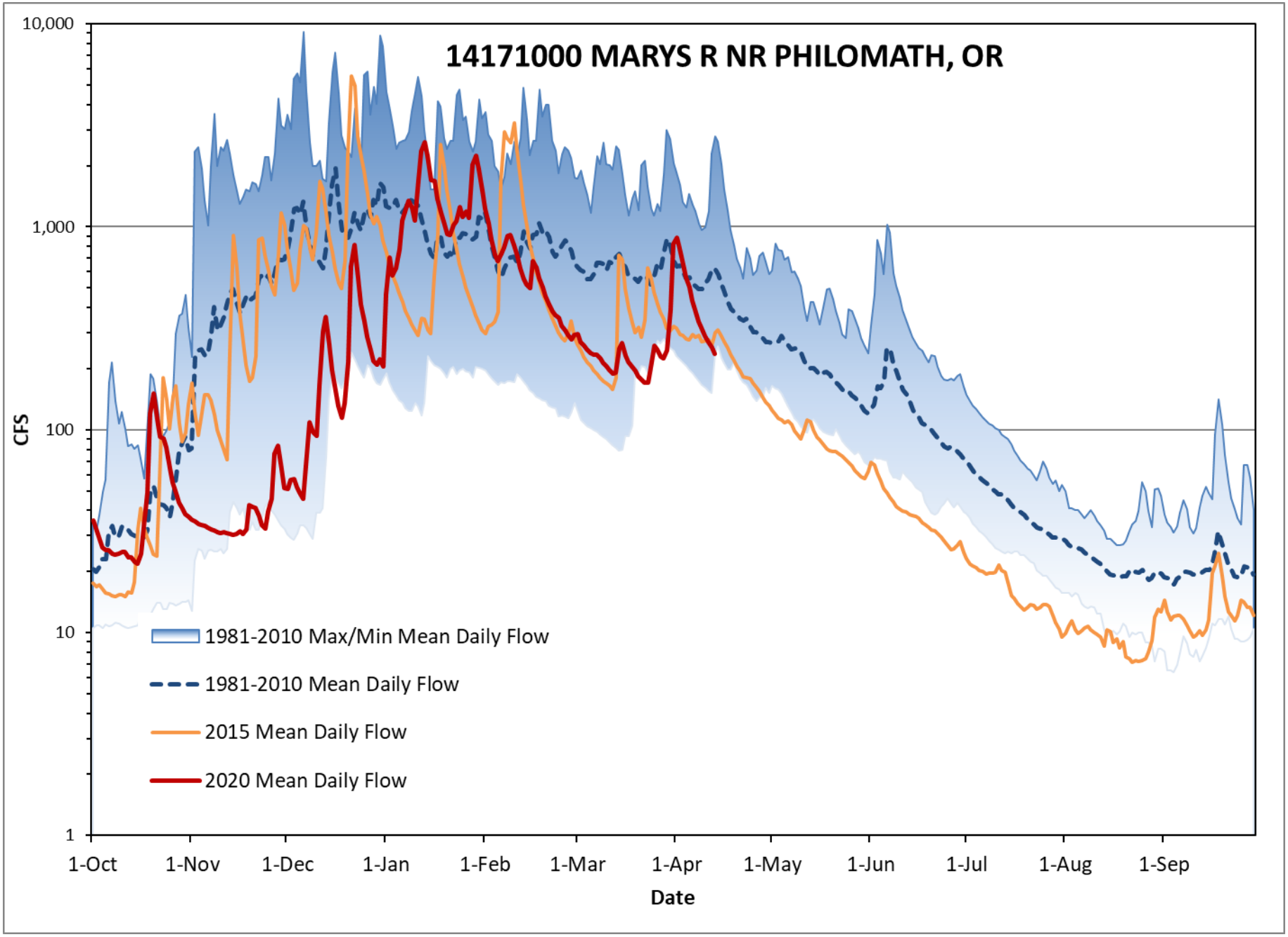
1-Jun
1-Jul
1-Aug
1-Sep
Date


14171000 MARYS R NR PHILOMATH, OR
10,000
1,000
100
10
1
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2015 Mean Daily Flow
2020 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
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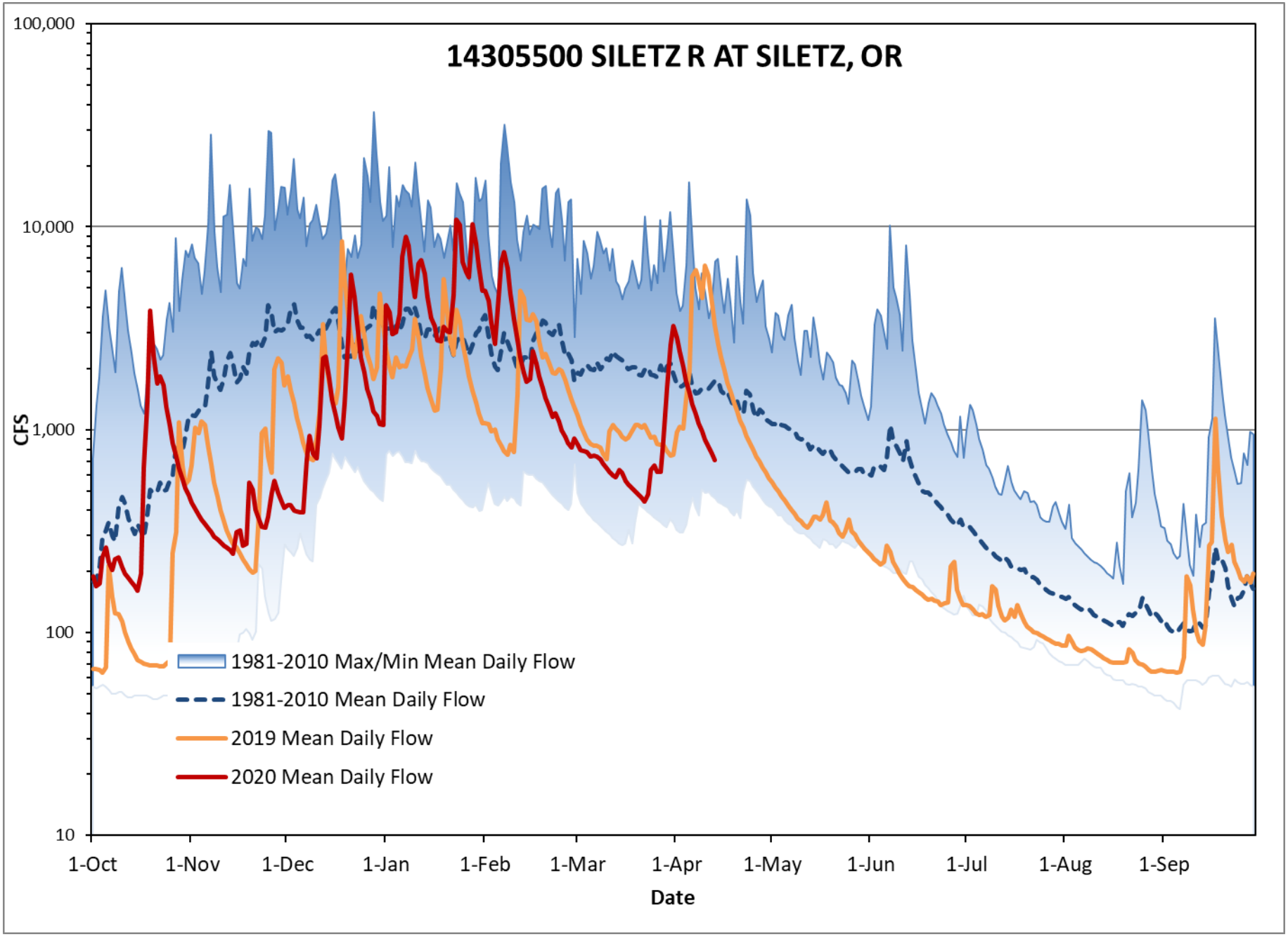
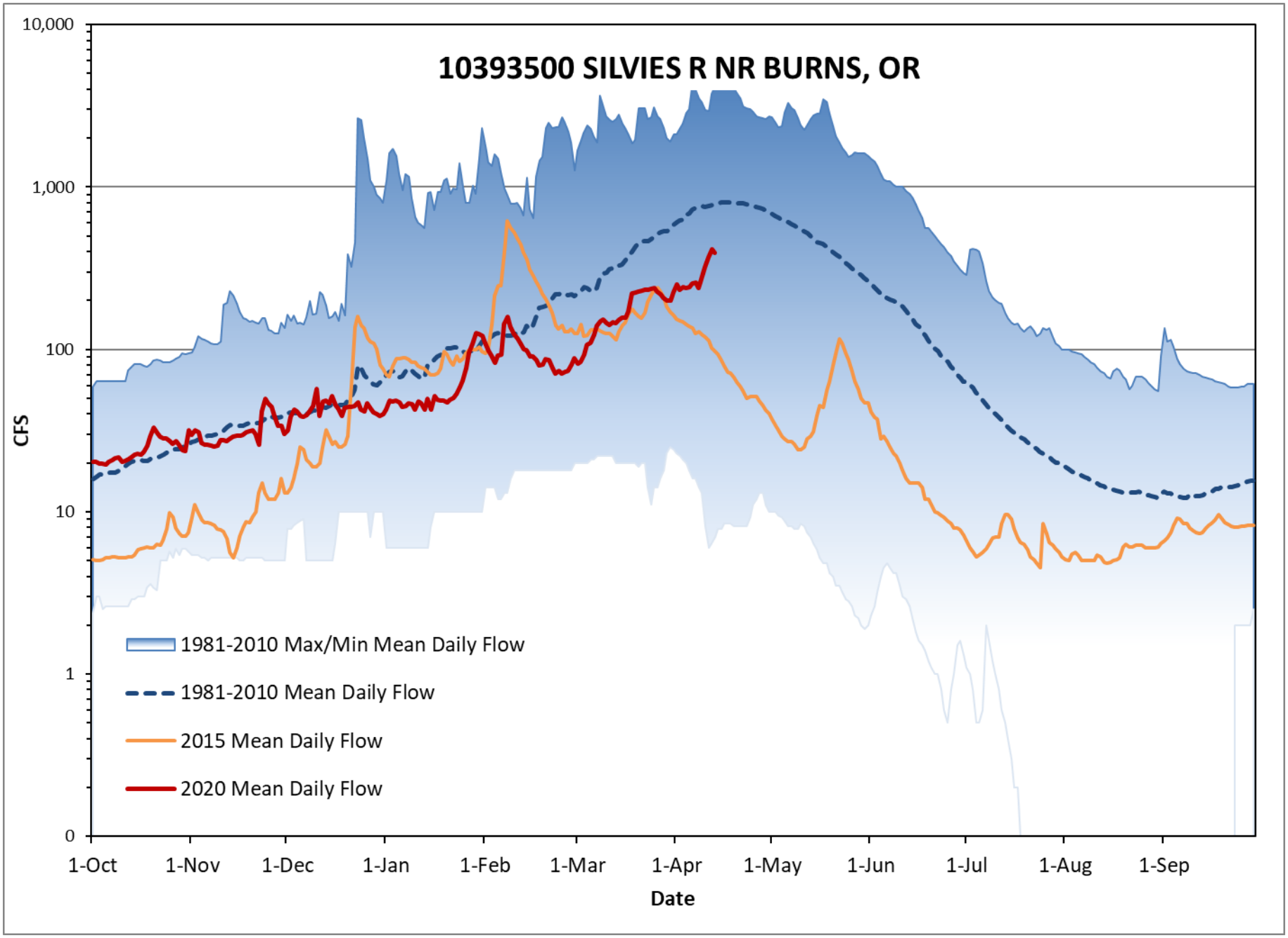
1-Jun
1-Jul
1-Aug
1-Sep
Date


14305500 SILETZ R AT SILETZ, OR
100,000
10,000
1,000
100
10
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2019 Mean Daily Flow
2020 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
Date


10393500 SILVIES R NR BURNS, OR
10,000
1,000
100
10
1
0
CFS
1981-2010 Max/Min Mean Daily Flow
1981-2010 Mean Daily Flow
2015 Mean Daily Flow
2020 Mean Daily Flow
1-Oct
1-Nov
1-Dec
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
Date


# Thank you