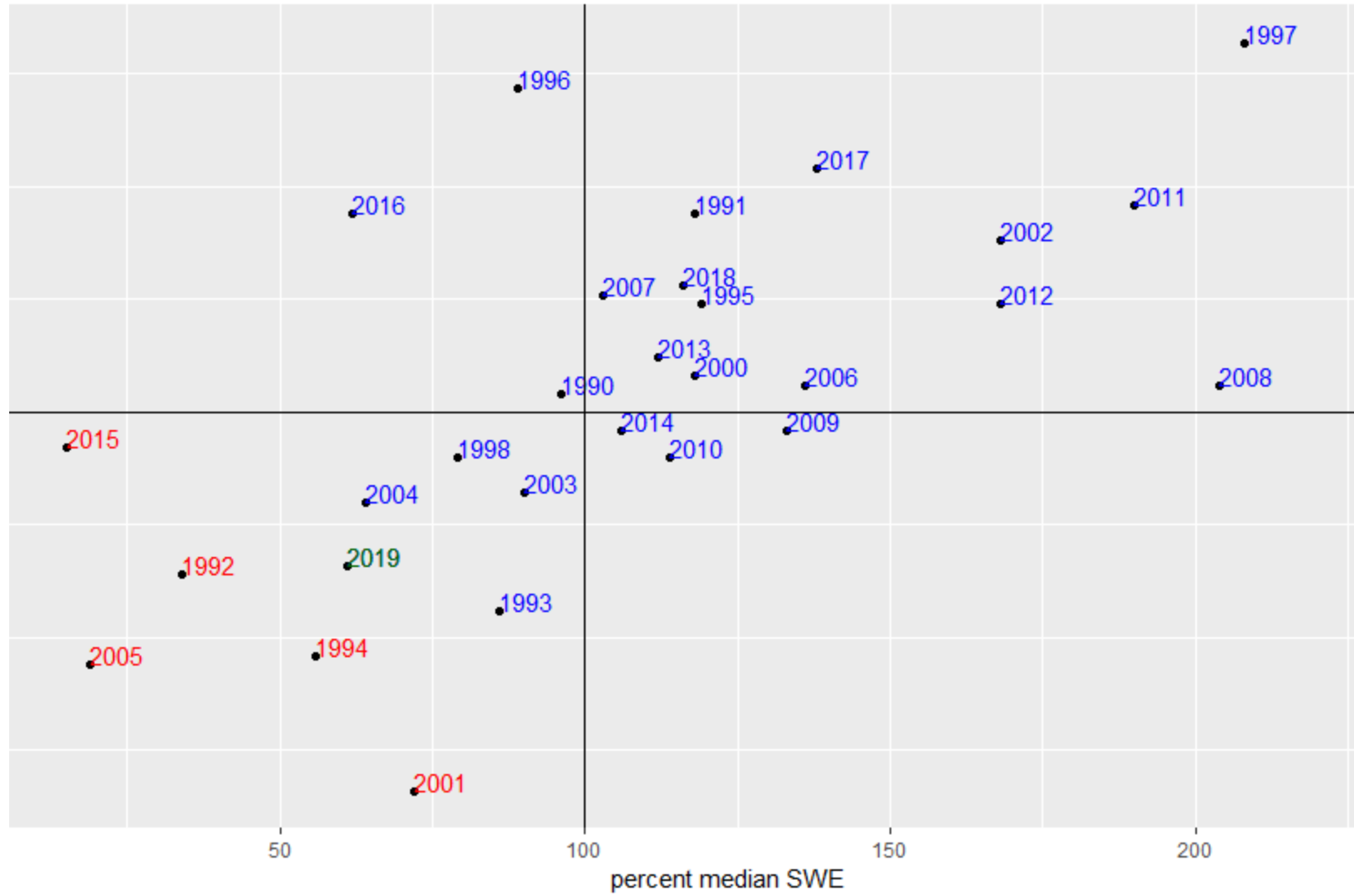


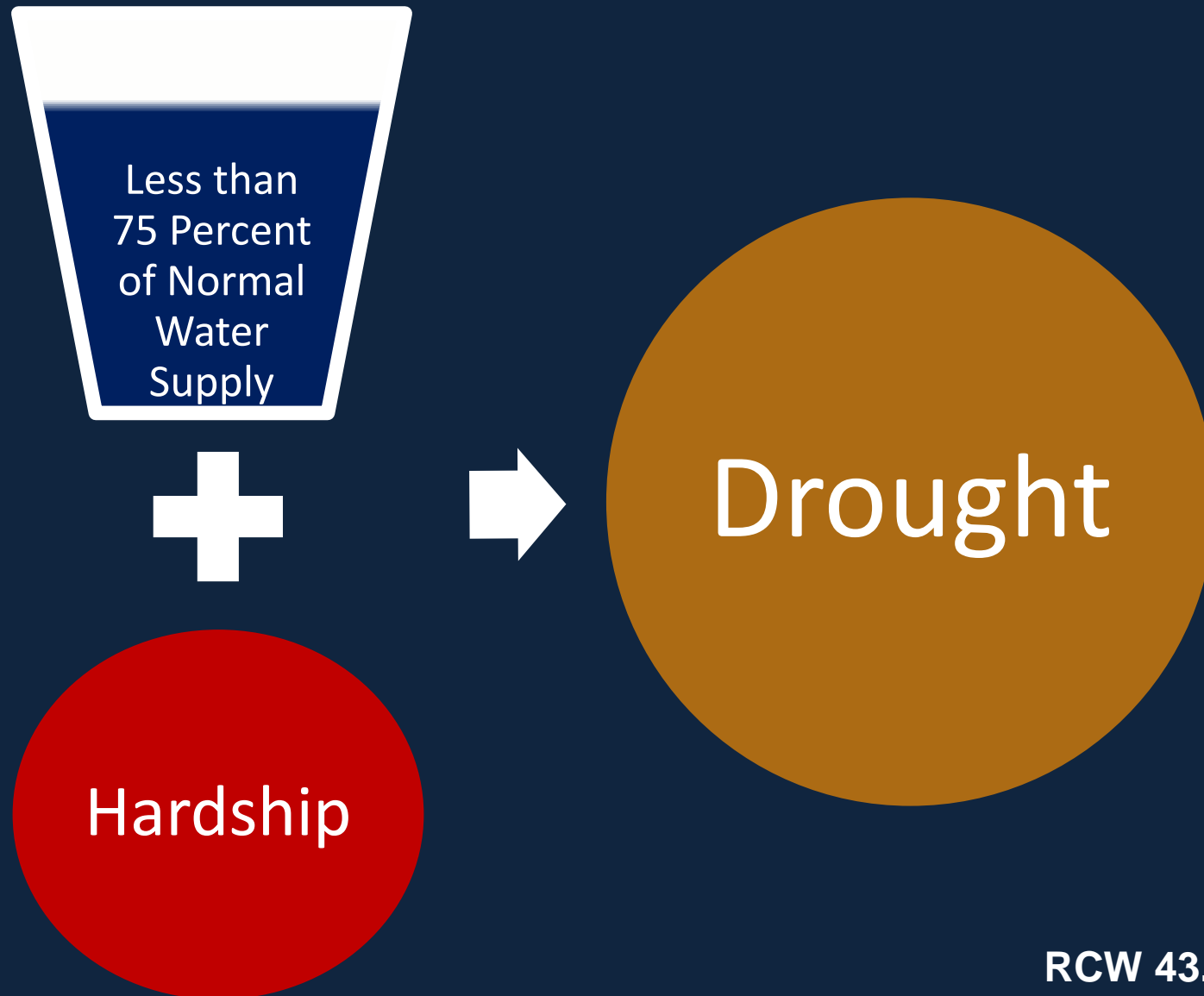
Water Supply Availability Meeting  
May 9, 2019  
Join WebEx meeting  
**+1-240-454-0887** US Toll  
Meeting number (access code): 805 412 512

Time	Subject	Responsible	Representing
10:00 – 10:05	Welcome State Drought Framework	Jeff Marti	Ecology
10:05 – 10:20	Regional Climate Perspective 1. Recent precipitation and temperature 2. Seasonal forecasts/ENSO	Karin Bumbaco and Nick Bond	Office of Washington State Climatologist
10:20 – 10:40	Streamflow Observations	Mark Mastin	USGS
10:40-10:55	Snowpack/NRCS Streamflow Forecasts	Scott Pattee	NRCS
10:55-11:05	NOAA River Forecasts	Brent Brower	NWS
11:05-11:15	Consideration of sub-seasonal forecast data Consideration of precipitation dominant and non- forecasted watersheds	Jeff Marti	Ecology
11:15-11:30	Input from Water Managers	All	
11:30 - 12:00	Recommendations for further Action	All	
	Key Upcoming Dates EWEC May 10 WSAC – PROPOSE JUNE 7 <sup>th</sup>		

statewide SWE vs statewide precip May 09 compared to previous years



# Washington State's Drought Trigger



RCW 43.83B.400

## 173-166-030

### Definitions.

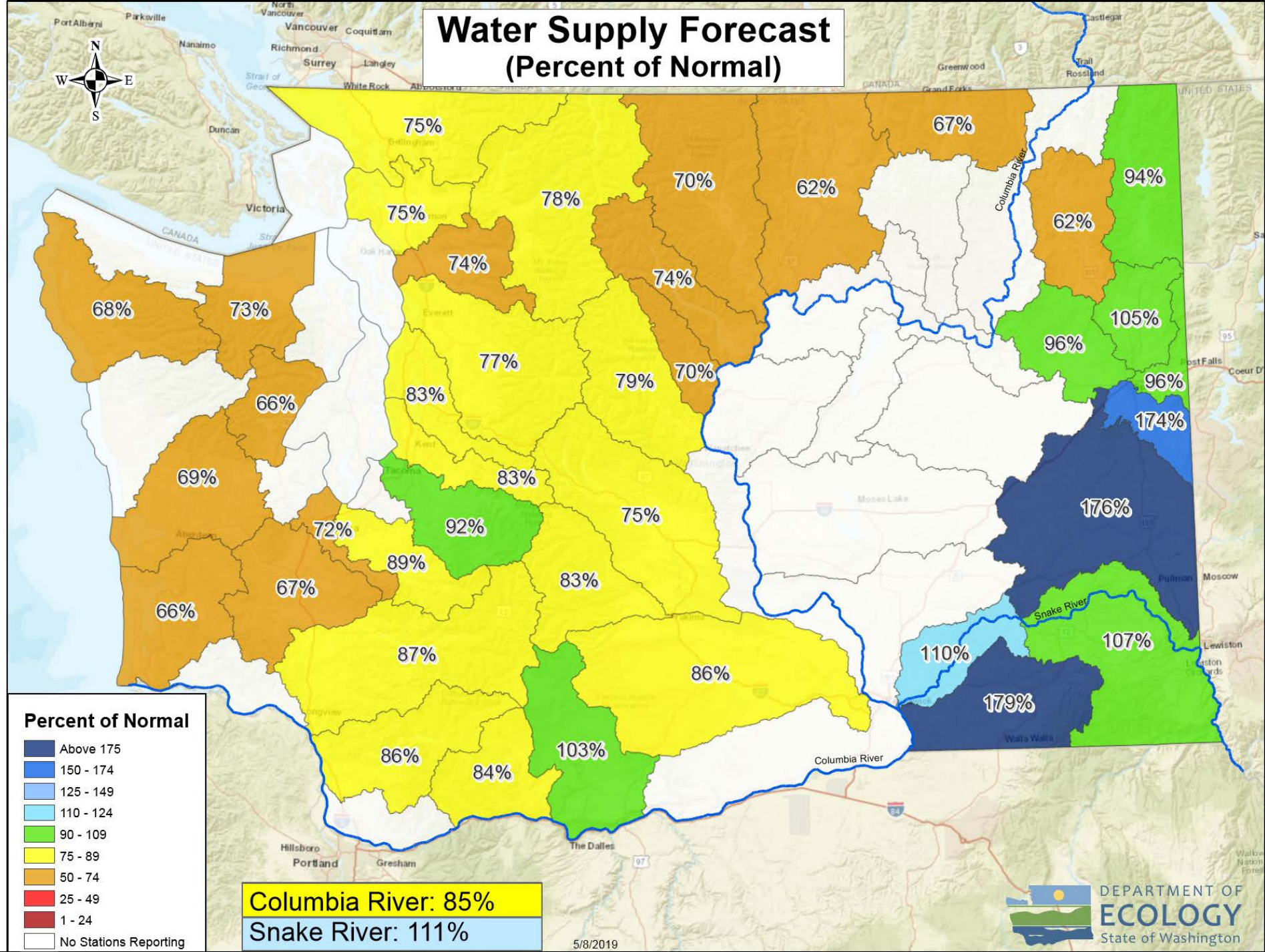
(2) "**Drought conditions**" are water supply conditions where a geographical area or a significant part of a geographical area is receiving, or is projected to receive, less than seventy-five percent of normal water supply as the result of natural conditions and the deficiency causes, or is expected to cause, undue hardship to water users within that area.

(5) "**Geographical area**" is an area within the state of Washington which can be described either by natural or political boundaries and which can be specifically identified in an order declaring a drought emergency. Examples of specific geographical areas include, but are not limited to:

- (a) The state of Washington.
- (b) Counties.
- (c) Water resource inventory areas (WRIAs) as defined in chapter [173-500](#) WAC.
- (d) Individual watersheds which constitute only a portion of a WRIA but whose boundaries can be topographically described.
- (e) Groundwater management areas and subareas as defined in chapter [173-100](#) WAC.
- (f) Designated sole source aquifers.
- (g) Combinations of the above areas.

(6) "**Normal water supply**" is for the purpose of determining drought conditions, the median amount of water available to a geographical area, relative to the most recent thirty-year base period used to define climate normals. The determination of drought conditions will consider seasonal water supply forecasts, other relevant hydro-meteorological factors (e.g., precipitation, snowpack, soil moisture, streamflow, and aquifer levels) and also may consider extreme departures from normal conditions over subseasonal time frames.

# Water Supply Forecast (Percent of Normal)





WRIA_ID	WRIA_NM	Name	APR	MAY	JUN	JUL	AUG	SEP
1	Nooksack	MF NOOKSACK - NEAR DEMING	130%	68%	61%	70%	85%	94%
1	Nooksack	NF NOOKSACK - NEAR GLACIER	84%	77%	69%	76%	71%	78%
1	Nooksack	NOOKSACK - AT CEDARVILLE	94%	67%	60%	70%	74%	79%
1	Nooksack	NOOKSACK - AT FERNDALE	97%	69%	58%	67%	73%	79%
1	Nooksack	SF NOOKSACK - AT SAXON BRIDGE	97%	62%	52%	56%	69%	78%
3	Lower Skagit - Samish	SAMISH - NEAR BURLINGTON	88%	45%	54%	67%	81%	73%
3	Lower Skagit - Samish	SKAGIT - NEAR MT VERNON	105%	84%	64%	59%	78%	86%
4	Upper Skagit	BAKER - LAKE SHANNON	96%	79%	68%	62%	78%	88%
4	Upper Skagit	BAKER - UPPER BAKER LAKE	107%	85%	70%	62%	78%	89%
4	Upper Skagit	SAUK - ABOVE WHITE CHUCK	116%	79%	58%	45%	50%	57%
4	Upper Skagit	SAUK - NEAR SAUK	100%	93%	65%	59%	82%	85%
4	Upper Skagit	SKAGIT - AT MARBLEMOUNT	106%	80%	59%	56%	79%	87%
4	Upper Skagit	SKAGIT - AT NEWHALEM	116%	82%	62%	63%	88%	101%
4	Upper Skagit	SKAGIT - NEAR CONCRETE	110%	87%	64%	58%	78%	86%
4	Upper Skagit	SKAGIT - ROSS RESERVOIR	106%	79%	60%	59%	89%	101%
4	Upper Skagit	THUNDER CREEK - NEAR NEWHALEM	148%	107%	76%	78%	90%	106%
5	Stillaguamish	NF STILLAGUAMISH - NEAR ARLINGTON	85%	46%	50%	48%	56%	76%
5	Stillaguamish	SF STILLAGUAMISH - NEAR GRANITE FALLS	121%	59%	56%	53%	58%	77%
5	Stillaguamish	STILLAGUAMISH - NEAR ARLINGTON	141%	64%	54%	51%	51%	74%
7	Snohomish	MF SNOQUALMIE - NEAR TANNER	116%	93%	57%	27%	50%	56%
7	Snohomish	NF SNOQUALMIE - NEAR SNOQUALMIE FALLS	119%	77%	56%	59%	78%	70%
7	Snohomish	PILCHUCK - NEAR SNOHOMISH	103%	50%	51%	62%	71%	65%
7	Snohomish	SF SNOQUALMIE - NEAR GARCIA	117%	73%	44%	53%	58%	43%
7	Snohomish	SF TOLT - TOLT RESERVOIR	133%	49%	56%	52%	59%	72%
7	Snohomish	SKYKOMISH - NEAR GOLD BAR	104%	83%	51%	49%	62%	66%
7	Snohomish	SNOHOMISH - NEAR MONROE	113%	78%	54%	53%	69%	70%
7	Snohomish	SNOQUALMIE - NEAR CARNATION	120%	77%	59%	50%	66%	69%
7	Snohomish	SNOQUALMIE - NEAR SNOQUALMIE	121%	84%	57%	45%	61%	66%
7	Snohomish	SULTAN - NEAR SULTAN	109%	61%	52%	59%	68%	69%
7	Snohomish	SULTAN - SPADA LAKE	106%	56%	56%	55%	47%	67%
7	Snohomish	TOLT - NEAR CARNATION	127%	59%	59%	59%	71%	73%
8	Cedar - Sammamish	CEDAR - AT RENTON	130%	57%	51%	60%	67%	70%
8	Cedar - Sammamish	CEDAR - CHESTER MORSE LAKE	129%	54%	44%	51%	59%	60%
8	Cedar - Sammamish	CEDAR - NEAR LANDSBURG	130%	58%	51%	59%	70%	67%



Exploration Tools



Ryderwood, Cowlitz County

Zoom Level: 10  
Map Scale: 1:577,790  
Lat: 46.7766, Lon: -123.1458

10 km  
5 mi



# Summer 2018: Ryderwood, Cowlitz County



Campbell Creek, Cowlitz County, August 17, 2019

- 290 connections served by a surface water treatment plant and an emergency well
- Main water source ran dry
- Reservoir tank capacity of 500K gallons
- Daily demand of 50K gallons
- August 2018: Voluntary restrictions requested by Cowlitz County
- Use dropped to 30K gallons per day
- Cowlitz County made pans for trucking in water
- Residents very concerned about fire danger



## WATER RESTRICTION NOTICE

**NO OUTDOOR WATER USE**

**NO CAR WASHING**

LIMITED WATER FLOW IN CAMPBELL CREEK PREVENTING COWLITZ COUNTY FROM PRODUCING ADEQUATE AMOUNTS OF WATER TO SERVE THE RESIDENTS OF RYDERWOOD

**EFFECTIVE IMMEDIATELY** - NO OUTDOOR WATER USE IS ALLOWED. WASHING CARS SHOULD BE DONE OUTSIDE OF RYDERWOOD AT A COMMERCIAL CAR WASH.

OTHER RECOMMENDED CONSERVATION MEASURES INCLUDE:

- LIMIT SHOWERS TO 5 MINUTES
- TURN OFF THE FAUCET WHILE BRUSHING YOUR TEETH
- LIMIT THE CYCLES IN THE DISHWASHER OR CLOTHES WASHER BY OPERATING THEM ONLY WITH FULL LOADS

STAFF WILL BE AT THE RYDERWOOD TOWN MEETING AT 10 AM ON TUESDAY AUGUST 14. PLEASE SHARE INFORMATION & ANSWER QUESTIONS.

**Cowlitz County**  
**Department of Public Works**  
1600 13<sup>th</sup> Avenue South  
Kelso, Washington 98626  
Phone: 577-3035





**Campbell Creek**  
**Aug. 17, 2018**  
**Dry creekbed**



**Campbell Creek**  
**Sept. 12, 2018**  
**After rainfall**



# Precipitation, Snow Water Equivalent, and Snow Depth

Modeled and Observed

Station: ABNW1 - ABERNATHY MTN RAWS  
Latitude: 46.35 N  
Longitude: 123.1 W  
Elevation: 1614 Feet  
Start Date: 2018-10-01 22 UTC  
Stop Date: 2019-05-06 21 UTC  
Forest Density: 81%  
Land Use: Cool Conifer Forest

Snow Precipitation  
Non-Snow Precipitation  
Unknown Precipitation  
Snow Water Equivalent (Modeled)  
Snow Depth (Modeled)  
Present Weather (Observed)  
No Precipitation  
Rain (Not Freezing)  
Freezing Drizzle/Rain  
Mixed Rain/Snow  
Snow

