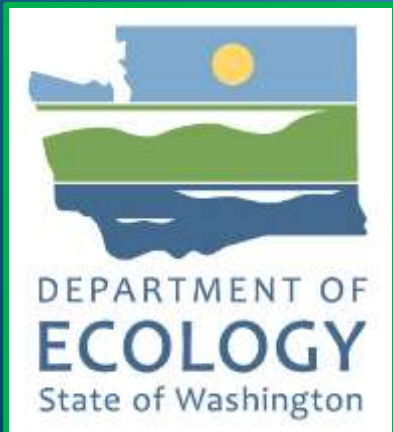


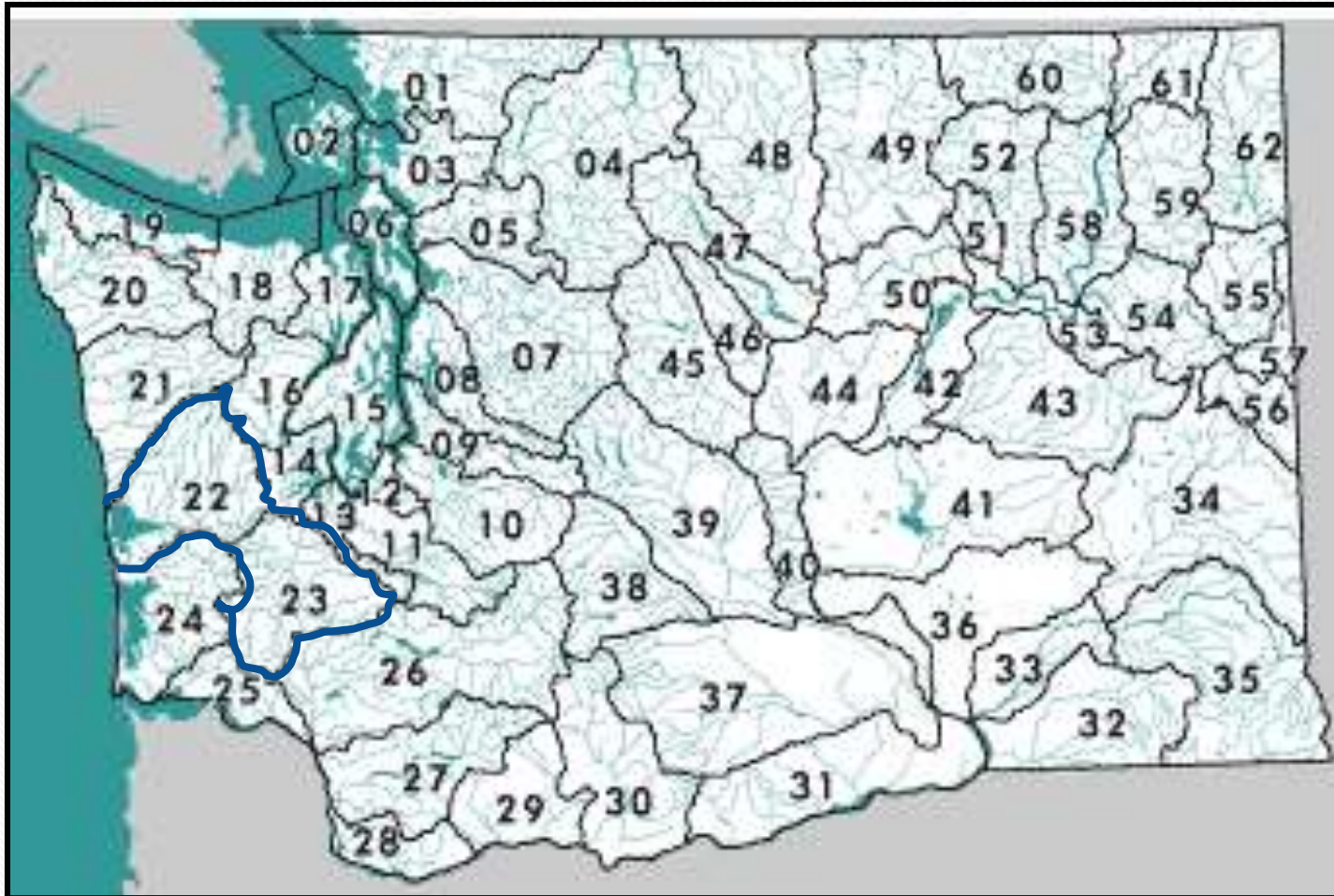
Chehalis Basin Streamflow Conditions for Summer 2016

July 22, 2016 Chehalis Basin Partnership Meeting



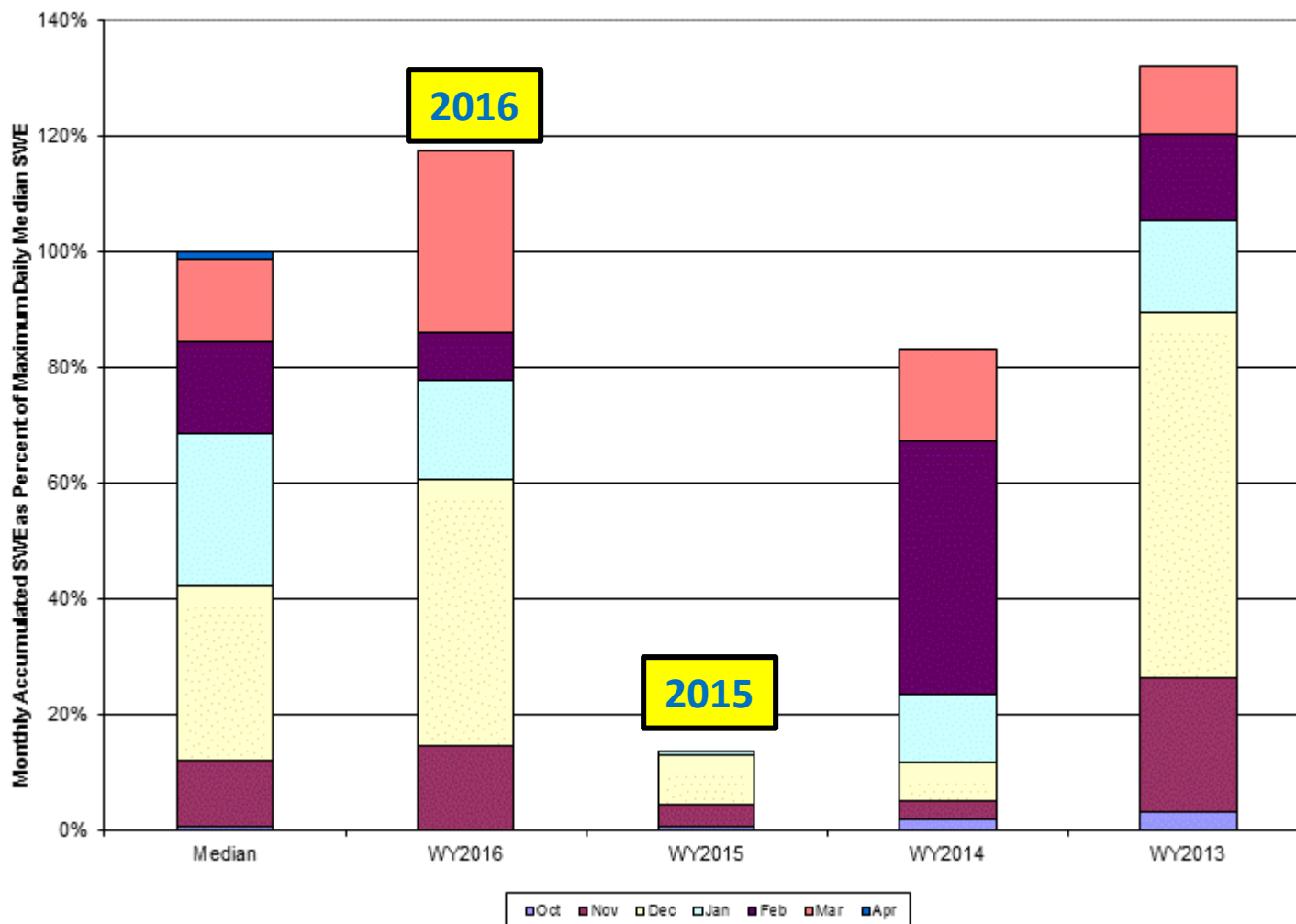
Mike Gallagher, Section Manager
Water Resources Program – Southwest Region
P: 360-407-6058 E: mike.gallagher@ecy.wa.gov

WA has 62 major “watersheds”, or WRIA’s, and each has their own “story”



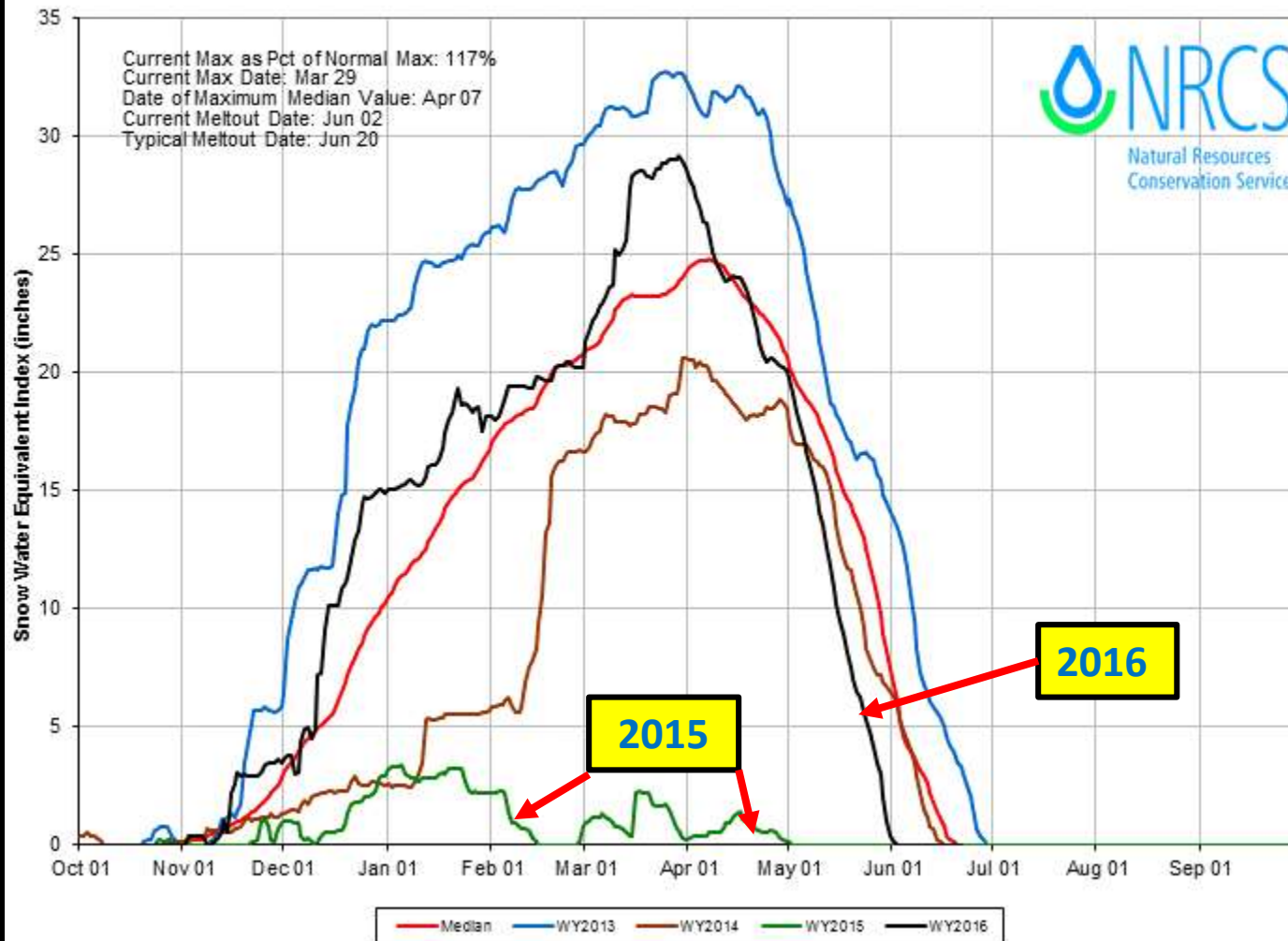
Monthly Snowpack Summary for Olympic Mountains

OLYMPIC Time Series Monthly Snowpack Summary
Based on Provisional SNOTEL data as of Jun 21, 2016



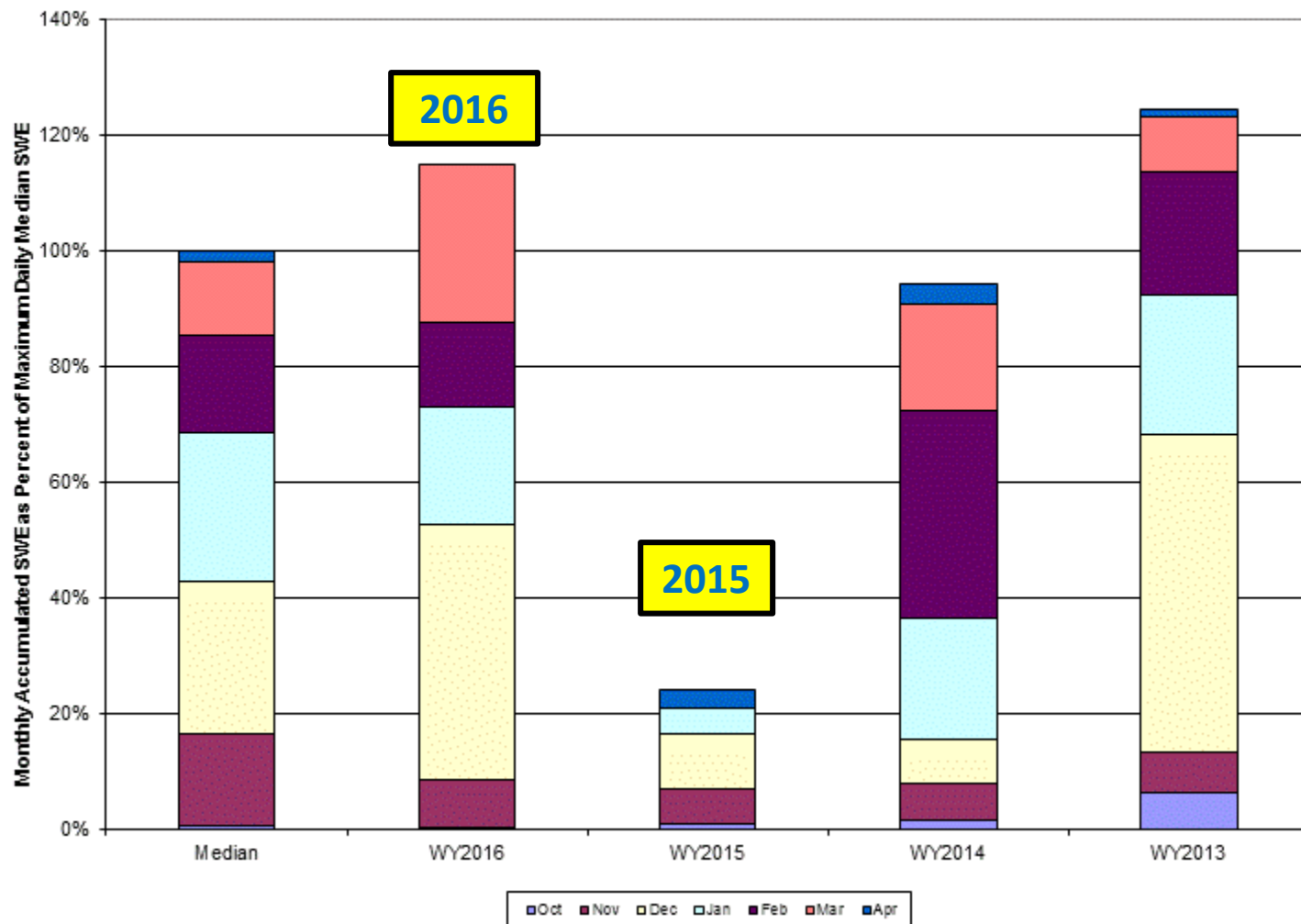
Snowpack Melt Summary for WY 2016 for Olympic Mountains

OLYMPIC Time Series Snowpack Summary
Based on Provisional SNOTEL data as of Jun 21, 2016



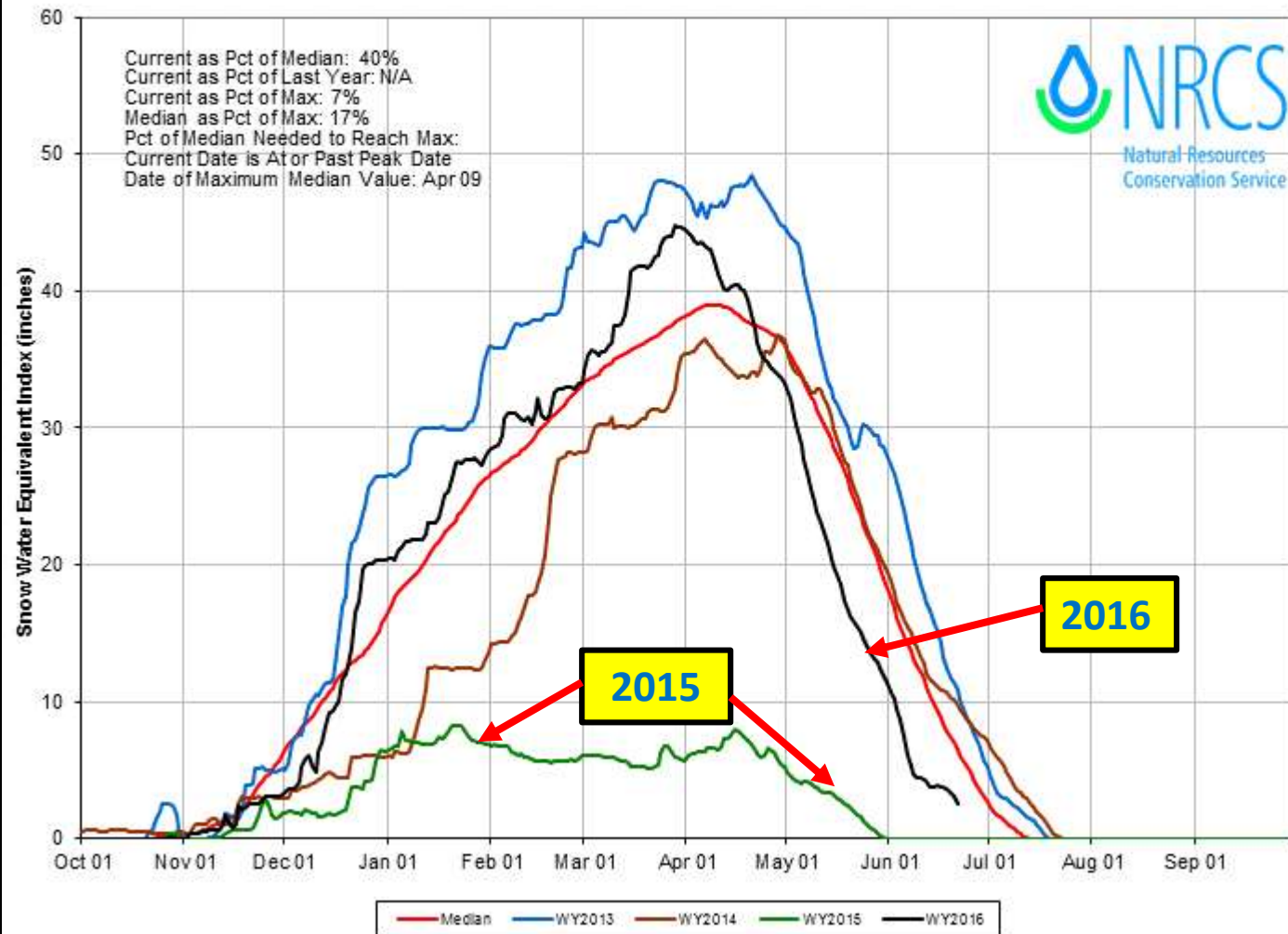
Monthly Snowpack Summary for Cowlitz and Lewis Basins

LEWIS, COWLITZ Time Series Monthly Snowpack Summary
Based on Provisional SNOTEL data as of Jun 21, 2016

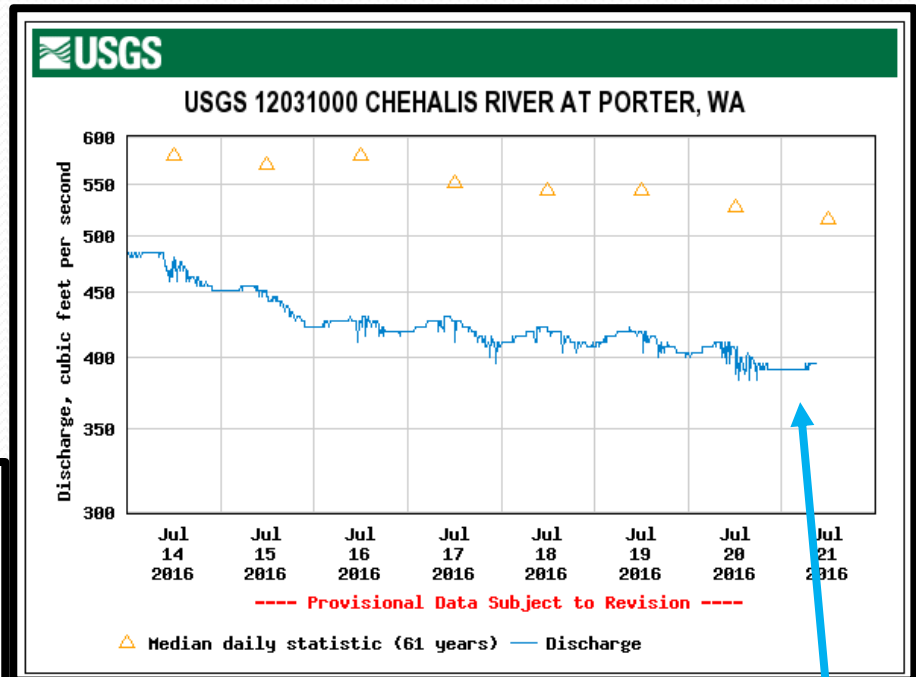
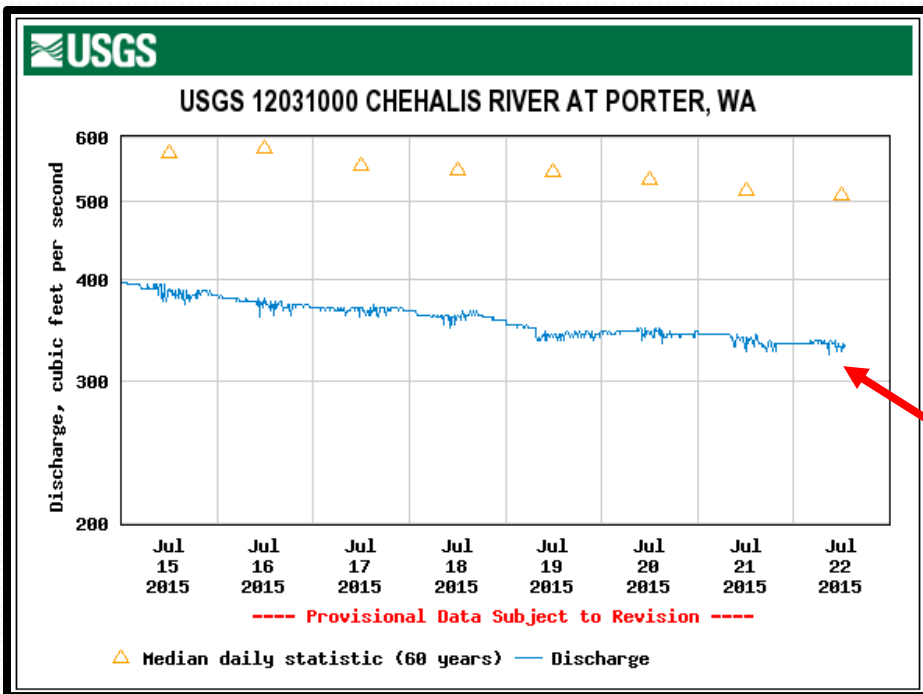


Snowpack Melt Summary for Olympic Mountains

LEWIS, COWLITZ Time Series Snowpack Summary
Based on Provisional SNOTEL data as of Jun 21, 2016



Chehalis River



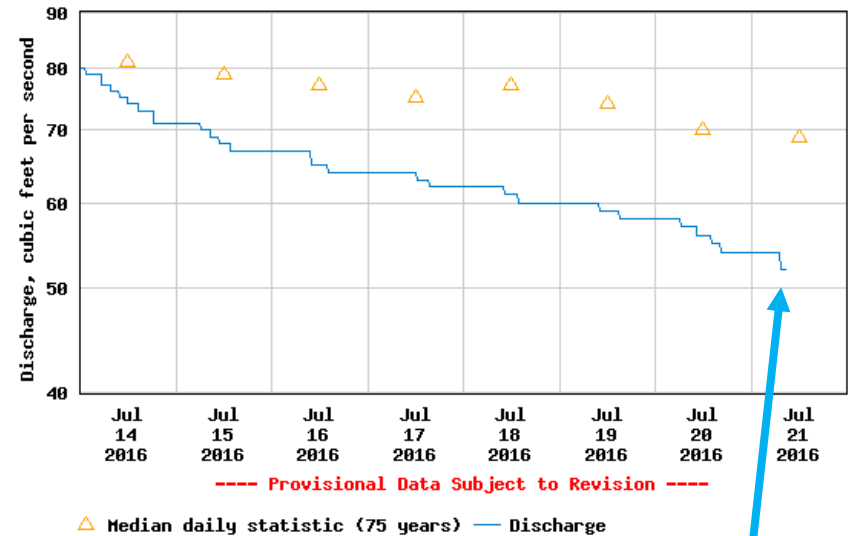
395 CFS as of 7/21/2016

330 CFS as of 7/22/2015

Newaukum River



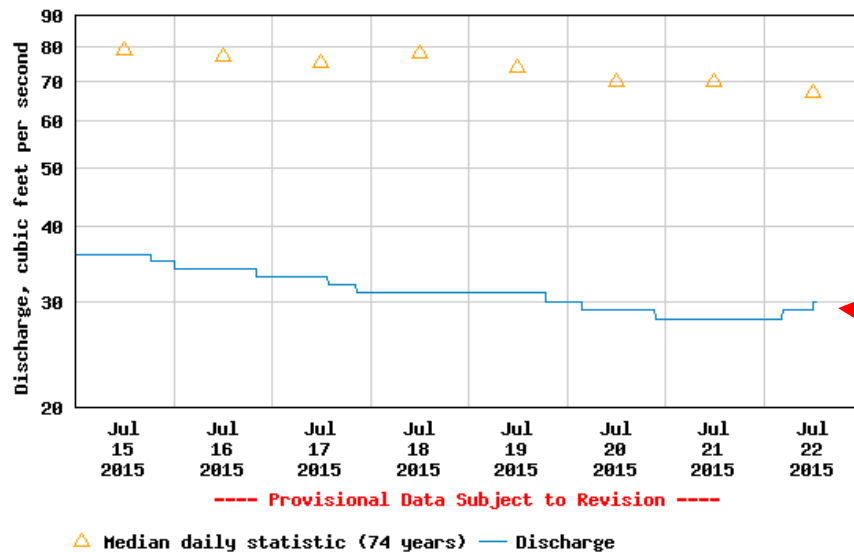
USGS 12025000 NEWAUKUM RIVER NEAR CHEHALIS, WA



52 CFS as of 7/21/2016



USGS 12025000 NEWAUKUM RIVER NEAR CHEHALIS, WA

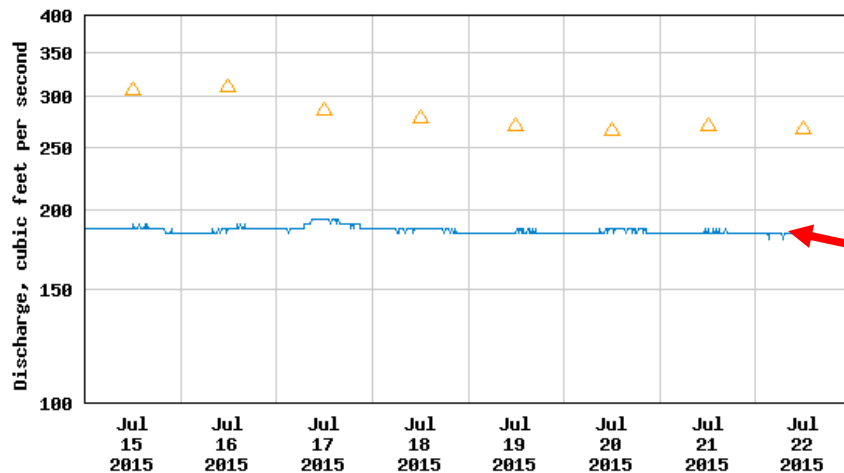


30 CFS as of 7/22/2015

Wynoochee River



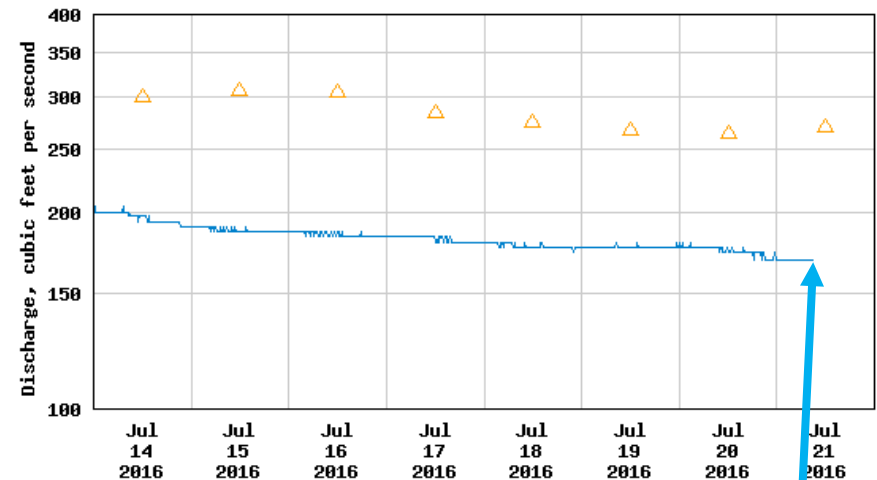
USGS 12037400 WYNOOCHEE RIVER ABOVE BLACK CREEK NR MONTESANO, WA



△ Median daily statistic (41 years) — Discharge



USGS 12037400 WYNOOCHEE RIVER ABOVE BLACK CREEK NR MONTESANO, WA



△ Median daily statistic (42 years) — Discharge

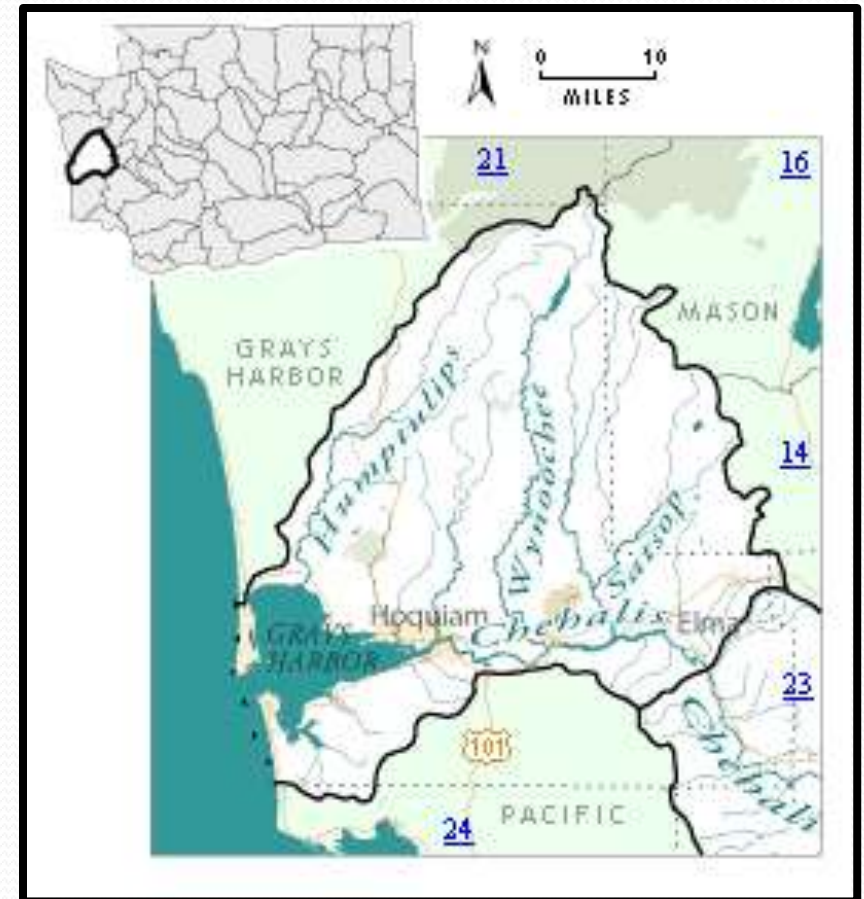
169 CFS as of 7/21/2016

183 CFS as of 7/22/2015

Existing Water Rights in WRIA 22

Lower Chehalis Watershed

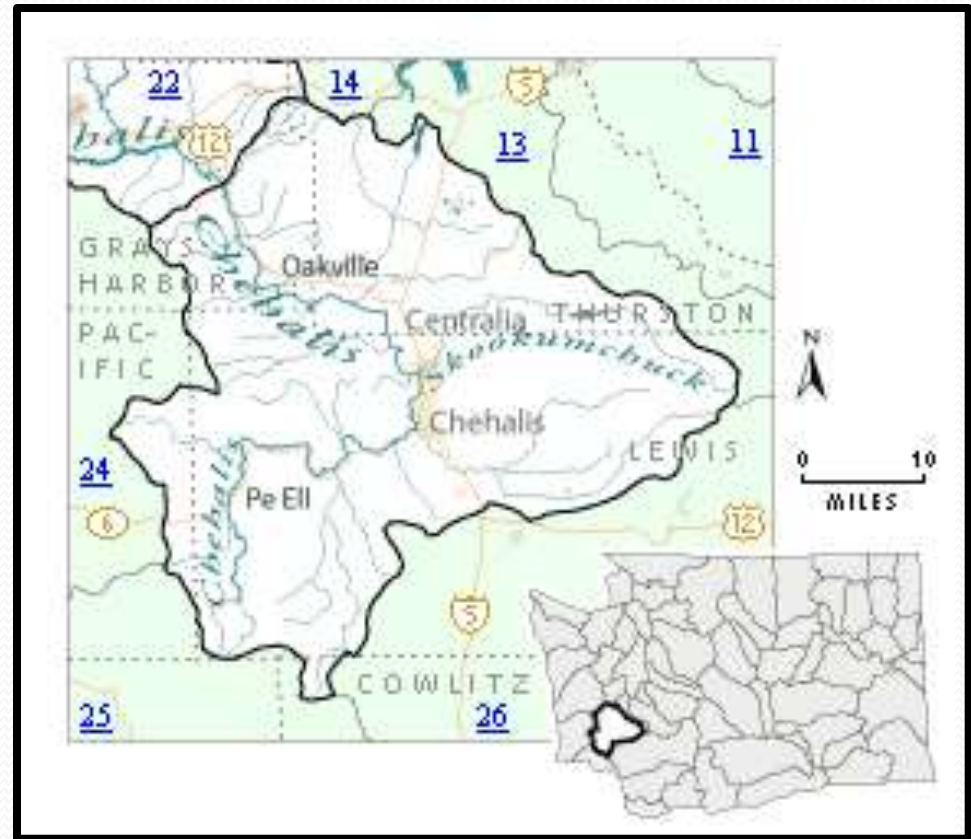
	WRIA 22 – Lower Chehalis
New Applications	58
Change Applications	2
Existing Water Right Certificates	693
Existing Water Right Permits	9
Existing Water Right Claims	3,121



Existing Water Rights in WRIA 23

Upper Chehalis Watershed

	WRIA 23 – Upper Chehalis
New Applications	53
Change Applications	7
Existing Water Right Certificates	1,672
Existing Water Right Permits	13
Existing Water Right Claims	5,307



Chapter 173-522 WAC

WATER RESOURCES PROGRAM IN THE CHEHALIS RIVER BASIN, WRIA-22 AND 23

WAC

- 173-522-010 General provision.
- 173-522-020 Establishment of base flows.
- 173-522-030 Future allocation of surface water for beneficial uses.
- 173-522-040 Priority of future rights during times of water shortage.
- 173-522-050 Streams closed to further consumptive appropriations.
- 173-522-060 Effect on prior rights.
- 173-522-070 Enforcement.
- 173-522-080 Appeals.
- 173-522-090 Regulation review.

WAC 173-522-010 General provision. These rules, including any subsequent additions and amendments, apply to waters within and contributing to the Chehalis River basin, WRIA-22 and 23 (see WAC 173-500-040). Chapter 173-500 WAC, the general rules of the department of ecology for the implementation of the comprehensive water resources program, applies to this chapter 173-522 WAC.

[Order 75-31, § 173-522-010, filed 3/10/76.]

WAC 173-522-030 Future allocation of surface water for beneficial uses. The department has determined that there are public waters available, subject to base flow, for allocation to beneficial uses from all streams within the Chehalis basin; except for those streams and times declared closed in WAC 173-522-050. The department shall maintain a current tabulation of the amount of water that is available for appropriation at each stream management unit specified under WAC 173-522-020(1).

[Order 75-31, § 173-522-030, filed 3/10/76.]

WAC 173-522-040 Priority of future rights during times of water shortage. (1) Rights established in the future pertaining to waters available for allocation in WAC 173-522-030 shall be subject to a priority of use. Rights for domestic use, including irrigation of lawn and noncommercial garden not to exceed one-half acre, and livestock use excluding feedlot operation, shall be superior to all other consumptive and non-consumptive uses.

(2) As between rights established in the future within a priority of use, the date of priority shall control with an earlier-dated right being superior to those rights with later dates.

(3) Additional water use priorities may be promulgated, when required, in the future.

[Order 75-31, § 173-522-040, filed 3/10/76.]

WAC 173-522-050 Streams closed to further consumptive appropriations. The department, having determined there are no waters available for further appropriation through the establishment of rights to use water consumptively, closes the following streams to further consumptive appropriation. An exception is made for domestic and normal stockwatering where there is no alternative source of water supply.

Surface Water Closures

STREAM	DATE OF CLOSURE	PERIOD OF CLOSURE
Beaver Creek, tributary to S. Fk., Newaukum River	12-5-52	1 May-31 Oct.
Beaver Creek, tributary to Black River	10-28-52	" "
Bunker Creek	1-17-50	" "
Dempsey Creek	11-15-74	" "
Dillenbaugh Creek	8-21-72	" "
Hannaford Creek	5-7-52	" "
Hope Creek & Garrard Creek	8-28-73	" "
Kearney Creek	10-27-52	" "
Lincoln Creek	11-5-48	" "
Middle Fork, Newaukum R.	4-7-50	" "
Mill Creek	3-21-52	" "
Mox Chehalis	4-25-57	" "
Salmon Creek	12-18-56	" "
Rock Creek	4-11-73	" "
Scatter Creek	7-20-50	" "
Stearns Creek	4-28-53	" "
Wildcat Creek	10-28-52	" "
Williams Creek	5-6-52	" "
Wynoochee River	3-9-62	" "
Black River	Date of Adoption	1 July-30 Sept.
Skookumchuck River	" "	" "
S. Fk. Chehalis river	" "	" "
Salzer Creek	" "	1 June-30 Sept.

Note: Affected reach is from mouth to headwaters and includes all tributaries in the contributing drainage area unless specifically excluded.

[Order 75-31, § 173-522-050, filed 3/10/76.]

WAC 173-522-060 Effect on prior rights. Nothing in this chapter shall be construed to lessen, enlarge, or modify the existing rights acquired by appropriation or otherwise.

[Order 75-31, § 173-522-060, filed 3/10/76.]

WAC 173-522-070 Enforcement. In enforcement of this chapter, the department of ecology may impose such sanctions as are appropriate under authorities vested in it, including but not limited to the issuance of regulatory orders under RCW 43.27A.190 and civil penalties under RCW 90.03.600.

[Statutory Authority: Chapters 43.21B, 43.27A, 90.22 and 90.54 RCW. 88-13-037 (Order 88-11), § 173-522-070, filed 6/9/88.]

Future water rights subject to base flows set in this regulation

Seniority of water right based on priority date

Water rights established prior to this rule are grandfathered in

Ecology regulatory and enforcement authority

Month	Day	12.0309.00 Porter Cr.	12.0310.00 Chehalis R. at Porter	12.0325.00 Cloquallum Creek	12.0342.00 Satsop R. E. Fork
Jan.	1	90	2500	150	280
	15	90	2500	150	280
Feb.	1	90	2500	150	280
	15	90	2500	150	280
Mar.	1	90	2500	150	280
	15	90	2500	150	280
Apr.	1	90	2500	150	280
	15	90	2500	150	280
May	1	56	1900	118	240
	15	35	1420	92	210
June	1	29	1060	70	175
	15	24	800	55	152
July	1	21	610	43	130

Chehalis River Basin—WRIA's 22 and 23

Month	Day	12.0309.00 Porter Cr.	12.0310.00 Chehalis R. at Porter	12.0325.00 Cloquallum Creek	12.0342.00 Satsop R. E. Fork
	15	17	460	34	112
Aug.	1	14.2	340	29	104
	15	12	260	24	95
Sep.	1	12	260	24	86
	15	12	260	24	80
Oct.	1	13.3	320	27	80
	15	15	400	30	80
Nov.	1	28	760	52	125
	15	50	1380	88	185
Dec.	1	90	2500	150	280
	15	90	2500	150	280

Chehalis River Basin—WRIA's 22 and 23

Month	Day	12.0240.00 Newaukum R. S. Fork	12.0245.00 Newaukum R. N. Fork	12.0250.00 Newaukum R.	12.0253.00 Salzer Cr.
Jan.	1	125	62	250	11
	15	125	62	250	11
Feb.	1	125	62	250	11
	15	125	62	250	11
Mar.	1	125	62	250	11
	15	125	62	250	11
Apr.	1	125	62	250	11
	15	125	62	250	11
May	1	110	47	210	5.8
	15	88	36	160	2.8
June	1	70	27	118	1.4
	15	56	21	90	.73
July	1	45	16	68	.38
	15	36	12	52	.20
Aug.	1	29	9	38	.10
	15	27	7	35	.05
Sep.	1	27	7	35	.05
	15	27	7	35	.05
Oct.	1	33	8.4	43	.14
	15	40	10	54	.40
Nov.	1	58	19	91	1.35
	15	85	34	150	3.9
Dec.	1	125	62	250	11
	15	125	62	250	11

When flows get below these instream flow levels, surface water rights that are "junior" to the instream flow rule can be curtailed.

Initial Notice Letter sent May 12, 2016

Dear Water Right Holder:

You are receiving this letter because our records indicate you have a water right that was issued after regulations were adopted to protect flows in the Chehalis River. Your water right may be provisioned with restrictions for instream flows. The restrictions are in accordance with Chapter 173-522 of the Washington Administrative Code – *Water Resources Program in the Chehalis River Basin, WRIA 22 and 23*. This instream flow regulation requires that all water right holders with surface water rights that are "junior" to the 1976 adoption date of the regulation will need to cease diverting water from the Chehalis River or any of its tributaries as long as stream flows are below the levels set in the regulation. In order to keep the minimum amount of water in the rivers, there will be restrictions imposed earlier than normal this year.

This past April was the second warmest April in over 120 years. As a result, low elevation snowpack in the Willapa and Bald Hills and southern Olympics, which serve as the headwaters for the Upper and Lower Chehalis basin are essentially gone. Throughout the Chehalis Watershed, rivers and streams are currently flowing at record low flows for this time of year.

The following table shows current flows as of May 12, 2016 at some of the gages in the Chehalis Watershed:

Gage Location	Flow as of 5/12/2016	Minimum Flow as set in regulation
Chehalis River (near Doty) Gage 12020000	100 CFS *	195 CFS between May 1-15 146 CFS between May 16-31
Newaukum River Gage 12025000	127 CFS *	210 CFS between May 1-15 160 CFS between May 16-31
Satsop River Gage 12035000	592 CFS *	910 CFS between May 1-15 750 CFS between May 16-31
Chehalis River at Porter Gage 12031000	920 CFS *	1900 CFS between May 1-15 1420 CFS between May 16-31

*CFS – Cubic Feet per Second

Managing our state's water resources, including instream flows in rivers and streams, is a critical part of preparing for and solving water resources emergencies. We have to ensure that as river flows decrease as much as they have, and we expect them to drop even further as the summer continues, people, farms and migrating fish have as adequate water supplies as possible under these conditions.

We want to make sure everyone in the community has the best information. We are sending this letter to all junior water right holders in the areas potentially impacted by these restrictions. If you do not use water under a water right or think you received this letter in error, please contact Vicki Cline of our Water Resources Program at 360 407-0278 or by email at Vicki.cline@ecy.wa.gov

We know this opens up a lot of questions, and we want you to have all the information you can to know how this impacts you and your use of the water. The Department of Ecology's Water Resources Program has a Web page that will help you determine when you can use water legally and when you must stop diverting and using water.

Here is a link to the Web page: http://www.ecy.wa.gov/programs/wr/instream-flows/lrpp_wrp.html
Click on either the Lower Chehalis or the Upper Chehalis sites and you will see the most recent USGS flows and whether the minimum flows are being met or if they are below.

You can also contact Vicki Cline by email at Vicki.cline@ecy.wa.gov or call 360 407-0278 for information on daily river flows or if you have any questions. With your help, we can ensure that water use is in compliance. Thank you for your cooperation in this matter.

Sincerely,

Michael J. Gallagher, Section Manager
Water Resources Program – Southwest Region
Department of Ecology

Letter sent to 93 water right holders that have surface water diversions "junior" to the Chehalis Instream Flow Rule of 1976. Curtailment Orders will prevent ~27 CFS from being diverted by these 93 water rights.

Warm April temperatures and early snowmelt restricts water usage in Chehalis basin

Low river flows stop water withdrawal from Chehalis River

CHEHALIS – After one of the warmest Aprils on record, stream flows in the Chehalis River and its tributaries have been dramatically reduced. As a result, the Washington Department of Ecology will be issuing curtailment orders to 93 water rights holders in the Chehalis River basin.

Following early warning letters sent May 12, property owners in the upper and lower Chehalis River basins will now be sent curtailment orders if their water rights are impacted by the low flows. The orders prohibit diversions of water for irrigation purposes from the Chehalis River and its tributaries when flows are below the minimums set by the 1976 water management rule.

Before diverting water from the Chehalis River, water rights holders who receive the orders must check Ecology's website (See: http://www.ecy.wa.gov/programs/wr/instream-flows/irpp_wrp.html) first to find out if there's enough water in the river to do so. If river levels at specific gauges associated with their water rights are below the minimum level, those property owners are prohibited from withdrawing water.

Ecology staff will work with water rights holders to provide technical assistance and maintain a field presence in the Chehalis basin to ensure compliance with the curtailment orders. There are nearly 2,400 other property owners in the basin with water rights older than the 1976 rule and are not affected by the curtailment orders.

"It's unusual to see flows this low, this early in the year," said Mike Gallagher, water resources section manager for Ecology's Southwest Regional Office. "We're working with property owners to provide technical assistance and current information during this time of unprecedented low flow so early in the irrigation season."

While western Washington had rainfall above normal and near normal snowpack this past winter, southwestern Washington also had one of the warmest April's on record, which quickly melted lower elevation (between 2,500 – 4,000 feet in elevation) snowpack. Low streamflow conditions are prevalent throughout the Lower and Upper Chehalis Basin.

"Even with modern irrigation efficiencies and voluntary water conservation, there's not enough water in the basin to meet the needs of senior water right holders, or to support stream flows for fish," said Gallagher.

More than 400 additional property owners have had water rights curtailed around the state due to drought conditions. Ecology has more information for property owners on its [curtailment webpage](#).

Curtailment orders by County:

- Grays Harbor: 44
- Lewis: 35
- Thurston: 12
- Mason: 2

Website:

http://www.ecy.wa.gov/programs/wr/instream-flows/irpp_wrp.html

Water Resources

WATER RESOURCES
Columbia River WWP
Conservancy Boards
Dam Safety
Instream Flows

Introduction
Science
Laws and Rules
Resources and Studies

Measuring Water Use
Rainwater Collection
Rulemaking
Water Rights
Watershed Management
Water Market
Wells
Yakima Basin

Publications
Forms
Laws, Rules, and Cases
Policy and Procedures
Related Links
Databases
Contacts

Instream Flow Data

Do you have a provisioned water right in a basin with instream flows adopted by rule (also known as Washington Administrative Code 173-500, or WAC)? If so, you need a reliable way to monitor water availability.

- Instream Flows in your Watershed/WRIA
- Map of Existing and Future Instream Flow Rules
- Ecology's Statewide Stream Summary Map to see nearly real-time summaries of streamflow around the state.

Currently, water users in five watersheds or Water Resources Inventory Areas (WRIAs) can take advantage of this web feature.


- Snohomish WRIA 07
- Lower Chehalis WRIA 20
- Upper Chehalis WRIA 21
- Wenatchee WRIA 48
- Little Spokane WRIA 55

The feature provides a reliable way for water users to monitor water availability and voluntarily cut back use when flows are low. Ecology will add the remaining watersheds as time and staff resources allow.

Instream flow data are provided to inform the public about the amount of water available in the streams and rivers they rely on. With ready access to this information, people can make better decisions regarding their water use. If the water measured at the gage is near the minimum flow-level set in Rule, the water user can see this and reduce or cease their withdrawals to meet the flow provisions on their water right.

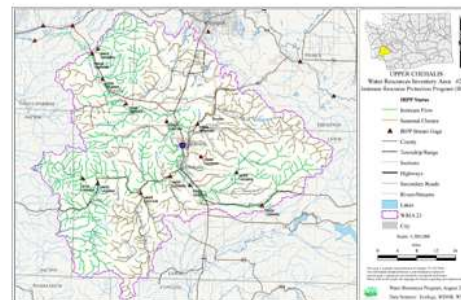
The following statewide map with highlighted basins is used to link to the instream flow information page for that WRIA. The information provided on each page includes:

- Map with USGS gage locations and links to real time data
- Link to a graphic of the real-time streamflow data for the basin that will also have an interpreted "red line" for the flow set by the WAC
- List of rights issued with flow provisions
- Link to the WAC
- Basin map with color coded stream reaches based upon an interpretation of the WAC



Flows are below minimum instream flow levels in Chehalis Rule, therefore Curtailment Orders in effect.

Detailed map - click to enlarge



PDF version

1976

Other resources

- Chehalis Basin Partnership - Lower/Upper Chehalis Watershed Planning (WRIA 22/23)

Ecology contact

Vicki Cline
Department of Ecology SWRO-WR
(360) 407-0278
vwin461@ecy.wa.gov

USGS Gage (Control Points) identified in the Rule

agency	ID	name <i>link to station page</i>	reported flow	minimum flow	reported on	water year graph	7 day graph
USGS	12020000	Chehalis R. nr Doty	43	43	07/21/2016		
USGS	12020525	Elk Creek below Deer Cree	No	current	data		
USGS	12024000	S.F. Newaukum R. nr Onalaska	No	current	data		
USGS	12025000	Newaukum R. nr Chehalis	54	250	07/21/2016		
USGS	12026400	Skookumchuck R. nr Bucod	48	50	07/21/2016		
USGS	12027500	Chehalis River Grand Moun	210	252	07/21/2016		
USGS	12031000	Chehalis R. @ Porter	395	417	07/21/2016		
ECY	23E060	Black R. @ Hwy 12	63		07/21/2016		

93 Curtailment Orders sent May 20, 2016

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

IN THE MATTER OF COMPLIANCE BY)
Water Right #S2-28198)

COMPLIANCE ORDER
DOCKET #DE-13415

CENTRALIA WA 98531

The Department of Ecology is responsible for the supervision of public waters within the state and their appropriation, diversion, and use, Chapter 43.21A.064 Revised Code of Washington (RCW).

Minimum flows for the Chehalis Basin Rivers were adopted by Chapter 173-522 of the Washington Administrative Code (WAC). Your water right certificate is subject to minimum established flows for a river system with the Chehalis Watershed. USGS gauging stations on the rivers show the flows are dropping and are now below the minimum flows.

ORDER TO COMPLY

Under the authority granted to the Ecology in RCW 43.27A.190, **IT IS HEREBY ORDERED THAT** you shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

- Beginning immediately upon receiving this Order you must access the Ecology website for real time flow information at:
http://www.ecy.wa.gov/programs/wr/instream-flows/irpp_wrp.html. Click on either the Lower Chehalis or the Upper Chehalis sites and you will see the most recent USGS flows and whether the minimum flows are being met or if they are below.

If you do not have access to a touch tone phone, you must call the Southwest Regional Office at (360) 407-0278 or contact Vicki Cline by email at vicki.cline@ecy.wa.gov to request the latest information.

YOUR RIGHT TO APPEAL

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing-Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

SIGNATURE

Michael J. Gallagher
Michael J. Gallagher, Section Manager
Water Resources – Southwest Region
Department of Ecology

May 20, 2016
Date

Summary of Chehalis Basin Low Flows of 2016

This started as “**early snowpack melting**” in the Willapa and Bald Hills
What normally would have melted in May – Early June pretty much melted in April.

Rainfall and snowpack in “most” of Washington was slightly below normal to normal over the Winter and early Spring...

Groundwater supplies are expected to be fine in areas with regional aquifer systems.

Main economic impacts from this drought are crops reliant on surface water irrigation and fish passage in streams with expected **low flows continuing through July, August and September.**