

Water Supply Outlook For - Spring-Summer 2020

WSAC April 10 , 2020
Brent Bower NWS Seattle

Climate Prediction Center

Spring/Summer Outlook:

Precipitation: Slightly toward greater than normal April only western side;

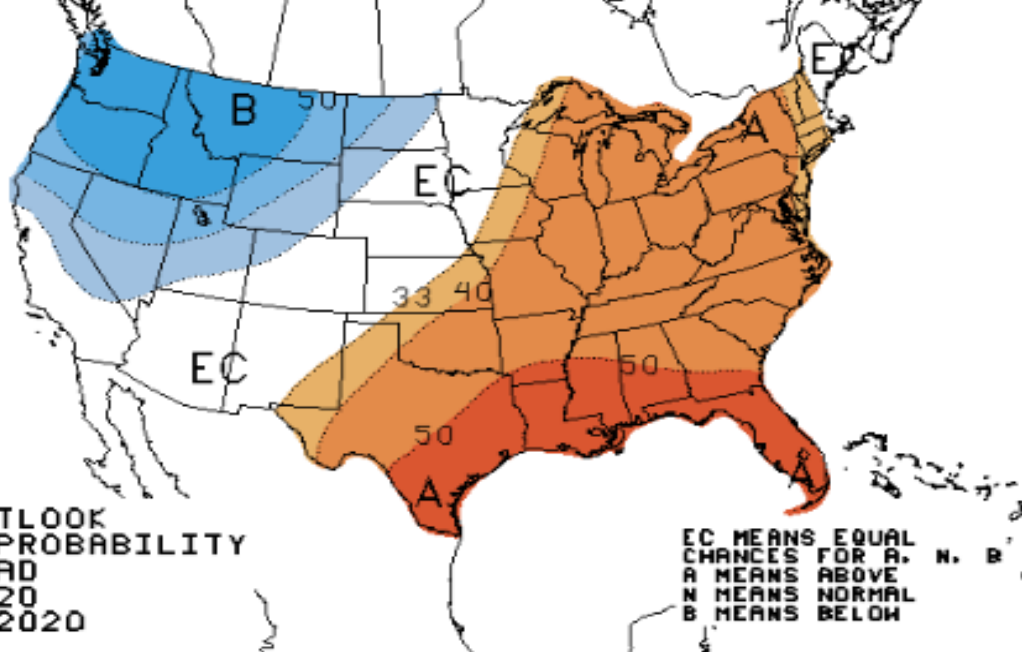
Greater chances below normal Apr-Jun and Jul-Sep

Temperatures: Greater chances below normal April;

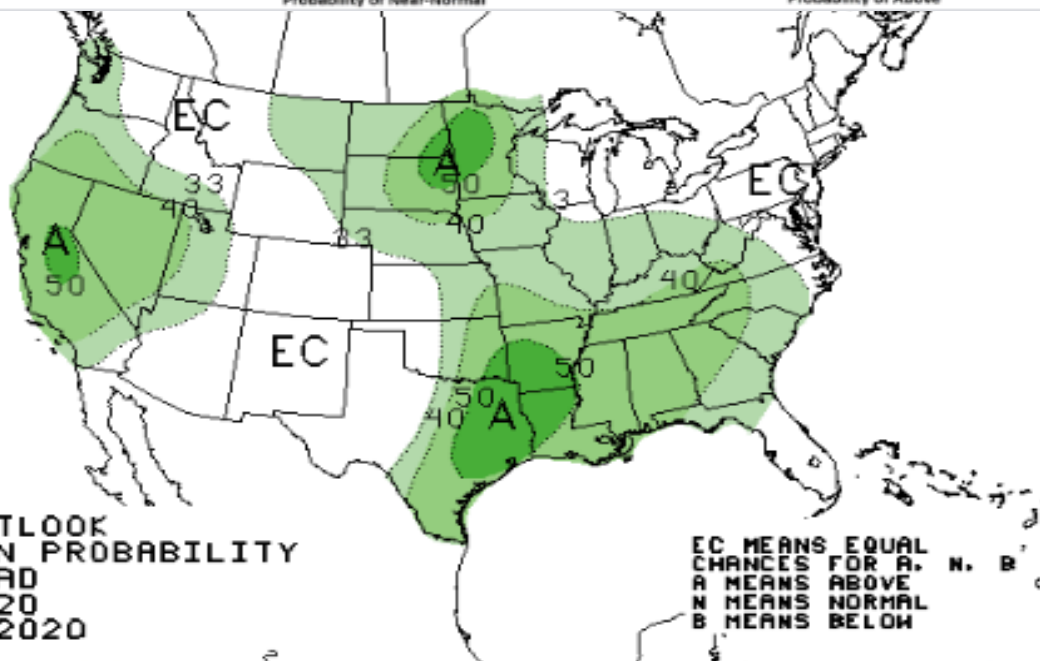
Increasingly greater chances above normal Apr-Jun; and Jul-Sep



ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID APR 2020
MADE 31 MAR 2020

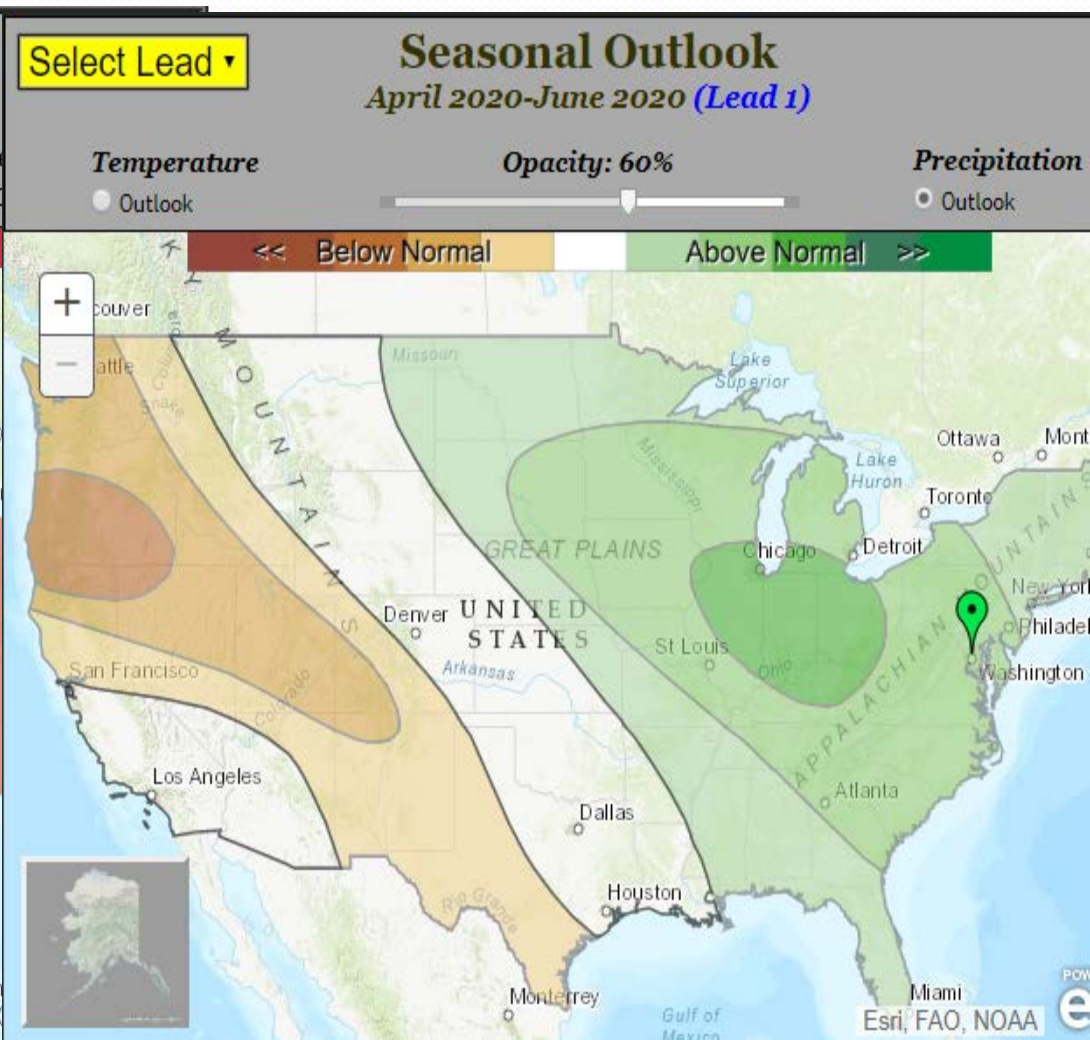
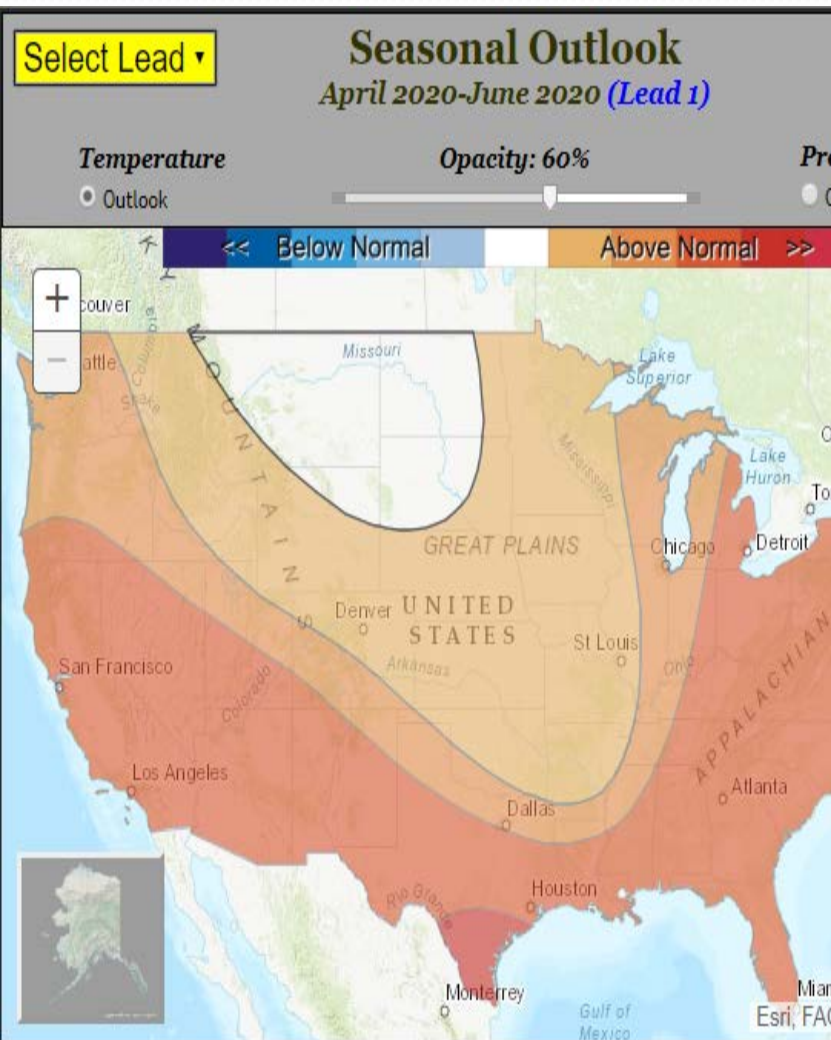


ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID APR 2020
MADE 31 MAR 2020



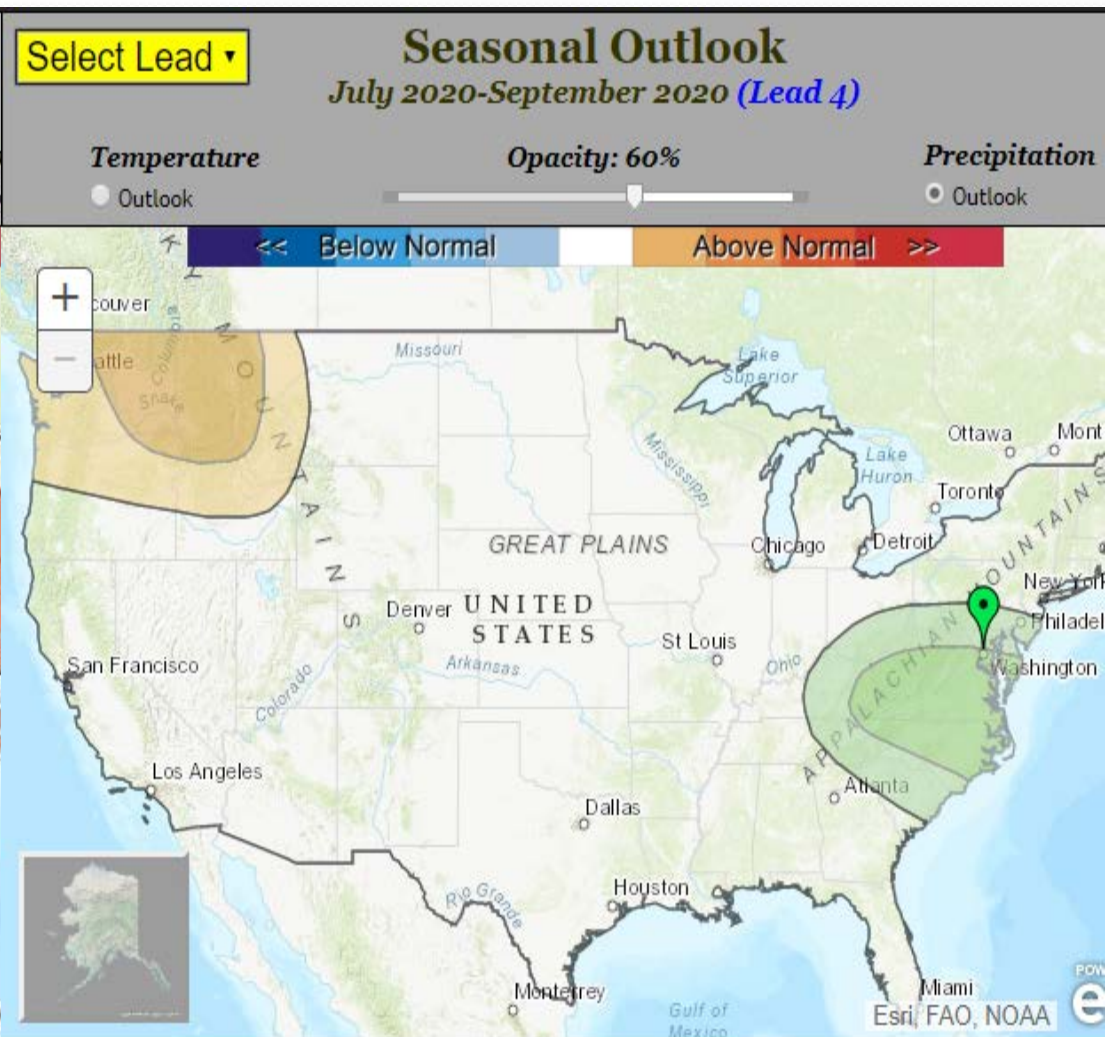
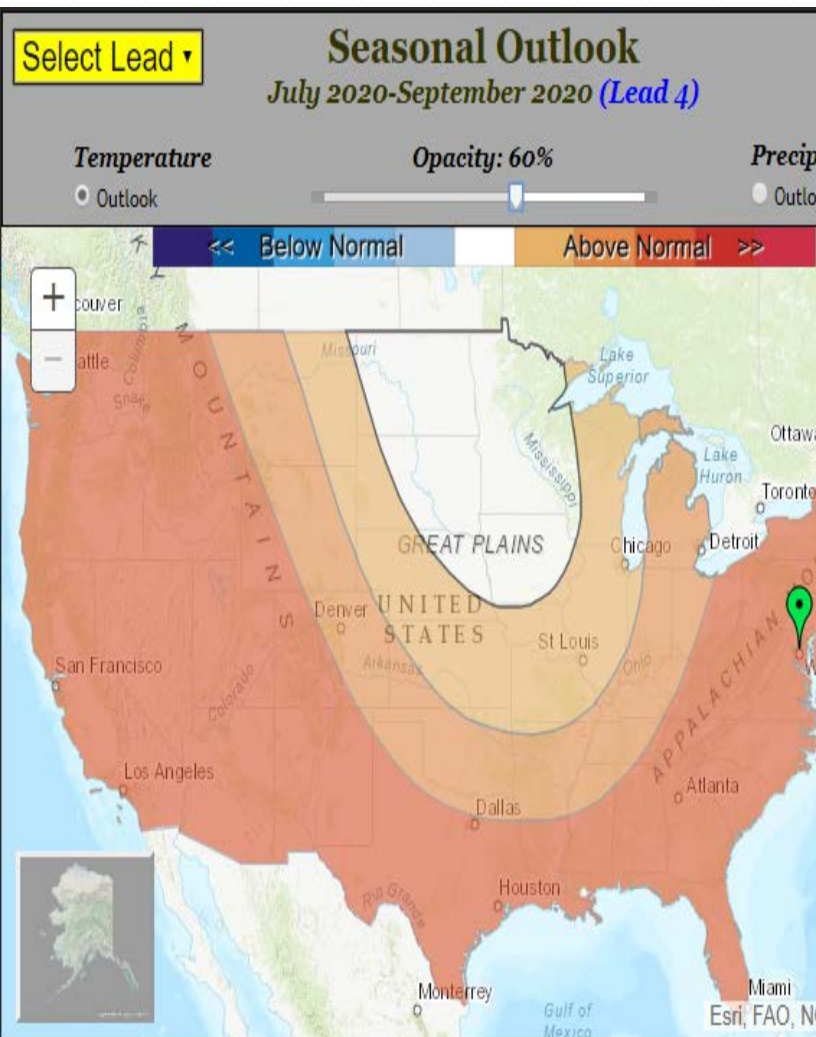
APR – JUN 2020 Outlook

Updated 19 Mar 2020



JUL – SEP 2020 Outlook

Updated 19 Mar 2020





Northwest River Forecast Center

Current Station Snow Conditions



River and Hydrology

Water Supply

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Refresh Data

Last Refresh: 2020-04-10 08:34:47 PDT

Elevation
Filter: ☐

[Permalink](#)

Search by NWS ID:

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Map Overlays

- ☒ NWRFC Boundary
- ☐ NWRFC Basins
- ☐ NWS HSAs
- ☐ Counties

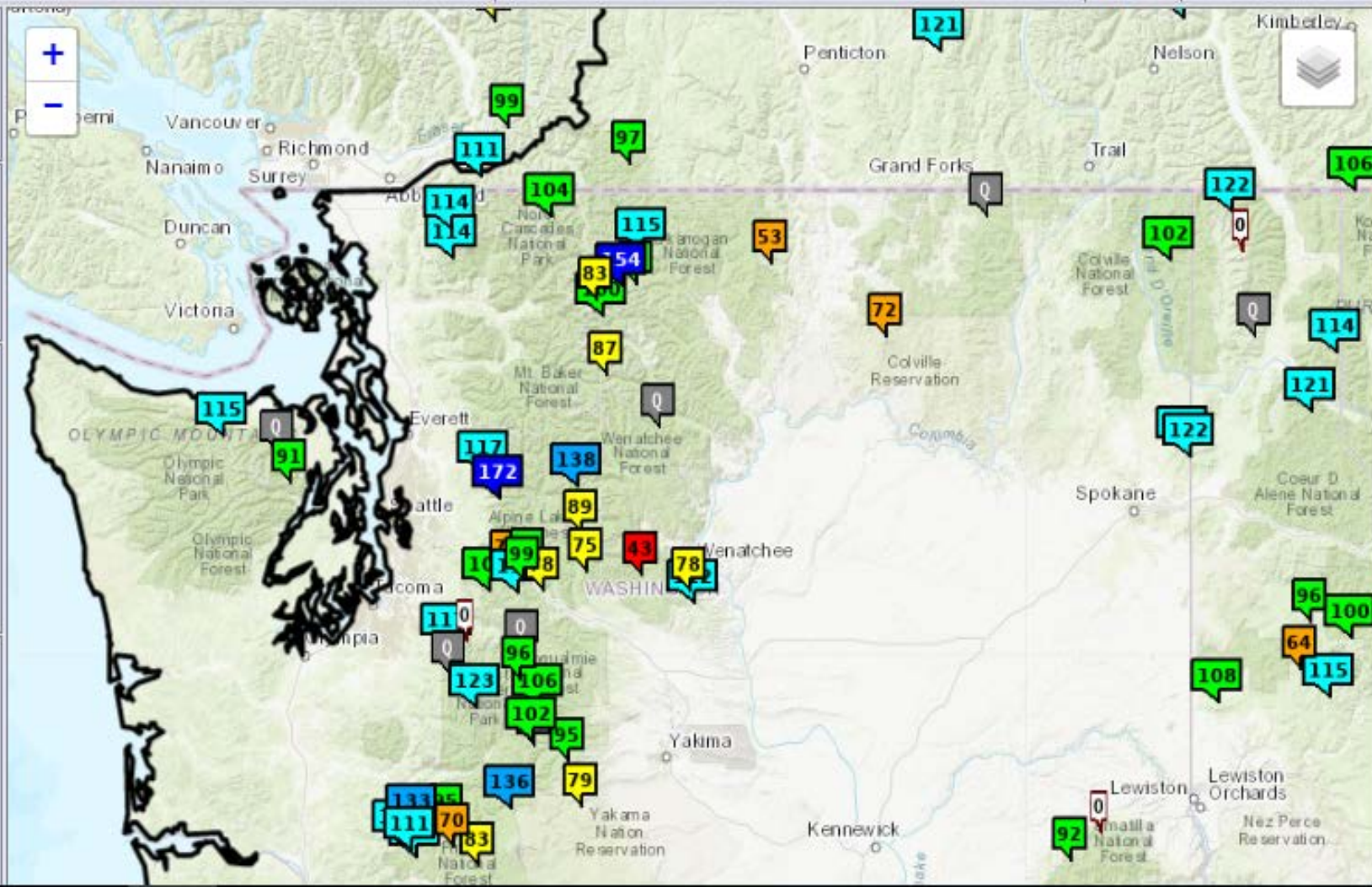
Map Type

- ☐ SWE
- ☐ Snow Status
- ☒ Snow % of Avg
- ☐ Seasonal Peak Status
- ☐ Snow Density
- ☐ Basin Obs Status
- ☐ Basin Sim Status
- ☐ Diff

Legend

SWE (% Avg)

- ☒ Questionable
- ☐ Not Available
- ☐ Zero
- ☐ < 25
- ☐ 25-50
- ☐ 50-75
- ☐ 75-90
- ☐ 90-110
- ☐ 110-125





Northwest River Forecast Center

Water Supply Forecasts



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ESP Issued: 2020-04-09

Ensemble Date: 2020-04-09

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Map Overlays

- ☒ NWRFC Boundary
- ☐ NWRFC Basins
- ☐ NWS HSAs
- ☐ Counties

ESP WS Volumes

- ☐ WS Status
- ☒ WS % of Normal
- ☐ Rank (ASC)
- ☐ Rank (DESC)
- ☐ Exceedance (%)
- ☐ Percentile (%)

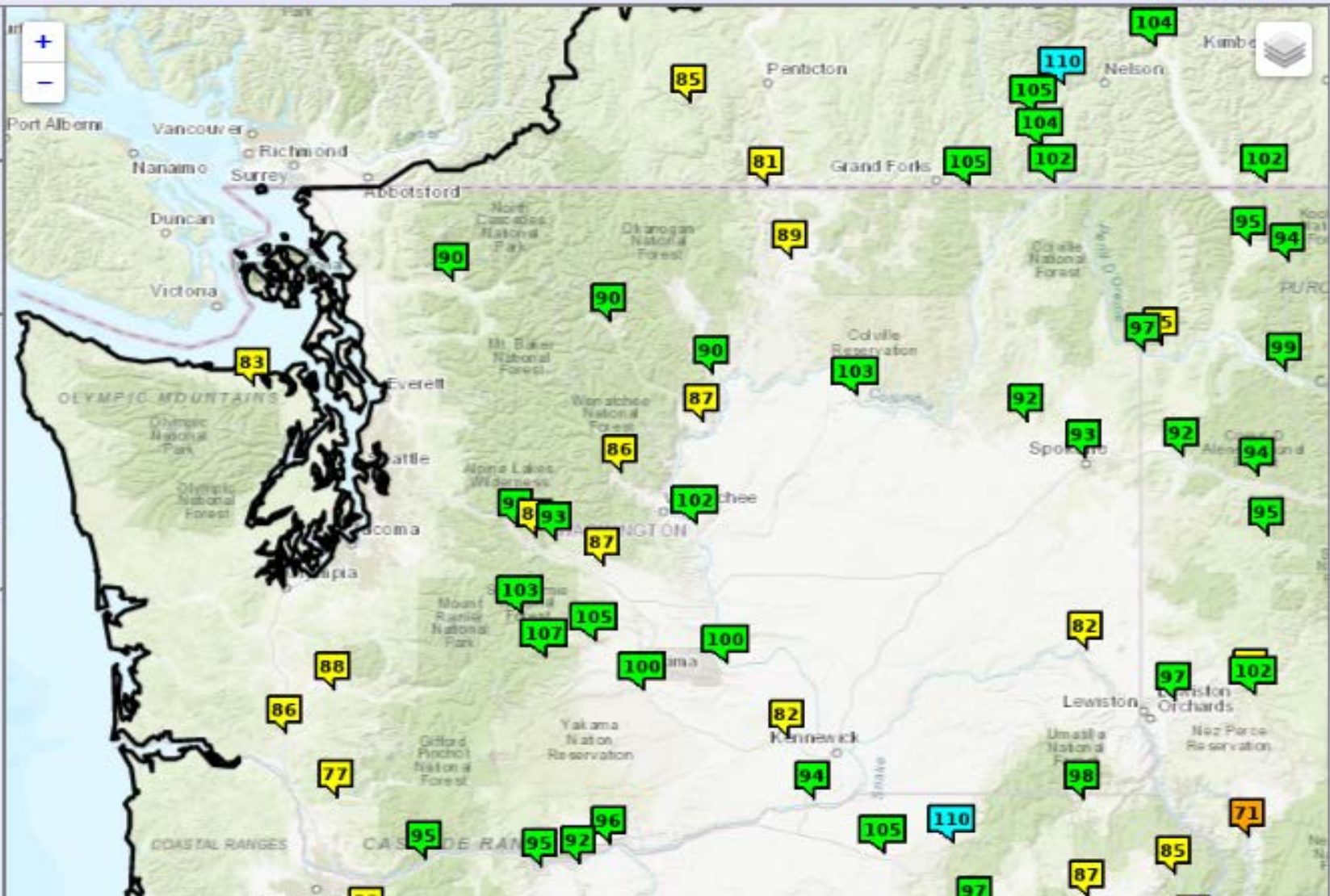
Runoff Volumes

- ☐ Runoff Status
- ☐ Runoff % of Normal

Water Supply Forecast

Period: APR-SEP
(% Normal)

- ☐ No Normal, No data
- ☐ < 25
- ☐ 25-50
- ☐ 50-75
- ☐ 75-90
- ☐ 90-110
- ☐ 110-125
- ☐ 125-150
- ☐ 150-175
- ☐ > 175





Northwest River Forecast Center

ESP Natural Forecast



River and Hydrology

Water Supply

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--- Quick Zooms ---

ESP Issued: 2020-04-09

Ensemble Date: 2020-04-09

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Map Overlays

- ☒ NWRFC Boundary
- ☐ NWRFC Basins
- ☐ NWS HSAs
- ☐ Counties

ESP Natural Forecast

- ☐ Natural Status
- ☒ Natural % of Normal
- ☐ Rank (ASC)
- ☐ Rank (DESC)
- ☐ Exceedance (%)
- ☐ Percentile (%)

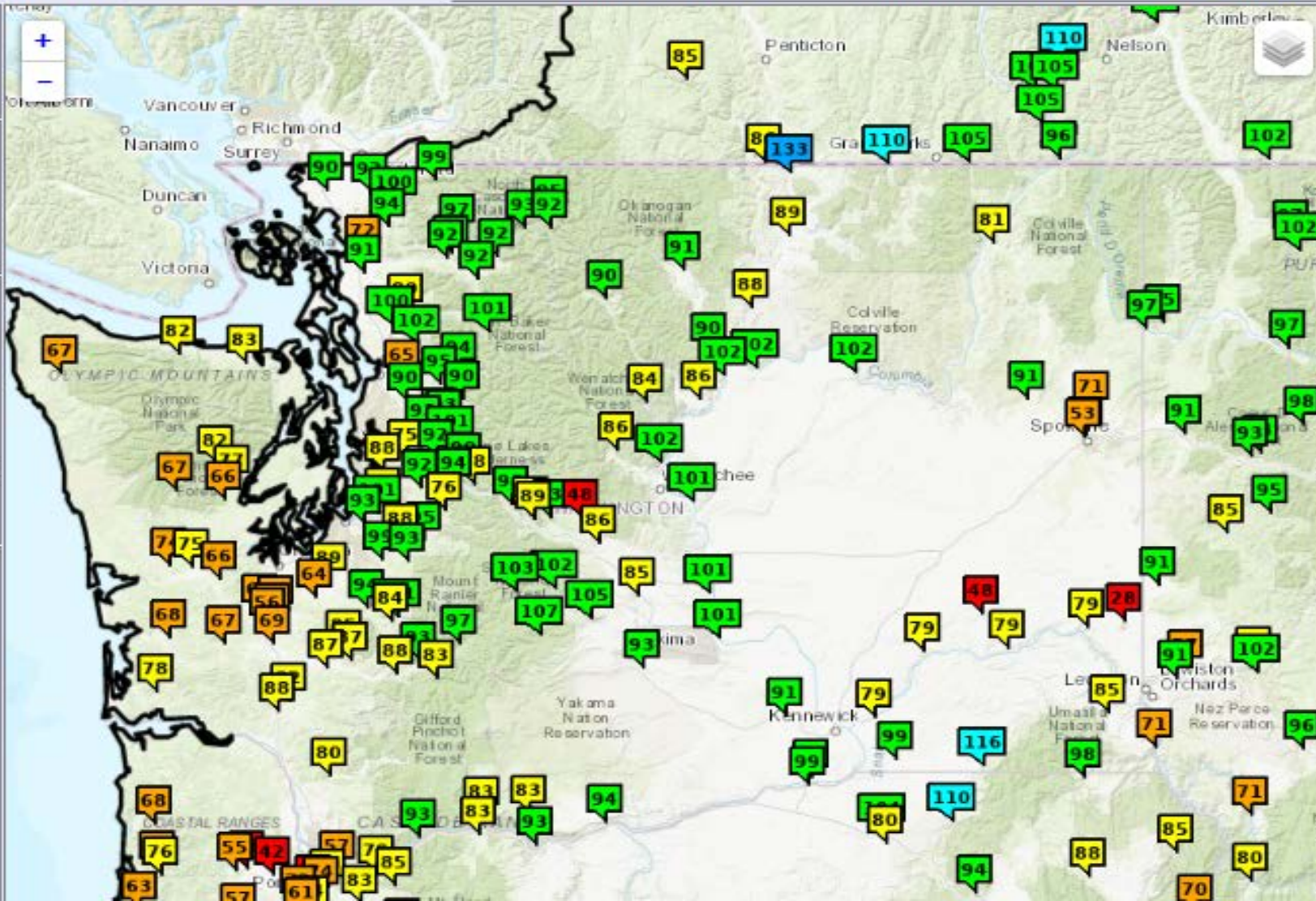
Natural Runoff

- ☐ Runoff Status
- ☐ Runoff % of Normal

ESP Natural Forecast

Period: APR-SEP
Forecast (% Normal)

- ☐ No Normal, No Data
- ☐ < 25
- ☐ 25-50
- ☐ 50-75
- ☐ 75-90
- ☐ 90-110
- ☐ 110-125
- ☐ 125-150
- ☐ 150-175
- ☐ > 175





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COLUMBIA - THE DALLES DAM (TDAO3) Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	82799	87648	95	97295	92704
APR-JUL	69971	74500	93	83957	79855
APR-AUG	77635	82594	94	92410	87532
JAN-SEP	99787	104634	92	114282	114216
JAN-JUL	86959	91488	90	100945	101368
OCT-SEP	112112	116959	90	126607	130518

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

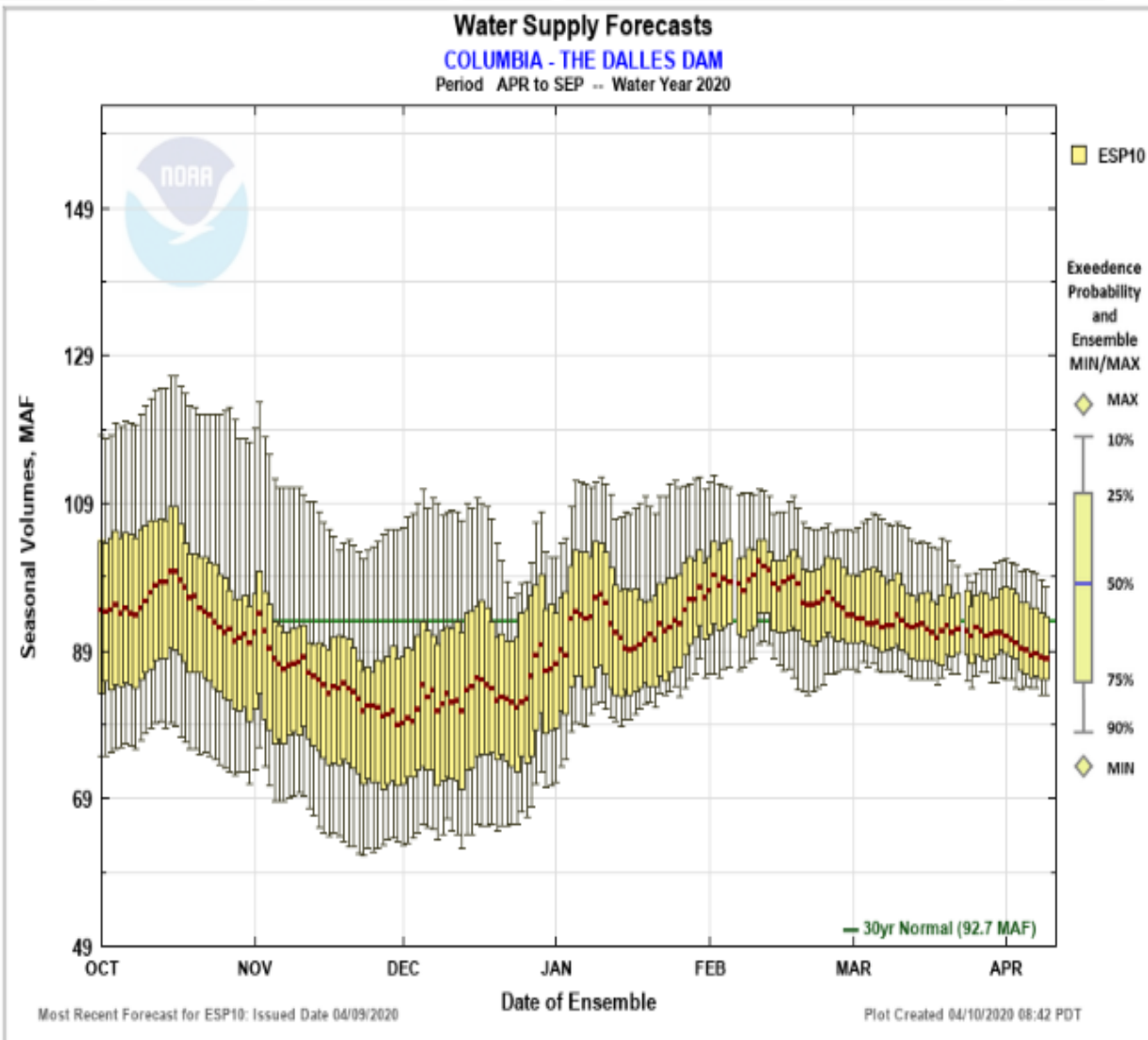
APR-SEP	83489	88614	96	99611	92704
APR-JUL	71030	75980	95	85648	79855
APR-AUG	78120	83120	95	94156	87532
JAN-SEP	100477	105602	92	116599	114216
JAN-JUL	88018	92967	92	102636	101368
OCT-SEP	112801	117927	90	128923	130518

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	85153	92096	99	101081	92704
APR-JUL	73260	78898	99	87359	79855
APR-AUG	80483	86498	99	95726	87532
JAN-SEP	102141	109084	96	118069	114216
JAN-JUL	90247	95886	95	104347	101368
OCT-SEP	114465	121408	93	130393	130518

Move the mouse over the desired "Forecast Period" to display a graph.



☐ Max Scale ☒ Scale To Data ☐ Scale To Last 45 Days ☐ Show Min/Max Ensemble Volume ☐ Show Tooltips Help



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YAKIMA - AT KIONA (KIOW1)

Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	762	857	82	953	1050
APR-JUL	589	673	79	754	852
JAN-SEP	1526	1622	87	1717	1858
JAN-JUL	1353	1437	87	1519	1660
OCT-SEP	1827	1922	81	2018	2364

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	771	871	83	964	1050
APR-JUL	591	688	81	774	852
JAN-SEP	1535	1635	88	1729	1858
JAN-JUL	1356	1452	87	1539	1660
OCT-SEP	1836	1936	82	2029	2364

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

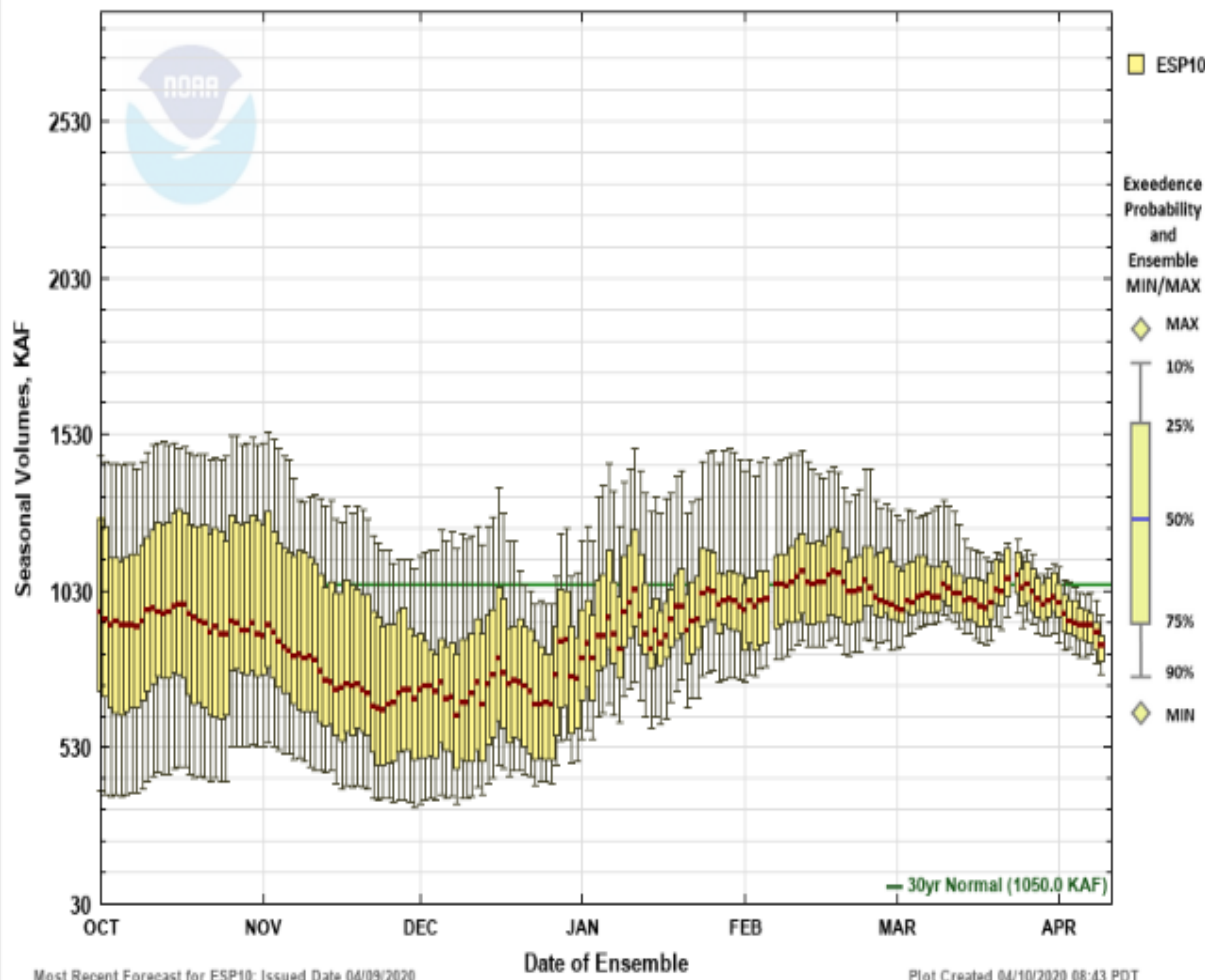
APR-SEP	815	919	88	1018	1050
APR-JUL	635	732	86	820	852
JAN-SEP	1579	1683	91	1782	1858
JAN-JUL	1399	1496	90	1584	1660
OCT-SEP	1879	1984	84	2083	2364

Move the mouse over the desired "Forecast Period" to display a graph.

Water Supply Forecasts

YAKIMA - AT KIONA

Period APR to SEP -- Water Year 2020





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KETTLE - AT LAURIER (LAUW1)

Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	1516	1988	105	2473	1875
APR-JUL	1483	1874	104	2386	1795
JAN-SEP	1680	2130	105	2637	2034
JAN-JUL	1647	2039	104	2550	1954
OCT-SEP	1886	2336	109	2843	2152

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	1602	1989	106	2531	1875
APR-JUL	1548	1910	106	2429	1795
JAN-SEP	1766	2153	106	2695	2034
JAN-JUL	1712	2074	106	2593	1954
OCT-SEP	1972	2359	110	2901	2152

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

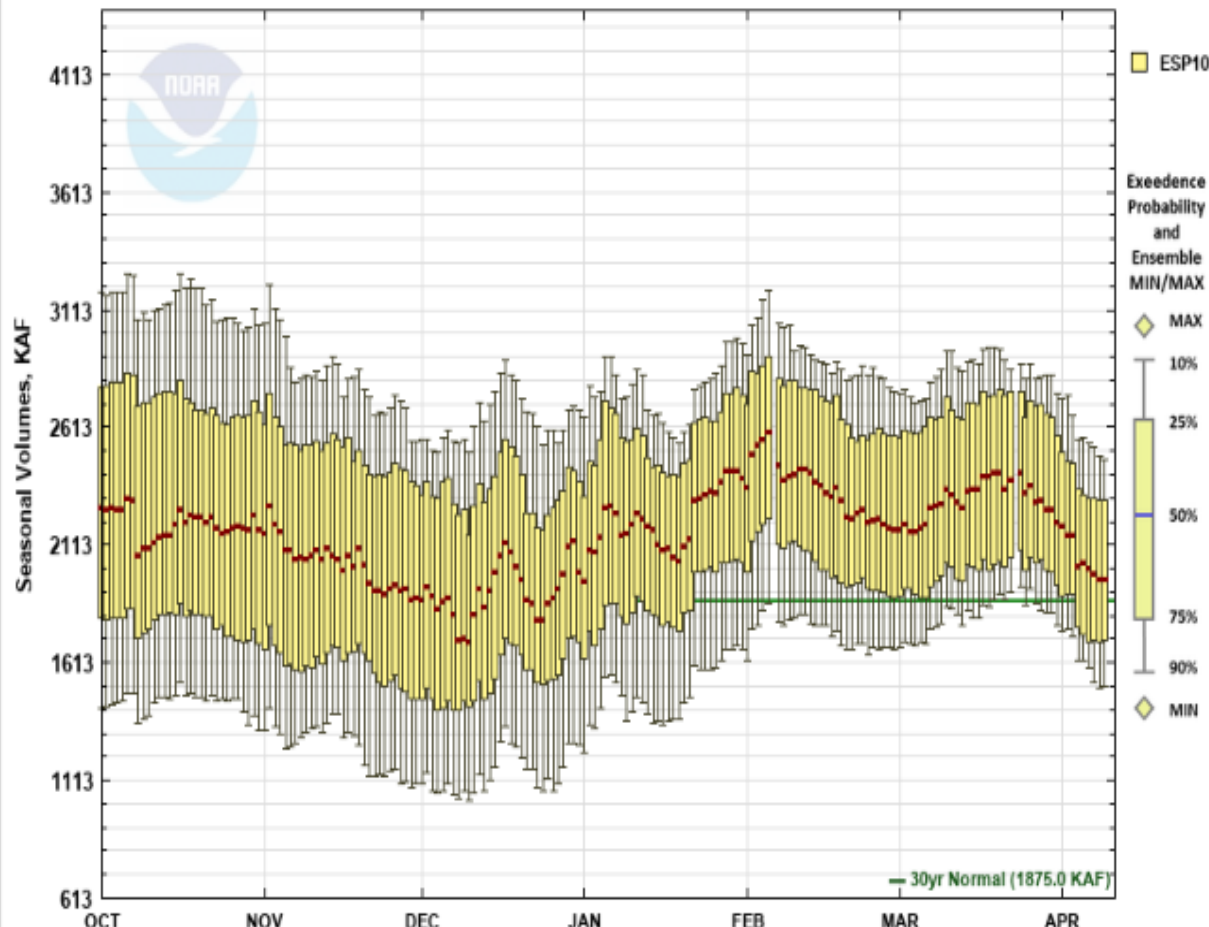
APR-SEP	1672	2110	113	2651	1875
APR-JUL	1615	2083	115	2501	1795
JAN-SEP	1836	2274	112	2815	2034
JAN-JUL	1779	2227	114	2665	1954
OCT-SEP	2042	2480	115	3021	2152

Move the mouse over the desired "Forecast Period" to display a graph.

Water Supply Forecasts

KETTLE - AT LAURIER

Period APR to SEP -- Water Year 2020



Most Recent Forecast for ESP10: Issued Date 04/09/2020

Plot Created 04/10/2020 08:44 PDT

☐ Max Scale
 ☒ Scale To Data
 ☐ Scale To Last 45 Days
 ☐ Show Min/Max Ensemble Volume
 ☐ Show Tooltips Help



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PALOUSE - AT HOOPER (HOPW1) Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	60	63	48	96	131
APR-JUL	57	59	46	90	127
JAN-SEP	215	218	58	251	375
JAN-JUL	212	214	58	245	370
OCT-SEP	242	244	59	277	411

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	60	63	48	90	131
APR-JUL	57	59	47	86	127
JAN-SEP	215	218	58	245	375
JAN-JUL	212	215	58	241	370
OCT-SEP	242	245	60	272	411

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

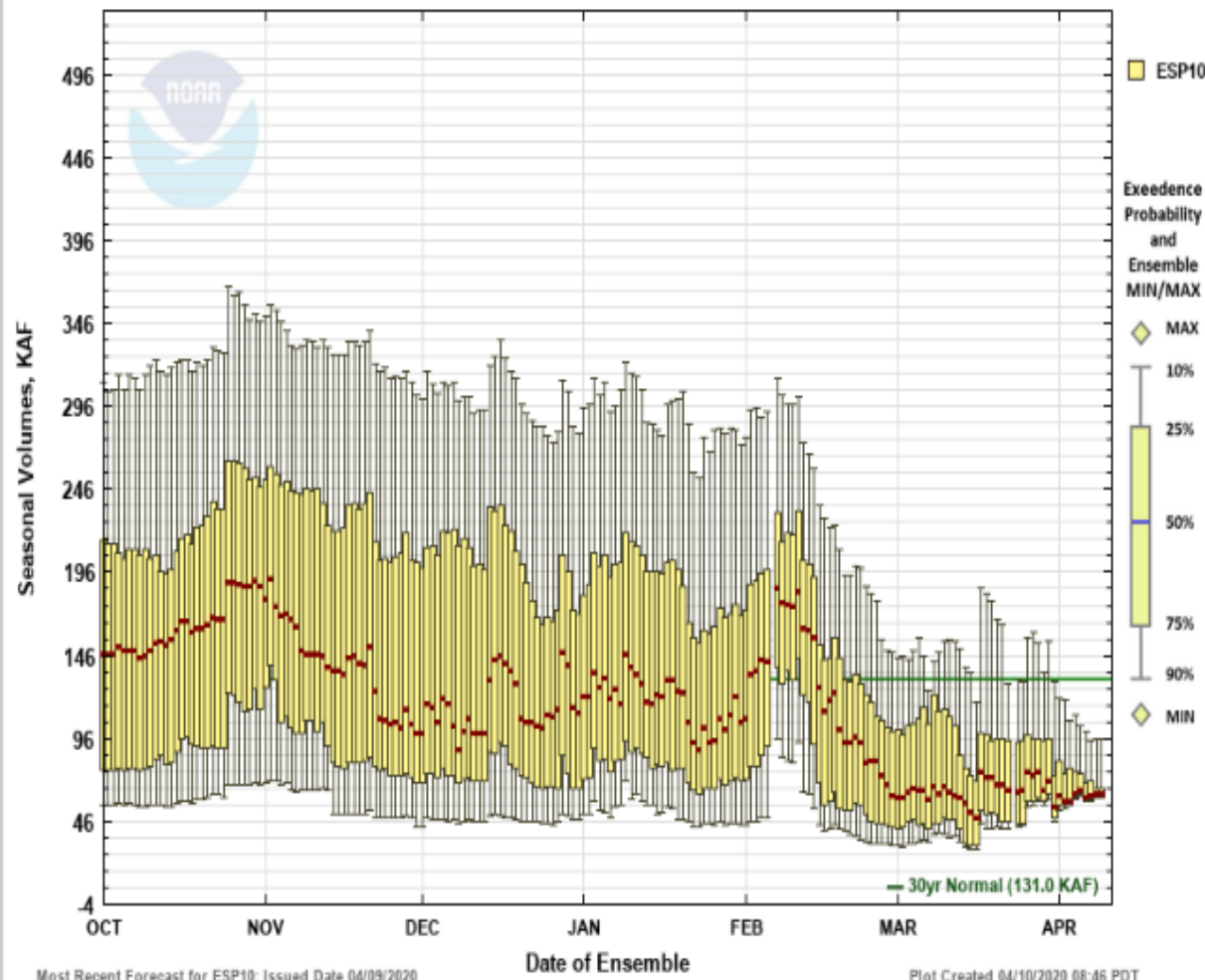
APR-SEP	61	78	60	160	131
APR-JUL	58	75	59	152	127
JAN-SEP	216	234	62	315	375
JAN-JUL	213	230	62	307	370
OCT-SEP	243	260	63	341	411

Move the mouse over the desired "Forecast Period" to display a graph.

Natural Volume Forecasts

PALOUSE - AT HOOPER

Period APR to SEP -- Water Year 2020





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TEANAWAY - BELOW FORKS (TNAW1) Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	50	63	48	73	130
APR-JUL	46	58	44	65	128
JAN-SEP	107	120	58	131	207
JAN-JUL	104	114	56	123	204
OCT-SEP	122	134	56	145	241

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	52	65	50	74	130
APR-JUL	47	59	46	70	128
JAN-SEP	109	123	59	132	207
JAN-JUL	105	117	57	128	204
OCT-SEP	124	137	57	146	241

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

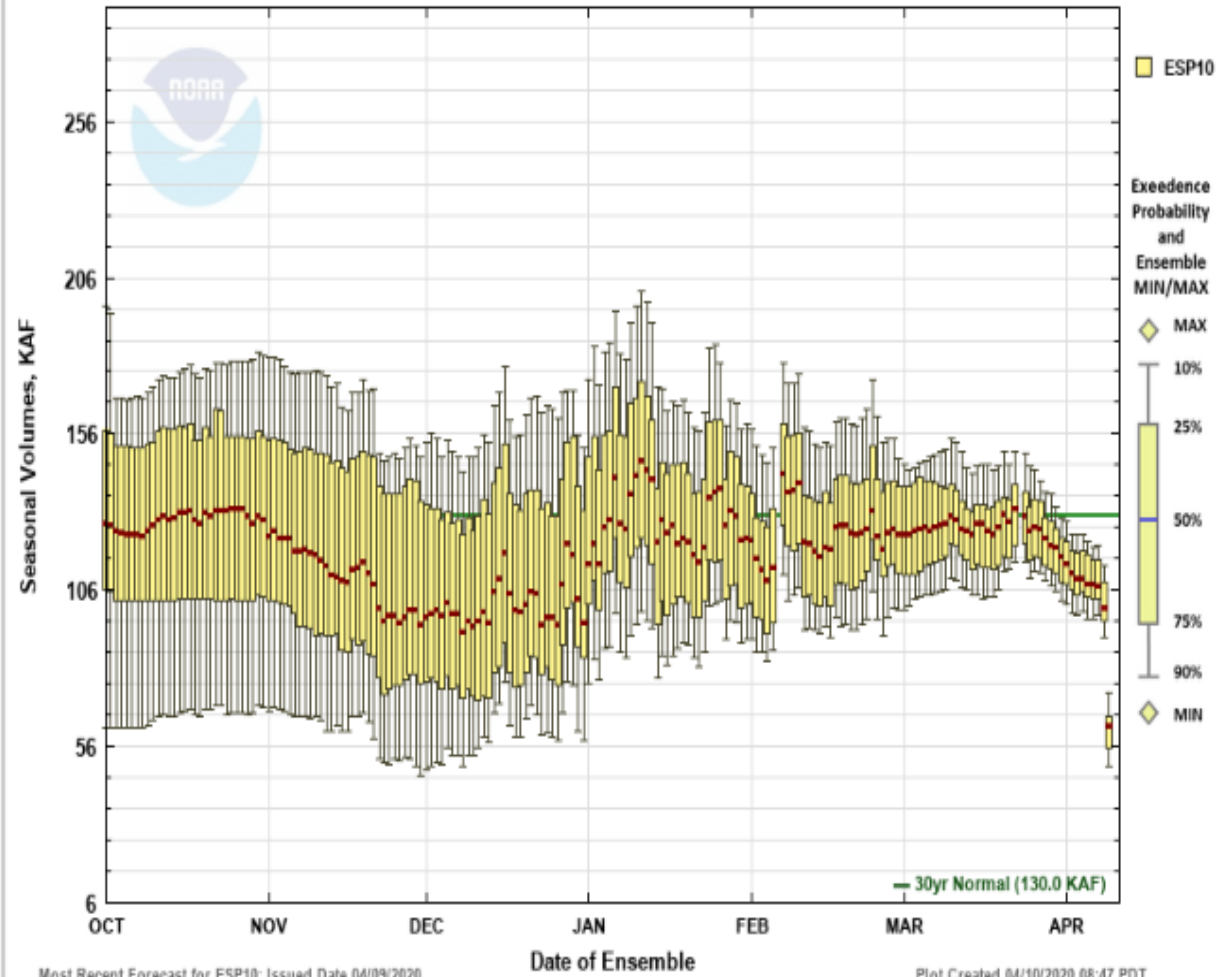
APR-SEP	55	68	53	84	130
APR-JUL	51	63	49	75	128
JAN-SEP	113	126	61	142	207
JAN-JUL	109	121	59	133	204
OCT-SEP	127	140	58	156	241

Move the mouse over the desired "Forecast Period" to display a graph.

Natural Volume Forecasts

TEANAWAY - BELOW FORKS

Period APR to SEP -- Water Year 2020





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DESCHUTES - NEAR RAINIER (DSRW1)

Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	21	26	64	36	41
APR-JUL	18	21	59	31	36
JAN-SEP	104	109	88	119	124
JAN-JUL	101	104	87	114	119
OCT-SEP	133	138	76	148	181

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	21	26	64	35	41
APR-JUL	18	21	60	31	36
JAN-SEP	104	109	88	118	124
JAN-JUL	101	104	87	113	119
OCT-SEP	133	138	76	147	181

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

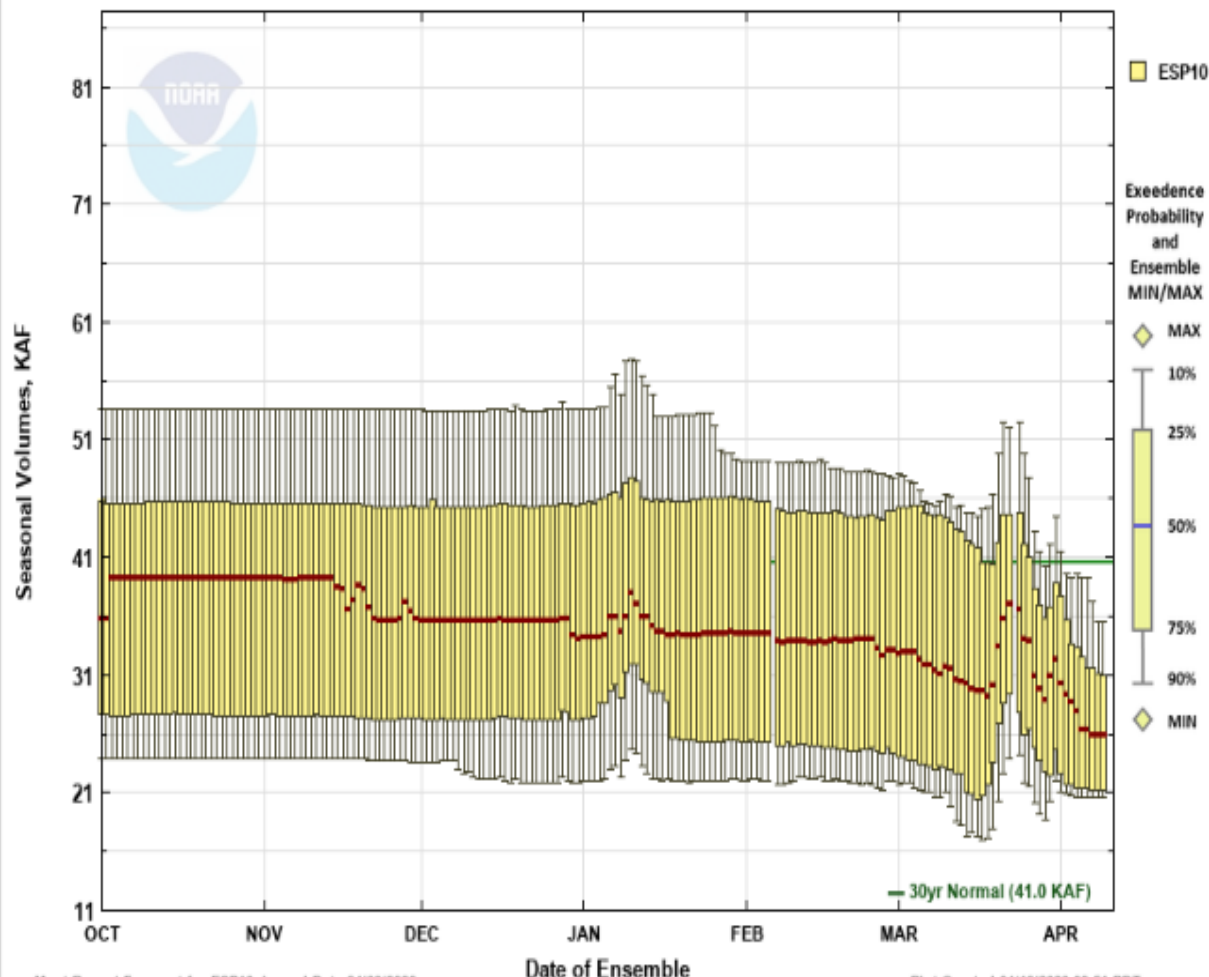
APR-SEP	22	32	78	43	41
APR-JUL	19	27	74	37	36
JAN-SEP	104	115	93	126	124
JAN-JUL	101	109	92	120	119
OCT-SEP	134	144	80	155	181

Move the mouse over the desired "Forecast Period" to display a graph.

Natural Volume Forecasts

DESCHUTES - NEAR RAINIER

Period APR to SEP -- Water Year 2020





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CHEHALIS - AT PORTER (CRPW1) Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	293	382	86	571	575
APR-JUL	256	319	81	514	522
JAN-SEP	2017	2105	108	2294	1957
JAN-JUL	1980	2043	107	2237	1904
OCT-SEP	2537	2626	91	2815	2873

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-04-09 Issued: 2020-04-09

APR-SEP	295	385	87	587	575
APR-JUL	259	330	83	505	522
JAN-SEP	2019	2109	108	2310	1957
JAN-JUL	1983	2053	108	2229	1904
OCT-SEP	2539	2629	92	2831	2873

Reference

ESP with 0 Days QPF Ensemble: 2020-04-09 Issued: 2020-04-09

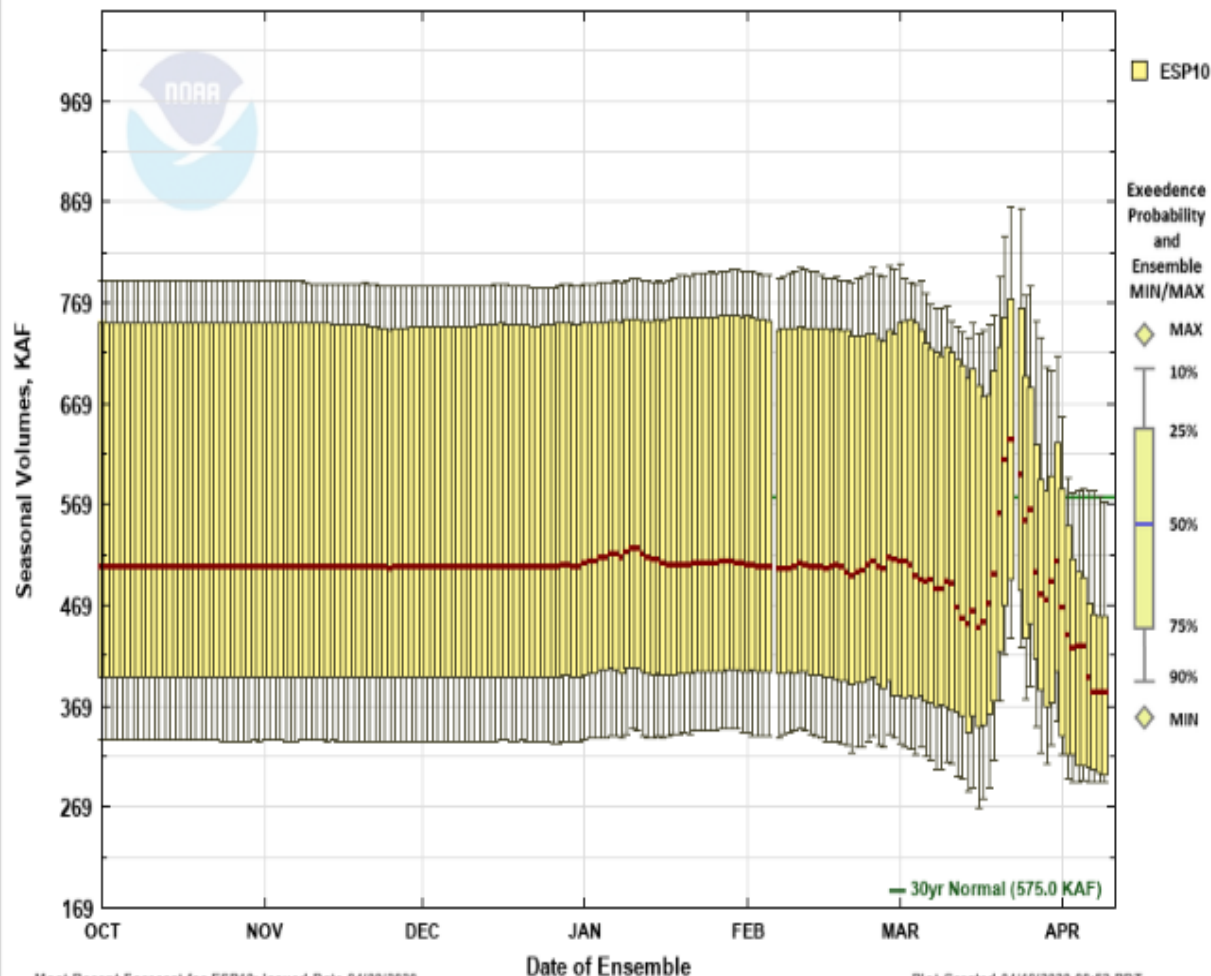
APR-SEP	321	482	84	690	575
APR-JUL	287	422	81	629	522
JAN-SEP	2045	2205	113	2414	1957
JAN-JUL	2010	2146	113	2353	1904
OCT-SEP	2565	2726	95	2934	2873

Move the mouse over the desired "Forecast Period" to display a graph.

Natural Volume Forecasts

CHEHALIS - AT PORTER

Period APR to SEP -- Water Year 2020





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DUNGENESS - NEAR SEQUIM (DRSW1)

Forecasts for Water Year 2020

Official Water Supply

ESP with 10 Days QPF Ensemble: 2020-02-27 Issued: 2020-02-27

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	118	137	95	169	145
APR-JUL	103	115	96	146	120
JAN-SEP	192	213	99	249	216
JAN-JUL	177	192	100	227	192
OCT-SEP	224	245	87	281	281

Experimental Water Supply

HEFS with 15 days EQPF Ensemble: 2020-02-27 Issued: 2020-02-27

APR-SEP	120	141	97	168	145
APR-JUL	104	119	99	147	120
JAN-SEP	195	217	100	251	216
JAN-JUL	179	196	102	226	192
OCT-SEP	227	249	88	283	281

Reference

ESP with 0 Days QPF Ensemble: 2020-02-27 Issued: 2020-02-27

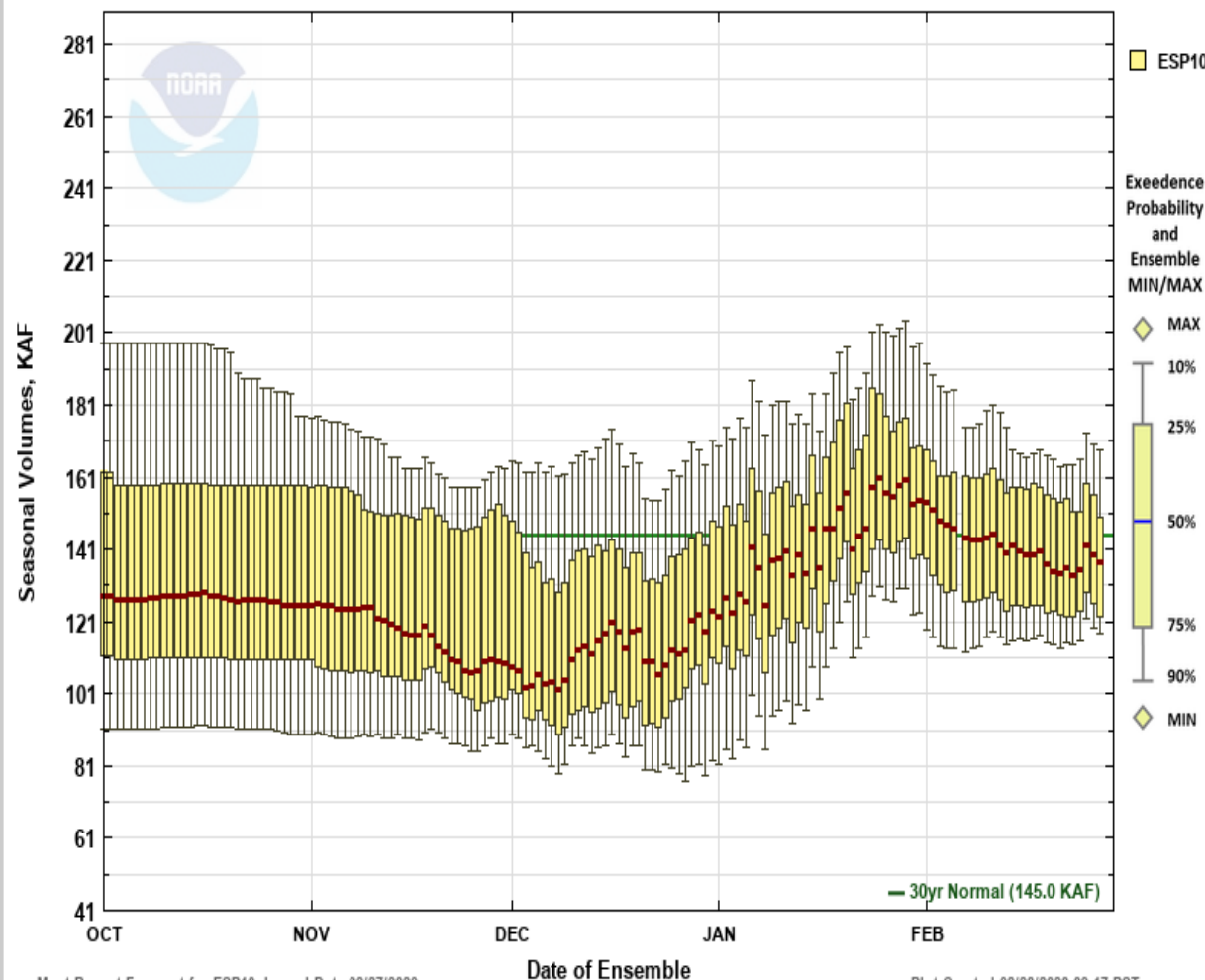
APR-SEP	118	141	97	169	145
APR-JUL	103	119	99	144	120
JAN-SEP	195	221	102	254	216
JAN-JUL	179	201	104	229	192
OCT-SEP	227	253	90	286	281

Move the mouse over the desired "Forecast Period" to display a graph.

Water Supply Forecasts

DUNGENESS - NEAR SEQUIM

Period APR to SEP -- Water Year 2020



NWS Water Supply Forecasts

- Many near normal water volumes
 - Snow pack is mostly OK but there are exceptions
- Degradation in forecast volumes since late March from recent and near future dry weather
- Supplies near normal for Cascades and along the north
- Potential trouble spots showing up mainly for the lowlands of southwest and southeast