

Table 4. Water Supply Forecasts Used to Implement BiOp Actions. See Table 5 for project-specific operations.

Forecast Point	Forecast period	Forecast	BiOp Actions to be Determined
Hungry Horse	April – August Provided by Reclamation	January, February, and March Final	Sets min. flows at Hungry Horse and Columbia Falls
	May – September Provided by Reclamation	January, February, and March Final	Sets VARQ flood control targets
		April Final	Sets VARQ flood control targets and VARQ refill flows
		May and June Final	Sets VARQ refill flows
The Dalles	April – August Provided by NWRFC	April Final	Sets spring flow objective and informs decision on juvenile fish transportation operations at McNary
		May Final	Sets seasonal reservoir elevations at storage projects
		July Final	Sets end of August elevation at Grand Coulee
Lower Granite	April – July Provided by NWRFC	April Final	Sets spring flow objective at Lower Granite and informs decision on juvenile fish transportation operations at Lower Snake projects
		June Final	Sets summer flow objective at Lower Granite
Libby	April – August Provided by Corps Seattle District	December Final	Sets end of December variable draft target
		January, February, and March Final	Sets VARQ flood control targets
		April Final	Sets VARQ flood control targets and VARQ refill flows
		May Final	Sets Libby min. sturgeon flow volume and min. bull trout flows for after sturgeon pulse through Sept. Sets VARQ refill flows
		June Final	VARQ refill flows
Dworshak	April – August Provided by Corps Walla Walla District	October to June	Manage for reservoir refill



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(TDAO3) THE DALLES Forecasts for Water Year 2013

Official Forecast

10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	91710	92726	100	94416	92704
APR-JUL	79810	80001	100	80263	79855
APR-AUG	86965	87639	100	88600	87532
JAN-JUL	97798	97989	97	98251	101368

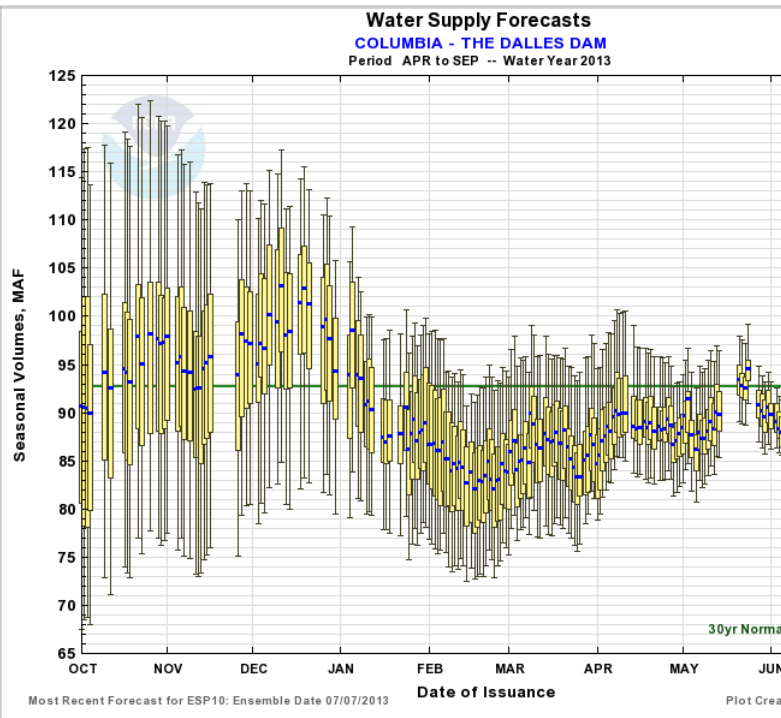
0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	92483	93862	101	96328	92704
APR-JUL	80247	80843	101	81499	79855
APR-AUG	87416	88559	101	90273	87532
JAN-JUL	98235	98831	97	99487	101368

3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	91562	92854	100	94949	92704
APR-JUL	79573	79937	100	80470	79855
APR-AUG	86702	87686	100	89041	87532
JAN-JUL	97561	97925	97	98458	101368

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



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Note: Compatible with the latest browsers (Chrome, Firefox, Safari, and Internet Explorer (ie9+)).

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(LGDW1) LOWER GRANITE DAM Forecasts for Water Year 2013

Official Forecast

10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	16364	16398	74	16495	22279
APR-JUL	14143	14146	71	14155	19848
APR-AUG	15304	15320	73	15362	21091
JAN-JUL	19205	19208	70	19217	27440

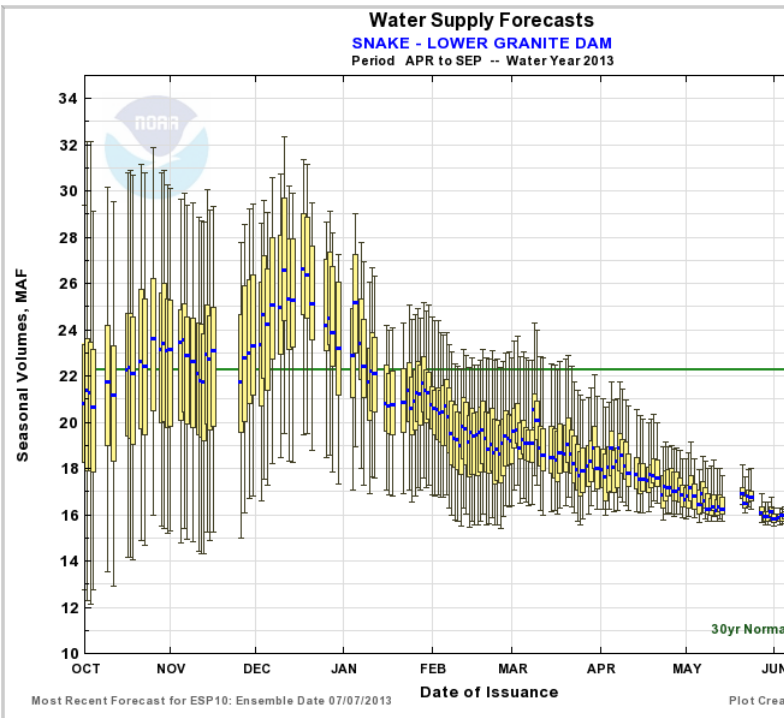
0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	16433	16479	74	16596	22279
APR-JUL	14219	14228	72	14255	19848
APR-AUG	15364	15394	73	15461	21091
JAN-JUL	19281	19290	70	19317	27440

3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	16327	16362	73	16481	22279
APR-JUL	14132	14139	71	14150	19848
APR-AUG	15265	15289	72	15335	21091
JAN-JUL	19194	19201	70	19212	27440

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(DWRI1) DWORSHAK DAM Forecasts for Water Year 2013

Official Forecast

10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	90 %	50 %	% Average	10 %	30 Year Average (1981-2010)
APR-SEP	2251	2257	88	2274	2575
APR-JUL	2128	2129	88	2131	2419
JAN-JUL	2782	2783	85	2785	3289

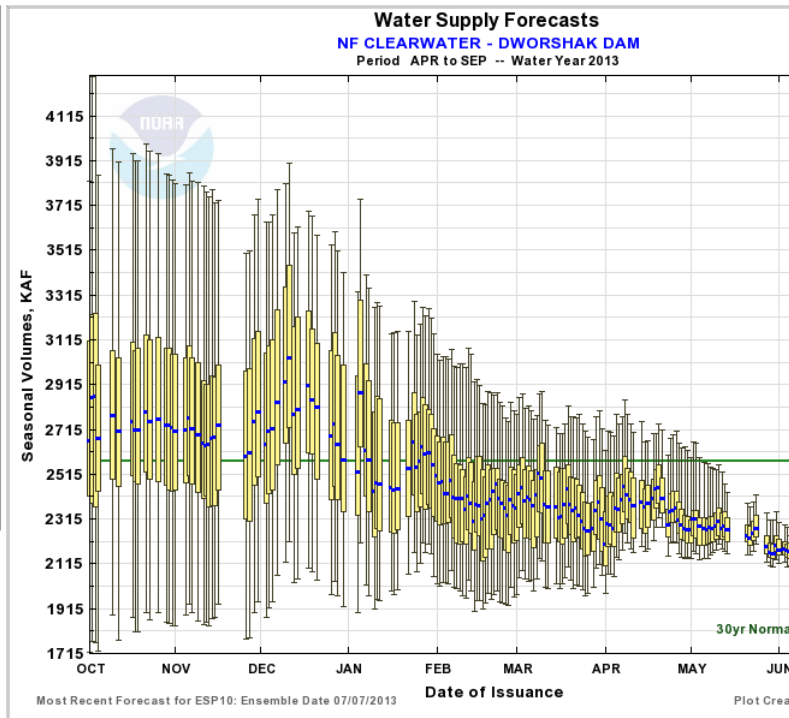
0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	2257	2264	88	2298	2575
APR-JUL	2134	2136	88	2142	2419
JAN-JUL	2788	2790	85	2796	3289

3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	2251	2258	88	2277	2575
APR-JUL	2128	2130	88	2133	2419
JAN-JUL	2782	2784	85	2787	3289

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The Grand Coulee Dam water supply forecast is not used for implementation of any BiOp actions. This forecast is provided for informational purposes only. See the 2013 Water Management Plan (Table 4) for more info.



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(GCDW1) GRAND COULEE DAM Forecasts for Water Year 2013

Official Forecast

☐ 10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	63949	64981	108	66563	60110
APR-JUL	55523	55726	109	56009	51015
APR-AUG	60876	61550	108	62498	56763
JAN-JUL	63788	63991	107	64274	59599

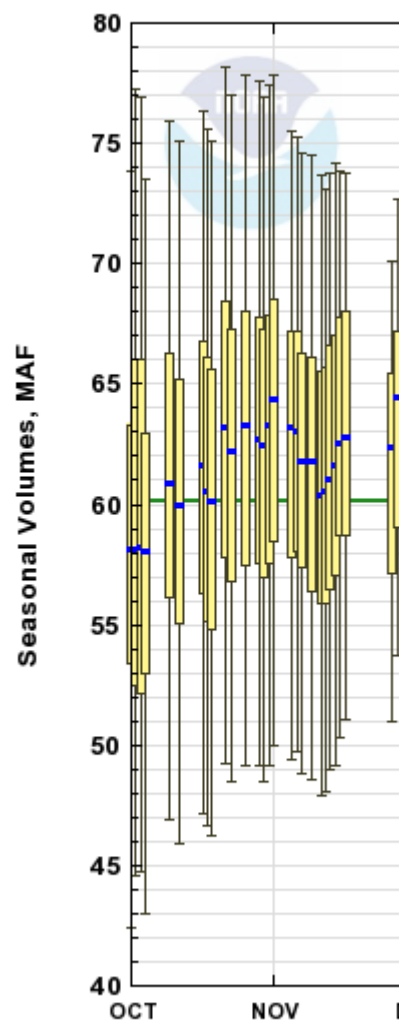
☐ 0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	64615	65947	110	68363	60110
APR-JUL	55788	56379	111	57073	51015
APR-AUG	61169	62274	110	63947	56763
JAN-JUL	64053	64644	108	65338	59599

☐ 3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	63864	65175	108	67161	60110
APR-JUL	55292	55687	109	56220	51015
APR-AUG	60642	61616	109	62933	56763
JAN-JUL	63557	63952	107	64485	59599

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(LYDM8) LIBBY DAM Forecasts for Water Year 2013

Official Forecast

10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	7624	7732	124	7962	6254
APR-JUL	6736	6748	126	6763	5342
APR-AUG	7315	7358	125	7455	5885
JAN-JUL	7377	7389	123	7404	6002

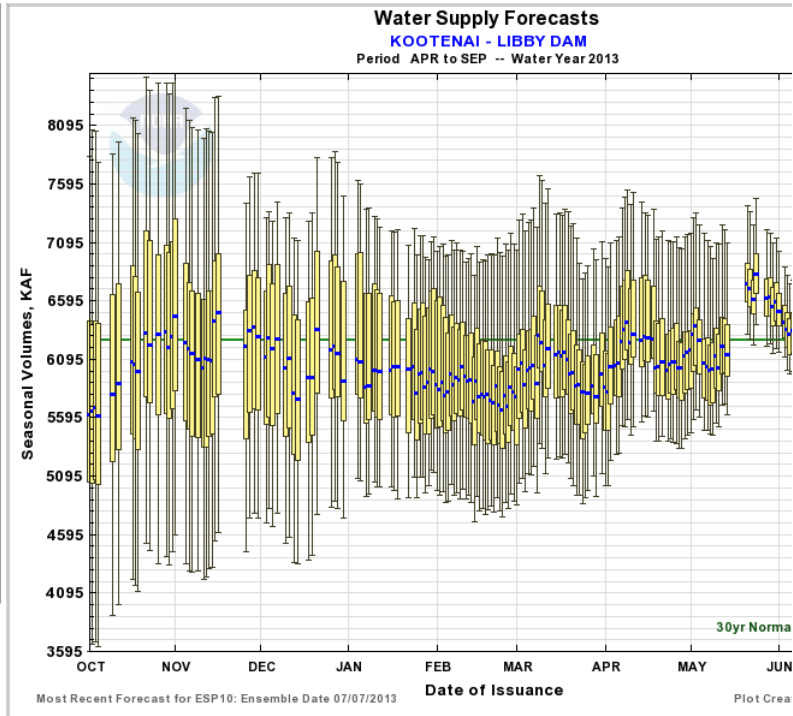
0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	7692	7847	125	8103	6254
APR-JUL	6797	6816	128	6901	5342
APR-AUG	7371	7448	127	7622	5885
JAN-JUL	7438	7457	124	7542	6002

3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	7620	7759	124	7963	6254
APR-JUL	6739	6751	126	6788	5342
APR-AUG	7305	7377	125	7487	5885
JAN-JUL	7380	7392	123	7429	6002

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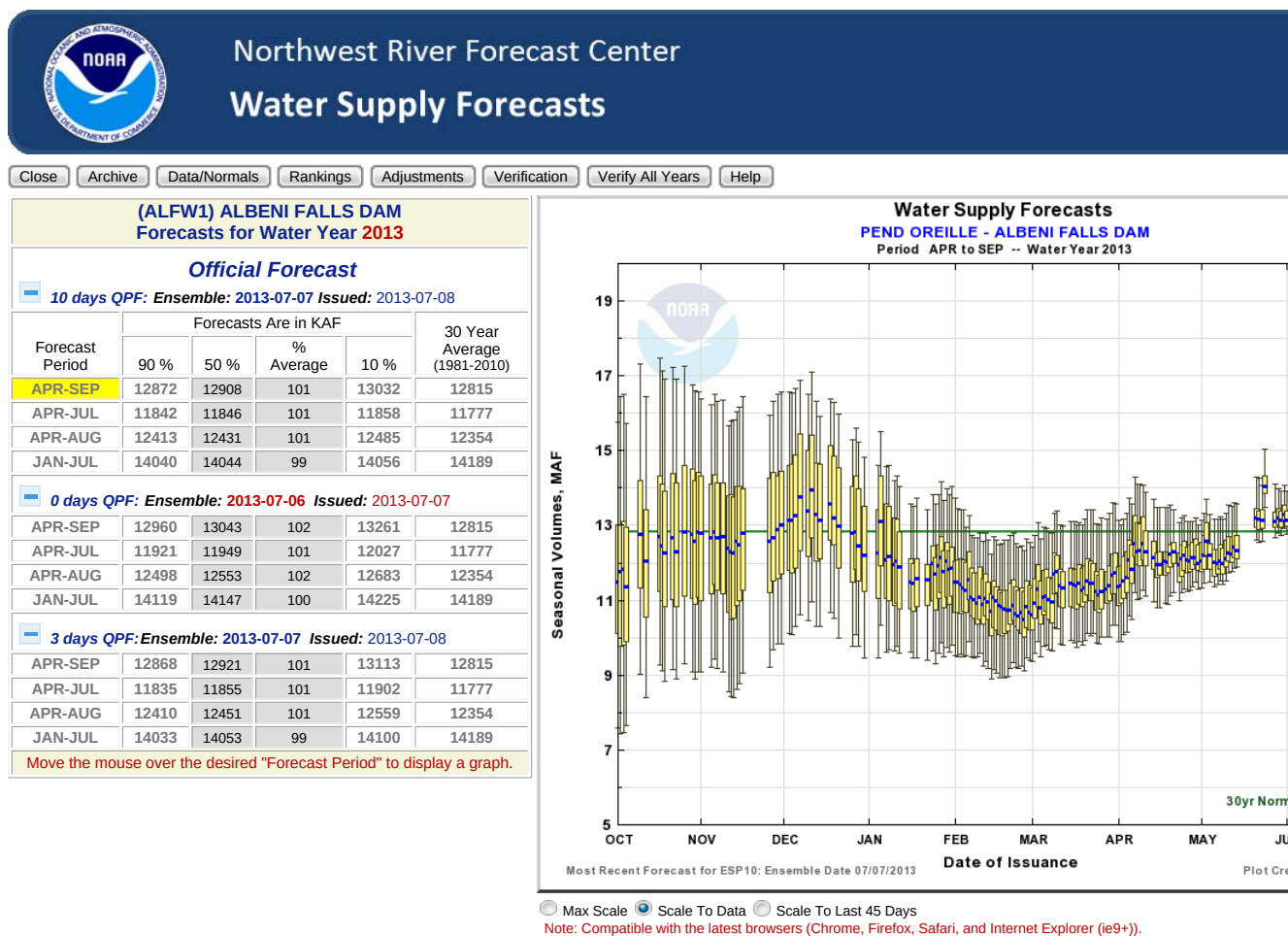
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The Albeni Falls Dam water supply forecast is not used for the implementation of any BiOp actions. This forecast is provided for informational purposes only. See the 2013 Water Management Plan (Table 4) for more info.



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(HHWM8) DAM AT HUNGRY HORSE Forecasts for Water Year 2013

Official Forecast

10 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	2185	2193	110	2222	1988
APR-JUL	2086	2086	112	2088	1871
APR-AUG	2142	2145	111	2158	1936
JAN-JUL	2317	2317	110	2319	2098

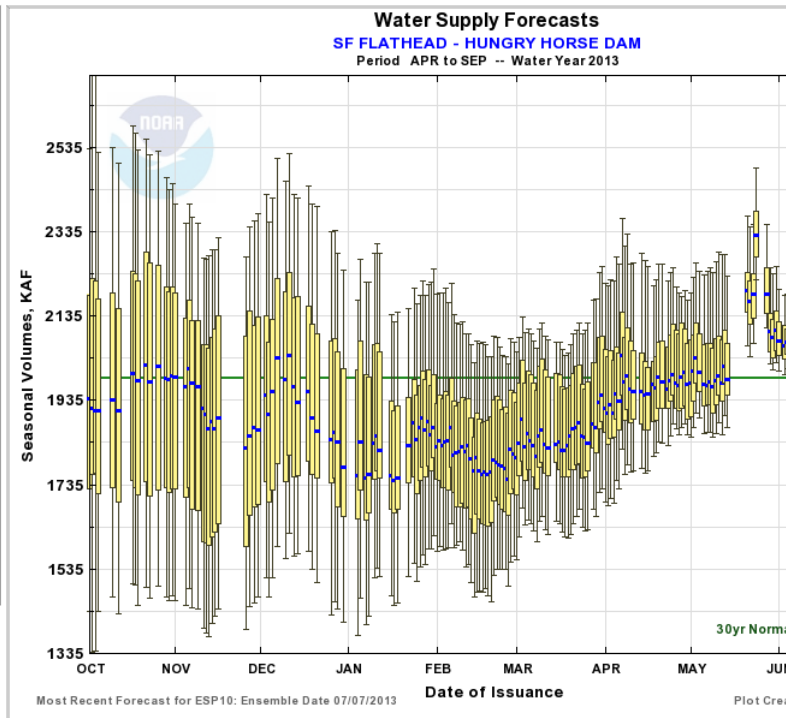
0 days QPF: Ensemble: 2013-07-06 Issued: 2013-07-07

APR-SEP	2196	2211	111	2263	1988
APR-JUL	2095	2099	112	2116	1871
APR-AUG	2153	2160	112	2187	1936
JAN-JUL	2326	2330	111	2347	2098

3 days QPF: Ensemble: 2013-07-07 Issued: 2013-07-08

APR-SEP	2184	2197	111	2239	1988
APR-JUL	2085	2087	112	2096	1871
APR-AUG	2142	2148	111	2163	1936
JAN-JUL	2316	2318	111	2327	2098

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