Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 12, Dec 2023 TUCO)

Report Date: 2/16/2024

Units are cfs unless noted otherwise

			2/9/2024	2/10/2024	2/11/2024	2/12/2024	2/13/2024	2/14/2024	2/15/2024
I. Upper East Fork Reach									
Potter Valley Project									
Tunnel Diversion			46.0	46.0	46.0	46.0	46.0	46.0	46.0
PVID Requested Delivery			5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery			0.5	0.5	0.5	0.6	1.1	1.1	1.0
East Fork Release			46.0	46.0	46.0	45.0	45.0	45.0	45.0
PVID E Fork Diversions			4.6	4.5	4.6	4.4	3.9	3.9	4.0
PVID Water Use - PG&E Contract			5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Water Use - License 5264			0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Fork Downstream of PVID (Import)			41.5	41.5	41.5	40.6	41.1	41.1	41.0
PVID Canal Net Return Flow (assumed)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Fork / Potter Valley Reach Analysis									
USGS E Fork @ Calpella			465.3	374.4	310.7	255.8	225.2	310.8	637.0
Net Reach Loss(-)/Gain(+)			+419.3	+328.4	+264.7	+209.8	+179.2	+264.8	+591.0
Unimpaired Natural Flow @ Calpella (est.)			377.9	286.9	223.2	169.2	138.1	223.6	550.0
Non-PVID East Fork Net Reach Losses (est.)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural Flow			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import			0.0	0.0	0.0	0.0	0.0	0.0	0.0
II. Lake Mendocino									
Reservoir Operations									
Calculated Inflow (ac-ft)			920	902	849	635	414	807	1,344
(cfs)			464	455	428	320	209	407	677
Natural Flow			423	414	387	279	168	366	636
Import			41	41	41	41	41	41	41
Storage Change (ac-ft)			-1,406.0	-675.0	-727.0	-1,225.0	-2,012.0	-1,336.0	-239.0
(cfs)			-709	-340	-367	-618	-1,014	-674	-120
Stored Natural Flow (cfs)			0	0	0	0	0	0	0
Stored Import Water (cfs)			0	0	0	0	0	0	0
Evaporation (ac-ft)			7.1	8.1	8.0	7.0	7.0	3.0	5.0
RVCWD Diversion (ac-ft)			0	0	0	0	0	0	0
CVD Release Gage			1169	791	791	934	1220	1079	795
Storage (Project Water)			705	336	362	614	1011	672	118
Natural Flow			423	414	387	279	168	366	636
Import Water			41	41	41	41	41	41	41
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage		*Rvr mi.*							
CVD Release		*99.9*	1169	791	791	934	1220	1079	795
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			464	455	428	320	209	407	677
Project Water Release Required			No	No	No	No	No	No	No
III. Upper Russian River Reach									
Minimum Instream Flow Requirement			150	150	150	150	150	150	150
Controlling Compliance Gage									
Min Gage Flow			1,554	1,108	1,061	1,172	1,434	1,304	1,287
Controlling Gage			Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	1,554	1,108	1,061	1,172	1,434	1,304	1,287
Talmage	(USGS 11462080)	*96.1*	1,994	1,270	1,156	1,228	1,616	1,462	1,374
Hopland	(USGS 11462500)	*84.8*	2,561	1,654	1,470	1,418	1,829	1,739	1,606
Cloverdale	(USGS 11463000)	*70.9*	3,083	1,891	1,731	1,637	1,770	1,787	1,785
Geyserville	(USGS 11463500)	*54.4*	4,570	3,587	3,078	2,763	2,838	2,925	3,231
Jimtown	(USGS 11463682)	*48.5*	4,646	3,588	2,973	2,631	2,597	2,678	2,977
Digger Bend	(USGS 11463980)	*38.2*	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg	(USGS 11464000)	*35.6*	5,148	3,987	3,170	2,765	2,620	2,748	3,208
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			+337	+156	+90	+107	+179	+124	+93
Talmage - Hopland			+475	+372	+306	+235	+208	+241	+240
Hopland - Cloverdale			+324	+191	+236	+265	-39	+1	+180
Cloverdale - Jimtown			+1,295	+1,483	+1,211	+974	+871	+902	+1,172
Jimtown - Digger Bend			n/d	n/d	n/d	n/d	n/d	n/d	n/d
Digger Bend - Healdsburg **when Digger Bend > 400 cfs, next u/s gage (Jimtown) used*			+303	+183	+105	+74	+55	+92	+252
Upper Russian Net Reach Loss/Gain			+2,735	+2,384	+1,948	+1,655	+1,274	+1,359	+1,937
CVD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss(-)/Gain(+) to Controlling Gage			+0	+0	+0	+0	+0	+0	+0
Storage (Project Water)			0	0	0	0	0	0	0
Pass-through Water (Nat. + Imp.) + Natural			0	0	0	0	0	0	0
Total Pass-through Water			464	455	428	320	209	407	677
Project Water Release Required			No	No	No	No	No	No	No

Notes:

- Water Accounting for the Upper Russian River is an analysis that approximates the current conditions based on methodology in Term 11 (2/11/21 Order) report and modified by Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

			2/9/2024	2/10/2024	2/11/2024	2/12/2024	2/13/2024	2/14/2024	2/15/2024
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			-6,025.0	-6,415.0	-6,508.0	-5,091.0	-3,700.0	-3,503.0	-1,526.0
(cfs)			-3,038	-3,234	-3,281	-2,567	-1,865	-1,766	-769
Evaporation (ac-ft)			8.3	10.0	8.0	7.9	7.9	4.7	7.7
Inflow (Natural Flow)			892	739	633	353	141	233	472
WSD Release Gage			3925	3968	3910	2916	2002	1997	1237
Storage (Project Water)			3033	3229	3277	2563	1861	1764	765
Natural Flow			892	739	633	353	141	233	472
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	75	75	75	75
Controlling Compliance Gage									
Min Gage Flow			3784	3055	3163	2842	2002	1997	1237
Controlling Gage			Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	WSD Release	WSD Release	WSD Release
All Compliance Gages		*Crk mi.*							
WSD Release		*14.3*	3,925	3,968	3,910	2,916	2,002	1,997	1,237
Yoakim	(USGS 11465200)	*11.1*	3,954	4,033	4,039	3,331	2,298	2,219	1,491
Lambert	(USGS 11465240)	*6.8*	4,270	4,295	4,252	3,693	2,557	2,495	1,844
Dry Crk Mouth	(USGS 11465350)	*0.1*	3,784	3,055	3,163	2,842	2,278	2,095	1,835
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			892	739	633	353	141	233	472
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+3,845	+3,923	+3,929	+3,220	+2,188	+2,109	+1,382
Yoakim - Lambert			+321	+264	+207	+295	+257	+274	+286
Lambert - Dry Crk Mouth			-477	-1,242	-1,093	-978	-300	-400	-146
WSD - Dry Crk Mouth			+3,688	+2,945	+3,042	+2,538	+2,145	+1,983	+1,522
WSD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss/Gain to Controlling Gage			+3,688	+2,945	+3,042	+2,538	+0	+0	+0
Project Water Release Required			Yes	Yes	Yes	Yes	Yes	Yes	Yes
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			746	377	403	655	1,052	713	159
Natural Flow			3,157	2,798	2,336	1,934	1,442	1,725	2,574
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			3,033	3,229	3,277	2,563	1861	1,764	765
Natural Flow			750	-174	-114	279	416	332	1,070
Russian River d/s of Confluence Flow			8,931	7,042	6,333	5,608	4,897	4,844	5,044
L. Mendocino Project Water + Import Water			746	377	403	655	1,052	713	159
L. Sonoma Project Water			3,033	3,229	3,277	2,563	1,861	1,764	765
Natural Flow			3,908	2,623	2,222	2,214	1,858	2,057	3,643
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			125	125	125	125	125	125	125
Controlling Compliance Gage									
Min Gage Flow			11,100	9,376	7,891	7,070	5,651	5,340	5,938
Controlling Gage			Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages		*Rvr mi.*							
Windsor	(USGS 11465390)	*26.6*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Hacienda	(USGS 11467000)	*21.8*	11,100	9,376	7,891	7,070	5,651	5,340	5,938
Confluence to Windsor Reach Analysis									
Net Reach Loss/Gain to Windsor Gage			-	-	-	-	-	-	-
L. Mendocino Project Water + Import Water			-	-	-	-	-	-	-
L. Sonoma Project Water			-	-	-	-	-	-	-
Natural Flow			-	-	-	-	-	-	-
Confluence to SCWA Wohler Production Facility Reach Analysis									
Approx. Flow u/s of Wohler			11,144	9,411	7,936	7,115	5,696	5,380	5,974
Net Reach Loss(-)/Gain(+)			+2,213	+2,368	+1,603	+1,508	+798	+537	+930
L. Mendocino Project Water + Import Water			746	377	403	655	1,052	713	159
L. Sonoma Project Water			3,031	3,227	3,275	2,561	1,859	1,762	763
Natural Flow			6,121	4,992	3,825	3,721	2,656	2,594	4,574
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+2,169	+2,334	+1,558	+1,463	+754	+496	+895
L. Mendocino Project Water + Import Water			746	377	403	655	1,052	713	159
L. Sonoma Project Water			2,987	3,193	3,230	2,516	1,815	1,721	728
Natural Flow			6,121	4,992	3,825	3,721	2,656	2,594	4,574
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			87.5	68.8	89.0	88.5	88.6	80.9	70.9
Wohler			46.2	18.5	38.4	38.9	38.3	31.0	21.3
Mirabel			41.4	50.3	50.6	49.6	50.3	49.9	49.6
Town of Windsor River Wellfield			4.1	3.9	3.8	3.8	4.2	4.4	4.2
Camp Meeker & Occidental			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upper Russian River									
City of Healdsburg									
Gauntlett & Fitch Mtn			0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dry Creek									
City of Healdsburg									
Dry Creek Wellfield			0.0	0.0	0.0	0.0	0.0	0.0	0.0

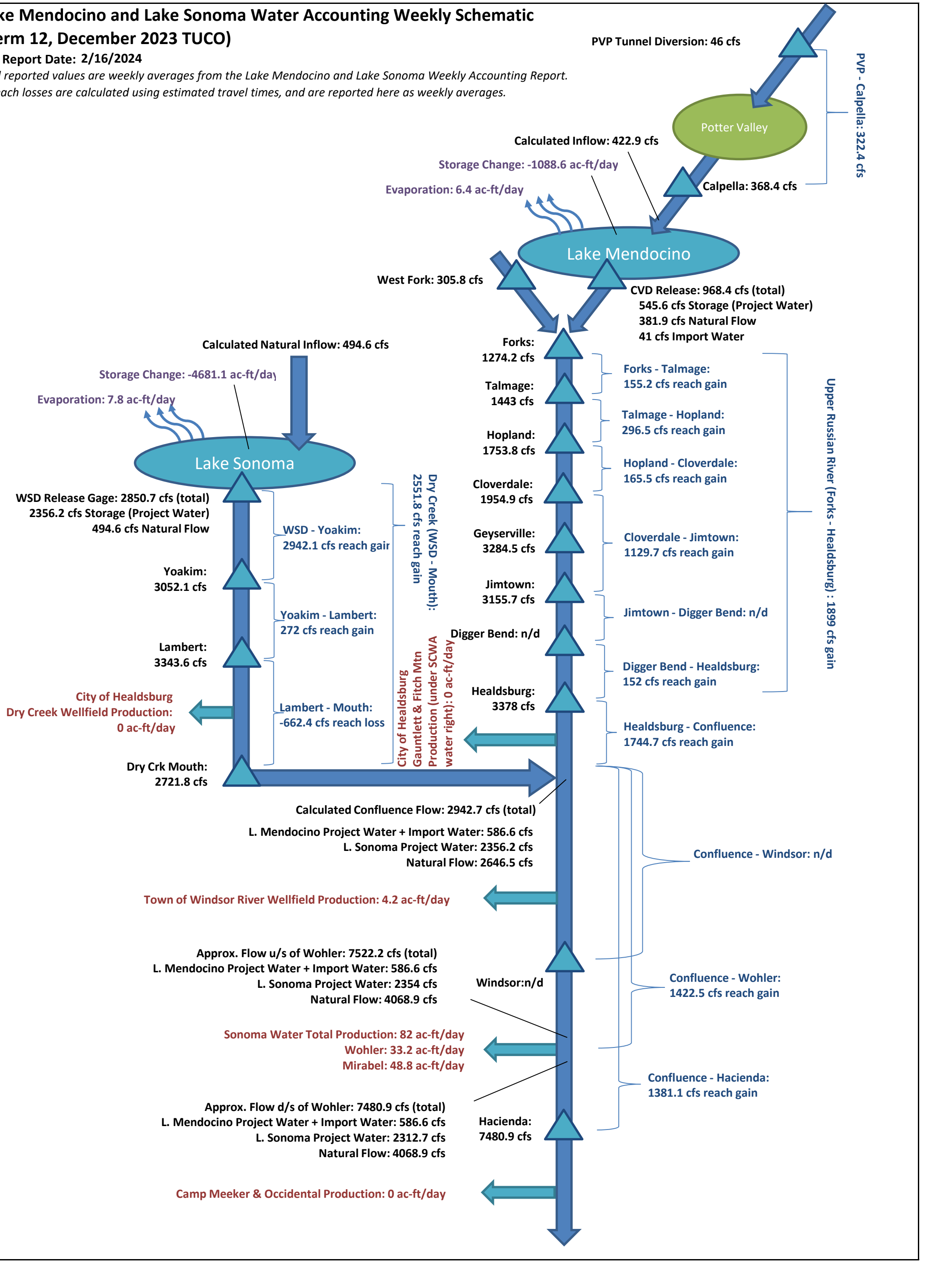
Notes:

- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic
(Term 12, December 2023 TUCO)

Report Date: 2/16/2024

All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



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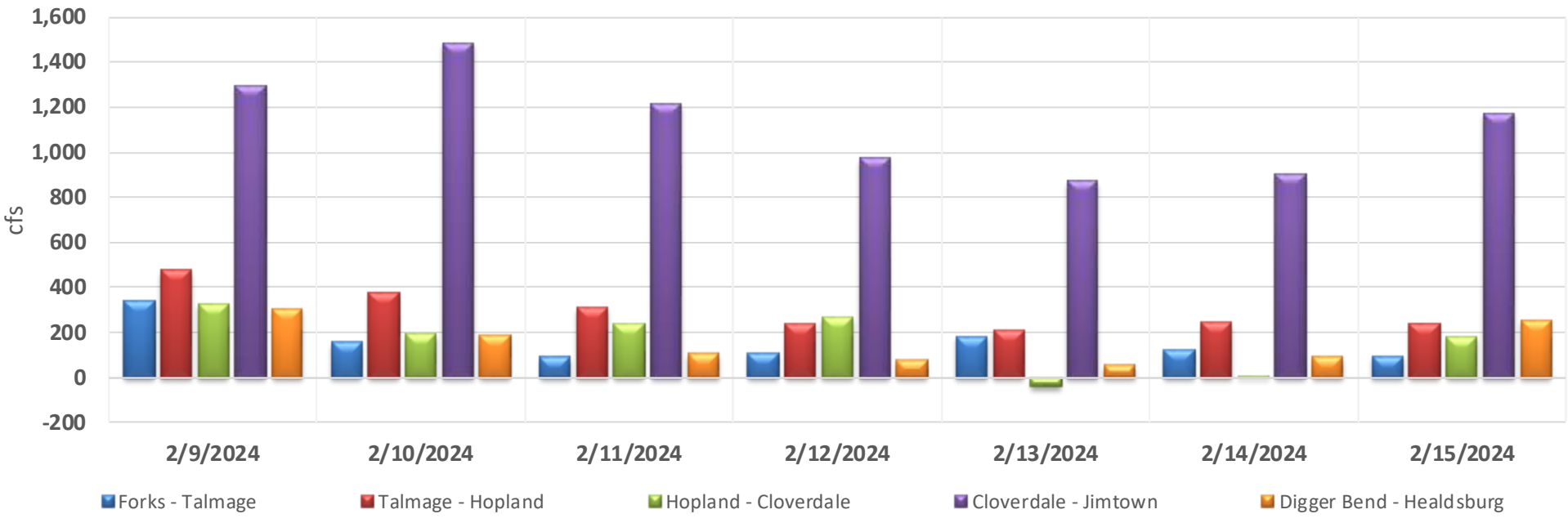
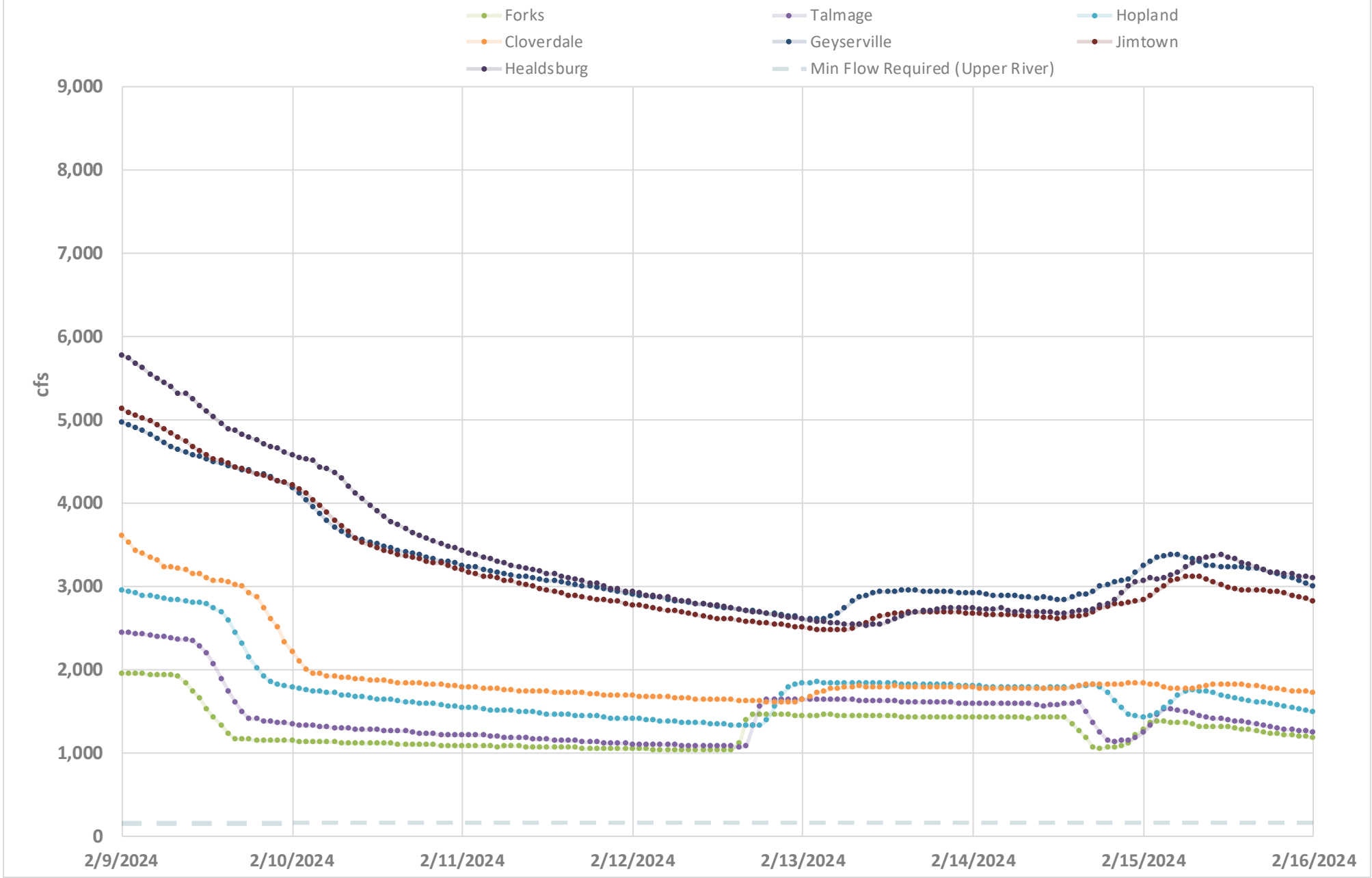
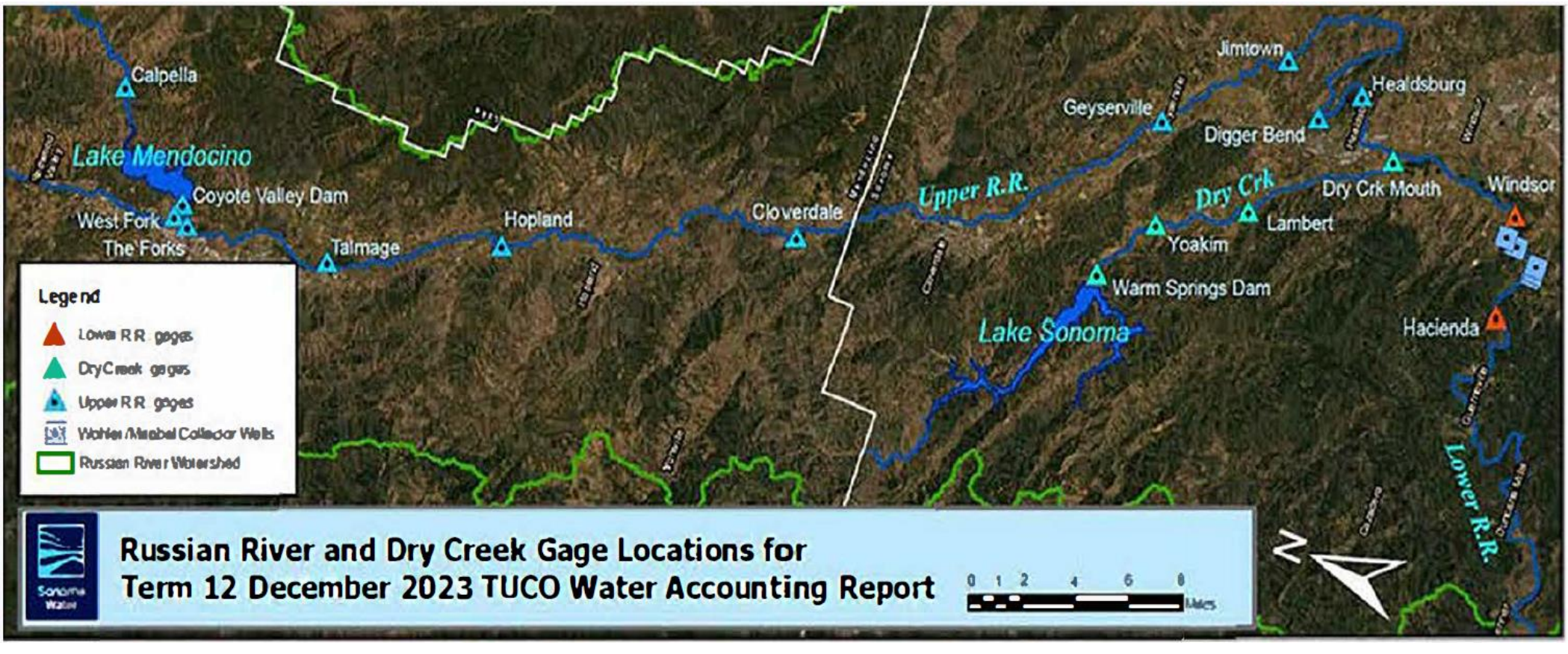
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS





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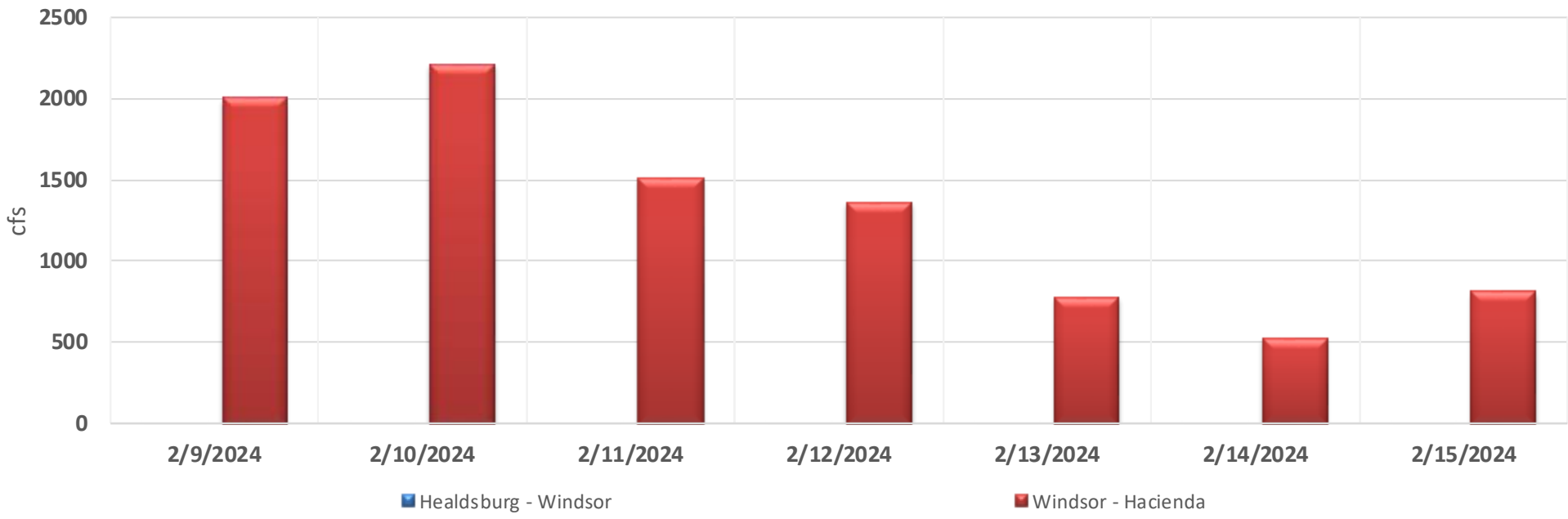
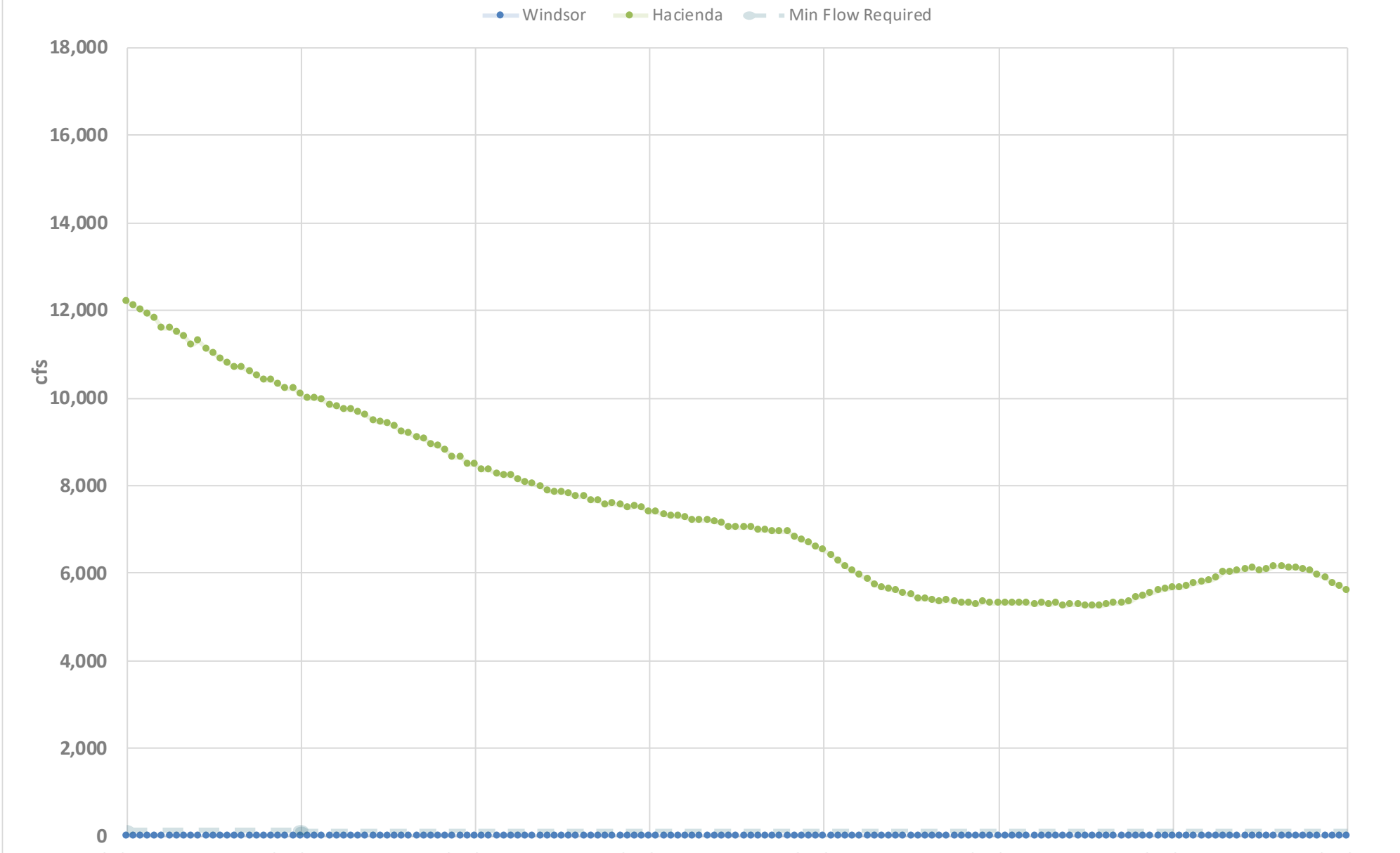
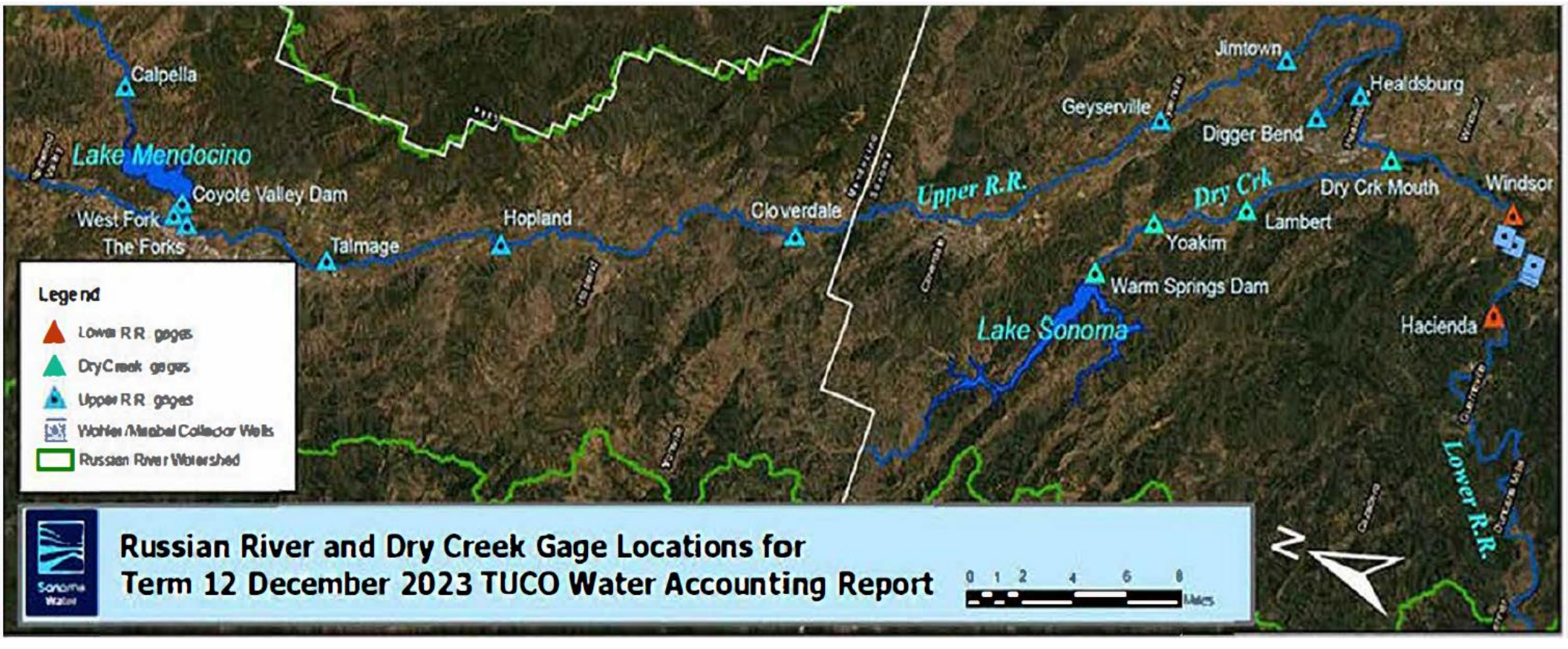
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS





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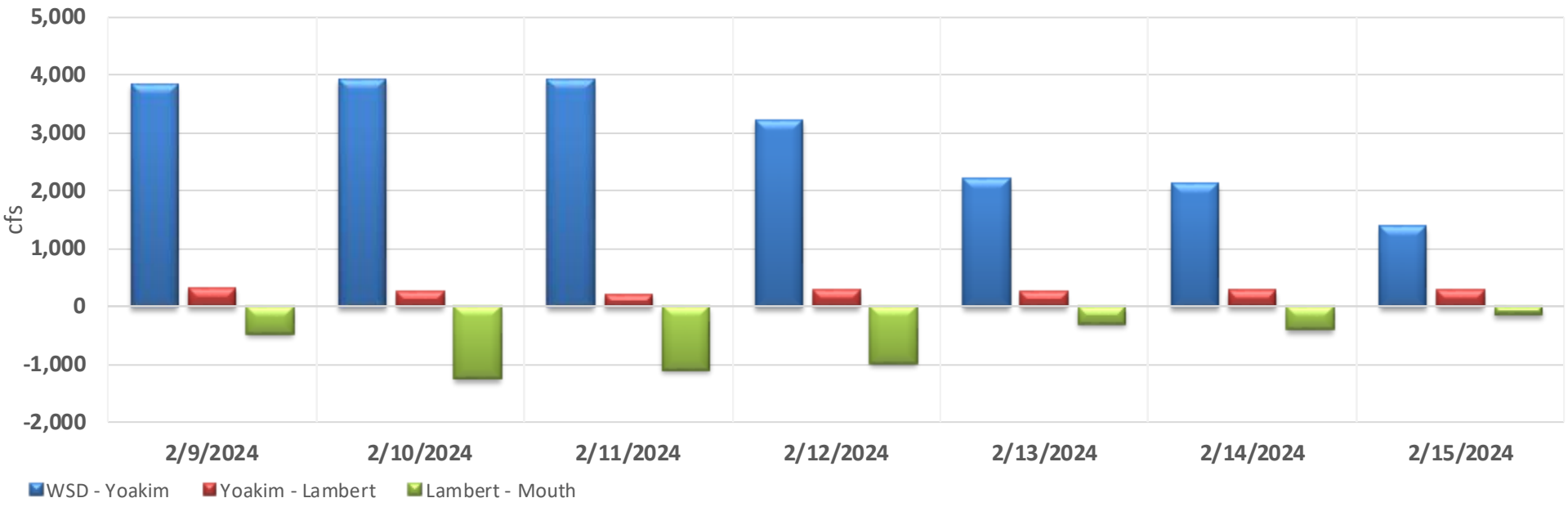
DRY CREEK NET REACH GAINS (+) / LOSSES (-)



DRY CREEK STREAM FLOWS