

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 1/20/2023

Units are cfs unless noted otherwise

	1/13/2023	1/14/2023	1/15/2023	1/16/2023	1/17/2023	1/18/2023	1/19/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	14.0	2.0	2.0	45.0	46.0	46.0	46.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	1.1	1.3	0.9	4.9	4.8	4.8	4.7
East Fork Release	12.9	1.0	1.0	40.0	41.0	41.0	41.0
PVID E Fork Diversions	8.9	8.7	9.1	5.1	5.2	5.2	5.3
PVID Water Use - PG&E Contract	10.0	10.0	10.0	10.0	10.0	10.0	10.0
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)	4.0	0.0	0.0	34.9	35.8	35.8	35.7
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	1,307.9	2,086.8	1,257.3	658.2	404.7	400.1	410.6
Net Reach Loss(-)/Gain(+)	+1,293.9	+2,084.8	+1,255.3	+613.2	+358.7	+354.1	+364.6
Unimpaired Natural Flow @ Calpella (est.)	365.8	680.9	936.5	441.5	262.0	167.3	294.1
Non-PVID East Fork Net Reach Losses (est.)	1303.9	2094.8	1265.3	623.2	368.7	364.1	374.6
Natural Flow	1299.9	2094.8	1265.3	588.3	332.9	328.2	338.9
Import (neg. value is return flow)	4.0	0.0	0.0	34.9	35.8	35.8	35.7
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	3,048	4,737	2,871	1,659	2,131	1,505	569
(cfs)	1,537	2,388	1,447	836	1,074	759	287
Natural Flow	1,533	2,388	1,447	802	1,039	723	251
Import	4	0	0	35	36	36	36
Storage Change (ac-ft)	+2,988.0	+4,679.0	+2,813.0	-248.0	-3,676.0	-3,498.0	-2,902.0
(cfs)	+1,506	+2,359	+1,418	-125	-1,853	-1,764	-1,463
Stored Natural Flow (cfs)	1,506	2,359	1,418	0	0	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	3.5	3.5	3.5	4.7	5.8	2.3	5.8
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	28	27	28	959	2925	2521	1747
Storage (Project Water)	0	0	0	123	1850	1762	1460
Natural Flow	25	28	28	802	1039	723	251
Import Water	3	0	0	35	36	36	36
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	28	27	28	959	2925	2521
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	28	28	28	836	1074	759	287
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	1,679	2,421	1,797	1,870	3,490	2,956	2,240
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
Forks (CVD + USGS 11461000)	99.0	1,679	2,421	1,797	1,870	3,490	2,956
Talmage (USGS 11462080)	96.1	3,438	5,129	4,087	2,579	3,673	3,308
Hopland (USGS 11462500)	84.8	4,018	6,398	4,991	3,065	3,763	3,438
Cloverdale (USGS 11463000)	70.9	6,823	10,303	8,754	4,746	4,592	4,206
Geyserville (USGS 11463500)	54.4	10,533	15,725	13,946	7,545	5,776	5,219
Jimtown (USGS 11463682)	48.5	10,141	14,771	14,013	7,797	5,744	5,269
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	11,657	17,433	17,108	9,353	6,053	5,330
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+1,836	+2,749	+2,192	+906	+167	+293	+784
Talmage - Hopland	+678	+1,291	+807	+533	+70	+131	+219
Hopland - Cloverdale	+3,065	+4,104	+3,344	+1,670	+831	+759	+792
Cloverdale - Jimtown	+3,760	+5,096	+4,251	+2,481	+1,285	+999	+925
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	+1,648	+3,039	+2,557	+1,178	+277	+20	-41
Upper Russian Net Reach Loss/Gain	+10,958	+11,894	+8,601	+8,587	+2,631	+2,202	+2,679
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	28	28	28	836	1074	759	287
Project Water Release Required	No	No	No	Yes	Yes	Yes	Yes

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).

	1/13/2023	1/14/2023	1/15/2023	1/16/2023	1/17/2023	1/18/2023	1/19/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	+8,604.0	+11,304.0	+6,725.0	+3,602.0	+2,120.0	+1,699.0	+1,402.0
(cfs)	+4,338	+5,699	+3,391	+1,816	+1,069	+857	+707
Evaporation (ac-ft)	4.7	3.2	4.9	6.6	6.7	5.0	5.1
Inflow (Natural Flow)	4,435	5,796	3,486	1,912	1,164	951	802
WSD Release Gage	95	96	93	92	92	92	92
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	95	96	93	92	92	92	92

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		75	75	75	75	75	75	75
Controlling Compliance Gage								
Min Gage Flow		95	96	93	92	92	92	92
Controlling Gage		WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
All Compliance Gages								
	<i>Crk mi.</i>							
WSD Release	14.3	95	96	93	92	92	92	92
Yoakim (USGS 11465200)	11.1	1,163	1,574	1,049	691	475	367	327
Lambert (USGS 11465240)	6.8	1,510	2,174	1,350	884	618	492	447
Dry Crk Mouth (USGS 11465350)	0.1	2,973	4,217	2,830	1,760	1,160	890	749
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		95	96	93	92	92	92	92
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+1,068	+1,477	+959	+599	+383	+275	+235
Yoakim - Lambert		+362	+608	+278	+181	+136	+126	+115
Lambert - Dry Crk Mouth		+1,507	+2,072	+1,410	+843	+525	+394	+295
WSD - Dry Crk Mouth		+2,937	+4,158	+2,646	+1,623	+1,045	+794	+645
WSD Project Water Release to Meet Min Flow Requirement								
Net Reach Loss/Gain to Controlling Gage		+0	+0	+0	+0	+0	+0	+0
Project Water Release Required		No	No	No	No	No	No	No

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)								
L. Mendocino Project Water + Import Water		3	0	0	158	1,886	1,798	1,496
Natural Flow		10,983	11,922	8,629	9,388	3,669	2,925	2,930
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		0	0	0	0	0	0	0
Natural Flow		2,973	4,217	2,830	1,760	1,160	890	749
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		3	0	0	158	1,886	1,798	1,496
L. Sonoma Project Water		0	0	0	0	0	0	0
Natural Flow		13,956	16,138	11,460	11,149	4,829	3,815	3,679

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		125	125	125	125	125	125	125
Controlling Compliance Gage								
Min Gage Flow		24,200	27,200	28,900	26,600	17,200	11,200	9,060
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	26.6	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>
Hacienda (USGS 11467000)	21.8	24,200	27,200	28,900	26,600	17,200	11,200	9,060
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		24,240	27,245	28,945	26,650	17,245	11,253	9,091
Net Reach Loss(-)/Gain(+)		+9,610	+5,595	+9,006	+15,537	+10,032	+5,033	+3,134
L. Mendocino Project Water + Import Water		3	0	0	158	1,886	1,798	1,496
L. Sonoma Project Water		0	0	0	0	0	0	0
Natural Flow		23,566	21,733	20,466	26,686	14,861	8,848	6,813
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		+9,570	+5,550	+8,961	+15,487	+9,988	+4,980	+3,103
L. Mendocino Project Water + Import Water		3	0	0	158	1,886	1,798	1,496
L. Sonoma Project Water		0	0	0	0	0	0	0
Natural Flow		23,526	21,688	20,421	26,636	14,816	8,795	6,782

VIII. Water Production under Sonoma Water Rights (ac-ft)

Lower Russian River								
Sonoma Water Total		78.8	89.3	89.4	98.7	88.7	105.0	62.2
Wohler		29.0	39.3	39.4	49.0	39.1	55.2	14.0
Mirabel		49.7	50.0	50.0	49.7	49.5	49.8	48.3
Town of Windsor River Wellfield		3.7	4.3	4.0	4.1	4.5	4.3	4.3
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:

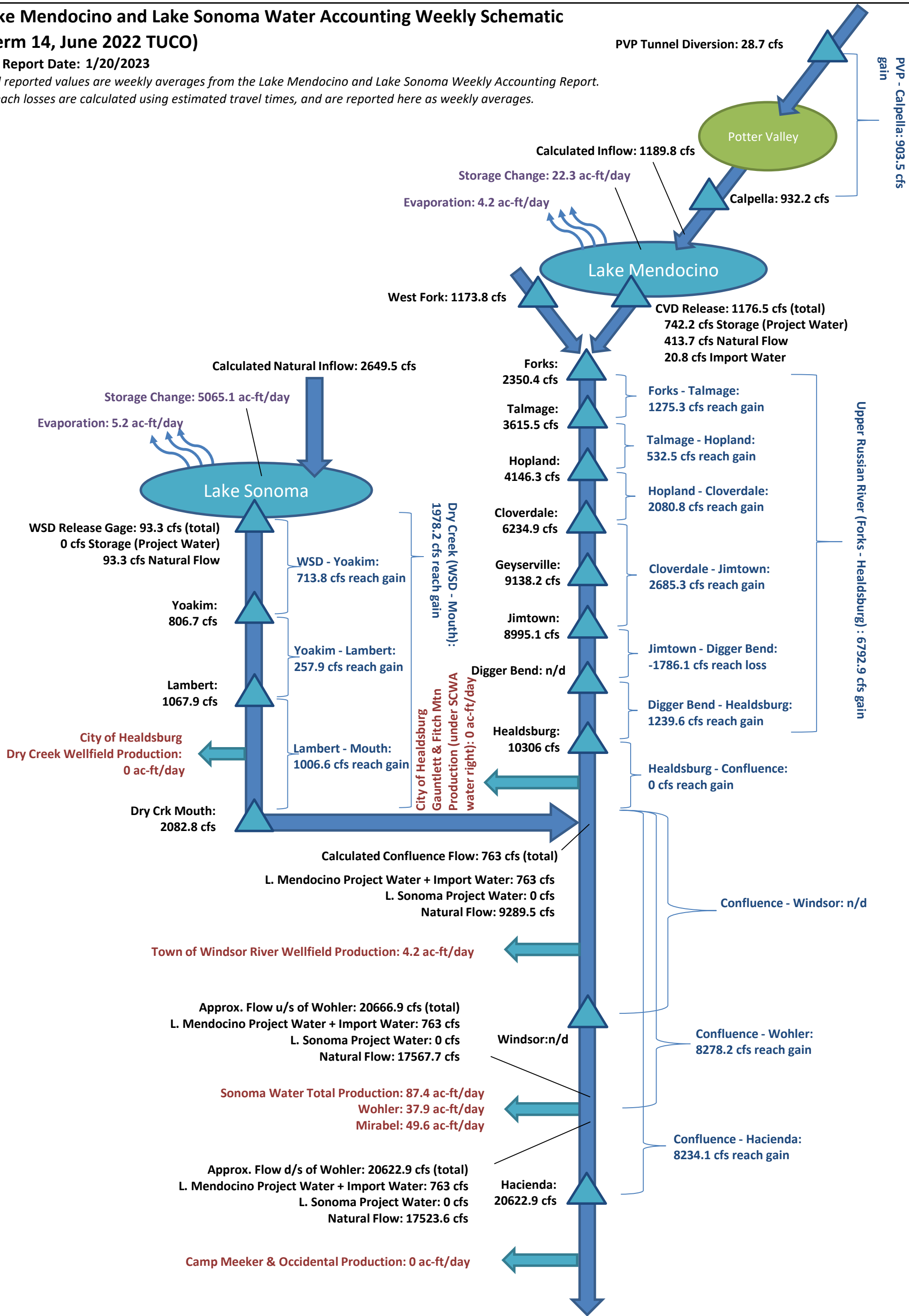
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

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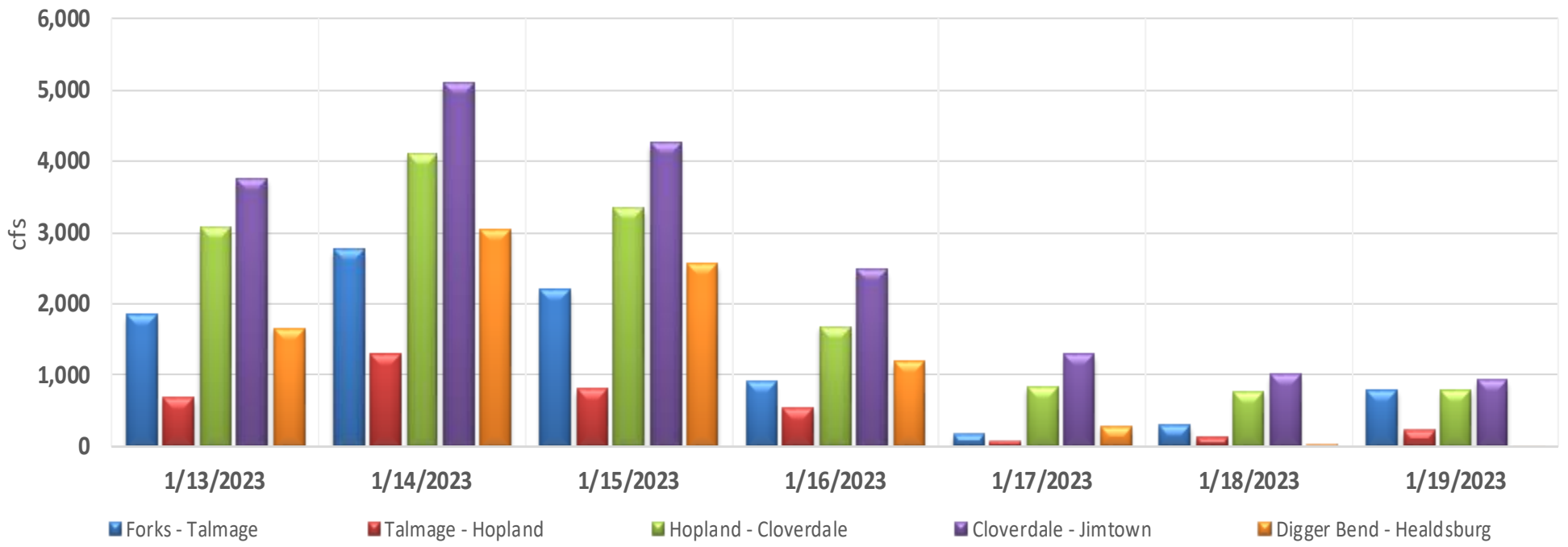
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report. Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



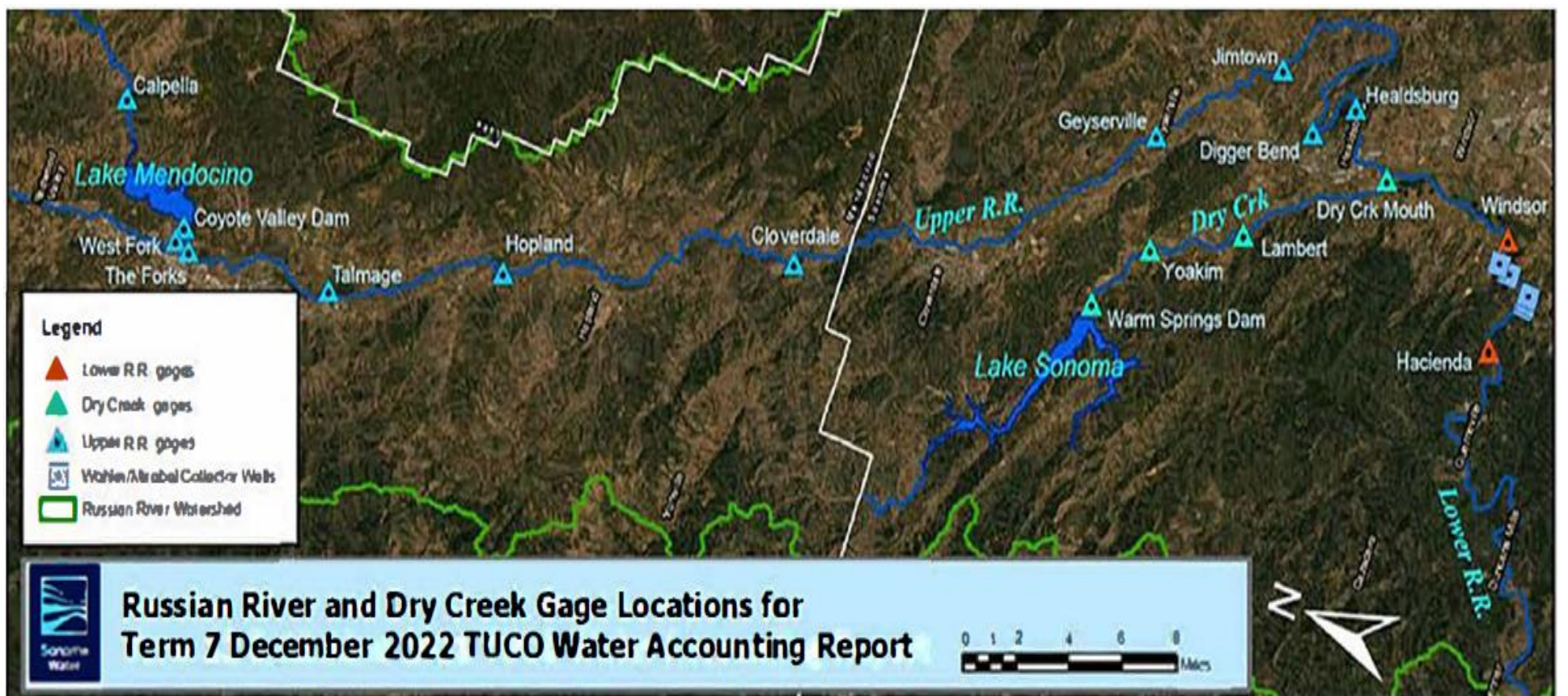
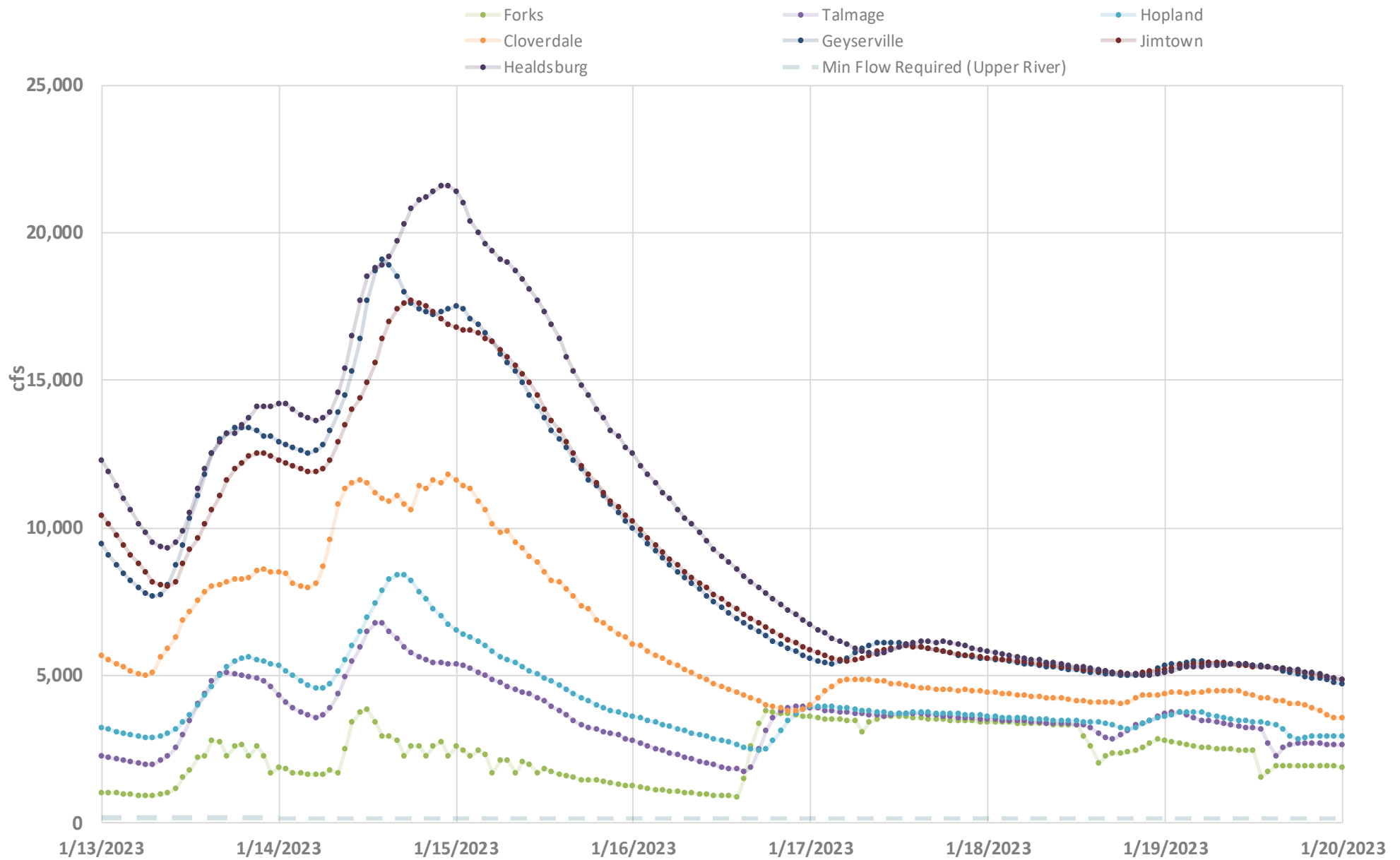
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



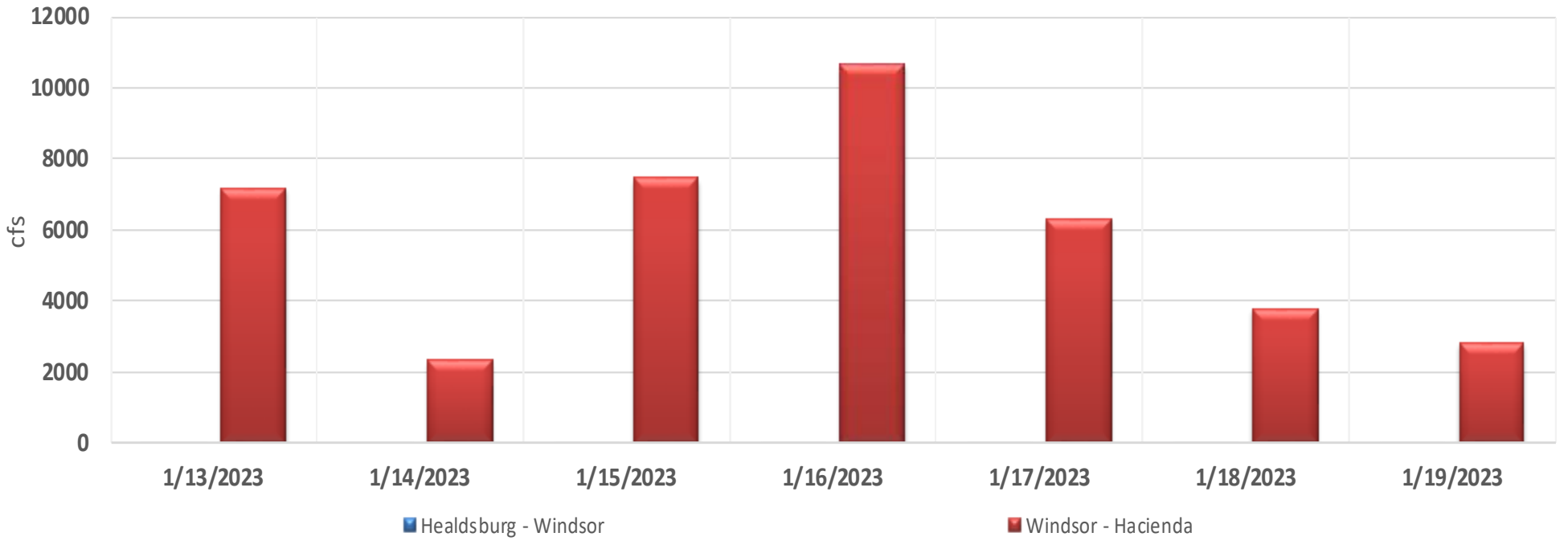
UPPER RUSSIAN RIVER STREAM FLOWS



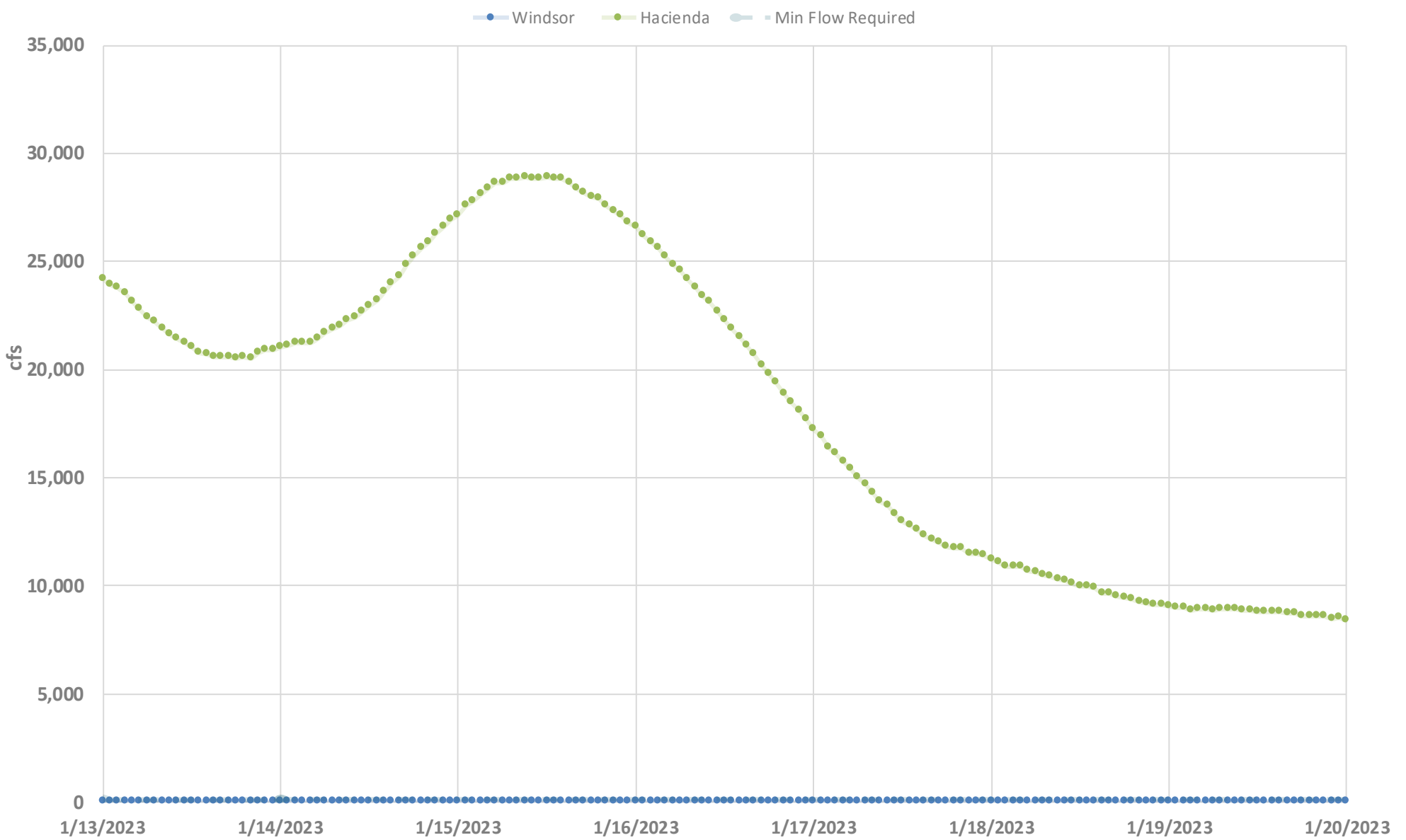
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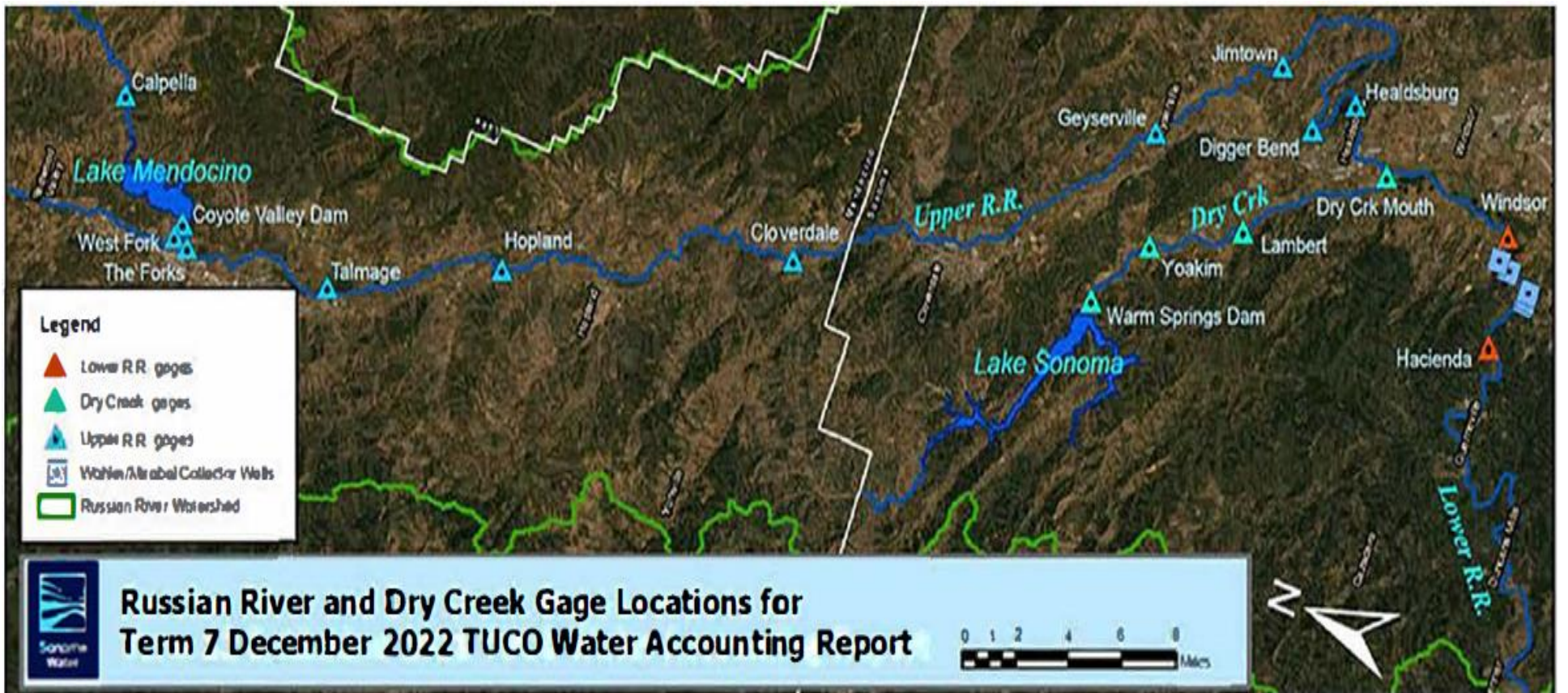
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



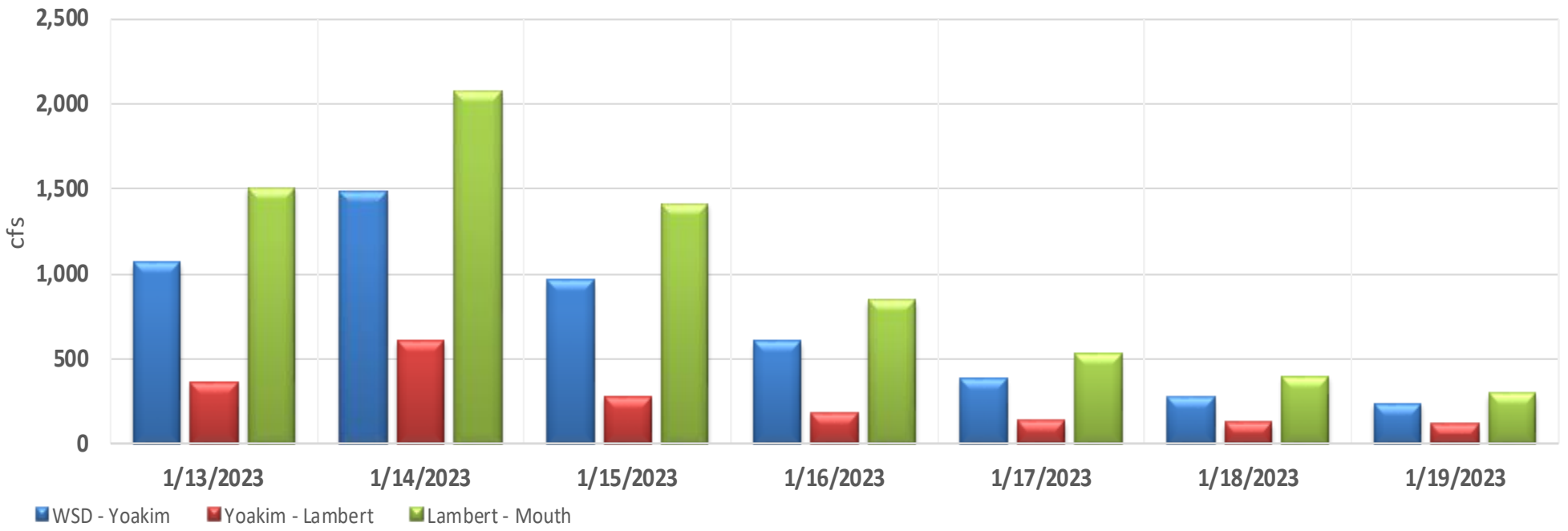
Note: Windsor gage is a seasonal gage and currently not operational. Windsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

