

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

Report Date: 1/13/2023

Units are cfs unless noted otherwise

	<u>1/6/2023</u>	<u>1/7/2023</u>	<u>1/8/2023</u>	<u>1/9/2023</u>	<u>1/10/2023</u>	<u>1/11/2023</u>	<u>1/12/2023</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	22.0	46.0	2.0	2.0	2.0	2.0	2.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	0.9	0.9	0.6	0.6	1.2	1.5	0.8
East Fork Release	21.0	45.0	1.0	1.0	1.0	1.0	1.0
PVID E Fork Diversions	9.1	9.1	9.4	9.4	8.8	8.6	9.2
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)	11.9	35.9	0.0	0.0	0.0	0.0	0.0
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	617.4	1,972.8	1,857.1	2,258.9	1,602.6	1,592.7	1,152.0
Net Reach Loss(-)/Gain(+)	+595.4	+1,926.8	+1,855.1	+2,256.9	+1,600.6	+1,590.7	+1,150.0
Unimpaired Natural Flow @ Calpella (est.)	543.5	300.7	886.8	490.8	538.0	619.1	988.0
Non-PVID East Fork Net Reach Losses (est.)	605.4	1936.8	1865.1	2266.9	1610.6	1600.7	1160.0
Natural Flow	593.5	1900.9	1865.1	2266.9	1610.6	1600.7	1160.0
Import (neg. value is return flow)	11.9	35.9	0.0	0.0	0.0	0.0	0.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	1,499	4,469	4,262	5,132	3,803	3,871	2,617
(cfs)	756	2,253	2,149	2,587	1,917	1,951	1,319
Natural Flow	744	2,217	2,149	2,587	1,917	1,951	1,319
Import	12	36	0	0	0	0	0
Storage Change (ac-ft)	+1,445.0	+4,415.0	+4,205.0	+5,075.0	+3,748.0	+3,818.0	+2,556.0
(cfs)	+729	+2,226	+2,120	+2,559	+1,890	+1,925	+1,289
Stored Natural Flow (cfs)	729	2,217	2,120	2,559	1,890	1,925	1,289
Stored Import Water (cfs)	0	9	0	0	0	0	0
Evaporation (ac-ft)	2.1	2.2	5.6	5.6	3.0	1.1	9.2
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	26	26	26	26	26	26	26
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	15	0	27	27	27	26	28
Import Water	11	26	0	0	0	0	0
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	26	26	26	26	26	26
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	26	26	27	27	27	26	28
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	1,080	1,779	2,664	2,777	1,765	1,901	1,613
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	1,080	1,779	2,664	2,777	1,765	1,613
Talmage (USGS 11462080)	96.1	2,155	3,969	5,272	5,753	3,854	3,788
Hopland (USGS 11462500)	84.8	3,060	4,707	6,631	7,102	4,522	5,066
Cloverdale (USGS 11463000)	70.9	5,435	7,382	10,522	11,277	8,765	7,803
Geyserville (USGS 11463500)	54.4	8,764	8,825	16,433	17,267	13,721	12,729
Jimtown (USGS 11463682)	48.5	9,083	7,487	15,771	16,488	13,263	12,504
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	11,454	7,552	18,004	20,433	15,621	14,917
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+1,018	+2,303	+2,544	+2,983	+2,110	+2,063	+2,044
Talmage - Hopland	+807	+881	+1,281	+1,367	+709	+729	+1,126
Hopland - Cloverdale	+2,016	+3,289	+3,555	+4,297	+4,229	+3,406	+3,221
Cloverdale - Jimtown	+2,663	+1,503	+4,908	+5,686	+4,053	+4,527	+3,931
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	+1,637	+659	+2,179	+4,228	+2,197	+2,197	+1,711
Upper Russian Net Reach Loss/Gain	+8,316	+11,690	+8,699	+12,372	+13,299	+12,922	+12,033
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	26	26	27	27	27	26	28
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).

	<u>1/6/2023</u>	<u>1/7/2023</u>	<u>1/8/2023</u>	<u>1/9/2023</u>	<u>1/10/2023</u>	<u>1/11/2023</u>	<u>1/12/2023</u>
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	+3,761.0	+11,565.0	+9,700.0	+12,719.0	+7,866.0	+8,257.0	+7,336.0
(cfs)	+1,896	+5,831	+4,890	+6,412	+3,966	+4,163	+3,699
Evaporation (ac-ft)	1.2	1.3	4.0	4.2	4.3	1.5	6.0
Inflow (Natural Flow)	1,982	5,923	4,981	6,505	4,058	4,256	3,792
WSD Release Gage	86	91	88	91	90	93	90
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	86	91	88	91	90	93	90
V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	75	75	75	75	75	75	75
Controlling Compliance Gage							
Min Gage Flow	86	91	88	91	90	93	90
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	86	91	88	91	90	93
Yoakim (USGS 11465200)	11.1	595	1,040	1,711	2,089	1,030	1,147
Lambert (USGS 11465240)	6.8	691	1,174	2,173	2,871	1,352	1,508
Dry Crk Mouth (USGS 11465350)	0.1	1,325	1,855	4,046	5,327	3,071	3,448
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	86	91	88	91	90	93	90
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+510	+967	+1,606	+1,993	+940	+1,063	+1,189
Yoakim - Lambert	+89	+199	+413	+790	+320	+389	+421
Lambert - Dry Crk Mouth	+612	+853	+1,746	+2,490	+1,711	+2,010	+1,800
WSD - Dry Crk Mouth	+1,211	+2,018	+3,764	+5,273	+2,971	+3,462	+3,411
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	11	26	0	0	0	0	0
Natural Flow	8,331	11,690	8,726	12,400	13,326	12,948	12,061
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	1,325	1,855	4,046	5,327	3,071	3,448	3,642
Russian River d/s of Confluence Flow							
L. Mendocino Project Water + Import Water	11	26	0	0	0	0	0
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	9,655	13,545	12,772	17,726	16,396	16,397	15,703
VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	125	125	125	125	125	125	125
Controlling Compliance Gage							
Min Gage Flow	20,900	17,300	24,200	32,100	32,600	27,200	25,900
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>
Hacienda (USGS 11467000)	21.8	20,900	17,300	24,200	32,100	32,600	27,200
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	20,954	17,345	24,245	32,150	32,644	27,242	25,933
Net Reach Loss(-)/Gain(+)	+8,176	+7,938	+2,195	+6,390	+13,952	+8,877	+7,462
L. Mendocino Project Water + Import Water	11	26	0	0	0	0	0
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	17,831	21,483	14,967	24,116	30,348	25,274	23,165
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	+8,121	+7,893	+2,150	+6,340	+13,908	+8,835	+7,429
L. Mendocino Project Water + Import Water	11	26	0	0	0	0	0
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	17,777	21,438	14,922	24,066	30,305	25,232	23,132
VIII. Water Production under Sonoma Water Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	107.8	88.7	89.1	98.4	86.4	83.2	65.9
Wohler	60.0	39.3	38.9	48.5	36.7	32.7	23.3
Mirabel	47.8	49.4	50.2	49.9	49.8	50.5	42.7
Town of Windsor River Wellfield	4.2	4.0	2.8	4.6	4.4	4.2	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

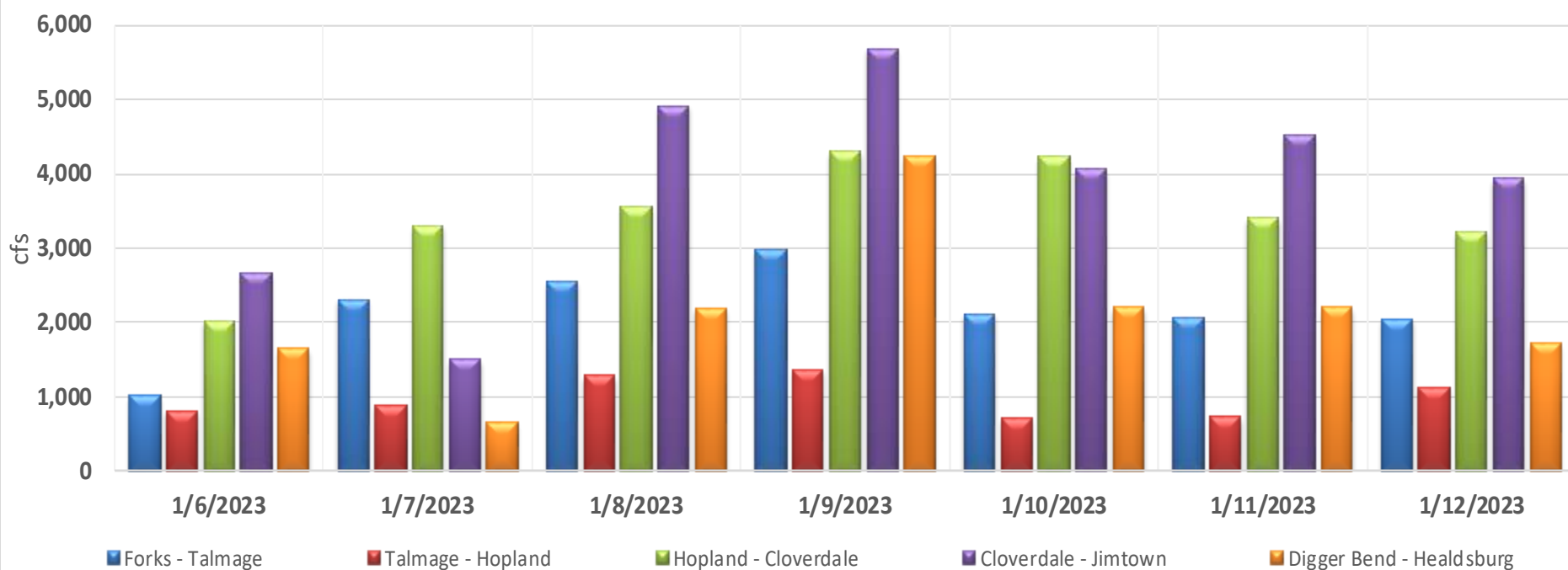
Notes:

- 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).

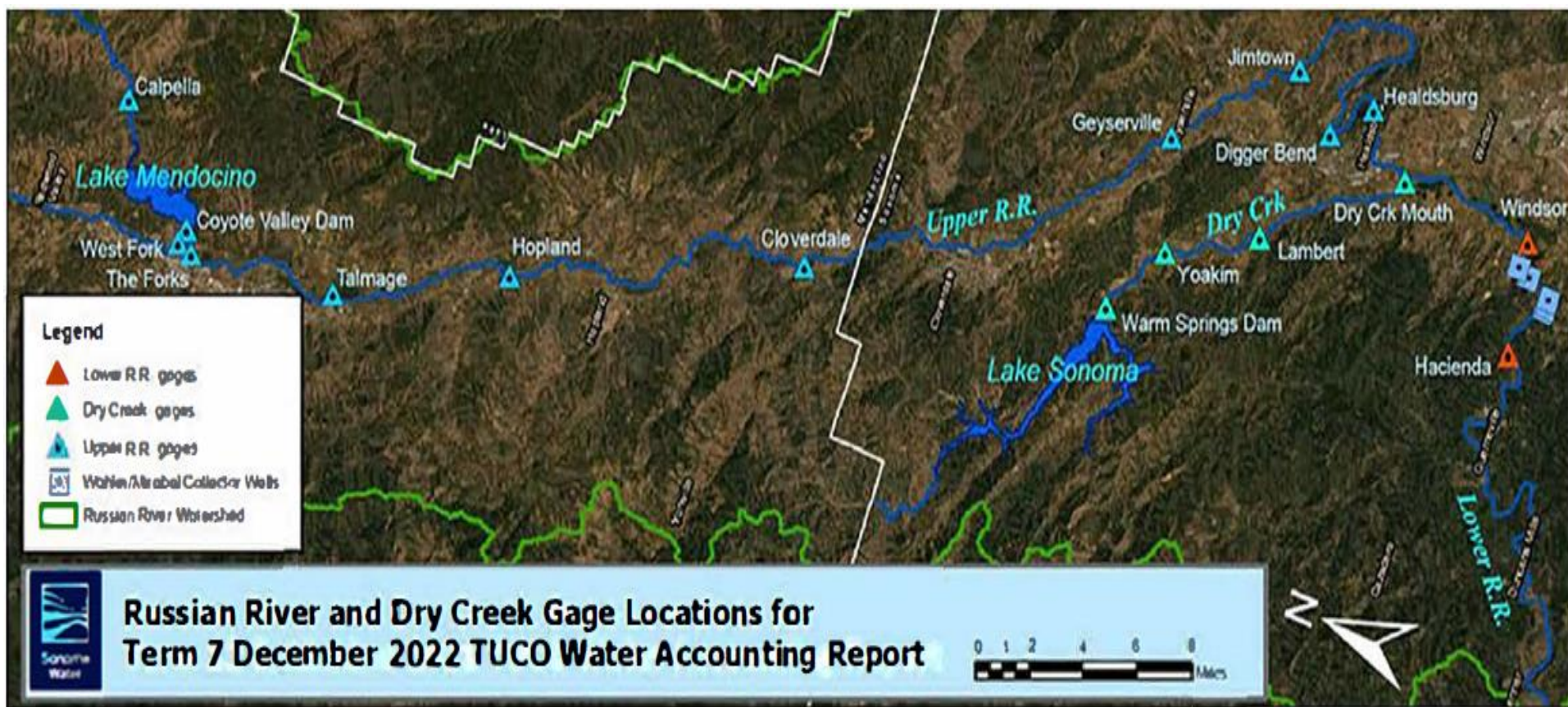
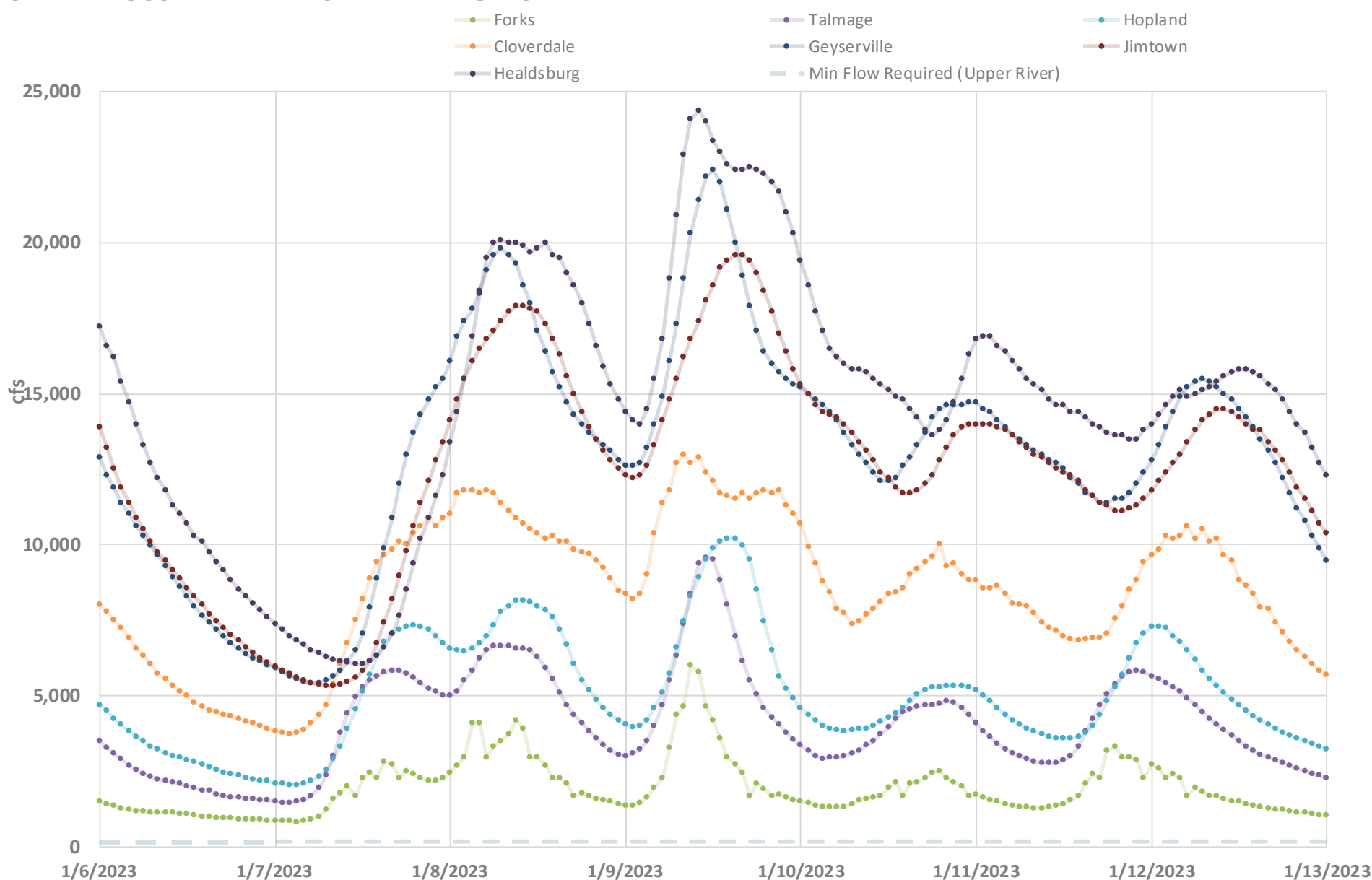
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



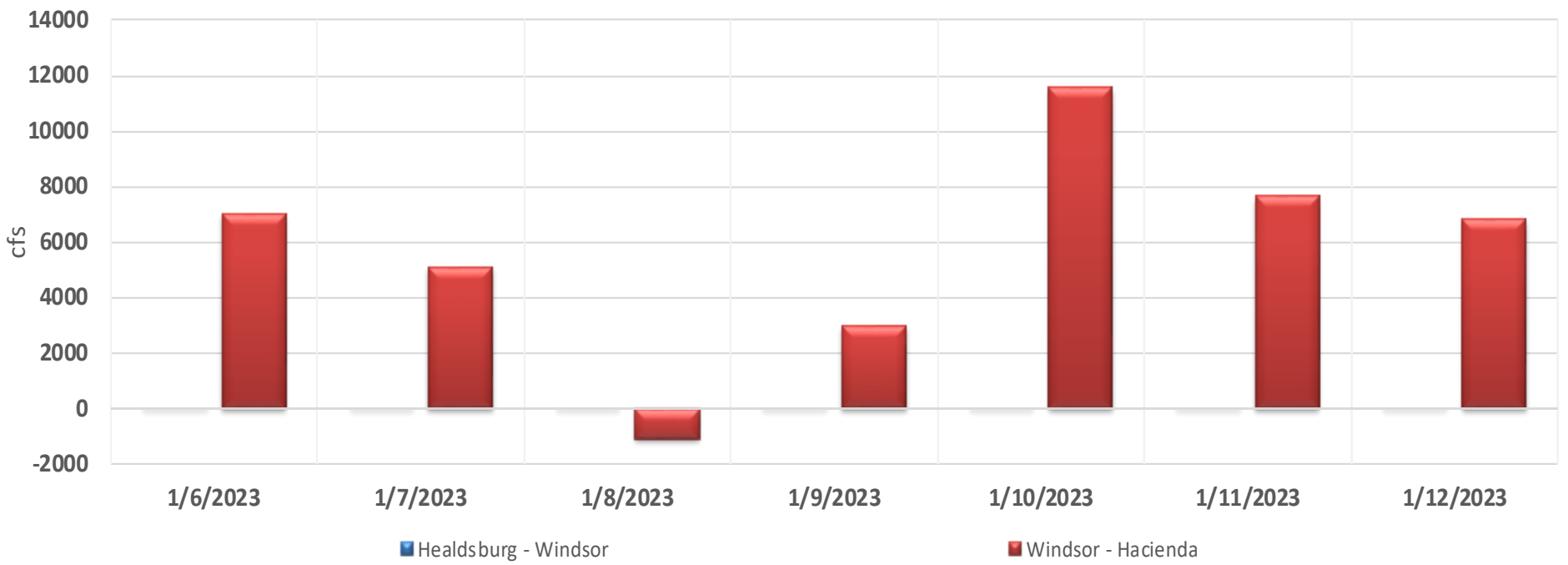
UPPER RUSSIAN RIVER STREAM FLOWS



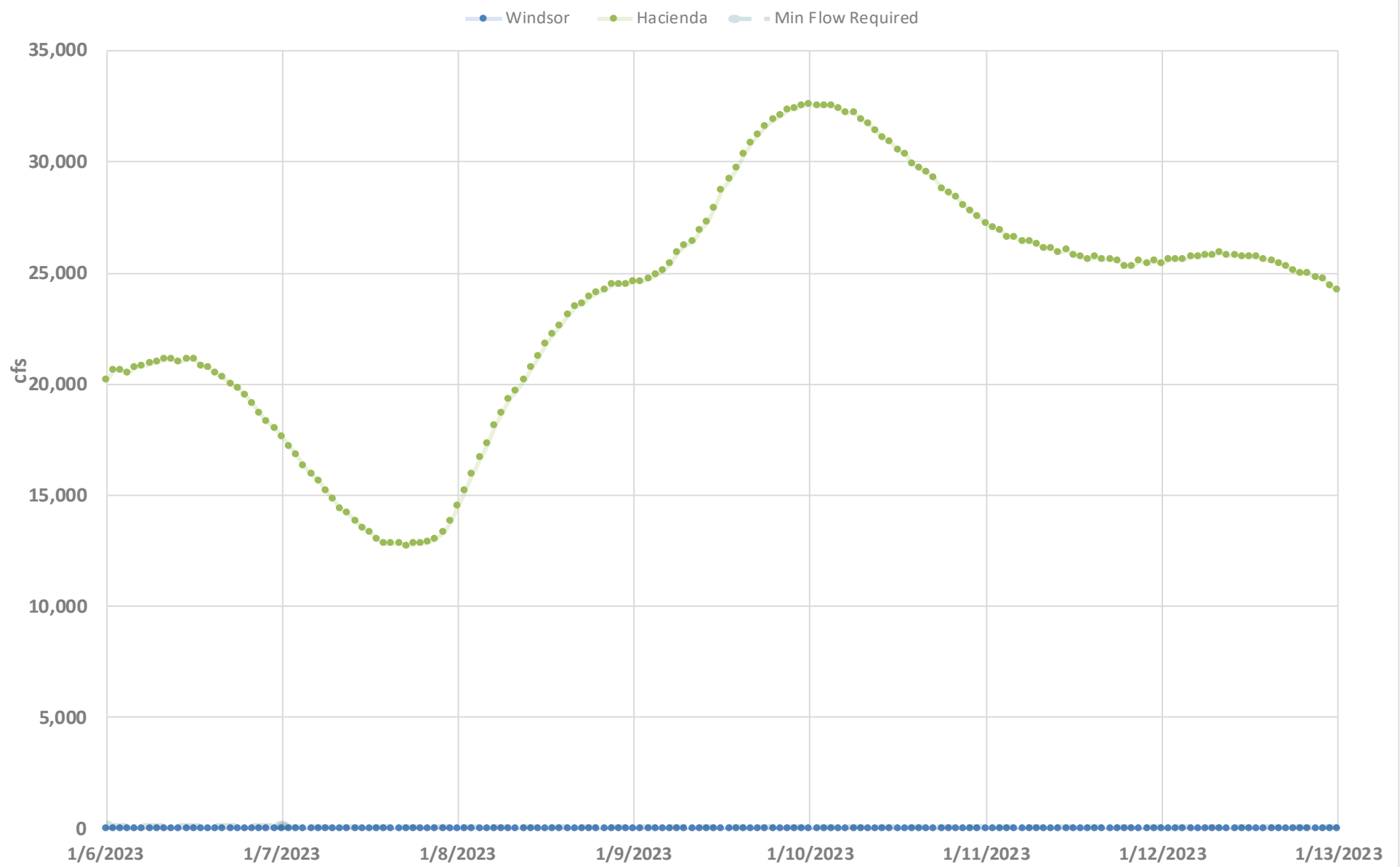
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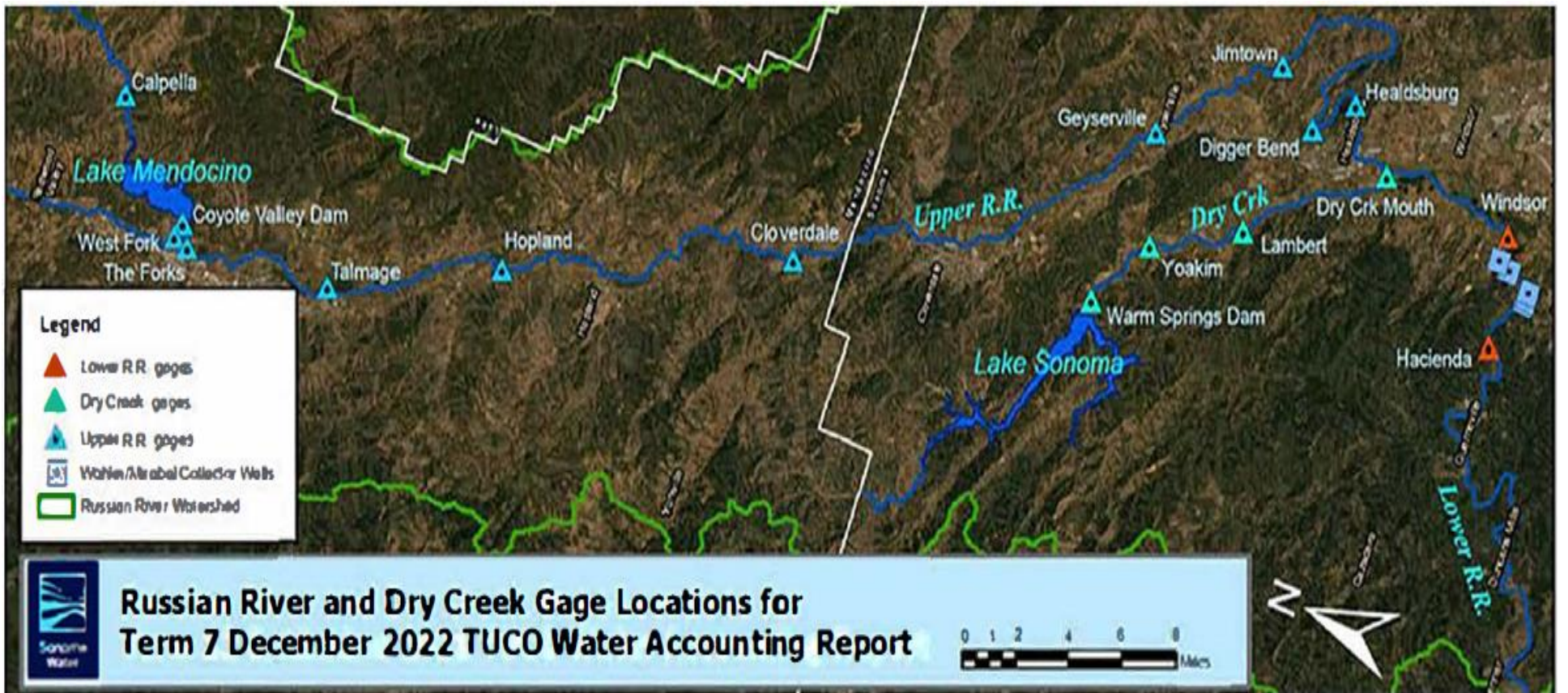
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



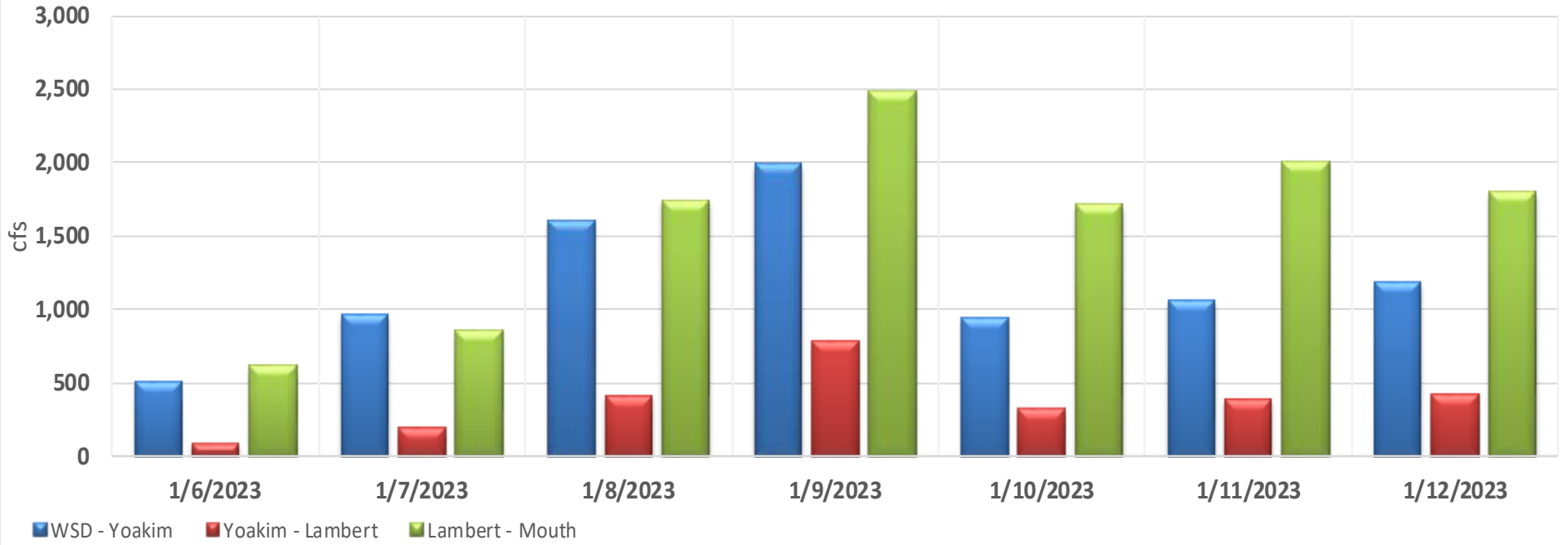
Note: Windsor gage is a seasonal gage and currently not operational. Windsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

