

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

Report Date: 3/31/2023

Units are cfs unless noted otherwise

	3/24/2023	3/25/2023	3/26/2023	3/27/2023	3/28/2023	3/29/2023	3/30/2023
<b>I. Upper East Fork Reach</b>							
<b>Potter Valley Project</b>							
Tunnel Diversion	45.0	45.0	45.0	45.0	45.0	45.0	45.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	0.8	1.1	1.1	1.0	1.2	1.0	0.9
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	44.0
PVID E Fork Diversions	9.2	8.9	8.9	9.0	8.8	9.0	9.1
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)	34.8	35.1	35.1	35.0	35.2	35.0	34.9
PVID Canal Net Return Flow (assumed)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>East Fork / Potter Valley Reach Analysis</b>							
USGS E Fork @ Calpella	227.3	206.2	188.9	175.6	706.3	820.2	424.3
Net Reach Loss(-)/Gain(+)	+182.3	+161.2	+143.9	+130.6	+661.3	+775.2	+379.3
Unimpaired Natural Flow @ Calpella (est.)	98.5	83.5	73.7	64.5	58.7	297.8	245.5
Non-PVID East Fork Net Reach Losses (est.)	192.3	171.2	153.9	140.6	671.3	785.2	389.3
Natural Flow	157.5	136.1	118.8	105.6	636.1	750.2	354.5
Import (neg. value is return flow)	34.8	35.1	35.1	35.0	35.2	35.0	34.9

## II. Lake Mendocino

### Reservoir Operations

Calculated Inflow (ac-ft)	491	573	555	480	1,647	1,692	868
(cfs)	248	289	280	242	831	853	438
Natural Flow	213	254	245	207	795	818	403
Import	35	35	35	35	35	35	35
Storage Change (ac-ft)	+106.0	-71.0	-247.0	-194.0	+1,342.0	+1,379.0	+656.0
(cfs)	+53	-36	-125	-98	+677	+695	+331
Stored Natural Flow (cfs)	53	0	0	0	677	695	331
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	10.9	12.9	13.8	11.9	5.0	8.9	12.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	189	318	398	334	151	153	100
Storage (Project Water)	0	29	118	92	0	0	0
Natural Flow	157	254	245	207	118	120	69
Import Water	32	35	35	35	34	33	32
<b>East Fork Min Instream Flow Requirement</b>	25	25	25	25	25	25	25
<b>Compliance Gage</b>	<i>Rvr mi.</i>						
CVD Release	99.9	189	318	398	334	151	153
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	189	289	280	242	151	153	100
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
<b>Controlling Compliance Gage</b>							
Min Gage Flow	427	526	579	493	769	961	619
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
<b>All Compliance Gages</b>							
Forks (CVD + USGS 11461000)	99.0	427	526	579	493	769	619
Talmage (USGS 11462080)	96.1	583	610	620	570	1,291	950
Hopland (USGS 11462500)	84.8	803	800	801	742	1,571	1,627
Cloverdale (USGS 11463000)	70.9	1,325	1,234	1,204	1,120	2,515	2,571
Geyserville (USGS 11463500)	54.4	2,267	2,043	1,921	1,773	3,186	4,784
Jimtown (USGS 11463682)	48.5	2,064	1,887	1,777	1,668	3,028	3,779
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	3,317	2,884	2,618	2,400	3,993	5,571
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	+162	+99	+38	+44	+613	+572	+284
Talmage - Hopland	+220	+193	+178	+161	+379	+703	+631
Hopland - Cloverdale	+515	+439	+393	+363	+1,261	+1,244	+826
Cloverdale - Jimtown	+689	+635	+563	+526	+1,266	+1,387	+902
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	+1,222	+980	+829	+718	+1,471	+1,827	+1,595
Upper Russian Net Reach Loss/Gain	+2,809	+2,346	+2,002	+1,811	+4,991	+5,733	+4,238
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
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	189	289	280	242	151	153	100
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).

	3/24/2023	3/25/2023	3/26/2023	3/27/2023	3/28/2023	3/29/2023	3/30/2023
<b>IV. Lake Sonoma</b>							
<b>Lake Sonoma</b>							
Storage Change (ac-ft)	-993.0	-1,160.0	-1,268.0	-1,349.0	+1,828.0	+1,015.0	-56.0
(cfs)	-501	-585	-639	-680	+922	+512	-28
Evaporation (ac-ft)	15.9	19.0	18.9	17.3	6.3	9.5	14.2
Inflow (Natural Flow)	513	431	376	335	1,931	1,516	978
WSD Release Gage	1006	1006	1006	1006	1006	999	999
Storage (Project Water)	493	575	630	671	0	0	21
Natural Flow	513	431	376	335	1006	999	978

#### V. Lower Dry Creek Reach

<b>Minimum Instream Flow Requirement</b>		75	75	75	75	75	75	75
<b>Controlling Compliance Gage</b>								
Min Gage Flow		1006	1006	1006	1006	1006	999	999
Controlling Gage		WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
<b>All Compliance Gages</b>								
	<i>Crk mi.</i>							
WSD Release	14.3	1,006	1,006	1,006	1,006	1,006	999	999
Yoakim (USGS 11465200)	11.1	1,153	1,112	1,085	1,072	1,368	1,336	1,268
Lambert (USGS 11465240)	6.8	1,379	1,325	1,285	1,250	1,590	1,560	1,470
Dry Crk Mouth (USGS 11465350)	0.1	1,486	1,575	1,589	1,677	2,935	2,453	2,300
<b>WSD to Russian River Confluence Reach Analysis</b>								
Total Pass-through Water		513	431	376	335	1006	999	978
<b>Net Reach Loss(-)/Gain(+)</b>								
WSD - Yoakim		+147	+106	+79	+66	+360	+338	+268
Yoakim - Lambert		+224	+211	+200	+177	+236	+222	+199
Lambert - Dry Crk Mouth		+100	+248	+300	+424	+1,372	+889	+822
WSD - Dry Crk Mouth		+471	+565	+579	+667	+1,967	+1,449	+1,290
<b>WSD Project Water Release to Meet Min Flow Requirement</b>								
Net Reach Loss/Gain to Controlling Gage		+0	+0	+0	+0	+0	+0	+0
Project Water Release Required		Yes	Yes	Yes	Yes	No	No	Yes

#### VI. Russian River - Dry Creek Confluence

<b>Upper Russian River Flow (Healdsburg Gage)</b>								
L. Mendocino Project Water + Import Water		32	64	153	127	34	33	32
Natural Flow		2,966	2,600	2,247	2,018	5,108	5,854	4,307
<b>Dry Creek Flow (Mouth Gage)</b>								
L. Sonoma Project Water		493	575	630	671	0	0	21
Natural Flow		994	1,000	959	1,005	2,935	2,453	2,279
<b>Russian River d/s of Confluence Flow</b>								
L. Mendocino Project Water + Import Water		32	64	153	127	34	33	32
L. Sonoma Project Water		493	575	630	671	0	0	21
Natural Flow		3,959	3,599	3,206	3,023	8,043	8,306	6,585

#### VII. Lower Russian River Reach

<b>Minimum Instream Flow Requirement</b>		125	125	125	125	125	125	125
<b>Controlling Compliance Gage</b>								
Min Gage Flow		8,410	6,250	5,280	4,680	8,830	10,900	10,900
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
<b>All Compliance Gages</b>								
	<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	8,410	6,250	5,280	4,680	8,830	10,900	10,900
<b>Confluence to Windsor Reach Analysis</b>								
Net Reach Loss/Gain to Windsor Gage		-	-	-	-	-	-	-
L. Mendocino Project Water + Import Water		-	-	-	-	-	-	-
L. Sonoma Project Water		-	-	-	-	-	-	-
Natural Flow		-	-	-	-	-	-	-
<b>Confluence to SCWA Wohler Production Facility Reach Analysis</b>								
Approx. Flow u/s of Wohler		8,435	6,286	5,305	4,723	8,877	10,920	10,936
Net Reach Loss(-)/Gain(+)		+3,632	+1,827	+1,099	+646	+1,949	+1,387	+3,066
L. Mendocino Project Water + Import Water		32	64	153	127	34	33	32
L. Sonoma Project Water		491	574	628	669	0	0	18
Natural Flow		7,591	5,426	4,305	3,669	9,992	9,693	9,651
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>								
Net Reach Loss(-)/Gain(+)		+3,607	+1,791	+1,074	+603	+1,903	+1,367	+3,030
L. Mendocino Project Water + Import Water		32	64	153	127	34	33	32
L. Sonoma Project Water		466	538	602	627	0	0	0
Natural Flow		7,591	5,426	4,305	3,669	9,945	9,673	9,633

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

<b>Lower Russian River</b>								
Sonoma Water Total		49.5	71.4	50.5	84.4	92.5	39.6	71.3
Wohler		7.4	21.8	2.2	34.8	34.0	20.9	37.2
Mirabel		42.1	49.6	48.4	49.6	58.5	18.8	34.1
Town of Windsor River Wellfield		3.2	3.4	3.6	3.9	3.5	3.7	5.2
Camp Meeker & Occidental		0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Upper Russian River</b>								
City of Healdsburg								
Gauntlett & Fitch Mtn		0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Dry Creek</b>								
City of Healdsburg								
Dry Creek Wellfield		0.0	0.0	0.0	0.0	0.0	0.0	0.0

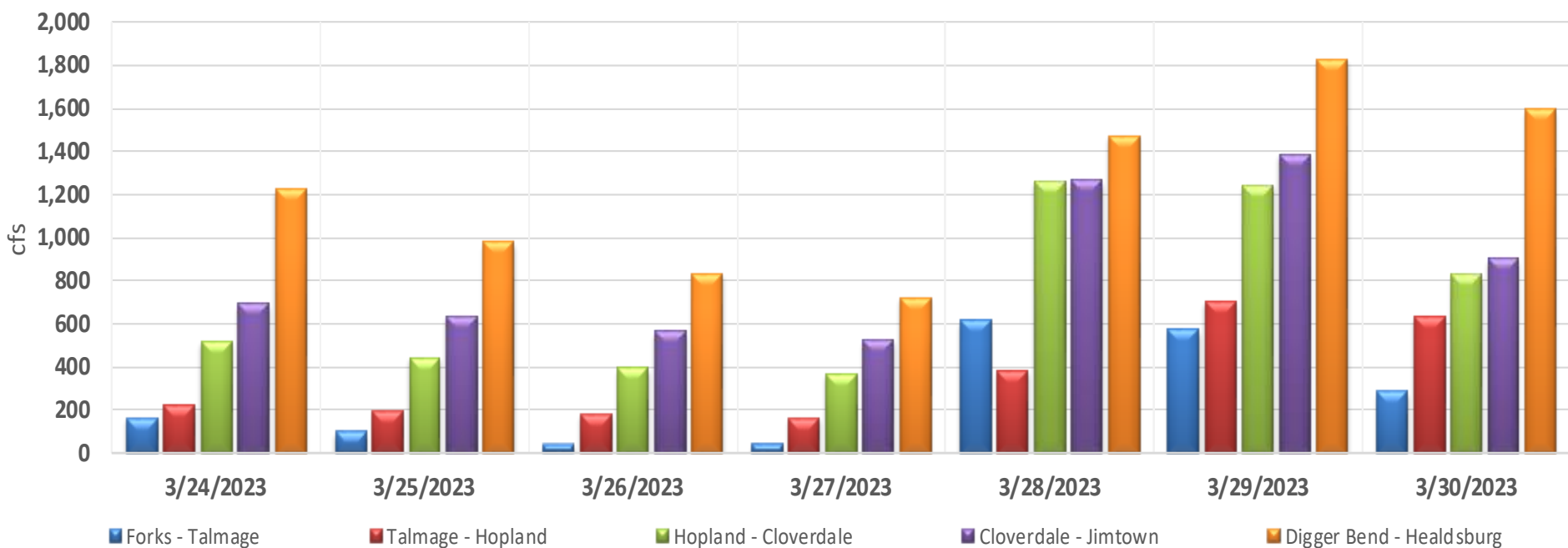
**Notes:**

- 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).

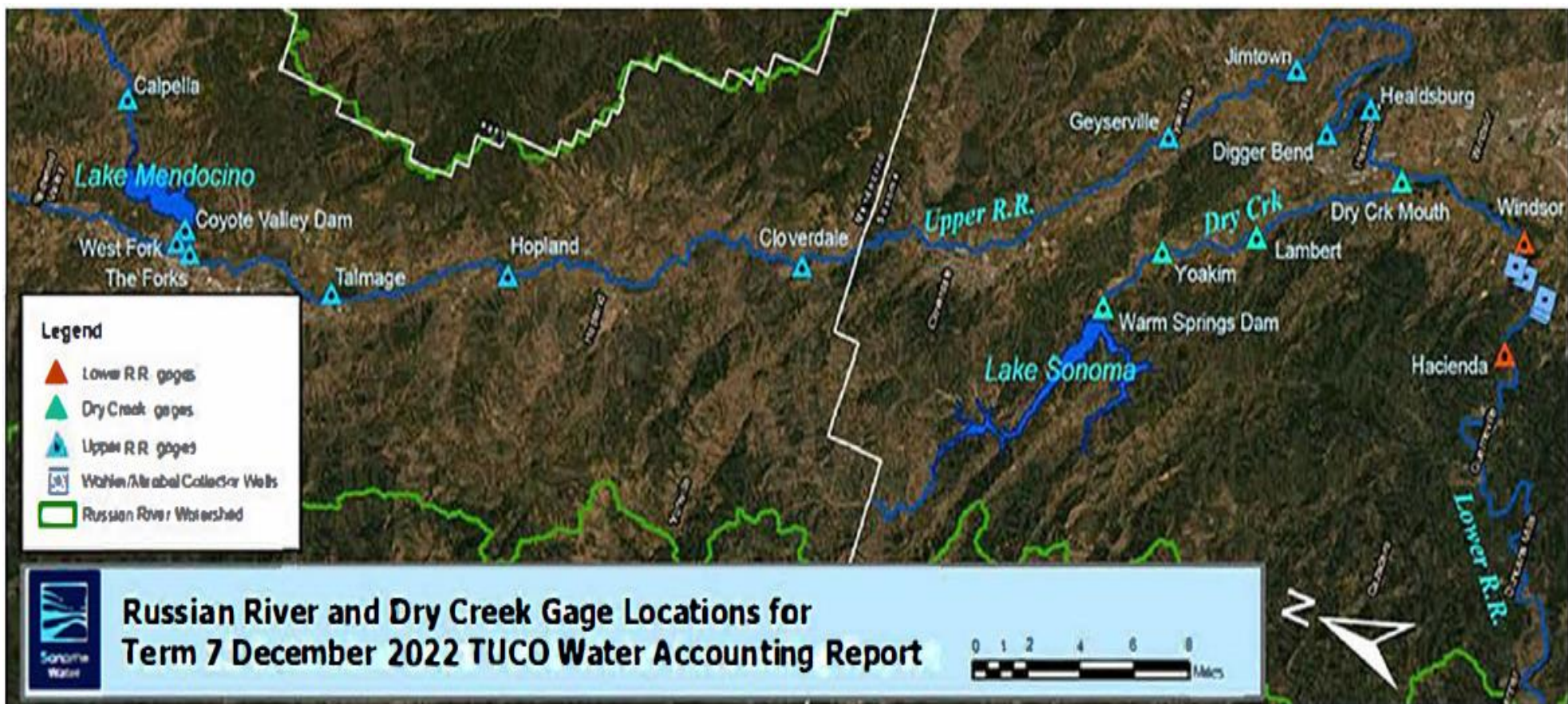
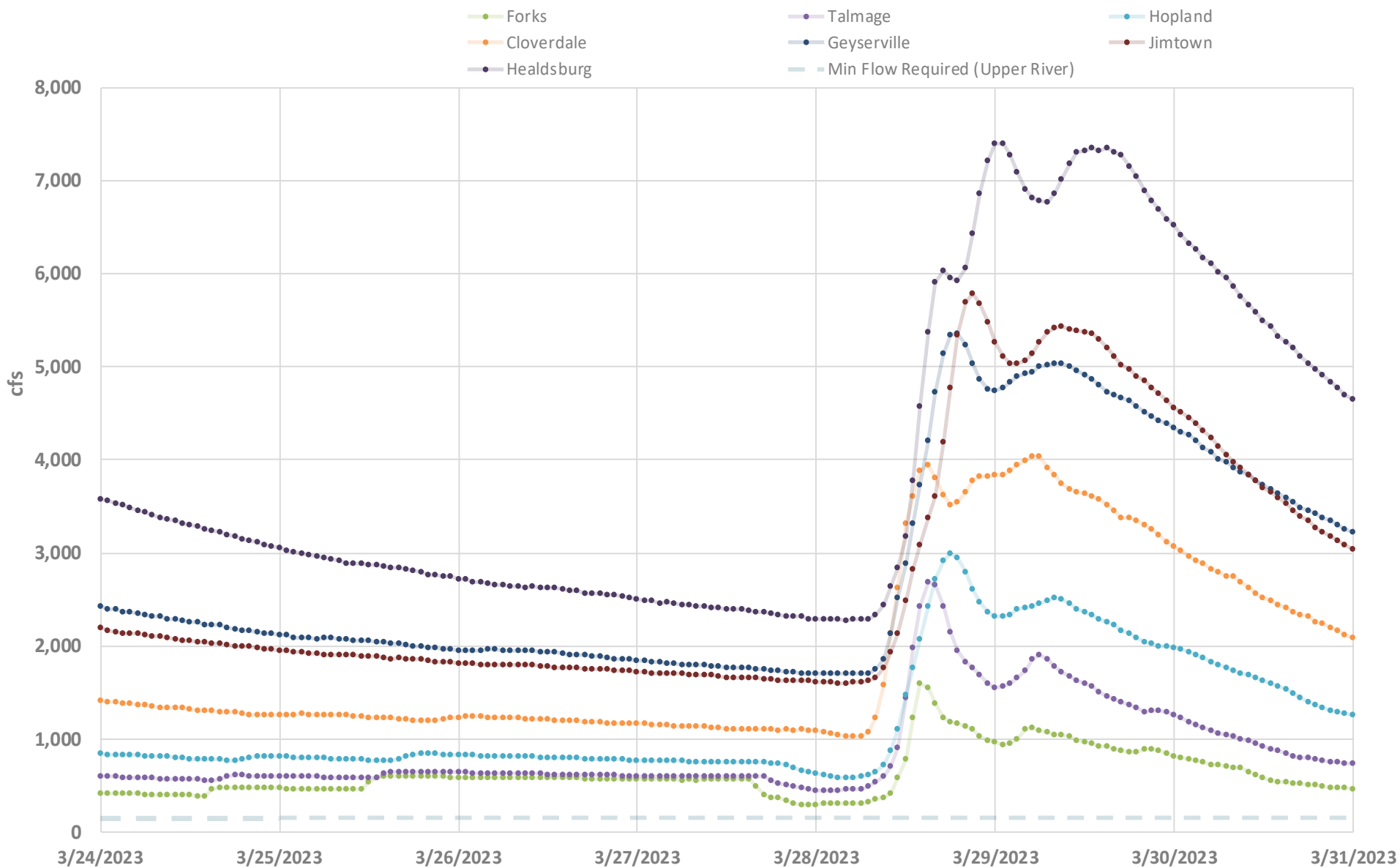
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



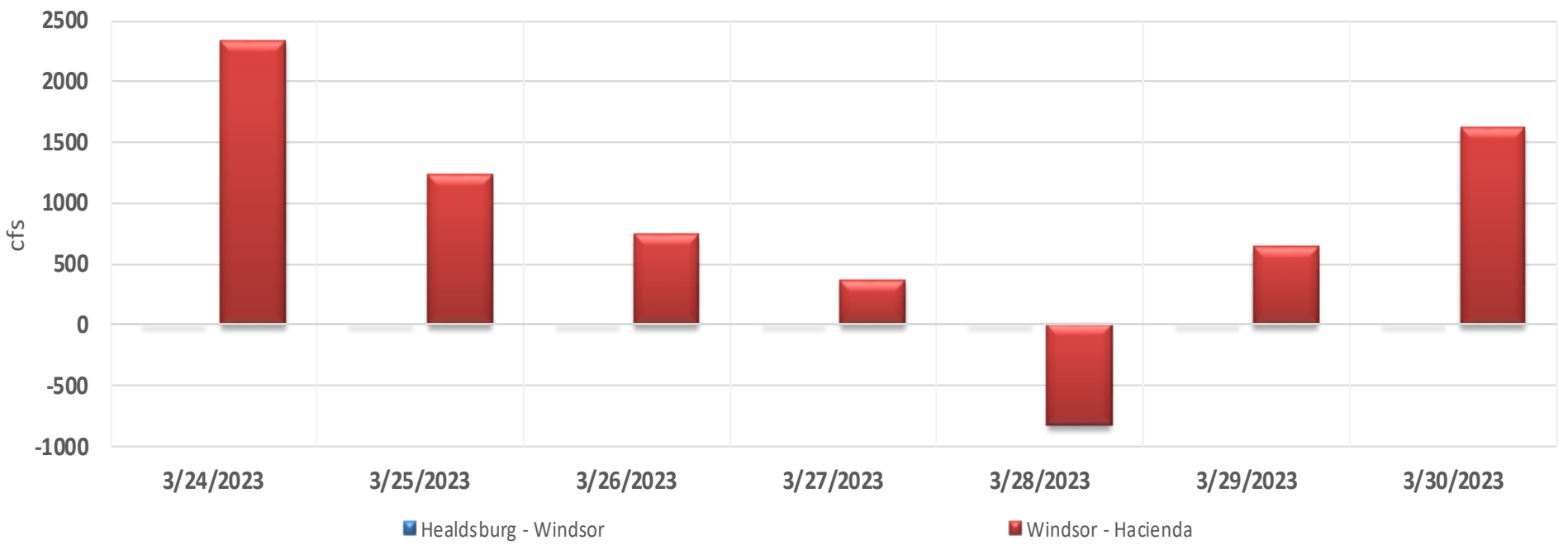
## UPPER RUSSIAN RIVER STREAM FLOWS



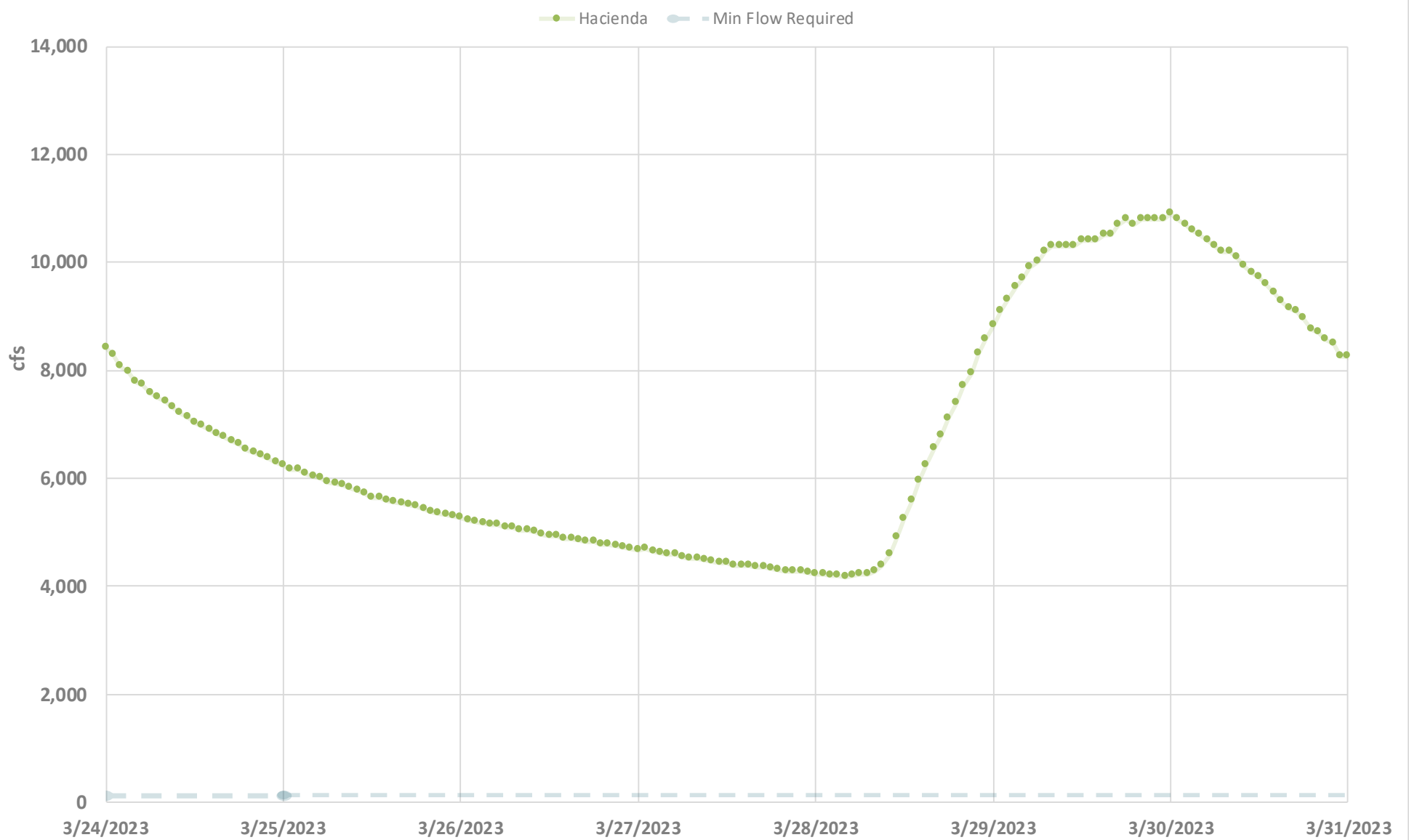
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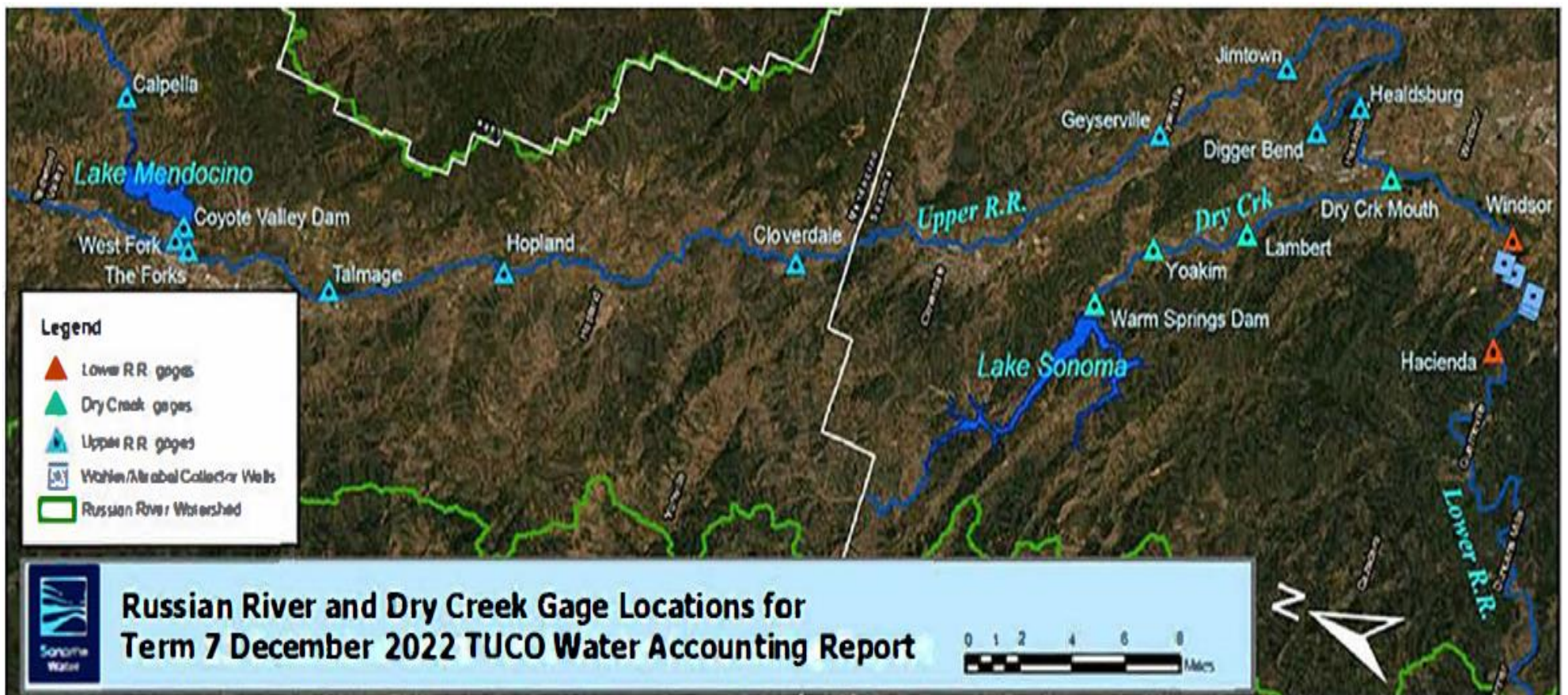
## LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## LOWER RUSSIAN RIVER STREAM FLOWS



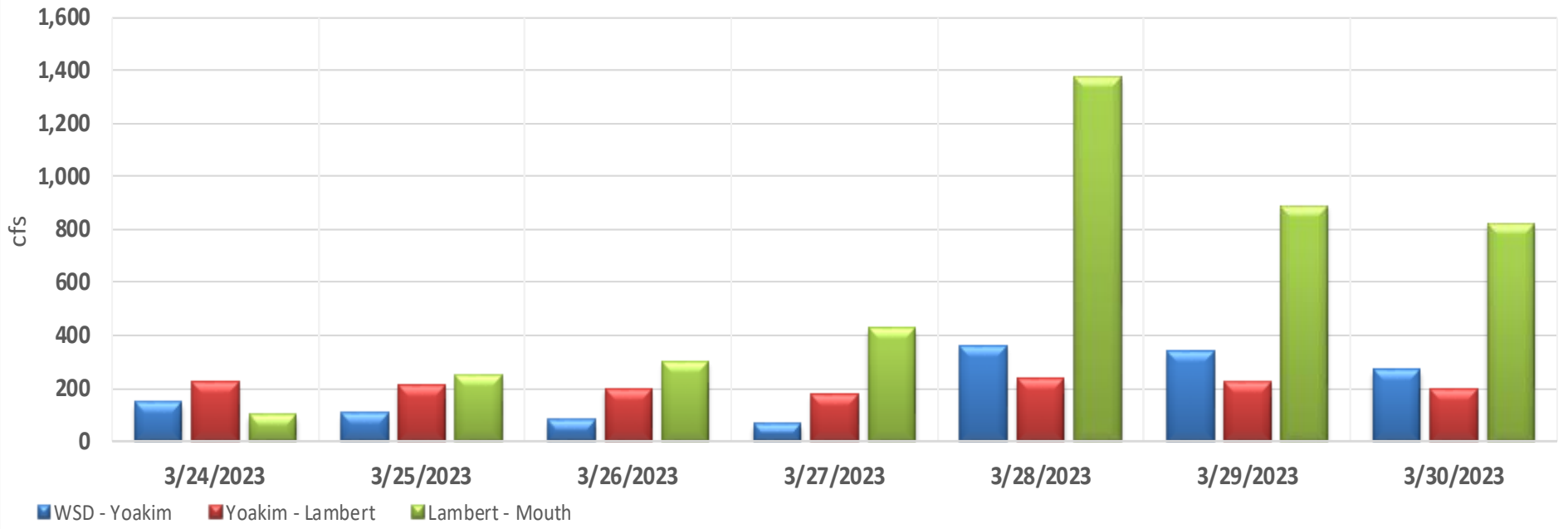
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



## DRY CREEK STREAM FLOWS

