

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

Report Date: 2/24/2023

Units are cfs unless noted otherwise

	2/17/2023	2/18/2023	2/19/2023	2/20/2023	2/21/2023	2/22/2023	2/23/2023
I. Upper East Fork Reach							
Potter Valley Project							
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	1.3	1.3	1.3	1.3	1.3	1.3	1.3
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	44.0
PVID E Fork Diversions	8.7	8.7	8.7	8.7	8.7	8.7	8.7
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)	35.3	35.3	35.3	35.3	35.3	35.3	35.3
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	96.0	93.1	90.7	88.5	88.5	87.7	90.1
Net Reach Loss(-)/Gain(+)	+51.0	+48.1	+45.7	+43.5	+43.5	+42.7	+45.1
Unimpaired Natural Flow @ Calpella (est.)	26.5	25.0	24.7	23.2	22.9	23.2	21.0
Non-PVID East Fork Net Reach Losses (est.)	61.0	58.1	55.7	53.5	53.5	52.7	55.1
Natural Flow	25.8	22.8	20.5	18.2	18.2	17.4	19.7
Import (neg. value is return flow)	35.3	35.3	35.3	35.3	35.3	35.3	35.3

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	216	217	152	204	200	200	267
(cfs)	109	109	77	103	101	101	135
Natural Flow	74	74	41	68	66	66	99
Import	35	35	35	35	35	35	35
Storage Change (ac-ft)	+0.0	+0.0	-69.0	-18.0	-17.0	-17.0	+52.0
(cfs)	+0	+0	-35	-9	-9	-9	+26
Stored Natural Flow (cfs)	0	0	0	0	0	0	26
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	10.0	10.0	12.0	12.0	7.0	7.0	5.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	104	104	105	106	106	106	106
Storage (Project Water)	0	0	29	3	5	5	0
Natural Flow	71	71	41	68	66	66	72
Import Water	33	33	35	35	35	35	34
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	104	104	105	106	106	106
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	104	104	77	103	101	101	106
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	167	164	162	161	160	158	157
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
Forks (CVD + USGS 11461000)	<i>Rvr mi.</i> 99.0	167	164	162	161	160	158
Talmage (USGS 11462080)	96.1	260	253	249	244	241	241
Hopland (USGS 11462500)	84.8	316	305	293	283	276	276
Cloverdale (USGS 11463000)	70.9	509	491	472	457	443	438
Geyserville (USGS 11463500)	54.4	710	675	647	616	595	569
Jimtown (USGS 11463682)	48.5	748	716	681	647	627	606
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	778	754	733	712	693	665
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+93	+89	+86	+83	+81	+81	+86
Talmage - Hopland	+56	+50	+44	+39	+35	+34	+38
Hopland - Cloverdale	+189	+183	+176	+171	+166	+162	+167
Cloverdale - Jimtown	+232	+218	+201	+184	+178	+175	+173
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	+21	+31	+38	+57	+61	+60	+58
Upper Russian Net Reach Loss/Gain	+590	+571	+545	+533	+522	+511	+522
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	104	104	77	103	101	101	106
Project Water Release Required	No	No	Yes	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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	+78.0	+53.0	+79.0	+52.0	+79.0	-52.0	+262.0
(cfs)	+39	+27	+40	+26	+40	-26	+132
Evaporation (ac-ft)	9.1	10.7	12.2	10.7	13.7	9.1	7.6
Inflow (Natural Flow)	124	112	125	110	127	59	216
WSD Release Gage	80	80	79	79	80	80	80
Storage (Project Water)	0	0	0	0	0	22	0
Natural Flow	80	80	79	79	80	59	80

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	75	75	75	75	75	75	75
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Controlling Compliance Gage

Min Gage Flow	80	80	79	79	80	80	80
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	80	80	79	79	80	80
Yoakim (USGS 11465200)	11.1	112	111	111	110	109	110
Lambert (USGS 11465240)	6.8	105	103	101	100	99	99
Dry Crk Mouth (USGS 11465350)	0.1	167	162	159	155	153	152

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	80	80	79	79	80	59	80
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+32	+31	+31	+31	+29	+28	+30
Yoakim - Lambert	-7	-8	-9	-10	-11	-11	-10
Lambert - Dry Crk Mouth	+61	+58	+57	+55	+54	+53	+55
WSD - Dry Crk Mouth	+86	+82	+79	+76	+73	+70	+74

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	Yes	No

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)

L. Mendocino Project Water + Import Water	33	33	64	38	40	40	34
Natural Flow	661	643	586	601	588	577	593

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	0	0	0	0	0	22	0
Natural Flow	167	162	159	155	153	129	152

Russian River d/s of Confluence Flow

	945	916	891	867	846	827	817
L. Mendocino Project Water + Import Water	33	33	64	38	40	40	34
L. Sonoma Project Water	0	0	0	0	0	22	0
Natural Flow	827	805	745	756	741	706	745

VII. Lower Russian River Reach

Minimum Instream Flow Requirement

	125	125	125	125	125	125	125
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Controlling Compliance Gage

Min Gage Flow	1,180	1,130	1,080	1,030	993	962	921
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	1,180	1,130	1,080	1,030	993	921

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	1,222	1,172	1,122	1,069	1,036	1,015	958
Net Reach Loss(-)/Gain(+)	+278	+256	+231	+202	+190	+188	+142
L. Mendocino Project Water + Import Water	33	33	64	38	40	40	34
L. Sonoma Project Water	0	0	0	0	0	19	0
Natural Flow	1,105	1,061	976	958	931	894	887

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	+235	+214	+189	+163	+147	+135	+104
L. Mendocino Project Water + Import Water	33	33	64	38	40	40	34
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	1,063	1,019	934	919	888	860	850

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

Lower Russian River

Sonoma Water Total	84.1	83.3	84.0	76.8	85.4	106.0	73.9
Wohler	39.9	38.9	39.1	29.8	44.1	51.8	26.1
Mirabel	44.2	44.4	44.9	47.0	41.3	54.2	47.7
Town of Windsor River Wellfield	4.6	4.6	4.4	5.5	4.3	4.7	4.7
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

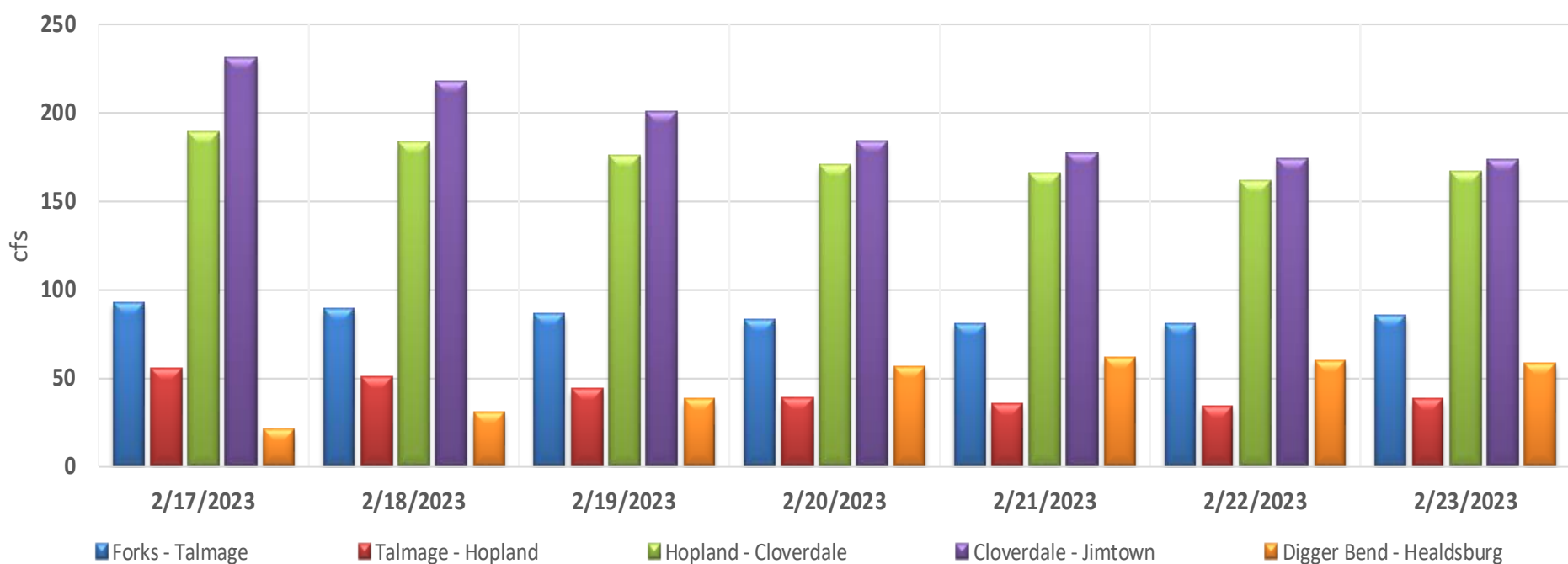
City of Healdsburg							
Dry Creek Wellfield	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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).

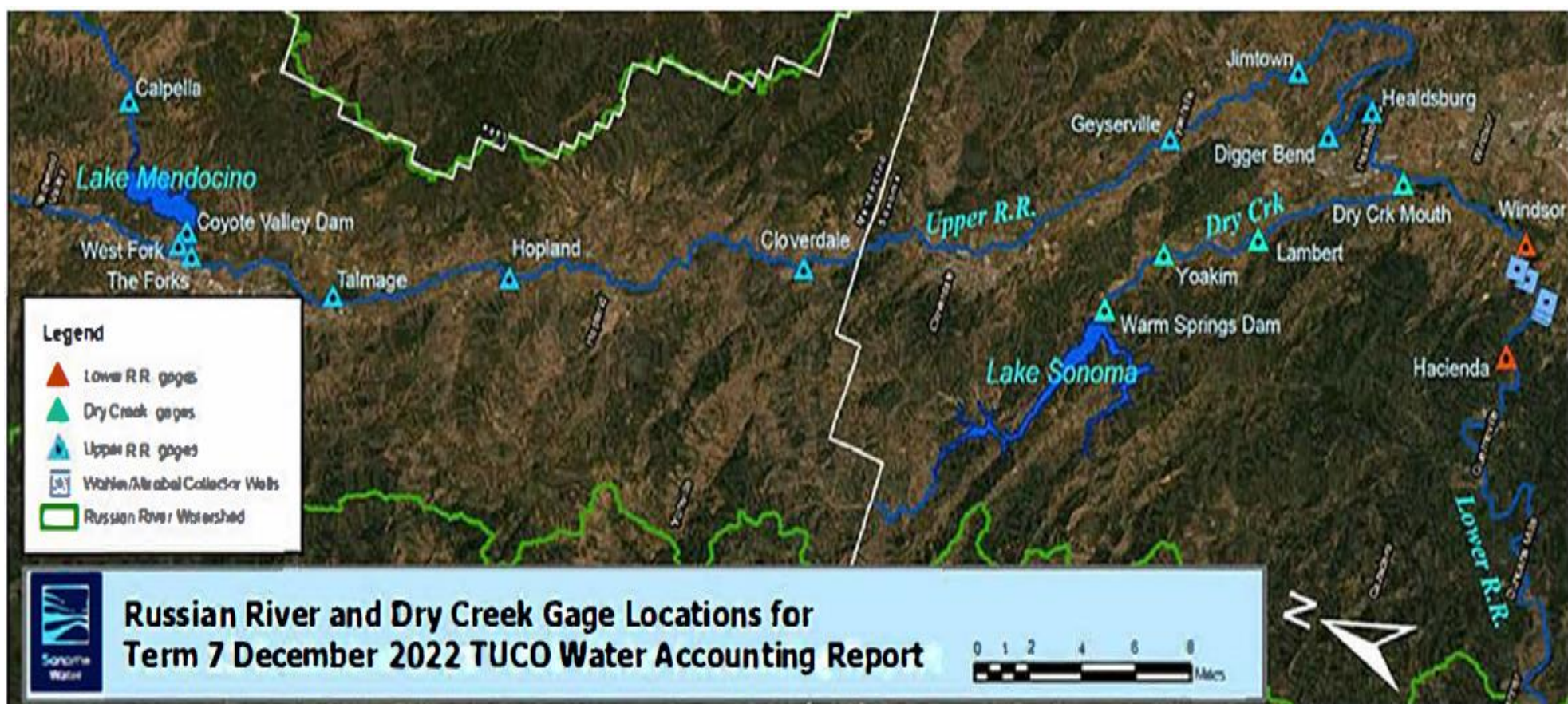
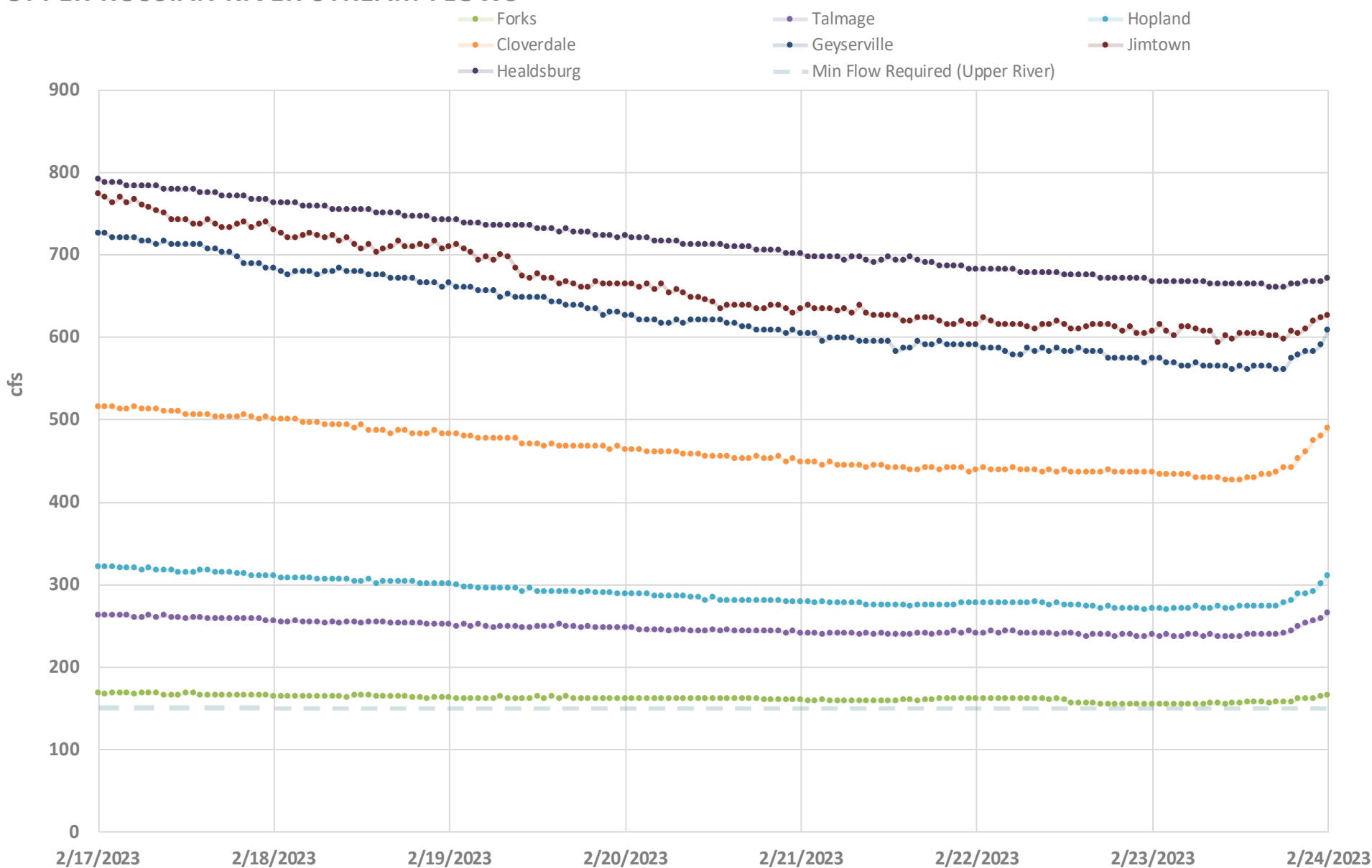
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



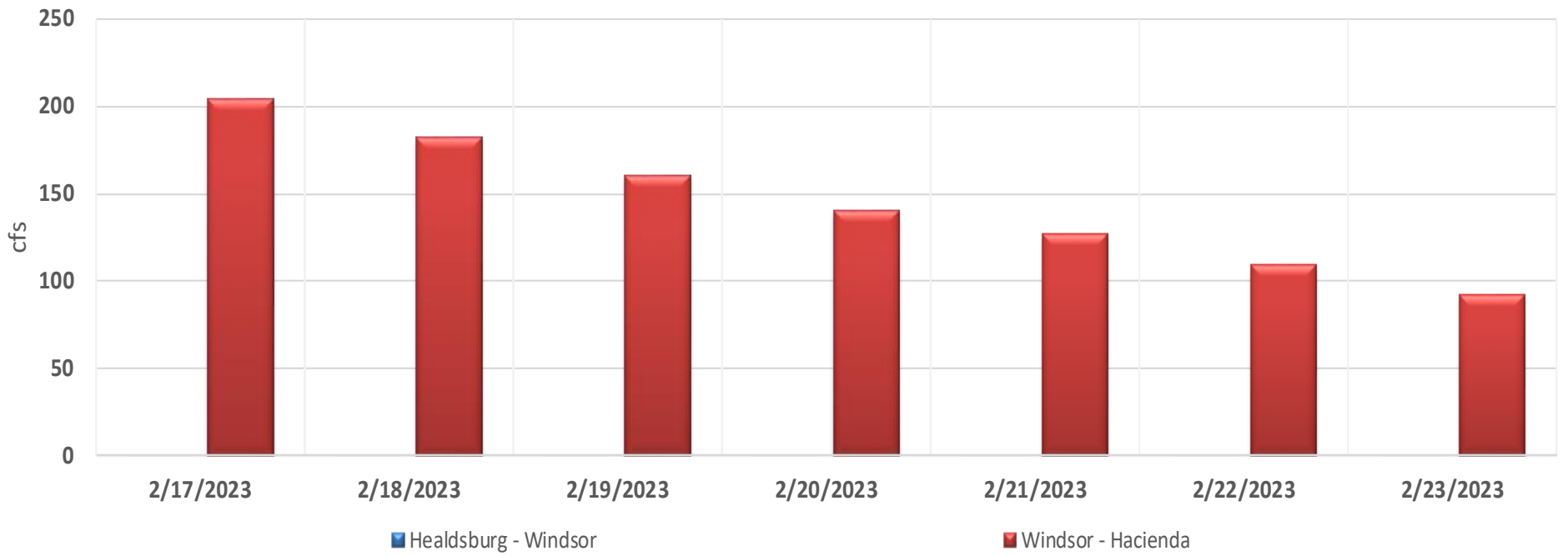
UPPER RUSSIAN RIVER STREAM FLOWS



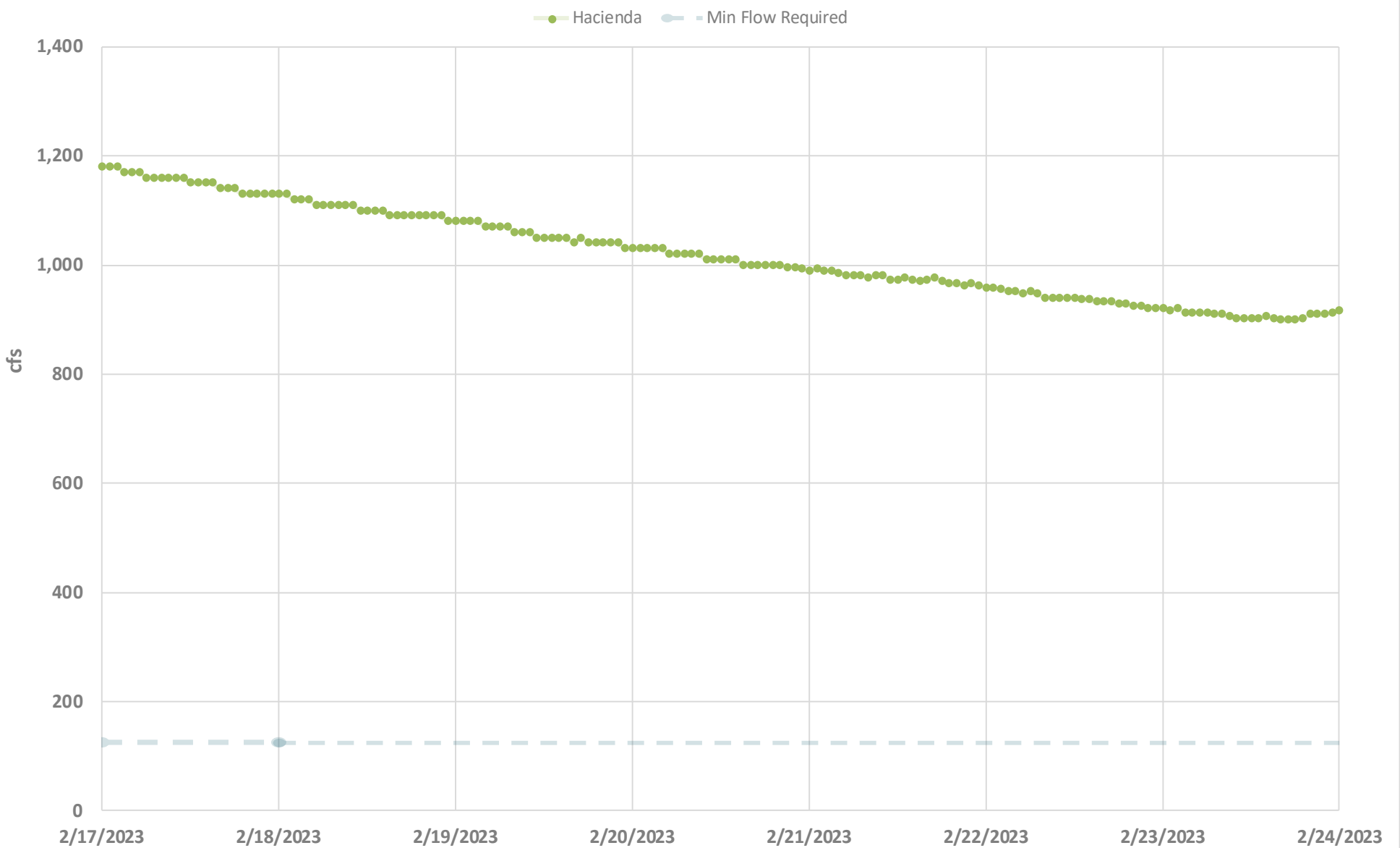
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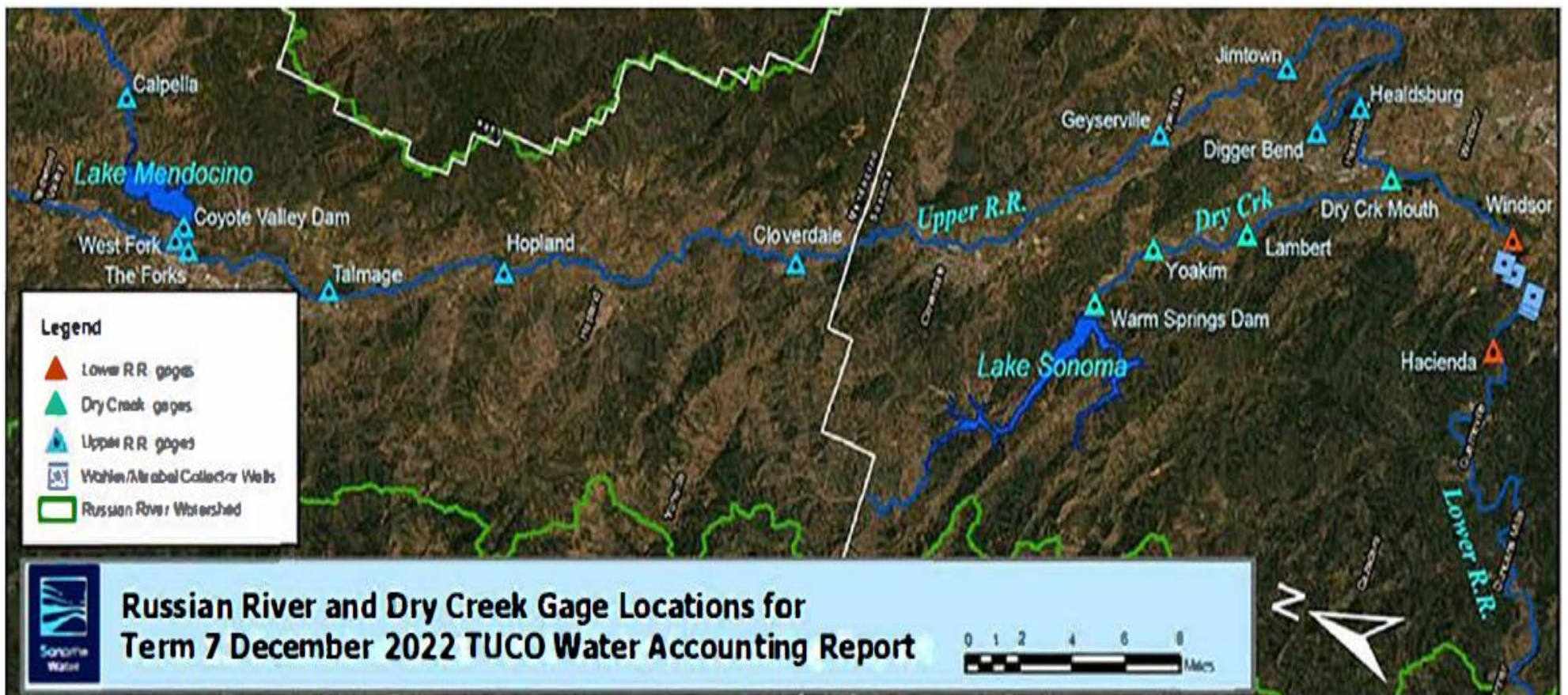
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



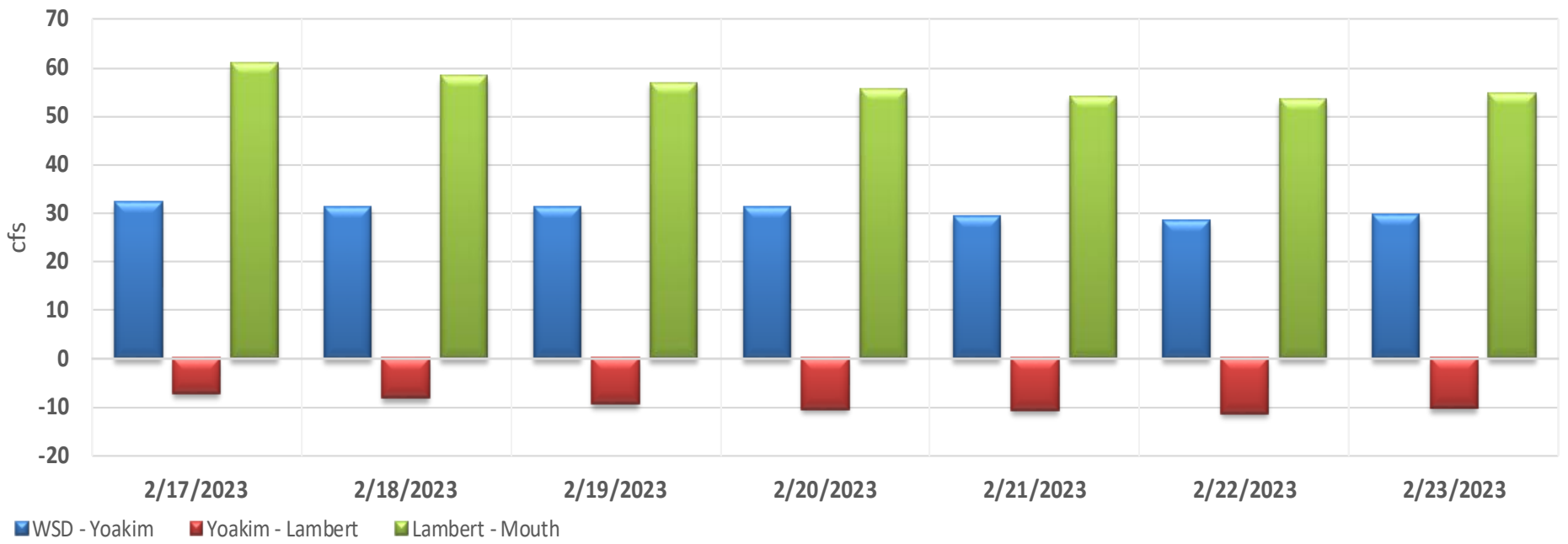
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

