

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 7, December 2022 TUCO)

Report Date: 4/14/2023

Units are cfs unless noted otherwise

	4/7/2023	4/8/2023	4/9/2023	4/10/2023	4/11/2023	4/12/2023	4/13/2023
<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	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery	1.0	0.9	85.0	0.8	0.7	0.6	0.6
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	44.0
PVID E Fork Diversions	4.0	4.1	-80.0	4.3	4.3	4.4	4.4
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)	40.0	39.9	124.0	39.8	39.7	39.6	39.6
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	233.8	188.3	165.7	154.5	146.4	141.3	124.1
Net Reach Loss(-)/Gain(+)	+188.8	+143.3	+120.7	+109.5	+101.4	+96.3	+79.1
Unimpaired Natural Flow @ Calpella (est.)	58.7	102.2	72.2	61.2	53.6	48.8	44.1
Non-PVID East Fork Net Reach Losses (est.)	193.8	148.3	125.7	114.5	106.4	101.3	84.1
Natural Flow	153.8	108.4	1.7	74.8	66.7	61.7	44.5
Import (neg. value is return flow)	40.0	39.9	124.0	39.8	39.7	39.6	39.6
<b>II. Lake Mendocino</b>							
<b>Reservoir Operations</b>							
Calculated Inflow (ac-ft)	556	391	395	362	323	346	278
(cfs)	280	197	199	183	163	175	140
Natural Flow	240	157	75	143	123	135	100
Import	40	40	124	40	40	40	40
Storage Change (ac-ft)	+392.0	+178.0	+178.0	+143.0	+107.0	+125.0	+53.0
(cfs)	+198	+90	+90	+72	+54	+63	+27
Stored Natural Flow (cfs)	198	90	75	72	54	63	27
Stored Import Water (cfs)	0	0	15	0	0	0	0
Evaporation (ac-ft)	12.0	15.0	19.0	21.0	16.0	18.0	19.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	77	100	100	100	101	103	104
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	40	64	0	65	65	67	69
Import Water	37	36	100	34	36	35	35
<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	77	100	100	100	101	103
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	77	100	100	100	101	103	104
Project Water Release Required	No	No	No	No	No	No	No
<b>III. Upper Russian River Reach</b>							
<b>Minimum Instream Flow Requirement</b>	185	185	185	185	185	185	185
<b>Controlling Compliance Gage</b>							
Min Gage Flow	342	321	273	250	233	222	209
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
<b>All Compliance Gages</b>							
Forks (CVD + USGS 11461000)	99.0	342	321	273	250	233	209
Talmage (USGS 11462080)	96.1	452	428	372	344	322	290
Hopland (USGS 11462500)	84.8	658	652	574	531	498	445
Cloverdale (USGS 11463000)	70.9	1,003	987	844	771	717	625
Geyserville (USGS 11463500)	54.4	1,519	1,555	1,332	1,214	1,124	1,040
Jimtown (USGS 11463682)	48.5	1,452	1,518	1,353	1,255	1,171	1,052
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	1,643	1,786	1,552	1,410	1,307	1,138
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	+131	+95	+95	+91	+87	+81	+79
Talmage - Hopland	+234	+205	+195	+184	+173	+163	+153
Hopland - Cloverdale	+393	+303	+257	+231	+211	+192	+174
Cloverdale - Jimtown	+534	+477	+475	+462	+436	+417	+412
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	+256	+224	+166	+133	+115	+98	+73
Upper Russian Net Reach Loss/Gain	+1,548	+1,304	+1,187	+1,101	+1,022	+952	+891
<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	77	100	100	100	101	103	104
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).

	4/7/2023	4/8/2023	4/9/2023	4/10/2023	4/11/2023	4/12/2023	4/13/2023
<b>IV. Lake Sonoma</b>							
<b>Lake Sonoma</b>							
Storage Change (ac-ft)	-197.0	-617.0	-728.0	-335.0	-56.0	-140.0	-112.0
(cfs)	-99	-311	-367	-169	-28	-71	-56
Evaporation (ac-ft)	15.7	15.7	23.5	23.5	23.5	25.0	28.1
Inflow (Natural Flow)	603	391	339	323	291	249	232
WSD Release Gage	694	694	694	480	307	307	275
Storage (Project Water)	91	303	355	157	16	58	42
Natural Flow	603	391	339	323	291	249	232

#### 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		694	691	677	480	307	307	275
Controlling Gage		WSD Release	Yoakim	Yoakim	WSD Release	WSD Release	WSD Release	WSD Release
<b>All Compliance Gages</b>								
	<i>Crk mi.</i>							
WSD Release	14.3	694	694	694	480	307	307	275
Yoakim (USGS 11465200)	11.1	715	691	677	527	344	335	303
Lambert (USGS 11465240)	6.8	785	764	749	614	404	380	350
Dry Crk Mouth (USGS 11465350)	0.1	1,095	1,005	928	797	486	442	405
<b>WSD to Russian River Confluence Reach Analysis</b>								
Total Pass-through Water		603	391	339	323	291	249	232
<b>Net Reach Loss(-)/Gain(+)</b>								
WSD - Yoakim		+21	-3	-17	+19	+37	+28	+24
Yoakim - Lambert		+70	+72	+71	+73	+59	+44	+45
Lambert - Dry Crk Mouth		+311	+237	+178	+144	+77	+61	+50
WSD - Dry Crk Mouth		+402	+306	+232	+236	+173	+133	+119
<b>WSD Project Water Release to Meet Min Flow Requirement</b>								
Net Reach Loss/Gain to Controlling Gage		+0	-3	-17	+0	+0	+0	+0
Project Water Release Required		Yes	Yes	Yes	Yes	Yes	Yes	Yes

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

<b>Upper Russian River Flow (Healdsburg Gage)</b>								
L. Mendocino Project Water + Import Water		37	36	100	34	36	35	35
Natural Flow		1,587	1,368	1,187	1,166	1,087	1,019	960
<b>Dry Creek Flow (Mouth Gage)</b>								
L. Sonoma Project Water		91	303	355	157	16	58	42
Natural Flow		1,005	701	573	640	469	384	363
<b>Russian River d/s of Confluence Flow</b>								
L. Mendocino Project Water + Import Water		37	36	100	34	36	35	35
L. Sonoma Project Water		91	303	355	157	16	58	42
Natural Flow		2,738	2,791	2,479	2,207	1,793	1,656	1,543

#### 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		3,210	3,290	3,150	2,870	2,560	2,200	2,020
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	3,210	3,290	3,150	2,870	2,560	2,200	2,020
<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		3,235	3,316	3,175	2,912	2,603	2,243	2,047
Net Reach Loss(-)/Gain(+)		+496	+525	+695	+705	+810	+587	+504
L. Mendocino Project Water + Import Water		37	36	100	34	36	35	35
L. Sonoma Project Water		90	302	354	156	15	56	41
Natural Flow		3,088	2,595	2,455	2,511	2,367	1,990	1,827
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>								
Net Reach Loss(-)/Gain(+)		+472	+499	+671	+663	+767	+544	+477
L. Mendocino Project Water + Import Water		37	36	100	34	36	35	35
L. Sonoma Project Water		65	276	329	114	0	13	14
Natural Flow		3,088	2,595	2,455	2,511	2,339	1,990	1,827

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

<b>Lower Russian River</b>								
Sonoma Water Total		49.1	52.2	49.3	83.3	84.9	85.2	52.7
Wohler		2.2	10.0	2.3	35.7	38.0	37.7	6.9
Mirabel		46.9	42.2	47.1	47.7	47.0	47.6	45.7
Town of Windsor River Wellfield		2.5	2.6	2.5	3.0	2.9	3.1	3.2
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:**

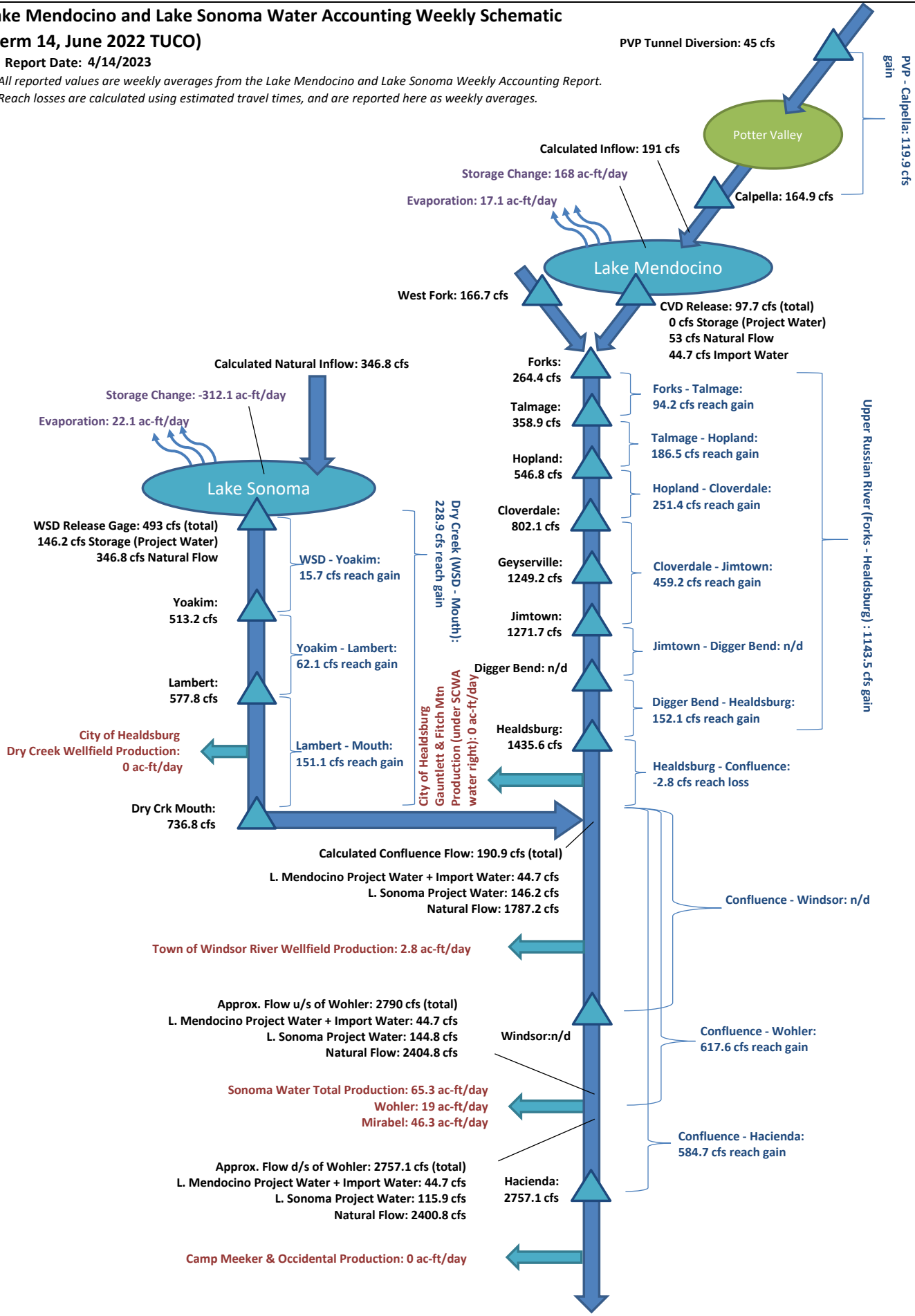
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 4/14/2023

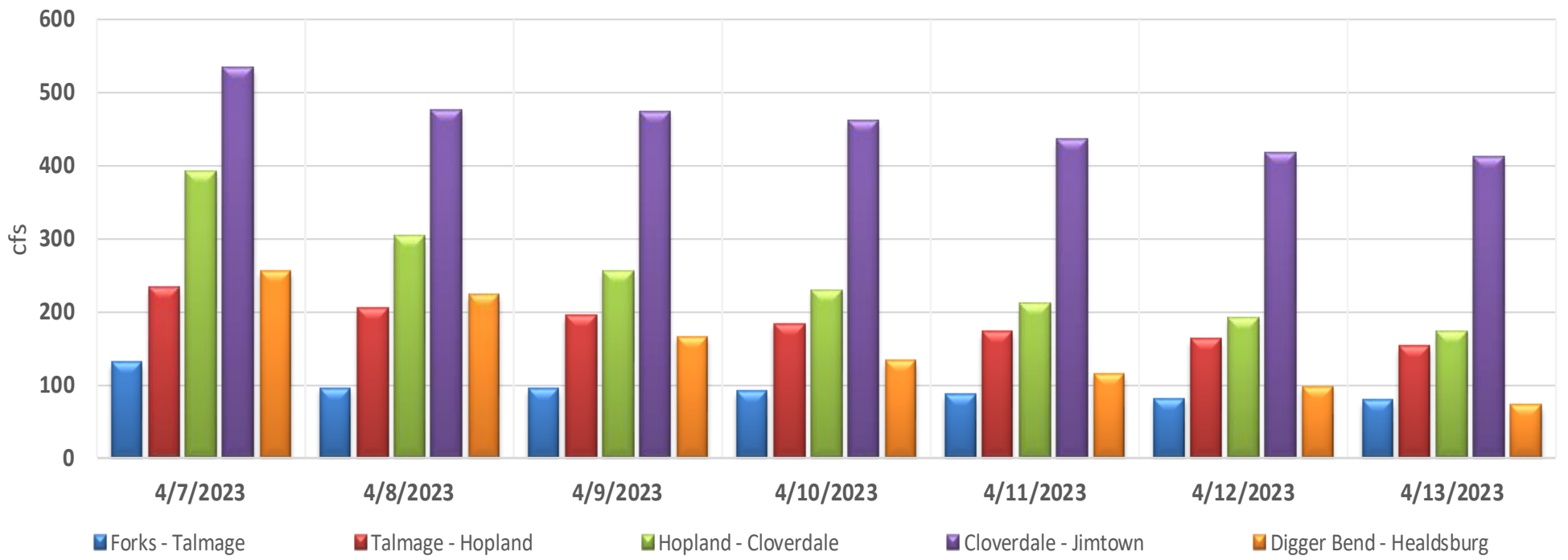
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.  
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



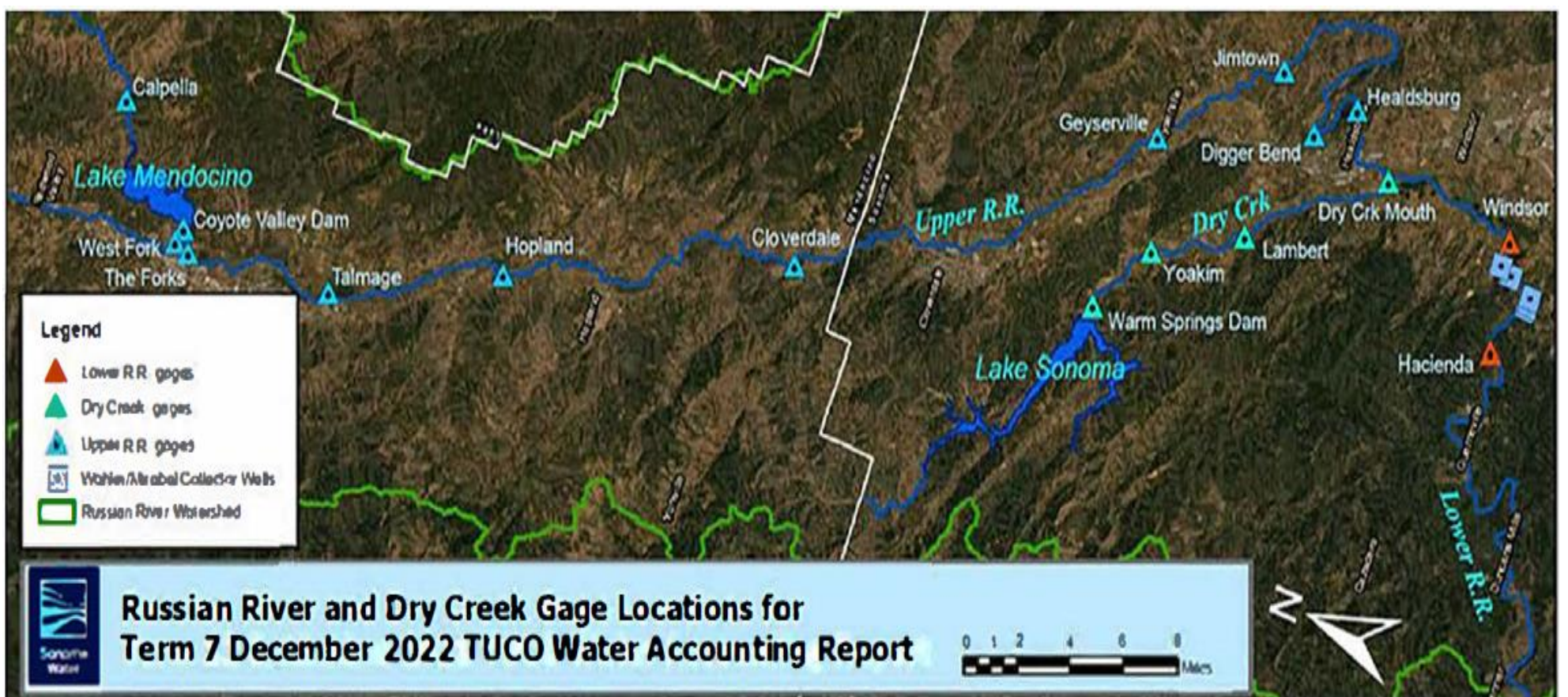
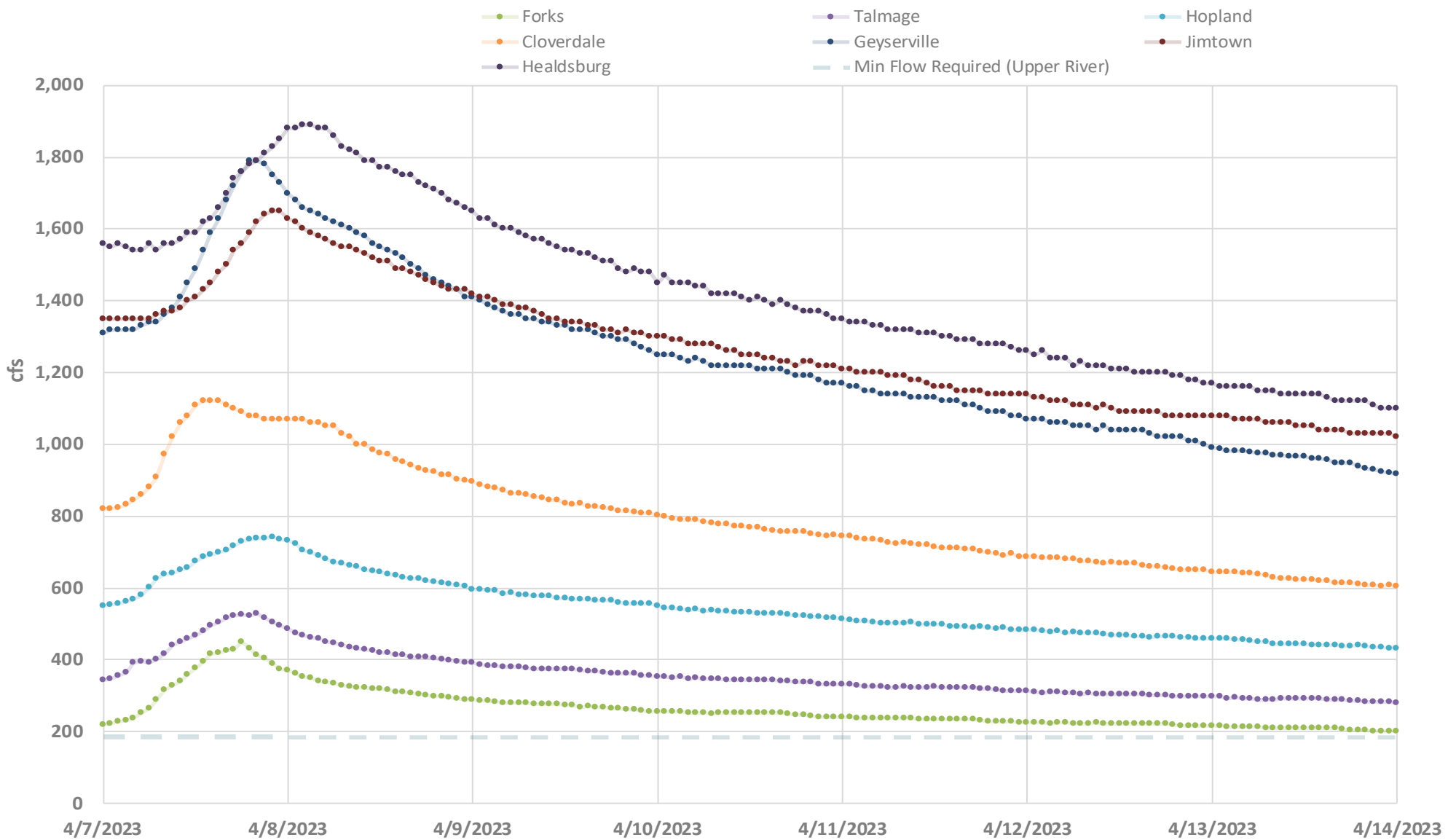
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



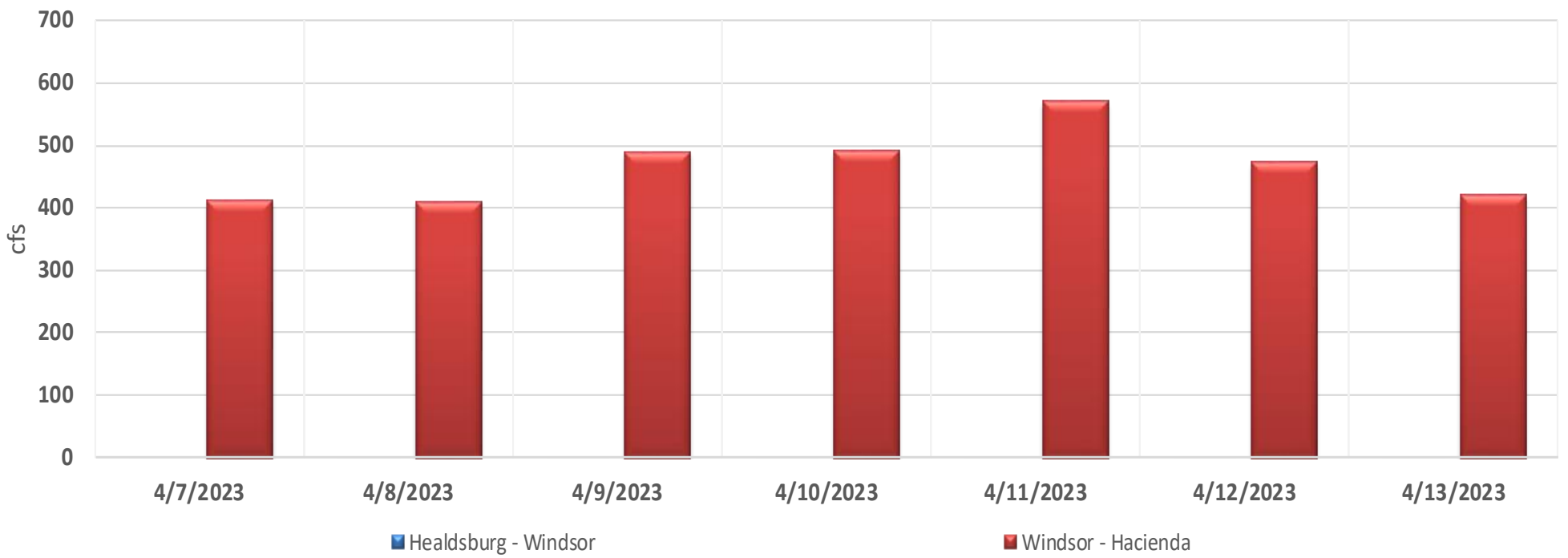
## UPPER RUSSIAN RIVER STREAM FLOWS



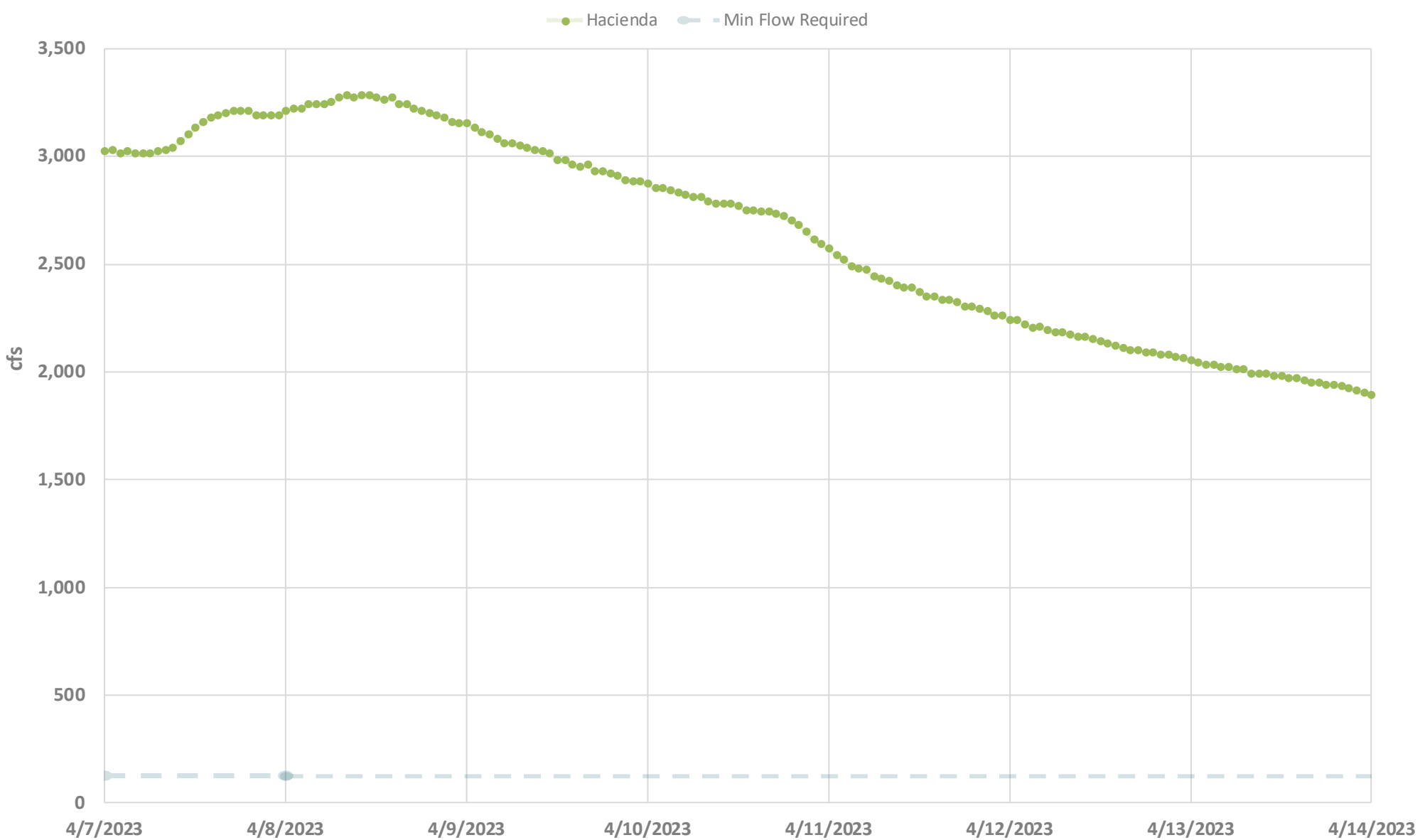
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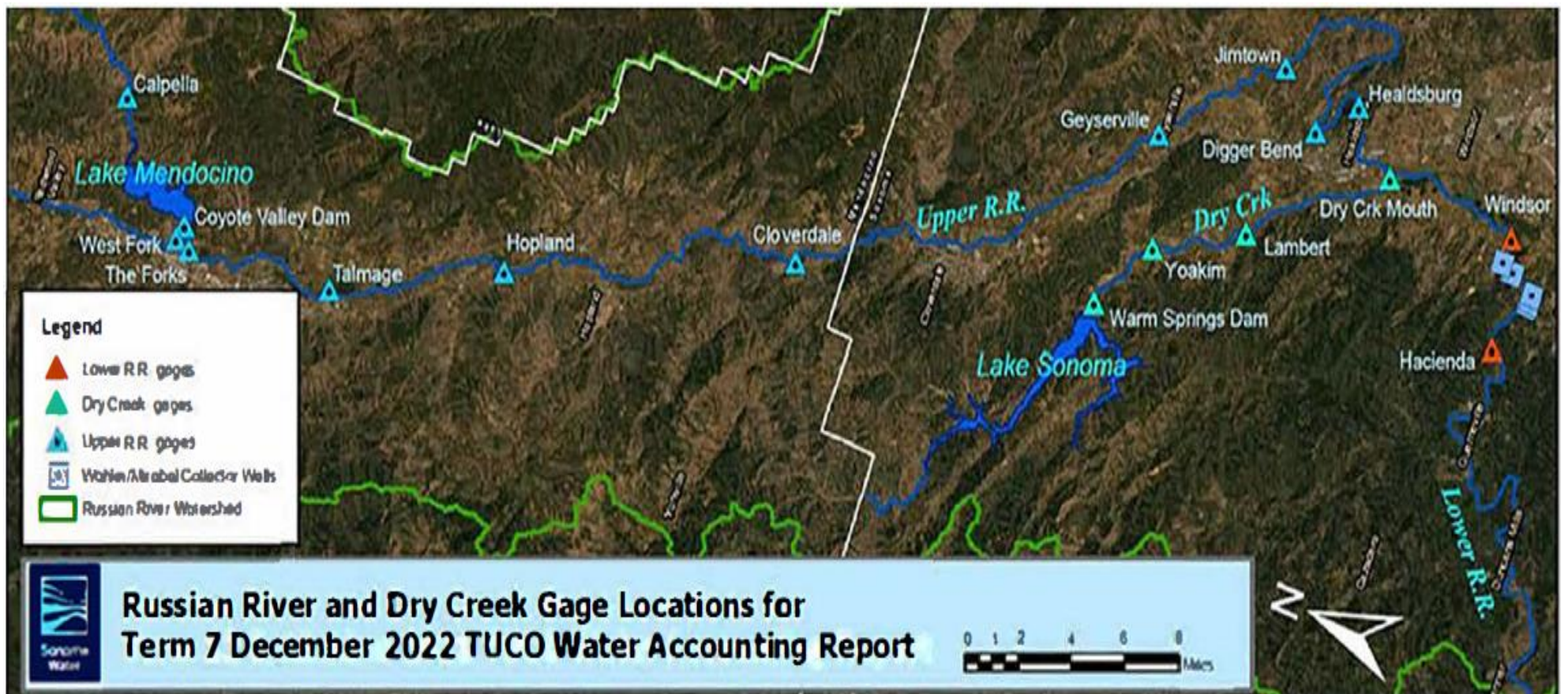
## LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## LOWER RUSSIAN RIVER STREAM FLOWS



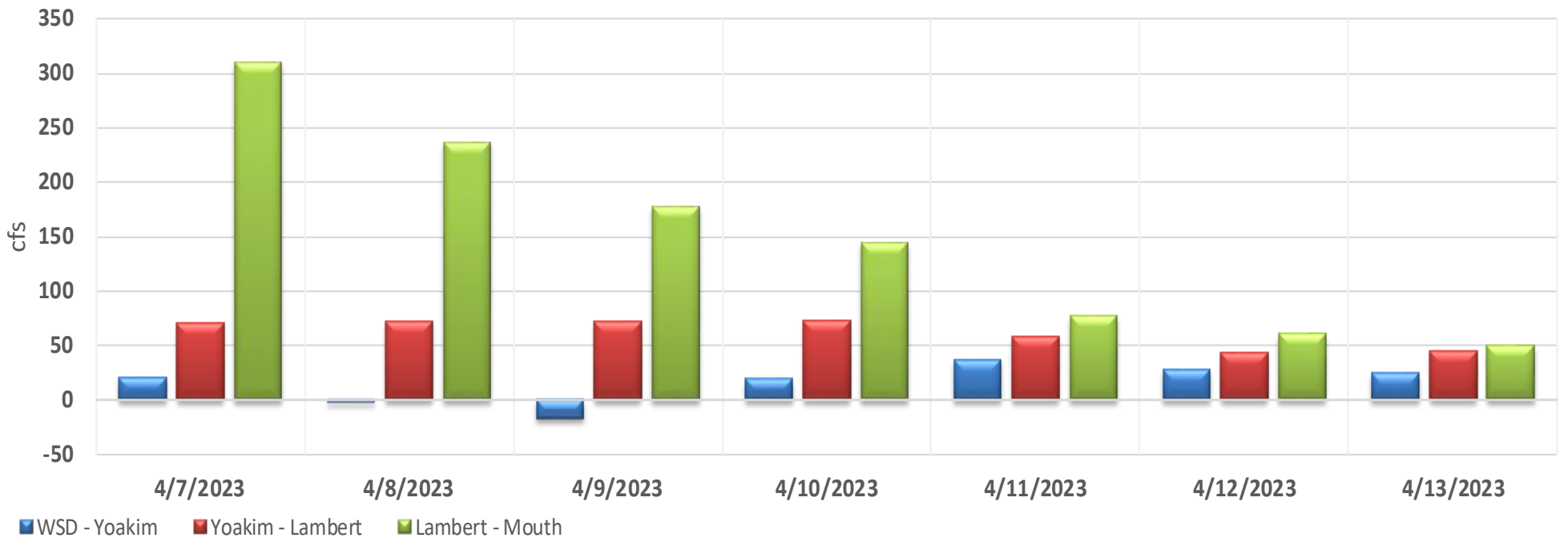
Note: Windsor gage is a seasonal gage and currently not operational. Windsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



## DRY CREEK STREAM FLOWS

