

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

Report Date: 4/7/2023

Units are cfs unless noted otherwise

	3/31/2023	4/1/2023	4/2/2023	4/3/2023	4/4/2023	4/5/2023	4/6/2023
<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	0.9	0.9	0.8	0.8	0.9	0.9	0.9
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	44.0
PVID E Fork Diversions	4.1	4.1	4.2	4.2	4.2	4.1	4.1
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)	39.9	39.9	39.8	39.8	39.9	39.9	39.9
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	318.4	279.6	255.4	222.5	200.8	186.0	168.8
Net Reach Loss(-)/Gain(+)	+273.4	+234.6	+210.4	+177.5	+155.8	+141.0	+123.8
Unimpaired Natural Flow @ Calpella (est.)	154.8	117.5	124.5	100.4	83.5	71.5	62.7
Non-PVID East Fork Net Reach Losses (est.)	278.4	239.6	215.4	182.5	160.8	146.0	128.8
Natural Flow	238.5	199.7	175.5	142.6	120.9	106.2	88.9
Import (neg. value is return flow)	39.9	39.9	39.8	39.8	39.9	39.9	39.9
<b>II. Lake Mendocino</b>							
<b>Reservoir Operations</b>							
Calculated Inflow (ac-ft)	674	587	576	456	422	389	391
(cfs)	340	296	290	230	213	196	197
Natural Flow	300	256	251	190	173	156	157
Import	40	40	40	40	40	40	40
Storage Change (ac-ft)	+567.0	+480.0	+461.0	+338.0	+302.0	+267.0	+267.0
(cfs)	+286	+242	+232	+170	+152	+135	+135
Stored Natural Flow (cfs)	286	242	232	170	152	135	135
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	8.0	7.0	12.0	14.0	15.0	14.0	9.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	50	50	52	53	53	54	58
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	12	12	15	16	17	18	20
Import Water	38	38	37	36	36	36	38
<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	50	50	52	53	54	58
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	50	50	52	52	53	54	58
Project Water Release Required	No	No	No	No	No	No	No
<b>III. Upper Russian River Reach</b>							
<b>Minimum Instream Flow Requirement</b>	150	185	185	185	185	185	185
<b>Controlling Compliance Gage</b>							
Min Gage Flow	410	355	344	296	258	231	214
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
<b>All Compliance Gages</b>							
Forks (CVD + USGS 11461000)	99.0	410	355	344	296	231	214
Talmage (USGS 11462080)	96.1	660	570	546	497	395	351
Hopland (USGS 11462500)	84.8	1,128	923	861	758	604	559
Cloverdale (USGS 11463000)	70.9	1,859	1,532	1,376	1,210	936	853
Geyserville (USGS 11463500)	54.4	2,890	2,401	2,143	1,909	1,509	1,373
Jimtown (USGS 11463682)	48.5	2,680	2,172	1,972	1,812	1,515	1,397
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	3,995	3,182	2,728	2,388	1,842	1,645
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	+237	+216	+193	+196	+174	+162	+138
Talmage - Hopland	+450	+351	+308	+253	+225	+205	+203
Hopland - Cloverdale	+663	+582	+498	+433	+371	+321	+286
Cloverdale - Jimtown	+665	+563	+556	+554	+556	+549	+523
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	+1,180	+954	+731	+549	+409	+306	+230
Upper Russian Net Reach Loss/Gain	+3,196	+2,667	+2,286	+1,985	+1,735	+1,542	+1,379
<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	50	50	52	52	53	54	58
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).

	3/31/2023	4/1/2023	4/2/2023	4/3/2023	4/4/2023	4/5/2023	4/6/2023
<b>IV. Lake Sonoma</b>							
<b>Lake Sonoma</b>							
Storage Change (ac-ft)	-57.0	+0.0	-197.0	-424.0	-507.0	-619.0	-646.0
(cfs)	-29	+0	-99	-214	-256	-312	-326
Evaporation (ac-ft)	12.7	11.1	17.4	19.0	18.9	18.9	14.2
Inflow (Natural Flow)	785	700	603	490	448	391	375
WSD Release Gage	808	694	694	694	694	694	694
Storage (Project Water)	22	0	91	204	246	303	319
Natural Flow	785	694	603	490	448	391	375

#### 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		808	694	694	694	694	694	694
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	808	694	694	694	694	694	694
Yoakim (USGS 11465200)	11.1	1,028	809	786	749	728	714	705
Lambert (USGS 11465240)	6.8	1,231	953	896	852	819	794	777
Dry Crk Mouth (USGS 11465350)	0.1	1,873	1,448	1,335	1,285	1,166	1,070	998
<b>WSD to Russian River Confluence Reach Analysis</b>								
Total Pass-through Water		785	694	603	490	448	391	375
<b>Net Reach Loss(-)/Gain(+)</b>								
WSD - Yoakim		+190	+115	+92	+55	+34	+20	+11
Yoakim - Lambert		+187	+142	+109	+102	+91	+79	+72
Lambert - Dry Crk Mouth		+588	+486	+433	+425	+344	+272	+220
WSD - Dry Crk Mouth		+965	+744	+634	+582	+469	+372	+303
<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	No	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		38	38	37	36	36	36	38
Natural Flow		3,209	2,679	2,301	2,001	1,752	1,560	1,400
<b>Dry Creek Flow (Mouth Gage)</b>								
L. Sonoma Project Water		22	0	91	204	246	303	319
Natural Flow		1,851	1,448	1,244	1,081	920	767	679
<b>Russian River d/s of Confluence Flow</b>								
L. Mendocino Project Water + Import Water		38	38	37	36	36	36	38
L. Sonoma Project Water		22	0	91	204	246	303	319
Natural Flow		5,060	4,127	3,545	3,082	2,672	2,327	2,079

#### 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		8,250	6,220	5,060	4,430	3,940	3,540	3,240
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	8,250	6,220	5,060	4,430	3,940	3,540	3,240
<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		8,294	6,251	5,085	4,472	3,976	3,579	3,267
Net Reach Loss(-)/Gain(+)		+2,425	+1,621	+1,023	+799	+722	+668	+624
L. Mendocino Project Water + Import Water		38	38	37	36	36	36	38
L. Sonoma Project Water		20	0	88	203	244	301	317
Natural Flow		7,485	5,748	4,569	3,881	3,394	2,994	2,703
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>								
Net Reach Loss(-)/Gain(+)		+2,381	+1,590	+998	+757	+686	+628	+597
L. Mendocino Project Water + Import Water		38	38	37	36	36	36	38
L. Sonoma Project Water		0	0	63	160	208	262	290
Natural Flow		7,461	5,717	4,569	3,881	3,394	2,994	2,703

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

<b>Lower Russian River</b>								
Sonoma Water Total		87.3	61.3	50.3	83.8	72.1	77.7	52.8
Wohler		37.2	15.9	2.2	36.3	24.5	30.3	6.6
Mirabel		50.1	45.4	48.0	47.5	47.6	47.5	46.2
Town of Windsor River Wellfield		5.2	5.1	5.1	3.0	3.1	2.9	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:**

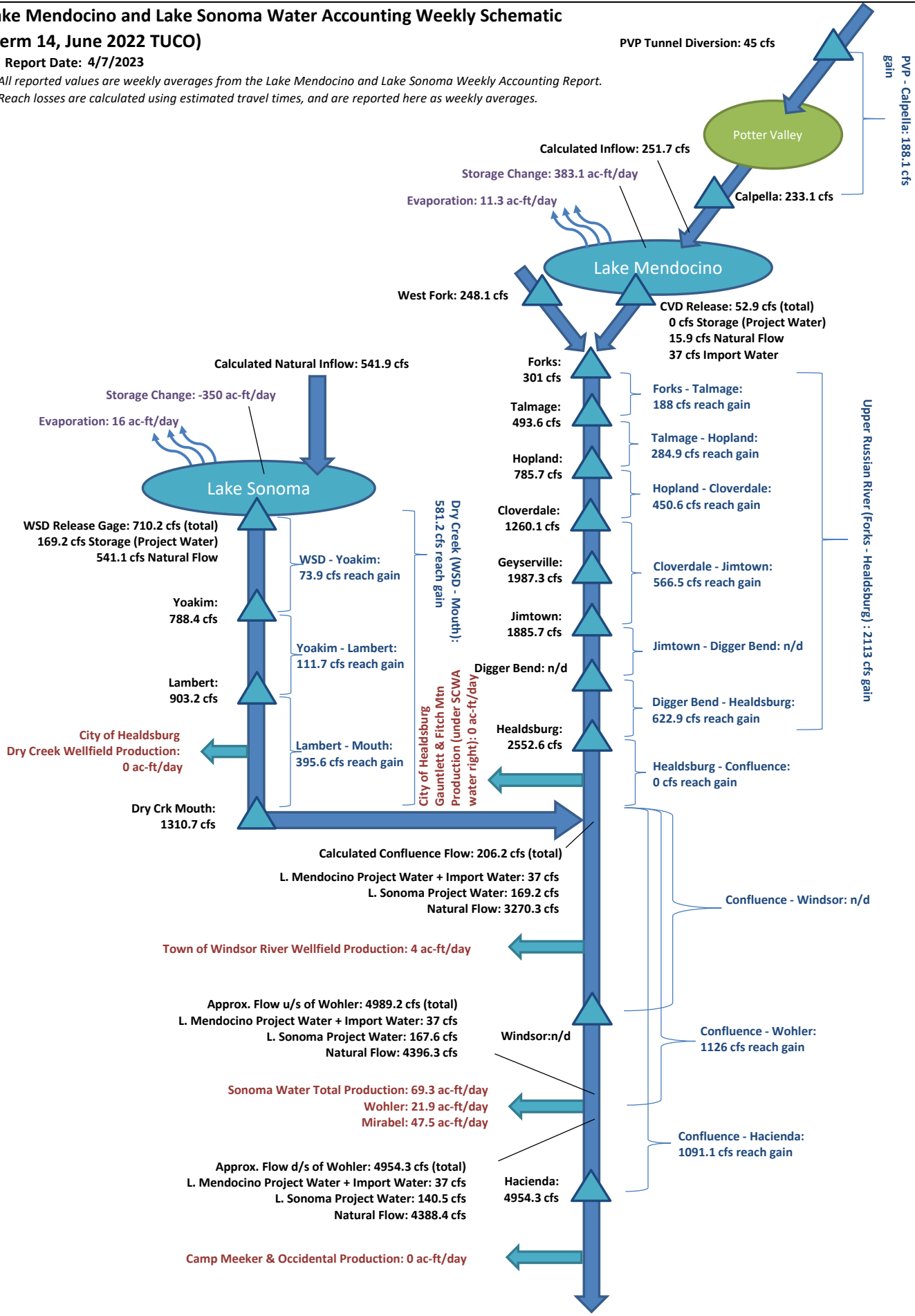
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 4/7/2023

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.

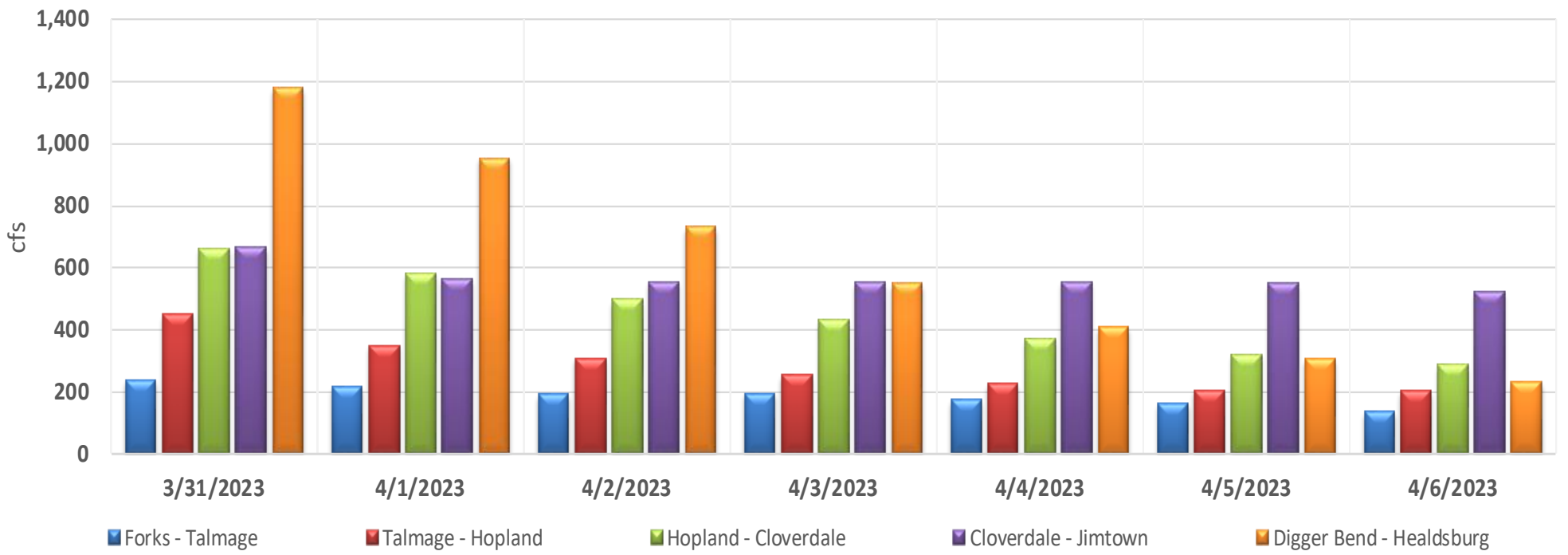




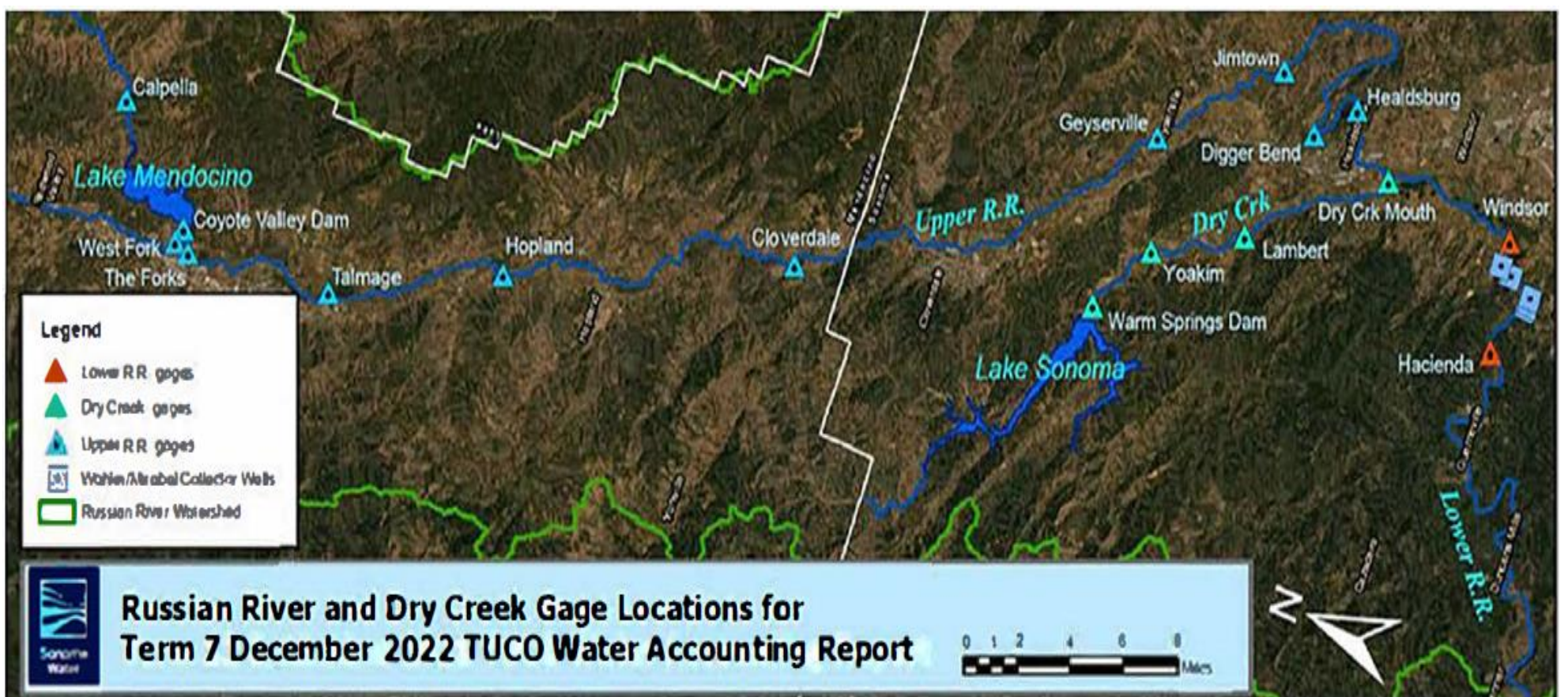
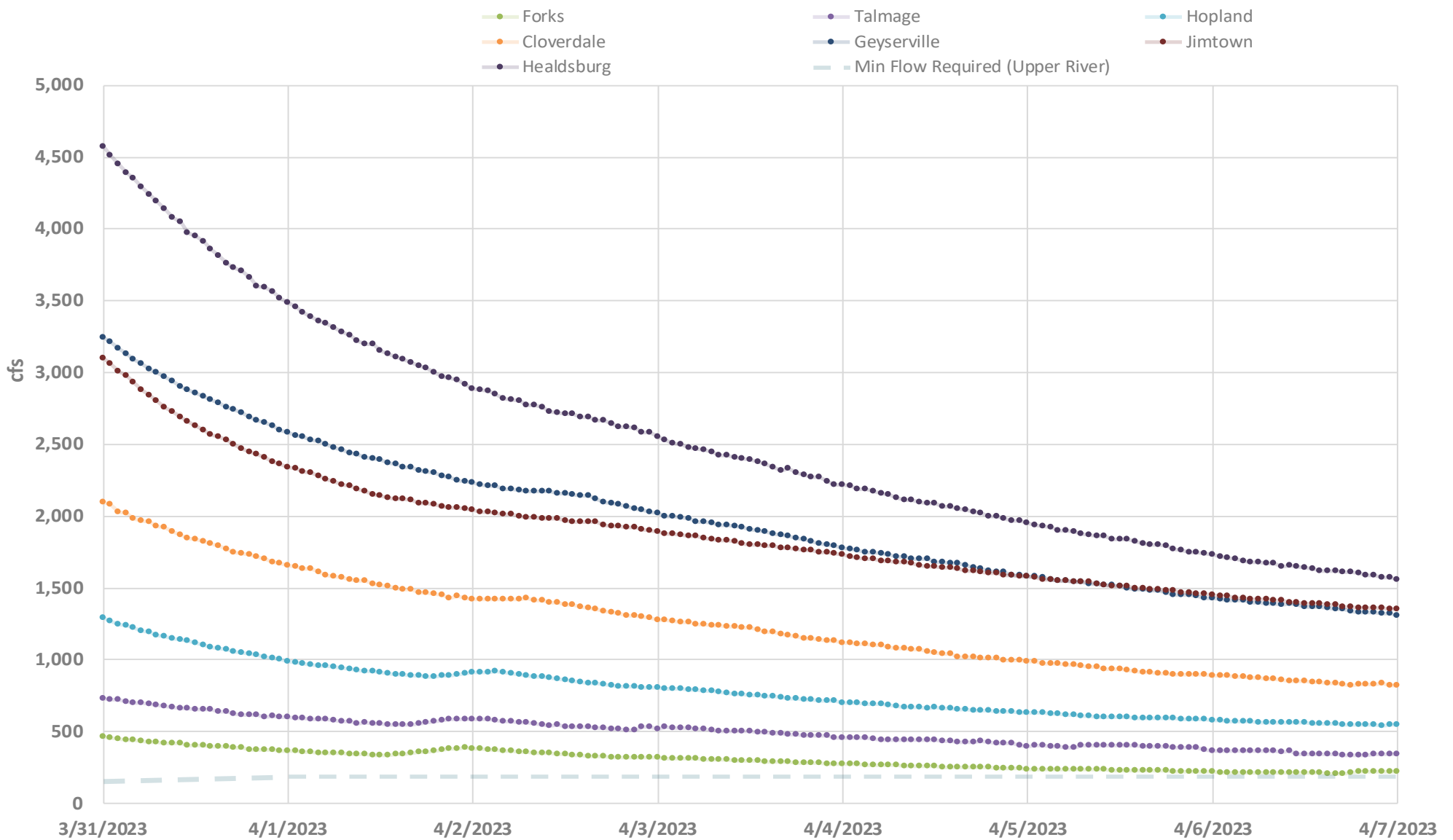
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## UPPER RUSSIAN RIVER STREAM FLOWS

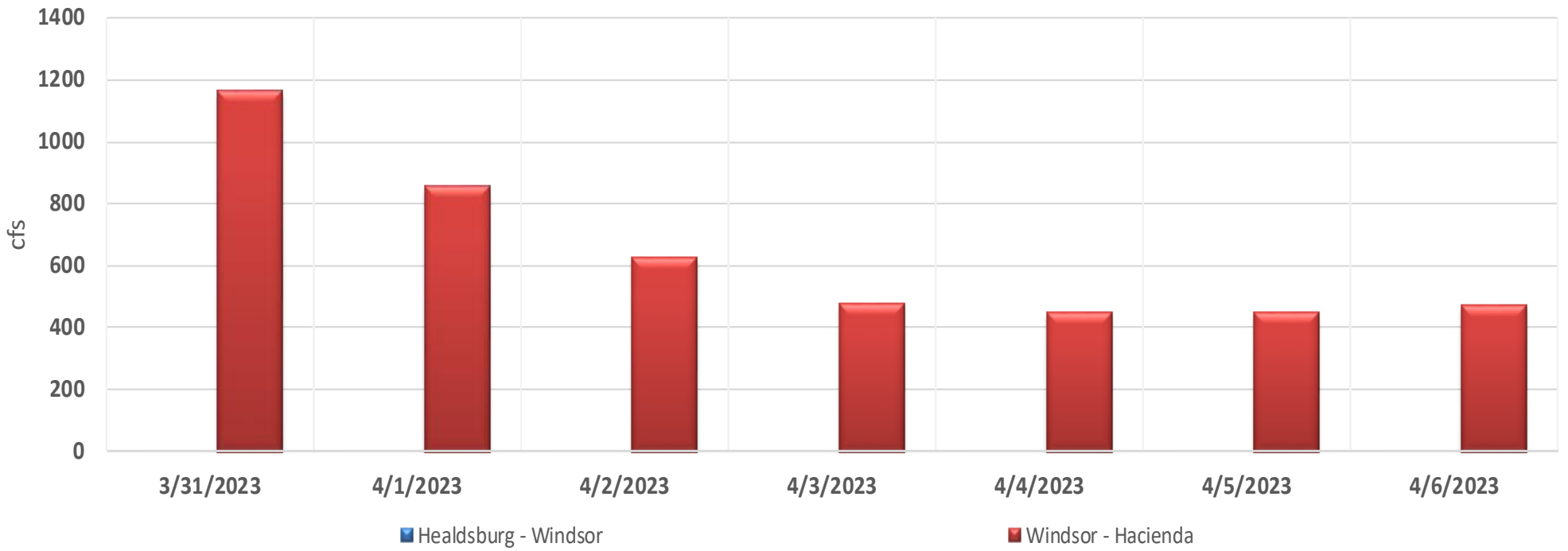




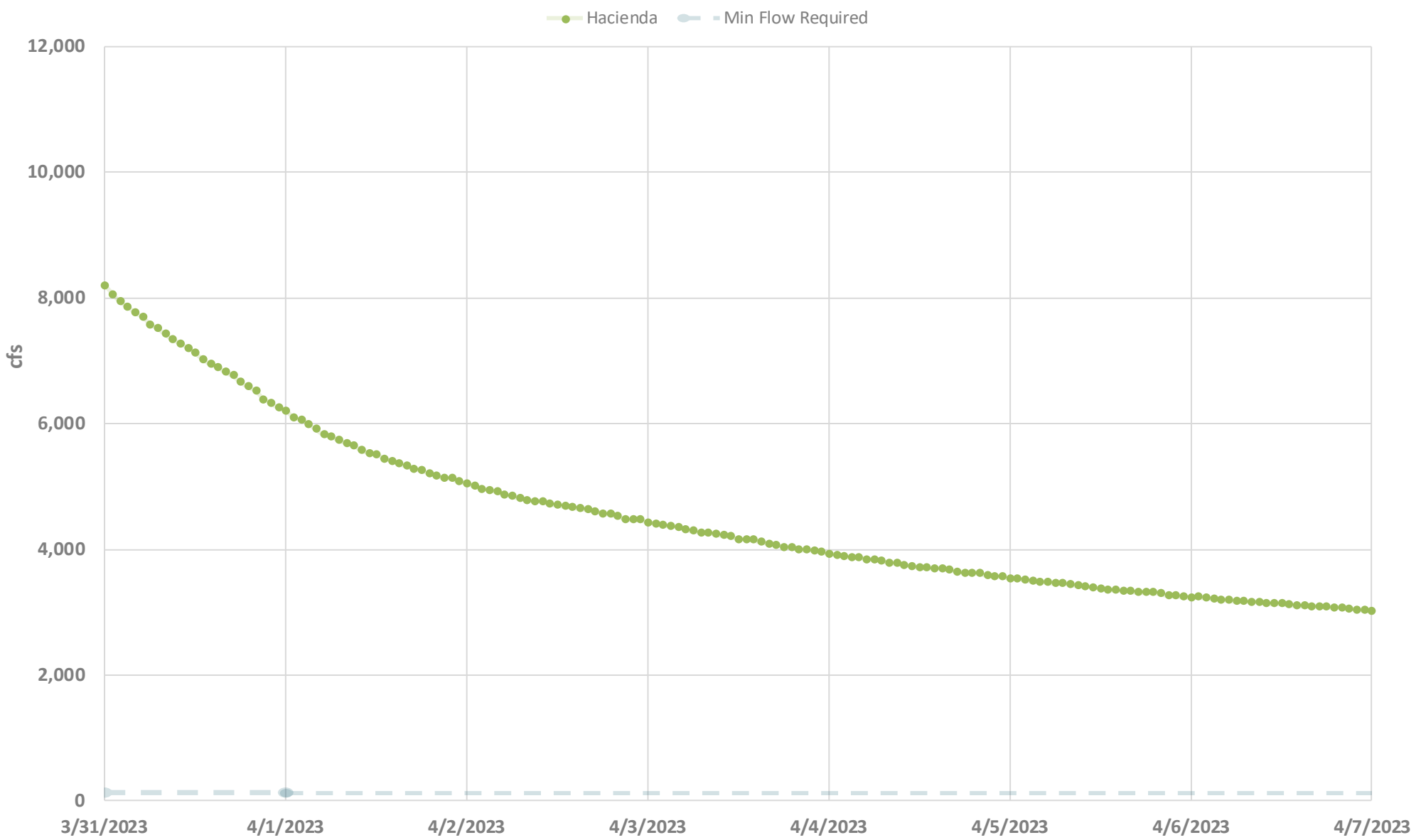
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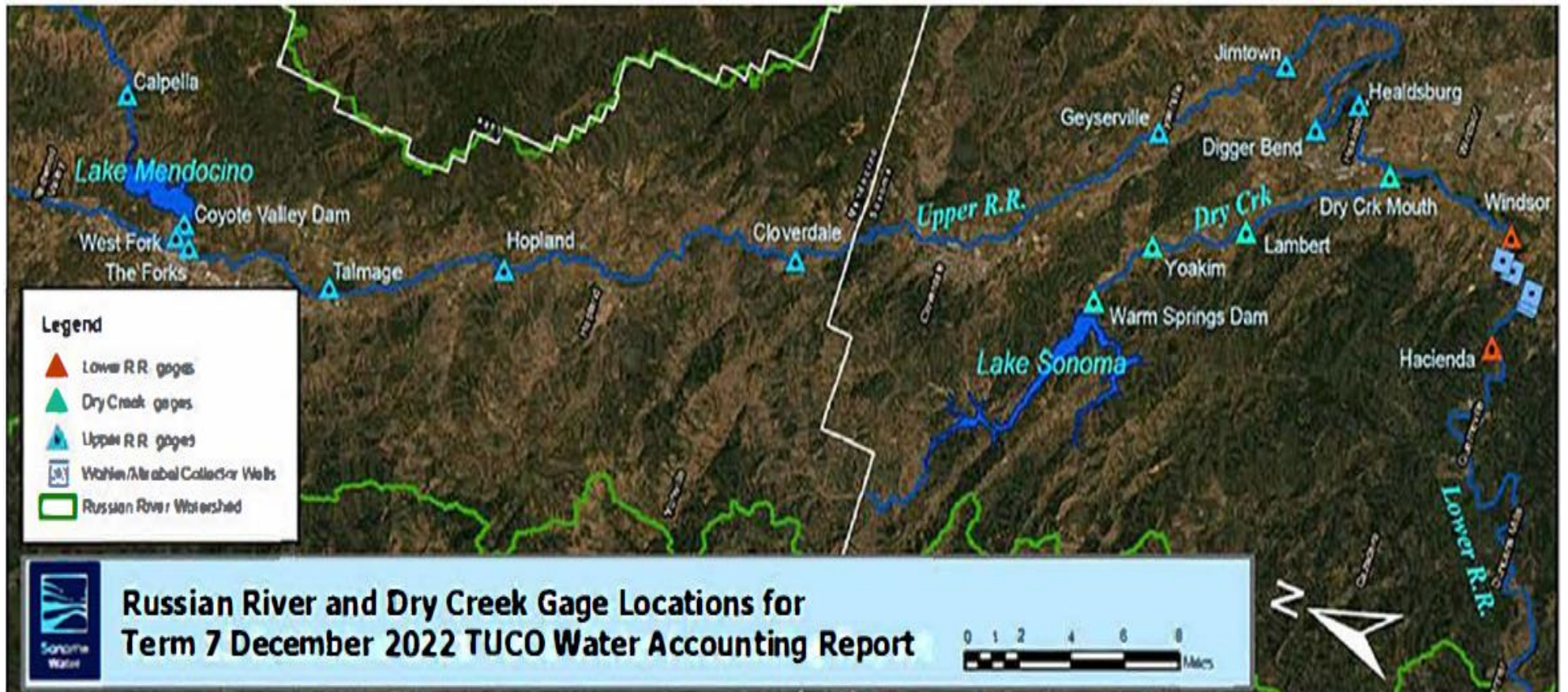
## LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## 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.

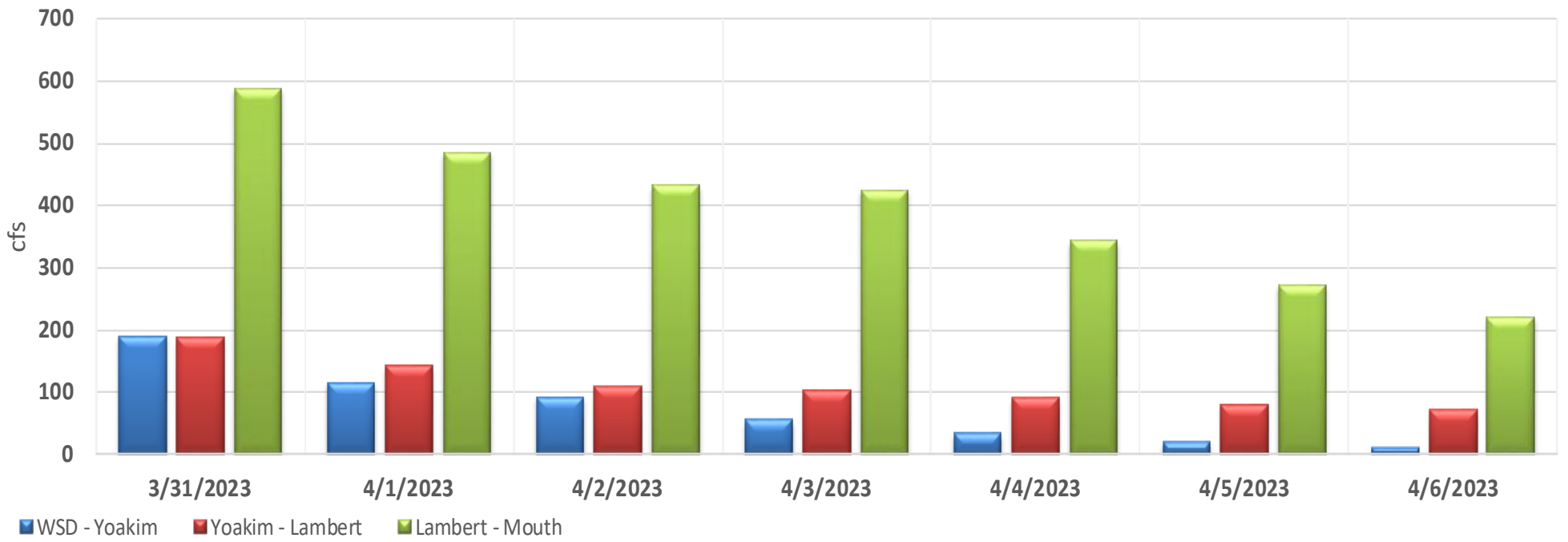




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## DRY CREEK NET REACH GAINS (+) / LOSSES (-)



## DRY CREEK STREAM FLOWS

