

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

Report Date: 3/10/2023

Units are cfs unless noted otherwise

	3/3/2023	3/4/2023	3/5/2023	3/6/2023	3/7/2023	3/8/2023	3/9/2023
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	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery	1.4	1.2	1.2	1.1	1.0	1.1	2.0
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	43.0
PVID E Fork Diversions	3.6	3.8	3.8	3.9	4.0	3.9	3.0
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)	40.4	40.2	40.2	40.1	40.0	40.1	40.0
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	329.6	404.2	740.7	596.0	555.6	723.0	1,075.8
Net Reach Loss(-)/Gain(+)	+284.6	+359.2	+695.7	+551.0	+510.6	+678.0	+1,030.8
Unimpaired Natural Flow @ Calpella (est.)	143.9	112.1	150.4	209.7	238.6	248.4	257.2
Non-PVID East Fork Net Reach Losses (est.)	289.6	364.2	700.7	556.0	515.6	683.0	1035.8
Natural Flow	249.2	324.0	660.4	515.9	475.6	642.9	995.8
Import (neg. value is return flow)	40.4	40.2	40.2	40.1	40.0	40.1	40.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	199	786	1,503	1,141	711	1,086	2,433
(cfs)	101	396	758	575	358	547	1,227
Natural Flow	60	356	718	535	318	507	1,187
Import	40	40	40	40	40	40	40
Storage Change (ac-ft)	-1,740.0	-277.0	+1,094.0	+226.0	-1,147.0	-1,629.0	+554.0
(cfs)	-877	-140	+552	+114	-578	-821	+279
Stored Natural Flow (cfs)	0	0	552	114	0	0	279
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	8.8	5.8	5.9	4.9	6.8	9.7	1.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	973	533	203	459	933	1364	946
Storage (Project Water)	873	137	0	0	575	816	0
Natural Flow	60	356	165	420	318	507	907
Import Water	40	40	39	39	40	40	39
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	973	533	203	459	933	1364
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	101	396	203	459	358	547	946
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	1,294	871	801	1,043	1,513	2,165	1,943
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	1,294	871	801	1,043	1,513	1,943
Talmage (USGS 11462080)	96.1	1,688	1,220	1,176	1,363	2,284	2,928
Hopland (USGS 11462500)	84.8	2,002	1,745	1,755	1,805	2,734	3,413
Cloverdale (USGS 11463000)	70.9	2,112	2,280	2,453	2,461	3,292	5,133
Geyserville (USGS 11463500)	54.4	2,540	2,839	3,276	3,284	3,810	4,595
Jimtown (USGS 11463682)	48.5	2,050	2,291	2,858	2,949	3,469	4,532
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	2,919	3,270	4,210	4,431	4,658	5,745
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+383	+295	+388	+392	+743	+763	+969
Talmage - Hopland	+329	+458	+607	+554	+401	+398	+489
Hopland - Cloverdale	+241	+427	+773	+737	+627	+1,045	+1,631
Cloverdale - Jimtown	+98	-7	+502	+507	+378	+857	+1,187
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	+901	+1,024	+1,438	+1,471	+1,315	+1,383	+2,116
Upper Russian Net Reach Loss/Gain	+1,951	+2,197	+3,707	+3,661	+3,463	+4,445	+6,391
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	101	396	203	459	358	547	946
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).

	3/3/2023	3/4/2023	3/5/2023	3/6/2023	3/7/2023	3/8/2023	3/9/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	+589.0	+939.0	+1,534.0	+1,324.0	+1,274.0	+2,179.0	+6,029.0
(cfs)	+297	+473	+773	+668	+642	+1,099	+3,040
Evaporation (ac-ft)	13.5	7.5	7.6	7.6	7.6	10.7	3.1
Inflow (Natural Flow)	385	558	859	753	727	1,185	3,127
WSD Release Gage	81	81	82	81	81	81	86
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	81	81	82	81	81	81	86
V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	75	75	75	75	75	75	75
Controlling Compliance Gage							
Min Gage Flow	81	81	82	81	81	81	86
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	81	81	82	81	81	86
Yoakim (USGS 11465200)	11.1	187	189	280	269	258	305
Lambert (USGS 11465240)	6.8	199	196	303	298	287	335
Dry Crk Mouth (USGS 11465350)	0.1	478	533	494	412	368	489
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	81	81	82	81	81	81	86
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+106	+109	+197	+188	+177	+224	+474
Yoakim - Lambert	+10	+9	+28	+31	+27	+32	+191
Lambert - Dry Crk Mouth	+277	+339	+199	+116	+79	+159	+861
WSD - Dry Crk Mouth	+394	+457	+424	+335	+283	+415	+1,526
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	907	177	39	39	615	793	39
Natural Flow	2,012	2,554	3,871	4,081	3,782	4,952	7,298
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	478	533	494	412	368	489	1,278
Russian River d/s of Confluence Flow	3,397	3,803	4,704	4,843	5,026	6,234	8,384
L. Mendocino Project Water + Import Water	907	177	39	39	615	793	39
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	2,490	3,086	4,365	4,493	4,149	5,441	8,576
VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	125	125	125	125	125	125	125
Controlling Compliance Gage							
Min Gage Flow	4,410	3,820	5,120	5,370	5,440	6,790	13,000
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	4,410	3,820	5,120	5,370	5,440	6,790
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	4,449	3,864	5,164	5,413	5,489	6,834	13,045
Net Reach Loss(-)/Gain(+)	+1,052	+62	+460	+569	+463	+600	+4,661
L. Mendocino Project Water + Import Water	907	177	39	39	615	793	39
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	3,542	3,148	4,825	5,063	4,613	6,041	13,237
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	+1,013	+17	+416	+527	+414	+556	+4,616
L. Mendocino Project Water + Import Water	907	177	39	39	615	793	39
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	3,503	3,104	4,781	5,020	4,564	5,997	13,192
VIII. Water Production under Sonoma Water Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	77.9	87.7	87.5	84.5	97.2	87.7	88.9
Wohler	29.0	37.9	39.9	35.6	39.7	39.0	42.0
Mirabel	48.8	49.8	47.5	48.9	57.5	48.6	46.9
Town of Windsor River Wellfield	4.4	4.2	4.2	4.7	4.6	4.5	3.5
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

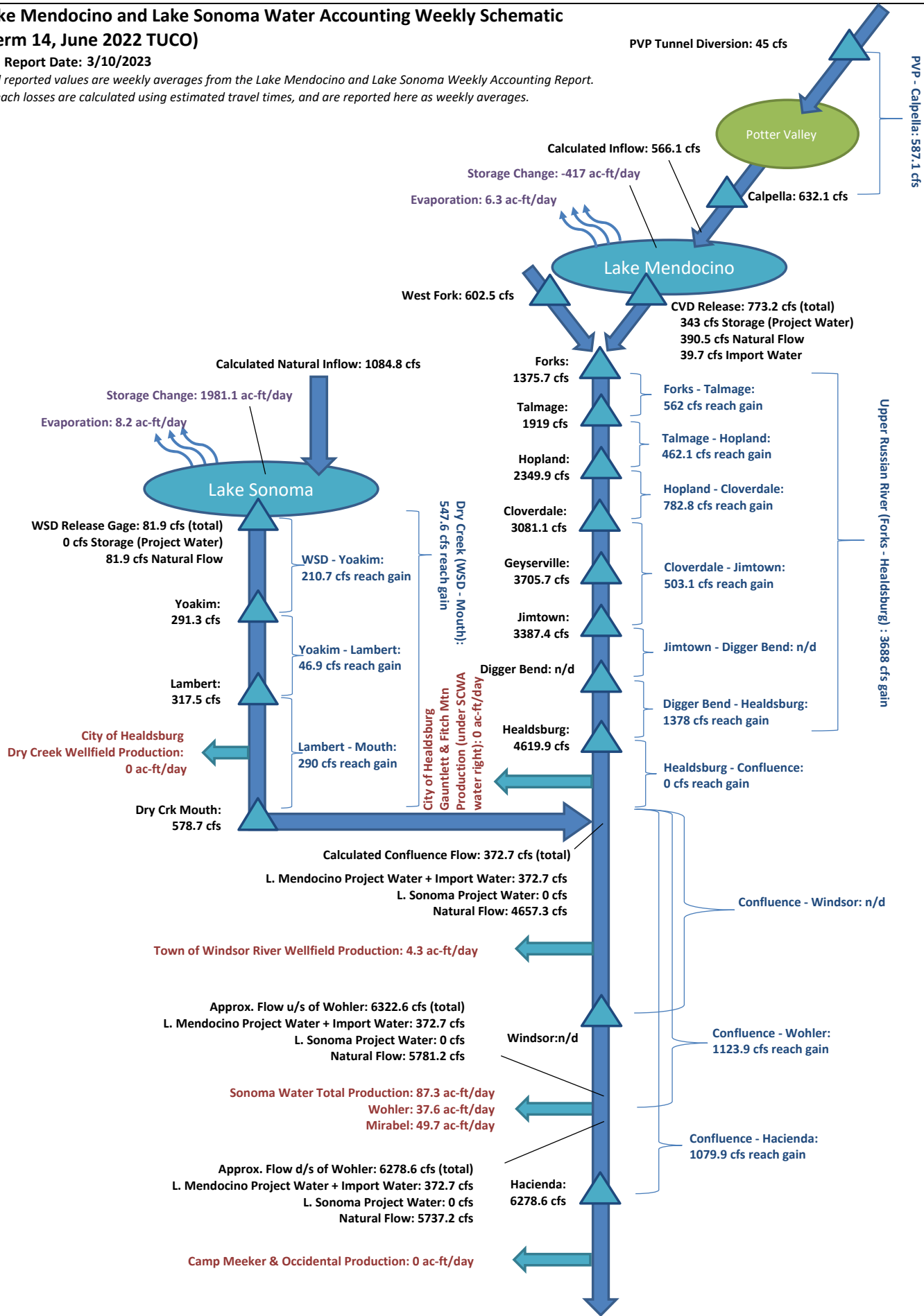
Notes:

- 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).

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

Report Date: 3/10/2023

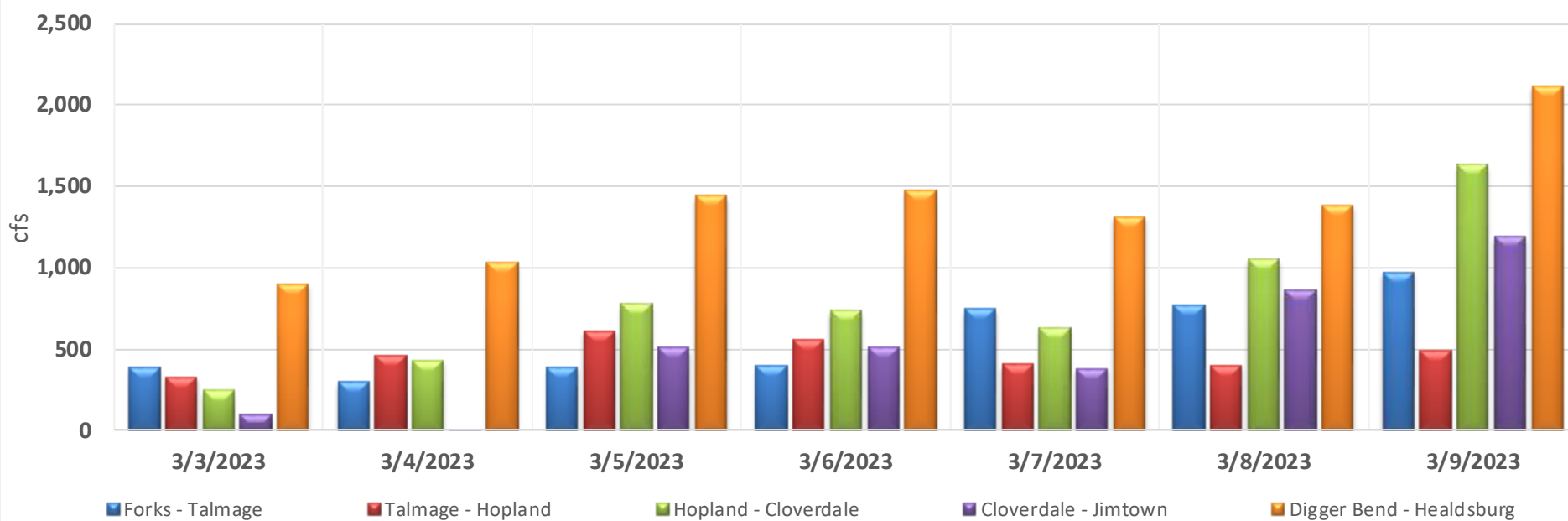
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



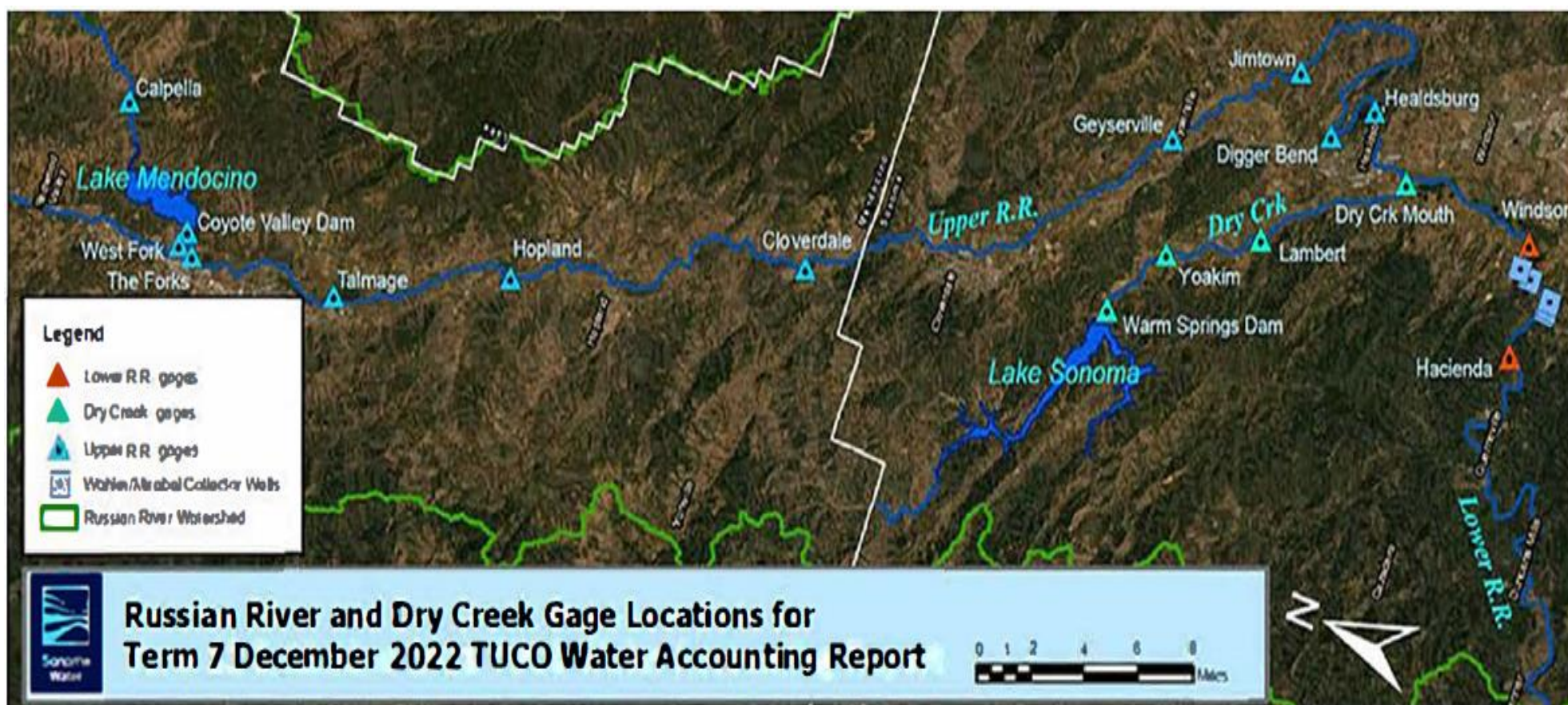
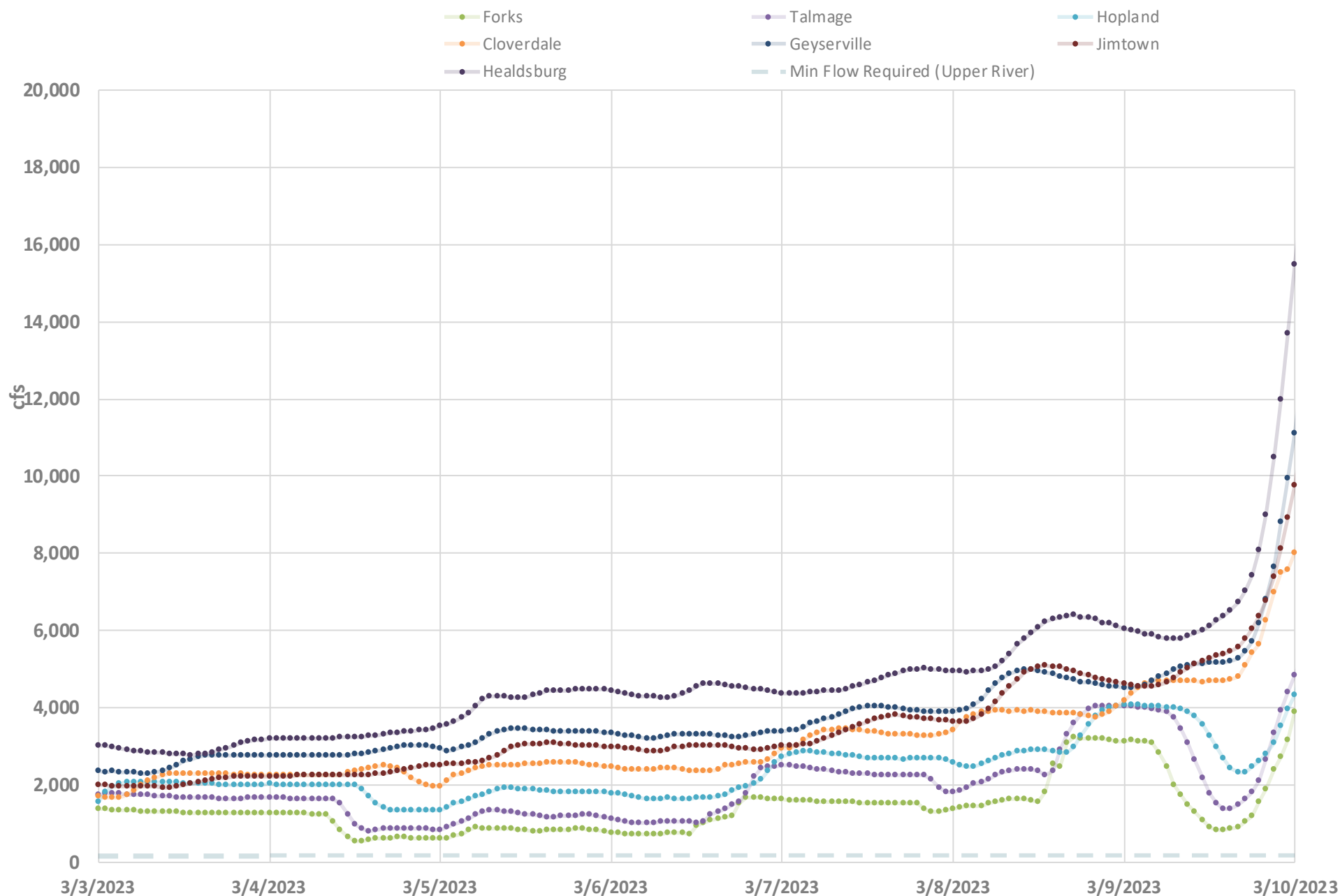
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



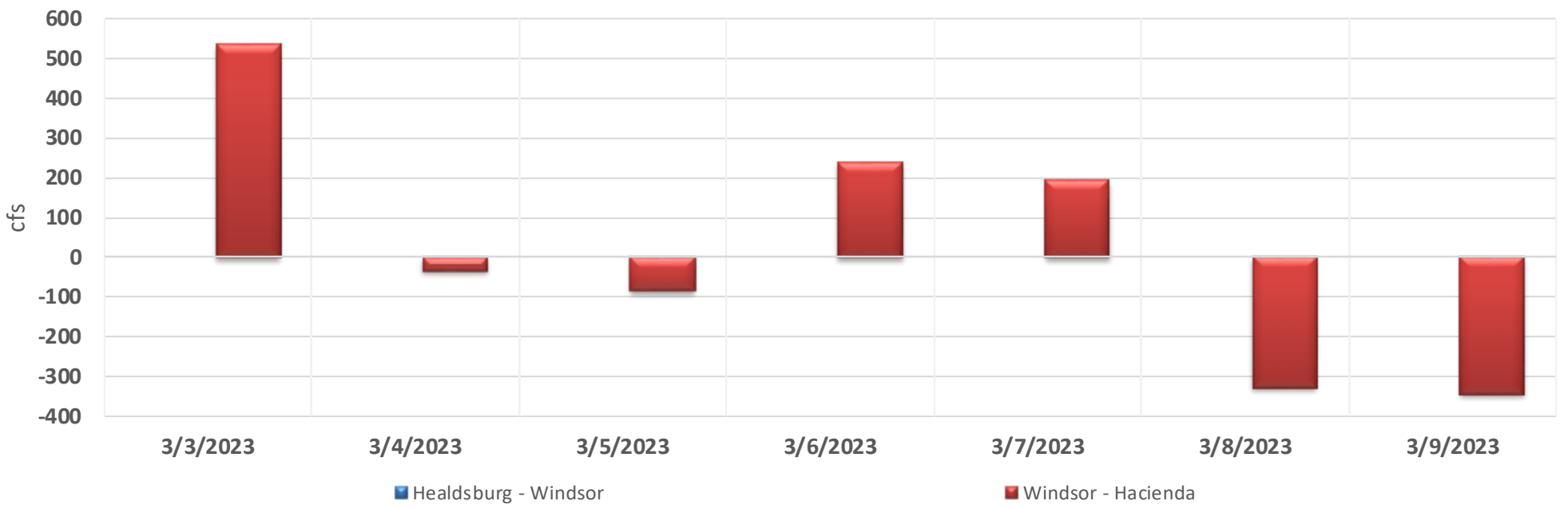
UPPER RUSSIAN RIVER STREAM FLOWS



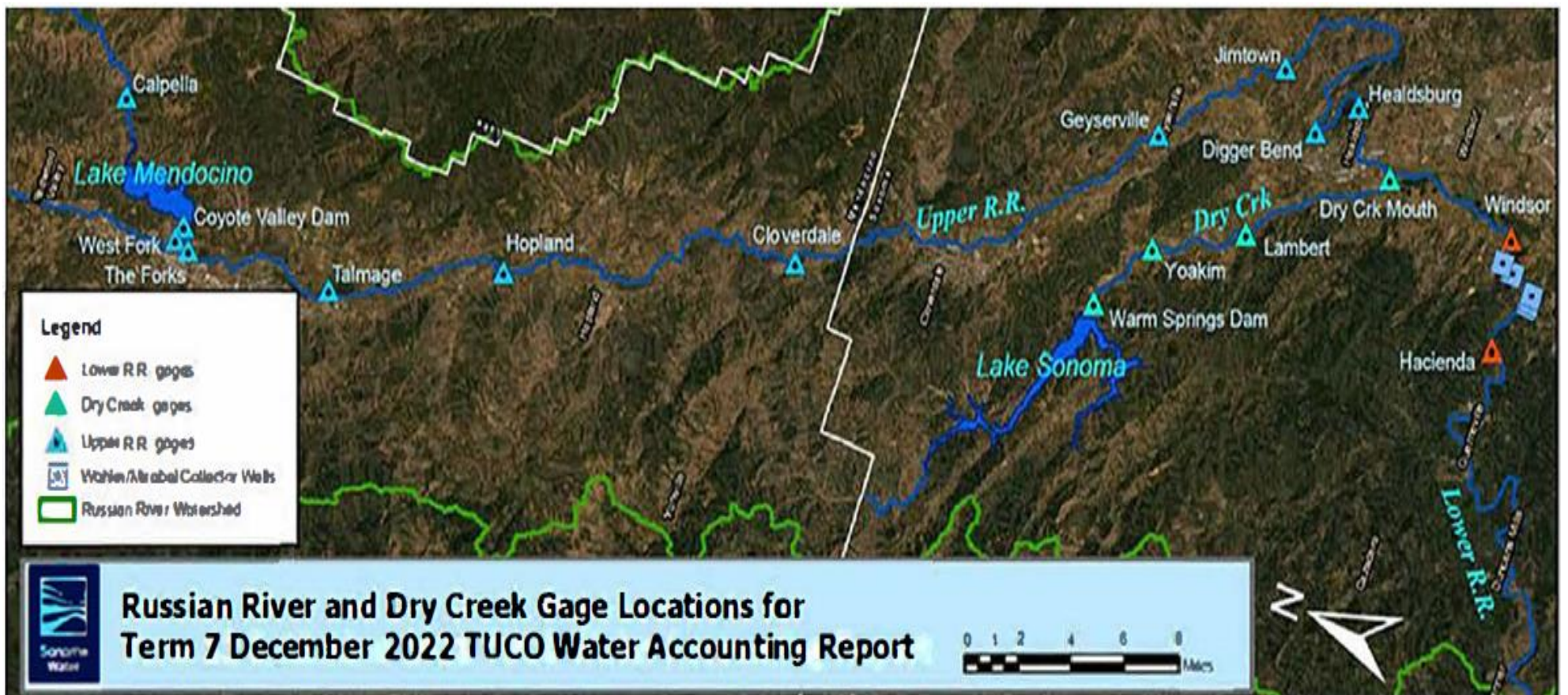
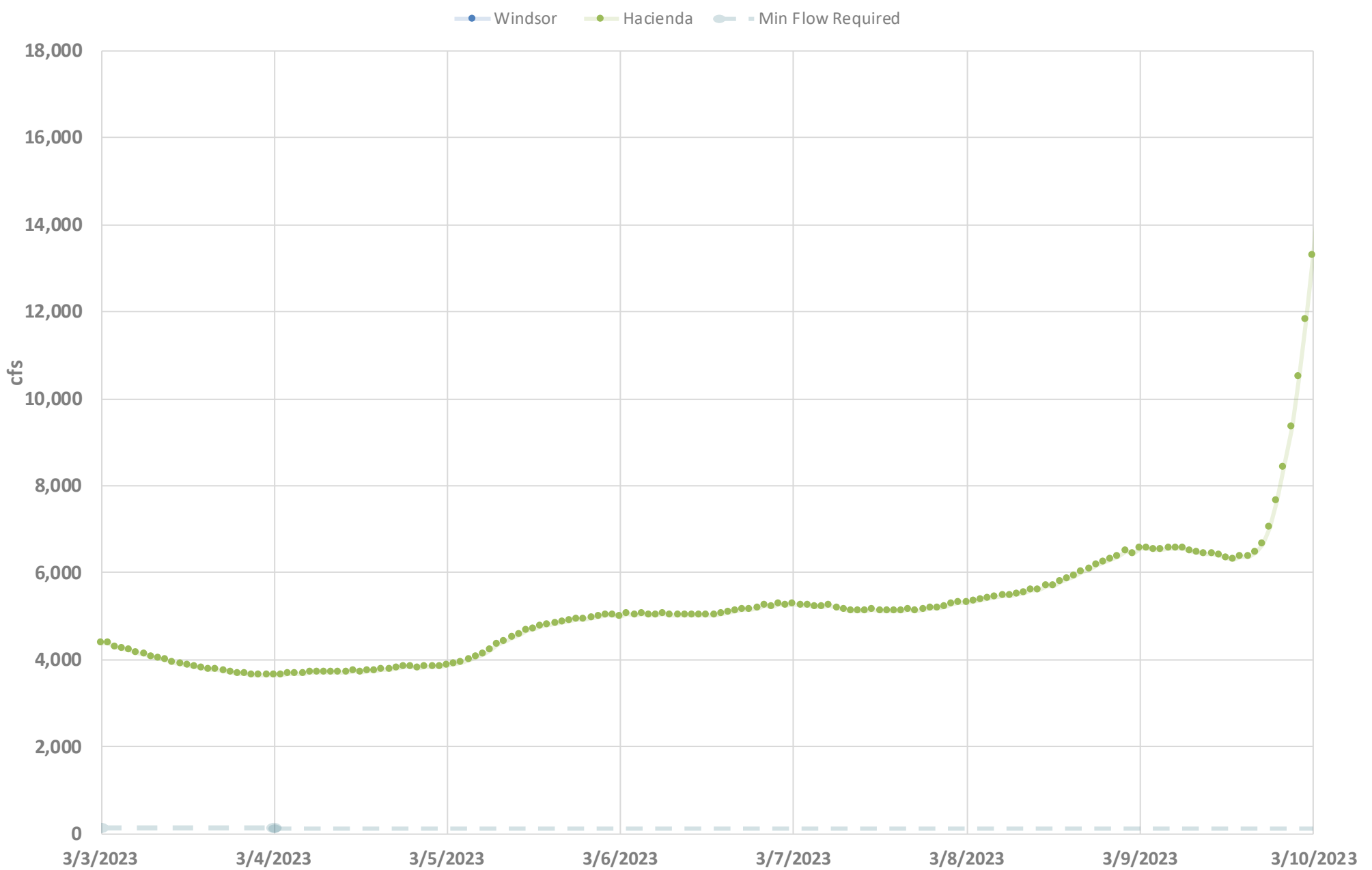
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



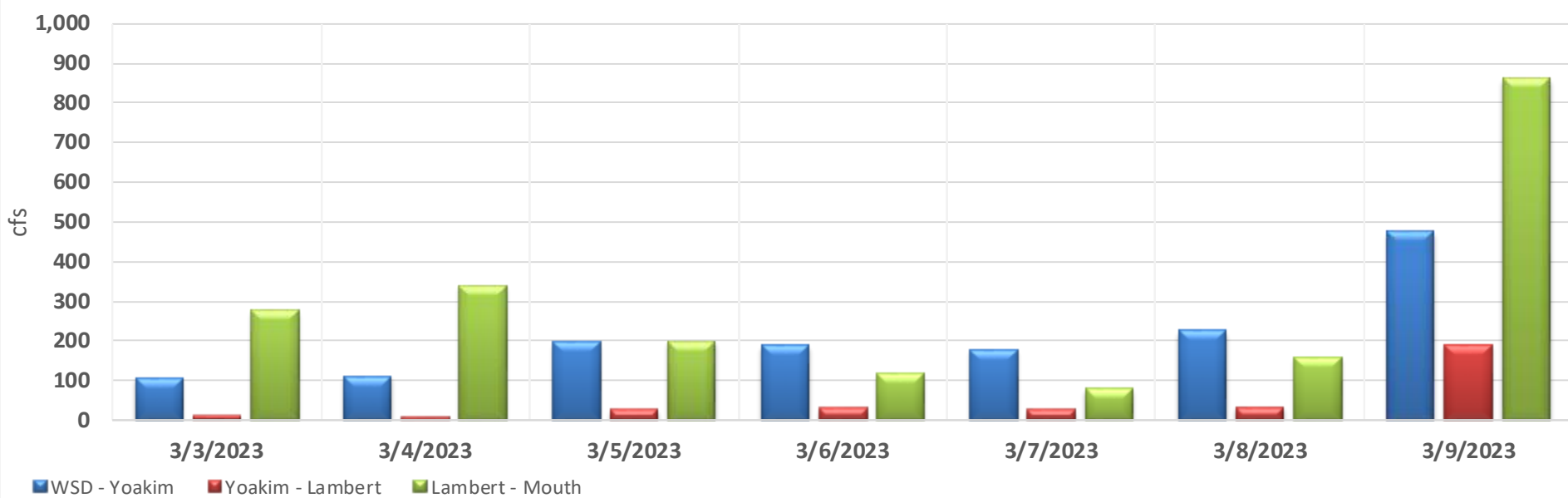
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

