

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

Report Date: 5/19/2023

Units are cfs unless noted otherwise

	5/12/2023	5/13/2023	5/14/2023	5/15/2023	5/16/2023	5/17/2023	5/18/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	90.0	89.0	89.0	116.0	130.0	130.0	130.0
PVID Requested Delivery	50.0	50.0	50.0	50.0	50.0	50.0	50.0
PVID Canals Actual Delivery	0.6	0.5	1.8	0.6	0.6	1.8	0.8
East Fork Release	89.0	88.0	87.0	115.0	129.0	128.0	129.0
PVID E Fork Diversions	49.5	49.5	48.2	49.4	49.5	48.2	49.2
PVID Water Use - PG&E Contract	50.0	50.0	50.0	50.0	50.0	50.0	50.0
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)	39.6	38.5	38.8	65.6	79.6	79.8	79.8
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	127.2	125.5	122.7	135.8	159.4	156.1	155.6
Net Reach Loss(-)/Gain(+)	+37.2	+36.5	+33.7	+19.8	+29.4	+26.1	+25.6
Unimpaired Natural Flow @ Calpella (est.)	14.1	13.0	12.3	10.8	10.4	9.7	9.3
Non-PVID East Fork Net Reach Losses (est.)	87.2	86.5	83.7	69.8	79.4	76.1	75.6
Natural Flow	47.6	48.0	45.0	4.2	0.0	0.0	0.0
Import (neg. value is return flow)	39.6	38.5	38.8	65.6	79.6	79.8	79.8

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	286	277	250	299	339	340	318
(cfs)	144	140	126	151	171	172	160
Natural Flow	105	101	87	85	91	92	81
Import	40	39	39	66	80	80	80
Storage Change (ac-ft)	-54.0	-71.0	-107.0	-54.0	-18.0	-25.0	-46.0
(cfs)	-27	-36	-54	-27	-9	-13	-23
Stored Natural Flow (cfs)	0	0	0	0	0	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	27.0	30.1	30.1	25.9	29.0	30.0	29.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	158	161	165	165	165	169	169
Storage (Project Water)	14	21	39	14	0	0	9
Natural Flow	105	101	87	85	91	92	81
Import Water	40	39	39	66	80	80	80
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	158	161	165	165	169	169
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	144	140	126	151	171	172	160
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement

	185	185	185	185	185	185	185
Controlling Compliance Gage							
Min Gage Flow	187	187	189	186	185	187	185
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	187	187	189	186	185	187
Talmage (USGS 11462080)	96.1	198	196	199	199	199	196
Hopland (USGS 11462500)	84.8	296	291	291	287	282	277
Cloverdale (USGS 11463000)	70.9	347	339	333	329	323	309
Geyserville (USGS 11463500)	54.4	454	444	432	425	416	397
Jimtown (USGS 11463682)	48.5	481	466	445	429	418	402
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	554	538	521	508	497	472
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+10	+10	+10	+13	+14	+11	+10
Talmage - Hopland	+97	+95	+93	+87	+84	+82	+80
Hopland - Cloverdale	+50	+47	+42	+41	+39	+36	+31
Cloverdale - Jimtown	+132	+122	+110	+98	+92	+89	+88
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	+69	+66	+71	+73	+75	+74	+67
Upper Russian Net Reach Loss/Gain	+359	+340	+325	+311	+304	+293	+278
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	144	140	126	151	171	172	160
Project Water Release Required	Yes	Yes	Yes	Yes	No	No	Yes

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).

	5/12/2023	5/13/2023	5/14/2023	5/15/2023	5/16/2023	5/17/2023	5/18/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-139.0	-83.0	-138.0	-111.0	-111.0	-206.0	-70.0
(cfs)	-70	-42	-70	-56	-56	-104	-35
Evaporation (ac-ft)	36.9	41.7	36.9	33.7	38.5	38.5	41.7
Inflow (Natural Flow)	48	72	42	54	56	9	79
WSD Release Gage	99	93	93	93	93	93	94
Storage (Project Water)	51	21	51	39	37	84	14
Natural Flow	48	72	42	54	56	9	79

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		80	80	80	80	80	80	80
Controlling Compliance Gage								
Min Gage Flow		99	93	93	93	93	93	94
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	99	93	93	93	93	93	94
Yoakim (USGS 11465200)	11.1	156	138	135	138	133	131	133
Lambert (USGS 11465240)	6.8	138	124	122	120	120	118	117
Dry Crk Mouth (USGS 11465350)	0.1	157	152	150	149	149	147	147
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		48	72	42	54	56	9	79
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+55	+45	+42	+45	+40	+37	+39
Yoakim - Lambert		-20	-13	-14	-17	-14	-13	-16
Lambert - Dry Crk Mouth		+15	+27	+28	+28	+29	+29	+30
WSD - Dry Crk Mouth		+50	+59	+56	+56	+55	+54	+53
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		Yes	Yes	Yes	Yes	Yes	Yes	Yes

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)								
L. Mendocino Project Water + Import Water		53	59	78	80	80	80	88
Natural Flow		463	442	413	397	395	385	358
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		51	21	51	39	37	84	14
Natural Flow		106	131	99	110	112	63	133
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		53	59	78	80	80	80	88
L. Sonoma Project Water		51	21	51	39	37	84	14
Natural Flow		569	573	512	507	507	448	491

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		125	125	125	125	125	125	125
Controlling Compliance Gage								
Min Gage Flow		613	587	567	551	538	525	513
Controlling Gage		Windsor	Windsor	Windsor	Windsor	Windsor	Windsor	Windsor
All Compliance Gages								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	26.6	613	587	567	551	538	525	513
Hacienda (USGS 11467000)	21.8	778	745	713	684	656	629	602
Confluence to Windsor Reach Analysis								
Net Reach Loss/Gain to Windsor Gage		-98	-103	-109	-108	-109	-111	-109
L. Mendocino Project Water + Import Water		53	59	78	80	80	80	88
L. Sonoma Project Water		48	18	48	36	33	81	11
Natural Flow		472	470	403	399	398	337	382
Confluence to SCWA Wohler Production Facility Reach Analysis								
Approx. Flow u/s of Wohler		826	806	778	749	736	704	665
Net Reach Loss(-)/Gain(+)		+115	+116	+107	+92	+91	+71	+46
L. Mendocino Project Water + Import Water		53	59	78	80	80	80	88
L. Sonoma Project Water		48	18	48	36	33	81	11
Natural Flow		684	689	619	599	598	519	537
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		+67	+55	+42	+28	+11	-3	-17
L. Mendocino Project Water + Import Water		53	59	78	80	80	80	88
L. Sonoma Project Water		0	0	0	0	0	6	0
Natural Flow		684	646	602	570	551	519	485

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

Lower Russian River								
Sonoma Water Total		94.8	121.1	129.1	128.7	158.5	148.2	125.5
Wohler		38.3	38.5	38.4	37.9	48.9	39.3	39.0
Mirabel		56.6	82.6	90.7	90.8	109.6	108.9	86.5
Town of Windsor River Wellfield		7.0	6.2	6.5	6.6	6.9	7.3	7.2
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:

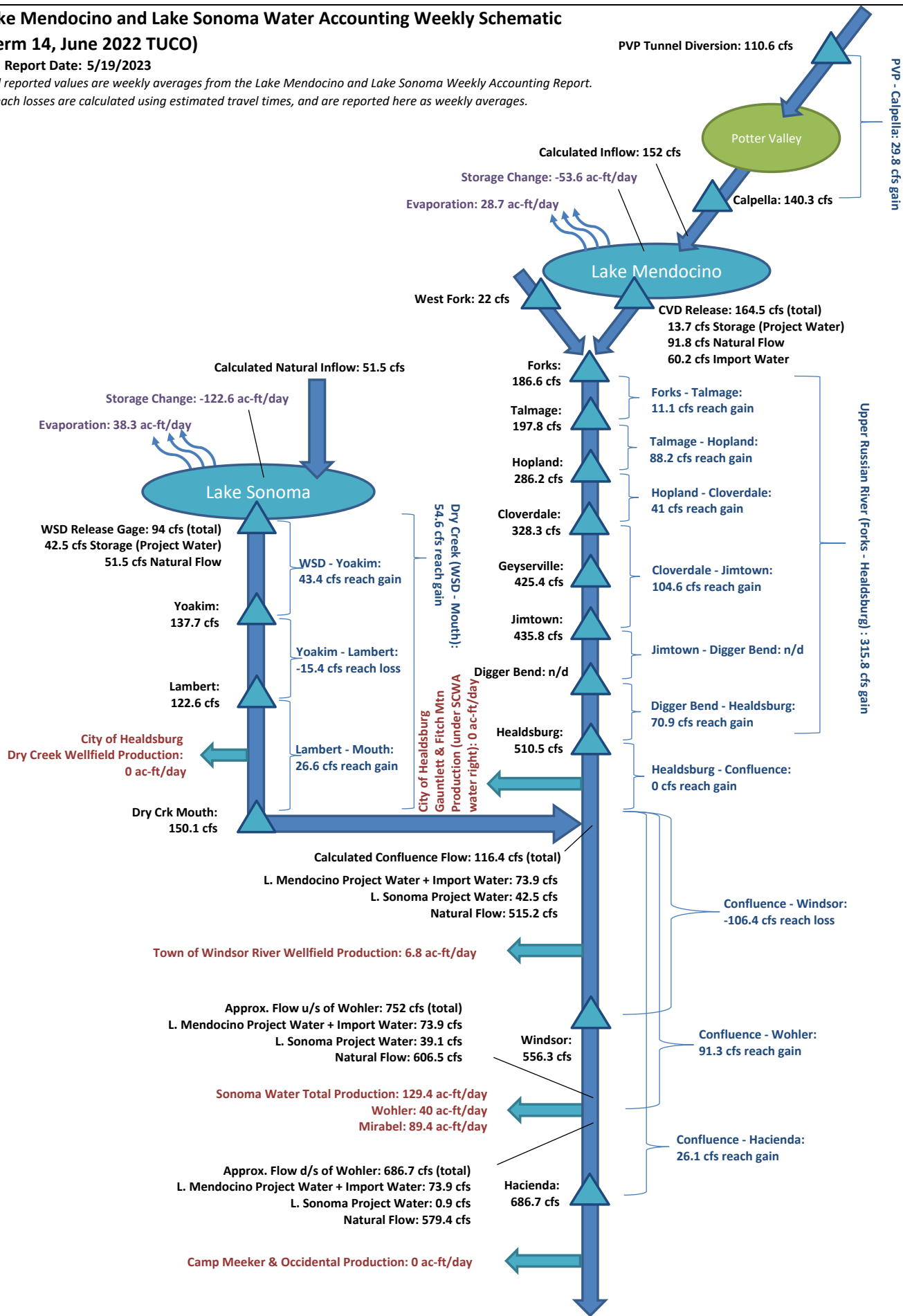
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 5/19/2023

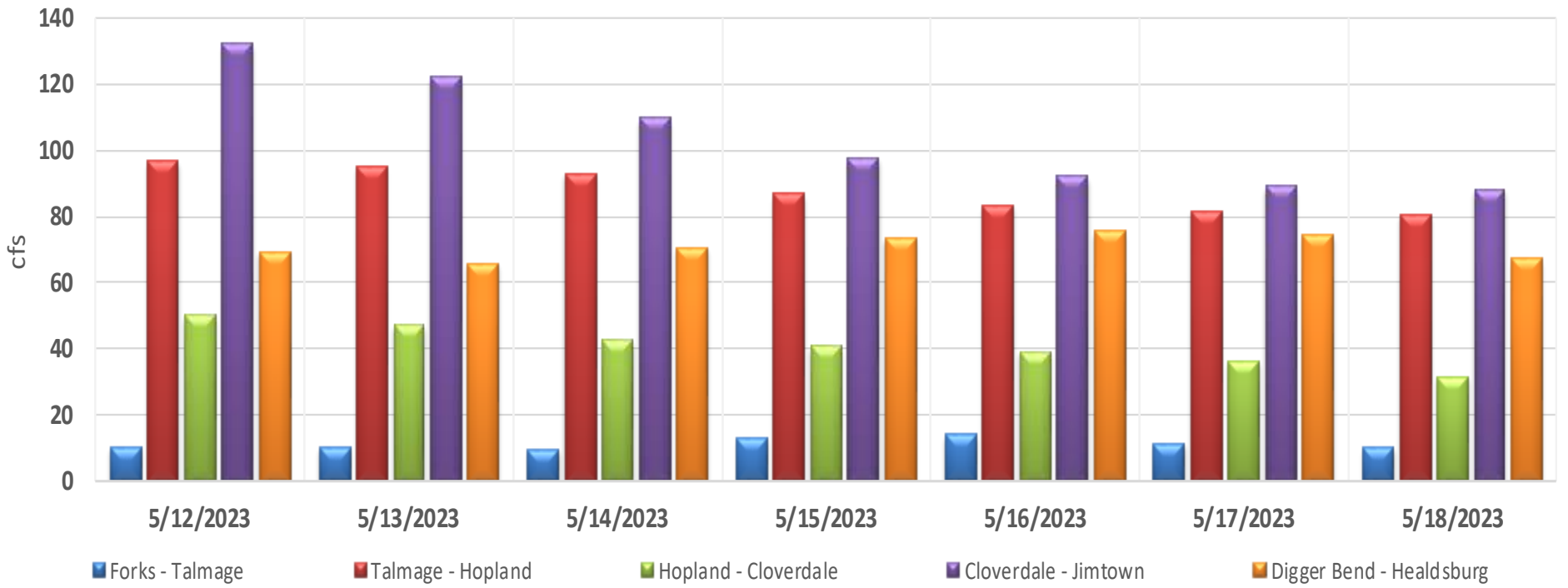
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



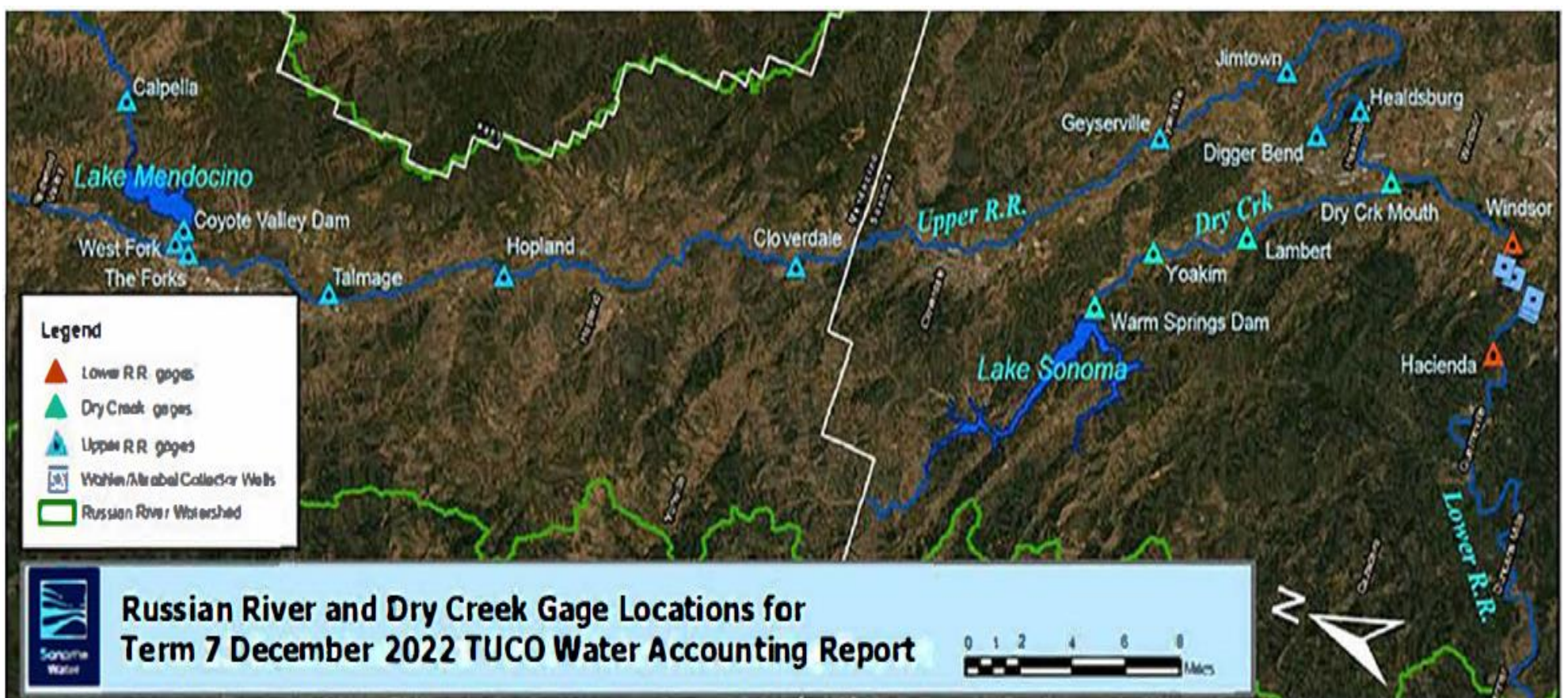
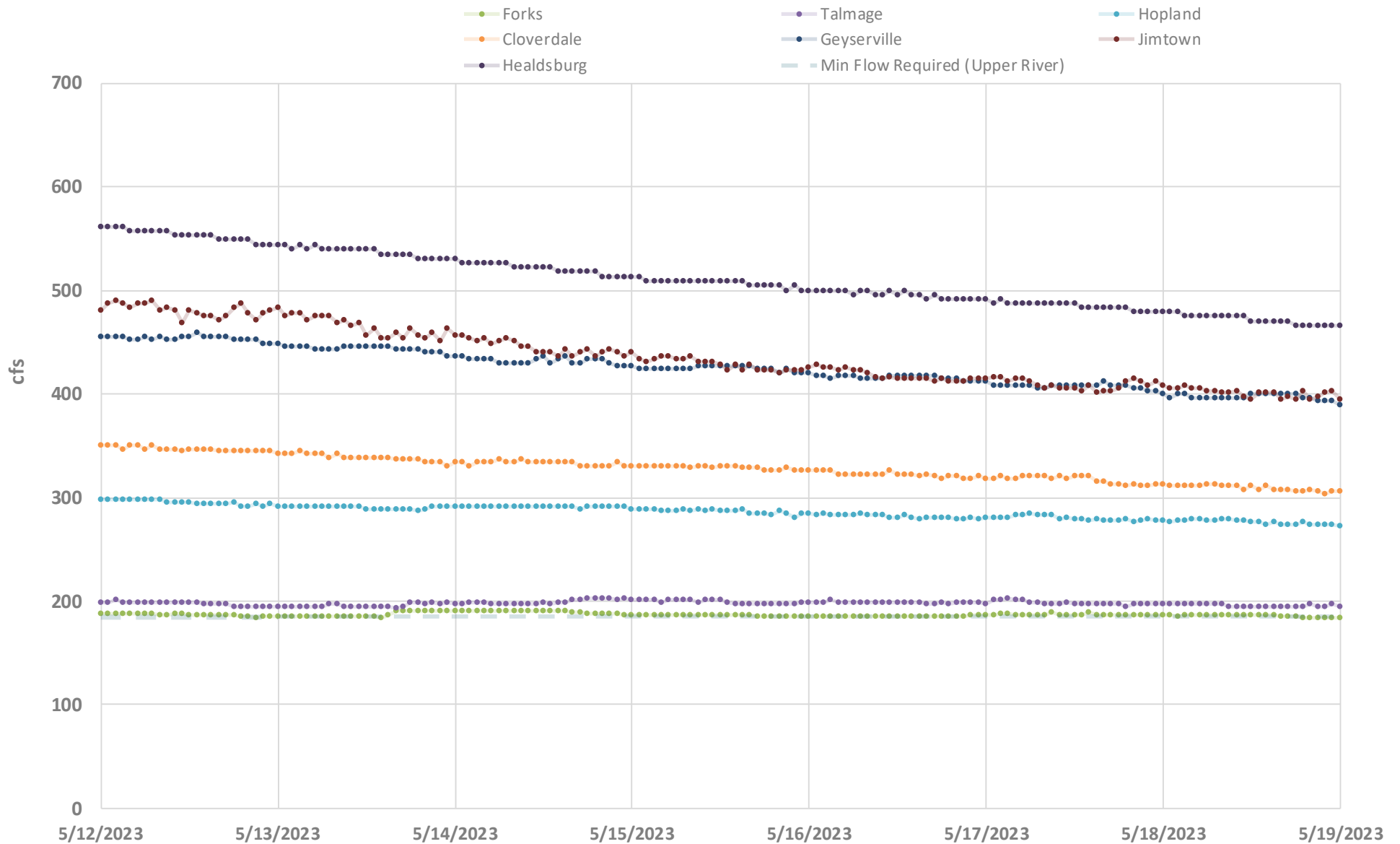
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



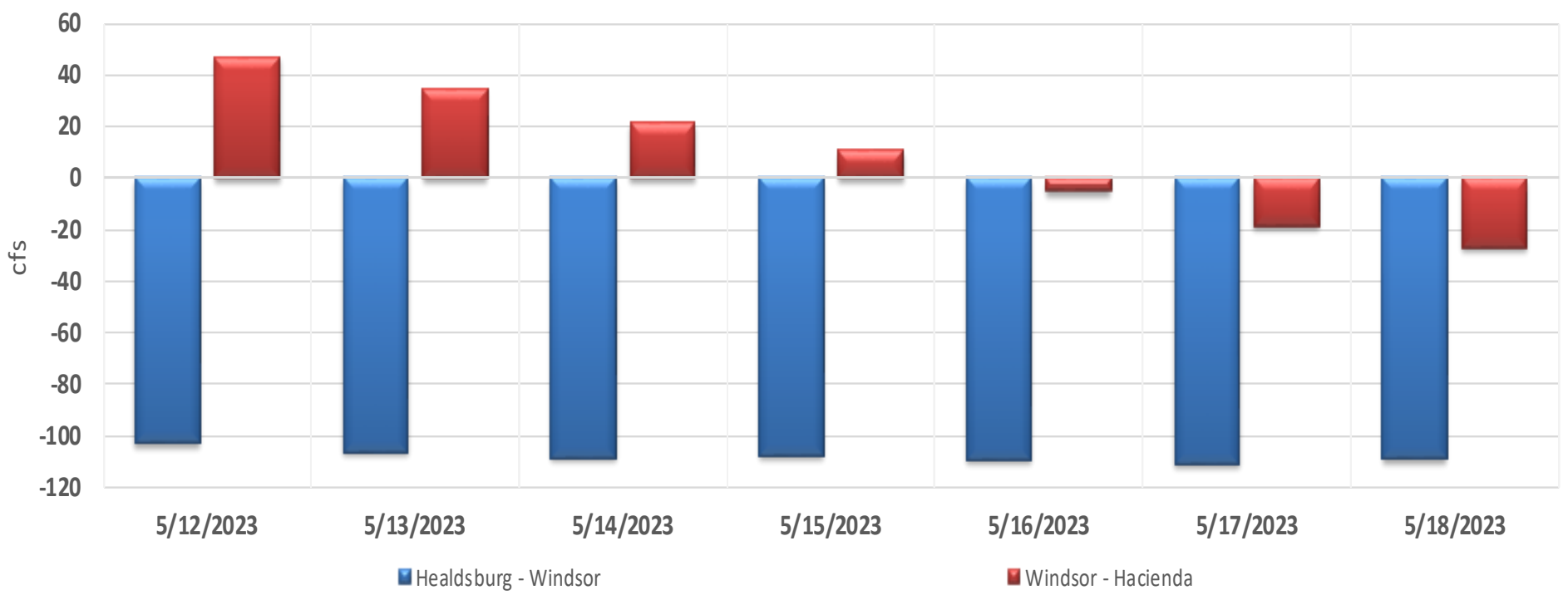
UPPER RUSSIAN RIVER STREAM FLOWS



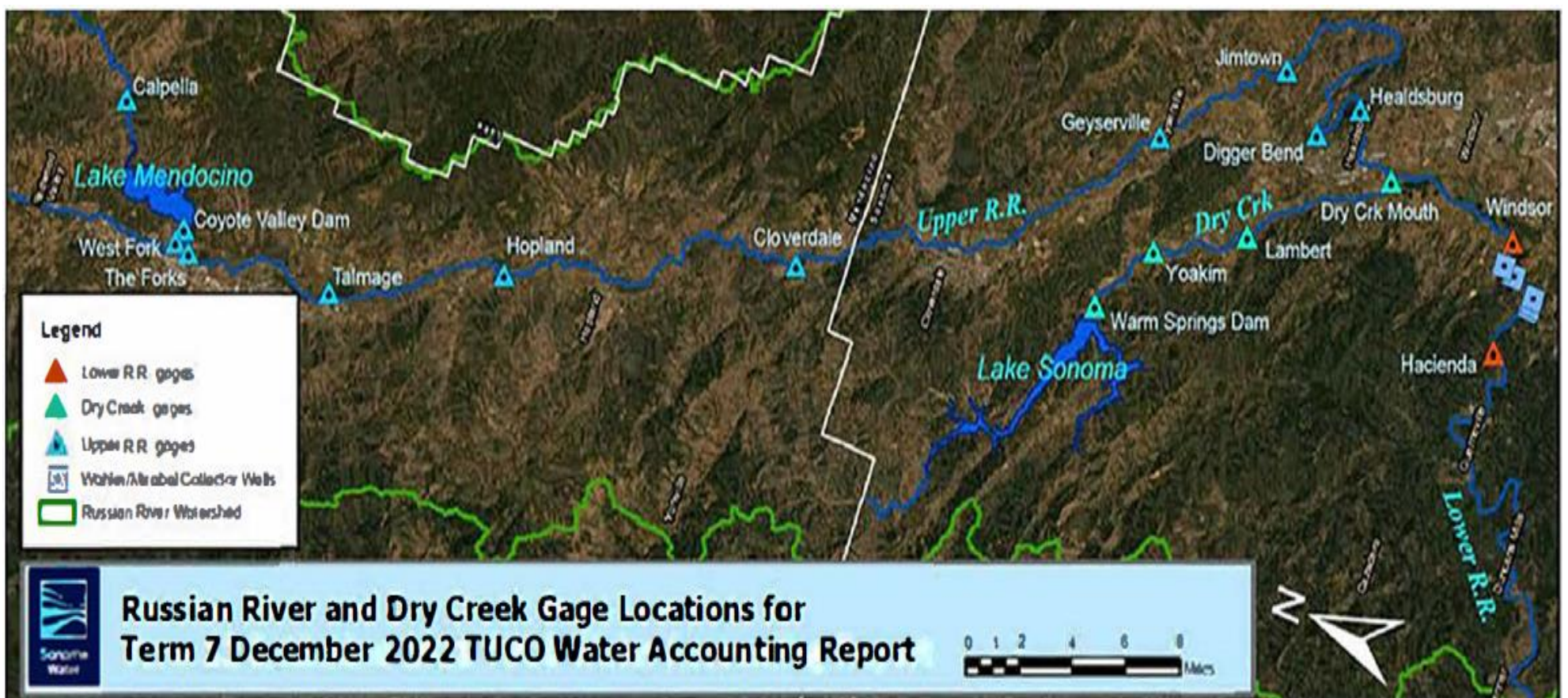
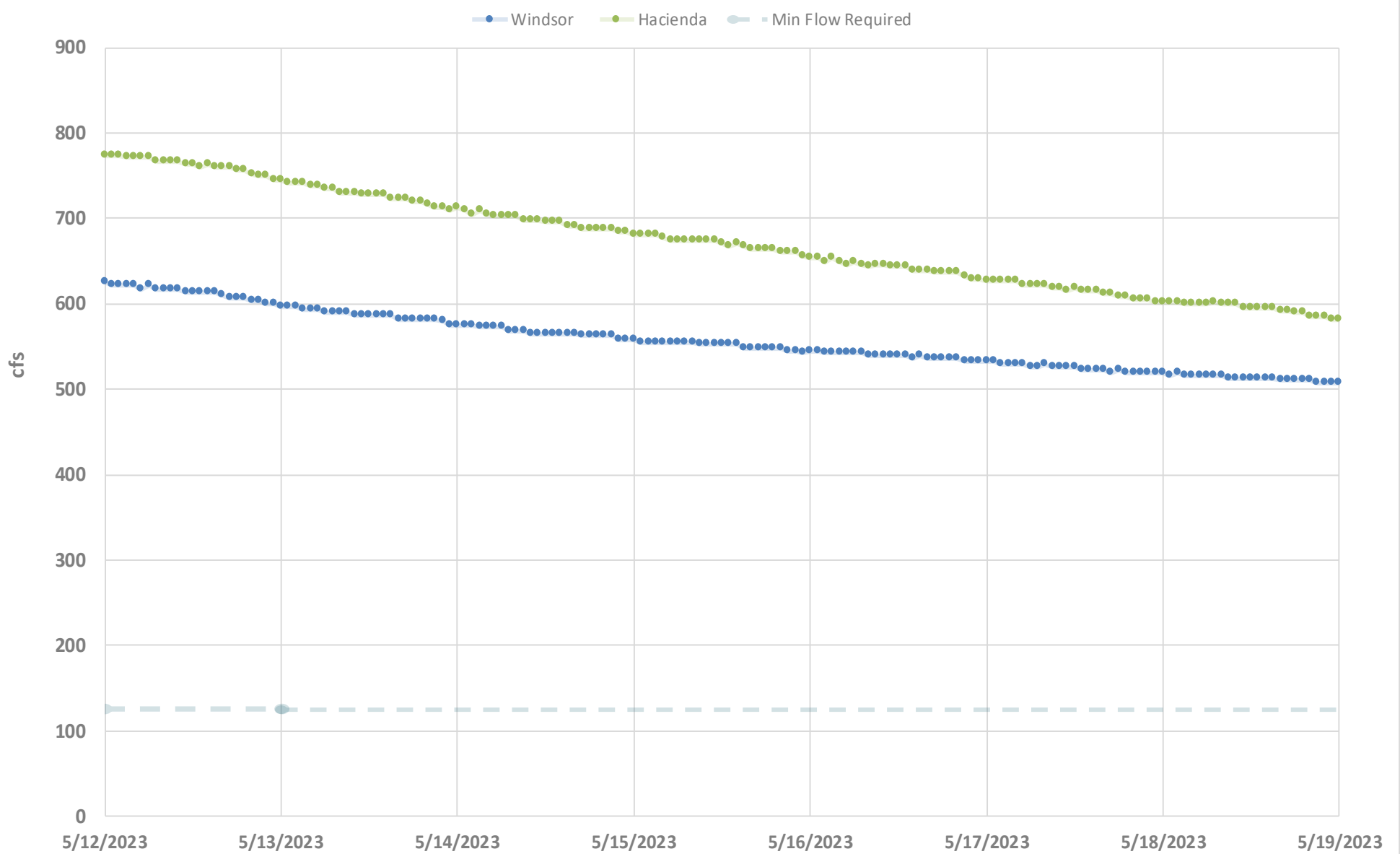
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



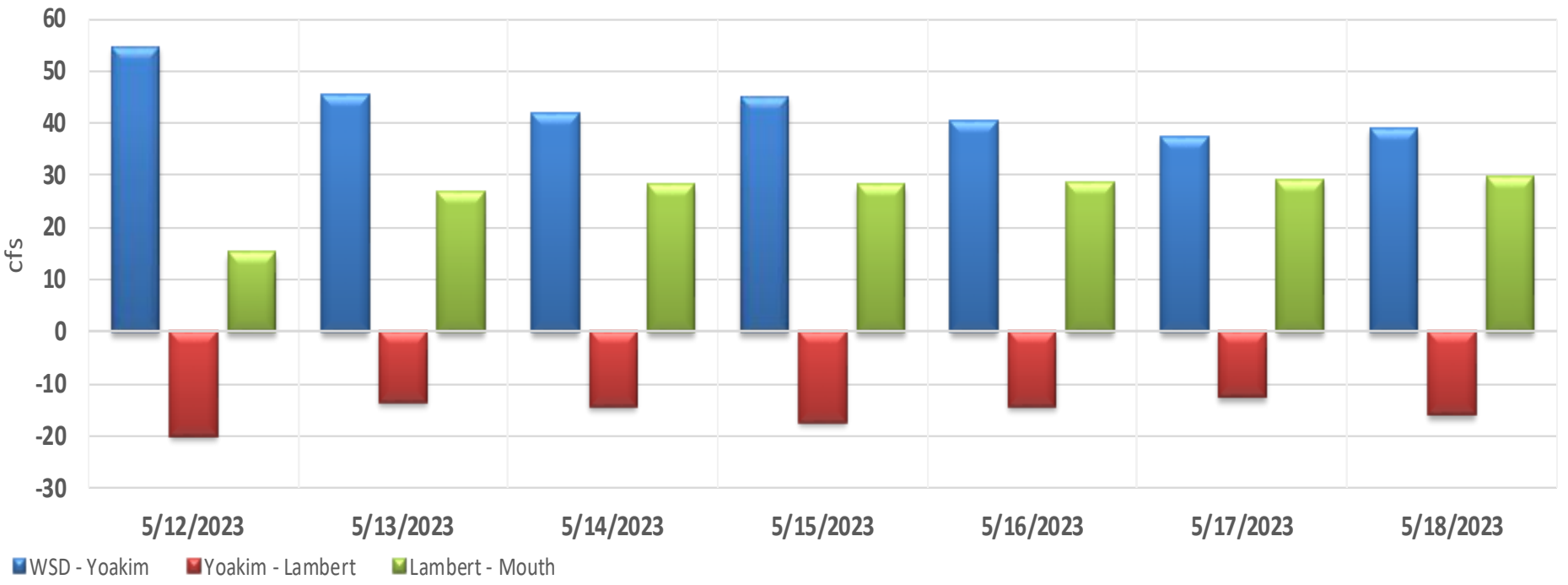
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

