

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

Report Date: 6/23/2023

Units are cfs unless noted otherwise

	6/16/2023	6/17/2023	6/18/2023	6/19/2023	6/20/2023	6/21/2023	6/22/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	104.0	106.0	106.0	105.0	106.0	105.0	104.0
PVID Requested Delivery	23.3	25.0	25.0	25.0	25.0	25.0	25.0
PVID Canals Actual Delivery	21.1	22.0	24.2	24.1	24.5	24.6	24.6
East Fork Release	83.0	84.0	82.0	81.0	82.0	80.0	79.0
PVID E Fork Diversions	2.2	3.0	0.8	0.9	0.6	0.4	0.4
PVID Water Use - PG&E Contract	23.3	25.0	25.0	25.0	25.0	25.0	25.0
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)	80.8	81.0	81.2	80.1	81.5	79.6	78.6
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	91.4	93.5	91.7	93.1	95.4	95.2	98.6
Net Reach Loss(-)/Gain(+)	-12.6	-12.5	-14.3	-11.9	-10.6	-9.8	-5.4
Unimpaired Natural Flow @ Calpella (est.)	7.1	7.1	7.1	6.8	7.1	6.8	7.1
Non-PVID East Fork Net Reach Losses (est.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import	0.0	0.0	0.0	0.0	0.0	0.0	0.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	193	177	193	151	186	153	167
(cfs)	97	89	97	76	94	77	84
Natural Flow	17	8	16	7	13	7	7
Import	81	81	81	69	81	70	77
Storage Change (ac-ft)	-89.0	-107.0	-89.0	-125.0	-89.0	-125.0	-107.0
(cfs)	-45	-54	-45	-63	-45	-63	-54
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)	34.3	36.4	34.0	27.8	26.8	30.0	25.7
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	125	125	125	125	125	125	125
Storage (Project Water)	28	36	28	49	31	48	41
Natural Flow	17	8	16	7	13	7	7
Import Water	81	81	81	69	81	70	77
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	125	125	125	125	125	125
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	97	89	97	76	94	77	84
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement

	110	110	110	110	110	110	110
Controlling Compliance Gage							
Min Gage Flow	126	127	128	128	127	127	126
Controlling Gage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage
All Compliance Gages							
Forks (CVD + USGS 11461000)	<i>99.0</i>	136	135	135	134	135	135
Talmage (USGS 11462080)	<i>96.1</i>	126	127	128	128	127	126
Hopland (USGS 11462500)	<i>84.8</i>	132	135	136	136	135	133
Cloverdale (USGS 11463000)	<i>70.9</i>	165	162	163	163	161	161
Geyserville (USGS 11463500)	<i>54.4</i>	206	201	201	199	199	193
Jimtown (USGS 11463682)	<i>48.5</i>	192	188	189	187	186	182
Digger Bend (USGS 11463980)	<i>38.2</i>	234	227	227	219	216	214
Healdsburg (USGS 11464000)	<i>35.6</i>	234	227	222	216	213	208
Net Reach Loss(-)/Gain(+)							
Forks - Talmage		-10	-9	-7	-7	-7	-9
Talmage - Hopland		+5	+9	+9	+8	+7	+7
Hopland - Cloverdale		+33	+29	+27	+27	+27	+27
Cloverdale - Jimtown		+26	+24	+26	+24	+22	+22
Jimtown - Digger Bend		+40	+39	+38	+31	+30	+32
Digger Bend - Healdsburg *when Digger Bend > 400 cfs, next u/s gage (Jimtown) used		-2	-0	-6	-4	-3	-7
Upper Russian Net Reach Loss/Gain		+92	+92	+87	+80	+76	+73
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage		-10	-9	-7	-7	-7	-9
Storage (Project Water)		-10	-9	-7	-7	-7	-9
Pass-through Water (Nat. + Imp.) + Natural		0	0	0	0	0	0
Total Pass-through Water		97	89	97	76	94	84
Project Water Release Required		Yes	Yes	Yes	Yes	Yes	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).

	6/16/2023	6/17/2023	6/18/2023	6/19/2023	6/20/2023	6/21/2023	6/22/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-191.0	-191.0	-219.0	-299.0	-191.0	-245.0	-163.0
(cfs)	-96	-96	-110	-151	-96	-124	-82
Evaporation (ac-ft)	36.0	37.6	49.1	42.5	42.5	42.4	27.7
Inflow (Natural Flow)	18	18	9	0	18	0	25
WSD Release Gage	96	95	94	93	93	93	94
Storage (Project Water)	78	77	86	93	75	93	68
Natural Flow	18	18	9	0	18	0	25

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		80	80	80	80	80	80	80
Controlling Compliance Gage								
Min Gage Flow		96	95	94	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	96	95	94	93	93	93	94
Yoakim (USGS 11465200)	11.1	102	102	101	101	100	100	100
Lambert (USGS 11465240)	6.8	104	104	104	104	103	103	102
Dry Crk Mouth (USGS 11465350)	0.1	107	106	106	106	104	103	102
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		18	18	9	0	18	0	25
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+5	+7	+7	+8	+7	+6	+6
Yoakim - Lambert		+2	+2	+2	+2	+3	+3	+2
Lambert - Dry Crk Mouth		+3	+2	+2	+2	+1	+1	-0
WSD - Dry Crk Mouth		+11	+11	+11	+12	+11	+10	+9
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		108	117	109	118	112	118	118
Natural Flow		109	100	103	87	89	79	80
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		78	77	86	93	75	93	68
Natural Flow		29	29	20	12	29	10	34
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		341	333	327	322	317	313	311
L. Sonoma Project Water		108	117	109	118	112	118	118
Natural Flow		78	77	86	93	75	93	68
		138	129	123	99	118	89	114

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		60	60	60	60	60	60	60
Controlling Compliance Gage								
Min Gage Flow		260	252	247	238	231	228	221
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	26.6	358	353	350	344	342	341	337
Hacienda (USGS 11467000)	21.8	260	252	247	238	231	228	221
Confluence to Windsor Reach Analysis								
Net Reach Loss/Gain to Windsor Gage		+17	+19	+21	+20	+24	+27	+26
L. Mendocino Project Water + Import Water		108	117	109	118	112	118	118
L. Sonoma Project Water		75	73	82	89	70	89	64
Natural Flow		155	148	144	120	142	116	140
Confluence to SCWA Wohler Production Facility Reach Analysis								
Approx. Flow u/s of Wohler								
Net Reach Loss(-)/Gain(+)		-2	-2	-3	-7	-15	-8	-6
L. Mendocino Project Water + Import Water		108	117	109	118	112	118	118
L. Sonoma Project Water		75	73	82	89	70	89	64
Natural Flow		136	127	120	93	103	81	108
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		-81	-81	-80	-84	-86	-85	-90
L. Mendocino Project Water + Import Water		108	117	109	118	112	118	118
L. Sonoma Project Water		0	0	4	12	0	11	0
Natural Flow		132	121	120	93	103	81	88

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

Lower Russian River								
Sonoma Water Total		157.7	156.6	153.8	153.7	139.4	154.0	166.1
Wohler		72.8	63.4	68.9	55.2	72.6	69.3	82.5
Mirabel		84.9	93.1	84.9	98.5	66.8	84.7	83.6
Town of Windsor River Wellfield		5.5	8.3	7.8	8.4	9.0	8.8	7.8
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:

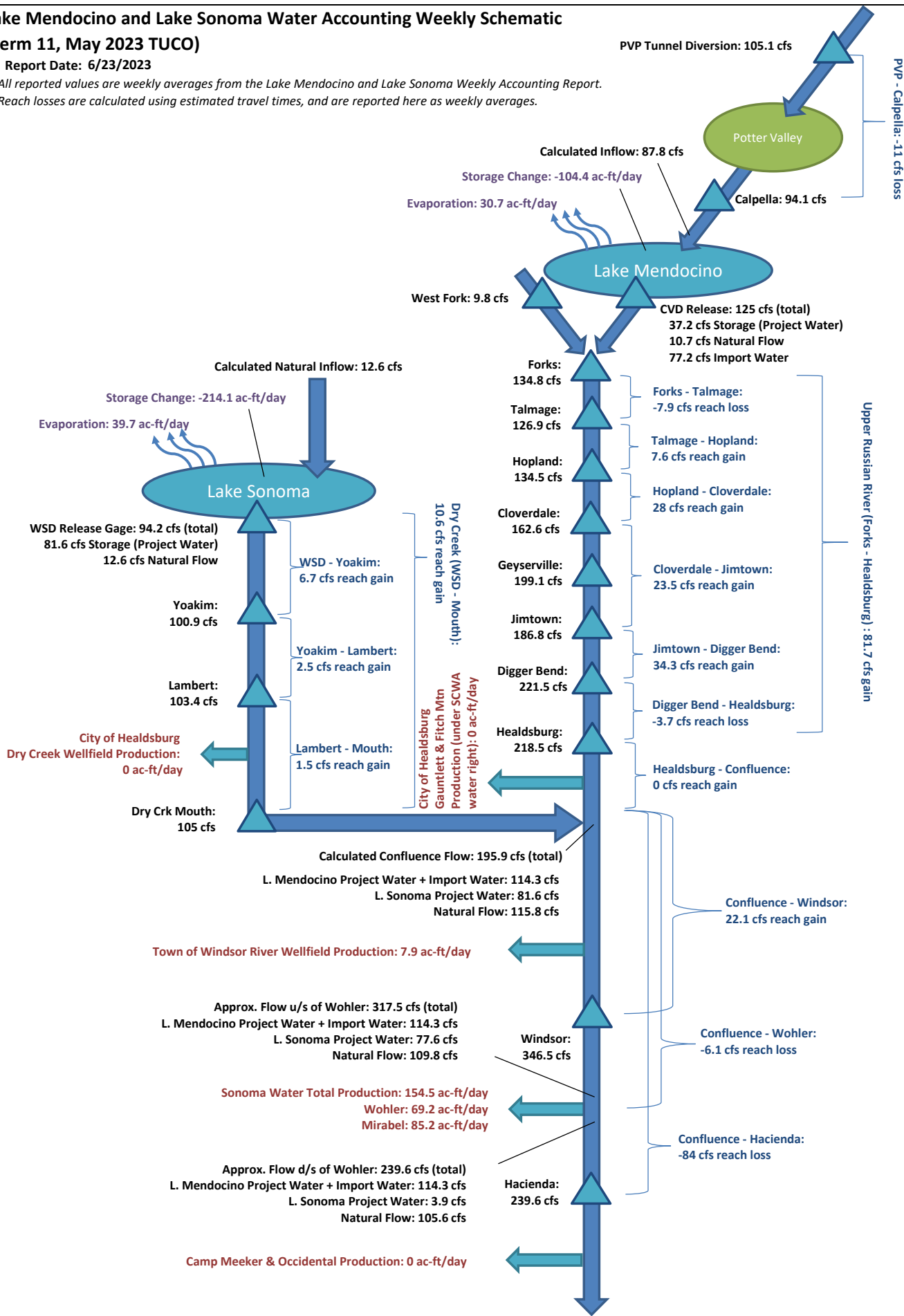
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 11, May 2023 TUCO)

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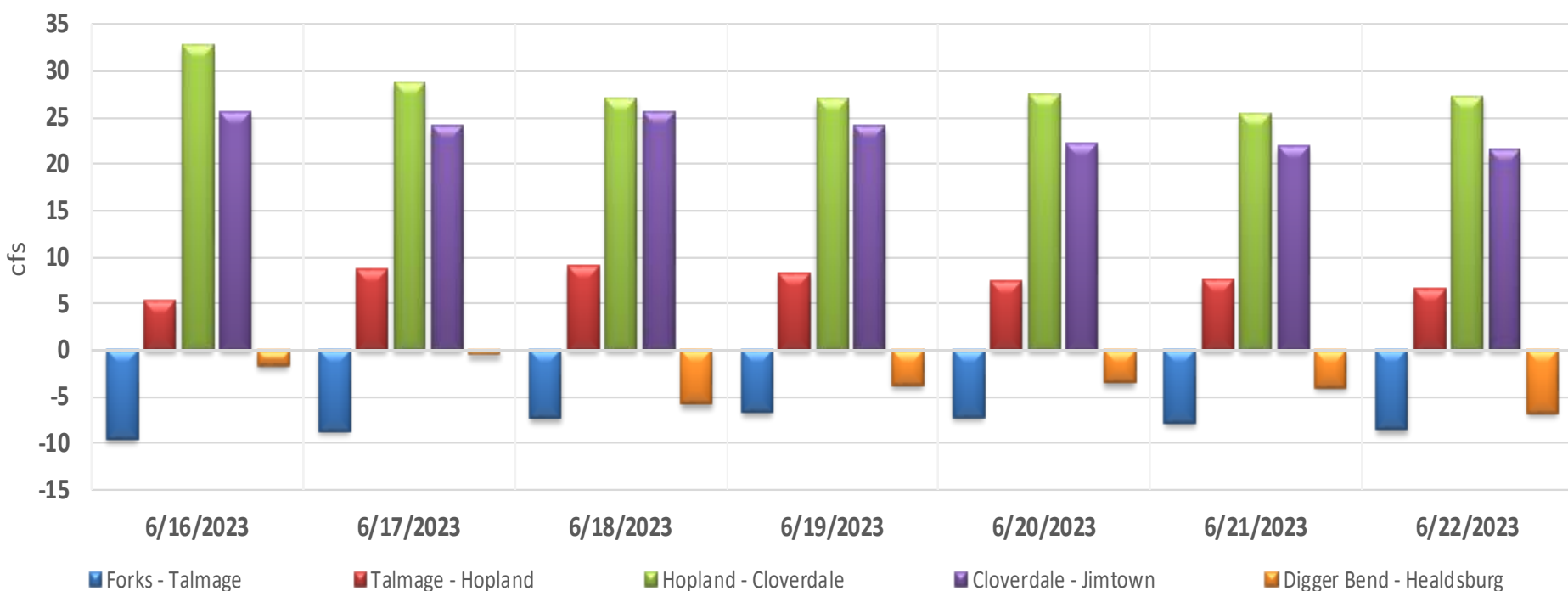
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report. Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



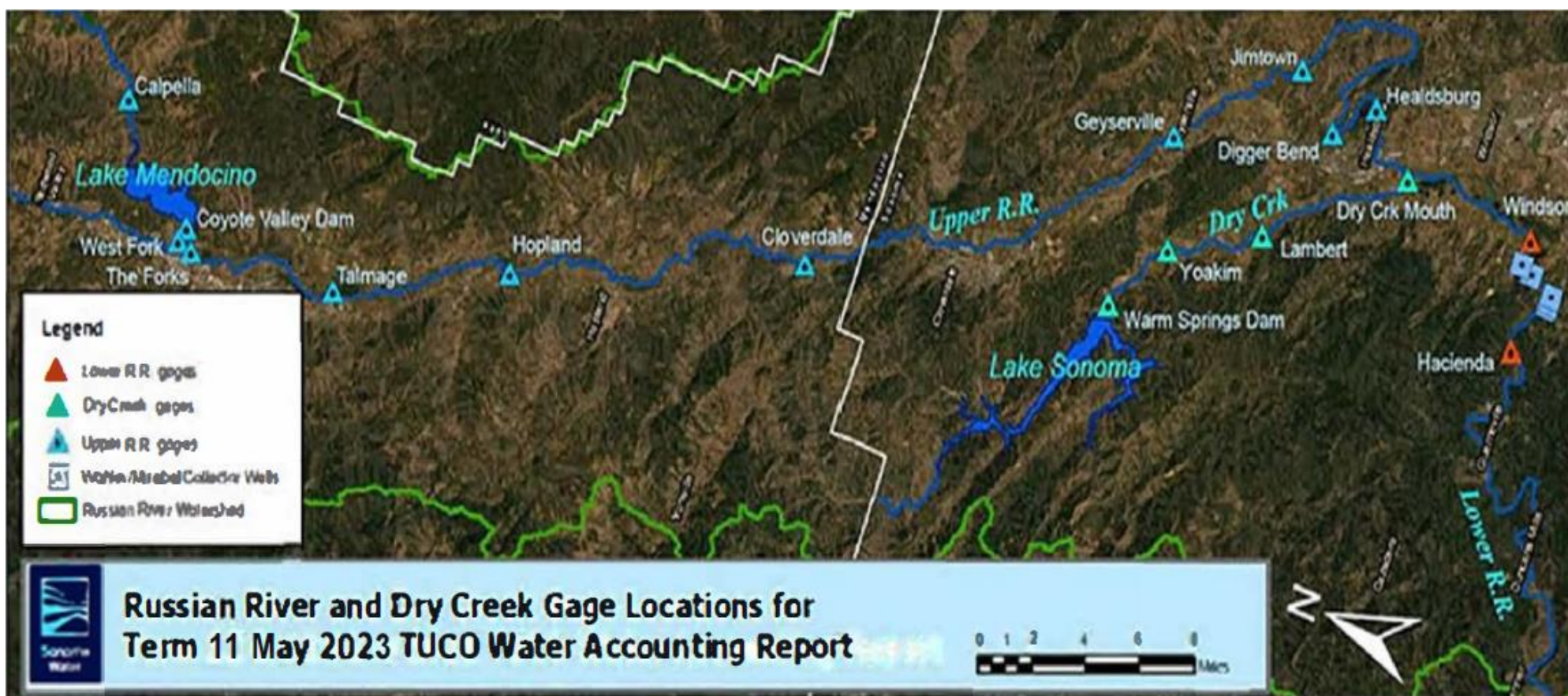
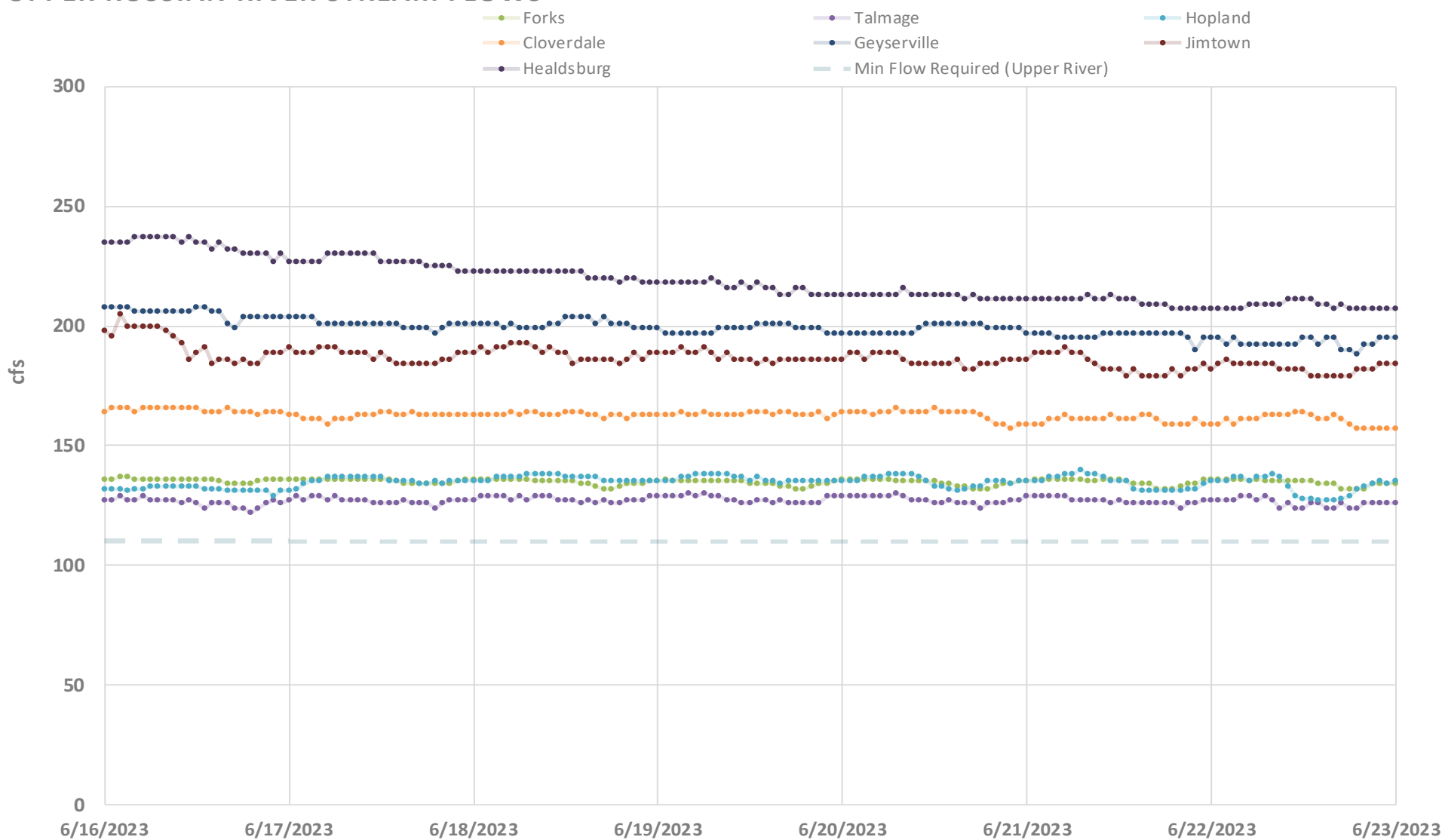
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



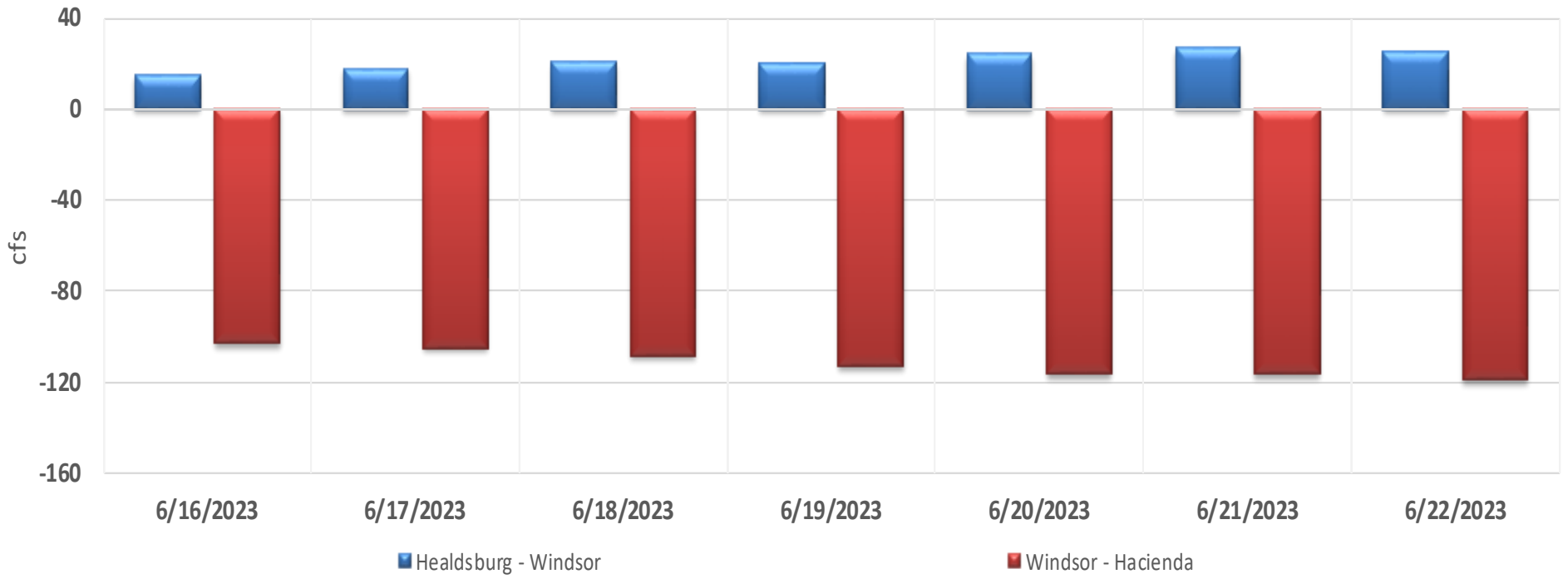
UPPER RUSSIAN RIVER STREAM FLOWS



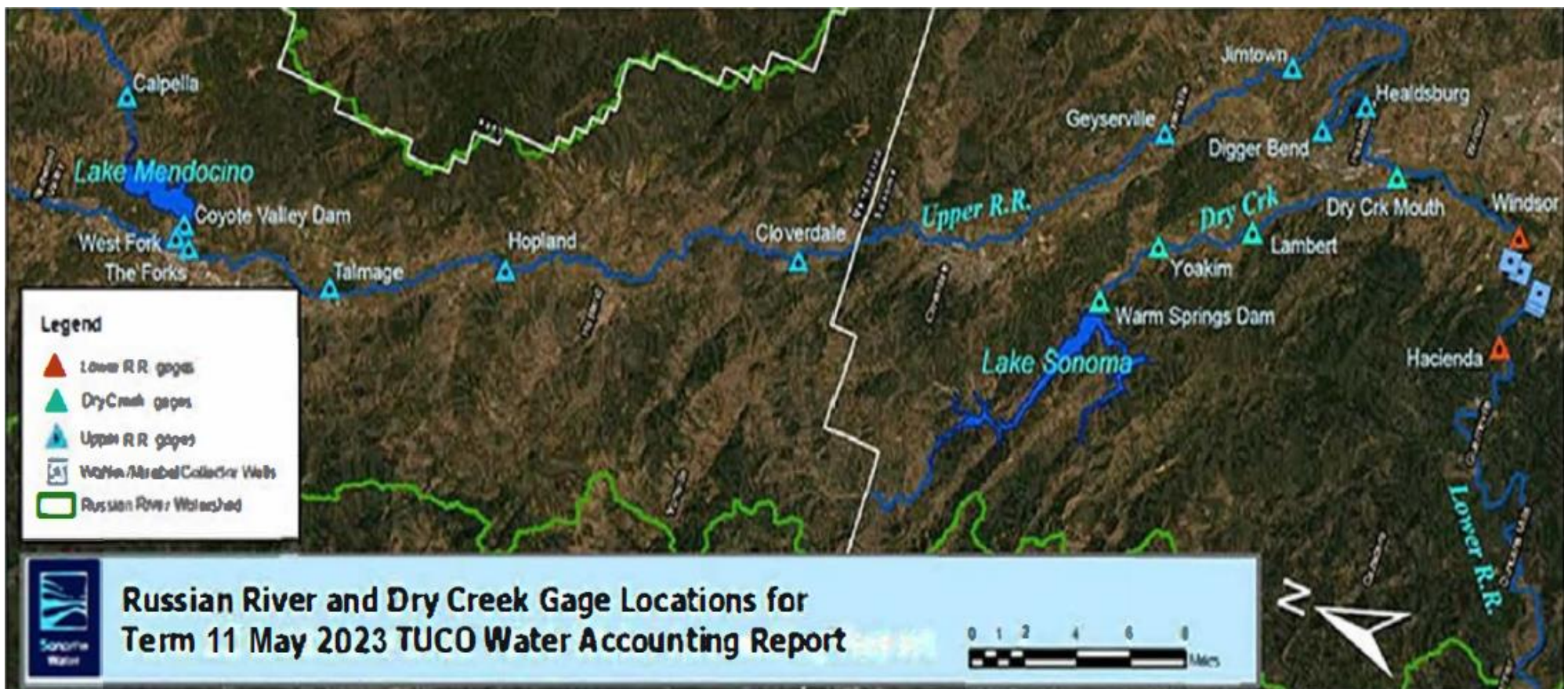
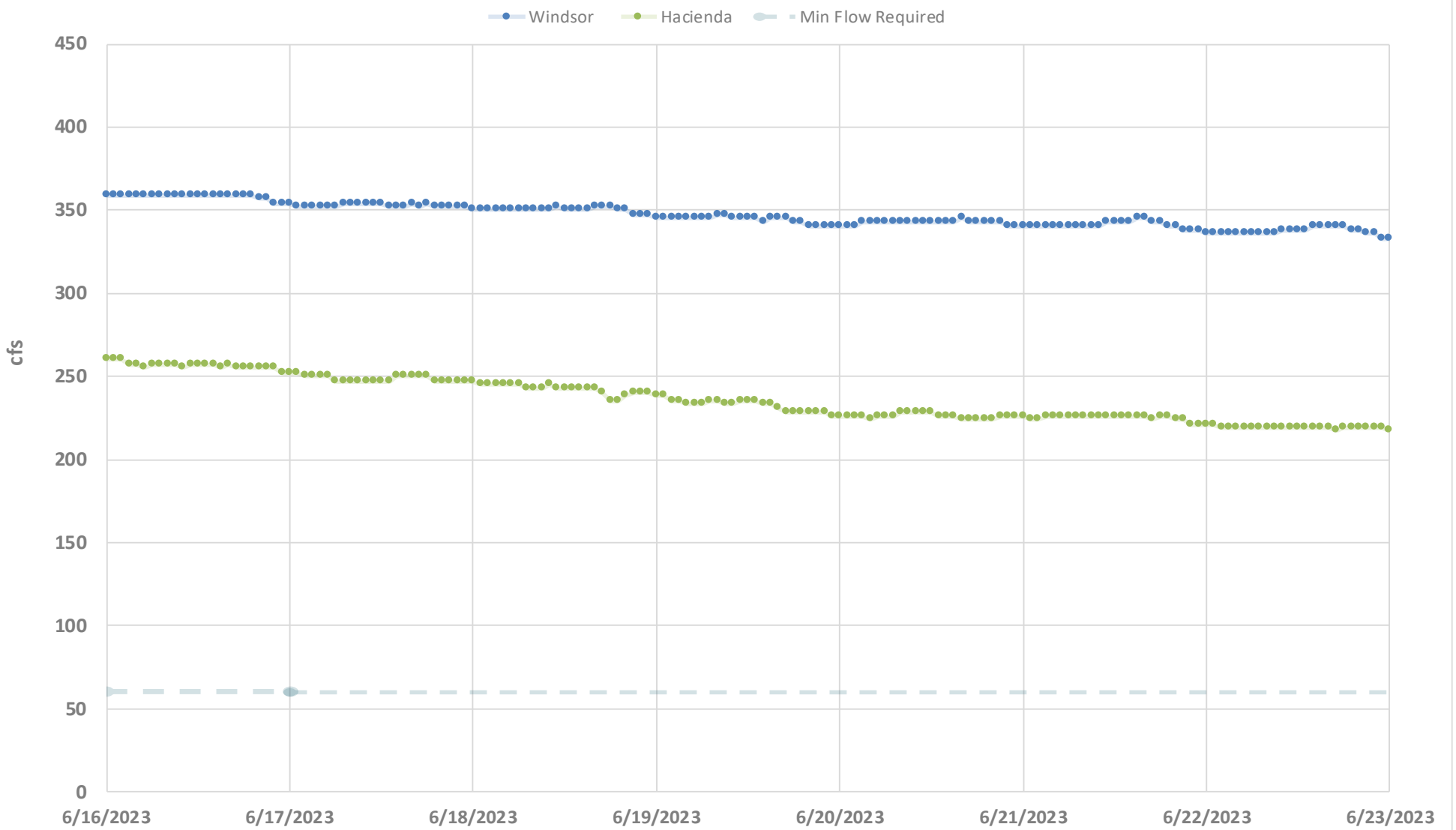
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



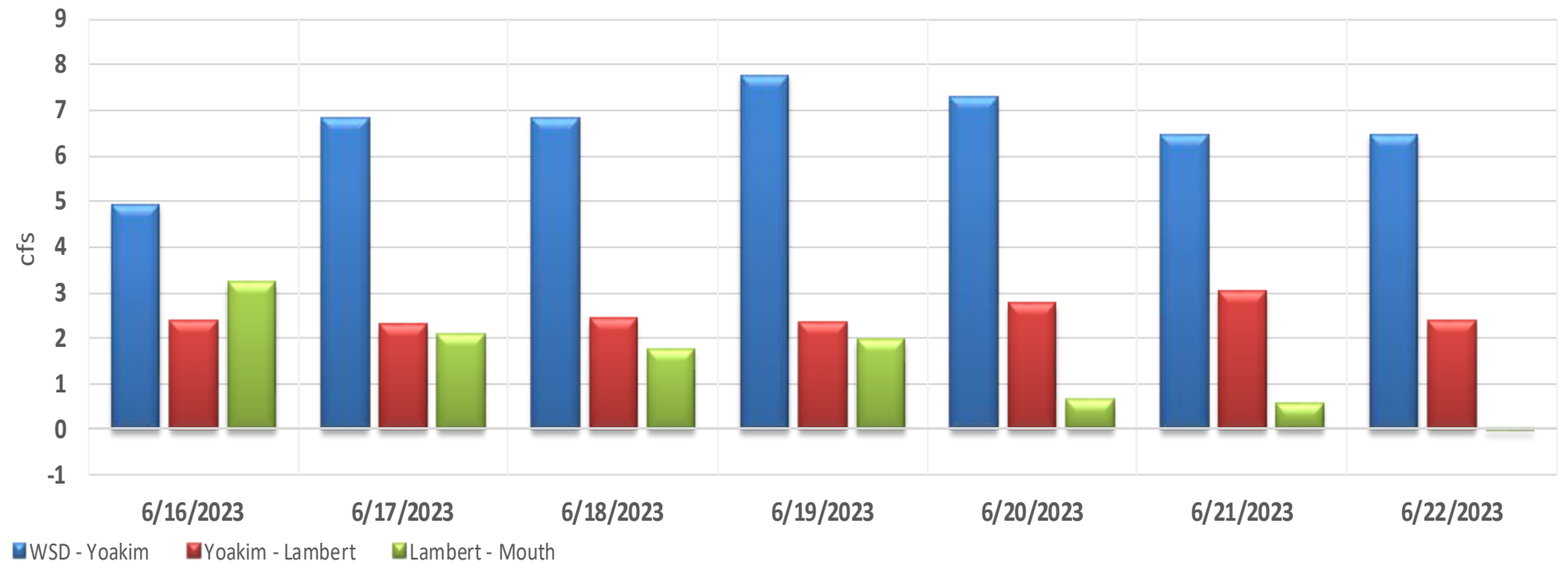
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

