

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

Report Date: 7/7/2023

Units are cfs unless noted otherwise

	6/30/2023	7/1/2023	7/2/2023	7/3/2023	7/4/2023	7/5/2023	7/6/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	111.0	111.0	111.0	110.0	110.0	110.0	110.0
PVID Requested Delivery	30.0	30.0	30.0	30.0	30.0	30.0	30.0
PVID Canals Actual Delivery	25.7	25.7	25.8	25.8	25.8	25.9	25.9
East Fork Release	85.0	85.0	85.0	84.0	84.0	84.0	84.0
PVID E Fork Diversions	4.3	4.3	4.2	4.2	4.2	4.1	4.1
PVID Water Use - PG&E Contract	30.0	30.0	30.0	30.0	30.0	30.0	30.0
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)	80.7	80.7	80.8	79.8	79.8	79.9	79.9
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	94.5	91.5	91.8	89.2	88.1	89.3	96.5
Net Reach Loss(-)/Gain(+)	-16.5	-19.5	-19.2	-20.8	-21.9	-20.7	-13.5
Unimpaired Natural Flow @ Calpella (est.)	5.7	5.3	5.3	4.9	4.2	4.9	4.9
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)	195	199	173	164	181	177	142
(cfs)	98	100	87	83	91	89	72
Natural Flow	17	19	6	5	11	9	5
Import	81	81	81	78	80	80	67
Storage Change (ac-ft)	-107.0	-106.0	-142.0	-160.0	-142.0	-143.0	-177.0
(cfs)	-54	-53	-72	-81	-72	-72	-89
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)	36.3	39.3	38.1	38.1	37.0	34.7	33.6
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	134	134	140	144	144	144	144
Storage (Project Water)	36	34	52	61	53	55	72
Natural Flow	17	19	6	5	11	9	5
Import Water	81	81	81	78	80	80	67
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	134	134	140	144	144	144
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	98	100	87	83	91	89	72
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	128	123	127	132	132	132	132
Controlling Gage	Talmage	Cloverdale	Cloverdale	Cloverdale	Cloverdale	Cloverdale	Cloverdale
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	140	140	145	149	149	149
Talmage (USGS 11462080)	96.1	128	129	134	138	138	138
Hopland (USGS 11462500)	84.8	132	132	135	136	137	135
Cloverdale (USGS 11463000)	70.9	129	123	127	132	132	132
Geyserville (USGS 11463500)	54.4	139	136	132	135	135	135
Jimtown (USGS 11463682)	48.5	161	157	154	157	160	162
Digger Bend (USGS 11463980)	38.2	186	184	179	178	179	180
Healdsburg (USGS 11464000)	35.6	181	179	176	175	177	180
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-12	-10	-10	-11	-11	-10	-11
Talmage - Hopland	+4	+3	+3	-1	-1	-2	-3
Hopland - Cloverdale	-4	-9	-6	-5	-3	-6	-3
Cloverdale - Jimtown	+34	+30	+30	+29	+29	+29	+32
Jimtown - Digger Bend	+24	+25	+25	+22	+19	+19	+17
Digger Bend - Healdsburg <i>*when Digger Bend > 400 cfs, next u/s gage (Jimtown) used</i>	-7	-6	-4	-3	-1	-1	-1
Upper Russian Net Reach Loss/Gain	+38	+34	+39	+30	+31	+29	+31
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-12	-16	-13	-18	-15	-18	-18
Storage (Project Water)	-12	-16	-13	-18	-15	-18	-18
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	98	100	87	83	91	89	72
Project Water Release Required	Yes	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).

	6/30/2023	7/1/2023	7/2/2023	7/3/2023	7/4/2023	7/5/2023	7/6/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-190.0	-216.0	-244.0	-216.0	-243.0	-216.0	-216.0
(cfs)	-96	-109	-123	-109	-123	-109	-109
Evaporation (ac-ft)	45.5	51.1	51.1	42.6	39.1	34.0	35.7
Inflow (Natural Flow)	21	10	0	7	0	2	3
WSD Release Gage	93	94	94	94	94	94	94
Storage (Project Water)	73	83	94	87	94	92	91
Natural Flow	21	10	0	7	0	2	3
V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	80	80	80	80	80	80	80
Controlling Compliance Gage							
Min Gage Flow	93	93	94	93	93	93	93
Controlling Gage	WSD Release	Dry Crk Mouth	WSD Release	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth
All Compliance Gages							
	<i>Crk mi.</i>						
WSD Release	14.3	93	94	94	94	94	94
Yoakim (USGS 11465200)	11.1	98	99	98	97	98	98
Lambert (USGS 11465240)	6.8	102	103	103	102	102	101
Dry Crk Mouth (USGS 11465350)	0.1	94	93	94	93	93	93
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	21	10	0	7	0	2	3
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+5	+5	+4	+3	+4	+4	+4
Yoakim - Lambert	+5	+4	+4	+5	+4	+4	+4
Lambert - Dry Crk Mouth	-8	-9	-9	-9	-9	-9	-9
WSD - Dry Crk Mouth	+1	+0	+0	-1	-1	-1	-2
WSD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss/Gain to Controlling Gage	+0	+0	+0	-1	-1	-1	-2
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	117	115	131	139	133	135	139
Natural Flow	56	53	45	35	42	38	36
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	73	83	94	87	94	92	91
Natural Flow	22	10	0	6	0	1	2
Russian River d/s of Confluence Flow							
L. Mendocino Project Water + Import Water	117	115	131	139	133	135	139
L. Sonoma Project Water	73	83	94	87	94	92	91
Natural Flow	77	64	45	40	42	40	38
VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	60	60	60	60	60	60	60
Controlling Compliance Gage							
Min Gage Flow	179	169	163	161	157	159	161
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages							
	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	307	303	301	302	301	301
Hacienda (USGS 11467000)	21.8	179	169	163	161	157	161
Confluence to Windsor Reach Analysis							
Net Reach Loss/Gain to Windsor Gage	+31	+31	+30	+33	+33	+29	+28
L. Mendocino Project Water + Import Water	117	115	131	139	133	135	139
L. Sonoma Project Water	67	77	88	83	90	87	86
Natural Flow	109	95	75	73	75	69	65
Confluence to SCWA Wohler Production Facility Reach Analysis							
Approx. Flow u/s of Wohler	263	268	241	243	245	243	238
Net Reach Loss(-)/Gain(+)	-12	-4	-29	-25	-25	-29	-35
L. Mendocino Project Water + Import Water	117	115	131	139	133	135	139
L. Sonoma Project Water	67	77	88	83	90	87	86
Natural Flow	65	59	17	15	17	10	3
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-96	-103	-107	-107	-113	-113	-112
L. Mendocino Project Water + Import Water	117	115	131	139	133	135	139
L. Sonoma Project Water	0	0	10	0	2	3	9
Natural Flow	48	38	17	15	17	10	3
VIII. Water Production under Sonoma Water Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	167.0	195.4	155.4	163.3	173.7	166.6	153.0
Wohler	82.4	75.6	68.6	48.1	76.6	80.3	66.5
Mirabel	84.6	119.8	86.8	115.2	97.1	86.2	86.5
Town of Windsor River Wellfield	10.9	11.1	10.6	9.2	8.6	8.9	9.9
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).

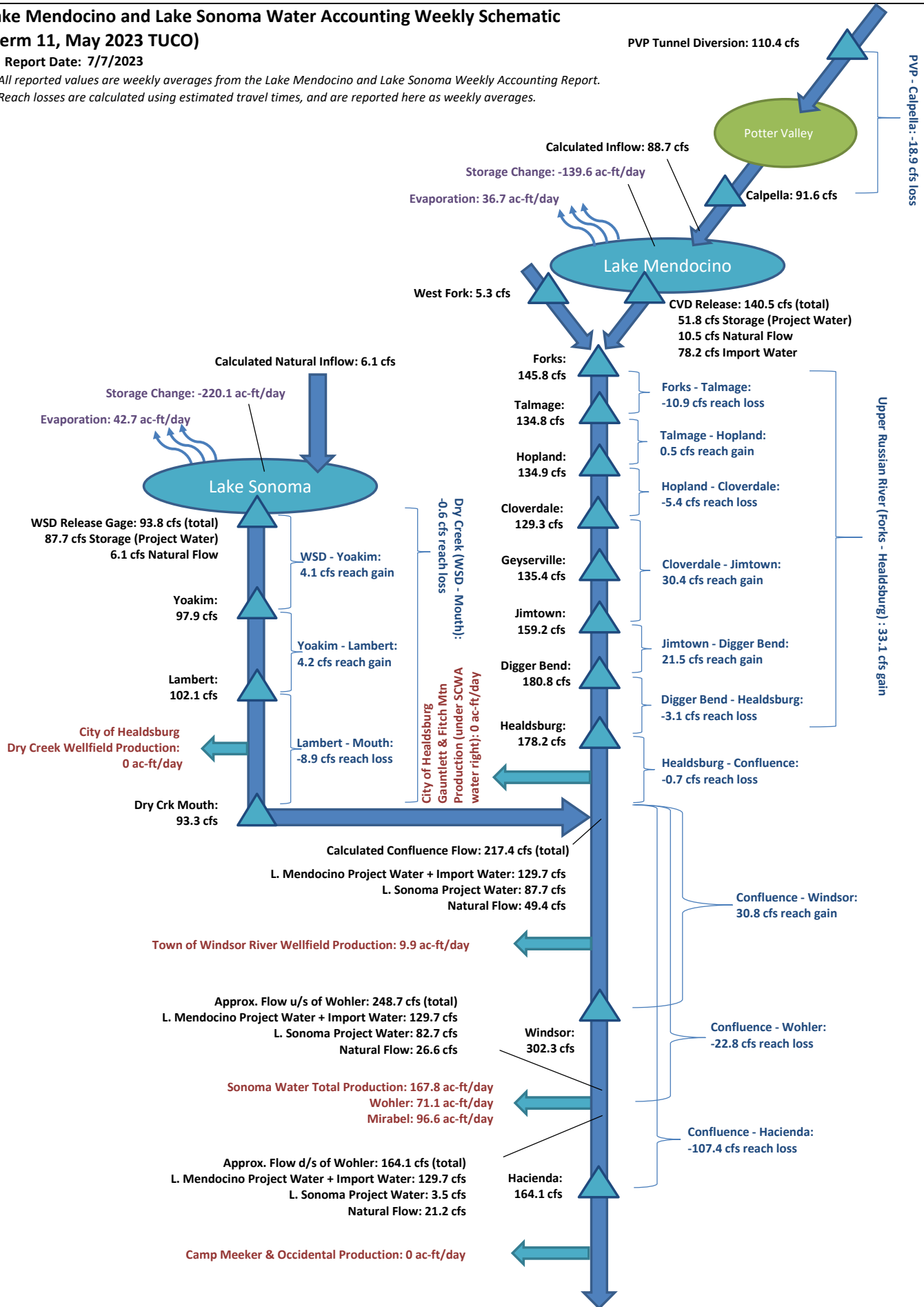
Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 11, May 2023 TUCO)

Report Date: 7/7/2023

All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.

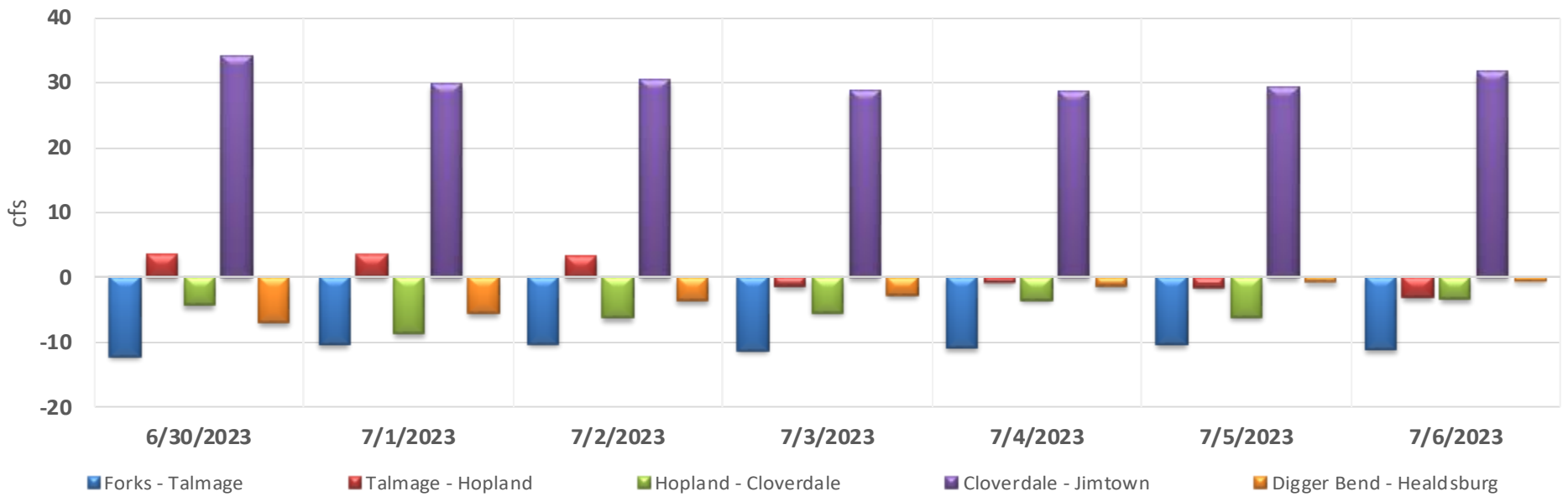
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



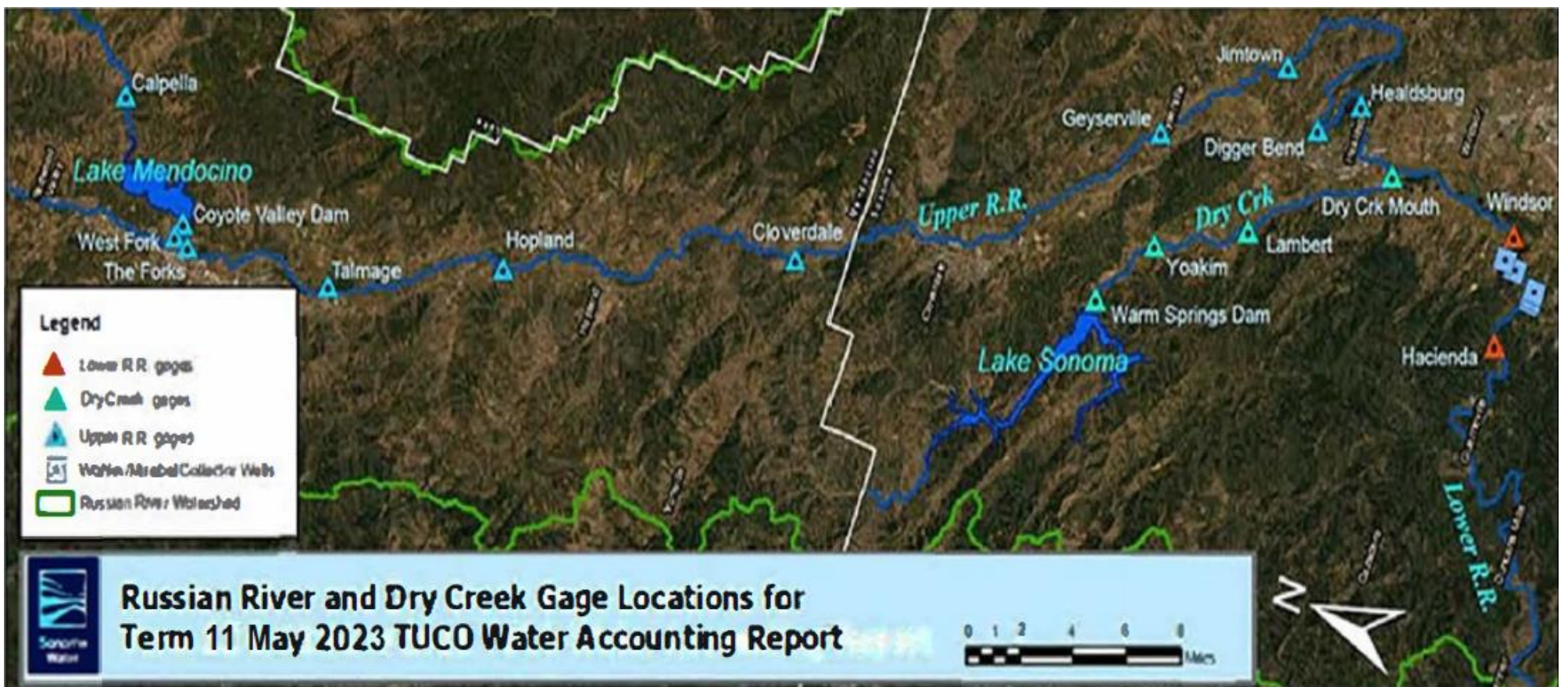
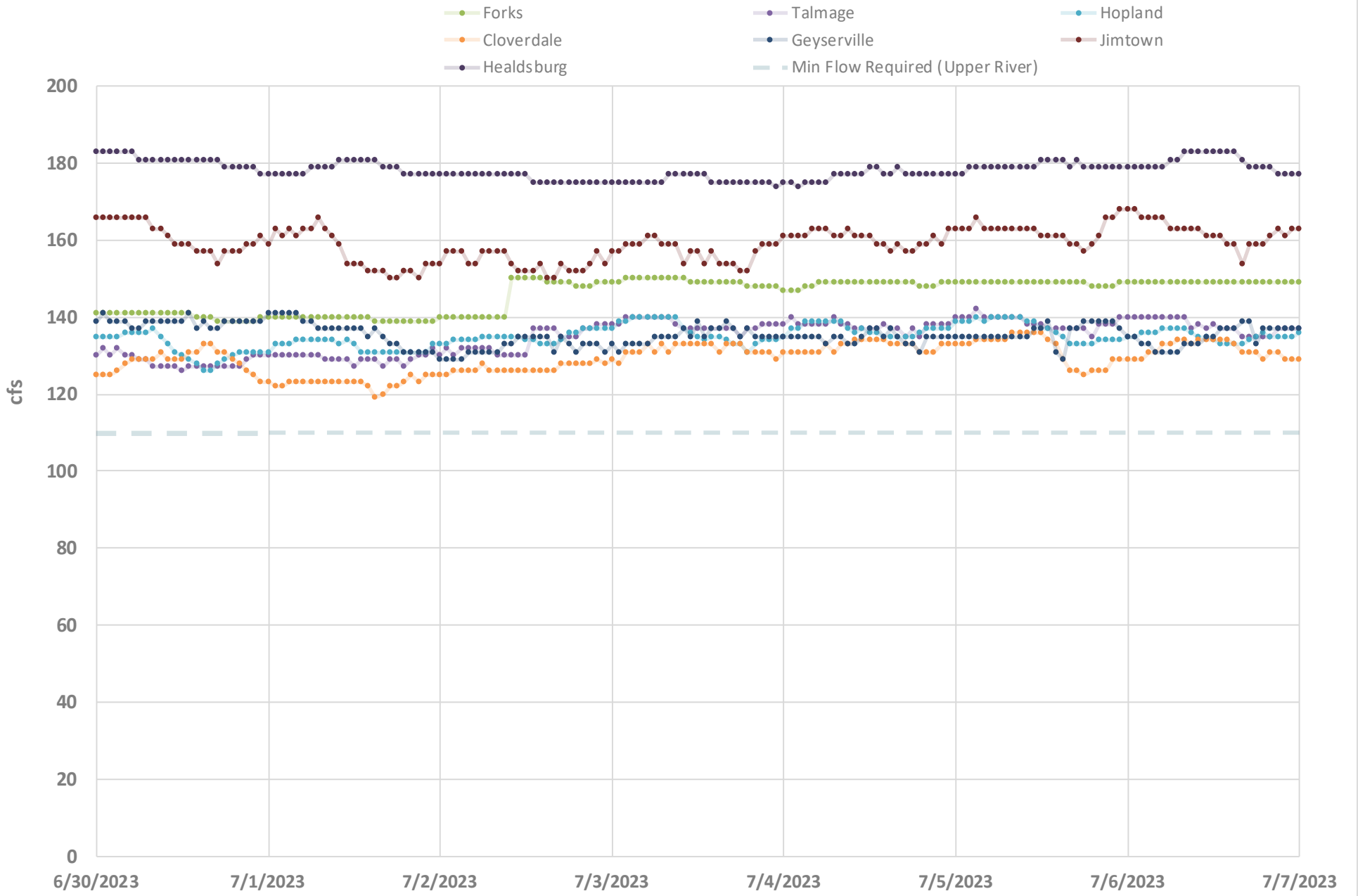
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



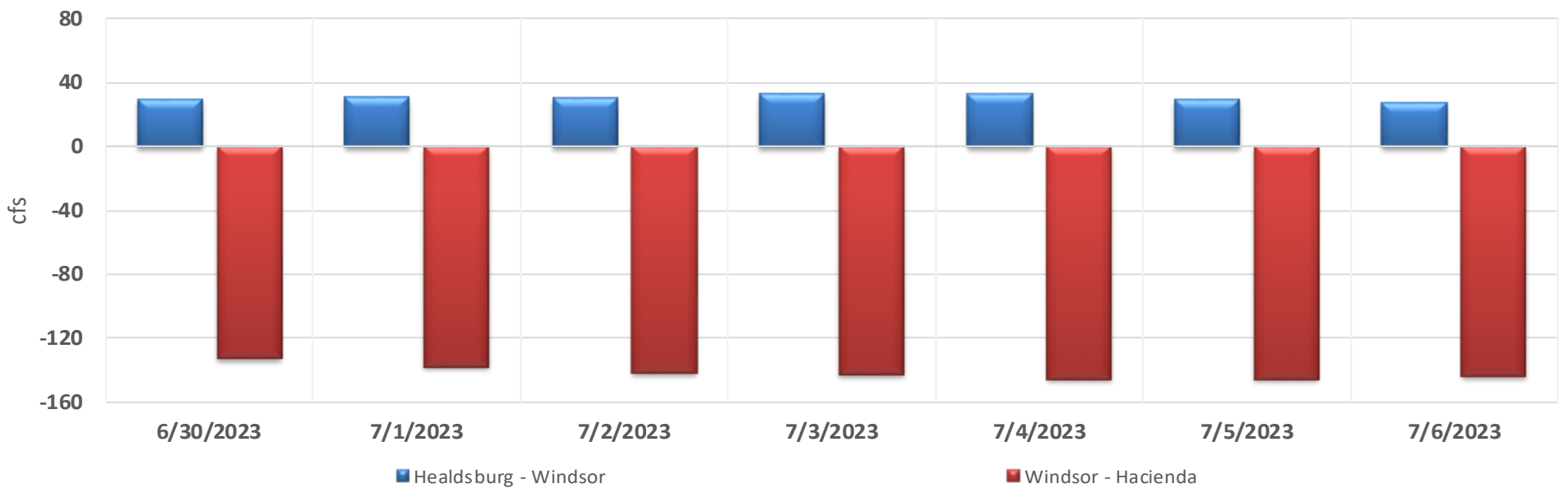
UPPER RUSSIAN RIVER STREAM FLOWS



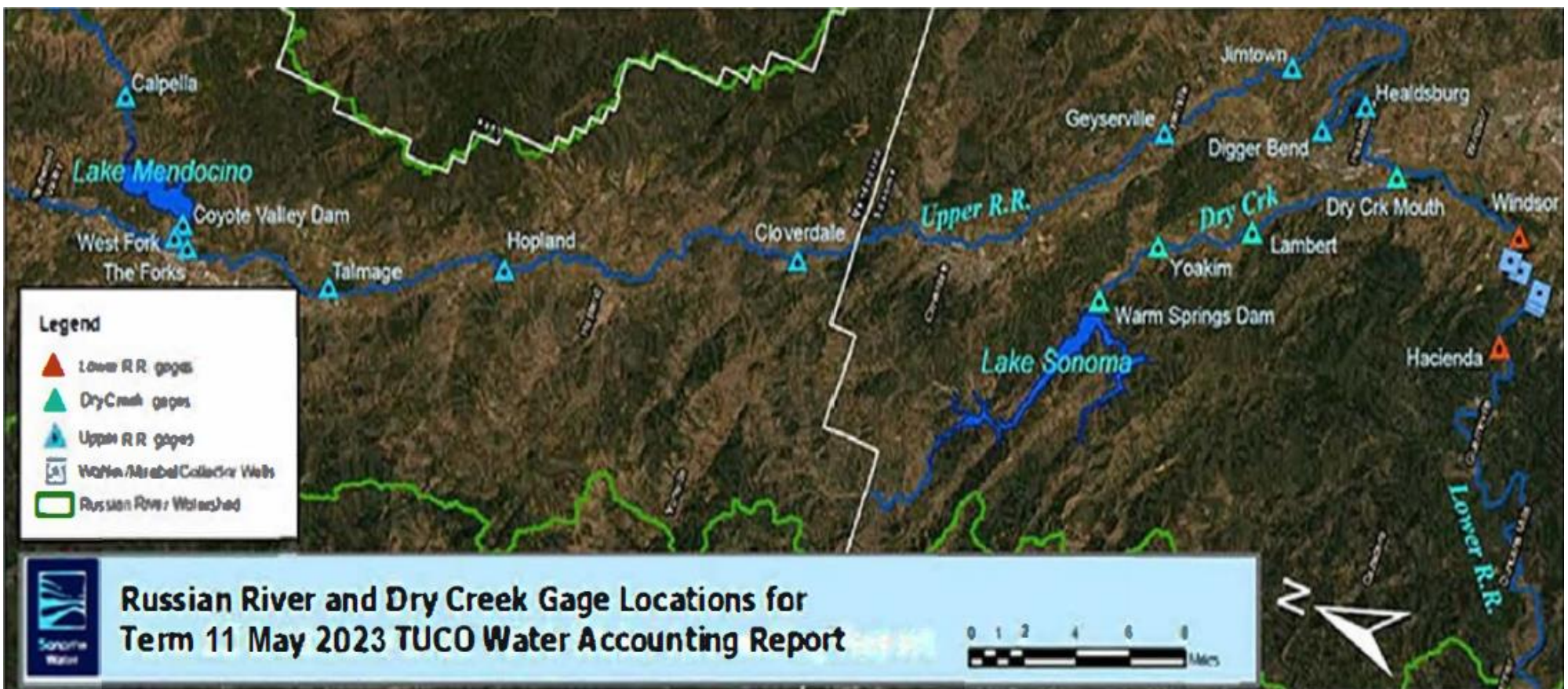
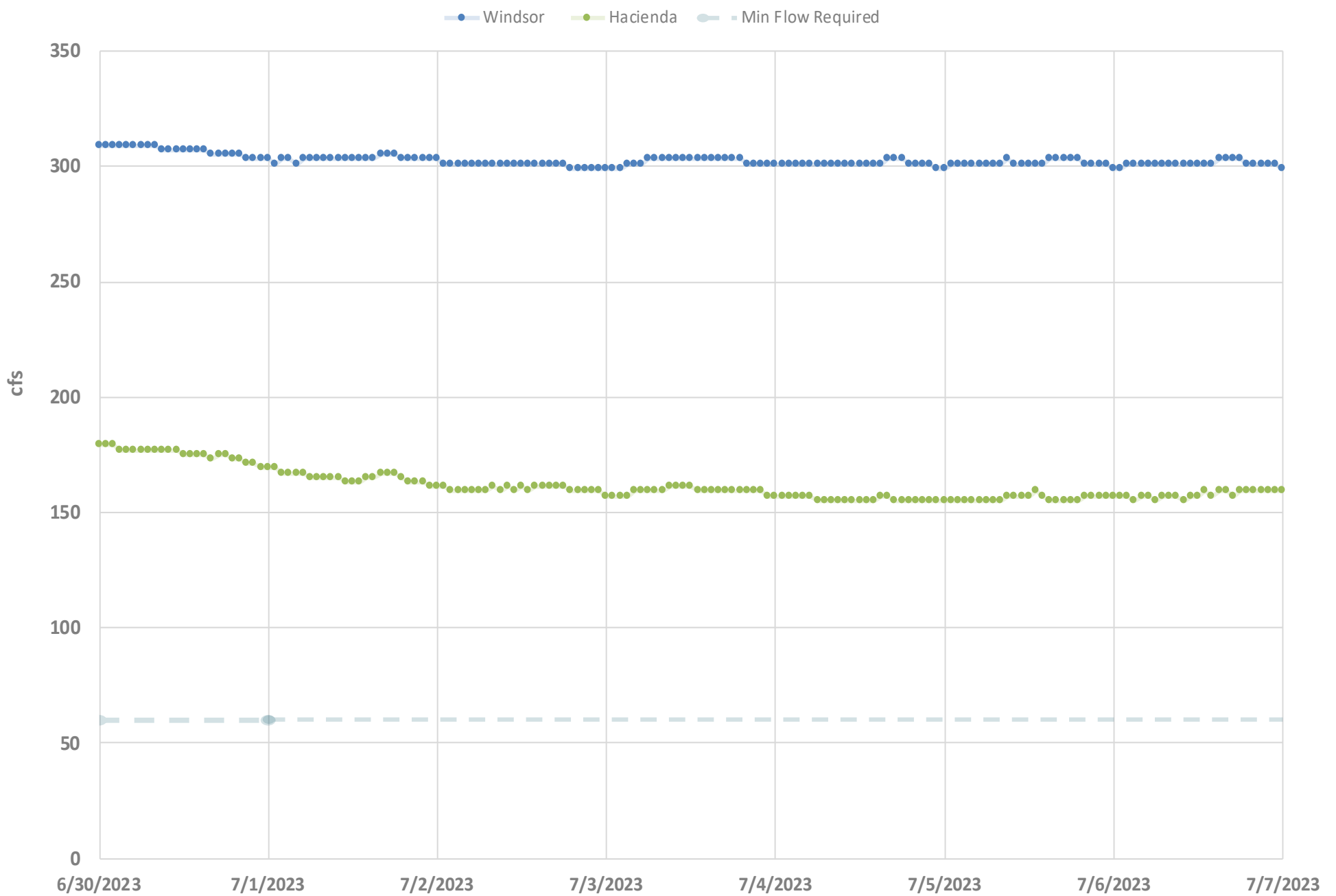
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



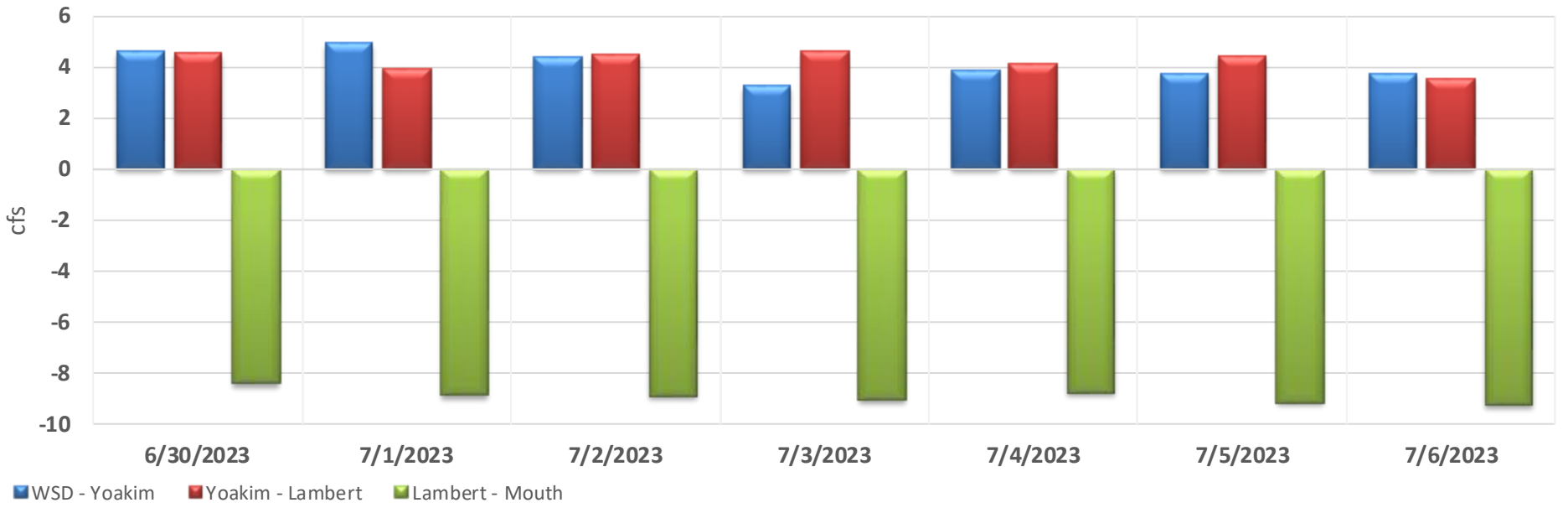
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

