

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

Report Date: 6/9/2023

Units are cfs unless noted otherwise

	6/2/2023	6/3/2023	6/4/2023	6/5/2023	6/6/2023	6/7/2023	6/8/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	130.0	130.0	130.0	130.0	110.0	100.0	100.0
PVID Requested Delivery	50.0	50.0	50.0	50.0	30.0	20.0	20.0
PVID Canals Actual Delivery	10.8	10.8	10.8	10.9	6.4	4.0	13.4
East Fork Release	119.0	119.0	119.0	119.0	104.0	96.0	87.0
PVID E Fork Diversions	39.2	39.2	39.2	39.1	23.6	16.0	6.6
PVID Water Use - PG&E Contract	50.0	50.0	50.0	50.0	30.0	20.0	20.0
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)	79.8	79.8	79.8	79.9	80.4	80.0	80.4
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	138.5	133.5	133.6	136.1	133.6	111.2	105.0
Net Reach Loss(-)/Gain(+)	+8.5	+3.5	+3.6	+6.1	+23.6	+11.2	+5.0
Unimpaired Natural Flow @ Calpella (est.)	9.3	9.0	9.0	8.2	8.2	9.0	8.2
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)	266	281	265	297	277	226	210
(cfs)	134	141	134	150	139	114	106
Natural Flow	54	61	54	70	59	34	26
Import	80	80	80	80	80	80	80
Storage Change (ac-ft)	+18.0	+36.0	+17.0	+54.0	+36.0	-18.0	-36.0
(cfs)	+9	+18	+9	+27	+18	-9	-18
Stored Natural Flow (cfs)	9	18	9	27	18	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	30.0	31.1	33.2	24.7	22.5	25.7	27.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	110	108	108	110	110	110	110
Storage (Project Water)	0	0	0	0	0	0	4
Natural Flow	38	36	37	36	36	34	26
Import Water	72	72	72	74	74	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	110	108	108	110	110	110
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	110	108	108	110	110	114	106
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	124	124	125	125	125	124
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Talmage	Talmage
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	126	124	124	125	125	124
Talmage (USGS 11462080)	96.1	128	126	127	127	128	124
Hopland (USGS 11462500)	84.8	141	136	137	134	133	133
Cloverdale (USGS 11463000)	70.9	192	187	183	182	177	175
Geyserville (USGS 11463500)	54.4	253	247	240	234	232	228
Jimtown (USGS 11463682)	48.5	247	238	231	227	224	220
Digger Bend (USGS 11463980)	38.2	290	283	274	268	266	261
Healdsburg (USGS 11464000)	35.6	308	298	289	281	275	269
Net Reach Loss(-)/Gain(+)							
Forks - Talmage		+2	+1	+3	+2	+3	-0
Talmage - Hopland		+12	+11	+10	+8	+5	+8
Hopland - Cloverdale		+49	+49	+47	+46	+44	+44
Cloverdale - Jimtown		+53	+48	+46	+45	+44	+44
Jimtown - Digger Bend		+41	+43	+42	+41	+41	+44
Digger Bend - Healdsburg <i>*when Digger Bend > 400 cfs, next u/s gage (Jimtown) used</i>		+16	+14	+13	+11	+9	+8
Upper Russian Net Reach Loss/Gain		+172	+166	+161	+153	+146	+142
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage		+0	+0	+0	+0	+0	-0
Storage (Project Water)		0	0	0	0	0	-0
Pass-through Water (Nat. + Imp.) + Natural		0	0	0	0	0	0
Total Pass-through Water		110	108	108	110	110	106
Project Water Release Required		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).

	6/2/2023	6/3/2023	6/4/2023	6/5/2023	6/6/2023	6/7/2023	6/8/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-192.0	-137.0	-220.0	-164.0	-220.0	-164.0	-165.0
(cfs)	-97	-69	-111	-83	-111	-83	-83
Evaporation (ac-ft)	41.2	42.8	42.8	29.6	14.8	14.8	31.2
Inflow (Natural Flow)	20	49	7	28	0	21	29
WSD Release Gage	96	96	96	96	96	96	96
Storage (Project Water)	76	47	89	68	96	75	67
Natural Flow	20	49	7	28	0	21	29
V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	80	80	80	80	80	80	80
Controlling Compliance Gage							
Min Gage Flow	96	96	96	96	96	96	96
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	96	96	96	96	96
Yoakim (USGS 11465200)	11.1	103	103	103	103	103	103
Lambert (USGS 11465240)	6.8	108	108	108	107	106	107
Dry Crk Mouth (USGS 11465350)	0.1	118	117	115	115	117	116
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	20	49	7	28	0	21	29
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+7	+7	+7	+7	+7	+7	+7
Yoakim - Lambert	+5	+5	+5	+4	+4	+4	+4
Lambert - Dry Crk Mouth	+10	+9	+7	+8	+11	+10	+9
WSD - Dry Crk Mouth	+22	+21	+19	+18	+21	+21	+20
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	72	72	72	74	74	80	84
Natural Flow	209	201	198	189	182	179	168
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	76	47	89	68	96	75	67
Natural Flow	42	70	26	47	21	42	49
Russian River d/s of Confluence Flow	426	415	404	396	392	389	385
L. Mendocino Project Water + Import Water	72	72	72	74	74	80	84
L. Sonoma Project Water	76	47	89	68	96	75	67
Natural Flow	252	271	224	236	202	221	217
VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	60	60	60	60	60	60	60
Controlling Compliance Gage							
Min Gage Flow	393	376	360	349	341	315	294
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages							
	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	416	408	402	397	390	367
Hacienda (USGS 11467000)	21.8	393	376	360	349	315	294
Confluence to Windsor Reach Analysis							
Net Reach Loss/Gain to Windsor Gage	-10	-7	-5	-1	+2	+0	-20
L. Mendocino Project Water + Import Water	72	72	72	74	74	80	84
L. Sonoma Project Water	72	44	86	64	93	71	64
Natural Flow	241	264	219	236	204	221	197
Confluence to SCWA Wohler Production Facility Reach Analysis							
Approx. Flow u/s of Wohler	437	420	439	423	403	372	366
Net Reach Loss(-)/Gain(+)	+12	+5	+35	+28	+11	-17	-19
L. Mendocino Project Water + Import Water	72	72	72	74	74	80	84
L. Sonoma Project Water	72	44	86	64	93	71	64
Natural Flow	263	276	259	264	213	204	198
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-33	-39	-44	-47	-51	-74	-91
L. Mendocino Project Water + Import Water	72	72	72	74	74	80	84
L. Sonoma Project Water	28	0	7	0	31	15	0
Natural Flow	263	276	259	254	213	204	190
VIII. Water Production under Sonoma Water Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	87.8	87.8	157.1	147.3	123.1	112.7	143.0
Wohler	2.2	2.2	54.7	51.7	59.4	65.7	68.4
Mirabel	85.6	85.7	102.4	95.7	63.7	47.0	74.6
Town of Windsor River Wellfield	8.1	7.8	7.0	7.7	6.7	7.7	7.0
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

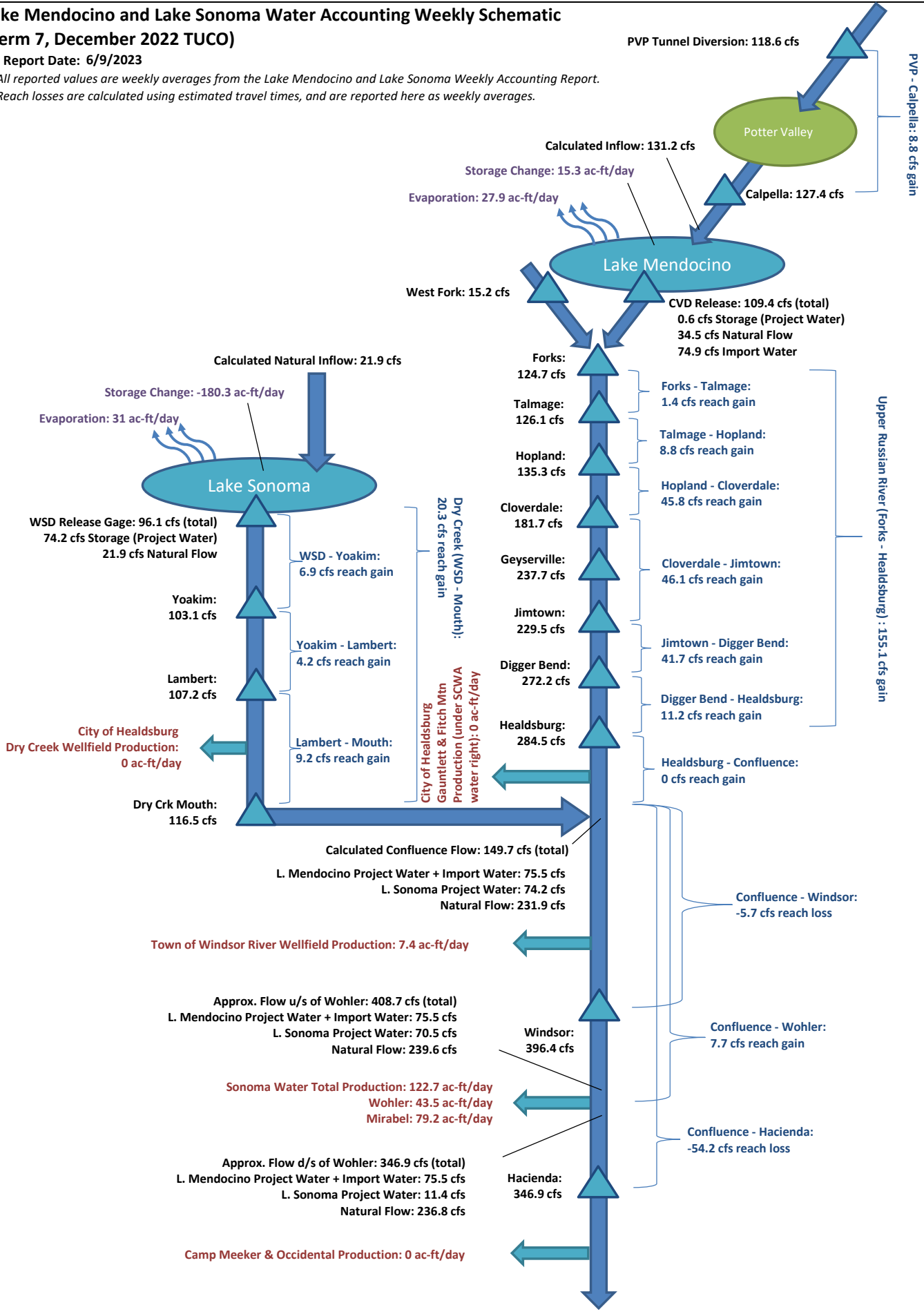
Notes:

- 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 7, December 2022 TUCO)

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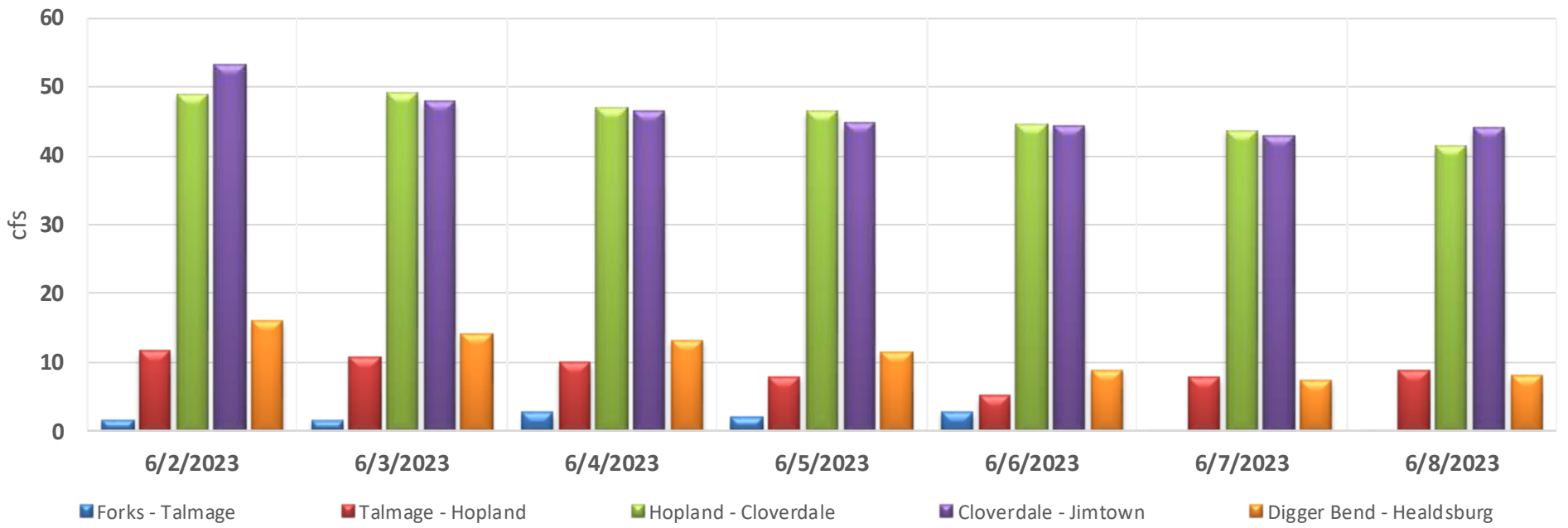
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



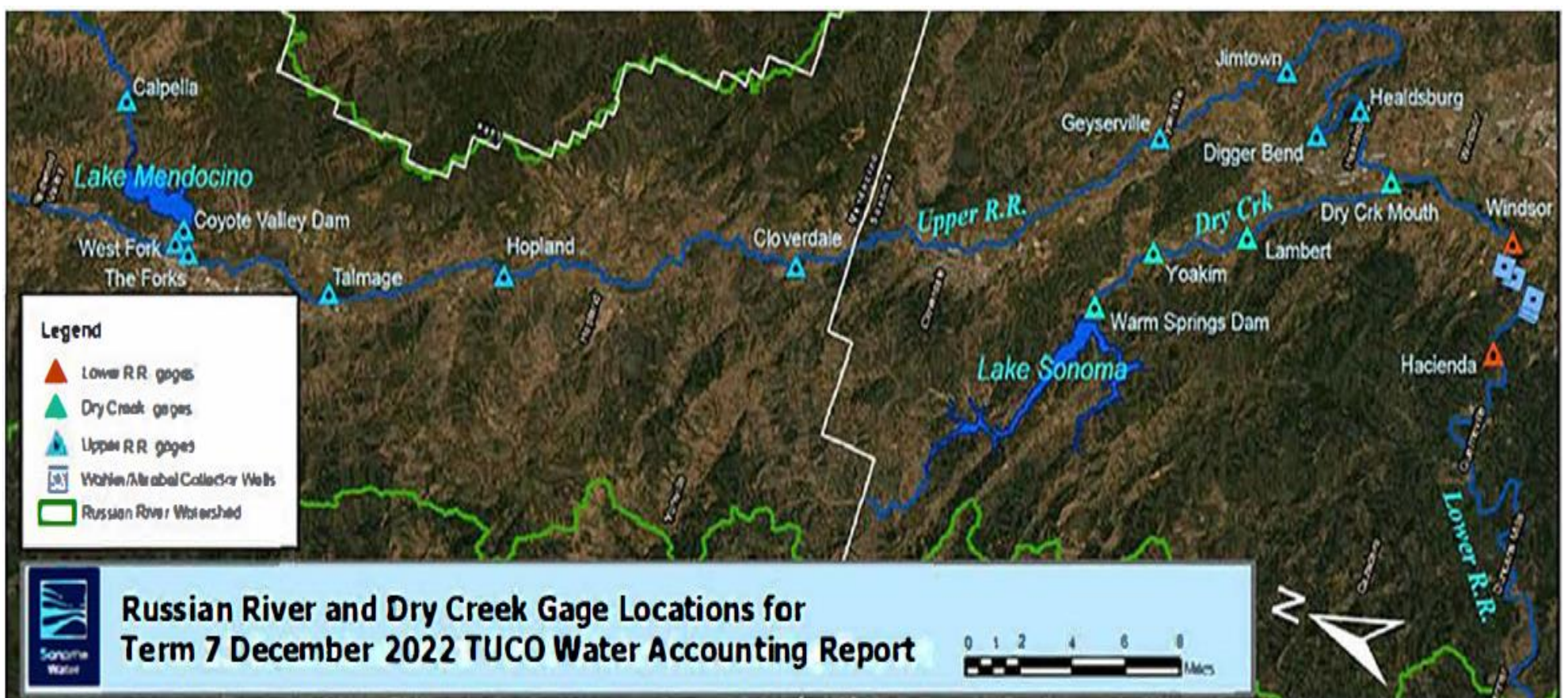
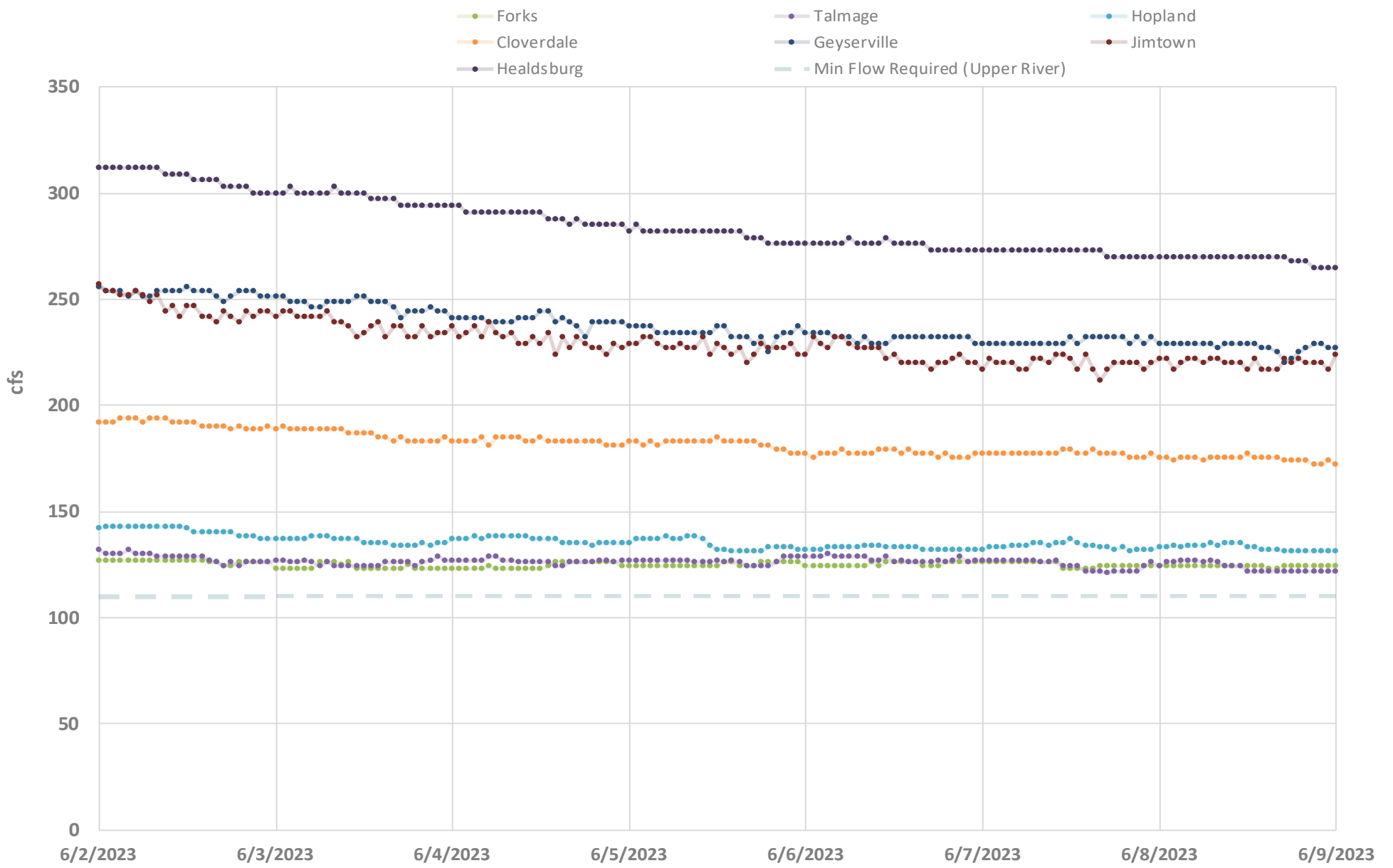
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



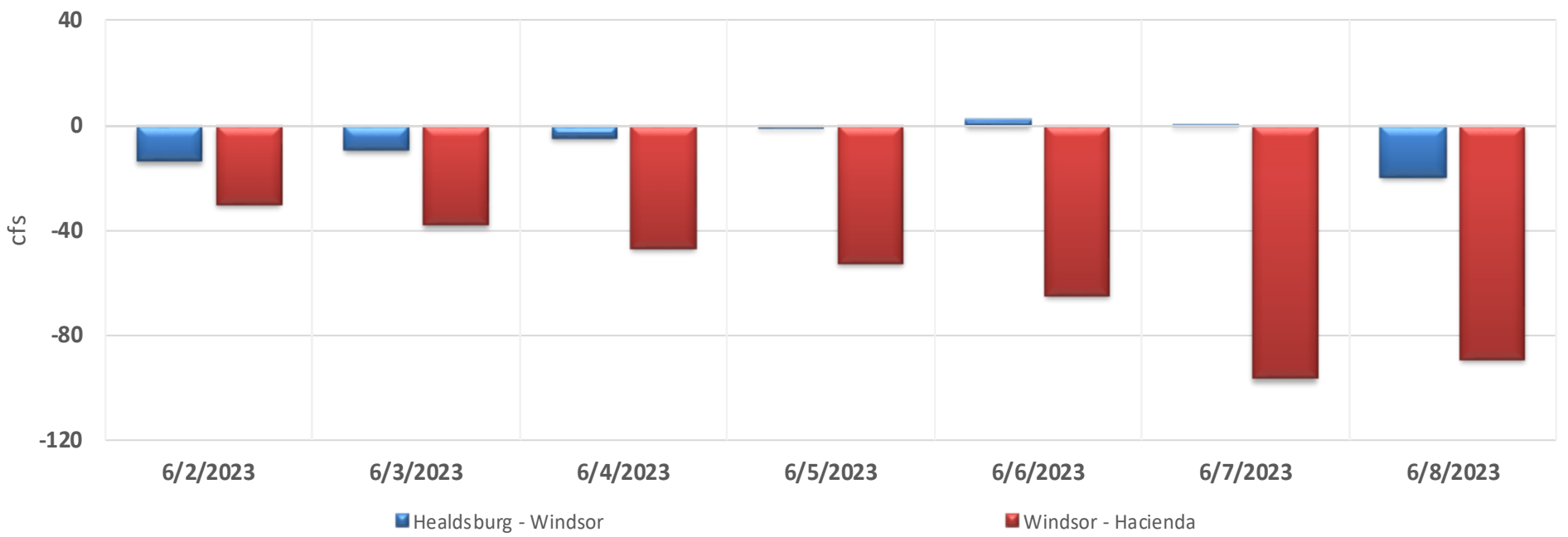
UPPER RUSSIAN RIVER STREAM FLOWS



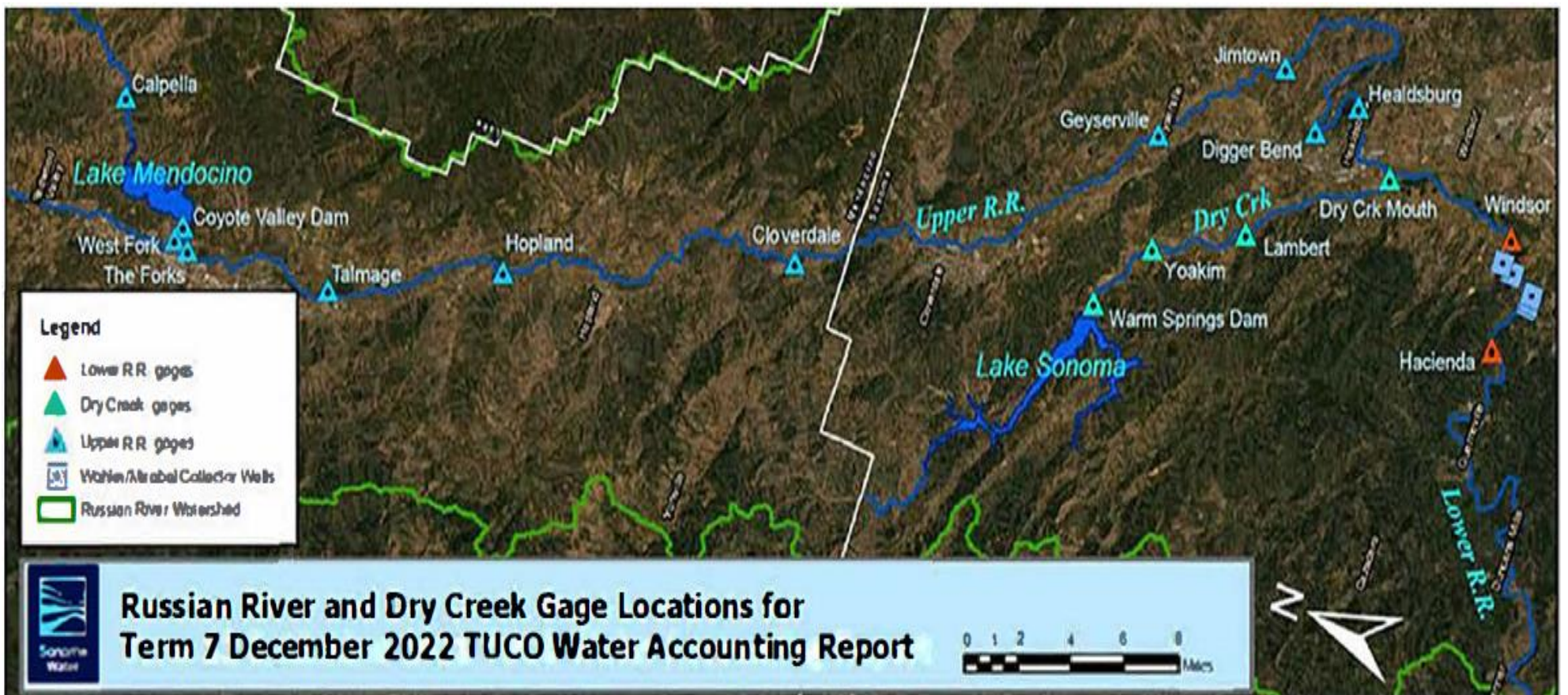
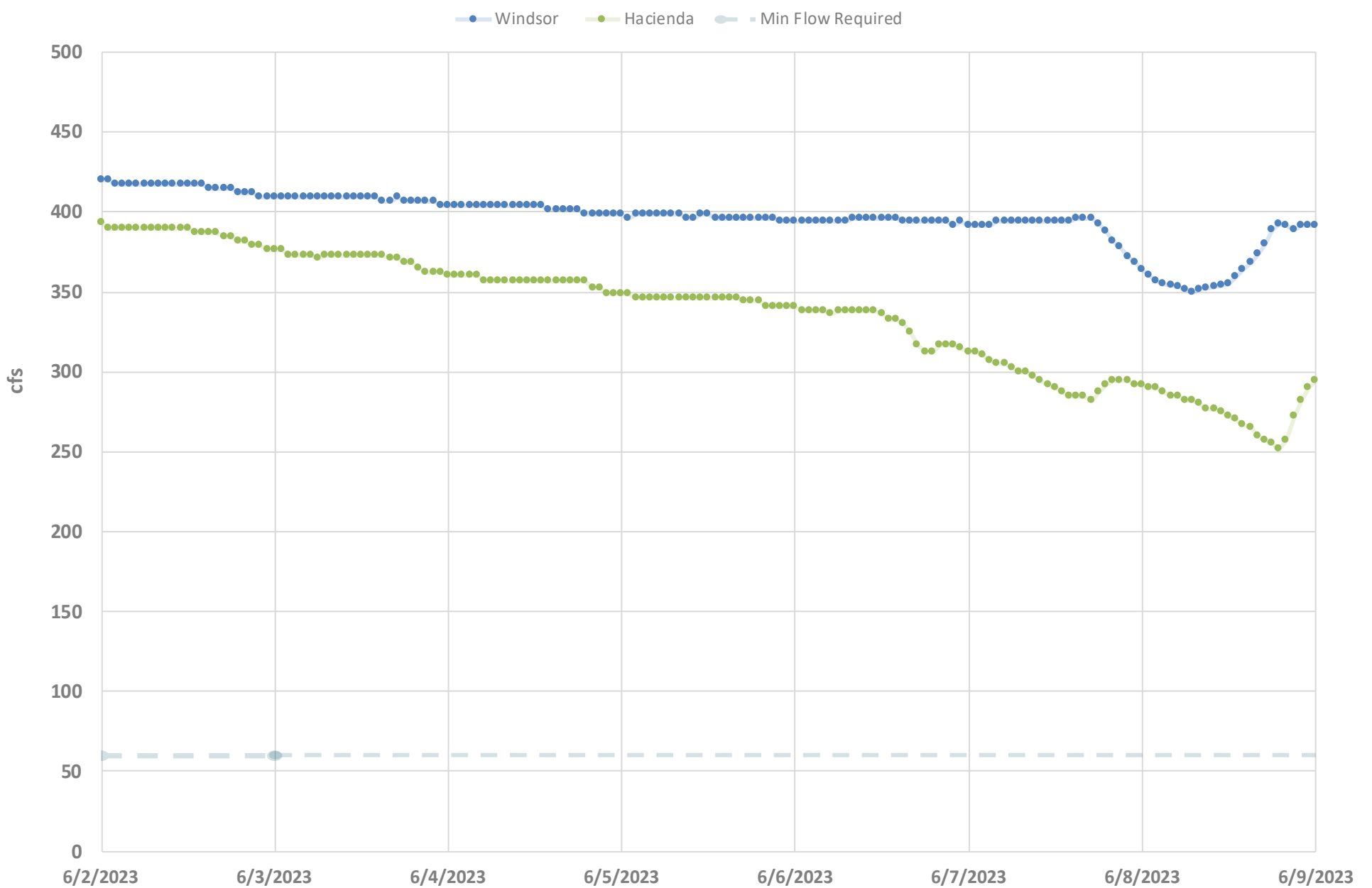
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



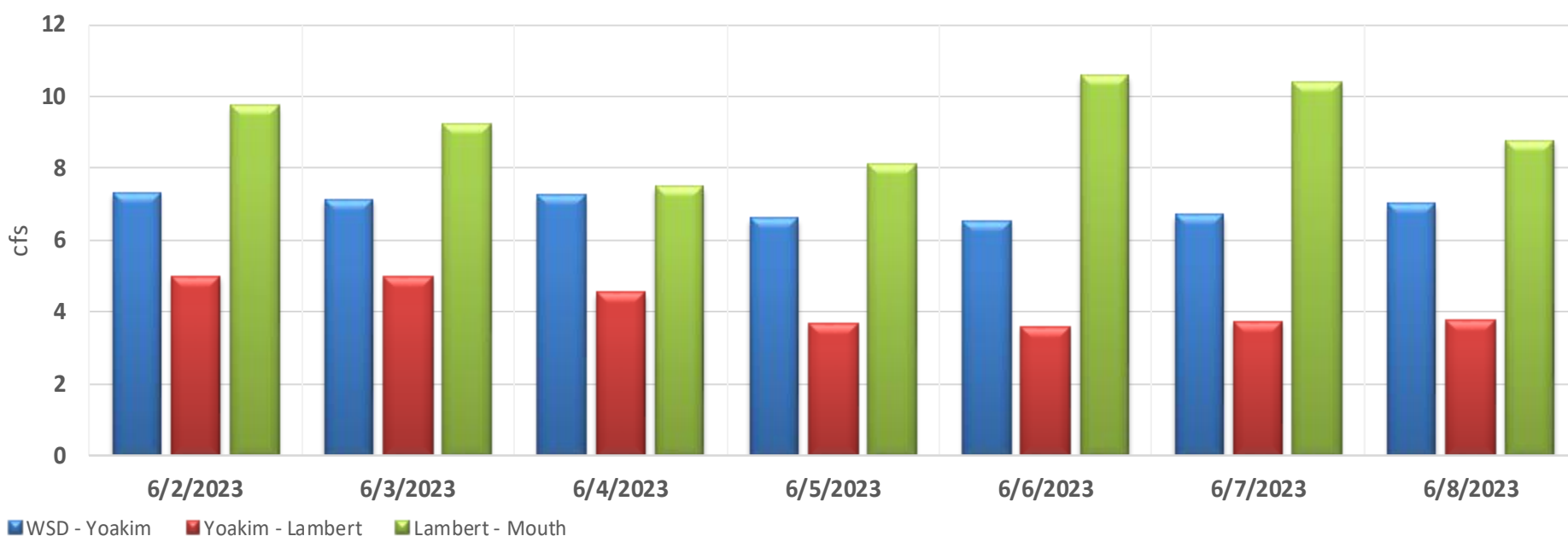
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

