

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

Report Date: 5/26/2023

Units are cfs unless noted otherwise

	5/19/2023	5/20/2023	5/21/2023	5/22/2023	5/23/2023	5/24/2023	5/25/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	130.0	130.0	130.0	130.0	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	5.6	10.6	13.2	17.4	15.0	7.7	7.7
East Fork Release	124.0	119.0	117.0	113.0	115.0	122.0	122.0
PVID E Fork Diversions	44.4	39.4	36.8	32.6	35.0	42.3	42.3
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)	79.6	79.6	80.2	80.4	80.0	79.7	79.7
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	149.9	142.0	143.0	138.7	129.5	137.9	138.0
Net Reach Loss(-)/Gain(+)	+19.9	+12.0	+13.0	+8.7	-0.5	+7.9	+8.0
Unimpaired Natural Flow @ Calpella (est.)	8.6	8.2	8.2	7.9	7.1	7.1	6.8
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)	318	288	289	142	216	220	285
(cfs)	160	145	146	72	109	111	144
Natural Flow	80	65	66	8	29	31	64
Import	80	80	80	64	80	80	80
Storage Change (ac-ft)	-36.0	-17.0	+17.0	-122.0	-46.0	-46.0	+18.0
(cfs)	-18	-9	+9	-62	-23	-23	+9
Stored Natural Flow (cfs)	0	0	9	0	0	0	9
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	29.0	28.0	28.0	28.0	25.9	26.9	25.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	164	140	123	119	119	121	122
Storage (Project Water)	4	0	0	47	10	10	0
Natural Flow	80	65	50	8	29	31	48
Import Water	80	80	73	64	80	80	73
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	164	140	123	119	119	121
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	160	145	123	72	109	111	122
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		179	154	136	132	130	131	132
Controlling Gage		Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages								
	<i>Rvr mi.</i>							
Forks (CVD + USGS 11461000)	99.0	179	154	136	132	130	131	132
Talmage (USGS 11462080)	96.1	193	175	161	155	153	154	155
Hopland (USGS 11462500)	84.8	248	227	209	198	192	190	191
Cloverdale (USGS 11463000)	70.9	268	257	242	230	225	220	220
Geyserville (USGS 11463500)	54.4	353	344	330	316	304	298	295
Jimtown (USGS 11463682)	48.5	388	376	361	344	330	320	309
Digger Bend (USGS 11463980)	38.2	>400 cfs	>400 cfs	>400 cfs	389	368	354	342
Healdsburg (USGS 11464000)	35.6	448	436	423	405	386	377	368
Net Reach Loss(-)/Gain(+)								
Forks - Talmage		+11	+17	+23	+23	+23	+23	+22
Talmage - Hopland		+53	+49	+45	+42	+39	+37	+36
Hopland - Cloverdale		+19	+21	+26	+28	+31	+30	+29
Cloverdale - Jimtown		+118	+112	+111	+109	+103	+97	+90
Jimtown - Digger Bend		n/d	n/d	n/d	+42	+37	+33	+31
Digger Bend - Healdsburg <i>*when Digger Bend > 400 cfs, next u/s gage (Jimtown) used</i>		+55	+56	+57	+55	+53	+54	+55
Upper Russian Net Reach Loss/Gain		+256	+256	+262	+300	+285	+274	+263
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		160	145	123	72	109	111	122
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).

	5/19/2023	5/20/2023	5/21/2023	5/22/2023	5/23/2023	5/24/2023	5/25/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-138.0	-166.0	-83.0	-165.0	-166.0	-165.0	-166.0
(cfs)	-70	-84	-42	-83	-84	-83	-84
Evaporation (ac-ft)	36.9	33.6	36.8	41.6	32.9	30.4	25.6
Inflow (Natural Flow)	43	27	71	33	28	26	24
WSD Release Gage	94	94	94	95	95	94	95
Storage (Project Water)	51	67	23	62	67	68	71
Natural Flow	43	27	71	33	28	26	24

V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	80	80	80	80	80	80	80
Controlling Compliance Gage							
Min Gage Flow	94	94	94	95	95	94	95
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	94	94	94	95	95	94
Yoakim (USGS 11465200)	11.1	131	130	129	130	119	116
Lambert (USGS 11465240)	6.8	116	115	115	114	113	113
Dry Crk Mouth (USGS 11465350)	0.1	147	145	145	144	143	143
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	43	27	71	33	28	26	24
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+38	+36	+35	+36	+24	+21	+20
Yoakim - Lambert	-16	-14	-14	-16	-7	-3	-3
Lambert - Dry Crk Mouth	+31	+30	+30	+30	+30	+30	+30
WSD - Dry Crk Mouth	+52	+51	+51	+49	+47	+49	+48
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	84	80	73	97	72	72	57
Natural Flow	336	321	312	308	314	305	311
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	51	67	23	62	67	68	71
Natural Flow	96	79	122	82	76	75	72
Russian River d/s of Confluence Flow							
L. Mendocino Project Water + Import Water	84	80	73	97	72	72	57
L. Sonoma Project Water	51	67	23	62	67	68	71
Natural Flow	432	400	433	390	391	380	383

VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	125	125	125	125	125	125	125
Controlling Compliance Gage							
Min Gage Flow	500	489	480	465	449	440	434
Controlling Gage	Windsor	Windsor	Windsor	Windsor	Windsor	Windsor	Windsor
All Compliance Gages							
	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	500	489	480	465	449	434
Hacienda (USGS 11467000)	21.8	582	563	550	527	502	469
Confluence to Windsor Reach Analysis							
Net Reach Loss/Gain to Windsor Gage	-94	-92	-93	-89	-85	-83	-79
L. Mendocino Project Water + Import Water	84	80	73	97	72	72	57
L. Sonoma Project Water	47	63	19	58	63	64	67
Natural Flow	338	308	341	301	306	297	304
Confluence to SCWA Wohler Production Facility Reach Analysis							
Approx. Flow u/s of Wohler							
Net Reach Loss(-)/Gain(+)	+39	+60	+61	+39	+46	+27	+25
L. Mendocino Project Water + Import Water	84	80	73	97	72	72	57
L. Sonoma Project Water	47	63	19	58	63	64	67
Natural Flow	471	460	495	429	437	407	408
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-12	-18	-18	-22	-27	-39	-42
L. Mendocino Project Water + Import Water	84	80	73	97	72	72	57
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	467	445	435	426	427	405	408

VIII. Water Production under Sonoma Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	101.4	155.1	157.0	120.9	146.0	131.0	132.9
Wohler	39.5	67.8	72.5	38.3	48.8	48.6	49.7
Mirabel	61.9	87.3	84.5	82.6	97.2	82.4	83.2
Town of Windsor River Wellfield	7.0	6.9	7.6	7.7	7.3	7.7	7.6
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:

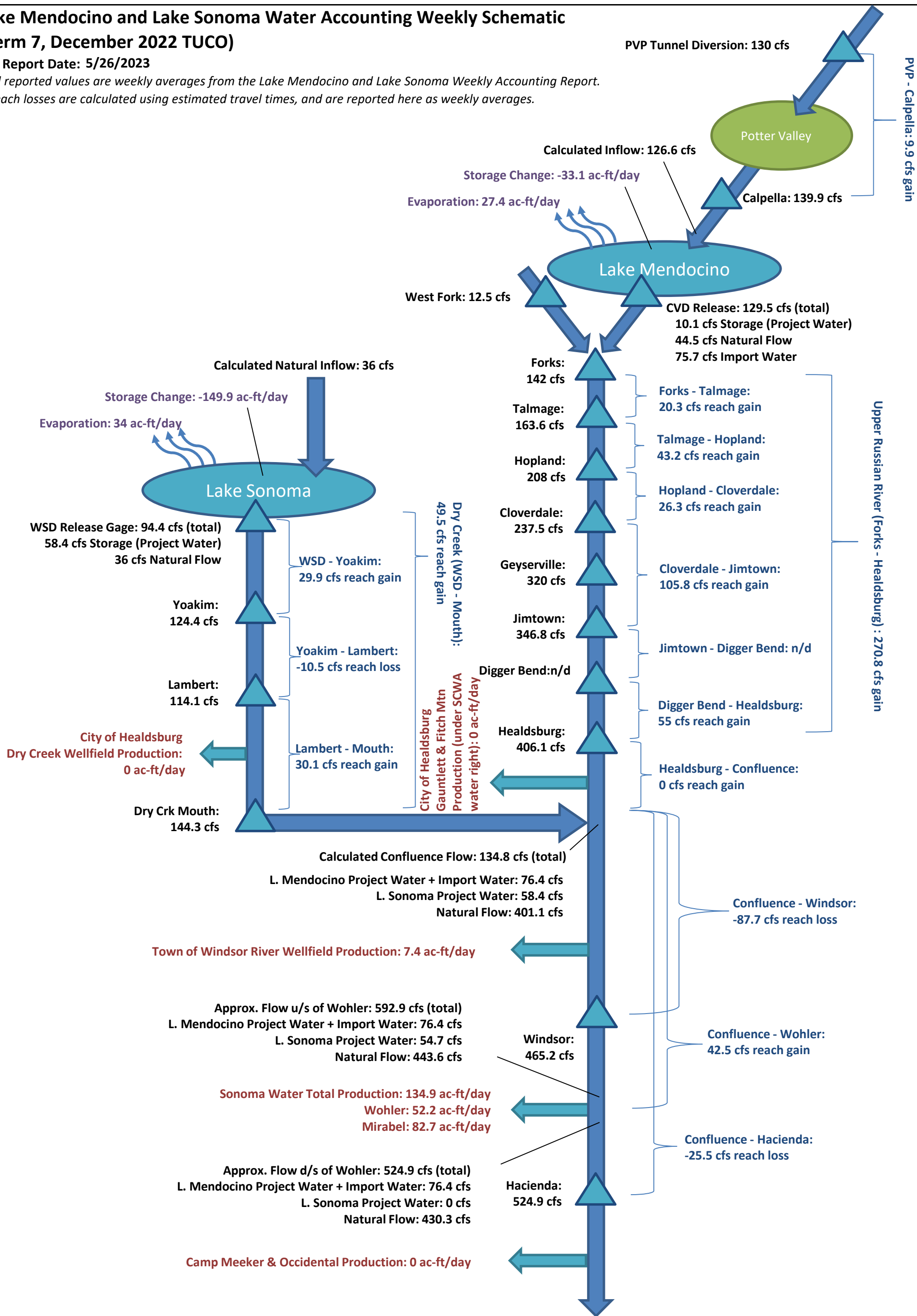
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 7, December 2022 TUCO)

Report Date: 5/26/2023

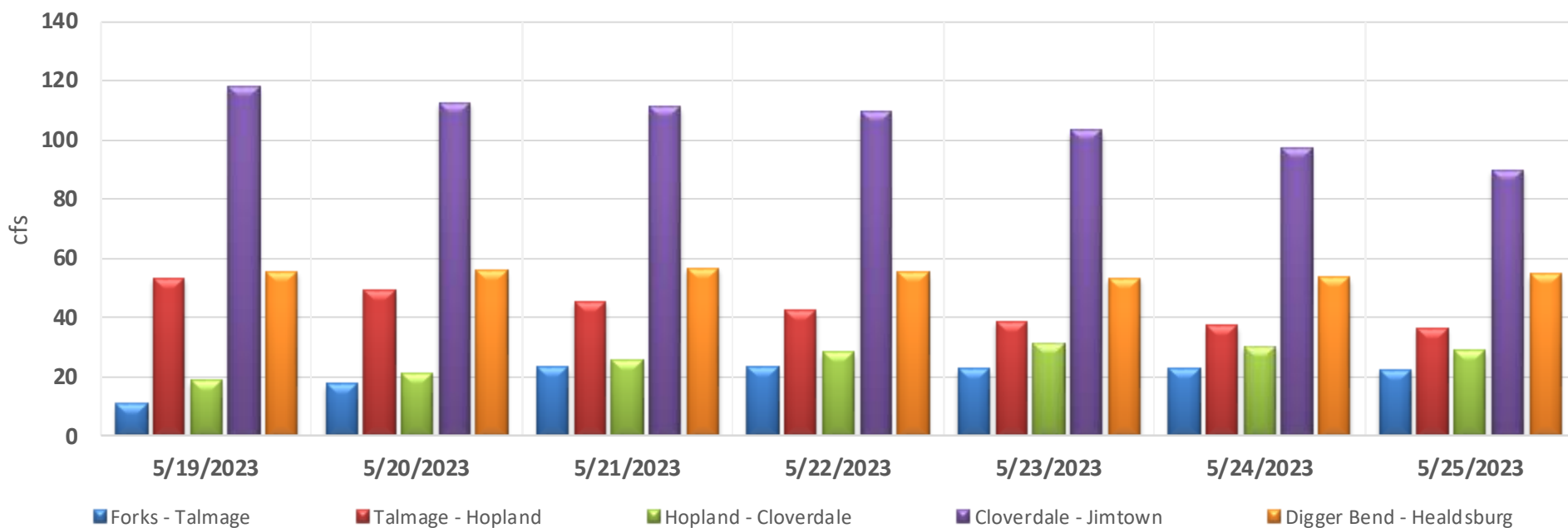
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



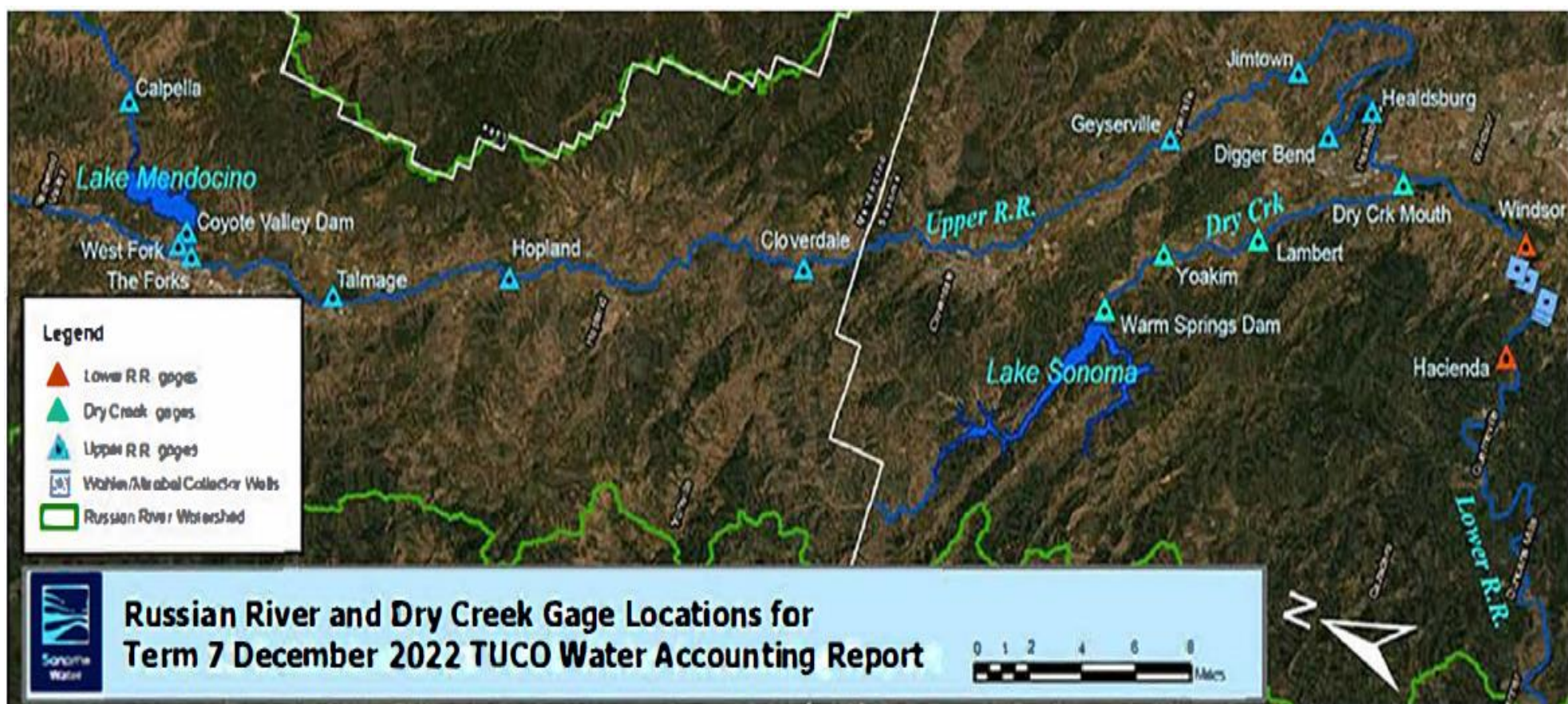
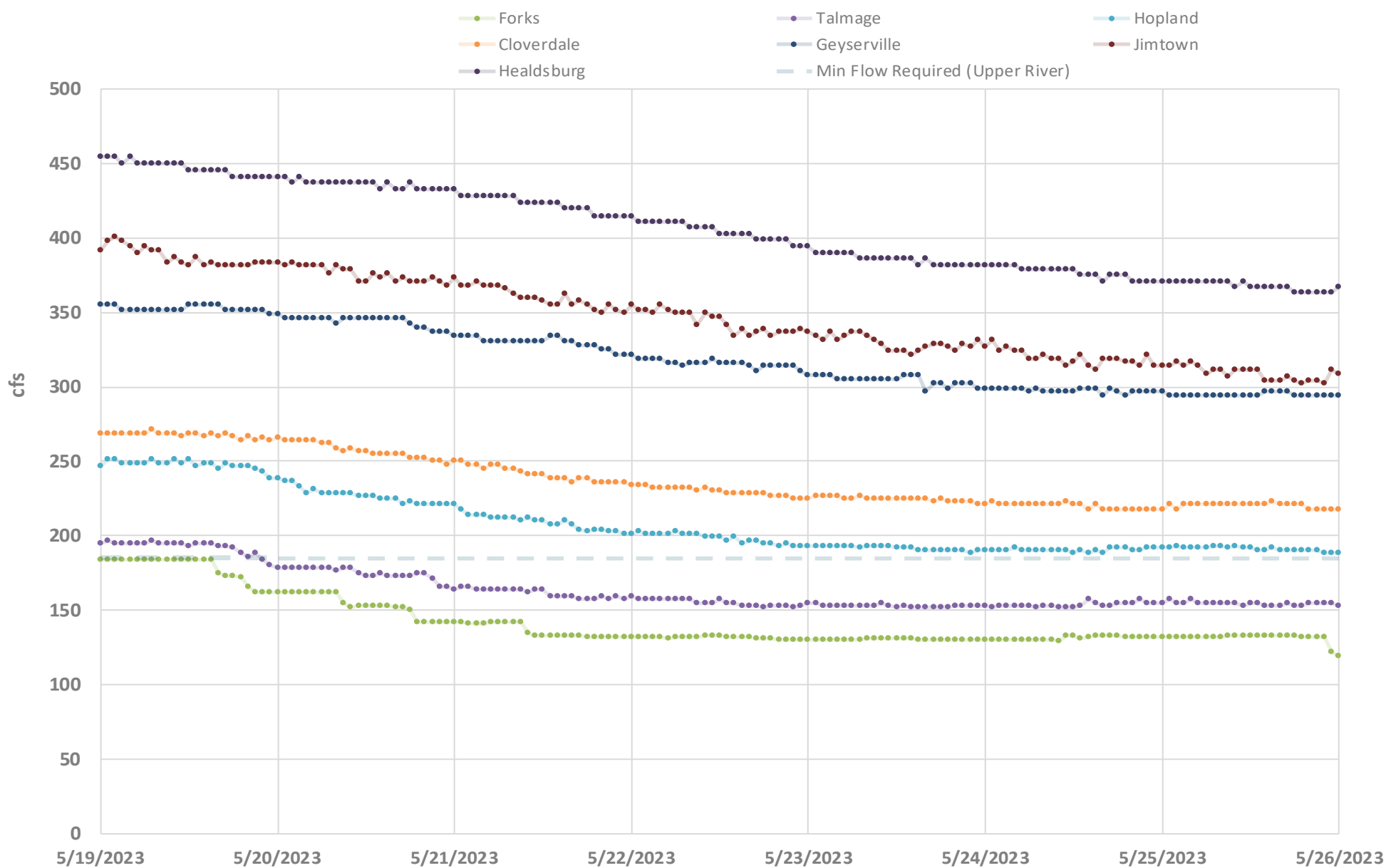
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



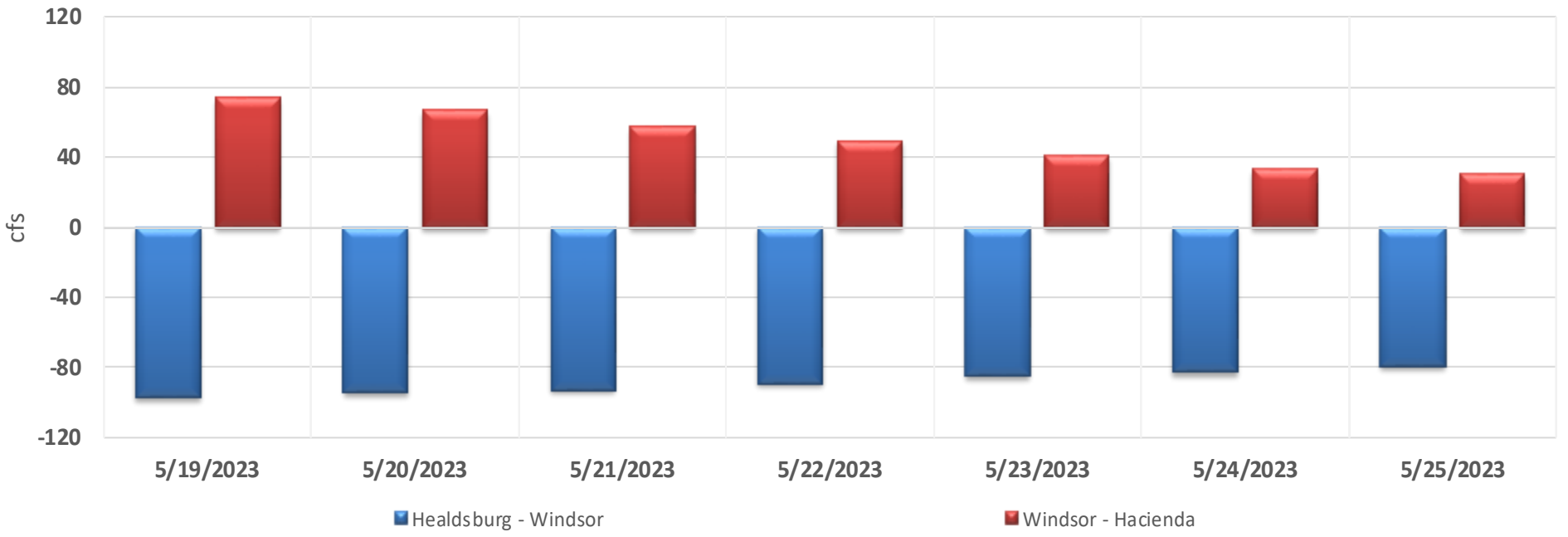
UPPER RUSSIAN RIVER STREAM FLOWS



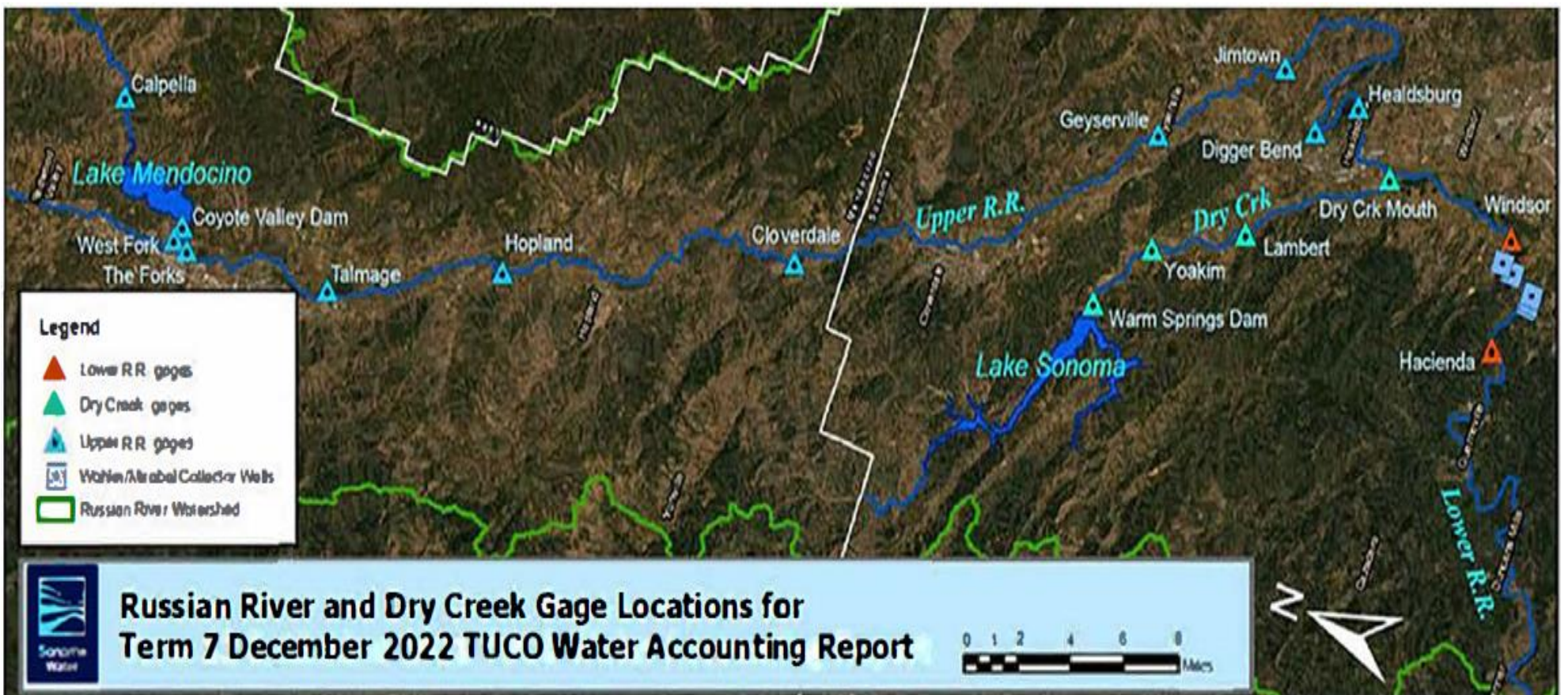
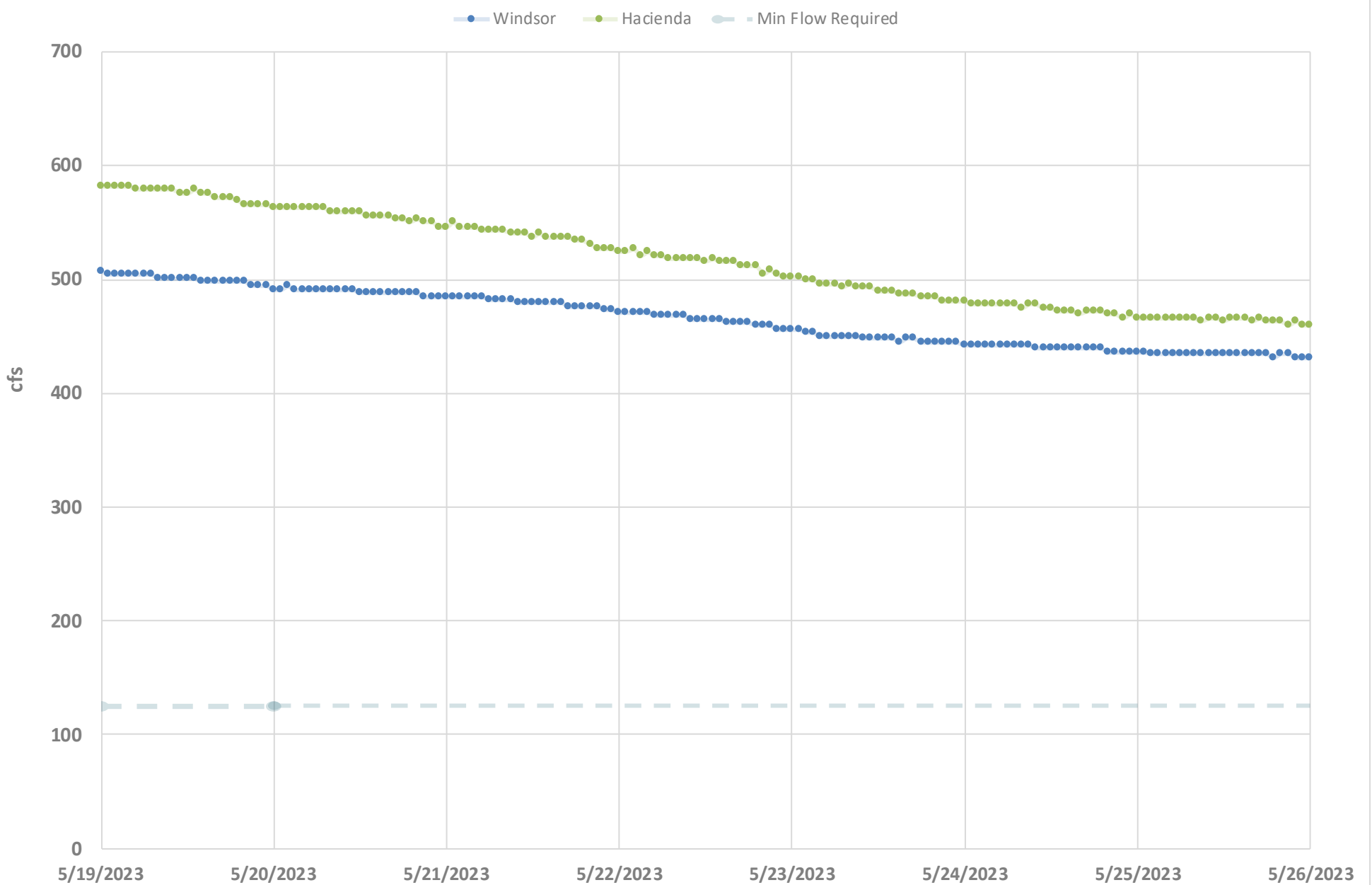
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



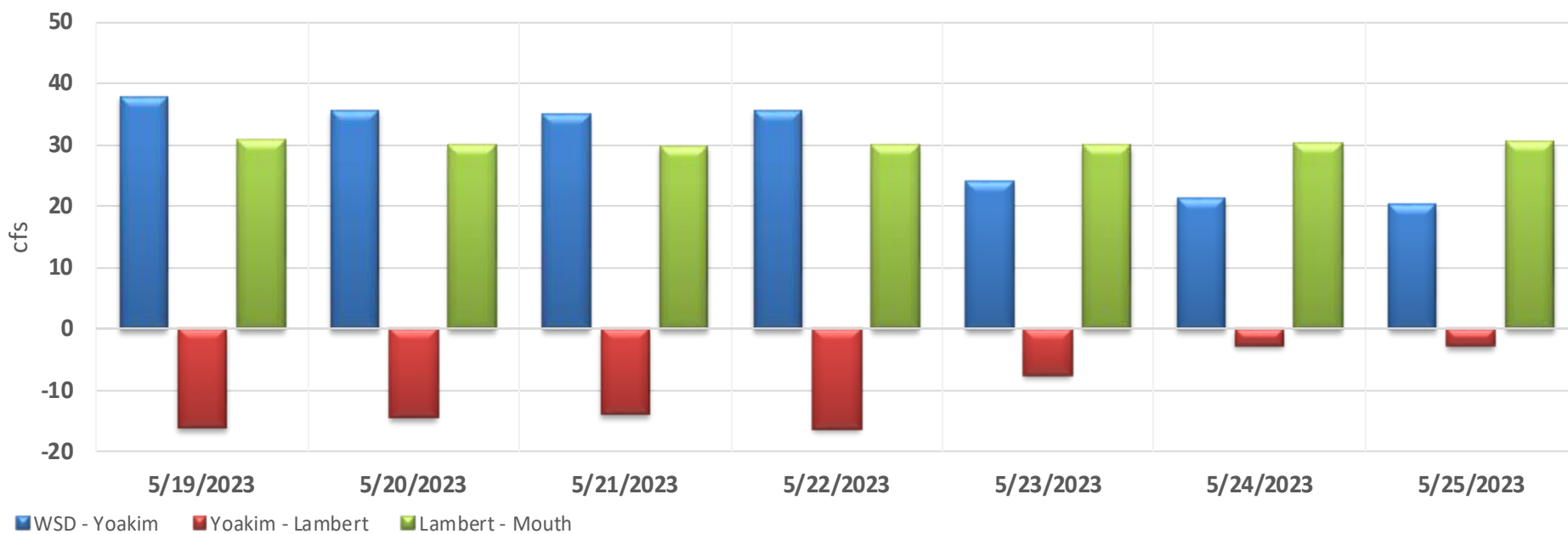
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

