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

Report Date: 5/5/2023

Units are cfs unless noted otherwise

	4/28/2023	4/29/2023	4/30/2023	5/1/2023	5/2/2023	5/3/2023	5/4/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	90.0	90.0	90.0	90.0	90.0	90.0	90.0
PVID Requested Delivery	50.0	50.0	50.0	50.0	50.0	50.0	50.0
PVID Canals Actual Delivery	5.6	5.5	5.6	5.5	2.4	0.6	0.6
East Fork Release	84.0	84.0	84.0	84.0	88.0	89.0	89.0
PVID E Fork Diversions	44.4	44.5	44.5	44.5	47.6	49.4	49.4
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	39.5	39.6	39.5	40.4	39.6	39.6
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	134.2	131.5	132.7	134.8	145.3	136.9	130.7
Net Reach Loss(-)/Gain(+)	+44.2	+41.5	+42.7	+44.8	+55.3	+46.9	+40.7
Unimpaired Natural Flow @ Calpella (est.)	20.7	18.8	17.7	17.0	20.7	21.8	18.1
Non-PVID East Fork Net Reach Losses (est.)	94.2	91.5	92.7	94.8	105.3	96.9	90.7
Natural Flow	54.6	51.9	53.2	55.3	64.9	57.3	51.1
Import (neg. value is return flow)	39.6	39.5	39.6	39.5	40.4	39.6	39.6
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	294	294	254	297	349	290	284
(cfs)	148	148	128	150	176	146	143
Natural Flow	109	109	89	110	135	107	103
Import	40	40	40	40	40	40	40
Storage Change (ac-ft)	-18.0	-18.0	-71.0	-18.0	+35.0	-17.0	-18.0
(cfs)	-9	-9	-36	-9	+18	-9	-9
Stored Natural Flow (cfs)	0	0	0	0	18	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	26.0	26.0	18.0	7.3	14.5	13.5	8.3
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	144	144	155	155	151	148	148
Storage (Project Water)	0	0	27	5	0	2	5
Natural Flow	109	109	89	110	114	107	103
Import Water	40	40	40	40	37	40	40
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage *Rvr mi.*							
CVD Release *99.9*	144	144	155	155	151	148	148
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	148	148	128	150	151	146	143
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	191	186	194	194	203	193	188
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages *Rvr mi.*							
Forks (CVD + USGS 11461000) *99.0*	191	186	194	194	203	193	188
Talmage (USGS 11462080) *96.1*	229	223	228	227	235	223	213
Hopland (USGS 11462500) *84.8*	323	316	318	320	344	340	318
Cloverdale (USGS 11463000) *70.9*	394	384	379	381	404	413	388
Geyserville (USGS 11463500) *54.4*	523	510	495	492	513	544	513
Jimtown (USGS 11463682) *48.5*	593	575	552	547	559	594	566
Digger Bend (USGS 11463980) *38.2*	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000) *35.6*	653	636	619	607	618	645	633
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+38	+36	+36	+34	+31	+29	+24
Talmage - Hopland	+94	+92	+91	+93	+108	+115	+105
Hopland - Cloverdale	+69	+65	+64	+61	+68	+68	+66
Cloverdale - Jimtown	+195	+186	+172	+166	+168	+180	+166
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*	*+57*	*+55*	*+60*	*+60*	*+68*	*+58*	*+53*
Upper Russian Net Reach Loss/Gain	+452	+435	+423	+415	+444	+450	+413
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	148	148	128	150	151	146	143
Project Water Release Required	No	No	Yes	No	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).

			4/28/2023	4/29/2023	4/30/2023	5/1/2023	5/2/2023	5/3/2023	5/4/2023
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			-166.0	-112.0	-166.0	-111.0	+0.0	+28.0	-83.0
(cfs)			-84	-56	-84	-56	+0	+14	-42
Evaporation (ac-ft)			34.2	32.6	29.5	14.5	16.1	16.1	16.1
Inflow (Natural Flow)			85	95	66	72	117	131	75
WSD Release Gage			152	135	135	121	109	109	109
Storage (Project Water)			66	40	69	49	0	0	34
Natural Flow			85	95	66	72	109	109	75
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	80	80	80	80
Controlling Compliance Gage									
Min Gage Flow			152	135	135	121	109	109	109
Controlling Gage			WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
All Compliance Gages		*Crk mi.*							
WSD Release		*14.3*	152	135	135	121	109	109	109
Yoakim	(USGS 11465200)	*11.1*	216	200	195	186	172	170	169
Lambert	(USGS 11465240)	*6.8*	208	186	184	175	159	159	157
Dry Crk Mouth	(USGS 11465350)	*0.1*	187	175	172	171	166	168	166
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			85	95	66	72	109	109	75
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+61	+65	+59	+62	+63	+61	+60
Yoakim - Lambert			-12	-14	-12	-12	-13	-11	-12
Lambert - Dry Crk Mouth			-26	-12	-11	-9	+7	+8	+8
WSD - Dry Crk Mouth			+24	+38	+37	+41	+57	+58	+56
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	No	No	Yes
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			40	40	66	45	37	41	45
Natural Flow			561	544	511	525	558	557	517
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			66	40	69	49	0	0	34
Natural Flow			121	135	104	122	166	168	132
Russian River d/s of Confluence Flow			841	812	791	777	784	812	799
L. Mendocino Project Water + Import Water			40	40	66	45	37	41	45
L. Sonoma Project Water			66	40	69	49	0	0	34
Natural Flow			682	679	615	647	724	724	649
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			125	125	125	125	125	125	125
Controlling Compliance Gage									
Min Gage Flow			971	922	885	703	696	722	716
Controlling Gage			Hacienda	Hacienda	Hacienda	Windsor	Windsor	Windsor	Windsor
All Compliance Gages		*Rvr mi.*							
Windsor	(USGS 11465390)	*26.6*	*n/d*	*n/d*	*n/d*	*703*	*696*	*722*	*716*
Hacienda	(USGS 11467000)	*21.8*	971	922	885	860	849	878	882
Confluence to Windsor Reach Analysis									
Net Reach Loss/Gain to Windsor Gage			-	-	-	-76	-82	-88	-90
L. Mendocino Project Water + Import Water			-	-	-	45	37	41	45
L. Sonoma Project Water			-	-	-	45	0	0	31
Natural Flow			-	-	-	571	637	631	558
Confluence to SCWA Wohler Production Facility Reach Analysis									
Approx. Flow u/s of Wohler			1,015	975	928	919	910	929	906
Net Reach Loss(-)/Gain(+)			+175	+163	+137	+141	+125	+116	+107
L. Mendocino Project Water + Import Water			40	40	66	45	37	41	45
L. Sonoma Project Water			62	36	65	45	0	0	31
Natural Flow			857	842	752	788	850	840	756
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+130	+110	+94	+83	+65	+66	+83
L. Mendocino Project Water + Import Water			40	40	66	45	37	41	45
L. Sonoma Project Water			18	0	22	0	0	0	7
Natural Flow			857	825	752	775	789	790	756
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			88.1	104.6	86.0	116.2	120.0	100.4	48.3
Wohler			38.1	37.4	29.5	67.6	74.6	43.8	2.2
Mirabel			50.0	67.2	56.5	48.6	45.4	56.7	46.2
Town of Windsor River Wellfield			8.1	8.0	7.7	7.6	5.2	5.1	5.2
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

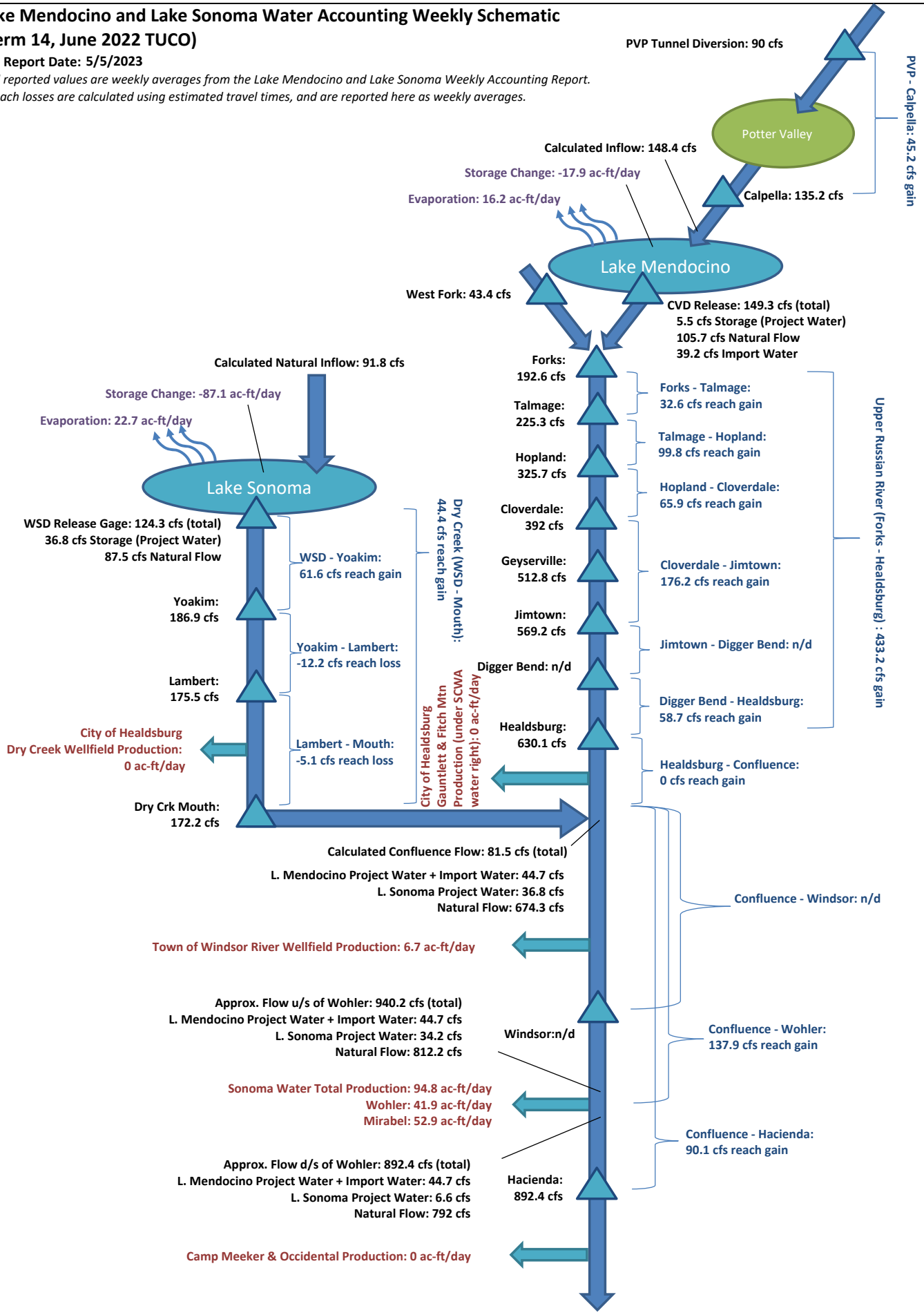
Notes:

- 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: 5/5/2023

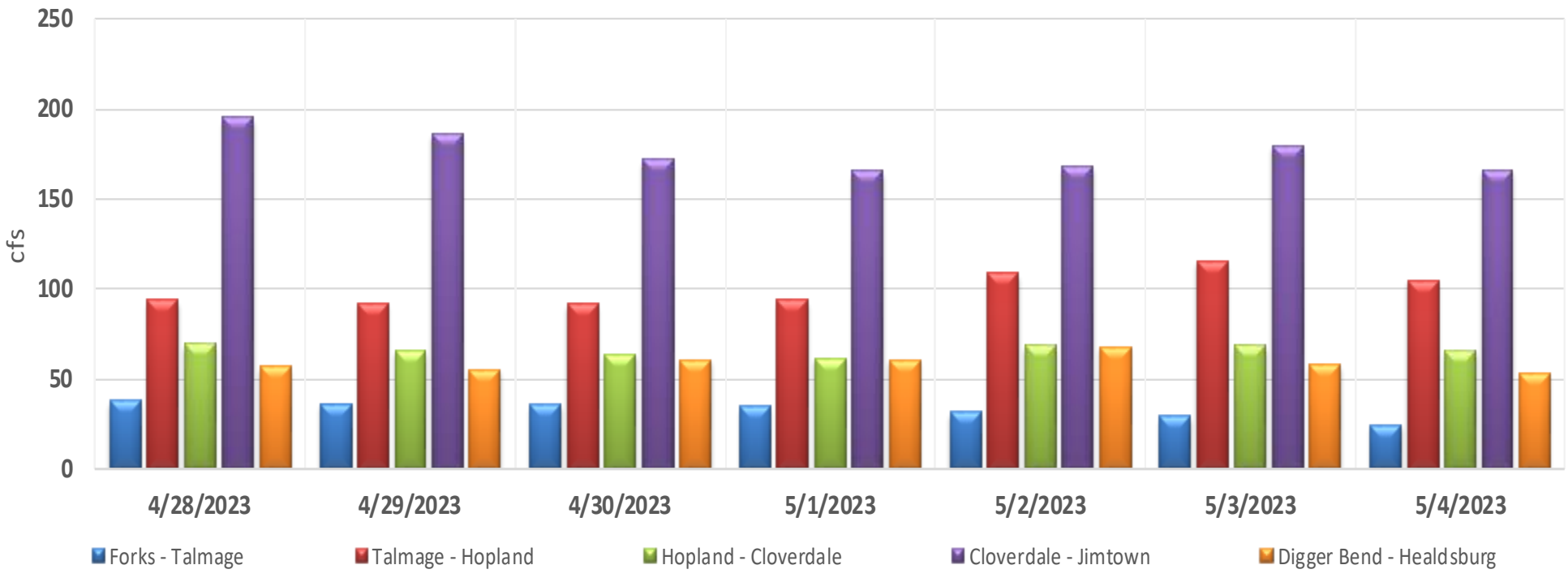
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



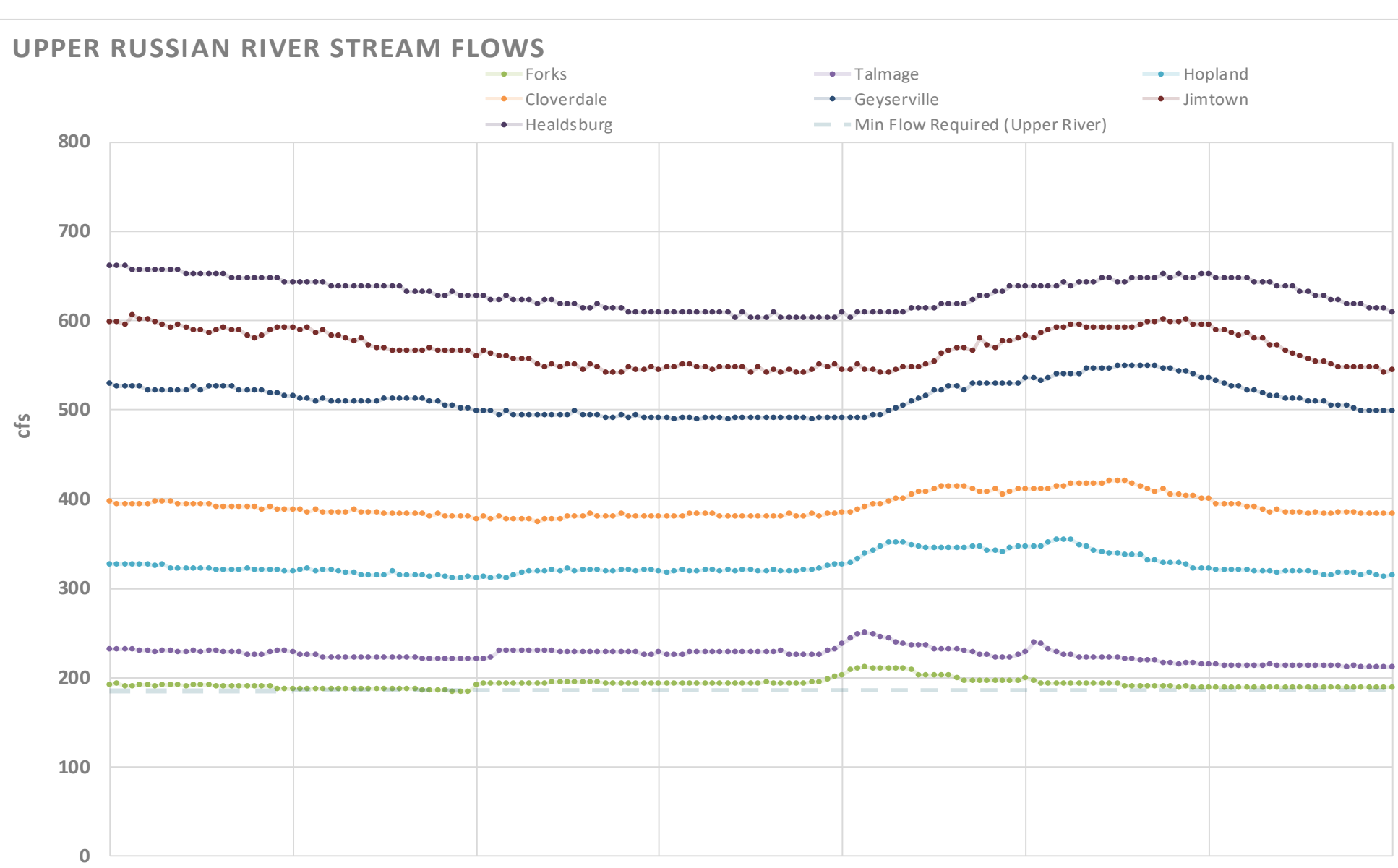
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 7, December 2022 TUCO)

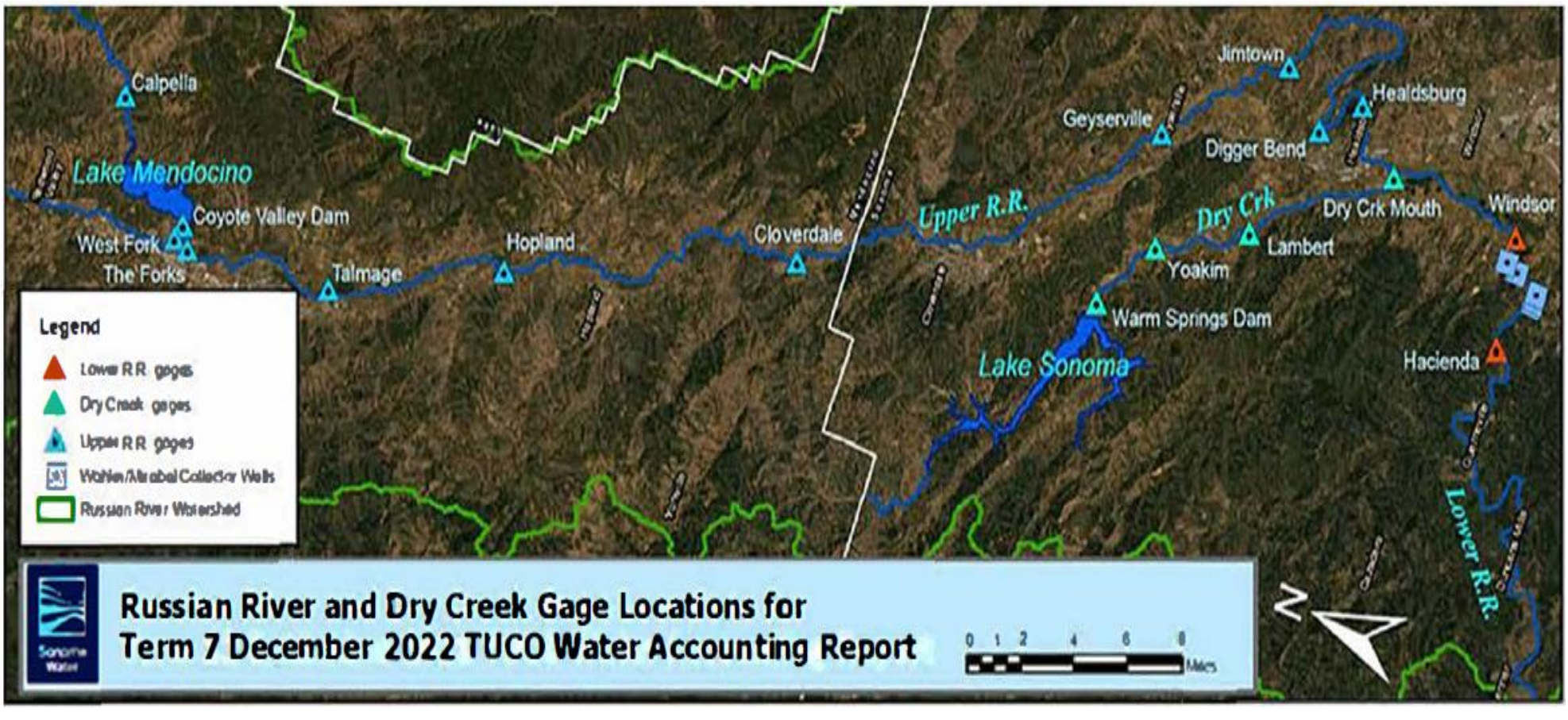
Report Date: 5/5/2023

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



UPPER RUSSIAN RIVER STREAM FLOWS





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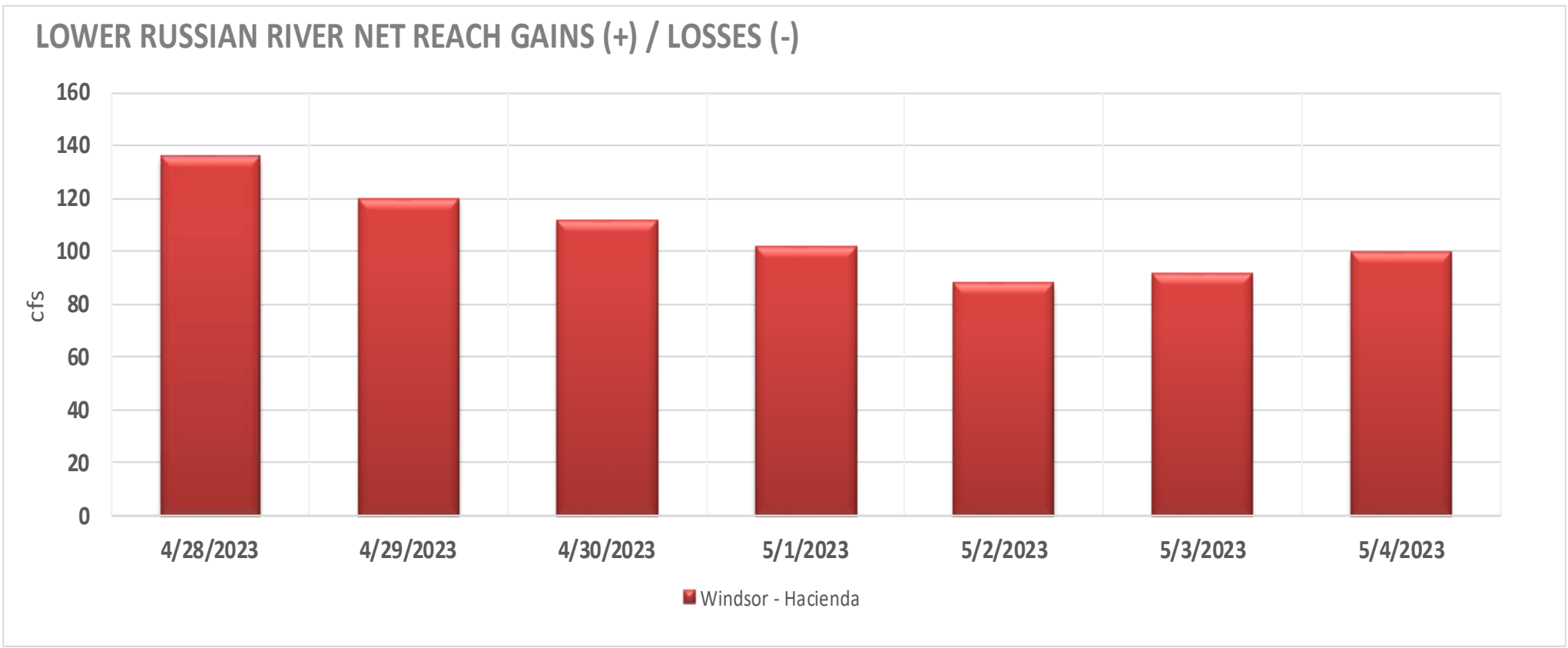
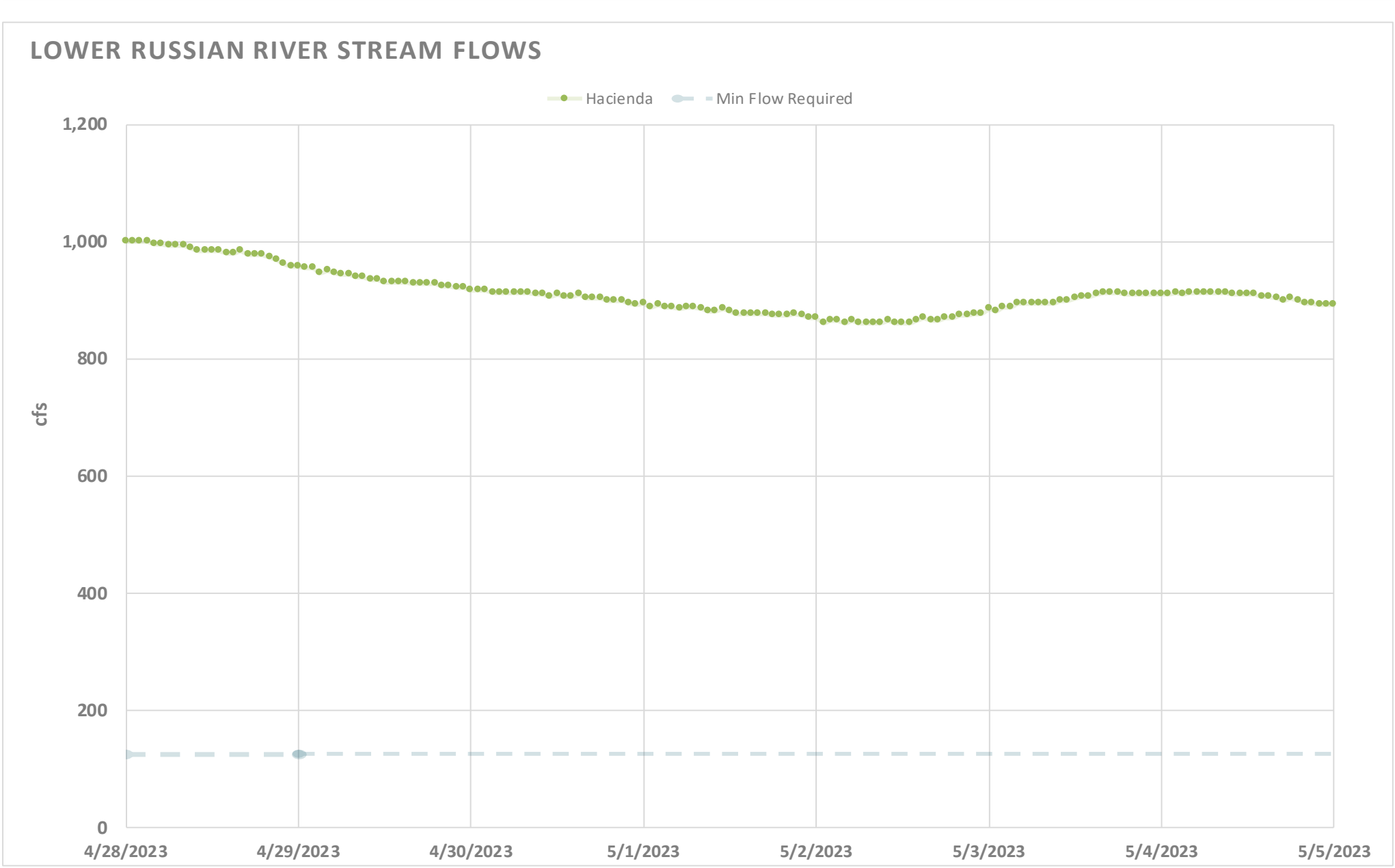
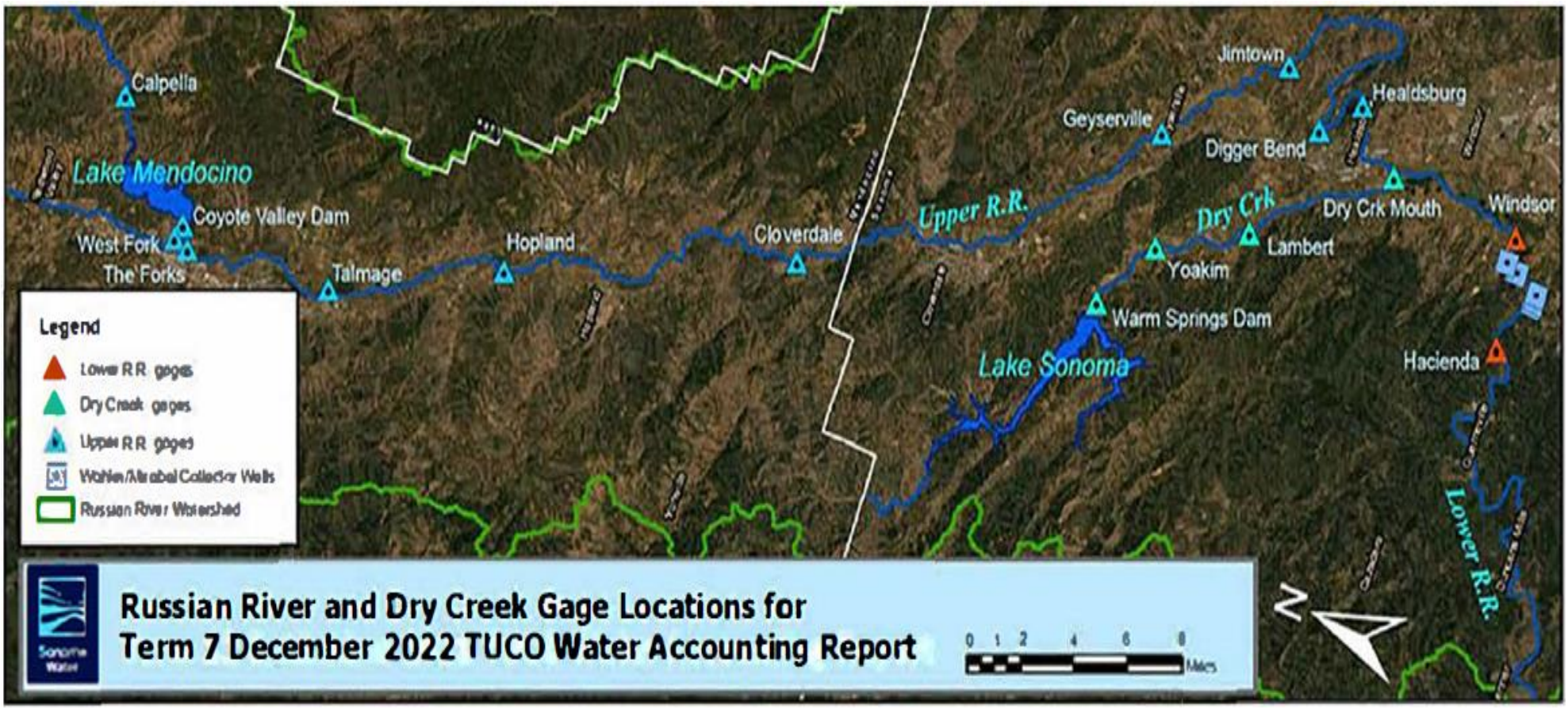




Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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