Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 12, Dec 2023 TUCO)

Report Date: 3/29/2024

Units are cfs unless noted otherwise

			3/22/2024	3/23/2024	3/24/2024	3/25/2024	3/26/2024	3/27/2024	3/28/2024
I. Upper East Fork Reach									
Potter Valley Project									
Tunnel Diversion			46.0	46.0	44.0	45.0	46.0	46.0	46.0
PVID Requested Delivery			5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery			1.0	1.1	0.5	0.5	0.5	0.5	0.5
East Fork Release			45.0	45.0	43.0	45.0	46.0	46.0	46.0
PVID E Fork Diversions			4.0	3.9	4.5	4.5	4.5	4.5	4.5
PVID Water Use - PG&E Contract			5.0	5.0	5.0	5.0	5.0	5.0	5.0
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)			41.0	41.1	38.5	40.5	41.5	41.5	41.5
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			146.6	358.6	427.9	217.2	165.7	328.8	513.7
Net Reach Loss(-)/Gain(+)			+100.6	+312.6	+383.9	+172.2	+119.7	+282.8	+467.7
Unimpaired Natural Flow @ Calpella (est.)			59.6	271.5	345.4	131.7	78.2	241.3	426.3
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)			574	931	1,038	850	744	855	1,066
(cfs)			289	470	523	429	375	431	537
Natural Flow			248	429	484	389	334	390	496
Import			41	41	39	40	41	41	41
Storage Change (ac-ft)			-35.0	+318.0	+318.0	-53.0	-141.0	+265.0	+760.0
(cfs)			-18	+160	+160	-27	-71	+134	+383
Stored Natural Flow (cfs)			0	160	160	0	0	134	383
Stored Import Water (cfs)			0	0	0	0	0	0	0
Evaporation (ac-ft)			5.0	6.9	10.9	14.9	14.9	4.0	11.9
RVCWD Diversion (ac-ft)			0	0	0	0	0	0	0
CVD Release Gage			304	306	357	448	439	295	148
Storage (Project Water)			15	0	0	19	64	0	0
Natural Flow			248	267	321	389	334	255	110
Import Water			41	39	36	40	41	40	38
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage		*Rvr mi.*							
CVD Release		*99.9*	304	306	357	448	439	295	148
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			289	306	357	429	375	295	148
Project Water Release Required			No	No	No	No	No	No	No
III. Upper Russian River Reach									
Minimum Instream Flow Requirement			150	150	150	150	150	150	150
Controlling Compliance Gage									
Min Gage Flow			453	576	857	751	674	600	687
Controlling Gage			Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	453	576	857	751	674	600	687
Talmage	(USGS 11462080)	*96.1*	525	707	1,168	844	722	708	1,126
Hopland	(USGS 11462500)	*84.8*	646	849	1,386	1,059	890	811	1,420
Cloverdale	(USGS 11463000)	*70.9*	890	1,285	1,722	1,467	1,223	1,163	1,858
Geyserville	(USGS 11463500)	*54.4*	1,279	2,145	2,533	2,280	1,869	1,692	2,867
Jimtown	(USGS 11463682)	*48.5*	1,336	1,862	2,132	2,063	1,765	1,625	2,341
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*	1,280	1,883	2,136	2,138	1,768	1,590	2,484
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			+81	+159	+321	+79	+42	+144	+391
Talmage - Hopland			+134	+180	+226	+190	+158	+168	+258
Hopland - Cloverdale			+266	+494	+394	+341	+308	+352	+520
Cloverdale - Jimtown			+500	+721	+541	+440	+483	+491	+674
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*			-28	+150	+83	-12	-52	-48	+349
Upper Russian Net Reach Loss/Gain			+952	+1,704	+1,565	+1,038	+939	+1,107	+2,192
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			289	306	357	429	375	295	148
Project Water Release Required			No	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).

			3/22/2024	3/23/2024	3/24/2024	3/25/2024	3/26/2024	3/27/2024	3/28/2024
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			-111.0	+28.0	-139.0	-307.0	-389.0	+28.0	+0.0
(cfs)			-56	+14	-70	-155	-196	+14	+0
Evaporation (ac-ft)			4.7	10.9	15.6	18.7	18.7	4.7	15.6
Inflow (Natural Flow)			435	509	427	344	302	505	497
WSD Release Gage			489	489	489	489	489	489	489
Storage (Project Water)			54	0	62	145	187	0	0
Natural Flow			435	489	427	344	302	489	489
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	75	75	75	75
Controlling Compliance Gage									
Min Gage Flow			489	489	489	489	489	489	489
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*	489	489	489	489	489	489	489
Yoakim	(USGS 11465200)	*11.1*	548	564	557	550	549	557	563
Lambert	(USGS 11465240)	*6.8*	503	525	514	503	497	498	519
Dry Crk Mouth	(USGS 11465350)	*0.1*	700	853	871	842	755	735	952
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			435	489	427	344	302	489	489
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+59	+75	+68	+61	+60	+68	+73
Yoakim - Lambert			-43	-39	-43	-47	-52	-59	-44
Lambert - Dry Crk Mouth			+202	+325	+354	+338	+258	+240	+432
WSD - Dry Crk Mouth			+218	+361	+379	+351	+266	+250	+461
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	No	Yes	Yes	Yes	No	No
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			56	39	36	59	105	40	38
Natural Flow			1,201	1,971	1,886	1,427	1,273	1,362	2,302
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			54	0	62	145	187	0	0
Natural Flow			653	853	808	697	568	735	952
Russian River d/s of Confluence Flow			1,979	2,735	3,007	2,980	2,523	2,325	3,435
L. Mendocino Project Water + Import Water			56	39	36	59	105	40	38
L. Sonoma Project Water			54	0	62	145	187	0	0
Natural Flow			1,854	2,823	2,694	2,123	1,842	2,097	3,254
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			125	125	125	125	125	125	125
Controlling Compliance Gage									
Min Gage Flow			2,247	2,929	3,301	3,363	3,002	2,718	3,413
Controlling Gage			Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages		*Rvr mi.*							
Windsor	(USGS 11465390)	*26.6*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Hacienda	(USGS 11467000)	*21.8*	2,247	2,929	3,301	3,363	3,002	2,718	3,413
Confluence to Windsor Reach Analysis									
Net Reach Loss/Gain to Windsor Gage			-	-	-	-	-	-	-
L. Mendocino Project Water + Import Water			-	-	-	-	-	-	-
L. Sonoma Project Water			-	-	-	-	-	-	-
Natural Flow			-	-	-	-	-	-	-
Confluence to SCWA Wohler Production Facility Reach Analysis									
Approx. Flow u/s of Wohler			2,291	2,957	3,345	3,408	3,046	2,762	3,449
Net Reach Loss(-)/Gain(+)			+311	+221	+339	+427	+523	+438	+14
L. Mendocino Project Water + Import Water			56	39	36	59	105	40	38
L. Sonoma Project Water			51	0	61	144	185	0	0
Natural Flow			2,165	3,045	3,033	2,551	2,364	2,535	3,268
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+268	+194	+294	+383	+478	+394	-22
L. Mendocino Project Water + Import Water			56	39	36	59	105	40	38
L. Sonoma Project Water			7	0	16	100	141	0	0
Natural Flow			2,165	3,017	3,033	2,551	2,364	2,491	3,232
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			87.0	54.5	87.8	87.8	87.9	87.6	71.3
Wohler			37.5	14.8	37.4	37.8	38.0	37.8	37.6
Mirabel			49.5	39.7	50.4	50.0	49.9	49.8	33.6
Town of Windsor River Wellfield			2.9	2.5	2.9	3.1	3.2	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 12, December 2023 TUCO)

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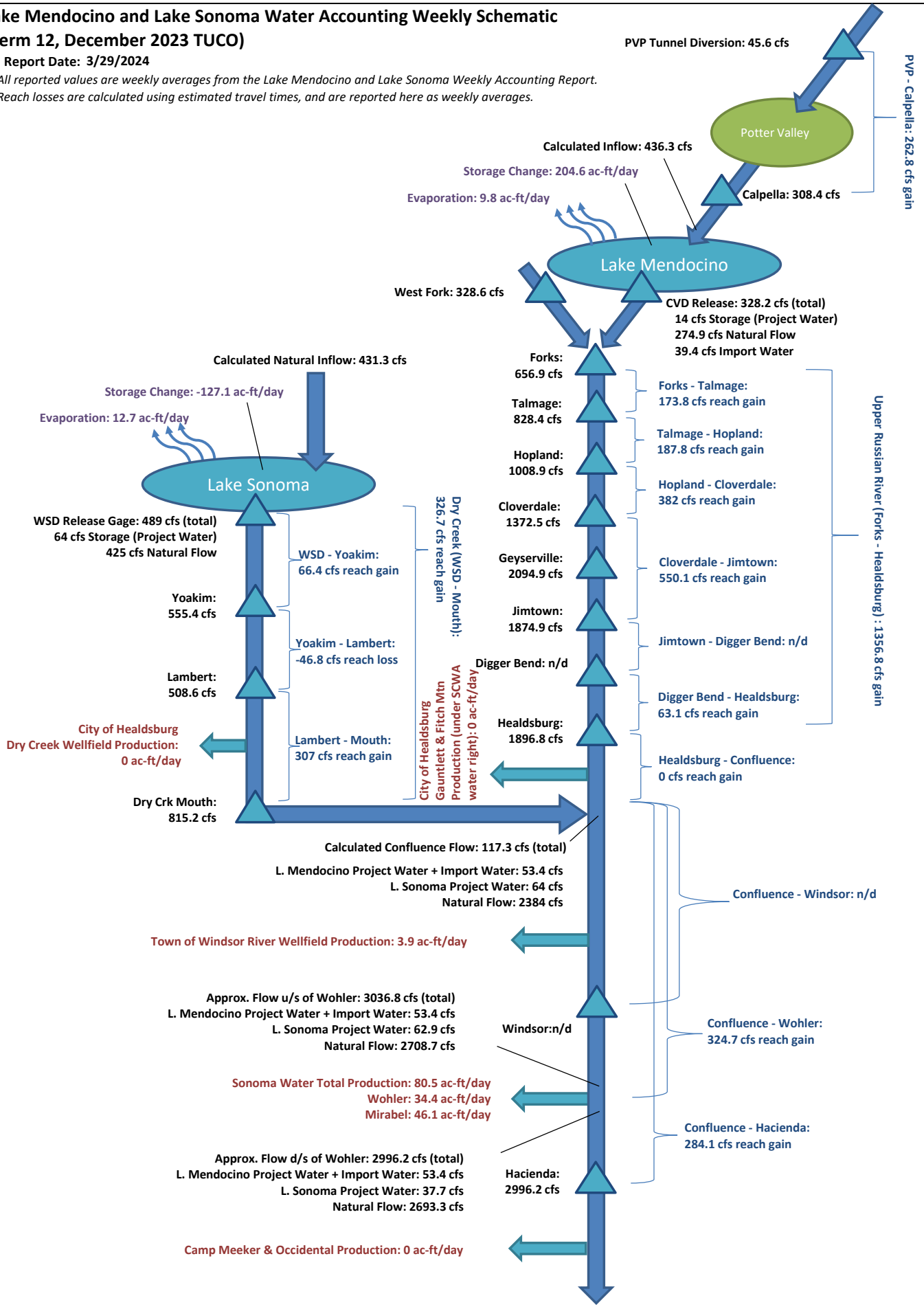
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



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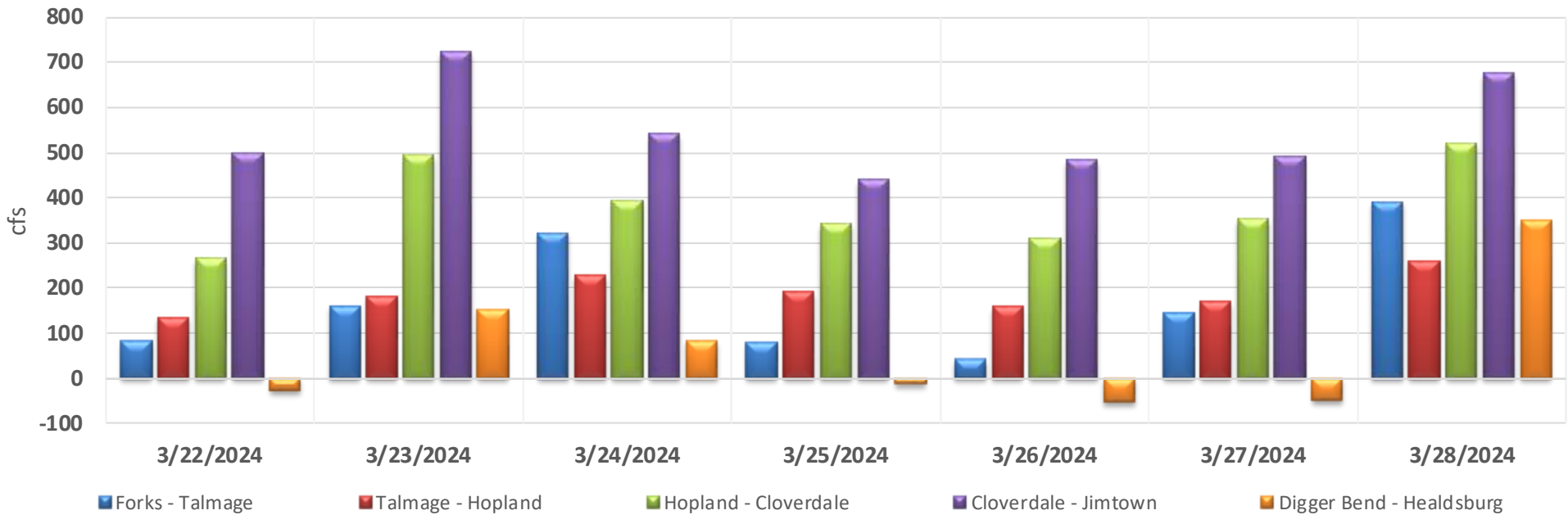
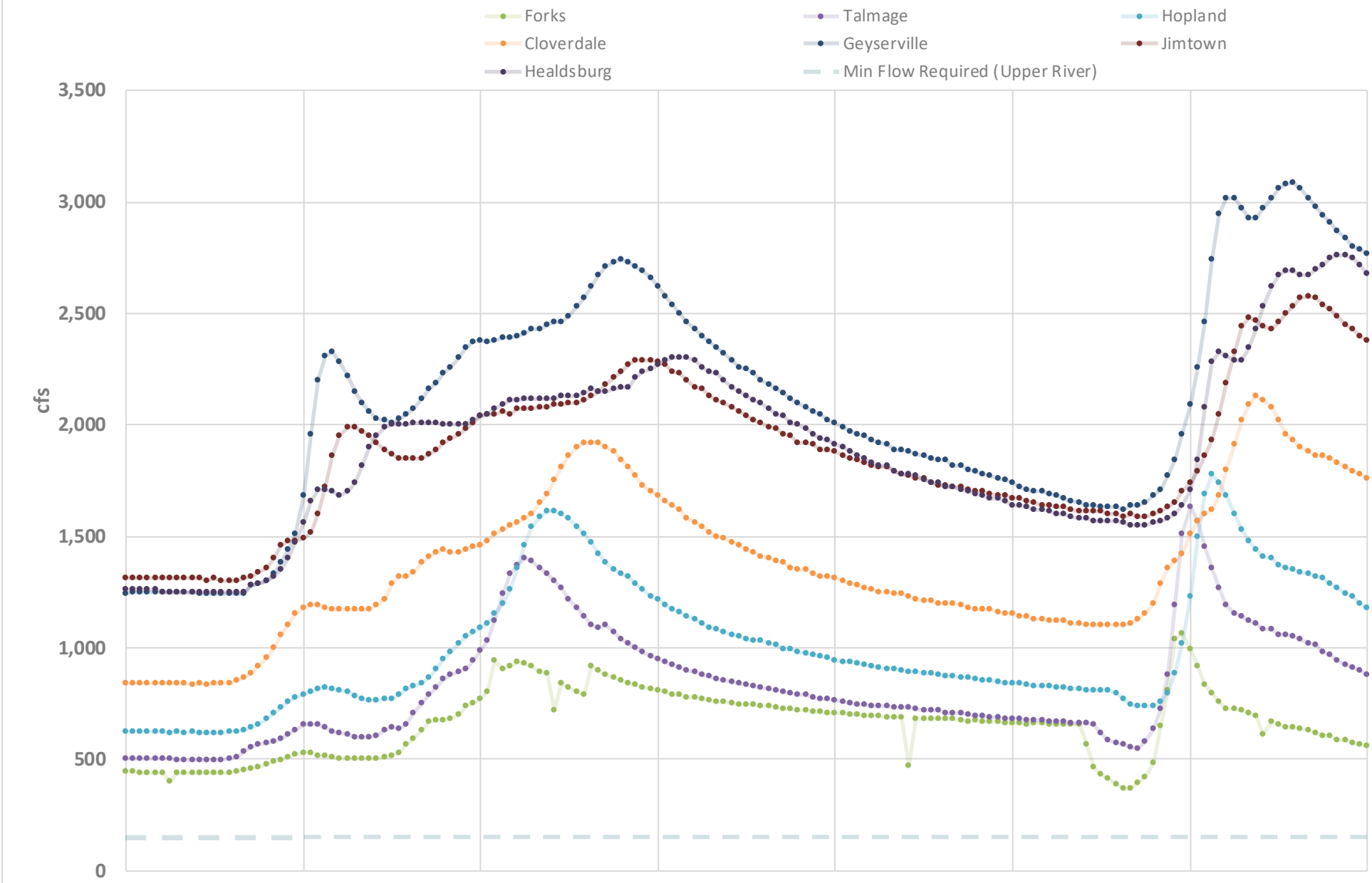
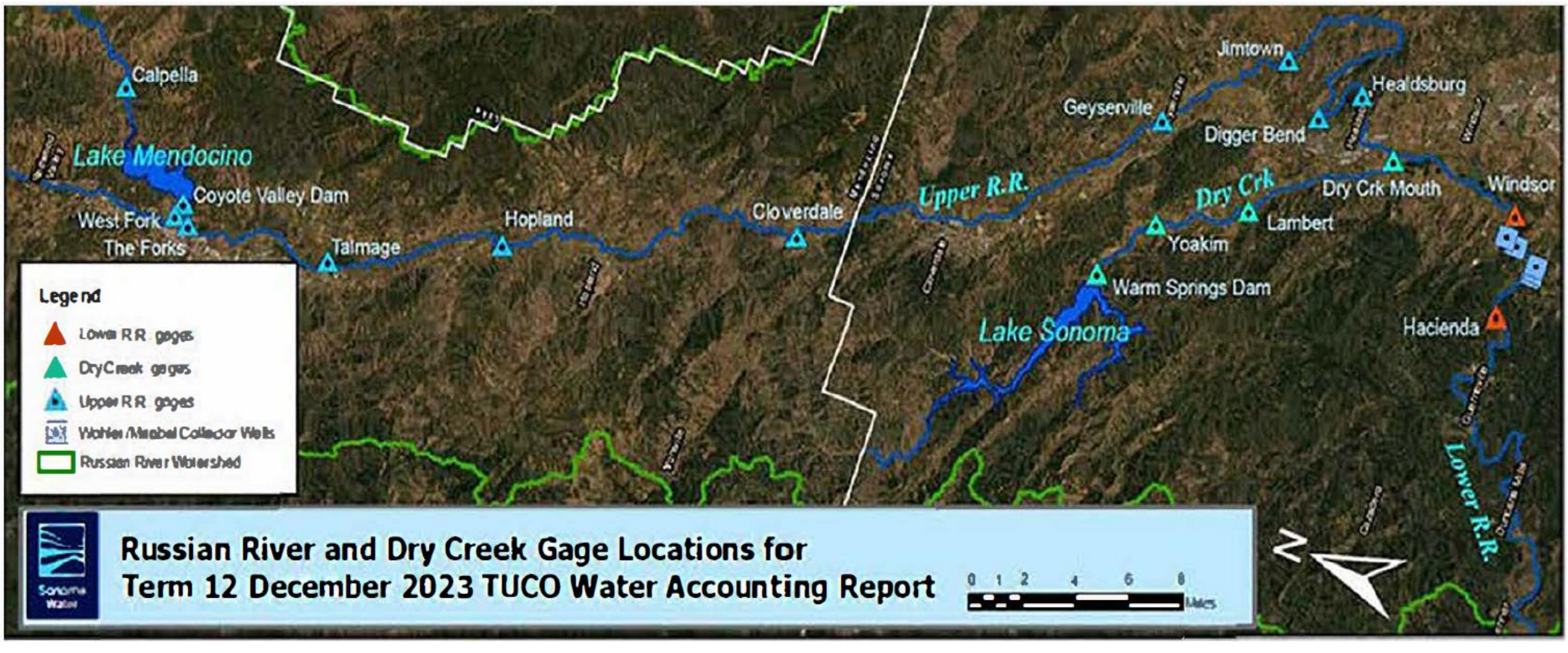
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS





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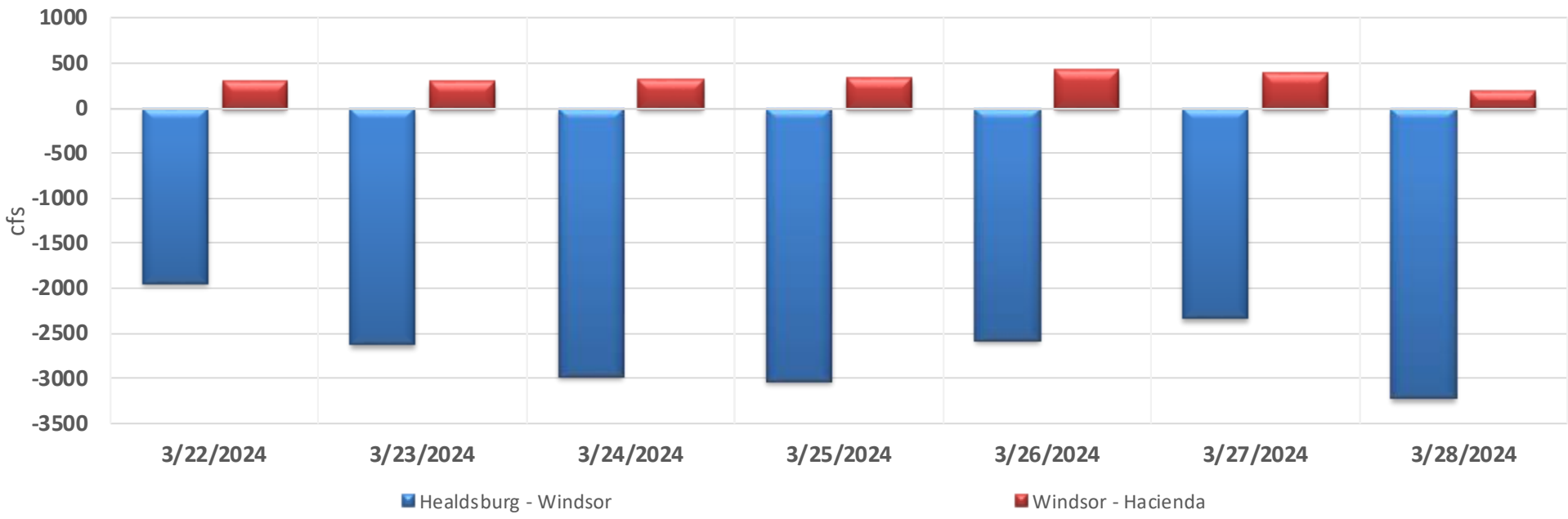
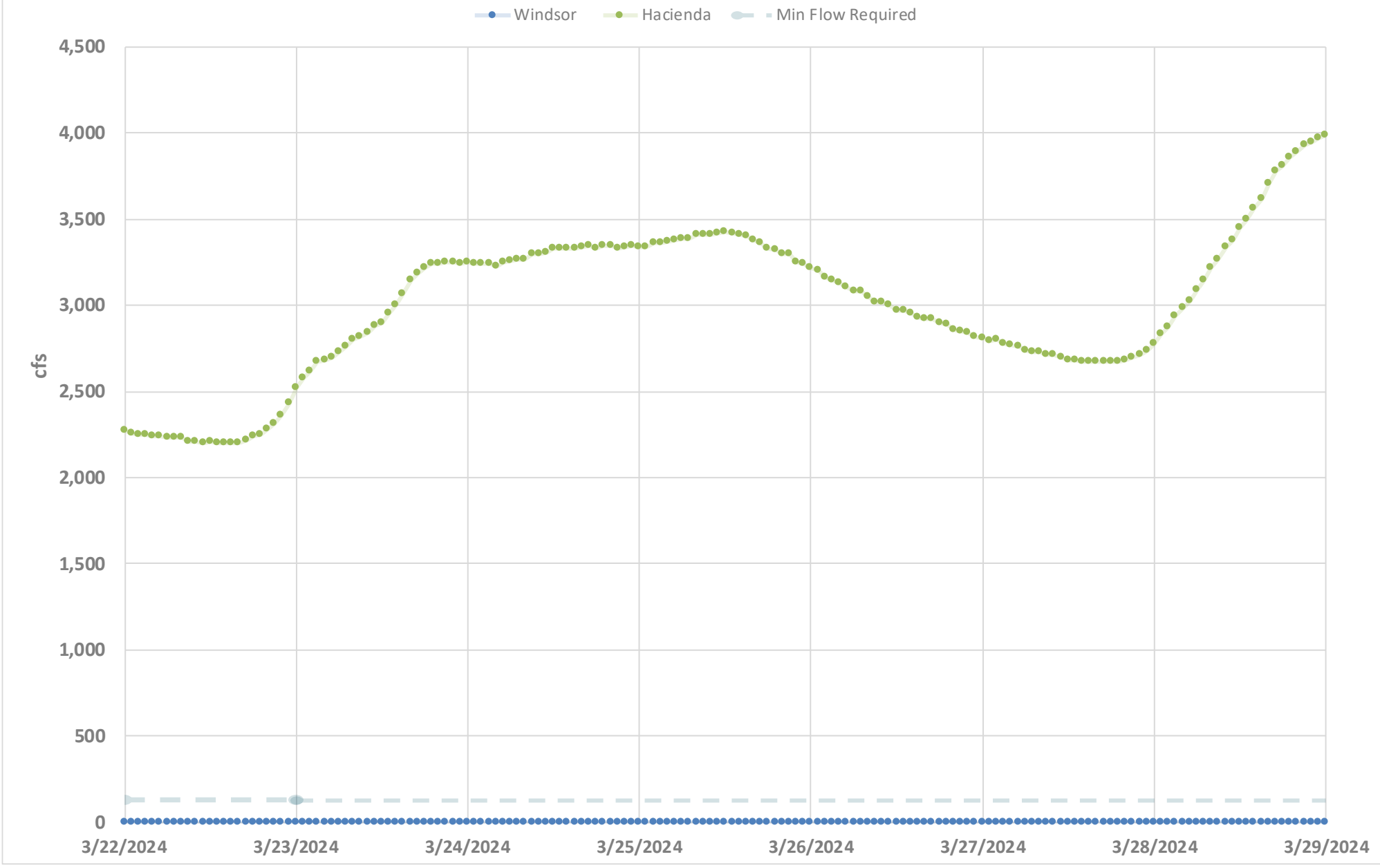
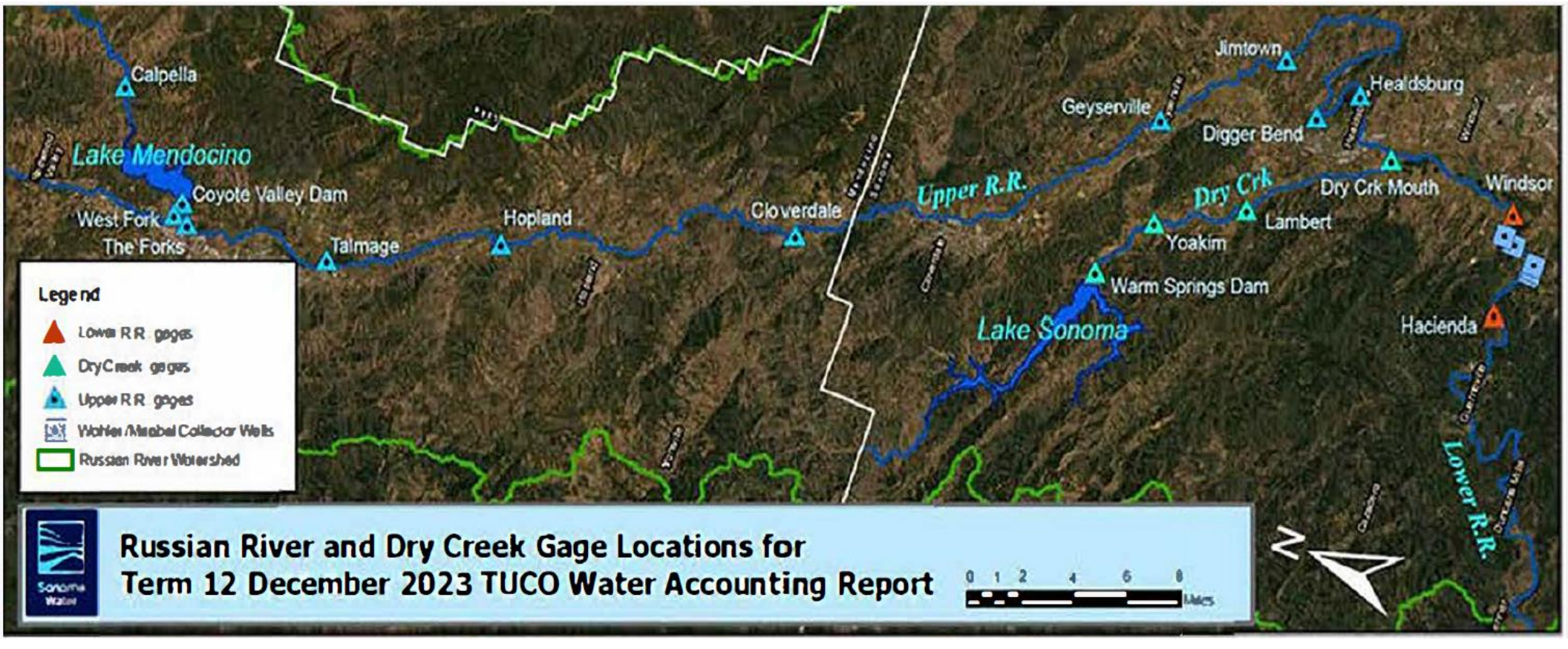
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS





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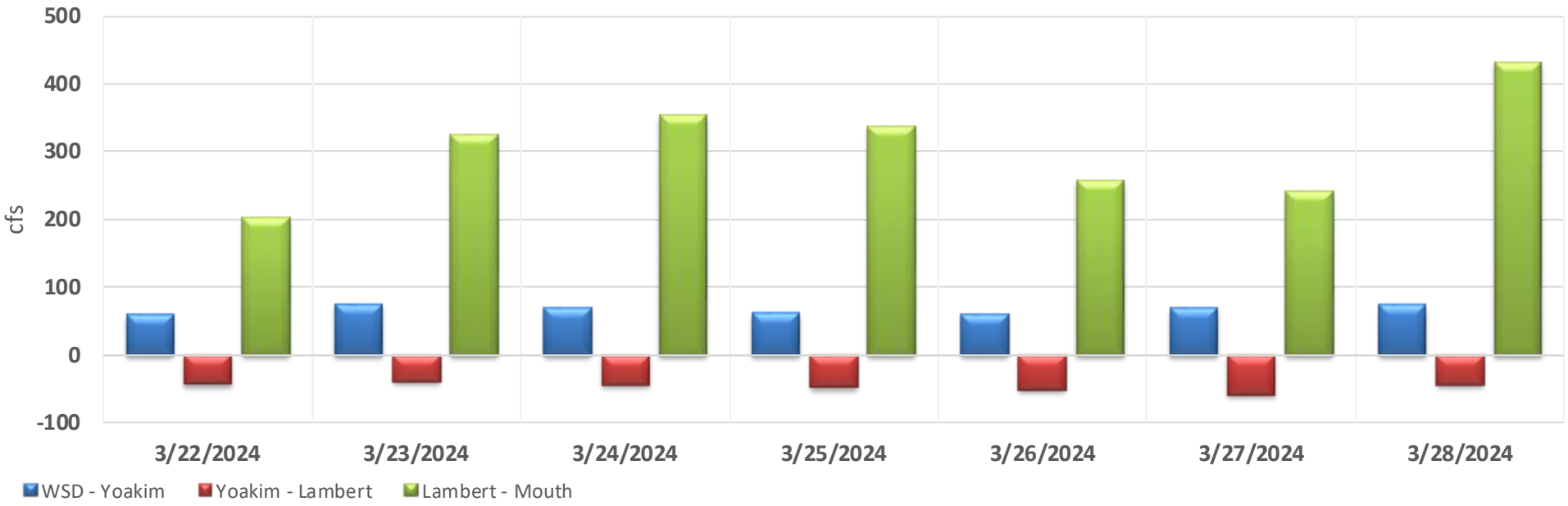
DRY CREEK NET REACH GAINS (+) / LOSSES (-)



DRY CREEK STREAM FLOWS