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

Report Date: 3/1/2024

Units are cfs unless noted otherwise

			2/23/2024	2/24/2024	2/25/2024	2/26/2024	2/27/2024	2/28/2024	2/29/2024
I. Upper East Fork Reach									
Potter Valley Project									
Tunnel Diversion			46.0	46.0	46.0	46.0	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			1.2	1.1	1.1	1.0	0.8	0.8	0.9
East Fork Release			45.0	45.0	45.0	45.0	45.0	45.0	45.0
PVID E Fork Diversions			3.8	3.9	4.0	4.0	4.2	4.2	4.1
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)			41.2	41.1	41.1	41.0	40.8	40.8	40.9
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			612.8	501.6	418.2	357.3	306.6	269.9	353.9
Net Reach Loss(-)/Gain(+)			+566.8	+455.6	+372.2	+311.3	+260.6	+223.9	+307.9
Unimpaired Natural Flow @ Calpella (est.)			525.6	414.5	331.1	270.3	219.8	183.0	267.0
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)			1,340	1,079	1,000	796	708	419	620
(cfs)			676	544	504	402	357	211	313
Natural Flow			635	503	463	361	316	170	272
Import			41	41	41	41	41	41	41
Storage Change (ac-ft)			-158.0	-420.0	-490.0	-944.0	-1,291.0	-2,033.0	-833.0
(cfs)			-80	-212	-247	-476	-651	-1,025	-420
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)			9.2	12.2	11.2	7.1	11.1	11.1	5.0
RVCWD Diversion (ac-ft)			0	0	0	0	0	0	0
CVD Release Gage			751	750	745	874	1002	1231	730
Storage (Project Water)			75	206	241	472	645	1019	417
Natural Flow			635	503	463	361	316	170	272
Import Water			41	41	41	41	41	41	41
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage		*Rvr mi.*							
CVD Release		*99.9*	751	750	745	874	1002	1231	730
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			676	544	504	402	357	211	313
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			1,240	1,124	1,043	1,115	1,201	1,400	927
Controlling Gage			Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	1,240	1,124	1,043	1,115	1,201	1,400	927
Talmage	(USGS 11462080)	*96.1*	1,764	1,491	1,303	1,313	1,398	1,597	1,350
Hopland	(USGS 11462500)	*84.8*	2,253	1,870	1,634	1,558	1,620	1,710	1,696
Cloverdale	(USGS 11463000)	*70.9*	3,110	2,563	2,188	1,945	1,975	1,881	2,223
Geyserville	(USGS 11463500)	*54.4*	4,831	4,068	3,518	3,124	3,011	2,814	3,215
Jimtown	(USGS 11463682)	*48.5*	5,078	4,097	3,490	3,060	2,855	2,668	2,910
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*	5,961	4,558	3,786	3,268	2,979	2,780	2,943
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			+505	+354	+251	+224	+192	+248	+280
Talmage - Hopland			+461	+361	+318	+262	+215	+159	+256
Hopland - Cloverdale			+777	+639	+526	+406	+338	+254	+362
Cloverdale - Jimtown			+1,787	+1,416	+1,221	+1,076	+879	+796	+714
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*			+674	+328	+214	+139	+108	+79	+153
Upper Russian Net Reach Loss/Gain			+4,204	+3,098	+2,530	+2,107	+1,732	+1,536	+1,765
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			676	544	504	402	357	211	313
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).

			2/23/2024	2/24/2024	2/25/2024	2/26/2024	2/27/2024	2/28/2024	2/29/2024
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			-1,053.0	-1,589.0	-1,892.0	-2,080.0	-2,264.0	-1,141.0	+306.0
(cfs)			-531	-801	-954	-1,049	-1,141	-575	+154
Evaporation (ac-ft)			13.2	13.1	11.4	8.1	14.5	12.9	8.1
Inflow (Natural Flow)			979	712	558	461	372	370	603
WSD Release Gage			1503	1506	1506	1506	1506	939	445
Storage (Project Water)			524	794	948	1045	1134	569	0
Natural Flow			979	712	558	461	372	370	445
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	75	75	75	75
Controlling Compliance Gage									
Min Gage Flow			1503	1506	1506	1506	1506	939	445
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*	1,503	1,506	1,506	1,506	1,506	939	445
Yoakim	(USGS 11465200)	*11.1*	1,765	1,684	1,638	1,618	1,574	1,094	508
Lambert	(USGS 11465240)	*6.8*	2,062	1,973	1,921	1,877	1,834	1,370	586
Dry Crk Mouth	(USGS 11465350)	*0.1*	2,225	1,954	1,679	1,556	1,508	1,338	881
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			979	712	558	461	372	370	445
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+1,655	+1,574	+1,528	+1,508	+1,464	+984	+398
Yoakim - Lambert			+294	+286	+283	+256	+259	+232	+78
Lambert - Dry Crk Mouth			+146	-26	-250	-322	-332	-180	+285
WSD - Dry Crk Mouth			+2,095	+1,834	+1,561	+1,442	+1,391	+1,037	+761
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	No
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			116	247	282	513	686	1,060	458
Natural Flow			4,838	3,601	2,993	2,467	2,048	1,706	2,036
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			524	794	948	1,045	1134	569	0
Natural Flow			1,701	1,159	731	512	374	769	881
Russian River d/s of Confluence Flow			8,186	6,512	5,465	4,824	4,488	4,118	3,824
L. Mendocino Project Water + Import Water			116	247	282	513	686	1,060	458
L. Sonoma Project Water			524	794	948	1,045	1,134	569	0
Natural Flow			6,539	4,761	3,724	2,979	2,423	2,475	2,917
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			125	125	125	125	125	125	125
Controlling Compliance Gage									
Min Gage Flow			12,450	9,915	8,169	7,021	6,296	5,840	4,817
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*	12,450	9,915	8,169	7,021	6,296	5,840	4,817
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			12,503	9,965	8,189	7,062	6,348	5,882	4,850
Net Reach Loss(-)/Gain(+)			+4,317	+3,453	+2,724	+2,238	+1,861	+1,764	+1,026
L. Mendocino Project Water + Import Water			116	247	282	513	686	1,060	458
L. Sonoma Project Water			522	792	946	1,042	1,132	567	0
Natural Flow			10,856	8,213	6,448	5,216	4,283	4,239	3,943
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+4,264	+3,403	+2,704	+2,197	+1,809	+1,722	+993
L. Mendocino Project Water + Import Water			116	247	282	513	686	1,060	458
L. Sonoma Project Water			469	742	926	1,002	1,080	525	0
Natural Flow			10,856	8,213	6,448	5,216	4,283	4,239	3,910
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			105.1	99.5	39.4	81.0	103.1	83.3	65.3
Wohler			55.5	54.6	12.3	31.6	38.7	40.1	37.8
Mirabel			49.6	44.9	27.1	49.5	64.4	43.2	27.5
Town of Windsor River Wellfield			4.2	4.0	4.1	4.3	4.5	4.4	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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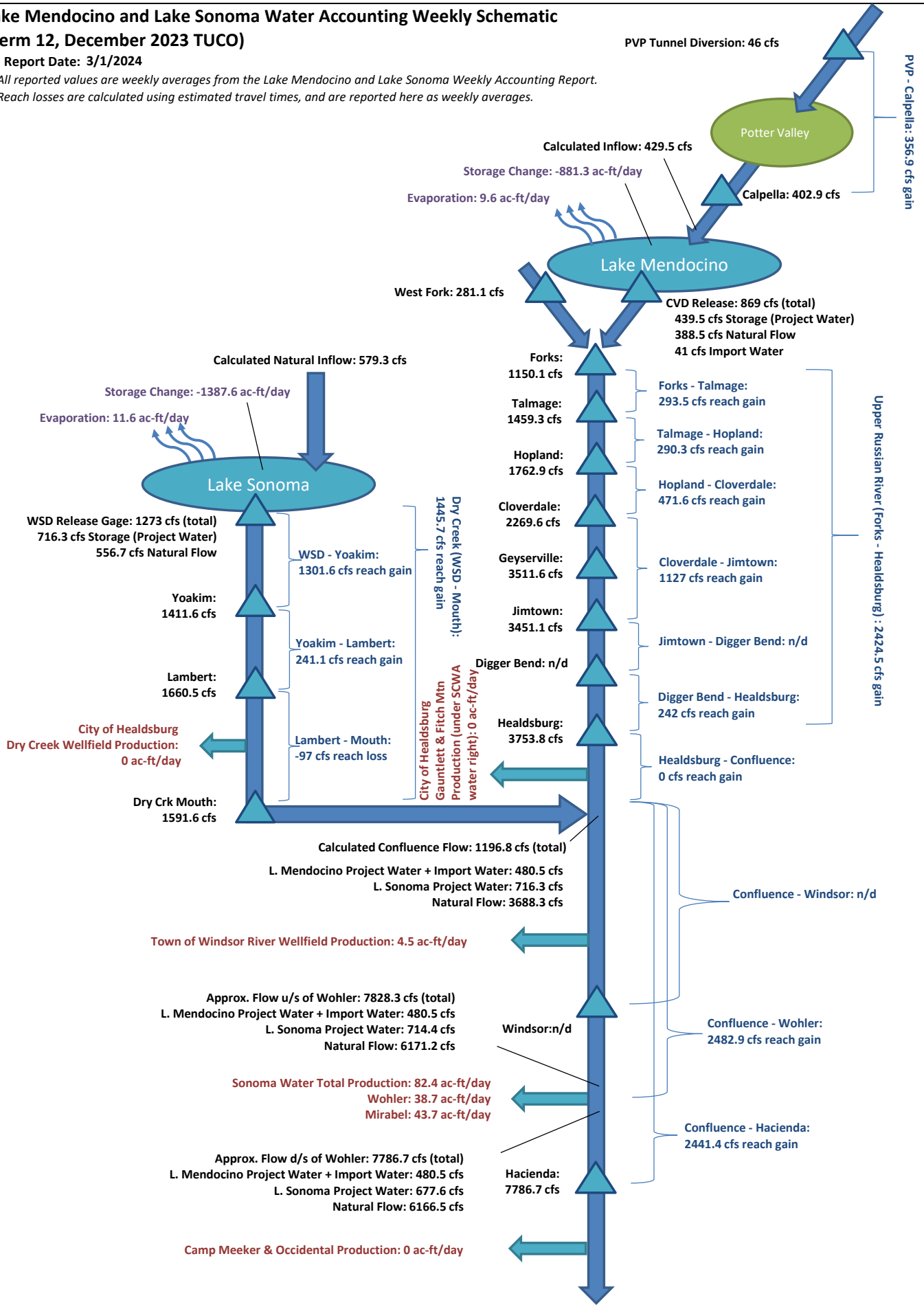
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



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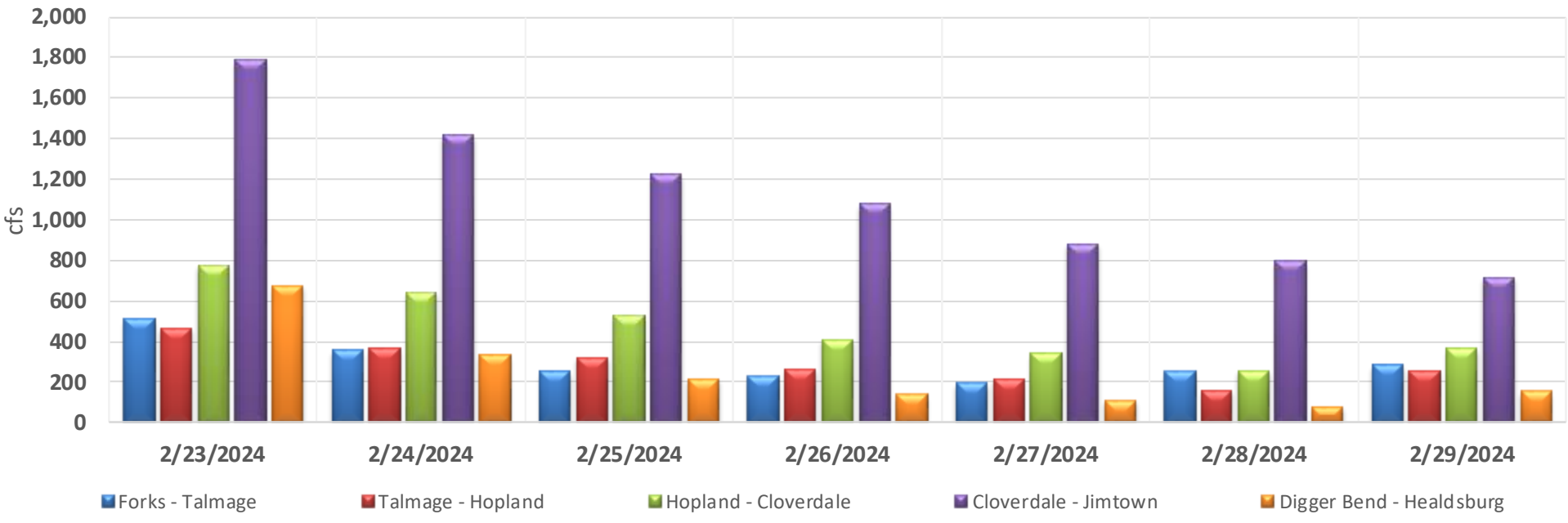
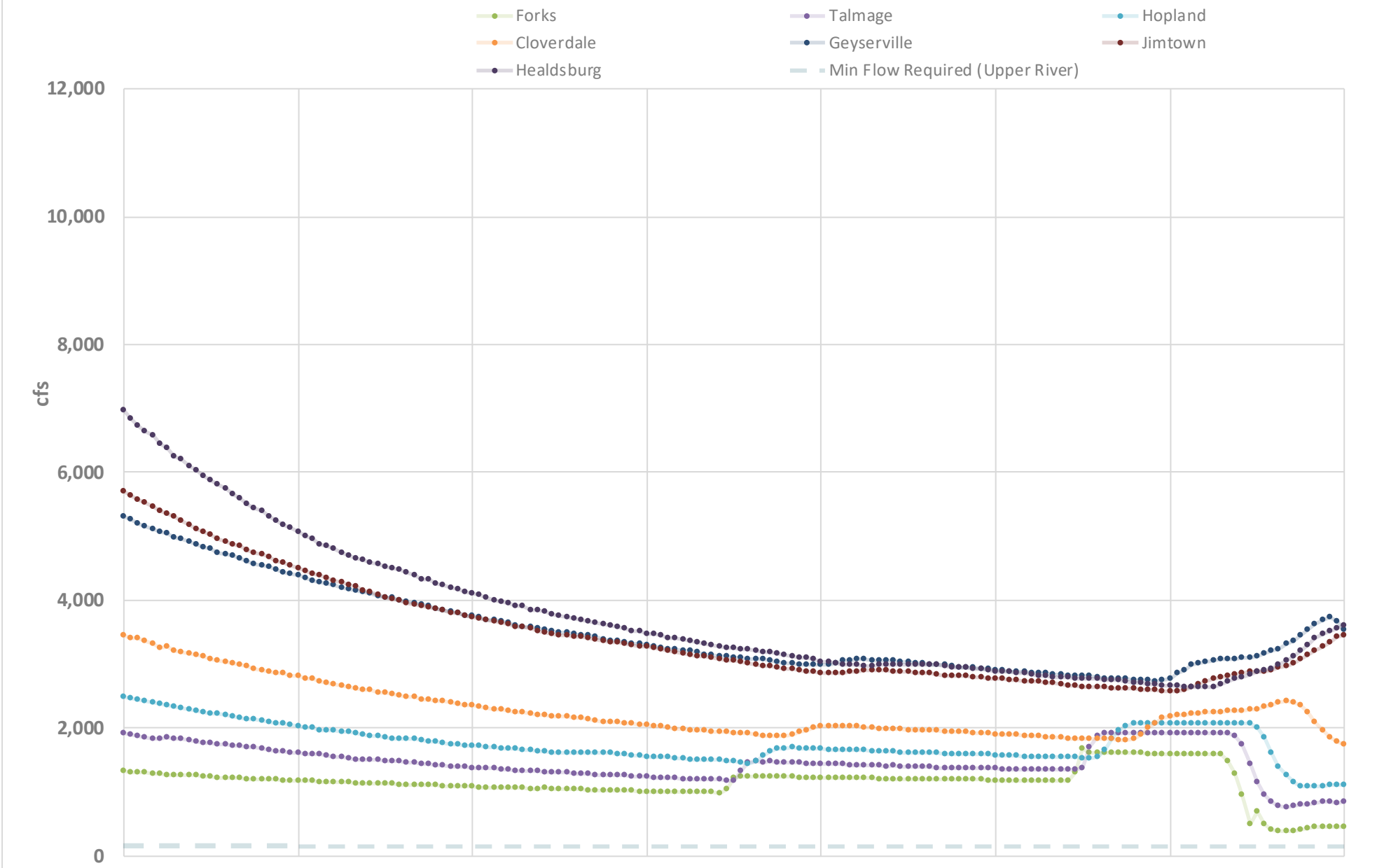
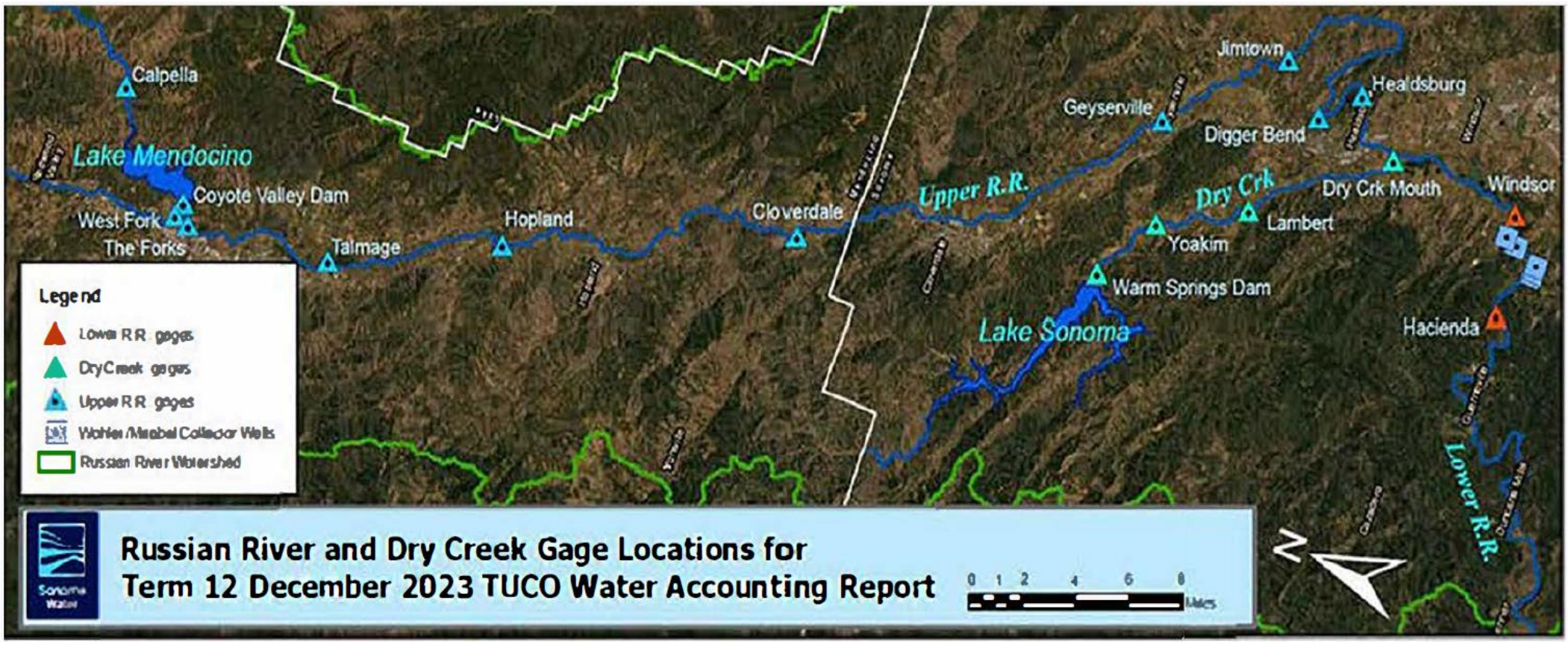
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS





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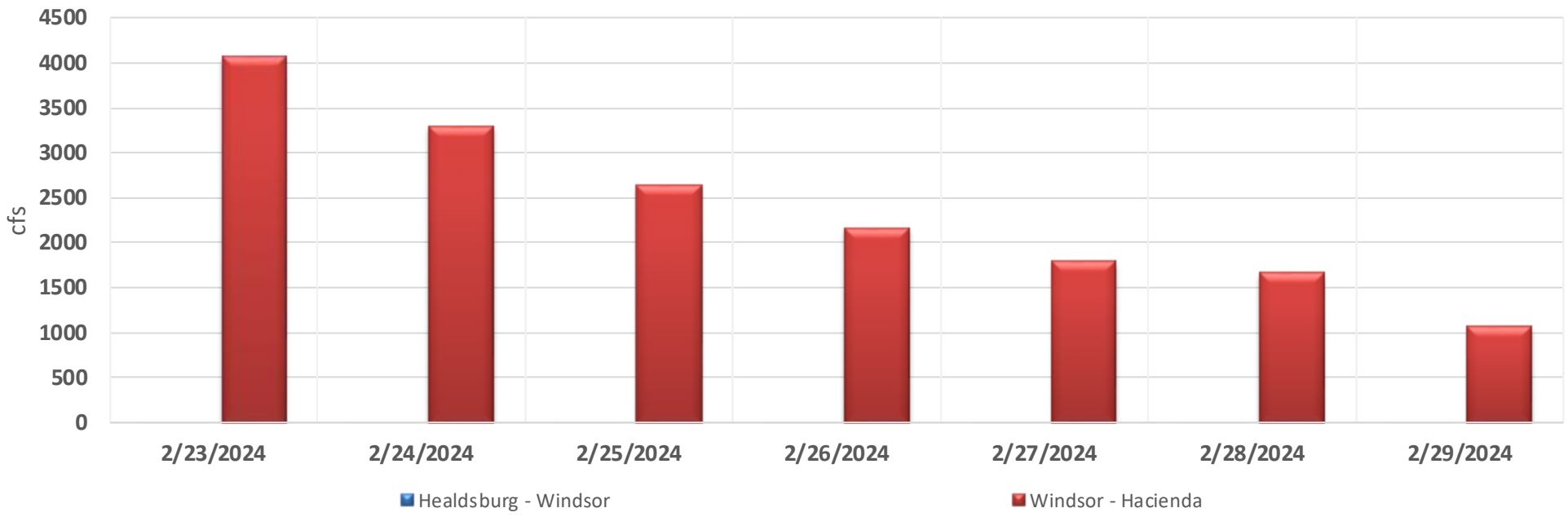
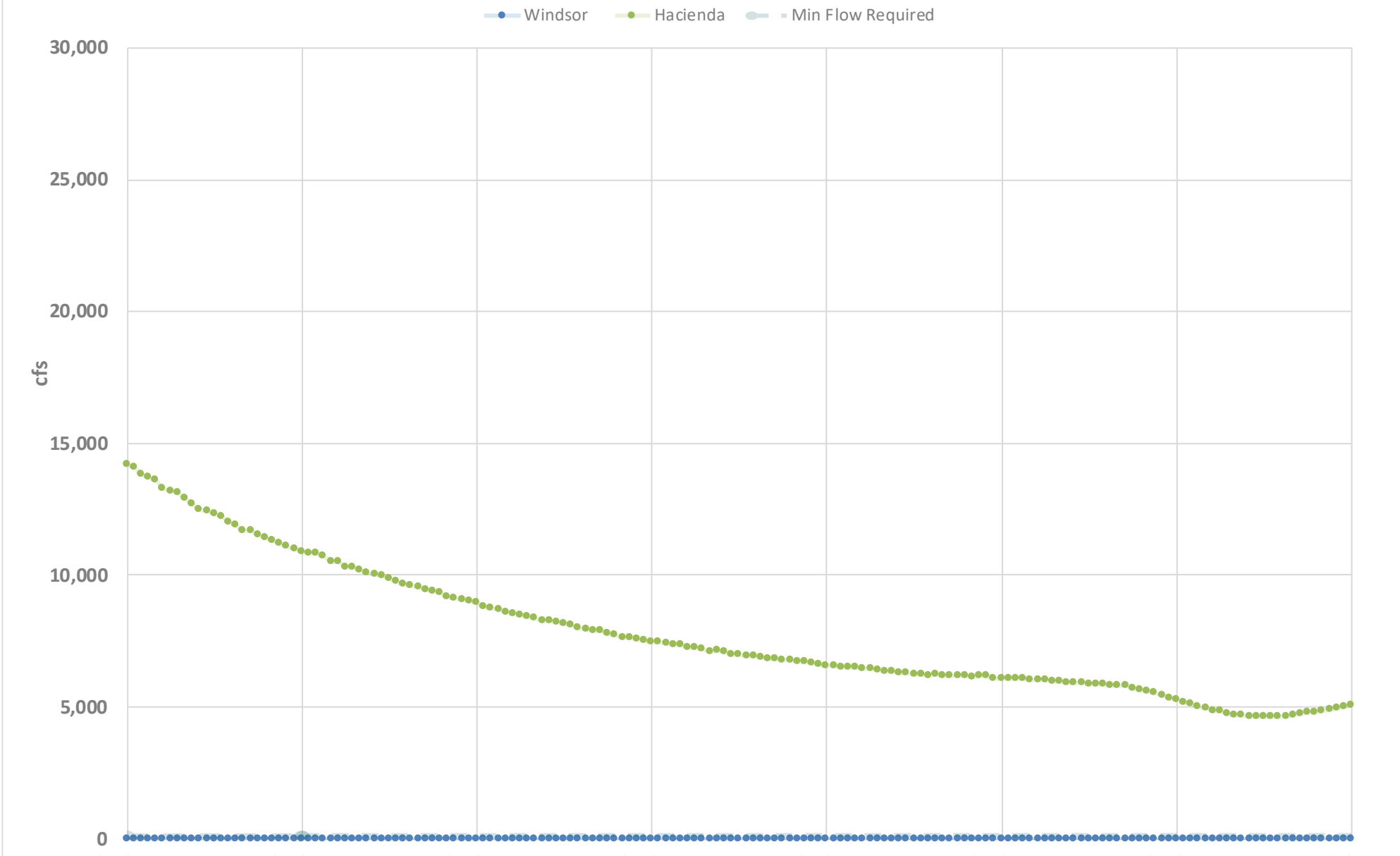
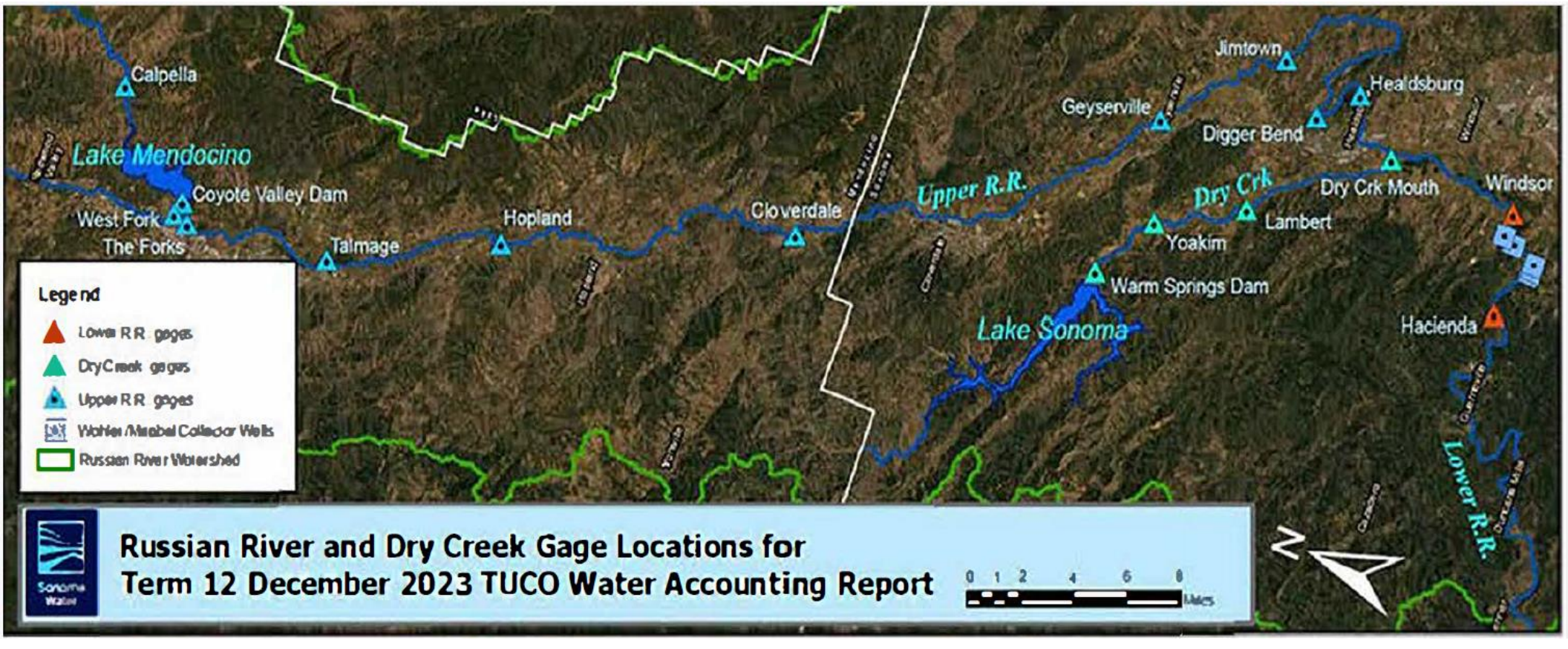
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS





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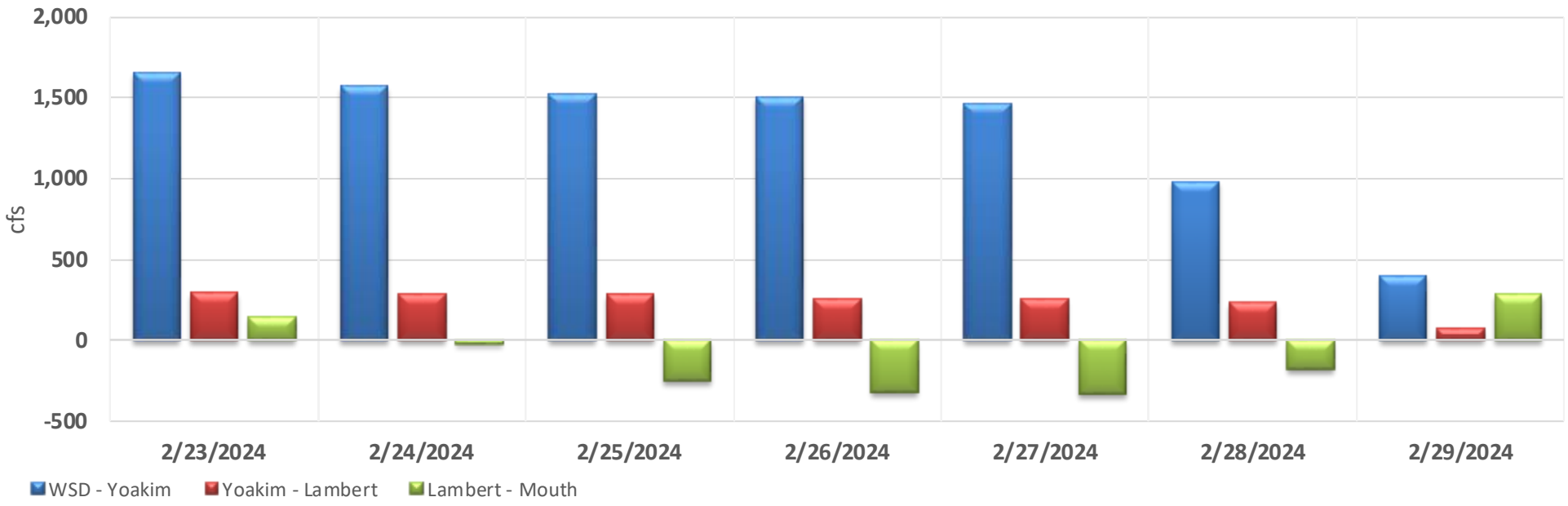
DRY CREEK NET REACH GAINS (+) / LOSSES (-)



DRY CREEK STREAM FLOWS