Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 3/3/2023

Units are cfs unless noted otherwise

	2/24/2023	2/25/2023	2/26/2023	2/27/2023	2/28/2023	3/1/2023	3/2/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	45.0	45.0	45.0	45.0	45.0	45.0	45.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	3.6	1.1	1.2	1.5	2.6	1.1	1.0
East Fork Release	41.0	44.0	44.0	44.0	42.0	44.0	44.0
PVID E Fork Diversions	6.4	8.9	8.8	8.5	7.5	8.9	9.0
PVID Water Use - PG&E Contract	10.0	10.0	10.0	10.0	10.0	10.0	10.0
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)	34.6	35.1	35.2	35.5	34.6	35.1	35.0
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	124.5	124.4	210.7	578.3	1,207.5	562.7	349.3
Net Reach Loss(-)/Gain(+)	+79.5	+79.4	+165.7	+533.3	+1,162.5	+517.7	+304.3
Unimpaired Natural Flow @ Calpella (est.)	25.0	35.3	29.4	82.8	322.3	428.3	190.3
Non-PVID East Fork Net Reach Losses (est.)	89.5	89.4	175.7	543.3	1172.5	527.7	314.3
Natural Flow	54.9	54.3	140.4	507.8	1138.0	492.6	279.3
Import (neg. value is return flow)	34.6	35.1	35.2	35.5	34.6	35.1	35.0

II. Lake Mendocino								
Reservoir Operations								
Calculated Inflow (ac-ft)			280	281	467	1,476	2,781	1,285	737
(cfs)			141	142	236	744	1,402	648	372
Natural Flow			106	107	200	709	1,367	613	337
Import			35	35	35	35	35	35	35
Storage Change (ac-ft)			+69.0	+69.0	+258.0	+1,262.0	+2,567.0	+940.0	-17.0
(cfs)			+35	+35	+130	+636	+1,294	+474	-9
Stored Natural Flow (cfs)			35	35	130	636	1,294	474	0
Stored Import Water (cfs)			0	0	0	0	0	0	0
Evaporation (ac-ft)			5.0	6.0	3.0	4.0	4.0	9.8	9.8
RVCWD Diversion (ac-ft)			0	0	0	0	0	0	0
CVD Release Gage			104	104	104	106	106	169	375
Storage (Project Water)			0	0	0	0	0	0	4
Natural Flow			70	70	70	71	72	136	337
Import Water			33	34	34	34	34	33	35
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage	*Rvr mi.*								
CVD Release	*99.9*		104	104	104	106	106	169	375
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			104	104	104	106	106	169	372
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			172	179	229	534	1,255	880	779
Controlling Gage			Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	172	179	229	534	1,255	880	779
Talmage	(USGS 11462080)	*96.1*	267	274	312	710	2,036	1,380	918
Hopland	(USGS 11462500)	*84.8*	324	342	380	905	2,165	2,007	1,335
Cloverdale	(USGS 11463000)	*70.9*	569	626	731	1,412	2,807	3,148	1,914
Geyserville	(USGS 11463500)	*54.4*	789	950	1,068	1,783	2,748	3,734	2,308
Jimtown	(USGS 11463682)	*48.5*	773	905	970	1,701	2,870	4,144	2,598
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*	787	893	919	1,390	2,403	3,655	2,367
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			+97	+93	+104	+256	+841	+413	+211
Talmage - Hopland			+60	+66	+91	+308	+313	+405	+455
Hopland - Cloverdale			+257	+282	+381	+731	+942	+857	+493
Cloverdale - Jimtown			+267	+279	+313	+637	+600	+617	+466
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*			*+85*	*-7*	*+7*	*+6*	*-94*	*-479*	*-552*
Upper Russian Net Reach Loss/Gain			+767	+712	+896	+1,937	+2,601	+1,813	+1,073
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			104	104	104	106	106	169	372
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).

			2/24/2023	2/25/2023	2/26/2023	2/27/2023	2/28/2023	3/1/2023	3/2/2023
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			+369.0	+211.0	+527.0	+1,295.0	+1,831.0	+1,146.0	+802.0
(cfs)			+186	+106	+266	+653	+923	+578	+404
Evaporation (ac-ft)			4.6	6.1	4.6	6.1	6.2	10.5	12.0
Inflow (Natural Flow)			269	190	348	737	1,008	664	491
WSD Release Gage			81	80	80	81	82	81	81
Storage (Project Water)			0	0	0	0	0	0	0
Natural Flow			81	80	80	81	82	81	81
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	75	75	75	75
Controlling Compliance Gage									
Min Gage Flow			81	80	80	81	82	81	81
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*	81	80	80	81	82	81	81
Yoakim	(USGS 11465200)	*11.1*	138	135	136	176	241	240	209
Lambert	(USGS 11465240)	*6.8*	132	128	127	174	248	249	213
Dry Crk Mouth	(USGS 11465350)	*0.1*	266	268	262	352	782	974	699
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			81	80	80	81	82	81	81
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+57	+54	+56	+95	+159	+159	+128
Yoakim - Lambert			-3	-8	-7	+2	+12	+5	+2
Lambert - Dry Crk Mouth			+139	+136	+138	+187	+543	+719	+482
WSD - Dry Crk Mouth			+192	+182	+187	+284	+715	+884	+612
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			No	No	No	No	No	No	No
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			33	34	34	34	34	33	39
Natural Flow			837	783	966	2,008	2,673	1,949	1,410
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			0	0	0	0	0	0	0
Natural Flow			266	268	262	352	782	974	699
Russian River d/s of Confluence Flow			1,053	1,161	1,181	1,742	3,185	4,629	3,066
L. Mendocino Project Water + Import Water			33	34	34	34	34	33	39
L. Sonoma Project Water			0	0	0	0	0	0	0
Natural Flow			1,103	1,051	1,228	2,360	3,456	2,923	2,109
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			125	125	125	125	125	125	125
Controlling Compliance Gage									
Min Gage Flow			1,420	1,560	1,750	3,260	5,050	6,450	6,400
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*	1,420	1,560	1,750	3,260	5,050	6,450	6,400
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			1,463	1,603	1,794	3,303	5,095	6,494	6,440
Net Reach Loss(-)/Gain(+)			+411	+443	+612	+1,561	+1,910	+1,865	+3,374
L. Mendocino Project Water + Import Water			33	34	34	34	34	33	39
L. Sonoma Project Water			0	0	0	0	0	0	0
Natural Flow			1,514	1,493	1,840	3,921	5,365	4,788	5,483
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+367	+399	+569	+1,518	+1,865	+1,821	+3,334
L. Mendocino Project Water + Import Water			33	34	34	34	34	33	39
L. Sonoma Project Water			0	0	0	0	0	0	0
Natural Flow			1,470	1,450	1,797	3,878	5,321	4,745	5,443
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			85.8	86.2	86.5	85.3	88.9	86.4	79.1
Wohler			37.8	39.6	37.6	36.8	40.5	36.9	27.7
Mirabel			48.0	46.6	48.9	48.5	48.3	49.5	51.4
Town of Windsor River Wellfield			4.6	4.4	4.5	5.1	5.3	5.7	4.3
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).

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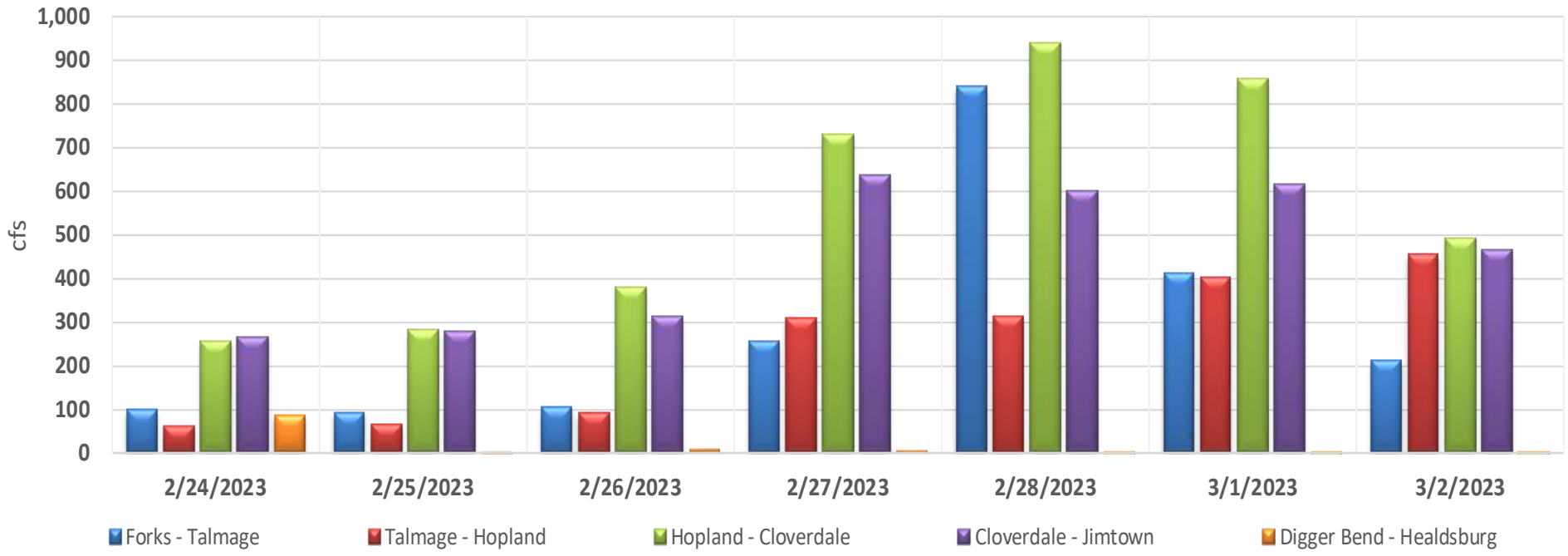
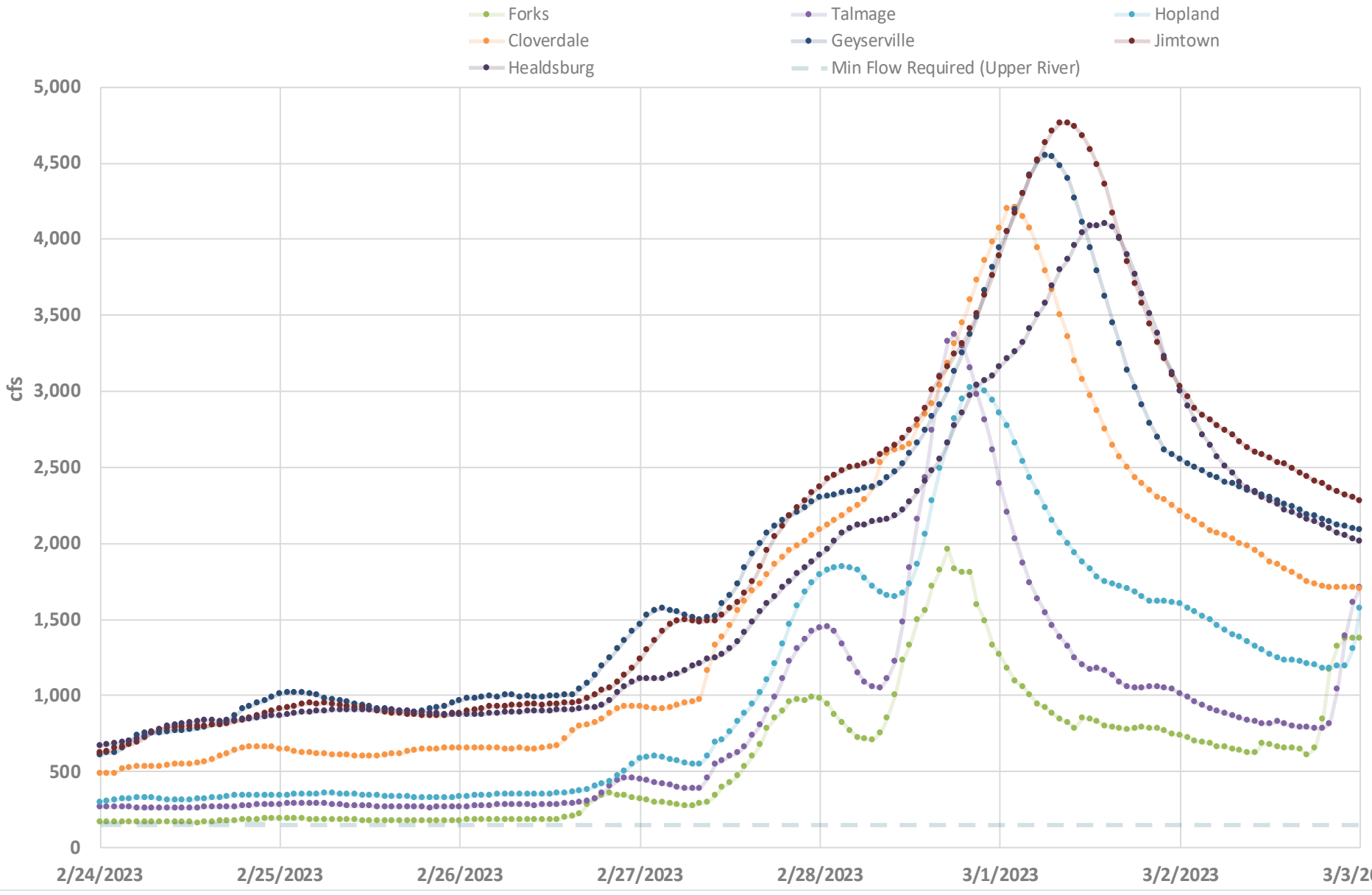
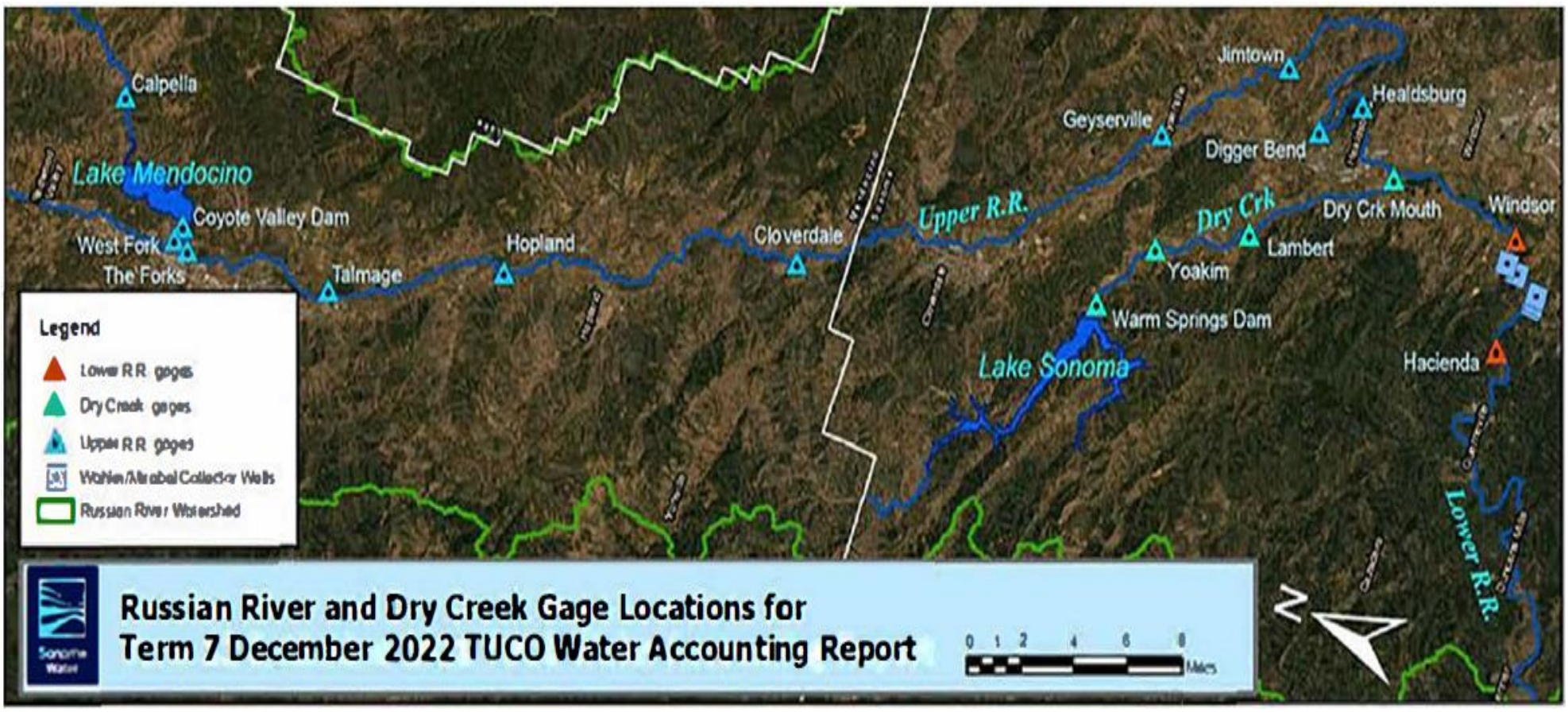
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS





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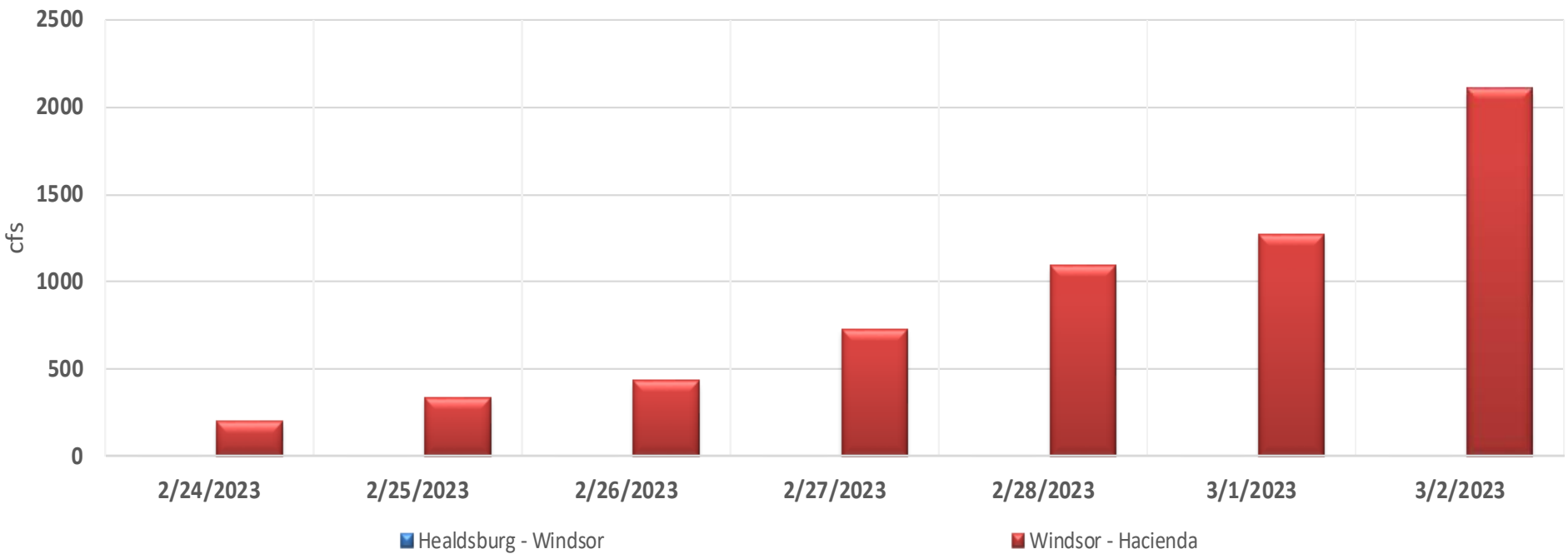
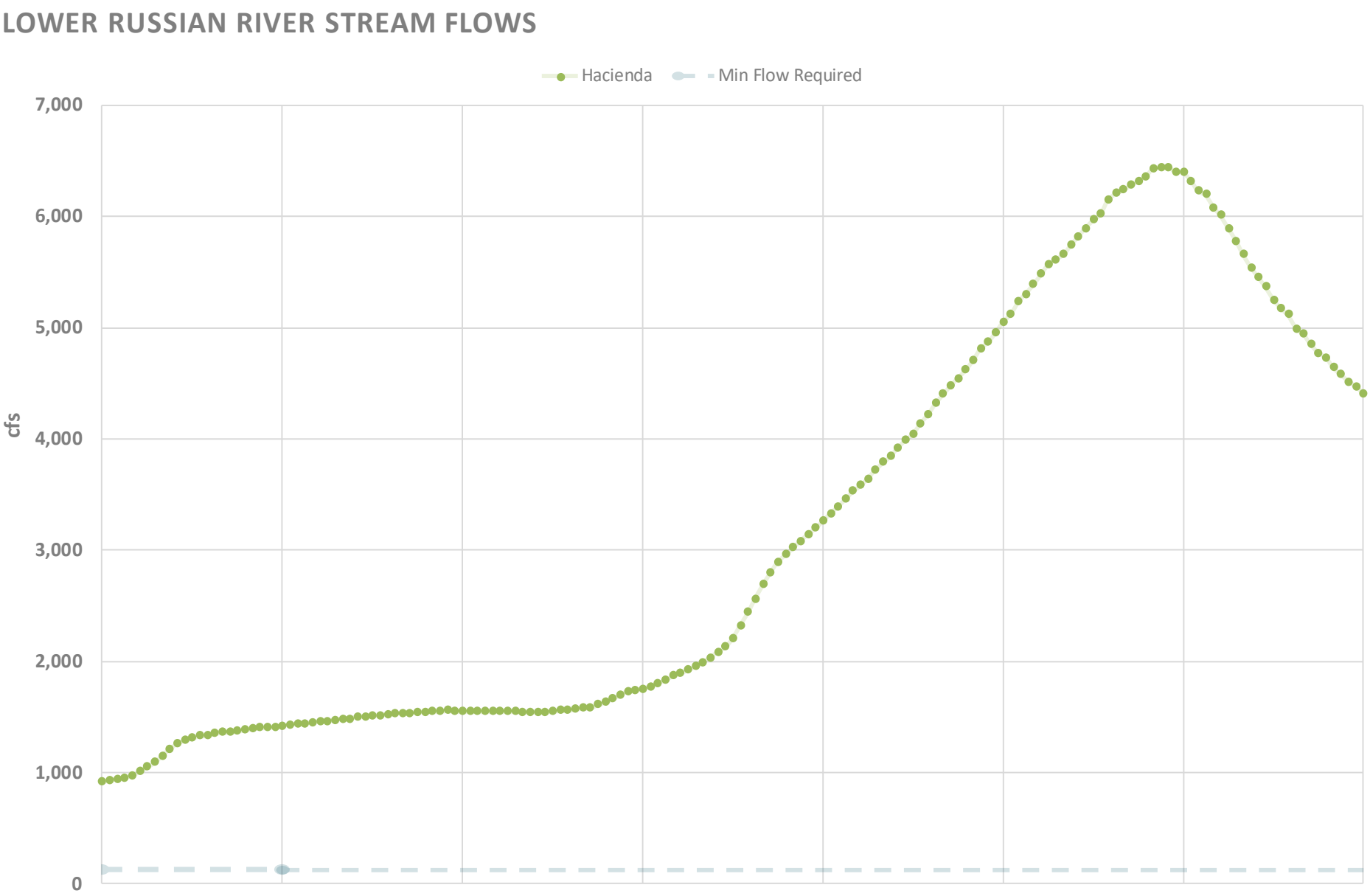
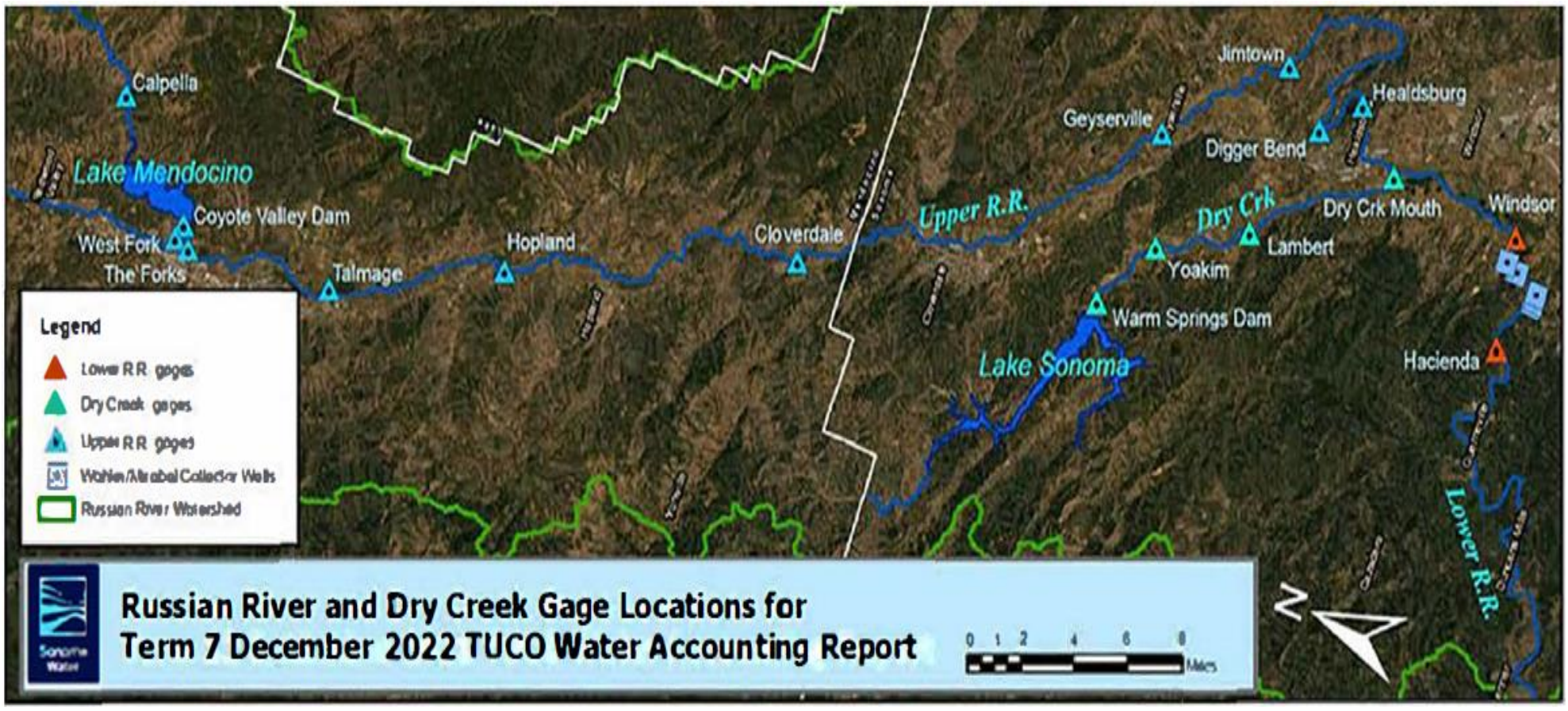
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



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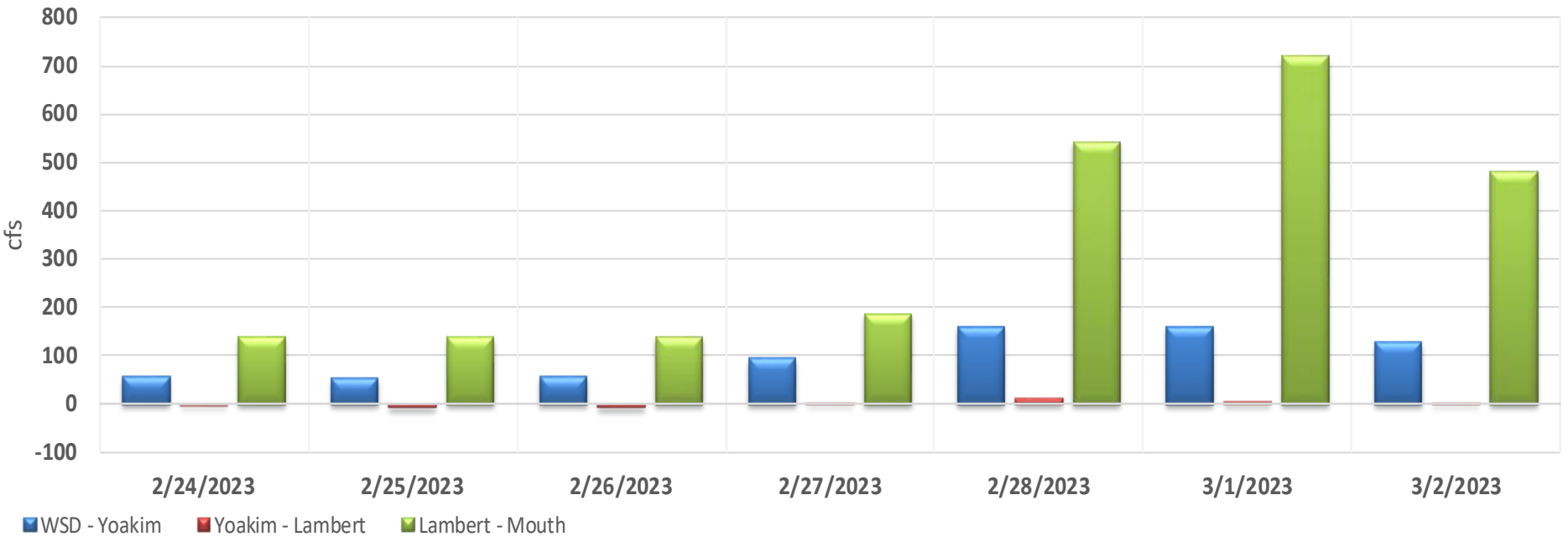
DRY CREEK NET REACH GAINS (+) / LOSSES (-)



DRY CREEK STREAM FLOWS