

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

Report Date: 12/9/2022

Units are cfs unless noted otherwise

	<u>12/2/2022</u>	<u>12/3/2022</u>	<u>12/4/2022</u>	<u>12/5/2022</u>	<u>12/6/2022</u>	<u>12/7/2022</u>	<u>12/8/2022</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	12.0	12.0	12.0	12.0	11.0	11.0	11.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	1.2	1.2	1.3	1.2	1.1	1.1	1.1
East Fork Release	11.0	11.0	11.0	11.0	10.0	10.0	10.0
PVID E Fork Diversions	8.8	8.8	8.8	8.8	8.9	8.9	8.9
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)	2.2	2.2	2.3	2.2	1.1	1.1	1.1
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	17.3	15.8	17.3	56.9	33.4	19.2	18.5
Net Reach Loss(-)/Gain(+)	+5.3	+3.8	+5.3	+44.9	+22.4	+8.2	+7.5
Unimpaired Natural Flow @ Calpella (est.)	10.1	5.3	4.9	5.3	24.3	9.7	6.8
Non-PVID East Fork Net Reach Losses (est.)	15.3	13.8	15.3	54.9	32.4	18.2	17.5
Natural Flow	13.1	11.5	13.1	52.7	31.3	17.1	16.4
Import (neg. value is return flow)	2.2	2.2	2.3	2.2	1.1	1.1	1.1
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	52	36	92	156	84	56	43
(cfs)	26	18	47	79	42	28	22
Natural Flow	24	16	44	77	41	27	21
Import	2	2	2	2	1	1	1
Storage Change (ac-ft)	-13.0	-27.0	+27.0	+91.0	+26.0	+0.0	-13.0
(cfs)	-7	-14	+14	+46	+13	+0	-7
Stored Natural Flow (cfs)	0	0	14	46	13	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	4.1	2.0	4.1	4.1	4.1	4.1	2.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	31	31	31	31	27	26	27
Storage (Project Water)	5	13	0	0	0	0	6
Natural Flow	24	16	30	30	27	26	21
Import Water	2	2	1	1	0	0	1
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	31	31	31	27	26	27
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	26	18	31	31	27	26	22
Project Water Release Required	No	Yes	No	No	No	No	Yes
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	38	36	36	75	60	40	36
Controlling Gage	Digger Bend	Forks	Forks	Digger Bend	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	42	36	36	93	60	40
Talmage (USGS 11462080)	96.1	53	38	39	176	122	66
Hopland (USGS 11462500)	84.8	54	47	46	107	148	82
Cloverdale (USGS 11463000)	70.9	61	57	57	132	164	116
Geyserville (USGS 11463500)	54.4	79	69	64	94	198	170
Jimtown (USGS 11463682)	48.5	62	74	73	82	190	214
Digger Bend (USGS 11463980)	38.2	38	56	63	75	129	175
Healdsburg (USGS 11464000)	35.6	47	60	70	76	114	158
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+8	+1	+3	+98	+50	+25	+22
Talmage - Hopland	+1	+7	+8	+10	-35	+6	+5
Hopland - Cloverdale	+8	+5	+13	+78	-1	+11	+22
Cloverdale - Jimtown	-5	+14	+17	+20	+36	+57	+63
Jimtown - Digger Bend	-15	-19	-9	-1	-29	-45	-17
Digger Bend - Healdsburg	+10	+11	+9	+11	+10	-9	-20
Upper Russian Net Reach Loss/Gain	+8	+20	+40	+215	+30	+45	+75
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-2	+0	+0	+205	+0	+0	+0
Storage (Project Water)	-2	0	0	0	0	0	0
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	205	0	0	0
Total Pass-through Water	26	18	31	236	27	26	22
Project Water Release Required	Yes	Yes	No	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).

	<u>12/2/2022</u>	<u>12/3/2022</u>	<u>12/4/2022</u>	<u>12/5/2022</u>	<u>12/6/2022</u>	<u>12/7/2022</u>	<u>12/8/2022</u>
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-213.0	-198.0	-84.0	+0.0	-113.0	-198.0	-127.0
(cfs)	-107	-100	-42	+0	-57	-100	-64
Evaporation (ac-ft)	3.3	1.1	3.3	3.3	3.3	3.3	2.2
Inflow (Natural Flow)	1	8	67	121	53	10	45
WSD Release Gage	107	107	107	120	108	108	108
Storage (Project Water)	106	99	41	0	55	98	63
Natural Flow	1	8	67	120	53	10	45

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		105	105	105	105	105	105	105
Controlling Compliance Gage								
Min Gage Flow		107	107	107	120	108	108	108
Controlling Gage		WSD Release	WSD Release	WSD Release	Lambert	WSD Release	WSD Release	WSD Release
All Compliance Gages								
	<i>Crk mi.</i>							
WSD Release	<i>14.3</i>	107	107	107	120	108	108	108
Yoakim (USGS 11465200)	<i>11.1</i>	117	117	118	121	121	120	122
Lambert (USGS 11465240)	<i>6.8</i>	116	116	117	120	119	118	119
Dry Crk Mouth (USGS 11465350)	<i>0.1</i>	122	121	136	132	133	128	137
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		1	8	67	120	53	10	45
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+10	+10	+11	+13	+13	+12	+14
Yoakim - Lambert		-2	-2	-1	-1	-1	-2	-2
Lambert - Dry Crk Mouth		+6	+6	+19	+13	+14	+10	+18
WSD - Dry Crk Mouth		+15	+14	+29	+25	+25	+20	+30
WSD Project Water Release to Meet Min Flow Requirement								
Net Reach Loss/Gain to Controlling Gage		+0	+0	+0	+12	+0	+0	+0
Project Water Release Required		Yes	Yes	Yes	No	Yes	Yes	Yes

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)								
L. Mendocino Project Water + Import Water		7	15	1	1	0	0	7
Natural Flow		32	36	69	245	57	71	96
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		106	99	41	0	55	98	63
Natural Flow		16	22	95	132	78	30	75
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		7	15	1	1	0	0	7
L. Sonoma Project Water		106	99	41	0	55	98	63
Natural Flow		48	58	165	377	135	101	171

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		35	35	35	35	35	35	35
Controlling Compliance Gage								
Min Gage Flow		177	153	188	282	373	550	490
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	<i>26.6</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>	<i>n/d</i>
Hacienda (USGS 11467000)	<i>21.8</i>	177	153	188	282	373	550	490
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		223	203	231	348	420	593	533
Net Reach Loss(-)/Gain(+)		+54	+21	+25	+140	+173	+306	+248
L. Mendocino Project Water + Import Water		7	15	1	1	0	0	7
L. Sonoma Project Water		103	97	38	0	53	96	61
Natural Flow		102	79	189	517	309	407	419
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		+8	-29	-18	+74	+126	+263	+205
L. Mendocino Project Water + Import Water		7	15	1	1	0	0	7
L. Sonoma Project Water		57	47	0	0	6	54	17
Natural Flow		102	79	185	451	309	407	419

VIII. Water Production under Sonoma Water Water Rights (ac-ft)

Lower Russian River								
Sonoma Water Total		90.6	98.9	84.4	131.3	93.6	84.3	85.9
Wohler		40.5	45.2	39.8	60.7	71.0	63.0	38.8
Mirabel		50.1	53.7	44.7	70.6	22.6	21.4	47.2
Town of Windsor River Wellfield		5.3	5.2	5.3	4.3	4.2	4.2	4.4
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:

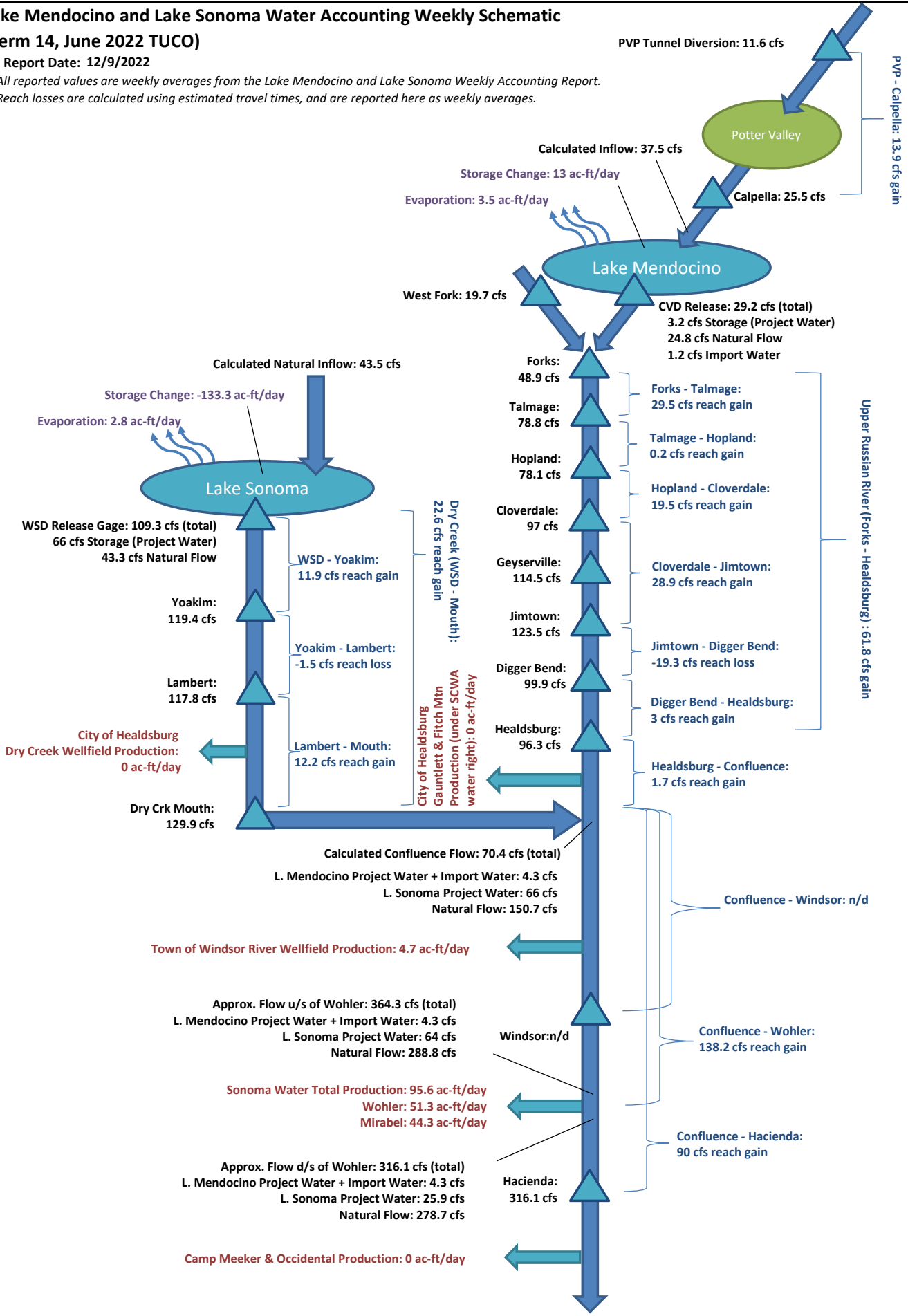
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 12/9/2022

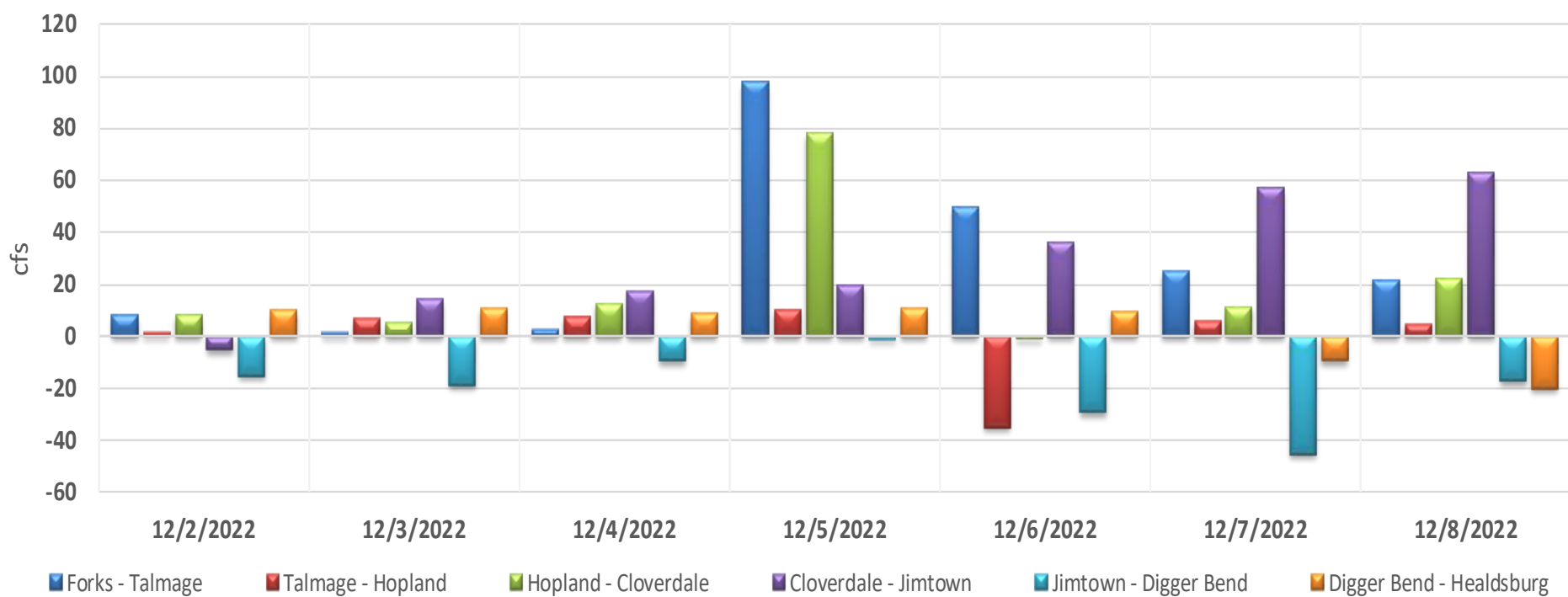
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



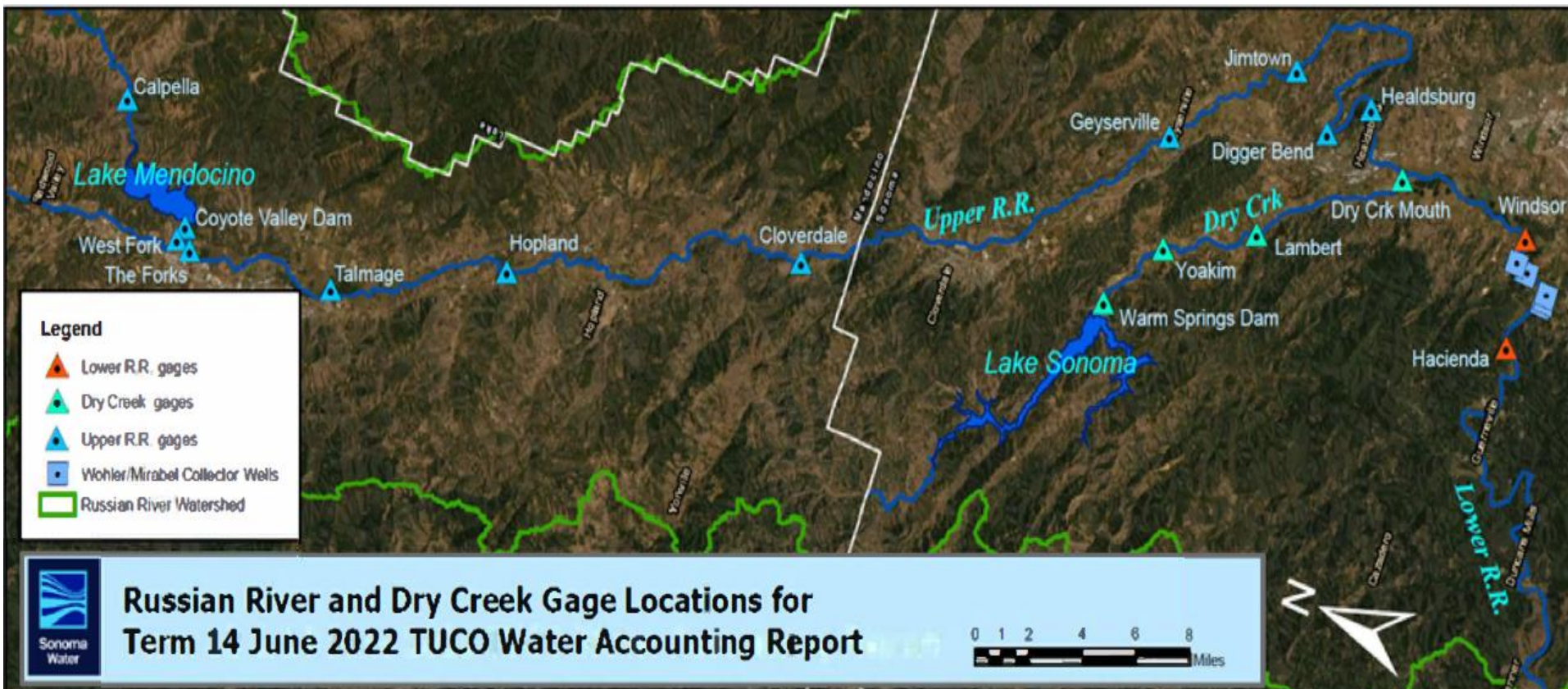
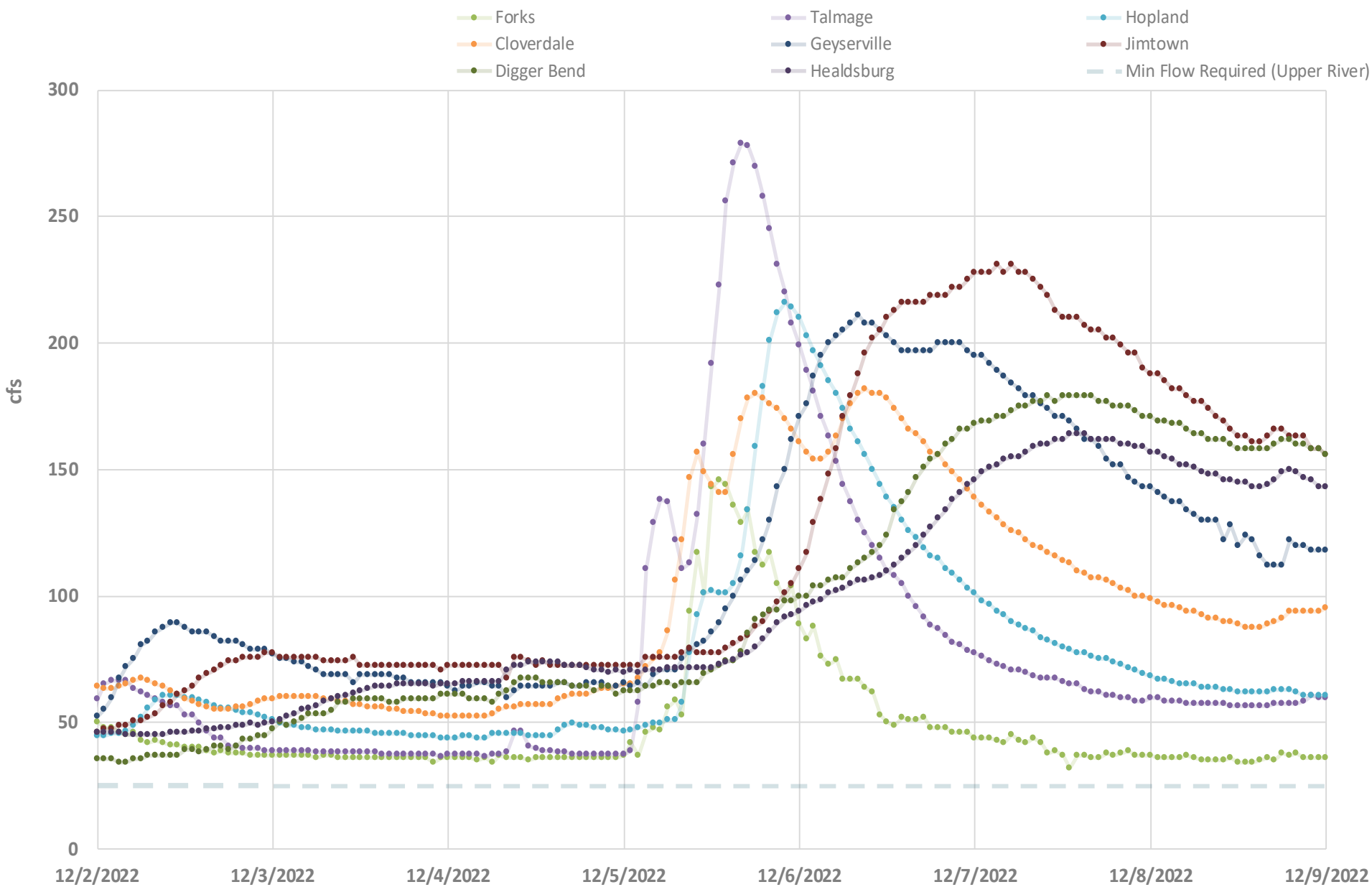
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



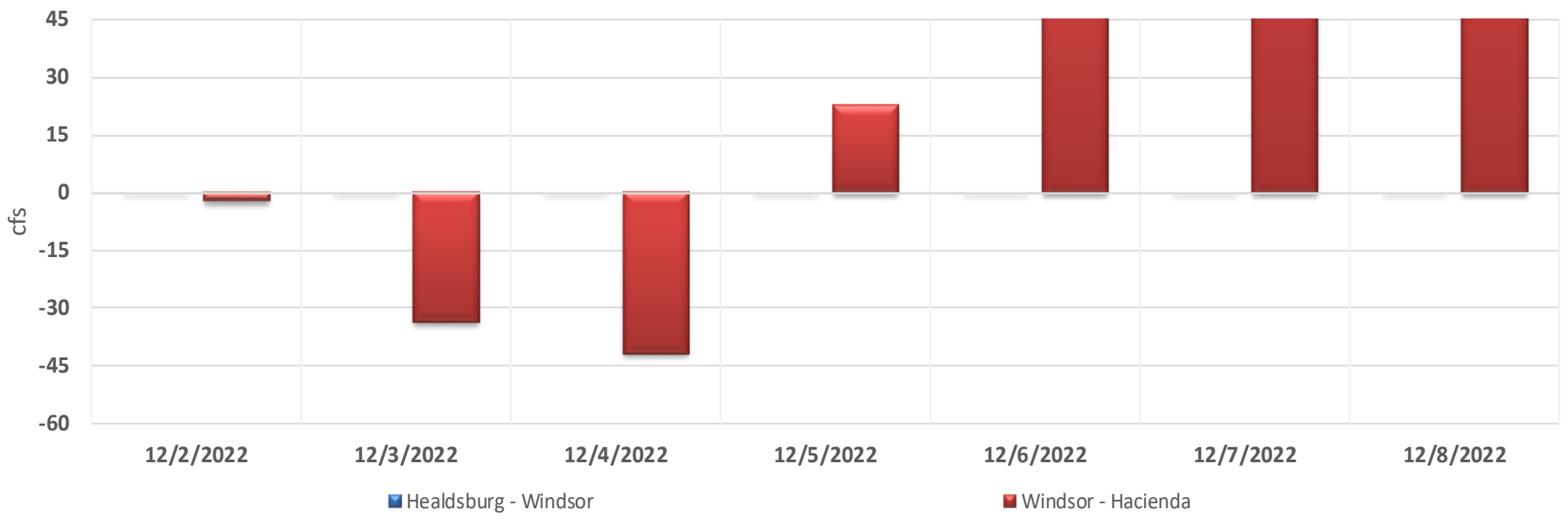
UPPER RUSSIAN RIVER STREAM FLOWS



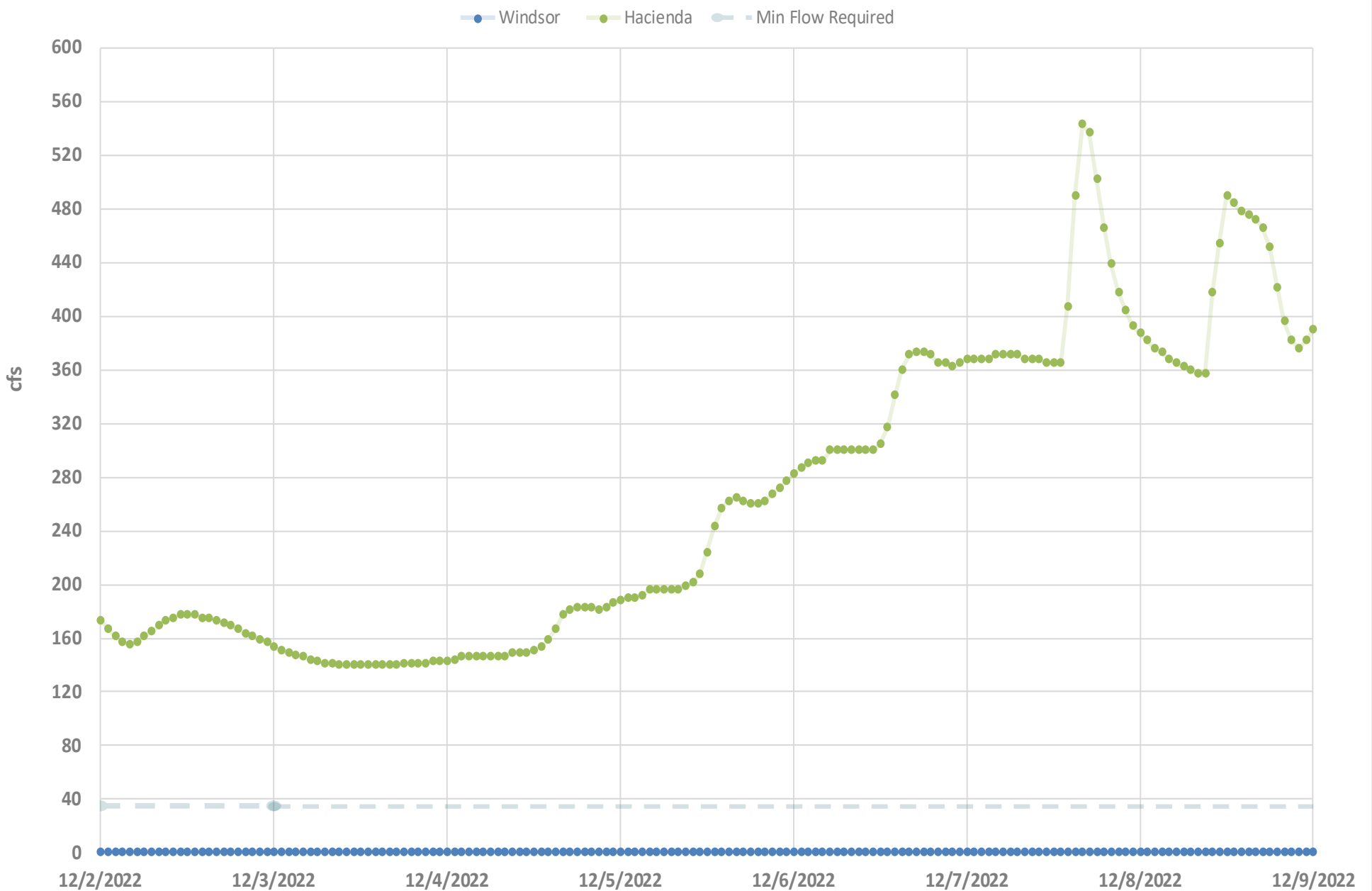
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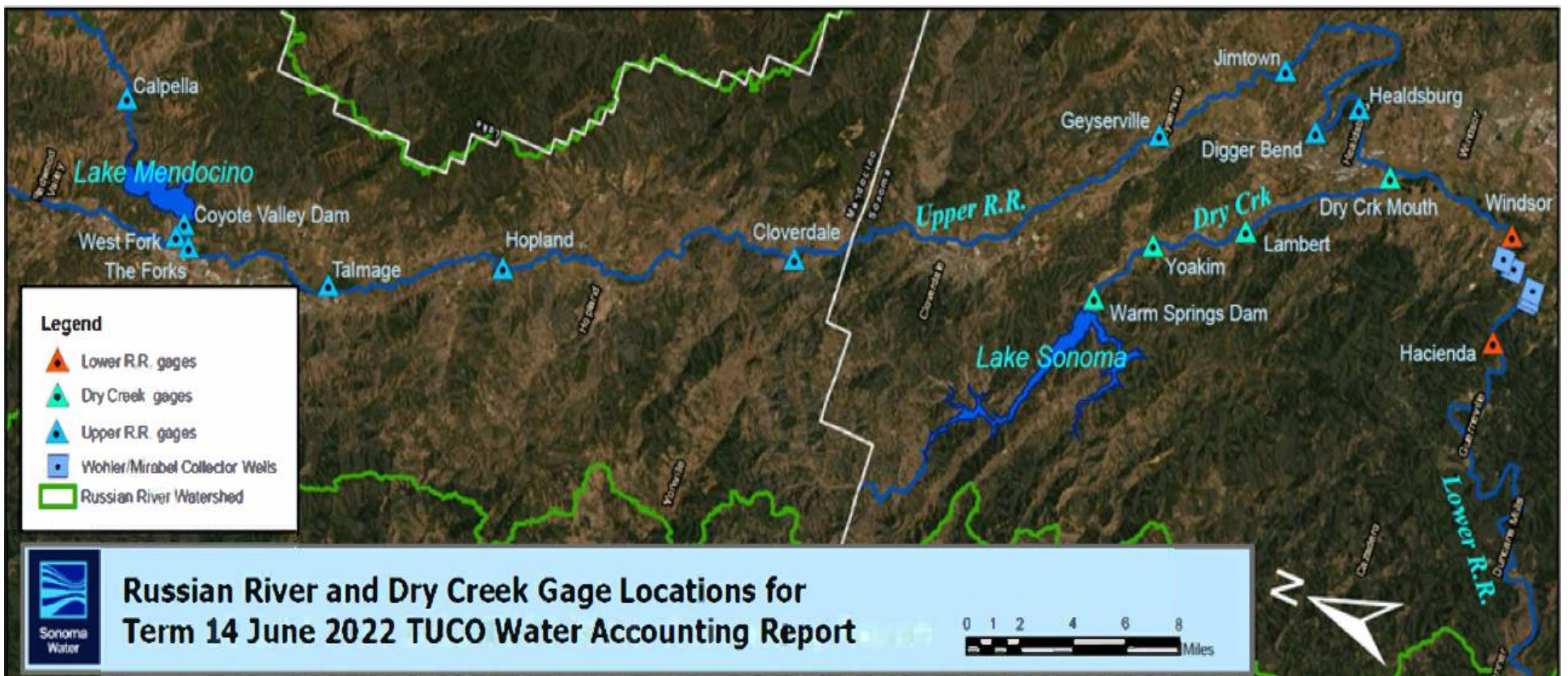
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



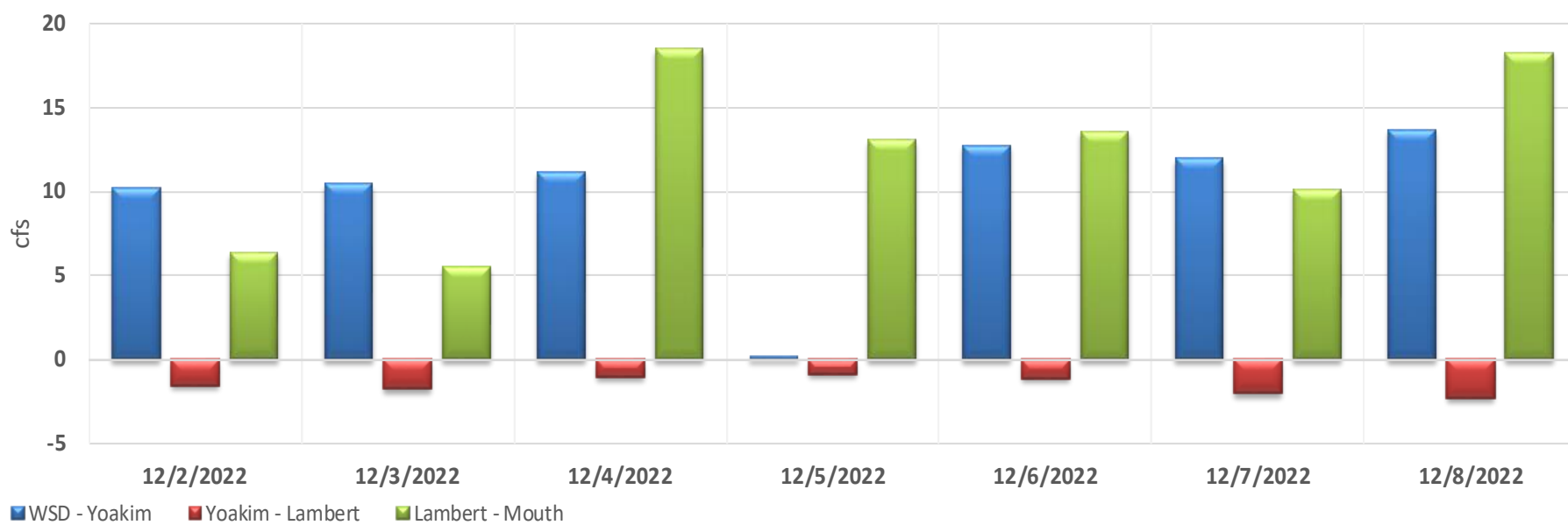
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

