

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

Report Date: 12/16/2022

Units are cfs unless noted otherwise

	12/9/2022	12/10/2022	12/11/2022	12/12/2022	12/13/2022	12/14/2022	12/15/2022
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	12.0	11.0	11.0	11.0	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	1.1	1.4	1.2	1.1	1.1	1.1	1.1
East Fork Release	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID E Fork Diversions	8.9	8.7	8.8	8.9	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)	1.1	1.4	1.2	1.1	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	35.3	203.7	167.9	90.2	44.8	31.7	26.0
Net Reach Loss(-)/Gain(+)	+23.3	+192.7	+156.9	+79.2	+33.8	+20.7	+15.0
Unimpaired Natural Flow @ Calpella (est.)	6.4	10.1	159.2	86.8	34.9	17.7	11.5
Non-PVID East Fork Net Reach Losses (est.)	33.3	202.7	166.9	89.2	43.8	30.7	25.0
Natural Flow	32.2	201.3	165.7	88.1	42.7	29.6	23.9
Import (neg. value is return flow)	1.1	1.4	1.2	1.1	1.1	1.1	1.1

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	69	531	386	176	85	59	72
(cfs)	35	268	195	89	43	30	36
Natural Flow	34	266	193	88	42	28	35
Import	1	1	1	1	1	1	1
Storage Change (ac-ft)	+13.0	+473.0	+331.0	+119.0	+26.0	+0.0	+14.0
(cfs)	+7	+238	+167	+60	+13	+0	+7
Stored Natural Flow (cfs)	7	238	167	60	13	0	7
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	2.0	3.1	2.1	4.1	4.1	4.1	4.1
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	27	28	27	27	28	28	27
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	26	27	26	27	28	27	27
Import Water	1	1	1	0	0	0	0
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	27	28	27	27	28	27
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	27	28	27	27	28	27	27
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	45	311	378	205	87	58	47
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	45	311	378	205	87	47
Talmage (USGS 11462080)	96.1	66	488	549	320	159	85
Hopland (USGS 11462500)	84.8	65	360	672	454	241	115
Cloverdale (USGS 11463000)	70.9	99	599	1,050	784	400	189
Geyserville (USGS 11463500)	54.4	123	676	1,520	1,371	796	325
Jimtown (USGS 11463682)	48.5	150	352	1,461	1,369	817	379
Digger Bend (USGS 11463980)	38.2	150	>400 cfs	>400 cfs	>400 cfs	>400 cfs	>400 cfs
Healdsburg (USGS 11464000)	35.6	132	321	1,164	1,400	973	388
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+23	+250	+128	+99	+63	+45	+36
Talmage - Hopland	+2	+17	+40	+104	+61	+39	+27
Hopland - Cloverdale	+38	+468	+279	+284	+110	+84	+67
Cloverdale - Jimtown	+54	+88	+421	+462	+293	+215	+168
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	-19	+105	-233	-4	+73	+37	-7
Upper Russian Net Reach Loss/Gain	+98	+928	+634	+944	+601	+420	+290
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	27	28	27	27	28	27	27
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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	-140.0	+1,257.0	+754.0	+629.0	+28.0	-43.0	-57.0
(cfs)	-71	+634	+380	+317	+14	-22	-29
Evaporation (ac-ft)	2.2	3.3	3.3	3.3	3.3	3.3	3.3
Inflow (Natural Flow)	39	746	491	427	124	77	54
WSD Release Gage	108	111	109	108	108	97	81
Storage (Project Water)	69	0	0	0	0	20	27
Natural Flow	39	111	109	108	108	77	54

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	105	105	105	105	105	75	75
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Controlling Compliance Gage

Min Gage Flow	108	111	109	108	108	97	81
Controlling Gage	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release

All Compliance Gages

	<i>Crk mi.</i>						
WSD Release	14.3	108	111	109	108	108	97
Yoakim (USGS 11465200)	11.1	125	225	188	219	154	130
Lambert (USGS 11465240)	6.8	122	213	195	226	153	132
Dry Crk Mouth (USGS 11465350)	0.1	136	252	312	412	229	180

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	39	111	109	108	108	77	54
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+17	+114	+81	+108	+46	+30	+25
Yoakim - Lambert	-3	-2	+5	+4	-3	-1	+1
Lambert - Dry Crk Mouth	+14	+61	+113	+175	+71	+44	+41
WSD - Dry Crk Mouth	+28	+172	+199	+288	+115	+73	+66

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	No	No	No	Yes	Yes

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)

L. Mendocino Project Water + Import Water	1	1	1	0	0	0	0
Natural Flow	125	955	660	971	629	448	318

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	69	0	0	0	0	20	27
Natural Flow	66	252	312	412	229	160	124

Russian River d/s of Confluence Flow

	268	573	1,476	1,811	1,202	765	539
L. Mendocino Project Water + Import Water	1	1	1	0	0	0	0
L. Sonoma Project Water	69	0	0	0	0	20	27
Natural Flow	191	1,207	972	1,382	859	608	441

VII. Lower Russian River Reach

Minimum Instream Flow Requirement

	35	35	35	35	35	35	35
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Controlling Compliance Gage

Min Gage Flow	502	924	1,770	1,910	1,900	1,360	988
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	<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)	21.8	502	924	1,770	1,910	1,900	1,360

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	545	973	1,830	1,964	1,955	1,413	1,030
Net Reach Loss(-)/Gain(+)	+277	+400	+354	+153	+753	+649	+492
L. Mendocino Project Water + Import Water	1	1	1	0	0	0	0
L. Sonoma Project Water	67	0	0	0	0	18	25
Natural Flow	468	1,607	1,326	1,535	1,611	1,257	933

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	+234	+351	+294	+99	+698	+595	+449
L. Mendocino Project Water + Import Water	1	1	1	0	0	0	0
L. Sonoma Project Water	25	0	0	0	0	0	0
Natural Flow	468	1,558	1,266	1,481	1,557	1,221	916

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

Lower Russian River

Sonoma Water Total	84.8	97.5	118.6	106.4	109.0	105.9	84.2
Wohler	39.7	52.5	72.7	59.4	62.8	59.4	36.4
Mirabel	45.1	45.0	45.9	47.0	46.2	46.5	47.8
Town of Windsor River Wellfield	4.3	4.0	4.0	4.5	4.5	4.6	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

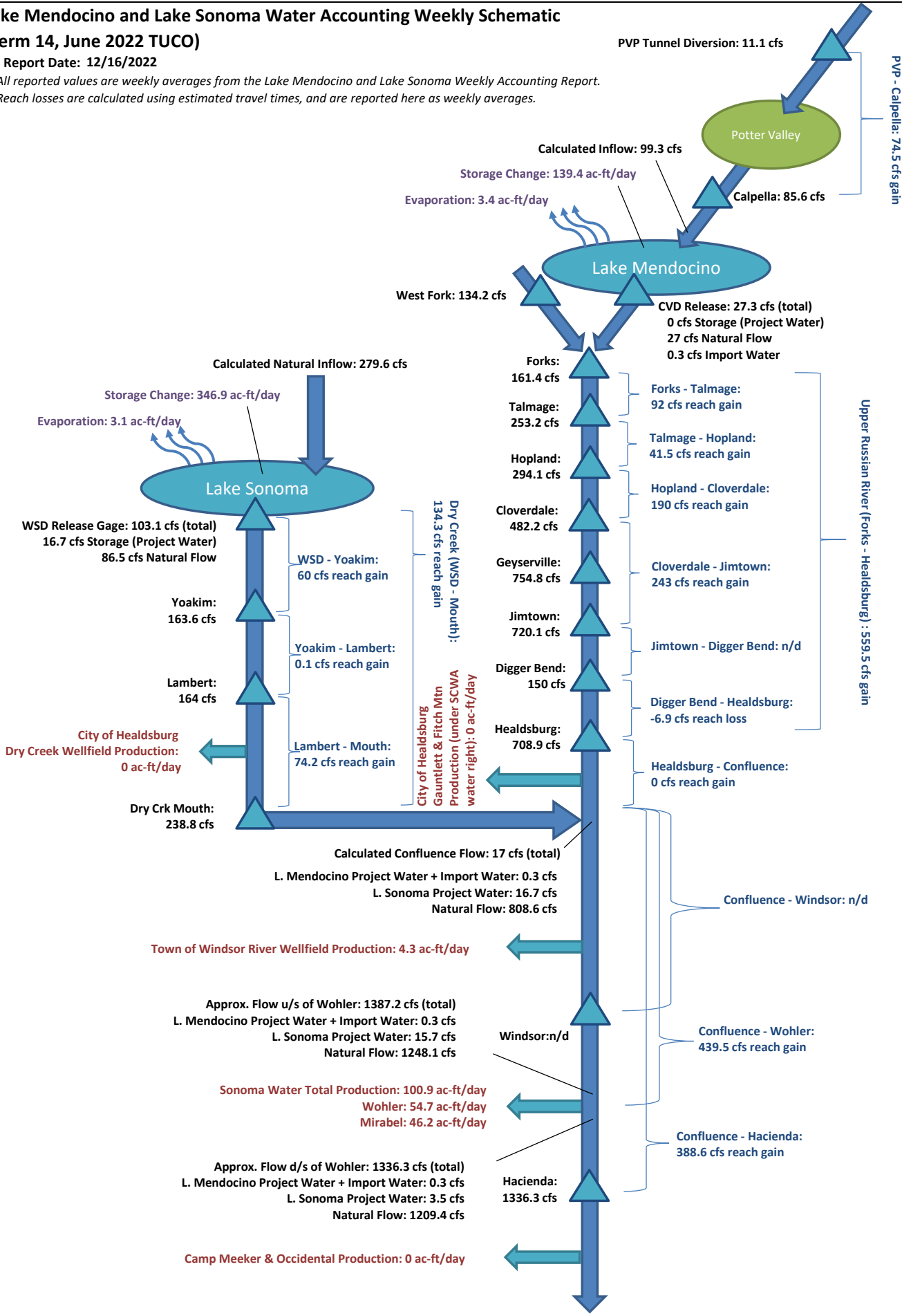
Notes:
 - Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 12/16/2022

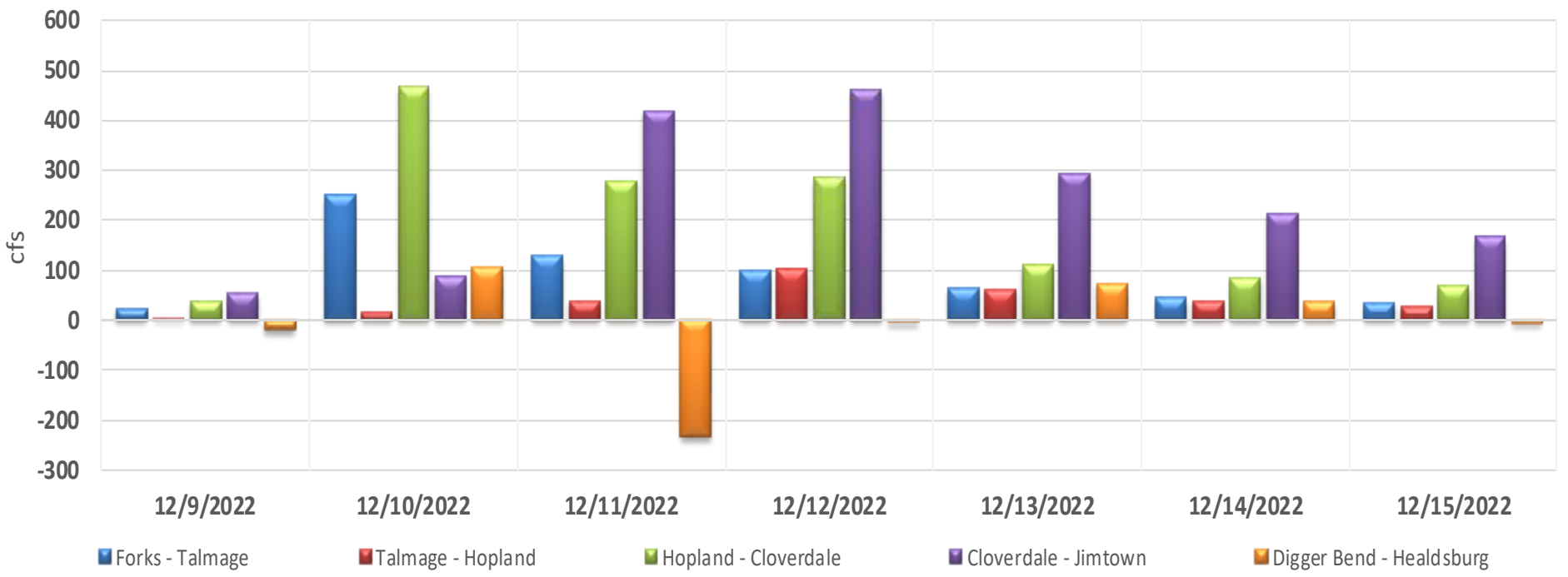
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



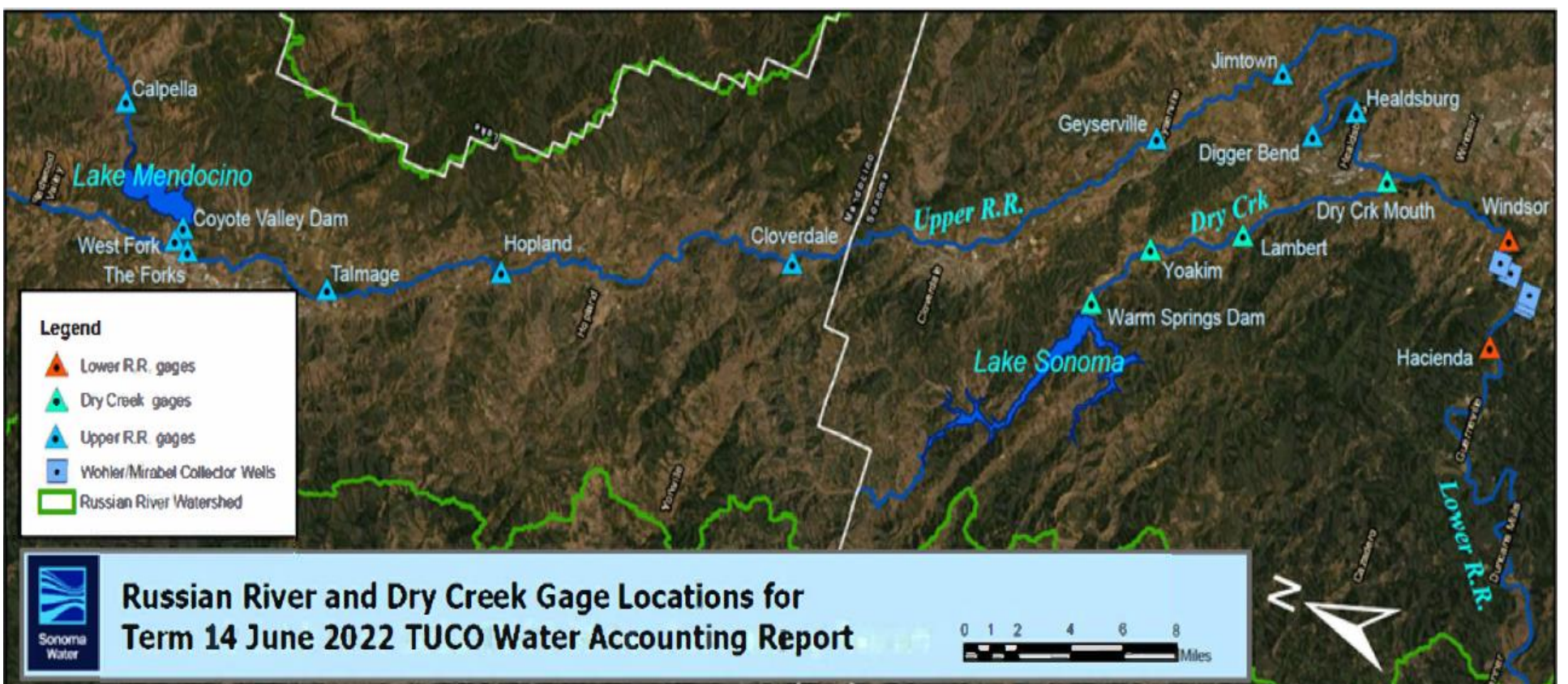
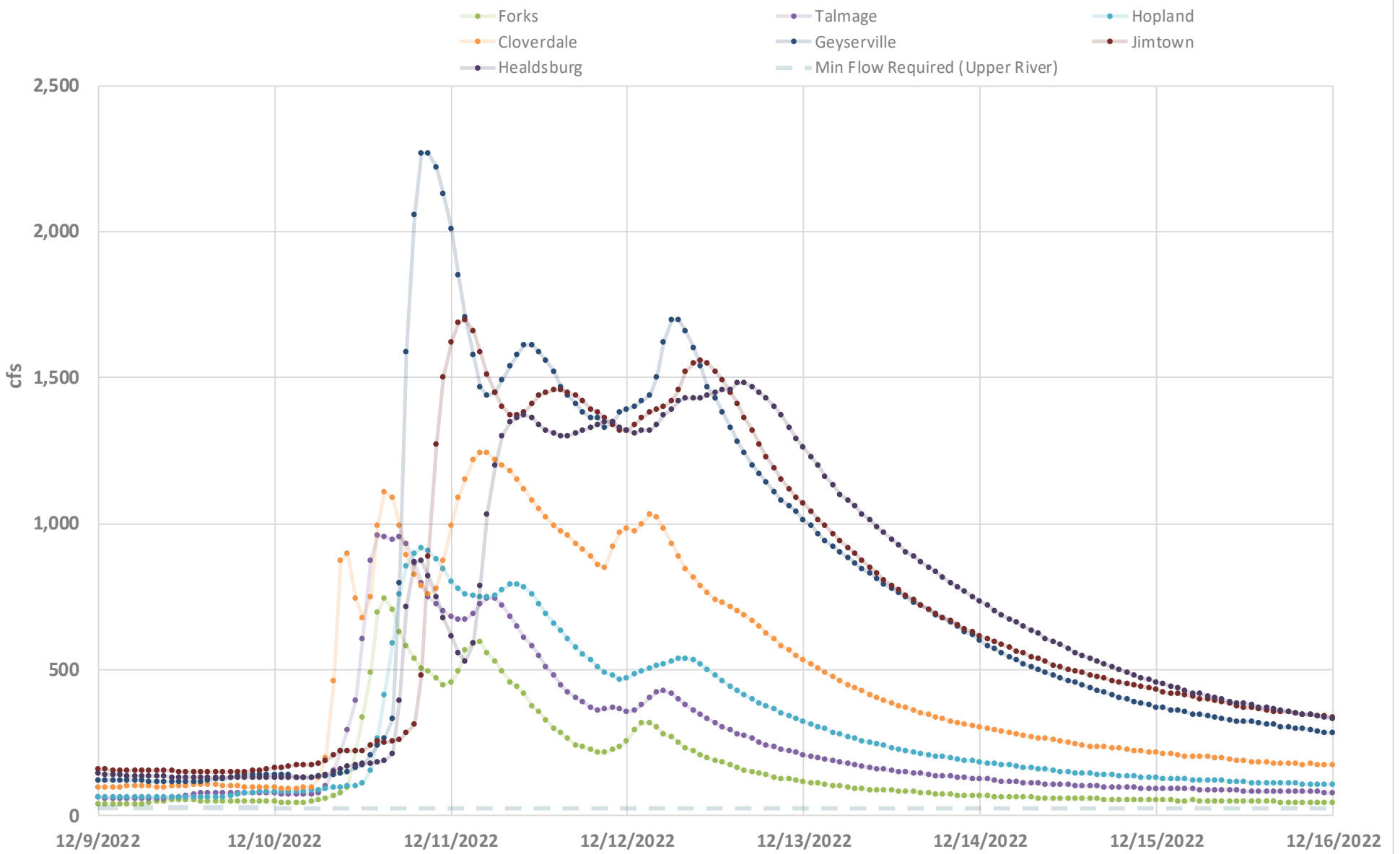
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



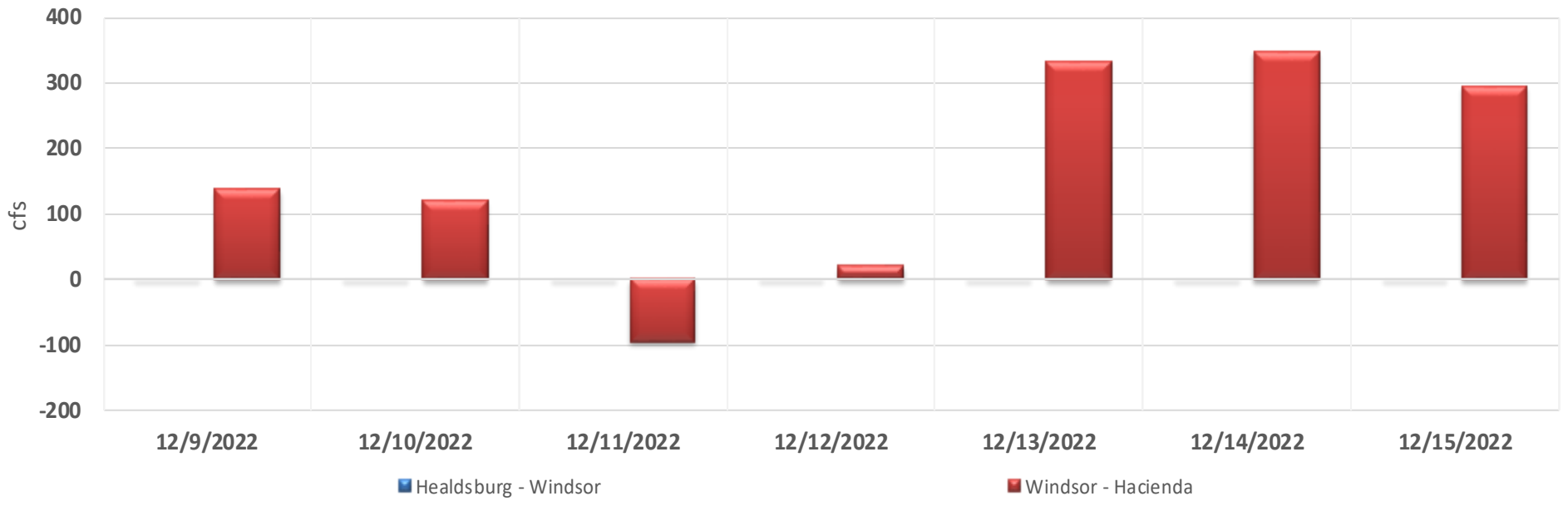
UPPER RUSSIAN RIVER STREAM FLOWS



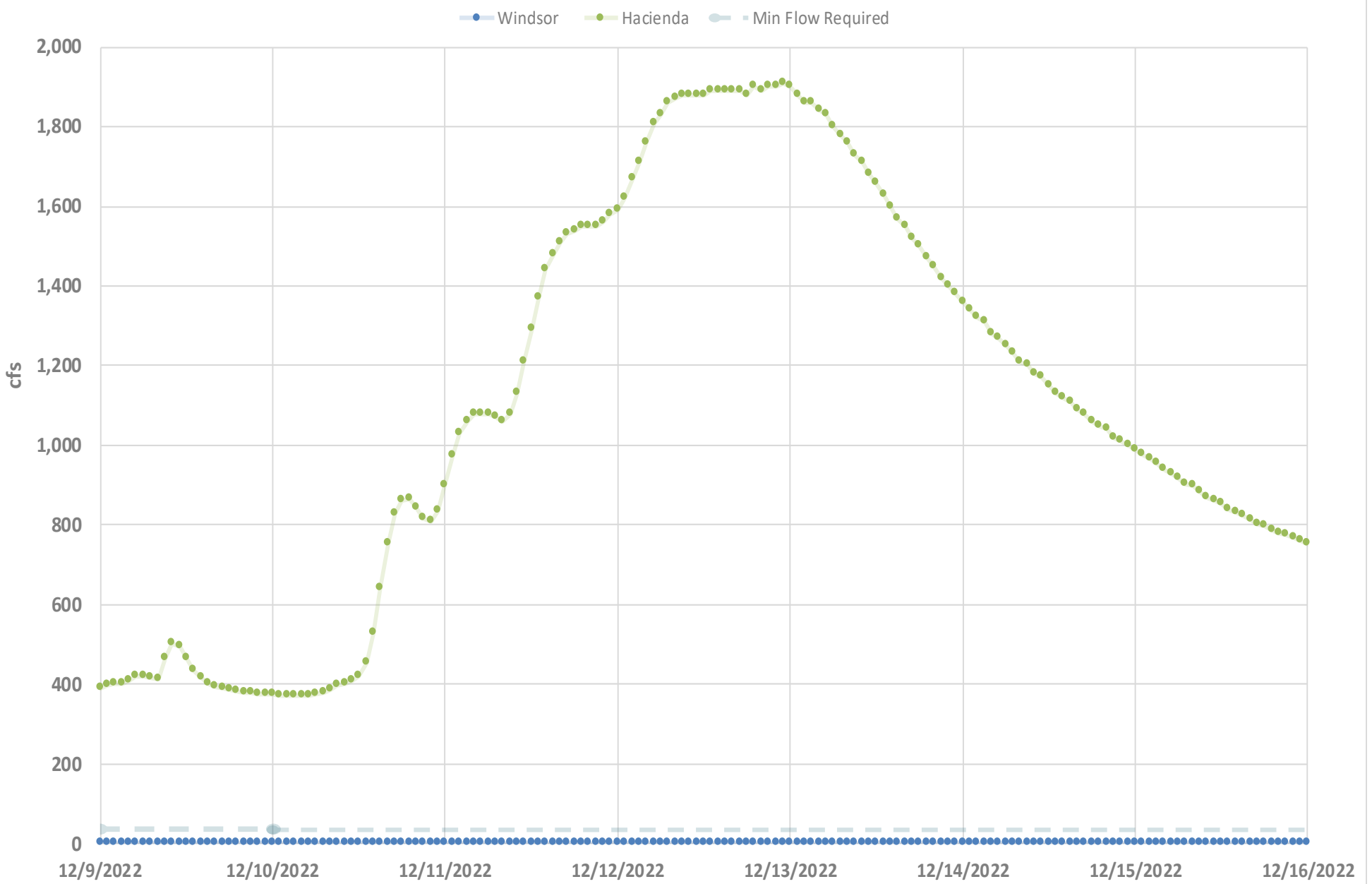
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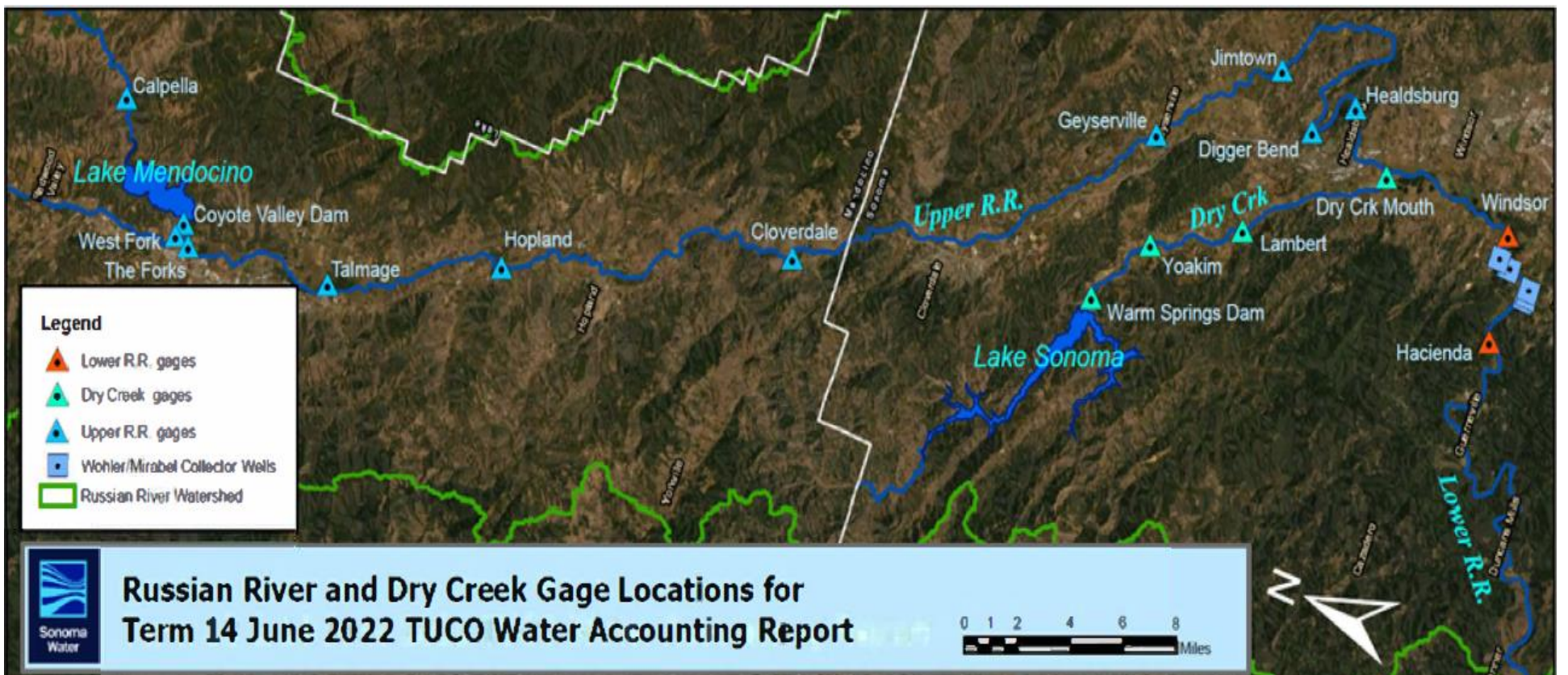
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



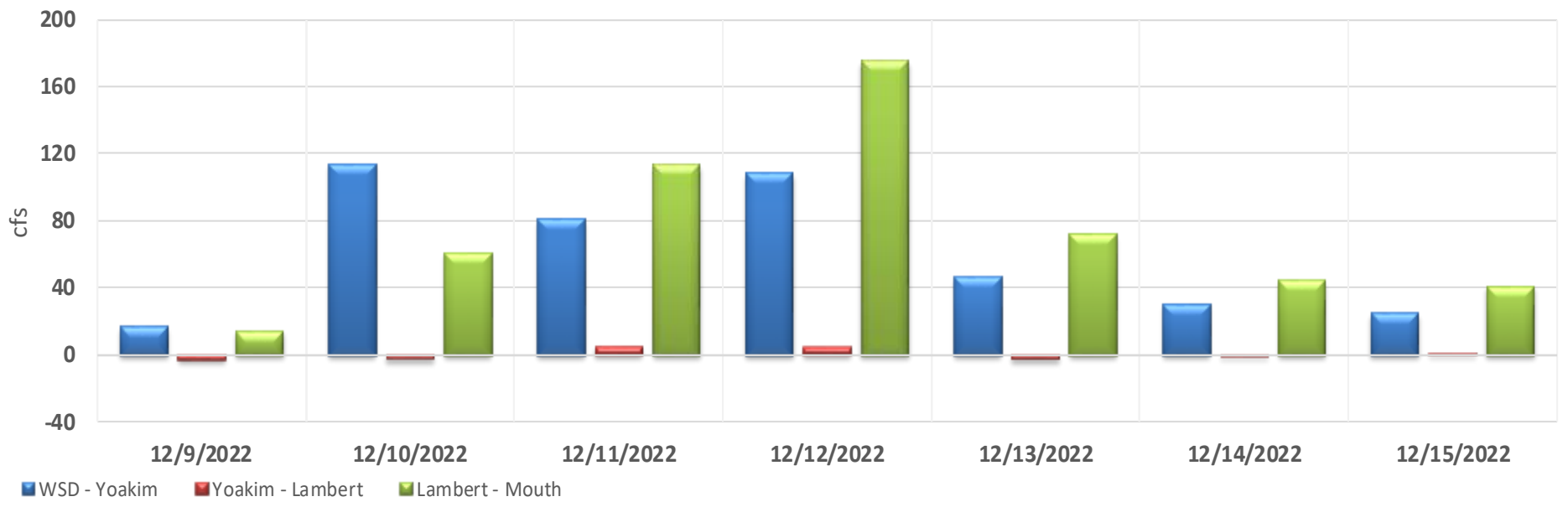
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

