

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

Report Date: 12/2/2022

Units are cfs unless noted otherwise

	<u>11/25/2022</u>	<u>11/26/2022</u>	<u>11/27/2022</u>	<u>11/28/2022</u>	<u>11/29/2022</u>	<u>11/30/2022</u>	<u>12/1/2022</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	12.0	12.0	12.0	12.0	12.0	12.0	12.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	1.1	1.1	1.1	1.1	1.1	1.1	1.2
East Fork Release	11.0	11.0	11.0	11.0	11.0	11.0	11.0
PVID E Fork Diversions	8.9	8.9	8.9	8.9	8.9	8.9	8.8
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)	2.1	2.1	2.1	2.1	2.1	2.1	2.2
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	13.5	13.6	13.5	13.4	12.7	13.0	22.2
Net Reach Loss(-)/Gain(+)	+1.5	+1.6	+1.5	+1.4	+0.7	+1.0	+10.2
Unimpaired Natural Flow @ Calpella (est.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-PVID East Fork Net Reach Losses (est.)	-11.5	-11.6	-11.5	-11.4	-10.7	-11.0	-20.2
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-11.5	-11.6	-11.5	-11.4	-10.7	-11.0	-20.2
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	29	28	41	40	53	-26	157
(cfs)	14	14	21	20	26	-13	79
Natural Flow	4	3	10	9	16	0	69
Import	11	11	11	11	11	0	11
Storage Change (ac-ft)	-40.0	-39.0	-26.0	-26.0	-13.0	-92.0	+92.0
(cfs)	-20	-20	-13	-13	-7	-46	+46
Stored Natural Flow (cfs)	0	0	0	0	0	0	46
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	7.4	7.4	6.3	4.2	5.3	5.3	3.0
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	31	30	31	31	30	31	31
Storage (Project Water)	16	16	10	11	4	31	0
Natural Flow	4	3	10	9	16	0	21
Import Water	11	11	11	11	11	0	10
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	31	30	31	31	30	31
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	14	14	21	20	26	0	31
Project Water Release Required	Yes	Yes	Yes	Yes	No	Yes	No
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	28	29	29	29	28	28	37
Controlling Gage	Geyserville	Hopland	Hopland	Geyserville	Geyserville	Geyserville	Digger Bend
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	32	31	33	33	32	41
Talmage (USGS 11462080)	96.1	33	31	32	32	33	46
Hopland (USGS 11462500)	84.8	31	29	29	29	30	45
Cloverdale (USGS 11463000)	70.9	32	32	31	30	29	61
Geyserville (USGS 11463500)	54.4	28	30	30	29	28	38
Jimtown (USGS 11463682)	48.5	35	36	37	36	36	41
Digger Bend (USGS 11463980)	38.2	32	31	32	32	33	37
Healdsburg (USGS 11464000)	35.6	38	38	38	38	38	43
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+1	+0	-1	-1	-0	+0	+10
Talmage - Hopland	-2	-3	-3	-3	-2	-2	+4
Hopland - Cloverdale	+2	+2	+2	+1	+0	+0	+28
Cloverdale - Jimtown	+7	+4	+4	+5	+5	+7	+10
Jimtown - Digger Bend	-3	-4	-5	-4	-3	-5	-1
Digger Bend - Healdsburg	+6	+6	+6	+6	+6	+6	+7
Upper Russian Net Reach Loss/Gain	+10	+5	+4	+5	+6	+7	+58
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	+7	-3	-4	+3	+3	+6	+51
Storage (Project Water)	0	-3	-4	0	0	0	0
Pass-through Water (Nat. + Imp.) + Natural	7	0	0	3	3	6	51
Total Pass-through Water	21	14	21	23	29	8	82
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	Yes	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)	-229.0	-228.0	-214.0	-242.0	-241.0	-256.0	+29.0
(cfs)	-115	-115	-108	-122	-122	-129	+15
Evaporation (ac-ft)	5.7	4.6	4.6	4.5	4.5	3.4	2.2
Inflow (Natural Flow)	0	0	1	0	0	0	123
WSD Release Gage	107	108	107	107	107	107	107
Storage (Project Water)	107	108	106	107	107	107	0
Natural Flow	0	0	1	0	0	0	107

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement	105	105	105	105	105	105	105
Controlling Compliance Gage							
Min Gage Flow	107	108	107	107	107	107	107
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	107	108	107	107	107	107
Yoakim (USGS 11465200)	11.1	118	117	116	117	117	120
Lambert (USGS 11465240)	6.8	115	115	115	115	115	119
Dry Crk Mouth (USGS 11465350)	0.1	119	119	119	120	120	136
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	0	0	1	0	0	0	107
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+11	+9	+9	+10	+10	+10	+13
Yoakim - Lambert	-3	-2	-1	-1	-2	-2	-1
Lambert - Dry Crk Mouth	+3	+4	+5	+4	+4	+4	+17
WSD - Dry Crk Mouth	+11	+12	+12	+13	+13	+12	+29
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	24	27	21	22	15	30	10
Natural Flow	14	9	14	14	21	7	79
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	107	108	106	107	107	107	0
Natural Flow	11	12	13	13	13	12	136
Russian River d/s of Confluence Flow	156	157	157	158	158	157	179
L. Mendocino Project Water + Import Water	24	27	21	22	15	30	10
L. Sonoma Project Water	107	108	106	107	107	107	0
Natural Flow	25	20	27	27	34	19	215

VII. Lower Russian River Reach

Minimum Instream Flow Requirement	35	35	35	35	35	35	35
Controlling Compliance Gage							
Min Gage Flow	103	104	104	104	105	104	188
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	103	104	104	105	104	188
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	145	154	162	143	167	164	230
Net Reach Loss(-)/Gain(+)	-12	-3	+5	-15	+9	+8	+51
L. Mendocino Project Water + Import Water	24	27	21	22	15	30	10
L. Sonoma Project Water	105	105	103	104	104	104	0
Natural Flow	13	17	32	12	43	27	266
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-53	-53	-53	-54	-53	-53	+9
L. Mendocino Project Water + Import Water	24	27	21	22	15	30	10
L. Sonoma Project Water	63	55	45	65	41	43	0
Natural Flow	13	17	32	12	43	27	225

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

Lower Russian River							
Sonoma Water Total	82.9	98.8	114.5	76.7	123.9	119.8	82.5
Wohler	38.1	56.6	72.3	32.8	62.7	55.1	38.8
Mirabel	44.8	42.2	42.2	43.9	61.2	64.7	43.7
Town of Windsor River Wellfield	5.3	5.1	5.2	5.7	6.0	6.2	6.1
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:

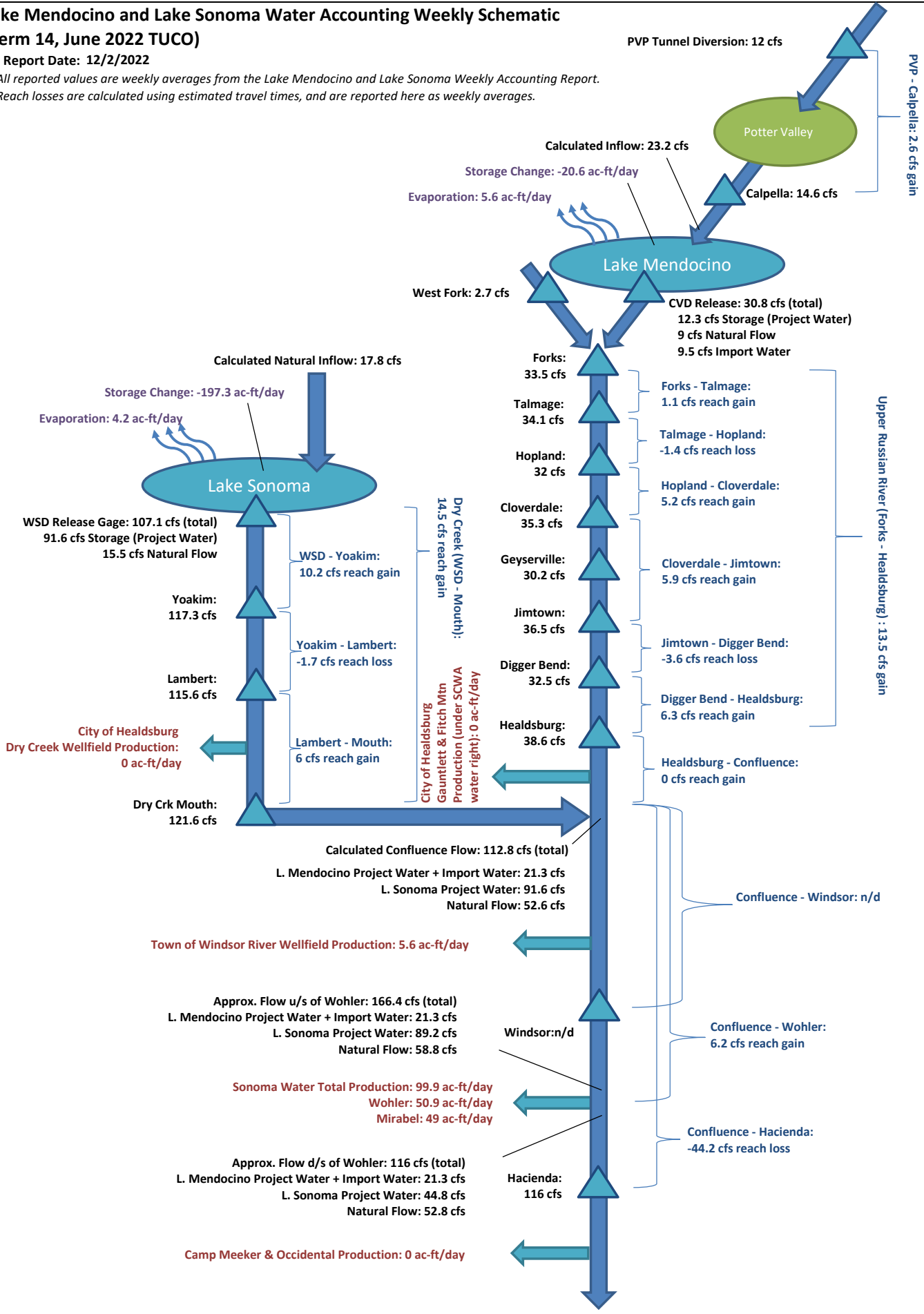
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 12/2/2022

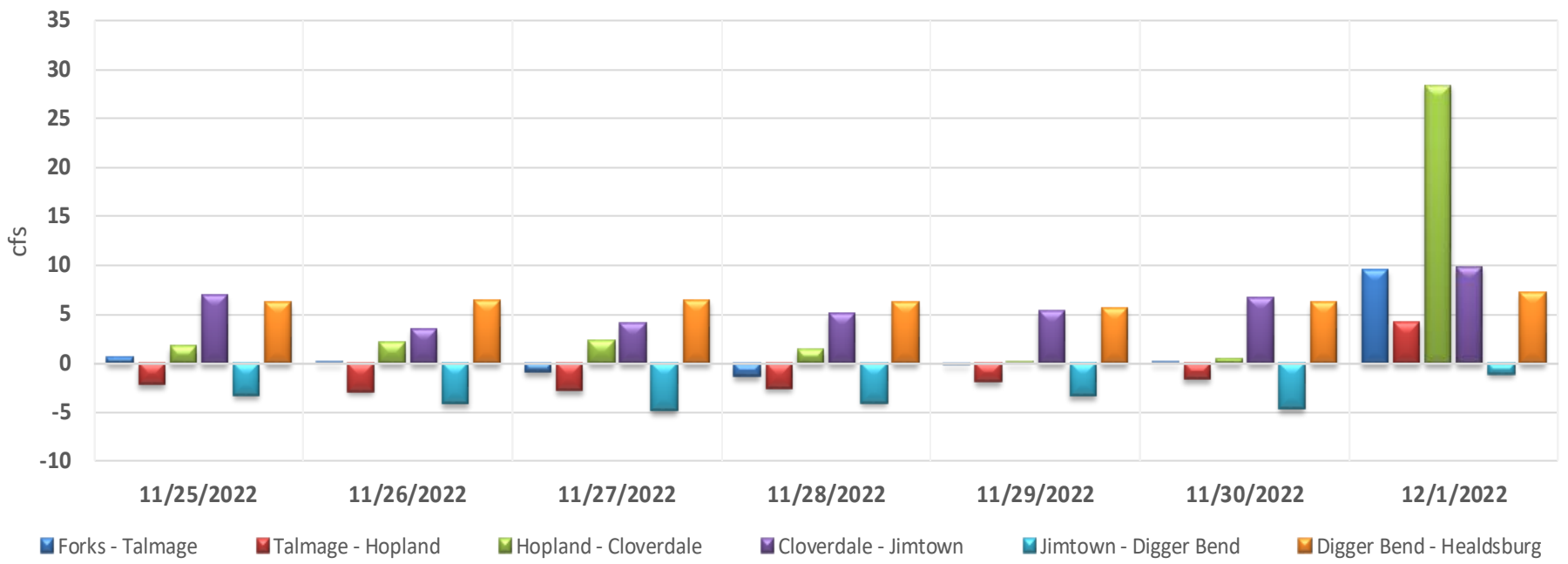
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



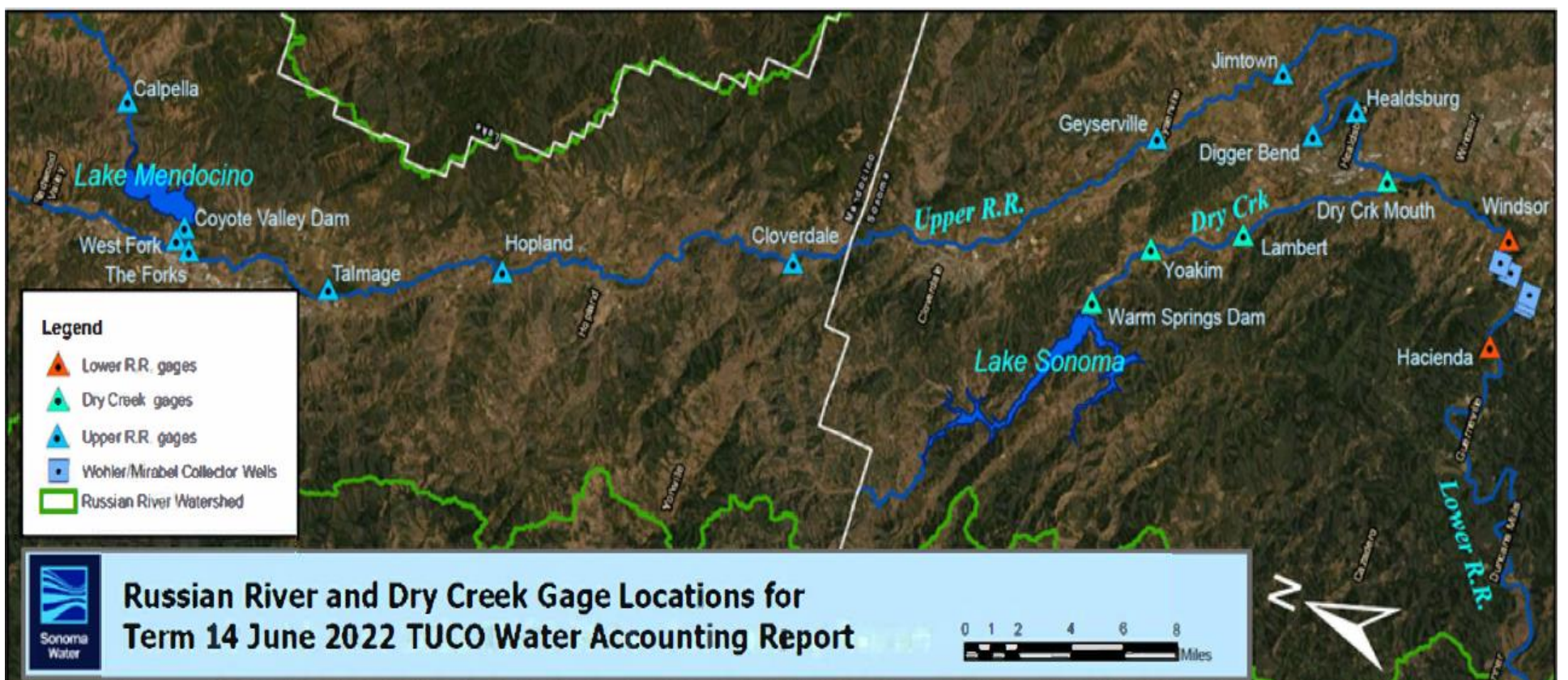
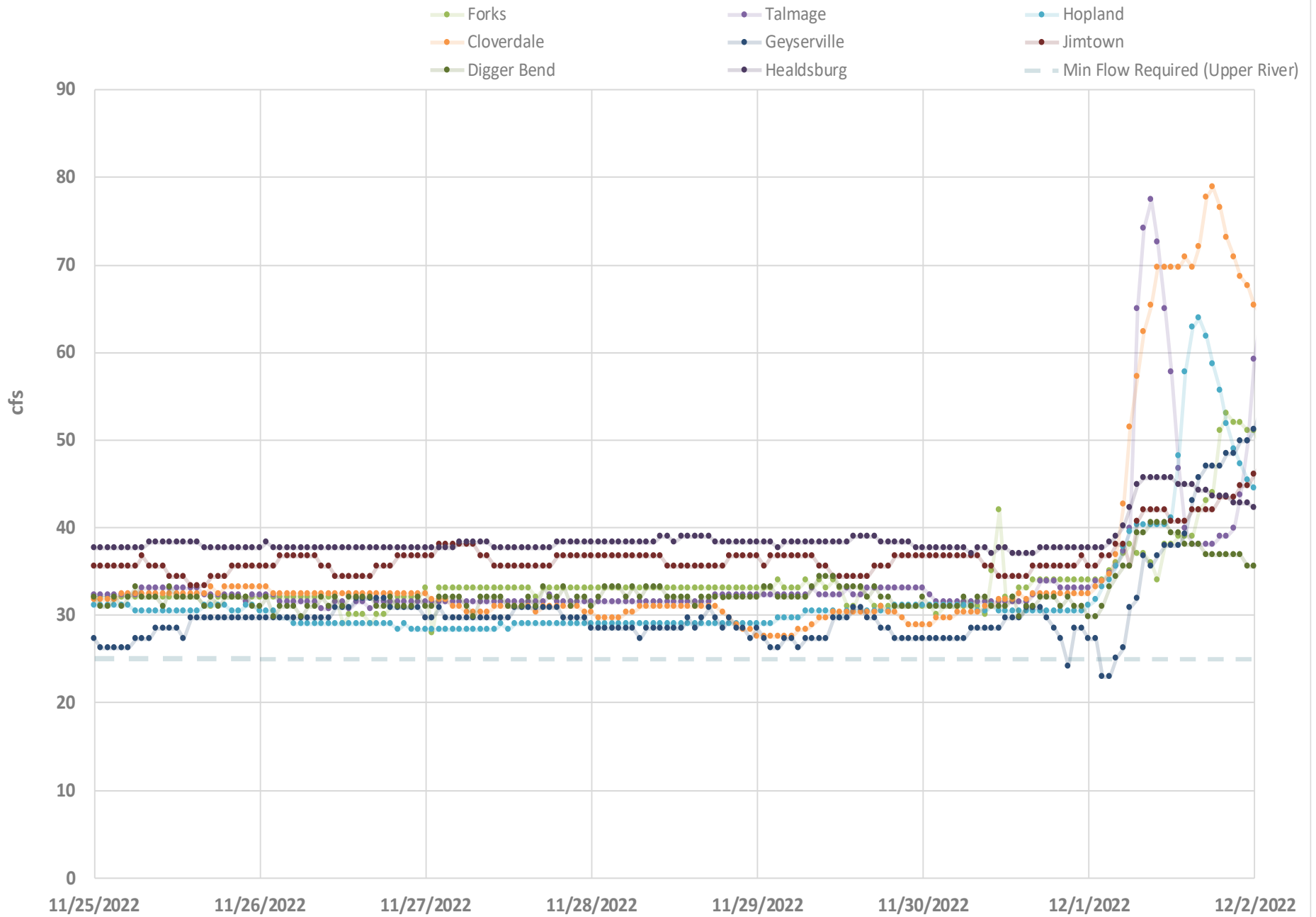
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS



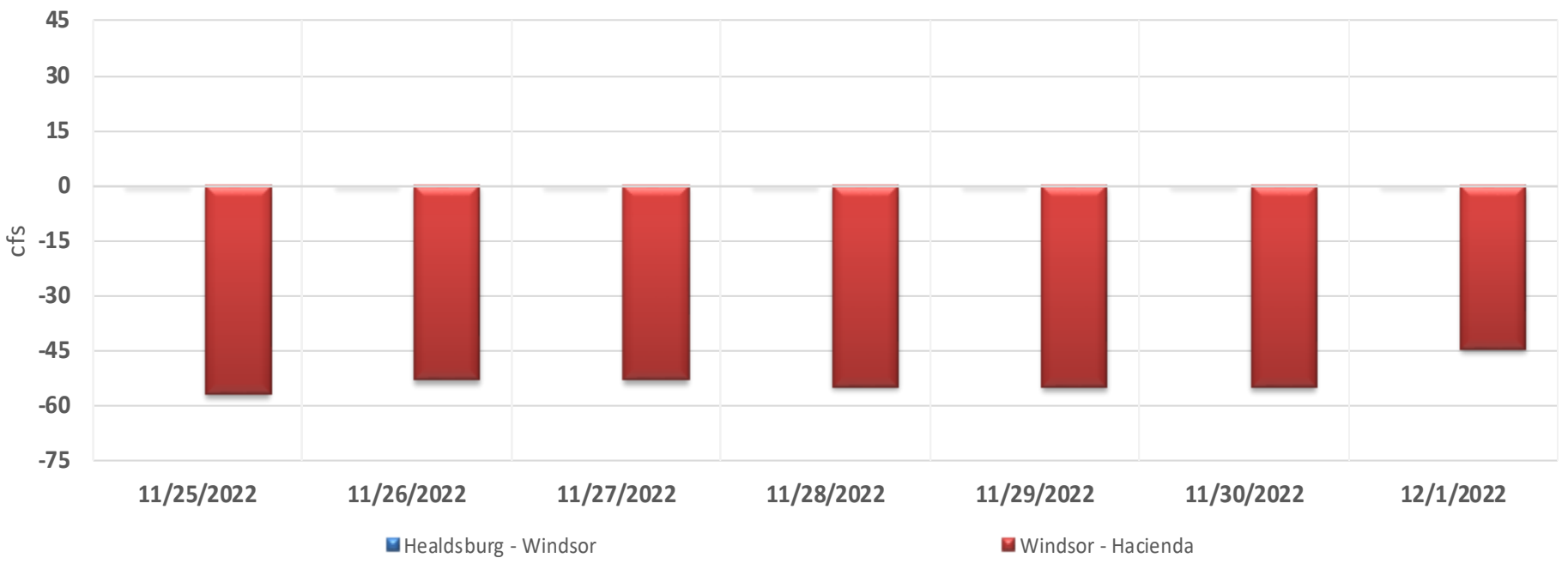
Russian River and Dry Creek Gage Locations for Term 14 June 2022 TUCO Water Accounting Report

0 1 2 4 6 8 Miles

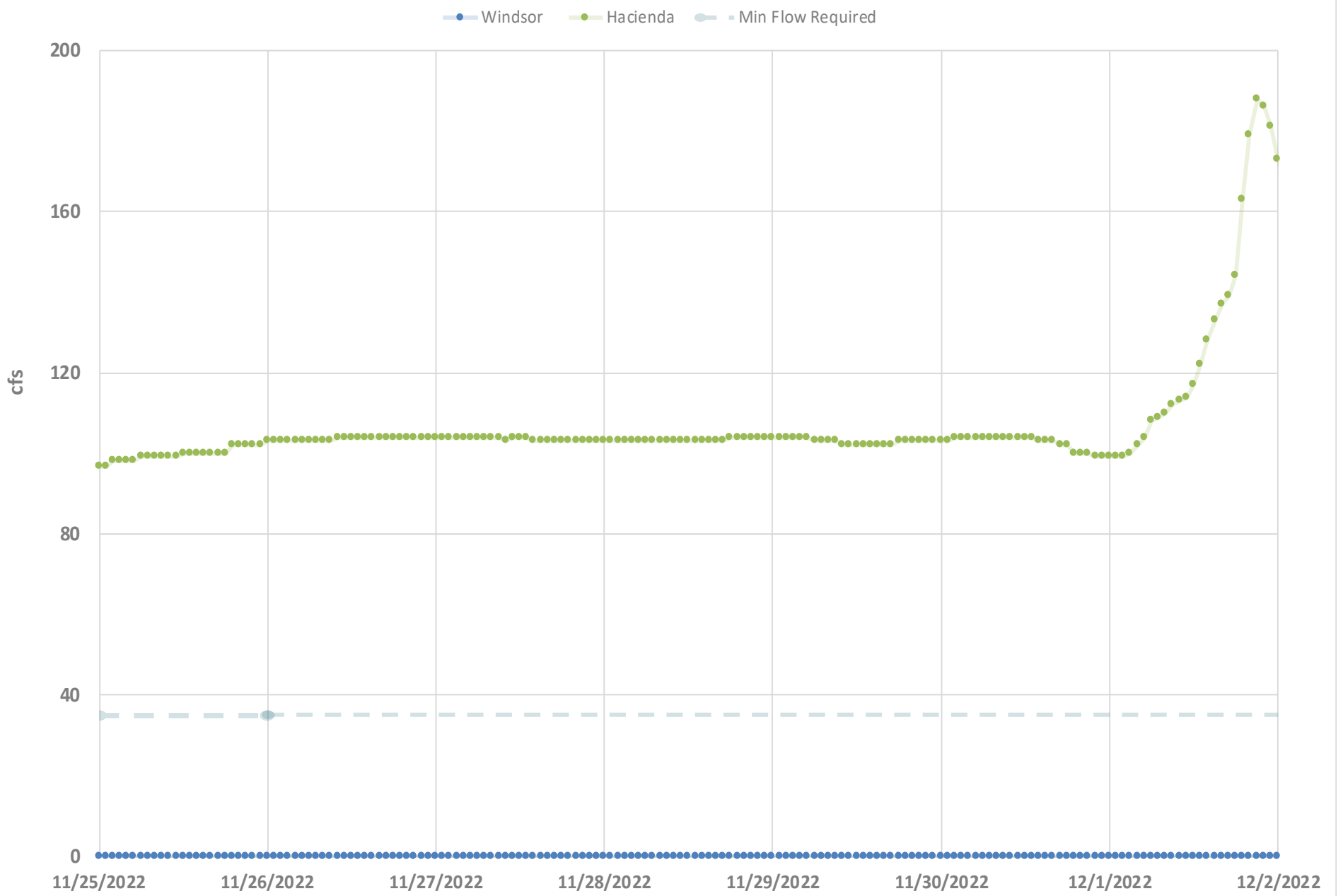
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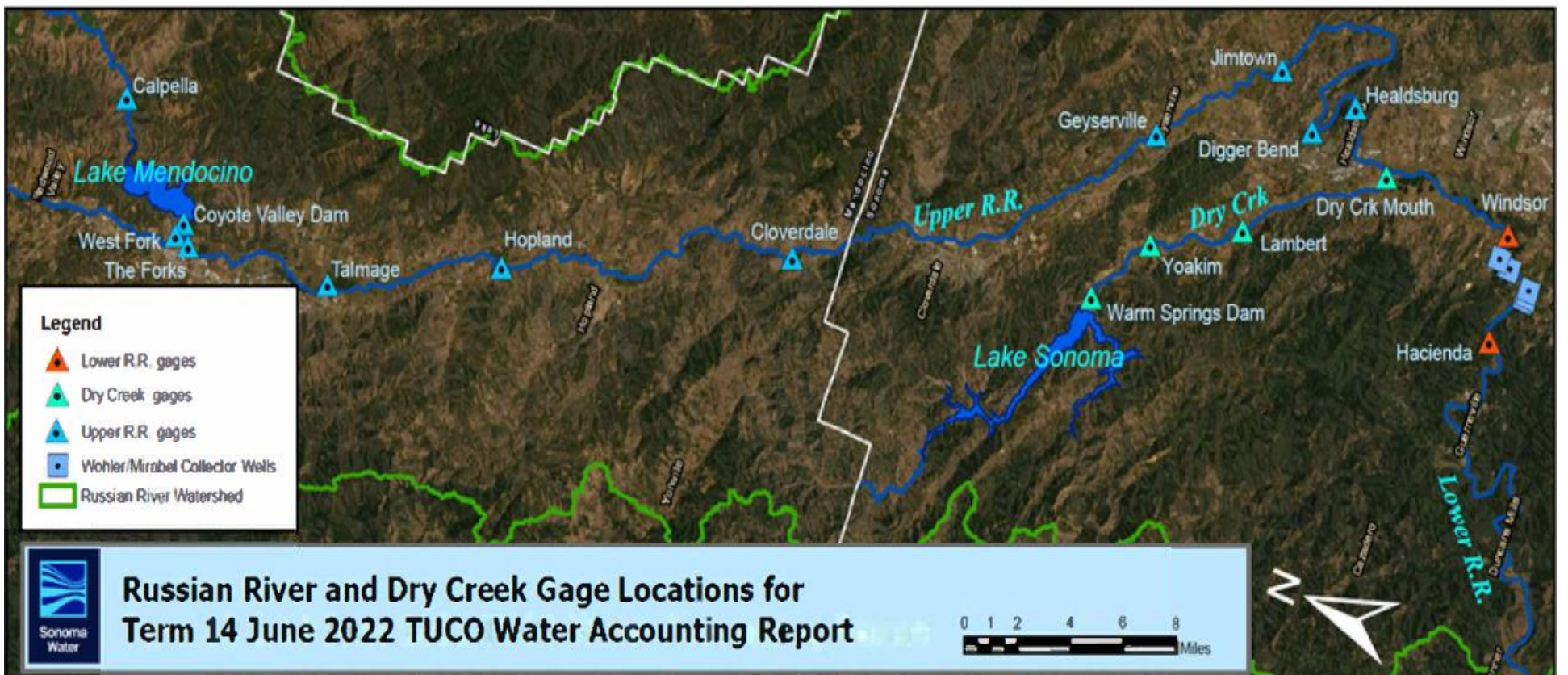
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



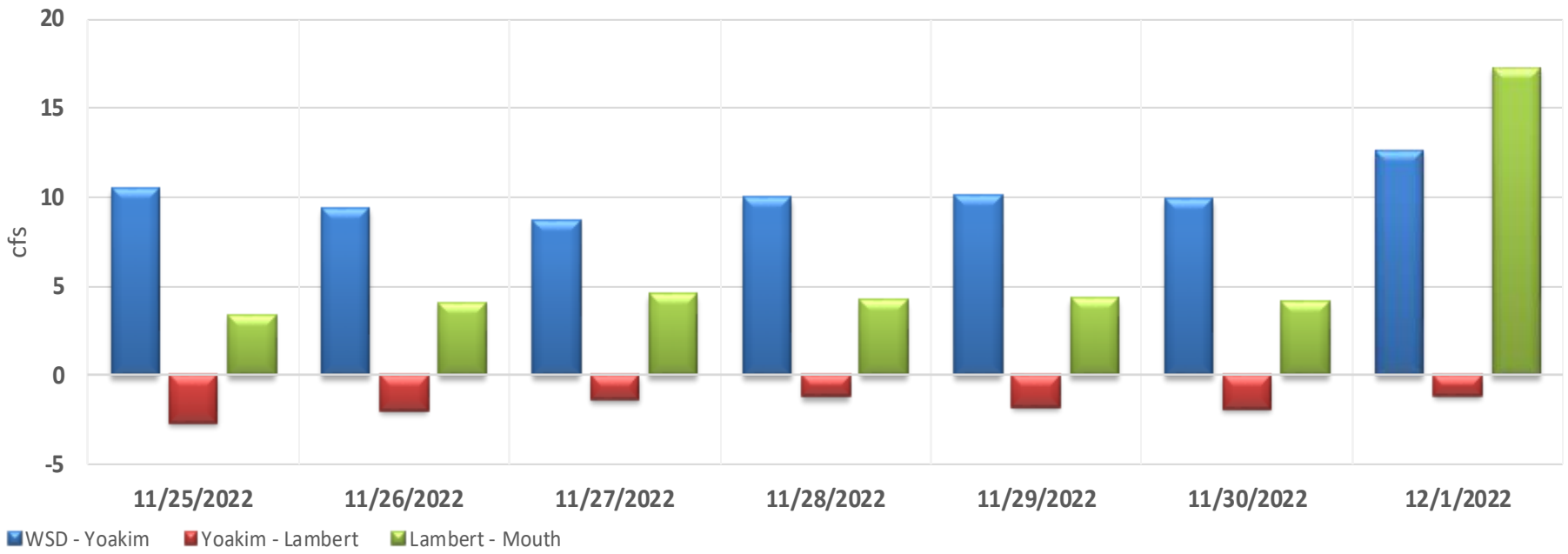
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

