

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

Report Date: 11/11/2022

Units are cfs unless noted otherwise

	11/4/2022	11/5/2022	11/6/2022	11/7/2022	11/8/2022	11/9/2022	11/10/2022
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	12.0	12.0	11.0	12.0	12.0	11.0	12.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	2.9	2.9	2.9	2.9	0.5	0.5	0.5
East Fork Release	9.0	9.0	8.0	8.0	11.0	10.0	12.0
PVID E Fork Diversions	7.2	7.1	7.2	7.2	9.5	9.5	9.5
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)	1.9	1.9	0.9	0.9	1.5	0.5	2.5
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	13.1	13.7	13.5	16.9	27.7	17.8	14.7
Net Reach Loss(-)/Gain(+)	+1.1	+1.7	+2.5	+4.9	+15.7	+6.8	+2.7
Unimpaired Natural Flow @ Calpella (est.)	0.0	0.0	0.0	0.0	0.0	6.4	4.2
Non-PVID East Fork Net Reach Losses (est.)	-11.1	-11.7	-12.5	-14.9	-25.7	-10.4	-8.5
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-11.1	-11.7	-12.5	-14.9	-25.7	-10.4	-8.5
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	16	91	16	131	151	62	33
(cfs)	8	46	8	66	76	31	17
Natural Flow	0	37	0	57	65	21	6
Import	8	9	8	9	11	11	10
Storage Change (ac-ft)	-93.0	-13.0	-92.0	+26.0	+66.0	-13.0	-39.0
(cfs)	-47	-7	-46	+13	+33	-7	-20
Stored Natural Flow (cfs)	0	0	0	13	33	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	7.5	3.2	6.4	4.3	3.2	4.3	6.4
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	51	51	51	51	41	36	33
Storage (Project Water)	43	5	43	0	0	4	16
Natural Flow	0	37	0	43	31	21	6
Import Water	8	9	8	8	11	11	10
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	51	51	51	41	36	33
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	8	46	8	51	41	31	17
Project Water Release Required	Yes	No	Yes	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	34	33	34	37	41	36	33
Controlling Gage	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	51	51	51	41	36	33
Talmage (USGS 11462080)	96.1	44	46	47	61	54	38
Hopland (USGS 11462500)	84.8	40	43	46	53	59	42
Cloverdale (USGS 11463000)	70.9	40	45	48	53	82	63
Geyserville (USGS 11463500)	54.4	39	39	42	46	63	82
Jimtown (USGS 11463682)	48.5	42	42	44	49	58	92
Digger Bend (USGS 11463980)	38.2	34	33	34	37	42	67
Healdsburg (USGS 11464000)	35.6	39	38	39	42	46	66
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-7	-5	-3	+10	+52	+17	+5
Talmage - Hopland	-3	-1	-2	-0	-10	-5	+1
Hopland - Cloverdale	+1	+3	+4	+5	+21	+8	+12
Cloverdale - Jimtown	+0	+3	-1	+1	+5	+2	+1
Jimtown - Digger Bend	-9	-9	-9	-10	-11	-24	-27
Digger Bend - Healdsburg	+4	+5	+6	+6	+6	+6	+5
Upper Russian Net Reach Loss/Gain	-13	-4	-6	+12	+63	+5	-3
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-17	-9	-12	+6	+0	+0	+0
Storage (Project Water)	-17	-5	-12	0	0	0	0
Pass-through Water (Nat. + Imp.) + Natural	0	-4	0	6	0	0	0
Total Pass-through Water	8	42	8	57	41	31	17
Project Water Release Required	Yes	Yes	Yes	No	No	Yes	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).

	11/4/2022	11/5/2022	11/6/2022	11/7/2022	11/8/2022	11/9/2022	11/10/2022
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-265.0	-206.0	-206.0	-147.0	-73.0	-220.0	-234.0
(cfs)	-134	-104	-104	-74	-37	-111	-118
Evaporation (ac-ft)	7.1	2.4	5.9	3.5	3.5	4.7	4.7
Inflow (Natural Flow)	0	8	10	39	74	0	0
WSD Release Gage	111	111	111	111	109	103	104
Storage (Project Water)	111	103	101	72	35	103	104
Natural Flow	0	8	10	39	74	0	0

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement	105	105	105	105	105	105	105
Controlling Compliance Gage							
Min Gage Flow	111	111	111	111	109	103	104
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	111	111	111	111	109	103
Yoakim (USGS 11465200)	11.1	121	123	123	125	127	116
Lambert (USGS 11465240)	6.8	116	117	117	120	121	110
Dry Crk Mouth (USGS 11465350)	0.1	114	114	114	119	130	114
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	0	8	10	39	74	0	0
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	+10	+12	+12	+14	+17	+13	+14
Yoakim - Lambert	-4	-7	-6	-5	-7	-7	-7
Lambert - Dry Crk Mouth	-2	-3	-2	-1	+8	+2	+2
WSD - Dry Crk Mouth	+4	+3	+4	+9	+18	+8	+8
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	Yes

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)							
L. Mendocino Project Water + Import Water	39	5	39	8	11	15	27
Natural Flow	0	33	0	55	93	25	3
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	111	103	101	72	35	103	104
Natural Flow	4	12	14	47	95	10	8
Russian River d/s of Confluence Flow							
L. Mendocino Project Water + Import Water	39	5	39	8	11	15	27
L. Sonoma Project Water	111	103	101	72	35	103	104
Natural Flow	4	45	14	102	188	36	11

VII. Lower Russian River Reach

Minimum Instream Flow Requirement	35	35	35	35	35	35	35
Controlling Compliance Gage							
Min Gage Flow	102	100	104	107	157	173	147
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	102	100	104	107	157	147
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	147	145	151	164	198	211	185
Net Reach Loss(-)/Gain(+)	-6	-7	-2	+4	+22	+46	+8
L. Mendocino Project Water + Import Water	39	5	39	8	11	15	27
L. Sonoma Project Water	108	100	98	69	32	101	102
Natural Flow	0	38	12	106	210	82	20
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-51	-52	-49	-53	-19	+8	-30
L. Mendocino Project Water + Import Water	39	5	39	8	11	15	27
L. Sonoma Project Water	62	54	51	12	0	63	64
Natural Flow	0	38	12	106	201	82	20

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

Lower Russian River							
Sonoma Water Total	89.9	90.0	94.0	113.8	82.0	75.0	75.5
Wohler	49.2	46.6	51.4	69.6	44.5	31.7	31.7
Mirabel	40.7	43.5	42.6	44.2	37.5	43.3	43.8
Town of Windsor River Wellfield	6.5	6.2	5.8	5.7	5.8	5.6	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:

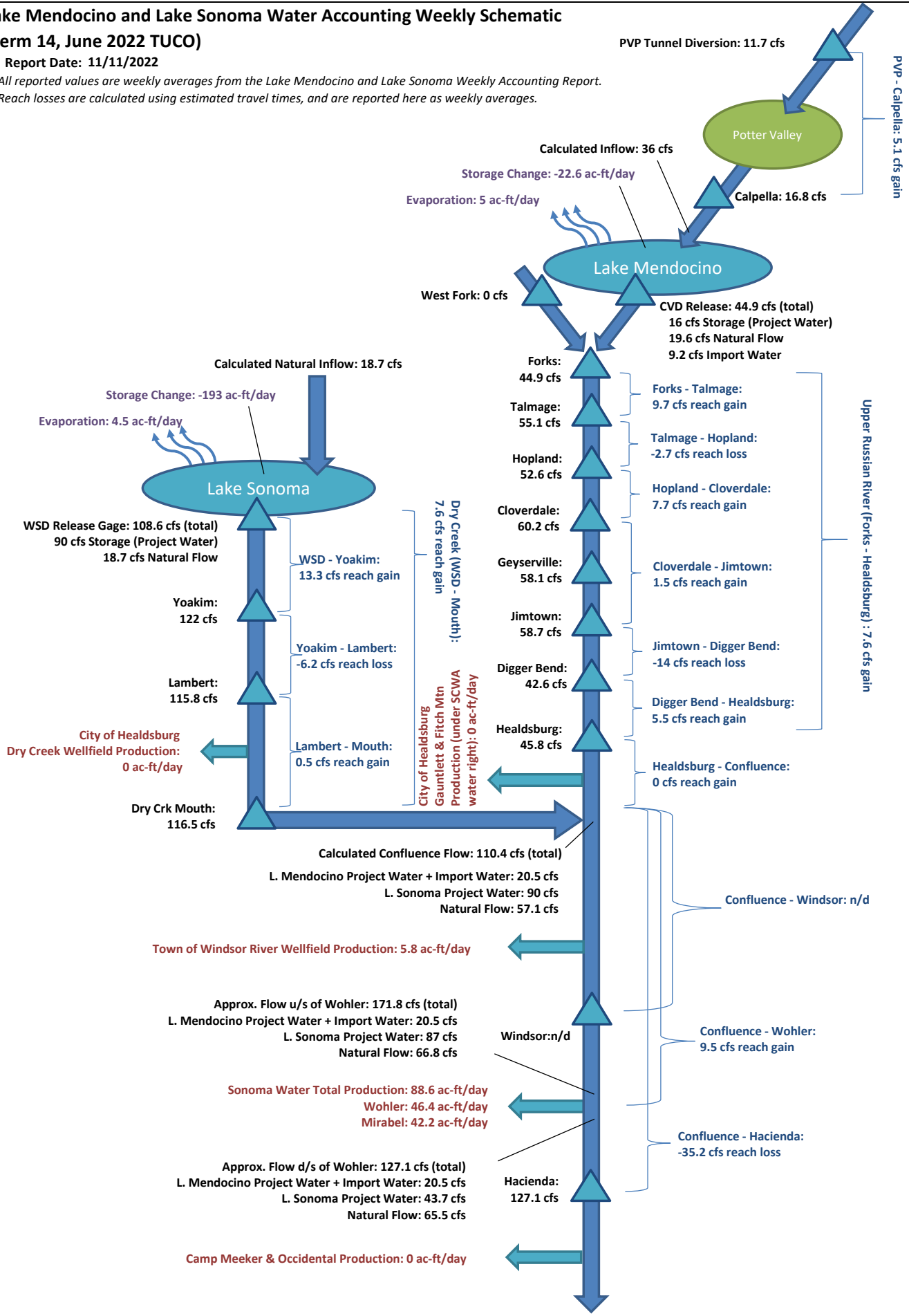
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 11/11/2022

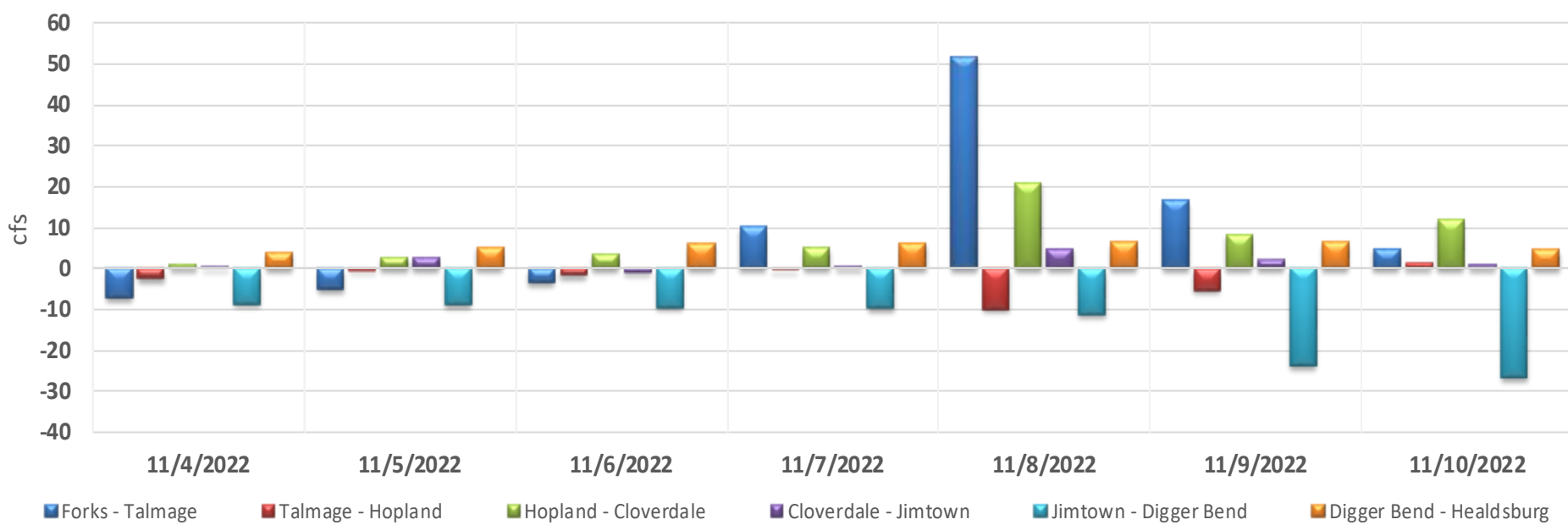
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



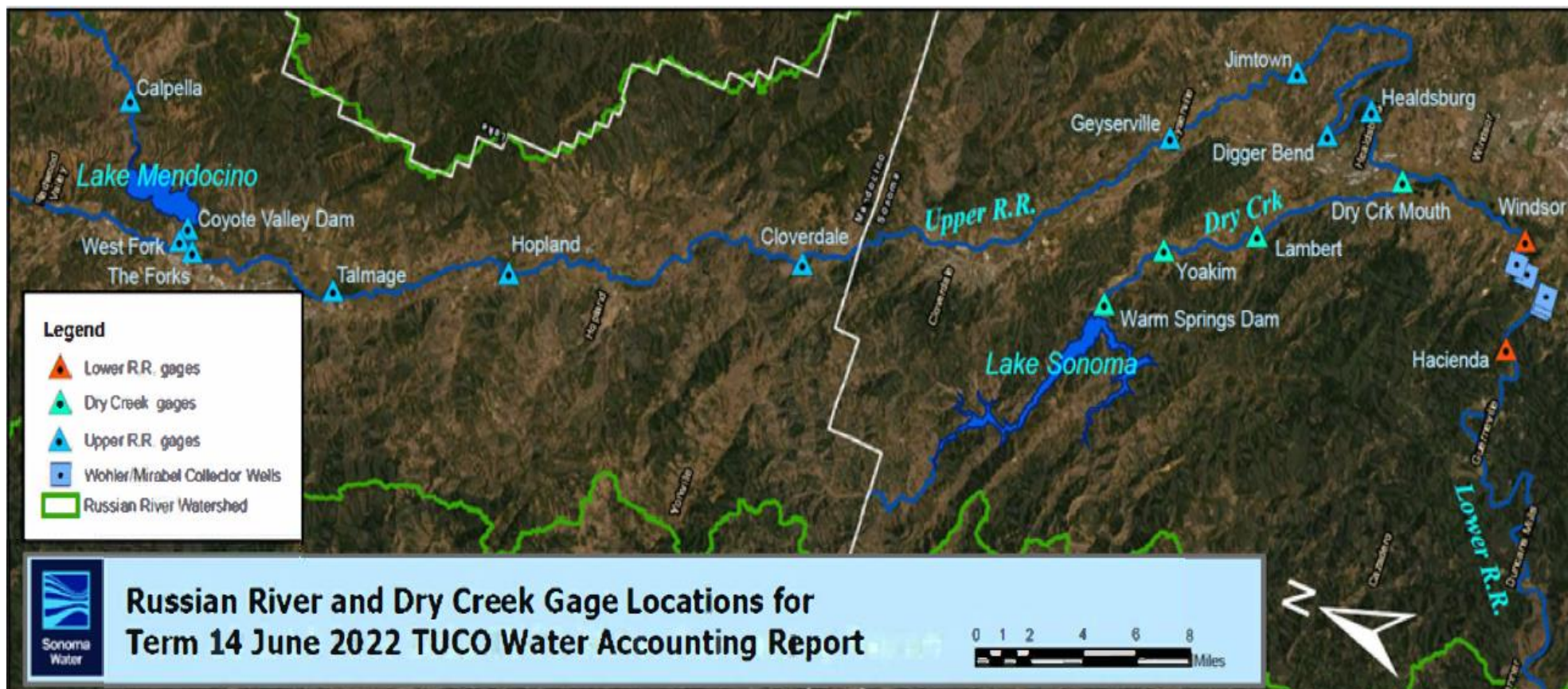
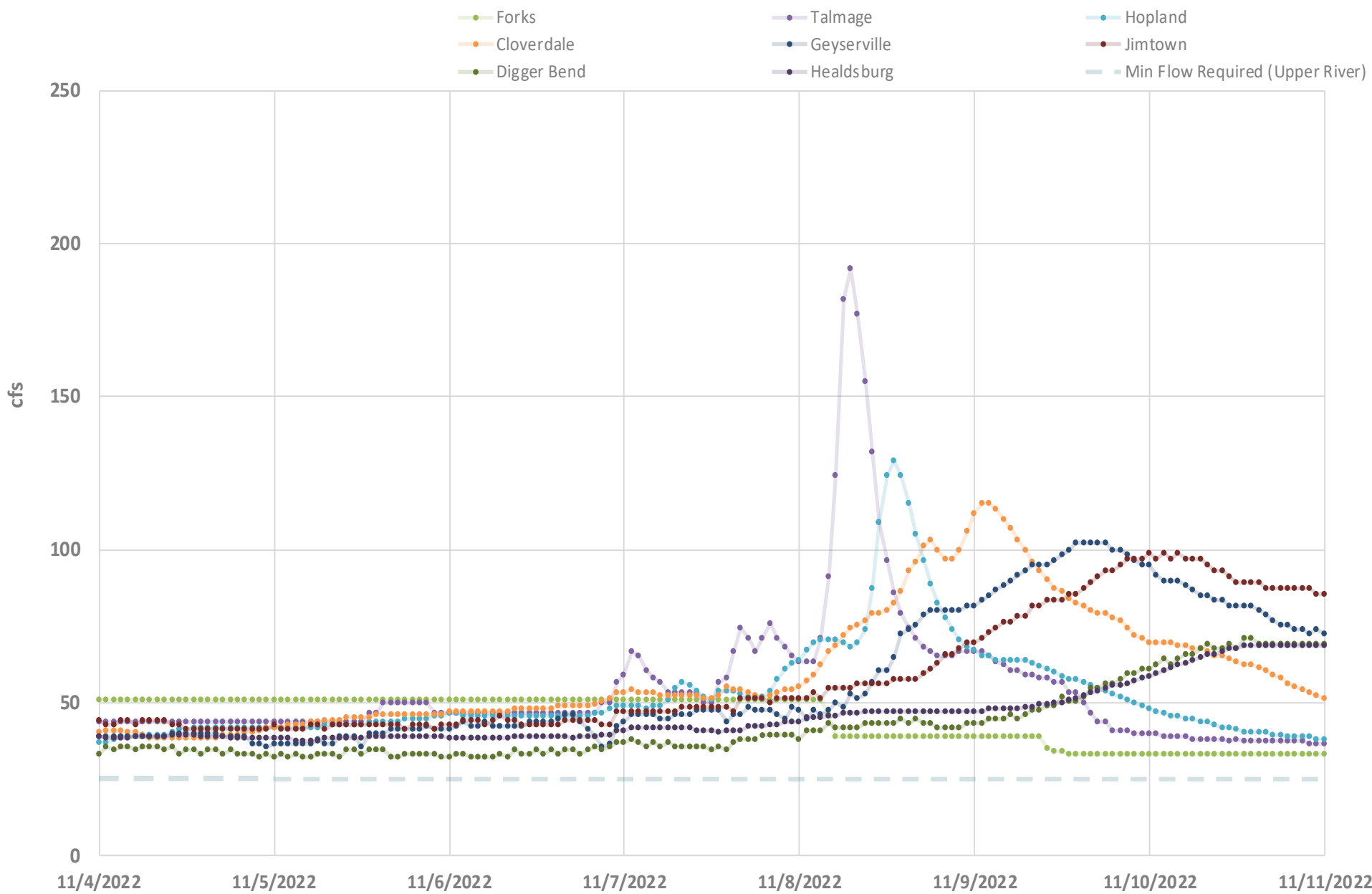
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



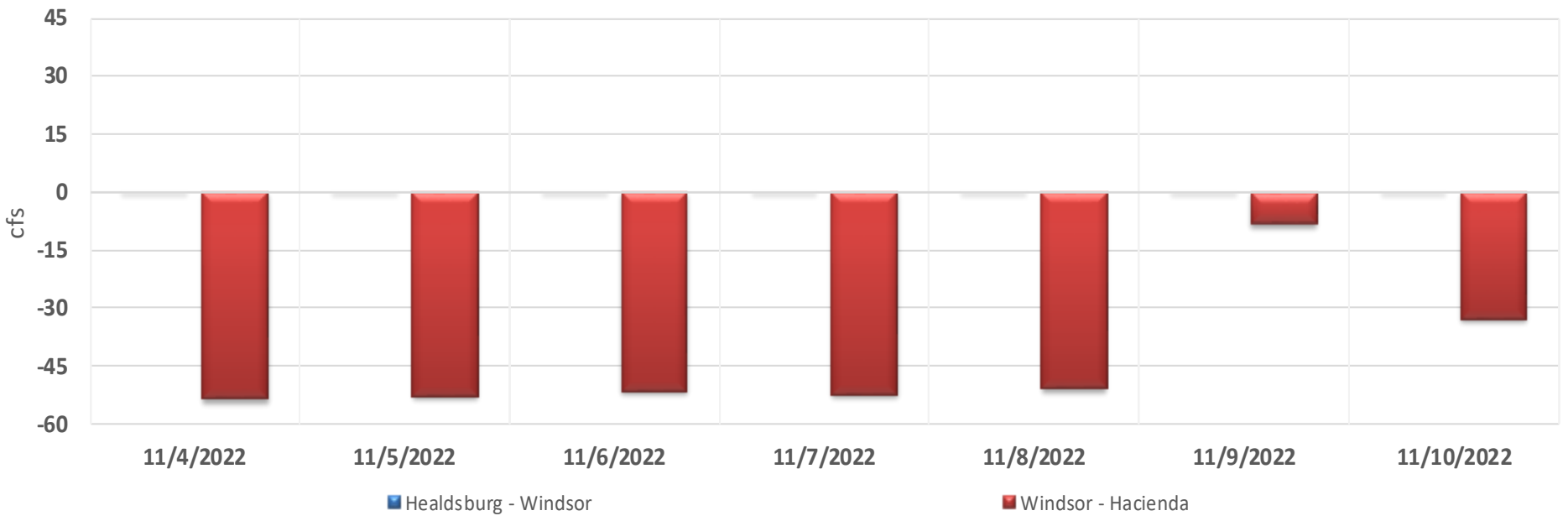
UPPER RUSSIAN RIVER STREAM FLOWS



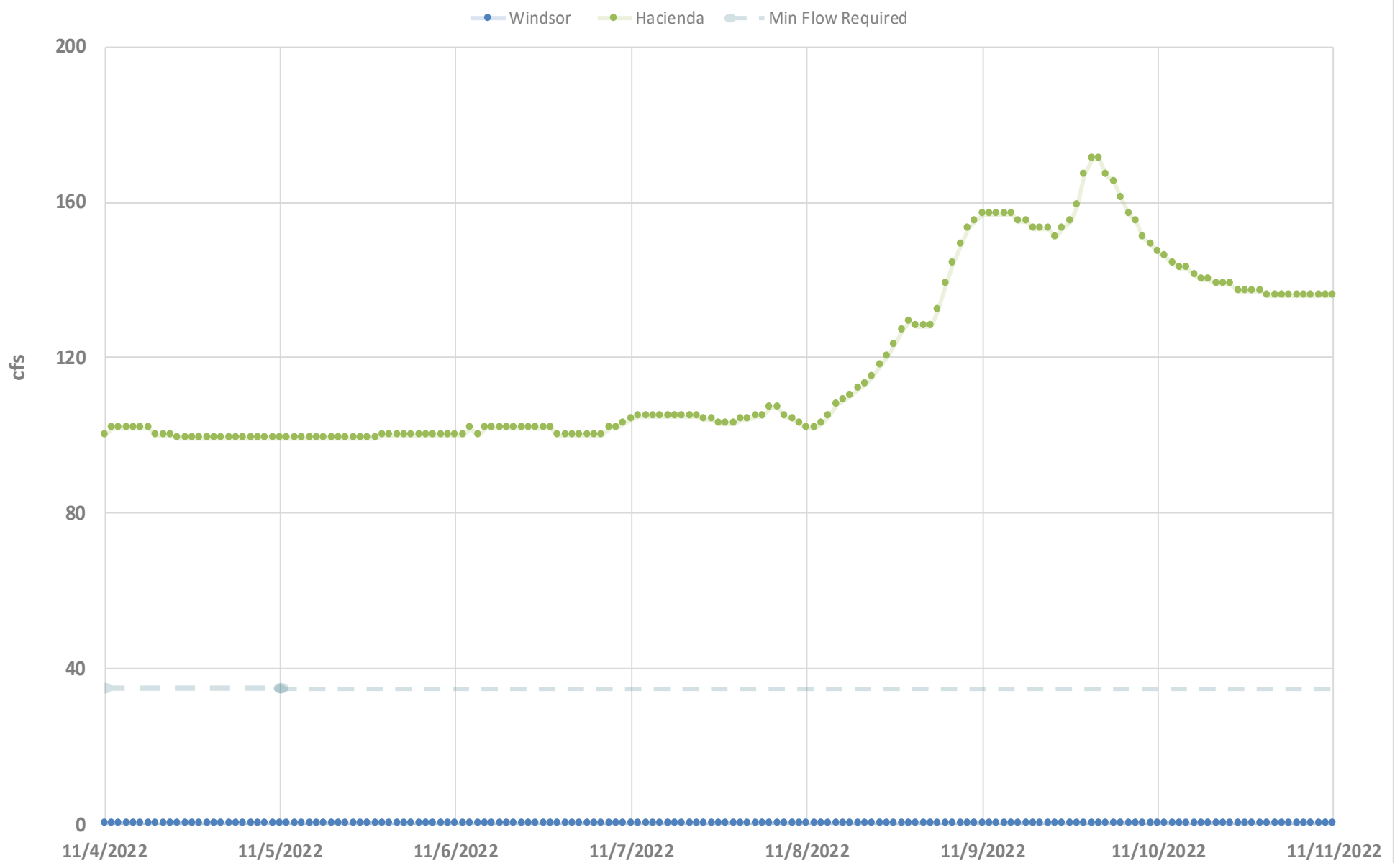
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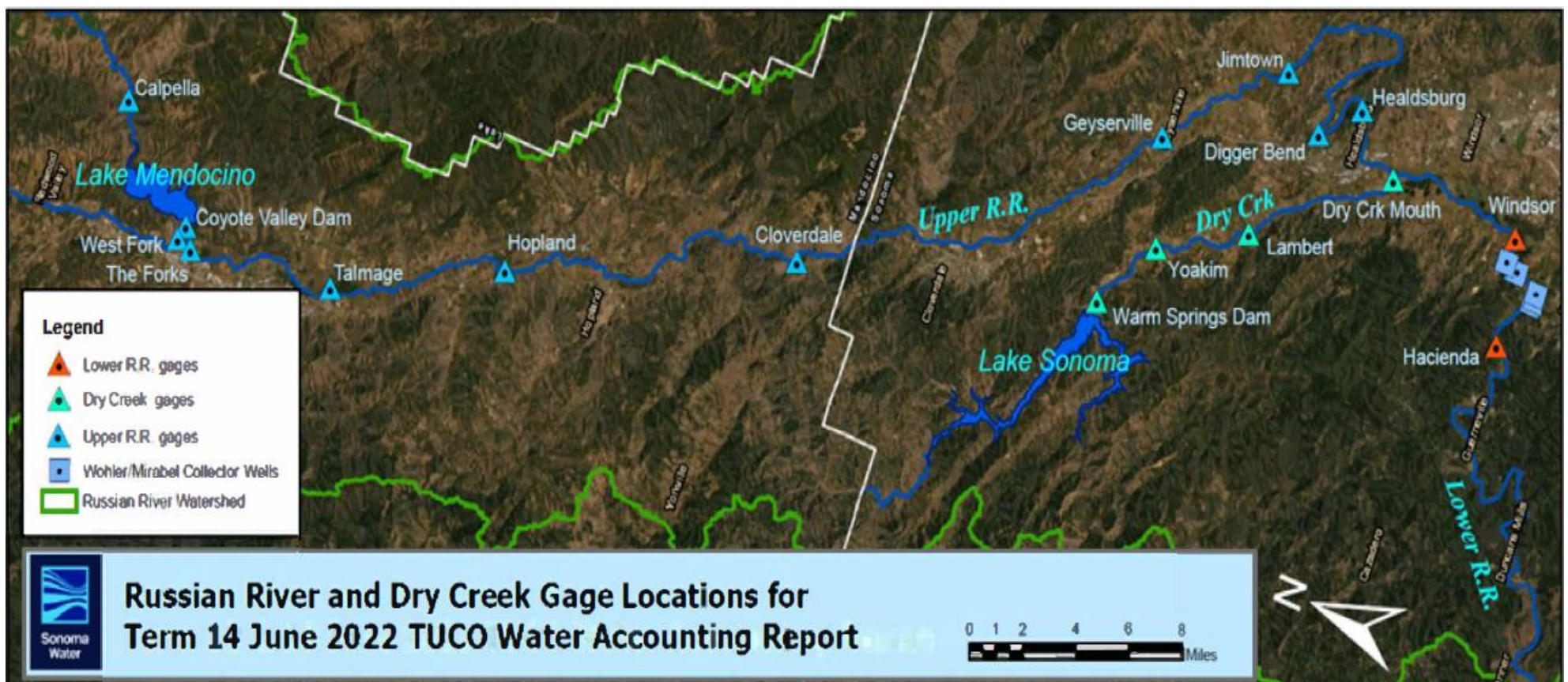
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



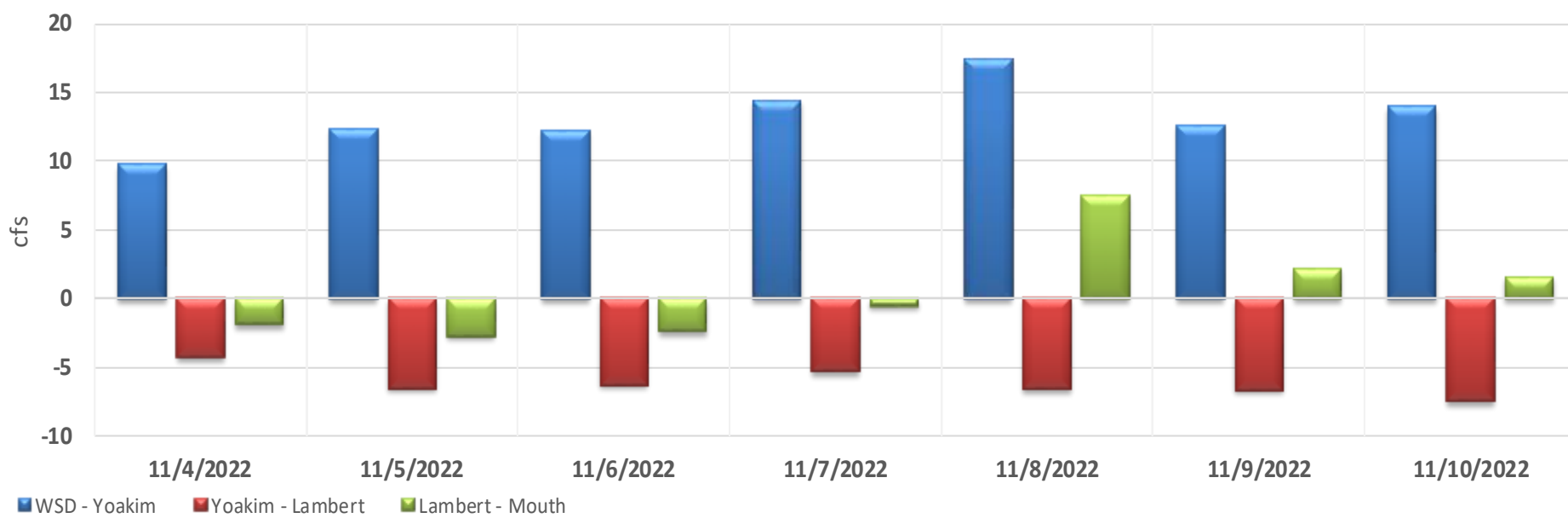
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

