

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Terms 12 & 13 June 2021 TUCO)

Report Date: 12/10/2021

Units are cfs unless noted otherwise

	<u>12/3/2021</u>	<u>12/4/2021</u>	<u>12/5/2021</u>	<u>12/6/2021</u>	<u>12/7/2021</u>	<u>12/8/2021</u>	<u>12/9/2021</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	46.0	46.0	46.0	46.0	46.0	46.0	46.0
PVID Requested Delivery	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery	3.0	3.0	1.5	1.0	2.1	2.9	2.9
East Fork Release	43.0	43.0	45.0	45.0	44.0	43.0	43.0
PVID E Fork Diversions	2.1	2.0	3.5	4.1	2.9	2.1	2.1
PVID Water Use - PG&E Contract	5.0	5.0	5.0	5.0	5.0	5.0	5.0
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)	41.0	41.0	41.5	41.0	41.1	40.9	40.9
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	50.4	50.0	50.3	50.0	51.7	51.1	50.0
Net Reach Loss(-)/Gain(+)	+4.4	+4.0	+4.3	+4.0	+5.7	+5.1	+4.0
Unimpaired Natural Flow @ Calpella (est.)	9.4	9.0	9.3	9.0	10.7	10.1	9.0
Non-PVID East Fork Net Reach Losses (est.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	105	120	106	112	92	75	67
(cfs)	53	61	53	56	47	38	34
Natural Flow	12	20	12	15	6	10	9
Import	41	41	41	41	41	28	25
Storage Change (ac-ft)	+41.0	+59.0	+42.0	+50.0	+51.0	+50.0	+43.0
(cfs)	+21	+30	+21	+25	+26	+25	+22
Stored Natural Flow (cfs)	10	15	11	13	6	10	9
Stored Import Water (cfs)	10	15	11	13	20	15	13
Evaporation (ac-ft)	4.6	3.9	3.9	3.9	3.3	4.0	1.3
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	30	29	30	29	27	27	27
Storage (Project Water)	0	0	0	0	7	16	15
Natural Flow	0	4	1	2	0	0	0
Import Water	30	25	29	27	20	11	12
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	30	29	30	29	27	27
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	30	29	30	29	20	11	12
Project Water Release Required	No	No	No	No	Yes	Yes	Yes

III. Upper Russian River Reach

Minimum Instream Flow Requirement

	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	43	42	42	42	40	39	39
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	43	42	42	40	39	39
Talmage (USGS 11462080)	96.1	57	56	56	57	53	52
Hopland (USGS 11462500)	84.8	53	51	50	52	47	46
Cloverdale (USGS 11463000)	70.9	75	73	71	70	69	66
Geyserville (USGS 11463500)	54.4	108	104	101	97	97	91
Jimtown (USGS 11463682)	48.5	117	113	109	107	104	100
Digger Bend (USGS 11463980)	38.2	132	129	125	121	118	116
Healdsburg (USGS 11464000)	35.6	143	137	131	124	119	115
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+14	+15	+14	+15	+17	+14	+13
Talmage - Hopland	-5	-6	-6	-6	-5	-7	-6
Hopland - Cloverdale	+21	+21	+21	+20	+18	+19	+19
Cloverdale - Jimtown	+40	+39	+37	+36	+34	+32	+32
Jimtown - Digger Bend	+15	+15	+15	+14	+16	+16	+15
Digger Bend - Healdsburg	+10	+8	+5	+3	+2	+0	-1
Upper Russian Net Reach Loss/Gain	+95	+91	+86	+83	+81	+73	+72
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	30	29	30	29	20	11	12
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).

	12/3/2021	12/4/2021	12/5/2021	12/6/2021	12/7/2021	12/8/2021	12/9/2021
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-115.0	-98.0	-115.0	-131.0	-98.0	-115.0	-130.0
(cfs)	-58	-49	-58	-66	-49	-58	-66
Evaporation (ac-ft)	2.5	2.5	3.8	2.5	3.8	2.5	5.0
Inflow (Natural Flow)	17	26	18	9	26	18	11
WSD Release Gage	74	74	74	74	74	74	74
Storage (Project Water)	57	48	56	65	48	57	63
Natural Flow	17	26	18	9	26	18	11

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		75	75	75	75	75	75	75
Controlling Compliance Gage								
Min Gage Flow		74	74	74	74	74	74	74
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	74	74	74	74	74	74	74
Yoakim (USGS 11465200)	11.1	78	78	77	77	77	77	77
Lambert (USGS 11465240)	6.8	96	95	95	95	95	94	94
Dry Crk Mouth (USGS 11465350)	0.1	92	91	91	90	90	90	89
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		17	26	18	9	26	18	11
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+4	+3	+3	+3	+3	+2	+2
Yoakim - Lambert		+18	+18	+18	+18	+18	+18	+17
Lambert - Dry Crk Mouth		-4	-5	-4	-5	-4	-5	-5
WSD - Dry Crk Mouth		+18	+17	+17	+16	+16	+15	+14
WSD Project Water Release to Meet Min Flow Requirement								
Net Reach Loss/Gain to Controlling Gage		+4	+3	+3	+3	+3	+2	+2
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		30	25	29	27	27	27	27
Natural Flow		96	95	87	85	81	73	72
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		57	48	56	65	48	57	63
Natural Flow		36	43	35	26	43	33	26
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		235	229	222	215	212	208	204
L. Sonoma Project Water		30	25	29	27	27	27	27
Natural Flow		57	48	56	65	48	57	63
		131	138	122	110	124	106	98

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		35	35	35	35	35	35	35
Controlling Compliance Gage								
Min Gage Flow		257	252	244	237	232	229	224
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>	<i>n/d</i>
Hacienda (USGS 11467000)	21.8	257	252	244	237	232	229	224
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		303	308	306	301	280	276	284
Net Reach Loss(-)/Gain(+)		+68	+80	+84	+86	+68	+68	+80
L. Mendocino Project Water + Import Water		30	25	29	27	27	27	27
L. Sonoma Project Water		55	46	54	63	45	54	61
Natural Flow		199	218	205	197	192	174	178
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		+22	+23	+22	+22	+20	+21	+20
L. Mendocino Project Water + Import Water		30	25	29	27	27	27	27
L. Sonoma Project Water		9	0	0	0	0	7	0
Natural Flow		199	208	198	195	189	174	178

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

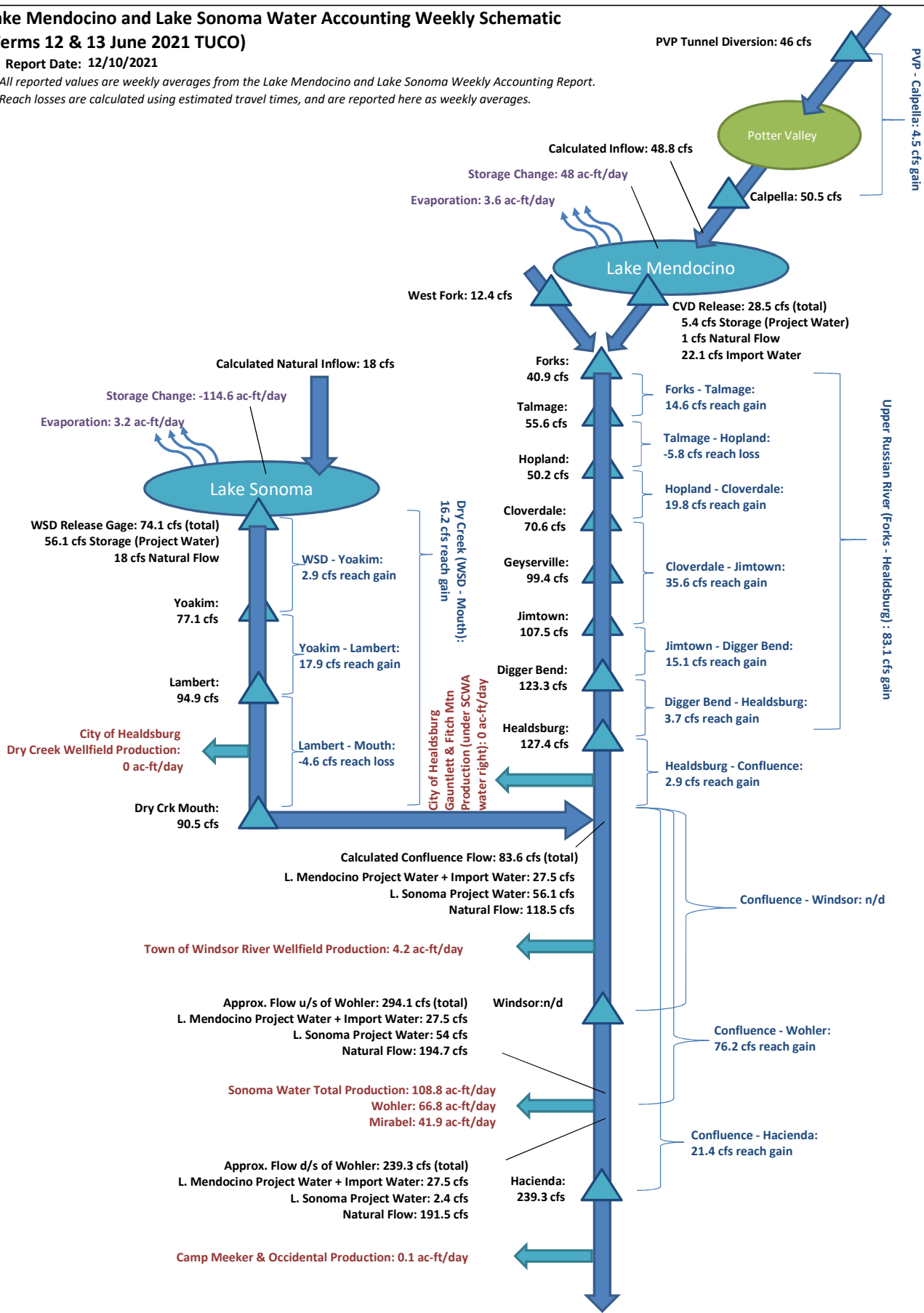
Lower Russian River								
Sonoma Water Total		90.3	111.8	122.1	127.3	96.1	93.8	119.9
Wohler		45.7	71.8	80.8	63.3	48.3	80.3	77.4
Mirabel		44.6	40.0	41.3	63.9	47.8	13.4	42.5
Town of Windsor River Wellfield		4.2	3.9	3.9	4.3	4.3	4.4	4.3
Camp Meeker & Occidental		<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>
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 (Terms 12 & 13 June 2021 TUCO)

Report Date: 12/10/2021

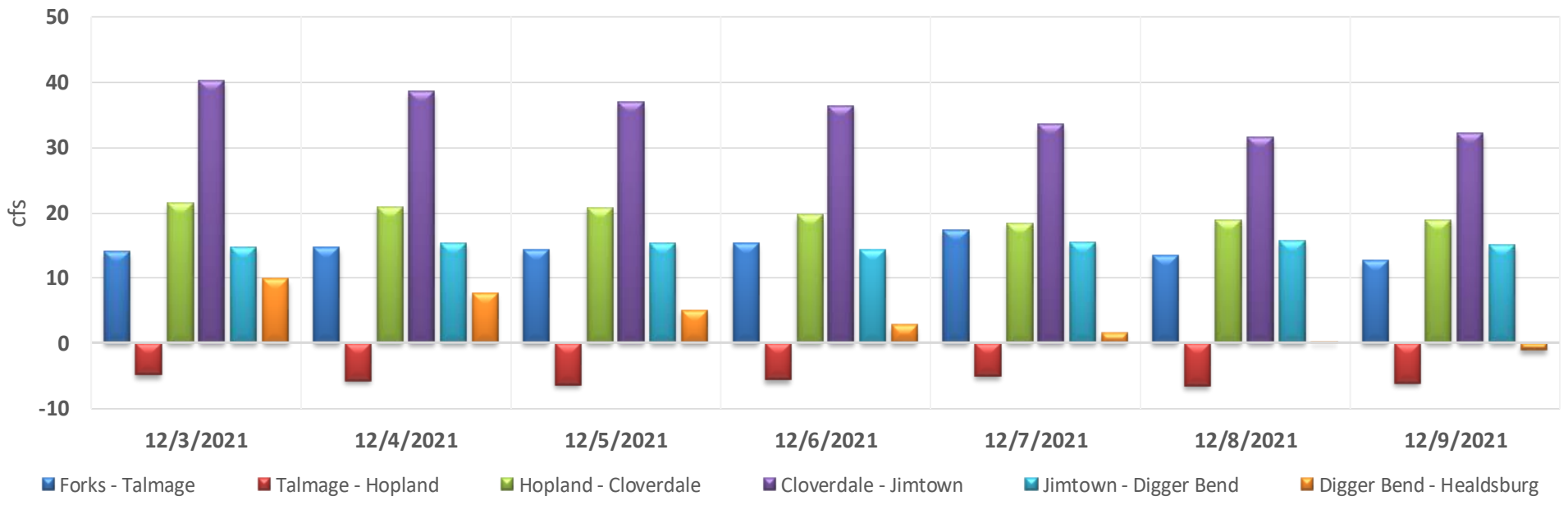
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



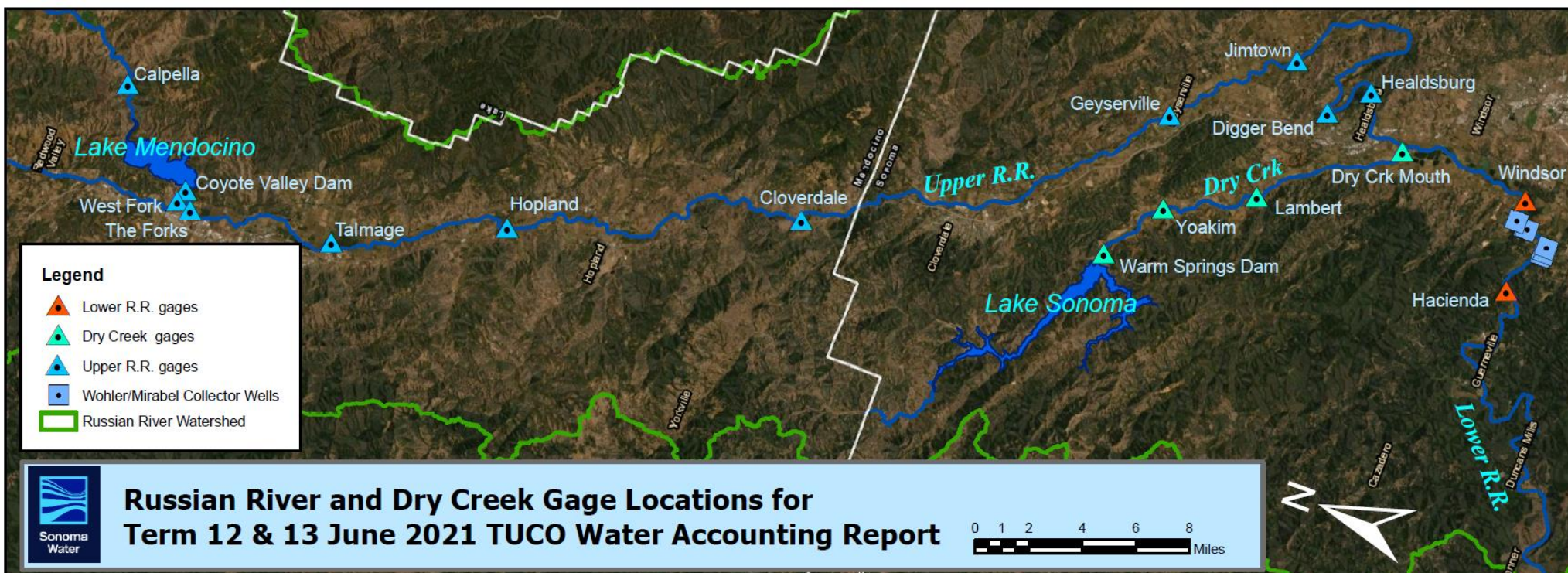
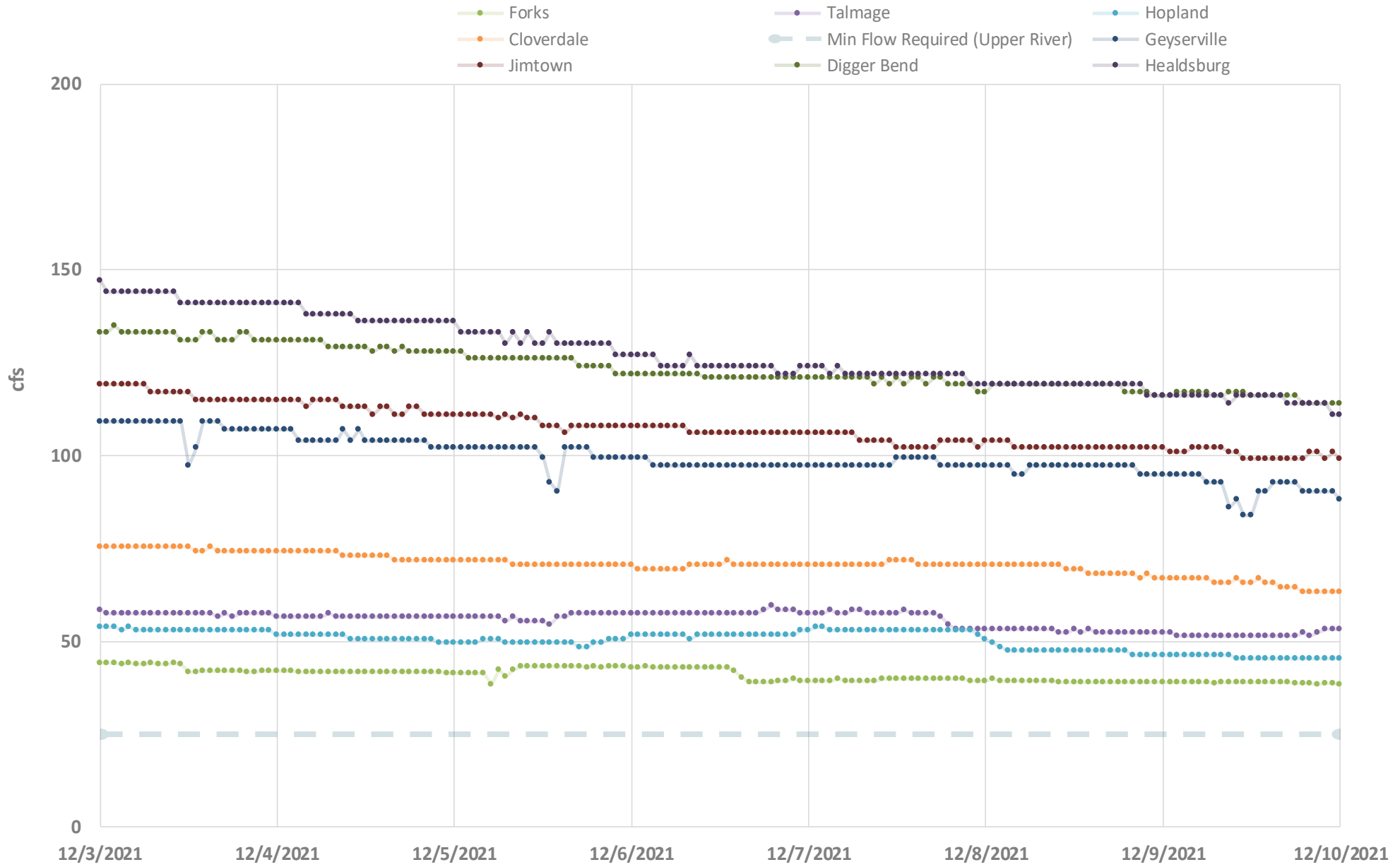
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



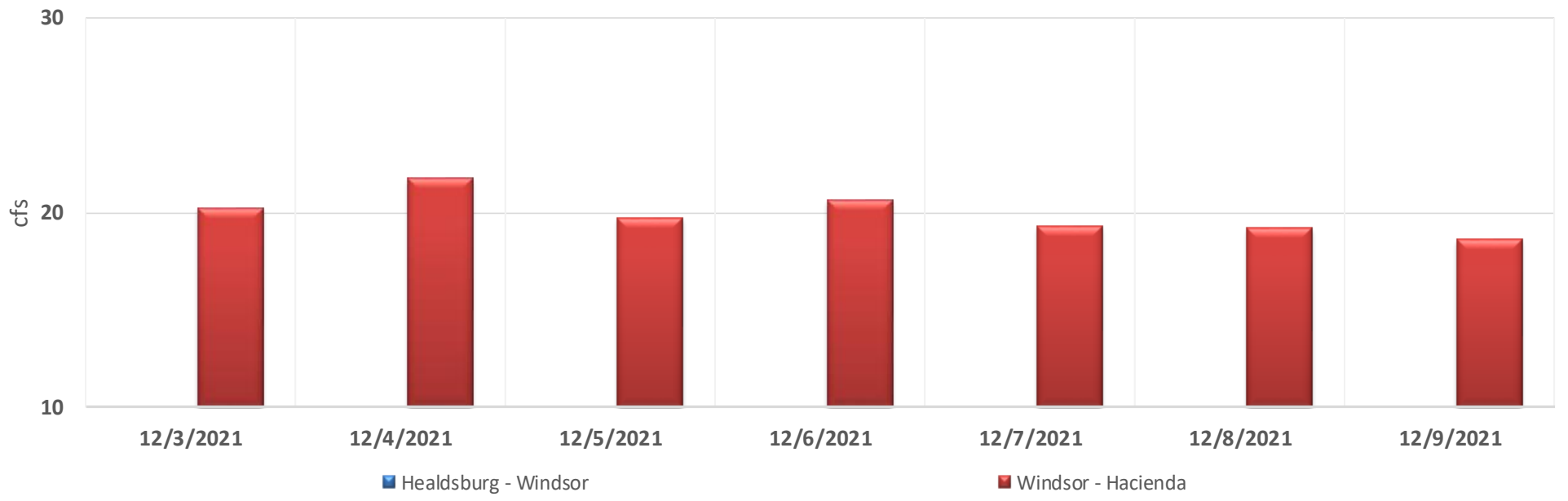
UPPER RUSSIAN RIVER STREAM FLOWS



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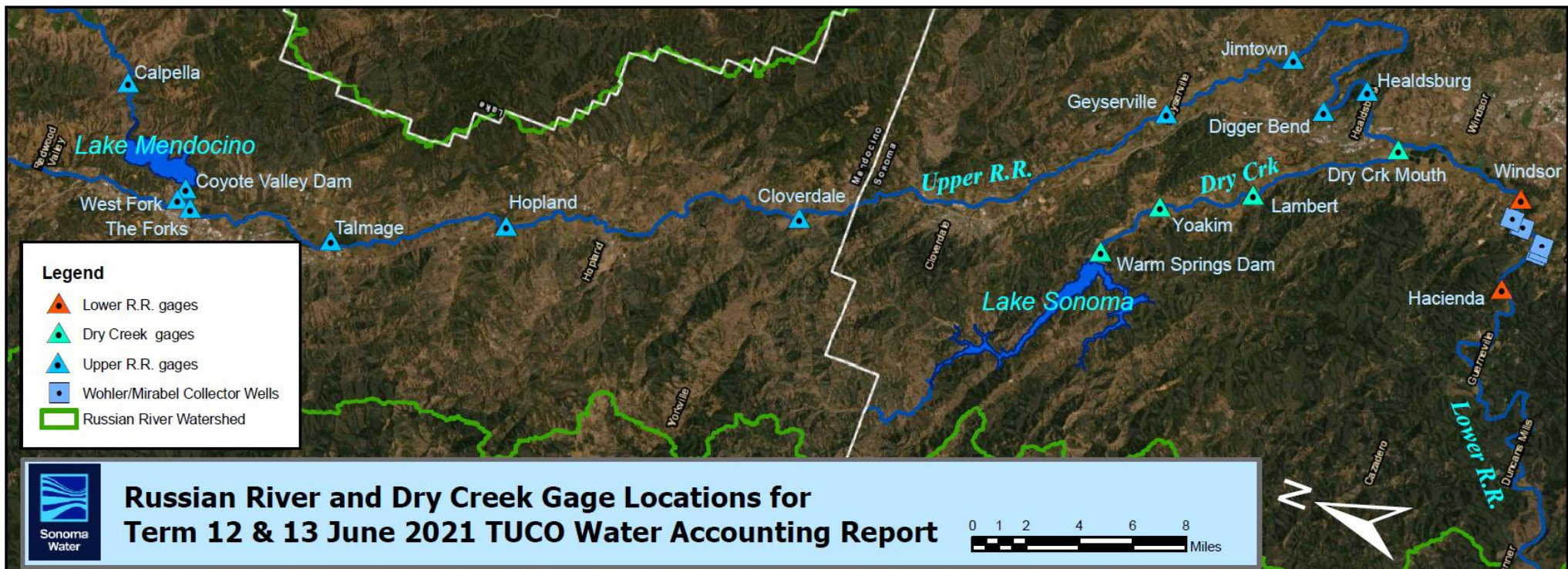
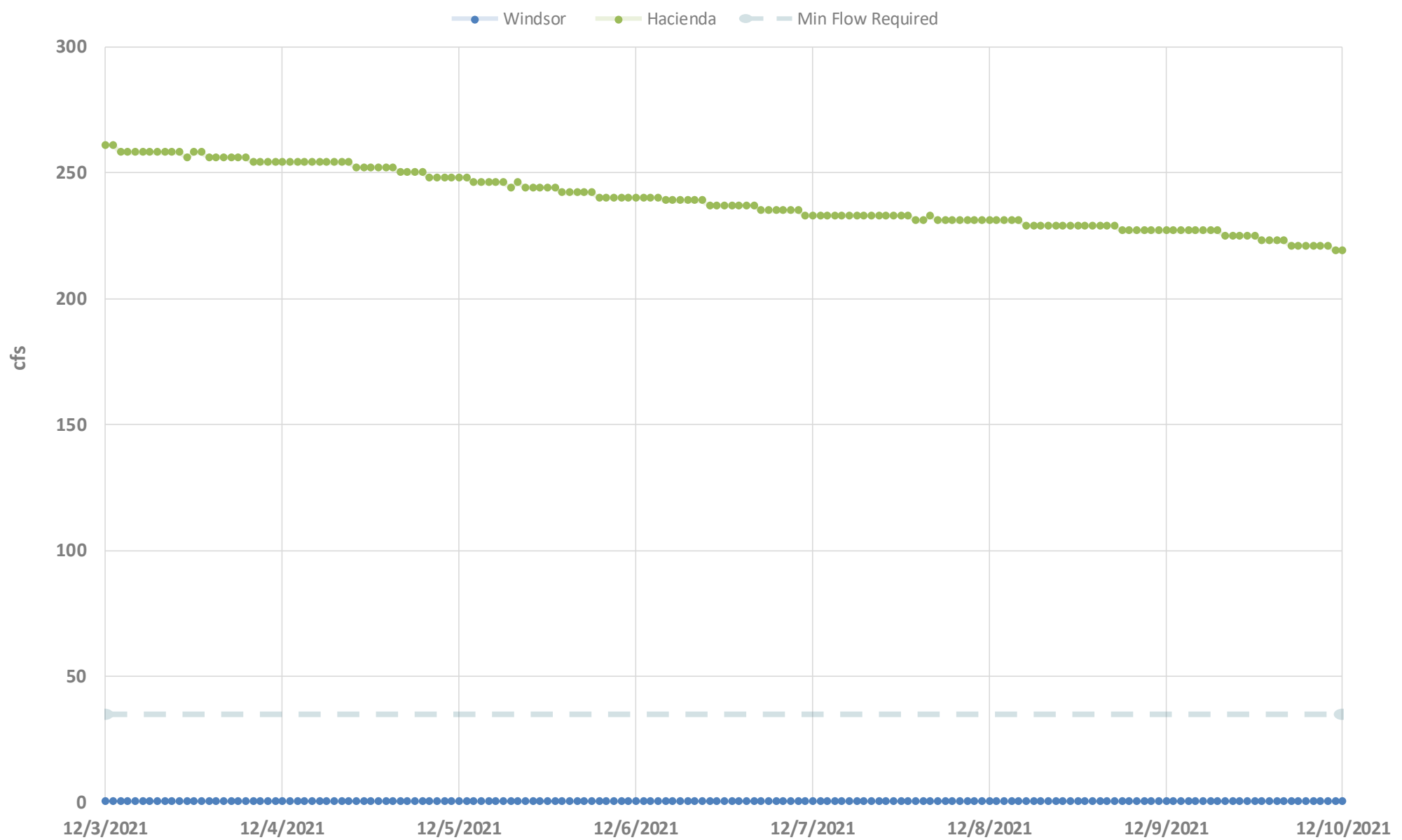
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)

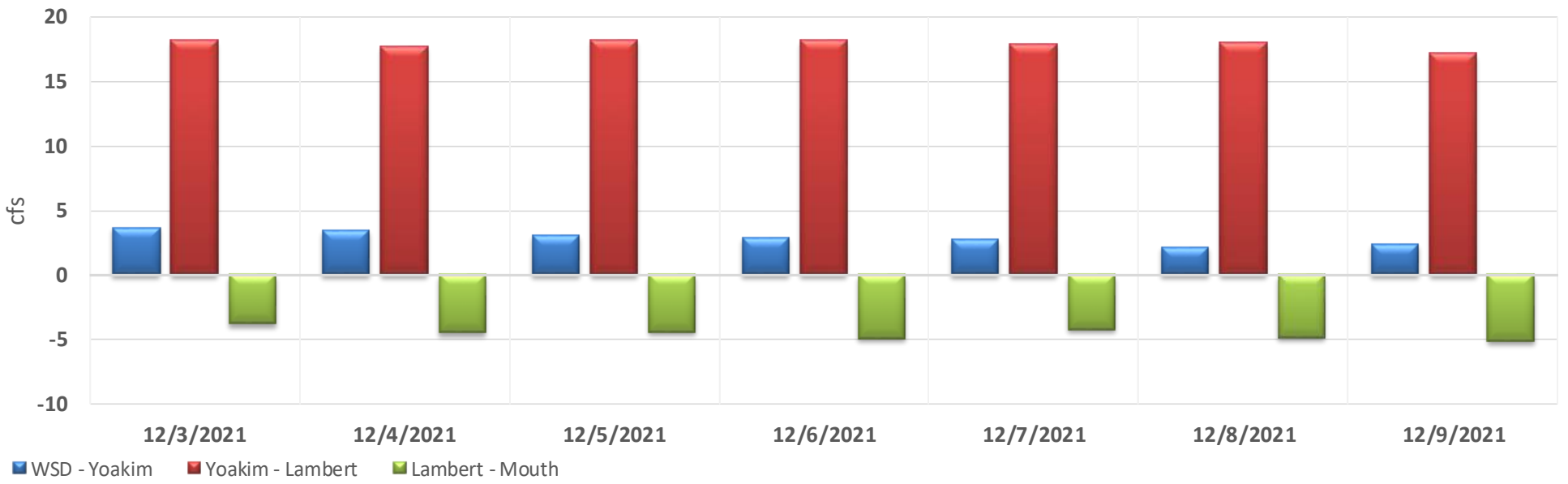


Note: Windsor gage is a seasonal gage and not operational. Reach gains for Windsor – Hacienda reach calculated with Healdsburg gages as upstream gages

LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

