

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

Report Date: 9/23/2022

Units are cfs unless noted otherwise

	9/16/2022	9/17/2022	9/18/2022	9/19/2022	9/20/2022	9/21/2022	9/22/2022
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	38.0	29.0	25.0	20.0	17.0	17.0	17.0
PVID Requested Delivery	32.6	23.8	20.0	13.9	10.0	10.0	10.0
PVID Canals Actual Delivery	16.9	9.6	5.5	5.3	5.2	5.2	5.2
East Fork Release	21.0	19.0	20.0	15.0	12.0	12.0	12.0
PVID E Fork Diversions	15.8	14.1	14.5	8.6	4.8	4.8	4.8
PVID Water Use - PG&E Contract	32.6	23.8	20.0	13.9	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)	5.2	4.9	5.5	6.4	7.2	7.2	7.2
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	21.8	22.1	21.6	31.3	16.0	13.3	13.2
Net Reach Loss(-)/Gain(+)	-16.2	-6.9	-3.4	+11.3	-1.0	-3.7	-3.8
Unimpaired Natural Flow @ Calpella (est.)	0.0	0.0	0.0	0.0	4.0	0.0	0.0
Non-PVID East Fork Net Reach Losses (est.)	-16.4	-16.8	-16.6	-25.2	-5.0	-6.3	-6.2
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-16.4	-16.8	-16.6	-25.2	-5.0	-6.3	-6.2
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	4	28	259	81	59	22	14
(cfs)	2	14	131	41	30	11	7
Natural Flow	0	0	111	26	18	0	0
Import	2	14	20	15	12	11	7
Storage Change (ac-ft)	-198.0	-169.0	+84.0	-98.0	-113.0	-141.0	-154.0
(cfs)	-100	-85	+42	-49	-57	-71	-78
Stored Natural Flow (cfs)	0	0	42	0	0	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	19.4	14.3	3.1	12.3	13.3	15.3	18.3
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	92	92	87	84	80	74	75
Storage (Project Water)	90	78	0	43	50	63	68
Natural Flow	0	0	68	26	18	0	0
Import Water	2	14	19	15	12	11	7
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	92	92	87	84	80	74
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	2	14	87	41	30	11	7
Project Water Release Required	Yes	Yes	No	No	No	Yes	Yes
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	32	33	37	42	47	50	48
Controlling Gage	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	92	92	88	84	80	74
Talmage (USGS 11462080)	96.1	84	84	121	89	86	77
Hopland (USGS 11462500)	84.8	68	69	92	88	78	68
Cloverdale (USGS 11463000)	70.9	64	65	76	98	79	68
Geyserville (USGS 11463500)	54.4	46	48	51	74	74	67
Jimtown (USGS 11463682)	48.5	45	47	54	69	77	67
Digger Bend (USGS 11463980)	38.2	35	36	42	48	56	56
Healdsburg (USGS 11464000)	35.6	32	33	37	42	47	48
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-8	-8	+32	+5	+4	+2	+2
Talmage - Hopland	-16	-15	-3	-25	-12	-8	-8
Hopland - Cloverdale	-4	-3	+5	-7	+1	-1	-1
Cloverdale - Jimtown	-18	-16	-10	-5	-22	-7	-8
Jimtown - Digger Bend	-9	-10	-8	-16	-20	-16	-13
Digger Bend - Healdsburg	-3	-3	+0	-4	-4	-8	-8
Upper Russian Net Reach Loss/Gain	-58	-55	+16	-53	-52	-38	-36
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-58	-55	+16	-53	-52	-38	-36
Storage (Project Water)	-58	-55	0	-43	-50	-38	-36
Pass-through Water (Nat. + Imp.) + Natural	0	0	16	-10	-2	0	0
Total Pass-through Water	2	14	103	31	28	11	7
Project Water Release Required	Yes	Yes	No	Yes	Yes	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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	-220.0	-219.0	+94.0	-204.0	-203.0	-235.0	-203.0
(cfs)	-111	-110	+47	-103	-102	-118	-102
Evaporation (ac-ft)	14.7	13.5	2.3	12.4	11.3	13.5	14.6
Inflow (Natural Flow)	0	0	144	0	0	0	0
WSD Release Gage	97	94	95	95	95	94	94
Storage (Project Water)	97	94	0	95	95	94	94
Natural Flow	0	0	95	0	0	0	0

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	80	80	80	80	80	80	80
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Controlling Compliance Gage

Min Gage Flow	92	85	95	94	89	88	87
Controlling Gage	Dry Crk Mouth	Dry Crk Mouth	WSD Release	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth

All Compliance Gages

	<i>Crk mi.</i>						
WSD Release	14.3	97	94	95	95	95	94
Yoakim (USGS 11465200)	11.1	101	95	102	98	96	95
Lambert (USGS 11465240)	6.8	99	93	99	96	94	94
Dry Crk Mouth (USGS 11465350)	0.1	92	85	97	94	89	87

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	0	0	95	0	0	0	0
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+3	+0	+6	+3	+0	-0	-1
Yoakim - Lambert	-4	-2	-2	-3	-3	-2	-1
Lambert - Dry Crk Mouth	-9	-8	+0	-4	-5	-6	-7
WSD - Dry Crk Mouth	-9	-9	+4	-4	-7	-8	-9

WSD Project Water Release to Meet Min Flow Requirement

Net Reach Loss/Gain to Controlling Gage	-9	-9	+0	-4	-7	-8	-9
Project Water Release Required	Yes	Yes	No	Yes	Yes	Yes	Yes

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)

L. Mendocino Project Water + Import Water	32	33	19	42	47	50	48
Natural Flow	0	0	84	0	0	0	0

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	97	94	0	95	95	94	94
Natural Flow	0	0	97	0	0	0	0

Russian River d/s of Confluence Flow

	123	118	134	136	136	138	136
L. Mendocino Project Water + Import Water	32	33	19	42	47	50	48
L. Sonoma Project Water	97	94	0	95	95	94	94
Natural Flow	0	0	181	0	0	0	0

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	69	69	93	98	91	91	99
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	132.3	131.6	139.7	145.4	142.8	143.2
Hacienda (USGS 11467000)	21.8	69	69	93	98	91	99

Confluence to Windsor Reach Analysis

Net Reach Loss/Gain to Windsor Gage	+9	+13	+18	+4	+9	+5	+6
L. Mendocino Project Water + Import Water	32	33	19	42	47	50	48
L. Sonoma Project Water	93	90	0	92	91	91	91
Natural Flow	9	13	192	4	9	5	6

Confluence to SCWA Wohler Production Facility Reach Analysis

Approx. Flow u/s of Wohler	124	136	145	140	136	153	142
Net Reach Loss(-)/Gain(+)	+1	+18	+11	+4	+0	+15	+6
L. Mendocino Project Water + Import Water	32	33	19	42	47	50	48
L. Sonoma Project Water	93	90	0	92	91	91	91
Natural Flow	1	18	192	4	0	15	6

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-54	-49	-41	-38	-45	-47	-37
L. Mendocino Project Water + Import Water	32	33	19	42	47	50	48
L. Sonoma Project Water	38	23	0	50	46	29	48
Natural Flow	1	18	140	4	0	15	6

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

Lower Russian River

Sonoma Water Total	109.9	133.4	103.4	83.5	89.6	122.9	84.7
Wohler	48.1	45.9	45.8	46.4	40.9	47.5	46.1
Mirabel	55.1	80.7	51.1	35.0	46.8	73.2	36.3
Town of Windsor River Wellfield	8.1	8.2	6.6	6.6	7.2	6.8	6.9
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:

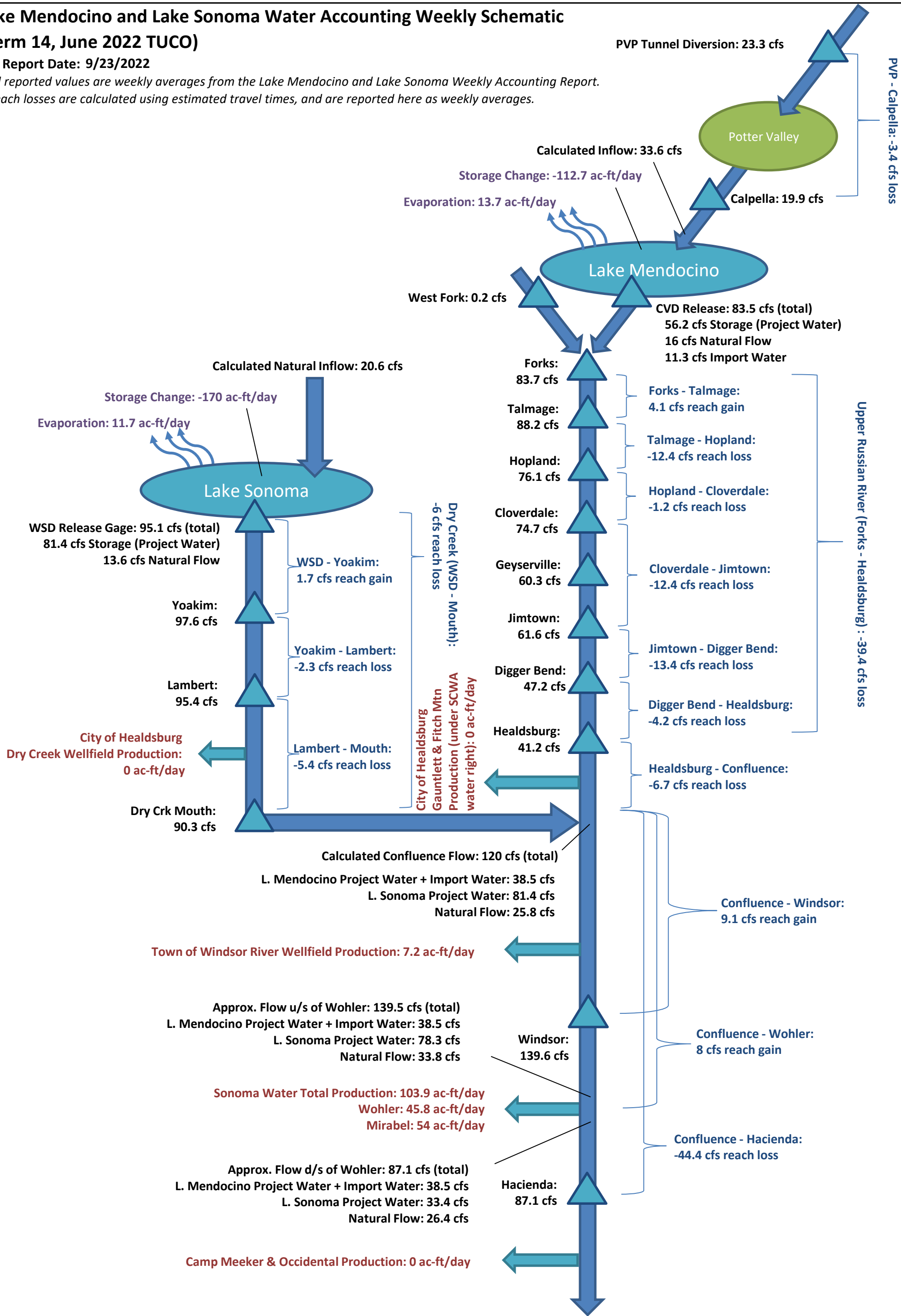
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 9/23/2022

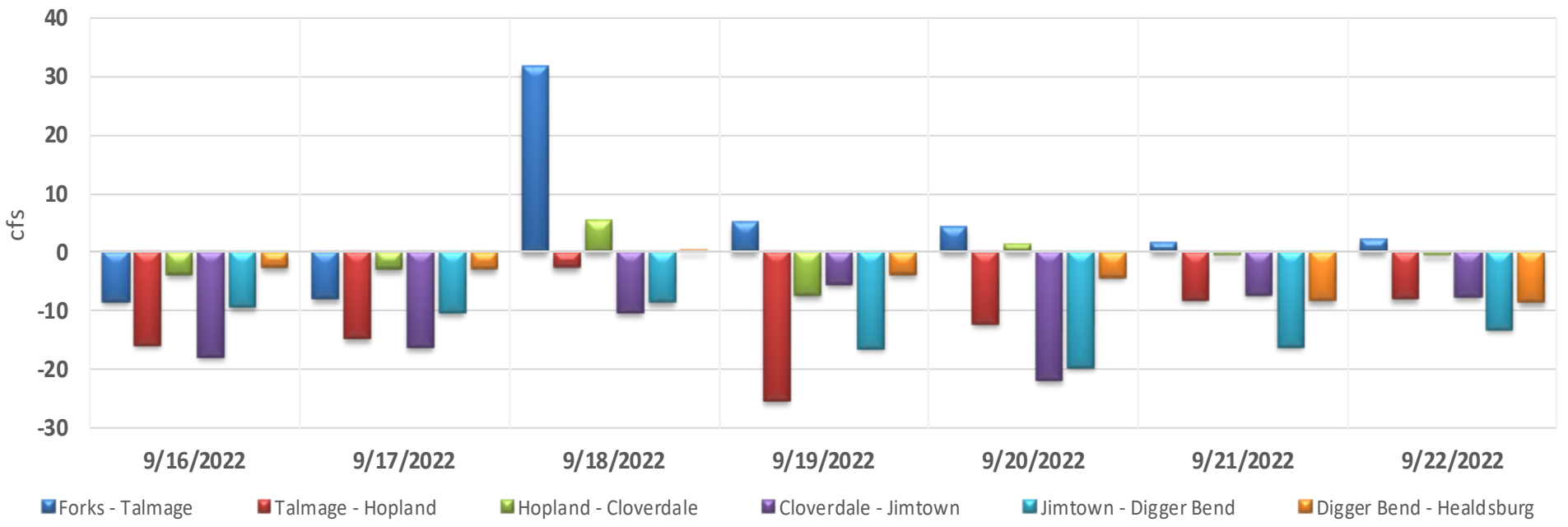
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report. Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



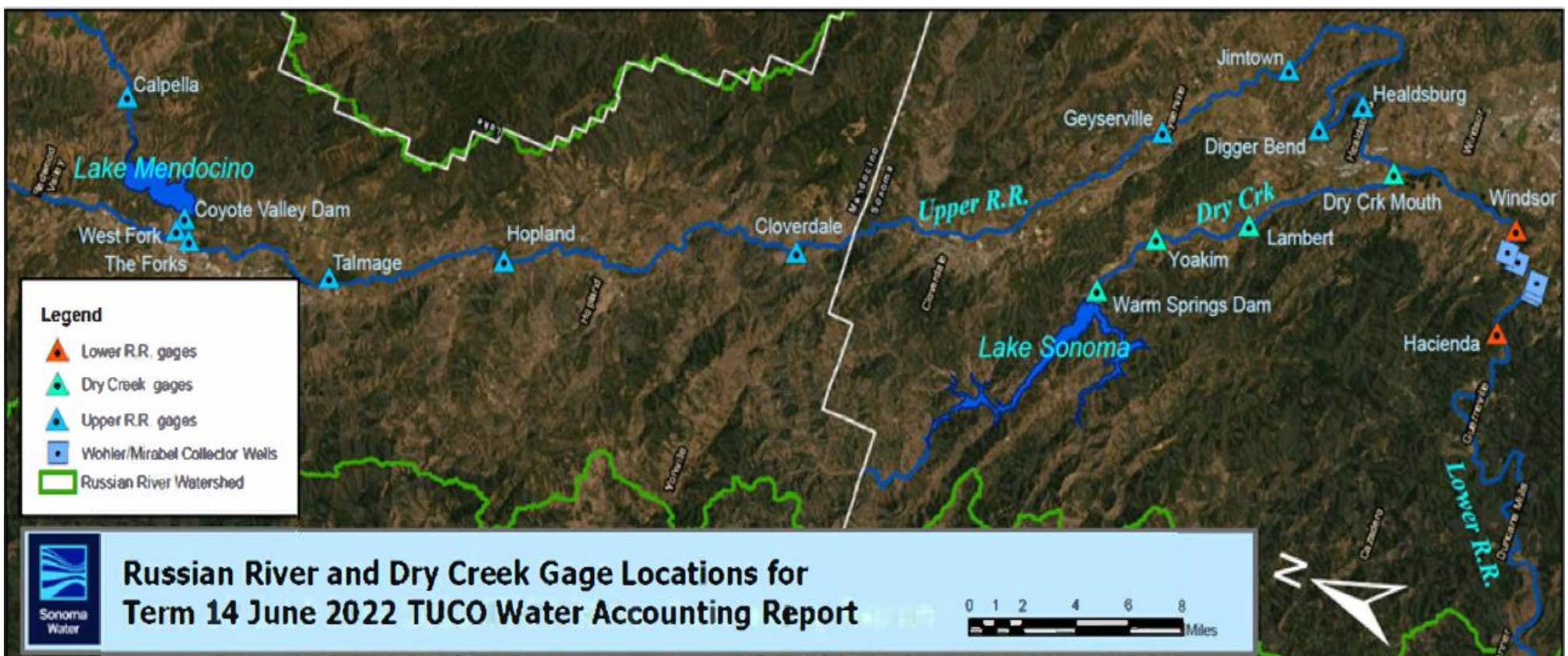
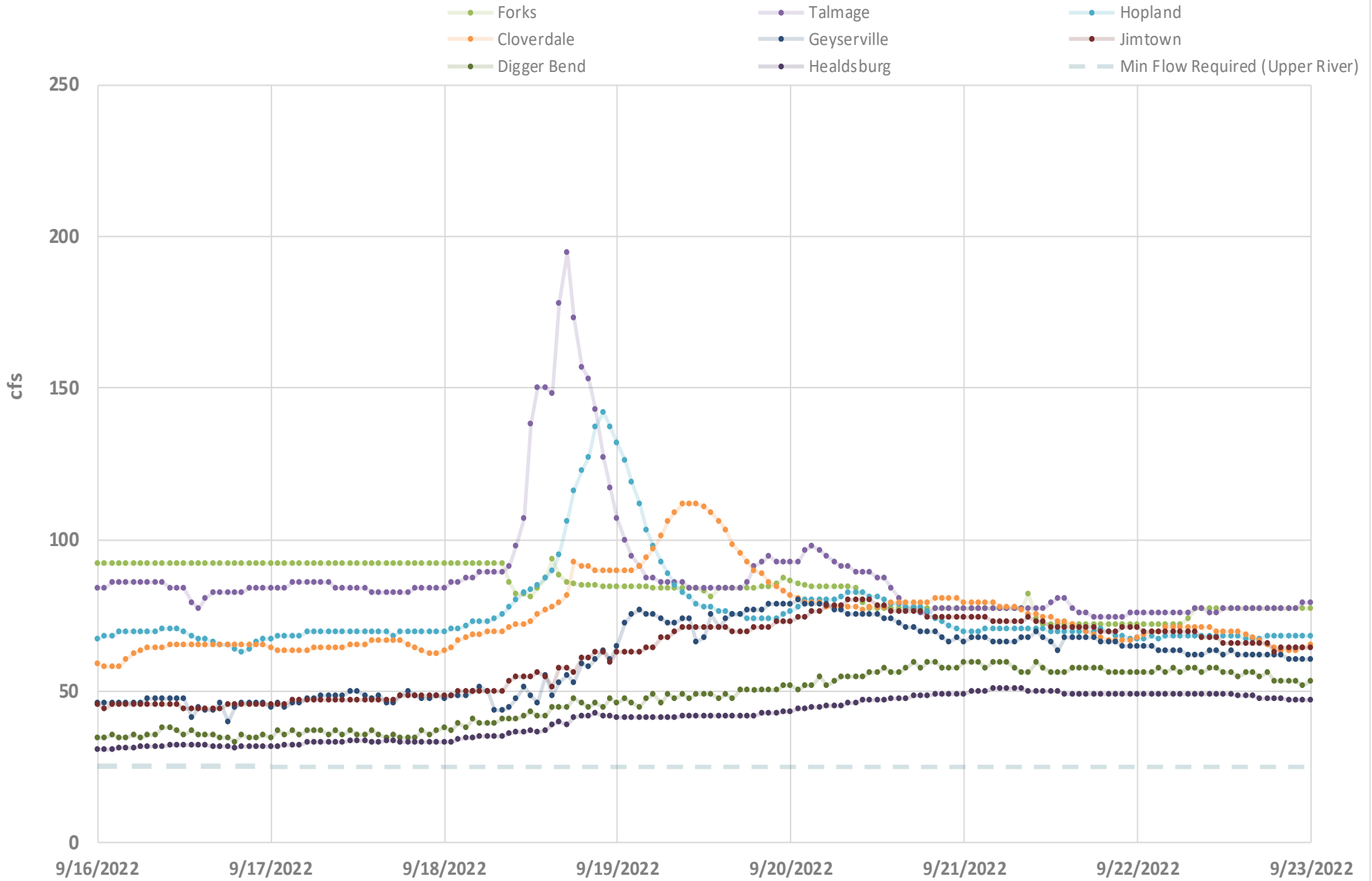
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS



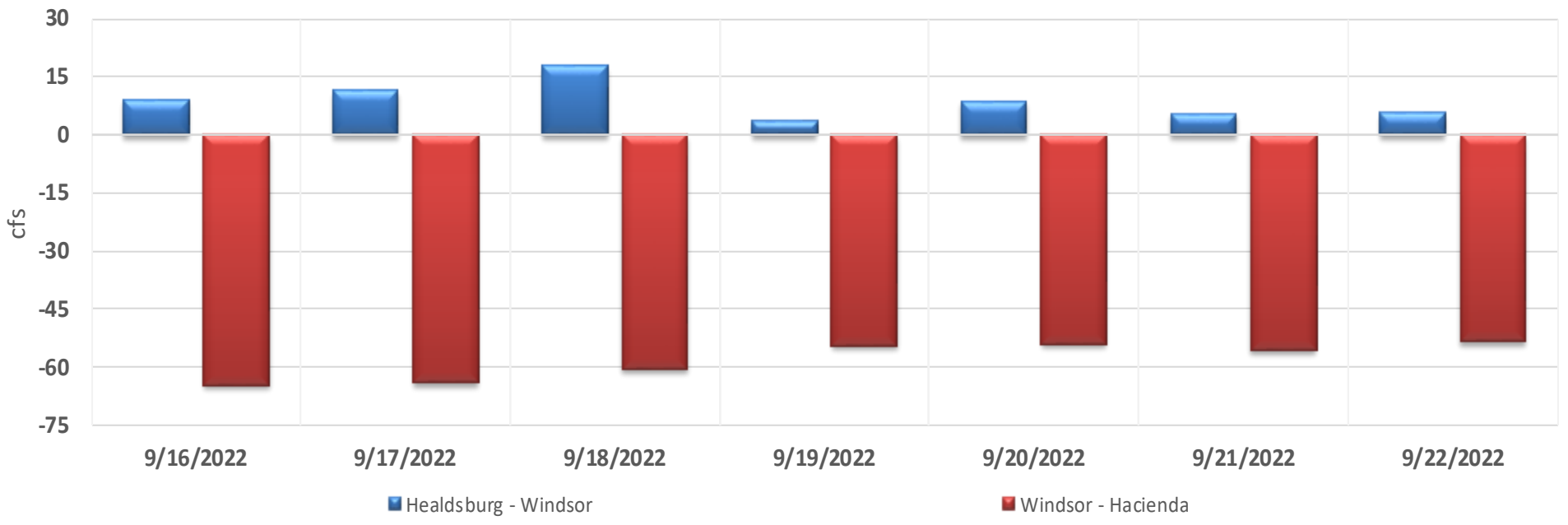
Russian River and Dry Creek Gage Locations for Term 14 June 2022 TUCO Water Accounting Report



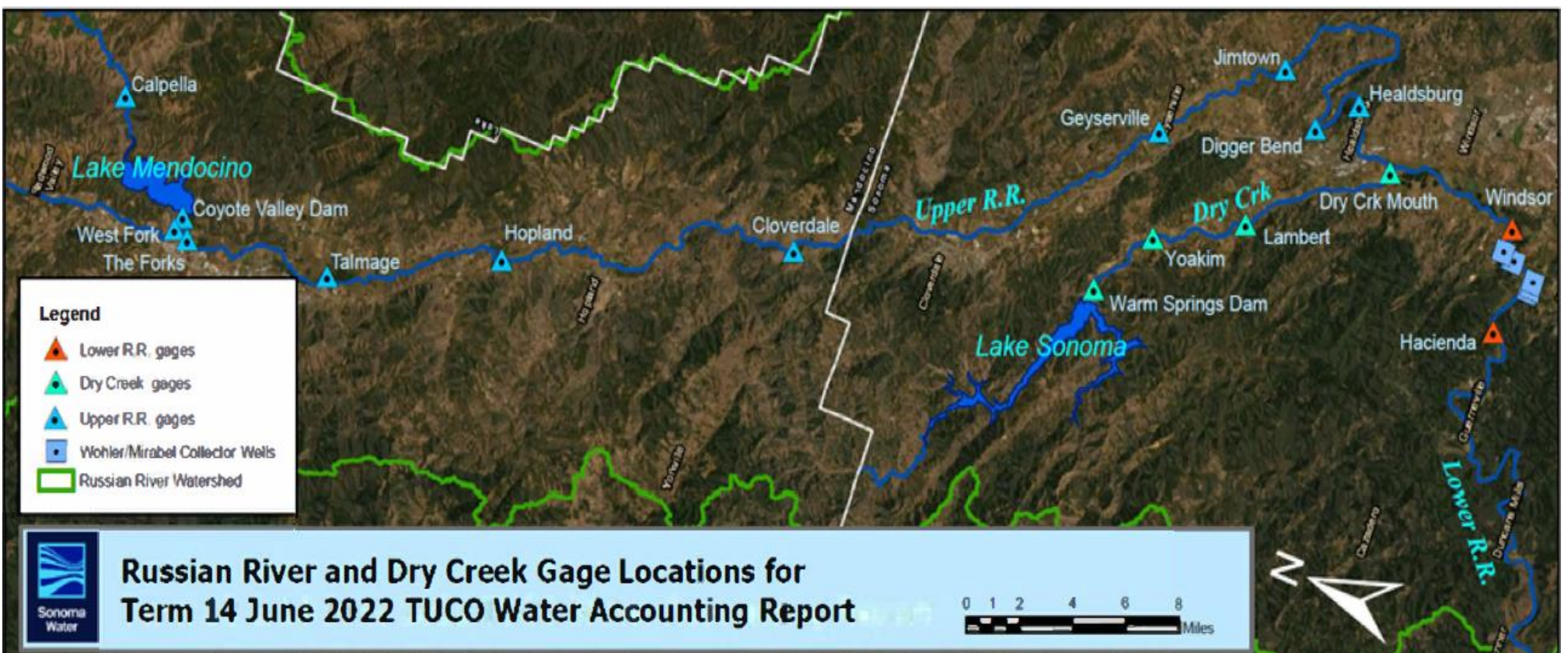
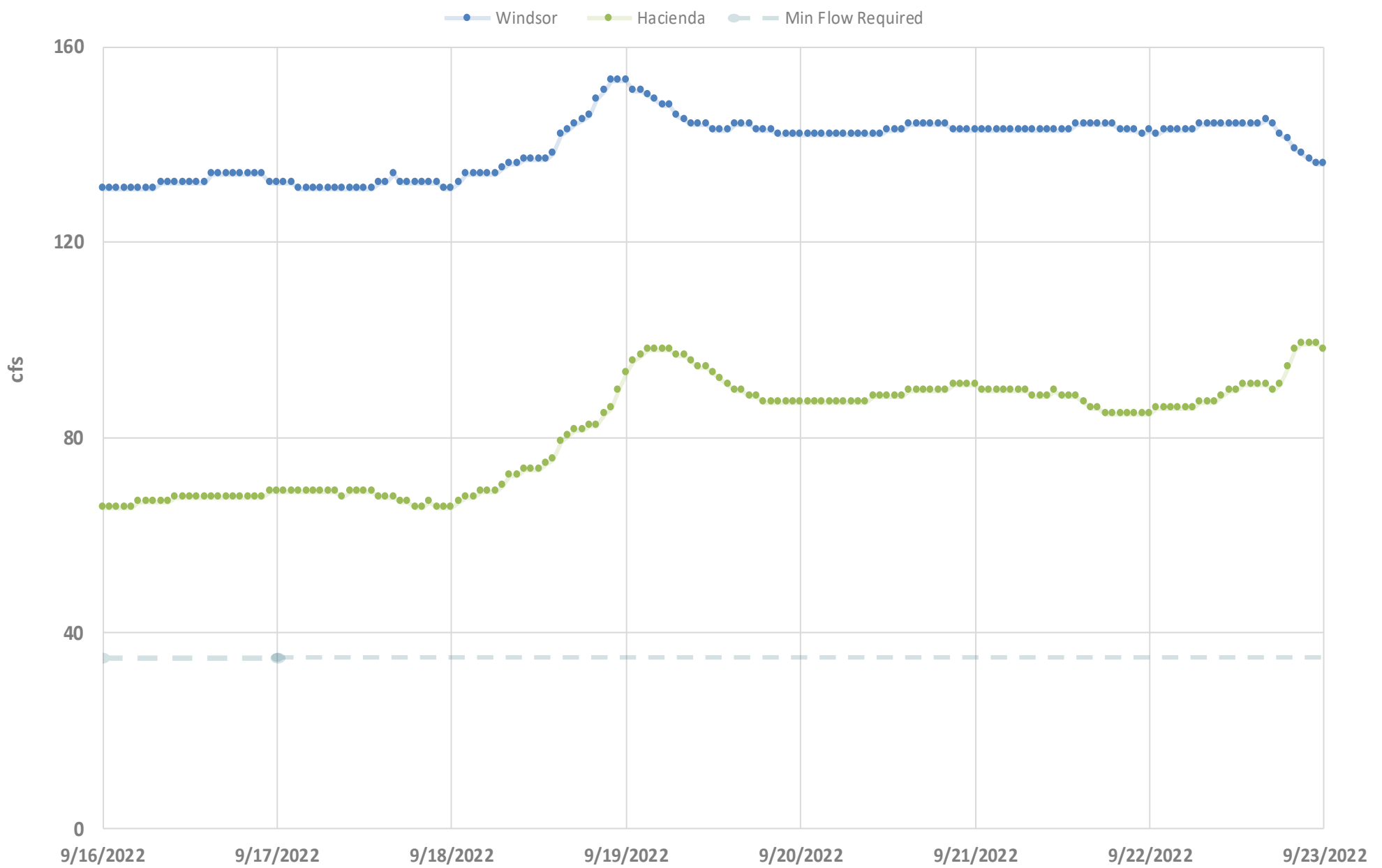
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



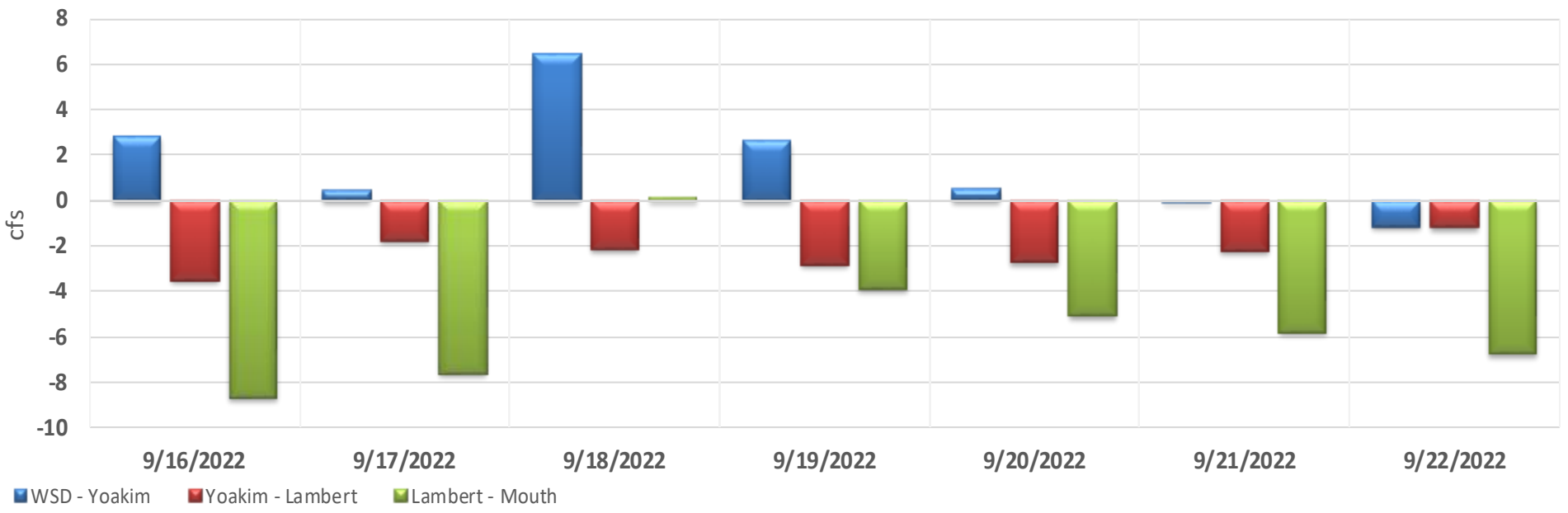
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

