

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

Report Date: 6/30/2023

Units are cfs unless noted otherwise

	6/23/2023	6/24/2023	6/25/2023	6/26/2023	6/27/2023	6/28/2023	6/29/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	105.0	105.0	106.0	105.0	105.0	108.0	110.0
PVID Requested Delivery	25.0	25.0	25.0	25.0	25.0	28.3	30.0
PVID Canals Actual Delivery	24.7	24.8	24.8	24.8	24.7	25.3	25.5
East Fork Release	80.0	80.0	81.0	80.0	80.0	83.0	84.0
PVID E Fork Diversions	0.3	0.2	0.2	0.2	0.3	3.0	4.5
PVID Water Use - PG&E Contract	25.0	25.0	25.0	25.0	25.0	28.3	30.0
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)	79.7	79.8	80.8	79.8	79.7	80.0	79.5
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	99.3	95.4	91.1	87.8	87.5	89.1	95.1
Net Reach Loss(-)/Gain(+)	-5.7	-9.6	-14.9	-17.2	-17.5	-18.9	-14.9
Unimpaired Natural Flow @ Calpella (est.)	6.4	6.8	6.4	6.4	5.7	6.4	5.7
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	204	179	139	195	157	178	188
(cfs)	103	90	70	98	79	90	95
Natural Flow	23	10	6	18	6	10	15
Import	80	80	64	80	73	80	80
Storage Change (ac-ft)	-71.0	-107.0	-142.0	-89.0	-124.0	-107.0	-107.0
(cfs)	-36	-54	-72	-45	-63	-54	-54
Stored Natural Flow (cfs)	0	0	0	0	0	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	26.7	26.7	25.7	29.9	25.7	31.0	35.3
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	125	131	129	128	129	128	131
Storage (Project Water)	22	40	59	30	50	38	36
Natural Flow	23	10	6	18	6	10	15
Import Water	80	80	64	80	73	80	80
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	125	131	129	128	129	128
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	103	90	70	98	79	90	95
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement

Minimum Instream Flow Requirement	110	110	110	110	110	110	110
Controlling Compliance Gage							
Min Gage Flow	125	131	132	131	128	126	126
Controlling Gage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	134	140	137	136	136	138
Talmage (USGS 11462080)	96.1	125	131	132	131	128	126
Hopland (USGS 11462500)	84.8	136	139	143	141	137	132
Cloverdale (USGS 11463000)	70.9	142	139	142	141	138	128
Geyserville (USGS 11463500)	54.4	166	163	162	163	159	144
Jimtown (USGS 11463682)	48.5	190	188	187	189	185	169
Digger Bend (USGS 11463980)	38.2	210	209	207	208	206	193
Healdsburg (USGS 11464000)	35.6	207	205	202	204	191	185
Net Reach Loss(-)/Gain(+)							
Forks - Talmage		-9	-8	-5	-5	-8	-11
Talmage - Hopland		+10	+11	+10	+9	+7	+8
Hopland - Cloverdale		+7	+3	+0	-2	-1	-5
Cloverdale - Jimtown		+48	+46	+47	+47	+45	+38
Jimtown - Digger Bend		+20	+20	+21	+19	+20	+22
Digger Bend - Healdsburg *when Digger Bend > 400 cfs, next u/s gage (Jimtown) used		-3	-4	-5	-4	-16	-9
Upper Russian Net Reach Loss/Gain		+73	+67	+68	+64	+47	+43
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage		-9	-8	-5	-5	-8	-11
Storage (Project Water)		-9	-8	-5	-5	-8	-11
Pass-through Water (Nat. + Imp.) + Natural		0	0	0	0	0	0
Total Pass-through Water		103	90	70	98	79	95
Project Water Release Required		No	Yes	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)	-217.0	-191.0	-190.0	-217.0	-190.0	-217.0	-189.0
(cfs)	-109	-96	-96	-109	-96	-109	-95
Evaporation (ac-ft)	32.6	37.5	39.1	39.1	47.2	48.8	43.9
Inflow (Natural Flow)	1	16	17	3	21	9	20
WSD Release Gage	94	94	94	93	93	93	93
Storage (Project Water)	93	77	76	90	72	85	73
Natural Flow	1	16	17	3	21	9	20

V. Lower Dry Creek Reach

<u>Minimum Instream Flow Requirement</u>	80	80	80	80	80	80	80
<u>Controlling Compliance Gage</u>							
Min Gage Flow	94	94	94	93	93	93	93
Controlling Gage	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
<u>All Compliance Gages</u>	<i>Crk mi.</i>						
WSD Release	14.3	94	94	94	93	93	93
Yoakim (USGS 11465200)	11.1	100	100	100	99	99	98
Lambert (USGS 11465240)	6.8	105	106	106	105	104	103
Dry Crk Mouth (USGS 11465350)	0.1	101	101	102	101	99	96
<u>WSD to Russian River Confluence Reach Analysis</u>							
Total Pass-through Water	1	16	17	3	21	9	20
<u>Net Reach Loss(-)/Gain(+)</u>							
WSD - Yoakim	+6	+7	+6	+6	+6	+5	+5
Yoakim - Lambert	+6	+5	+6	+6	+5	+5	+5
Lambert - Dry Crk Mouth	-5	-4	-4	-4	-6	-7	-7
WSD - Dry Crk Mouth	+7	+8	+9	+8	+5	+3	+3
<u>WSD Project Water Release to Meet Min Flow Requirement</u>							
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

<u>Upper Russian River Flow (Healdsburg Gage)</u>							
L. Mendocino Project Water + Import Water	102	120	122	110	123	118	116
Natural Flow	96	77	75	82	52	42	58
<u>Dry Creek Flow (Mouth Gage)</u>							
L. Sonoma Project Water	93	77	76	90	72	85	73
Natural Flow	8	24	26	12	27	12	23
<u>Russian River d/s of Confluence Flow</u>	308	306	304	305	289	272	281
L. Mendocino Project Water + Import Water	102	120	122	110	123	118	116
L. Sonoma Project Water	93	77	76	90	72	85	73
Natural Flow	104	102	101	94	79	54	80

VII. Lower Russian River Reach

<u>Minimum Instream Flow Requirement</u>	60	60	60	60	60	60	60
<u>Controlling Compliance Gage</u>							
Min Gage Flow	217	217	219	221	203	183	183
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
<u>All Compliance Gages</u>	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	335	332	333	316	302	310
Hacienda (USGS 11467000)	21.8	217	217	219	221	203	183
<u>Confluence to Windsor Reach Analysis</u>							
Net Reach Loss/Gain to Windsor Gage	+26	+26	+29	+11	+5	+29	+29
L. Mendocino Project Water + Import Water	102	120	122	110	123	118	116
L. Sonoma Project Water	89	73	72	85	67	80	68
Natural Flow	131	128	130	104	84	84	109
<u>Confluence to SCWA Wohler Production Facility Reach Analysis</u>							
<u>Approx. Flow u/s of Wohler</u>	318	295	297	295	283	263	266
Net Reach Loss(-)/Gain(+)	+10	-12	-7	-10	-6	-10	-16
L. Mendocino Project Water + Import Water	102	120	122	110	123	118	116
L. Sonoma Project Water	89	73	72	85	67	80	68
Natural Flow	114	90	94	84	73	45	65
<u>Confluence to Hacienda (Guerneville) Reach Analysis</u>							
Net Reach Loss(-)/Gain(+)	-91	-89	-85	-84	-86	-89	-98
L. Mendocino Project Water + Import Water	102	120	122	110	123	118	116
L. Sonoma Project Water	0	0	0	11	0	1	0
Natural Flow	102	86	88	84	60	45	50

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

<u>Lower Russian River</u>							
Sonoma Water Total	200.2	154.4	155.3	147.3	159.2	157.8	163.9
Wohler	80.4	78.3	40.0	47.9	70.4	82.5	76.2
Mirabel	119.8	76.2	115.3	99.4	88.7	75.3	87.7
Town of Windsor River Wellfield	8.0	8.2	8.2	8.9	9.3	9.2	10.6
Camp Meeker & Occidental	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<u>Upper Russian River</u>							
City of Healdsburg							
Gauntlett & Fitch Mtn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<u>Dry Creek</u>							
City of Healdsburg							
Dry Creek Wellfield	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

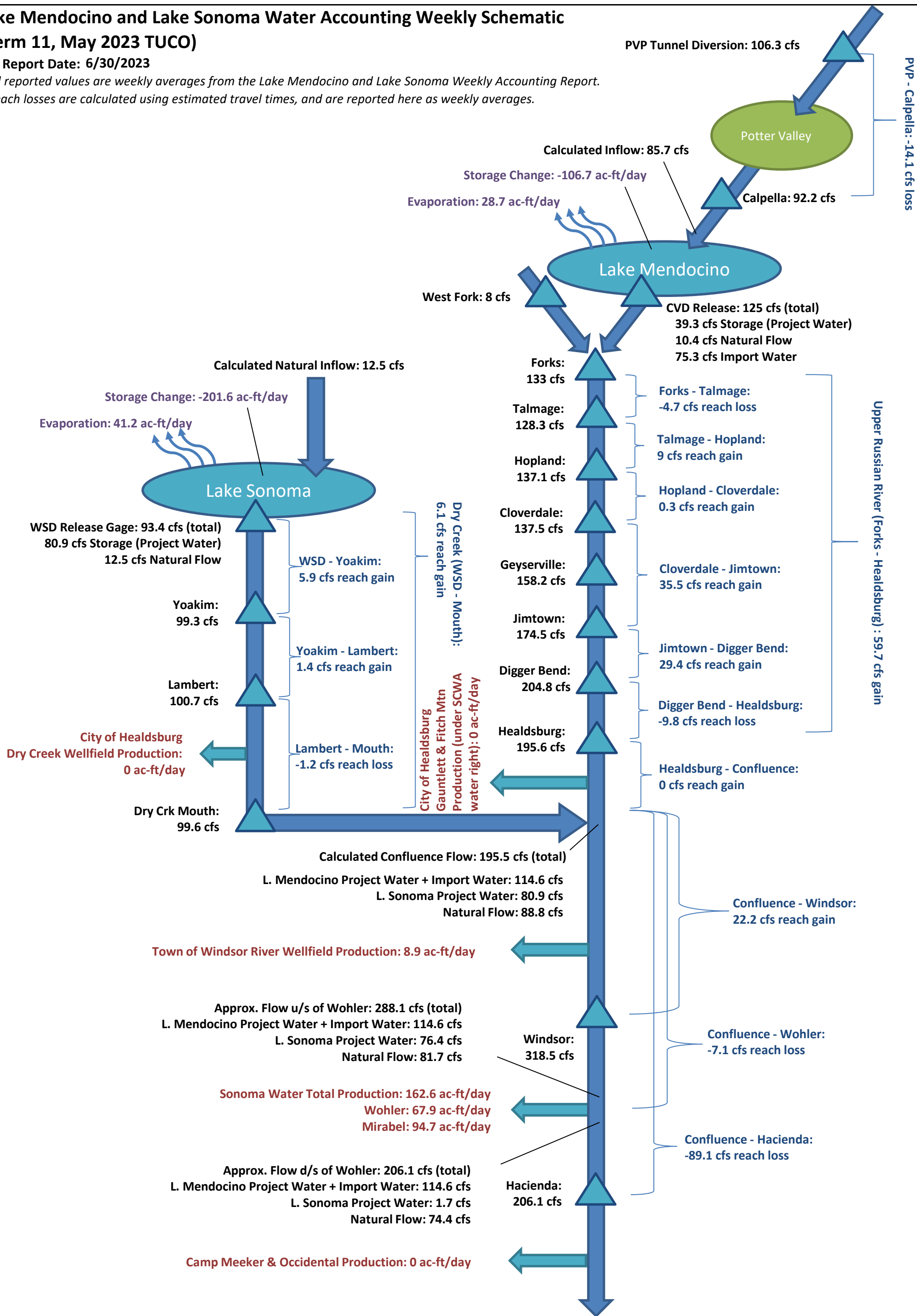
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 11, May 2023 TUCO)

Report Date: 6/30/2023

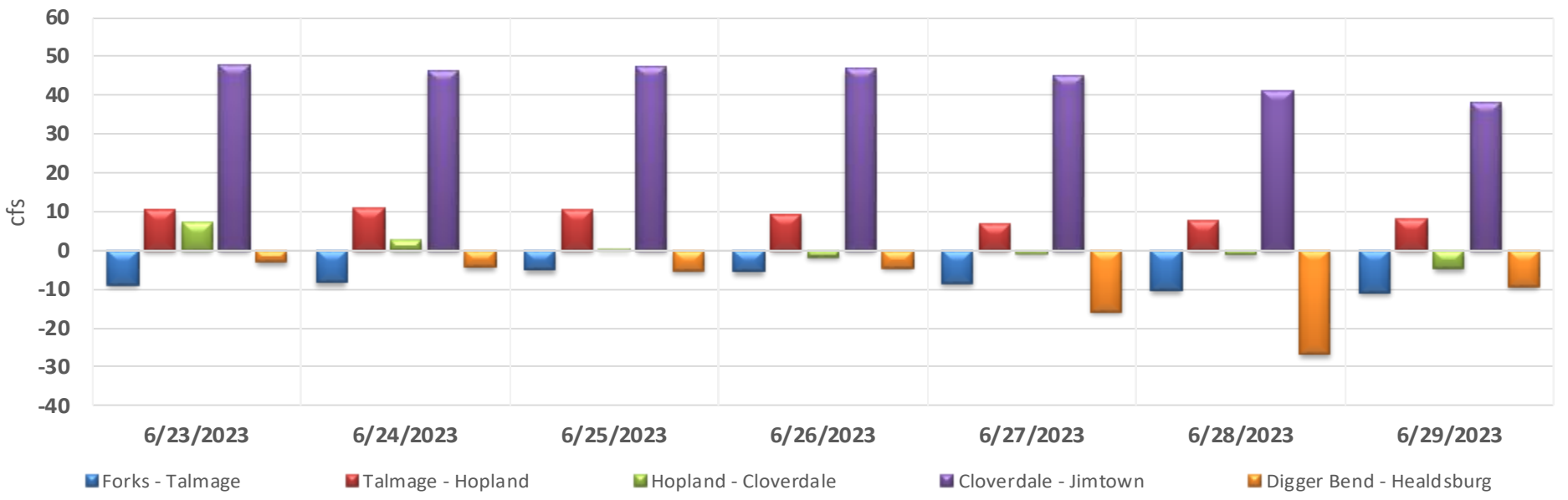
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report. Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



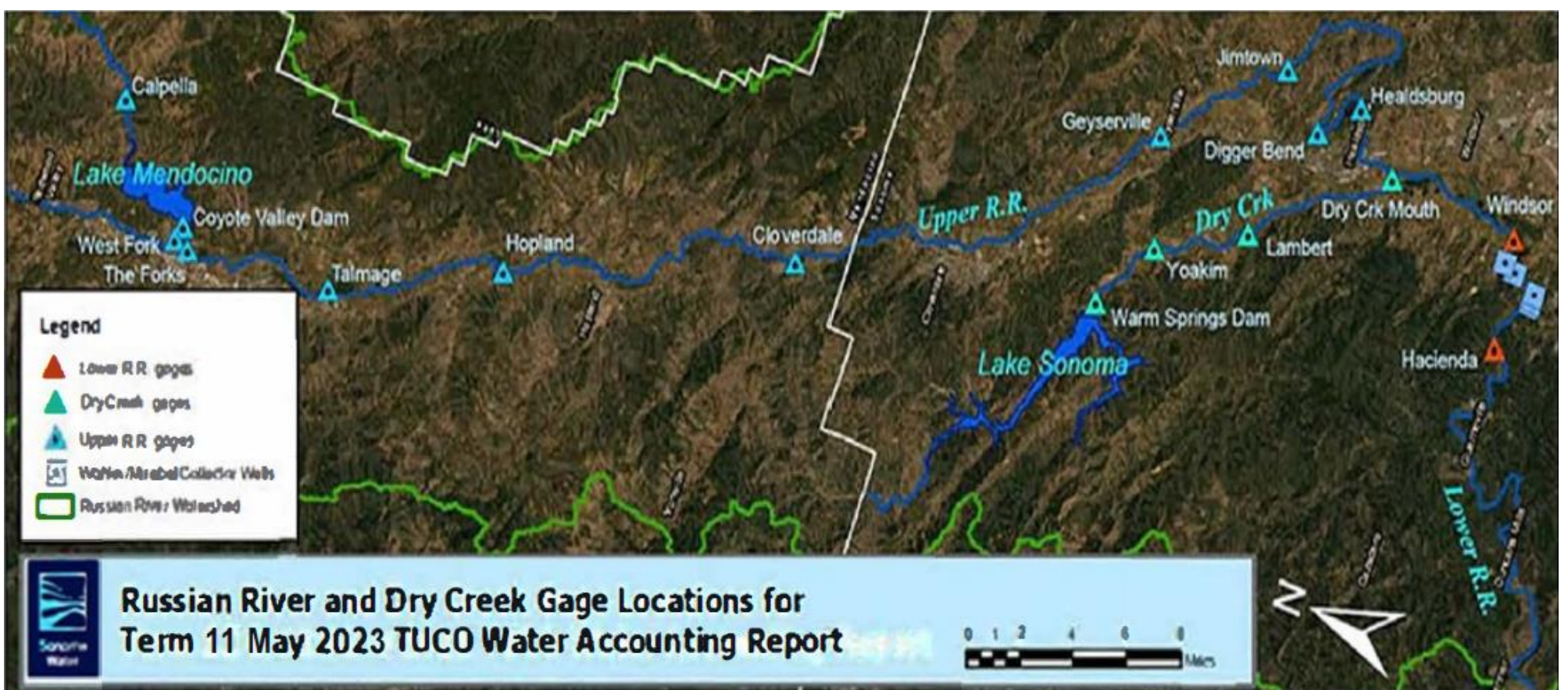
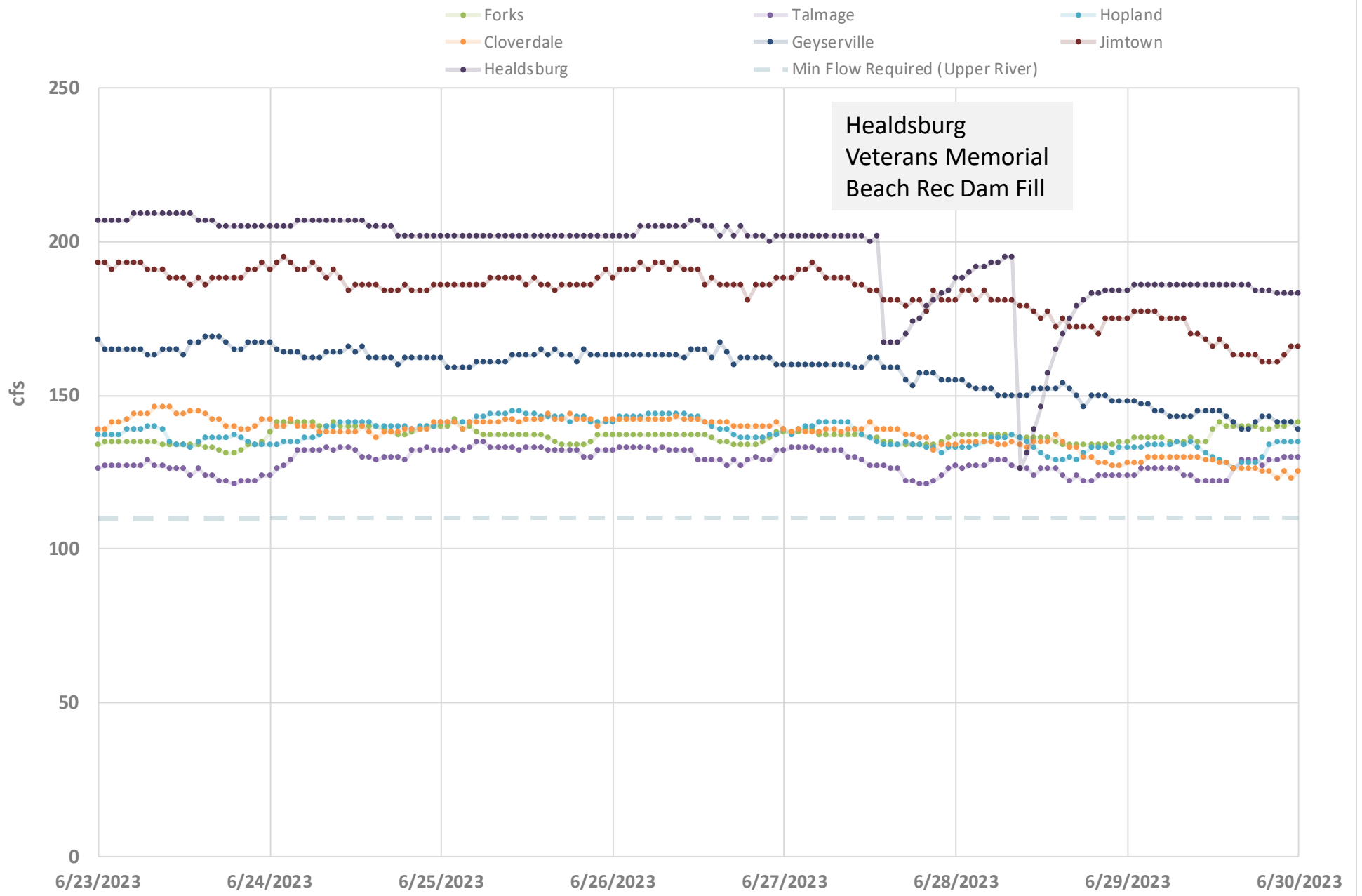
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



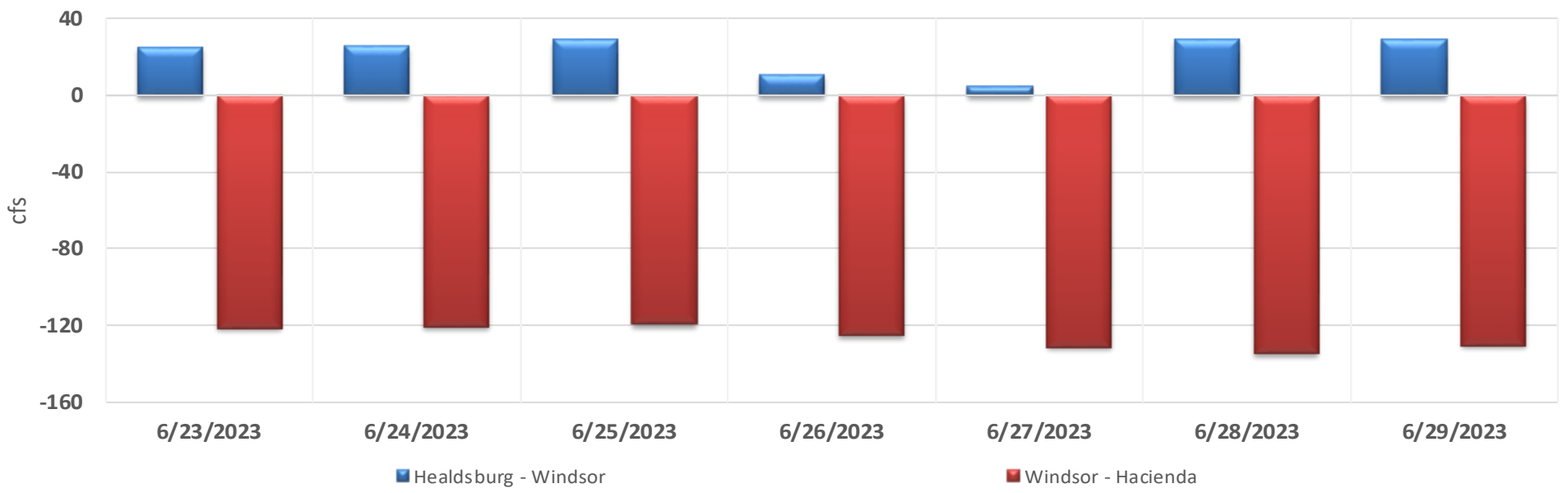
UPPER RUSSIAN RIVER STREAM FLOWS



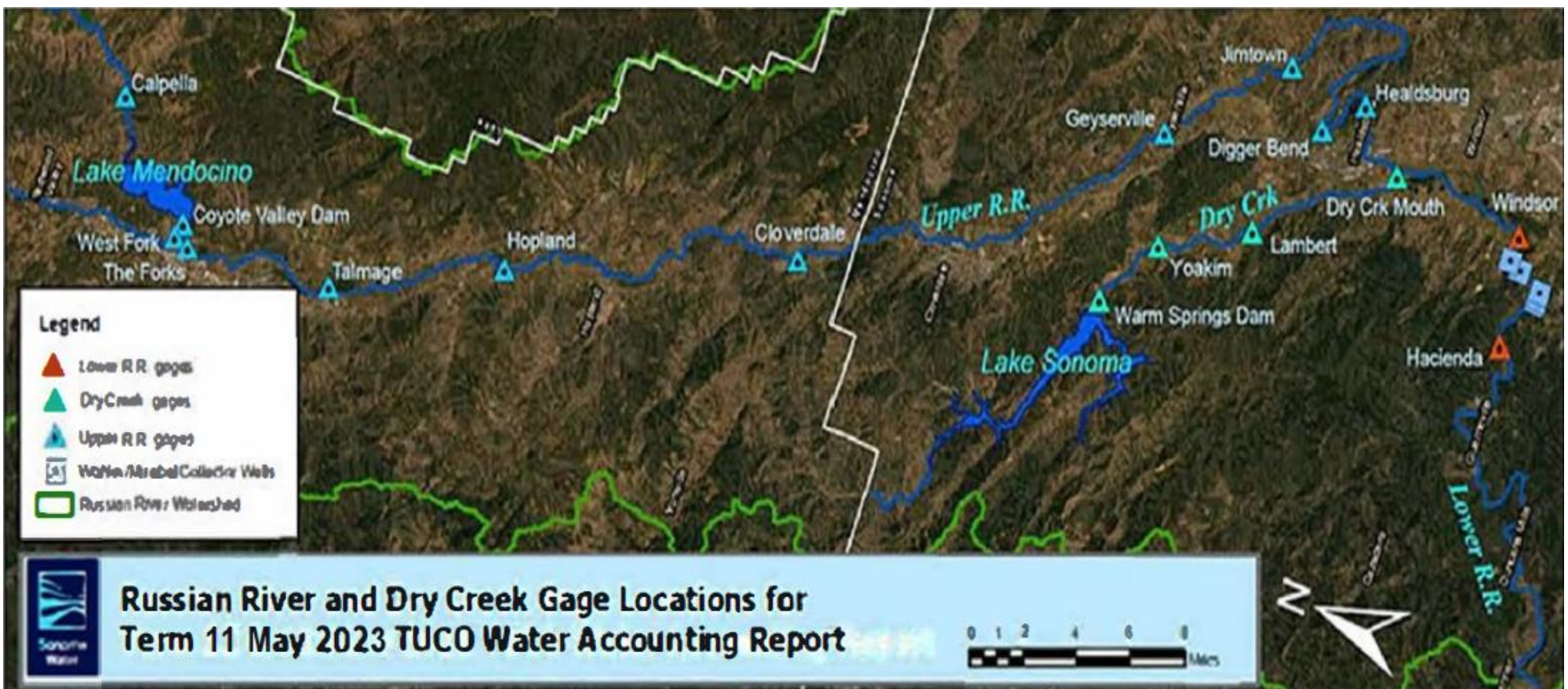
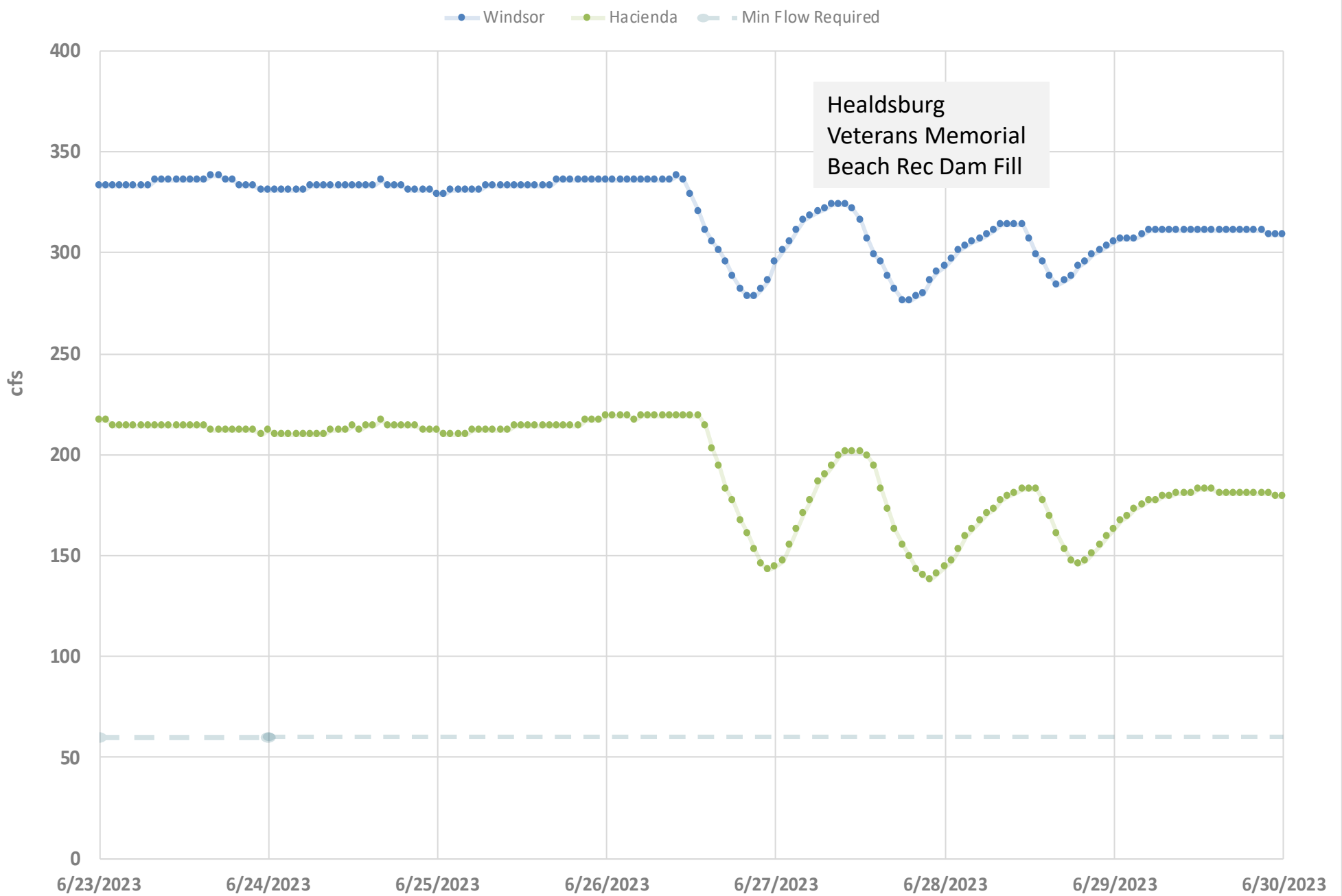
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



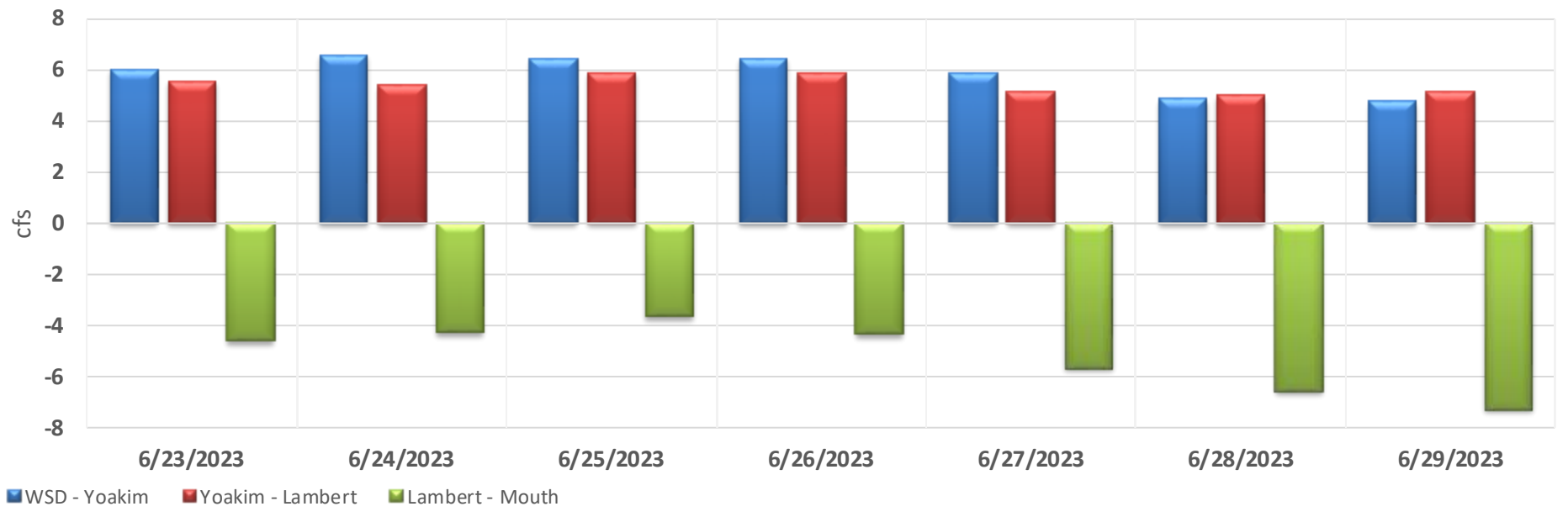
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

