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

Report Date: 7/14/2023

Units are cfs unless noted otherwise

	7/7/2023	7/8/2023	7/9/2023	7/10/2023	7/11/2023	7/12/2023	7/13/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	110.0	110.0	110.0	102.0	99.0	100.0	100.0
PVID Requested Delivery	30.0	30.0	30.0	23.4	20.0	20.0	20.0
PVID Canals Actual Delivery	25.9	25.9	25.9	17.9	15.3	18.9	20.6
East Fork Release	84.0	84.0	84.0	84.0	84.0	81.0	79.0
PVID E Fork Diversions	4.1	4.1	4.1	5.5	4.7	1.1	0.0
PVID Water Use - PG&E Contract	30.0	30.0	30.0	23.4	20.0	20.0	20.6
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)	79.9	79.9	79.9	78.5	79.3	79.9	79.0
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	93.5	89.9	88.3	87.8	88.6	79.1	83.1
Net Reach Loss(-)/Gain(+)	-16.5	-20.1	-21.7	-14.2	-10.4	-20.9	-16.9
Unimpaired Natural Flow @ Calpella (est.)	4.9	4.9	4.9	4.9	4.9	4.6	4.6
Non-PVID East Fork Net Reach Losses (est.)	0.0	0.0	0.0	0.0	0.0	-5.4	-0.9
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	-5.4	-0.9
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	178	157	156	124	162	167	143
(cfs)	90	79	79	63	82	84	72
Natural Flow	10	5	5	5	5	5	5
Import	80	74	74	58	77	80	68
Storage Change (ac-ft)	-142.0	-160.0	-160.0	-195.0	-159.0	-160.0	-213.0
(cfs)	-72	-81	-81	-98	-80	-81	-107
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)	34.7	31.3	30.2	33.6	35.8	34.7	35.8
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	144	144	144	144	144	148	161
Storage (Project Water)	54	65	65	81	62	63	89
Natural Flow	10	5	5	5	5	5	5
Import Water	80	74	74	58	77	80	68
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage *Rvr mi.*							
CVD Release *99.9*	144	144	144	144	144	148	161
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	90	79	79	63	82	84	72
Project Water Release Required	No	No	No	No	No	No	No
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	110	110	110	110	110	110	110
Controlling Compliance Gage							
Min Gage Flow	133	132	133	132	128	123	121
Controlling Gage	Cloverdale	Cloverdale	Cloverdale	Cloverdale	Cloverdale	Cloverdale	Geyserville
All Compliance Gages *Rvr mi.*							
Forks (CVD + USGS 11461000) *99.0*	149	149	149	149	149	152	166
Talmage (USGS 11462080) *96.1*	136	136	137	137	131	132	145
Hopland (USGS 11462500) *84.8*	134	135	135	133	129	125	135
Cloverdale (USGS 11463000) *70.9*	133	132	133	132	128	123	123
Geyserville (USGS 11463500) *54.4*	137	134	135	135	131	127	121
Jimtown (USGS 11463682) *48.5*	161	159	159	158	153	148	140
Digger Bend (USGS 11463980) *38.2*	179	177	177	176	172	167	162
Healdsburg (USGS 11464000) *35.6*	179	178	177	178	175	171	167
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-13	-13	-12	-12	-18	-18	-19
Talmage - Hopland	-2	-1	-1	-6	-3	-5	-8
Hopland - Cloverdale	-3	-2	-2	-3	-3	-4	-5
Cloverdale - Jimtown	+29	+27	+27	+25	+22	+21	+19
Jimtown - Digger Bend	+17	+18	+18	+17	+17	+19	+20
Digger Bend - Healdsburg **when Digger Bend > 400 cfs, next u/s gage (Jimtown) used*	-1	+0	+1	+1	+2	+2	+3
Upper Russian Net Reach Loss/Gain	+28	+29	+29	+23	+18	+15	+11
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-18	-16	-16	-20	-24	-27	-12
Storage (Project Water)	-18	-16	-16	-20	-24	-27	-12
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	90	79	79	63	82	84	72
Project Water Release Required	Yes	Yes	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).

			7/7/2023	7/8/2023	7/9/2023	7/10/2023	7/11/2023	7/12/2023	7/13/2023
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			-216.0	-216.0	-269.0	-216.0	-242.0	-242.0	-215.0
(cfs)			-109	-109	-136	-109	-122	-122	-108
Evaporation (ac-ft)			47.6	49.2	40.7	42.4	45.7	44.0	45.7
Inflow (Natural Flow)			8	9	0	5	0	0	8
WSD Release Gage			93	93	93	93	93	93	93
Storage (Project Water)			85	84	93	88	93	93	85
Natural Flow			8	9	0	5	0	0	8
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			80	80	80	80	80	80	80
Controlling Compliance Gage									
Min Gage Flow			90	90	92	91	88	87	86
Controlling Gage			Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth
All Compliance Gages		*Crk mi.*							
WSD Release		*14.3*	93	93	93	93	93	93	93
Yoakim	(USGS 11465200)	*11.1*	97	98	99	97	96	96	95
Lambert	(USGS 11465240)	*6.8*	100	100	101	100	99	98	98
Dry Crk Mouth	(USGS 11465350)	*0.1*	90	90	92	91	88	87	86
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			8	9	0	5	0	0	8
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+4	+5	+5	+4	+3	+3	+2
Yoakim - Lambert			+3	+2	+2	+3	+3	+3	+2
Lambert - Dry Crk Mouth			-10	-10	-9	-10	-11	-12	-12
WSD - Dry Crk Mouth			-3	-3	-2	-3	-5	-7	-8
WSD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss/Gain to Controlling Gage			-3	-3	-2	-3	-5	-7	-8
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			134	139	139	139	139	143	151
Natural Flow			38	34	34	28	22	20	15
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			85	84	93	88	93	93	85
Natural Flow			5	6	0	3	0	0	0
Russian River d/s of Confluence Flow			269	268	269	269	263	258	253
L. Mendocino Project Water + Import Water			134	139	139	139	139	143	151
L. Sonoma Project Water			85	84	93	88	93	93	85
Natural Flow			43	40	34	31	22	20	16
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			60	60	60	60	60	60	60
Controlling Compliance Gage									
Min Gage Flow			159	157	153	151	147	144	134
Controlling Gage			Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages		*Rvr mi.*							
Windsor	(USGS 11465390)	*26.6*	*299*	*298*	*297*	*297*	*295*	*288*	*282*
Hacienda	(USGS 11467000)	*21.8*	159	157	153	151	147	144	134
Confluence to Windsor Reach Analysis									
Net Reach Loss/Gain to Windsor Gage			+30	+30	+29	+27	+30	+29	+28
L. Mendocino Project Water + Import Water			134	139	139	139	139	143	151
L. Sonoma Project Water			80	80	89	83	88	88	80
Natural Flow			73	70	63	59	52	49	44
Confluence to SCWA Wohler Production Facility Reach Analysis									
Approx. Flow u/s of Wohler			247	241	236	245	221	239	217
Net Reach Loss(-)/Gain(+)			-22	-27	-32	-24	-43	-18	-36
L. Mendocino Project Water + Import Water			134	139	139	139	139	143	151
L. Sonoma Project Water			80	80	89	83	88	88	80
Natural Flow			21	14	2	7	0	2	0
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			-110	-111	-116	-118	-116	-114	-119
L. Mendocino Project Water + Import Water			134	139	139	135	139	138	149
L. Sonoma Project Water			0	0	6	0	15	0	0
Natural Flow			13	9	2	0	0	0	0
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			174.2	166.8	165.5	185.9	145.9	188.9	164.0
Wohler			73.7	65.1	79.2	72.2	50.5	77.3	78.2
Mirabel			100.5	101.7	86.4	113.7	95.3	111.7	85.8
Town of Windsor River Wellfield			9.4	8.4	8.5	9.8	9.3	9.9	9.7
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

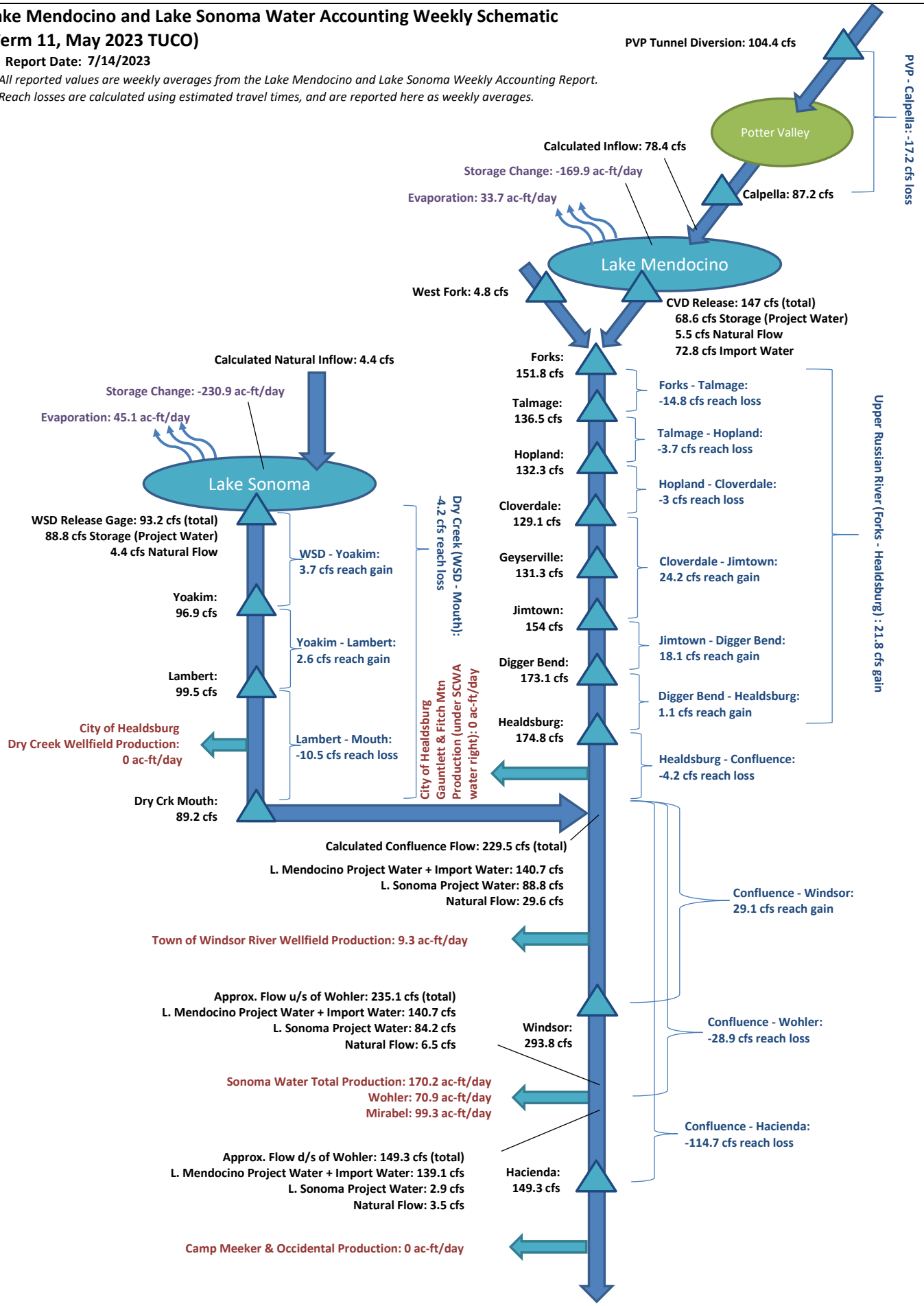
Notes:

- 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 11, May 2023 TUCO)

Report Date: 7/14/2023

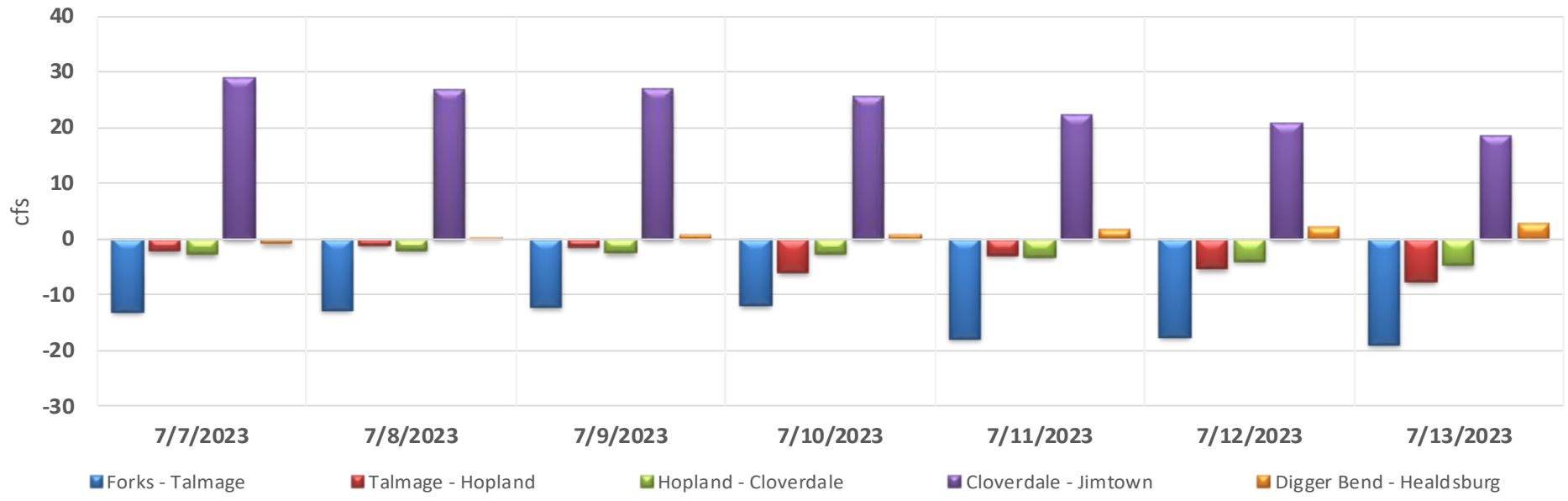
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



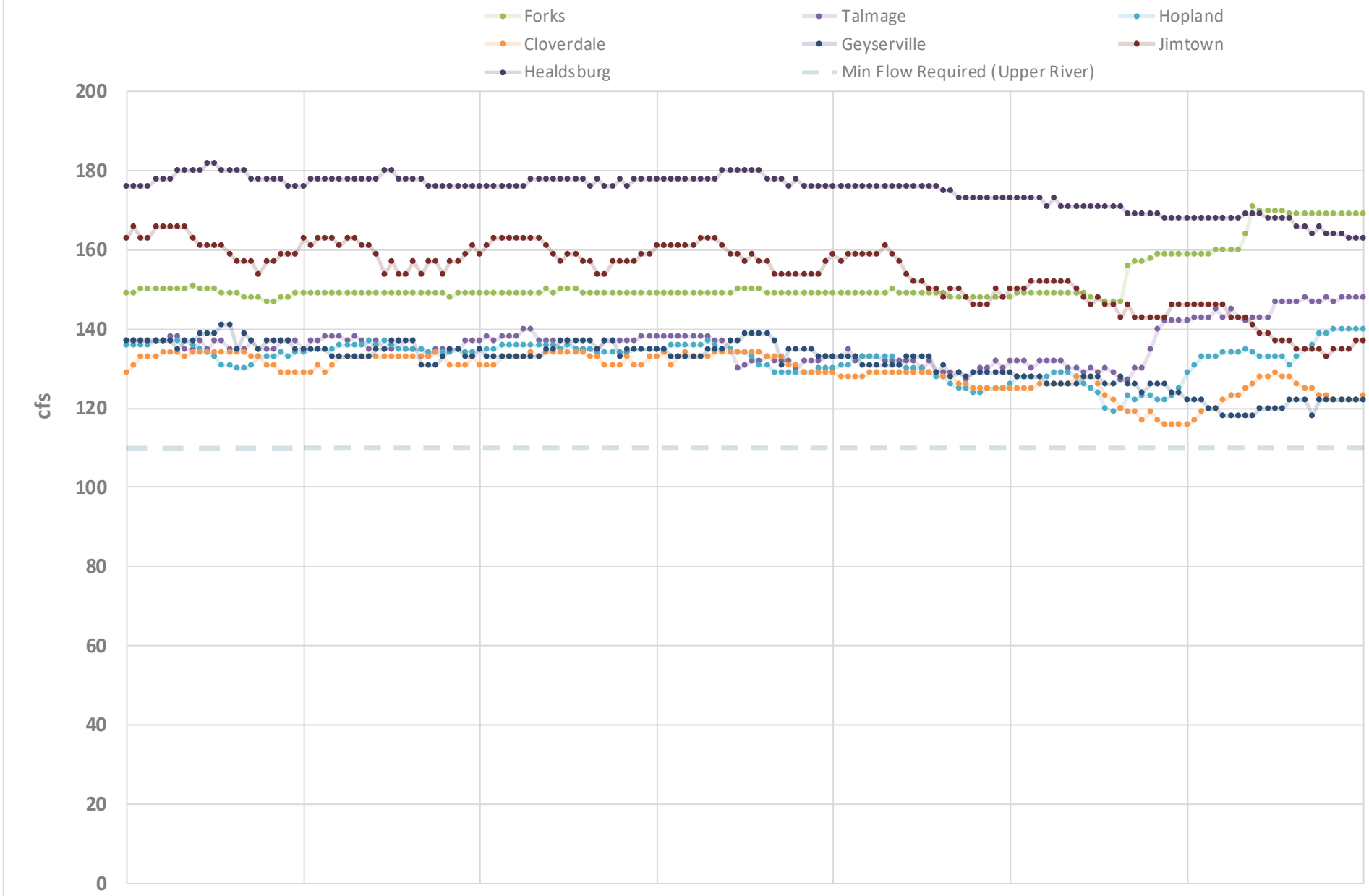
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

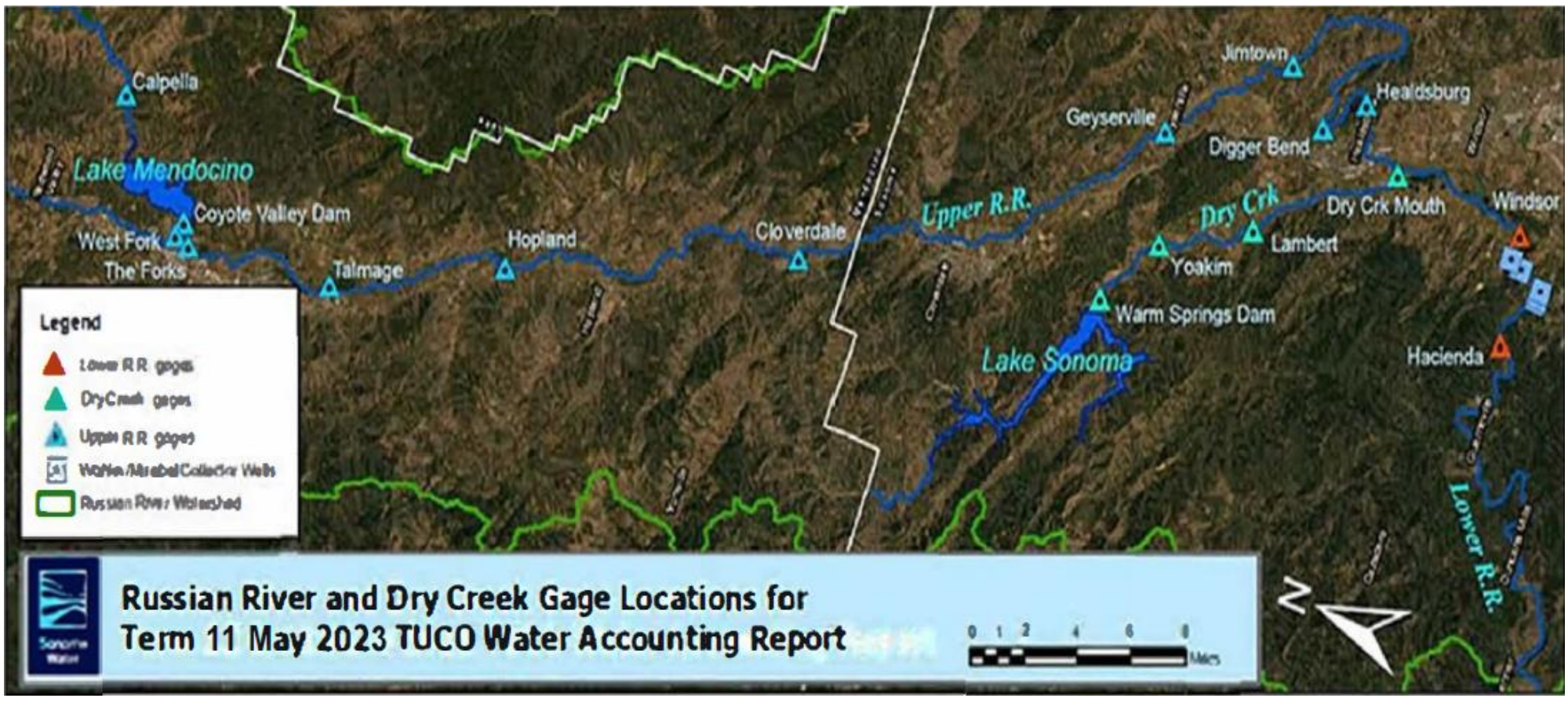
Report Date: 7/14/2023

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



UPPER RUSSIAN RIVER STREAM FLOWS

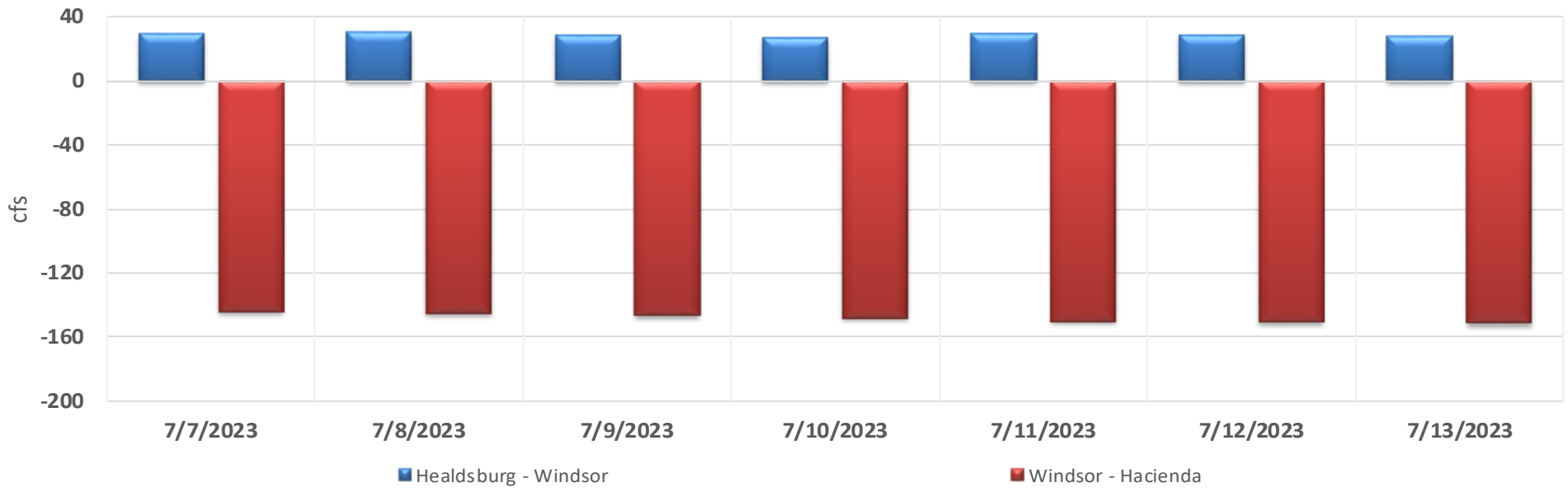




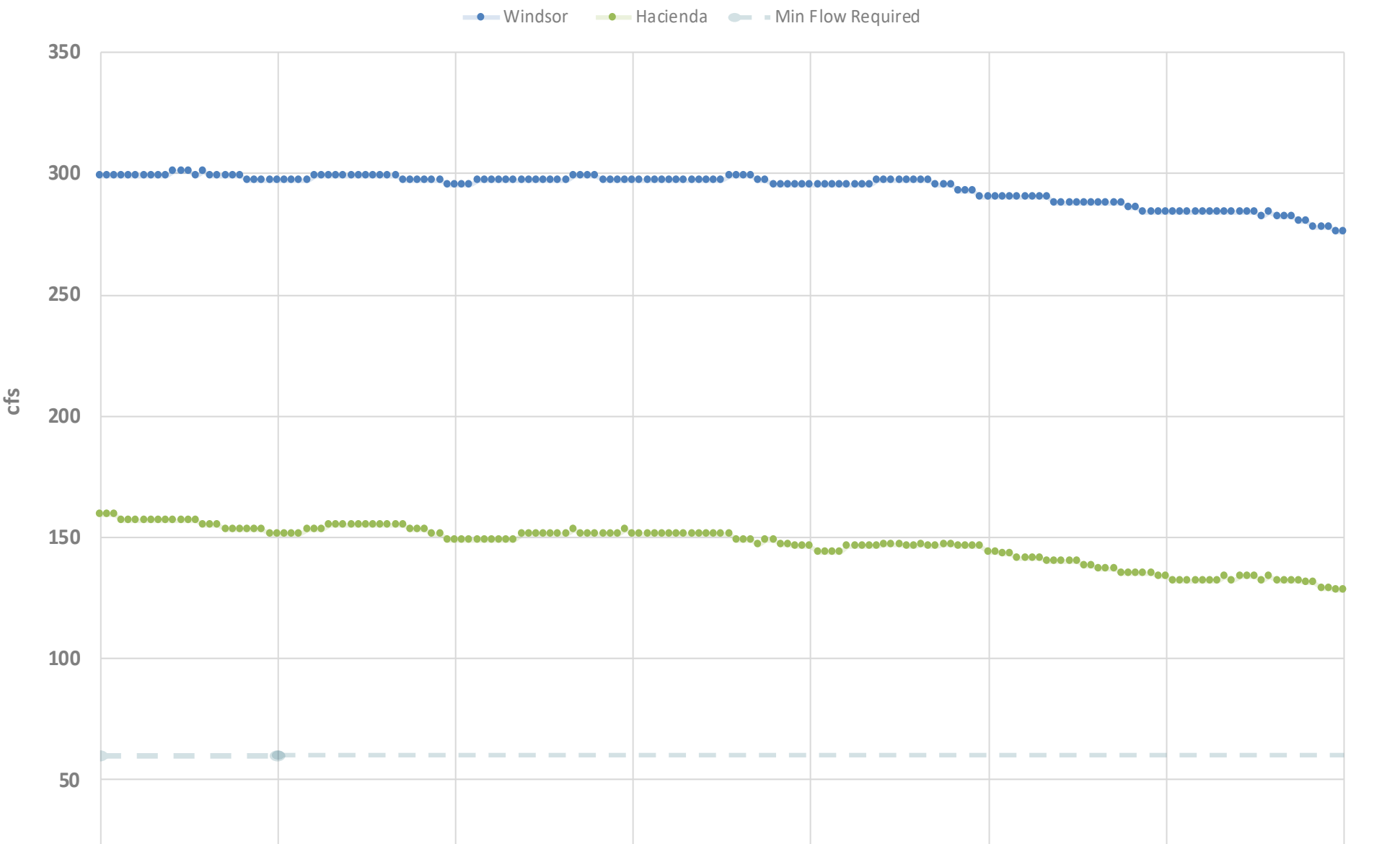
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

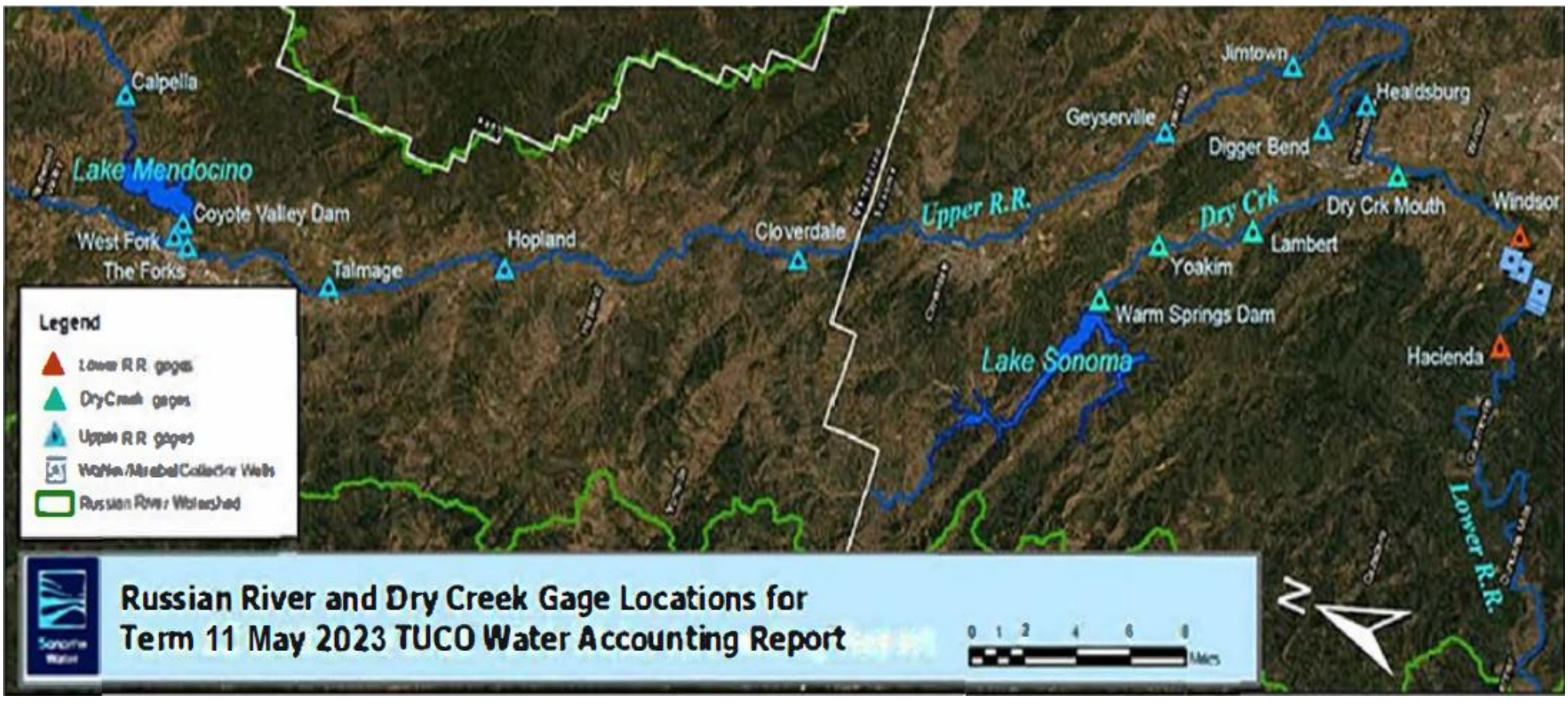
Report Date: 7/14/2023

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



LOWER RUSSIAN RIVER STREAM FLOWS

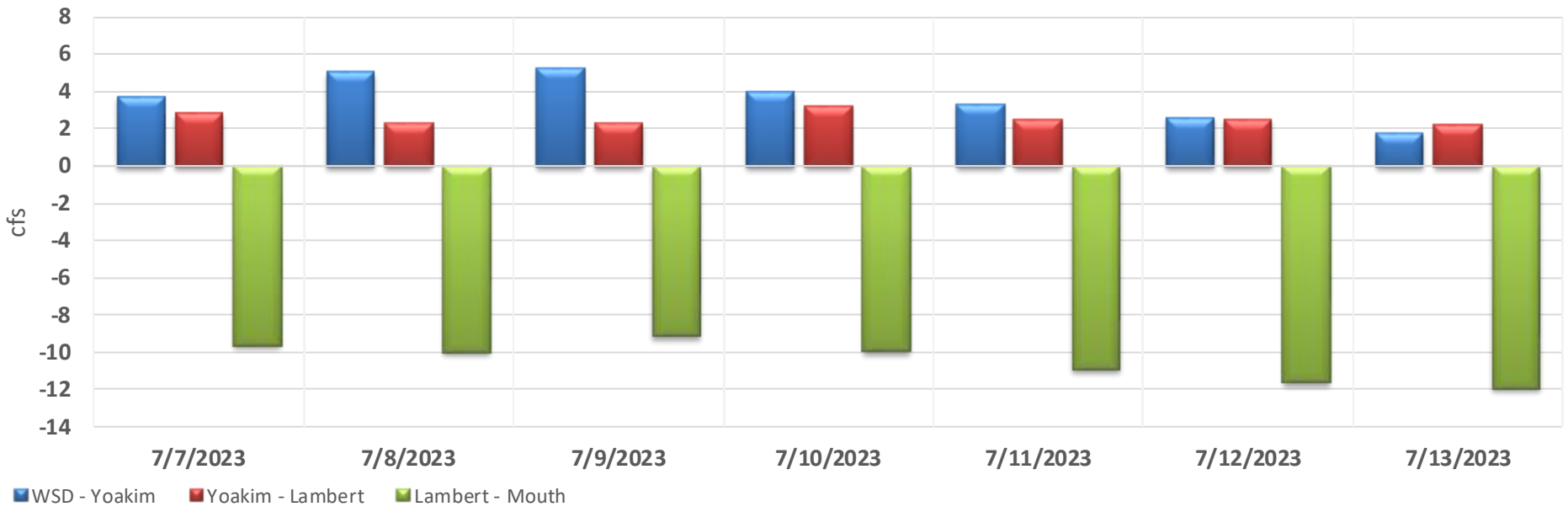




Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

Report Date: 7/14/2023

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



DRY CREEK STREAM FLOWS