

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 12, Dec 2021 TUCO)

Report Date: 2/18/2022

Units are cfs unless noted otherwise

	2/11/2022	2/12/2022	2/13/2022	2/14/2022	2/15/2022	2/16/2022	2/17/2022
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	2.0	2.0	2.0	2.0	2.0	2.0	2.0
East Fork Release	44.0	44.0	44.0	44.0	44.0	44.0	44.0
PVID E Fork Diversions	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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	41.0	41.0	41.0	41.0	41.0
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	62.4	62.2	61.4	61.6	61.6	60.7	60.2
Net Reach Loss(-)/Gain(+)	+16.4	+16.2	+15.4	+15.6	+15.6	+14.7	+14.2
Unimpaired Natural Flow @ Calpella (est.)	21.4	21.2	20.4	20.6	20.6	19.7	19.2
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)	112	140	129	138	126	126	123
(cfs)	57	71	65	69	63	64	62
Natural Flow	21	30	24	28	22	23	21
Import	35	41	41	41	41	41	41
Storage Change (ac-ft)	+0.0	+29.0	+14.0	+14.0	+0.0	+0.0	+0.0
(cfs)	+0	+15	+7	+7	+0	+0	+0
Stored Natural Flow (cfs)	0	15	7	7	0	0	0
Stored Import Water (cfs)	0	0	0	0	0	0	0
Evaporation (ac-ft)	9.1	8.3	9.9	9.1	9.1	9.1	6.6
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	52	52	53	58	59	59	59
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	19	13	14	19	20	20	19
Import Water	33	39	39	39	39	39	39
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	52	52	53	58	59	59
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	52	52	53	58	59	59	59
Project Water Release Required	No	No	No	No	No	No	No
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	75	75	75	75	75	75	75
Controlling Compliance Gage							
Min Gage Flow	76	76	75	80	81	81	80
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	76	76	80	81	81	80
Talmage (USGS 11462080)	96.1	99	99	101	100	100	98
Hopland (USGS 11462500)	84.8	119	118	117	119	117	114
Cloverdale (USGS 11463000)	70.9	173	172	168	162	159	156
Geyserville (USGS 11463500)	54.4	204	201	197	188	184	181
Jimtown (USGS 11463682)	48.5	228	220	217	212	206	196
Digger Bend (USGS 11463980)	38.2	236	225	220	213	206	194
Healdsburg (USGS 11464000)	35.6	225	213	207	201	191	176
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+24	+23	+23	+21	+19	+19	+18
Talmage - Hopland	+21	+20	+18	+18	+19	+17	+15
Hopland - Cloverdale	+54	+52	+51	+48	+43	+41	+40
Cloverdale - Jimtown	+54	+47	+46	+45	+43	+41	+36
Jimtown - Digger Bend	+6	+4	+2	+0	-1	-2	-3
Digger Bend - Healdsburg	-14	-15	-14	-14	-17	-18	-19
Upper Russian Net Reach Loss/Gain	+143	+132	+127	+118	+105	+99	+87
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	52	52	53	58	59	59	59
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).

IV. Lake Sonoma

Lake Sonoma

	2/11/2022	2/12/2022	2/13/2022	2/14/2022	2/15/2022	2/16/2022	2/17/2022
Storage Change (ac-ft)	-114.0	-95.0	-115.0	-76.0	-95.0	-133.0	-133.0
(cfs)	-57	-48	-58	-38	-48	-67	-67
Evaporation (ac-ft)	8.8	8.8	8.8	6.6	8.8	9.9	9.9
Inflow (Natural Flow)	26	34	23	41	32	14	13
WSD Release Gage	79	77	77	76	76	76	75
Storage (Project Water)	53	43	54	35	43	62	62
Natural Flow	26	34	23	41	32	14	13

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

Controlling Compliance Gage

Min Gage Flow	79	77	77	76	76	76	75
Controlling Gage	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release

All Compliance Gages

Crk mi.

WSD Release	14.3	79	77	77	76	76	75
Yoakim (USGS 11465200)	11.1	98	97	97	97	96	96
Lambert (USGS 11465240)	6.8	101	100	100	100	98	96
Dry Crk Mouth (USGS 11465350)	0.1	99	98	97	95	94	90

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	26	34	23	41	32	14	13
--------------------------	----	----	----	----	----	----	----

Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+19	+20	+20	+21	+21	+20	+21
Yoakim - Lambert	+2	+2	+3	+2	+1	-1	+0
Lambert - Dry Crk Mouth	-2	-2	-2	-5	-5	-5	-7
WSD - Dry Crk Mouth	+19	+21	+20	+19	+17	+14	+14

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	33	39	39	39	39	39	39
Natural Flow	162	145	141	137	126	119	106

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	53	43	54	35	43	62	62
Natural Flow	46	54	44	60	50	28	28

Russian River d/s of Confluence Flow

L. Mendocino Project Water + Import Water	324	311	304	296	285	274	266
L. Sonoma Project Water	33	39	39	39	39	39	39
Natural Flow	53	43	54	35	43	62	62
	208	199	185	197	176	147	134

VII. Lower Russian River Reach

Minimum Instream Flow Requirement

Controlling Compliance Gage

Min Gage Flow	409	394	383	375	365	353	343
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

Rvr mi.

Windsor (USGS 11465390)	26.6	n/d	n/d	n/d	n/d	n/d	n/d
Hacienda (USGS 11467000)	21.8	409	394	383	375	365	343

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	469	457	446	438	427	415	412
Net Reach Loss(-)/Gain(+)	+146	+147	+142	+142	+142	+141	+146
L. Mendocino Project Water + Import Water	33	39	39	39	39	39	39
L. Sonoma Project Water	51	41	51	33	41	60	59
Natural Flow	353	346	327	339	318	288	280

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	+85	+83	+79	+79	+80	+79	+77
L. Mendocino Project Water + Import Water	33	39	39	39	39	39	39
L. Sonoma Project Water	0	0	0	0	0	0	0
Natural Flow	344	323	315	309	297	285	271

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

Lower Russian River

Sonoma Water Total	119.6	125.3	124.9	124.5	122.3	123.2	136.3
Wohler	77.1	83.6	82.8	82.9	76.7	78.7	81.9
Mirabel	42.6	41.7	42.2	41.6	45.6	44.4	54.3
Town of Windsor River Wellfield	4.3	5.5	5.0	4.4	4.9	4.9	5.7
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

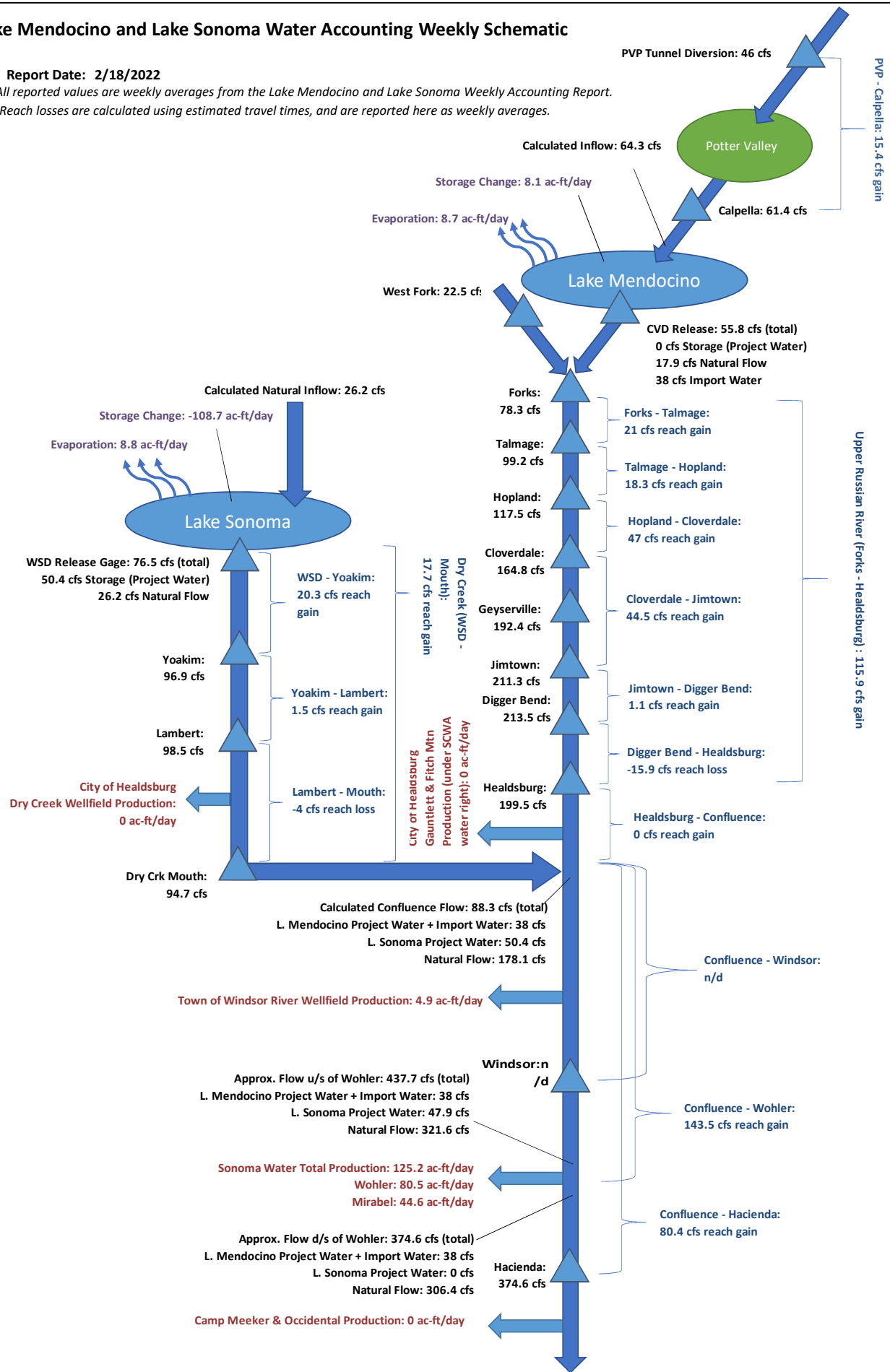
Notes:

- 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).

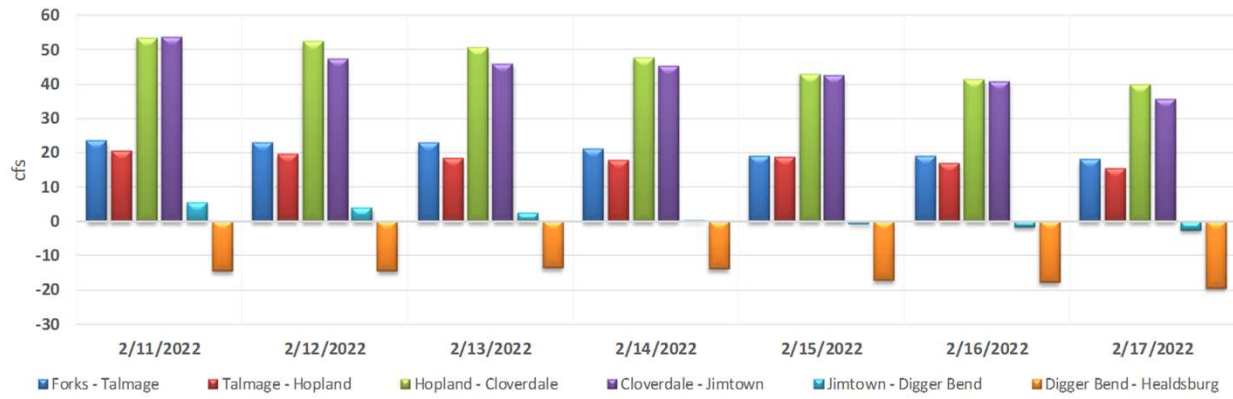
Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

Report Date: 2/18/2022

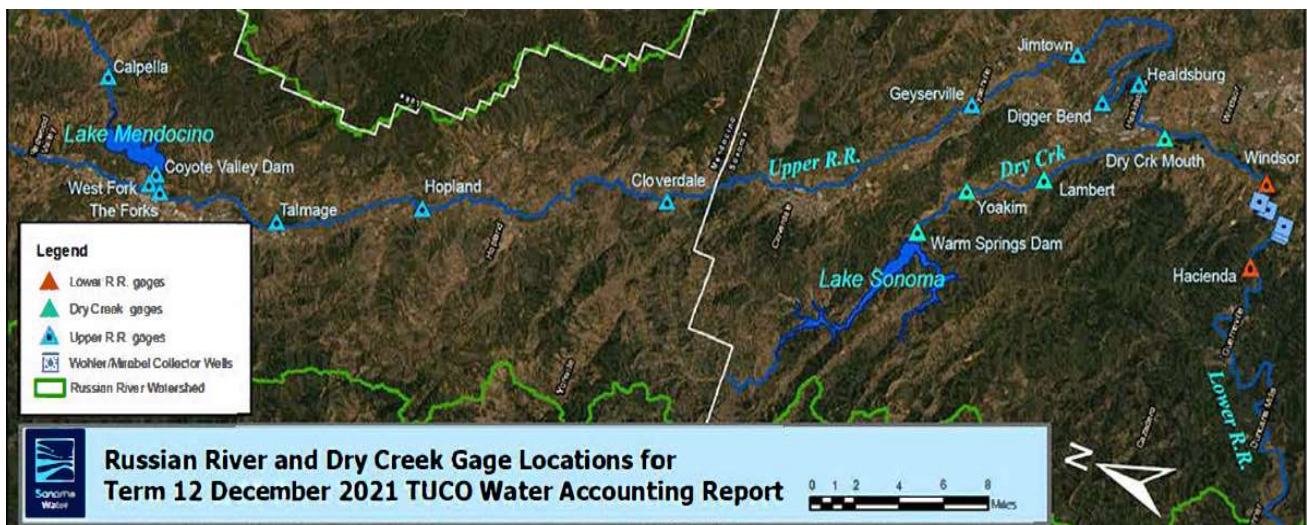
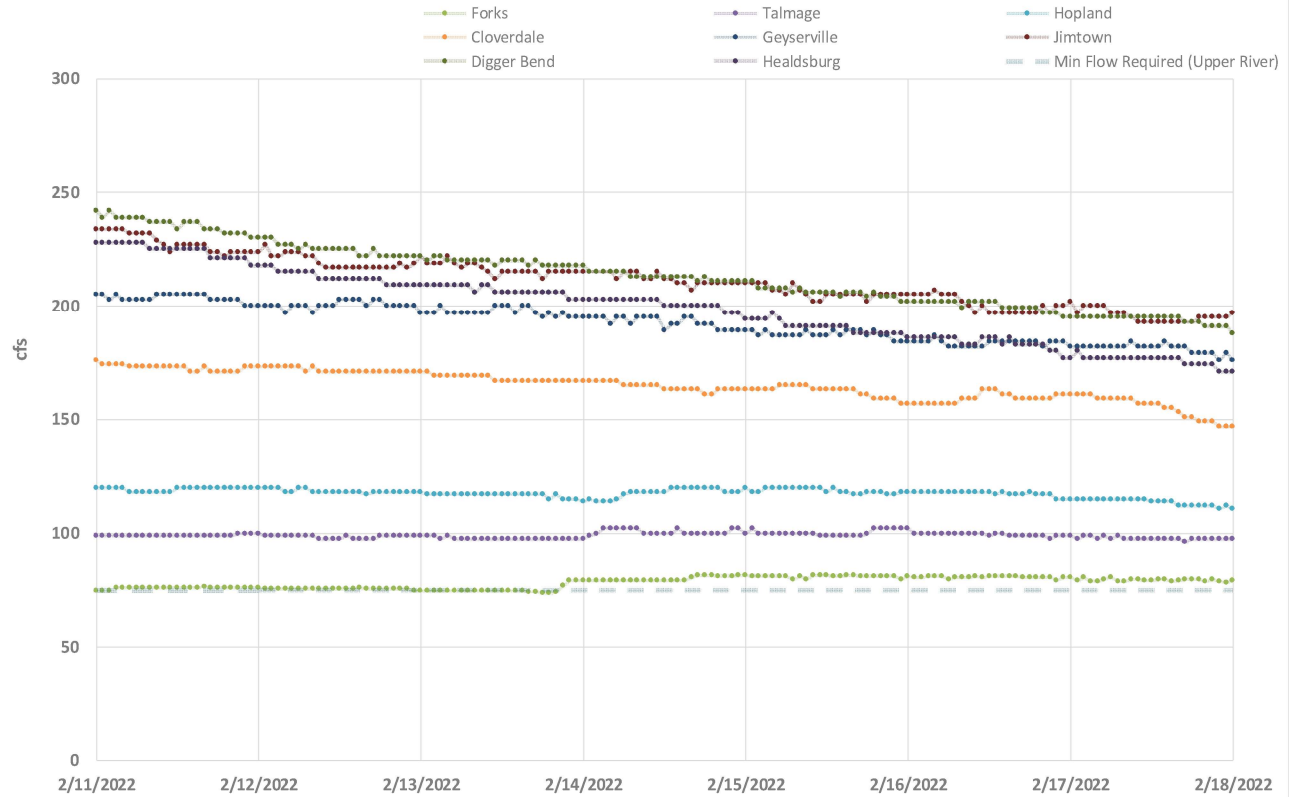
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



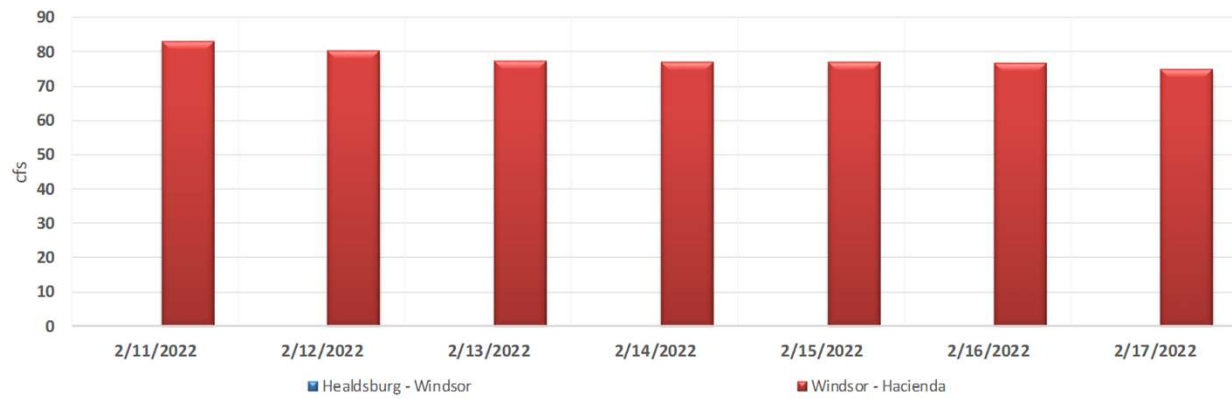
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS

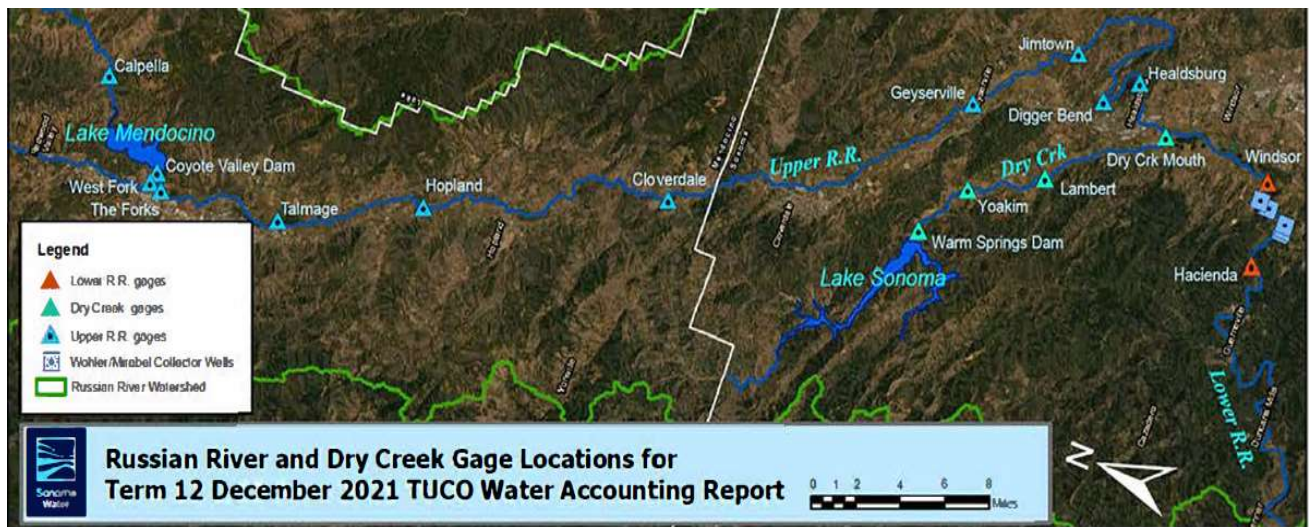
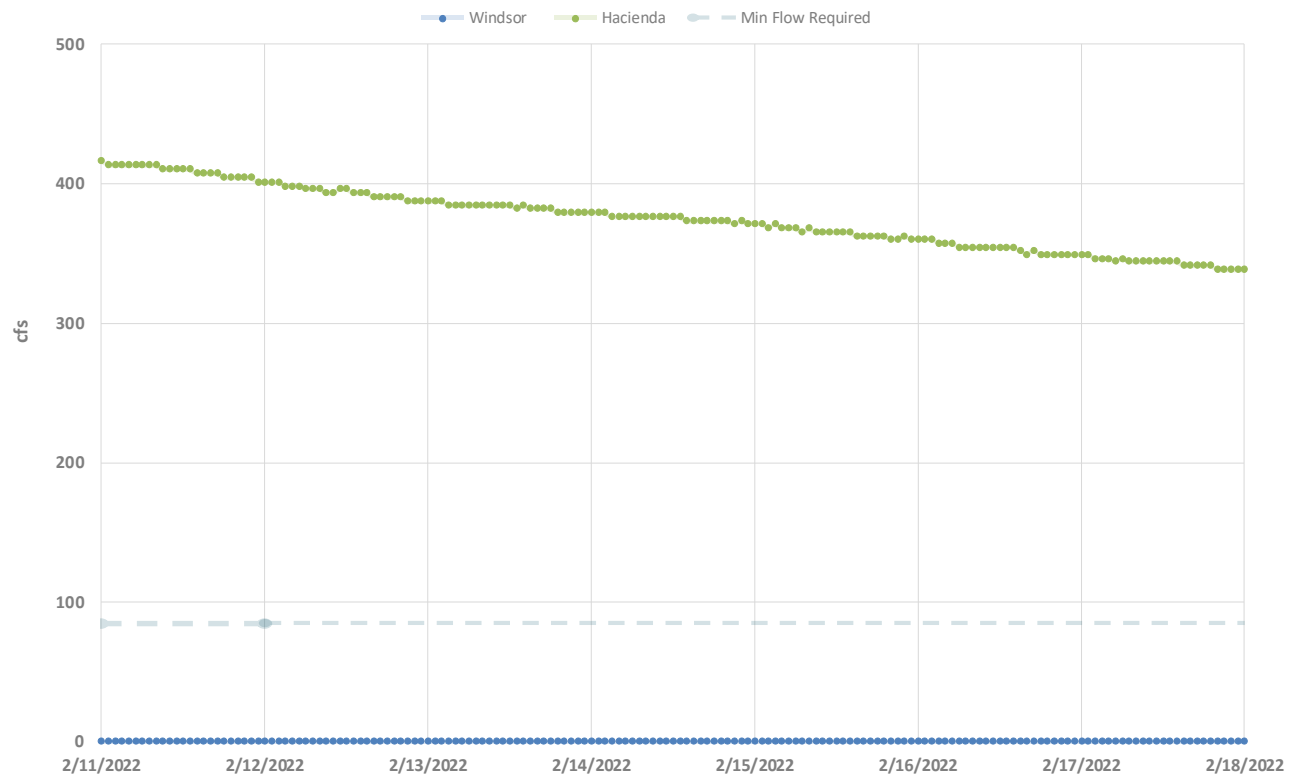


LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)

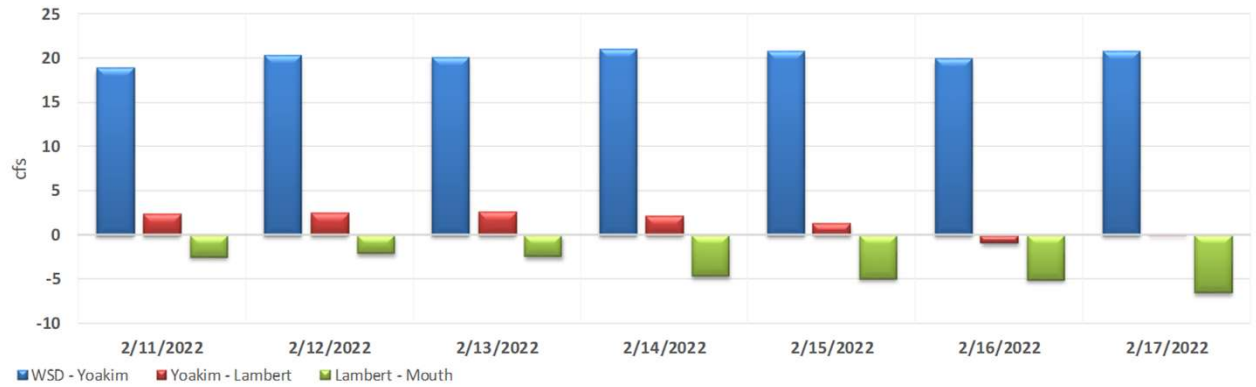


Note: Windsor gage is a seasonal gage and not operational. Reach gains for Windsor – Hacienda reach calculated with Healdsburg gages as upstream gages

LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

