

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

Report Date: 10/21/2022

Units are cfs unless noted otherwise

10/14/2022 10/15/2022 10/16/2022 10/17/2022 10/18/2022 10/19/2022 10/20/2022

I. Upper East Fork Reach

Potter Valley Project

Tunnel Diversion	36.0	46.0	46.0	42.0	41.0	41.0	37.0
PVID Requested Delivery	31.5	40.0	40.0	36.6	35.0	35.0	31.8
PVID Canals Actual Delivery	15.3	17.4	17.4	16.9	16.8	16.8	16.3
East Fork Release	21.0	29.0	29.0	25.0	24.0	24.0	21.0
PVID E Fork Diversions	16.2	22.7	22.6	19.8	18.2	18.3	15.6
PVID Water Use - PG&E Contract	31.5	40.0	40.0	36.6	35.0	35.0	31.8
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)	4.8	6.4	6.4	5.2	5.8	5.8	5.4
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	14.6	18.5	21.5	25.9	24.8	25.0	23.1
Net Reach Loss(-)/Gain(+)	-21.4	-27.5	-24.5	-16.1	-16.2	-16.0	-13.9
Unimpaired Natural Flow @ Calpella (est.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-PVID East Fork Net Reach Losses (est.)	-10.1	-12.5	-15.5	-20.5	-18.8	-19.0	-17.9
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-10.1	-12.5	-15.5	-20.5	-18.8	-19.0	-17.9

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	44	41	25	49	49	35	36
(cfs)	22	21	12	25	25	18	18
Natural Flow	8	2	0	0	0	0	0
Import	15	18	12	25	24	18	18
Storage Change (ac-ft)	-82.0	-81.0	-94.0	-68.0	-67.0	-81.0	-81.0
(cfs)	-41	-41	-47	-34	-34	-41	-41
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)	18.1	12.8	9.6	12.8	14.9	15.9	15.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	54	55	55	53	51	50	51
Storage (Project Water)	32	34	43	28	26	33	33
Natural Flow	8	2	0	0	0	0	0
Import Water	15	18	12	25	24	18	18
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25

Compliance Gage

Rvr mi.

CVD Release	<i>99.9</i>	54	55	55	53	51	50	51
-------------	-------------	----	----	----	----	----	----	----

CVD Project Water Release to Meet Min Flow Requirement

Total Pass-through Water	22	21	12	25	25	18	18
Project Water Release Required	Yes	Yes	Yes	No	No	Yes	Yes

III. Upper Russian River Reach

Minimum Instream Flow Requirement

25	25	25	25	25	25	25	25
----	----	----	----	----	----	----	----

Controlling Compliance Gage

Min Gage Flow	38	37	38	38	37	37	35
Controlling Gage	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend

All Compliance Gages

Rvr mi.

Forks (CVD + USGS 11461000)	<i>99.0</i>	54	55	55	53	51	50	51
Talmage (USGS 11462080)	<i>96.1</i>	52	50	51	51	49	46	47
Hopland (USGS 11462500)	<i>84.8</i>	45	44	47	47	46	44	44
Cloverdale (USGS 11463000)	<i>70.9</i>	44	42	42	45	45	43	40
Geyserville (USGS 11463500)	<i>54.4</i>	43	42	42	42	42	41	40
Jimtown (USGS 11463682)	<i>48.5</i>	43	44	44	43	42	41	40
Digger Bend (USGS 11463980)	<i>38.2</i>	38	37	38	38	37	37	35
Healdsburg (USGS 11464000)	<i>35.6</i>	41	41	41	41	41	40	39

Net Reach Loss(-)/Gain(+)

Forks - Talmage	-3	-5	-4	-3	-2	-4	-4
Talmage - Hopland	-8	-6	-4	-5	-3	-3	-3
Hopland - Cloverdale	-2	-2	-2	-2	-2	-3	-4
Cloverdale - Jimtown	-1	-0	+1	+1	-3	-4	-3
Jimtown - Digger Bend	-6	-6	-6	-5	-5	-4	-5
Digger Bend - Healdsburg	+3	+4	+4	+3	+3	+4	+3
Upper Russian Net Reach Loss/Gain	-18	-16	-11	-11	-12	-15	-15

CVD Project Water Release to Meet Min Flow Requirement

Net Reach Loss(-)/Gain(+) to Controlling Gage	-21	-20	-15	-14	-15	-19	-19
Storage (Project Water)	-21	-20	-15	-14	-15	-19	-19
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	22	21	12	25	25	18	18
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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	-212.0	-212.0	-197.0	-212.0	-181.0	-211.0	-211.0
(cfs)	-107	-107	-99	-107	-91	-106	-106
Evaporation (ac-ft)	9.5	5.9	5.9	8.2	10.6	12.9	10.6
Inflow (Natural Flow)	0	0	0	0	1	0	0
WSD Release Gage	94	94	94	90	87	90	92
Storage (Project Water)	94	94	94	90	86	90	92
Natural Flow	0	0	0	0	1	0	0

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement	80	80	80	80	80	80	80
Controlling Compliance Gage							
Min Gage Flow	86	86	86	84	79	80	83
Controlling Gage	Yoakim	Yoakim	Yoakim	Yoakim	Yoakim	Dry Crk Mouth	Dry Crk Mouth
All Compliance Gages	<i>Crk mi.</i>						
WSD Release	14.3	94	94	94	90	87	90
Yoakim (USGS 11465200)	11.1	86	86	86	84	79	81
Lambert (USGS 11465240)	6.8	93	93	93	92	86	87
Dry Crk Mouth (USGS 11465350)	0.1	89	89	89	89	82	80
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	0	0	0	0	1	0	0
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	-8	-8	-8	-8	-8	-8	-8
Yoakim - Lambert	+7	+8	+7	+8	+7	+6	+5
Lambert - Dry Crk Mouth	-4	-4	-4	-4	-5	-6	-7
WSD - Dry Crk Mouth	-5	-5	-4	-5	-5	-9	-9
WSD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss/Gain to Controlling Gage	-8	-8	-8	-8	-8	-9	-9
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	41	41	41	41	41	40	39
Natural Flow	0	0	0	0	0	0	0
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	94	94	94	90	86	90	92
Natural Flow	0	0	0	0	0	0	0
Russian River d/s of Confluence Flow	130	130	131	130	123	120	122
L. Mendocino Project Water + Import Water	41	41	41	41	41	40	39
L. Sonoma Project Water	94	94	94	90	86	90	92
Natural Flow	0	0	0	0	0	0	0

VII. Lower Russian River Reach

Minimum Instream Flow Requirement	35	35	35	35	35	35	35
Controlling Compliance Gage							
Min Gage Flow	69	76	77	76	72	70	73
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>
Hacienda (USGS 11467000)	21.8	69	76	77	76	70	73
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	126	122	134	134	133	117	120
Net Reach Loss(-)/Gain(+)	-4	-7	+3	+4	+10	-3	-2
L. Mendocino Project Water + Import Water	41	41	41	41	41	40	39
L. Sonoma Project Water	90	90	91	87	82	87	88
Natural Flow	0	0	3	4	10	0	0
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-61	-54	-54	-54	-51	-50	-49
L. Mendocino Project Water + Import Water	41	41	41	41	41	40	39
L. Sonoma Project Water	33	44	34	29	21	40	41
Natural Flow	0	0	3	4	10	0	0

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

Lower Russian River							
Sonoma Water Total	113.3	92.9	113.0	115.4	120.5	92.8	93.3
Wohler	66.0	45.9	67.1	43.1	45.7	38.0	46.4
Mirabel	47.3	47.0	45.9	72.2	74.8	54.7	46.9
Town of Windsor River Wellfield	8.0	7.0	6.5	6.8	7.8	6.9	7.5
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:

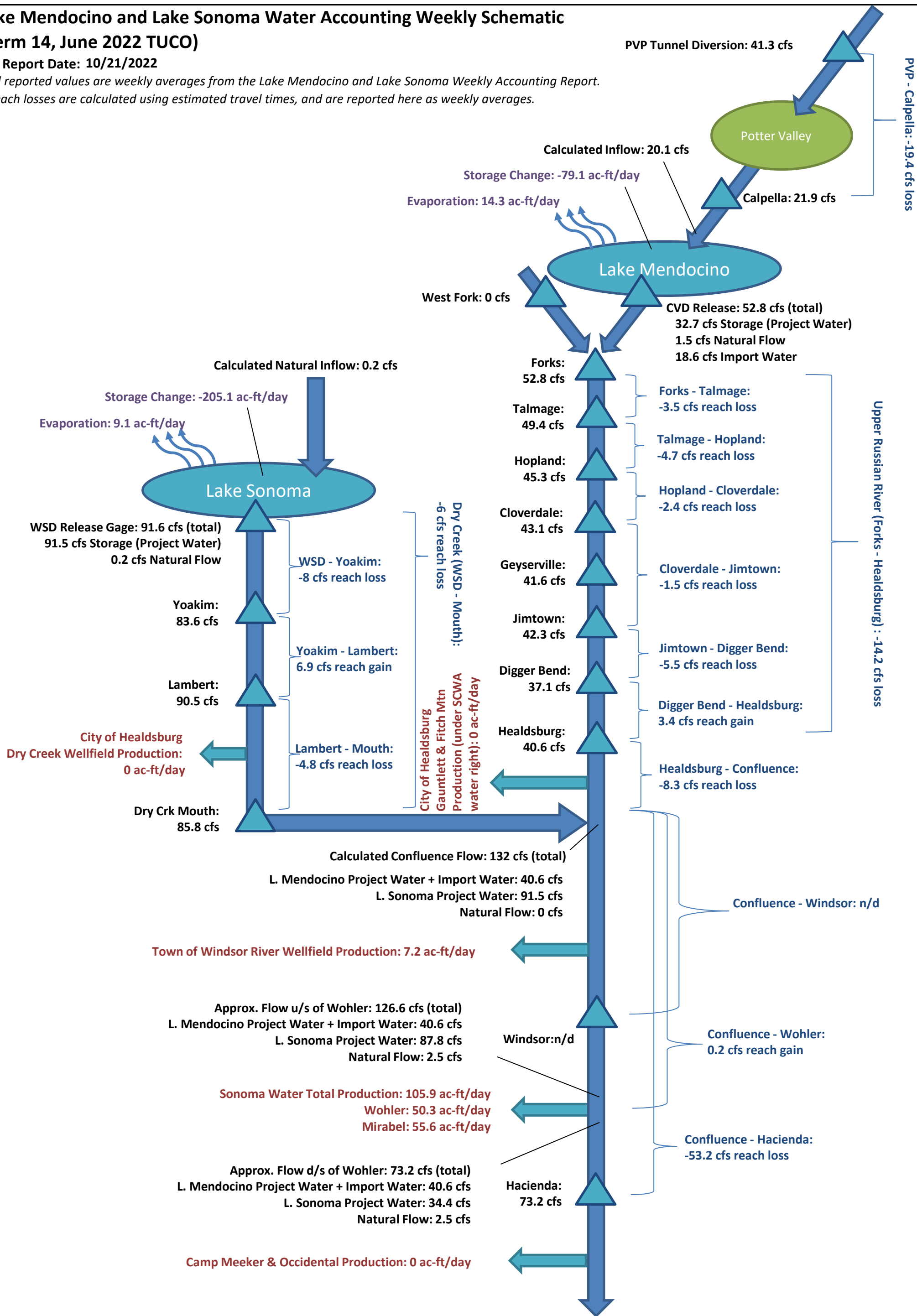
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 10/21/2022

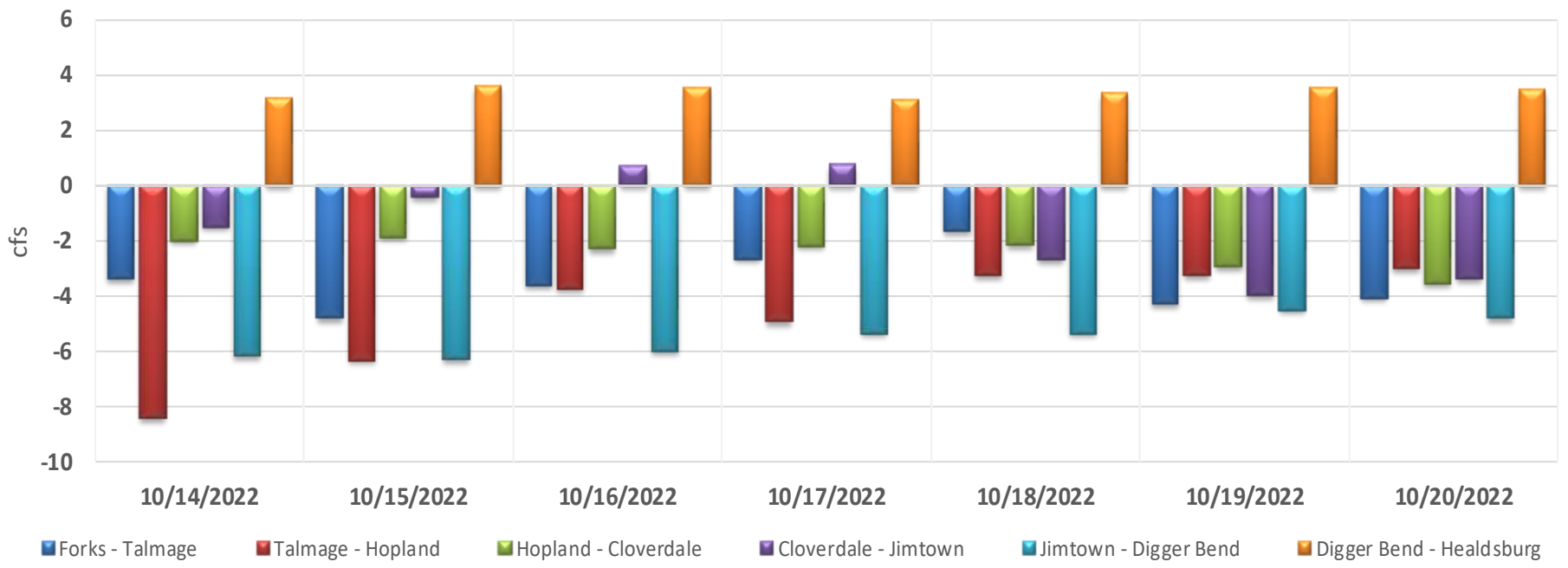
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



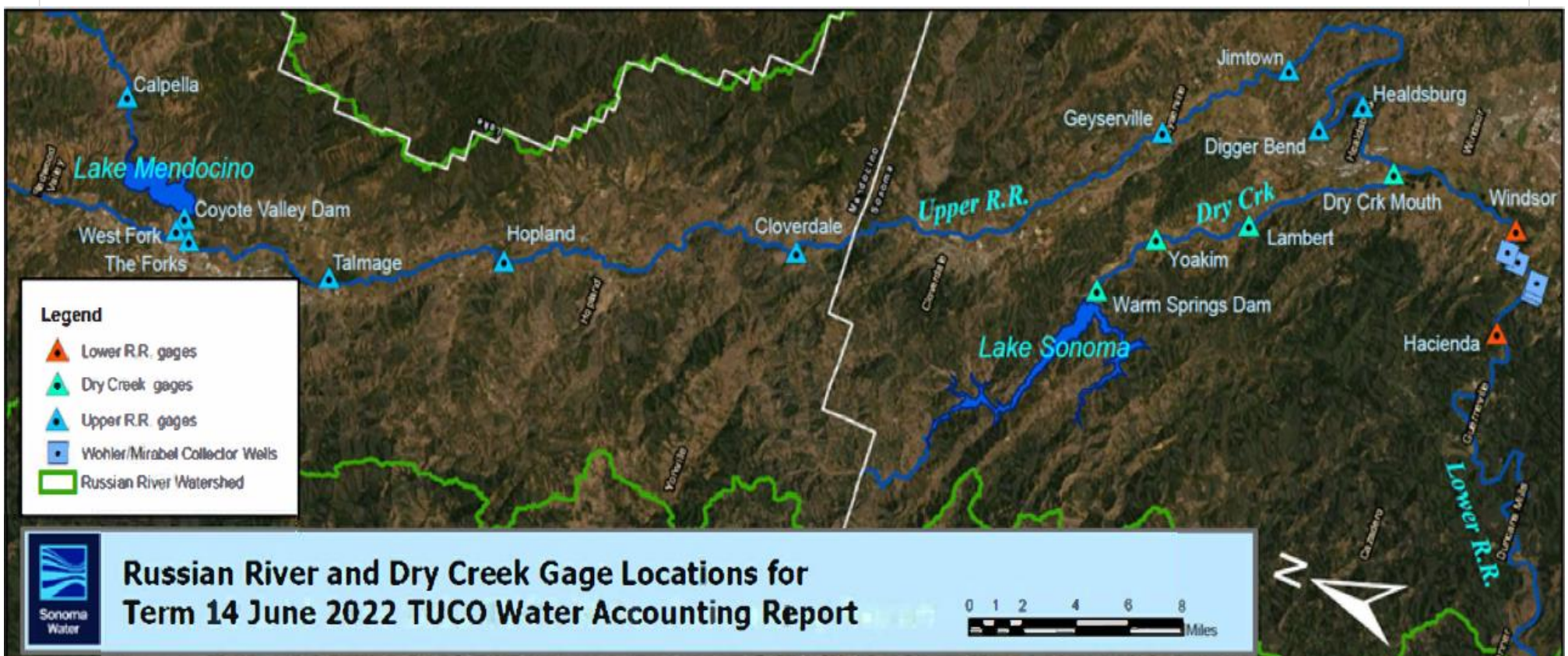
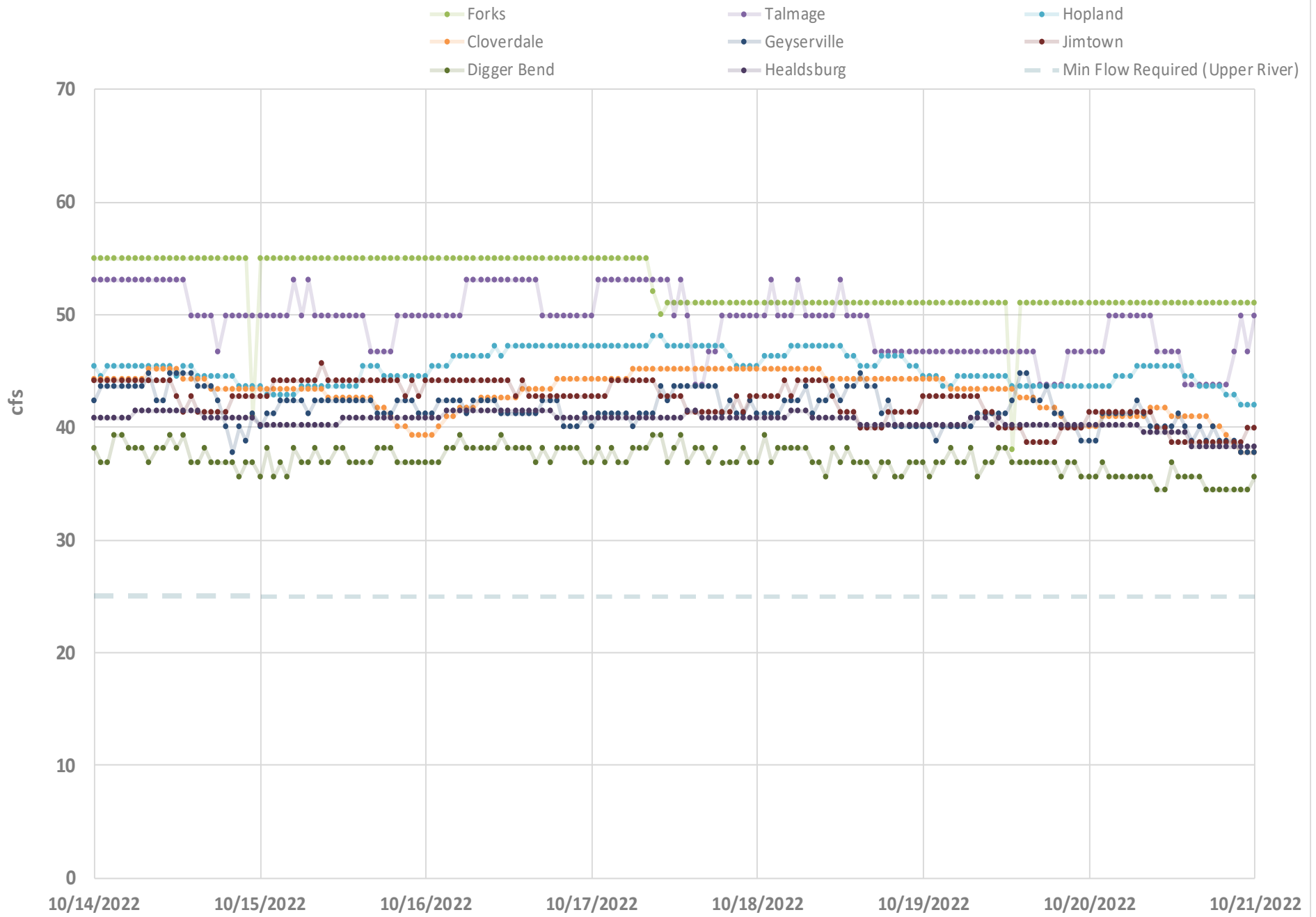
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 10/21/2022

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



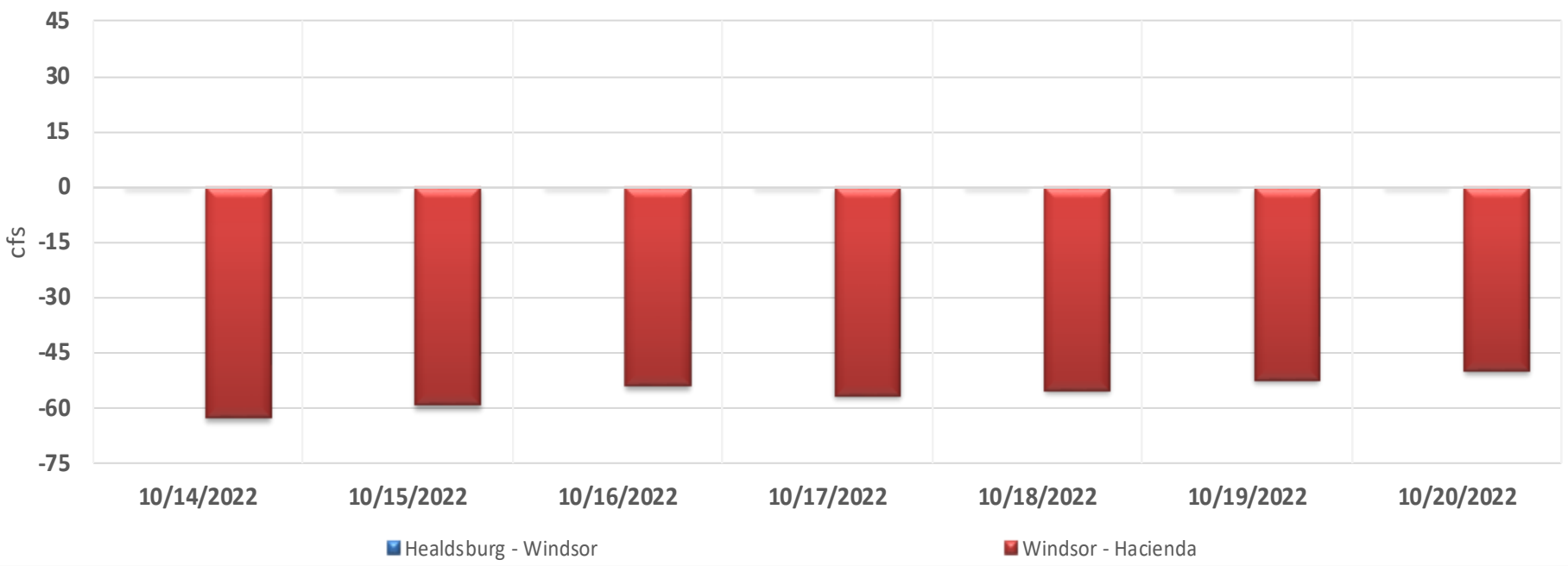
UPPER RUSSIAN RIVER STREAM FLOWS



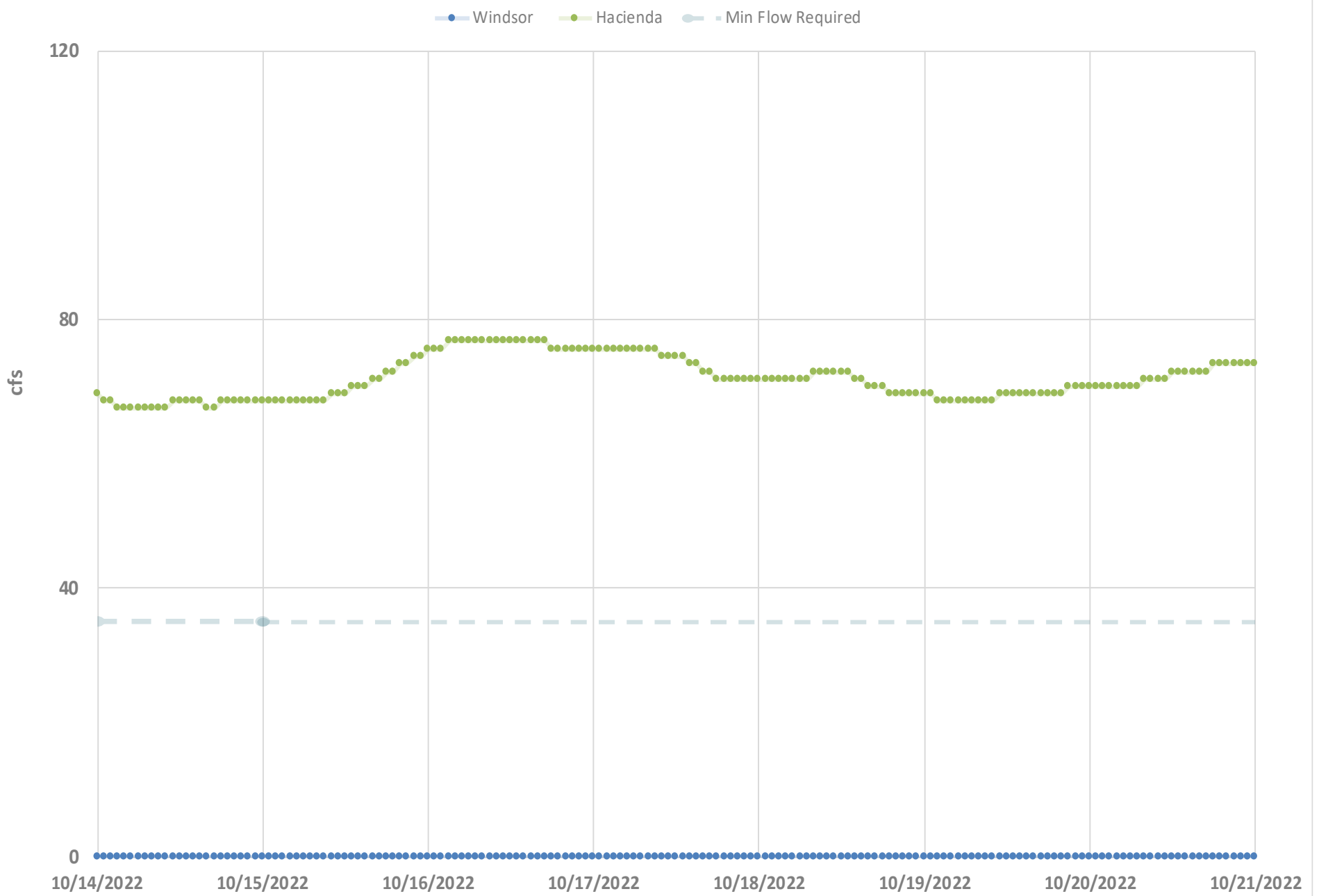
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 10/21/2022

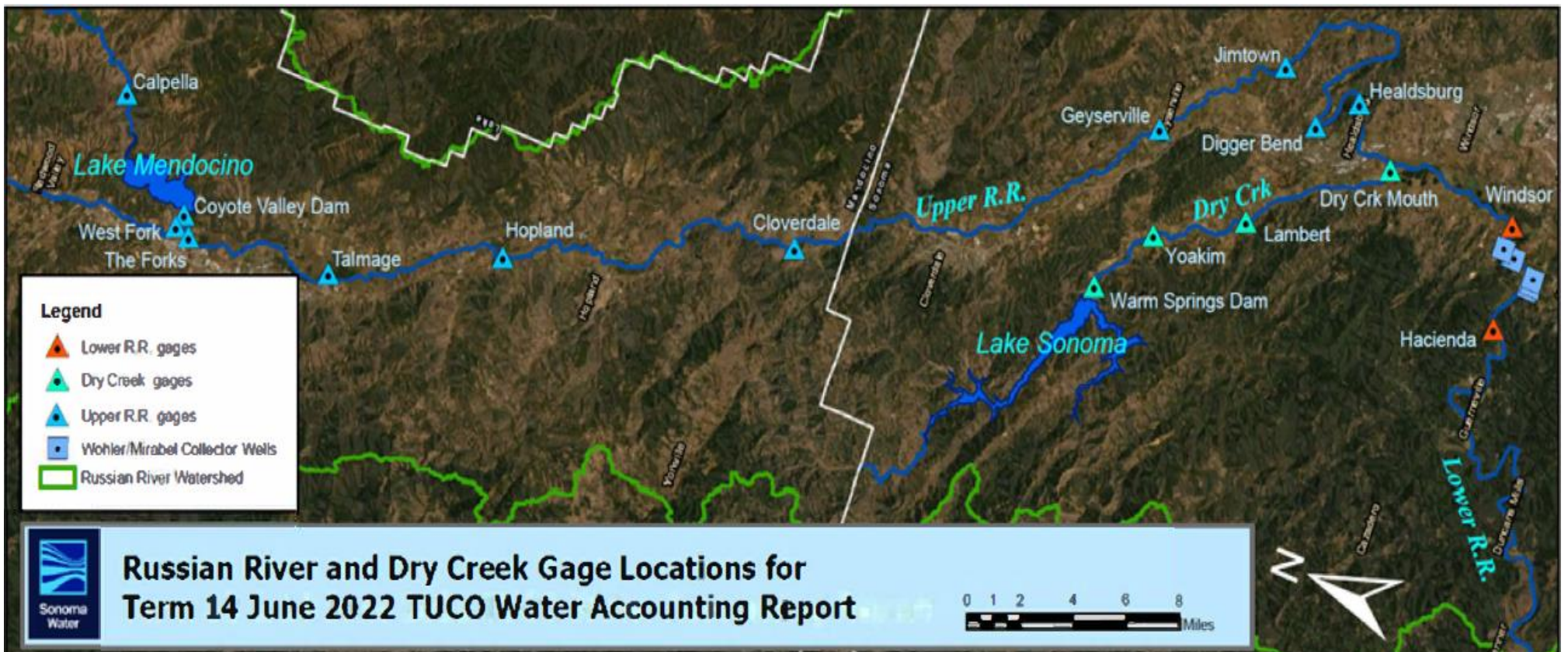
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



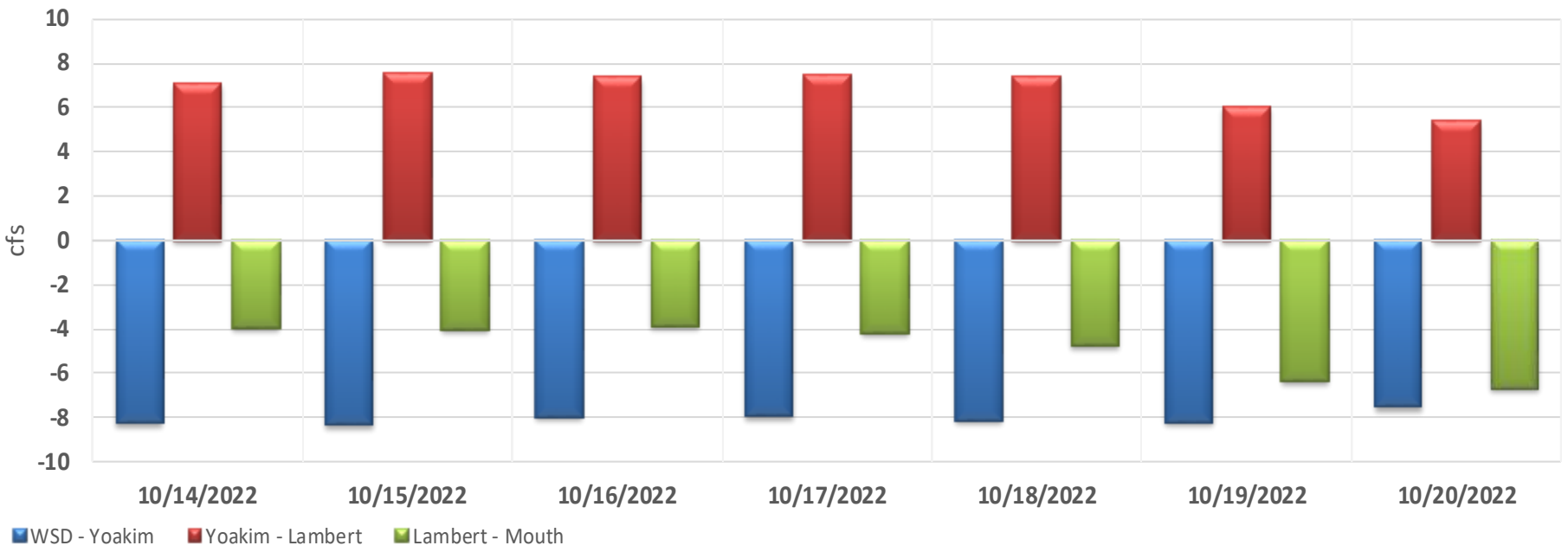
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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

Report Date: 10/21/2022

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



DRY CREEK STREAM FLOWS

