

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

Report Date: 10/7/2022

Units are cfs unless noted otherwise

	<u>9/30/2022</u>	<u>10/1/2022</u>	<u>10/2/2022</u>	<u>10/3/2022</u>	<u>10/4/2022</u>	<u>10/5/2022</u>	<u>10/6/2022</u>
<b>I. Upper East Fork Reach</b>							
<b>Potter Valley Project</b>							
Tunnel Diversion	18.0	21.0	21.0	17.0	16.0	16.0	16.0
PVID Requested Delivery	11.8	15.0	15.0	11.6	10.0	10.0	10.0
PVID Canals Actual Delivery	4.4	4.3	4.2	4.2	4.0	4.0	4.3
East Fork Release	14.0	17.0	17.0	13.0	12.0	12.0	12.0
PVID E Fork Diversions	7.3	10.7	10.8	7.4	6.0	6.0	5.7
PVID Water Use - PG&E Contract	11.8	15.0	15.0	11.6	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)	6.7	6.3	6.2	5.6	6.0	6.0	6.3
PVID Canal Net Return Flow (assumed)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>East Fork / Potter Valley Reach Analysis</b>							
USGS E Fork @ Calpella	7.7	10.3	13.4	14.8	9.7	11.4	8.1
Net Reach Loss(-)/Gain(+)	-10.3	-10.7	-7.6	-2.2	-6.3	-4.6	-7.9
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.)	-1.4	-4.3	-7.4	-9.4	-3.7	-5.4	-2.1
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-1.4	-4.3	-7.4	-9.4	-3.7	-5.4	-2.1
<b>II. Lake Mendocino</b>							
<b>Reservoir Operations</b>							
Calculated Inflow (ac-ft)	25	34	23	28	29	15	43
(cfs)	13	17	12	14	15	8	22
Natural Flow	5	7	0	1	5	0	14
Import	8	10	12	13	10	8	8
Storage Change (ac-ft)	-125.0	-110.0	-111.0	-110.0	-110.0	-124.0	-96.0
(cfs)	-63	-55	-56	-55	-55	-63	-48
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)	19.1	18.5	13.0	17.3	18.4	18.4	18.3
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	66	63	61	61	61	61	61
Storage (Project Water)	53	46	49	47	46	53	39
Natural Flow	5	7	0	1	5	0	14
Import Water	8	10	12	13	10	8	8
<b>East Fork Min Instream Flow Requirement</b>	25	25	25	25	25	25	25
<b>Compliance Gage</b>	<i>Rvr mi.</i>						
CVD Release	99.9	66	63	61	61	61	61
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	13	17	12	14	15	8	22
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>III. Upper Russian River Reach</b>							
<b>Minimum Instream Flow Requirement</b>	25	25	25	25	25	25	25
<b>Controlling Compliance Gage</b>							
Min Gage Flow	41	41	40	40	39	39	37
Controlling Gage	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg
<b>All Compliance Gages</b>							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	66	63	61	61	61	61
Talmage (USGS 11462080)	96.1	64	63	63	62	62	60
Hopland (USGS 11462500)	84.8	59	57	57	55	54	52
Cloverdale (USGS 11463000)	70.9	57	54	55	55	53	51
Geyserville (USGS 11463500)	54.4	51	49	49	50	49	46
Jimtown (USGS 11463682)	48.5	53	53	52	51	51	48
Digger Bend (USGS 11463980)	38.2	47	45	45	45	44	41
Healdsburg (USGS 11464000)	35.6	41	41	40	40	39	37
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	-2	-2	+2	+1	+1	+0	-1
Talmage - Hopland	-6	-6	-6	-8	-8	-7	-8
Hopland - Cloverdale	-2	-4	-2	-2	-1	-1	-3
Cloverdale - Jimtown	-5	-4	-2	-4	-5	-4	-5
Jimtown - Digger Bend	-7	-7	-7	-7	-7	-7	-7
Digger Bend - Healdsburg	-6	-6	-5	-5	-5	-5	-4
Upper Russian Net Reach Loss/Gain	-28	-28	-20	-25	-25	-24	-28
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-28	-28	-20	-25	-25	-24	-28
Storage (Project Water)	-28	-28	-20	-25	-25	-24	-28
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	13	17	12	14	15	8	22
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).

	<u>9/30/2022</u>	<u>10/1/2022</u>	<u>10/2/2022</u>	<u>10/3/2022</u>	<u>10/4/2022</u>	<u>10/5/2022</u>	<u>10/6/2022</u>
<b>IV. Lake Sonoma</b>							
<b>Lake Sonoma</b>							
Storage Change (ac-ft)	-232.0	-216.0	-216.0	-200.0	-215.0	-215.0	-214.0
(cfs)	-117	-109	-109	-101	-108	-108	-108
Evaporation (ac-ft)	13.3	8.4	8.4	12.0	10.8	12.0	11.9
Inflow (Natural Flow)	0	0	0	0	0	0	0
WSD Release Gage	94	94	94	94	95	94	93
Storage (Project Water)	94	94	94	94	95	94	93
Natural Flow	0	0	0	0	0	0	0

#### V. Lower Dry Creek Reach

<b>Minimum Instream Flow Requirement</b>		80	80	80	80	80	80	80
<b>Controlling Compliance Gage</b>								
Min Gage Flow		85	86	89	89	87	85	85
Controlling Gage		Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Yoakim	Yoakim	Yoakim
<b>All Compliance Gages</b>								
	<i>Crk mi.</i>							
WSD Release	<i>14.3</i>	94	94	94	94	95	94	93
Yoakim (USGS 11465200)	<i>11.1</i>	94	94	92	92	87	85	85
Lambert (USGS 11465240)	<i>6.8</i>	93	93	94	93	92	92	92
Dry Crk Mouth (USGS 11465350)	<i>0.1</i>	85	86	89	89	88	88	88
<b>WSD to Russian River Confluence Reach Analysis</b>								
Total Pass-through Water		0	0	0	0	0	0	0
<b>Net Reach Loss(-)/Gain(+)</b>								
WSD - Yoakim		-2	-2	-4	-2	-9	-11	-9
Yoakim - Lambert		-1	-1	+1	+1	+4	+7	+6
Lambert - Dry Crk Mouth		-8	-7	-5	-5	-4	-4	-4
WSD - Dry Crk Mouth		-11	-10	-7	-6	-9	-8	-7
<b>WSD Project Water Release to Meet Min Flow Requirement</b>								
Net Reach Loss/Gain to Controlling Gage		-11	-10	-7	-6	-9	-11	-9
Project Water Release Required		Yes	Yes	Yes	Yes	Yes	Yes	Yes

#### VI. Russian River - Dry Creek Confluence

<b>Upper Russian River Flow (Healdsburg Gage)</b>								
L. Mendocino Project Water + Import Water		41	41	40	40	39	39	37
Natural Flow		0	0	0	0	0	0	0
<b>Dry Creek Flow (Mouth Gage)</b>								
L. Sonoma Project Water		94	94	94	94	95	94	93
Natural Flow		0	0	0	0	0	0	0
<b>Russian River d/s of Confluence Flow</b>								
L. Mendocino Project Water + Import Water		41	41	40	40	39	39	37
L. Sonoma Project Water		94	94	94	94	95	94	93
Natural Flow		0	0	0	0	0	0	0

#### VII. Lower Russian River Reach

<b>Minimum Instream Flow Requirement</b>		35	35	35	35	35	35	35
<b>Controlling Compliance Gage</b>								
Min Gage Flow		86	83	84	81	79	80	80
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
<b>All Compliance Gages</b>								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	<i>26.6</i>	<i>163.1</i>	<i>160.7</i>	<i>160.8</i>	<i>159.8</i>	<i>155.9</i>	<i>154.0</i>	<i>151.9</i>
Hacienda (USGS 11467000)	<i>21.8</i>	86	83	84	81	79	80	80
<b>Confluence to Windsor Reach Analysis</b>								
Net Reach Loss/Gain to Windsor Gage		+37	+34	+33	+31	+28	+27	+26
L. Mendocino Project Water + Import Water		41	41	40	40	39	39	37
L. Sonoma Project Water		90	90	90	89	91	89	89
Natural Flow		37	34	33	31	28	27	26
<b>Confluence to SCWA Wohler Production Facility Reach Analysis</b>								
Approx. Flow u/s of Wohler		149	130	149	147	131	138	132
Net Reach Loss(-)/Gain(+)		+22	+3	+21	+18	+4	+11	+6
L. Mendocino Project Water + Import Water		41	41	40	40	39	39	37
L. Sonoma Project Water		90	90	90	89	91	89	89
Natural Flow		22	3	21	18	4	11	6
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>								
Net Reach Loss(-)/Gain(+)		-40	-44	-45	-47	-48	-47	-45
L. Mendocino Project Water + Import Water		41	41	40	40	39	39	37
L. Sonoma Project Water		27	42	24	24	39	32	37
Natural Flow		22	3	21	18	4	11	6

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

<b>Lower Russian River</b>								
Sonoma Water Total		124.0	93.9	130.3	129.6	102.6	113.9	102.5
Wohler		44.3	48.5	46.6	47.0	51.2	46.6	45.9
Mirabel		79.7	45.4	83.7	82.6	51.4	67.2	56.6
Town of Windsor River Wellfield		9.7	9.1	8.5	9.1	8.4	9.1	8.4
Camp Meeker & Occidental		0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Upper Russian River</b>								
City of Healdsburg								
Gauntlett & Fitch Mtn		0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Dry Creek</b>								
City of Healdsburg								
Dry Creek Wellfield		0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Notes:**

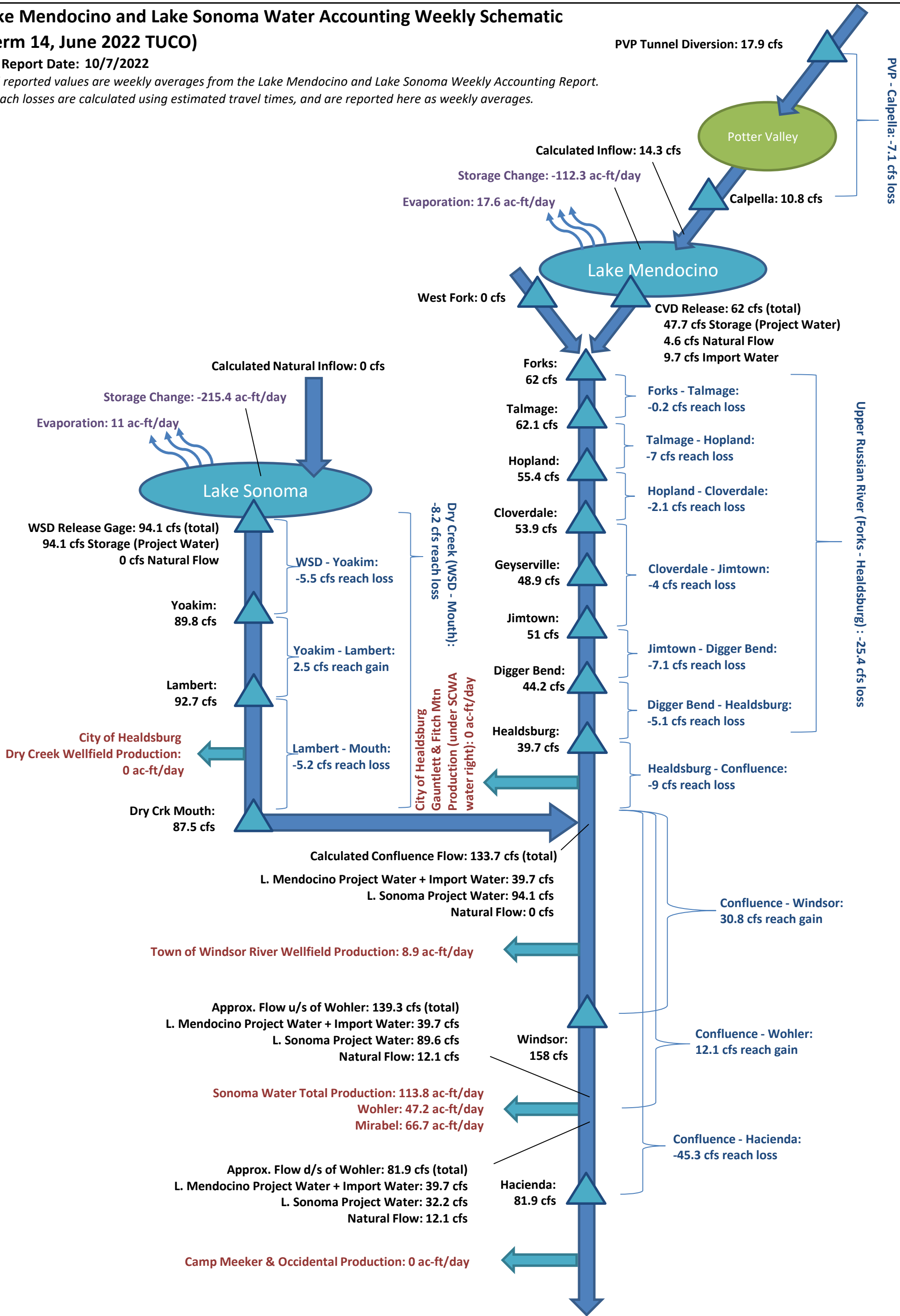
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 10/7/2022

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.

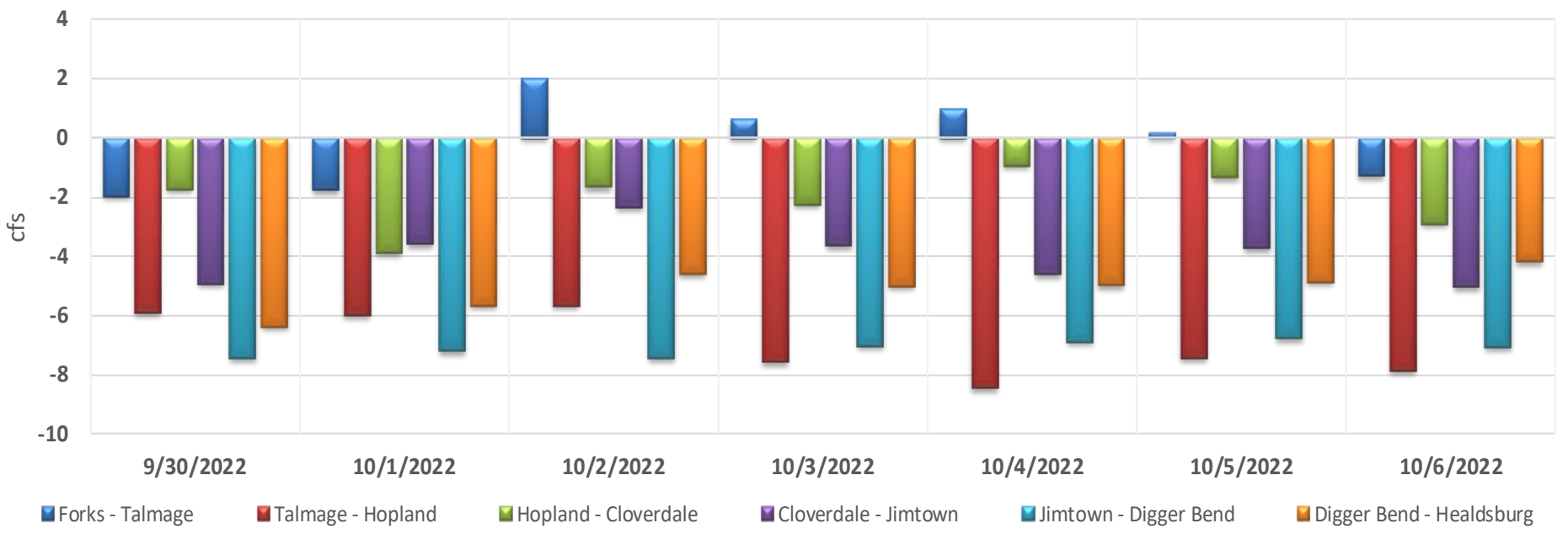




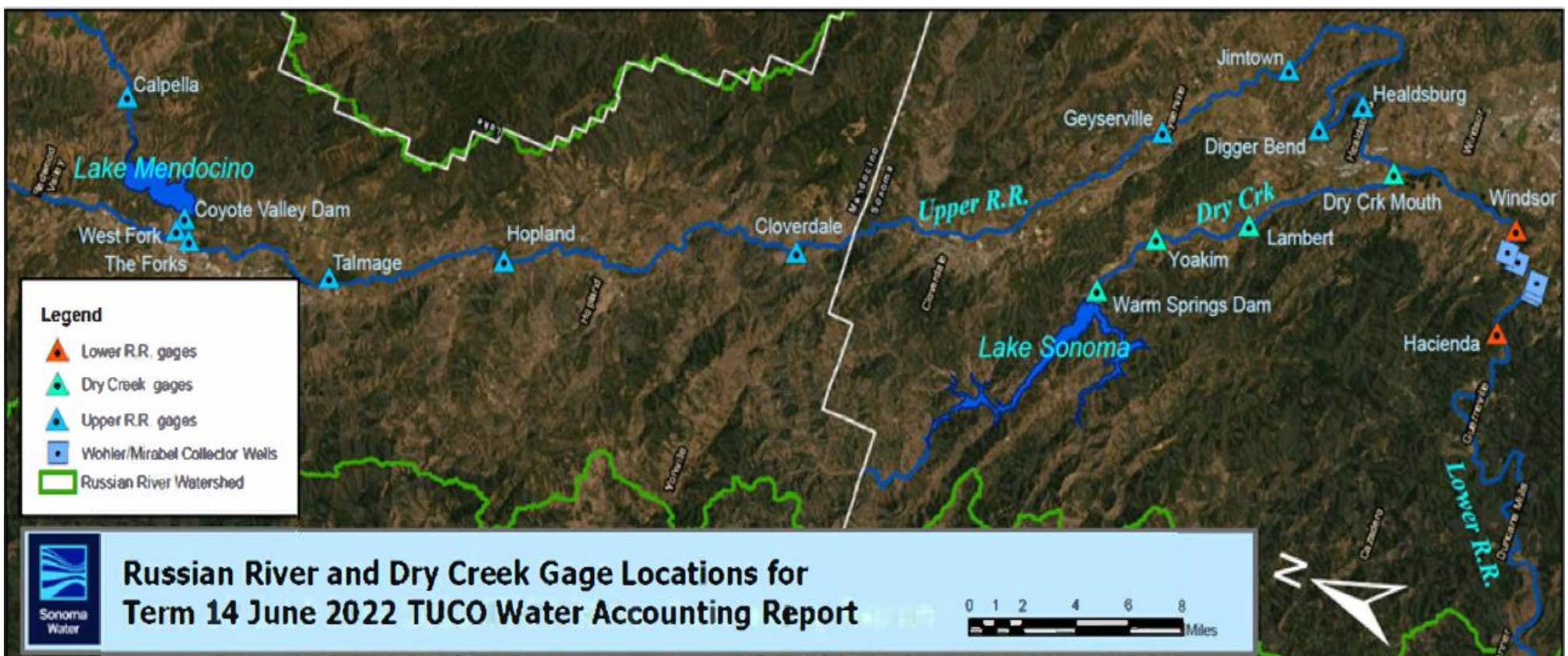
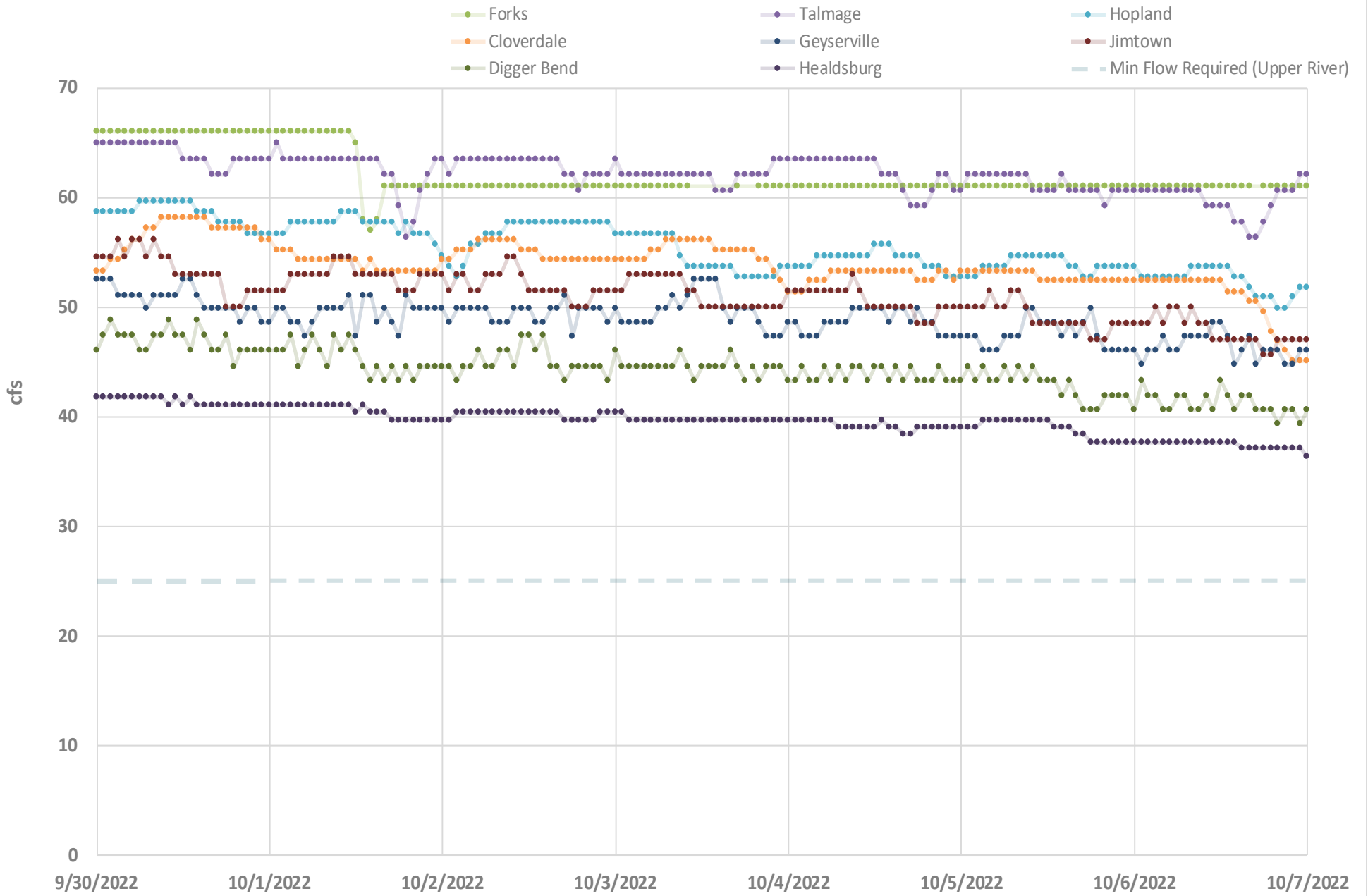
# Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 10/7/2022

## 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

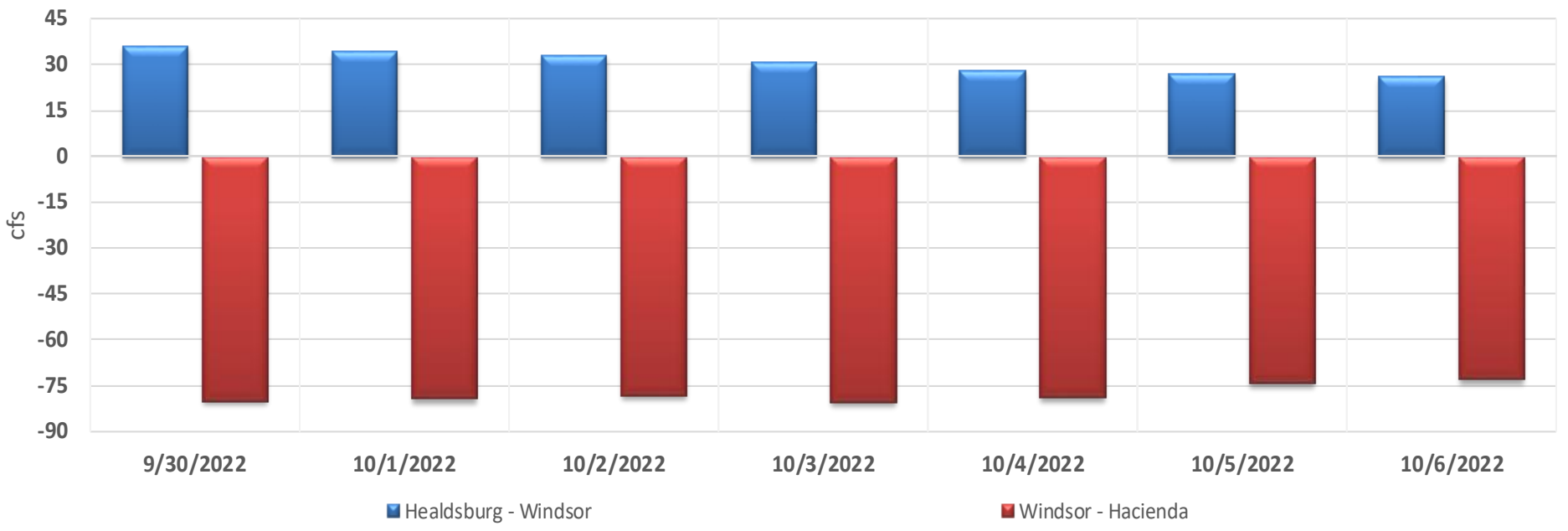




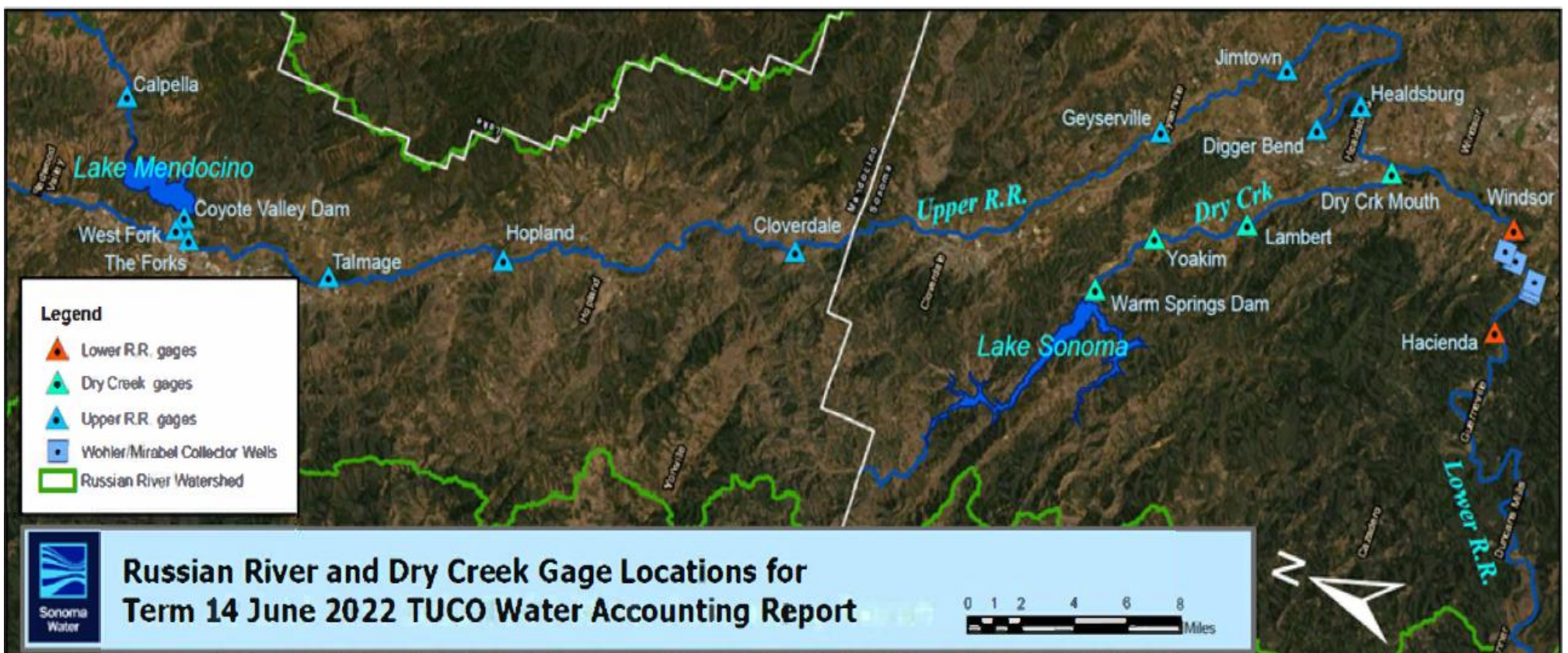
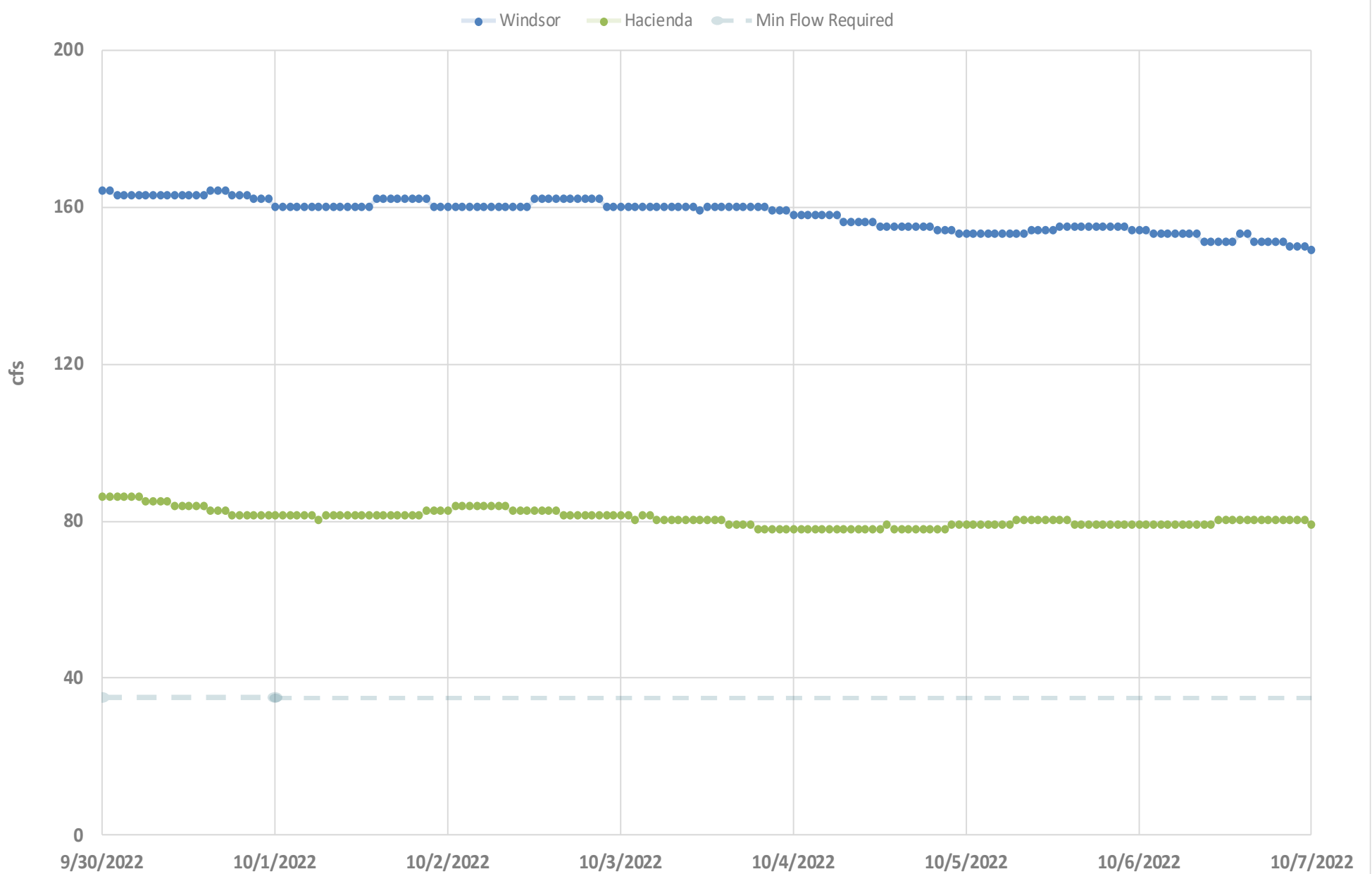
# Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 10/7/2022

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



## LOWER RUSSIAN RIVER STREAM FLOWS

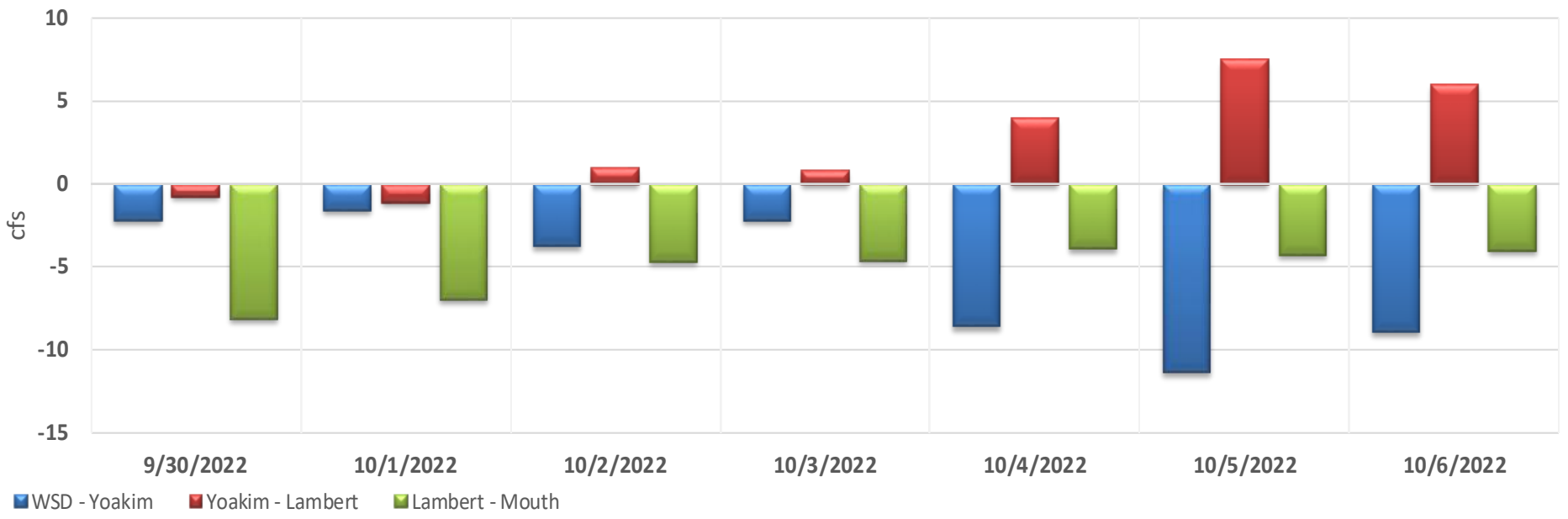




# Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 14, June 2022 TUCO)

Report Date: 10/7/2022

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



## DRY CREEK STREAM FLOWS

