

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

Report Date: 4/8/2022

*Units are cfs unless noted otherwise*

	<u>4/1/2022</u>	<u>4/2/2022</u>	<u>4/3/2022</u>	<u>4/4/2022</u>	<u>4/5/2022</u>	<u>4/6/2022</u>	<u>4/7/2022</u>
<b>I. Upper East Fork Reach</b>							
<b>Potter Valley Project</b>							
Tunnel Diversion	63.0	58.0	58.0	59.0	59.0	58.0	58.0
PVID Requested Delivery	22.3	18.0	18.0	18.0	18.0	18.0	18.0
PVID Canals Actual Delivery	6.0	5.0	7.0	10.0	10.0	10.0	10.0
East Fork Release	57.0	53.0	51.0	49.0	49.0	48.0	48.0
PVID E Fork Diversions	16.3	13.0	11.0	8.0	8.0	8.0	8.0
PVID Water Use - PG&E Contract	22.3	18.0	18.0	18.0	18.0	18.0	18.0
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)	40.7	40.0	40.0	41.0	41.0	40.0	40.0
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	55.2	54.4	51.8	52.5	47.4	40.1	52.6
Net Reach Loss(-)/Gain(+)	-7.8	-3.6	-6.2	-6.5	-11.6	-17.9	-5.4
Unimpaired Natural Flow @ Calpella (est.)	14.5	14.4	11.8	11.5	6.4	0.1	12.6
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	111	115	130	101	99	95
(cfs)	56	56	58	66	51	50	48
Natural Flow	16	16	18	25	10	10	13
Import	41	40	40	41	41	40	35
Storage Change (ac-ft)	+43.0	+43.0	+43.0	+57.0	+29.0	+29.0	+29.0
(cfs)	+22	+22	+22	+29	+15	+15	+15
Stored Natural Flow (cfs)	16	16	18	25	10	10	13
Stored Import Water (cfs)	6	5	4	4	5	5	2
Evaporation (ac-ft)	11.3	10.5	13.8	14.6	15.4	13.8	8.1
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	29	29	29	29	29	29	29
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	0	0	0	0	0	0	0
Import Water	29	29	29	29	29	29	29
<b>East Fork Min Instream Flow Requirement</b>	25	25	25	25	25	25	25
<u>Compliance Gage</u>	<i>Rvr mi.</i>						
CVD Release	99.9	29	29	29	29	29	29
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	29	29	29	29	29	29	29
Project Water Release Required	No	No	No	No	No	No	No

## III. Upper Russian River Reach

### Minimum Instream Flow Requirement

	25	25	25	25	25	25	25
<b>Controlling Compliance Gage</b>							
Min Gage Flow	37	35	35	36	36	34	35
Controlling Gage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage	Talmage
<b>All Compliance Gages</b>							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	43	42	42	41	41	42
Talmage (USGS 11462080)	96.1	37	35	35	36	34	35
Hopland (USGS 11462500)	84.8	43	41	40	41	38	38
Cloverdale (USGS 11463000)	70.9	53	55	53	52	53	53
Geyserville (USGS 11463500)	54.4	66	64	61	60	61	60
Jimtown (USGS 11463682)	48.5	82	78	78	76	74	72
Digger Bend (USGS 11463980)	38.2	112	108	109	107	104	102
Healdsburg (USGS 11464000)	35.6	80	76	73	72	70	65
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	-6	-8	-7	-6	-6	-7	-7
Talmage - Hopland	+6	+6	+5	+6	+5	+3	+4
Hopland - Cloverdale	+14	+12	+12	+12	+12	+15	+14
Cloverdale - Jimtown	+28	+25	+23	+23	+21	+20	+20
Jimtown - Digger Bend	+28	+30	+31	+30	+29	+29	+29
Digger Bend - Healdsburg	-33	-33	-35	-35	-35	-36	-37
Upper Russian Net Reach Loss/Gain	+37	+31	+29	+31	+26	+24	+23
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-6	-8	-7	-6	-6	-7	-7
Storage (Project Water)	-0	-0	-0	-0	-0	-0	-0
Pass-through Water (Nat. + Imp.) + Natural	-6	-8	-7	-6	-6	-7	-7
Total Pass-through Water	23	21	22	24	23	22	23
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).

	4/1/2022	4/2/2022	4/3/2022	4/4/2022	4/5/2022	4/6/2022	4/7/2022
<b>IV. Lake Sonoma</b>							
<b>Lake Sonoma</b>							
Storage Change (ac-ft)	-166.0	-186.0	-166.0	-185.0	-148.0	-166.0	-167.0
(cfs)	-84	-94	-84	-93	-75	-84	-84
Evaporation (ac-ft)	15.6	17.6	17.6	13.5	15.5	17.6	18.6
Inflow (Natural Flow)	16	0	7	0	15	7	6
WSD Release Gage	92	82	82	82	82	82	81
Storage (Project Water)	76	82	75	82	67	75	75
Natural Flow	16	0	7	0	15	7	6

#### V. Lower Dry Creek Reach

<b>Minimum Instream Flow Requirement</b>	75	75	75	75	75	75	75
<b>Controlling Compliance Gage</b>							
Min Gage Flow	92	82	82	82	82	82	81
Controlling Gage	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
<b>All Compliance Gages</b>							
	<i>Crk mi.</i>						
WSD Release	14.3	92	82	82	82	82	81
Yoakim (USGS 11465200)	11.1	107	90	89	88	87	85
Lambert (USGS 11465240)	6.8	117	98	97	96	95	93
Dry Crk Mouth (USGS 11465350)	0.1	107	96	92	90	89	88
<b>WSD to Russian River Confluence Reach Analysis</b>							
Total Pass-through Water	16	0	7	0	15	7	6
<b>Net Reach Loss(-)/Gain(+)</b>							
WSD - Yoakim	+12	+8	+7	+6	+5	+4	+4
Yoakim - Lambert	+7	+8	+8	+8	+8	+7	+7
Lambert - Dry Crk Mouth	-15	-5	-5	-6	-6	-5	-5
WSD - Dry Crk Mouth	+5	+11	+10	+8	+6	+6	+7
<b>WSD Project Water Release to Meet Min Flow Requirement</b>							
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

<b>Upper Russian River Flow (Healdsburg Gage)</b>							
L. Mendocino Project Water + Import Water	29	29	29	29	29	29	29
Natural Flow	37	31	29	31	26	24	23
<b>Dry Creek Flow (Mouth Gage)</b>							
L. Sonoma Project Water	76	82	75	82	67	75	75
Natural Flow	31	14	17	8	22	14	13
<b>Russian River d/s of Confluence Flow</b>							
L. Mendocino Project Water + Import Water	29	29	29	29	29	29	29
L. Sonoma Project Water	76	82	75	82	67	75	75
Natural Flow	68	45	46	40	48	38	36

#### 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	172	155	144	139	133	126	121
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
<b>All Compliance Gages</b>							
	<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	172	155	144	139	133	121
<b>Confluence to Windsor Reach Analysis</b>							
Net Reach Loss/Gain to Windsor Gage	-	-	-	-	-	-	-
L. Mendocino Project Water + Import Water	-	-	-	-	-	-	-
L. Sonoma Project Water	-	-	-	-	-	-	-
Natural Flow	-	-	-	-	-	-	-
<b>Confluence to SCWA Wohler Production Facility Reach Analysis</b>							
Approx. Flow u/s of Wohler	229	219	221	207	205	198	199
Net Reach Loss(-)/Gain(+)	+42	+48	+56	+44	+46	+42	+46
L. Mendocino Project Water + Import Water	29	29	29	29	29	29	29
L. Sonoma Project Water	73	80	73	79	64	72	72
Natural Flow	109	92	102	84	94	80	82
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>							
Net Reach Loss(-)/Gain(+)	-15	-16	-21	-24	-26	-30	-32
L. Mendocino Project Water + Import Water	29	29	29	29	29	29	29
L. Sonoma Project Water	16	16	0	12	0	0	0
Natural Flow	109	92	97	84	86	80	76

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

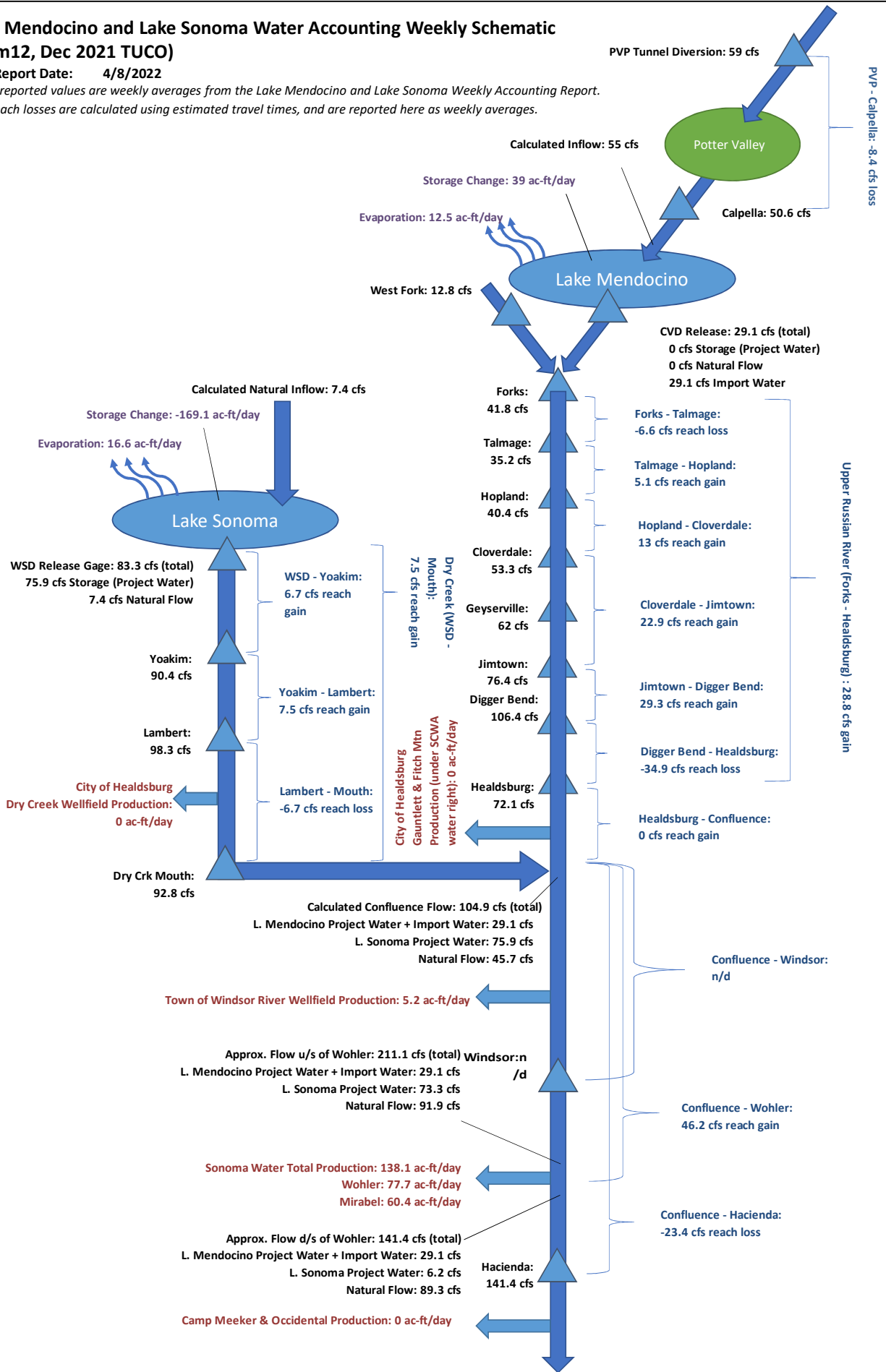
<b>Lower Russian River</b>							
Sonoma Water Total	112.8	127.2	152.4	134.6	142.1	143.6	154.2
Wohler	66.0	81.6	81.5	81.2	76.3	77.6	79.7
Mirabel	46.7	45.6	70.9	53.4	65.8	66.1	74.5
Town of Windsor River Wellfield	5.2	4.3	4.6	5.0	5.1	6.0	6.0
Camp Meeker & Occidental	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Upper 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 (Term12, Dec 2021 TUCO)

Report Date: 4/8/2022

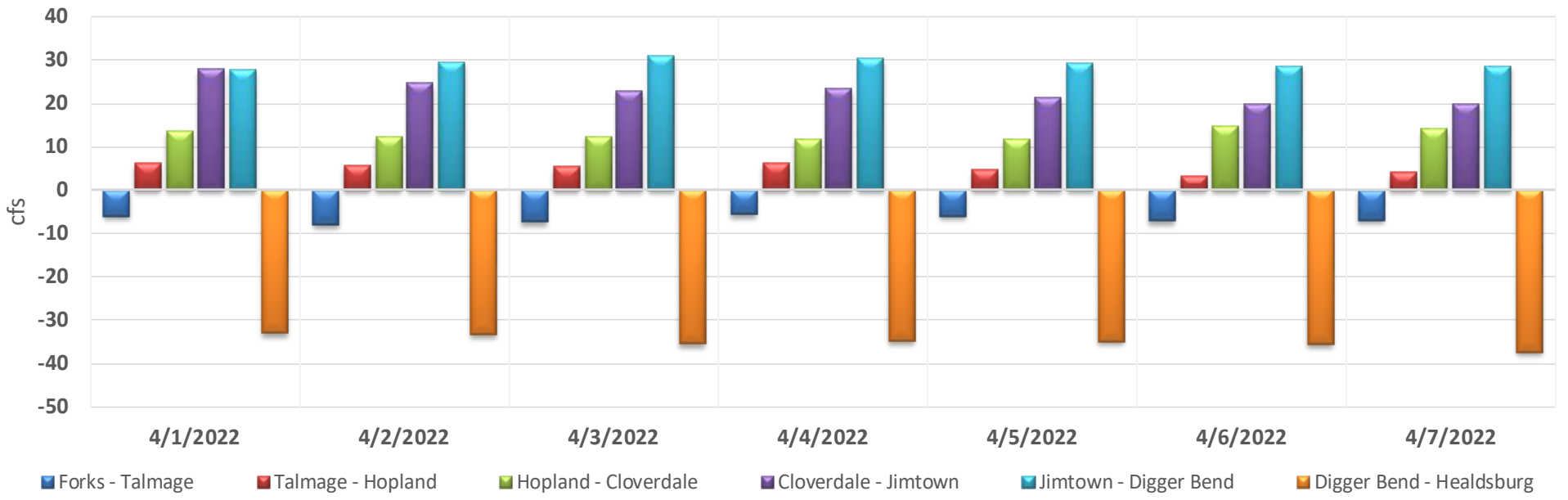
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.  
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



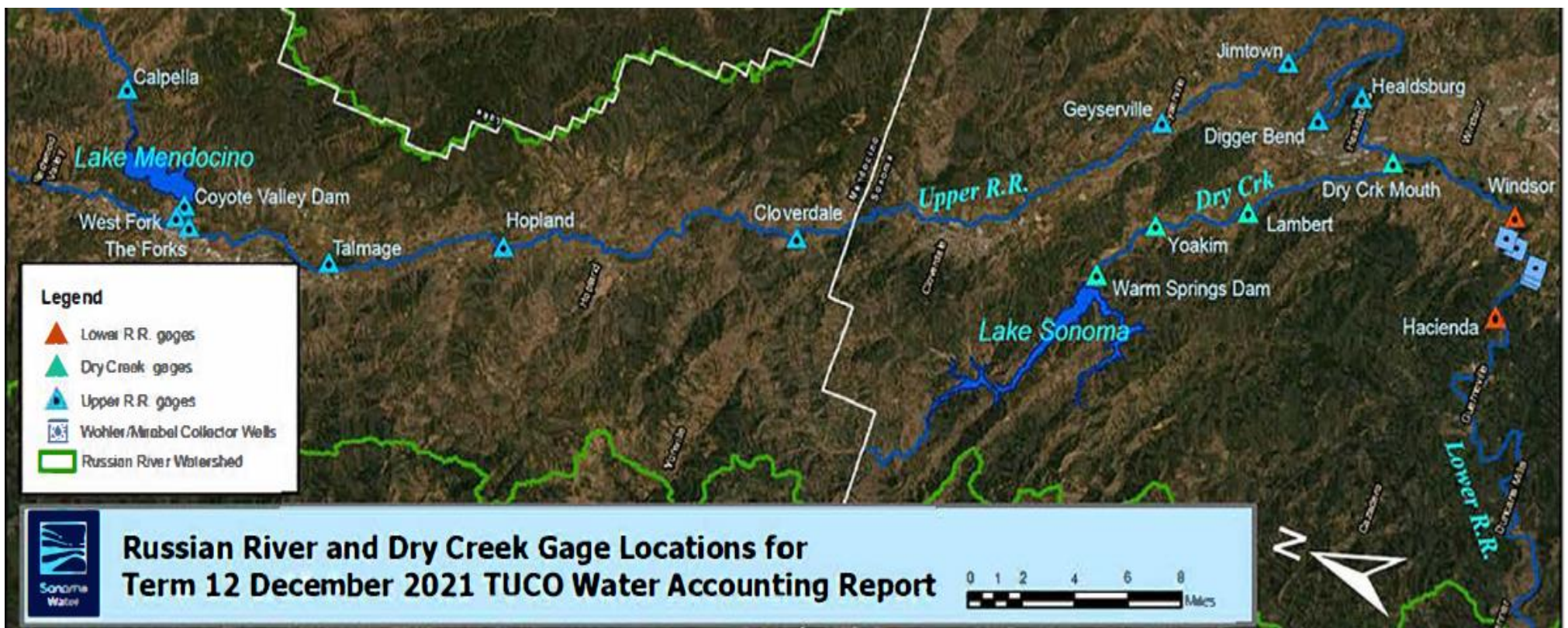
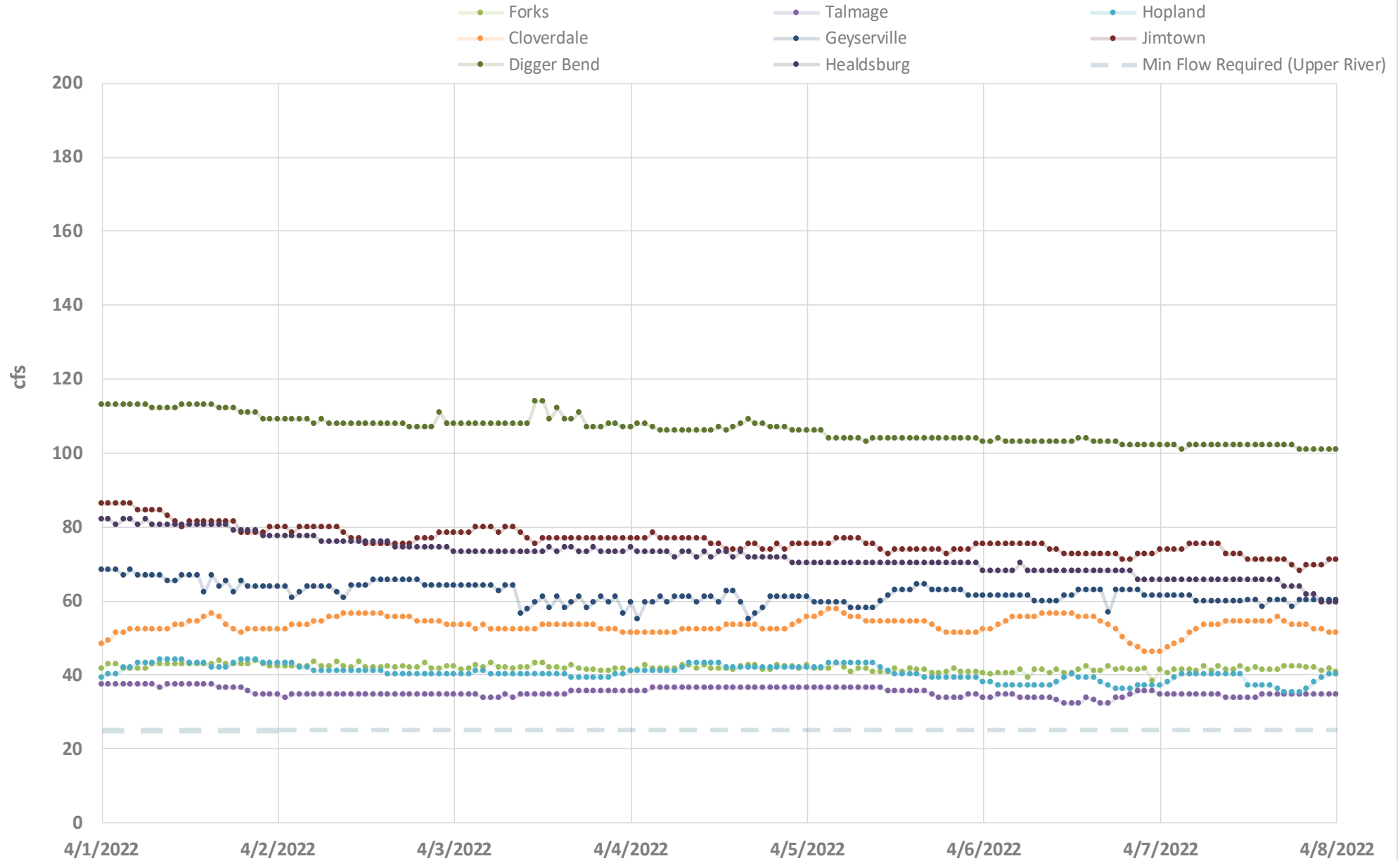
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



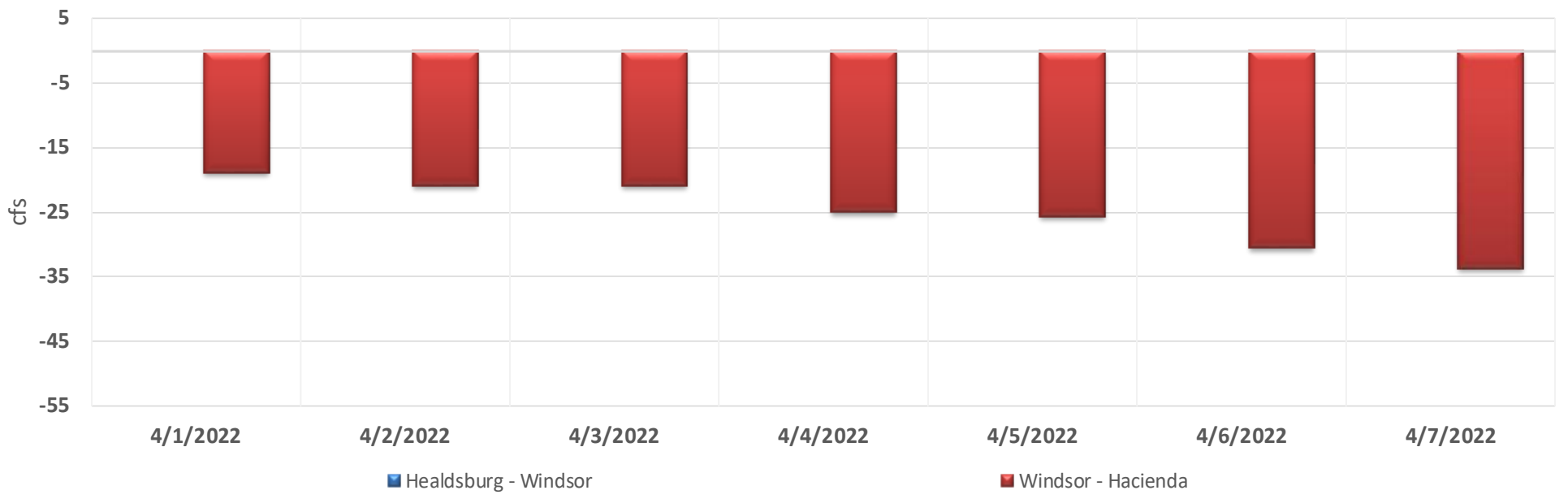
## UPPER RUSSIAN RIVER STREAM FLOWS



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

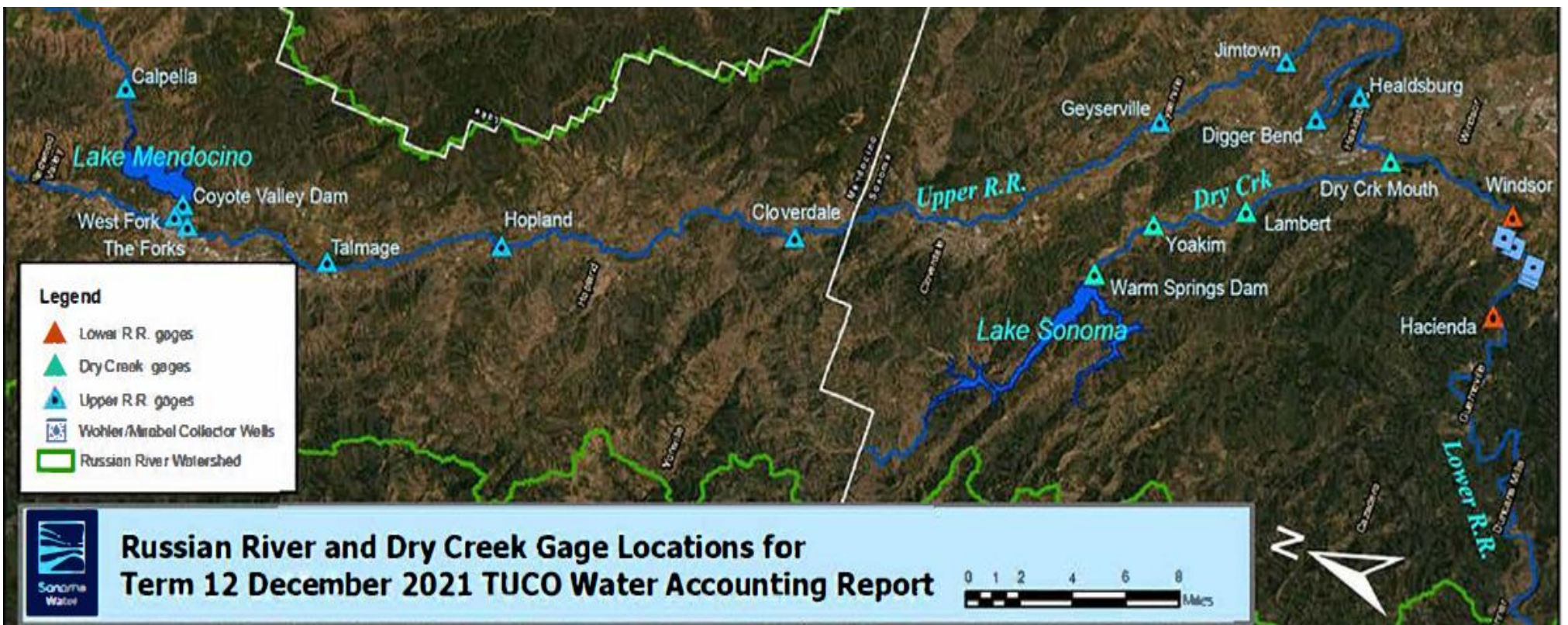
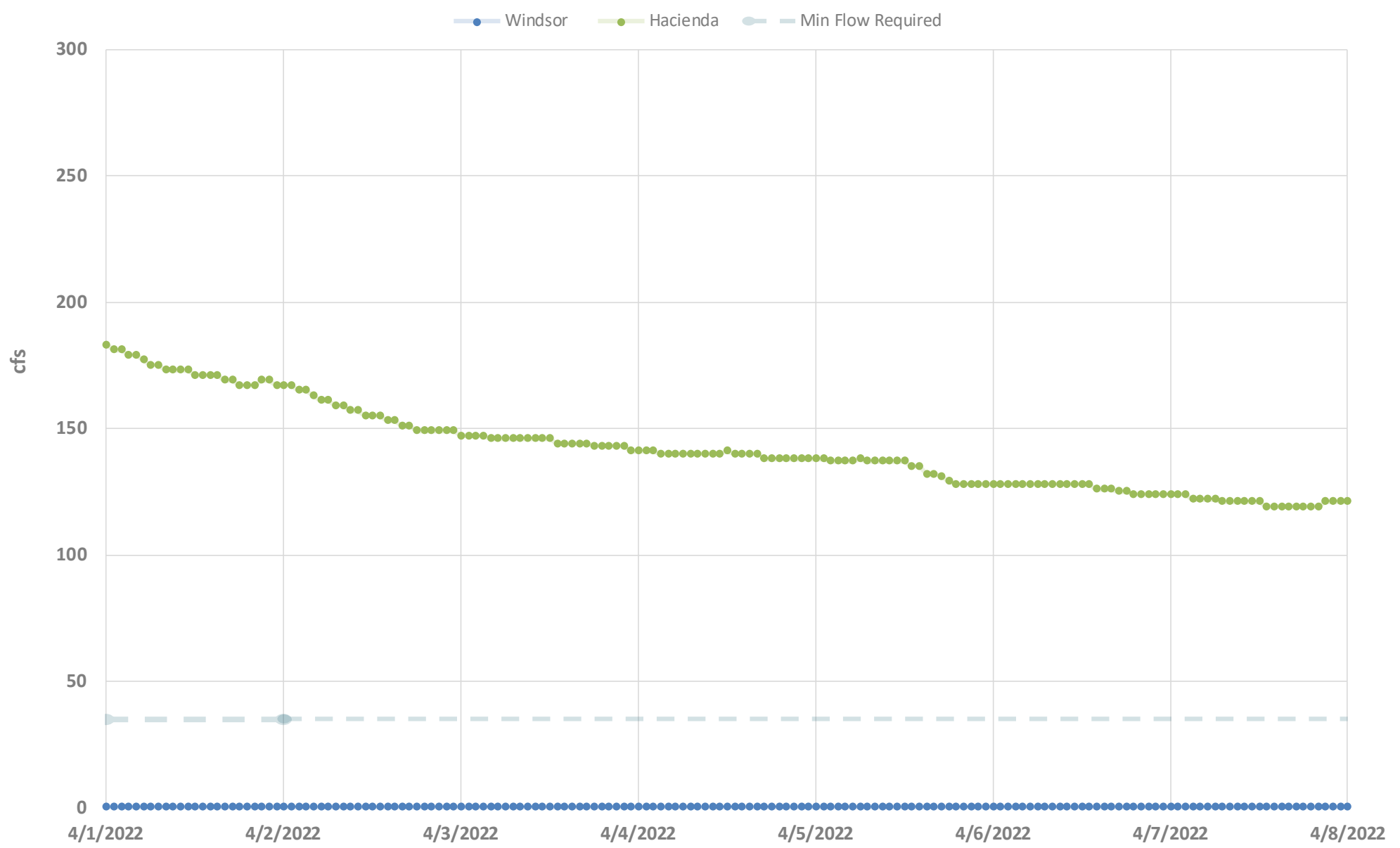
Report Date: 4/8/2022

## 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.

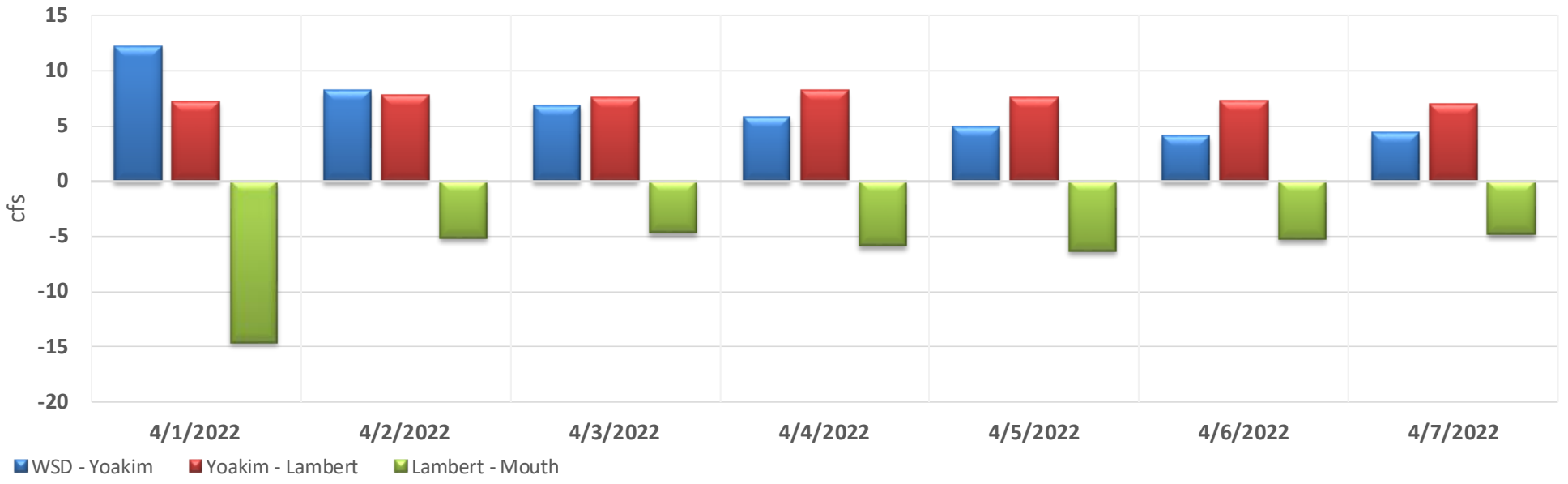
## LOWER RUSSIAN RIVER STREAM FLOWS



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



## DRY CREEK STREAM FLOWS

