

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

Report Date: 12/23/2022

Units are cfs unless noted otherwise

	<u>12/16/2022</u>	<u>12/17/2022</u>	<u>12/18/2022</u>	<u>12/19/2022</u>	<u>12/20/2022</u>	<u>12/21/2022</u>	<u>12/22/2022</u>
<b>I. Upper East Fork Reach</b>							
<b>Potter Valley Project</b>							
Tunnel Diversion	12.0	11.0	11.0	11.0	11.0	11.0	11.0
PVID Requested Delivery	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Canals Actual Delivery	1.1	1.1	1.1	1.1	1.1	1.1	1.0
East Fork Release	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID E Fork Diversions	8.9	8.9	8.9	8.9	8.9	9.0	9.0
PVID Water Use - PG&E Contract	10.0	10.0	10.0	10.0	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)	1.1	1.1	1.1	1.1	1.1	1.1	1.0
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	22.8	20.9	19.8	18.6	18.3	18.1	17.9
Net Reach Loss(-)/Gain(+)	+10.8	+9.9	+8.8	+7.6	+7.3	+7.1	+6.9
Unimpaired Natural Flow @ Calpella (est.)	9.3	7.5	7.1	6.4	5.7	5.3	6.4
Non-PVID East Fork Net Reach Losses (est.)	20.8	19.9	18.8	17.6	17.3	17.1	16.9
Natural Flow	19.7	18.8	17.7	16.5	16.2	16.0	15.9
Import (neg. value is return flow)	1.1	1.1	1.1	1.1	1.1	1.1	1.0

## II. Lake Mendocino

### Reservoir Operations

Calculated Inflow (ac-ft)	56	43	43	15	43	55	29
(cfs)	28	22	22	7	22	28	14
Natural Flow	27	20	20	6	20	27	13
Import	1	1	1	1	1	1	1
Storage Change (ac-ft)	+0.0	-14.0	-13.0	-40.0	-13.0	+0.0	-26.0
(cfs)	+0	-7	-7	-20	-7	+0	-13
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)	4.1	5.2	4.1	3.1	4.1	3.1	3.1
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	26	26	26	26	26	26	26
Storage (Project Water)	0	4	4	19	4	0	12
Natural Flow	26	20	20	6	20	26	13
Import Water	0	1	1	1	1	0	1
<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	26	26	26	26	26	26
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	26	22	22	7	22	26	14
Project Water Release Required	No	Yes	Yes	Yes	Yes	No	Yes

## III. Upper Russian River Reach

<b>Minimum Instream Flow Requirement</b>	25	25	25	25	25	25	25
<b>Controlling Compliance Gage</b>							
Min Gage Flow	41	37	36	34	33	33	35
Controlling Gage	Forks	Forks	Forks	Forks	Forks	Forks	Forks
<b>All Compliance Gages</b>							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	41	37	36	34	33	35
Talmage (USGS 11462080)	96.1	74	68	64	61	59	56
Hopland (USGS 11462500)	84.8	95	82	74	68	62	56
Cloverdale (USGS 11463000)	70.9	155	133	117	106	96	84
Geyserville (USGS 11463500)	54.4	257	217	189	165	149	125
Jimtown (USGS 11463682)	48.5	303	248	211	186	163	135
Digger Bend (USGS 11463980)	38.2	353	306	271	244	222	188
Healdsburg (USGS 11464000)	35.6	344	291	254	229	209	180
<b>Net Reach Loss(-)/Gain(+)</b>							
Forks - Talmage	+32	+30	+28	+27	+26	+24	+21
Talmage - Hopland	+18	+13	+9	+5	+3	+1	-1
Hopland - Cloverdale	+53	+45	+40	+35	+32	+30	+27
Cloverdale - Jimtown	+133	+105	+87	+75	+62	+54	+49
Jimtown - Digger Bend	+36	+48	+54	+54	+54	+54	52
Digger Bend - Healdsburg *when Digger Bend > 400 cfs, next u/s gage (Jimtown) used	n/d	-24	-23	-20	-17	-13	-11
Upper Russian Net Reach Loss/Gain	+263	+226	+201	+182	+169	+155	+142
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
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	26	22	22	7	22	26	14
Project Water Release Required	No	Yes	Yes	Yes	Yes	No	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)	-71.0	-101.0	-100.0	-142.0	-115.0	-114.0	-114.0
(cfs)	-36	-51	-50	-72	-58	-57	-57
Evaporation (ac-ft)	3.3	3.3	3.3	2.2	3.3	3.3	2.2
Inflow (Natural Flow)	43	28	28	7	21	21	21
WSD Release Gage	78	77	77	77	77	77	77
Storage (Project Water)	34	49	49	70	56	56	56
Natural Flow	43	28	28	7	21	21	21

**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	78	77	77	77	77	77	77
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	78	77	77	77	77	77
Yoakim (USGS 11465200)	11.1	101	99	97	96	95	95
Lambert (USGS 11465240)	6.8	95	91	88	86	85	84
Dry Crk Mouth (USGS 11465350)	0.1	122	107	100	94	90	88
<b>WSD to Russian River Confluence Reach Analysis</b>							
Total Pass-through Water	43	28	28	7	21	21	21
<b>Net Reach Loss(-)/Gain(+)</b>							
WSD - Yoakim	+23	+21	+20	+19	+18	+18	+17
Yoakim - Lambert	-6	-8	-10	-10	-11	-11	-11
Lambert - Dry Crk Mouth	+25	+16	+12	+8	+5	+4	+3
WSD - Dry Crk Mouth	+42	+29	+22	+17	+13	+11	+10
<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	0	6	6	20	6	0	13
Natural Flow	289	247	221	188	189	181	156
<b>Dry Creek Flow (Mouth Gage)</b>							
L. Sonoma Project Water	34	49	49	70	56	56	56
Natural Flow	88	58	51	24	34	32	30
<b>Russian River d/s of Confluence Flow</b>	466	398	354	323	299	281	267
L. Mendocino Project Water + Import Water	0	6	6	20	6	0	13
L. Sonoma Project Water	34	49	49	70	56	56	56
Natural Flow	377	305	272	212	223	213	186

**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	751	607	519	452	406	368	333
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	751	607	519	452	406	333
<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>							
<b>Approx. Flow u/s of Wohler</b>	809	667	567	499	466	428	384
Net Reach Loss(-)/Gain(+)	+344	+269	+212	+176	+167	+147	+117
L. Mendocino Project Water + Import Water	0	6	6	20	6	0	13
L. Sonoma Project Water	32	47	47	68	54	53	54
Natural Flow	721	574	485	388	390	360	303
<b>Confluence to Hacienda (Guerneville) Reach Analysis</b>							
Net Reach Loss(-)/Gain(+)	+285	+209	+165	+129	+107	+87	+66
L. Mendocino Project Water + Import Water	0	6	6	20	6	0	13
L. Sonoma Project Water	0	0	0	21	0	0	3
Natural Flow	694	561	484	388	384	353	303

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

<b>Lower Russian River</b>							
Sonoma Water Total	115.4	119.3	94.6	93.7	119.4	118.3	100.8
Wohler	69.6	74.2	46.9	46.3	74.1	73.0	50.1
Mirabel	45.8	45.1	47.8	47.4	45.3	45.3	50.7
Town of Windsor River Wellfield	4.4	4.1	4.1	4.3	4.4	4.6	5.0
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:

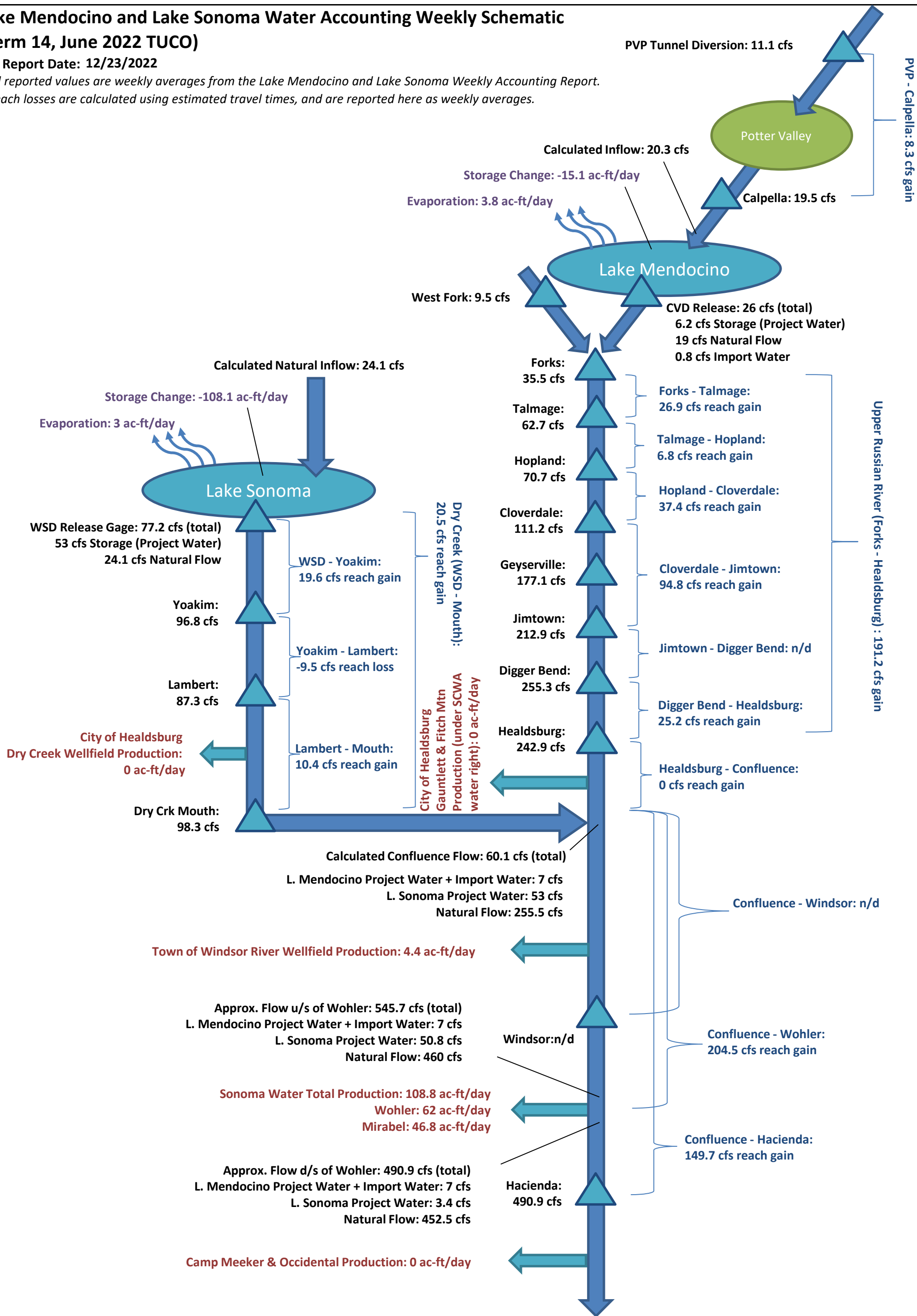
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 12/23/2022

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.

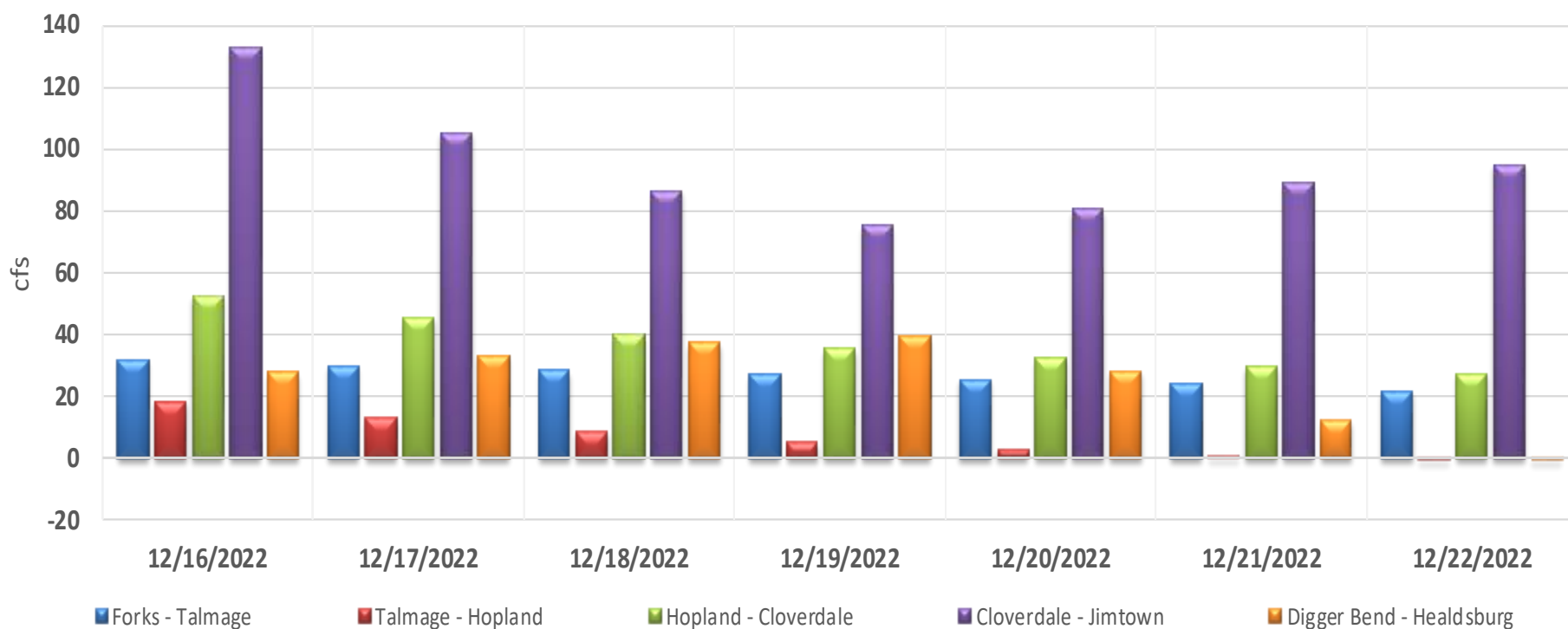




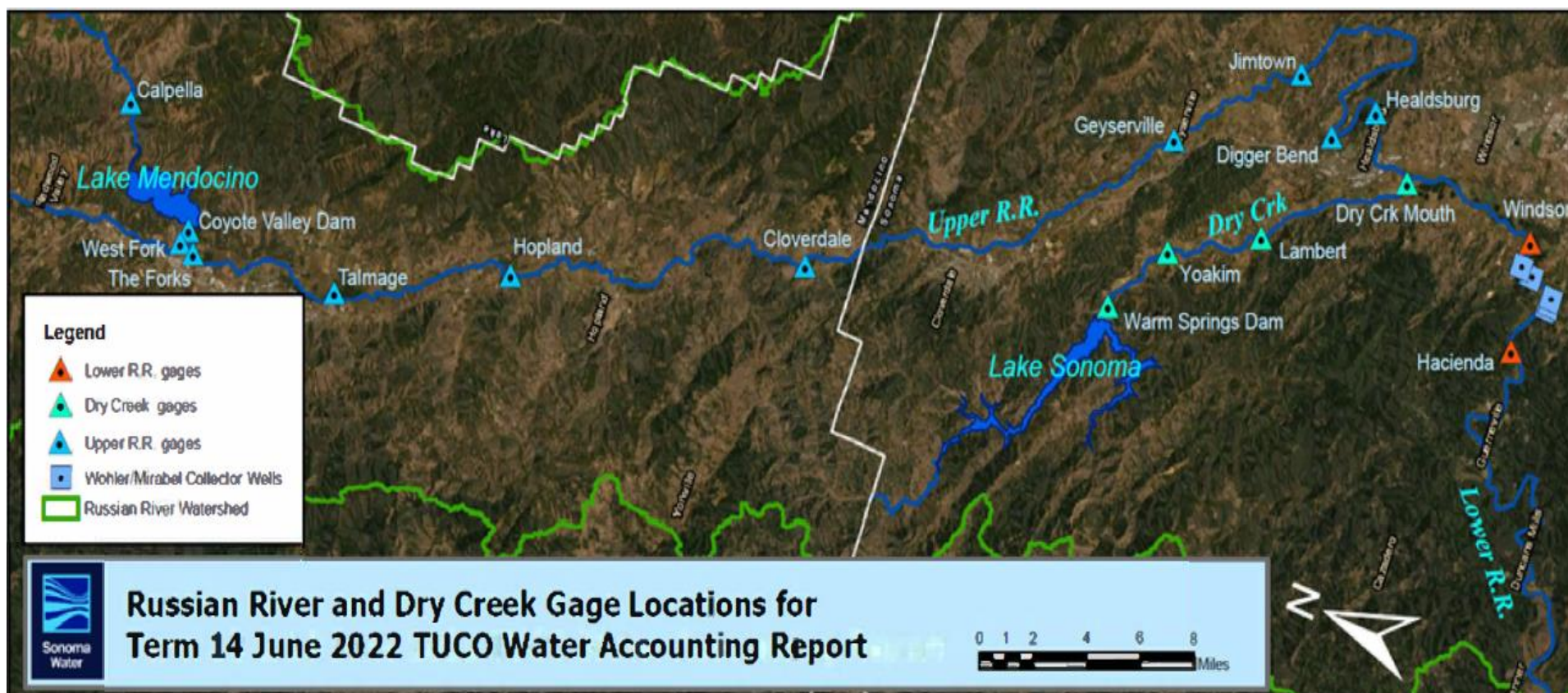
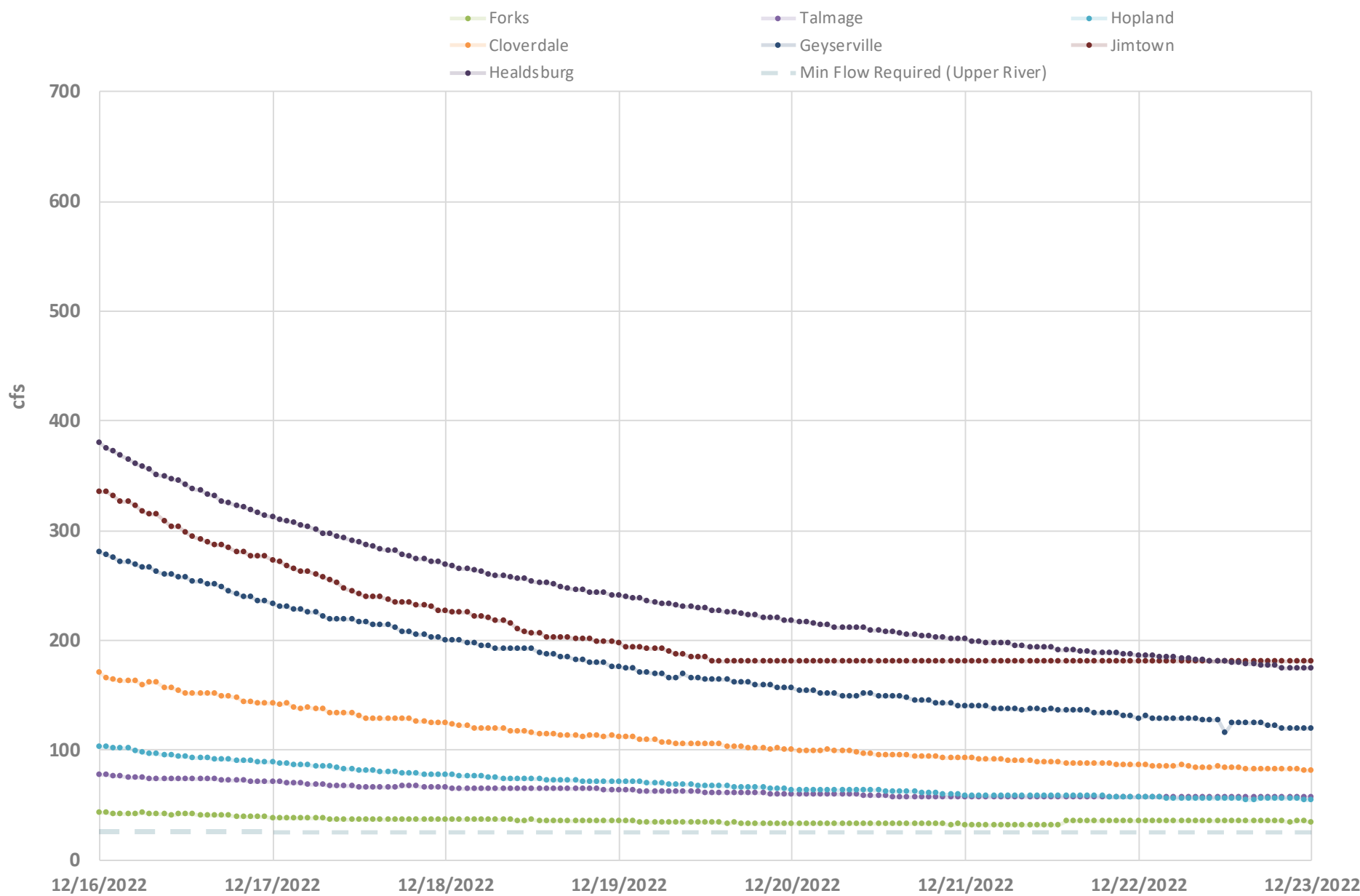
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## UPPER RUSSIAN RIVER STREAM FLOWS

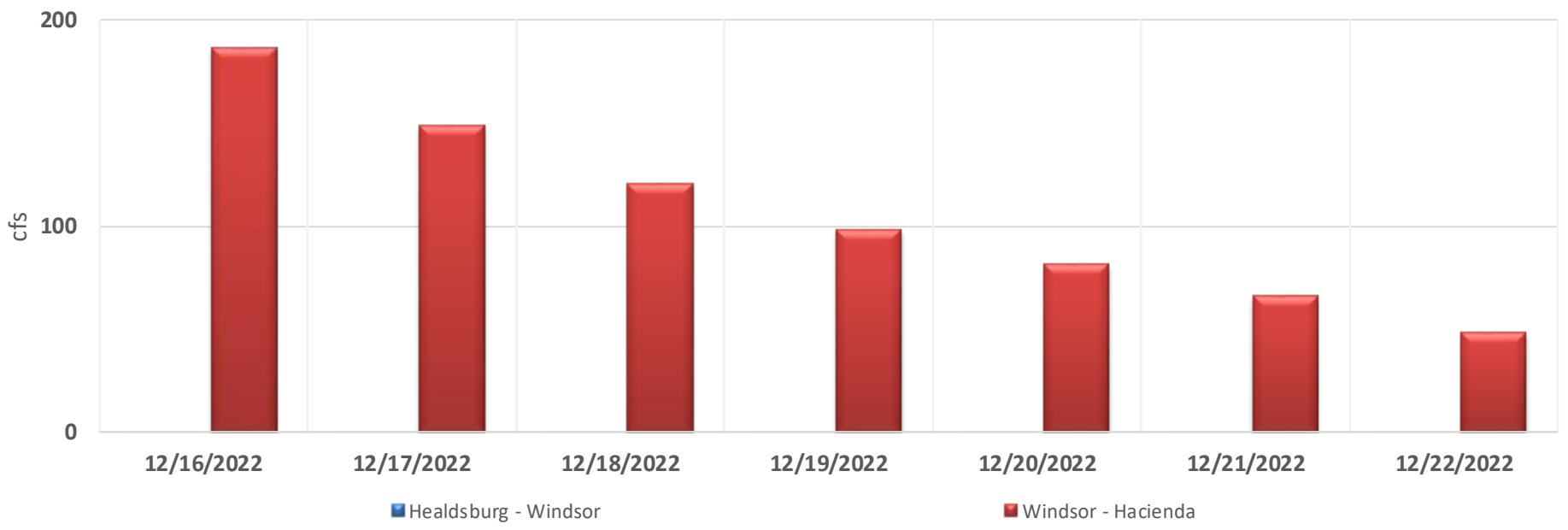




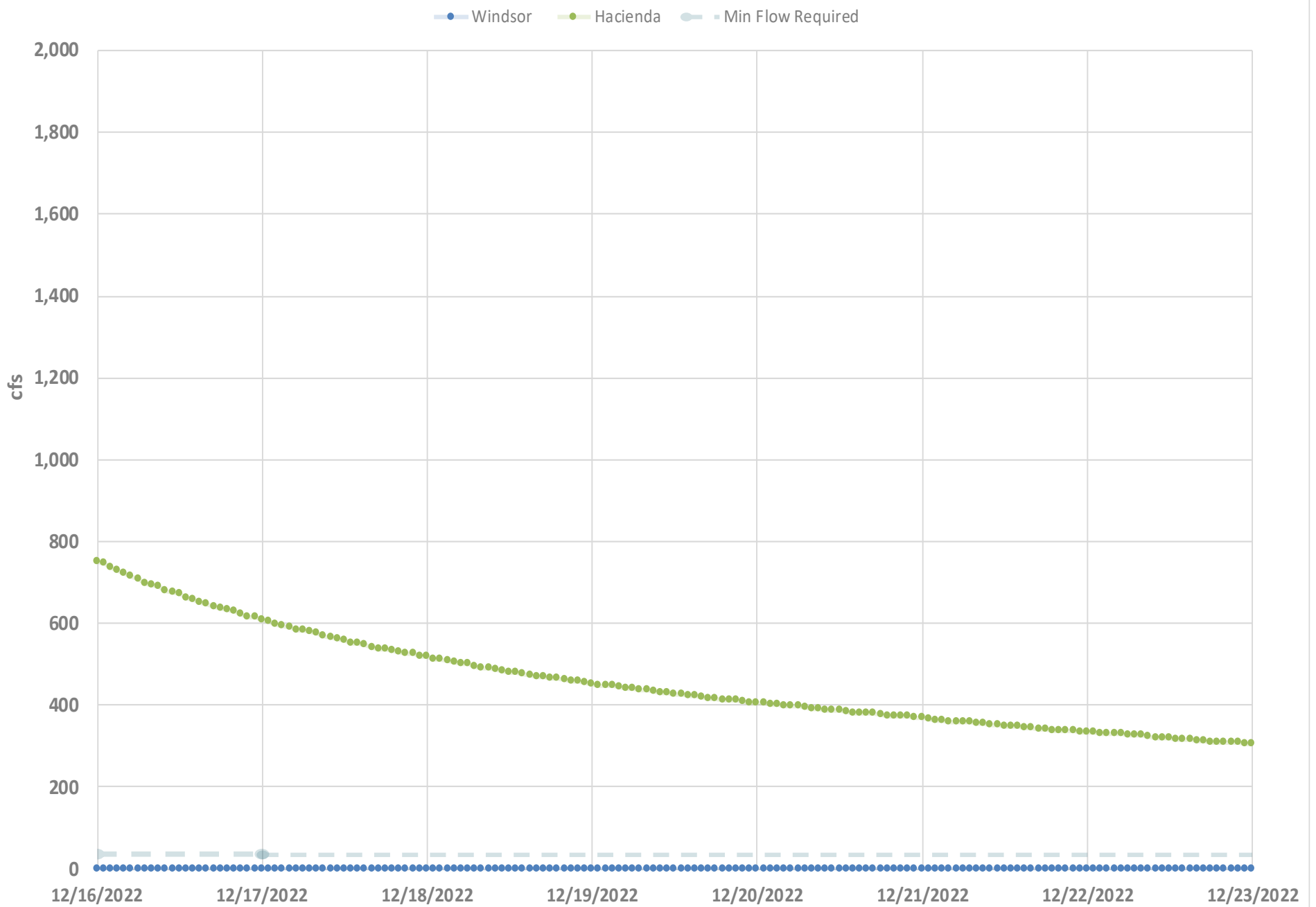
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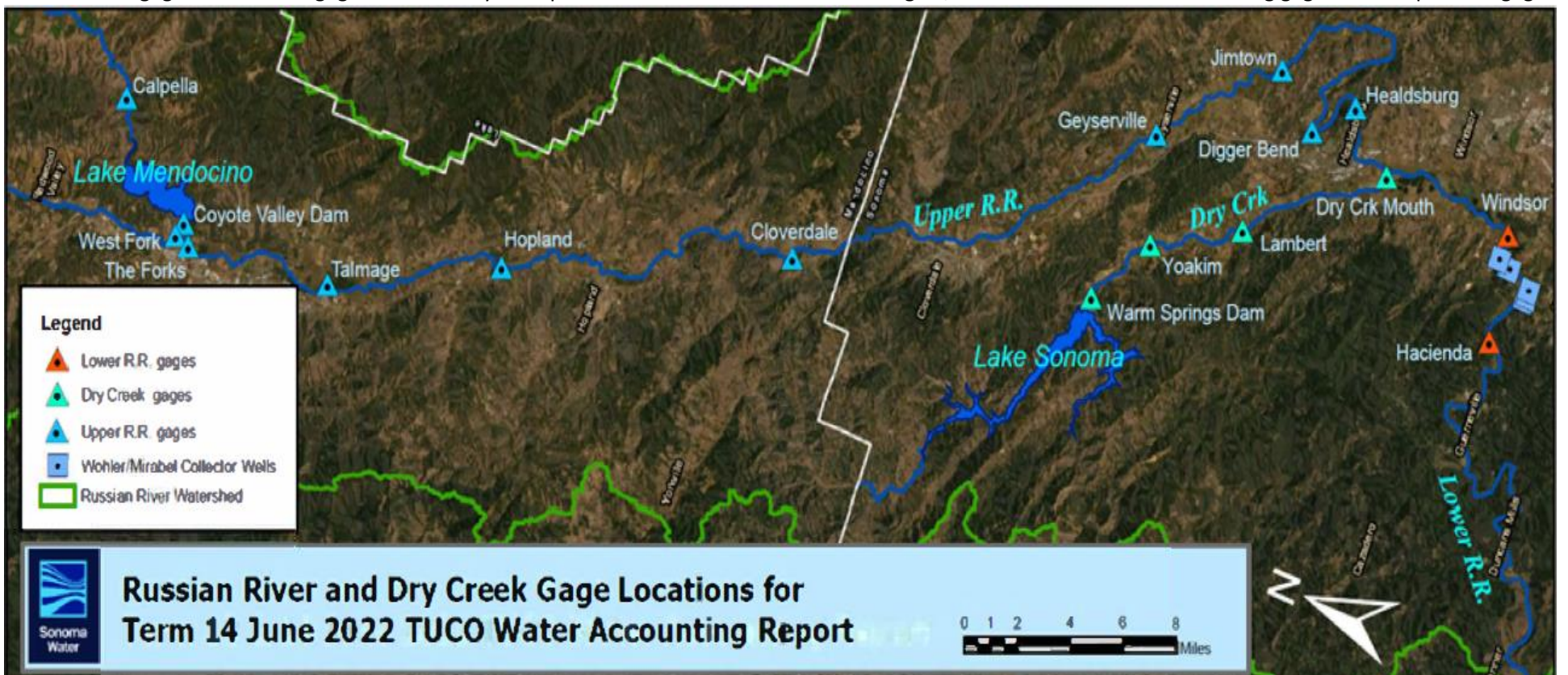
## LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



## LOWER RUSSIAN RIVER STREAM FLOWS



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

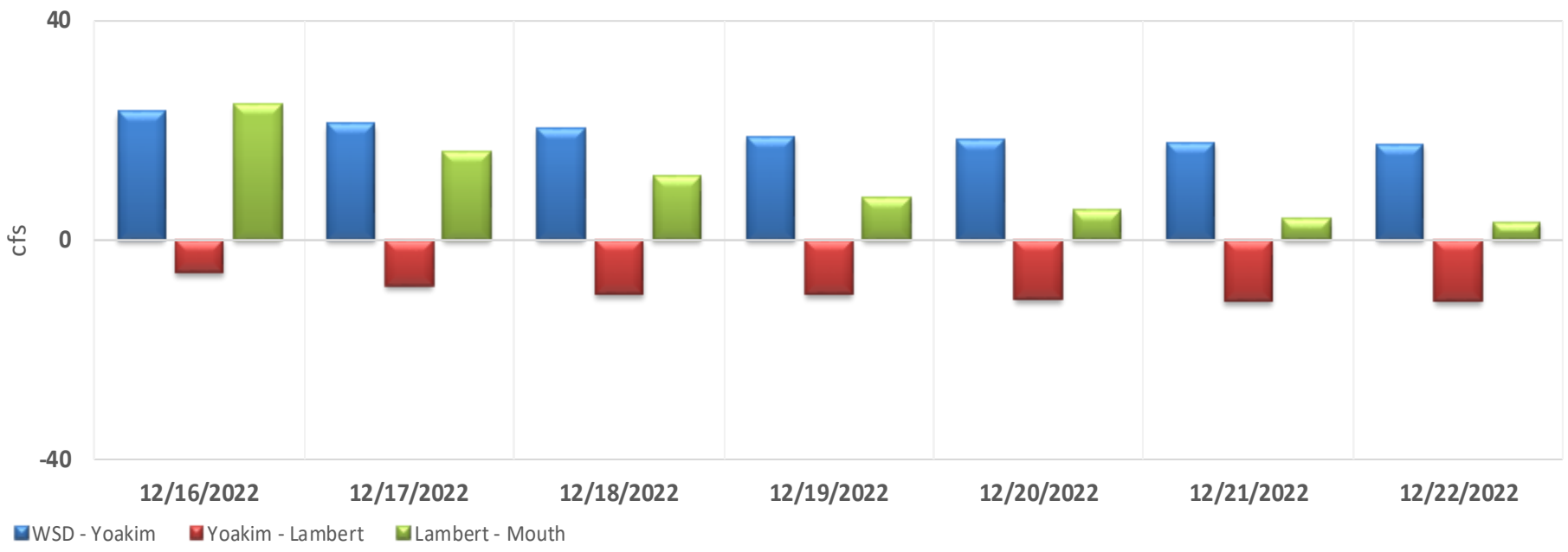




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## DRY CREEK NET REACH GAINS (+) / LOSSES (-)



## DRY CREEK STREAM FLOWS

