

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

Report Date: 11/25/2022

Units are cfs unless noted otherwise

	<u>11/18/2022</u>	<u>11/19/2022</u>	<u>11/20/2022</u>	<u>11/21/2022</u>	<u>11/22/2022</u>	<u>11/23/2022</u>	<u>11/24/2022</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	12.0	12.0	12.0	12.0	12.0	12.0	12.0
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	1.2	1.2	1.2	1.1	1.1
East Fork Release	11.0	11.0	11.0	11.0	11.0	11.0	11.0
PVID E Fork Diversions	8.9	8.9	8.9	8.9	8.9	8.9	8.9
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)	2.1	2.1	2.2	2.2	2.2	2.1	2.1
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	13.9	13.7	13.8	13.8	14.1	14.1	13.9
Net Reach Loss(-)/Gain(+)	+1.9	+1.7	+1.8	+1.8	+2.1	+2.1	+1.9
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.)	-11.9	-11.7	-11.8	-11.8	-12.1	-12.1	-11.9
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-11.9	-11.7	-11.8	-11.8	-12.1	-12.1	-11.9

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	23	47	23	26	14	26	56
(cfs)	12	24	12	13	7	13	28
Natural Flow	1	13	1	2	0	2	17
Import	11	11	11	11	7	11	11
Storage Change (ac-ft)	-39.0	-14.0	-39.0	-39.0	-53.0	-39.0	-13.0
(cfs)	-20	-7	-20	-20	-27	-20	-7
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)	8.5	7.4	8.5	7.4	6.4	7.4	9.5
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	27	27	27	29	31	29	30
Storage (Project Water)	15	3	15	16	24	16	2
Natural Flow	1	13	1	2	0	2	17
Import Water	11	11	11	11	7	11	11
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	27	27	29	31	29	30
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	12	24	12	13	7	13	28
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	Yes	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	27	27	27	28	27	27	28
Controlling Gage	Forks	Forks	Forks	Hopland	Hopland	Cloverdale	Cloverdale
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	27	27	29	31	29	30
Talmage (USGS 11462080)	96.1	32	31	31	30	32	33
Hopland (USGS 11462500)	84.8	28	28	28	27	28	30
Cloverdale (USGS 11463000)	70.9	28	30	31	30	27	28
Geyserville (USGS 11463500)	54.4	39	38	38	37	36	35
Jimtown (USGS 11463682)	48.5	44	42	42	41	40	39
Digger Bend (USGS 11463980)	38.2	38	37	36	35	33	32
Healdsburg (USGS 11464000)	35.6	43	42	40	39	39	38
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+5	+4	+4	+3	-0	+3	+4
Talmage - Hopland	-3	-4	-4	-4	-4	-3	-2
Hopland - Cloverdale	+1	+2	+3	+3	+1	+1	-0
Cloverdale - Jimtown	+13	+14	+11	+11	+11	+12	+12
Jimtown - Digger Bend	-6	-6	-7	-7	-8	-7	-7
Digger Bend - Healdsburg	+4	+4	+5	+5	+5	+6	+6
Upper Russian Net Reach Loss/Gain	+14	+15	+13	+11	+5	+11	+11
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	+0	+0	+0	-1	-4	+0	+1
Storage (Project Water)	0	0	0	-1	-4	0	0
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	1
Total Pass-through Water	12	24	12	13	7	13	29
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)	-232.0	-245.0	-231.0	-244.0	-259.0	-201.0	-257.0
(cfs)	-117	-124	-116	-123	-131	-101	-130
Evaporation (ac-ft)	5.8	5.8	5.8	5.8	5.7	5.7	5.7
Inflow (Natural Flow)	0	0	0	0	0	9	0
WSD Release Gage	107	106	107	109	107	107	107
Storage (Project Water)	107	106	107	109	107	98	107
Natural Flow	0	0	0	0	0	9	0

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	105	105	105	105	105	105	105
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Controlling Compliance Gage

Min Gage Flow	107	106	107	109	107	107	107
Controlling Gage	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release

All Compliance Gages

	<i>Crk mi.</i>						
WSD Release	14.3	107	106	107	109	107	107
Yoakim (USGS 11465200)	11.1	117	117	117	117	118	118
Lambert (USGS 11465240)	6.8	114	114	114	115	114	114
Dry Crk Mouth (USGS 11465350)	0.1	114	116	116	116	117	116

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	0	0	0	0	0	9	0
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+11	+11	+10	+8	+10	+11	+11
Yoakim - Lambert	-3	-3	-3	-2	-3	-4	-4
Lambert - Dry Crk Mouth	+0	+2	+2	+2	+2	+2	+2
WSD - Dry Crk Mouth	+8	+10	+9	+8	+9	+9	+9

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	26	14	26	27	31	26	10
Natural Flow	15	28	14	13	5	13	29

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	107	106	107	109	107	98	107
Natural Flow	8	10	9	8	9	18	9

Russian River d/s of Confluence Flow

	157	158	157	156	156	155	154
L. Mendocino Project Water + Import Water	26	14	26	27	31	26	10
L. Sonoma Project Water	107	106	107	109	107	98	107
Natural Flow	22	38	23	21	14	31	38

VII. Lower Russian River Reach

Minimum Instream Flow Requirement

	35	35	35	35	35	35	35
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Controlling Compliance Gage

Min Gage Flow	108	107	103	103	103	102	98
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	108	107	103	103	102	98

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	153	167	156	151	157	160	154
Net Reach Loss(-)/Gain(+)	-4	+9	-0	-5	+1	+5	-0
L. Mendocino Project Water + Import Water	26	14	26	27	31	26	10
L. Sonoma Project Water	104	103	104	106	104	96	104
Natural Flow	18	47	23	16	15	36	38

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-49	-51	-54	-53	-53	-53	-56
L. Mendocino Project Water + Import Water	26	14	26	27	31	26	10
L. Sonoma Project Water	59	44	51	58	50	38	48
Natural Flow	18	47	23	16	15	36	38

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

Lower Russian River

Sonoma Water Total	88.5	118.2	106.1	95.4	106.4	115.3	111.0
Wohler	38.8	66.3	60.4	51.1	60.3	49.4	39.0
Mirabel	49.7	51.8	45.7	44.4	46.2	65.9	72.0
Town of Windsor River Wellfield	5.6	5.3	5.0	5.1	5.8	5.5	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:

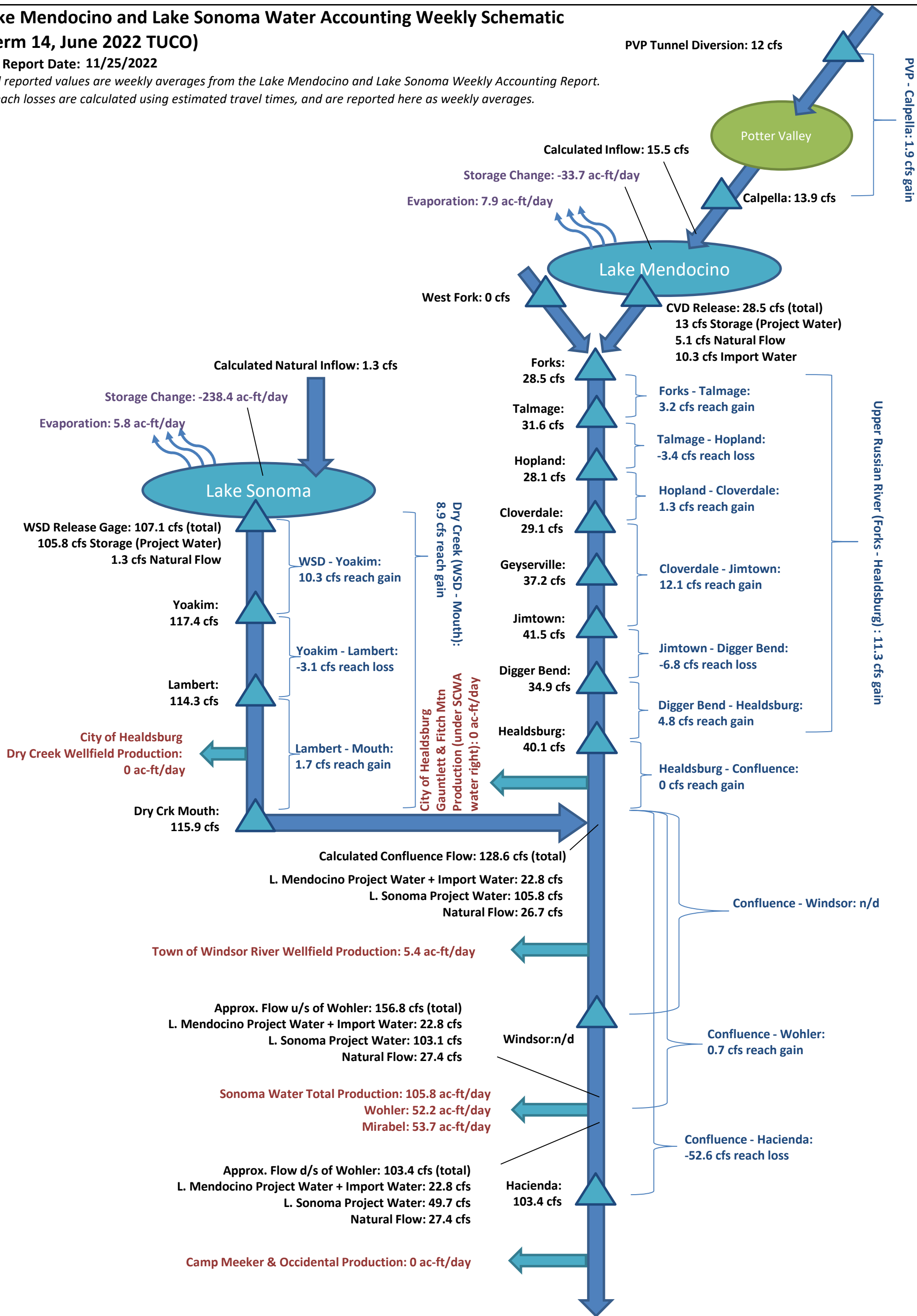
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

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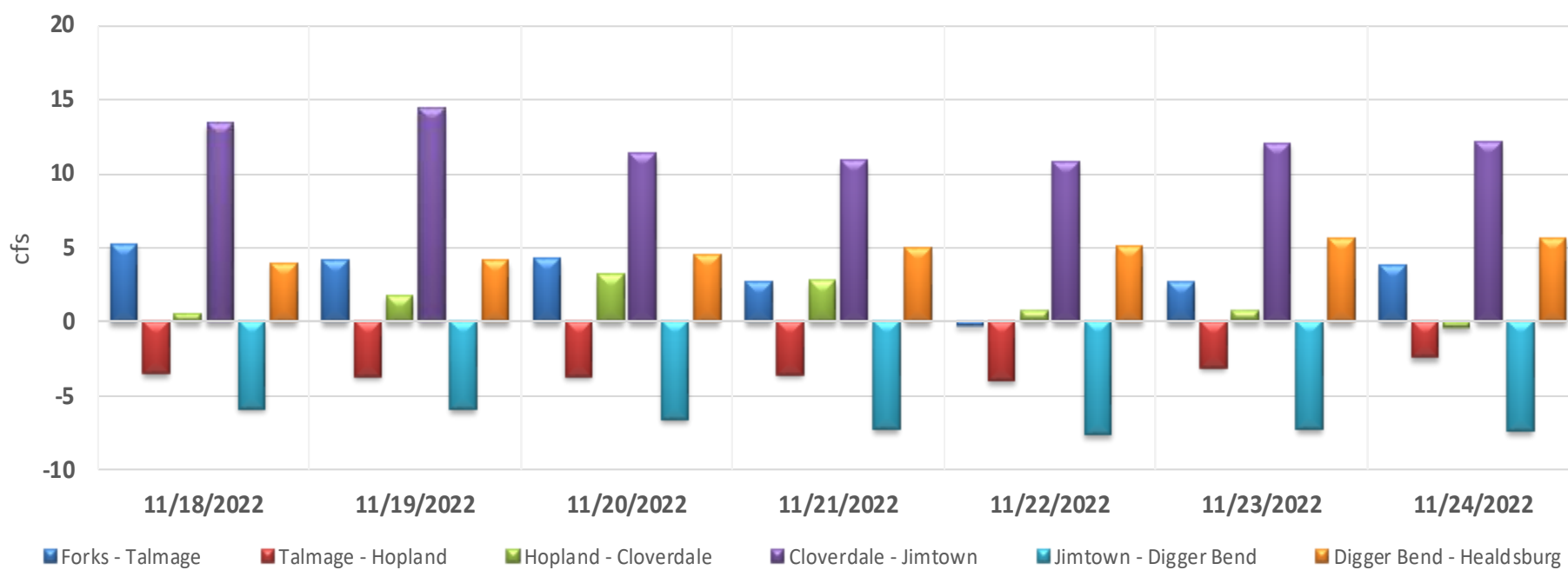
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



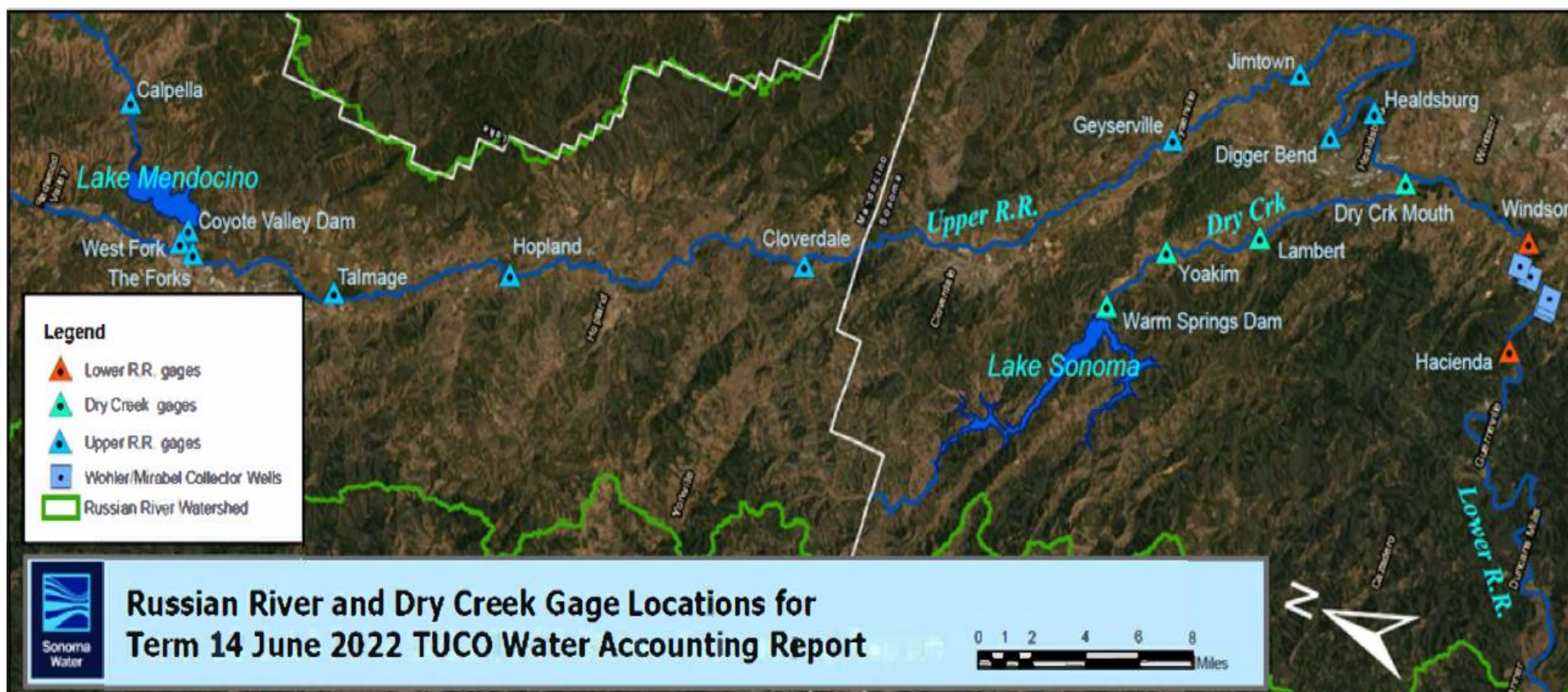
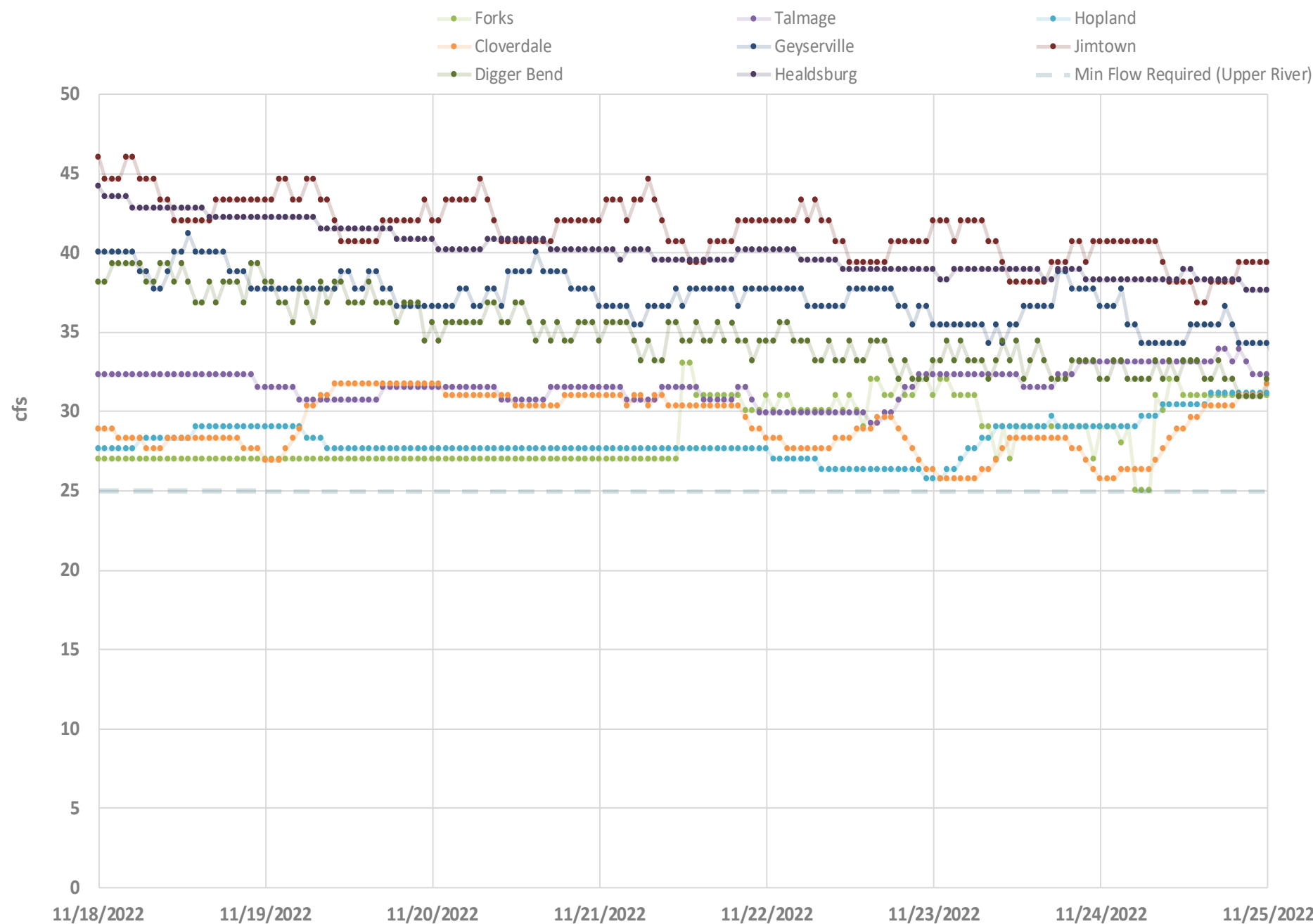
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



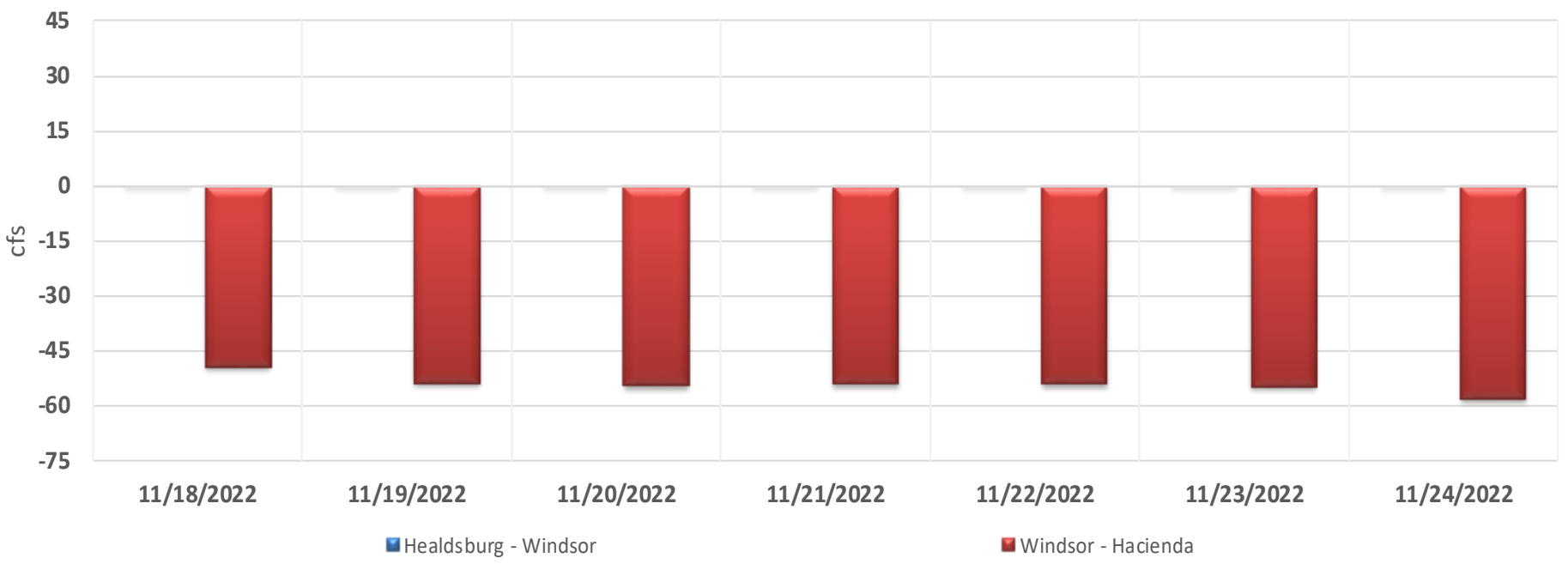
UPPER RUSSIAN RIVER STREAM FLOWS



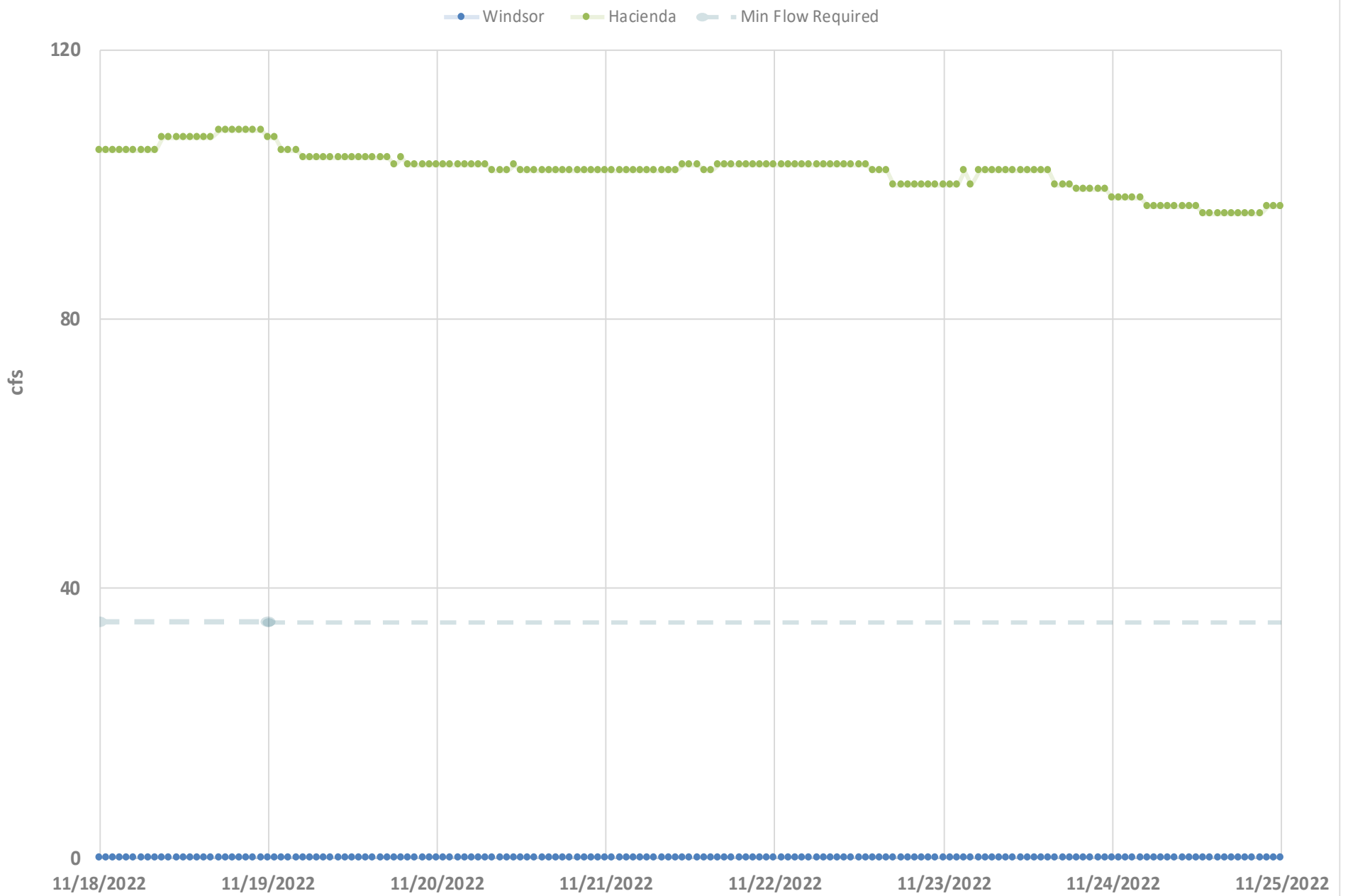
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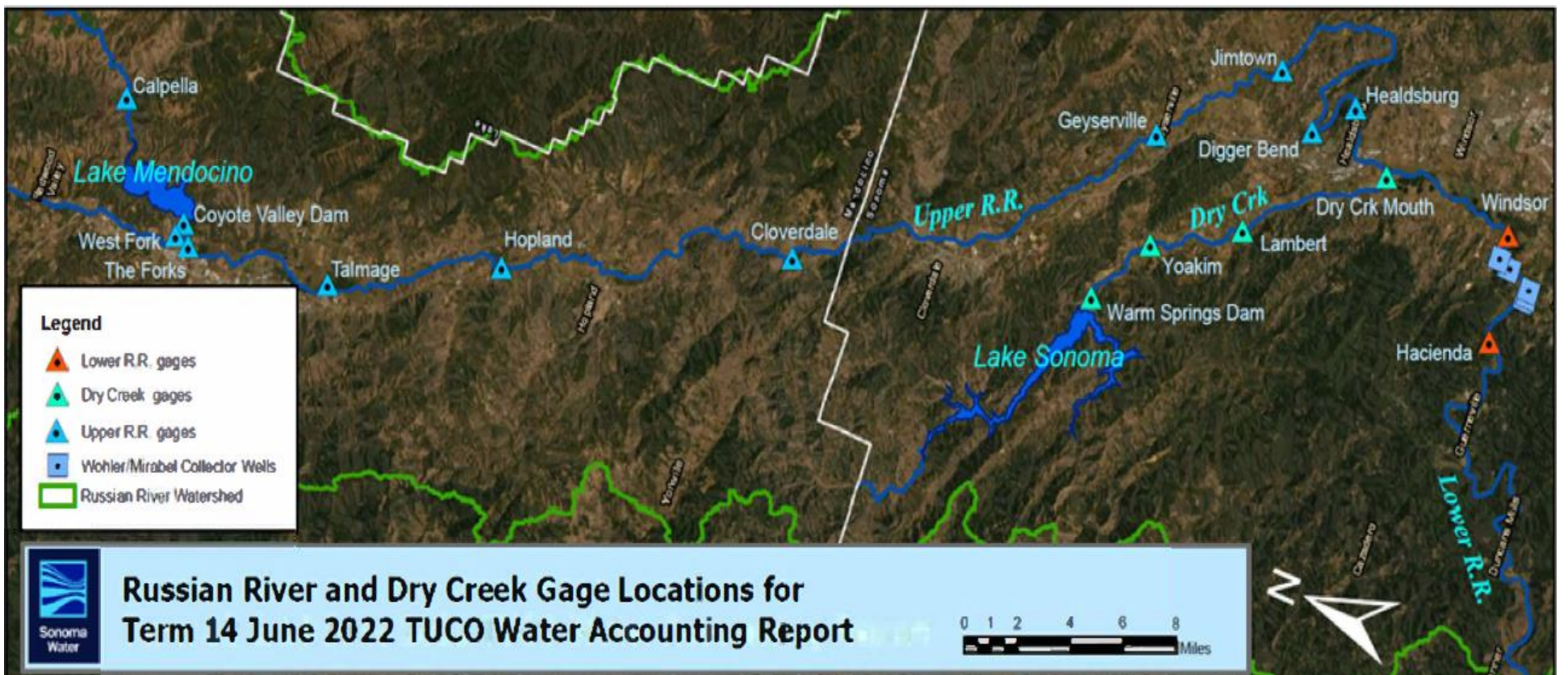
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



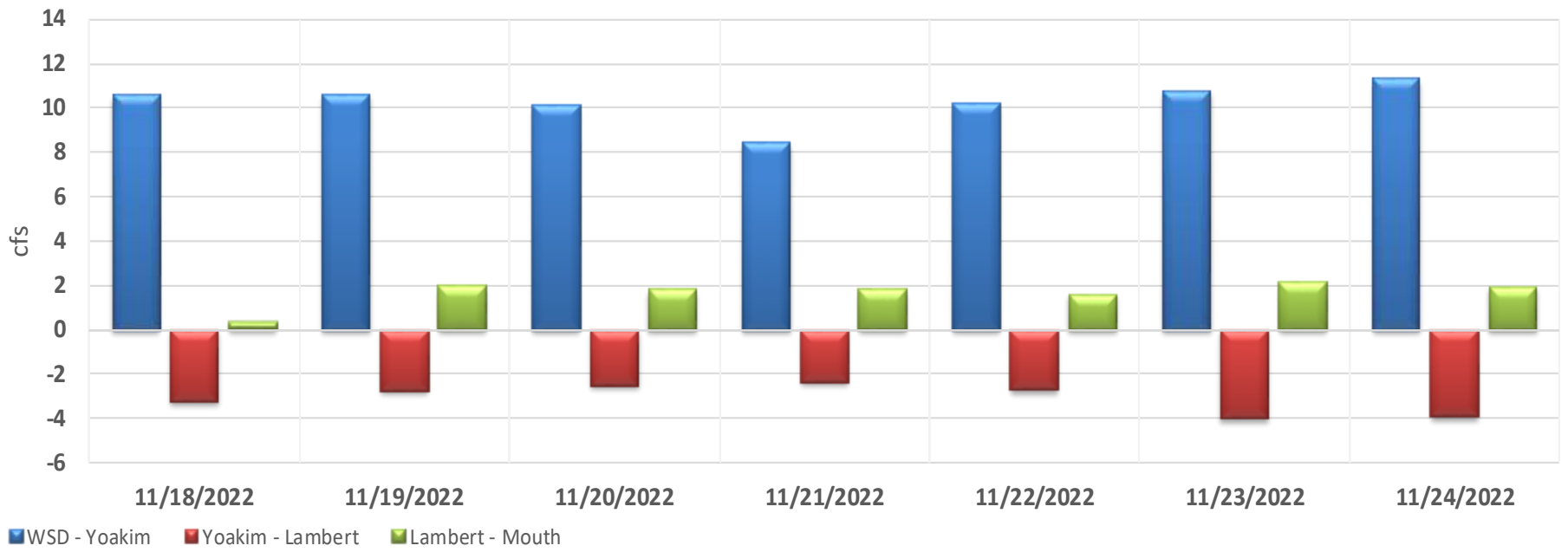
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

