

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

Report Date: 10/14/2022

Units are cfs unless noted otherwise

	<u>10/7/2022</u>	<u>10/8/2022</u>	<u>10/9/2022</u>	<u>10/10/2022</u>	<u>10/11/2022</u>	<u>10/12/2022</u>	<u>10/13/2022</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	16.0	19.0	25.0	28.0	35.0	35.0	35.0
PVID Requested Delivery	11.8	15.0	15.0	11.6	10.0	10.0	10.0
PVID Canals Actual Delivery	4.3	4.5	4.3	4.7	11.4	15.0	15.0
East Fork Release	12.0	15.0	21.0	23.0	24.0	20.0	20.0
PVID E Fork Diversions	7.4	10.5	10.7	6.9	-1.4	-5.0	-5.0
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)	4.6	4.5	10.3	16.1	25.4	25.0	25.0
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	9.0	8.4	10.2	10.6	15.5	13.6	12.0
Net Reach Loss(-)/Gain(+)	-7.0	-10.6	-14.8	-17.4	-19.5	-21.4	-23.0
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.)	-4.7	-4.4	-0.2	5.8	9.5	11.4	13.0
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import (neg. value is return flow)	-4.7	-4.4	-0.2	5.8	9.5	11.4	13.0
II. Lake Mendocino							
Reservoir Operations							
Calculated Inflow (ac-ft)	16	16	16	43	44	44	44
(cfs)	8	8	8	22	22	22	22
Natural Flow	0	0	0	11	7	9	10
Import	8	8	8	11	16	14	12
Storage Change (ac-ft)	-123.0	-123.0	-123.0	-95.0	-95.0	-95.0	-95.0
(cfs)	-62	-62	-62	-48	-48	-48	-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)	18.3	18.3	18.3	17.2	18.2	18.2	18.2
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	61	61	61	61	61	61	61
Storage (Project Water)	53	53	53	39	39	39	39
Natural Flow	0	0	0	11	7	9	10
Import Water	8	8	8	11	16	14	12
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	61	61	61	61	61	61
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	8	8	8	22	22	22	22
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	Yes	Yes
III. Upper Russian River Reach							
Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	41	40	39	40	40	39	38
Controlling Gage	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	61	61	61	61	61	61
Talmage (USGS 11462080)	96.1	61	62	61	62	51	54
Hopland (USGS 11462500)	84.8	55	55	54	56	50	47
Cloverdale (USGS 11463000)	70.9	49	48	52	52	45	45
Geyserville (USGS 11463500)	54.4	46	44	45	47	47	43
Jimtown (USGS 11463682)	48.5	47	46	46	48	47	45
Digger Bend (USGS 11463980)	38.2	41	40	39	40	40	38
Healdsburg (USGS 11464000)	35.6	43	43	42	43	42	41
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	+1	+1	+0	+1	-10	-9	-7
Talmage - Hopland	-6	-7	-7	-6	-5	-5	-6
Hopland - Cloverdale	-4	-7	-3	-3	-4	-3	-2
Cloverdale - Jimtown	-4	-3	-1	-4	-5	-5	-1
Jimtown - Digger Bend	-7	-6	-7	-7	-8	-8	-7
Digger Bend - Healdsburg	+2	+2	+3	+3	+3	+3	+3
Upper Russian Net Reach Loss/Gain	-18	-20	-15	-16	-29	-26	-21
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-20	-23	-17	-20	-32	-29	-24
Storage (Project Water)	-20	-23	-17	-20	-32	-29	-24
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	8	8	8	22	22	22	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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	-199.0	-214.0	-199.0	-213.0	-214.0	-213.0	-182.0
(cfs)	-100	-108	-100	-107	-108	-107	-92
Evaporation (ac-ft)	11.9	11.9	10.7	10.7	10.7	7.1	9.5
Inflow (Natural Flow)	0	0	0	0	0	0	7
WSD Release Gage	93	94	94	94	94	94	94
Storage (Project Water)	93	94	94	94	94	94	87
Natural Flow	0	0	0	0	0	0	7

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	80	80	80	80	80	80	80
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Controlling Compliance Gage

Min Gage Flow	85	88	85	89	85	86	86
Controlling Gage	Yoakim	Yoakim	Yoakim	Yoakim	Yoakim	Yoakim	Yoakim

All Compliance Gages

	<i>Crk mi.</i>						
WSD Release	14.3	93	94	94	94	94	94
Yoakim (USGS 11465200)	11.1	85	88	85	89	85	86
Lambert (USGS 11465240)	6.8	92	92	93	92	93	93
Dry Crk Mouth (USGS 11465350)	0.1	89	89	89	89	88	89

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	0	0	0	0	0	0	7
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	-8	-6	-8	-5	-9	-8	-8
Yoakim - Lambert	+8	+5	+7	+4	+7	+7	+7
Lambert - Dry Crk Mouth	-3	-3	-4	-4	-4	-5	-4
WSD - Dry Crk Mouth	-3	-4	-5	-5	-6	-6	-4

WSD Project Water Release to Meet Min Flow Requirement

Net Reach Loss/Gain to Controlling Gage	-8	-6	-8	-5	-9	-8	-8
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	43	43	42	43	42	43	41
Natural Flow	0	0	0	0	0	0	0

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	93	94	94	94	94	94	87
Natural Flow	0	0	0	0	0	0	2

Russian River d/s of Confluence Flow

	132	132	131	132	131	131	130
L. Mendocino Project Water + Import Water	43	43	42	43	42	43	41
L. Sonoma Project Water	93	94	94	94	94	94	87
Natural Flow	0	0	0	0	0	0	2

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	80	76	75	73	81	84	81
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	80	76	75	73	81	81

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	150	144	138	113	124	131	154
Net Reach Loss(-)/Gain(+)	+18	+12	+6	-19	-6	+0	+24
L. Mendocino Project Water + Import Water	43	43	42	43	42	43	41
L. Sonoma Project Water	89	90	90	90	90	90	83
Natural Flow	18	12	6	0	0	0	26

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-52	-56	-57	-58	-49	-47	-49
L. Mendocino Project Water + Import Water	43	43	42	43	42	43	41
L. Sonoma Project Water	20	22	27	51	47	43	11
Natural Flow	18	12	6	0	0	0	26

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

Lower Russian River

Sonoma Water Total	137.8	135.0	125.2	77.8	85.5	93.5	143.8
Wohler	46.3	46.6	47.6	68.7	82.6	93.5	105.2
Mirabel	91.5	88.4	77.6	9.1	2.9	0.0	38.6
Town of Windsor River Wellfield	7.8	7.9	7.8	7.3	7.8	7.6	7.7
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:

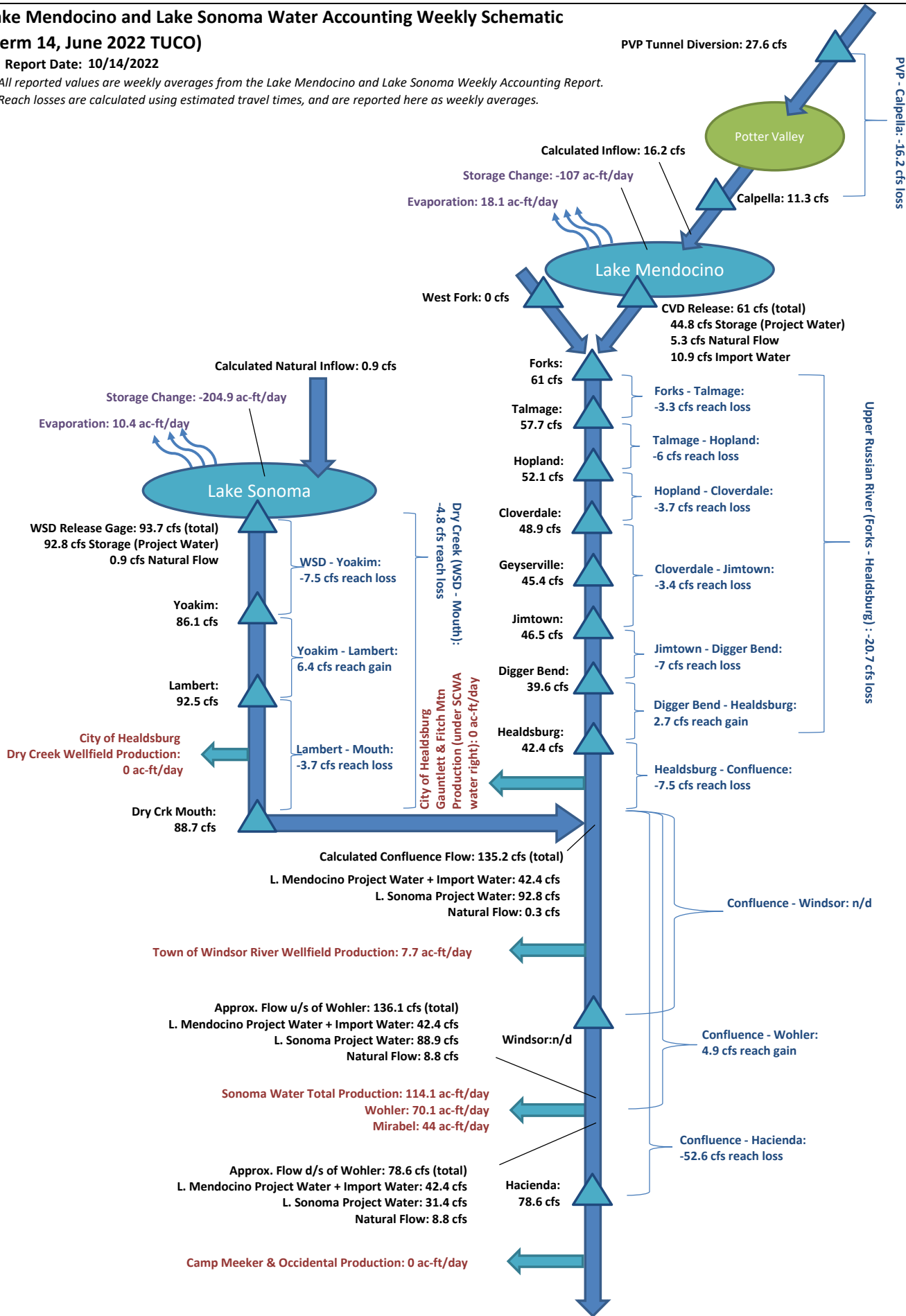
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 14, June 2022 TUCO)

Report Date: 10/14/2022

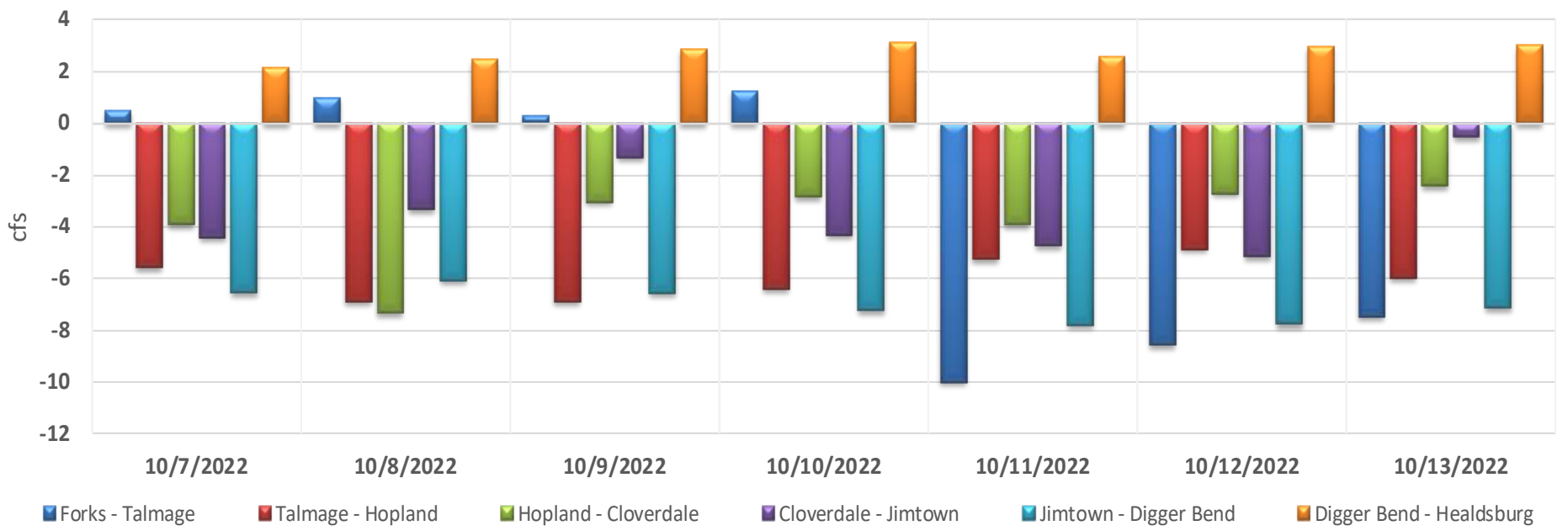
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



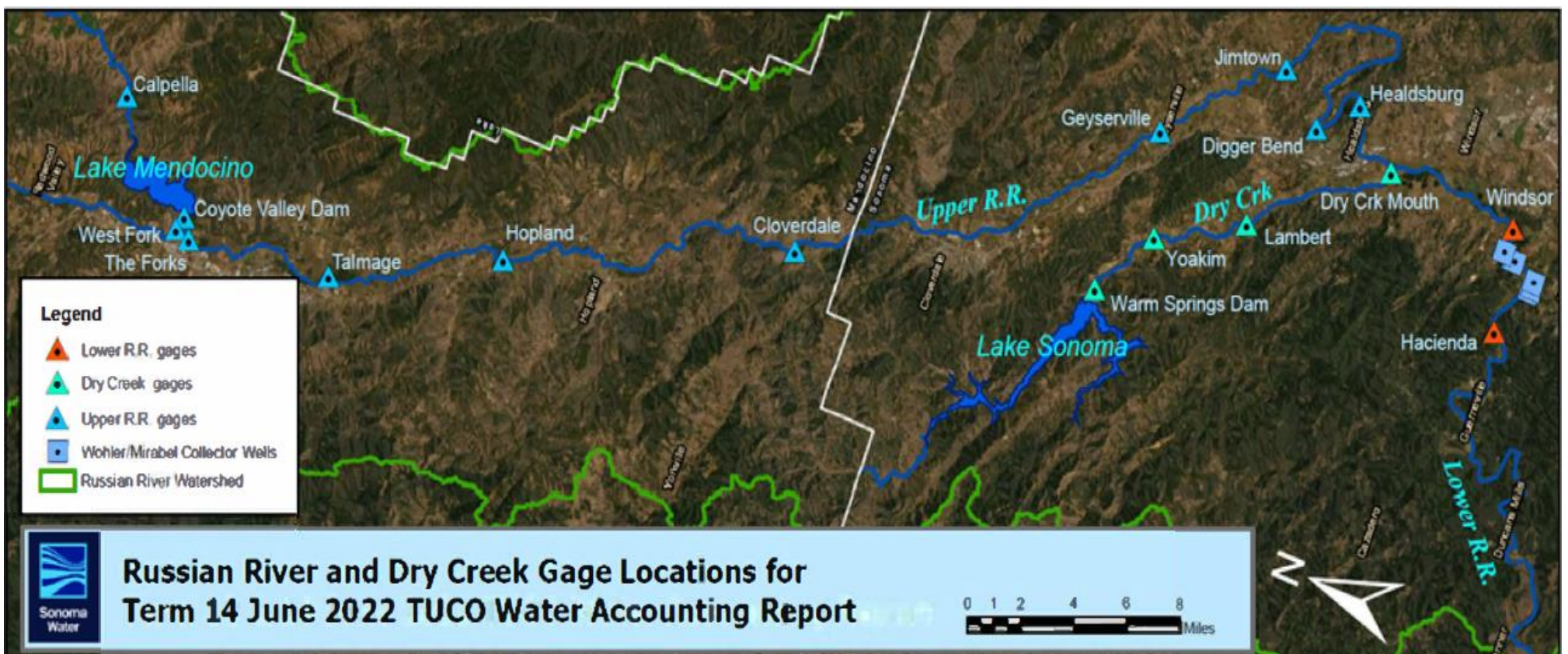
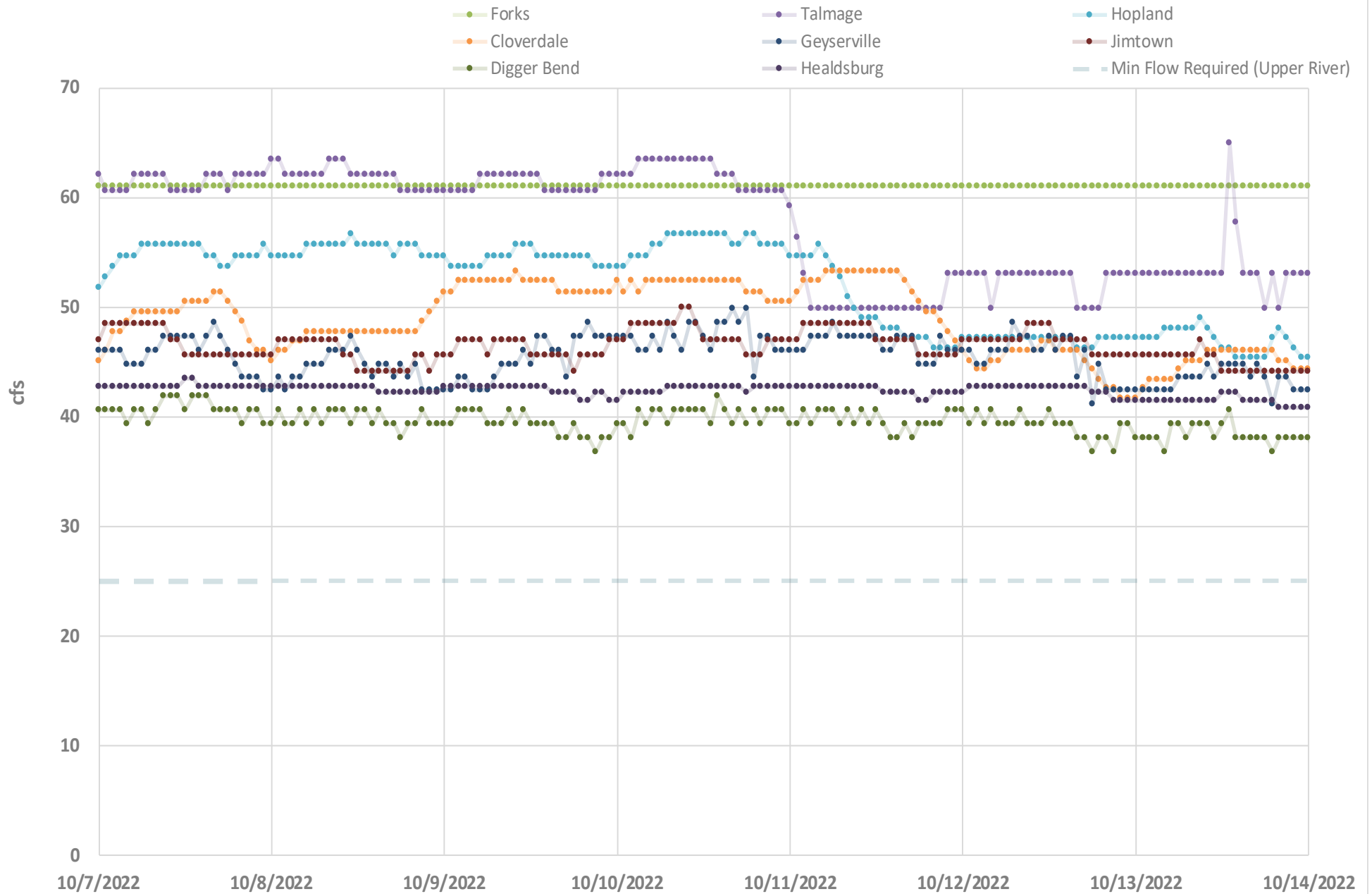
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS



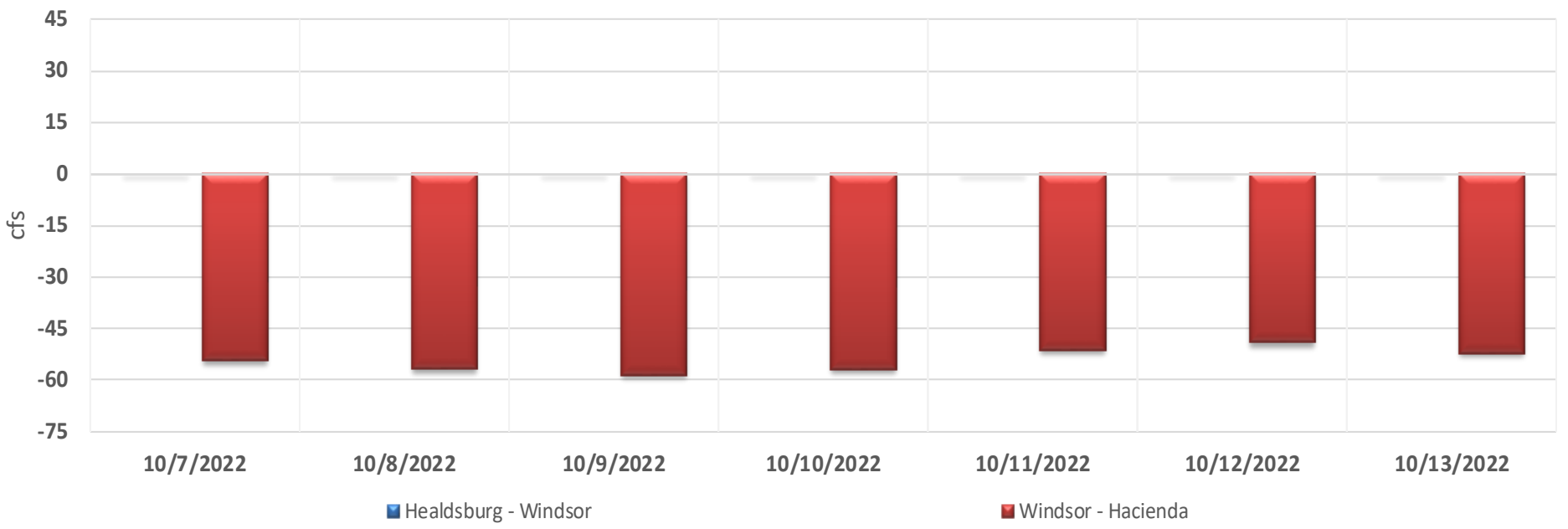
Russian River and Dry Creek Gage Locations for Term 14 June 2022 TUCO Water Accounting Report



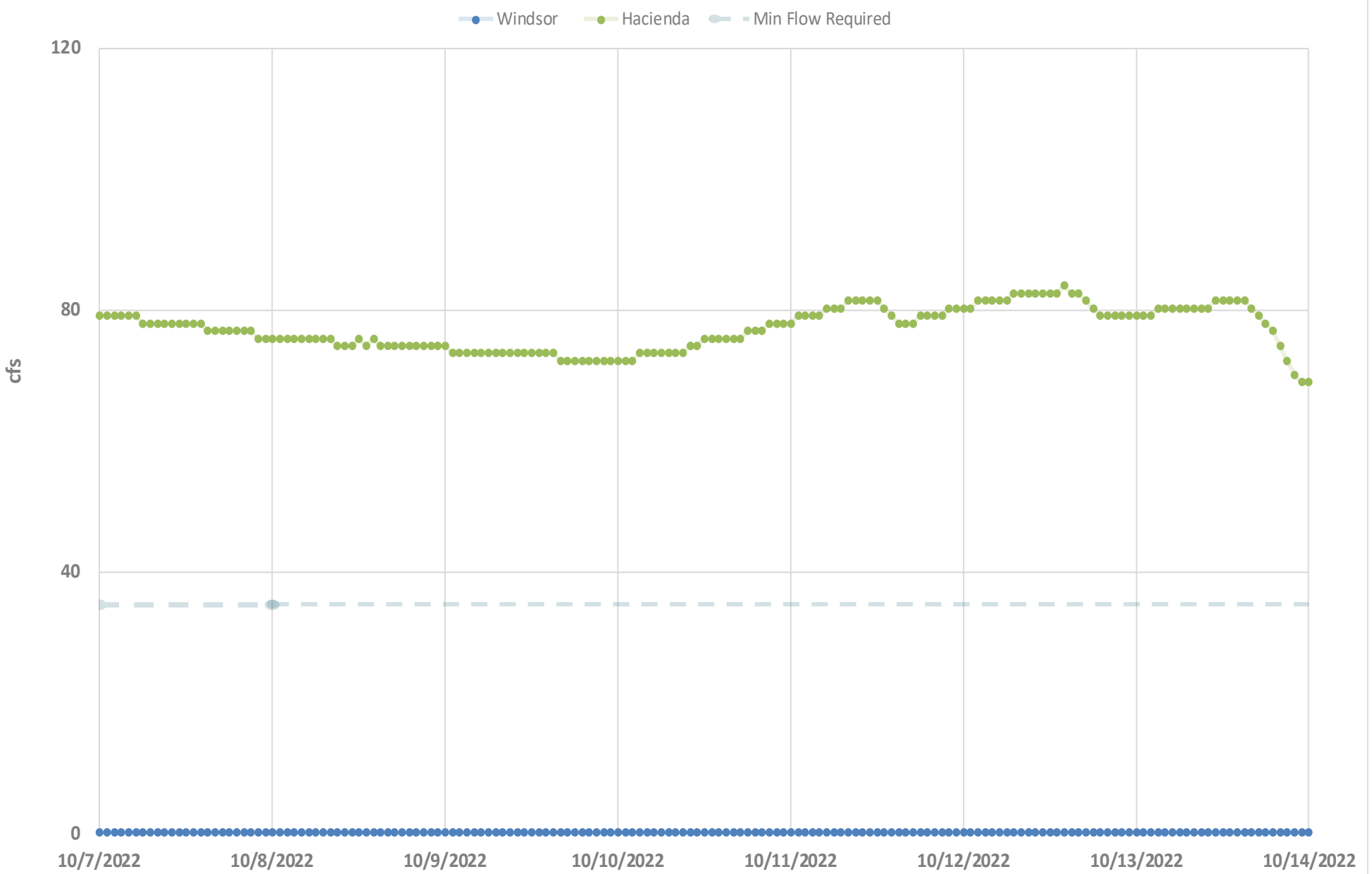
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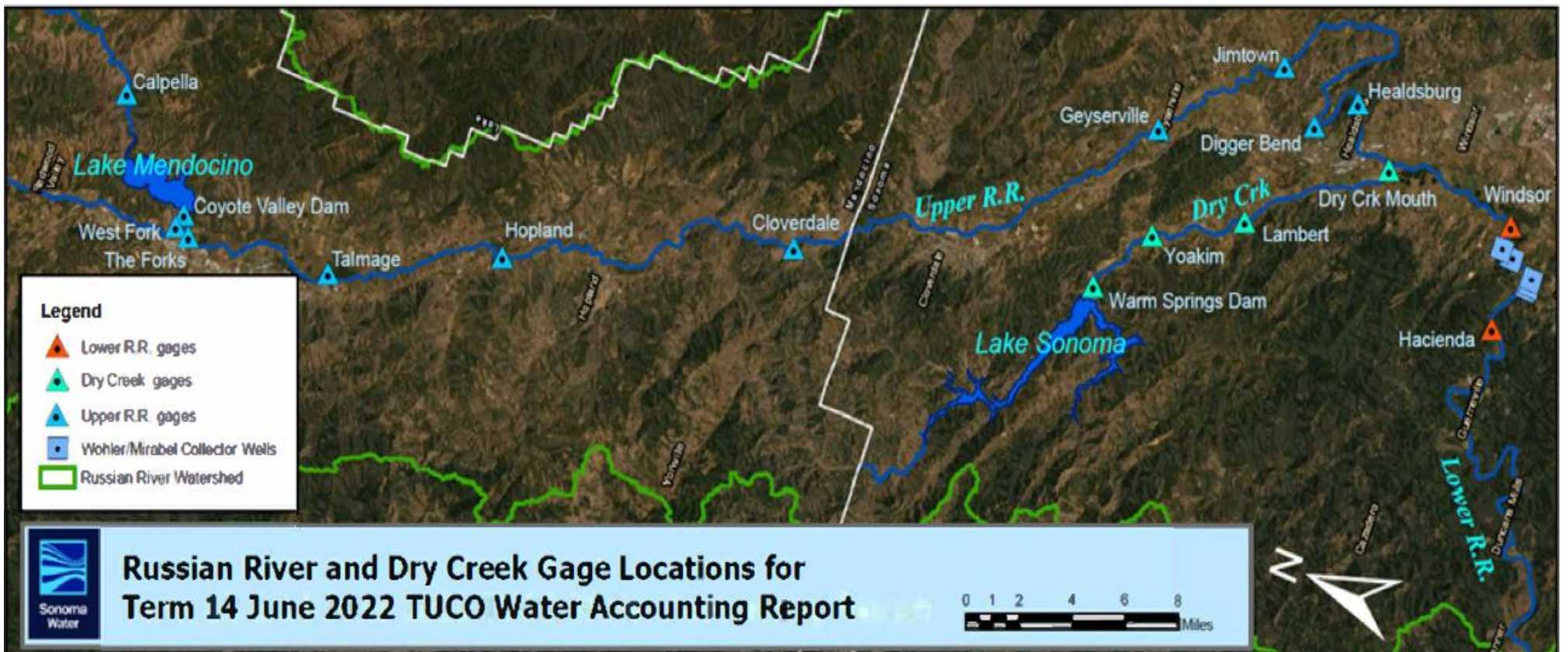
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



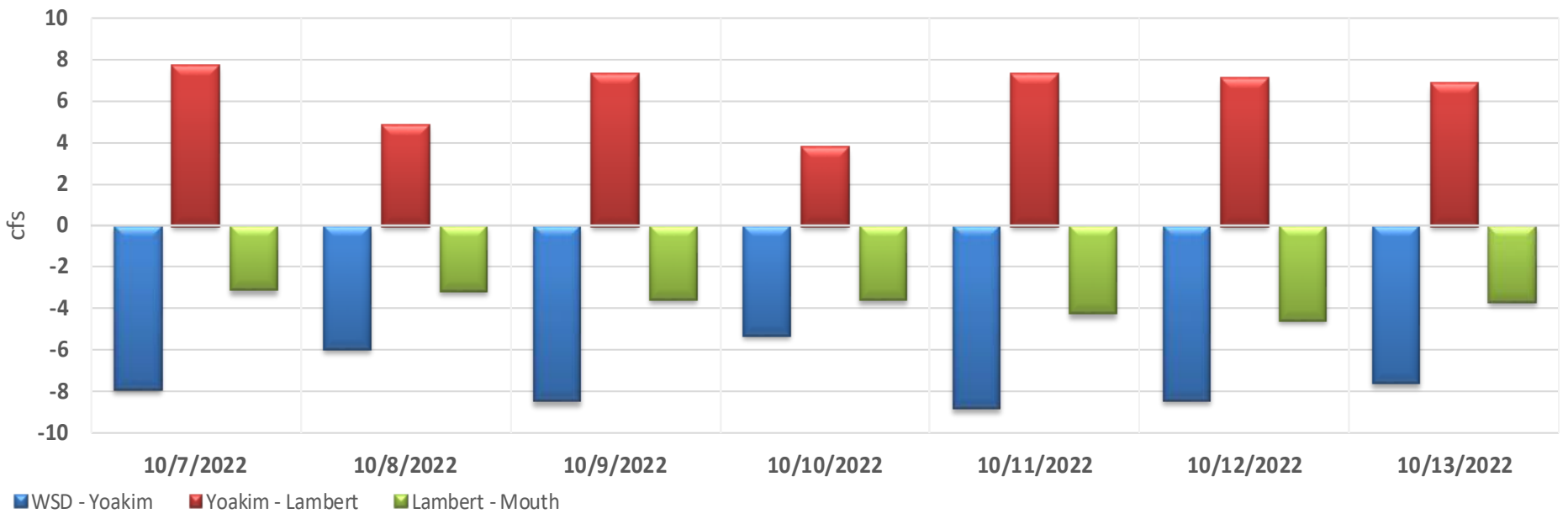
Note: Winsor gage is a seasonal gage and currently not operational. Winsor – Hacienda reach gain/loss is calculated with Healdsburg gages as the upstream gage.



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



DRY CREEK STREAM FLOWS

