

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Terms 12 & 13 June 2021 TUCO)

Report Date: 10/22/2021

Units are cfs unless noted otherwise

	<u>10/15/2021</u>	<u>10/16/2021</u>	<u>10/17/2021</u>	<u>10/18/2021</u>	<u>10/19/2021</u>	<u>10/20/2021</u>	<u>10/21/2021</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PVID Requested Delivery	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery	1.3	1.3	1.3	1.3	1.3	1.3	1.3
East Fork Release	8.7	8.7	8.7	8.7	8.7	8.7	8.7
PVID E Fork Diversions	3.7	3.7	3.7	3.7	3.7	3.7	3.7
PVID Water Use - PG&E Contract	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Water Use - License 5264	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Fork Downstream of PVID	5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canal Net Return Flow (assumed)	5.3	6.3	5.8	7.3	8.4	10.0	10.6
East Fork / Potter Valley Reach Analysis							
USGS E Fork @ Calpella	10.3	11.3	10.8	12.3	13.4	15.0	15.6
Net Reach Loss(-)/Gain(+)	+0.3	+1.3	+0.8	+2.3	+3.4	+5.0	+5.6
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.)	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)	9.8	0.0	0.0	3.1	89.1	58.6	74.0
(cfs)	5	0	0	2	45	30	37
Natural Flow	0	0	0	0	0	0	0
Import	5	0	0	2	45	30	37
Storage Change (ac-ft)	-133.0	-145.0	-144.0	-139.0	-46.0	-51.0	-30.0
(cfs)	-67	-73	-73	-70	-23	-26	-15
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)	7.9	8.4	4.5	5.0	5.0	2.0	3.5
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	68	68	68	69	66	54	51
Storage (Project Water)	63	68	68	68	21	25	13
Natural Flow	0	0	0	0	0	0	0
Import Water	5	0	0	2	45	30	37
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage		<i>Rvr mi.</i>					
CVD Release	68	99.9	68	69	66	54	51
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	5	0	0	2	45	30	37
Project Water Release Required	Yes	Yes	Yes	Yes	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement

Minimum Instream Flow Requirement	25	25	25	25	25	25	25
Controlling Compliance Gage							
Min Gage Flow	32	32	32	33	33	41	44
Controlling Gage	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Digger Bend	Healdsburg
All Compliance Gages							
		<i>Rvr mi.</i>					
Forks (CVD + USGS 11461000)	68	99.0	68	69	66	54	51
Talmage (USGS 11462080)	58	96.1	57	58	54	49	45
Hopland (USGS 11462500)	54	84.8	51	54	56	52	47
Cloverdale (USGS 11463000)	49	70.9	47	46	49	53	49
Geyserville (USGS 11463500)	36	54.4	37	36	38	40	49
Jimtown (USGS 11463682)	40	48.5	40	41	44	50	54
Digger Bend (USGS 11463980)	32	38.2	32	32	33	41	46
Healdsburg (USGS 11464000)	34	35.6	34	35	36	42	44
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-10	-11	-10	-8	-12	-7	-6
Talmage - Hopland	-7	-7	-6	-2	-4	-2	+1
Hopland - Cloverdale	-5	-5	-4	-5	-6	-1	+1
Cloverdale - Jimtown	-8	-9	-6	-4	-5	-2	+1
Jimtown - Digger Bend	-9	-9	-8	-9	-9	-5	-6
Digger Bend - Healdsburg	+2	+2	+3	+3	+4	+3	+0
Upper Russian Net Reach Loss/Gain	-37	-38	-30	-26	-32	-14	-9
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-39	-40	-33	-29	-36	-17	-9
Storage (Project Water)	39	40	33	29	-21	17	9
Pass-through Water (Natural + Import)	0	0	0	0	-56	0	0
Total Pass-through Water	5	0	0	2	-11	30	37
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	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).

IV. Lake Sonoma

Lake Sonoma

Storage Change (ac-ft)	-195.0	-196.0	-150.0	-195.0	-135.0	-120.0	-60.0
(cfs)	-98	-99	-76	-98	-68	-61	-30
Evaporation (ac-ft)	11.7	12.9	7.0	7.0	7.0	4.7	4.7
Inflow (Natural Flow)	0	0	15	0	22	29	59
WSD Release Gage	87	87	87	87	87	87	87
Storage (Project Water)	87	87	72	87	65	58	28
Natural Flow	0	0	15	0	22	29	59

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement

	25	25	25	25	25	25	25
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Controlling Compliance Gage

Min Gage Flow	76	76	77	79	80	87	87
Controlling Gage	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	WSD Release	WSD Release

All Compliance Gages

	<i>Crk mi.</i>						
WSD Release	14.3	87	87	87	87	87	87
Yoakim (USGS 11465200)	11.1	87	87	88	88	90	91
Lambert (USGS 11465240)	6.8	91	91	92	93	96	97
Dry Crk Mouth (USGS 11465350)	0.1	76	76	77	79	80	89

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	0	0	15	0	22	29	59
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+0	+0	+1	+1	+1	+3	+4
Yoakim - Lambert	+4	+4	+5	+5	+5	+7	+7
Lambert - Dry Crk Mouth	-15	-15	-14	-14	-13	-7	-2
WSD - Dry Crk Mouth	-11	-11	-9	-8	-7	+3	+8

WSD Project Water Release to Meet Min Flow Requirement

Net Reach Loss/Gain to Controlling Gage	-11	-11	-9	-8	-7	+3	+4
Project Water Release Required	Yes	Yes	Yes	Yes	Yes	No	No

VI. Russian River - Dry Creek Confluence

Upper Russian River Flow (Healdsburg Gage)

L. Mendocino Project Water + Import Water	34	34	35	36	37	42	44
Natural Flow	0	0	0	0	0	0	0

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	76	76	72	79	65	57	28
Natural Flow	0	0	6	0	15	32	67

Russian River d/s of Confluence Flow

	110	110	112	115	116	132	139
L. Mendocino Project Water + Import Water	34	34	35	36	37	42	44
L. Sonoma Project Water	76	76	72	79	65	57	28
Natural Flow	0	0	6	0	15	32	67

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	40	40	42	45	48	53	56
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	99	98	99	101	115	121
Hacienda (USGS 11467000)	21.8	40	40	42	45	48	56

Confluence to Windsor Reach Analysis

Net Reach Loss/Gain to Windsor Gage	-11	-12	-13	-14	-15	-17	-18
L. Mendocino Project Water + Import Water	34	34	35	36	37	42	44
L. Sonoma Project Water	72	72	68	76	61	54	25
Natural Flow	0	0	2	0	18	50	119

Confluence to SCWA Wohler Production Facility Reach Analysis

Approx. Flow u/s of Wohler	101	102	93	99	110	108	97
Net Reach Loss(-)/Gain(+)	-9	-9	-19	-16	-6	-23	-41
L. Mendocino Project Water + Import Water	27	26	25	23	22	11	-24
L. Sonoma Project Water	72	72	68	76	61	54	25
Natural Flow	2	3	0	0	27	44	96

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-70	-70	-70	-70	-68	-79	-82
L. Mendocino Project Water + Import Water	27	26	25	23	22	11	-24
L. Sonoma Project Water	10	11	17	22	0	0	0
Natural Flow	2	3	0	0	26	42	80

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

Lower Russian River

Sonoma Water Total	121.7	121.3	100.4	107.4	123.4	109.9	81.4
Wohler	80.4	79.3	61.6	75.2	69.7	36.4	31.5
Mirabel	41.3	41.9	38.8	32.2	53.7	73.5	49.9
Town of Windsor River Wellfield	8.3	7.5	7.0	6.4	6.5	6.2	5.0
Camp Meeker & Occidental	0.1	0.1	0.1	0.1	0.1	0.1	0.1

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

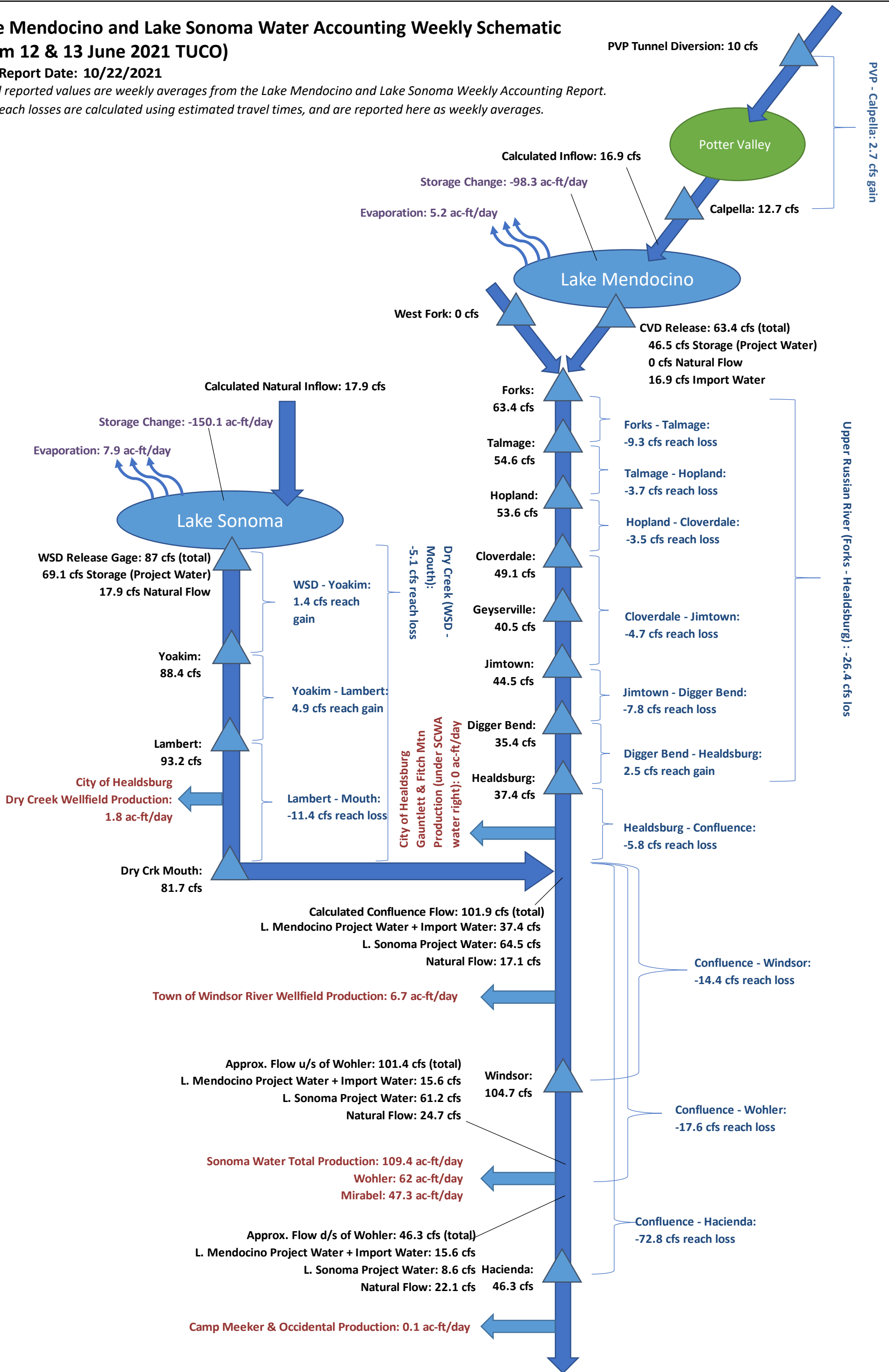
City of Healdsburg							
Dry Creek Wellfield	1.7	1.7	1.7	1.7	1.8	1.8	1.8

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 12 & 13 June 2021 TUCO)

Report Date: 10/22/2021

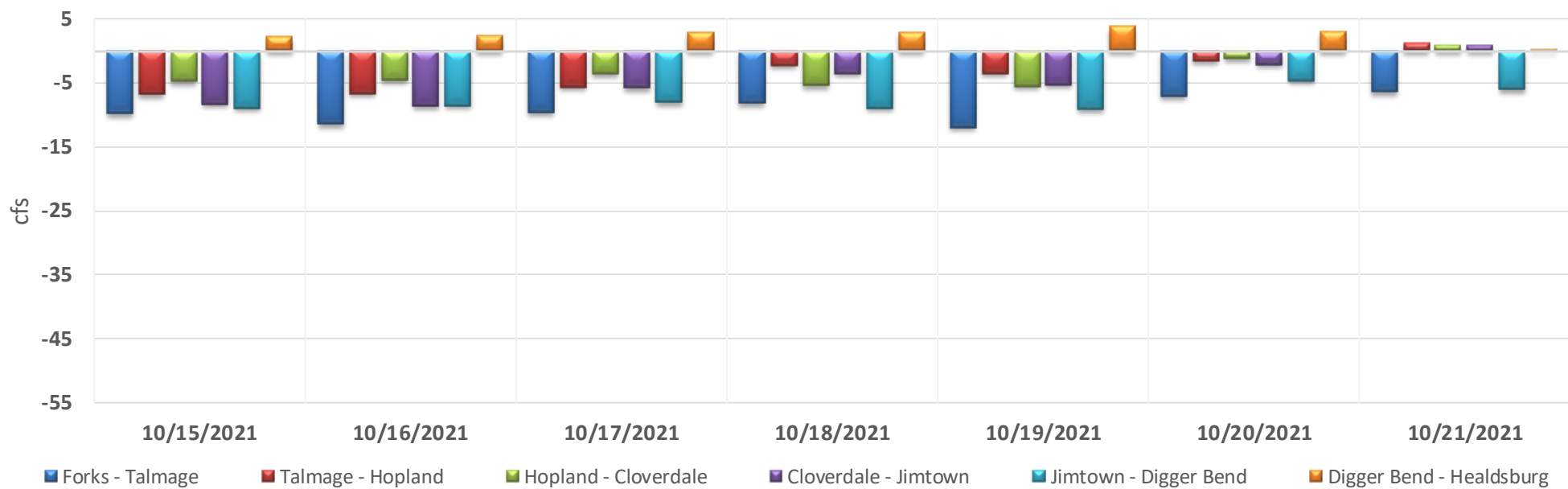
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



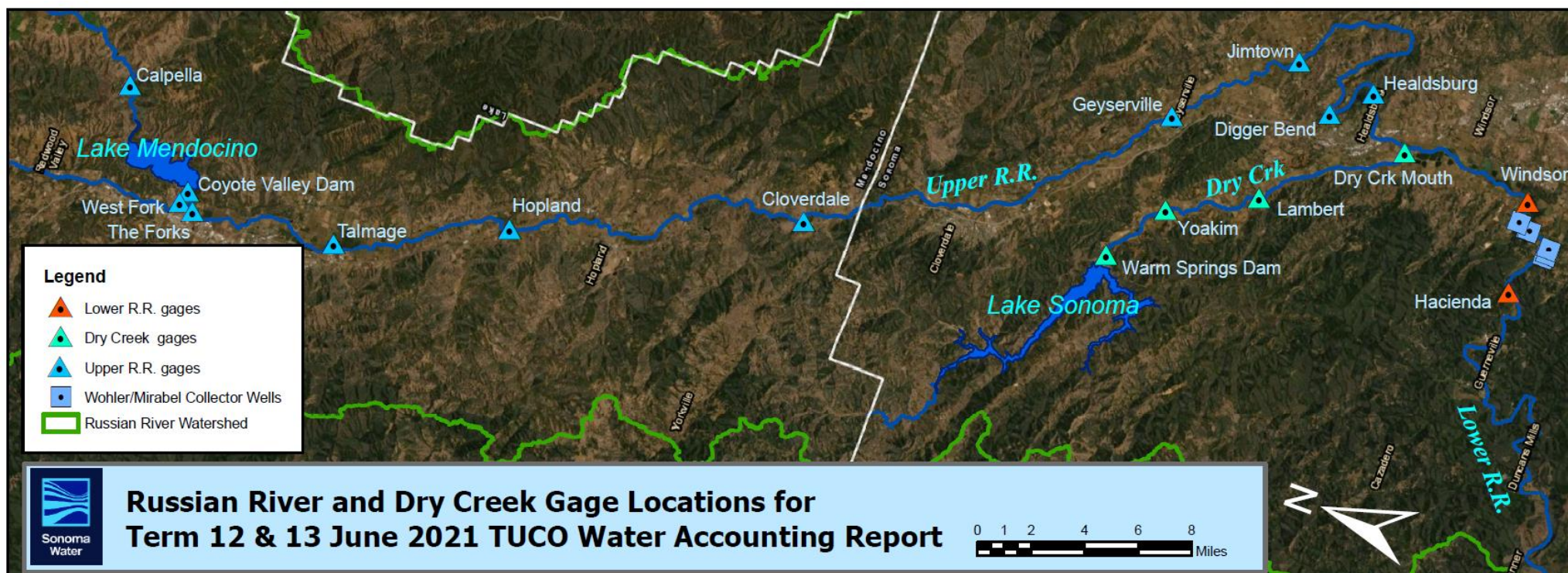
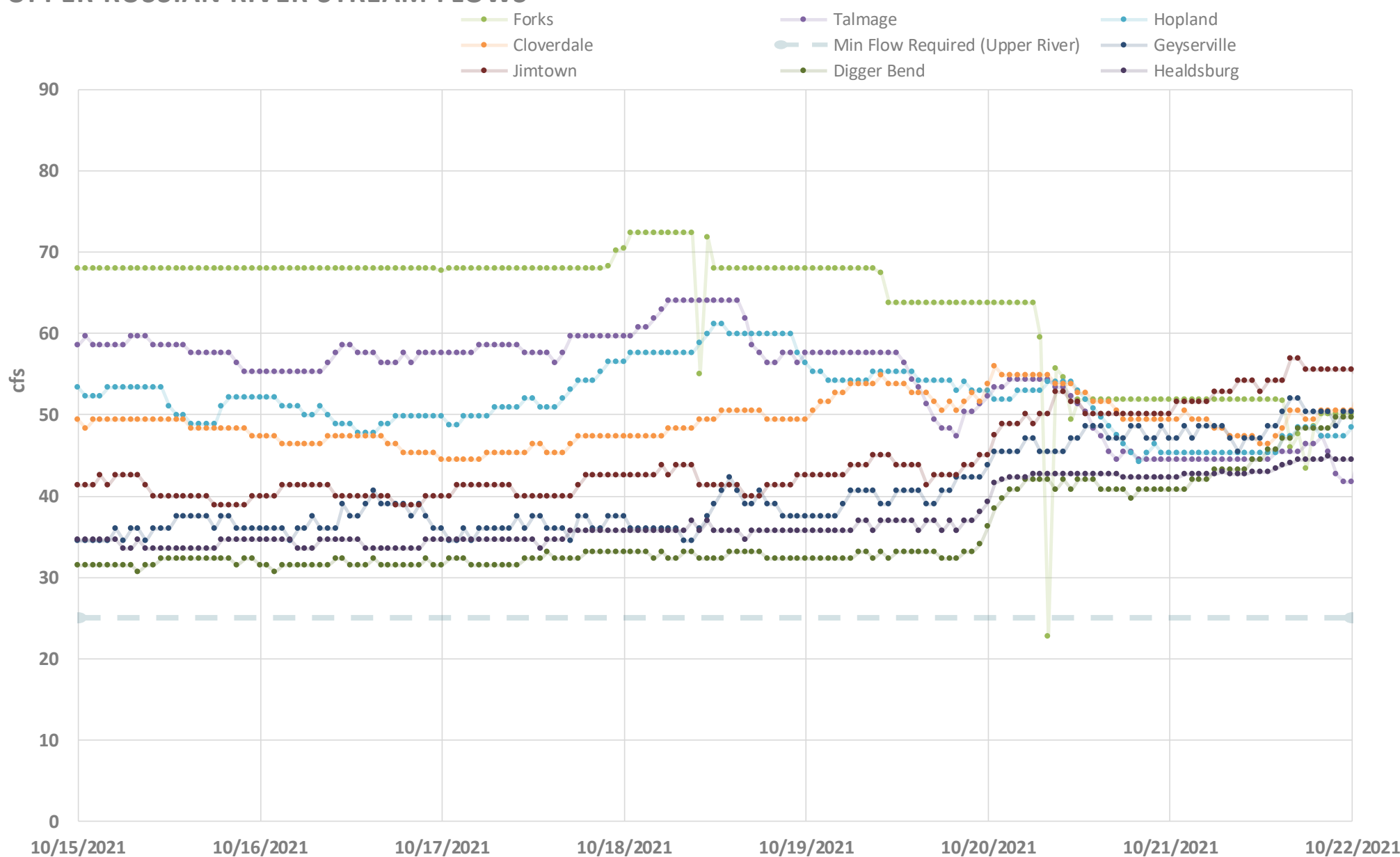
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS

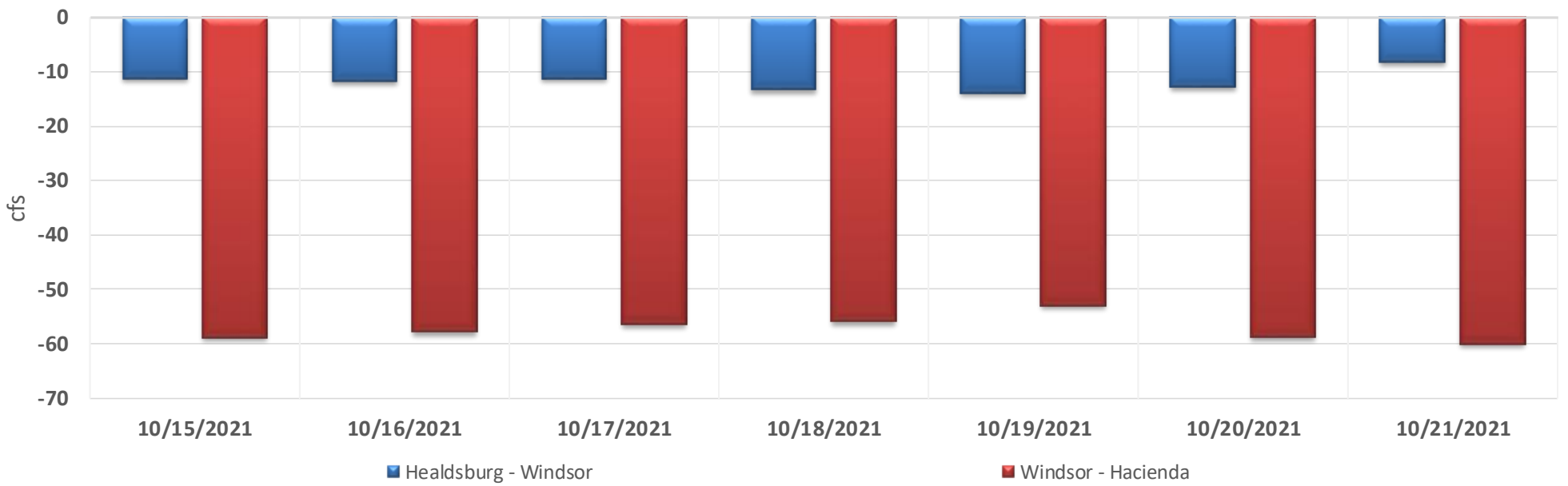


Russian River and Dry Creek Gage Locations for Term 12 & 13 June 2021 TUCO Water Accounting Report

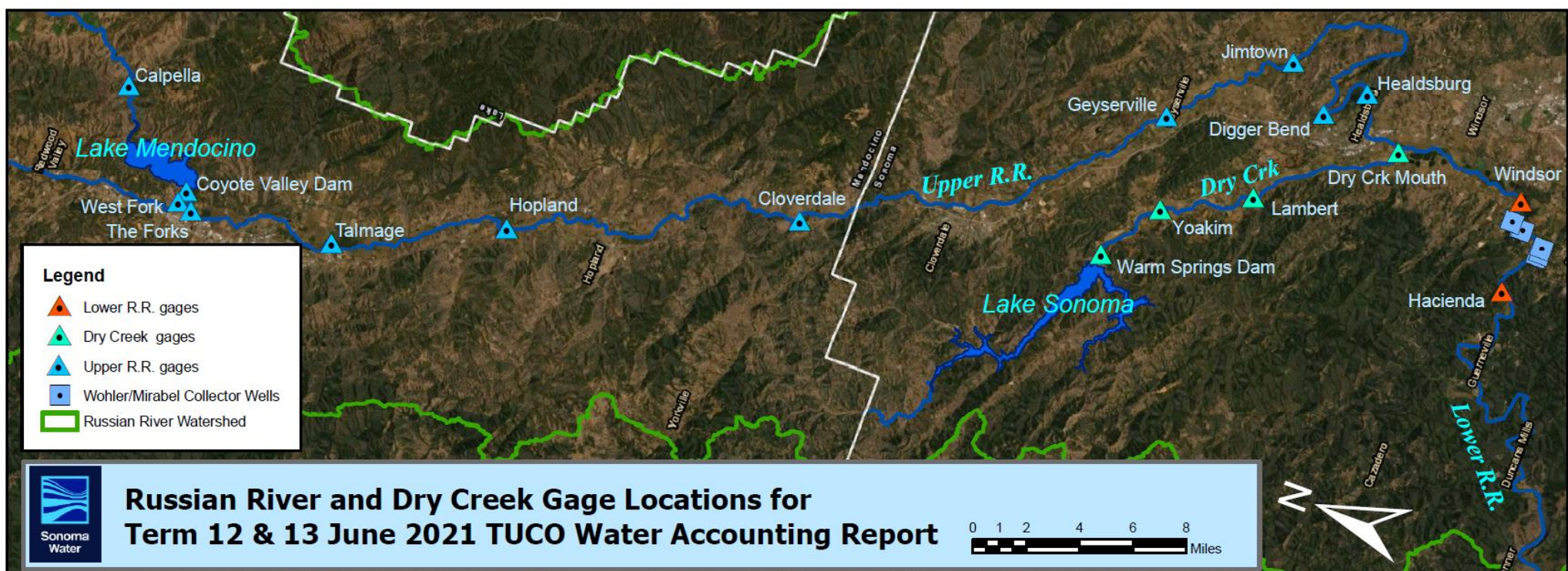
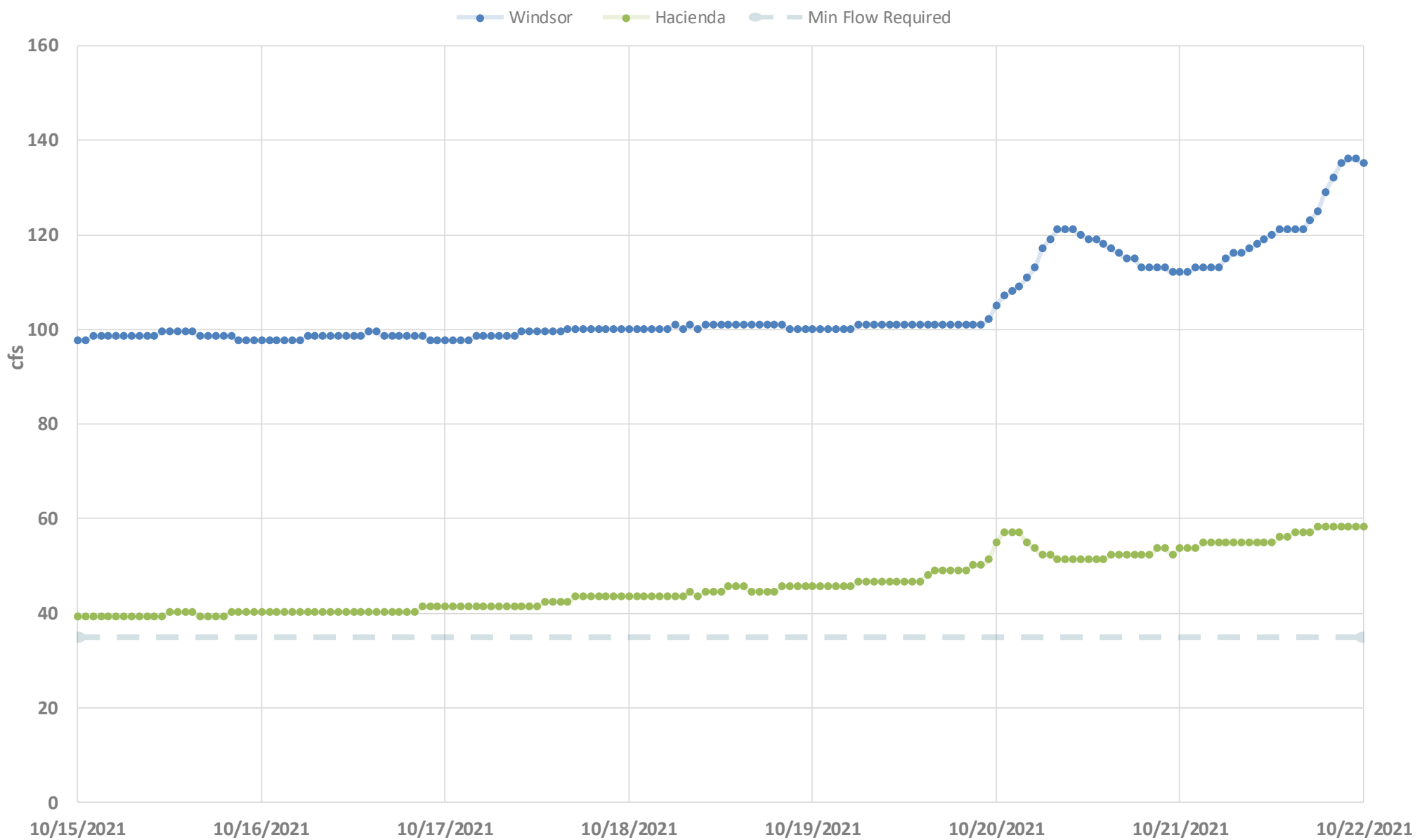
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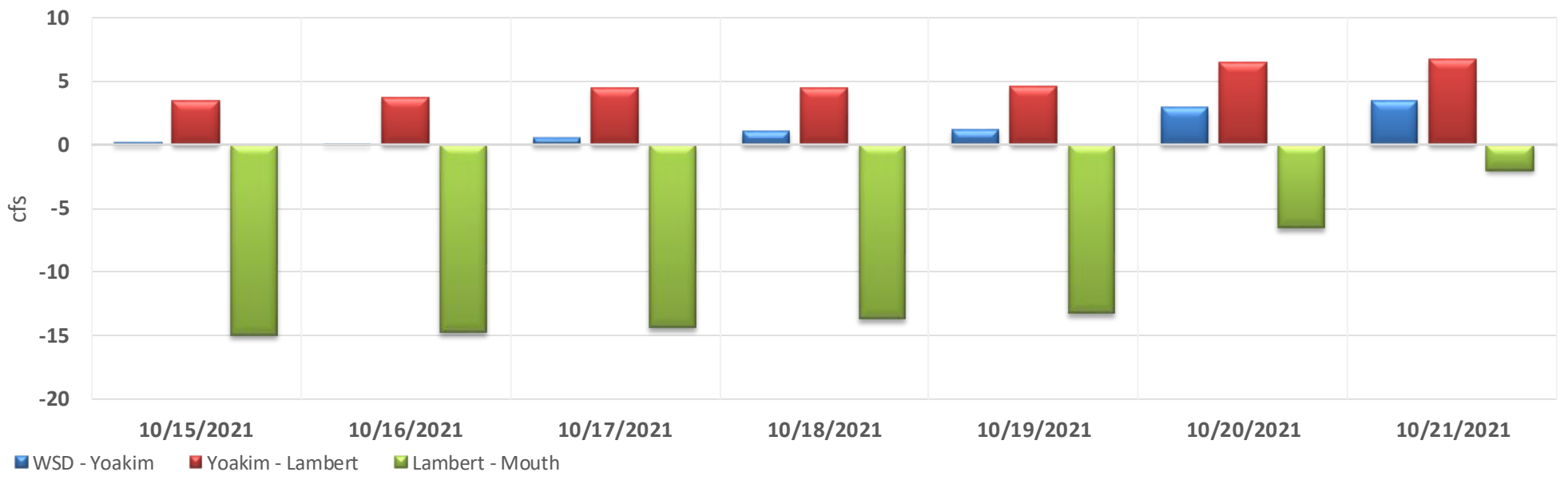
LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

