

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 11, May 2023 TUCO)

Report Date: 9/22/2023

Units are cfs unless noted otherwise

	9/15/2023	9/16/2023	9/17/2023	9/18/2023	9/19/2023	9/20/2023	9/21/2023
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	105.0	90.0	80.0	77.0	75.0	75.0	73.0
PVID Requested Delivery	25.0	34.4	40.0	36.8	35.0	35.0	35.0
PVID Canals Actual Delivery	20.7	18.9	17.4	17.4	17.2	17.2	17.0
East Fork Release	84.0	71.0	63.0	60.0	58.0	58.0	56.0
PVID E Fork Diversions	4.4	15.5	22.6	19.4	17.8	17.8	18.0
PVID Water Use - PG&E Contract	25.0	34.4	40.0	36.8	35.0	35.0	35.0
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)	79.7	55.5	40.4	40.6	40.2	40.2	38.0
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	86.6	77.8	64.8	62.4	60.6	59.9	60.6
Net Reach Loss(-)/Gain(+)	-18.4	-12.2	-15.2	-14.6	-14.4	-15.1	-12.4
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

II. Lake Mendocino

Reservoir Operations

Calculated Inflow (ac-ft)	195	175	139	140	158	123	122
(cfs)	98	88	70	70	80	62	62
Natural Flow	18	32	30	30	40	22	24
Import	80	56	40	40	40	40	38
Storage Change (ac-ft)	-207.0	-225.0	-258.0	-259.0	-242.0	-275.0	-276.0
(cfs)	-104	-113	-130	-131	-122	-139	-139
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)	27.4	24.9	22.4	23.6	24.9	23.6	23.6
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	189	189	189	189	189	189	189
Storage (Project Water)	91	101	119	119	109	127	127
Natural Flow	18	32	30	30	40	22	24
Import Water	80	56	40	40	40	40	38
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	189	189	189	189	189	189
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	98	88	70	70	80	62	62
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement	110	110	110	110	110	110	110
Controlling Compliance Gage							
Min Gage Flow	127	127	130	132	130	129	128
Controlling Gage	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Geyserville	Geyserville
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	189	189	189	189	189	189
Talmage (USGS 11462080)	96.1	154	153	153	154	155	154
Hopland (USGS 11462500)	84.8	167	167	169	168	169	170
Cloverdale (USGS 11463000)	70.9	143	145	148	152	155	154
Geyserville (USGS 11463500)	54.4	139	138	135	132	131	129
Jimtown (USGS 11463682)	48.5	139	140	144	147	148	150
Digger Bend (USGS 11463980)	38.2	134	134	138	139	138	141
Healdsburg (USGS 11464000)	35.6	127	127	130	132	130	134
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-35	-36	-36	-35	-34	-34	-35
Talmage - Hopland	+13	+14	+15	+15	+14	+16	+16
Hopland - Cloverdale	-24	-22	-20	-17	-16	-16	-17
Cloverdale - Jimtown	-6	-4	-1	-2	-4	-3	-4
Jimtown - Digger Bend	-5	-4	-5	-7	-9	-9	-9
Digger Bend - Healdsburg <i>*when Digger Bend > 400 cfs, next u/s gage (Jimtown) used</i>	-7	-7	-7	-8	-8	-8	-7
Upper Russian Net Reach Loss/Gain	-63	-59	-53	-56	-58	-55	-56
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-63	-59	-53	-56	-58	-37	-40
Storage (Project Water)	-63	-59	-53	-56	-58	-37	-40
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	98	88	70	70	80	62	62
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).

	9/15/2023	9/16/2023	9/17/2023	9/18/2023	9/19/2023	9/20/2023	9/21/2023
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-231.0	-257.0	-256.0	-231.0	-256.0	-230.0	-281.0
(cfs)	-116	-130	-129	-116	-129	-116	-142
Evaporation (ac-ft)	22.2	16.6	16.6	24.0	22.1	18.4	18.4
Inflow (Natural Flow)	3	0	0	5	0	3	0
WSD Release Gage	108	108	108	109	110	110	110
Storage (Project Water)	105	108	108	104	110	107	110
Natural Flow	3	0	0	5	0	3	0
V. Lower Dry Creek Reach							
Minimum Instream Flow Requirement	80	80	80	80	80	80	80
Controlling Compliance Gage							
Min Gage Flow	92	93	94	93	93	93	93
Controlling Gage	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth	Dry Crk Mouth
All Compliance Gages							
	<i>Crk mi.</i>						
WSD Release	14.3	108	108	108	109	110	110
Yoakim (USGS 11465200)	11.1	107	108	108	108	109	108
Lambert (USGS 11465240)	6.8	110	111	112	111	112	112
Dry Crk Mouth (USGS 11465350)	0.1	92	93	94	93	93	93
WSD to Russian River Confluence Reach Analysis							
Total Pass-through Water	3	0	0	5	0	3	0
Net Reach Loss(-)/Gain(+)							
WSD - Yoakim	-1	-0	+0	-0	-1	-1	-2
Yoakim - Lambert	+3	+3	+3	+1	+3	+3	+4
Lambert - Dry Crk Mouth	-19	-18	-18	-18	-19	-19	-18
WSD - Dry Crk Mouth	-16	-15	-15	-18	-16	-17	-17
WSD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss/Gain to Controlling Gage	-16	-15	-15	-18	-16	-17	-17
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	127	127	130	132	130	131	134
Natural Flow	0	0	0	0	0	0	0
Dry Creek Flow (Mouth Gage)							
L. Sonoma Project Water	105	108	108	104	110	107	110
Natural Flow	0	0	0	0	0	0	0
Russian River d/s of Confluence Flow							
L. Mendocino Project Water + Import Water	127	127	130	132	130	131	134
L. Sonoma Project Water	105	108	108	104	110	107	110
Natural Flow	0	0	0	0	0	0	0
VII. Lower Russian River Reach							
Minimum Instream Flow Requirement	60	60	60	60	60	60	60
Controlling Compliance Gage							
Min Gage Flow	158	159	163	169	166	169	173
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages							
	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	247	248	251	253	251	254
Hacienda (USGS 11467000)	21.8	158	159	163	169	166	173
Confluence to Windsor Reach Analysis							
Net Reach Loss/Gain to Windsor Gage	+28	+28	+29	+28	+28	+29	+29
L. Mendocino Project Water + Import Water	127	127	130	132	130	131	134
L. Sonoma Project Water	101	104	104	100	105	102	106
Natural Flow	28	28	29	28	28	29	29
Confluence to SCWA Wohler Production Facility Reach Analysis							
Approx. Flow u/s of Wohler							
Net Reach Loss(-)/Gain(+)	+30	+25	+19	+23	+28	+24	+20
L. Mendocino Project Water + Import Water	127	127	130	132	130	131	134
L. Sonoma Project Water	101	104	104	100	105	102	106
Natural Flow	30	25	19	23	28	24	20
Confluence to Hacienda (Guerneville) Reach Analysis							
Net Reach Loss(-)/Gain(+)	-61	-62	-60	-56	-57	-54	-54
L. Mendocino Project Water + Import Water	127	127	130	132	130	131	134
L. Sonoma Project Water	10	18	25	21	21	24	32
Natural Flow	30	25	19	23	28	24	20
VIII. Water Production under Sonoma Water Rights (ac-ft)							
Lower Russian River							
Sonoma Water Total	179.5	171.5	157.8	156.1	167.2	154.1	146.8
Wohler	67.5	69.5	68.7	69.6	70.0	68.8	60.1
Mirabel	112.0	102.0	89.1	86.5	97.2	85.3	86.7
Town of Windsor River Wellfield	9.2	8.5	8.5	8.9	9.0	9.5	8.4
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

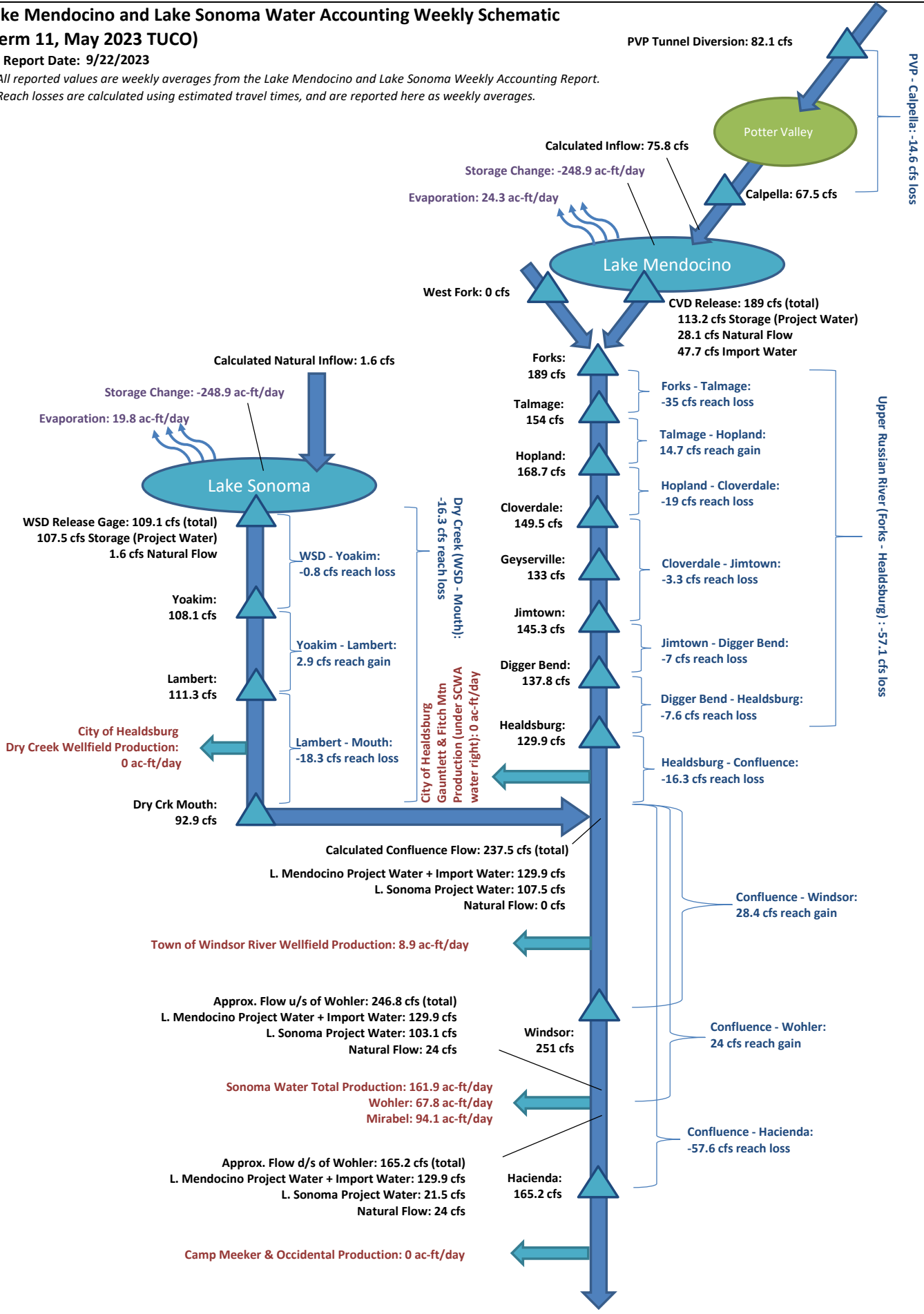
Notes:

- 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 11, May 2023 TUCO)

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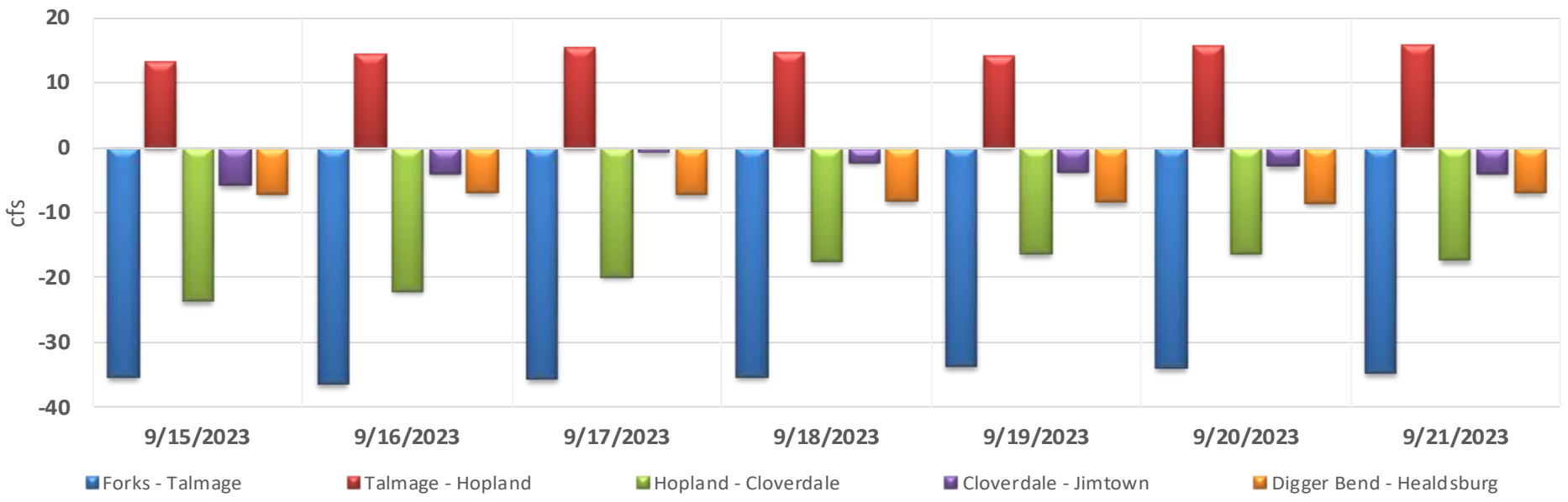
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



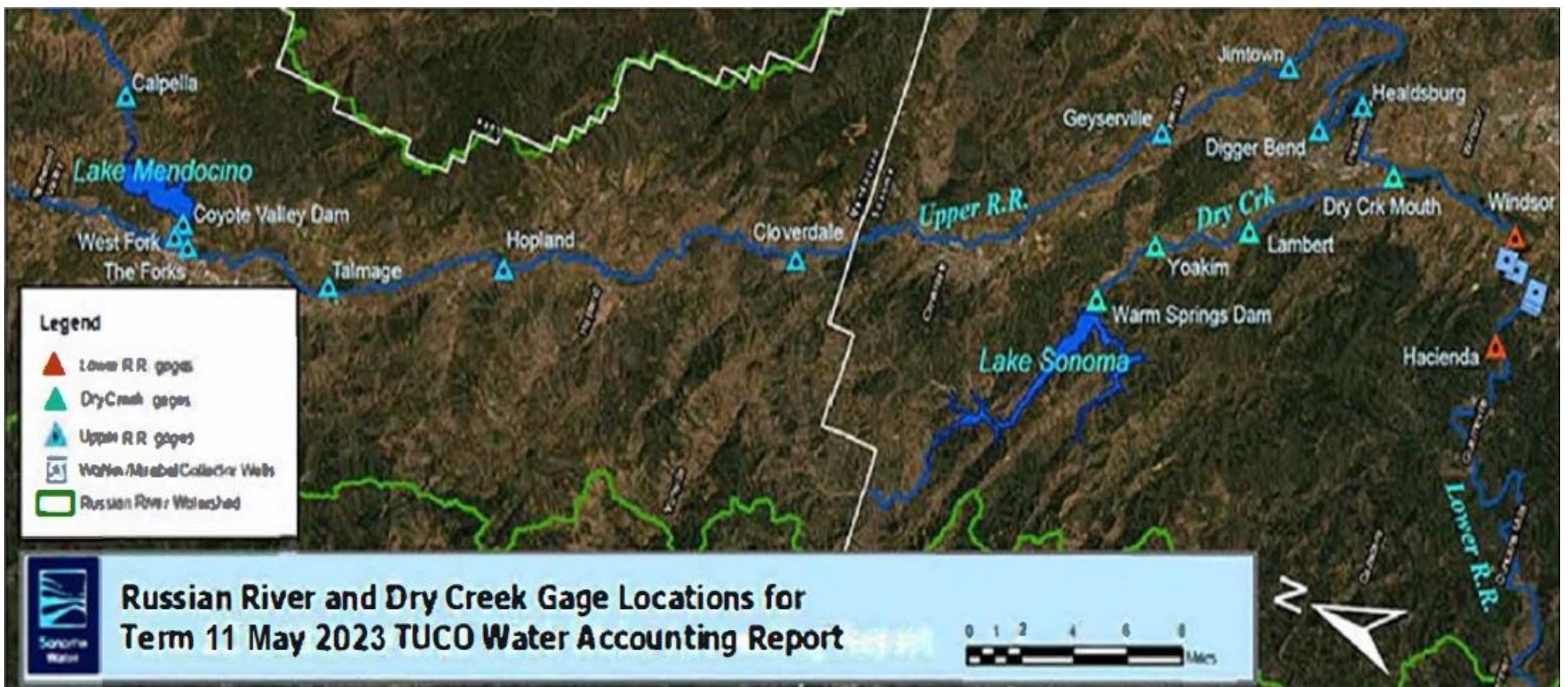
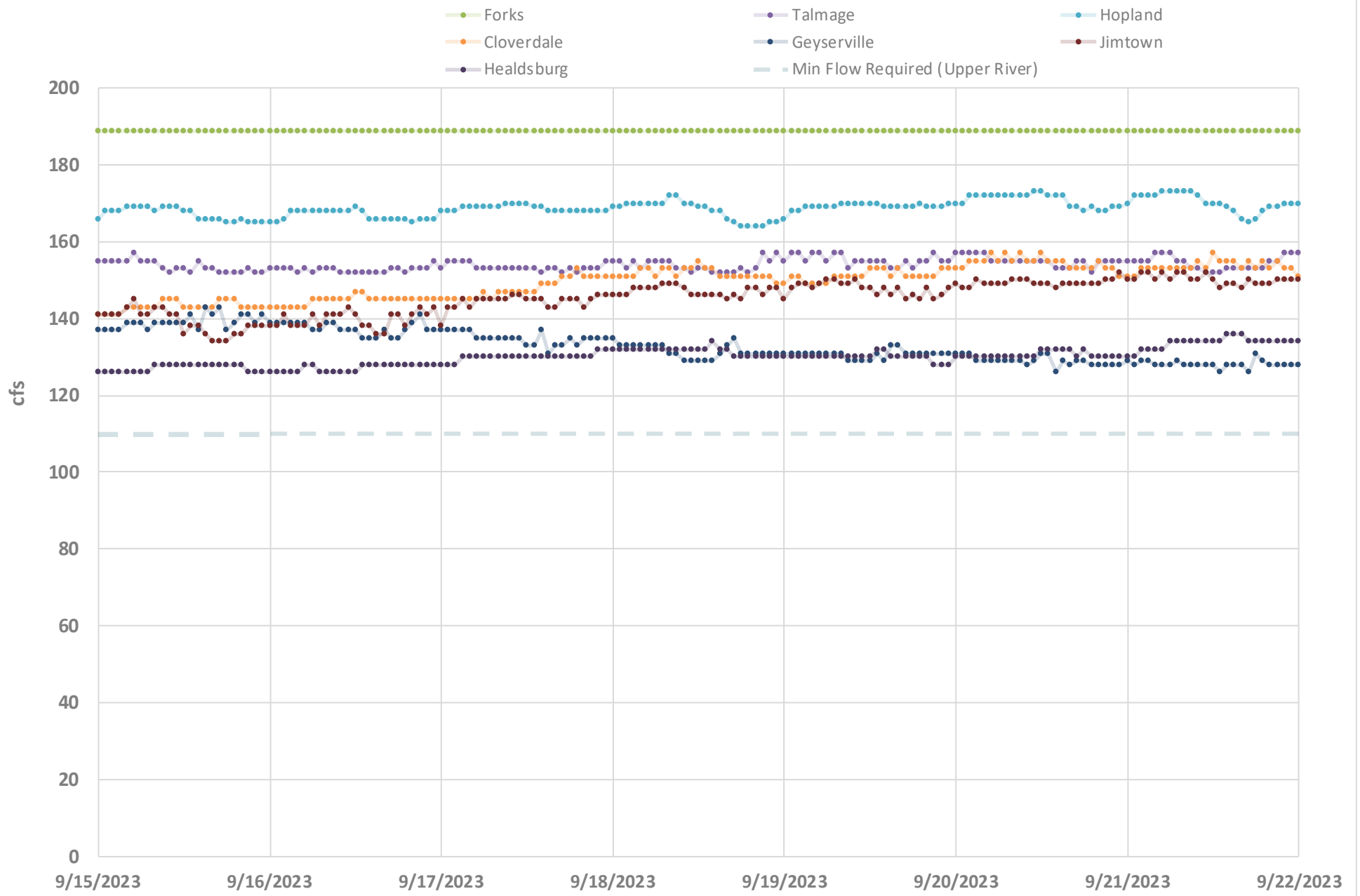
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



UPPER RUSSIAN RIVER STREAM FLOWS

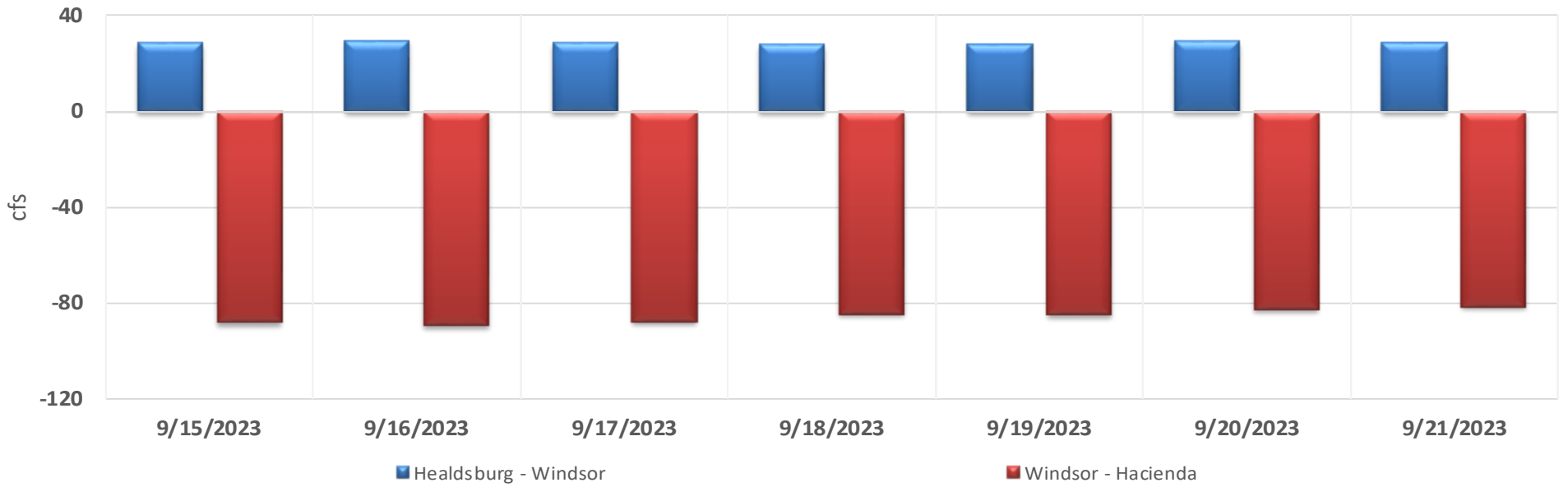


Russian River and Dry Creek Gage Locations for Term 11 May 2023 TUCO Water Accounting Report

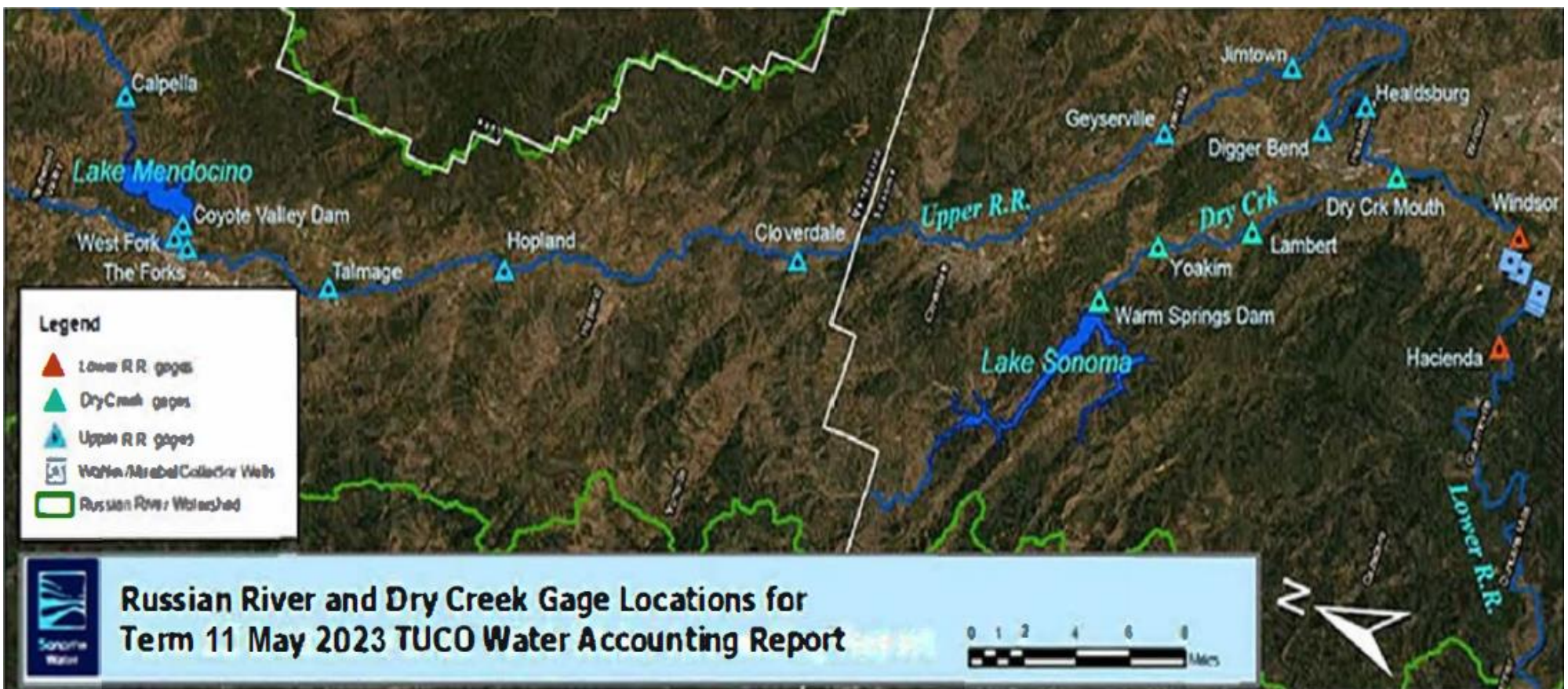
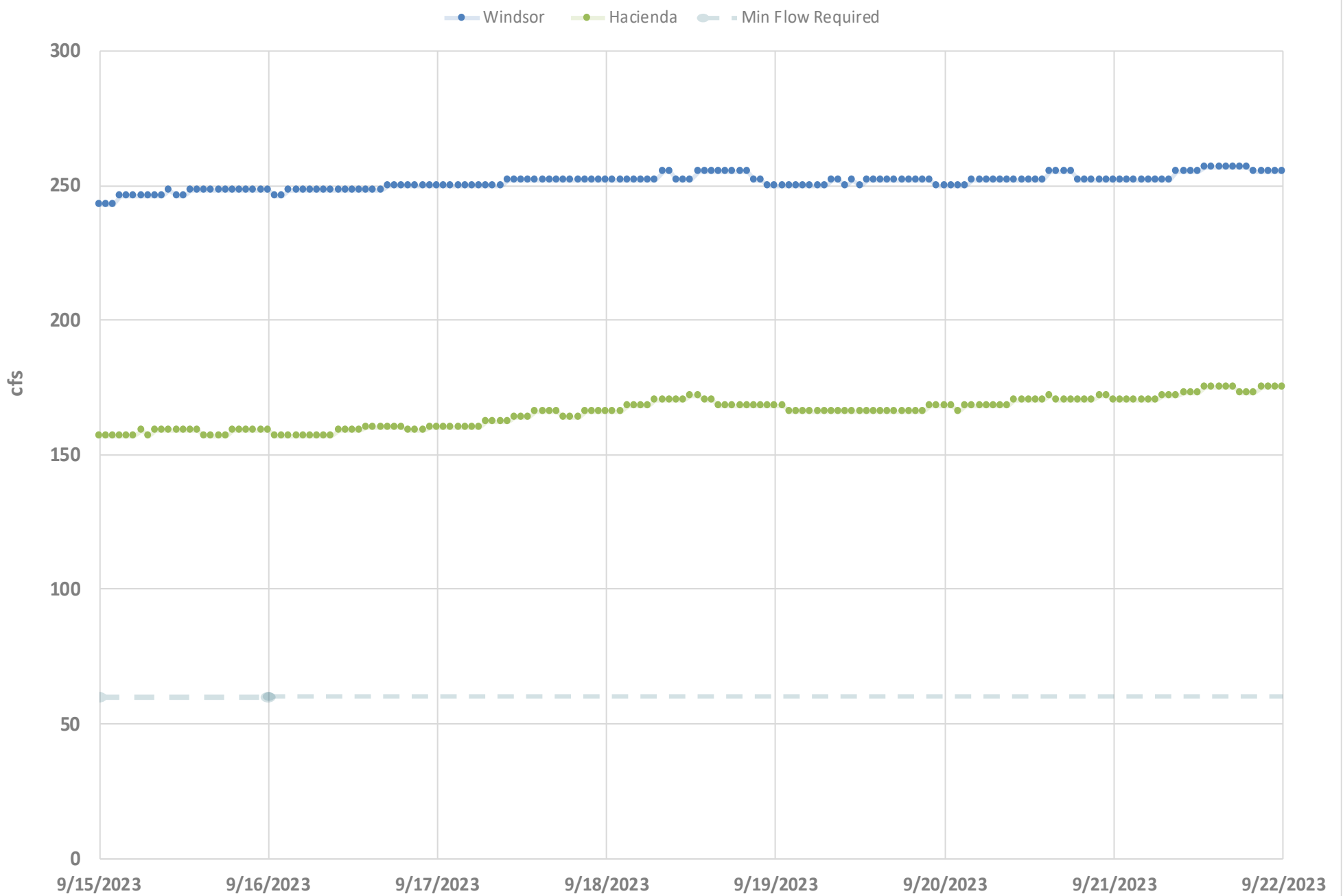
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



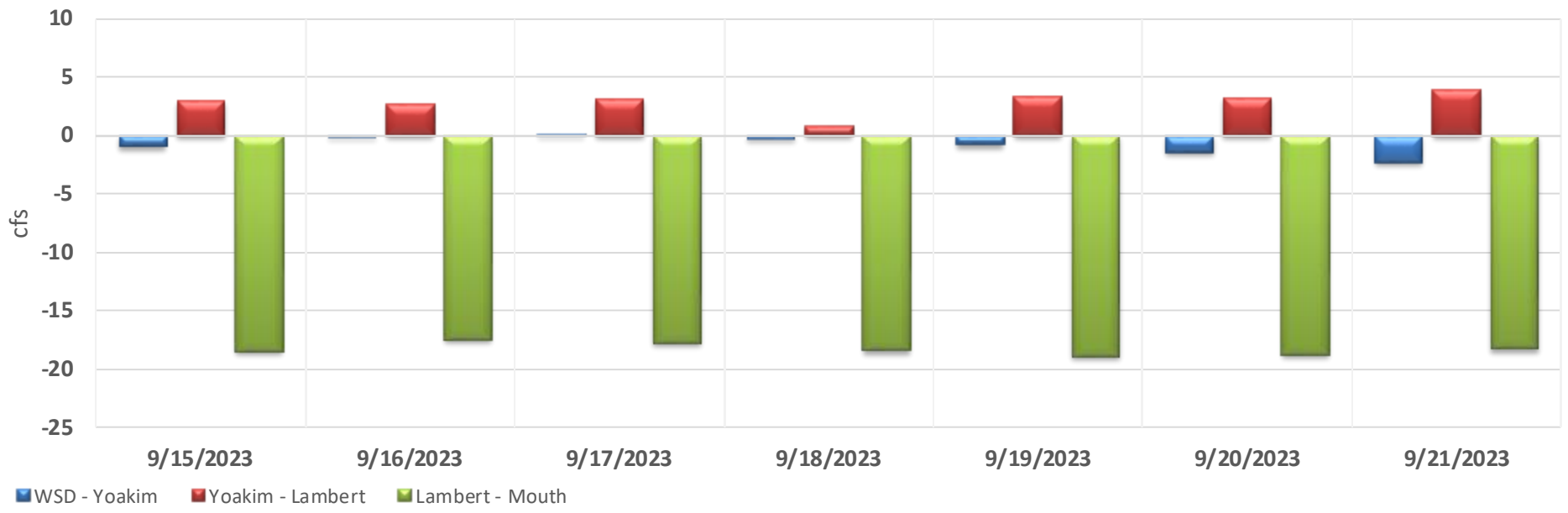
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

