

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

Report Date: 7/28/2023

Units are cfs unless noted otherwise

	<u>7/21/2023</u>	<u>7/22/2023</u>	<u>7/23/2023</u>	<u>7/24/2023</u>	<u>7/25/2023</u>	<u>7/26/2023</u>	<u>7/27/2023</u>
<b>I. Upper East Fork Reach</b>							
<b>Potter Valley Project</b>							
Tunnel Diversion	106.0	106.0	106.0	106.0	106.0	106.0	102.0
PVID Requested Delivery	25.0	25.0	25.0	25.0	25.0	25.0	21.7
PVID Canals Actual Delivery	25.2	25.3	25.3	25.3	25.3	25.4	21.9
East Fork Release	81.0	81.0	81.0	81.0	81.0	81.0	80.0
PVID E Fork Diversions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PVID Water Use - PG&E Contract	25.2	25.3	25.3	25.3	25.3	25.4	21.9
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)	81.0	81.0	81.0	81.0	81.0	81.0	80.0
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	77.1	81.5	80.3	79.0	82.1	88.0	89.0
Net Reach Loss(-)/Gain(+)	-28.9	-24.5	-25.7	-27.0	-23.9	-18.0	-13.0
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.)	-3.6	0.0	-0.4	-1.6	0.0	0.0	0.0
Natural Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Import	-3.6	0.0	-0.4	-1.6	0.0	0.0	0.0

## II. Lake Mendocino

### Reservoir Operations

Calculated Inflow (ac-ft)	118	157	156	97	146	175	158
(cfs)	60	79	78	49	74	88	79
Natural Flow	0	0	0	0	0	7	0
Import	60	79	78	49	74	81	79
Storage Change (ac-ft)	-265.0	-230.0	-230.0	-282.0	-229.0	-195.0	-211.0
(cfs)	-134	-116	-116	-142	-115	-98	-106
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)	36.8	35.7	34.5	27.8	33.4	34.5	33.4
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	175	177	177	177	172	169	169
Storage (Project Water)	115	98	99	128	99	81	90
Natural Flow	0	0	0	0	0	7	0
Import Water	60	79	78	49	74	81	79
<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	175	177	177	172	169	169
<b>CVD Project Water Release to Meet Min Flow Requirement</b>							
Total Pass-through Water	60	79	78	49	74	88	79
Project Water Release Required	No	No	No	No	No	No	No

## III. Upper Russian River Reach

<b>Minimum Instream Flow Requirement</b>		110	110	110	110	110	110	110
<b>Controlling Compliance Gage</b>								
Min Gage Flow		130	135	138	140	139	136	133
Controlling Gage		Healdsburg	Healdsburg	Digger Bend	Digger Bend	Digger Bend	Cloverdale	Jimtown
<b>All Compliance Gages</b>								
	<i>Rvr mi.</i>							
Forks (CVD + USGS 11461000)	99.0	177	179	179	179	174	171	171
Talmage (USGS 11462080)	96.1	158	157	158	157	150	144	145
Hopland (USGS 11462500)	84.8	156	155	157	158	153	145	145
Cloverdale (USGS 11463000)	70.9	146	146	146	149	145	136	134
Geyserville (USGS 11463500)	54.4	140	142	144	148	148	141	136
Jimtown (USGS 11463682)	48.5	135	137	140	143	142	138	133
Digger Bend (USGS 11463980)	38.2	133	135	138	140	139	137	133
Healdsburg (USGS 11464000)	35.6	130	135	142	149	149	144	136
<b>Net Reach Loss(-)/Gain(+)</b>								
Forks - Talmage		-19	-22	-21	-22	-25	-28	-26
Talmage - Hopland		-2	-2	-1	-0	-1	+2	+0
Hopland - Cloverdale		-8	-10	-10	-10	-12	-11	-12
Cloverdale - Jimtown		-6	-9	-6	-4	-7	-5	-3
Jimtown - Digger Bend		-1	-1	-2	-3	-3	-2	-0
Digger Bend - Healdsburg <i>*when Digger Bend &gt; 400 cfs, next u/s gage (Jimtown) used</i>		-2	+0	+5	+9	+9	+6	+2
Upper Russian Net Reach Loss/Gain		-37	-44	-34	-30	-38	-37	-38
<b>CVD Project Water Release to Meet Min Flow Requirement</b>								
Net Reach Loss(-)/Gain(+) to Controlling Gage		-37	-44	-39	-39	-48	-36	-40
Storage (Project Water)		-37	-44	-39	-39	-48	-36	-40
Pass-through Water (Nat. + Imp.) + Natural		0	0	0	0	0	0	0
Total Pass-through Water		60	79	78	49	74	88	79
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)	-241.0	-267.0	-321.0	-266.0	-267.0	-266.0	-267.0
(cfs)	-122	-135	-162	-134	-135	-134	-135
Evaporation (ac-ft)	50.5	47.1	45.4	47.0	47.0	43.6	40.2
Inflow (Natural Flow)	0	0	0	0	0	0	0
WSD Release Gage	93	99	105	100	108	106	105
Storage (Project Water)	93	99	105	100	108	106	105
Natural Flow	0	0	0	0	0	0	0

**V. Lower Dry Creek Reach**

Minimum Instream Flow Requirement

80	80	80	80	80	80	80	80
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Controlling Compliance Gage

Min Gage Flow	82	83	93	94	93	92	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

*Crk mi.*

WSD Release	14.3	93	99	105	100	108	106	105
Yoakim (USGS 11465200)	11.1	93	99	111	111	111	110	110
Lambert (USGS 11465240)	6.8	97	99	108	108	108	107	107
Dry Crk Mouth (USGS 11465350)	0.1	82	83	93	94	93	92	93

WSD to Russian River Confluence Reach Analysis

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

WSD - Yoakim	-0	+2	+6	+3	+2	+4	+5
Yoakim - Lambert	+3	+2	-3	-3	-3	-3	-3
Lambert - Dry Crk Mouth	-15	-14	-14	-15	-15	-14	-14
WSD - Dry Crk Mouth	-12	-11	-11	-14	-16	-13	-12

WSD Project Water Release to Meet Min Flow Requirement

Net Reach Loss/Gain to Controlling Gage	-12	-11	-11	-14	-16	-13	-12
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	130	135	142	149	149	144	136
Natural Flow	0	0	0	0	0	0	0

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	93	99	105	100	108	106	105
Natural Flow	0	0	0	0	0	0	0

Russian River d/s of Confluence Flow

L. Mendocino Project Water + Import Water	130	135	142	149	149	144	136
L. Sonoma Project Water	93	99	105	100	108	106	105
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	60
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Controlling Compliance Gage

Min Gage Flow	150	149	161	168	170	165	161
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

*Rvr mi.*

Windsor (USGS 11465390)	26.6	271	271	279	283	283	281	279
Hacienda (USGS 11467000)	21.8	150	149	161	168	170	165	161

Confluence to Windsor Reach Analysis

Net Reach Loss/Gain to Windsor Gage	+59	+54	+49	+41	+40	+43	+47
L. Mendocino Project Water + Import Water	130	135	142	149	149	144	136
L. Sonoma Project Water	88	94	100	95	103	100	100
Natural Flow	59	54	49	41	40	43	47

Confluence to SCWA Wohler Production Facility Reach Analysis

Approx. Flow u/s of Wohler	235	241	254	251	260	259	252
Net Reach Loss(-)/Gain(+)	+23	+24	+19	+8	+18	+22	+23
L. Mendocino Project Water + Import Water	130	135	142	149	149	144	136
L. Sonoma Project Water	88	94	100	95	103	100	100
Natural Flow	23	24	19	8	18	22	23

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-62	-69	-74	-75	-72	-72	-69
L. Mendocino Project Water + Import Water	130	135	142	149	149	144	136
L. Sonoma Project Water	3	1	7	12	14	7	8
Natural Flow	23	24	19	8	18	22	23

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

Lower Russian River

Sonoma Water Total	169.3	184.1	185.4	165.1	177.6	185.6	182.4
Wohler	79.2	77.8	78.4	76.5	76.7	77.5	68.3
Mirabel	90.0	106.3	107.0	88.6	100.9	108.1	114.2
Town of Windsor River Wellfield	10.6	10.6	9.5	10.3	10.3	10.7	10.4
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:

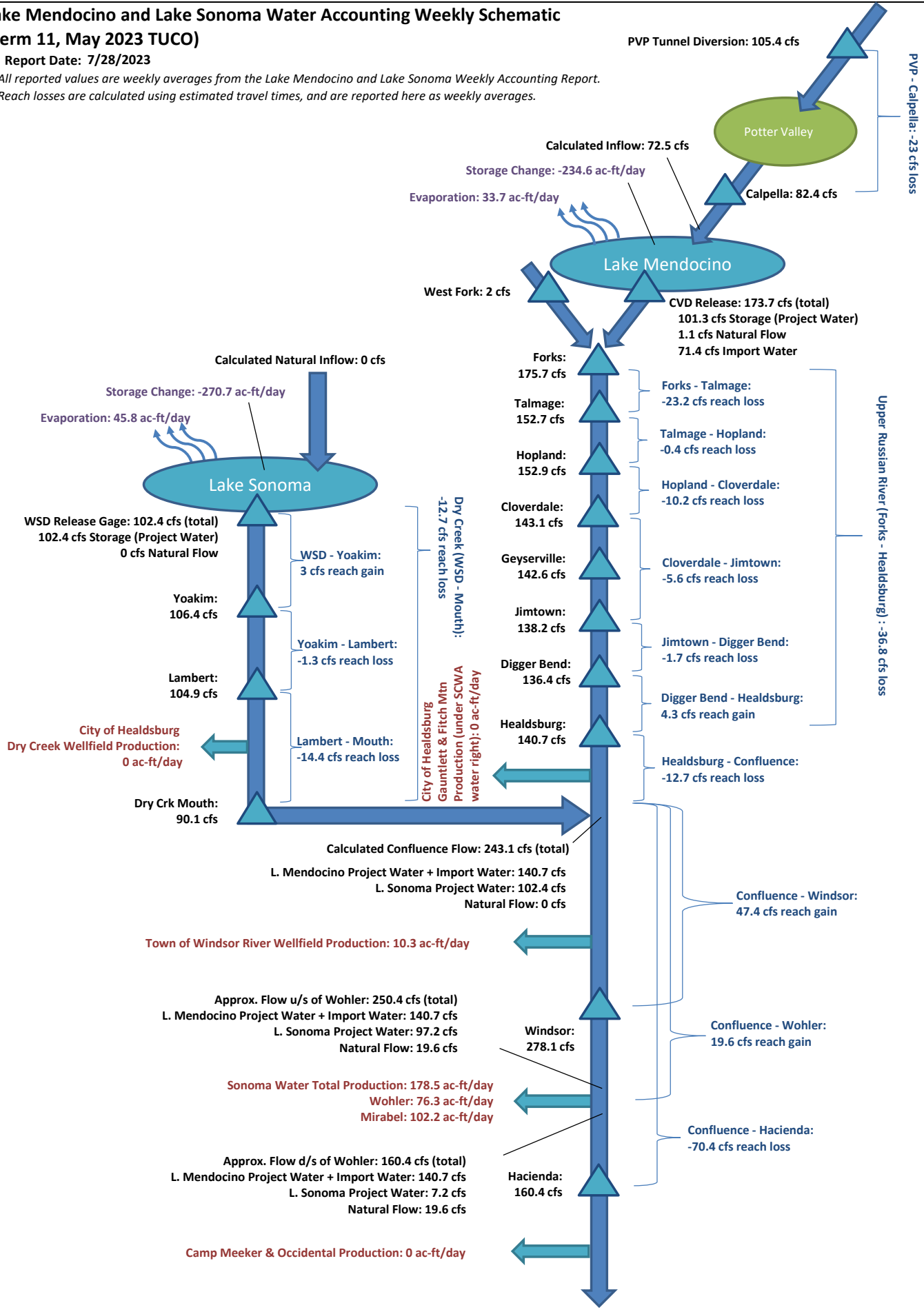
- Water Accounting for the Lower Russian River and Dry Creek is an analysis that approximates the current conditions based on the methodology in Term 12 (6/14/21 Order) report. Values listed include estimated values where measurements are not currently available (red italics).

# Lake Mendocino and Lake Sonoma Water Accounting Weekly Schematic

(Term 11, May 2023 TUCO)

Report Date: 7/28/2023

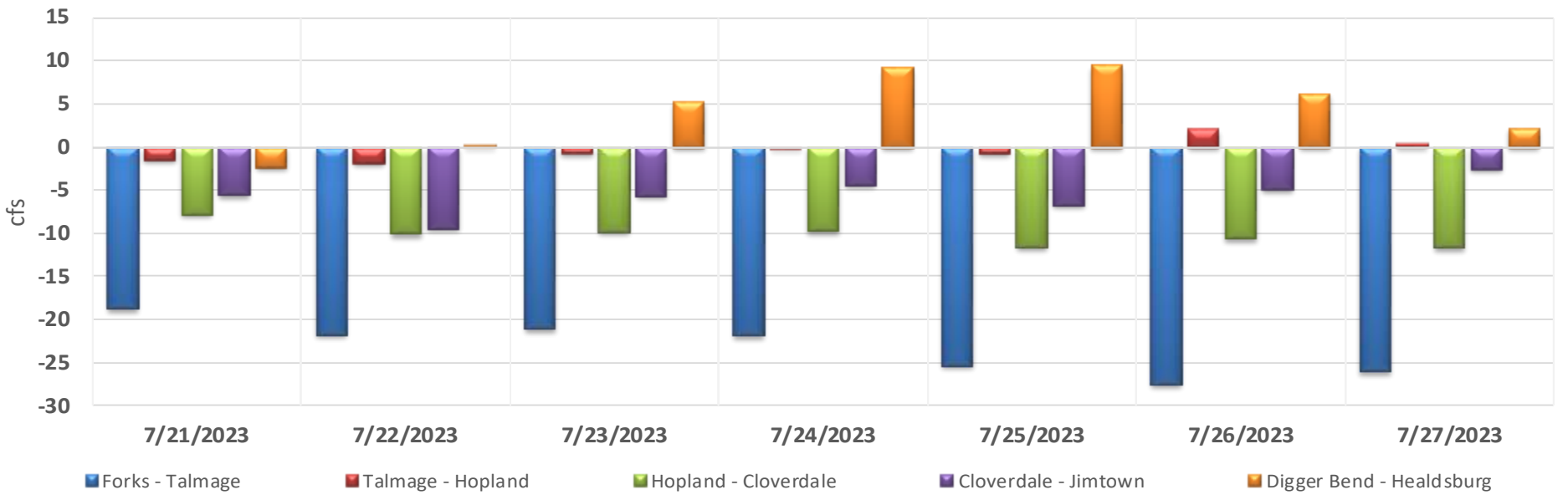
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.  
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



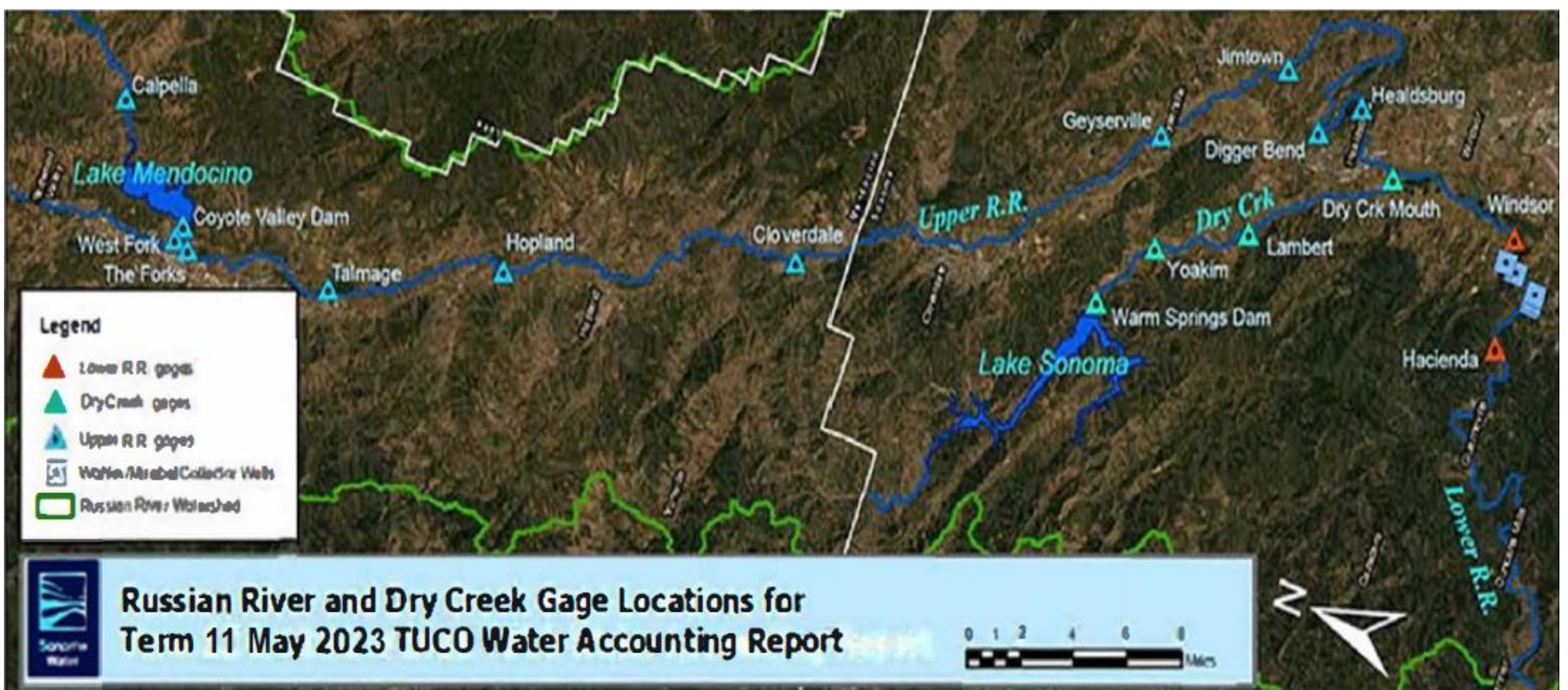
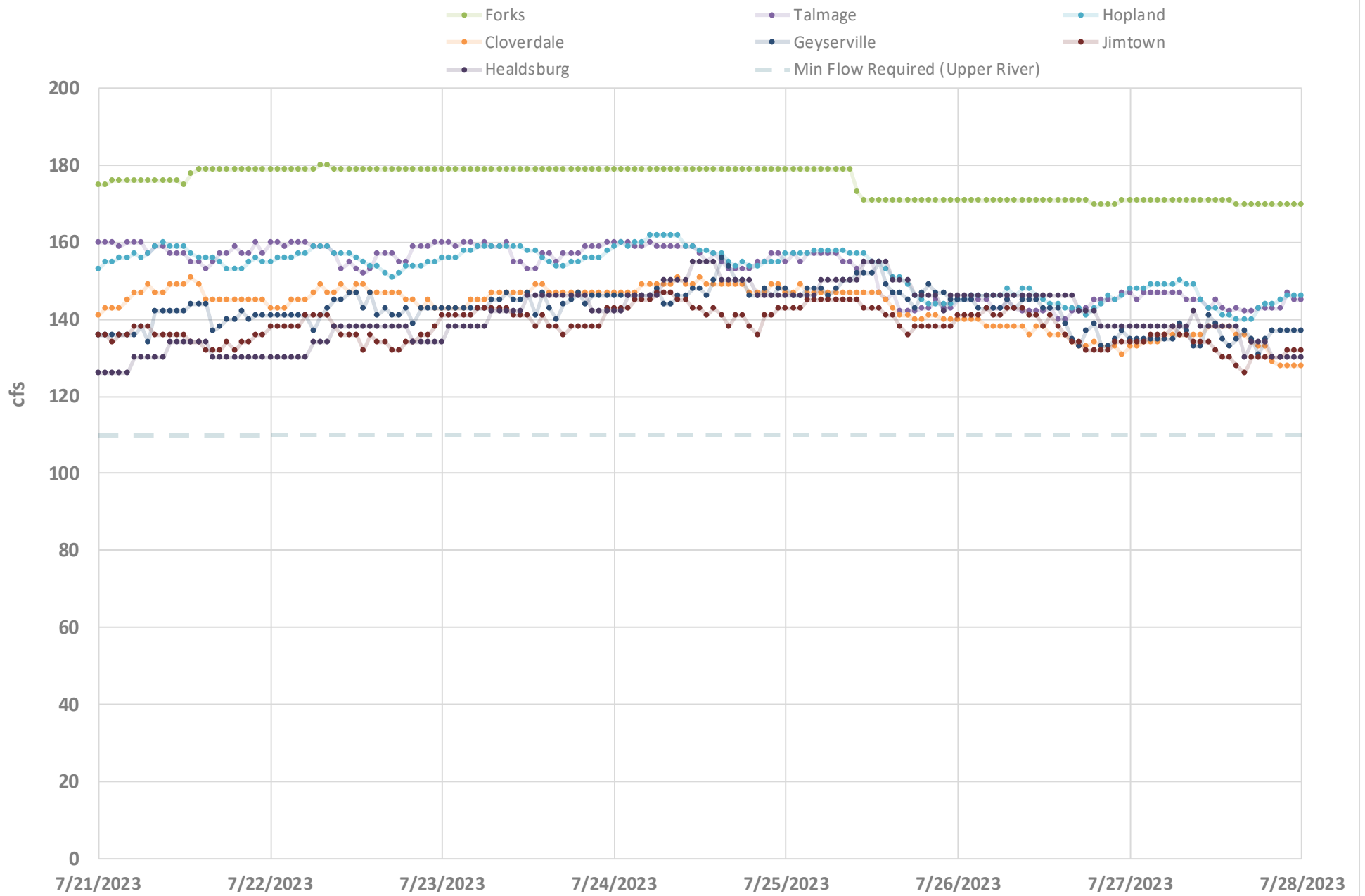
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## UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



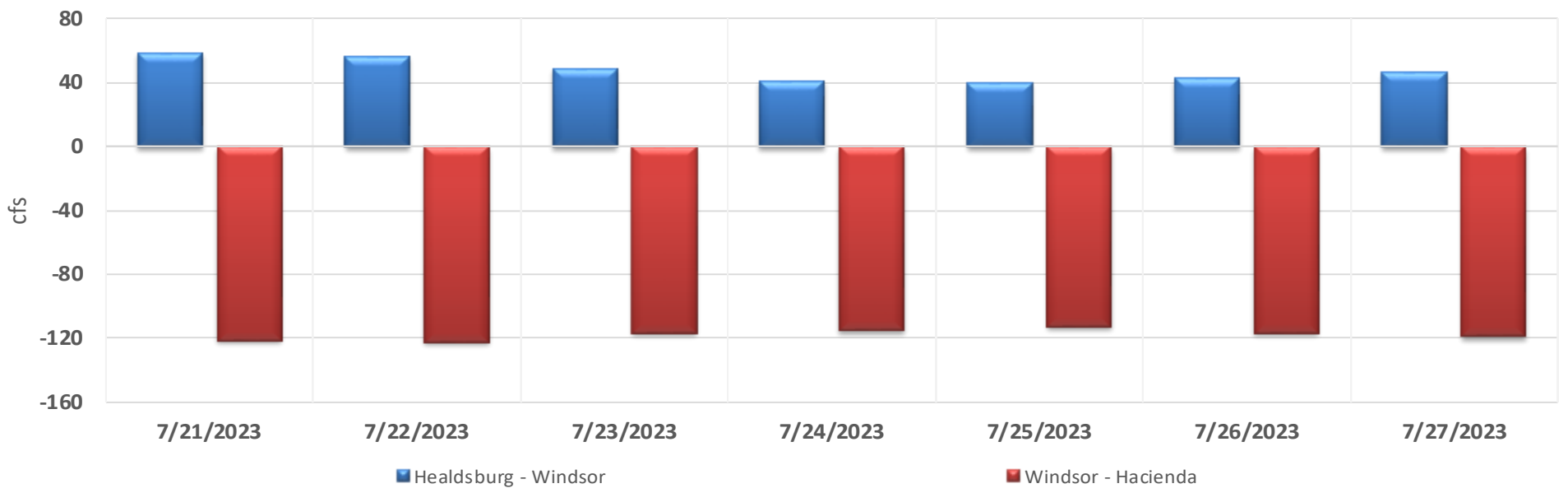
## UPPER RUSSIAN RIVER STREAM FLOWS



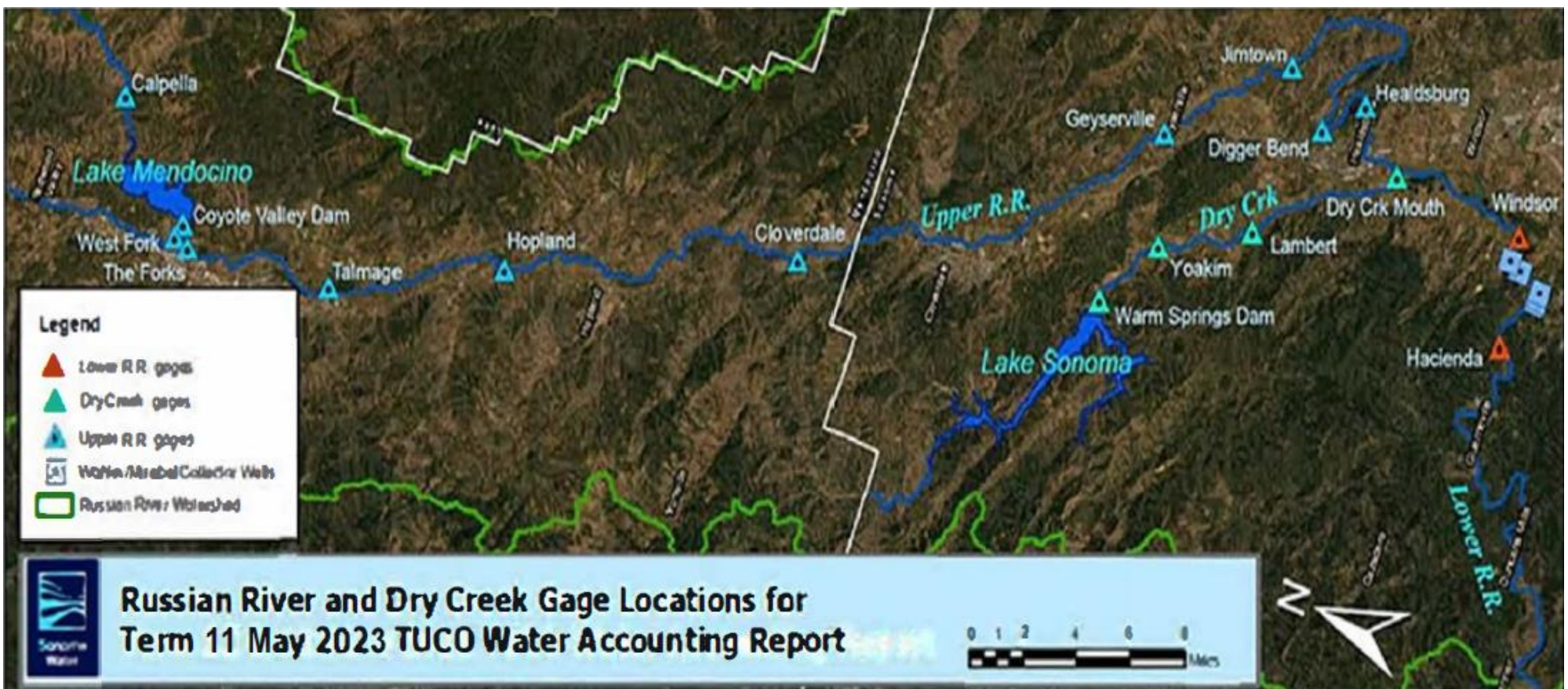
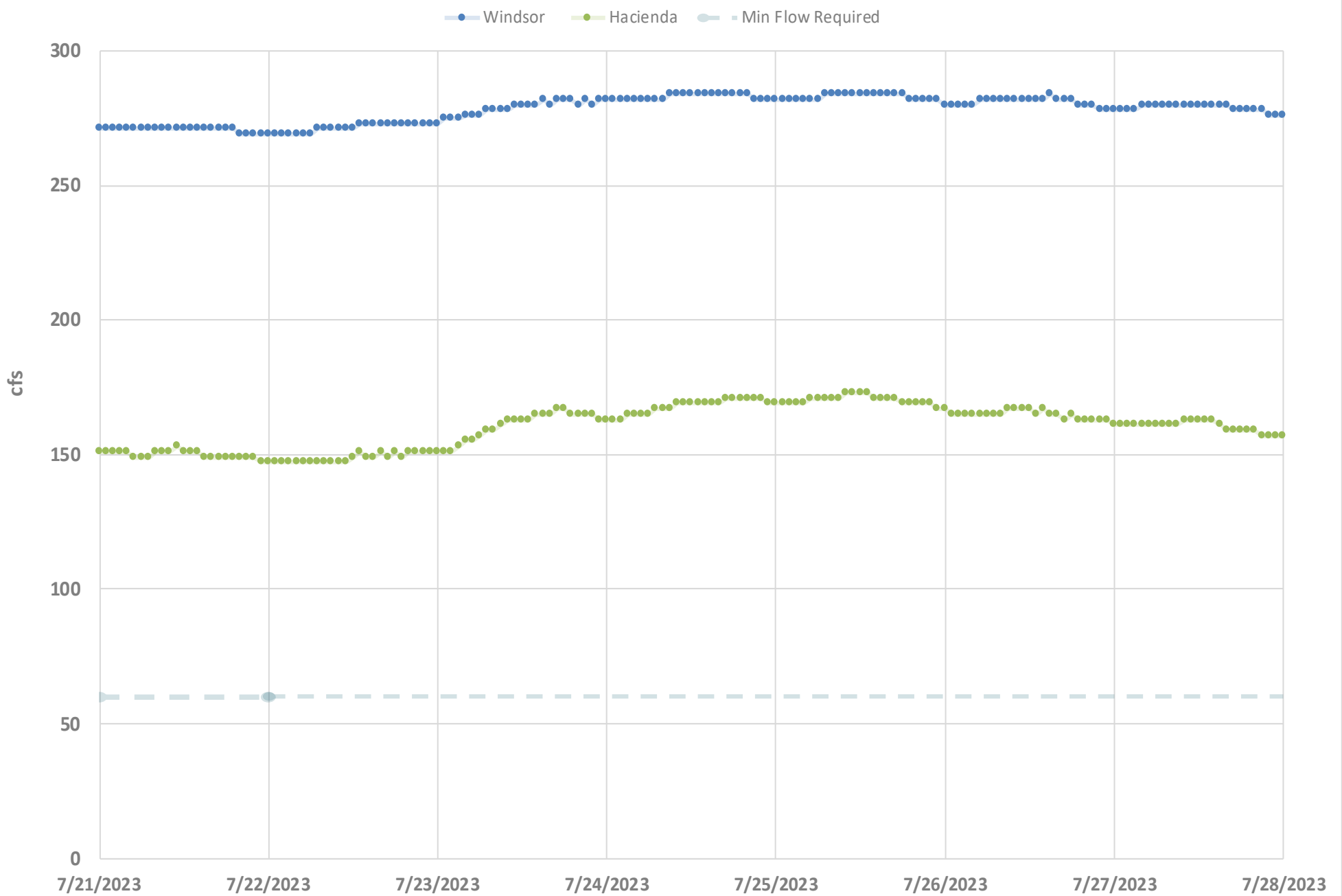
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## LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



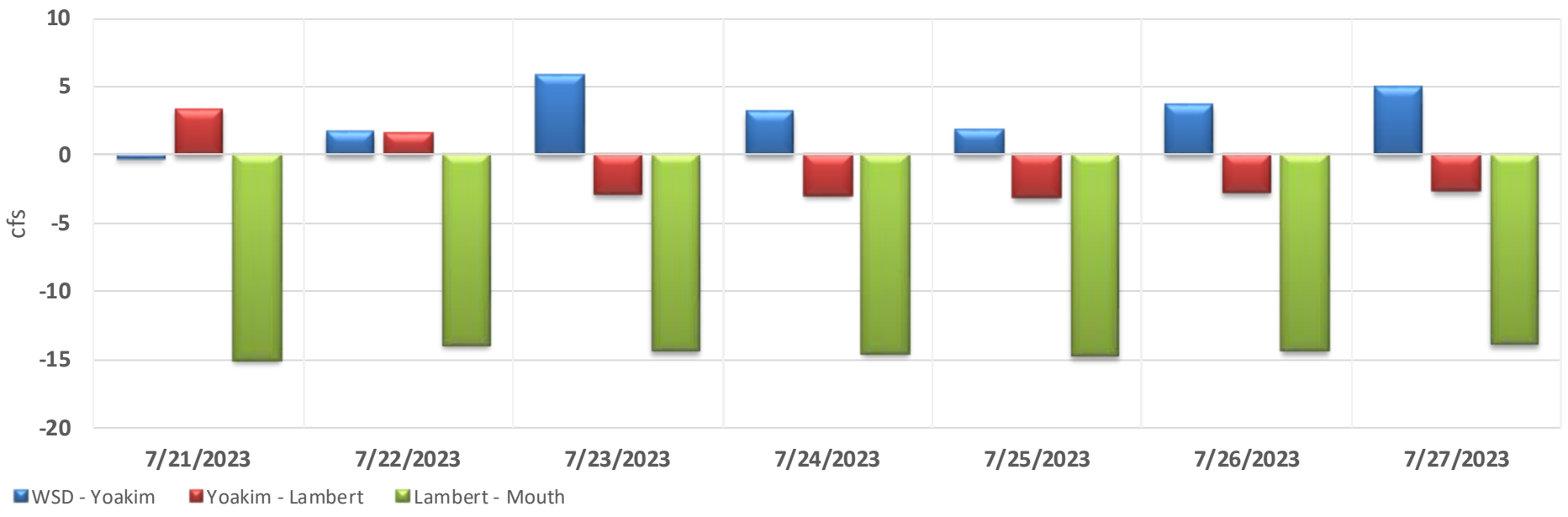
## LOWER RUSSIAN RIVER STREAM FLOWS



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



## DRY CREEK STREAM FLOWS

