

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

Report Date: 10/6/2023

Units are cfs unless noted otherwise

	<u>9/29/2023</u>	<u>9/30/2023</u>	<u>10/1/2023</u>	<u>10/2/2023</u>	<u>10/3/2023</u>	<u>10/4/2023</u>	<u>10/5/2023</u>
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	61.0	60.0	60.0	60.0	60.0	56.0	51.0
PVID Requested Delivery	21.4	20.0	20.0	20.0	20.0	20.0	20.0
PVID Canals Actual Delivery	13.9	13.8	13.7	11.2	9.8	9.9	9.8
East Fork Release	47.0	46.0	46.0	49.0	50.0	46.0	41.0
PVID E Fork Diversions	7.5	6.2	6.3	8.8	10.2	10.1	10.2
PVID Water Use - PG&E Contract	21.4	20.0	20.0	20.0	20.0	20.0	20.0
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)	39.5	39.8	39.7	40.2	39.8	35.9	30.8
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	59.6	59.8	61.8	62.2	61.7	58.7	46.9
Net Reach Loss(-)/Gain(+)	-1.4	-0.2	+1.8	+2.2	+1.7	+2.7	-4.1
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)	93	129	159	86	119	115	109
(cfs)	47	65	80	43	60	58	55
Natural Flow	7	25	40	3	20	22	24
Import	40	40	40	40	40	36	31
Storage Change (ac-ft)	-257.0	-222.0	-188.0	-257.0	-205.0	-214.0	-230.0
(cfs)	-130	-112	-95	-130	-103	-108	-116
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)	14.8	16.1	20.1	21.4	2.4	13.4	25.4
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	169	169	165	162	162	159	158
Storage (Project Water)	122	104	85	119	102	101	103
Natural Flow	7	25	40	3	20	22	24
Import Water	40	40	40	40	40	36	31
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage	<i>Rvr mi.</i>						
CVD Release	99.9	169	169	165	162	162	159
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	47	65	80	43	60	58	55
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	142	143	148	142	138	134	130
Controlling Gage	Talmage	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg
All Compliance Gages							
	<i>Rvr mi.</i>						
Forks (CVD + USGS 11461000)	99.0	169	169	165	162	162	159
Talmage (USGS 11462080)	96.1	142	149	158	156	149	148
Hopland (USGS 11462500)	84.8	159	160	160	155	154	147
Cloverdale (USGS 11463000)	70.9	149	150	152	148	147	141
Geyserville (USGS 11463500)	54.4	175	171	169	170	174	176
Jimtown (USGS 11463682)	48.5	151	152	154	153	151	149
Digger Bend (USGS 11463980)	38.2	146	146	150	150	147	145
Healdsburg (USGS 11464000)	35.6	142	143	148	142	138	134
Net Reach Loss(-)/Gain(+)							
Forks - Talmage	-27	-20	-8	-6	-13	-13	-10
Talmage - Hopland	+18	+15	+1	-1	+3	-0	-2
Hopland - Cloverdale	-10	-10	-9	-9	-8	-8	-10
Cloverdale - Jimtown	+3	+3	+3	+2	+4	+3	+4
Jimtown - Digger Bend	-5	-5	-4	-4	-4	-5	-6
Digger Bend - Healdsburg <i>*when Digger Bend > 400 cfs, next u/s gage (Jimtown) used</i>	-6	-2	-1	-8	-10	-12	-11
Upper Russian Net Reach Loss/Gain	-28	-19	-17	-26	-29	-36	-36
CVD Project Water Release to Meet Min Flow Requirement							
Net Reach Loss(-)/Gain(+) to Controlling Gage	-27	-19	-17	-26	-29	-36	-36
Storage (Project Water)	-27	-19	-17	-26	-29	-36	-36
Pass-through Water (Nat. + Imp.) + Natural	0	0	0	0	0	0	0
Total Pass-through Water	47	65	80	43	60	58	55
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)	-254.0	-203.0	-279.0	-254.0	-203.0	-278.0	-203.0
(cfs)	-128	-102	-141	-128	-102	-140	-102
Evaporation (ac-ft)	22.0	18.3	17.8	19.8	19.8	25.7	23.7
Inflow (Natural Flow)	0	17	0	0	9	0	14
WSD Release Gage	110	110	110	110	101	113	105
Storage (Project Water)	110	93	110	110	92	113	90
Natural Flow	0	17	0	0	9	0	14

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	101	101	102	100	99	98	98
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	110	110	110	110	101	113
Yoakim (USGS 11465200)	11.1	107	109	109	108	108	107
Lambert (USGS 11465240)	6.8	113	114	114	112	113	113
Dry Crk Mouth (USGS 11465350)	0.1	101	101	102	100	99	98

WSD to Russian River Confluence Reach Analysis

Total Pass-through Water	0	17	0	0	9	0	14
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Net Reach Loss(-)/Gain(+)

WSD - Yoakim	+0	+2	+2	+1	+1	+1	+0
Yoakim - Lambert	+6	+5	+5	+4	+5	+5	+5
Lambert - Dry Crk Mouth	-12	-12	-12	-12	-14	-15	-15
WSD - Dry Crk Mouth	-6	-5	-5	-8	-8	-9	-9

WSD Project Water Release to Meet Min Flow Requirement

Net Reach Loss/Gain to Controlling Gage	-6	-5	-5	-8	-8	-9	-9
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	142	137	125	142	138	134	130
Natural Flow	0	6	23	0	0	0	0

Dry Creek Flow (Mouth Gage)

L. Sonoma Project Water	110	93	110	110	92	113	90
Natural Flow	0	12	0	0	6	0	7

Russian River d/s of Confluence Flow

	242	244	250	242	236	231	227
L. Mendocino Project Water + Import Water	142	137	125	142	138	134	130
L. Sonoma Project Water	110	93	110	110	92	113	90
Natural Flow	0	18	23	0	6	0	7

VII. Lower Russian River Reach

Minimum Instream Flow Requirement	60	60	60	60	60	60	60
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Controlling Compliance Gage

Min Gage Flow	187	184	189	188	182	176	173
Controlling Gage	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda

All Compliance Gages

	<i>Rvr mi.</i>						
Windsor (USGS 11465390)	26.6	264	262	265	263	259	252
Hacienda (USGS 11467000)	21.8	187	184	189	188	182	173

Confluence to Windsor Reach Analysis

Net Reach Loss/Gain to Windsor Gage	+22	+17	+15	+19	+21	+23	+23
L. Mendocino Project Water + Import Water	142	137	125	142	138	134	130
L. Sonoma Project Water	105	88	106	106	88	108	86
Natural Flow	22	35	38	19	27	23	30

Confluence to SCWA Wohler Production Facility Reach Analysis

Approx. Flow u/s of Wohler	265	262	258	266	263	260	258
Net Reach Loss(-)/Gain(+)	+23	+18	+8	+24	+27	+28	+30
L. Mendocino Project Water + Import Water	142	137	125	142	138	134	130
L. Sonoma Project Water	105	88	106	106	88	108	86
Natural Flow	23	35	31	24	33	28	38

Confluence to Hacienda (Guerneville) Reach Analysis

Net Reach Loss(-)/Gain(+)	-55	-60	-61	-54	-55	-55	-54
L. Mendocino Project Water + Import Water	142	137	125	142	138	134	130
L. Sonoma Project Water	27	11	36	28	6	25	2
Natural Flow	23	35	31	24	33	28	38

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

Lower Russian River

Sonoma Water Total	155.4	154.0	137.4	155.3	161.8	165.5	166.8
Wohler	55.6	60.1	63.2	68.3	78.5	80.1	83.2
Mirabel	99.8	93.9	74.2	87.1	83.3	85.4	83.6
Town of Windsor River Wellfield	10.0	9.7	8.9	8.2	8.8	9.1	9.4
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

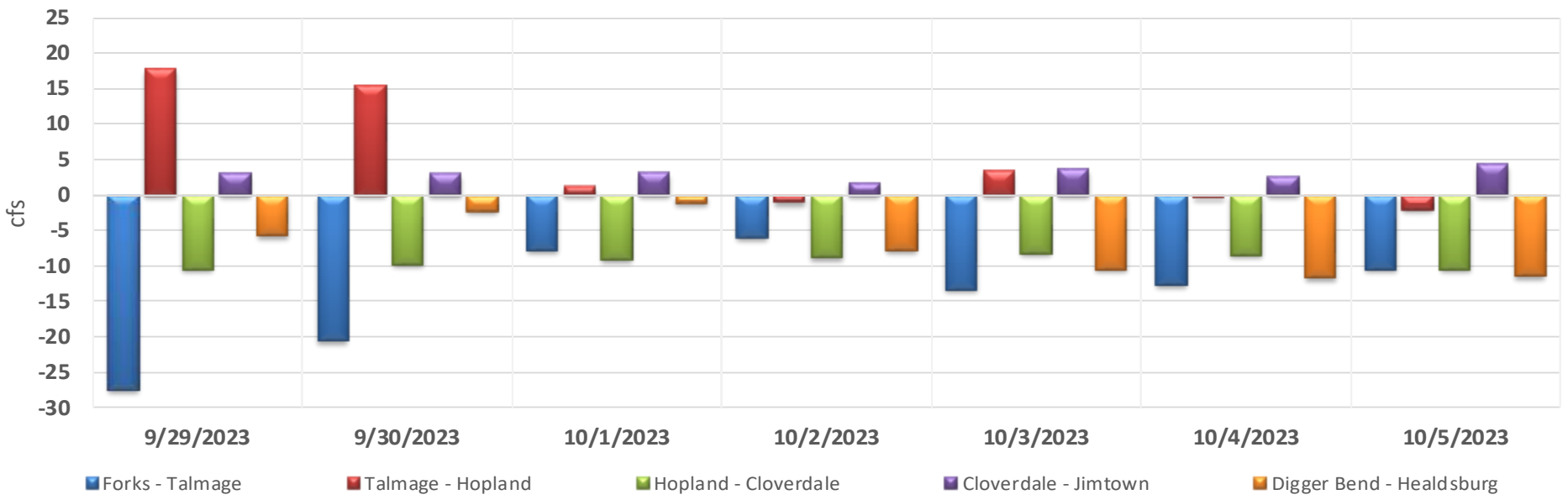
Notes:

- 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).

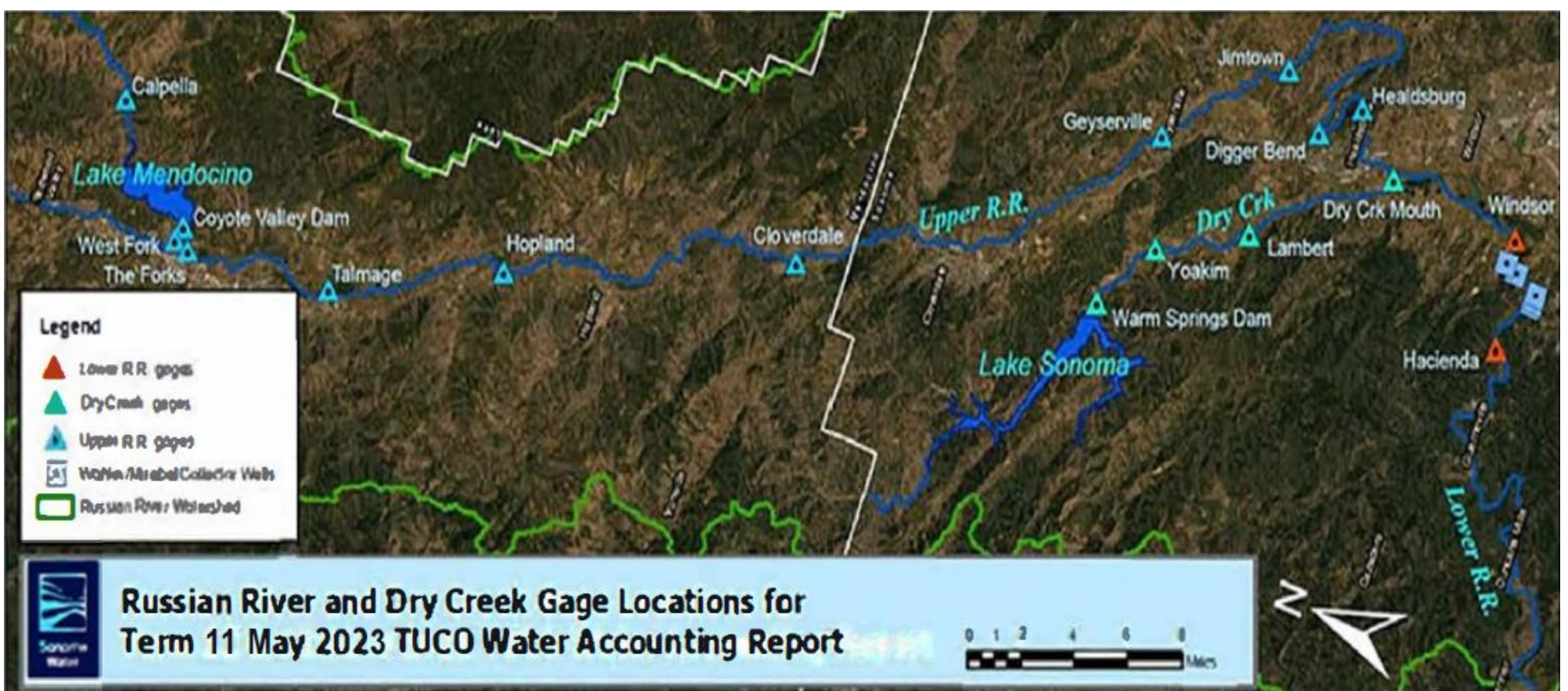
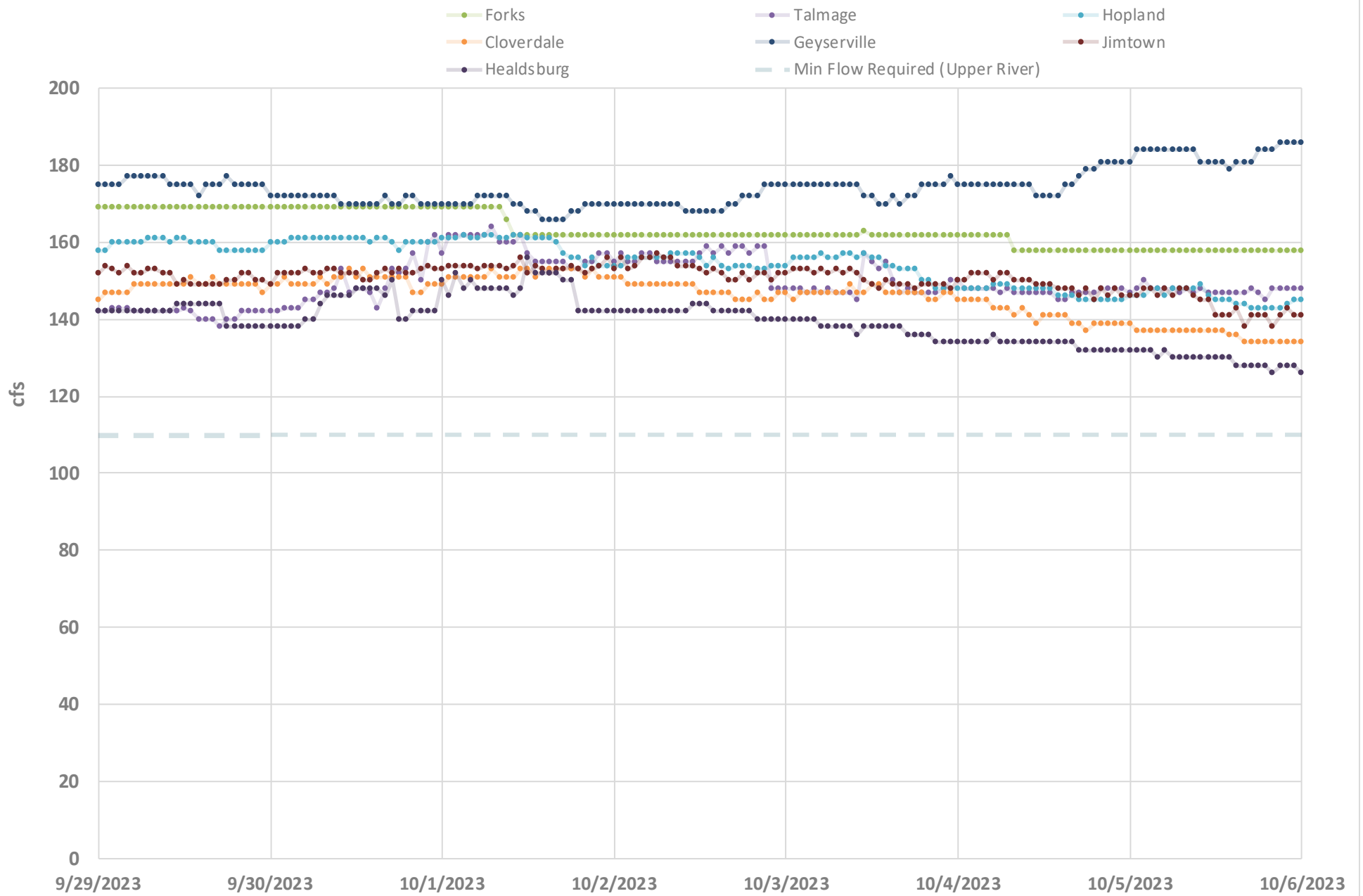
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



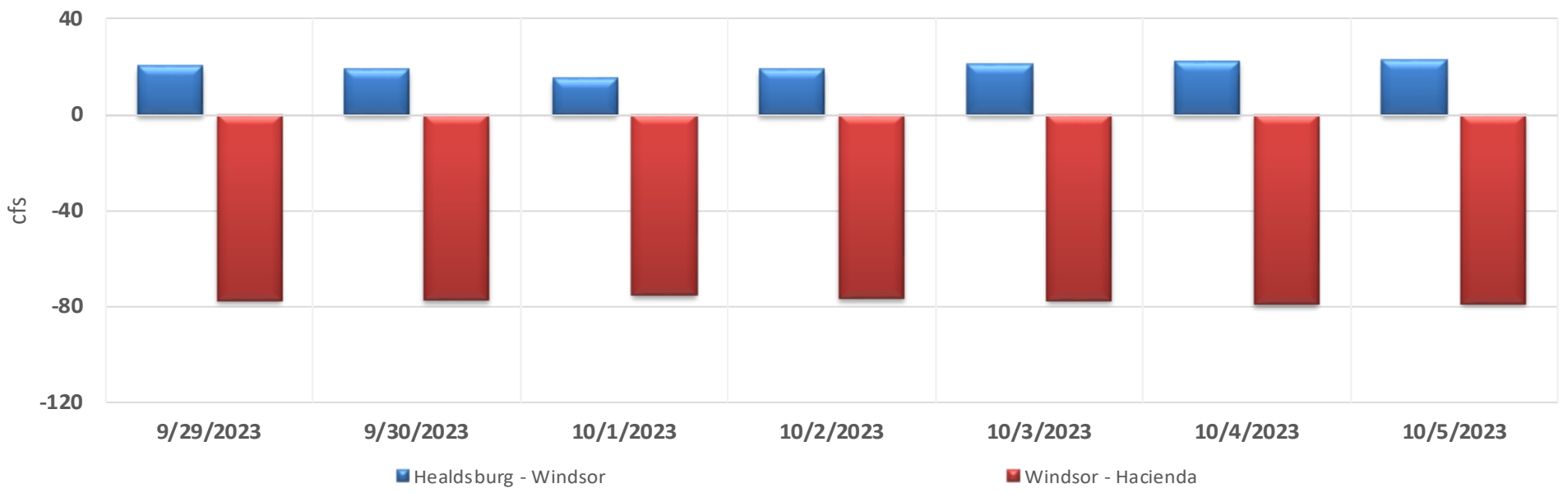
UPPER RUSSIAN RIVER STREAM FLOWS



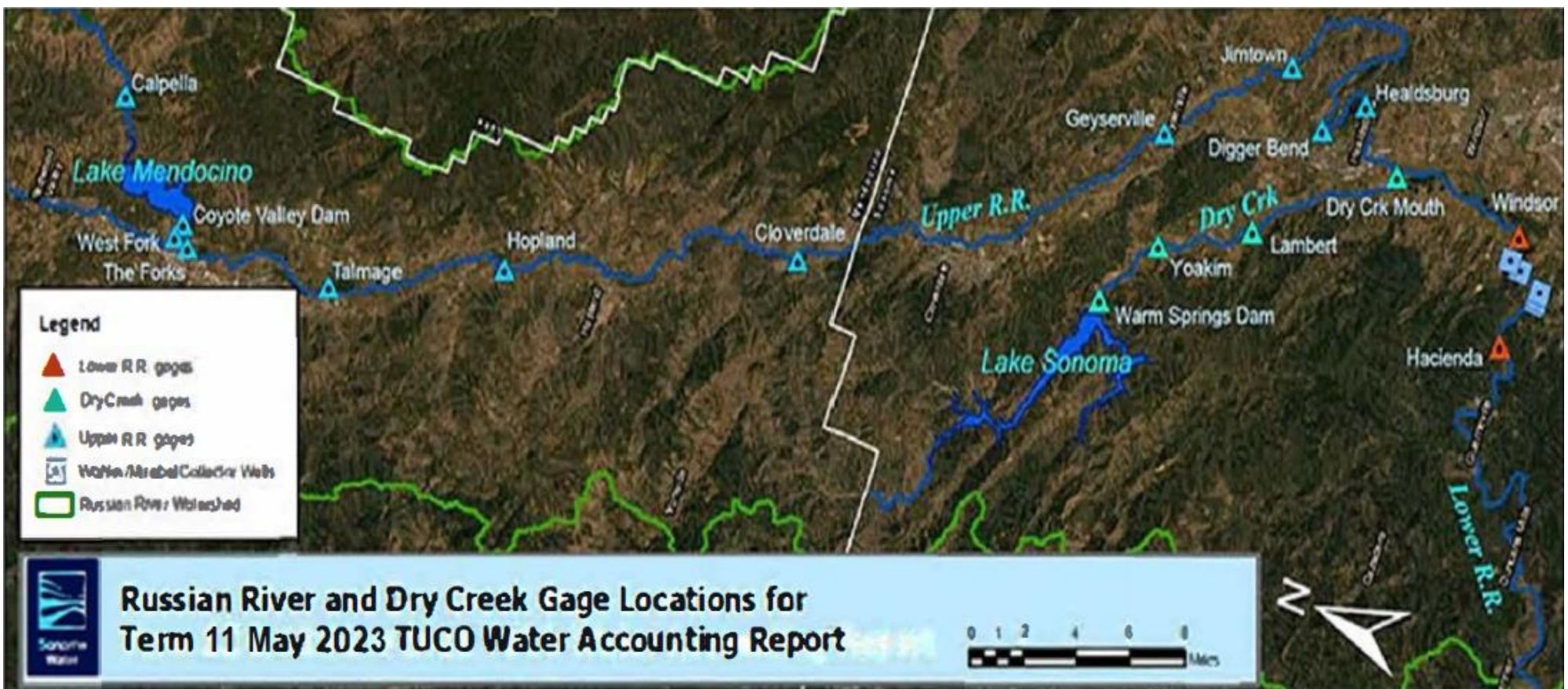
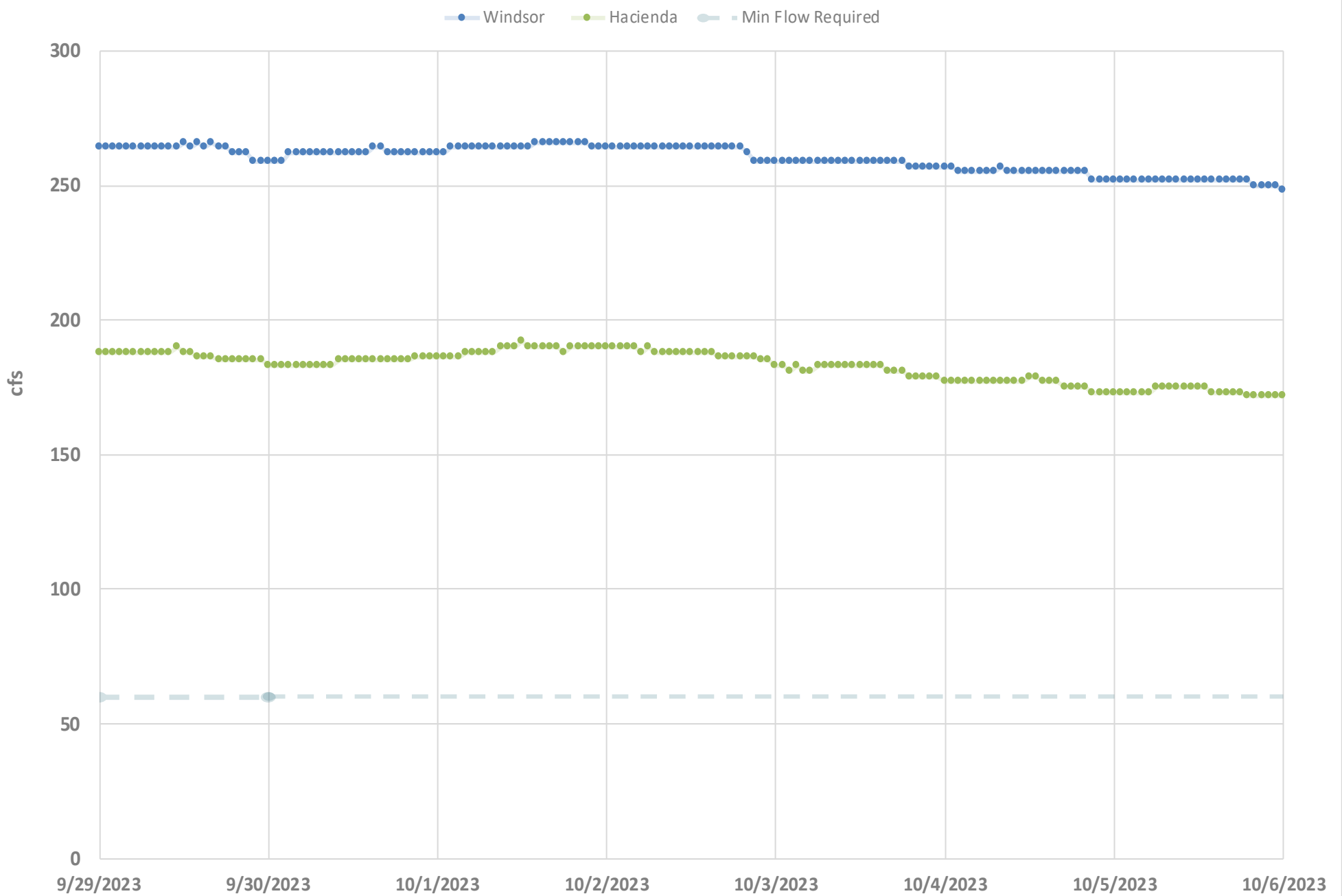
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



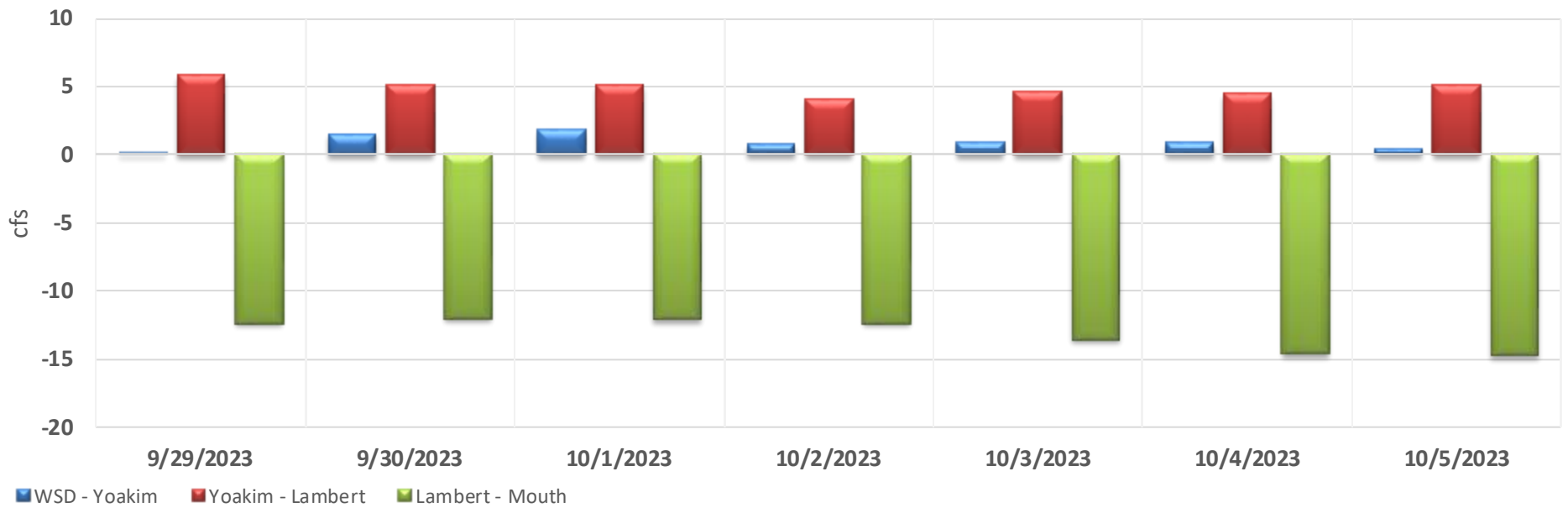
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

