

Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Term 12, Dec 2021 TUCO)

Report Date: 5/20/2022

Units are cfs unless noted otherwise

	5/13/2022	5/14/2022	5/15/2022	5/16/2022	5/17/2022	5/18/2022	5/19/2022
I. Upper East Fork Reach							
Potter Valley Project							
Tunnel Diversion	59.0	63.0	98.0	97.0	97.0	97.0	97.0
PVID Requested Delivery	19.7	17.0	17.0	17.0	17.0	17.0	17.0
PVID Canals Actual Delivery	12.0	12.0	13.2	13.9	16.0	16.0	16.0
East Fork Release	47.0	51.0	85.0	83.0	81.0	81.0	81.0
PVID E Fork Diversions	7.7	5.0	3.8	3.1	1.0	1.0	1.0
PVID Water Use - PG&E Contract	19.7	17.0	17.0	17.0	17.0	17.0	17.0
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)	39.3	46.0	81.2	79.9	80.0	80.0	80.0
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	55.1	55.2	87.1	90.1	83.9	87.2	88.4
Net Reach Loss(-)/Gain(+)	-3.9	-7.8	-10.9	-6.9	-13.1	-9.8	-8.6
Unimpaired Natural Flow @ Calpella (est.)	15.7	9.2	6.1	10.1	3.9	7.2	8.4
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)	100	101	191	177	182	193	180
(cfs)	50	51	96	89	92	97	91
Natural Flow	16	9	15	10	12	17	11
Import	34	42	81	79	80	80	80
Storage Change (ac-ft)	+30.0	+29.0	+119.0	+104.0	+104.0	+119.0	+104.0
(cfs)	+15	+15	+60	+52	+52	+60	+52
Stored Natural Flow (cfs)	15	9	15	10	12	17	11
Stored Import Water (cfs)	0	5	45	42	41	43	42
Evaporation (ac-ft)	14.7	17.3	16.5	18.2	22.6	19.1	20.9
RVCWD Diversion (ac-ft)	0	0	0	0	0	0	0
CVD Release Gage	28	28	28	28	28	28	28
Storage (Project Water)	0	0	0	0	0	0	0
Natural Flow	0	0	0	0	0	0	0
Import Water	28	27	28	28	28	28	28
East Fork Min Instream Flow Requirement	25	25	25	25	25	25	25
Compliance Gage		<i>Rvr mi.</i>					
CVD Release		99.9	28	28	28	28	28
CVD Project Water Release to Meet Min Flow Requirement							
Total Pass-through Water	28	27	28	28	28	28	28
Project Water Release Required	No	No	No	No	No	No	No

III. Upper Russian River Reach

Minimum Instream Flow Requirement

Controlling Compliance Gage

Min Gage Flow	42	42	43	42	41	40	39
Controlling Gage	Talmage	Talmage	Talmage	Talmage	Hopland	Hopland	Talmage
All Compliance Gages							
		<i>Rvr mi.</i>					
Forks (CVD + USGS 11461000)	99.0	45	45	44	44	43	42
Talmage (USGS 11462080)	96.1	42	42	43	42	41	41
Hopland (USGS 11462500)	84.8	48	46	47	47	41	40
Cloverdale (USGS 11463000)	70.9	62	65	66	63	52	50
Geyserville (USGS 11463500)	54.4	82	77	75	74	68	57
Jimtown (USGS 11463682)	48.5	103	98	97	95	92	85
Digger Bend (USGS 11463980)	38.2	102	98	96	93	92	84
Healdsburg (USGS 11464000)	35.6	93	88	87	86	83	79

Net Reach Loss(-)/Gain(+)

Forks - Talmage	-3	-2	-2	-2	-2	-2	-3
Talmage - Hopland	+5	+3	+5	+4	-0	-2	-0
Hopland - Cloverdale	+13	+19	+19	+15	+7	+10	+8
Cloverdale - Jimtown	+36	+36	+31	+29	+33	+35	+31
Jimtown - Digger Bend	-3	-1	-1	-3	-1	-3	-2
Digger Bend - Healdsburg	-10	-11	-9	-8	-9	-9	-6
Upper Russian Net Reach Loss/Gain	+38	+43	+43	+36	+27	+29	+28

CVD Project Water Release to Meet Min Flow Requirement

Net Reach Loss(-)/Gain(+) to Controlling Gage	-3	-2	-2	-2	-2	-3	-3
Storage (Project Water)	-0	-0	-0	-0	-0	-0	-0
Pass-through Water (Nat. + Imp.) + Natural	-3	-2	-2	-2	-2	-3	-3
Total Pass-through Water	25	25	26	26	26	24	25
Project Water Release Required	No	No	No	No	No	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).

	<u>5/13/2022</u>	<u>5/14/2022</u>	<u>5/15/2022</u>	<u>5/16/2022</u>	<u>5/17/2022</u>	<u>5/18/2022</u>	<u>5/19/2022</u>
IV. Lake Sonoma							
Lake Sonoma							
Storage Change (ac-ft)	-110.0	-109.0	-128.0	-146.0	-127.0	-146.0	-146.0
(cfs)	-55	-55	-65	-74	-64	-74	-74
Evaporation (ac-ft)	25.4	29.6	26.4	27.5	30.6	32.7	31.7
Inflow (Natural Flow)	23	26	15	6	17	10	8
WSD Release Gage	66	66	66	66	65	67	66
Storage (Project Water)	43	40	51	60	49	57	58
Natural Flow	23	26	15	6	17	10	8

V. Lower Dry Creek Reach

Minimum Instream Flow Requirement		25	25	25	25	25	25	25
Controlling Compliance Gage								
Min Gage Flow		66	66	66	66	65	65	65
Controlling Gage		WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	Dry Crk Mouth	Dry Crk Mouth
All Compliance Gages								
	<i>Crk mi.</i>							
WSD Release	14.3	66	66	66	66	65	67	66
Yoakim (USGS 11465200)	11.1	69	69	69	69	68	71	69
Lambert (USGS 11465240)	6.8	79	79	79	78	77	79	77
Dry Crk Mouth (USGS 11465350)	0.1	68	68	69	67	65	65	65
WSD to Russian River Confluence Reach Analysis								
Total Pass-through Water		23	26	15	6	17	10	8
Net Reach Loss(-)/Gain(+)								
WSD - Yoakim		+3	+3	+3	+3	+3	+3	+3
Yoakim - Lambert		+10	+9	+9	+9	+9	+8	+8
Lambert - Dry Crk Mouth		-11	-11	-10	-11	-13	-13	-13
WSD - Dry Crk Mouth		+2	+2	+3	+1	+0	-1	-1
WSD Project Water Release to Meet Min Flow Requirement								
Net Reach Loss/Gain to Controlling Gage		+0	+0	+0	+0	+0	-1	-1
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		28	28	28	28	28	28	28
Natural Flow		38	43	43	36	27	29	28
Dry Creek Flow (Mouth Gage)								
L. Sonoma Project Water		43	40	51	60	49	57	58
Natural Flow		25	28	18	7	17	9	7
Russian River d/s of Confluence Flow								
L. Mendocino Project Water + Import Water		161	157	156	153	148	144	138
L. Sonoma Project Water		28	28	28	28	28	28	28
Natural Flow		43	40	51	60	49	57	58
		63	71	61	43	43	38	35

VII. Lower Russian River Reach

Minimum Instream Flow Requirement		35	35	35	35	35	35	35
Controlling Compliance Gage								
Min Gage Flow		130	118	113	113	110	104	91
Controlling Gage		Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages								
	<i>Rvr mi.</i>							
Windsor (USGS 11465390)	26.6	239.5	229.1	225.3	226.2	223.8	216.8	197.6
Hacienda (USGS 11467000)	21.8	130	118	113	113	110	104	91
Confluence to Windsor Reach Analysis								
Net Reach Loss/Gain to Windsor Gage		+79	+73	+69	+72	+74	+71	+57
L. Mendocino Project Water + Import Water		28	28	28	28	28	28	28
L. Sonoma Project Water		39	37	48	56	45	53	54
Natural Flow		142	144	130	115	117	109	92
Confluence to SCWA Wohler Production Facility Reach Analysis								
Approx. Flow u/s of Wohler		210	203	190	185	179	196	186
Net Reach Loss(-)/Gain(+)		+49	+47	+35	+32	+31	+52	+48
L. Mendocino Project Water + Import Water		28	28	28	28	28	28	28
L. Sonoma Project Water		39	37	48	56	45	53	54
Natural Flow		113	118	95	75	74	90	83
Confluence to Hacienda (Guerneville) Reach Analysis								
Net Reach Loss(-)/Gain(+)		-31	-39	-43	-40	-38	-40	-47
L. Mendocino Project Water + Import Water		28	28	28	28	28	28	28
L. Sonoma Project Water		0	0	0	0	0	0	0
Natural Flow		72	69	66	60	50	51	42

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

Lower Russian River								
Sonoma Water Total		158.6	169.4	153.4	142.5	136.7	182.9	188.7
Wohler		70.3	81.9	65.3	53.6	47.1	71.9	70.9
Mirabel		88.4	87.5	88.1	88.9	89.5	111.0	117.8
Town of Windsor River Wellfield		6.8	7.0	7.1	6.7	7.8	7.7	8.1
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

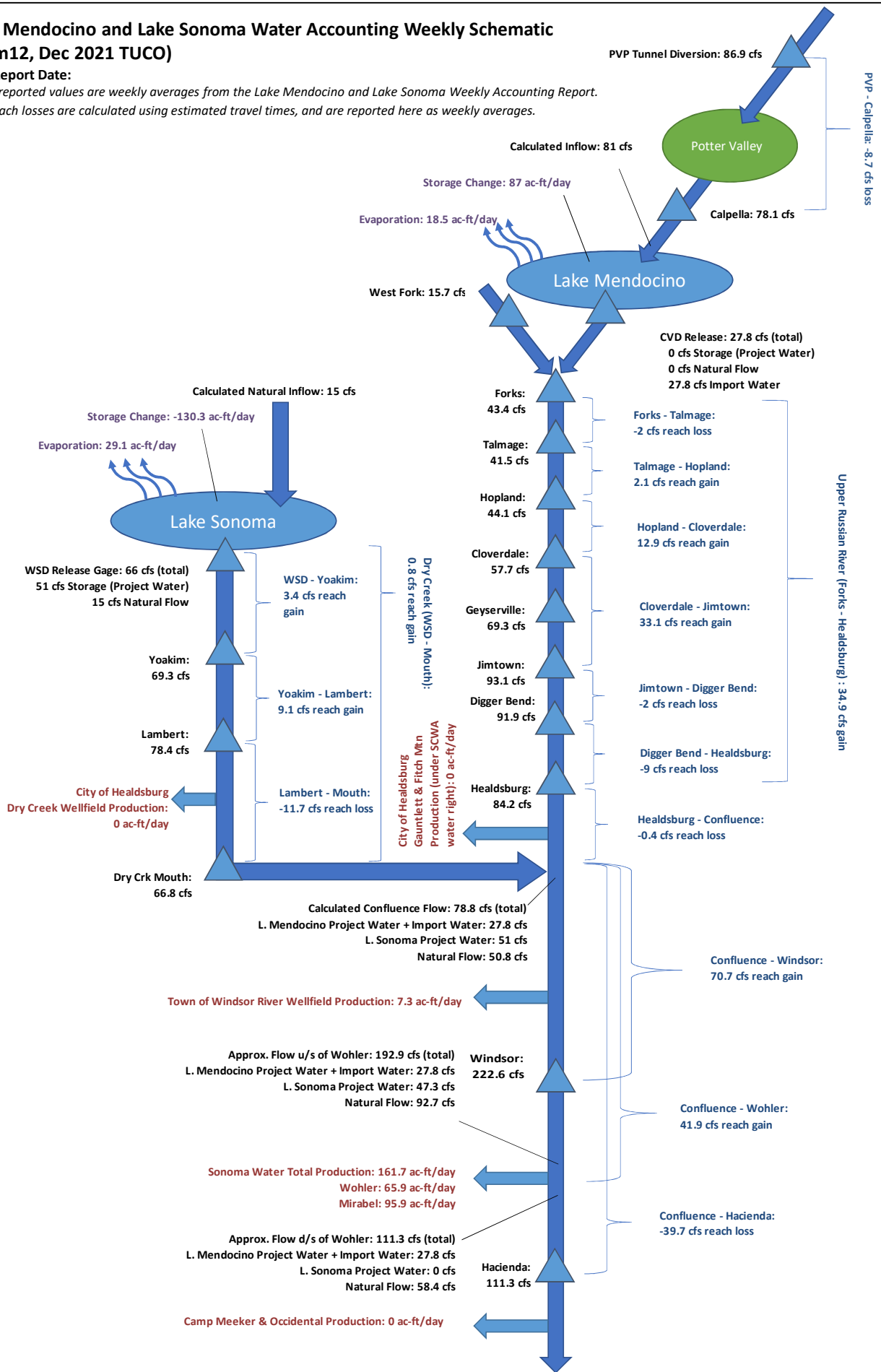
Notes:

- 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 (Term12, Dec 2021 TUCO)

Report Date:

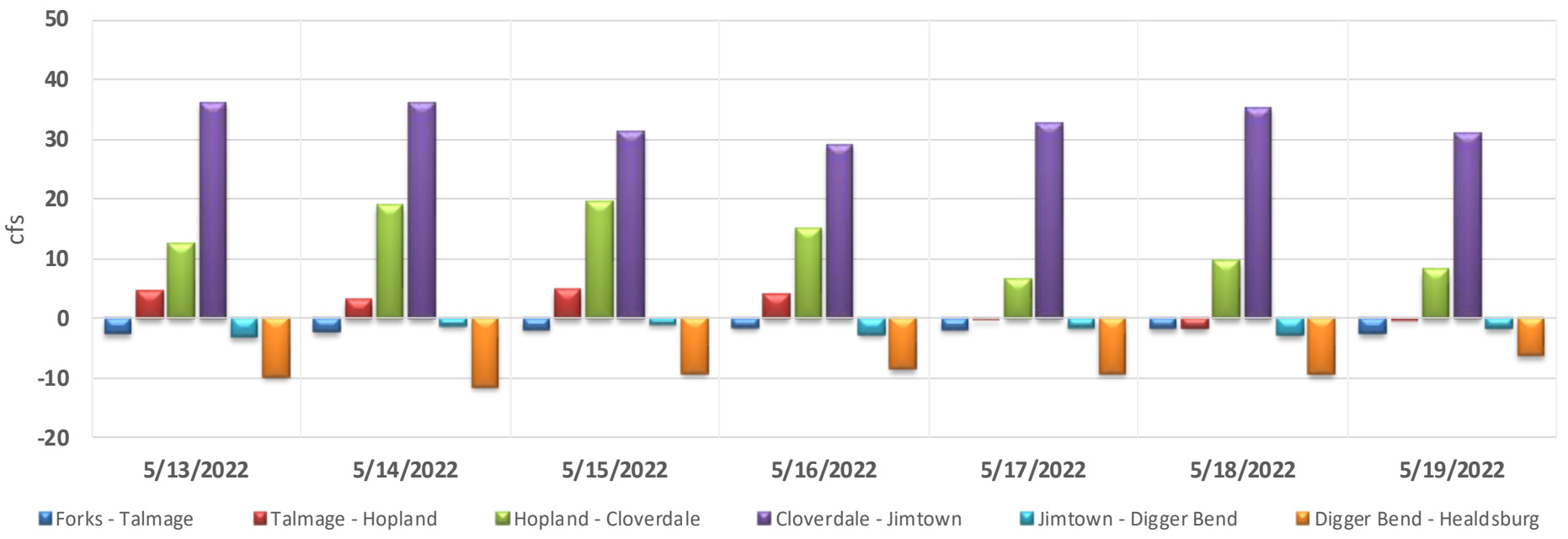
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



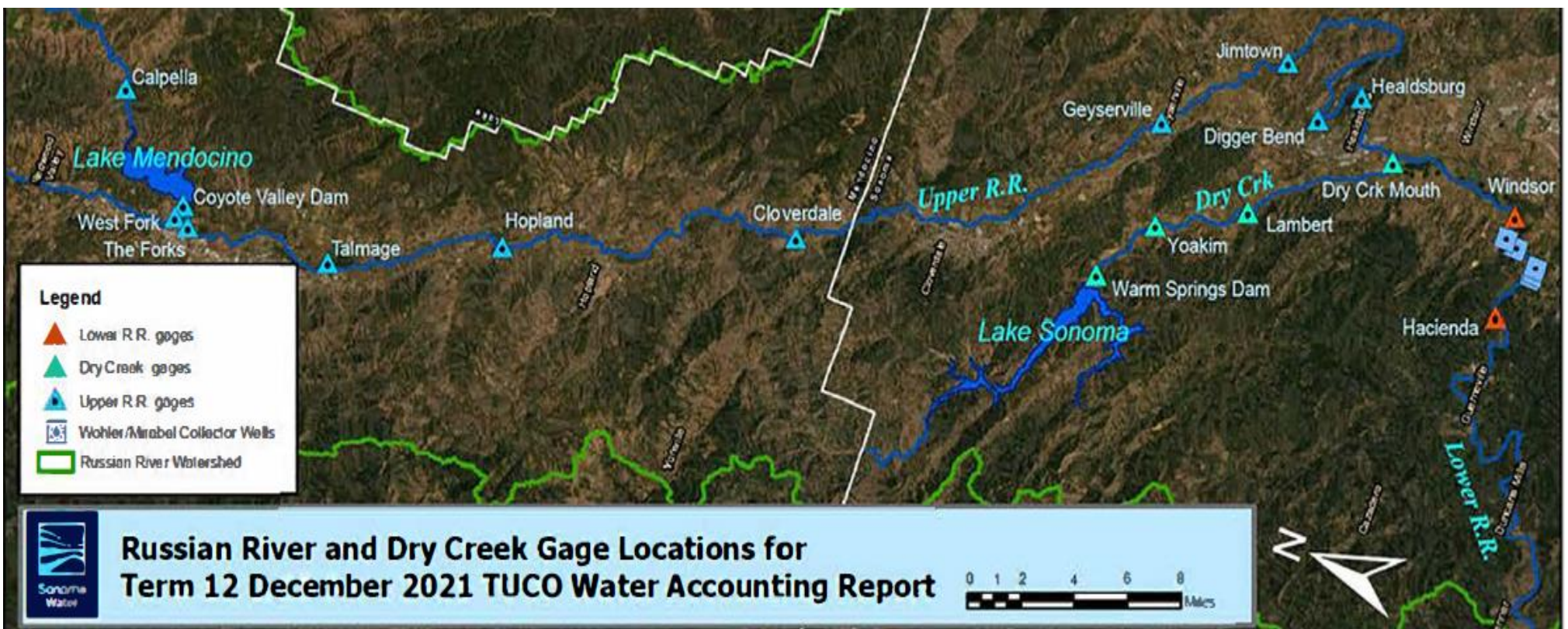
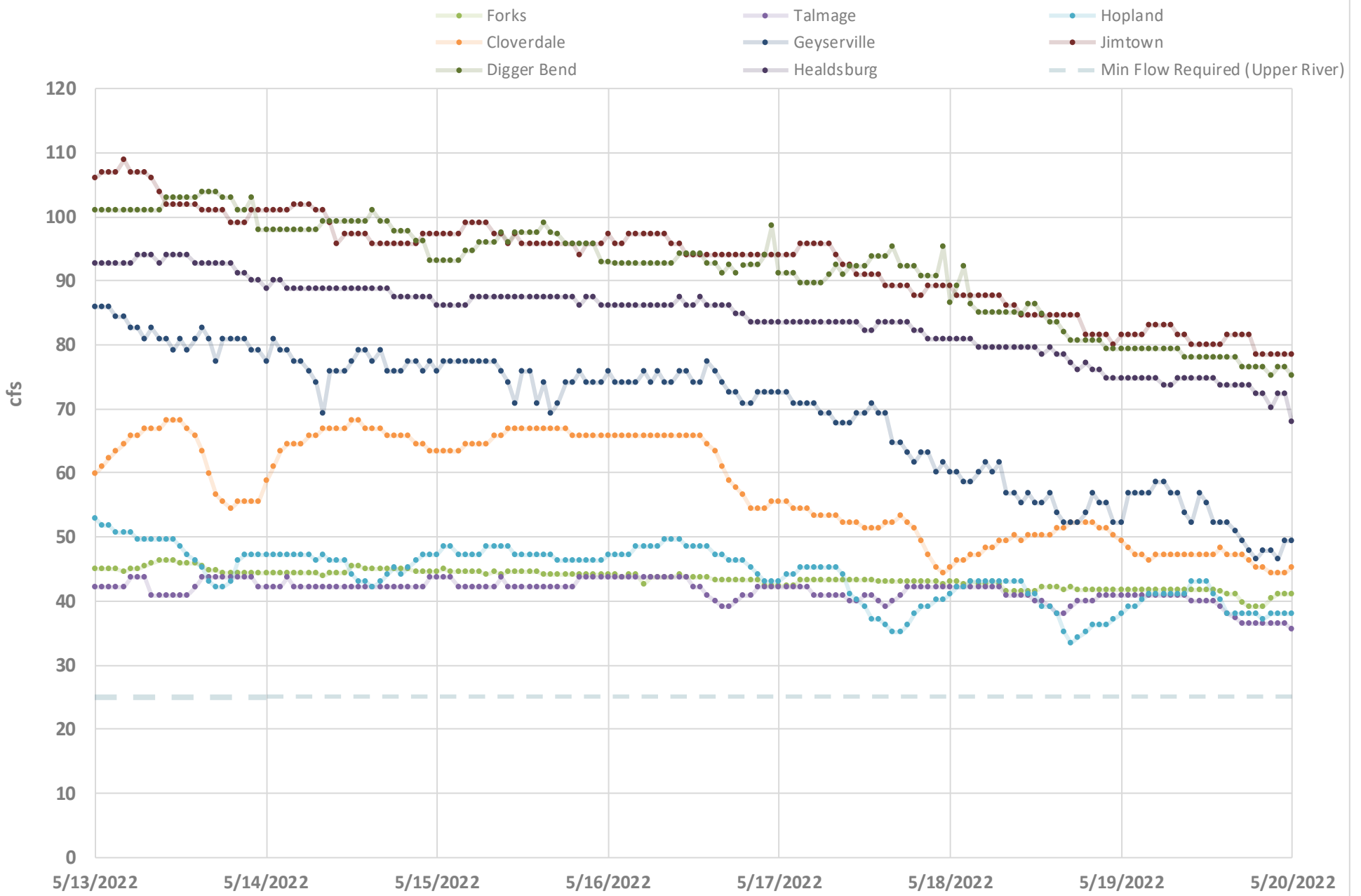
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UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



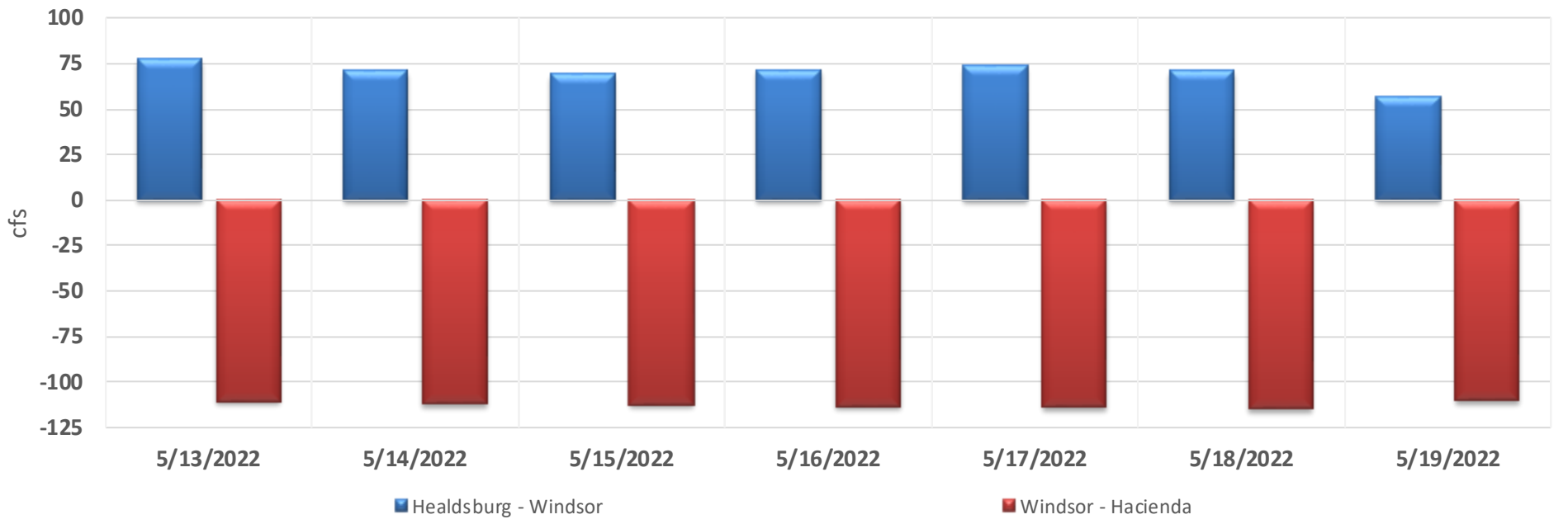
UPPER RUSSIAN RIVER STREAM FLOWS



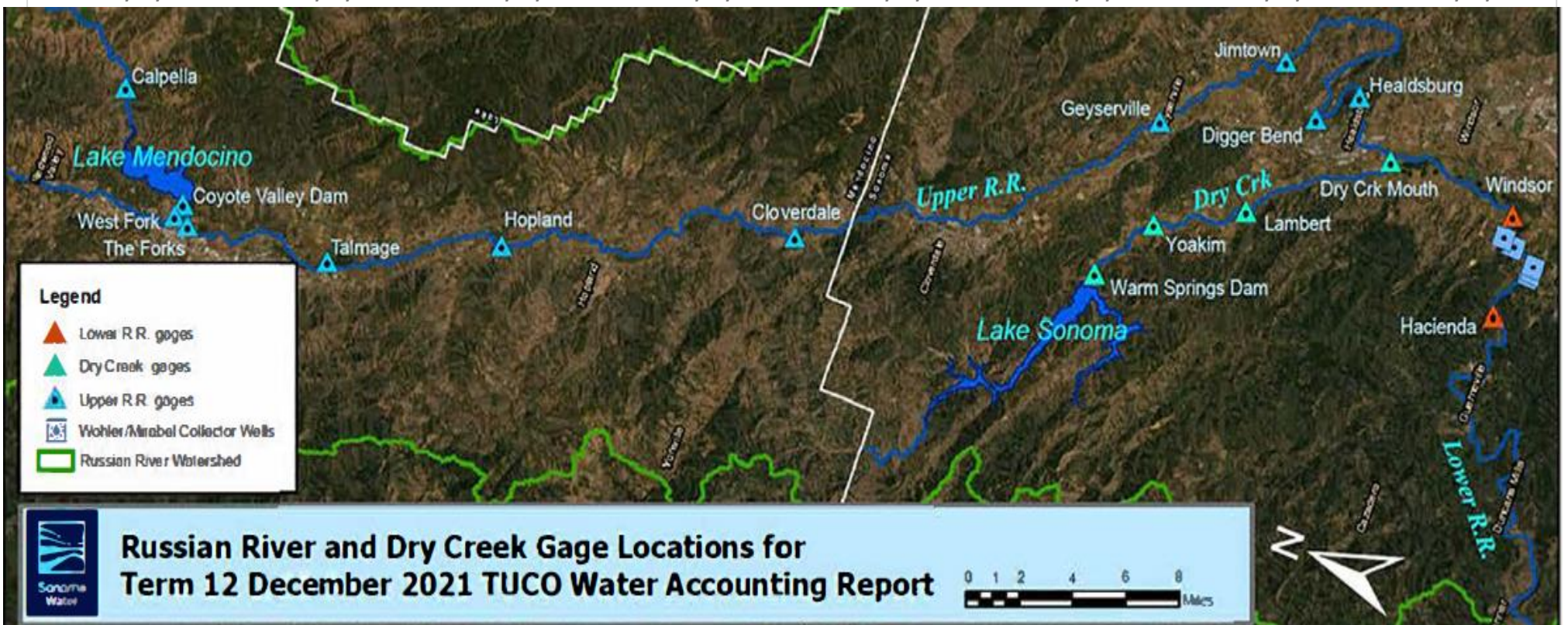
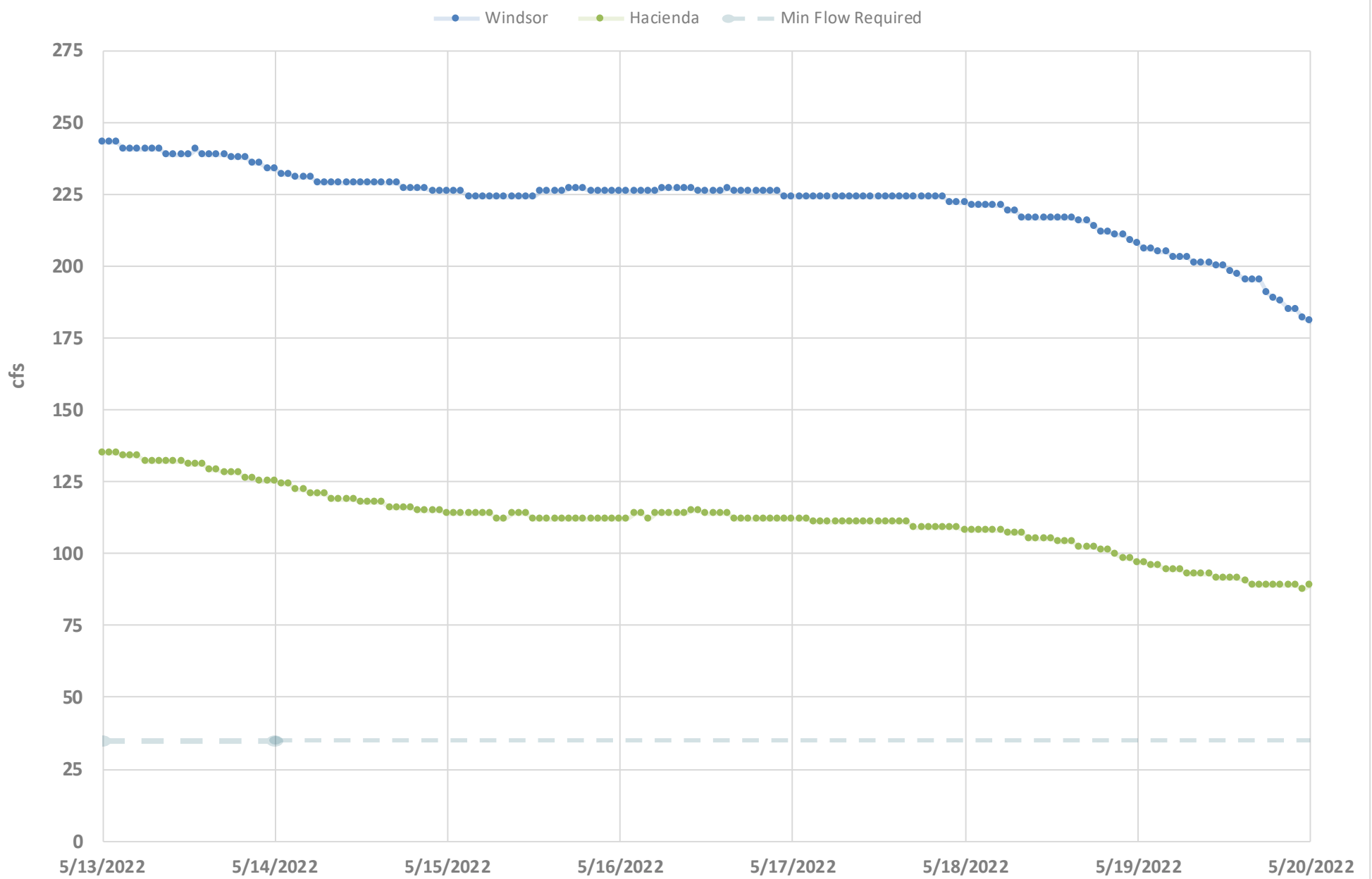
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LOWER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



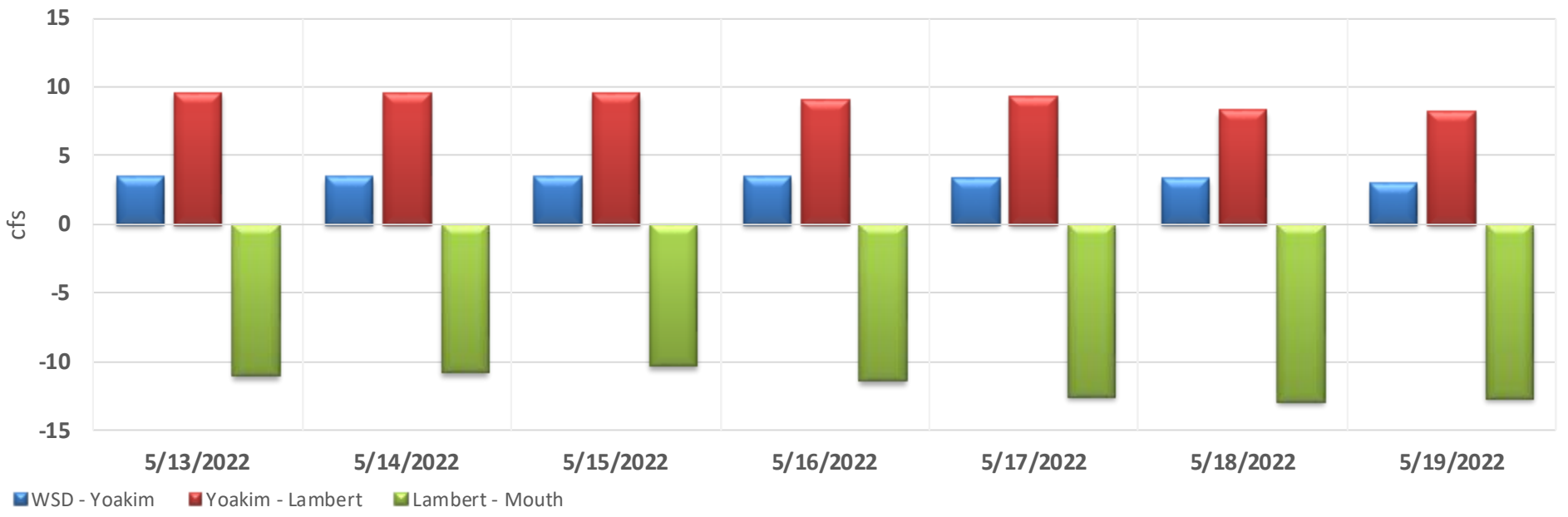
LOWER RUSSIAN RIVER STREAM FLOWS



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



DRY CREEK STREAM FLOWS

