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

Report Date: 11/19/2021

Units are cfs unless noted otherwise

			11/12/2021	11/13/2021	11/14/2021	11/15/2021	11/16/2021	11/17/2021	11/18/2021
I. Upper East Fork Reach									
Potter Valley Project									
Tunnel Diversion			45.0	45.0	45.0	45.0	45.0	45.0	45.0
PVID Requested Delivery			5.0	5.0	5.0	5.0	5.0	5.0	5.0
PVID Canals Actual Delivery			2.8	2.8	2.8	2.8	2.8	2.8	2.8
East Fork Release			42.0	42.0	42.0	42.0	42.0	42.0	42.0
PVID E Fork Diversions			2.3	2.2	2.2	2.2	2.2	2.2	2.2
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 (Import)			39.8	39.8	39.8	39.8	39.8	39.8	39.8
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			85.8	75.7	70.2	66.9	64.8	62.9	61.5
Net Reach Loss(-)/Gain(+)			+40.8	+30.7	+25.2	+21.9	+19.8	+17.9	+16.5
Unimpaired Natural Flow @ Calpella (est.)			45.8	35.7	30.2	26.9	24.8	22.9	21.5
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									
Resrvoir Operations									
Calculated Inflow (ac-ft)			171	147	142	135	127	126	118
(cfs)			86	74	71	68	64	64	59
Natural Flow			46	36	31	28	25	24	21
Import			40	39	40	40	39	40	38
Storage Change (ac-ft)			+112.0	+88.0	+81.0	+73.0	+64.0	+65.0	+57.0
(cfs)			+56	+44	+41	+37	+32	+33	+29
Stored Natural Flow (cfs)			28	22	20	18	16	16	14
Stored Import Water (cfs)			28	22	20	18	16	16	14
Evaporation (ac-ft)			3.3	3.9	5.2	5.3	5.3	4.6	3.3
RVCWD Diversion (ac-ft)			0	0	0	0	0	0	0
CVD Release Gage			28	28	28	28	29	29	29
Storage (Project Water)			0	0	0	0	0	0	0
Natural Flow			17	13	10	8	7	6	6
Import Water			11	15	18	20	22	22	23
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage		*Rvr mi.*							
CVD Release		*99.9*	28	28	28	28	29	29	29
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			28	28	28	28	29	29	29
Project Water Release Required			No	No	No	No	No	No	No
III. Upper Russian River Reach									
Minimum Instream Flow Requirement			25	25	25	25	25	25	25
Controlling Compliance Gage									
Min Gage Flow			98	80	70	64	61	57	54
Controlling Gage			Forks	Forks	Forks	Forks	Forks	Forks	Forks
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	98	80	70	64	61	57	54
Talmage	(USGS 11462080)	*96.1*	157	129	113	104	97	90	86
Hopland	(USGS 11462500)	*84.8*	206	165	140	123	111	100	91
Cloverdale	(USGS 11463000)	*70.9*	360	286	239	207	182	163	148
Geyserville	(USGS 11463500)	*54.4*	570	458	386	332	294	264	239
Jimtown	(USGS 11463682)	*48.5*	564	469	405	360	322	290	265
Digger Bend	(USGS 11463980)	*38.2*	*>400 cfs*	*>400 cfs*	*>400 cfs*	*>400 cfs*	*>400 cfs*	*>400 cfs*	341
Healdsburg	(USGS 11464000)	*35.6*	865	719	622	555	503	453	402
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			+54	+46	+42	+39	+35	+33	+31
Talmage - Hopland			+40	+31	+23	+18	+12	+8	+5
Hopland - Cloverdale			+137	+111	+93	+80	+69	+60	+54
Cloverdale - Jimtown			+156	+153	+147	+139	+129	+119	+111
Jimtown - Digger Bend			*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	+72
Digger Bend - Healdsburg **when Digger Bend > 400 cfs, next u/s gage (Jimtown) used*			*+281*	*+237*	*+208*	*+189*	*+175*	*+158*	*+59*
Upper Russian Net Reach Loss/Gain			+668	+579	+513	+464	+420	+378	+332
CVD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss(-)/Gain(+) to Controlling Gage			+0	+0	+0	+0	+0	+0	+0
Storage (Project Water)			0	0	0	0	0	0	0
Pass-through Water (Nat. + Imp.) + Natural			0	0	0	0	0	0	0
Total Pass-through Water			28	28	28	28	29	29	29
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).

			11/12/2021	11/13/2021	11/14/2021	11/15/2021	11/16/2021	11/17/2021	11/18/2021
IV. Lake Sonoma									
Lake Sonoma									
Storage Change (ac-ft)			+116.0	+82.0	+0.0	+17.0	-17.0	-33.0	-83.0
(cfs)			+58	+41	+0	+9	-9	-17	-42
Evaporation (ac-ft)			6.6	6.6	5.3	5.3	6.6	6.6	4.0
Inflow (Natural Flow)			138	121	79	87	71	62	35
WSD Release Gage			76	76	76	76	76	76	75
Storage (Project Water)			0	0	0	0	5	13	40
Natural Flow			76	76	76	76	71	62	35
V. Lower Dry Creek Reach									
Minimum Instream Flow Requirement			75	75	75	75	75	75	75
Controlling Compliance Gage									
Min Gage Flow			76	76	76	76	76	76	75
Controlling Gage			WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release	WSD Release
All Compliance Gages		*Crk mi.*							
WSD Release		*14.3*	76	76	76	76	76	76	75
Yoakim	(USGS 11465200)	*11.1*	114	107	100	96	93	90	89
Lambert	(USGS 11465240)	*6.8*	135	128	122	118	115	112	110
Dry Crk Mouth	(USGS 11465350)	*0.1*	140	132	127	124	122	120	114
WSD to Russian River Confluence Reach Analysis									
Total Pass-through Water			76	76	76	76	71	62	35
Net Reach Loss(-)/Gain(+)									
WSD - Yoakim			+38	+31	+24	+20	+17	+15	+13
Yoakim - Lambert			+20	+20	+21	+22	+22	+22	+21
Lambert - Dry Crk Mouth			+74	+47	+34	+26	+22	+19	+15
WSD - Dry Crk Mouth			+132	+98	+79	+67	+61	+55	+50
WSD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss/Gain to Controlling Gage			+38	+31	+24	+20	+17	+15	+13
Project Water Release Required			No	No	No	No	Yes	Yes	Yes
VI. Russian River - Dry Creek Confluence									
Upper Russian River Flow (Healdsburg Gage)									
L. Mendocino Project Water + Import Water			11	15	18	20	22	22	23
Natural Flow			685	591	523	472	428	384	338
Dry Creek Flow (Mouth Gage)									
L. Sonoma Project Water			0	0	0	0	5	13	40
Natural Flow			140	132	127	124	117	118	85
Russian River d/s of Confluence Flow			1,005	851	749	679	625	573	516
L. Mendocino Project Water + Import Water			11	15	18	20	22	22	23
L. Sonoma Project Water			0	0	0	0	5	13	40
Natural Flow			825	723	650	596	544	502	423
VII. Lower Russian River Reach									
Minimum Instream Flow Requirement			35	35	35	35	35	35	35
Controlling Compliance Gage									
Min Gage Flow			1,610	1,240	1,000	846	736	654	592
Controlling Gage			Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda	Hacienda
All Compliance Gages		*Rvr mi.*							
Windsor	(USGS 11465390)	*26.6*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Hacienda	(USGS 11467000)	*21.8*	1,610	1,240	1,000	846	736	654	592
Confluence to Windsor Reach Analysis									
Net Reach Loss/Gain to Windsor Gage			-	-	-	-	-	-	-
L. Mendocino Project Water + Import Water			-	-	-	-	-	-	-
L. Sonoma Project Water			-	-	-	-	-	-	-
Natural Flow			-	-	-	-	-	-	-
Confluence to SCWA Wohler Production Facility Reach Analysis									
Approx. Flow u/s of Wohler			1,674	1,319	1,062	890	784	701	645
Net Reach Loss(-)/Gain(+)			+668	+467	+313	+211	+159	+128	+128
L. Mendocino Project Water + Import Water			11	15	18	20	22	22	23
L. Sonoma Project Water			0	0	0	0	3	11	38
Natural Flow			1,493	1,191	963	807	703	630	551
Confluence to Hacienda (Guerneville) Reach Analysis									
Net Reach Loss(-)/Gain(+)			+605	+389	+251	+167	+111	+81	+76
L. Mendocino Project Water + Import Water			11	15	18	20	22	22	23
L. Sonoma Project Water			0	0	0	0	0	0	0
Natural Flow			1,429	1,112	900	763	658	594	536
VIII. Water Production under Sonoma Water Water Rights (ac-ft)									
Lower Russian River									
Sonoma Water Total			126.2	156.3	123.7	86.4	95.6	92.8	104.5
Wohler			37.8	38.8	37.8	36.9	31.7	24.0	24.8
Mirabel			88.3	117.5	85.9	49.6	63.8	68.8	79.7
Town of Windsor River Wellfield			4.6	4.0	3.9	4.4	4.3	4.1	4.1
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			0.0	0.0	0.0	0.0	0.0	0.0	0.0

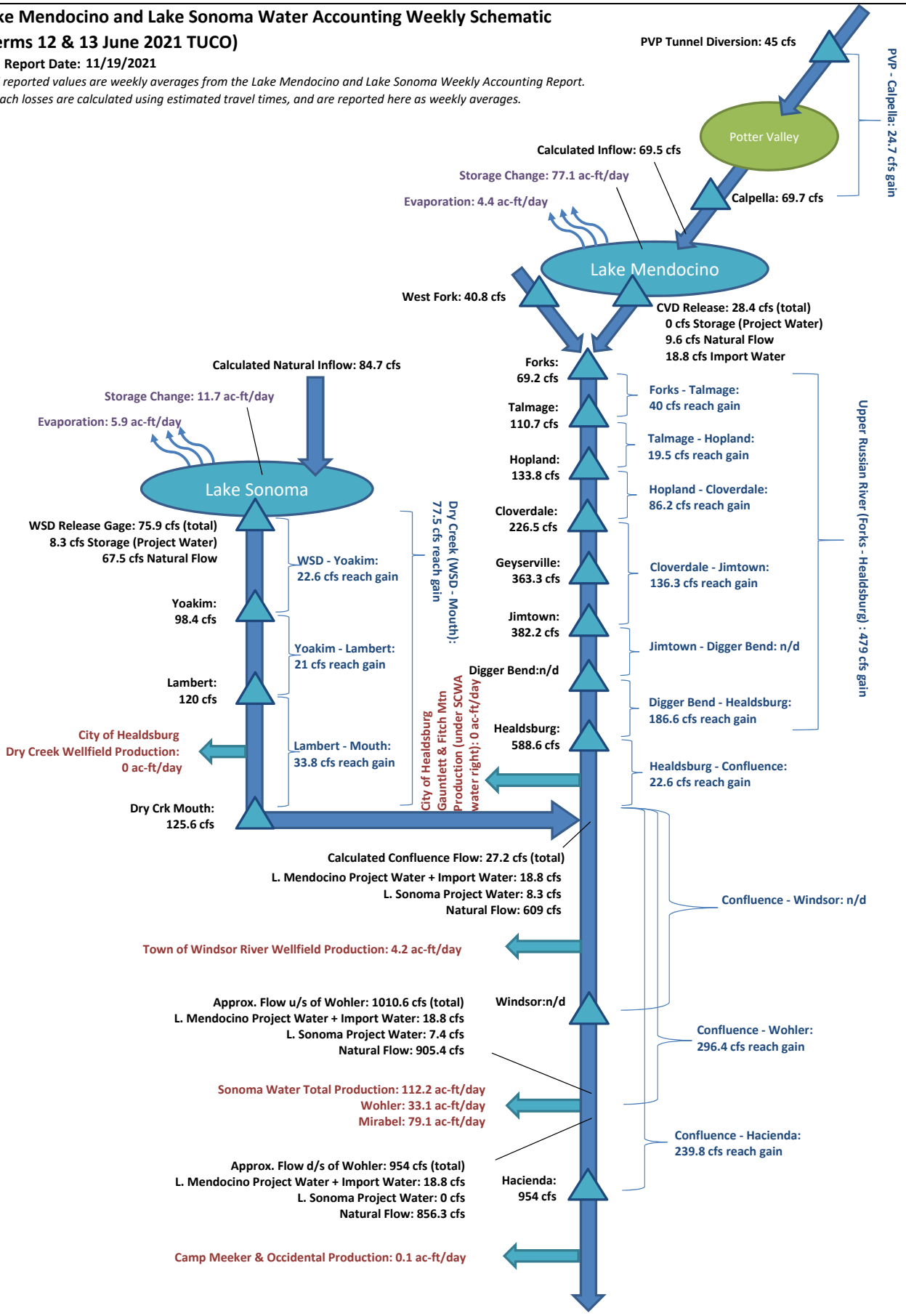
Notes:

- 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
(Terms 12 & 13 June 2021 TUCO)

Report Date: 11/19/2021

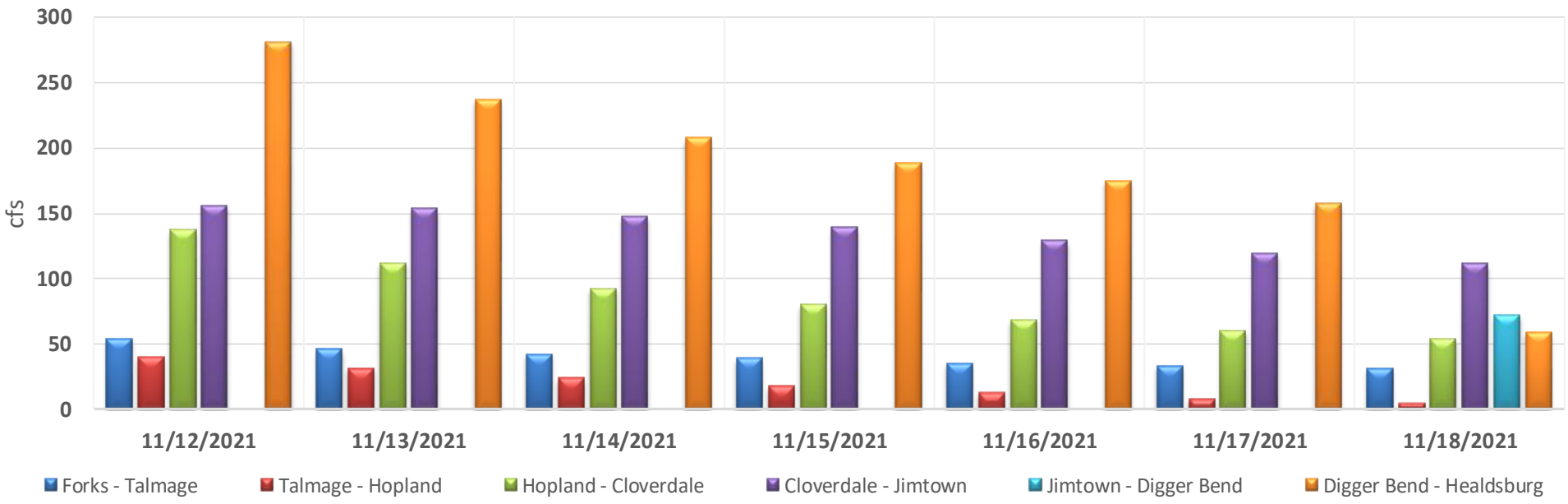
All reported values are weekly averages from the Lake Mendocino and Lake Sonoma Weekly Accounting Report.
Reach losses are calculated using estimated travel times, and are reported here as weekly averages.



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

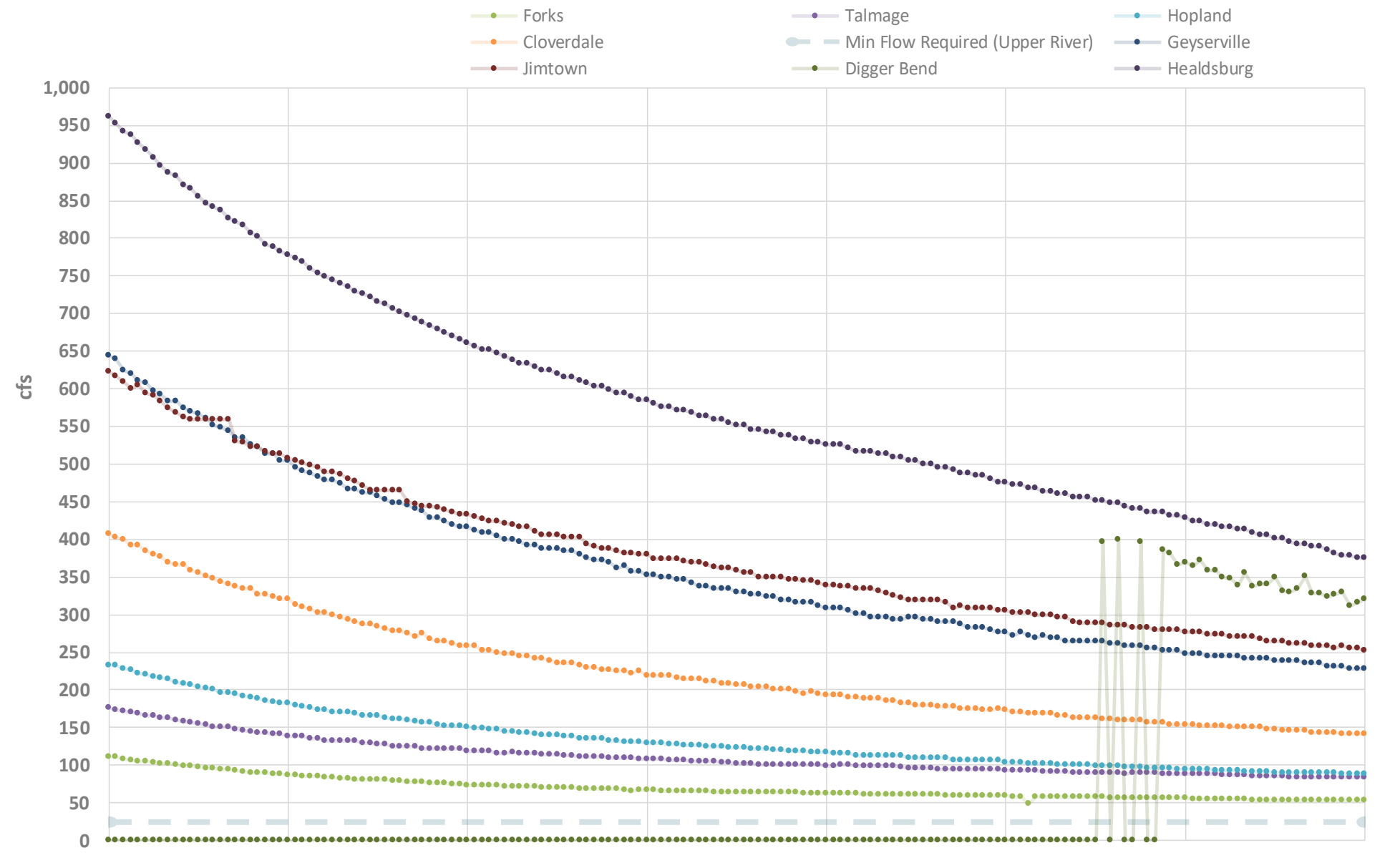
Report Date: 11/19/2021

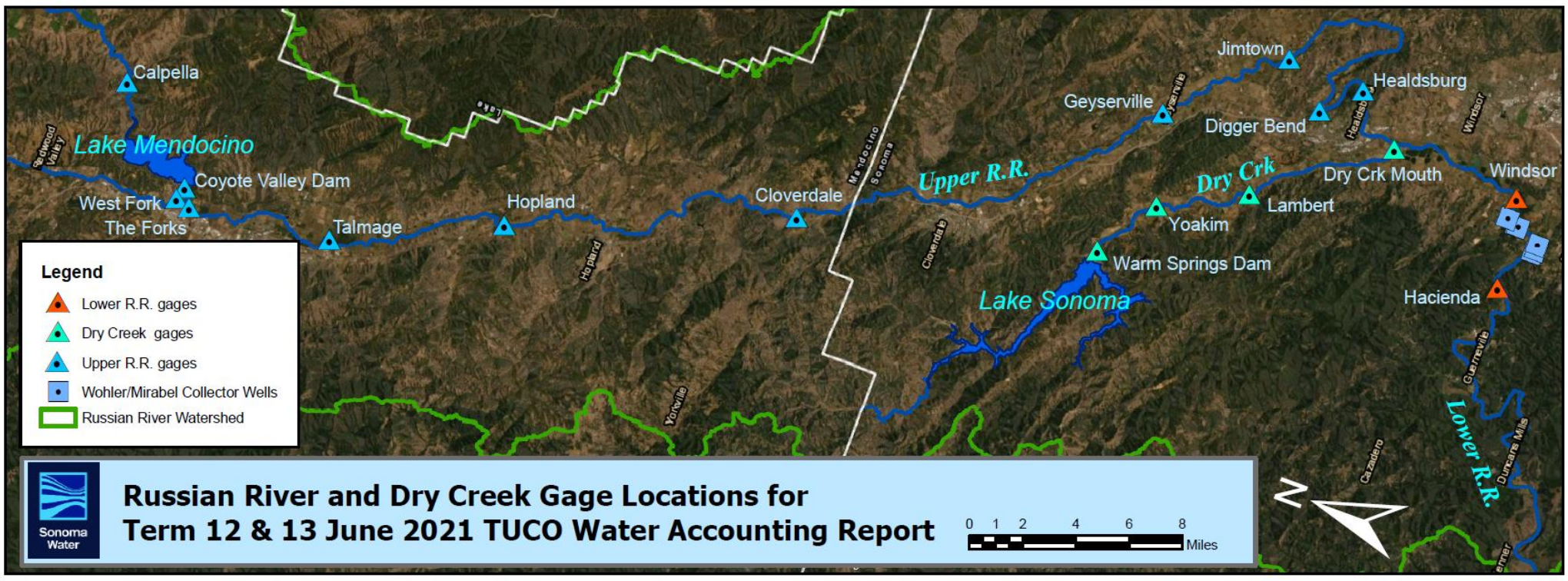
UPPER RUSSIAN RIVER NET REACH GAINS (+) / LOSSES (-)



Note: When Digger Bend gage exceeds maximum rated flow (400 cfs), reach gains for Digger Bend - Healdsburg reach calculated with Jimtown gage and nothing is calculated for the Jimtown - Digger Bend reach.

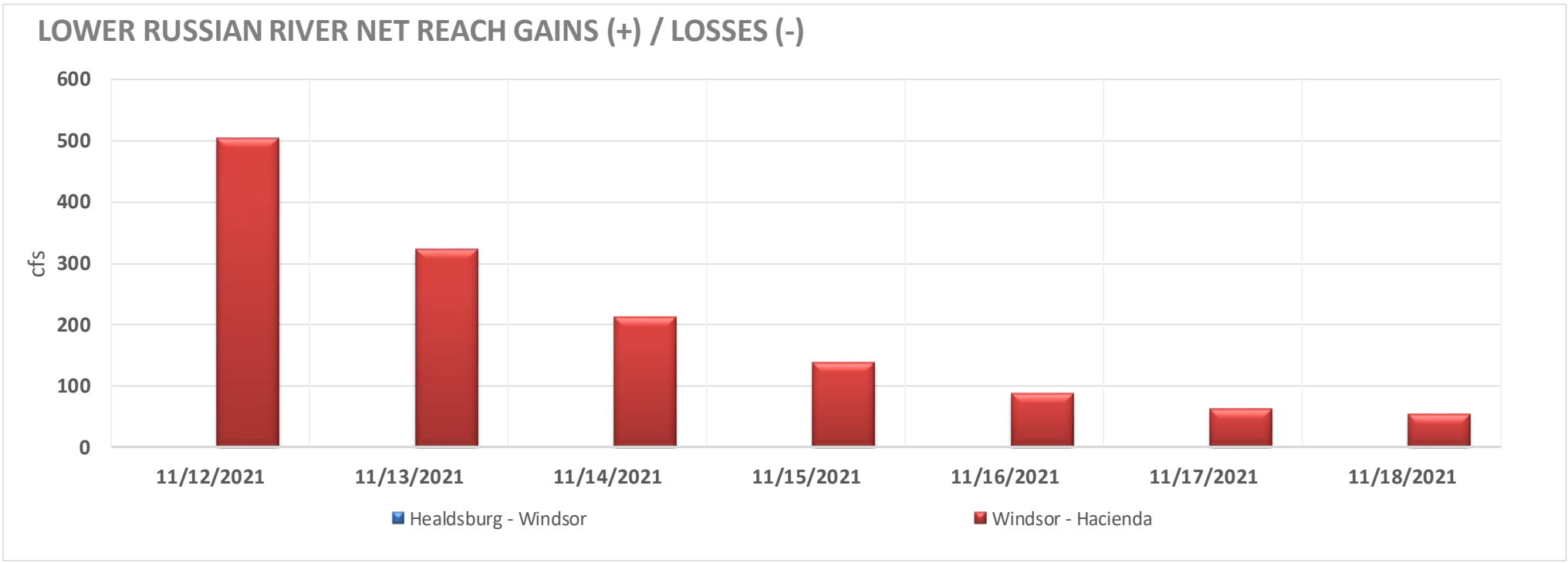
UPPER RUSSIAN RIVER STREAM FLOWS



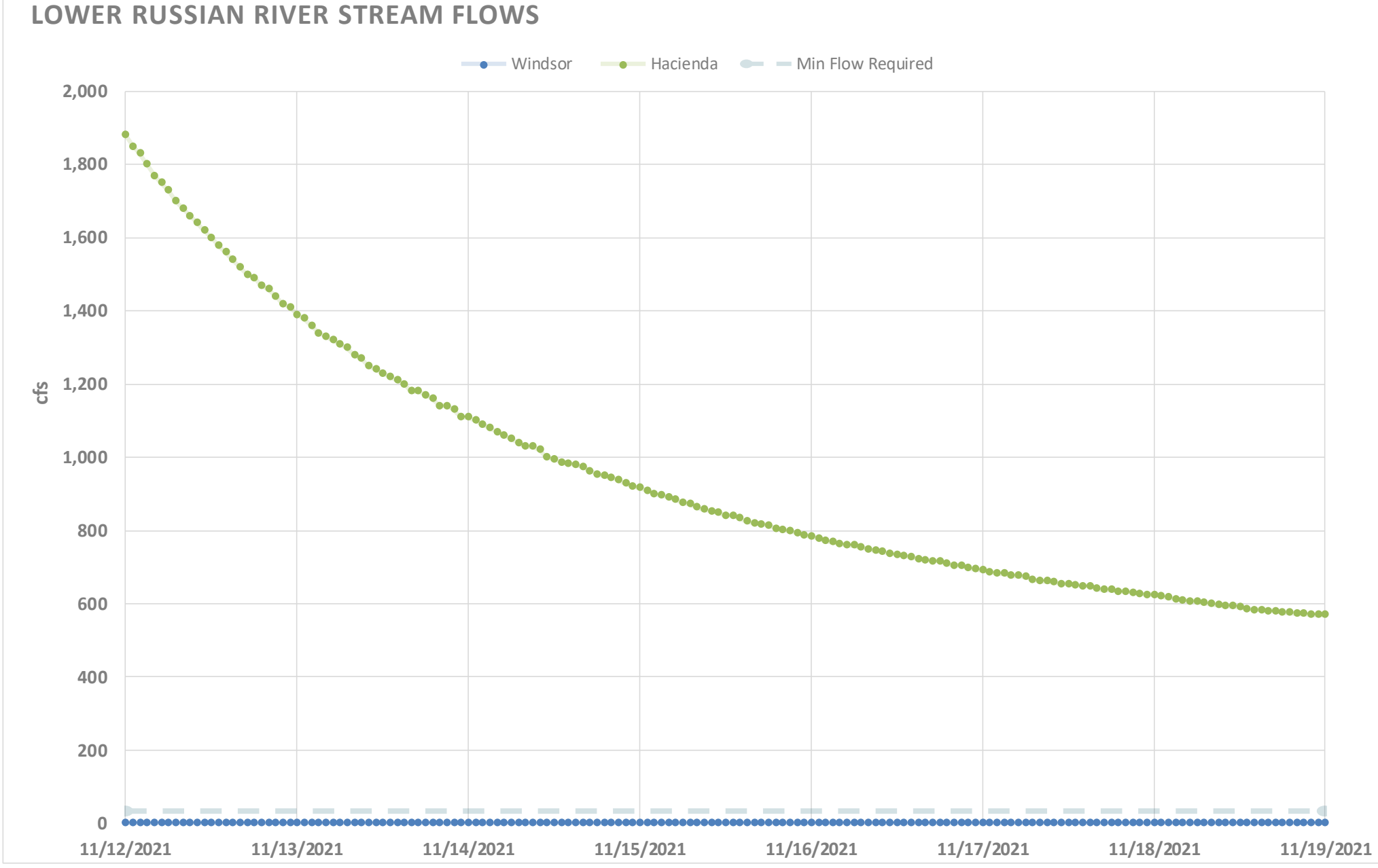


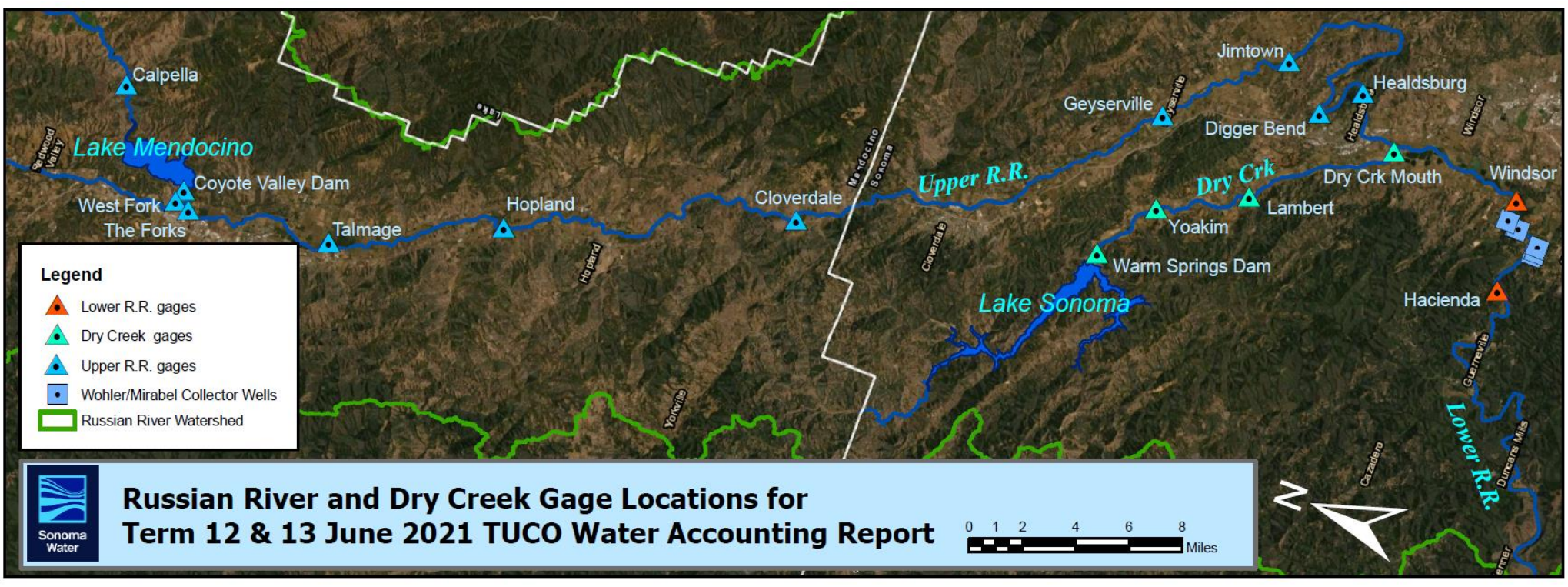
Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Terms 12 & 13 June 2021 TUCO)

Report Date: 11/19/2021



Note: Windsor gage is a seasonal gage and not operational. Reach gains for Windsor – Hacienda reach calculated with Healdsburg gages as upstream gages

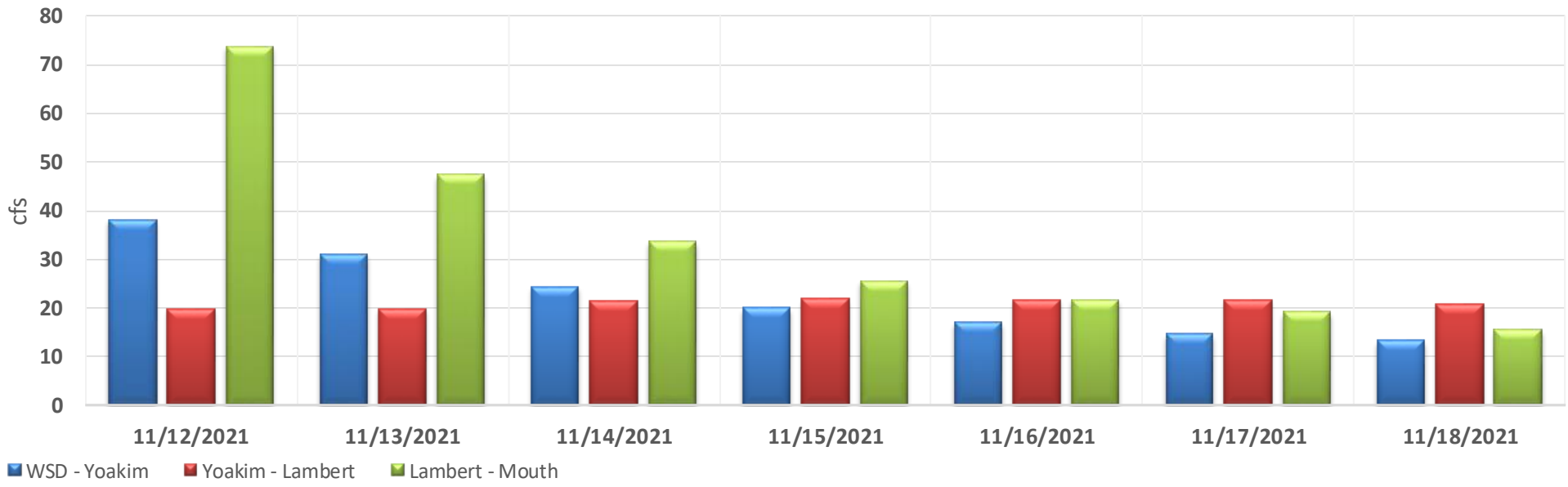




Lake Mendocino and Lake Sonoma Water Accounting Weekly Report (Terms 12 & 13 June 2021 TUCO)

Report Date: 11/19/2021

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



DRY CREEK STREAM FLOWS