State Water Resources Control Board
Temporary Urgency Change Order (2/4/2021)

Russian River Hydrologic Report
May 21, 2021 - May 27, 2021

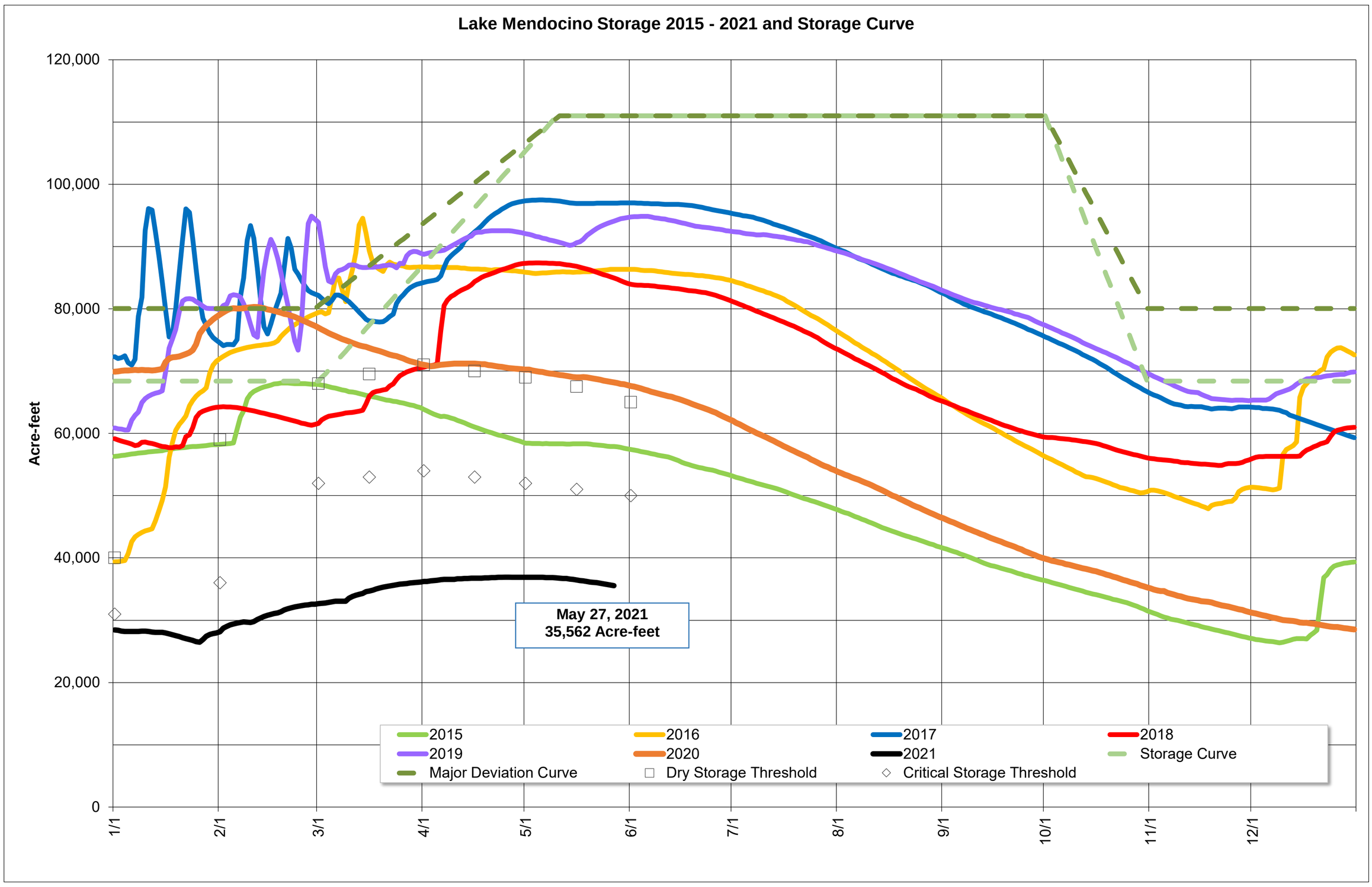
Prepared as a requirement of the Order approving Sonoma Water's Petition for Temporary Urgency Change in Permits 12947A (Applications 12919A).

Instream Flow Requirements as of May 27, 2021

Basis	Reach	Instantaneous (cfs)
Modified Per Order: Critical Condition	Upper Russian River	**25**
D-1610: Dry Condition	Dry Creek	**25**
D-1610: Dry Condition	Lower Russian River	**85**

Upper Russian River based on criteria as established in the Order issued 2/4/2021 and amended 2/11/2021.

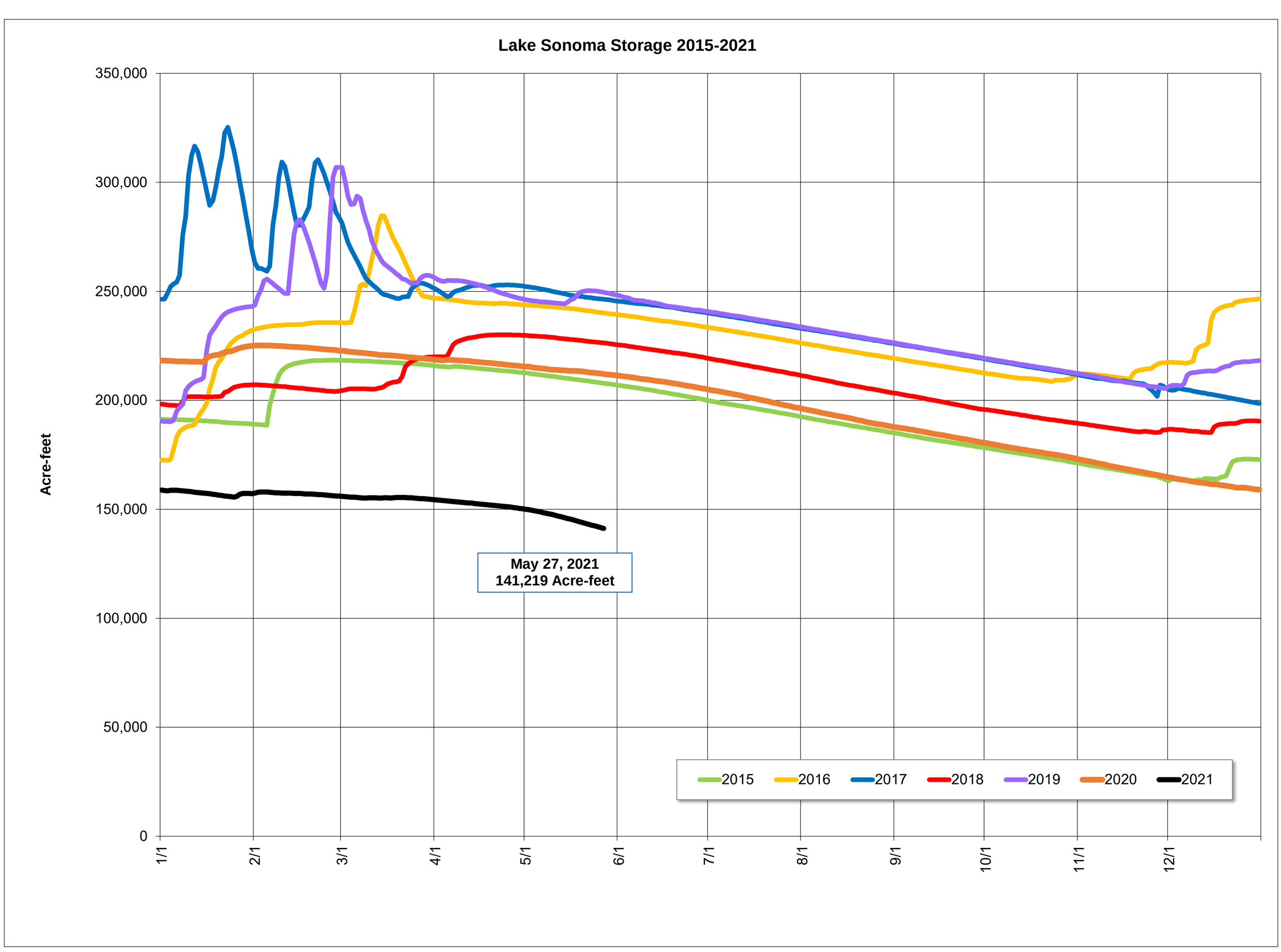
Lake Mendocino



Storage (acre-feet)	May 27, 2021	**35,562**	
		Total	Average Daily Rate
Change in Storage (acre-feet)	Last 30 days	**-1,335**	**-45**
	Last 7 days	**-567**	**-81**
Daily Inflow (cfs)	Last 7 days	Min	**8**
		Max	**33**
		Mean	**21**
Release (cfs)	Last 7 days	Min	**50**
		Max	**60**
		Mean	**52**

Lake Sonoma

Nathan Baskett, March 3, 2021



Storage (acre-feet)	May 27, 2021	**141,219**	
		Total	Average Daily Rate
Change in Storage (acre-feet)	Last 30 days	**-9,592**	**-320**
	Last 7 days	**-2,639**	**-377**
Daily Inflow (cfs)	Last 7 days	Min	**0**
		Max	**1**
		Mean	**0**
Release (cfs)	Last 7 days	Min	**166**
		Max	**180**
		Mean	**170**

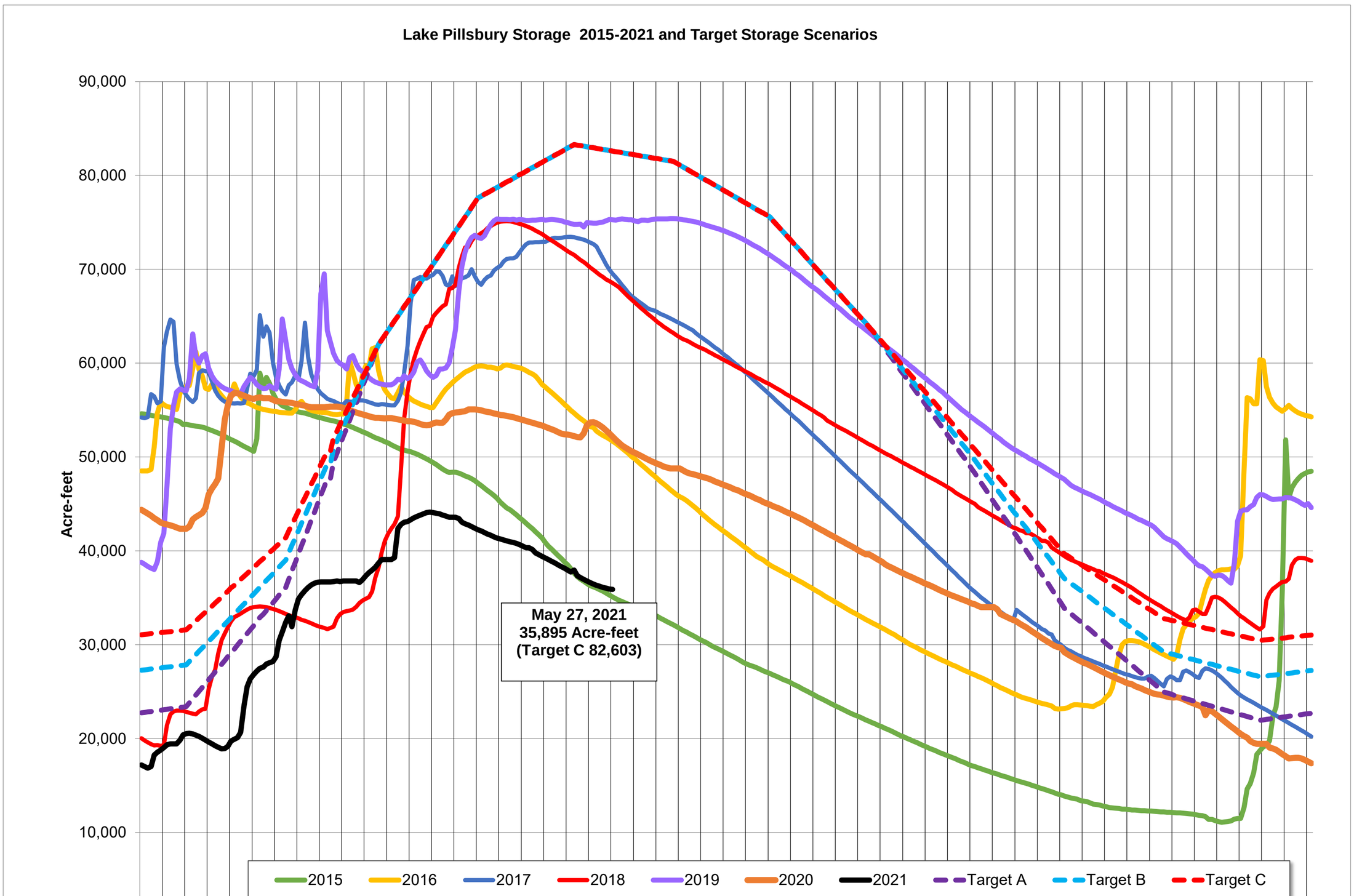
Potter Valley Project

PVP Diversion (cfs)	May 27, 2021	**28**

Lake Pillsbury

Parameter	Date Range	Cumulative	Daily Average
Inflow* (acre-feet)	October 1, 2020 - May 27, 2021	**86,942**	**365**
	Last 7 days	**577**	**82**

*Inflow calculation based on criteria established in D1610



Russian River Flows (May 21 - May 27, 2021)

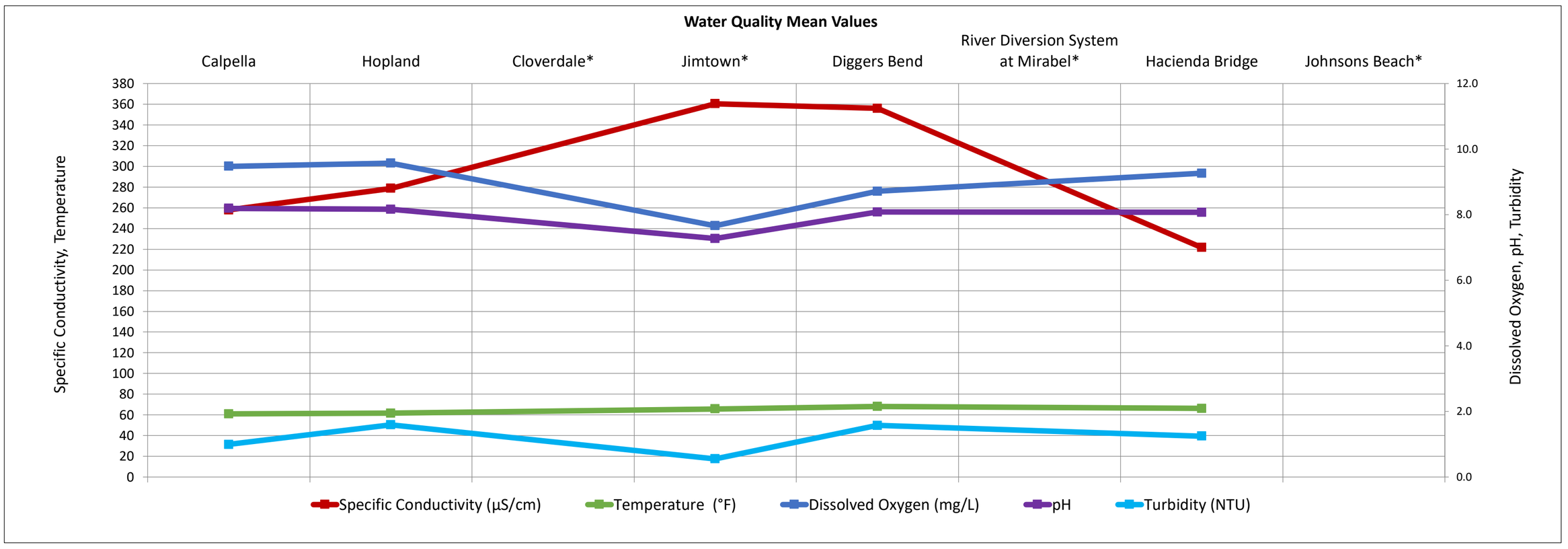
Gage	24-hr Average Flow (cfs)						
	May 21, 2021	May 22, 2021	May 23, 2021	May 24, 2021	May 25, 2021	May 26, 2021	May 27, 2021
The Forks*	58	58	58	58	58	63	65
Talmage USGS 11462080	53	52	52	53	50	57	65
Hopland USGS 11462500	45	47	47	47	46	49	55
Cloverdale USGS 11463000	39	40	41	41	39	37	41
Healdsburg USGS 11464000	25	25	25	25	23	22	25
Hacienda USGS 11467000	89	87	88	89	87	84	88

*West Fork (USGS 11461000) + East Fork (Coyote Valley Dam Release)

Russian River Water Quality (May 21 - May 27, 2021)

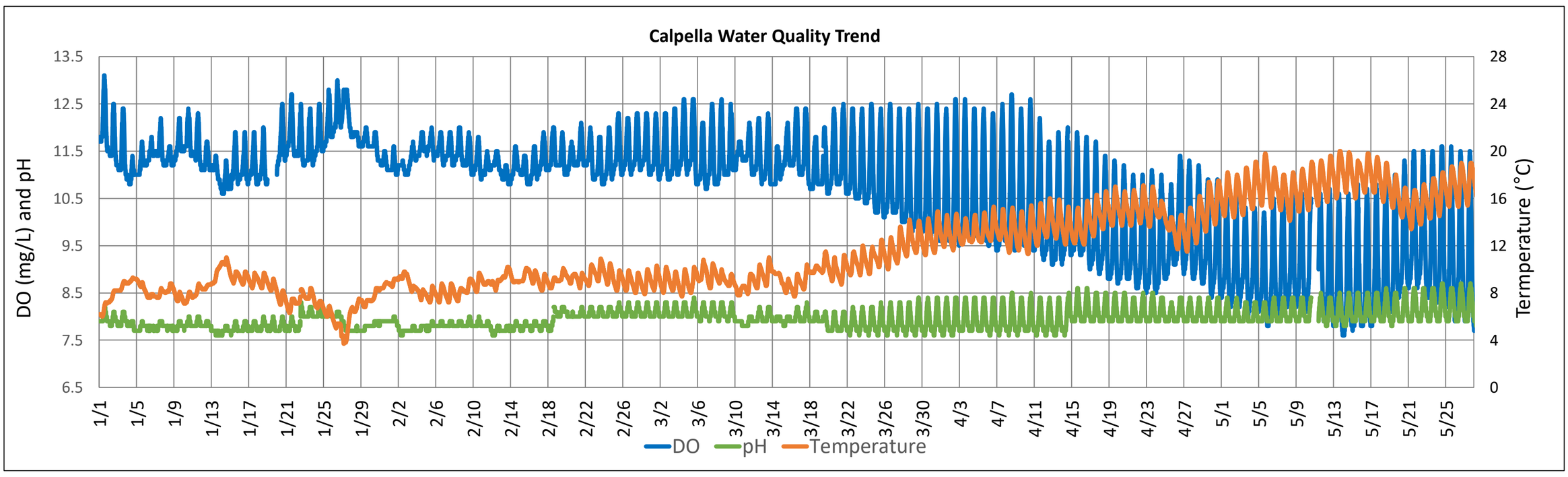
Parameter		Calpella	Hopland	Cloverdale*	Jimtown*	Diggers Bend	River Diversion System at Mirabel*	Hacienda Bridge	Johnsons Beach*
		USGS 11461500	USGS 11462500	USGS 11463200	USGS 11463682	USGS 11463980	SCWA	USGS 11467000	SCWA
Temperature (°F)	Min	56.1	57.0		59.4	61.0		61.2	
	Max	66.2	66.4		71.6	75.4		70.5	
	Mean	61.0	61.7		65.7	68.1		66.2	
Specific Conductivity (µS/cm)	Min	246	275		357	348		219	
	Max	271	282		364	363		225	
	Mean	258	279		360	356		222	
Dissolved Oxygen (mg/L)	Min	7.9	6.8		5.2	6.4		7.9	
	Max	11.6	12.6		10.6	10.8		10.2	
	Mean	9.5	9.6		7.7	8.7		9.3	
Dissolved Oxygen (% Saturation)	Min	75	65		52	65		80	
	Max	125	136		121	128		114	
	Mean	96	97		81	96		100	
pH	Min	7.9	7.7		7.2	7.8		7.8	
	Max	8.7	8.7		7.4	8.4		8.3	
	Mean	8.2	8.2		7.3	8.1		8.1	
Turbidity (NTU)	Min	0.5	1.0		0.2	0.4		0.8	
	Max	11.2	3.3		1.4	3.7		2.2	
	Mean	1.0	1.6		0.6	1.6		1.2	

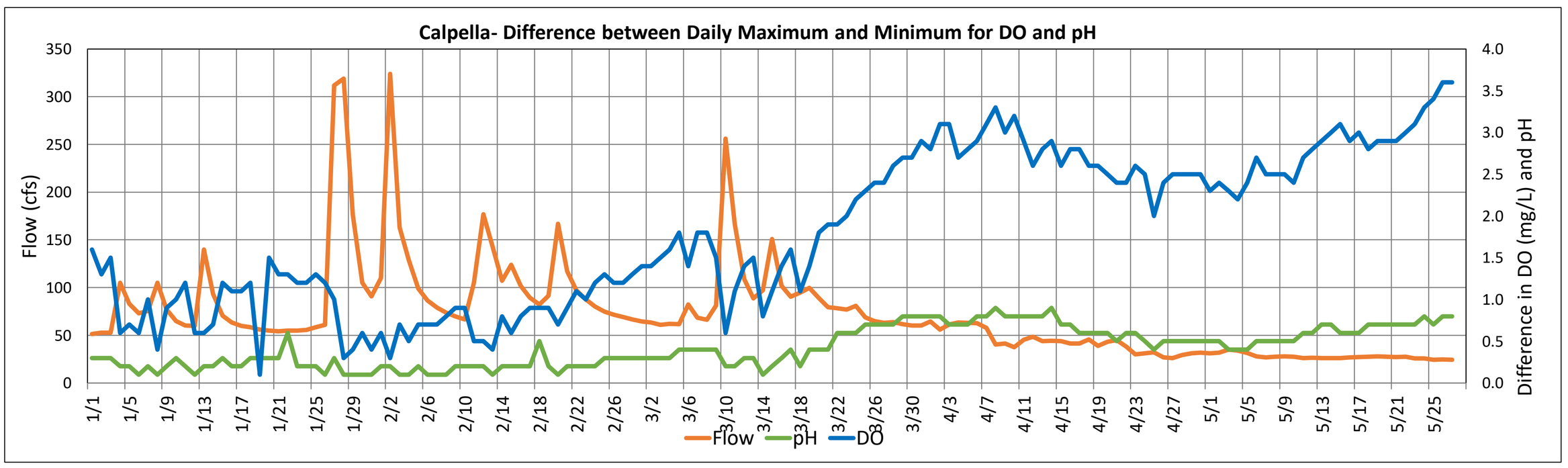
*Station operated seasonally



Russian River Water Quality (January 1 - May 27, 2021)

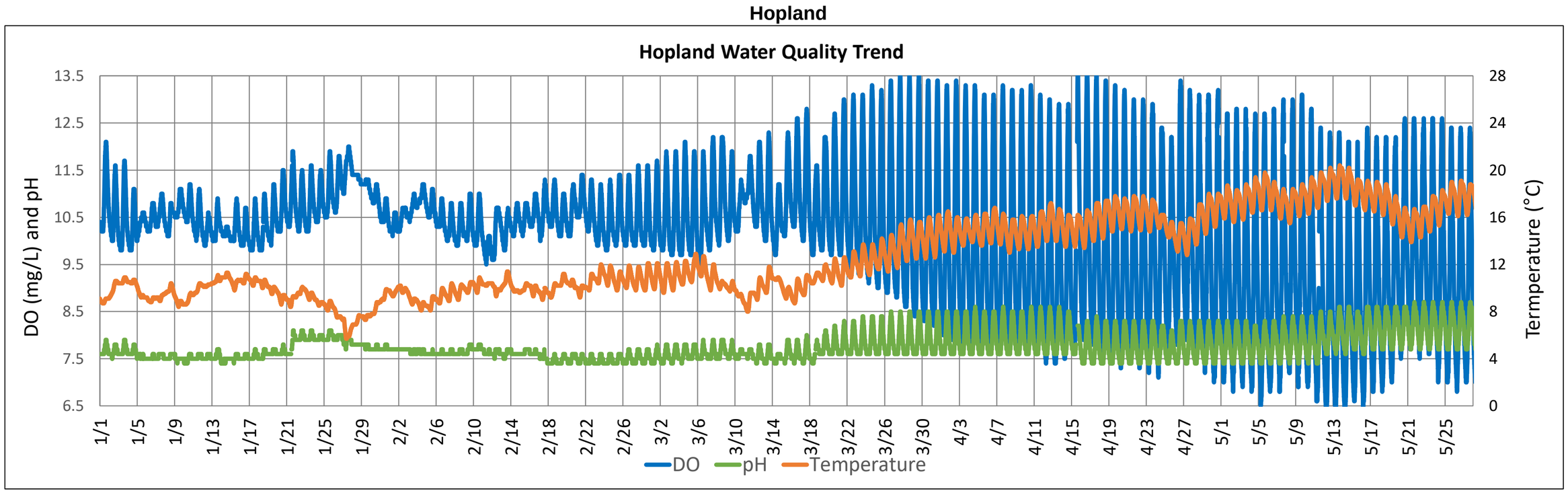
Calpella (East Fork Russian River)

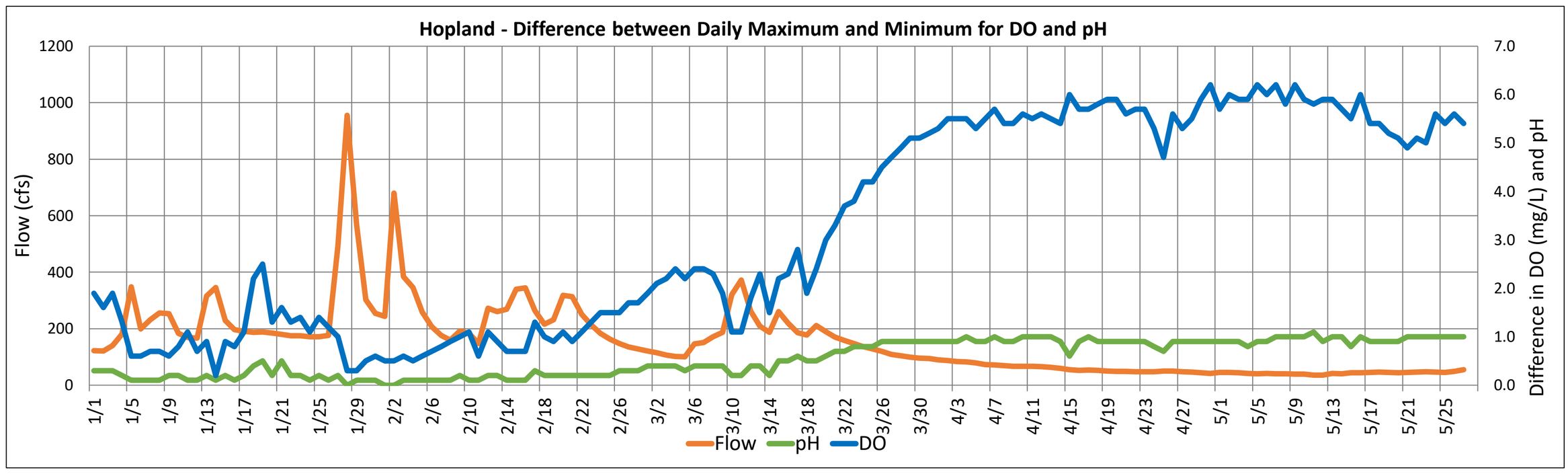




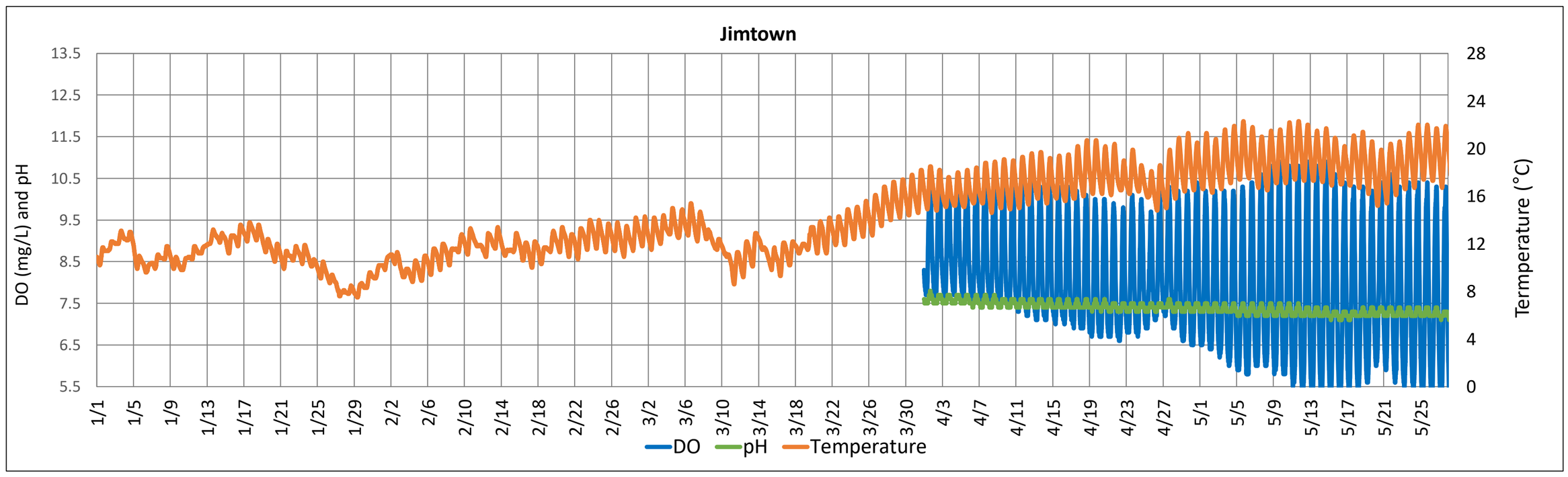
Russian River Water Quality (January 1 - May 27, 2021)

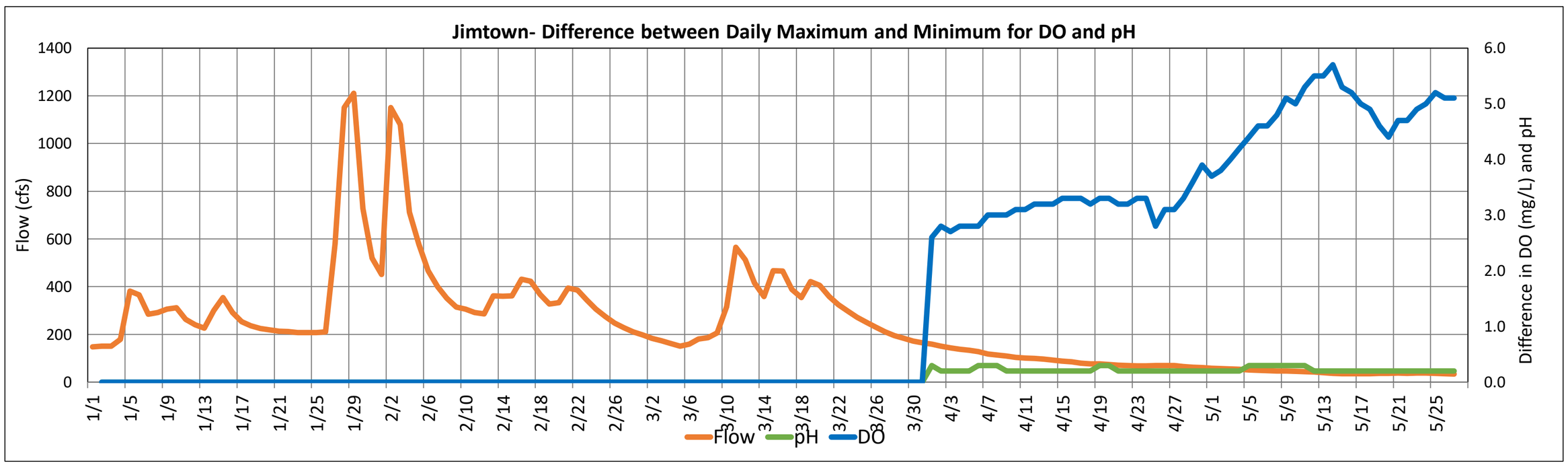
Hopland





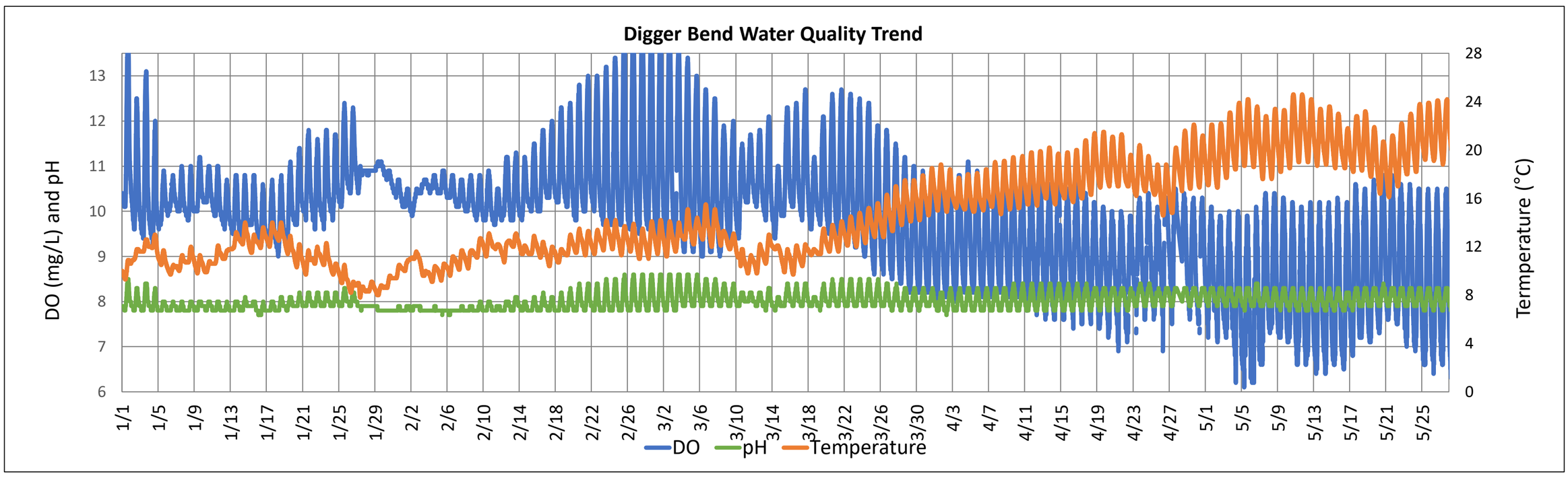
Jimtown Water Quality

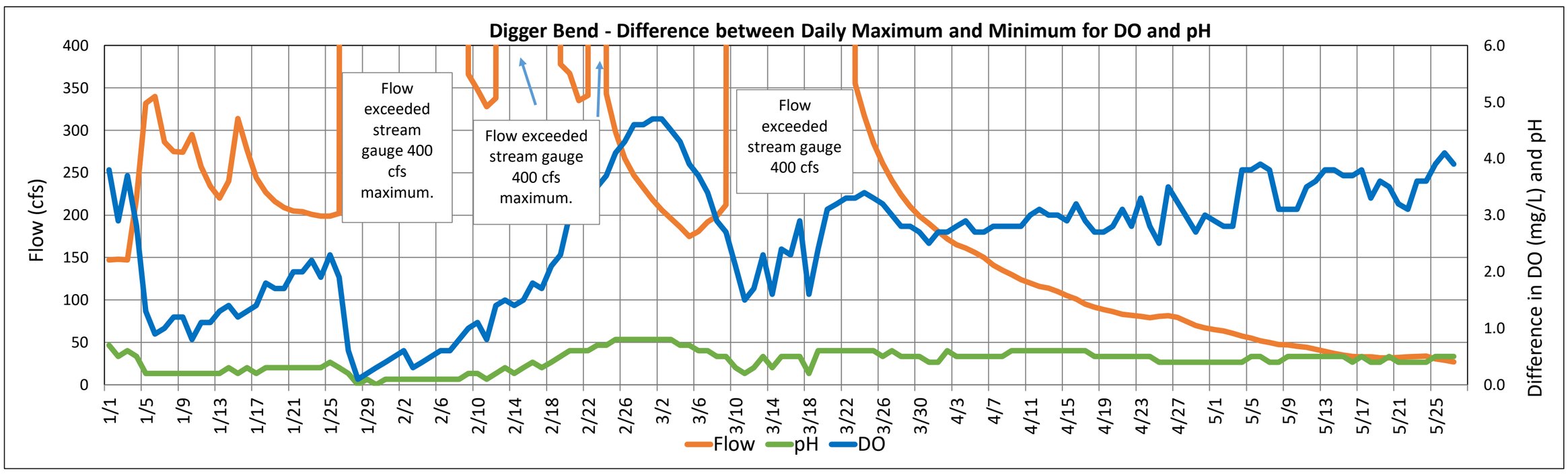




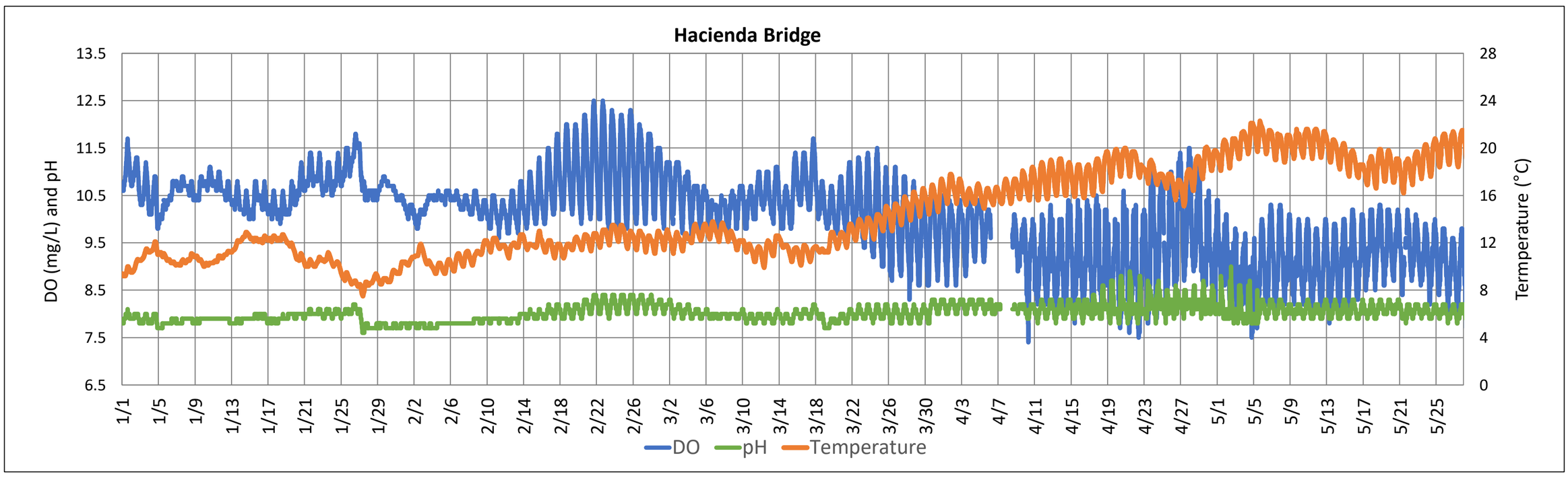
Russian River Water Quality (January 1 - May 27, 2021)

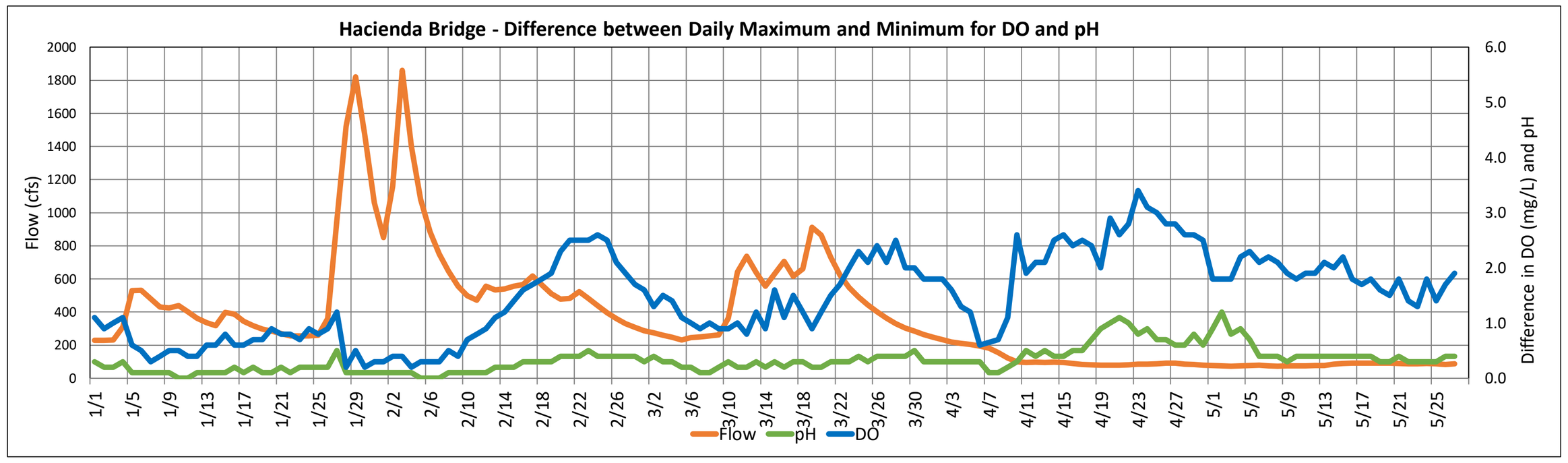
Digger Bend





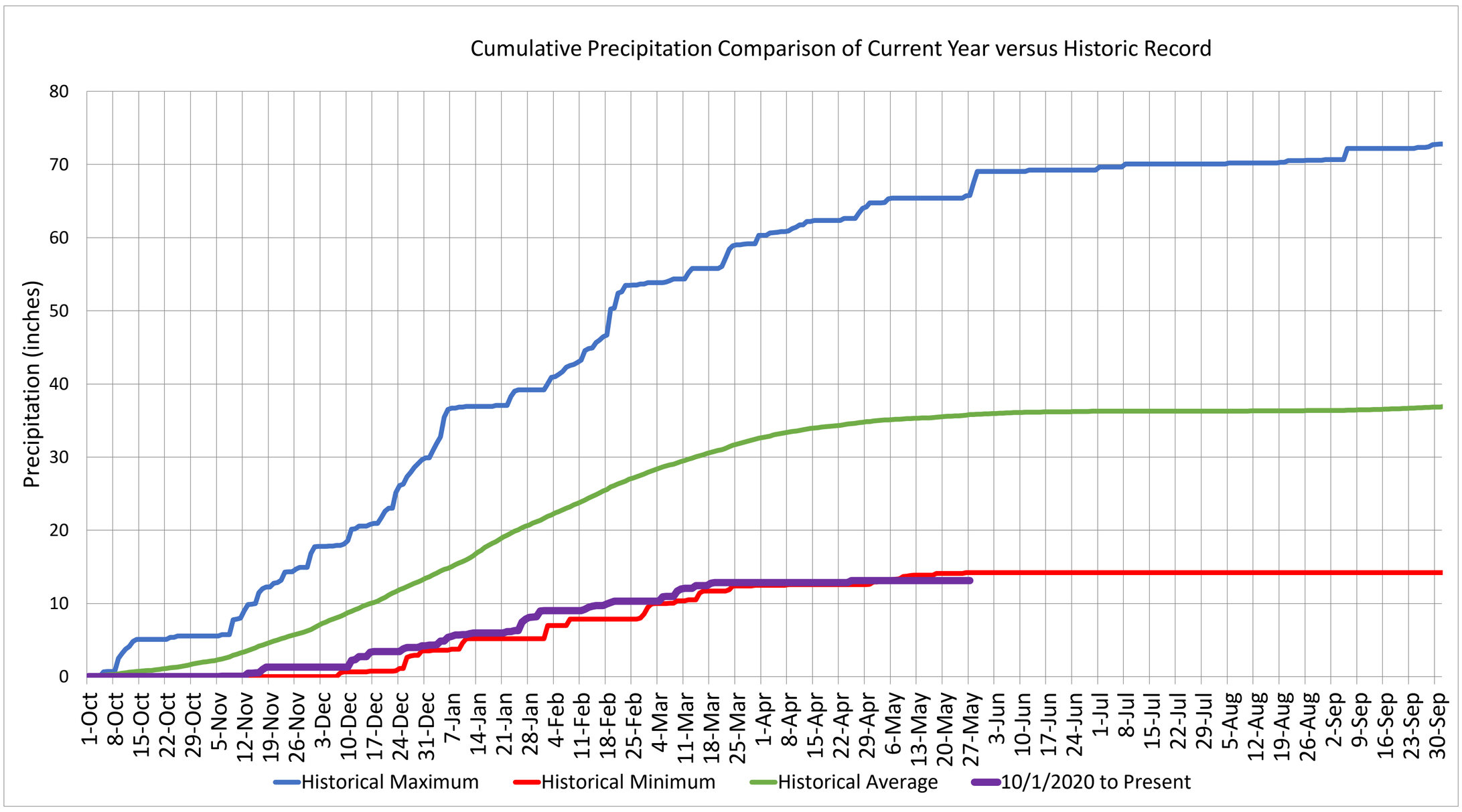
Hacienda Bridge Water Quality



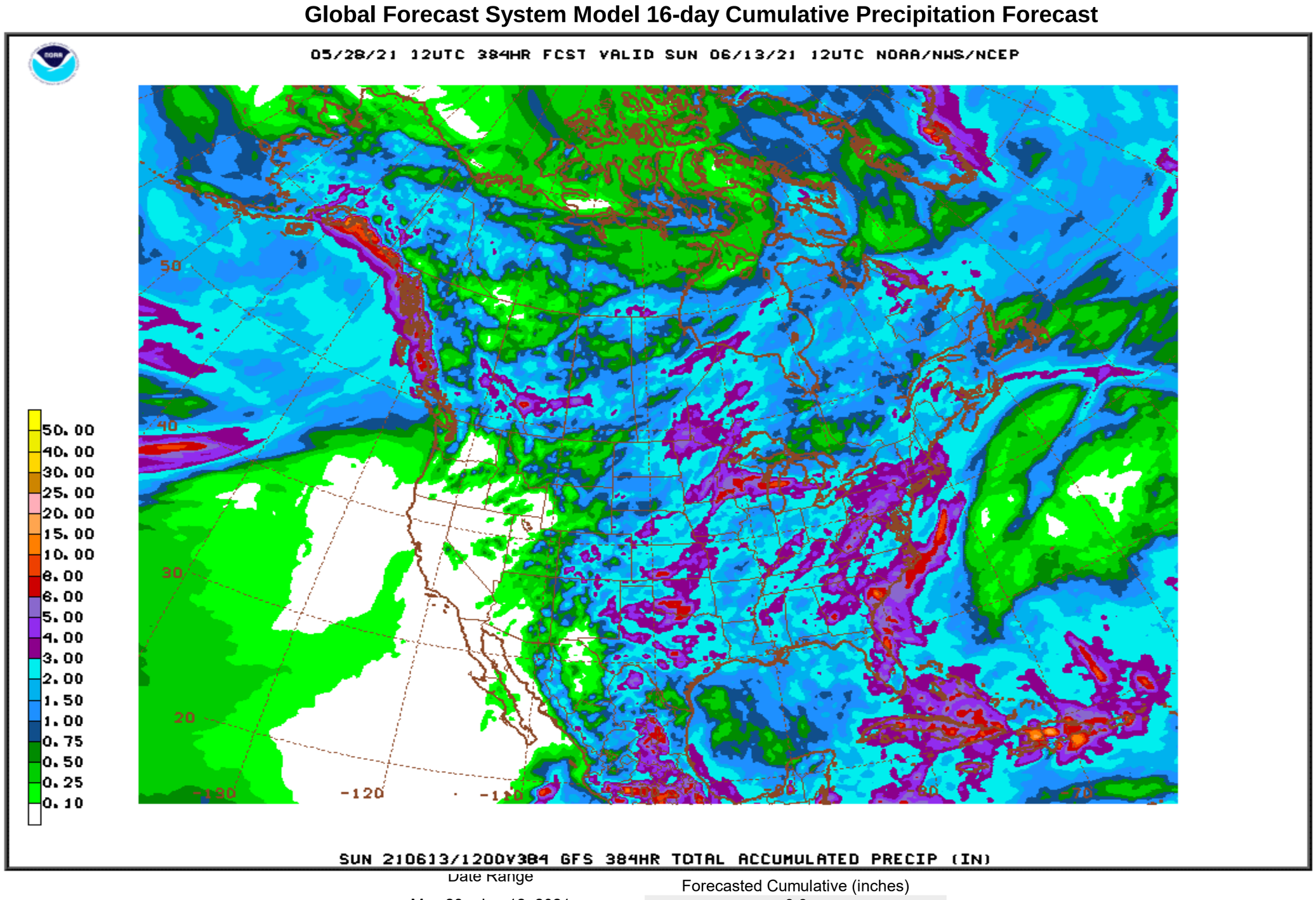


Precipitation

Ukiah Municipal Airport (WBAN: 72590523275 (KUKI))	
Date Range	Cumulative (inches)
Oct 1, 2020 - May 27, 2021	**13.12**
Last 7 Days*	**0.00**



Global Forecast System Model 16-day Cumulative Precipitation Forecast



Date Range	Forecasted Cumulative (inches)
May 28 - Jun 12, 2021	**0.0**

Lake Mendocino Water Accounting Weekly Report (Term 11)

Report Date: 5/28/2021

Units are cfs unless noted otherwise

			5/21/2021	5/22/2021	5/23/2021	5/24/2021	5/25/2021	5/26/2021	5/27/2021
I. Upper East Fork Reach									
Potter Valley Project									
Tunnel Diversion			41.0	35.0	32.0	32.0	30.0	28.0	28.0
PVID Canals Delivery Requested			36.5	31.6	28.0	28.0	25.1	23.0	23.8
PVID Canals Delivery Actual			13.1	12.0	13.5	14.6	11.3	11.6	11.5
East Fork Release			27.9	23.0	18.5	17.4	18.7	16.4	16.5
PVID Canal Return Flow (assumed)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
PVID Canal Diversions			13.1	12.0	13.5	14.6	11.3	11.6	11.5
PVID E Fork Diversions (est.)			12.2	12.2	12.2	12.2	12.2	12.2	12.2
PVID Water Use under PG&E Contract (est.)			13.1	12.0	13.5	14.6	11.3	11.6	11.5
PVID Water Use under Water Right (est.)			12.2	12.2	12.2	12.2	12.2	12.2	12.2
East Fork / Potter Valley Reach Analysis									
USGS E Fork @ Calpella			27.1	27.8	26.4	26.0	25.2	24.5	24.7
Net Reach Loss(-)/Gain(+)			-13.9	-7.2	-5.6	-6.0	-4.8	-3.5	-3.3
Unimpaired Natural Flow @ Calpella (est.)			6.1	6.0	5.9	6.0	5.9	5.8	5.1
Non-PVID East Fork Estimated Reach Losses			-5.2	-10.9	-14.1	-14.7	-12.8	-14.5	-15.3
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									
Resrvoir Operations									
Calculated Inflow (ac-ft)			51.8	66.1	54.6	15.8	28.0	42.2	35.5
(cfs)			26	33	28	8	14	21	18
Natural Flow			10	22	21	3	8	17	14
Import			16	11	6	5	7	4	4
Storage Change (ac-ft)			-64.0	-52.0	-65.0	-103.0	-90.0	-90.0	-103.0
(cfs)			-32	-26	-33	-52	-45	-45	-52
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)			16.6	18.9	20.4	19.6	18.8	21.1	19.5
RVCWD Diversion (ac-ft) (assum.)			0.0	0.0	0.0	0.0	0.0	0.0	0.0
CVD Release Gage			50	50	50	50	50	56	60
Storage (Project Water)			32	26	33	50	45	45	52
Natural Flow			6	18	16	0	3	11	8
Import Water			12	6	1	0	2	0	0
East Fork Min Instream Flow Requirement			25	25	25	25	25	25	25
Compliance Gage		*Rvr mi.*							
CVD Release		*99.9*	50	50	50	50	50	56	60
CVD Project Water Release to Meet Min Flow Requirement									
Total Pass-through Water			18	24	17	0	5	11	8
Project Water Release Required			Yes	Yes	Yes	Yes	Yes	Yes	Yes
III. Upper Russian River Reach									
Minimum Instream Flow Requirement			25	25	25	25	25	25	25
Controlling Compliance Gage									
Min Gage Flow			25	25	25	25	23	22	25
Controlling Gage			Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg	Healdsburg
All Compliance Gages		*Rvr mi.*							
Forks	(CVD + USGS 11461000)	*99.0*	58	58	58	58	58	63	65
Talmage	(USGS 11462080)	*96.1*	53	52	52	53	50	57	65
Hopland	(USGS 11462500)	*84.8*	45	47	47	47	46	49	55
Cloverdale	(USGS 11463000)	*70.9*	39	40	41	41	39	37	41
Geyserville	(USGS 11463500)	*54.4*	33	36	38	37	34	33	30
Jimtown	(USGS 11463682)	*48.5*	38	37	38	39	37	36	34
Digger Bend	(USGS 11463980)	*38.2*	32	33	33	34	31	29	27
Healdsburg	(USGS 11464000)	*35.6*	25	25	25	25	23	22	25
Net Reach Loss(-)/Gain(+)									
Forks - Talmage			-6	-6	-6	-6	-7	-4	-1
Talmage - Hopland			-7	-6	-5	-5	-6	-1	-9
Hopland - Cloverdale			-5	-5	-5	-6	-7	-9	-9
Cloverdale - Jimtown			-1	-3	-3	-2	-1	-1	-6
Jimtown - Digger Bend			-5	-5	-4	-5	-7	-7	-8
Digger Bend - Healdsburg			-3	-4	-4	-5	-4	-3	-2
CVD Project Water Release to Meet Min Flow Requirement									
Net Reach Loss(-)/Gain(+) to Controlling Gage			-27	-28	-28	-29	-34	-26	-36
Storage (Project Water)			+27	-26	+28	+29	+34	+26	+36
Pass-through Water (Natural + Import)			-54	-2	-55	-59	-67	-53	-73
Total Pass-through Water			-37	22	-38	-59	-63	-42	-65
Project Water Release Required			Yes	Yes	Yes	Yes	Yes	Yes	Yes

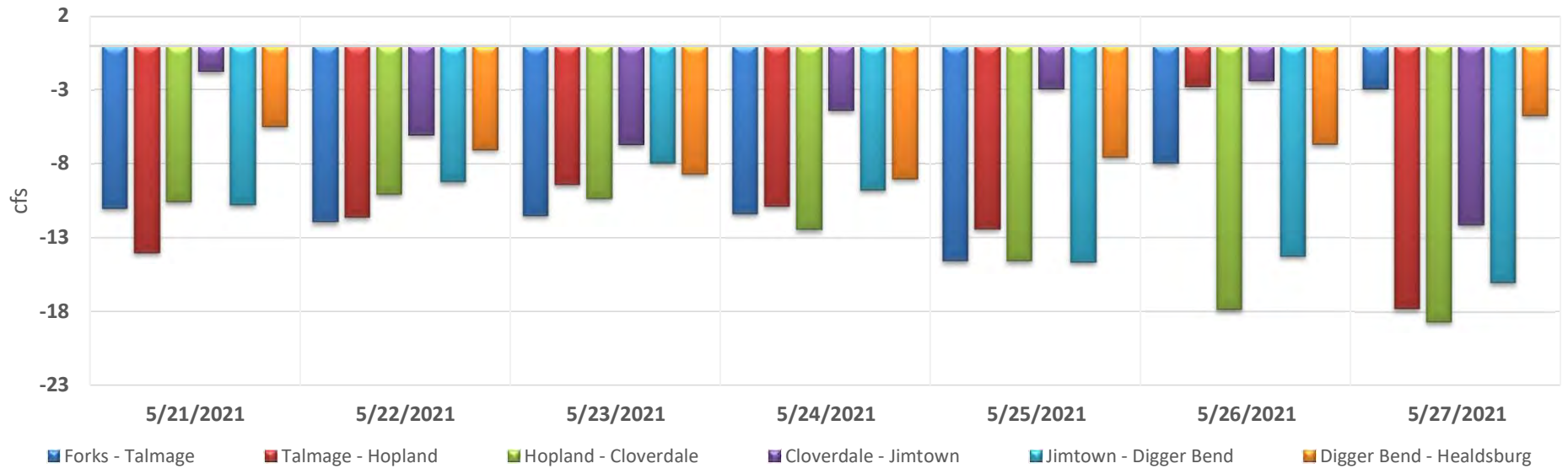
Notes:

- Water Accounting for the Upper Russian River is an analysis that approximates the current conditions based on methodology in Term 11 report and forthcoming update. Values listed include estimated and assumed values where measurements were not currently available.

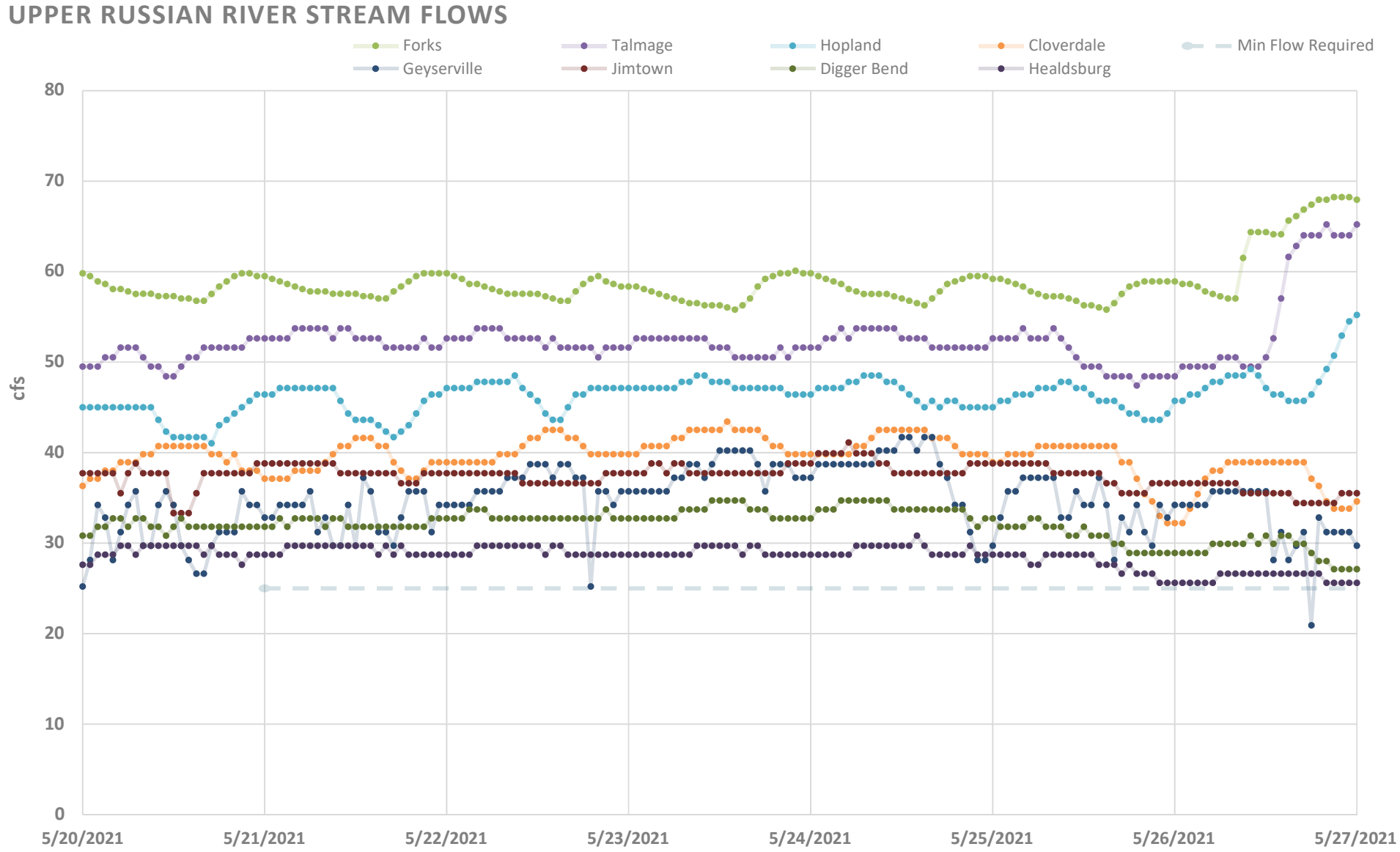
Lake Mendocino Water Accounting Weekly Report (Term 11)

Report Date: 5/28/2021

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



UPPER RUSSIAN RIVER STREAM FLOWS



MAP OF UPPER RUSSIAN RIVER and STREAM GAGES