POOL OPERATIONS AND APPLICATION OF FORECAST INFORMED RESERVOIR OPERATIONS (FIRO) IN 2023

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Presentation to Russian River Flood Control &Water Conservation Improvement District

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JANUARY 2010 TO MAY 2023



	12-Apr	6-Jun	4-Jul	1-Sep	22-Oct	25-Nov	25-Dec
2010	753.4	758.7	757.8	752.7	741.1	738.5	741.9
2011	748.5	747.7	748.2	744.7	743.2	736.1	732.0
2012	748.7	749.8	748.3	741.4	734.3	729.3	749.9
2013	734.3	732.1	730.1	721.9	716.6	712.7	708.7
2014	724.4	725.8	722.3	713.0	709.9	709.4	729.4
2015	733.5	730.4	727.7	720.1	713.8	709.1	718.0
2016	748.1	747.9	746.7	736.0	727.1	725.3	740.3
2017	750.1	754.0	752.9	745.8	738.2	734.8	732.6
2018	746.1	746.5	744.6	735.5	730.7	729.3	732.5
2019	750.6	752.8	751.3	746.0	739.8	735.6	738.1
2020	739.2	736.7	733.3	723.6	716.7	712.9	710.2
2021	716.5	714.6	711.2	699.6	690.7	701.5	714.7
2022	722.4	726.3	726.3	722.5	718.0	716.7	717.4
2023	755.4						

Infrastructure Operations (2010 to 2023)		
	Days	
Bushay Campground Closed (> 750 feet)	499	10%
Flood Control Pool	653	13%
Boat Ramps Closed (< 725 feet)	1,426	29%



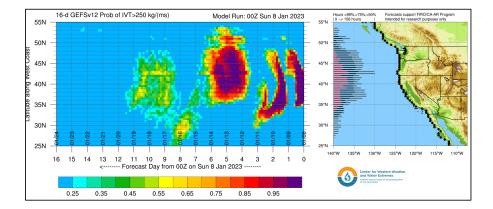
Lake Mendocino Storage for Water Year 2023 120,000 50 116,500 acre-feet 111,000 acre-feet 45 110,000 January 16-24 40 100,000 January 24-January 8-15 February 35 90,000 20 (inches) 05 Precipitation Storage (acre-feet) 80,050 acre-feet 80,000 Early March 68,400 acre-feet 70,000 60,000 15 50,000 10 40,000 5 30,000 0 18-Feb 4-Mar 1-oct 8-Oct 22-Oct 29-Oct 5-Nov 19-Nov 3-Dec 28-Jan 4-Feb 11-Feb 25-Feb 11-Mar 18-Mar 1-Apr 20-May 27-May 15-Oct 12-Nov 26-Nov 17-Dec 14-Jan 21-Jan 25-Mar 8-Apr 22-Apr 29-Apr 6-May 13-May 10-Dec 24-Dec 31-Dec 7-Jan 15-Apr **Cumulative Precipitation** -Top of Water Supply Pool _ Observed Storage Gross Pool (Maximum Capacity)

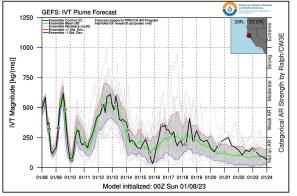


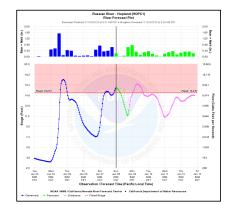


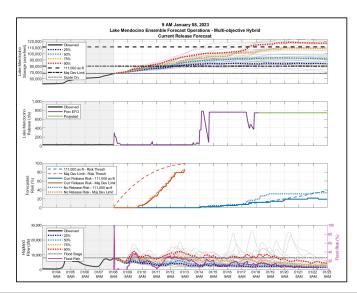
HOW TO MANAGE RESERVOIRS AND APPLY FIRO?





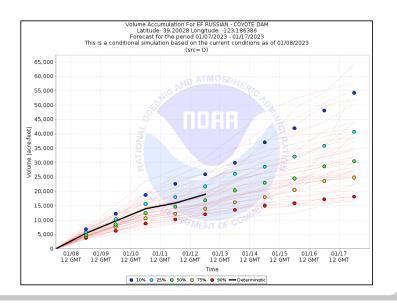






Information from NWS and CW3E available for use

Actual products from January 8, 2023

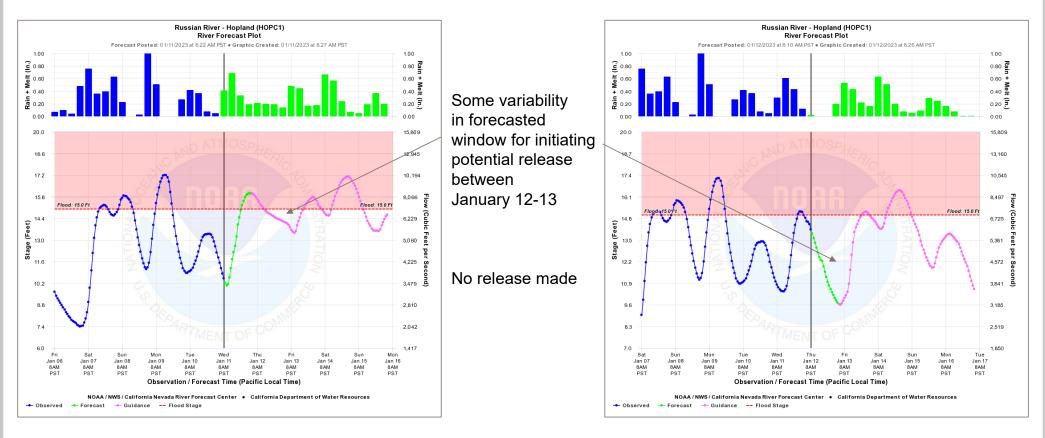




JANUARY 8 THROUGH 15



NWS Projection for Hopland: January 11 and 12

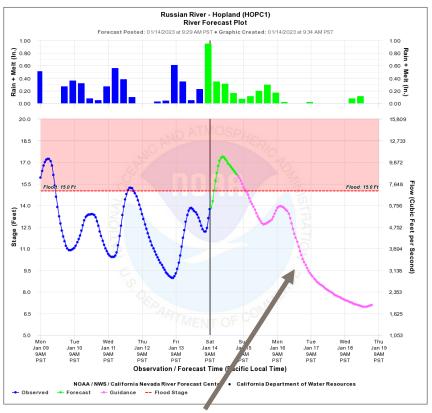




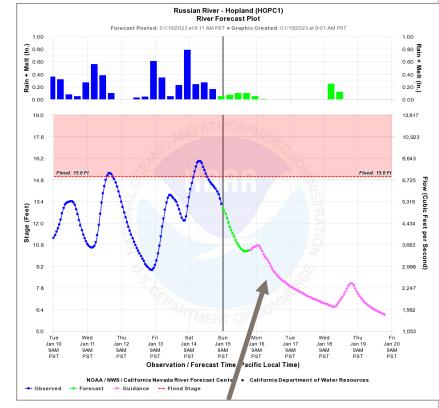
JANUARY 8 THROUGH 15



NWS Projection for Hopland: January 14 and 15



January 14 NWS forecast for streamflow on Hopland showed obvious recession in flows beginning on January 16



January 15 NWS forecast for streamflow on Hopland showed obvious recession in flows beginning on January 16



JANUARY 16 THROUGH 24





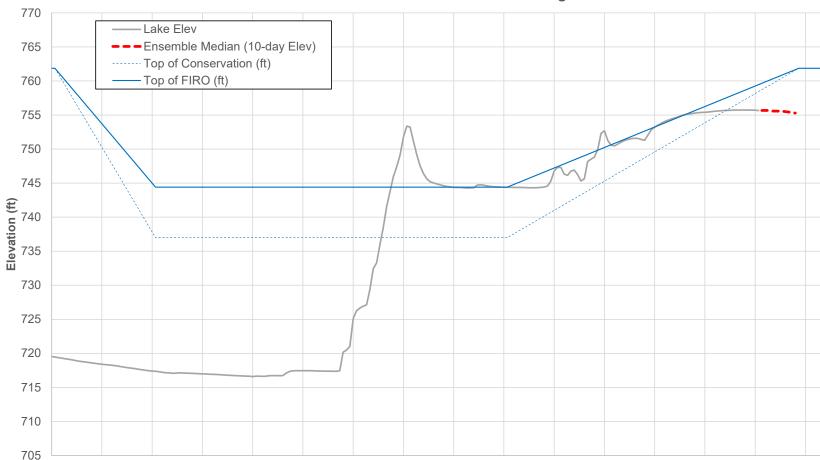
Flood control release of 3,000 cfs was initiated on January 16

Release was gradually lowered in the days that followed January 16

Reservoir storage was lowered from approximately 95,000 acre-feet to 80,000 acre-feet from January 16 through 24

Image courtesy of DWR Twitter





10/1/22 10/16/22 10/31/22 11/15/22 11/30/22 12/15/22 12/30/22 1/14/23 1/29/23 2/13/23 2/28/23 3/15/23 3/30/23 4/14/23 4/29/23 5/14/23

Lake Mendocino Pool Elevation and Management