



INFORMATION ITEM

March 9, 2022

TO: **Administration & Finance Committee**
(Directors Seckel, Dick, Thomas)

FROM: **Robert Hunter, General Manager**

Staff Contact: Kevin Hostert

SUBJECT: **Monthly Water Usage Data and Water Supply Info.**

STAFF RECOMMENDATION

Staff recommends the Administration & Finance Committee receive and file this information.

COMMITTEE RECOMMENDATION

Committee recommends (To be determined at Committee Meeting)

REPORT

The attached figures show the recent trend of water consumption in Orange County (OC), an estimate of Imported Water Sales for MWD OC, and selected water supply information.

- OC Water Usage, Monthly by Supply **OCWD Groundwater was the main supply in January.**
- Estimated OC Water Usage, Monthly, Comparison to Previous Years Water usage in January **2022 was above average compared to the last 5 years.** We are projecting a decrease in overall water usage compared to FY 2020-21. On July 8th 2021, state officials have ask California residents to voluntary reduce their water usage by 15% compared to 2020 levels.
- Historical OC Water Consumption Orange County M & I water consumption is **projected** to be **529,000 AF in FY 2021-22** (this includes ~11 TAF of agricultural usage and non-retail water agency usage). This is about **30,000 AF less than FY 2020-21** and is about **4,000 AF less than FY 2019-20**. Water usage per person is projected to be slightly lower in **FY 2021-22 for Orange County at 150 gallons per day** (This includes recycled water usage). Although OC population has increased 20% over the past two decades, water usage has not increased, on average. A long-term decrease in per-capita water usage is attributed mostly to Water Use

Budgeted (Y/N): N	Budgeted amount: N/A	Core <u>X</u>	Choice <u> </u>
Action item amount: N/A		Line item:	
Fiscal Impact (explain if unbudgeted):			

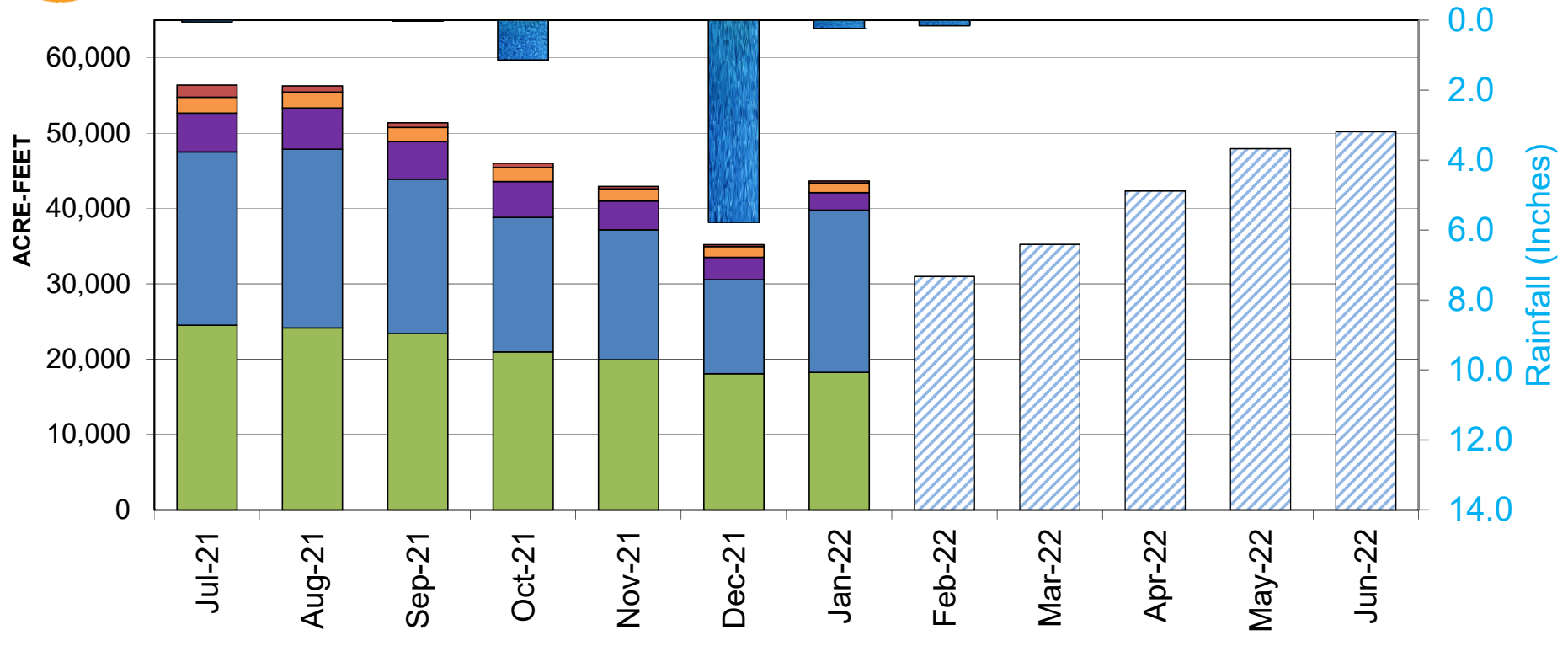
Efficiency (water conservation) efforts. ***O.C. Water Usage for the period of Fiscal Years FY 2015-16 to FY 2019-20 was the lowest since the 1982-83 Fiscal Year*** (FY 1982-83 was the third wettest year on record). ***O.C. Water Usage in FY 2020-21 was the highest since FY 2010-11.***

Water Supply Information Includes data on Rainfall in OC; the OCWD Basin overdraft; Northern California and Colorado River Basin hydrologic data; the State Water Project (SWP) Allocation, and regional storage volumes. The data have implications for the magnitude of supplies from the three watersheds that are the principal sources of water for OC. Note that a hydrologic year is Oct. 1st through Sept. 30th.

- Orange County's accumulated precipitation through ***late February was below average*** for this period. Water year to date rainfall in Orange County is ***6.44 inches***, which is ***68% of normal***.
- Northern California accumulated precipitation through ***late February was 91% of normal for this period***. Water Year 2021 was 48% of normal while water year 2020 was 63% of normal. The ***Northern California snowpack was 60% as February 28th, 2022. As of late February, 100.0% of California is experiencing moderate to extreme drought conditions***. The State Water Project Contractors Table A Allocation was increased in January to 15% for WY 2022.
- Colorado River Basin accumulated precipitation through ***late February was 98% of normal*** for this period. The ***Upper Colorado Basin snowpack was 90% of normal*** as of February 2nd 2021. ***Lake Mead and Lake Powell*** combined have about ***44.0% of their average storage volume*** for this time of year and are at ***29.9% of their total capacity***. For the first time on the Colorado River, Lake Mead's ***levels have fallen below the "trigger" limit of 1,075 ft. at the end of a calendar year***. The US Bureau of Reclamation (USBR) has declared a shortage at Lake Mead, impacting Colorado River water deliveries to the Lower Basin states. Lake Mead as of late February, were ***8.19' BELOW the "trigger" limit***. The USBR has declared a ***shortage on the Colorado River starting January 1st 2022. There is and a 97% chance of shortage continuing in 2023, 95% in 2024, 96% in 2025 and 93% in 2026..***



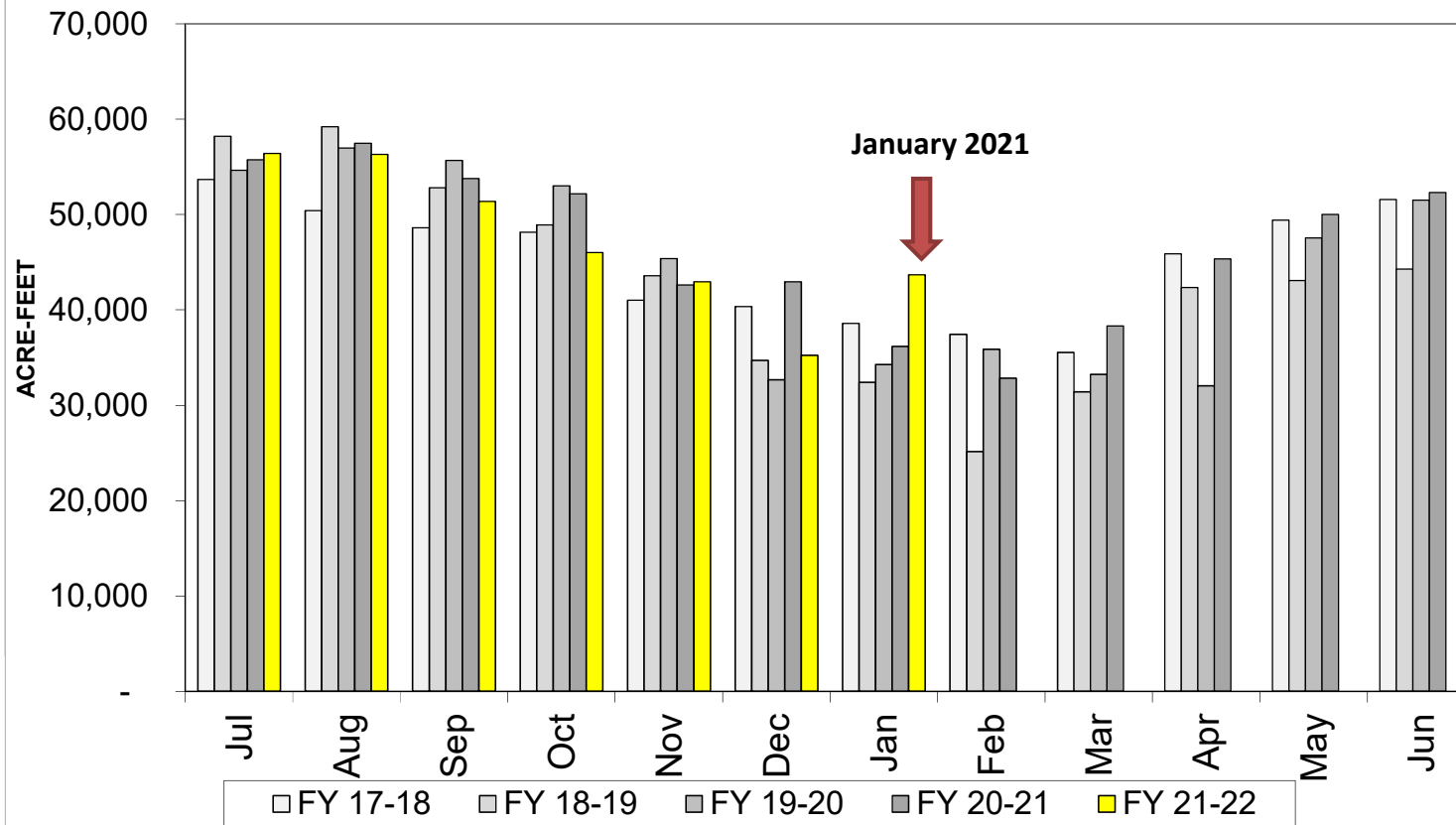
Fig. 1 OC Water Usage, Monthly by Supply with projection to end of fiscal year



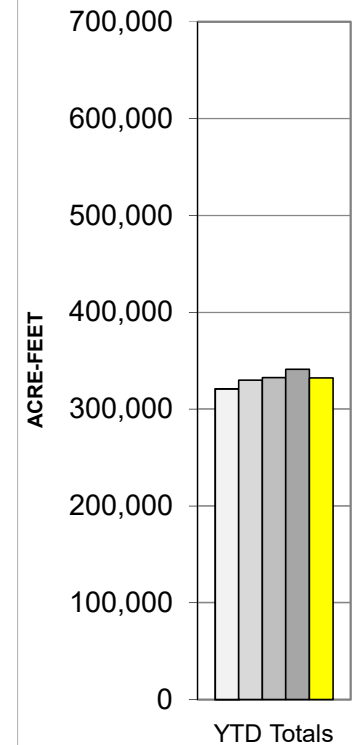
- [1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water and deliveries into Irvine Lake.
- [2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '21-22 is 77%.
- [3] MWDOC's estimate of monthly demand is based on the projected 5 Year historical retail water demand and historical monthly demand patterns.
- [4] Total water usage includes IRWD groundwater agricultural use and usage by non-retail water agencies.



Fig. 2 OC Monthly Water Usage [1]: Comparison to Last 4 Fiscal Years

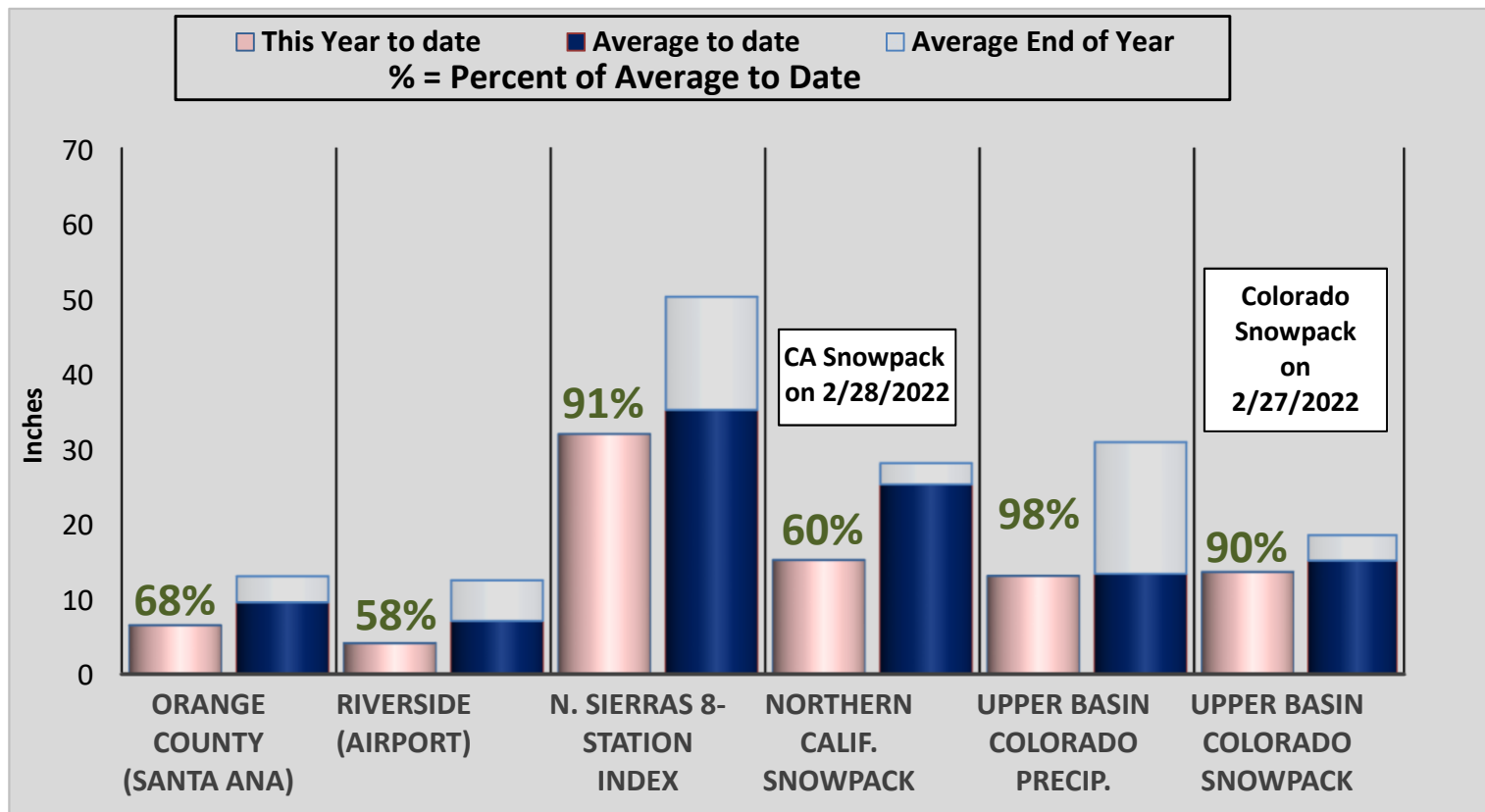


Partial Year Subtotals



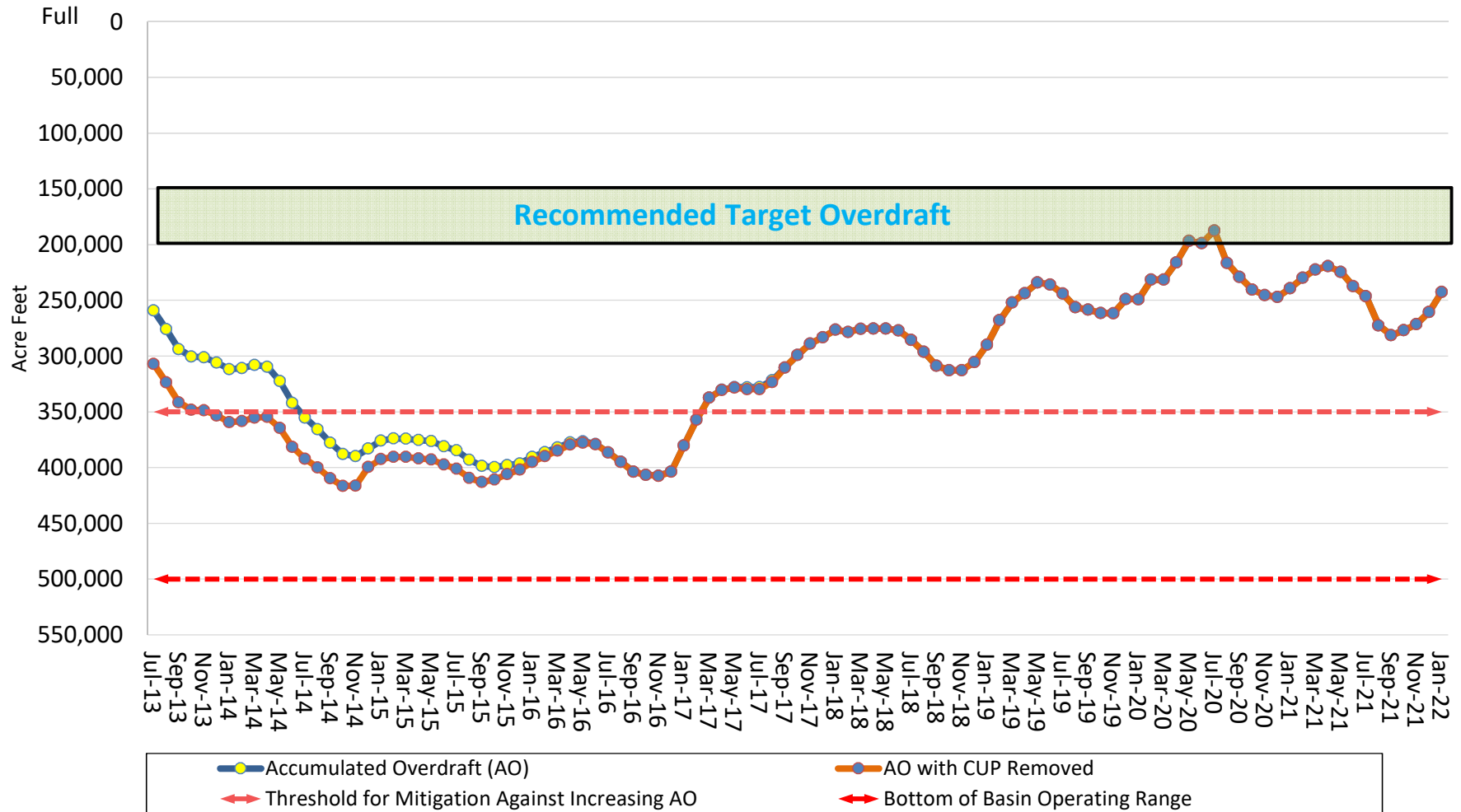
[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment" and "Barrier Replenishment") and Local water for consumptive use (includes recycled and non-potable water and excludes GWRS production) Recent months numbers include some estimation.

Accumulated Precipitation for the Oct.-Sep. water year, late February 2022



* The date of maximum snowpack accumulation (April 1st in Northern Calif. , April 15th in the Upper Colorado Basin) is used for year to year comparison.

Accumulated Overdraft of the OCWD Groundwater Basin as of January 2022



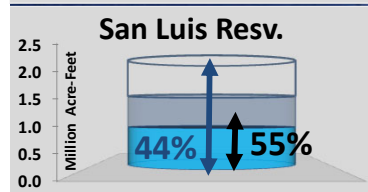
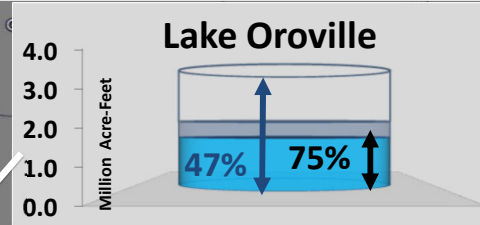
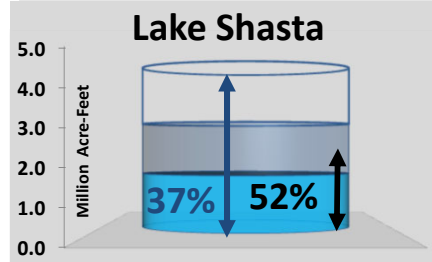
	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
AO (AF)	187,392	216,548	229,124	240,414	245,441	246,998	239,329	229,738	222,470	219,388	224,458	237,335
AO w/CUP removed (AF)	187,392	216,548	229,124	240,414	245,441	246,998	239,329	229,738	222,470	219,388	224,458	237,335
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
AO (AF)	246,350	272,443	281,354	276,909	271,455	260,387	242,511					
AO w/CUP removed (AF)	246,350	272,442	281,354	276,909	271,455	260,387	242,510					

* Source ~ OCWD Monthly Board of Directors Packet, Water Resources Summary



State Water Project, Colorado River, and MWD Reservoir Storage

as of February 28, 2022

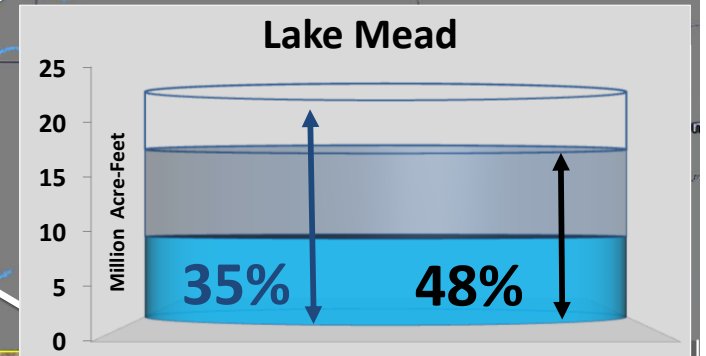
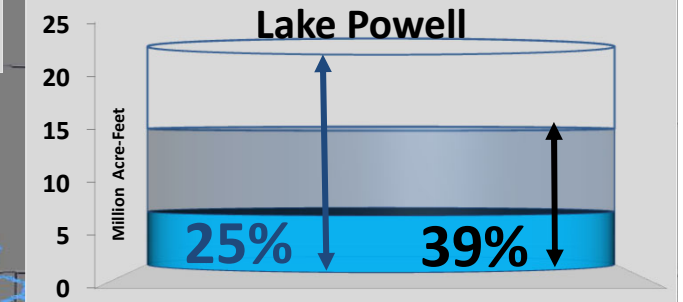


Reservoir Storage
Historical Reservoir Storage

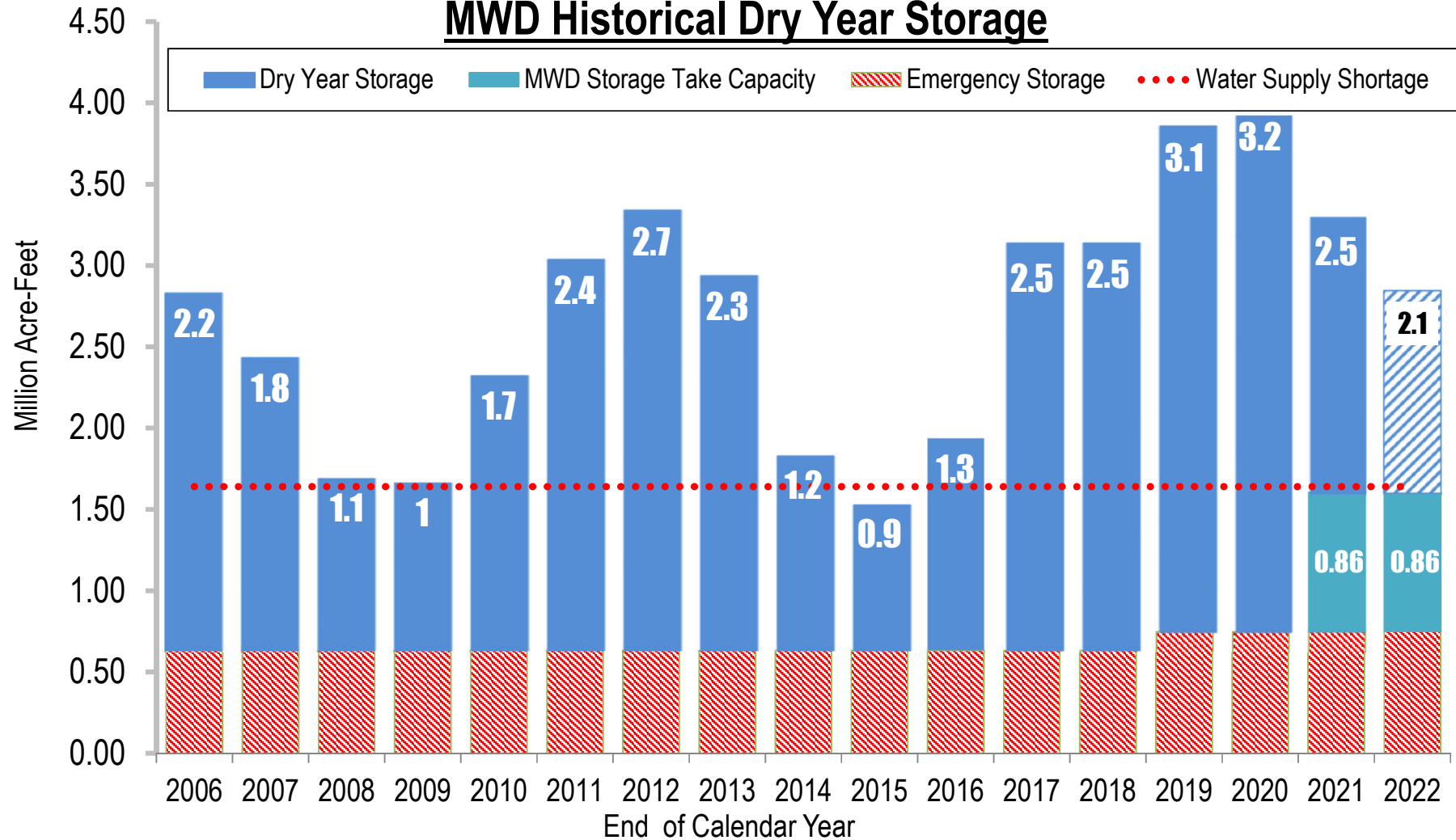
SWP Storage Take Capacity = 0.191 MAF
 CRA Storage Take Capacity = 0.238 MAF
 In Region Storage Take Capacity = 0.426 MAF



prepared by the Municipal Water District of Orange County
 *Number are Subject to Change

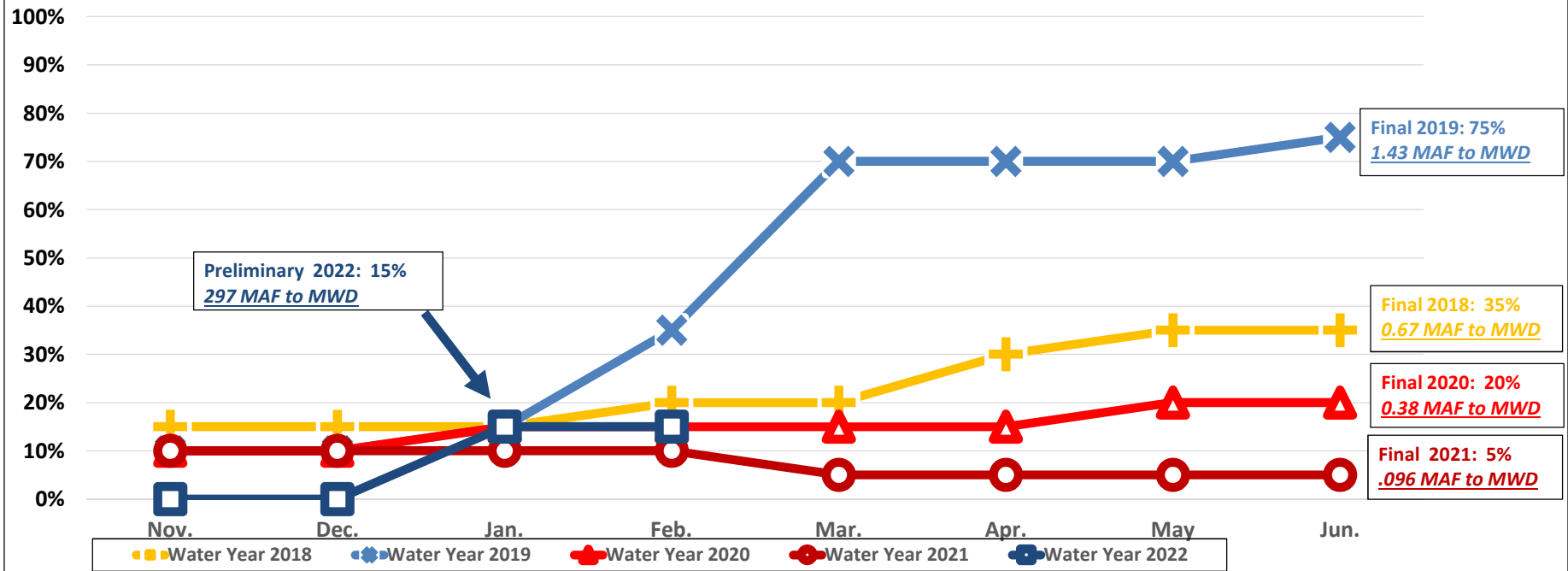


MWD Historical Dry Year Storage

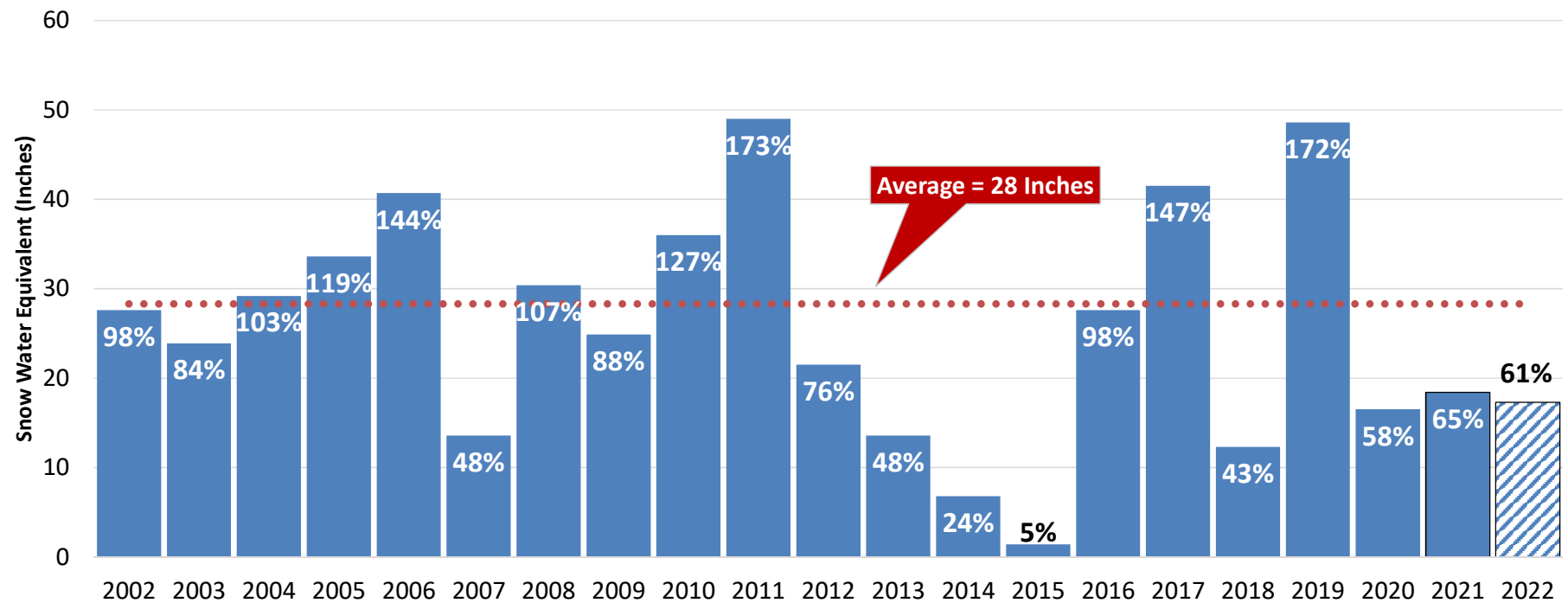


SWP TABLE A ALLOCATION PERCENTAGE

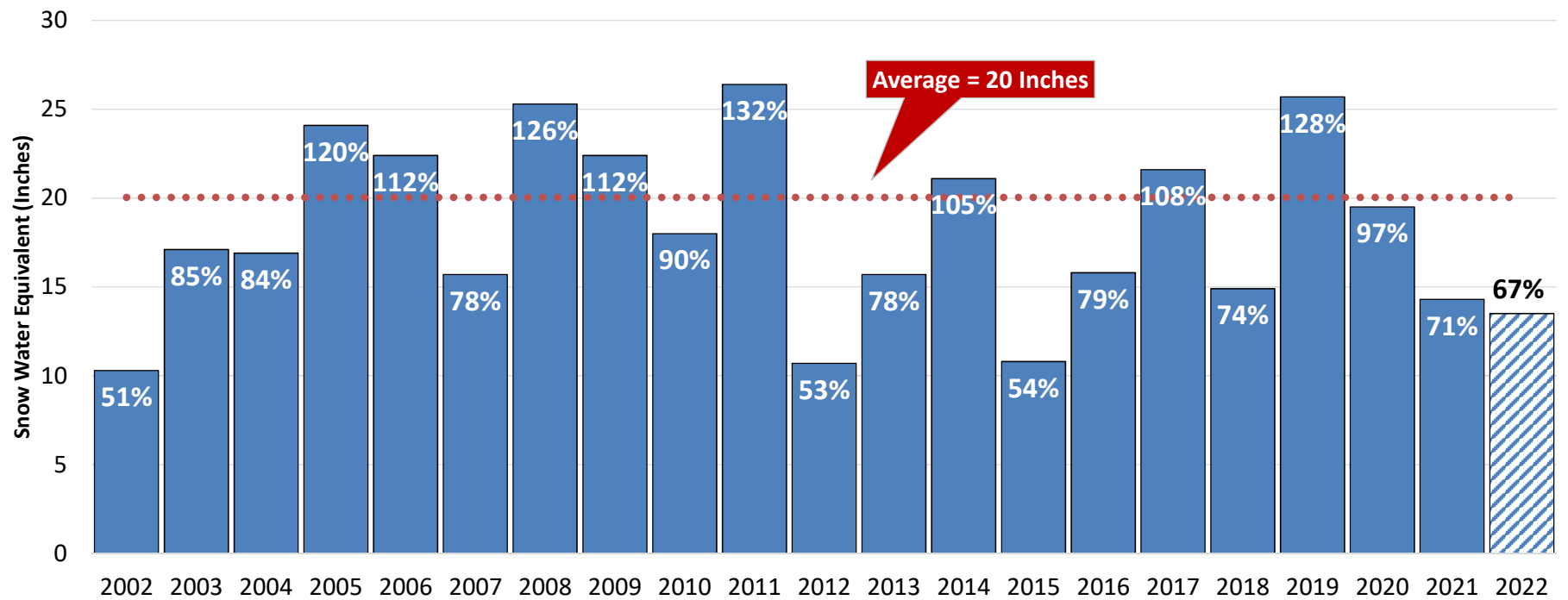
FOR STATE WATER PROJECT CONTRACTORS



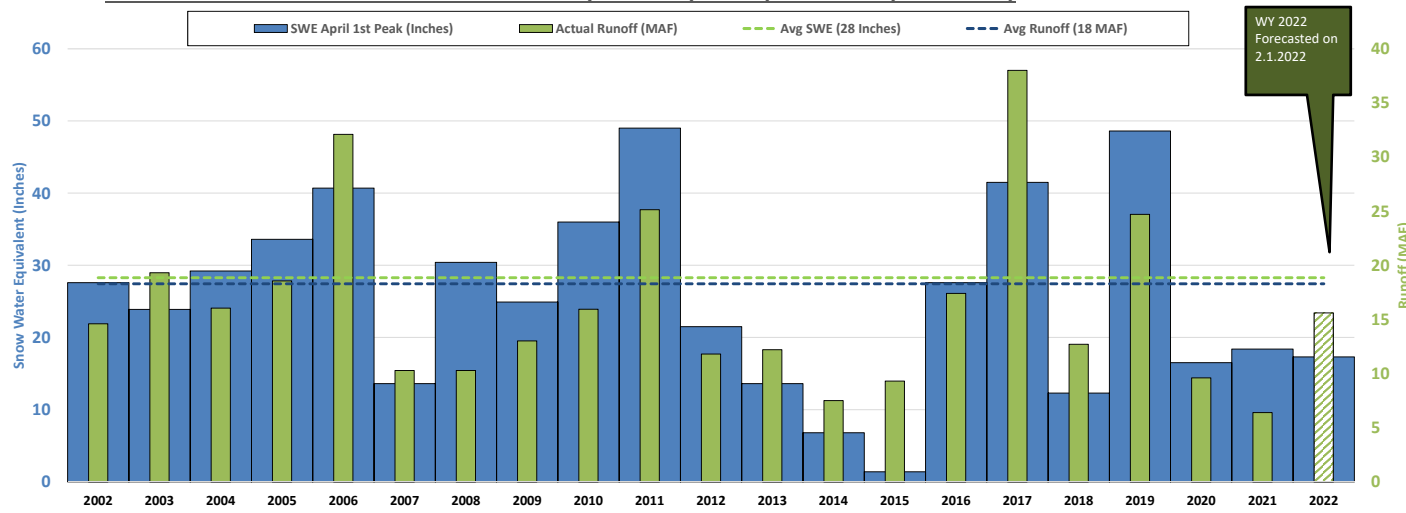
Historical Northern California April 1st Peak Snow Water Equivalent



Historical Colorado Basin April 15th Peak Snow Water Equivalent



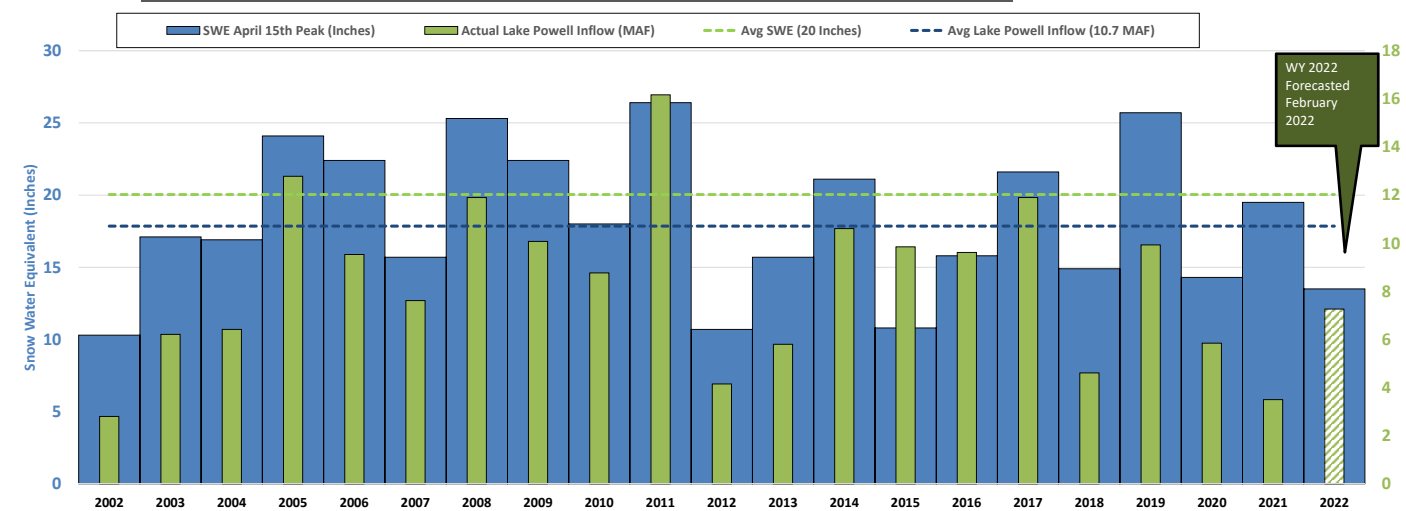
Northern California Historical Snow Water Equivalent (Inches) Vs Runoff (Million AF)



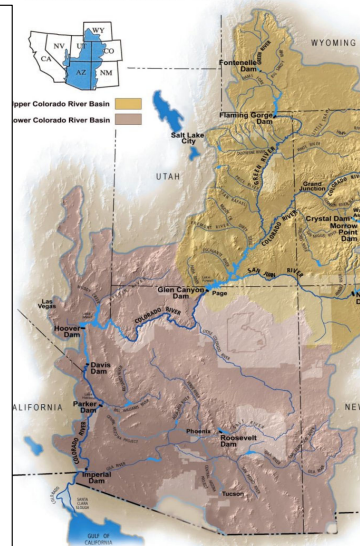
Sacramento River Basin



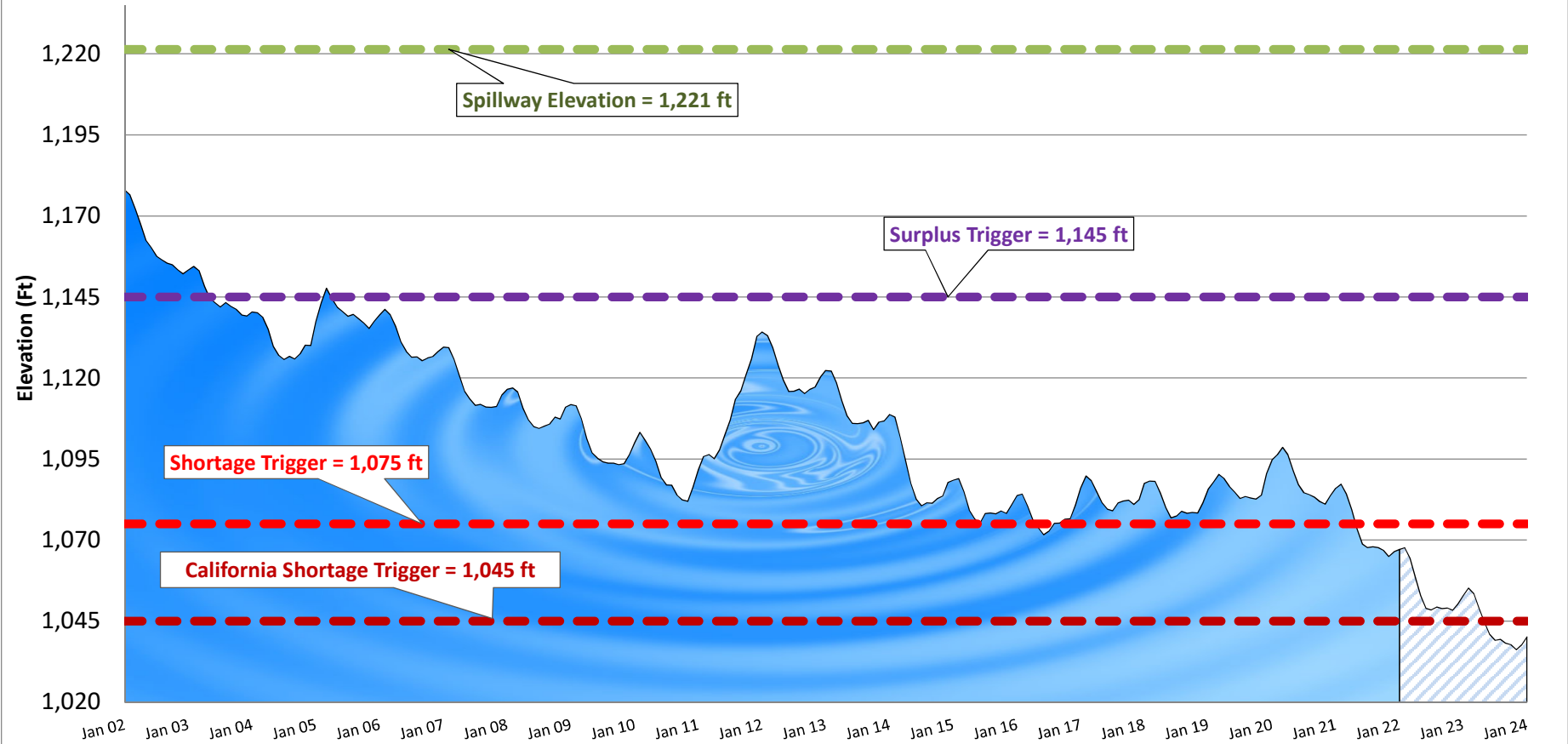
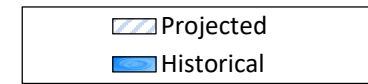
Upper Colorado Historical Snow Water Equivalent (Inches) Vs Runoff (Million AF)



Colorado River Basin

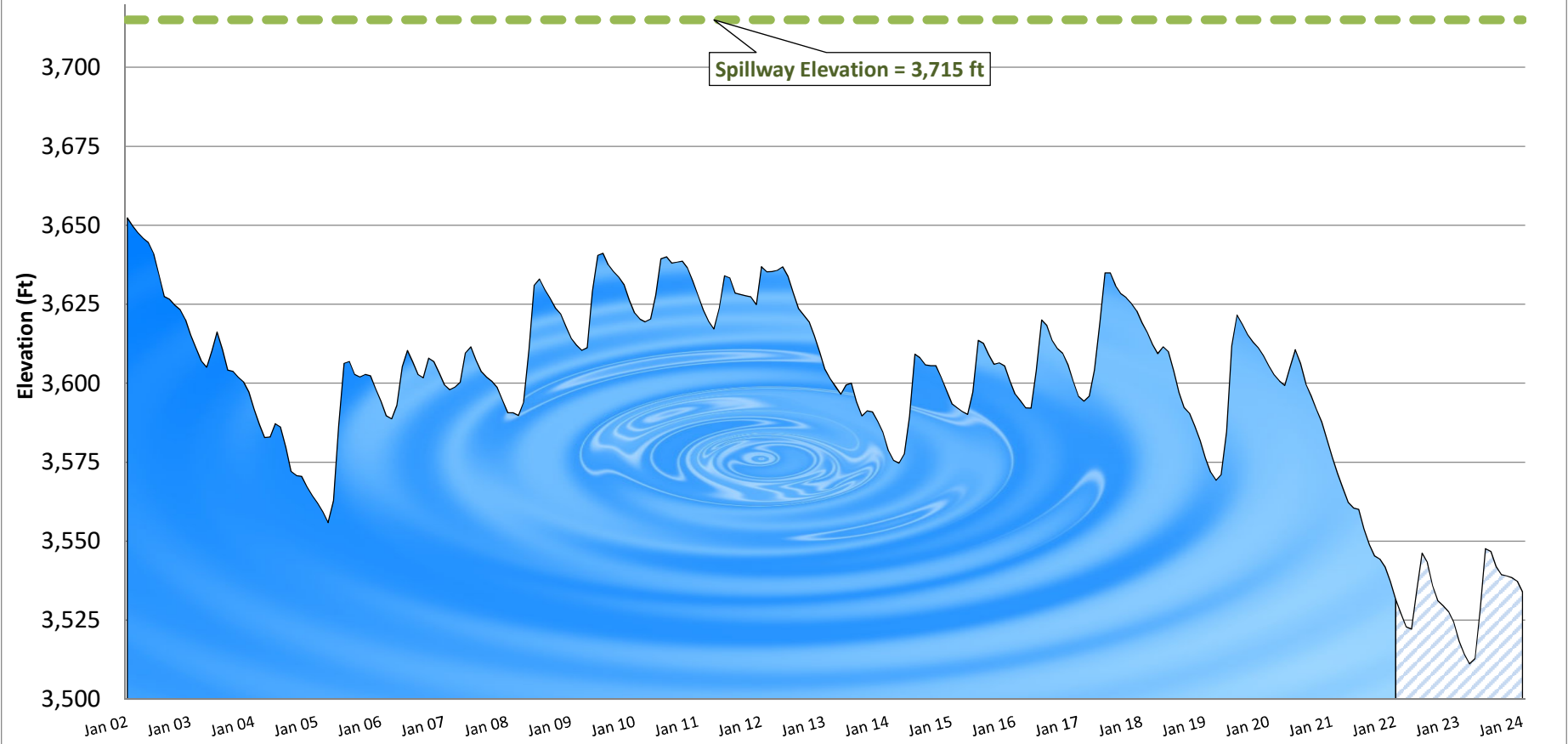


Lake Mead Levels: Historical and Projected projection per USBR 24-Month Study



Lake Powell Levels: Historical and Projected projection per USBR 24-Month Study

■ Historical □ Projected



Lake Mead Historical Water Elevation Level

