



Westlands Water District

Annual Water Users' Workshop

March 21st, 2023



Westlands Water District

INTRODUCTIONS, OPENING COMMENTS, & MATTERS OF INTEREST



Outline

- Water Supply Outlook for 2023-2024 CVP Allocation, Rescheduling and Transfers
- 2023-2024 Adopted Budget, Water Rates, Charges and Assessments
- Groundwater Conditions and Sustainable Groundwater Management Act Update
- Operations and Maintenance Update
- Public Relations
- Questions and Answers

2023-2024 Water Supply Allocation

- Initial CVP South of the Delta Ag Allocation is at 35%. The District expects the Bureau will update the Allocation by the EOM. The District is forecasting a final Allocation of up to 65-75%.
- SWP Allocation currently 35%



2022-2023 End of Year Totals

(acre-feet)

2020 Carryover/Stored Supplemental Water	18,472
2021 Supplemental Water	149,105
2022 Supplemental Water	22,703
M&I / PHS	4,077
Grower Transfers	<u>37,605</u>
Total Surface Water Supply:	231,962
Total Rescheduling/Carryover Storage Loss	-10,476
Total Use	<u>-146,234</u>
2022-2023 Total Remaining Supply:	75,252
2022-2023 Carryover/Stored Water:	75,252
Groundwater Management Program (GWMP)	179,944
Non-GWMP Groundwater	<u>409,056</u>
Total District Groundwater:	589,000

*As of February 28, 2023

2023-2024 Water Supply Forecast

(acre-feet)

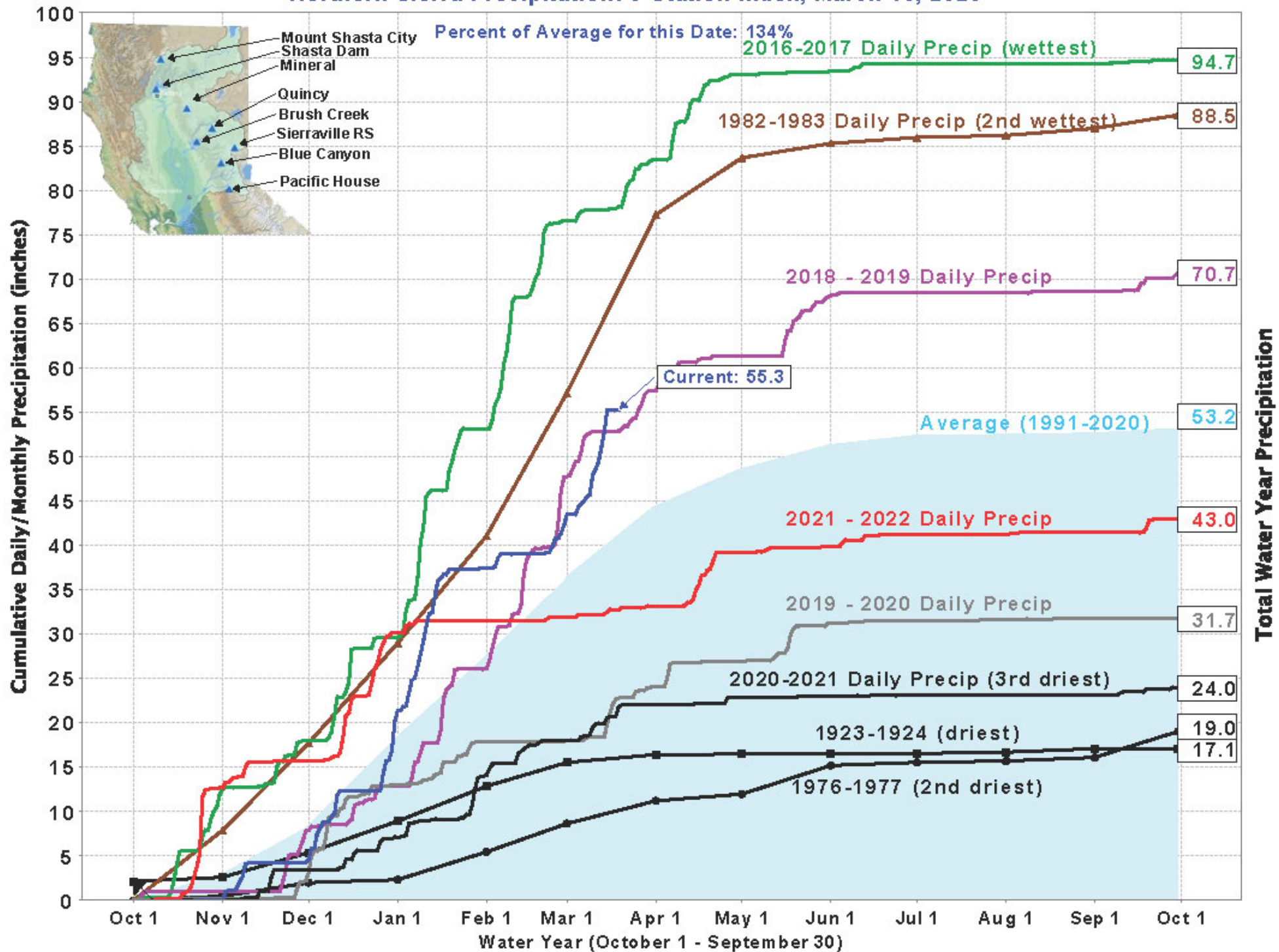
CVP Contract(s) (75%)	897,711
Carryover/Stored Transfer Water	75,252
Transfers & Supplemental Water	<u>83,500</u>
Total Surface Water Supply:	1,056,463
Non-GWMP Groundwater	70,000
Groundwater Management Program	<u>20,000</u>
Total District Groundwater Pumping:	90,000

Supplemental Water Supply

2023-2024

- Applications are due May 1st
- Advance payment required, at time water made available for allocation
 - Delinquency may result in water not being made available
- Timing of availability – The District anticipates that a substantial allocation of Supplemental Water to water users could occur in late spring, based on water available from the San Joaquin River Exchange Contractors

Northern Sierra Precipitation: 8-Station Index, March 19, 2023



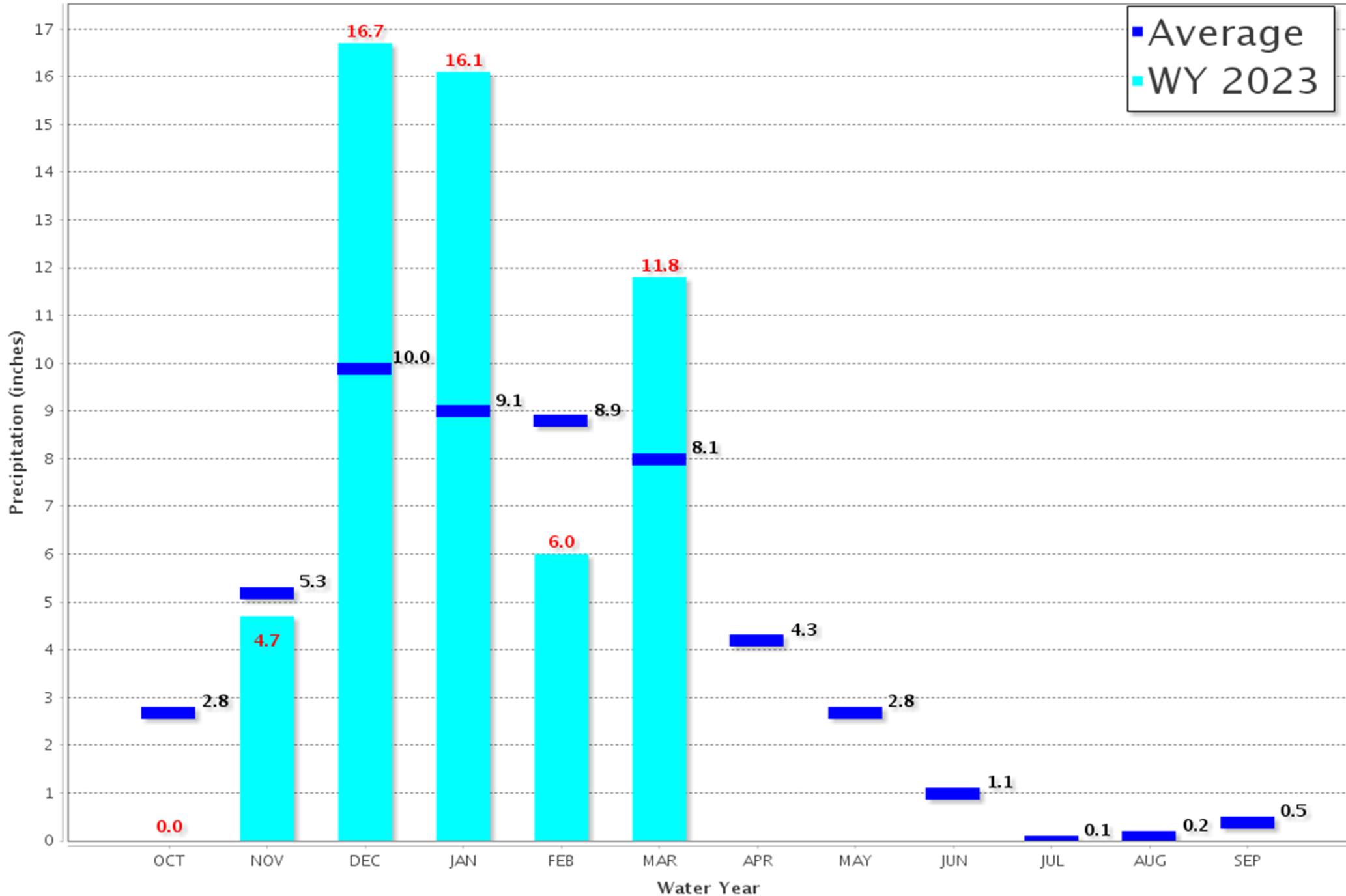


Northern Sierra 8-Station

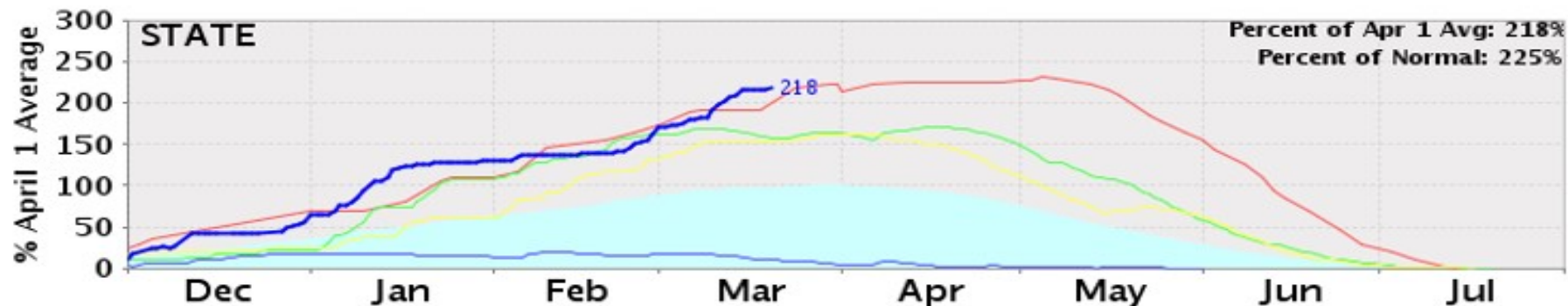
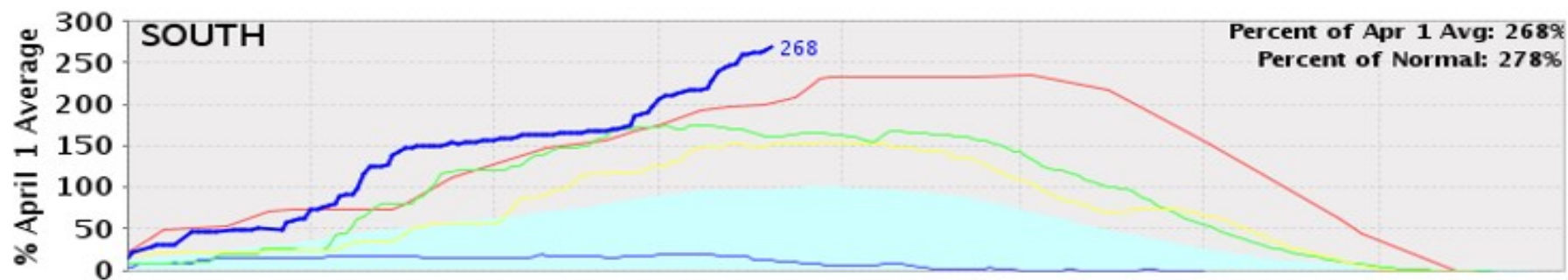
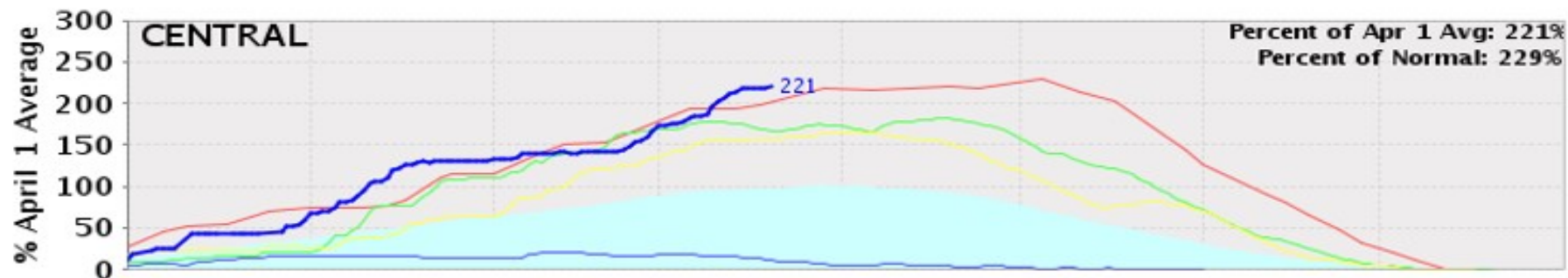
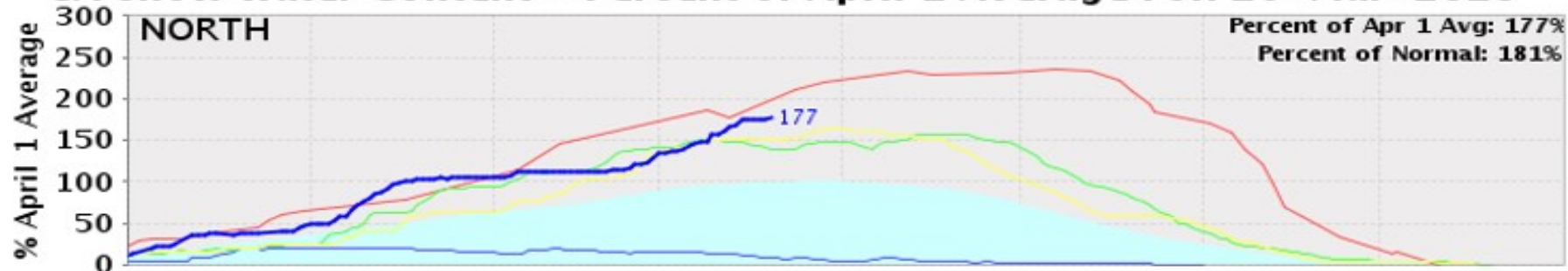
Precipitation Index for Water Year 2023 – Updated on March 19, 2023 04:48 PM

Note: Monthly totals may not add up to seasonal total because of rounding

Water Year Monthly totals are calculated based on Daily precipitation data from 12am to 12am PST

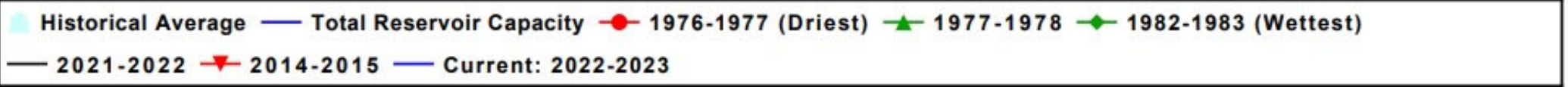
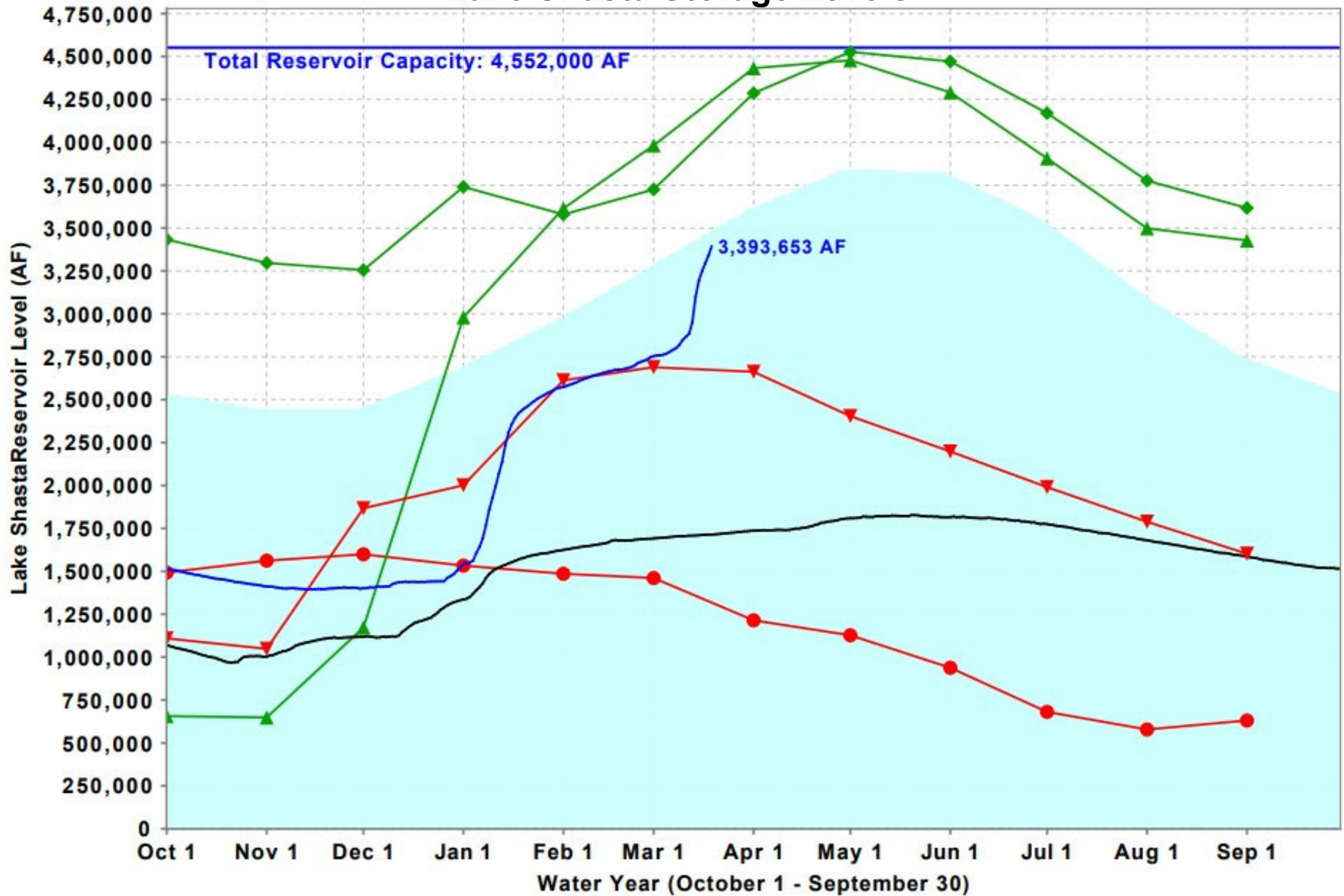


CA Snow Water Content - Percent of April 1 Average For: 20-Mar-2023



Average 1982-1983 (max) 2014-2015 (min) 2016-2017 2018-2019 2022-2023 (current)

Lake Shasta Storage Levels

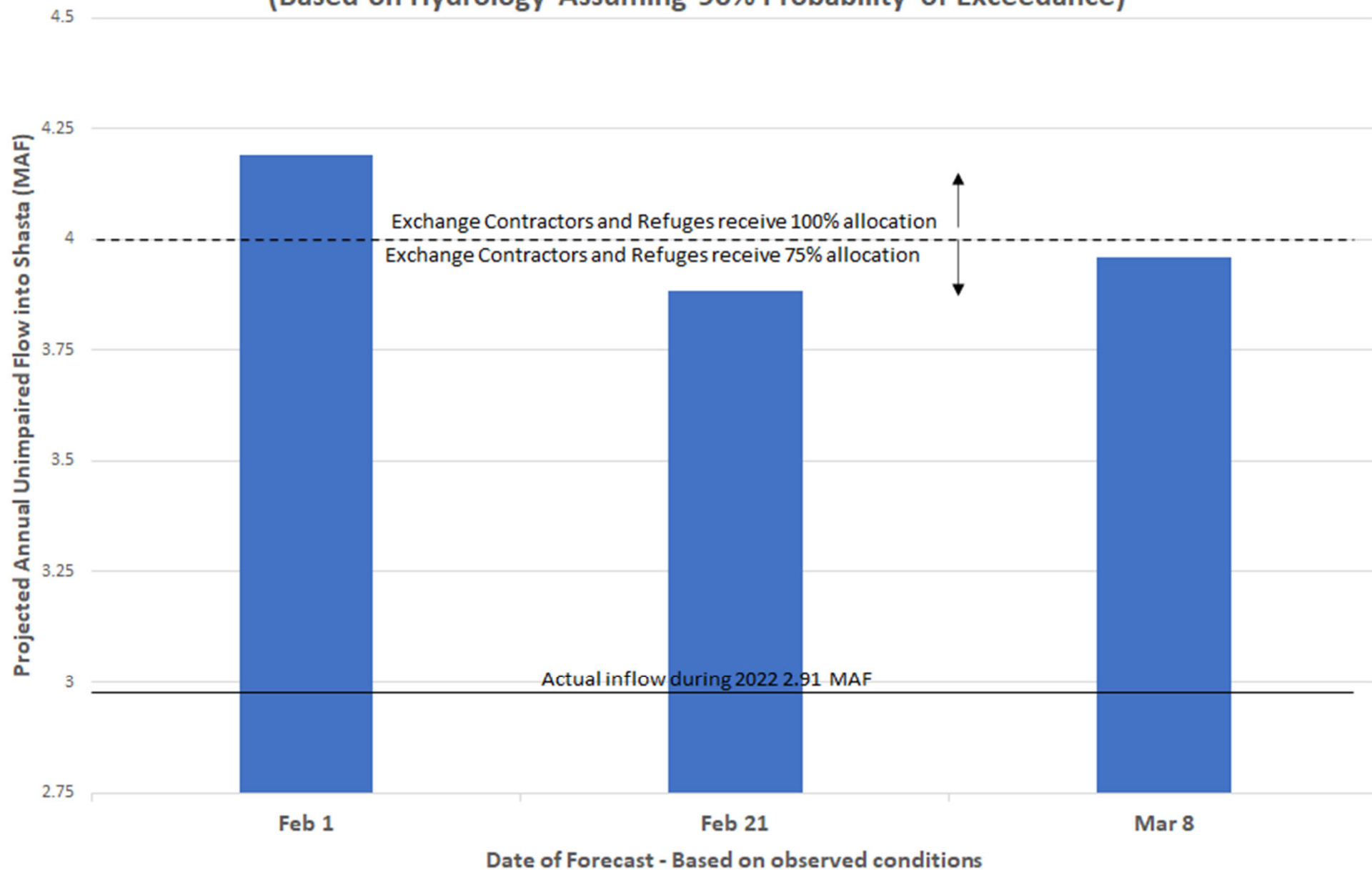


Reservoir Storage

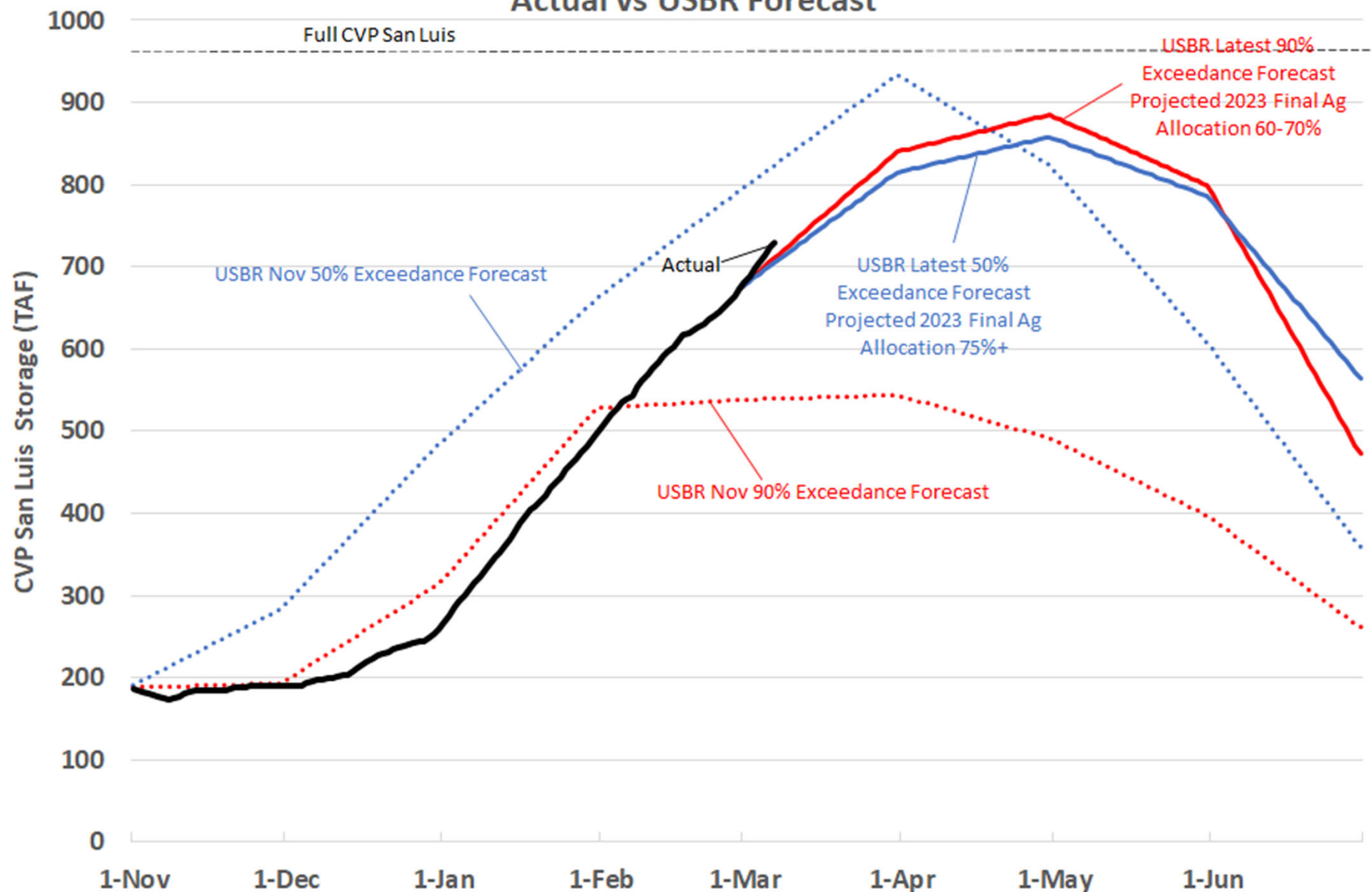
(thousands of AF)

RESERVOIR	CAPACITY	15 YR Avg	WY 2022	WY 2023	% of 15 YR AVG
TRINITY	2,488	1,515	797	871	57
SHASTA	4,552	3,225	1,714	3,394	105
FOLSOM	977	556	534	624	112
NEW MELONES	2,420	1,434	951	1,311	91
FED. SAN LUIS	966	654	318	829	127
TOTAL NORTH CVP	11,363	7,384	4,314	7,029	95
MILLERTON	521	305	294	416	118
OROVILLE (SWP)	3,538	2,239	1,623	2,916	130

Forecasted Annual Unimpaired Shasta Inflow During Water Year 2023 (Based on Hydrology Assuming 90% Probability of Exceedance)



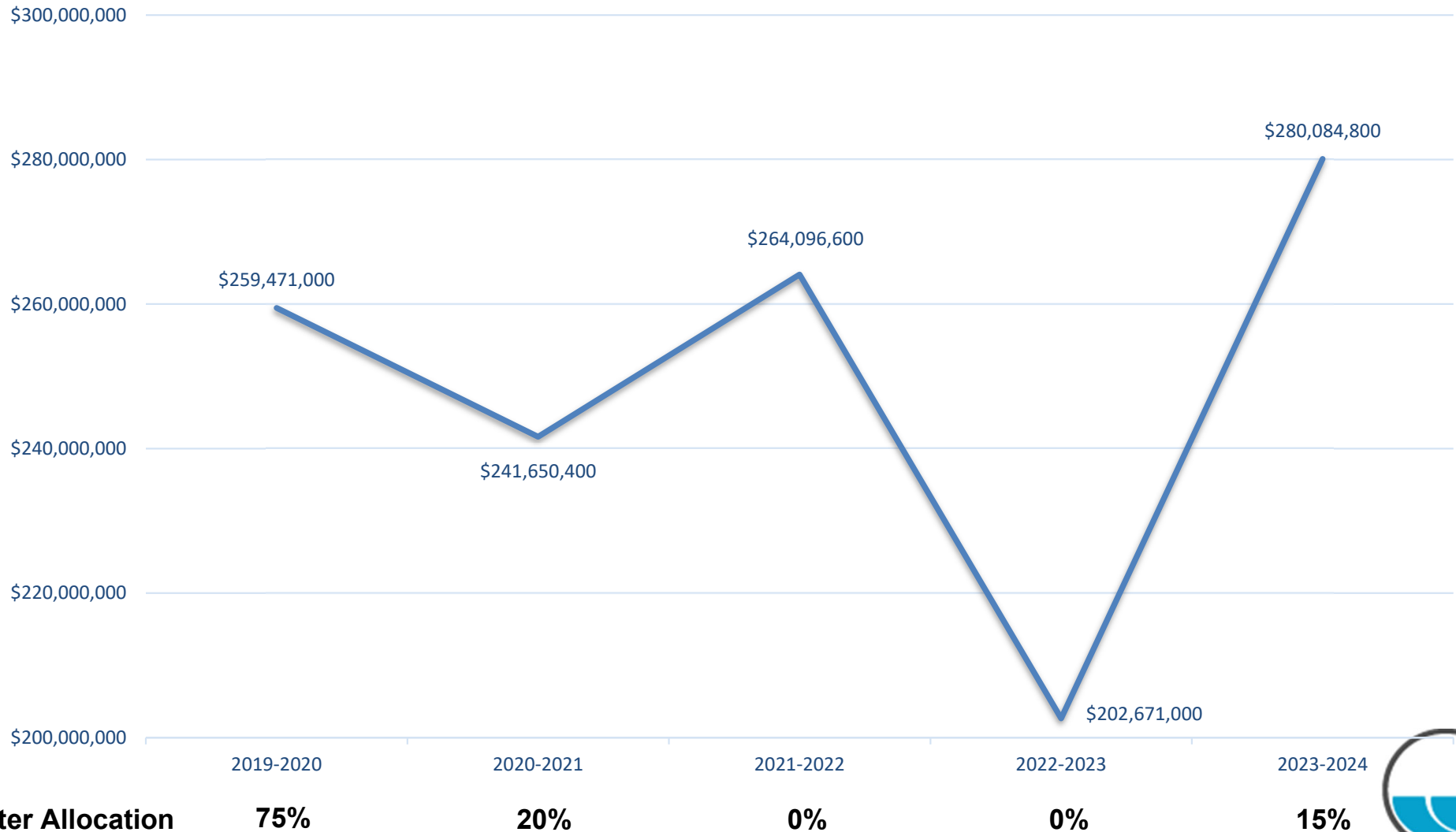
CVP San Luis Storage Actual vs USBR Forecast



Total Budget

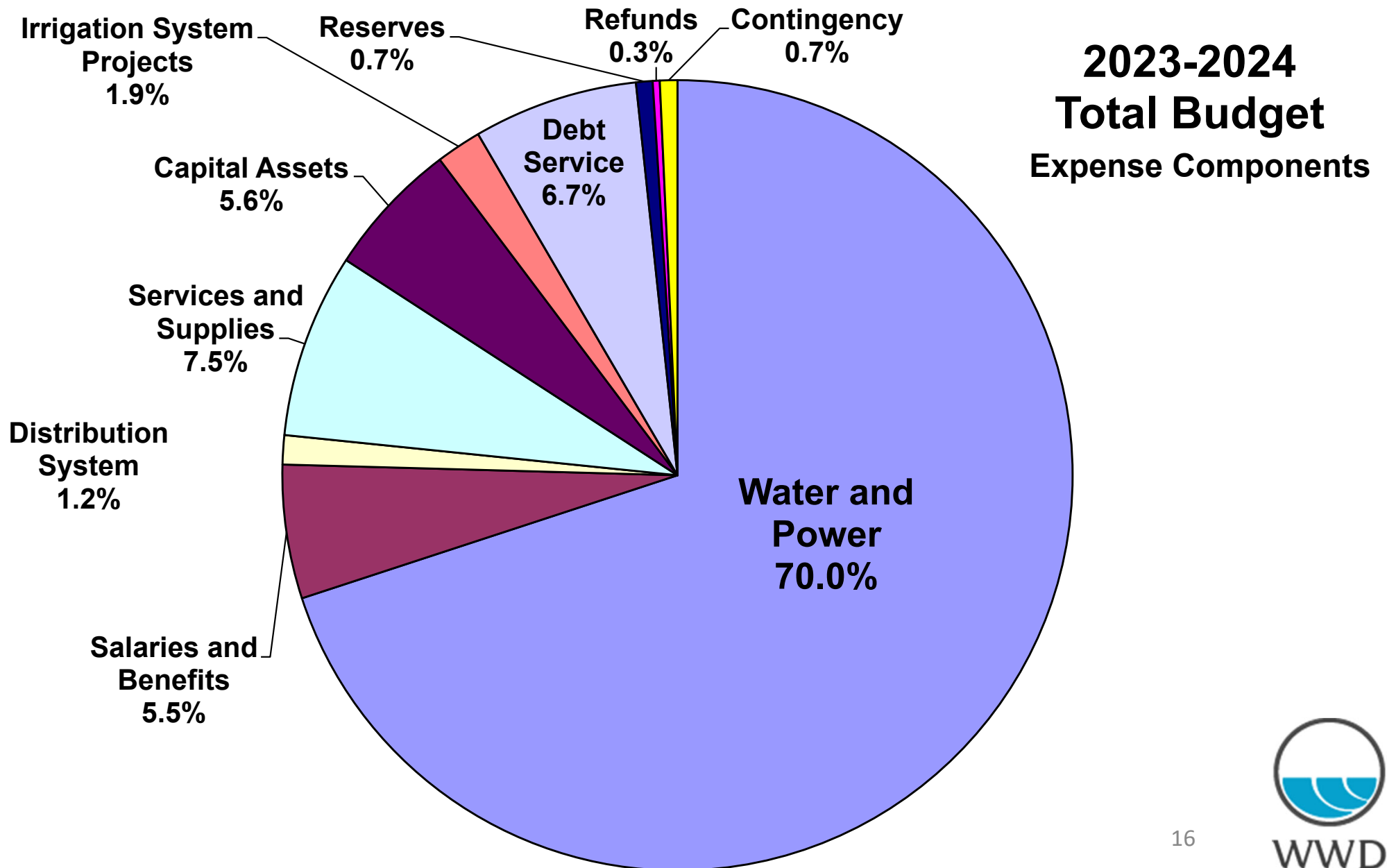
2019-2023 Water Contract Years

Total Budget



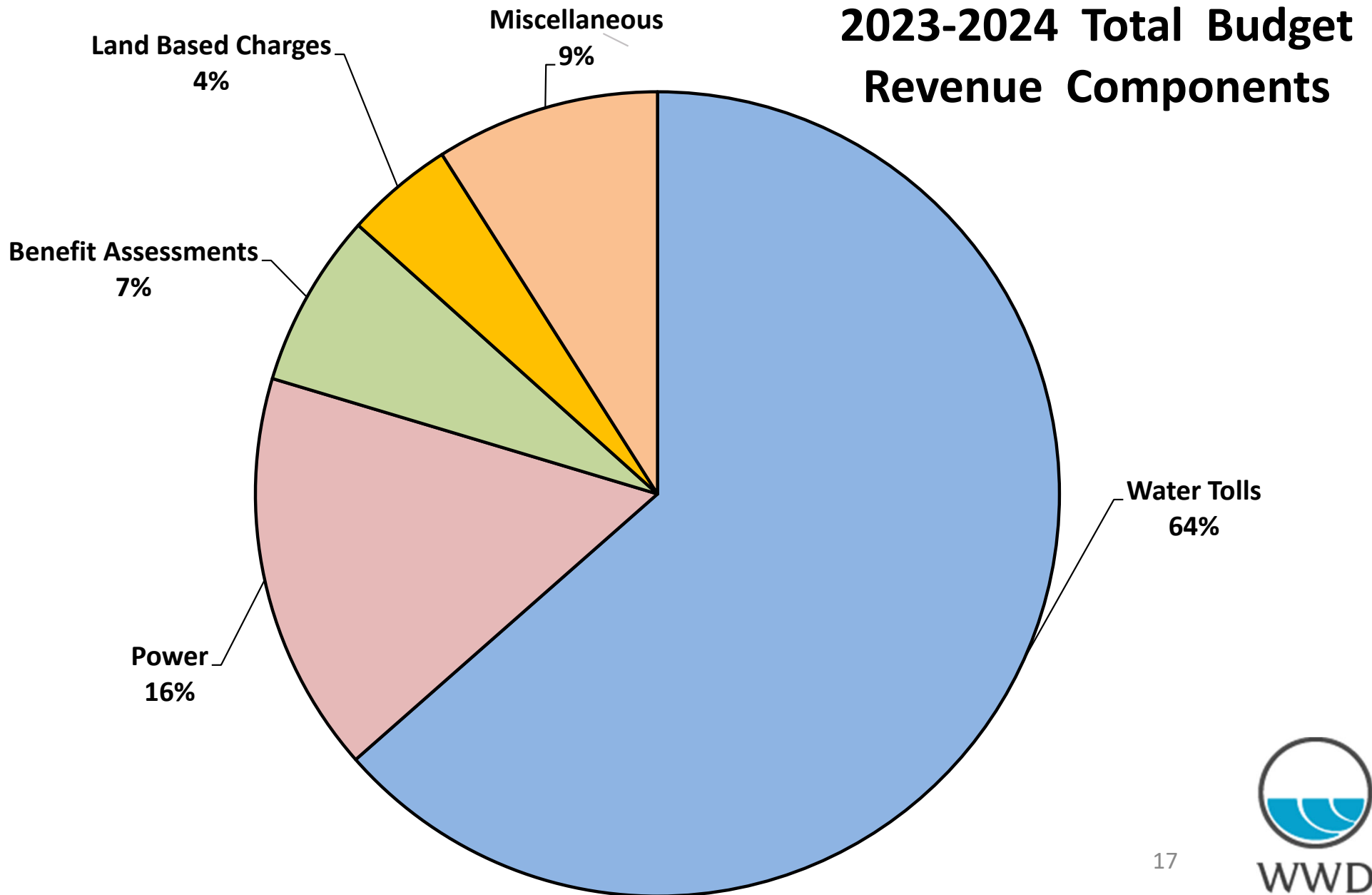
2023-2024 Total Budget

Expense Components



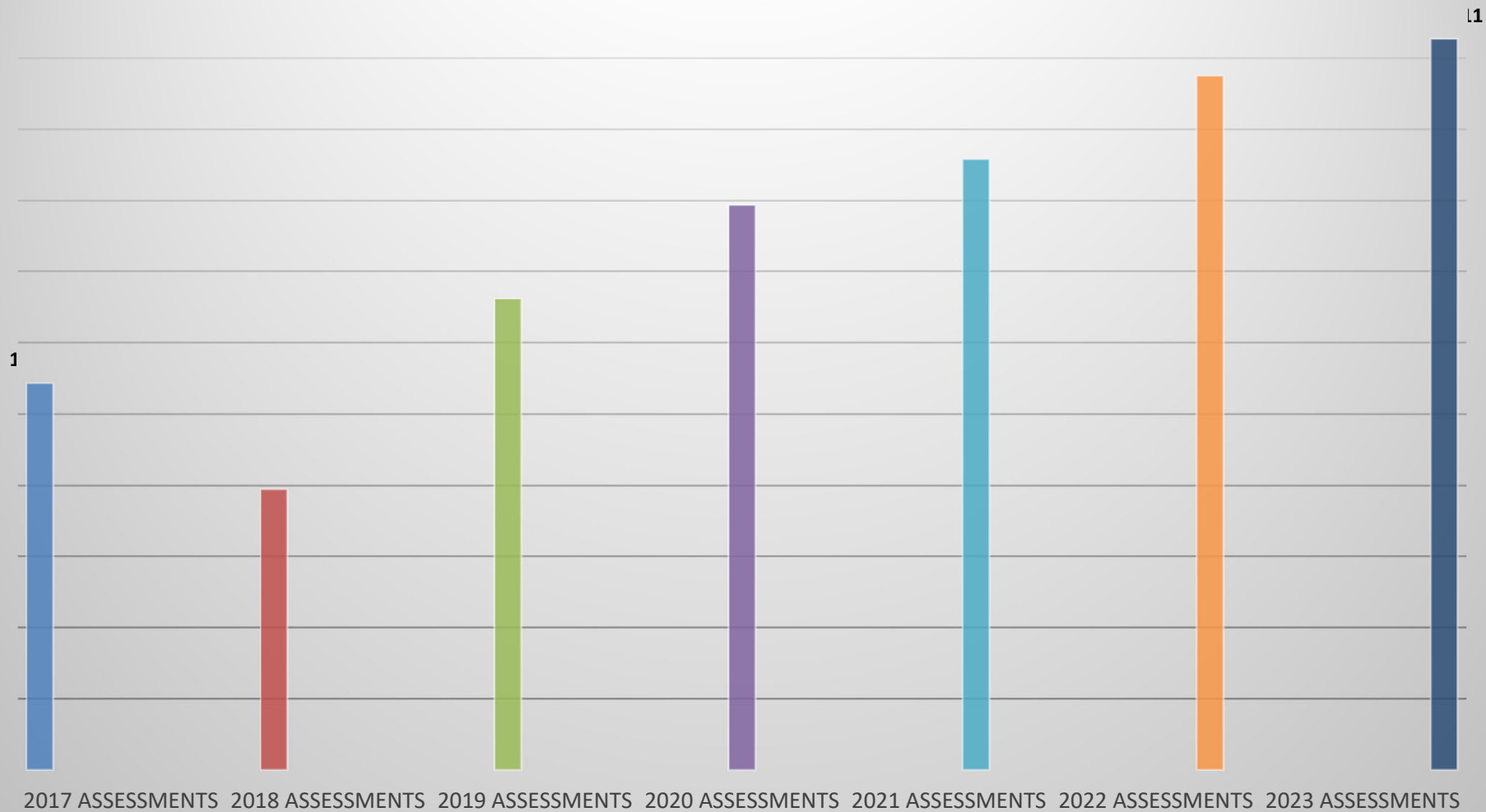
2023-2024 Total Budget

Revenue Components



Assessment Revenues

2017-2022 Actual vs. 2023 Adopted



2023-2024 AG Water Rates

Per Acre-Foot

Agency	2023-2024 Cost of Service	2022-2023 Cost of Service	Variance
USBR	\$25.71	\$22.59	\$3.12
SLDMWA	\$50.64	\$101.39	(\$50.75)
WWD	\$40.50	\$131.61	(\$91.11)
USBR Capital Repayment Debt Service	\$10.36	\$31.68	(\$21.32)
Water Exchange Obligation	\$1.40	\$0.00	\$1.40
SWRCB Water Rights Fees	\$3.80	\$0.00	\$3.80
Water Rates	\$132.41	\$287.27	(\$154.86)

2023-2024 M&I Water Rates

Per Acre-Foot

Agency	2023-2024 M & I Cost of Service	2022-2023 M & I Cost of Service	Variance
USBR	\$38.88	\$33.14	\$5.74
SLDMWA	\$50.64	\$101.39	(\$50.75)
WWD	\$81.08	\$259.47	(\$178.39)
USBR Capital Repayment Debt Service	\$10.36	\$31.68	(\$21.32)
SWRCB Water Rights Fees	\$3.02	\$2.82	\$0.20
Water Rates	\$183.98	\$428.5	(\$244.52)

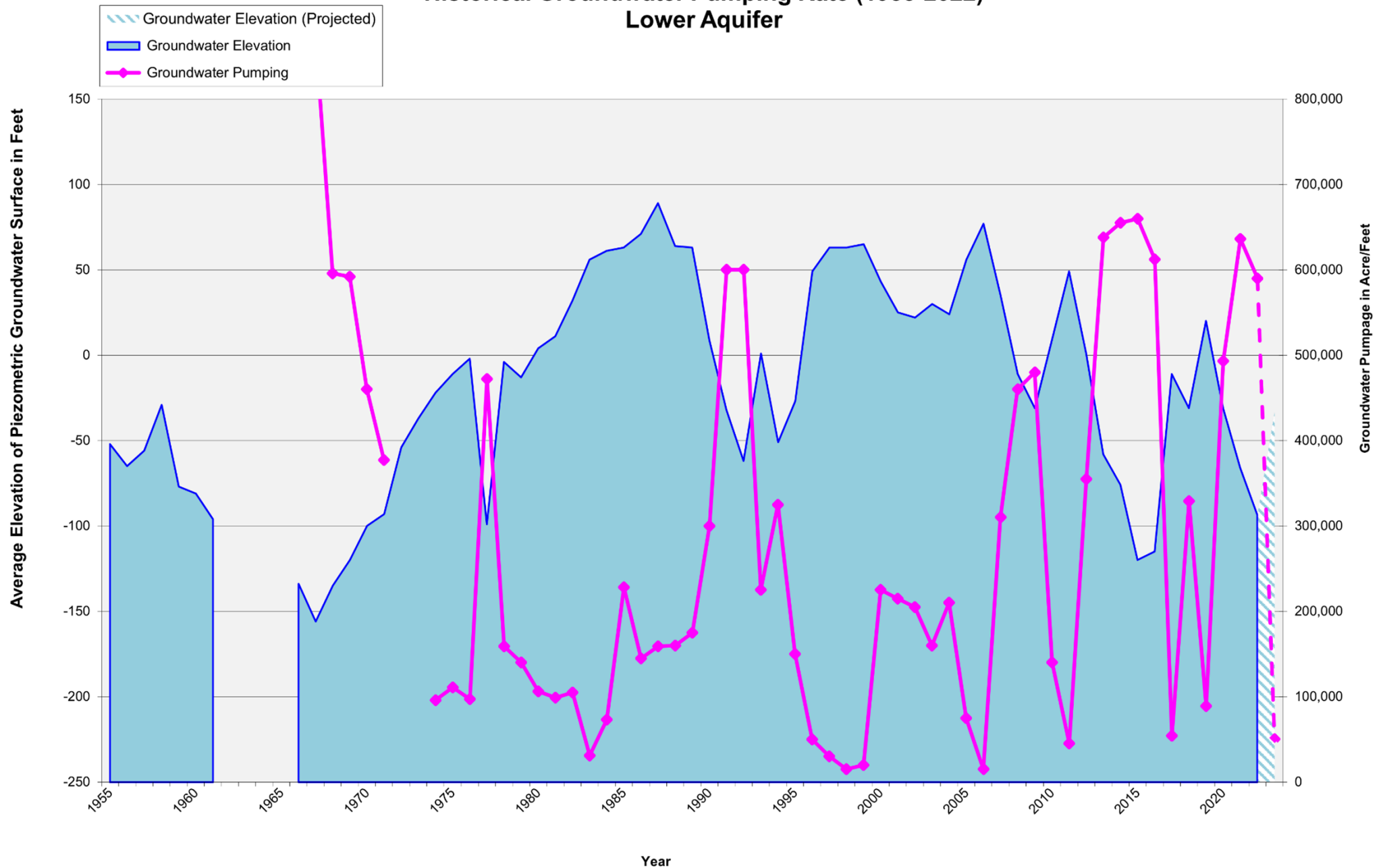
Land-Based Charge Comparison

Agency	2023-2024	2022-2023	Variance
District Water Supply Debt Service - Area 1	\$4.22	\$4.18	\$0.04
District Water Supply Debt Service - Area 2	\$9.82	\$9.66	\$0.16
Extraordinary Repairs of Pipe	\$0.00	\$8.76	(\$8.76)
Drainage Service Area	\$0.00	\$0.00	\$0.00
WWQC	\$2.63	\$2.73	(\$0.10)
USBR Capital Repayment Debt Service	\$13.04	\$12.82	\$0.22
SGMA	\$2.99	\$2.25	\$0.74

Groundwater Conditions since 1955

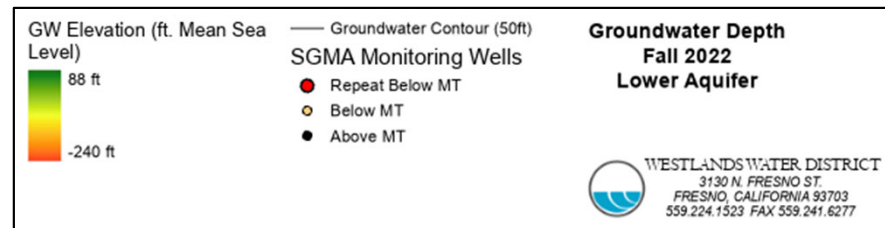
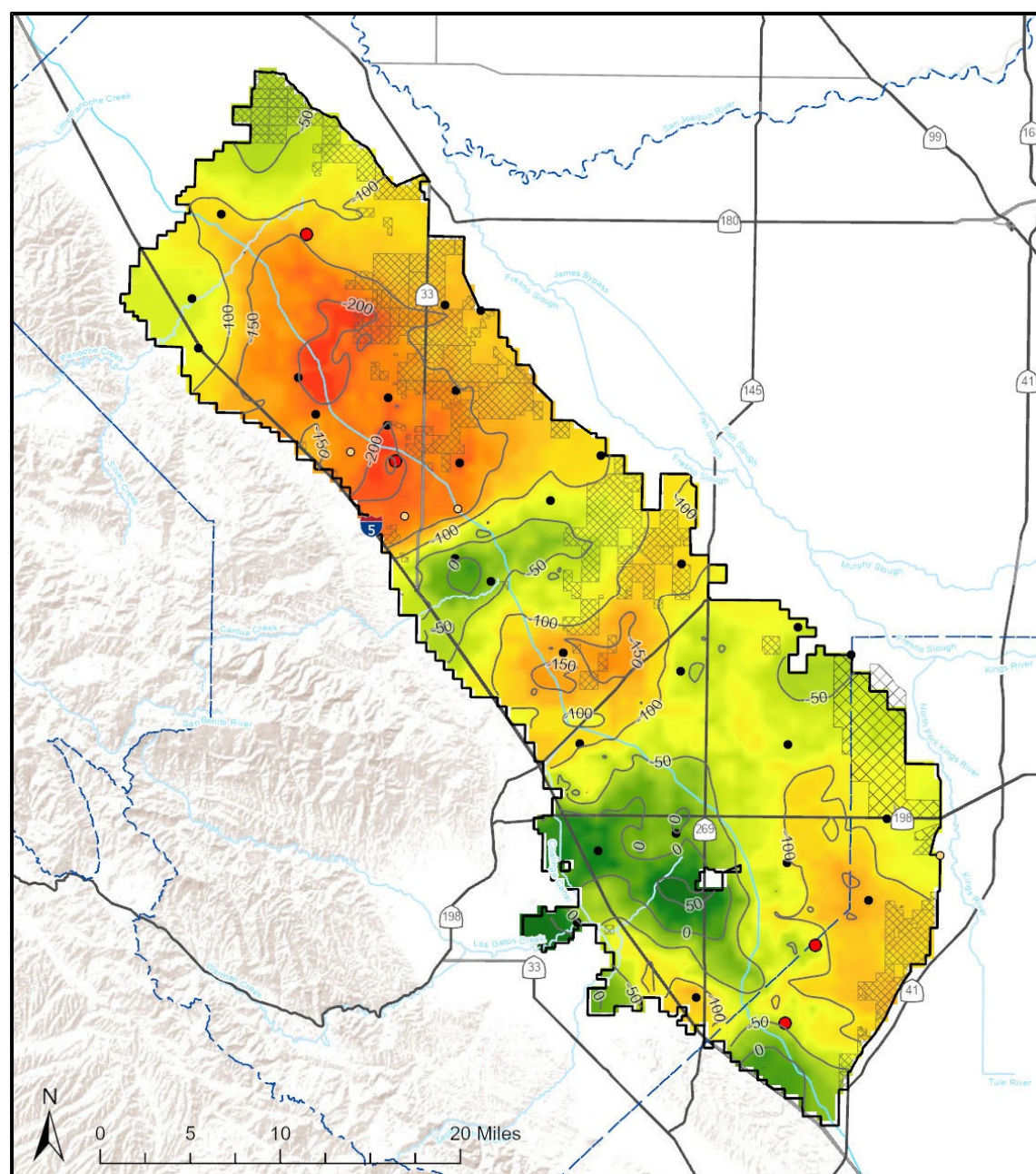
Lower Aquifer

Historical Groundwater Pumping Rate (1955-2022)
Lower Aquifer



Groundwater Elevation 2022

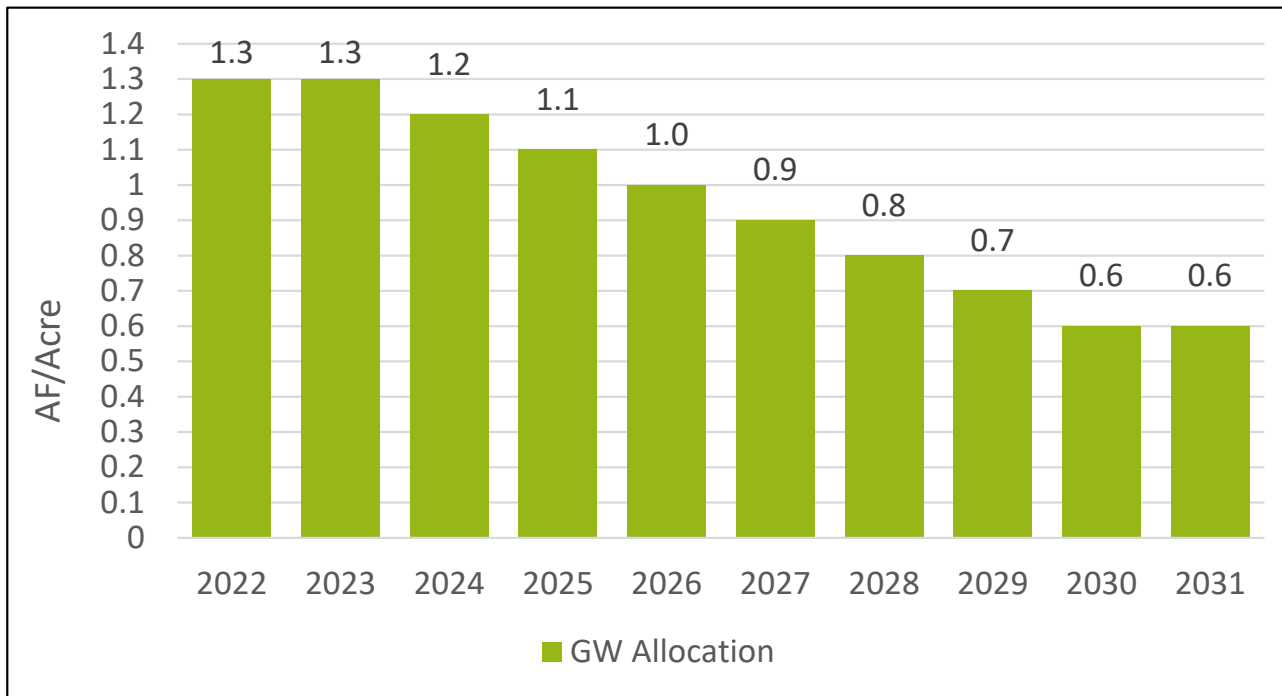
Lower Aquifer



Groundwater Allocation and Transition Period

- Sustainable yield of 305,000 AF/year
- ~525,000 acres eligible receive allocation
- Starting 2022, 8-year “Transition Period”

1.3 AF/acre taper to 0.6 AF/acre allocation



Water Year	Allocation Cap
2022	1.3 AF per acre
2023	1.3 AF per acre
2024	1.2 AF per acre
2025	1.1 AF per acre
2026	1.0 AF per acre
2027	0.9 AF per acre
2028	0.8 AF per acre
2029	0.7 AF per acre
2030	0.6 AF per acre

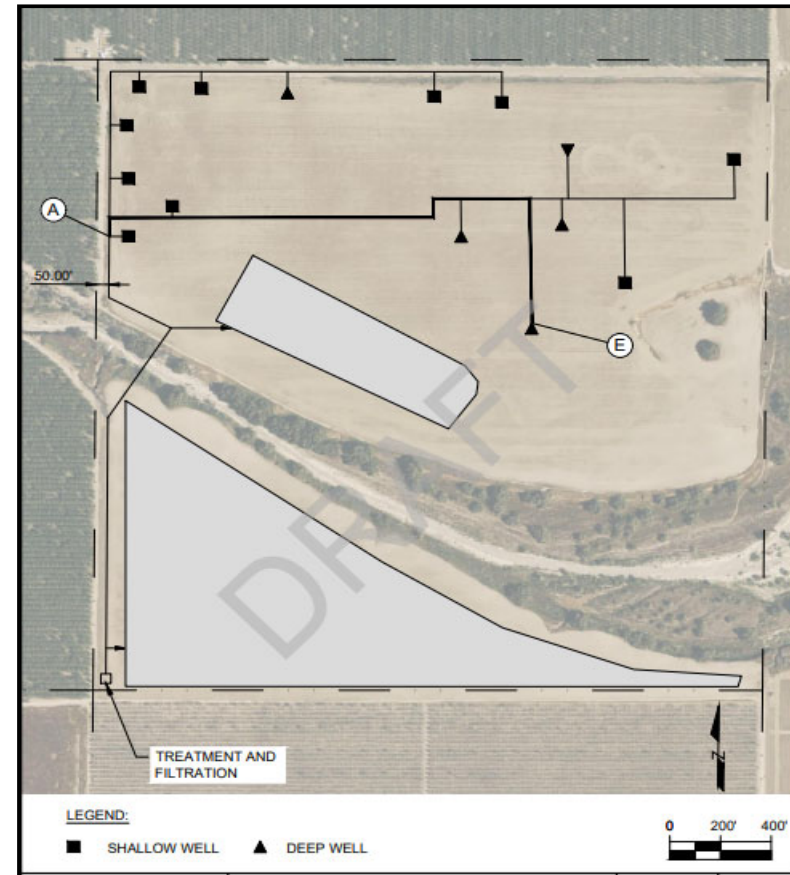
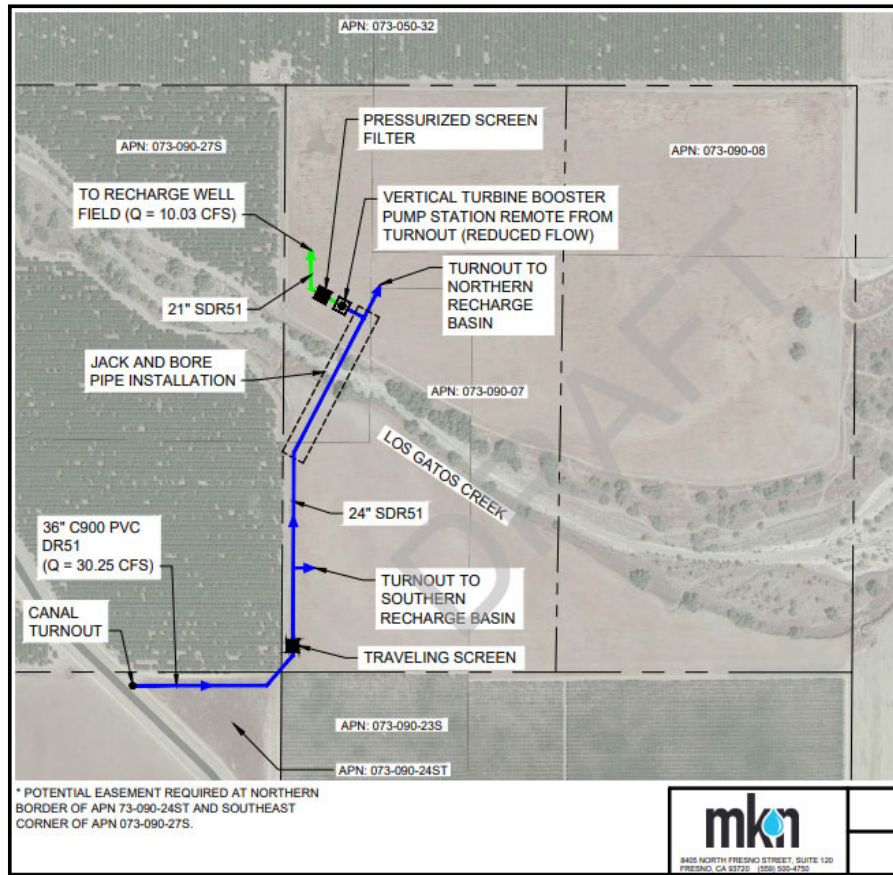
**Landowners with an outstanding Groundwater Allocation Application can submit the application no later than July 31, 2023.*

Grant Funded Meters

- WaterSMART Grant award of \$1.16M for 572 Meters and Advanced Meter Infrastructure (AMI)
 - Invoices were sent to Growers for Non-GWMP Wells
 - Grower cost up to \$2,700 per meter
- Grant funded meters available for Non-GWMP wells
 - WaterSMART Funded
 - Prop 68 Sustainable Groundwater Management Grant Program through DWR
 - Subject to grant terms and conditions

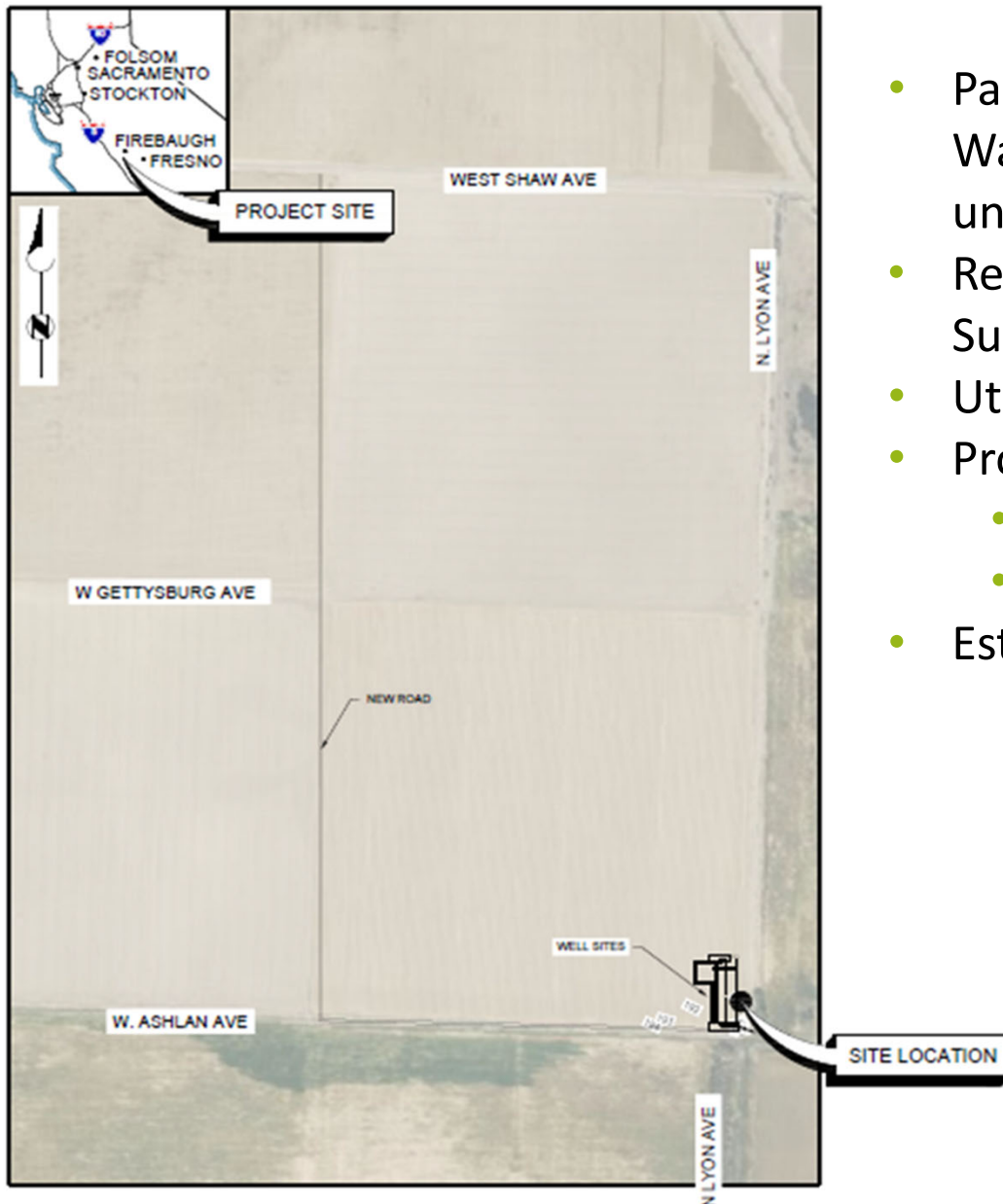


Pasajero Recharge Project



- Funded by the Sustainable Groundwater Management Grant Program under Prop 68
- Total recharge capacity of up to 10,800 AFY into the Westside Subbasin
- Phase 1: turnout, traveling screen, percolation basins, transmission pipeline
 - Project status: 100% design phase
 - Estimated completion date: April 2024
- Phase 2: pump station, pressurized filtration system, recharge wells
 - Project status and estimated completion date: TBD

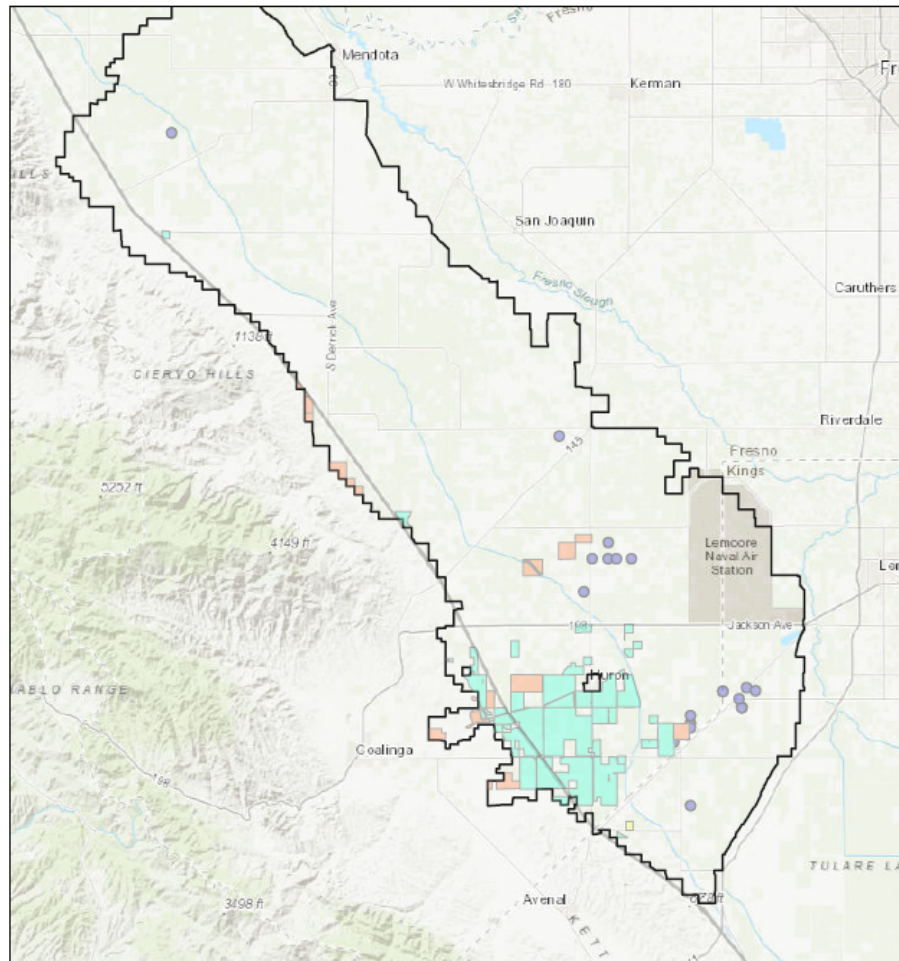
Broadview ASR Project



- Partially funded by the Integrated Regional Water Management Grant Program under Proposition 1
- Recharge up to 1,200 AFY into the Westside Subbasin
- Utilizes one ASR well; recharge only
- Project status:
 - ASR Well Drilling: In construction.
 - Above-ground: 90% design phase
- Estimated completion date: January 2024

Recharge Potential

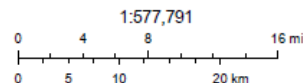
Recharge Projects in the Westside Subbasin



2/23/2023, 11:10:14 AM

Recharge Projects

- ASR
- Over Crop Irrigation
- Percolation Pond/Basin
- Sublateral/Tile Drain Recharge
- Westlands Water District Boundary



Esri, HERE, Garmin, USGS, NOAA, EPA, USDA, NPS

Westlands Water District

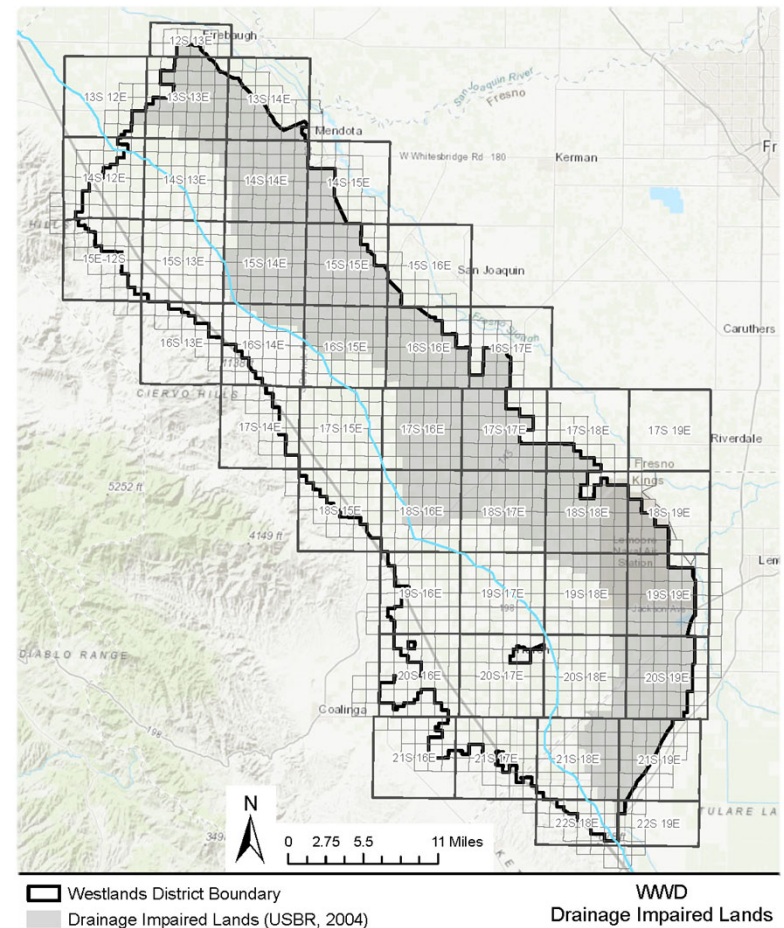
Esri, HERE, Garmin, USGS, NOAA, EPA, USDA, NPS | DWR: Northern Region, North Central Region, South Central Region, Southern Region, USBR |

- **Approved Recharge Projects within Westlands Water District = 54**
 - Twenty-Five (25) Aquifer Storage and Recovery Projects
 - Fourteen (14) Percolation Basins
 - Two (2) Sub-Lateral/Tile Drain Projects
 - Thirteen (13) Over-Irrigation Projects
- **Potential Recharge Capacity = 3,300 AF/Day**
- **Groundwater Credit Application**
 - Turnaround time = Two – Three Weeks
- **Expedited 2023 Application available online**
 - 13 Applications have been submitted

2023 Recharge Applications

- The Board of Directors approved an expedited, single-page [2023 Recharge Program Application](#) to take advantage of Section 215 water and/or flood flows
- Applications outside Drainage Impaired Lands are automatically approved upon submittal.
- Submission of an application does not obligate the water user to perform recharge and does not make them financially responsible for taking water

All water users are encouraged to apply.



Groundwater Sustainability Plan Update

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CALIFORNIA DEPARTMENT OF WATER RESOURCES
**SUSTAINABLE GROUNDWATER
MANAGEMENT OFFICE**
715 P Street | Sacramento, CA 95814 | P.O. Box 942836 | Sacramento, CA 94236-0001

March 2, 2023

Kiti Campbell
Westlands Water District GSA
P.O. Box 6056
Fresno, CA 93703
559-241-6226
kcampbell@westlandswater.org

RE: Westside Subbasin – Response to 2022 Incomplete Determinations

Dear Kiti Campbell,

The Department of Water Resources (Department) appreciates the resubmission of your groundwater sustainability plan (GSP or Plan) for evaluation and assessment, after and in response to the Department's January 2022 Incomplete Determination, consistent with the GSP Regulations under the Sustainable Groundwater Management Act (SGMA). This letter provides an update on the Department's evaluation and assessment of the revised and resubmitted Plan.

Department staff have substantially completed a review of the Plan covering the Subbasin. Department staff have indicated that they believe the GSAs have taken sufficient actions to address the previously identified deficiencies that precluded initial approval of the Plan, and that staff anticipate recommending approval of the Plan. However, Department staff are developing recommended corrective actions to further assist the GSA with implementation of the Plan and achieving basin sustainability goals. The final assessment will be provided to you and posted to the SGMA Portal as soon as practicable. In addition to fully documenting how the deficiencies that initially precluded approval were sufficiently addressed, the assessment will provide the GSAs with Recommended Corrective Actions the Department would like to see the Subbasin address in the upcoming Periodic Update by January 2025.

Additionally, the Subbasin should continue making progress towards its sustainability goal, including ongoing outreach to the beneficial uses and users in the subbasin, carrying out projects and management actions, filling data gaps, and providing timely information to the Department through your annual report submittals by April 1.

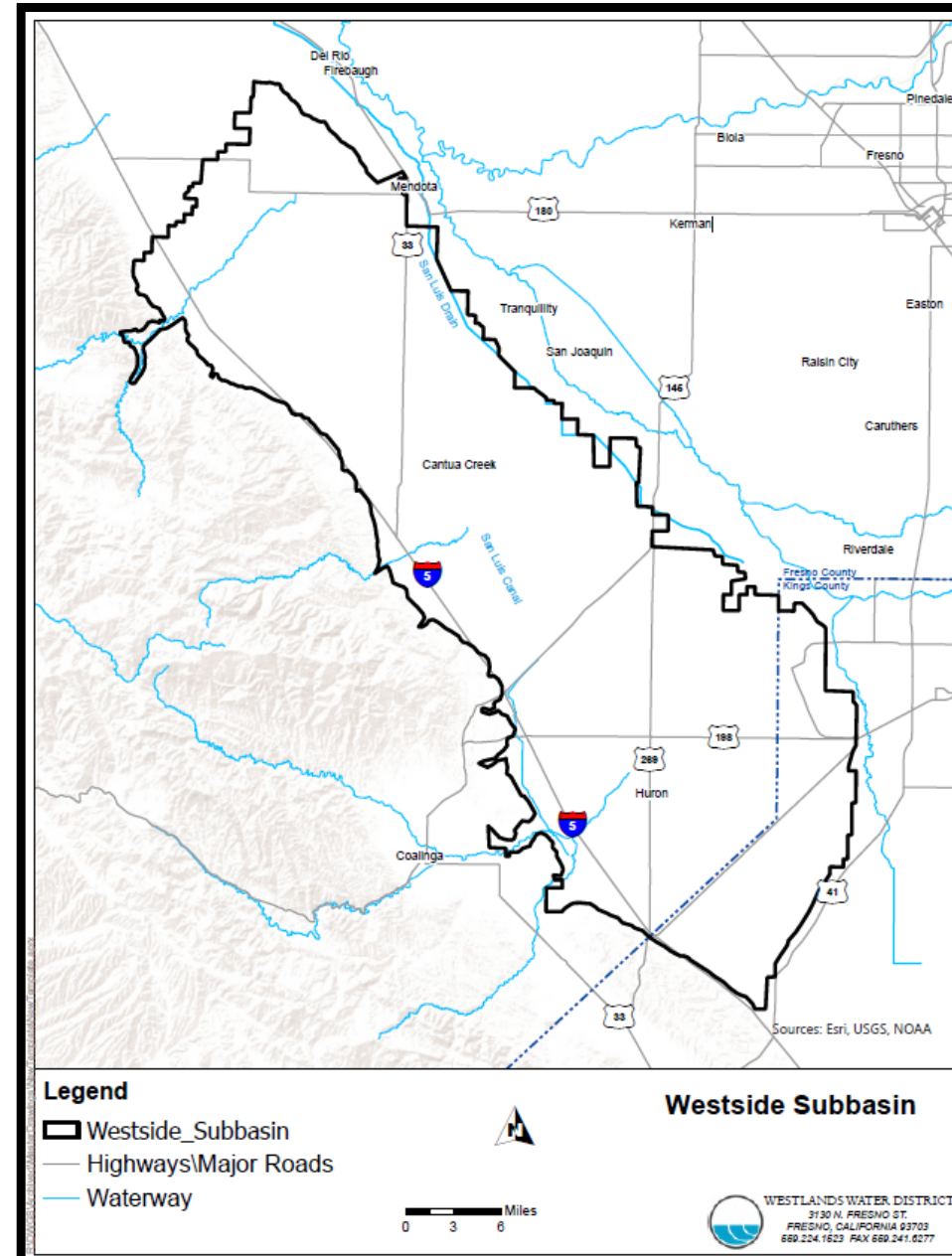
If you have any questions, please do not hesitate to contact the Sustainable Groundwater Management Office by emailing sgmps@water.ca.gov.

Thank you,

Paul Gosselin
Paul Gosselin
Deputy Director of Sustainable Groundwater Management

STATE OF CALIFORNIA | GAVIN NEWSOM, GOVERNOR | CALIFORNIA NATURAL RESOURCES AGENCY

- The District was one of six (6) critically over drafted Subbasins that the DWR recommended for approval.
- The District is expecting the official approval letter in April 2023.



Water Quality Coalition

- Submission Deadlines
 - Nitrogen report was Due March 1, 2023
 - Annual Member Outreach is Due July 31, 2023
- Common contributors of discharging into the Arroyo Pasajero, Cantua Creek or Panoche-Silver Creek
 - Pesticide application drift and/or runoff
 - Irrigation tailwater runoff
 - Irrigation system breaks or malfunctions



Water Quality Coalition

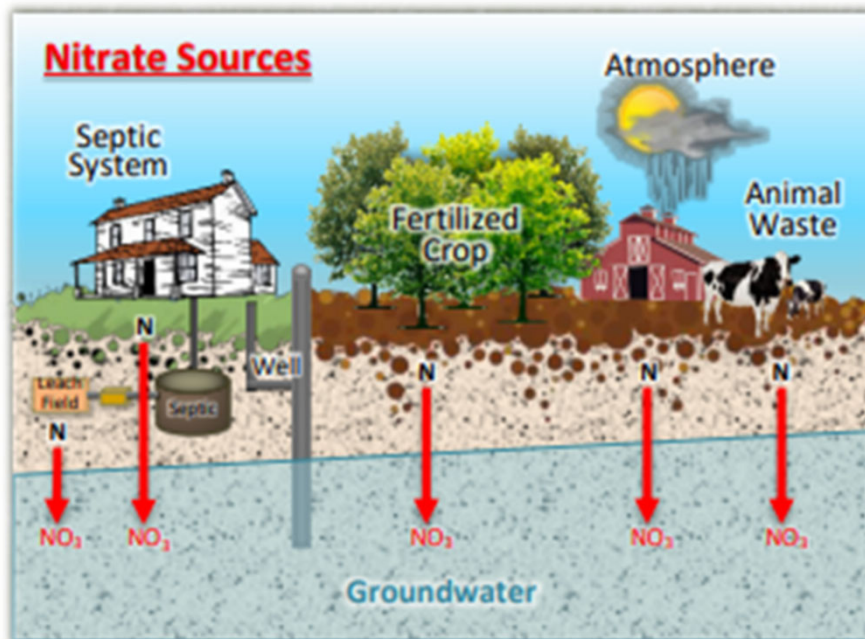
- Discharge to Groundwater Wells
 - Discharge of any kind into groundwater wells is strictly prohibited
 - This includes filter station backflush water, motor cooling water, or any other discharges
- Proper Wellhead Maintenance
 - All district wells must be properly maintained to prevent inflow of water, chemicals, sediment, etc.
 - Abandoned wells must be covered to prevent water from entering, while still allowing District staff to gather groundwater readings.



Drinking Water Wells & Groundwater Protection Program

- Domestic Well Testing

- Coalition Members who have domestic wells are required to test wells for nitrate and submit results to the Regional Board



- GW Protection Program

- Calculates Irrigated Agriculture's impact on drinking water quality and establishes Targets to mitigate nitrogen loading.
- GW Targets have been submitted to Regional Board for each Township throughout the Central Valley. Targets are expected to be approved this year



Westlands Water District



OPERATIONS & MAINTENANCE DIVISION

January Storms

- Overall, District Facilities Sustained Minor Damage
- There Are Several Creeks That Flow Into The District
- The Panoche Creek Alone Crosses 12 District Pipelines
- The Damage We Sustained Was...
 - 15" AC Pipe On 22R Washed Out By The Arroyo Pasajero Creek
 - A Section Of The 15R Mainline Was Exposed
 - Minor Flooding Of The 28R-A Pumping Plant

Creek Crossing at 1R-7.0 Mainline Video



Creek Crossing at 2R-4.7 Mainline Video



15R Mainline Exposed



USA Requests

- Call or click 811 before you dig
 - This is a Toll-Free call
- Mark your excavation area with white paint
- Allow two working days for all utilities to mark their facilities
- If you are unsure about any marking, call the utility

Equipment and Concrete Pads Near Facilities



Temporary Equipment



WWD Facility Awareness



Water User Pipeline Conflicts



Ongoing Distribution System Maintenance



- District Staff is responsible for the maintenance and repair of...
 - All Water Meters (3,000+)
 - Various Valves – Subline, Division, Ground, Air Release, Etc. (3,400+)
 - 377 Pumps and Motors
 - 66 Traveling Water Screens
 - 94 Pumping Plants
 - 45 Air Chamber Tanks and Compressors
 - 16 Reservoirs and 39 Regulating Tanks
 - Over 1,000 Miles of Pipeline

Traveling Water Screens



Damaged Screens



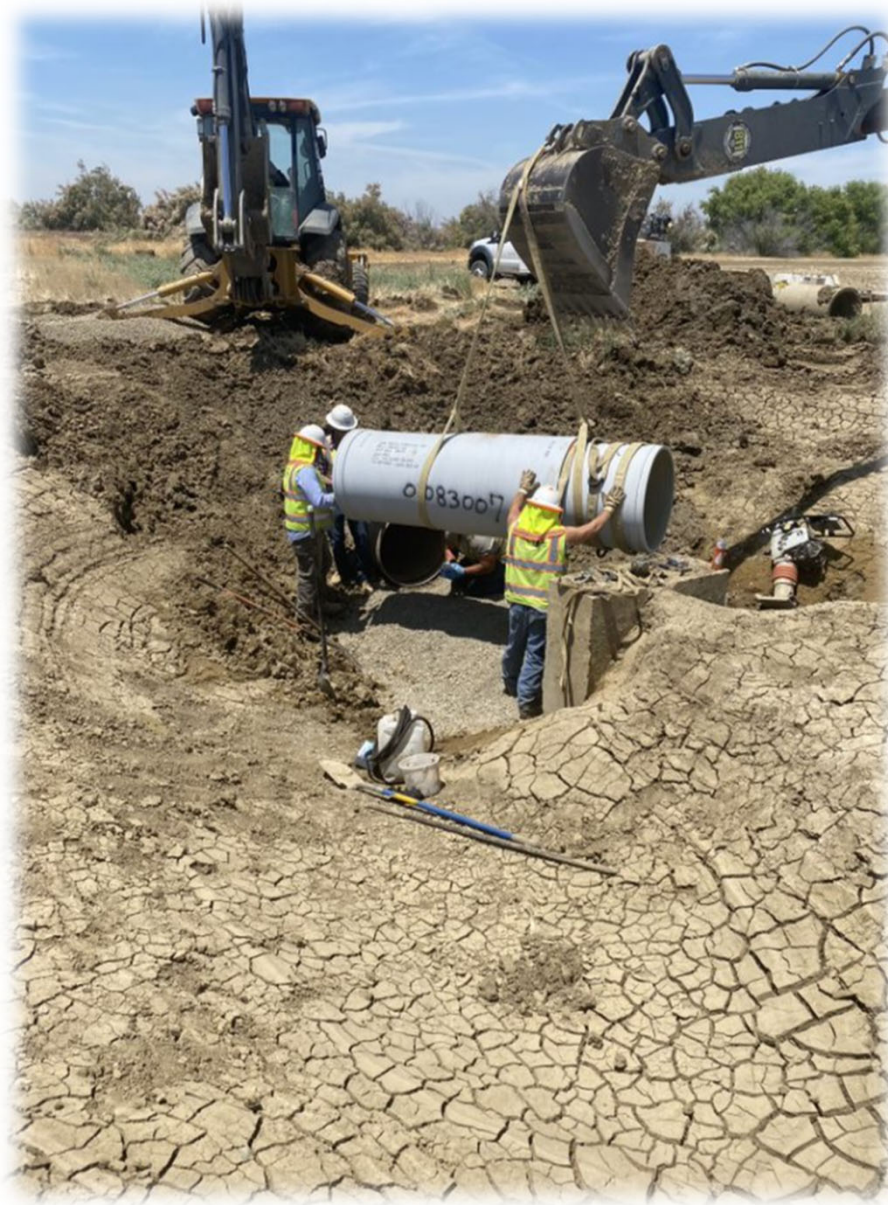
Ground Valve Repairs



24" RPM Pipe Failure on the 1R Mainline



Pipe Repairs // 30" RPM on Lateral 33L



39" PT Pipe Failure on 7R



The Occasional Meter Damage



Motor Control Center Equipment



Pump Motors



- This motor suffered damage from overheating due to a contactor failure.
- The cost was over \$20K in repairs... Just for the motor!
- There were an additional \$20K+ in repairs to the motor control center equipment in the previous slide 1 #

Quinquennial Shutdown Schedule



- Each Lateral or Pumping Plant is on a 5-Year Schedule
- It is Included in the February Notice To Water Users
 - Notice is also available on the District website
- Please review this schedule
- District staff invests numerous hours developing this schedule
- Shutdowns involve other agencies and municipalities
 - Department of Water Resources
 - PG&E
- If there are conflicts, notify District staff ASAP
- Staff will do their best to accommodate Water Users

The 5-Year Scheduled Shutdowns Allows for...

- Silt removal from tanks
- "Deep Dive" Inspection of facilities while drained
- Completion of deferred work to minimize interruptions of water deliveries
- Scheduling of large and / or complex work



Groundwater Well Metering Project



- District staff is finalizing the installation of District owned meters on ground wells
- Your cooperation & coordination is essential
- Staff has contacted well owners that still need to modify their well discharge.
- Three diameters of straight run upstream and two diameters downstream of the meter with **NO** upstream connections

Groundwater Well Meters

- Wiring is for District AML connections
- There is a 4-20ma output available

PLEASE, PLEASE, PLEASE...
do not modify

**Call District Staff if you would
like access**



Groundwater Well Meters

Rubber Covers on Meter Register provide impact resistance and UV protection for the digital display.



Automated Meter Infrastructure (AMI)



Westlands

- AMI work has begun for all ground wells
- These data collectors or "Nodes" will be installed soon
- Data will be available to water users

O-ring sealed thermoplastic enclosure, coated electronic board and potting compound provide a watertight package to prevent moisture intrusion

Besides consumption data, alerts such as leak detection, no flow, reverse flow, register removal, low battery alarm and more, are constantly monitored



O&M DIVISION

THANK YOU!



Westlands Water District



Public Affairs: 2022 Summary of Activities





THOUGHT LEADER ENGAGEMENT



The Milken Institute- Policy Accelerator



Sharing the Cost: Accelerating Water Resilience through Infrastructure Finance in California

- Report released November 2022
- Identifies Federal, State and Local Policy Barriers
- Proposes 3 solutions:
 1. Establish a Centralized Agricultural Water Infrastructure Center for Excellence
 2. Create New Credit-Enhancement Tools and Adjust or Expand Existing Programs to Increase Project Funding
 3. Create a Development Project Delivery Ecosystem More Welcoming to Public-Private Partnerships



milkeninstitute.org/report/water-resilience-california-finance-infrastructure

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Capturing stormwater to deal with California's drought is complicated

Lily Jamali | Jan 13, 2023

Heard on: MARKETPLACE MORNING REPORT

▶ LISTEN NOW



Rain falls as the Los Angeles River flows at a strong rate on Jan. 9, 2023 in Los Angeles, California.
Mario Tama/Getty Images

Our weekly "Econ Extra Credit" newsletter is an unexpected way to learn about the economy, one documentary film at a time. Sign up to watch, and learn, with us.

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Californians are still recovering from the wave of powerful storms that swept through the state over the last two weeks – even as they prepare for more.

But despite the massive rainfall, the U.S. Drought Monitor says most of California remains in a state of extreme or severe drought. That's reigniting a long-running debate about how California captures and stores water.

The reality of climate change is now on display in the state not just during peak fire season, but year-round. The recent storms are the latest example of what scientists are calling "weather whiplash".

PIPLE PUNDIT { THE BUSINESS ... }

ENERGY & ENVIRONMENT



Researchers Propose a Plan for California's Water

Words by Kate Zimmerman



Water in the American West is making the news once again. This time, in a nail-biter of a deadline for water cuts from the highly stressed Colorado River, six states [agreed to reduce withdrawals](#). California, which uses the most water from the river, followed up with its own [a day later](#). But in light of the multi-year drought and recent torrential rains and atmospheric rivers in the state, water remains a constant stressor.

Despite the [32 trillion gallons of water](#) the recent storms dumped on the state, California [remains in drought](#) — albeit a much less severe one compared to a few months ago. But it's temporary reprieve at best. The state will continue to need to cut its water consumption on demand given the impacts of climate change. Further, the intensity of the rainfall indicates another instance of the severity of climate impacts on the state: wetter wet periods and drier dry spells.

Infrastructure woes compound California's water troubles

On top of the climate impacts, California's [water infrastructure](#) is dire need of an upgrade. It matters for many reasons, not least of which is the fact that the state is the [leader in agency output](#). It's that sector which will likely get [hit the hardest](#) with conservation measures w they come.

Additional Thought Leader Engagement

- Participated in Columbia Water Center's 2022 Rethinking Water conference
 - Delivered presentation titled, "Drought in the West: The Failure of Agriculture?"
- RAND Report: Growing Toward a Low-Carbon Future
- Hosted introductory meetings with several think tanks to explore opportunities for Westlands to engage with thought leaders in the water, food security and climate resiliency spaces



Keynote Speakers



Cartwright, Deputy General
Manager – External Affairs, Westlands
District



Seth M. Siegel, Serial Entrepreneur,
Water Activist, and New York Times
Bestselling Author



PUBLIC AFFAIRS

Media



Westlands

- Media Inquires
 - National, International, Spanish
- Press Releases
- Interviews
- Op-Eds



Social Media



Westlands

Instagram

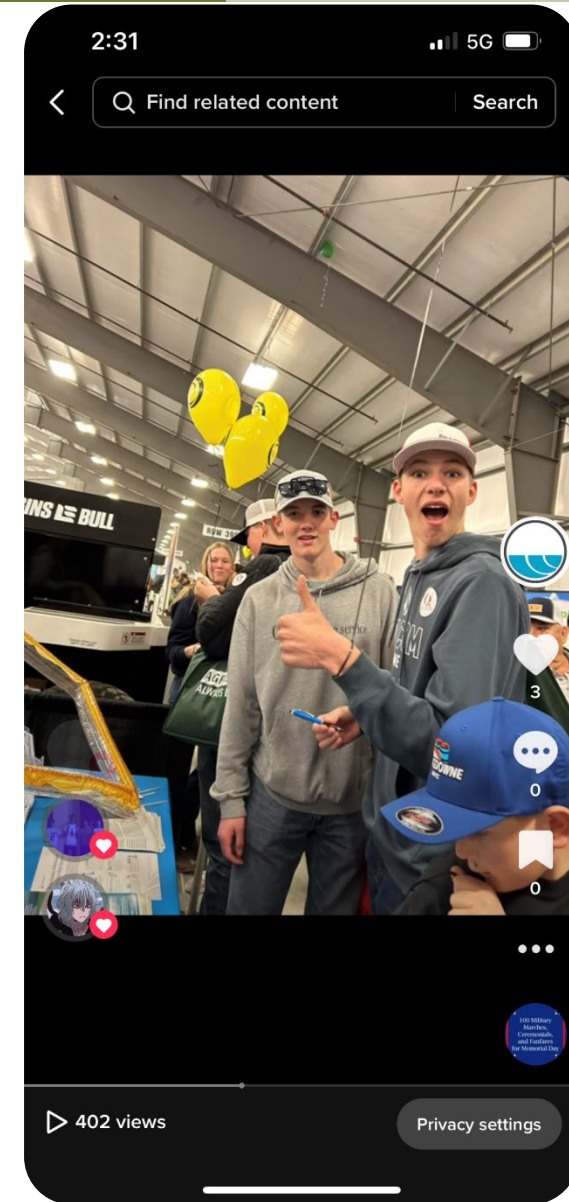
Facebook

Twitter

LinkedIn

YouTube

Tiktok



Communications



Westlands

- Water User Calls
- Notices
- Project Operations Updates
- Collateral Development
- Branding
- Website
 - Update in 2023



Community Outreach



Tours



Presentations



Scholarships



Interns



Food
Distributions



Collaboration





QUESTIONS?