



Water Supply Report and Drought Action Plan

Board of Directors

January 19, 2021



Introduction

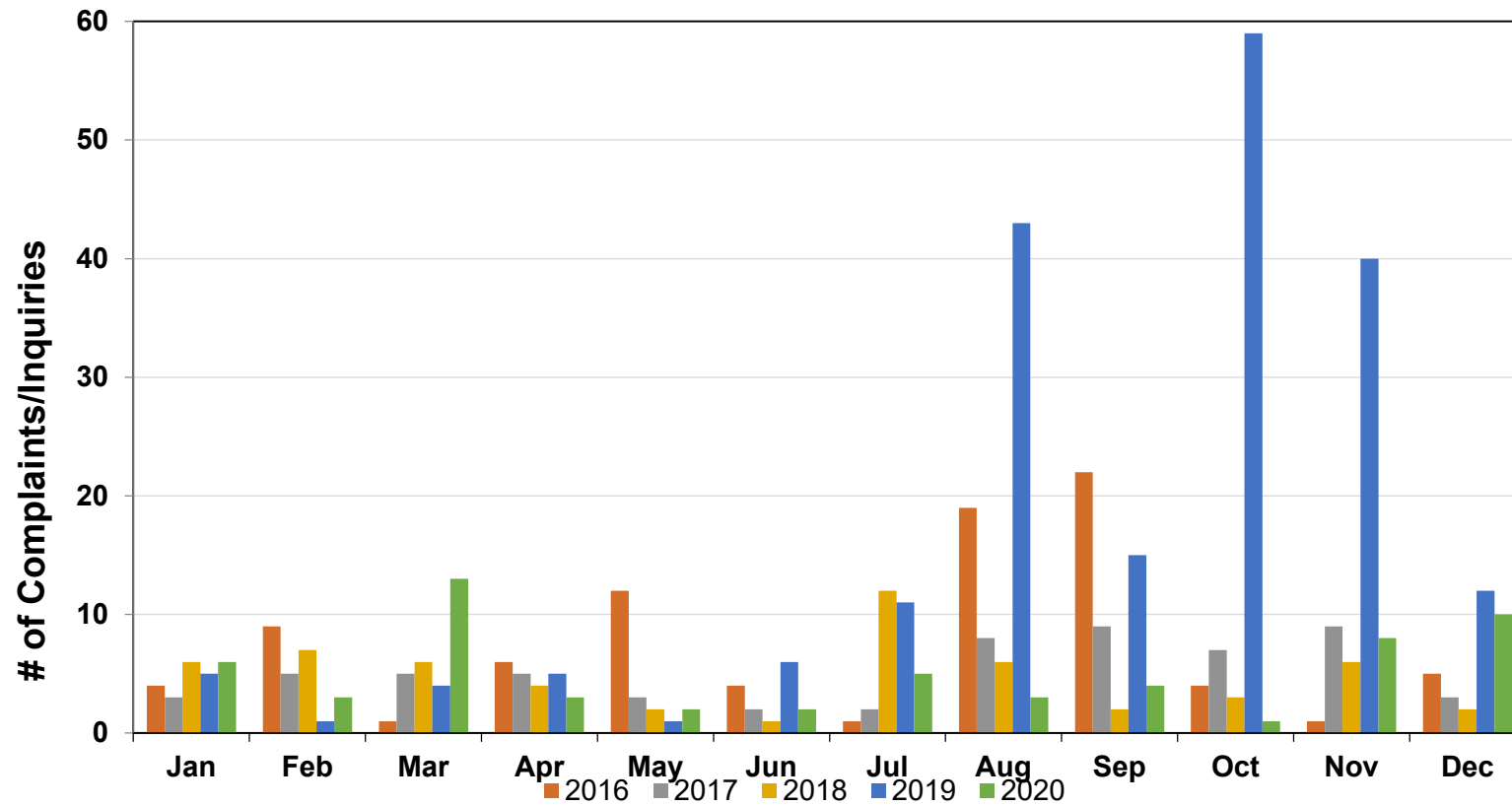
- Water Supply report for December 2020
- Storage Projections
- Drought Action Plan:
 - Operational activities
 - Conservation and Outreach



Water Supply Report For December 2020

Storage
Production
Current Storage
Projections

Taste and Odor - Customer Inquiries

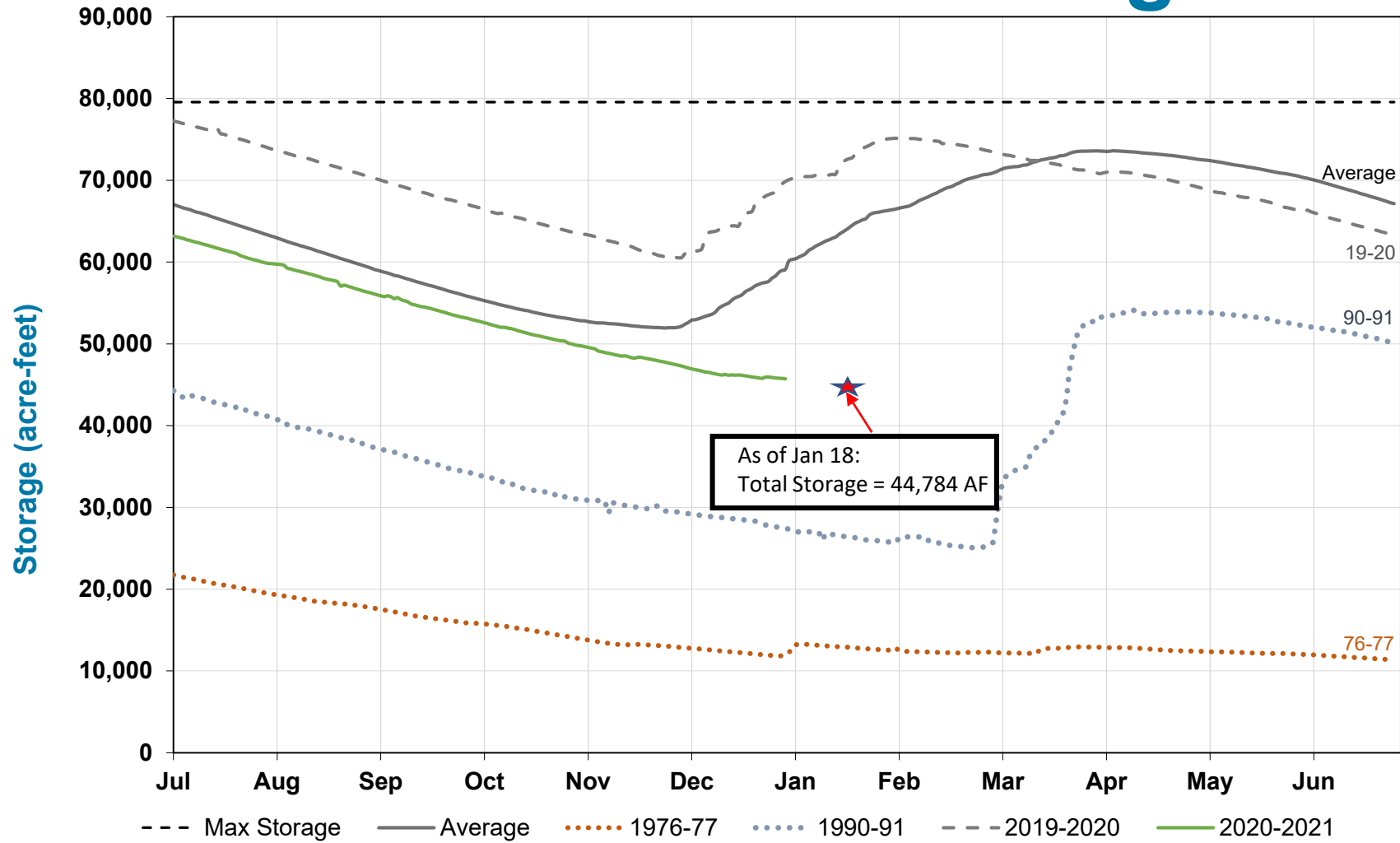


MMWD Reservoir Storage

Reservoir	Total Capacity (AF)	Water Level From Spillway (feet down)	Storage (AF)	Percent of Total Capacity
Alpine	8891	19.4	5318	59.8%
Bon Tempe	4,017	7.4	3144	78.3%
Kent	32,895	31.2	20,822	63.3%
Nicasio	22,430	20	9,716	43.3%
Lagunitas	350	0	350	100%
Phoenix	411	1.75	380	92.5%
Soulajule	10,572	17.7	5,988	56.6%
Total	79,566	N/A	45,718	57.5%
Historical Average Storage This Date			60,013	N/A
Historical Percent of Total Storage This Date			75.4 %	N/A
Percent of Average Storage This Date			76 %	N/A

As of Jan 18, 2021 - Total Storage = 44,784 AF / Percent Average Storage = 70.3%

Total Reservoir Storage

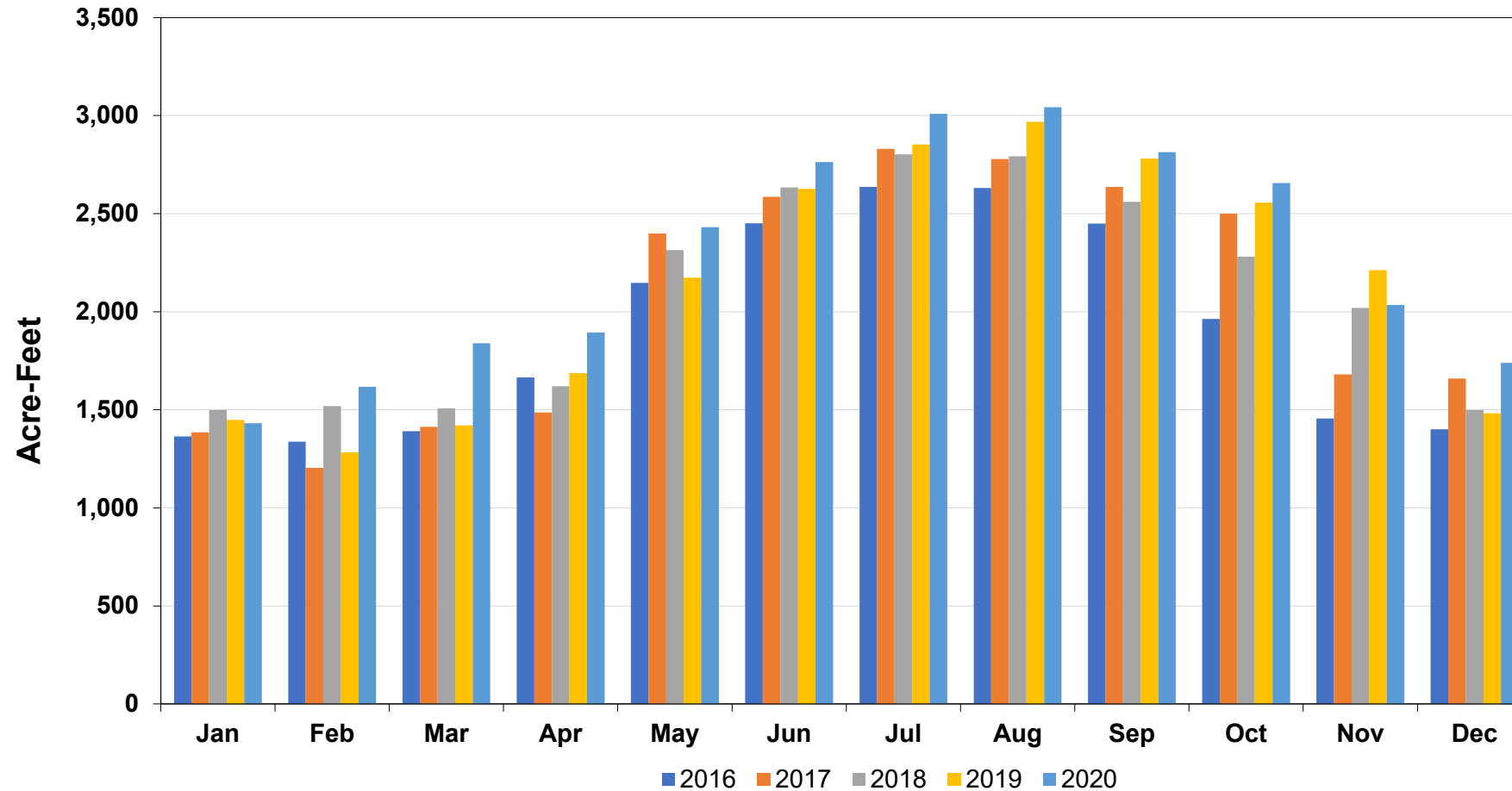


Monthly Water Production

Total Potable Water Production						
Month	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Jul	2,287	2,636	2,830	2,802	2,853	3,008
Aug	2,369	2,630	2,778	2,792	2,968	3,043
Sep	2,239	2,449	2,637	2,561	2,781	2,813
Oct	2,148	1,963	2,499	2,281	2,555	2,655
Nov	1,628	1,455	1,681	2,019	2,212	2,035
Dec	1,429	1,400	1,659	1,499	1,482	1,739
Total YTD	12,100	12,535	14,084	13,953	14,851	15,294

Imported Water Production						
Month	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Jul	364	390	364	374	545	663
Aug	355	378	532	382	543	600
Sep	378	360	543	366	548	505
Oct	380	361	457	371	400	527
Nov	329	341	225	368	202	598
Dec	376	308	193	369	194	734
Total YTD	2,182	2,138	2,313	2,230	2,432	3,628

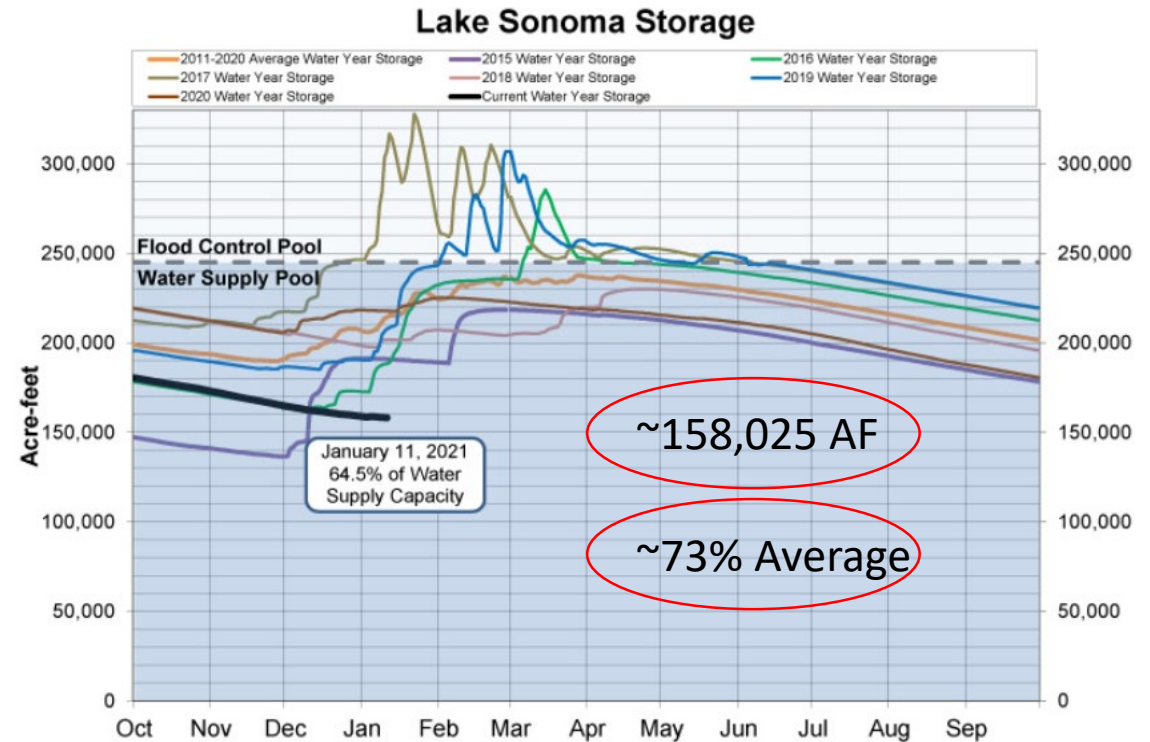
Monthly Potable Water Production



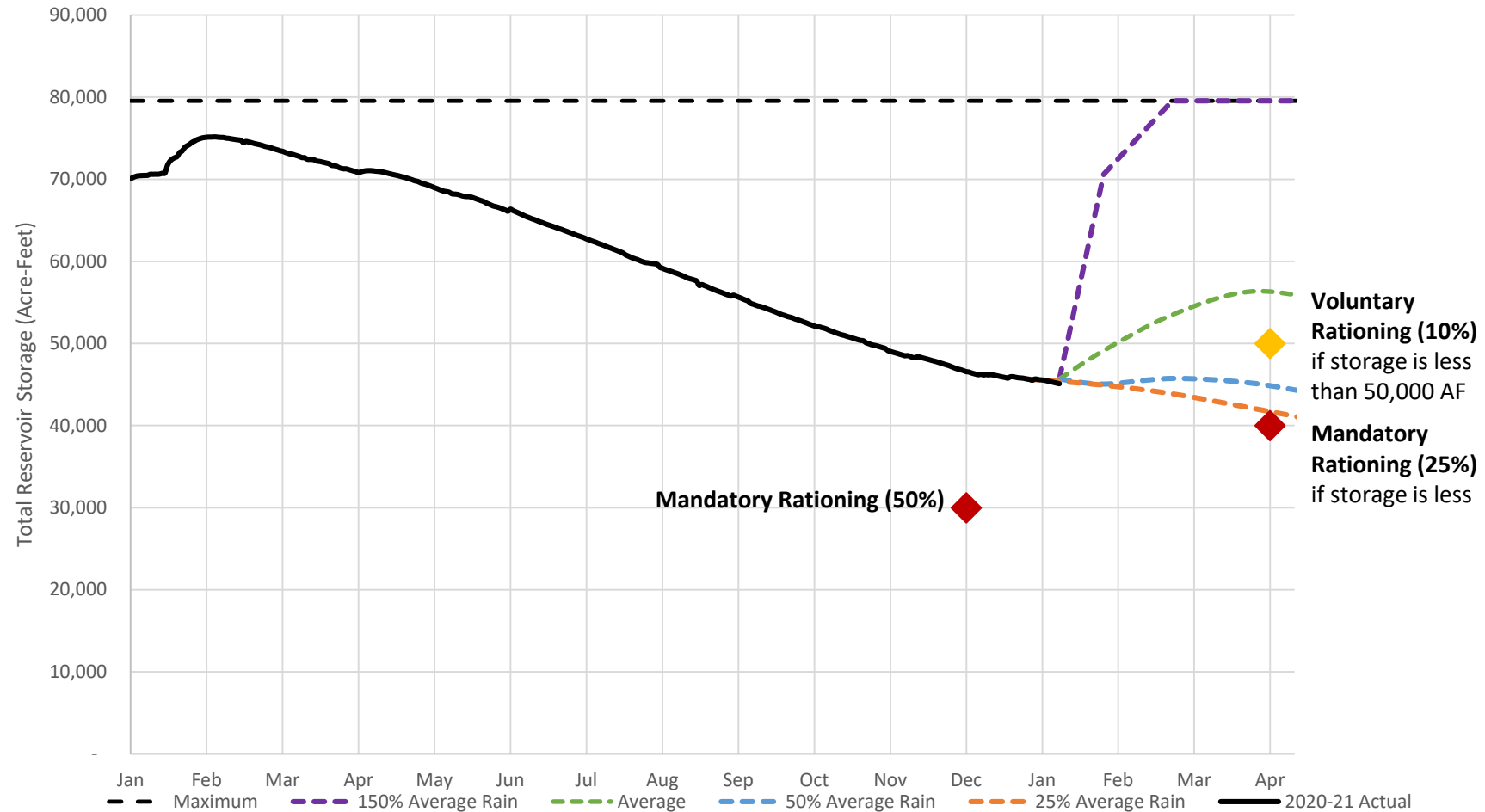
Current Storage Levels

Marin Water Storage 1-18-21

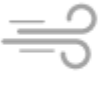









	Current Storage [AF]	Maximum Storage [AF]	Percent of Maximum Storage	Percent of Average Storage
Alpine	4,791	8,891	53.9%	--
Bon Tempe	3,763	4,017	93.7%	--
Kent	20,331	32,895	61.8%	--
Lagunitas	350	350	100%	--
Nicasio	9,551	22,430	42.6%	--
Phoenix	402	411	97.8%	--
Soulajule	5,596	10,572	52.9%	--
Total	44,784	79,566	56.3%	70.3%



Projected Reservoir Storage - Jan 2020



10-Day Outlook

Tue 1/19	Wed 1/20	Thu 1/21	Fri 1/22	Sat 1/23	Sun 1/24	Mon 1/25	Tue 1/26	Wed 1/27	Thu 1/28
65° 45°F	66° 41°F	59° 46°F	54° 42°F	58° 41°F	54° 42°F	53° 40°F	52° 42°F	55° 41°F	56° 44°F
									
Sunny/Wind	Sunny	Partly Cloudy	Showers	Mostly Sunny	Rain	Partly Cloudy	Showers	Rain	Showers
0 in	0 in	0.03 in	0.07 in	0 in	0.2 in	0.01 in	1.59 in	1 in	0.29 in

- Rain as early as Sunday
- More to follow towards the end of the month

Drought Action Plan

Operational Actions

Conservation

Communication

Operational Actions

- Maximize Supplemental Water
 - Up to 3,000 AF additional by Dec 31
 - Treatment plants at ultra low flow
 - BTTP at 1-MGD, SGTP at 4.5-MGD
 - System reconfiguration
 - “Makes room” for supplemental water
- Backfill of Stafford
 - Pipeline gravity capacity fully utilized with system reconfiguration
 - Therefore, filling Stafford not possible nor needed



Operational Actions

- Pumping Soulaajule
- March – July
 - Generator rental & fueling
 - Regulatory collaboration



Operational Actions

- Phoenix Lake
 - Typically ~150 AF
 - High traffic area
 - Important visual



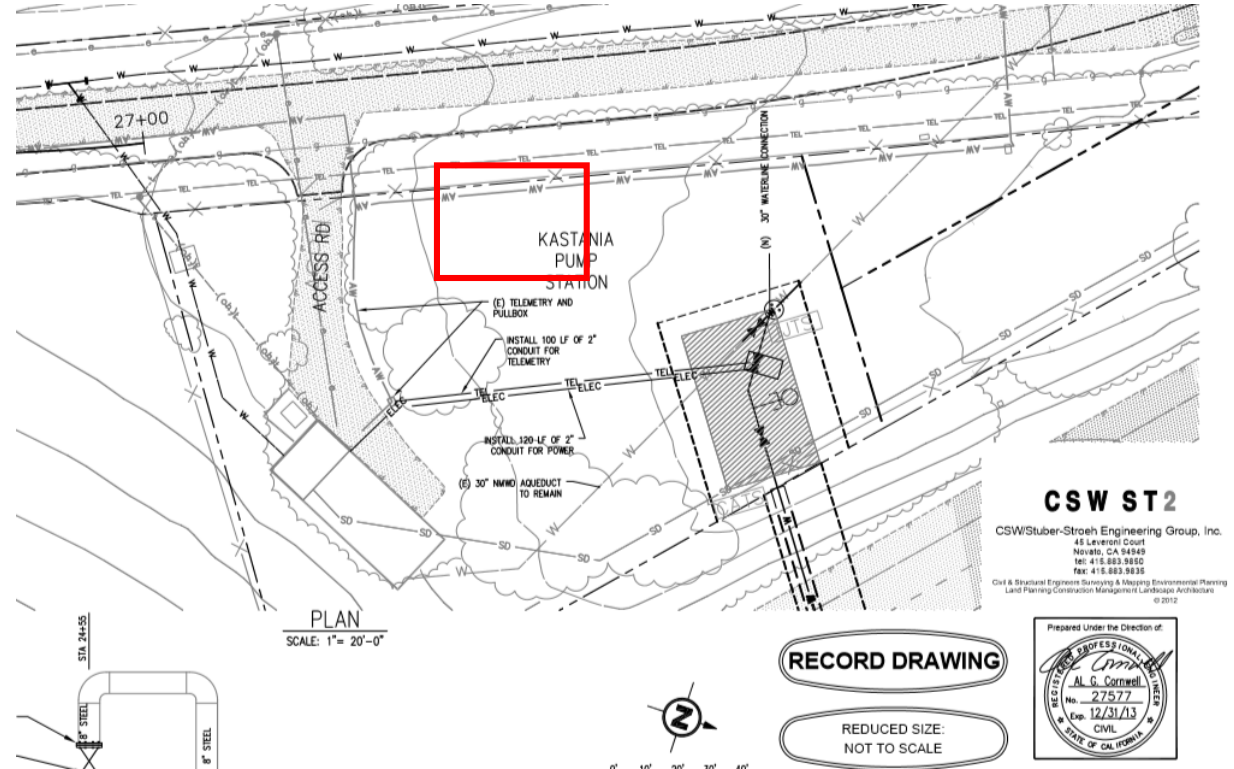
Operational Actions Continued

- Temporary Urgency Change Petition
 - Kent stream release
 - Requires up to 10,000 AFY
 - Feasibility
 - SWRCB Order
 - CDF&W/NMFS - Environmental considerations



Operational Actions Continued

- Kastania Pump Station Rehab
 - Potential for ~350AF/Month
 - Condition assessment (May 2021)
 - CEQA
 - Civil/Mechanical work



Operational Actions Continued

- Water System Flushing
 - Annual flushing of mains suspended
- Leak Detection
 - Assess potential backlog



Conservation Drought Response

Actions Underway
Short Term Actions
Long Term Actions

Actions Underway

- Initiate campaign to acknowledge lack of rainfall
- Conservation Counts Campaign
 - Promoting watering restrictions and water saving actions
- Coordinating dry winter messaging with Sonoma Marin Saving Water Partnership and North Marin Water District
- Incentives
 - Coordinate with Communications to incorporate rebates into public messaging

Short Term Action

Call for Voluntary Reduction

- Compliance with District water waste prohibition codes
- Increase Weekly Watering Schedule marketing, including watering day and time restrictions
- Hose-end shut-off nozzles are required on all garden and utility hoses
- Prepare for increase water waste reporting
 - Update reporting, tracking and response
- Collaborate with Communications with tips, fact sheets, and technical support
- Prepare for additional restrictions pending water supply conditions

Additional Prohibitions - Landscaping

- Landscape irrigation between the hours of 9:00 a.m. and 7:00 p.m. is prohibited
- Irrigating ornamental landscape areas or turf areas on more than three days per week is prohibited
- Irrigating ornamental turf on public street medians is prohibited
- Irrigation shall not cause run off or overspray
- Irrigating outdoors during, and within 48 hours after, of at least $\frac{1}{4}$ " rainfall is prohibited.



Additional Prohibitions - Restaurant and Lodging

- Drinking water served upon request only
- Lodging establishments must provide patrons the option of not having towels and linen laundered daily.



Other Prohibitions

- **Pool covers** are required for new outdoor swimming pools.
- **Non-recycling decorative water fountains** are prohibited.
- **Prohibit washing sidewalks, walkways, driveways**, parking lots, and all other hard-surfaced areas by direct hosing, except public health and safety.
- **Repair leaks within 48 hours** of notification or discovery.
- New connections may not install **single pass cooling systems** for air conditioning unless required for health or safety reasons.
- New connections **may not install non-recirculating carwash** applications.
- Prohibit installation of **reverse osmosis water purifying systems** not equipped with an automatic shutoff unit.

Long Term Actions

Mandatory Restrictions

- Increasing enforcement of prohibitions
- Limiting non essential uses (power-washing, pool filling, etc)
- Progressing to escalated landscape restrictions based on water supply conditions

Communications Response

Website

Social Media Messaging

Customer Communications

Next-level Communications Outreach

Website Communications

- Homepage content with high priority
- Created a new landing page with drought-related conservation messaging
- Online resources include:
 - Indoor and outdoor conservation tips
 - Information on reporting water waste
 - Water conservation brochures
 - Links to Water Watch and reservoir storage levels
 - Contact information



Dealing with Drought Conditions

< Your Water

Water Conservation

Dealing with Drought Conditions

[Rebates and Programs](#)

[Landscape Plan Review](#)

[Gardening Resources](#)

[Water Quality](#)

[Water Supply](#)

[For Businesses](#)

[Water Watch](#)



Conservation is Key in Dealing with Drought Conditions

It's been an unusually dry year, and the warmer and drier weather has created drought conditions throughout much of California. These unusually dry conditions have resulted in our water supply level running about 20 percent below average for this time of year.

With the uncertainty of what weather the winter months will bring, we are asking all of our customers to help us conserve water now. Making some smart and simple adjustments to your daily routine will go a long way in saving water to ensure we have an ample supply to see us through the drier periods ahead.

These simple tips to use inside your home will amount to big water-saving wins:

- Turn off the water when brushing your teeth
- Take shorter showers
- Fix any leaky toilets or faucets
- Only run your washing machine or dishwasher when you have a full load
- Replace older appliances with newer, water-efficient models

Outdoor Conservation Tips to Save Water and Money

During cooler months, be sure to adjust your irrigation system. Reduce your watering times, and turn off your system when it rains. With shorter daylight hours, your plants and flowers need far less water to thrive.

Contact Info

Water Conservation
[Ph: 415.945.1523](tel:415.945.1523)
[Email](#)

Quick Links

[Water Watch](#)

Social Media

- Conservation messaging across all platforms
- Video posts to draw greater engagement
- Specific indoor and outdoor water-saving tips
- Education about our water code and water-efficiency programs



Marin Water

4h · 🌐



With the dry weather creating drought conditions, it's time to rethink how you use your water. Small changes in your daily routine will make a big difference in making sure we have enough water to see us through these drier periods. Taking shorter showers, turning off the water when brushing your teeth, and washing dishes and laundry only when you have a full load are all water-saving moves. Ready to go big? Now is the perfect time to trade your thirsty lawn for drought resilient landscaping to save water, and save money with our rebates. Learn more at MarinWater.org/conserve [#ConservationCounts](#)



2

3 Shares

Customer Communications

- All customer newsletters contain a conservation message
- All customer newsletters contain water supply storage levels, with current level, levels for the same time last year, and historical averages for greater context



January/February 2021

CONSERVATION DURING DROUGHT CONDITIONS

It's been an unusually dry year, and the warmer and drier weather has created drought conditions throughout much of California. While the district is not in a declared drought, these unusually dry conditions have resulted in our water supply level running about 20% below average for this time of year.

With the uncertainty of what weather the winter months will bring, we are asking all of our customers to help us conserve water. Making some smart and simple adjustments to your daily routine will make a big difference in saving water. Saving water today ensures we have

an adequate supply, should there be dry weather ahead.

Taking shorter showers, turning off the water while brushing your teeth, and running your dishwasher and doing laundry only when you have a full load are all water-saving moves. Fixing leaking toilets and faucets will save water, and save you money.

With shorter daylight hours, your plants and garden need far less water. Reducing irrigation times and turning off your system several days a week will make a big difference.

Perhaps the best water-saving move you can make is trading in your

thirsty lawn for low-maintenance gorgeous landscaping with colorful blooms that require less water and less time. Marin Water offers rebates of \$1 for every square foot of lawn replaced. If you replace at least 500-square-feet of lawn, you can choose to have free mulching material and an irrigation conversion kit delivered directly to your home. You can learn more about these programs and all of our rebates at MarinWater.org/rebates.

Need some help? Contact us at Conservation@MarinWater.org or call us at 415.945.1523 to schedule a free phone assessment.

Next-level Communications

- Expanded communications and media campaign
- Community partnerships
- Digital and mainstream advertising
- Customer conservation kits to include required nozzles; messaging reminders for indoor and outdoor use; messaging with any mandatory requirements; educational resources
- Virtual workshops and community conversations



Summary: Next Steps

Assuming dry conditions hold:

- Resolution to the Board in February for Stage 1 voluntary conservation actions.
- Close monitoring of weather.
- Continue work on supply projects.
- Regular updates.