

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)





# It's drive-it-dirty time. Marin Water's Drought Response

October 8, 2021

It's fix-it-when-  
you-find-it time.

Drought is here. Save water.



It's  
full-baskets-only  
time.

Drought is here. Save water.



It's  
drive-it-dirty  
time.

Drought is here. Save water.



It's  
every-drop-counts  
time.

Drought is here. Save water.



# Marin Water Overview

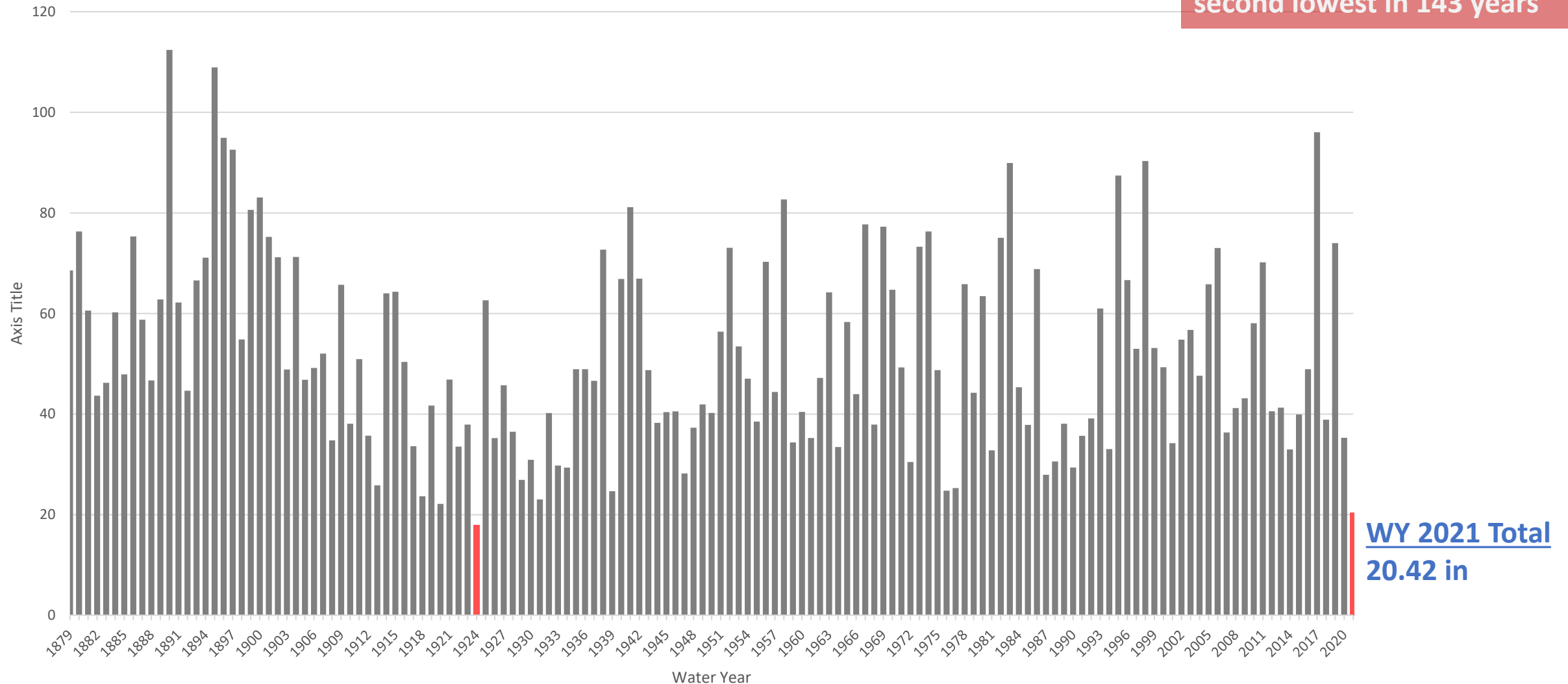
- 100% Locally Sourced Water:
  - 75% from reservoirs on Mt. Tamalpais and in west Marin
  - 25% from Sonoma County's Russian River water system
- California's oldest municipal water district (Chartered in 1912)
- Marin County's largest drinking water provider, serving more than 191,000 people in central and southern Marin
- Protecting and preserving 22,000 acres of watershed land on Mt. Tamalapias and in west Marin



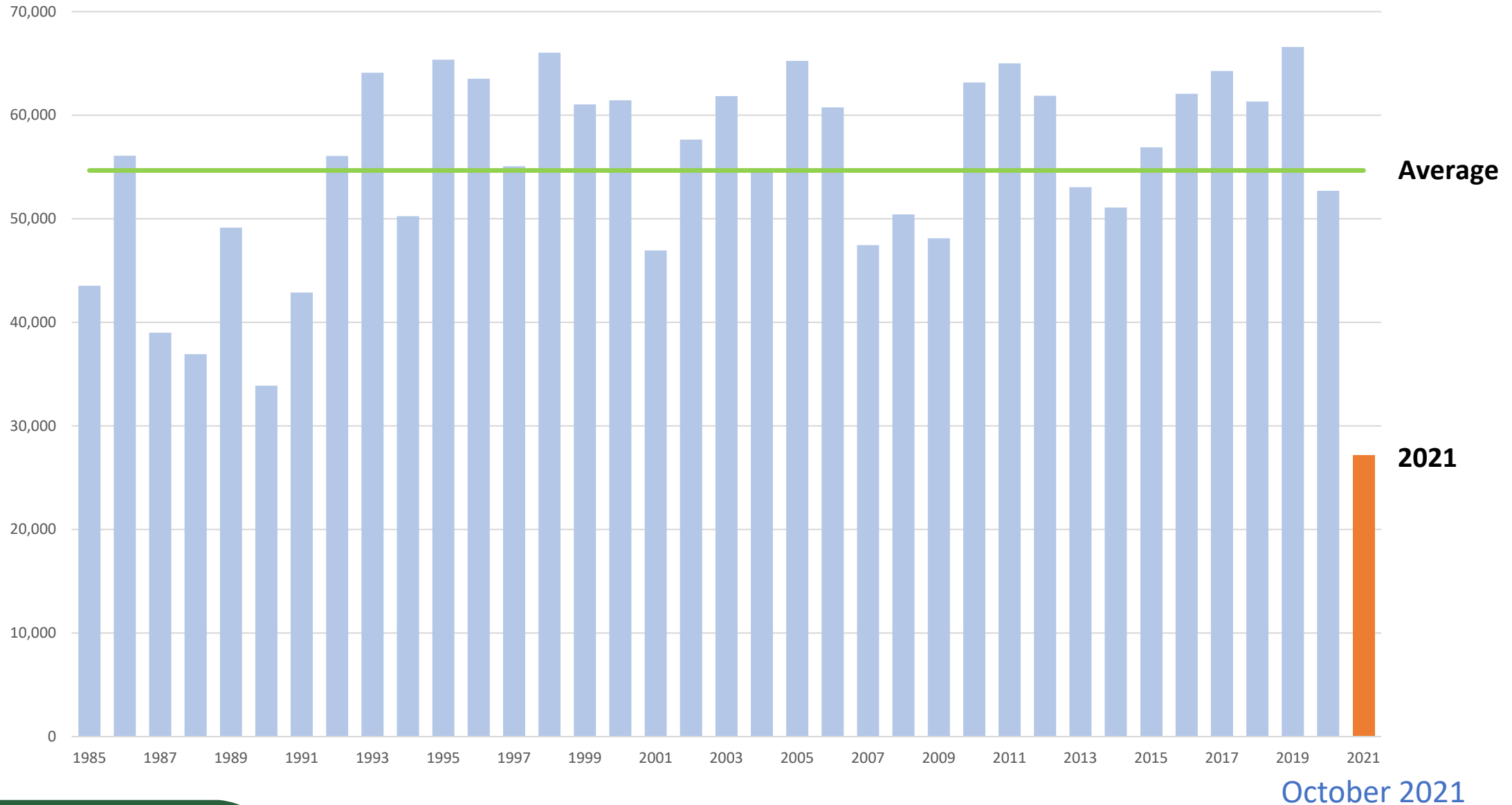
# Rainfall Total

## Lake Lagunitas

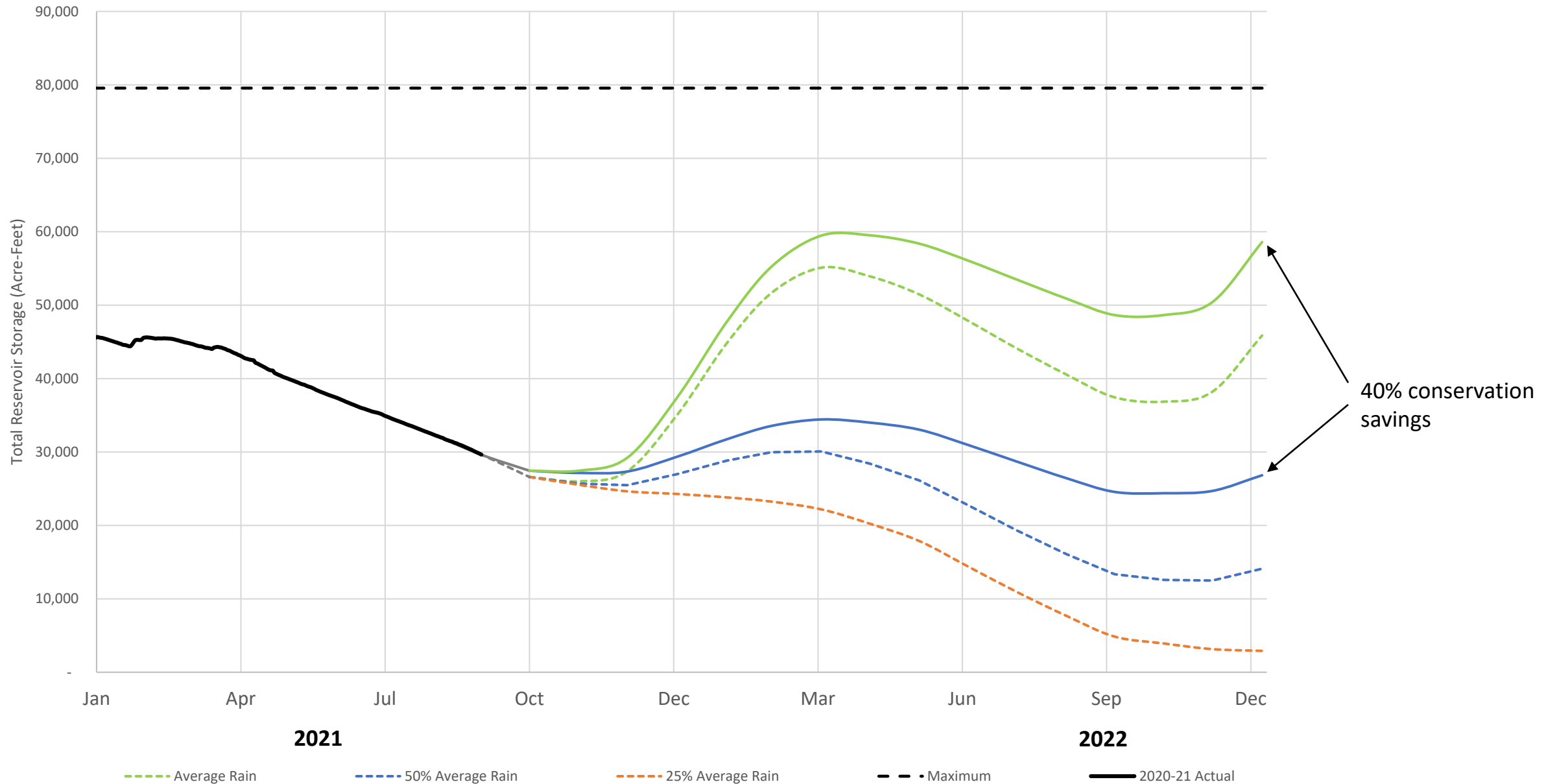
Historically low rainfall  
period since January 2020  
(21 consecutive months) –  
second lowest in 143 years



# Historical Total Reservoir Storage



# Projected Reservoir Storage



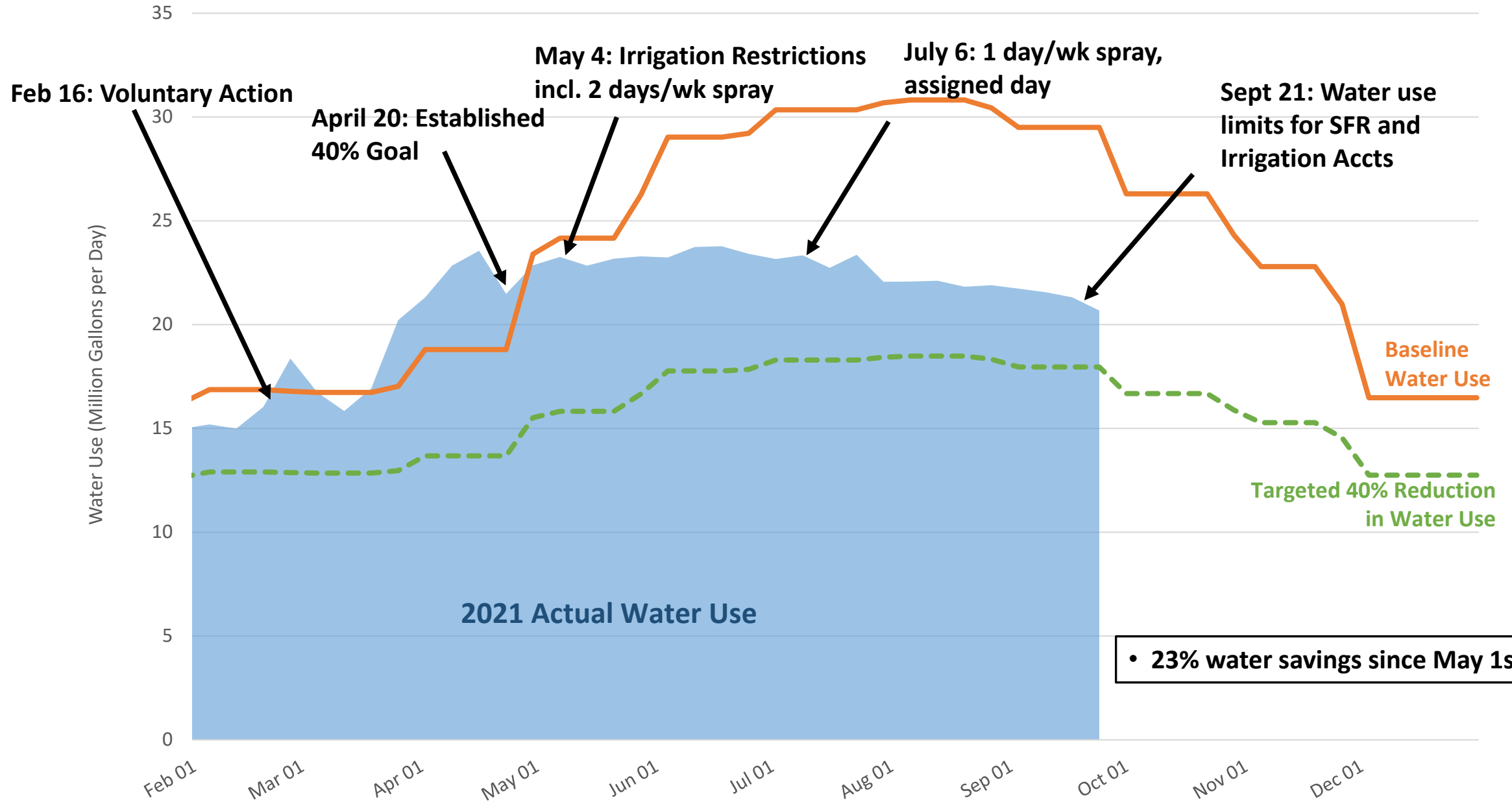


# Water Use Restrictions - Board Actions

- **February 16:** Marin declares a drought and asks all customers to voluntarily conserve water
- **April 20:** Marin Water declares a water shortage emergency and adopts mandatory water use restrictions, including a 40% district-wide reduction goal
- **May 04:** Marin Water adopts irrigation restrictions (2 day/wk)
- **July 06:** Marin Water adopts tighter irrigation restrictions (1 day/wk)
- **July 20:** Marin Water adopts landscape restrictions for new service connections
- **September 21:** Marin Water establishes water use limits and excess use penalties



# Actual vs. Targeted Water Use

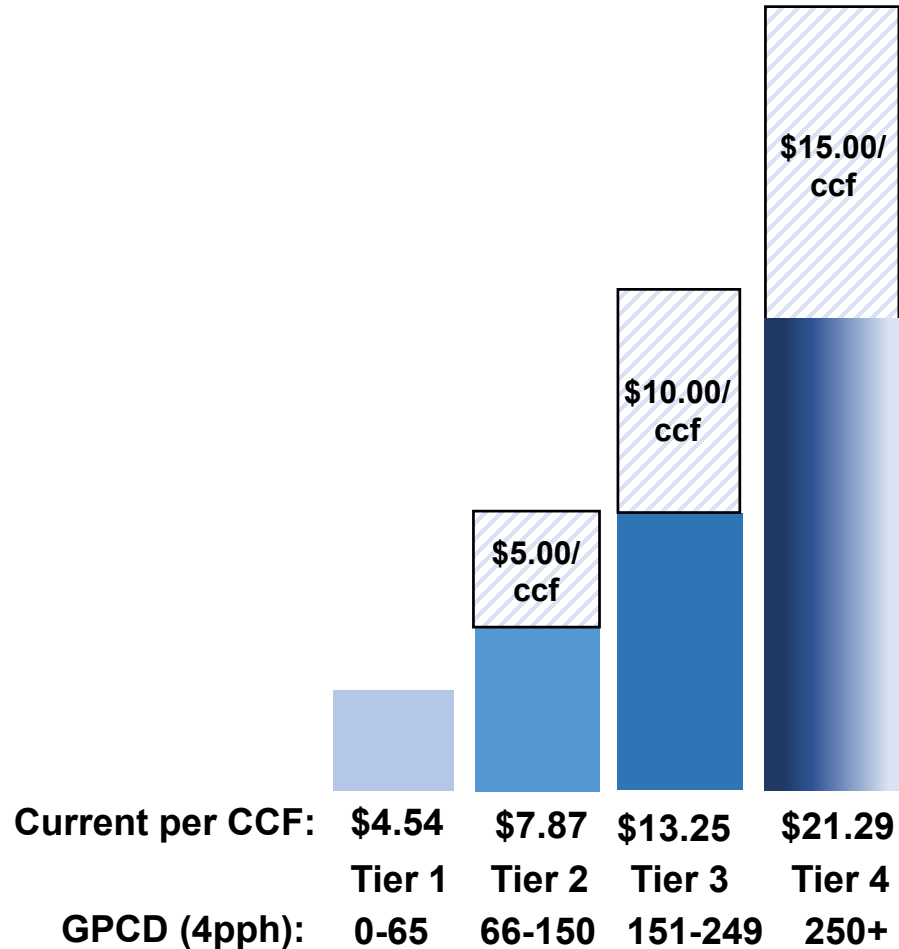




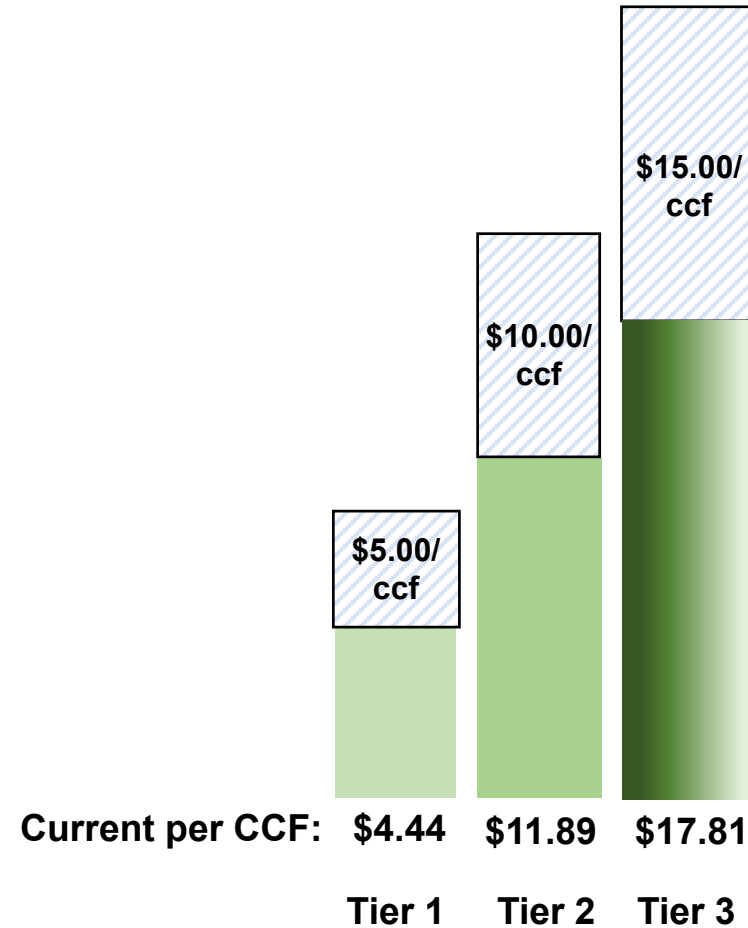
# Excess Use Penalties – Winter (Dec-May)

## Single-Family Customers

Assume 4 people/household

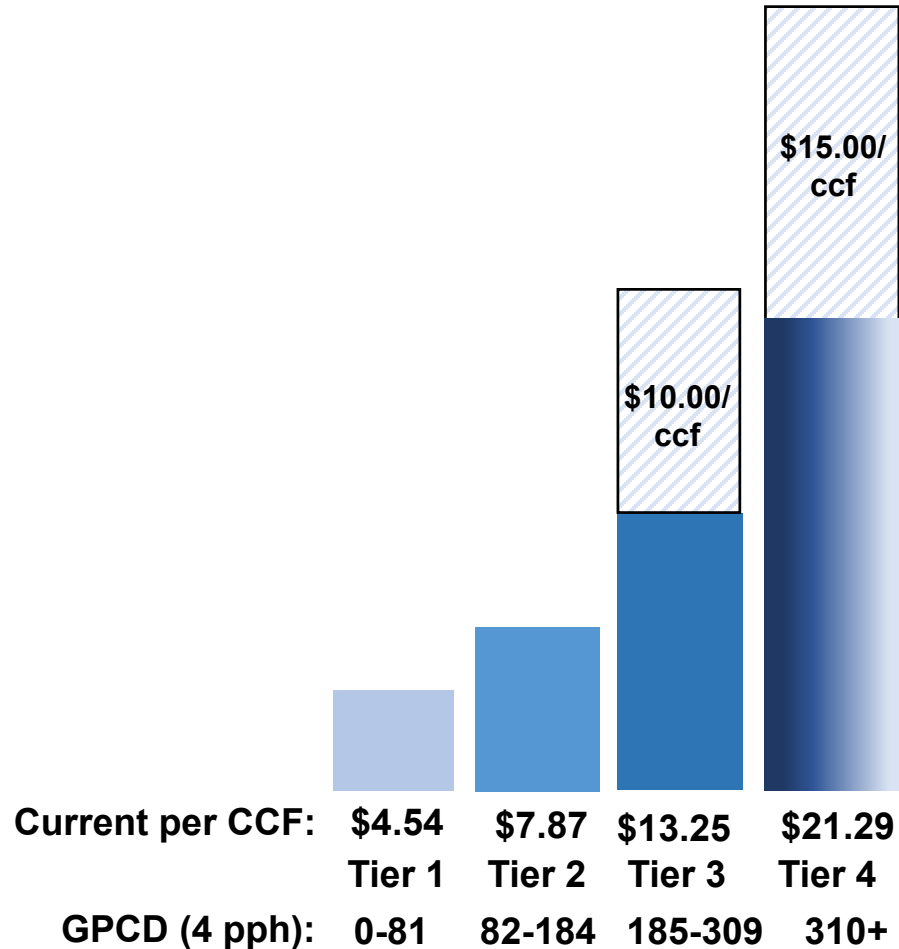


## Irrigation Customers

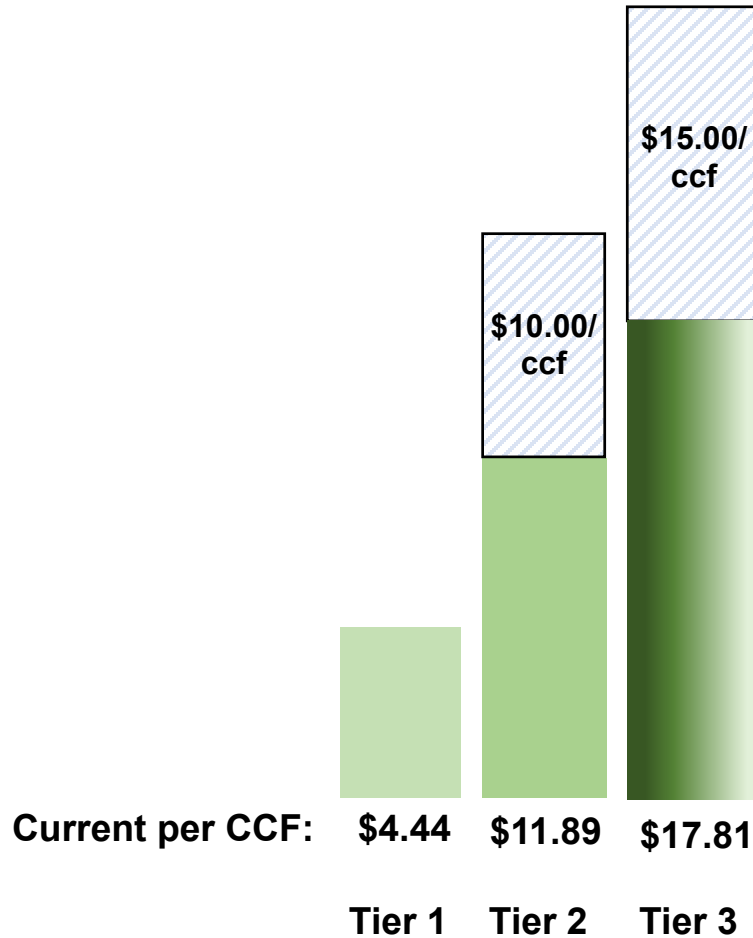


# Excess Use Penalties – Summer (Jun-Nov)

Single-Family Customers:  
Assume 4 people/household

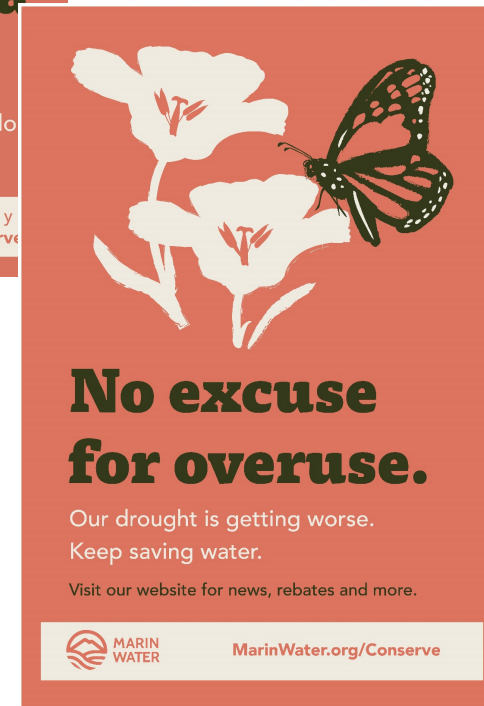
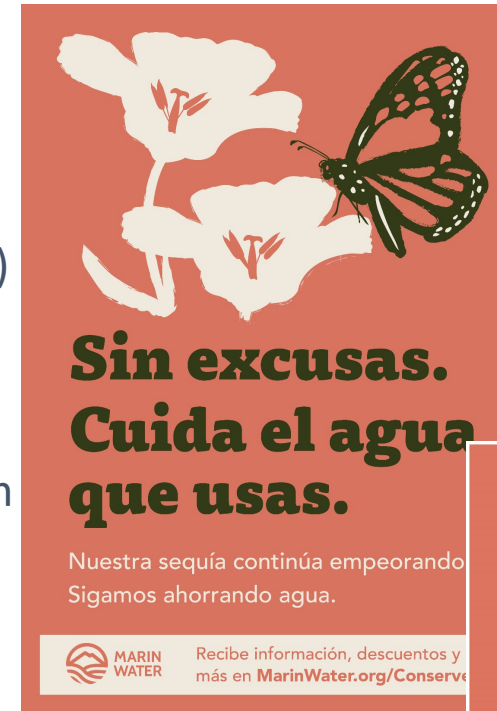


Irrigation Customers



# Water Supply Projects Summary

- **Fog Harvesting** – Limited capacity makes it unsuitable for larger volumes
- **Solar Desalination** – Land required not available in Marin
- **Excavating reservoirs** – 10,000 AF = 16.1 M cubic yards (>400,000 truck loads)
- **Water by truck, barge or rail** – Limited capacity, cost & logistics, considering as last resort
- **Ground Water Storage and Recovery** – longer term opportunity, no near term solution for drought
- **Recycled Water** – Residential Fill station, commercial hauling, expansion of purple pipe
- **Sonoma Water** - Collaborate on all opportunities to address the drought
- ✓ **Desalination** – timing dictates temporary, capacity limited
- ✓ **Emergency Intertie** – feasibility established and pursuing project design
- ✓ **Conservation** – Continue as top priority, improve, refine and enhance



# Community Engagement & Outreach

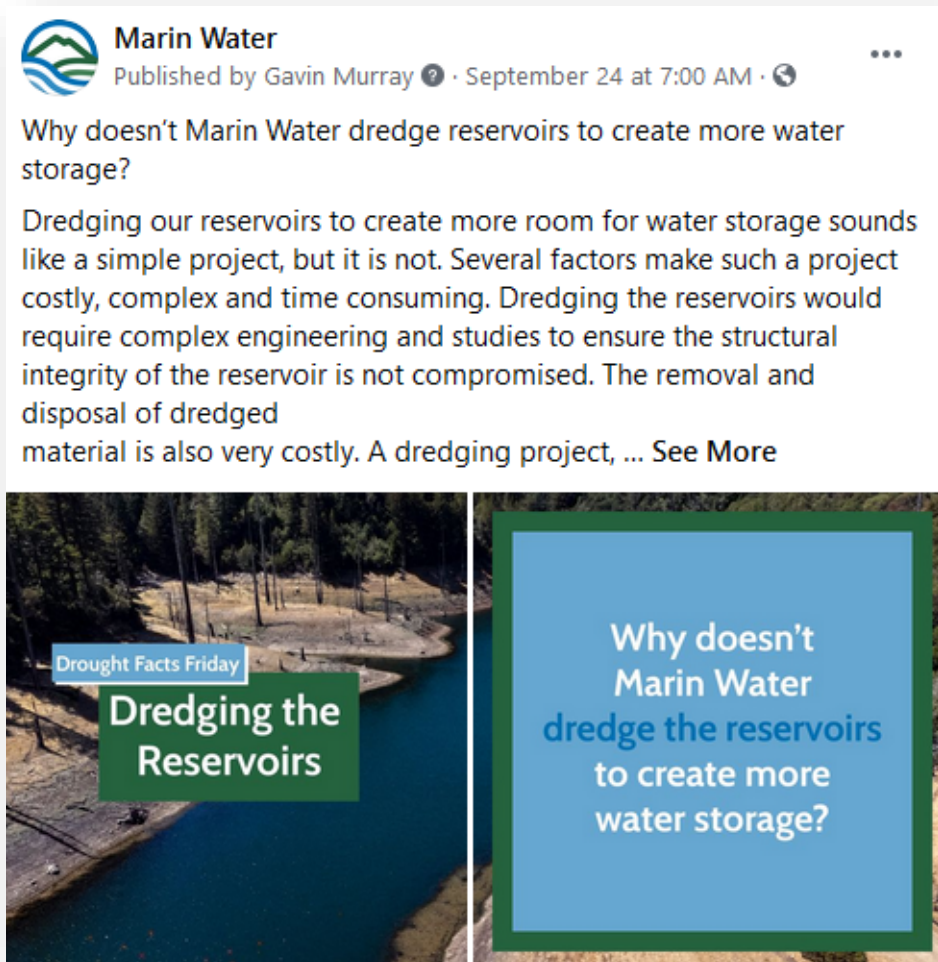
- **Community Partners**
  - Trusted voices sharing drought and conservation messages





# Community Engagement & Outreach

## ■ Drought Facts Friday



**Marin Water**  
Published by Gavin Murray · September 24 at 7:00 AM ·

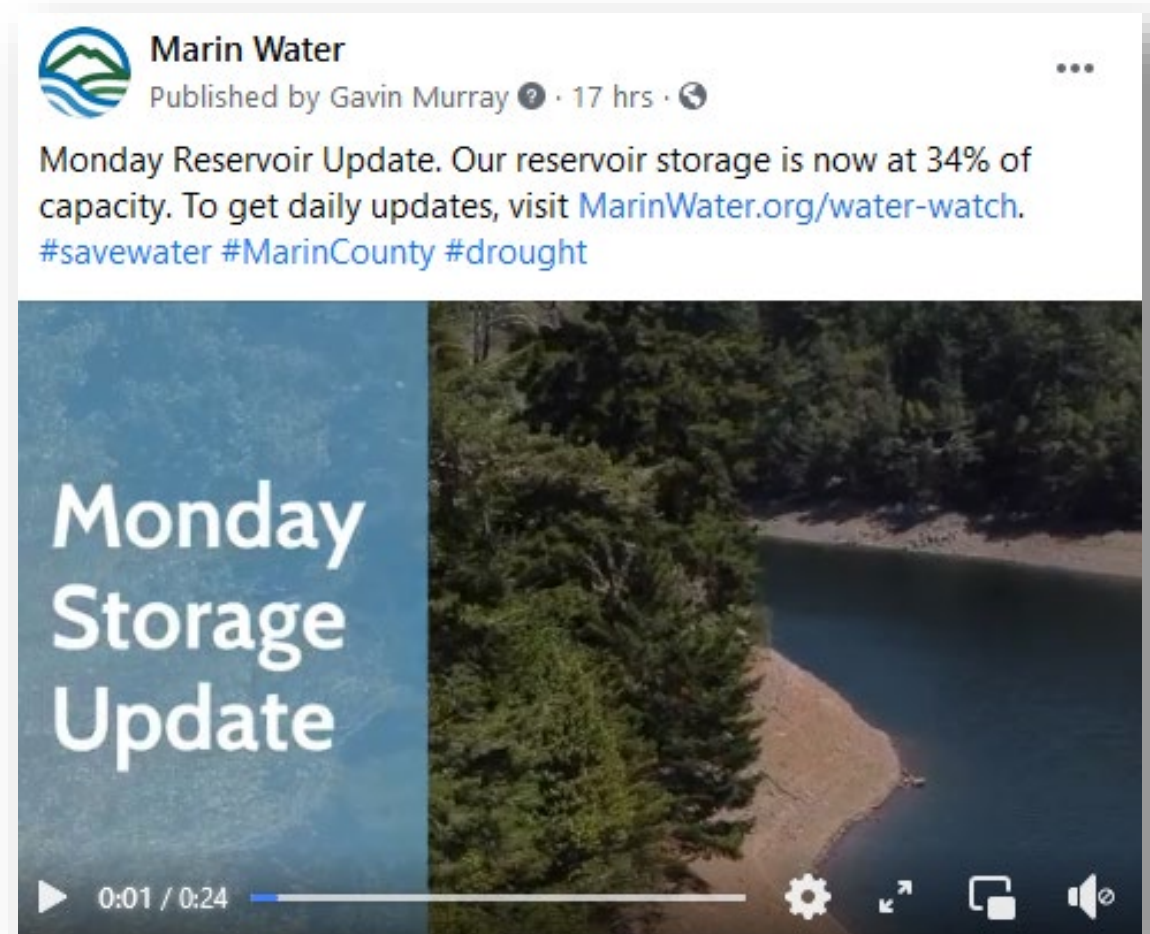
Why doesn't Marin Water dredge reservoirs to create more water storage?

Dredging our reservoirs to create more room for water storage sounds like a simple project, but it is not. Several factors make such a project costly, complex and time consuming. Dredging the reservoirs would require complex engineering and studies to ensure the structural integrity of the reservoir is not compromised. The removal and disposal of dredged material is also very costly. A dredging project, ... [See More](#)

**Drought Facts Friday**  
**Dredging the Reservoirs**

Why doesn't Marin Water dredge the reservoirs to create more water storage?

## ■ Monday Storage Update



**Marin Water**  
Published by Gavin Murray · 17 hrs ·

Monday Reservoir Update. Our reservoir storage is now at 34% of capacity. To get daily updates, visit [MarinWater.org/water-watch](https://MarinWater.org/water-watch).  
[#savewater](#) [#MarinCounty](#) [#drought](#)

**Monday Storage Update**

0:01 / 0:24

# Community Engagement & Outreach

## ■ Special Rebate Insert



### We are in a severe drought.

Save water with help from our rebates. Every drop counts.

#### Cash for Grass



Now is the time to replace your thirsty lawn. We're offering \$3 per-square-foot of lawn removed through October 2021. We also offer a free sheet mulching program.

#### Graywater

Reuse water from your washing machine for your garden with a laundry-to-landscape graywater kit. We partnered with The Urban Farmer Store to offer a \$100 discount.

#### Pool and Spa Covers

An uncovered pool will lose water due to evaporation. Marin Water offers a rebate of up to \$100 for customers who purchase and install pool or spa covers.

#### Flume Flow Meter



Install a Flume flow meter to access real-time water use data on your phone or computer. It's easy to install and straps on to most existing water meters. It can help you find leaks and new ways to save water.

#### Hot Water Recirculator

To reduce water waste while you wait for the water to warm up, we recommend installing a hot water recirculating system. The district offers a \$50 rebate to help offset the cost of the system.

#### Clothes Washer Rebate

Replacing your older clothes washer with a new high-efficiency model is an easy way to save money and conserve water. You may qualify for a rebate of up to \$100.

For water-saving tips, water-efficient fixtures, and additional resources visit:  
[MarinWater.org/Conserve](https://MarinWater.org/Conserve)




## Offers & Rebates

### Save Water Save Money


Para información en Español  
[Info@MarinWater.org](mailto:Info@MarinWater.org)  
415.945.1523

[MarinWater.org/Rebates](https://MarinWater.org/Rebates)



### Is Your Garden Rain Ready?

#### Rain Barrels and Cisterns



Rainwater harvesting is the practice of collecting rainwater from rooftops and storing it for later use. We are offering up to 50 cents per gallon of storage. Up to \$1,000 per site.


#### We're Here to Help

Not sure which program will work for you? We provide free phone consultations to help you find the conservation programs and rebates that best suit your needs. We also offer free water-efficient fixtures including hose shutoff nozzles, faucet aerators, showerheads, shower timers, and leak detection dye tablets.

Call us at [415.945.1527](tel:415.945.1527) or send us an email at [Rebates@MarinWater.org](mailto:Rebates@MarinWater.org) to request fixtures or schedule a consultation.

#### Questions?

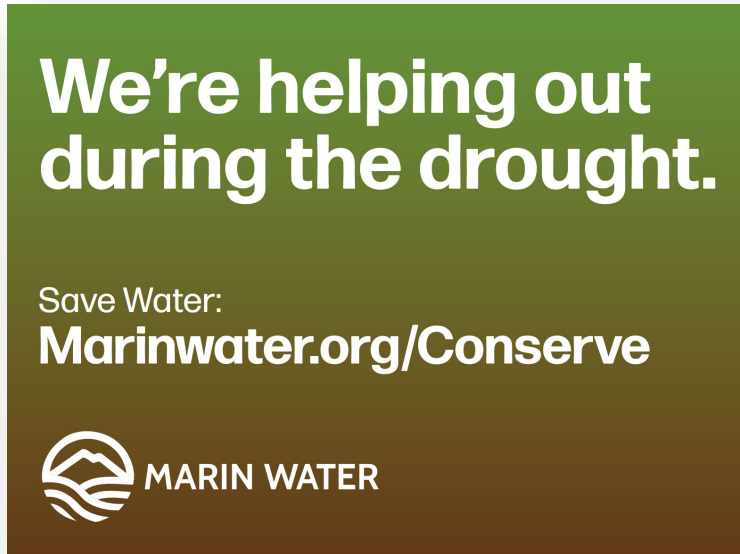
Email us:  
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Call:  
**415.945.1527**  
Visit:  
[MarinWater.org/Rebates](https://MarinWater.org/Rebates)





# Community Engagement & Outreach

## ■ Yard Signs

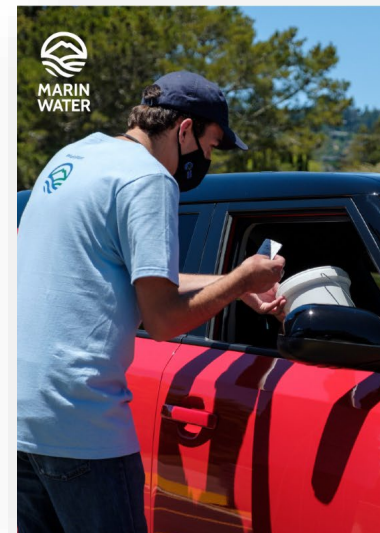
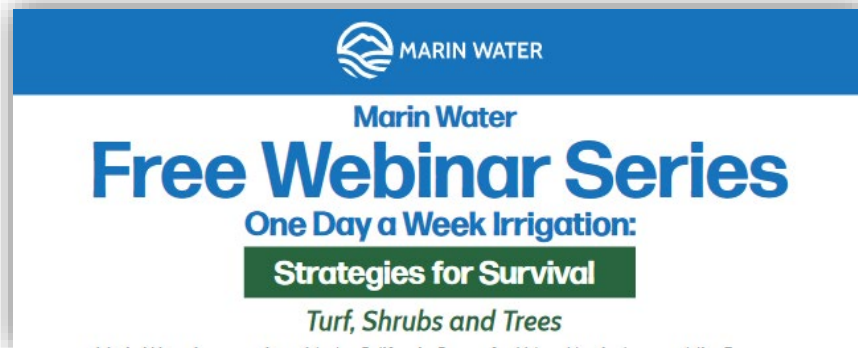


## ■ Water Savings Guide



# Boots on the Ground

- Landscape Professional 5-part Webinar Series
  - Strategies for Survival: Trees, Shrubs and Turf
  - 20—40 attendees at each session
- Recycled Water Fill Station
- Regional Drought Drive-Up Events



## Drought Drive Up

August 21st

Get your FREE water-saving kit at the Drought Drive Up. Walk up or drive to our Corte Madera office on Saturday August 21st.

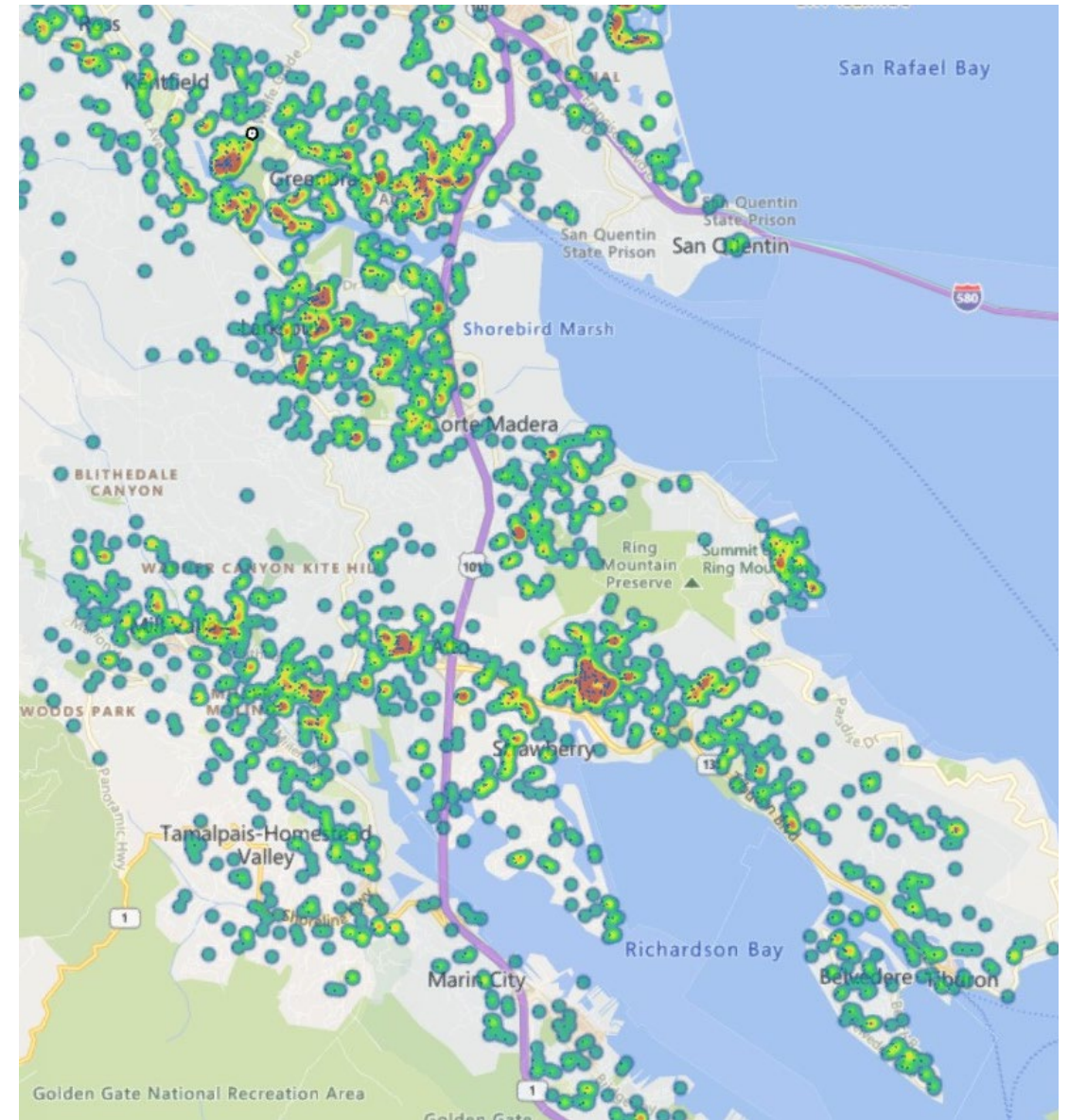
From:  
8 a.m. to 12:00 p.m.

Location:  
220 Nellen Ave., Corte Madera



# Water Waste Program

- Educate customers and ensure compliance of mandatory water restrictions through routine patrols
- Since July, over 2,400 contacts with customers – door tags, letters, postcards



# Increasing Community Awareness

## Gym, Hotel and Restaurant Outreach

- Developed and distributed materials to all local establishments

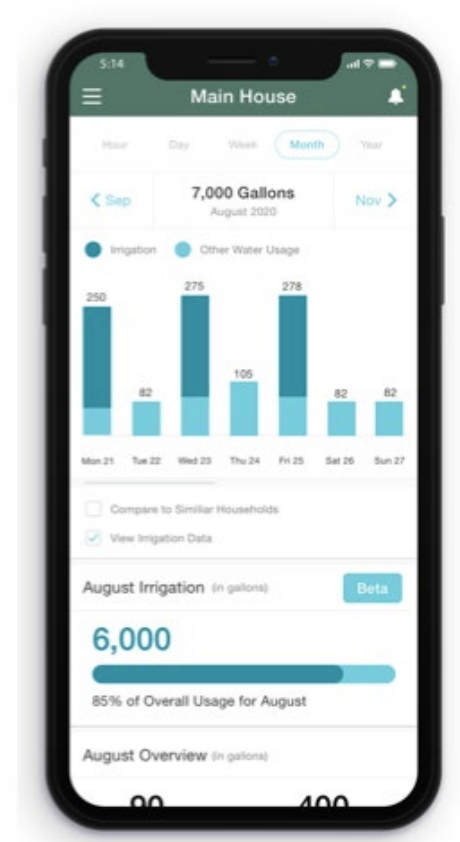
## Le Tour de Drought

- Cycling event (MTB, road) throughout watershed
  - Register for a free MW water bottle
  - Self guided rides tracked on everyone's fav riding app
  - Partnership with local business
    - Bike shops, brewery, restaurants



# Rebates

- \$3/sqft rebate for *Turf Removal*
- Flume Smart Home Water Monitor: Provides real-time data on water directly to you phone or computer (\$115/ customer pays \$50)
- Hot Water Recirculating System (\$50)
- Pool or Spa Covers (\$100)
- High Efficiency Clothes Washers (\$100)
- High Efficiency Toilets (\$150)
- Smart Irrigation Controllers (\$100)
- Graywater: Laundry-to-Landscape kits (\$100)
- Rain barrels and cisterns (.50/gallon, \$1k max)



Learn More: [MarinWater.org/Rebates](https://MarinWater.org/Rebates)

# Drought Program Participation – September Progress

	June	July	August	September	Monthly Target (revised)
Turf Programs (sqft)	44,627	94,285	94,557	98,903	400,000
Flume Devices	619	473	358	155	450
Clothes Washers	62	24	30	21	20 (50)
Rain Barrel/ Cisterns	7	1	4	3	10 (25)
Pool Covers	25	53	41	65	10 (50)
Hot Water Recirculation Systems	27	2	9	23	5 (20)
Graywater Incentives	4	12	5	5	10 (25)
High Efficiency Toilet	NA	NA	NA	1	25



## What's next?

- Prohibition on all winter irrigation
- Prohibition on pool filling
- Prohibition on non-functional turf
- Net zero water offsets for new development
- Increase incentives
- Launch new programs





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415.945.1522

# SAVE WATER

