



Long-Term Water Supply Workshop

Board of Directors

February 23, 2021

1



Workshop Goals & Objectives

2



Key Water Supply Challenges

3



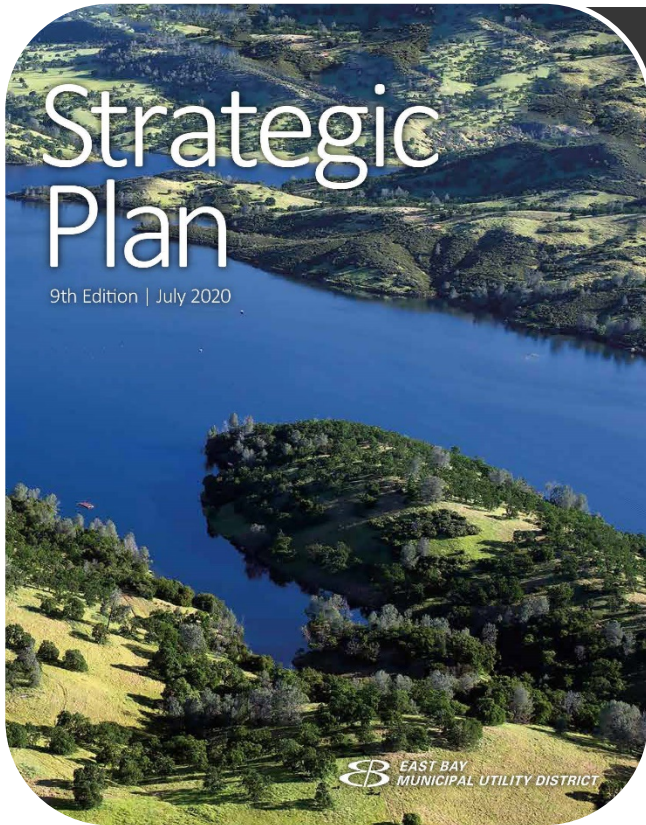
Strategy for Water Supply Resilience & Sustainability

4



Closing Statements

Workshop Goals & Objectives



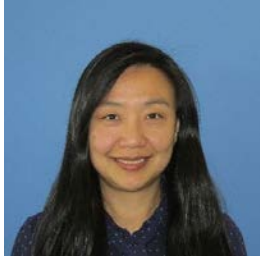
GOAL #1: Ensure a reliable high-quality water supply for the future

- **Preserve water rights and obtain supplemental supplies**
- **Promote water efficiency**
- **Increase recycled water use**
- **Monitor climate change**

Key Takeaway

- 1** The District's Strategic Plan guides the goals and objectives for long-term water supplies.

Today's Speakers



Linda Hu

Manager *of* Water
Supply Improvements



Florence Wedington

Supervisor *of*
Water Recycling



Lena Tam

Manager *of* Water
Resources Planning



Hasan Abdullah

Supervisor *of*
Water Transfers



Alice Towey

Manager *of* Water
Conservation



Brad Ledesma

Supervisor *of*
Regional Projects



Charles Bohlig

Supervisor *of* Water
Conservation

Key Water Supply Challenges

*Pardee Tower
during a drought*

Key Water Supply Challenges Overview



Extreme Drought



Extreme Rainfall



Climate Change



Global Pandemic



New Laws & Regulation



More Wildfire



Key Water Supply Challenges

Overview



Extreme Drought



Extreme Rainfall



Climate Change



Today's Workshop Theme

"Continue building a resilient and sustainable water supply through diversifying the water supply portfolio."

Global Pandemic



More Wildfire

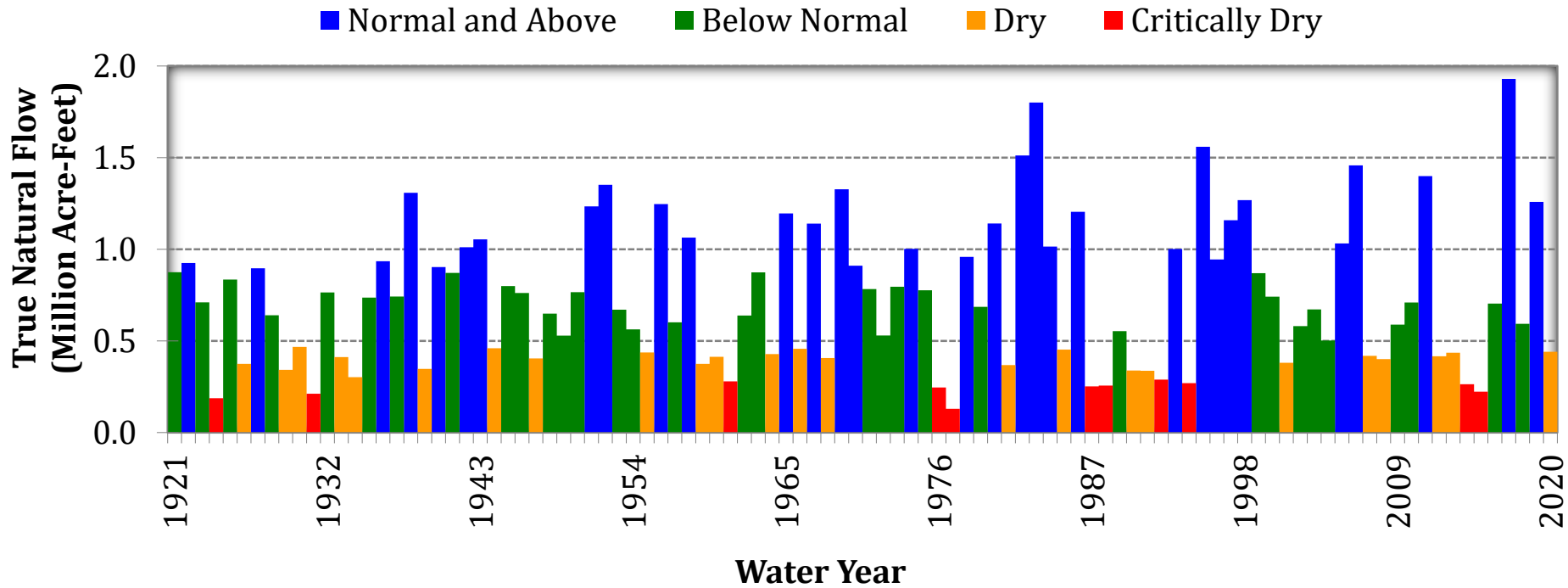


Key Water Supply Challenges

Supply Variability



Mokelumne River Historic Water Supply Variability



Key Takeaways

- 1 Most of the District's water supply comes from the Mokelumne River.
- 2 Mokelumne River runoff is highly variable.

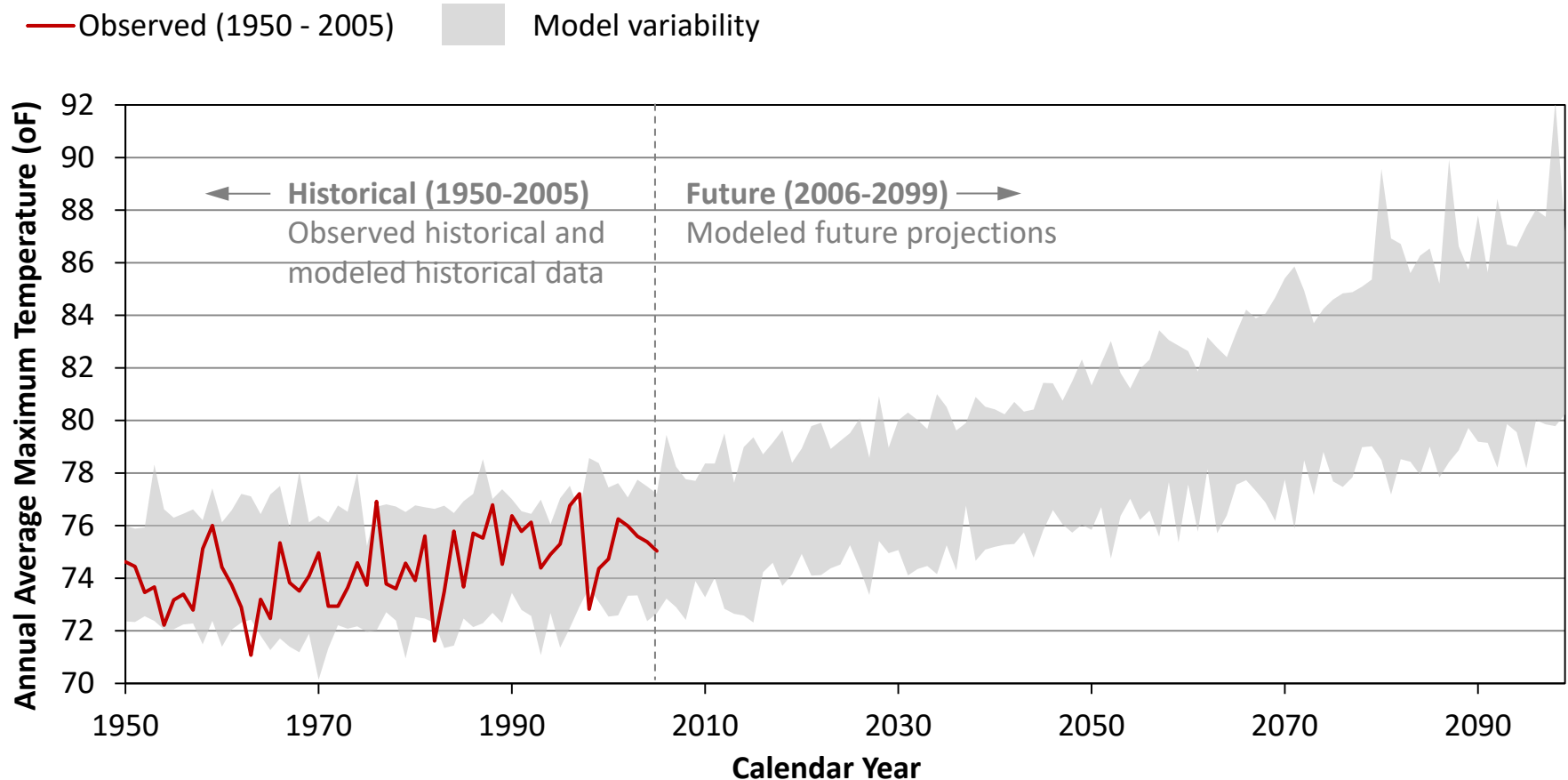
Key Water Supply Challenges

Climate Change



Annual Average Maximum Temperature (Source: Caladapt.org)

Data for the Upper Mokelumne River Watershed in which emissions continue to rise strongly through 2050 and plateau around 2100.



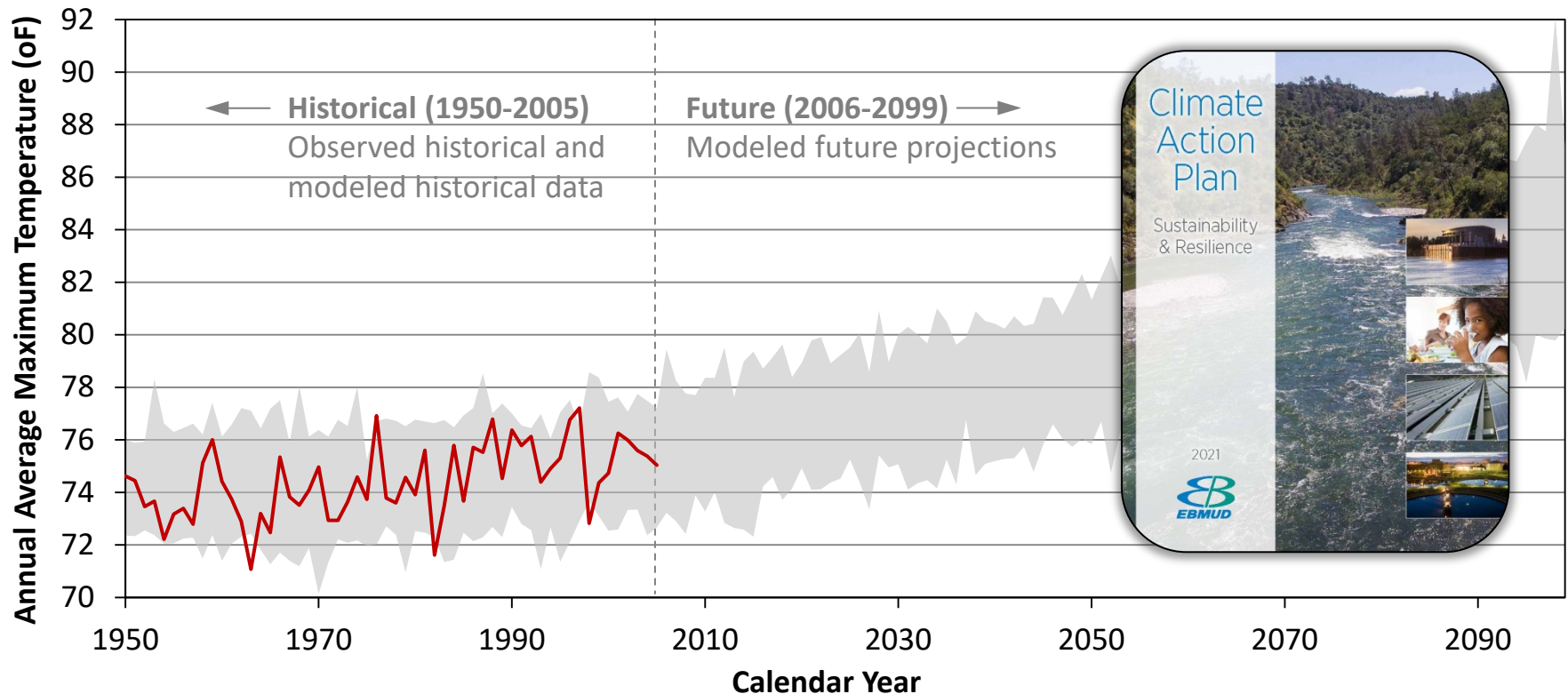
Key Water Supply Challenges

Climate Change



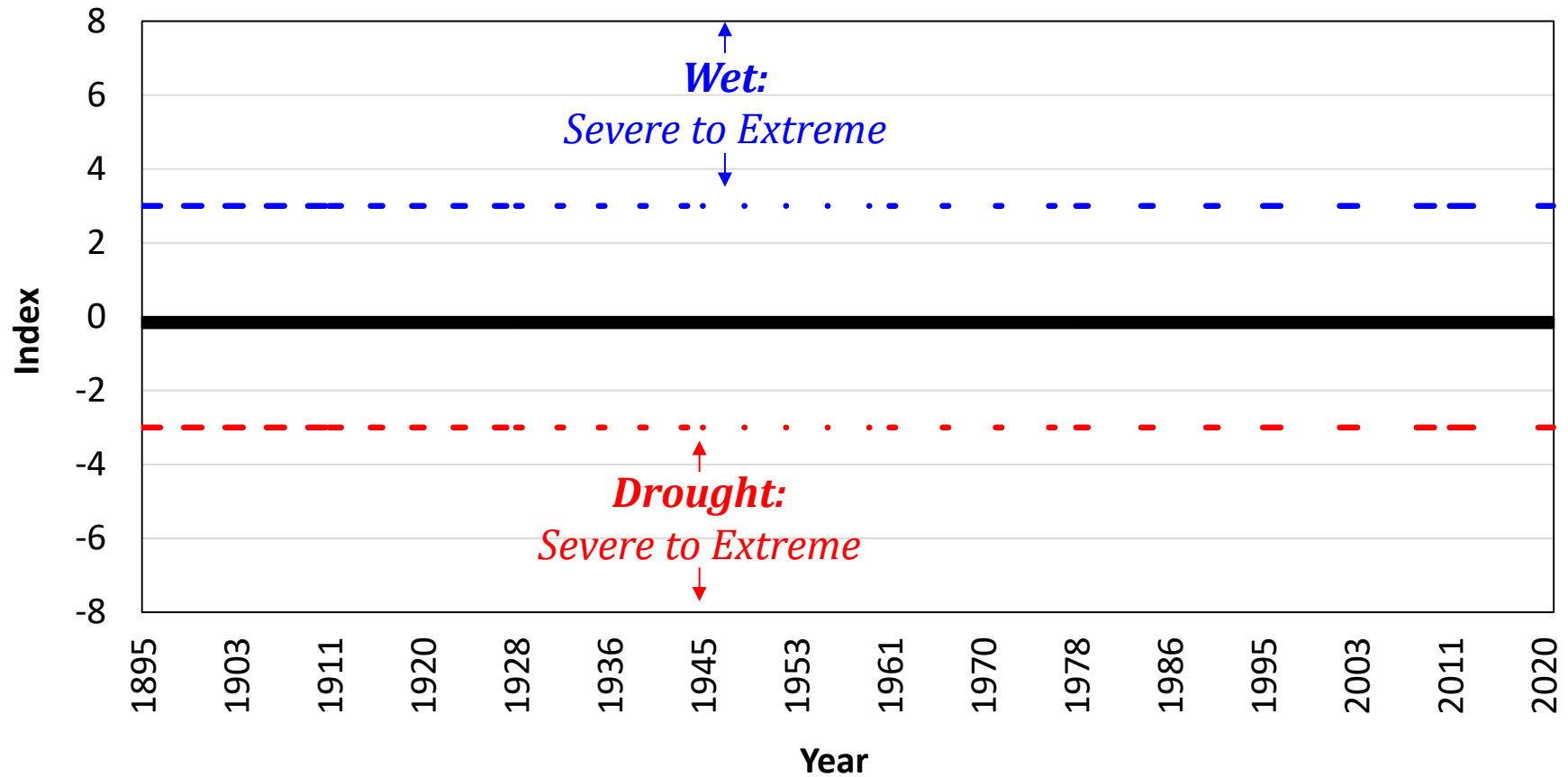
Key Takeaways

- 1 Expect higher temperatures in the Mokelumne Watershed.
- 2 Higher temperatures will shift timing of runoff, and there will be more rain than snow.



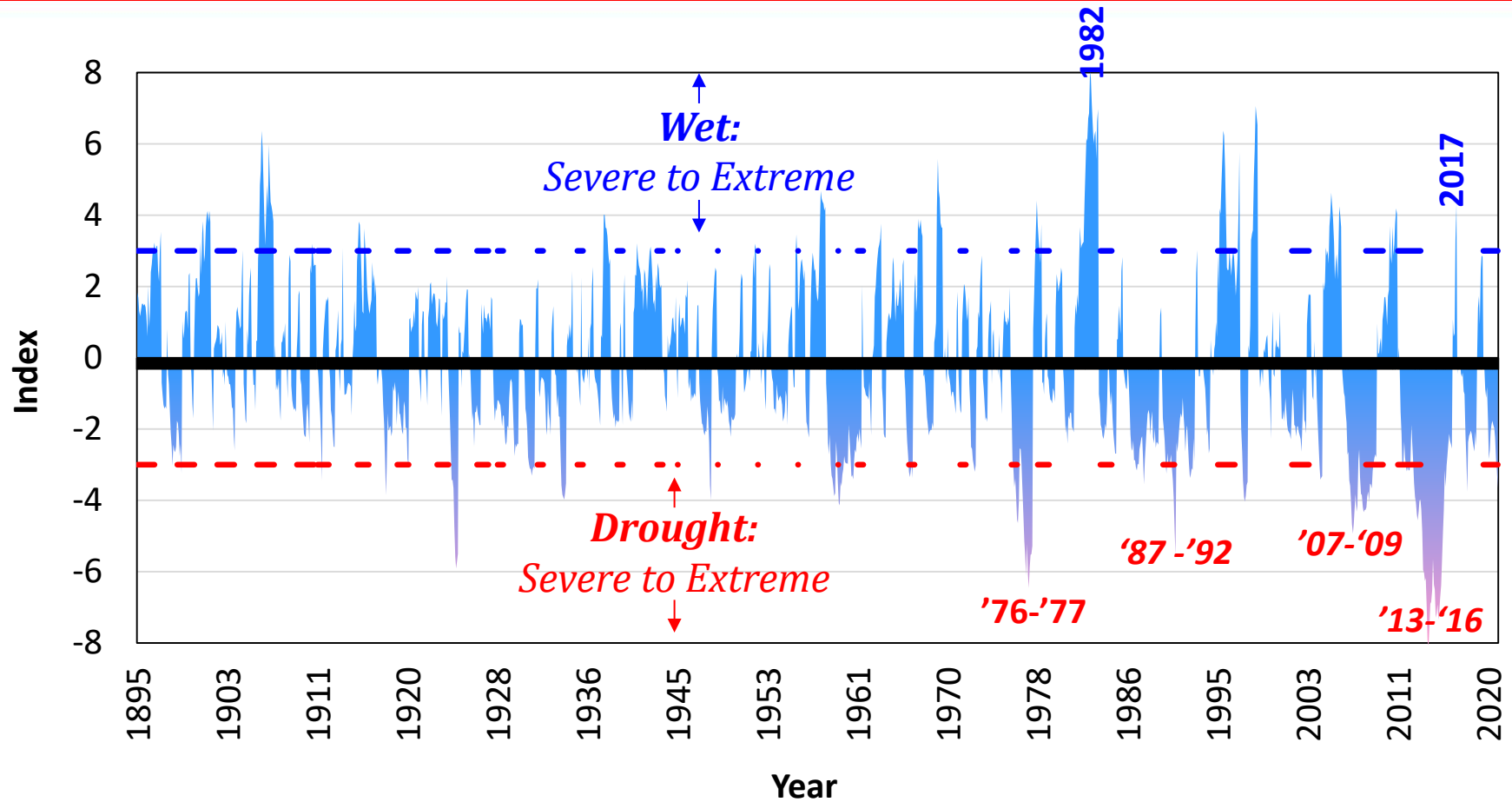
Key Water Supply Challenges

Drought: Palmer Drought Severity Index



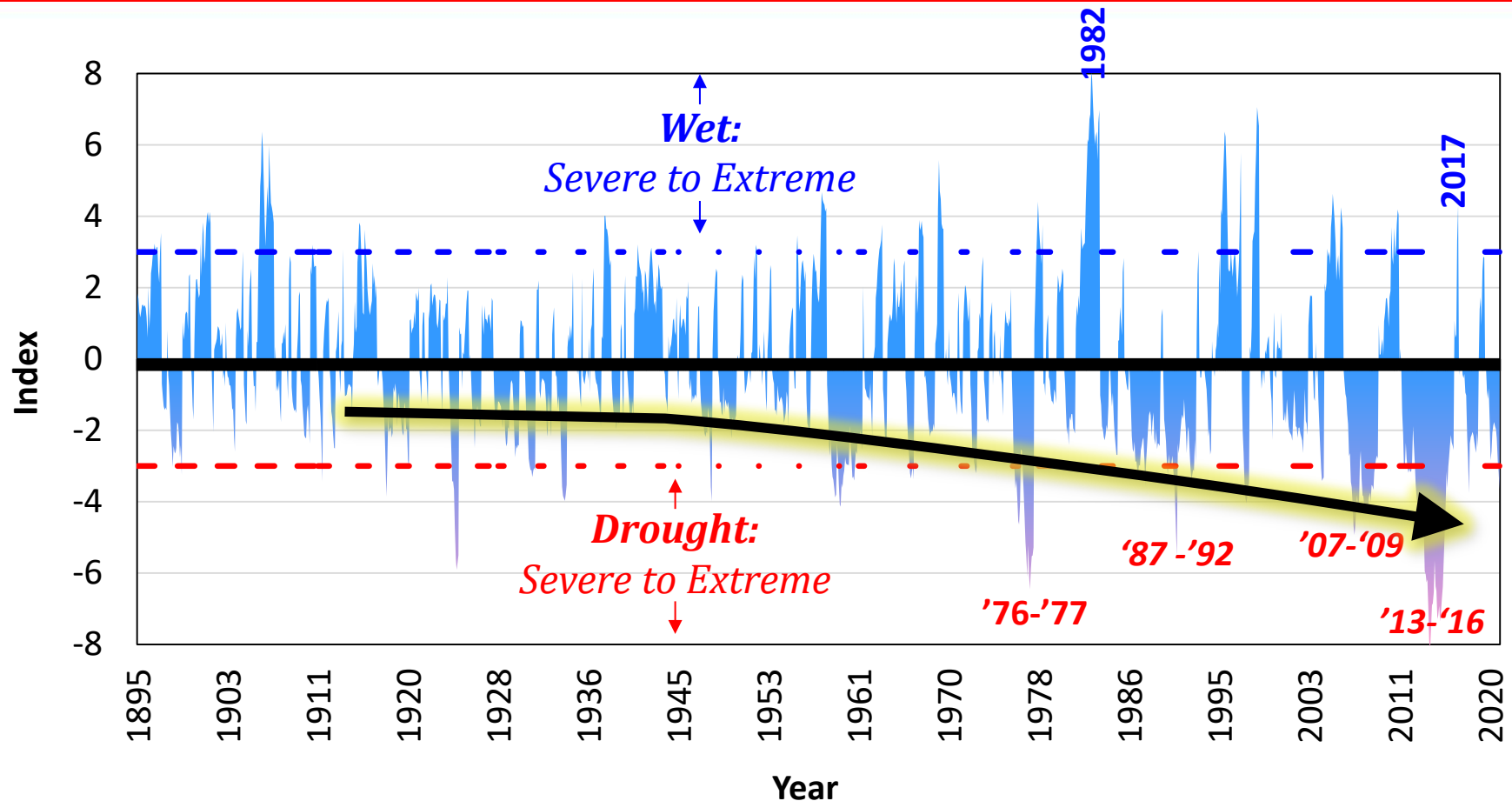
Key Water Supply Challenges

Drought: Palmer Drought Severity Index



Key Water Supply Challenges

Drought: Palmer Drought Severity Index

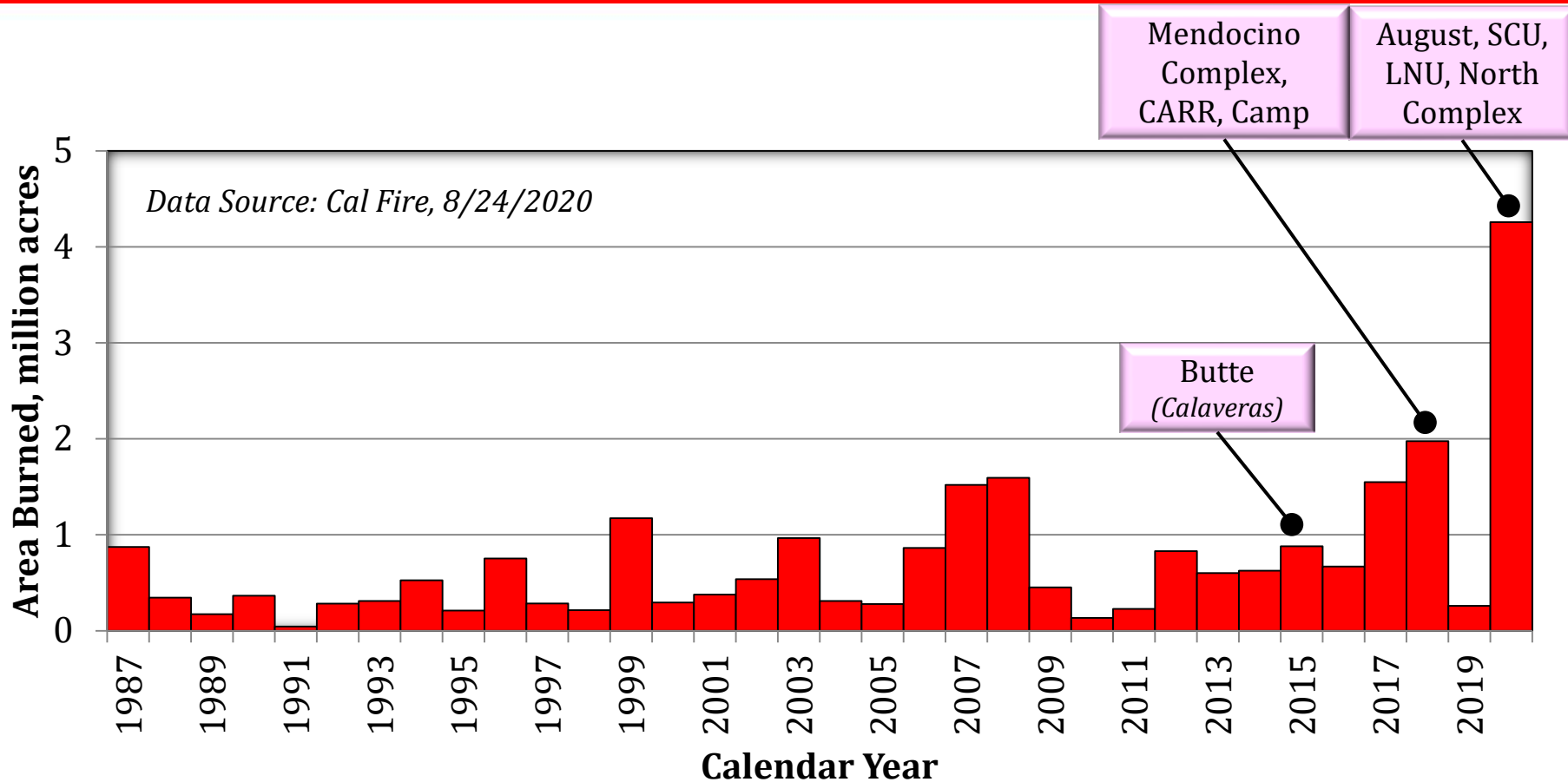


Key Takeaway

- 1 Droughts are getting more severe and more frequent.

Key Water Supply Challenges

California Wildfires



Key Takeaway

- 1 Risk of fire in Mokelumne Watershed is real and increasing.

Key Water Supply Challenges

New Laws & Regulation



FEMA



FERC



Key Water Supply Challenges

New Laws & Regulation



**Water Quality
Control Plan &
Voluntary
Agreements**

**Delta
Conveyance**

**DPR
Regulations**

**Reduced
Wastewater
Discharges**

**Biological
Opinions**

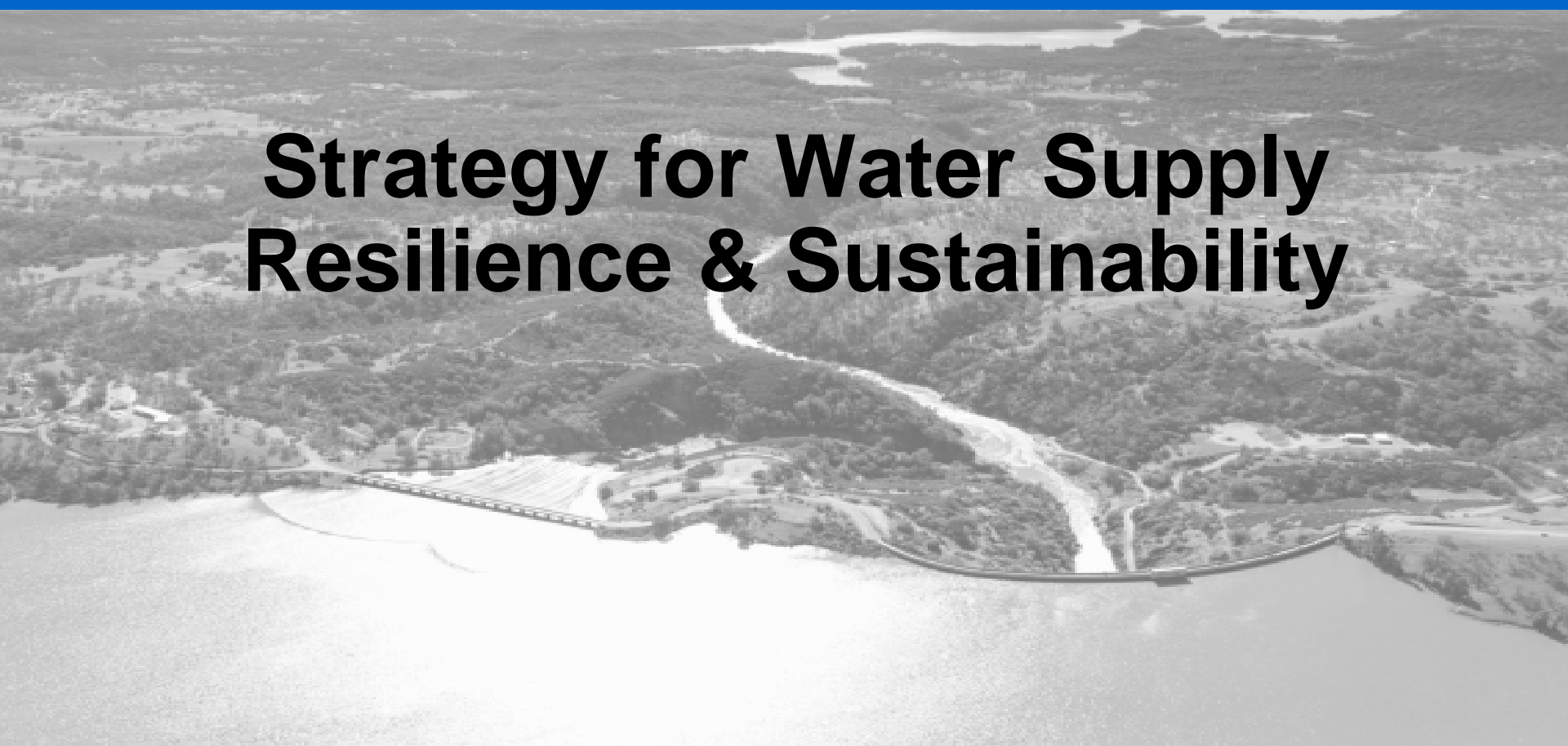
**FERC
Relicensing**

**Water
Conservation
Long-Term
Framework**

**California Env.
Public Health &
Workers
Defense Act of
2019**

Key Takeaway

- 1 District needs to continue to protect long-term water supplies from new regulatory and legal challenges.

An aerial photograph of a large dam and reservoir. The dam is a long, low structure with a series of spillways, situated in a valley. The reservoir is a large body of water in the foreground. The surrounding landscape is hilly and forested, with some roads and buildings visible. The image is in black and white, with a blue border at the top and bottom.

Strategy for Water Supply Resilience & Sustainability

An aerial photograph of a large reservoir or lake. On the left, a tall, cylindrical water tower with a spiral staircase and a viewing platform stands on a rocky, elevated shore. The water body is surrounded by forested hills and some developed areas. In the lower right, a marina with several boats and a parking lot is visible. The overall scene is a mix of natural and urban environments.

Urban Water Management Plan

Urban Water Management Plan

Overview



1



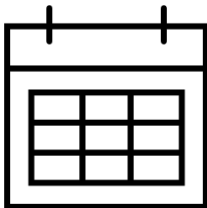
UWMP Act & Plan Uses

2



Changes Since 2015 Plan

3



Schedule

4



Major Elements of UWMP

Urban Water Management Plan

UWMP Act



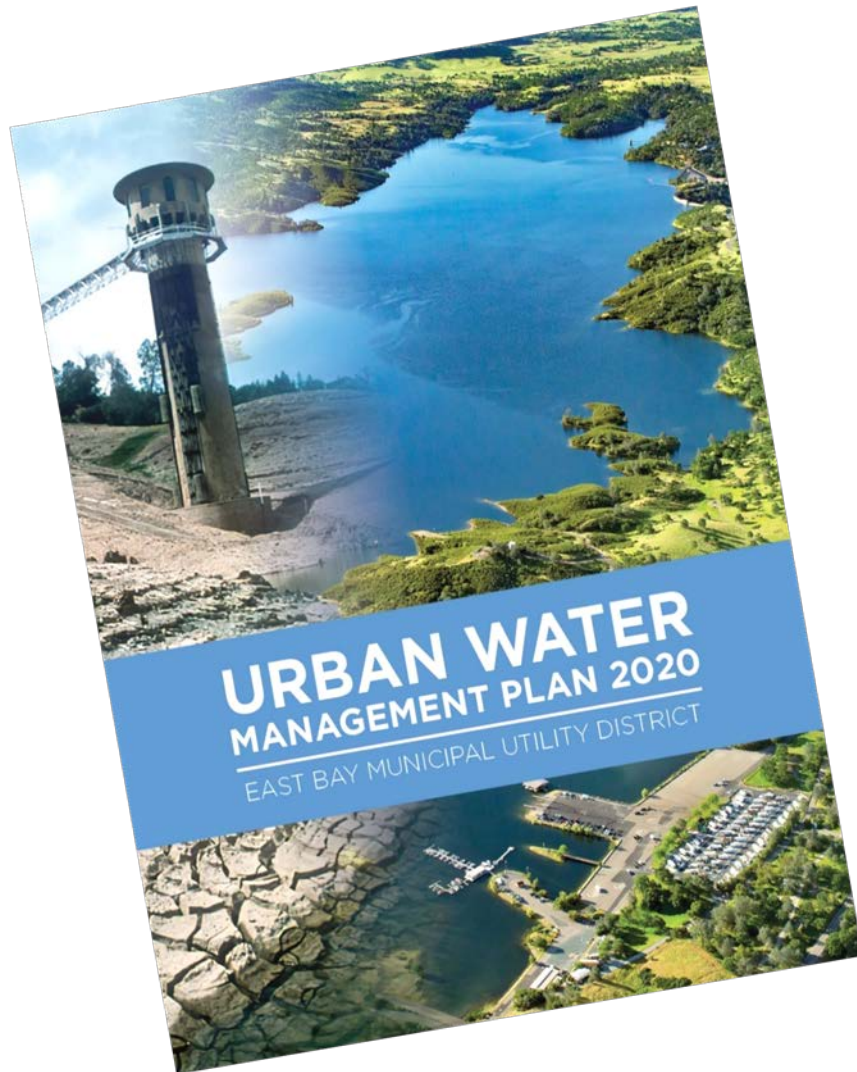
EBMUD sponsored the Urban Water Management Planning Act (Act) that later became part of the California Water Code.

Section 10610.4 of the ACT states that

“urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.”

Urban Water Management Plan

Purpose



- **Outlines District's strategies to ensure adequate water supplies to meet existing and future demands**
- **Foundation document for water supply assessments and water supply verifications (SB 610/221)**
- **Water Shortage Contingency Plan**
- **Resilient and Diversified Portfolio**

Urban Water Management Plan

Changes Since UWMP 2015



Key Takeaway:

- 1 Changes due to various factors, including integration of uncertainties, result in new assessments.

Urban Water Management Plan

Changes Since UWMP 2015



Drought Management Program Guidelines

EXISTING

DMP

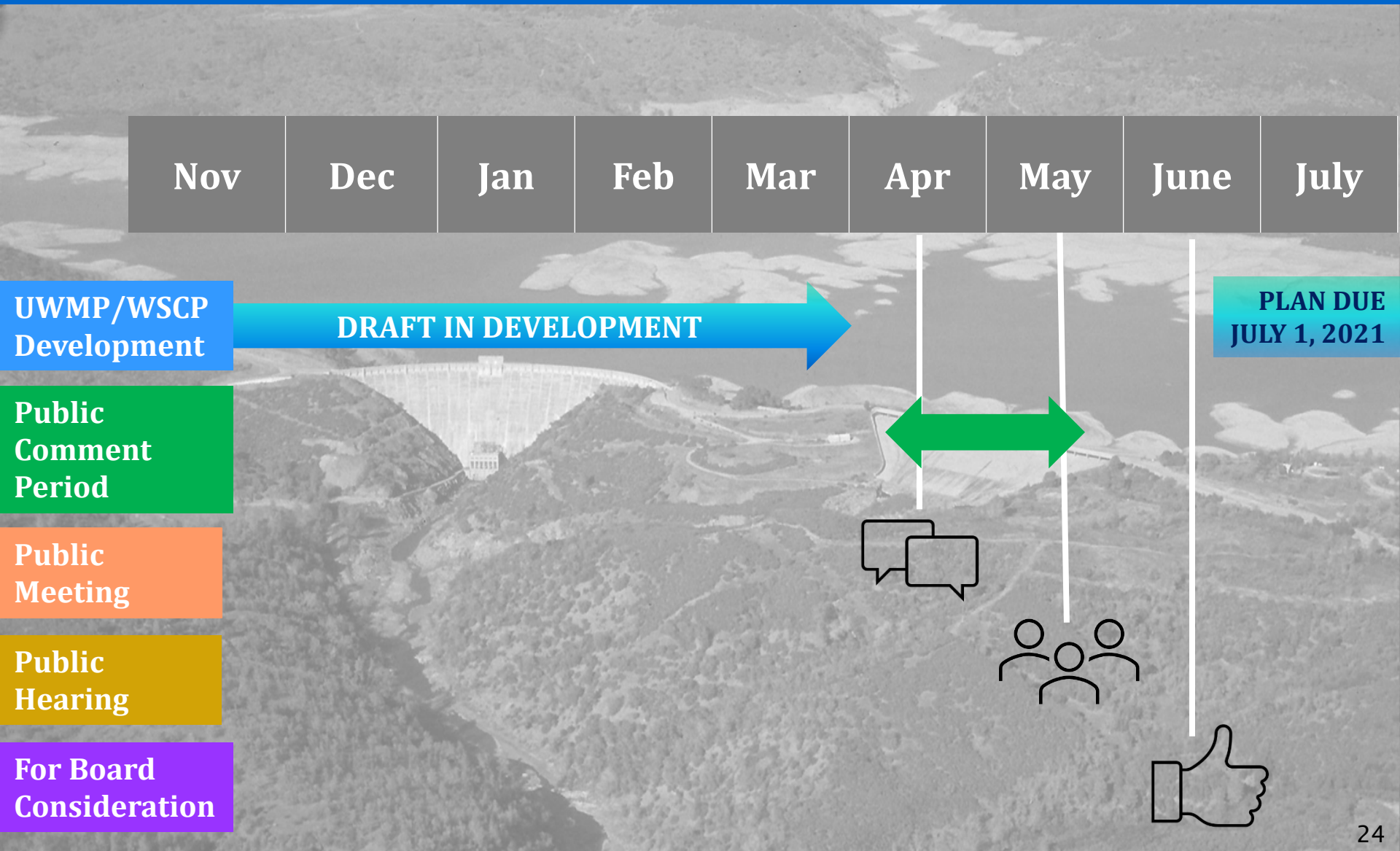
PROPOSED

DMP

| >500 | TSS | >475 |
|---|-----------|--|
| 500 - 450 | | 475 - 425 |
| 450 - 390 | | 425 - 390 |
| 390 - 325 | | 390 - 325 |
| <325 | | <325 |
| July 1 st start date. Obtain CVP water starting at 450 trigger. | CVP | May 1 st start date. Obtain CVP water starting at 475 trigger. |
| Voluntary up to 15% at 500 TSS. | Rationing | Voluntary up to 10% at 475 TSS. |
| Voluntary up to 15% at 450 TSS. | | Mandatory 10 to 15% at 425 TSS. |
| Mandatory up to 15% at 390 TSS. | | Mandatory at 15% at 390 TSS. |
| Mandatory ≥ 15% at 325 TSS. | | Mandatory ≥ 15% at 325 TSS. |

Urban Water Management Plan

UWMP 2020 Timeline



Nov

Dec

Jan

Feb

Mar

Apr

May

June

July

UWMP/WSCP
Development

DRAFT IN DEVELOPMENT

PLAN DUE
JULY 1, 2021

Public
Comment
Period

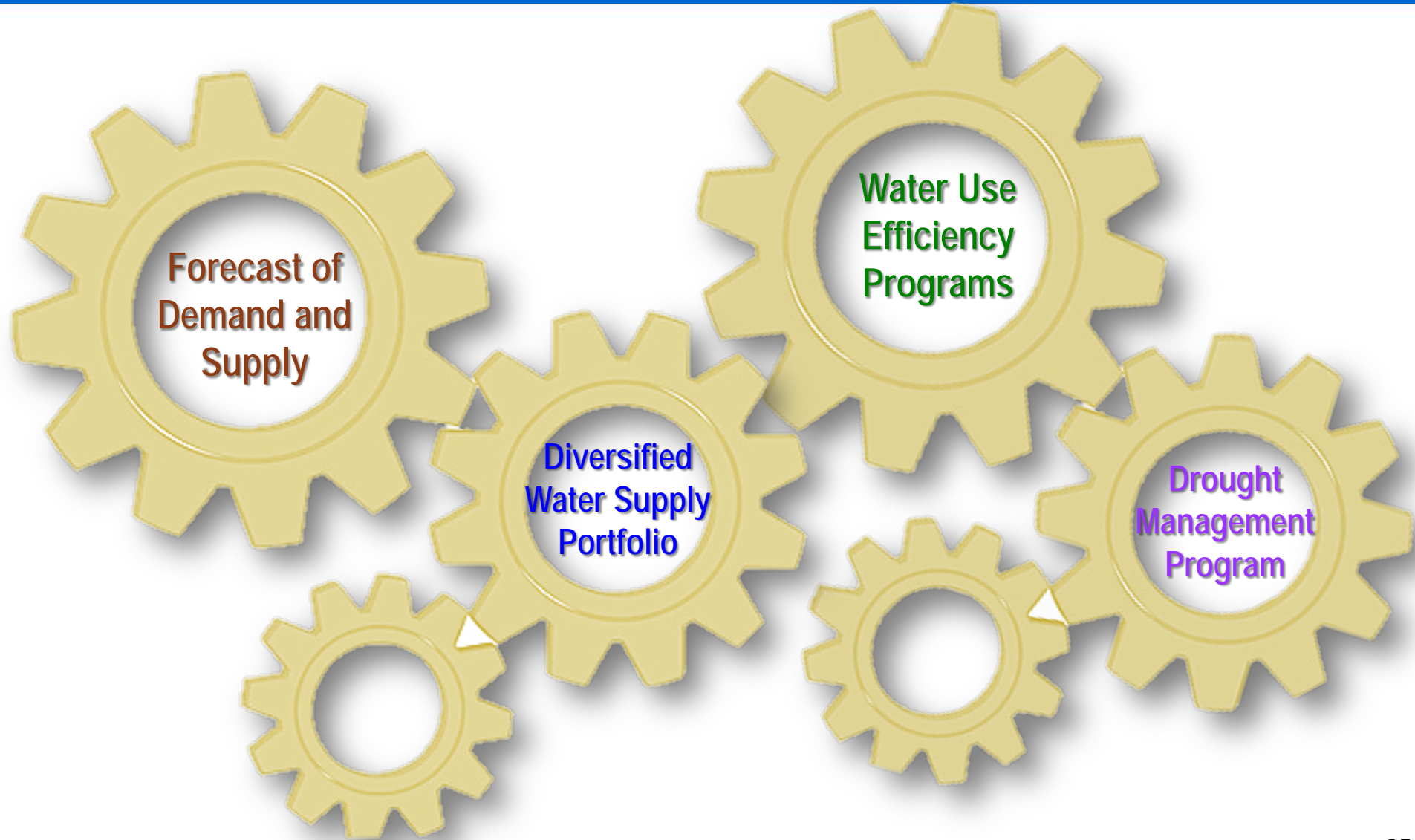
Public
Meeting

Public
Hearing

For Board
Consideration

Urban Water Management Plan

Major Elements of the Plan



Urban Water Management Plan

Resilient & Diversified Portfolio



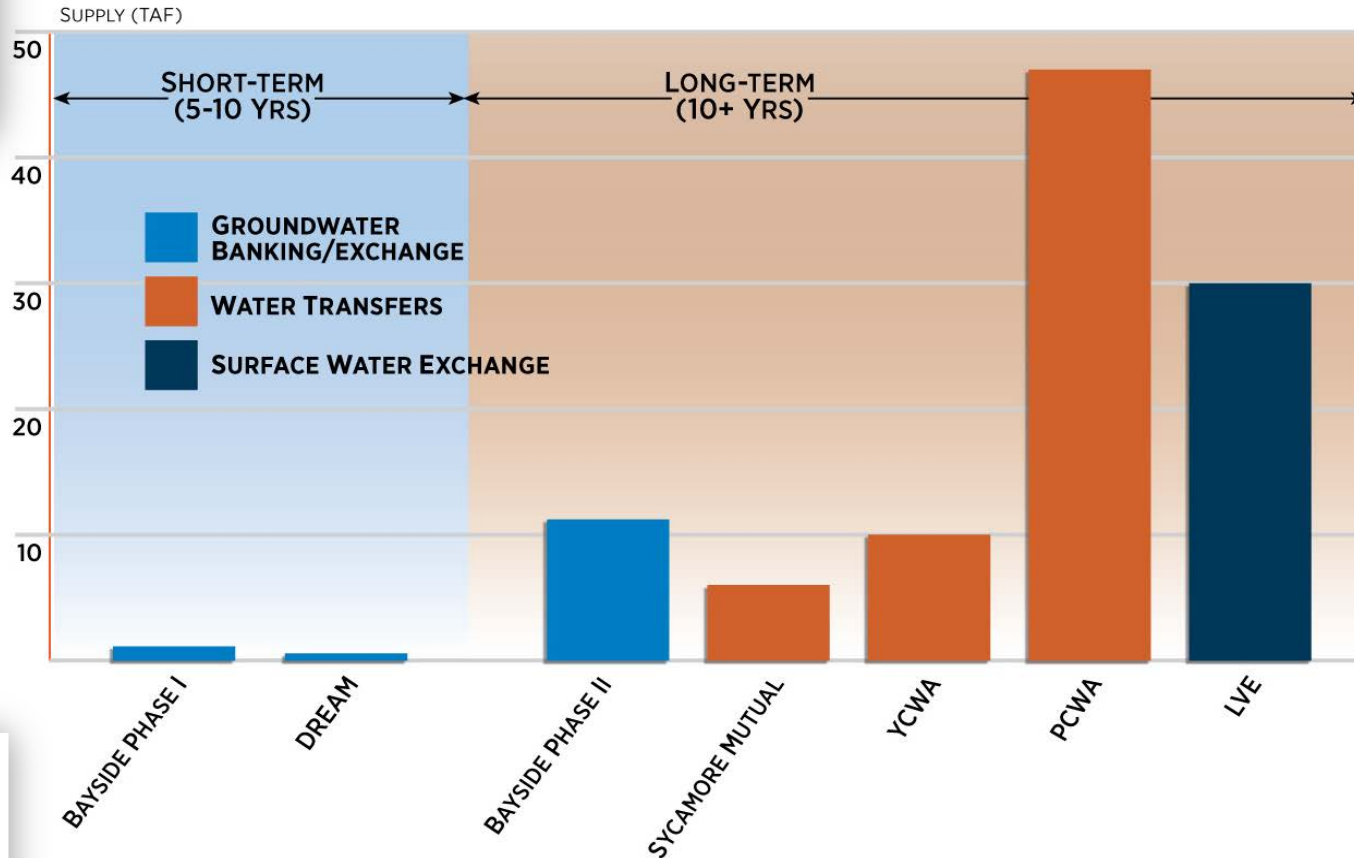
CVP



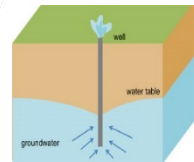
WTP

FIGURE 5-1

SHORT- AND LONG-TERM SUPPLEMENTAL SUPPLY PORTFOLIO



Regional
Projects



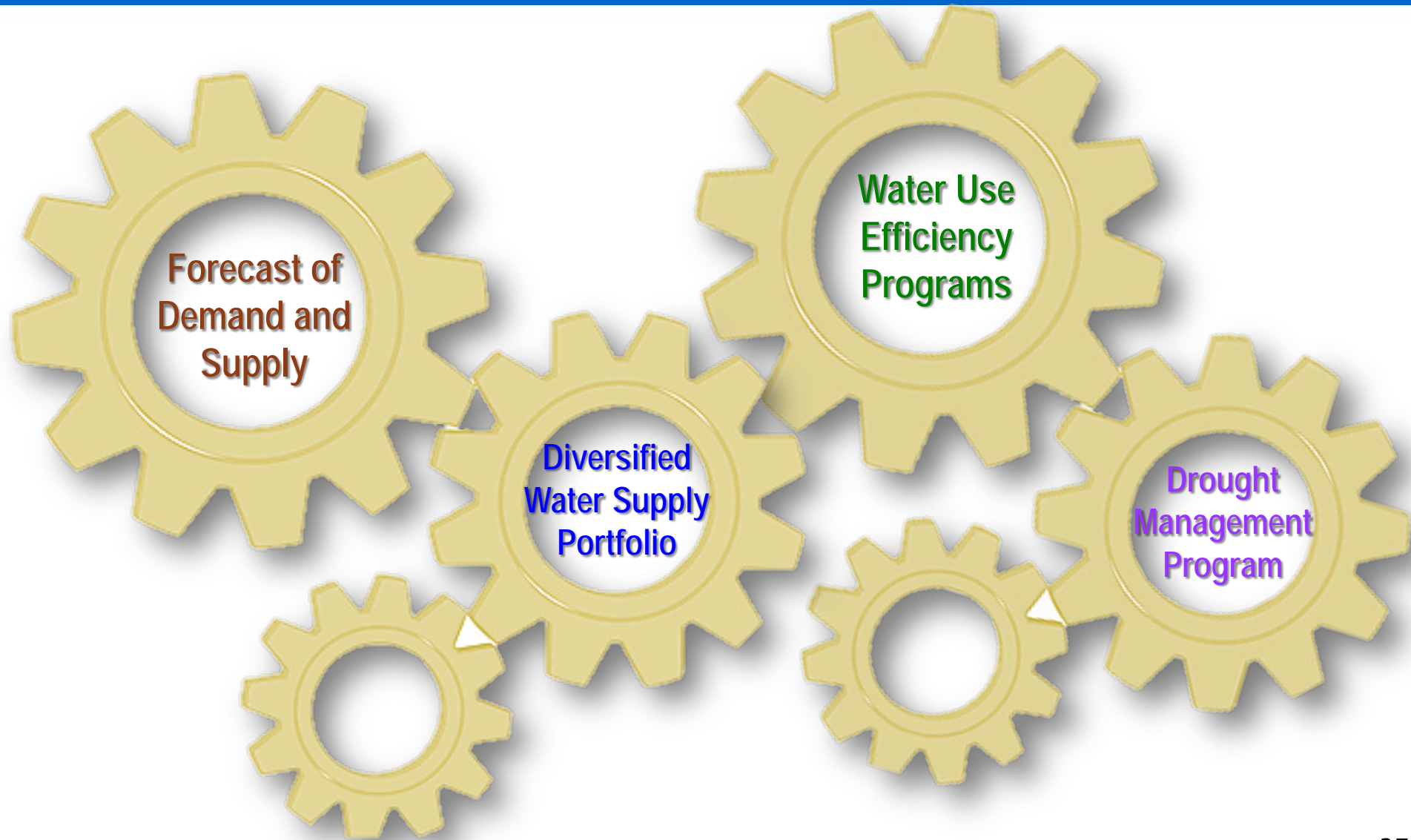
GW

Key Takeaway:

- 1 A diverse portfolio provides flexibility to adaptively manage our system against future uncertainties.

Urban Water Management Plan

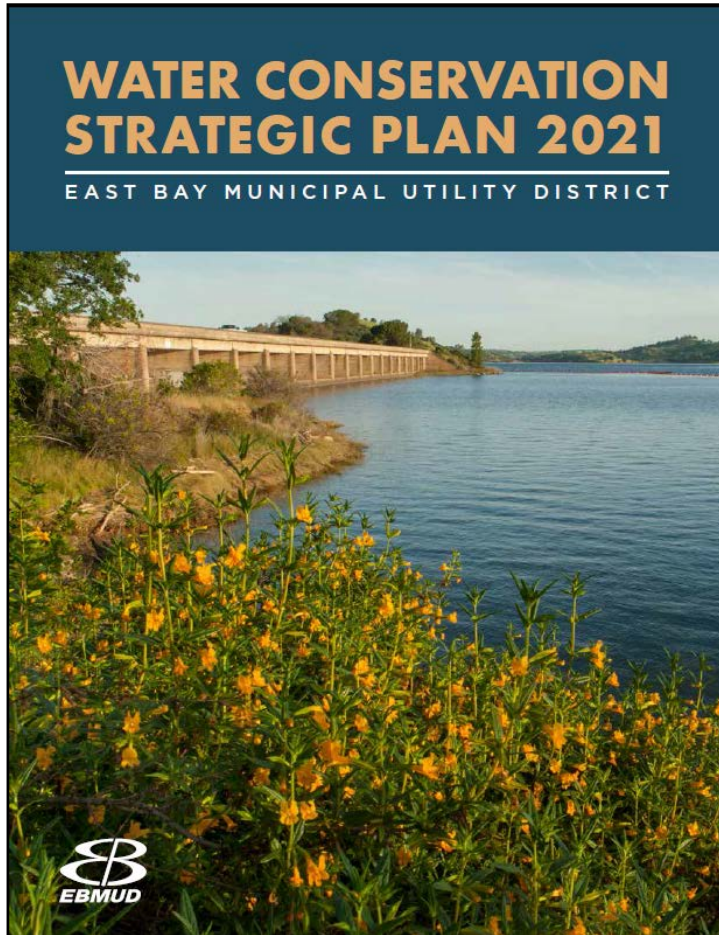
Major Elements of the Plan





Water Conservation

Water Conservation Strategic Plan Update



- **WCSP: Program Drivers & 2050 Conservation Target**
- **Key Initiatives**
- **Implementation Strategies**
- **State Long-Term Framework Update**

Water Conservation

WCSP: Program Drivers



East Bay Municipal Utility District
@ebmud

Garden for the 🐦🐦🐦! This fall, start a California native garden and bring nature to your doorstep. Find native plant sales, nurseries and resources at bit.ly/naturehood1.
#fallplantingseason #naturehoodgardening



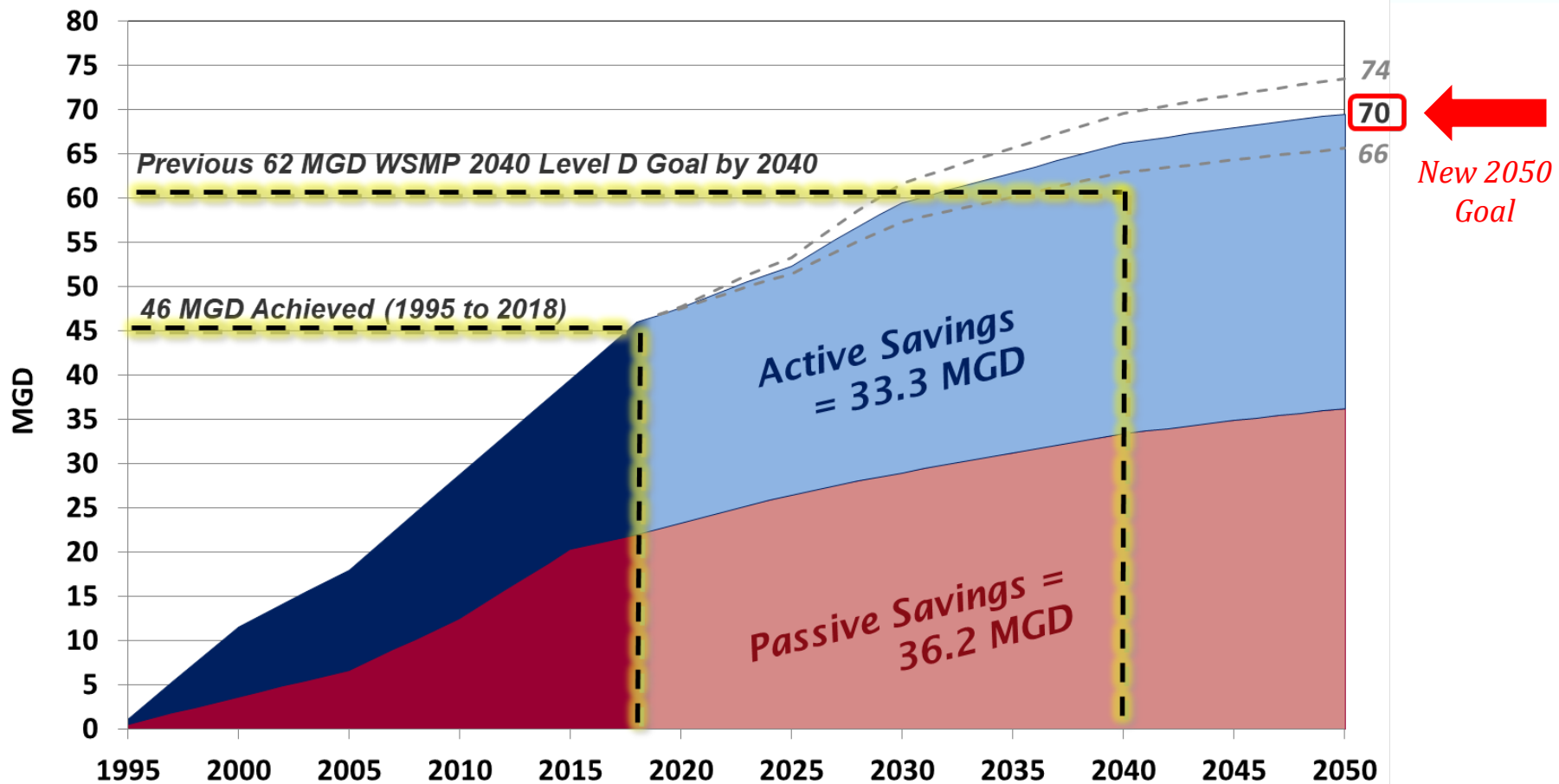
4:44 PM · Nov 9, 2020 · Twitter Web App

1 Retweet 4 Likes



Water Conservation

WCSP: Program Drivers – A New Goal

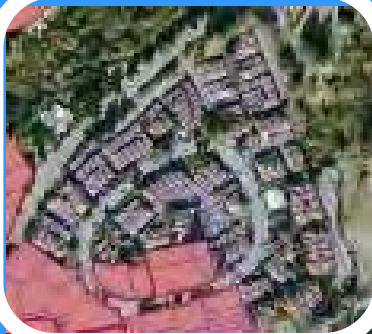


Key Takeaway

- 1 The WCSP 2021 Update establishes a new goal of 70 MGD by 2050.

Water Conservation

WCSP: Key Initiatives



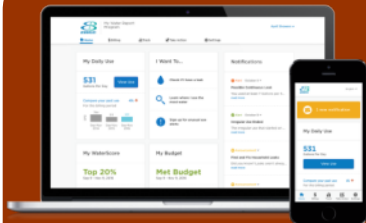
Water
Management



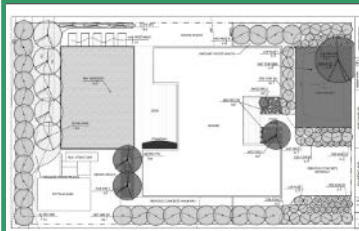
Education &
Outreach



Conservation
Incentives



Research &
Development

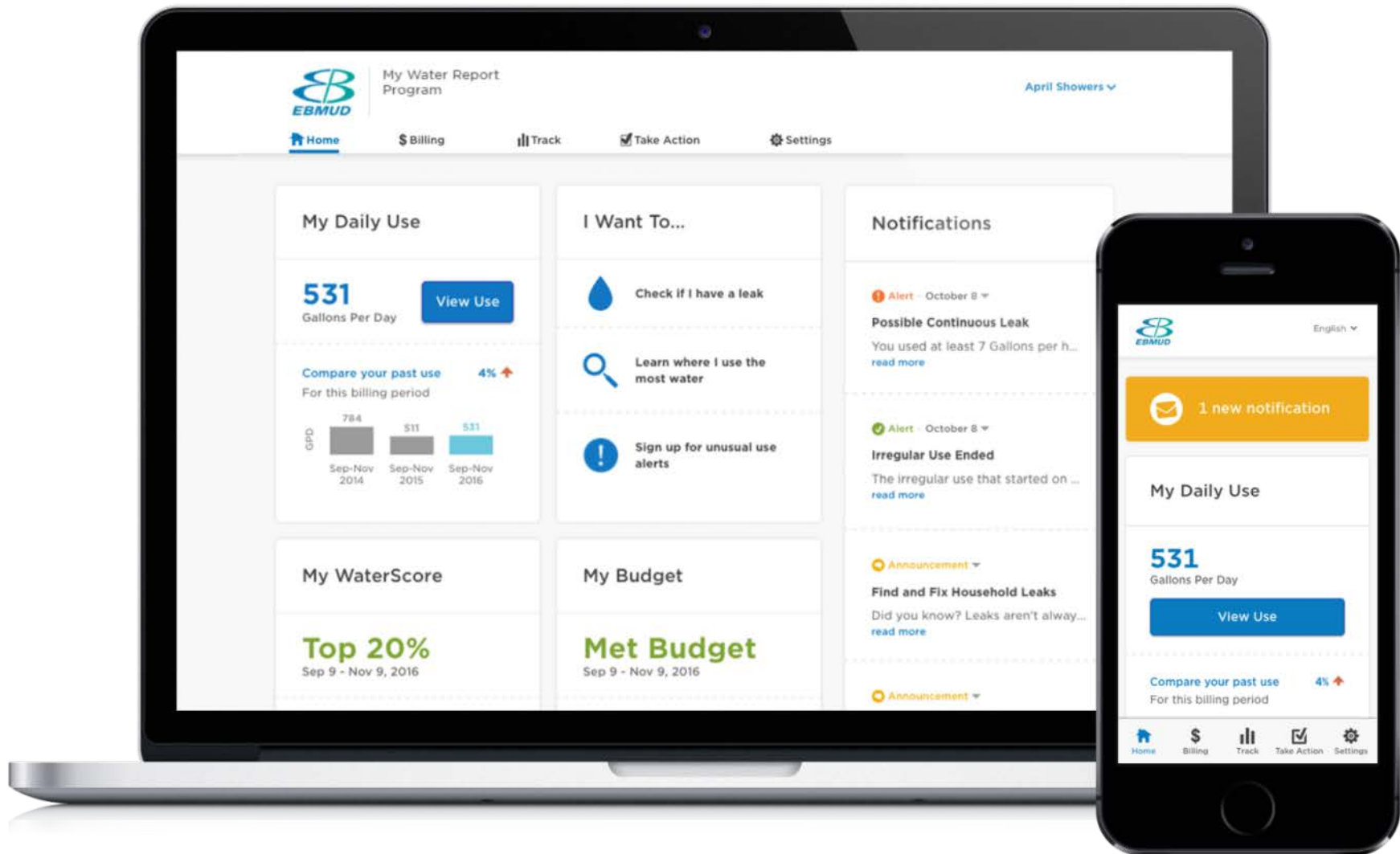


Regulation &
Legislation

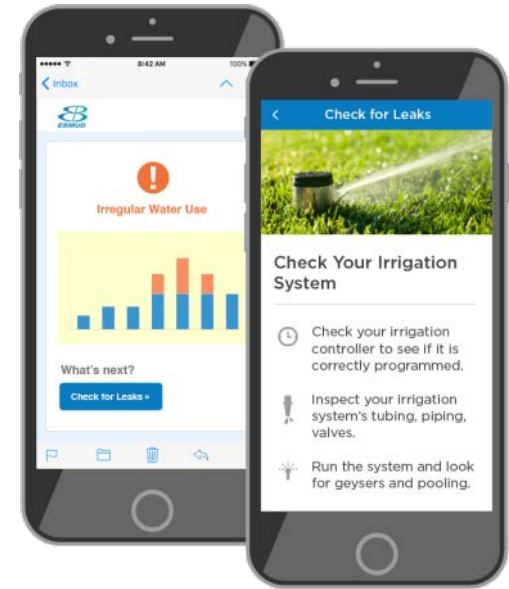
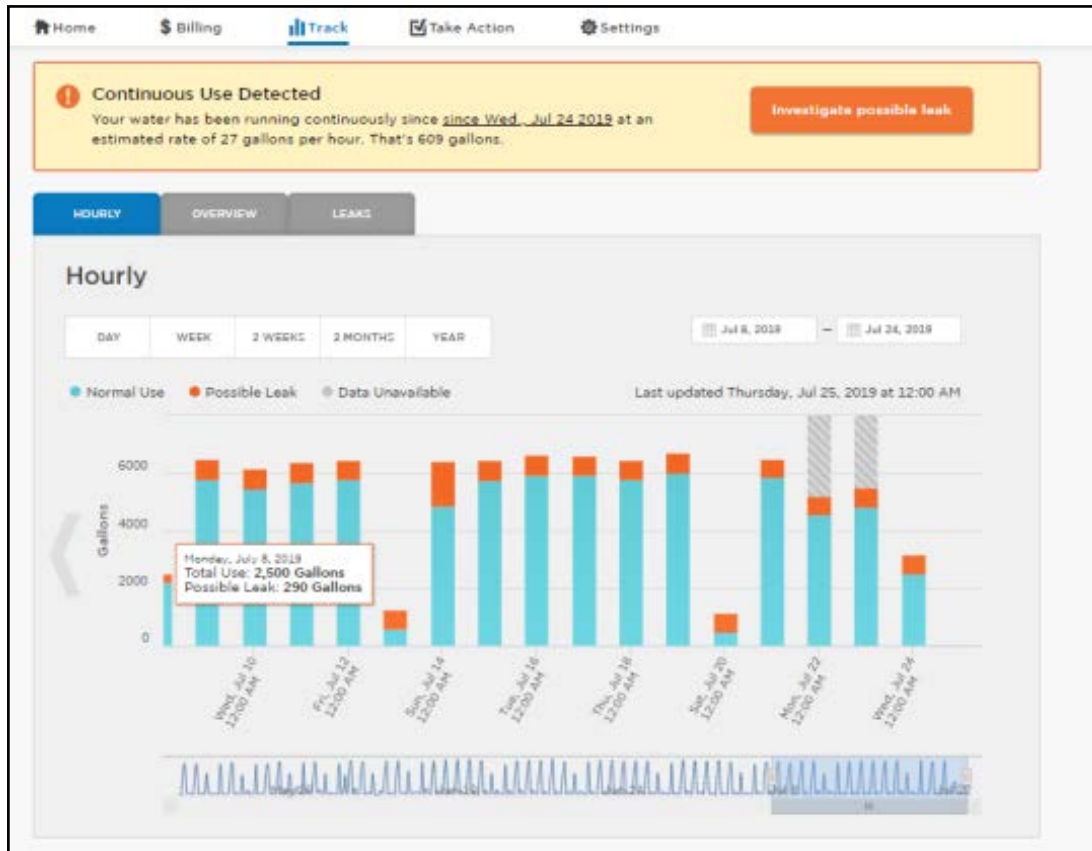


Supply Side
Conservation

Water Conservation Water Management Services



Water Conservation Water Management Services



LEAKS 101

The most common causes of irregular water use are easy to find and fix. For more detailed tips, log on to ebmud.waterinsight.com/LeakCheck.



Running Toilets
Listen for running water or do a dye test. Check the flapper and the float valve.



Irrigation
Check your controller settings. Inspect your system for breaks or excessively damp areas.



Pipes & Fixtures
Look for wet spots near your faucets, showerheads, and water heater, and behind appliances.

Key Takeaway

1

New technology gives us better tools to help customers save water.

Water Conservation Water Management Services



WaterSmart Program
123 Main Street
Anytown, CA 98765

415.555.5555 | info@citywater.com

YOUR HOME WATER REPORT

THIS IS AN INFORMATIONAL REPORT AND NOT A BILL.

SERVICE ADDRESS: 456 Washington St., Anytown
ACCOUNT NUMBER: 123456789-01

SIGN UP TO GET THIS REPORT VIA EMAIL:
citywater.com

Blair Jones
123 Washington St.
Anytown, CA 98765

Your WaterScore

AUG 15 SEP 31, 2014

You used **more water** than most of your neighbors.

Gallons Per Day (GPD)
22 CCF = 276 GPD

| Category | GPD |
|---------------------|---------|
| Efficient Neighbors | 111 gpd |
| Average Neighbors | 250 gpd |
| You | 276 gpd |

Are we comparing you fairly?
2 occupants and a 2,000 to 4,000 sq. ft. yard.
Not right? Log on to correct us. Your comparisons and recommendations will adjust accordingly.
citywater.com

How much you could be saving
If you took the actions below, you'd be closer to **152 GPD**. That's **\$515** per year in potential savings.

| Category | GPD |
|---------------------|---------|
| Efficient Neighbors | 111 gpd |
| Average Neighbors | 250 gpd |
| You | 276 gpd |

Water-saving actions just for you

Selected assuming your home has 2 occupants and a 2,000 to 4,000 sq. ft. yard.
Log on to correct us!

Potential savings if you:

| Action | Gallons Per Day | Dollars Per Year |
|-------------------------------|-----------------|------------------|
| Install a faucet aerator | 24 | \$142 |
| Fill up the clothes washer | 18 | \$92 |
| Change grass to native plants | 82 | \$281 |

A free service offered by your water utility and powered by WaterSmart Software®

Log On
Take the guesswork out of saving water. See:
• Where you're using the most
• All actions relevant to you
• Step-by-step tips and rebates

citywater.com
Registration Code: XYZXYZ
Zip Code: 98765

EAST BAY MUNICIPAL UTILITY DISTRICT

Recommended Water Budget Single Family

Thank you for participating in our Single Family Water Budget Program. The following is your customized water usage profile for the last two years. The graphical description compares your measured water usage versus your budgeted water usage for each billing period. The purpose of the budget report is to show customers how efficiently water is being used inside and outside the home.

Customer Name: Matthew P Blackwell
Service Address: 1111 Richmond St
City: El Cerrito
Account #: 12345678901
Meter #: 1465328
Est. Irrigated Acreage (I): 900
Household occupants: 2
Days/Weekend use: 80

Water Budget Summary:
Gallons used last 12 months: 41,146
Gallons used previous year: 44,412
Percent of budget for 12 months: 84%
Percent of budget for previous year: 87%
2 years estimated savings in gallons: 1,603

Recommended Area at 1111 Richmond St

Usage Profile:

| Month | Usage (GPD) | Budget (GPD) | Usage (GPD) | Budget (GPD) |
|-----------|-------------|--------------|-------------|--------------|
| January | 101 | 102 | 112 | 117 |
| February | 101 | 102 | 112 | 117 |
| March | 101 | 102 | 112 | 117 |
| April | 101 | 102 | 112 | 117 |
| May | 101 | 102 | 112 | 117 |
| June | 101 | 102 | 112 | 117 |
| July | 101 | 102 | 112 | 117 |
| August | 101 | 102 | 112 | 117 |
| September | 101 | 102 | 112 | 117 |
| October | 101 | 102 | 112 | 117 |
| November | 101 | 102 | 112 | 117 |
| December | 101 | 102 | 112 | 117 |

EBMUD calculates the average indoor water use per person with high efficiency fixtures at 40 gpd (gallons per day).
EBMUD calculates the average outdoor water use per acre with high efficiency irrigation at 100 gpd (gallons per day).
The Water Budget Calculation does not use data, typically irrigation systems can be turned off for the winter months of November, December, January, and February.
The Maximum Allowable Water Budget for landscaping efficiency January 2015 is calculated using 90% of ECU for the irrigated area of landscaping. If you feel the irrigated area is too small or would like more information on this program, contact EBMUD at (415) 247-1993.

www.ebmud.com/watersmart | We make it easy to conserve. | EBMUD



EAST BAY MUNICIPAL UTILITY DISTRICT

Commercial, Institutional, Industrial Newsletter

Volume 12, 2020

Key Takeaway

1

The District is planning to integrate water budgets into standard water reports.

Water Conservation Water Management Services



Key Takeaway

1

The District is leveraging partnerships with County Green Business Programs to increase conservation.

Water Conservation Education & Outreach



EBMUD Fall Webinar Series

Get started with water-wise gardening

Thursday 9/17: 1-2pm

Plant selection for beginning gardeners

Wednesday 9/23: 1-2pm

No frustration irrigation

Thursday 9/29: 1-2pm

Graywater: laundry to landscape

Thursday 10/8: 1-2pm

Big gardens in small spaces

Thursday 10/15: 1-2pm



EAST BAY MUNICIPAL UTILITY DISTRICT

water
SMART

Neighborhood Scavenger Hunt

The plants on this list are special! They are native to California, which means they are adapted to CA's climate and need little to no extra water in the dry summer months. Native plants are a great choice for the garden because they save water and also provide critical habitat and food for birds, butterflies, and beneficial insects.

Grab this list and let's get started! How many of these plants can you find?

Scoring

Plants = 1 point, Bees = 1 bonus point, Butterflies = 2 bonus points, Hummingbirds = 3 bonus points

| | | | | | |
|--|--|--|--|--|--|
| | | | | | Score Card Plants: Bees: Butterflies: Hummingbirds: Total points: |
| | | | | | |
| | | | | | |

Pictures courtesy of Plant Water

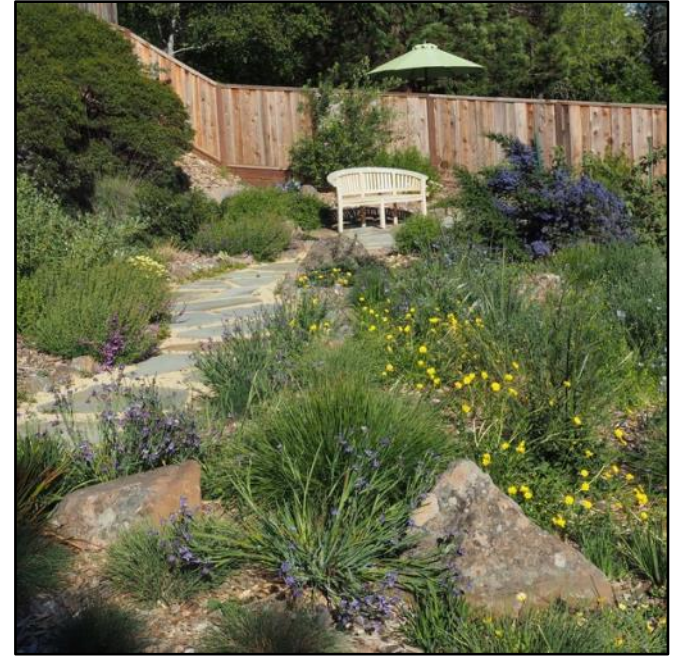
For more low-water use plant inspiration check out:
ebmud.com/plants

www.ebmud.com/watersmart

We make it easy to conserve.



Water Conservation Conservation Incentives

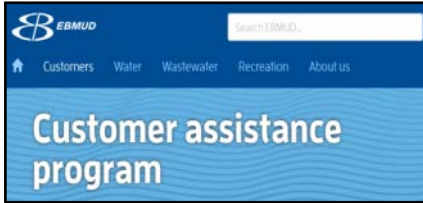


Key Takeaways

- 1 Incentives and rebates continue to be important, but they may look different than they did ten years ago.
- 2 New focus on improving landscape designs for lasting savings.

Water Conservation

Conservation Incentives - Equity



Coordination with CAP Program



FlumeCares Partnership



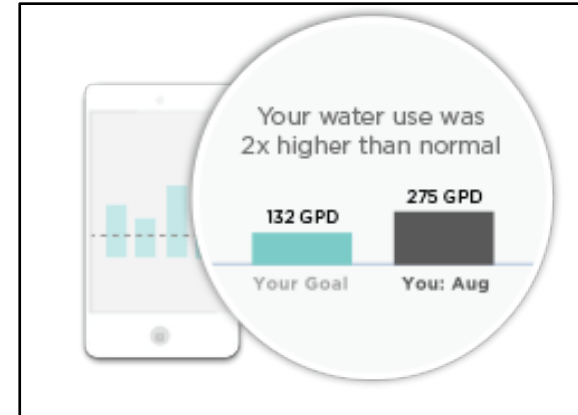
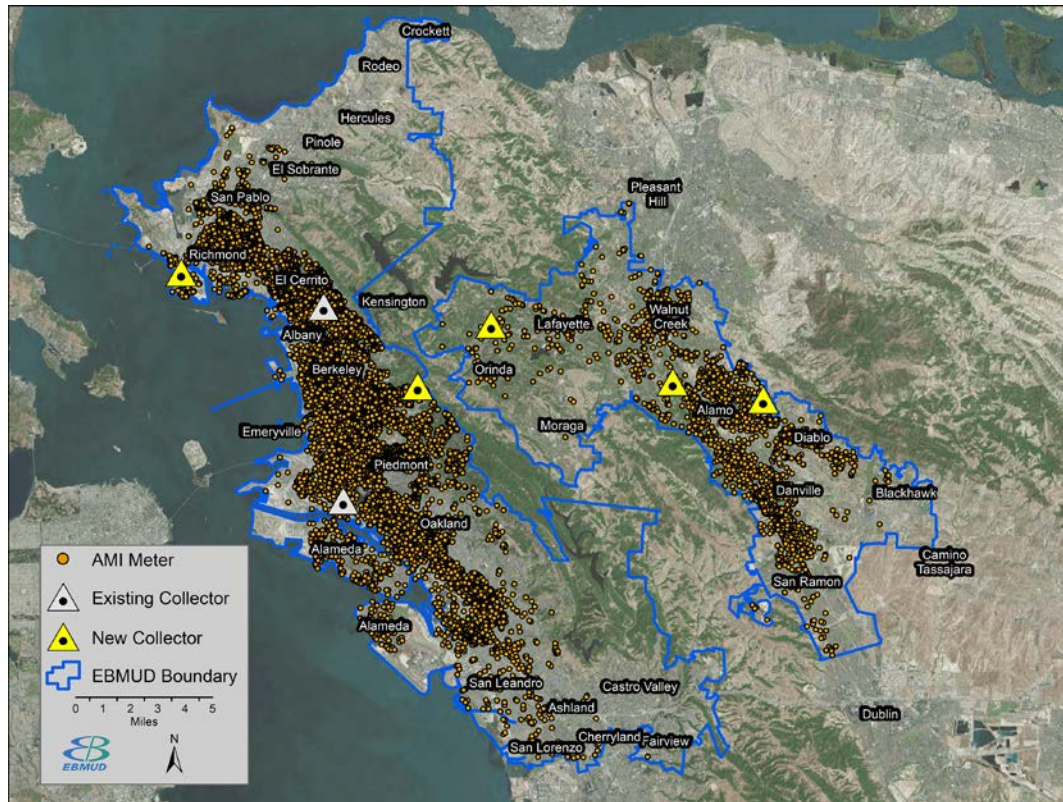
PG&E Water-Energy Coordination Program



Leak Repair/Assistance Program

Water Conservation

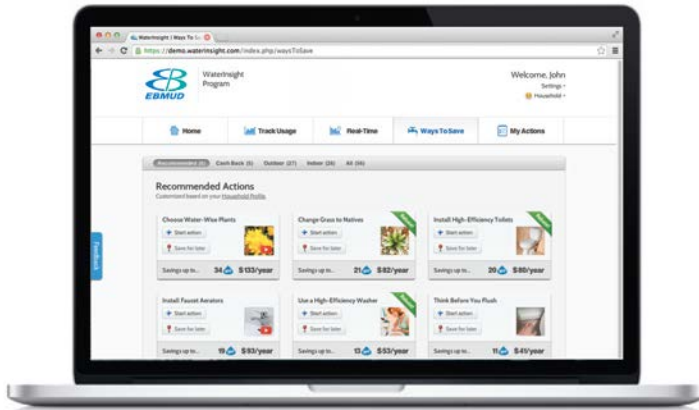
Research & Development – Current Focus on AMI



Key Takeaway

- 1 Better data = better tools and more water savings.

Water Conservation Research & Development – Potential Future Focus



Key Takeaway

1

Continue to be a leader in research and development.

Water Conservation Regulation & Legislation



- **State and Federal Efficiency Regulations**
- **State Long-Term Framework and SB 555**
- **District Water Service Regulations**
 - Section 31 Reviews of Applications for New Service



Key Takeaway

- 1 Regulatory requirements will continue to drive water conservation.

Water Conservation Implementation Strategies



1



Marketing and Outreach

2



Created by Gregor Cresnar
from Noun Project

Partnerships

3



Grant Funding

4



Technology

Water Conservation

State Long-Term Framework Update



Water Use Objectives:

$$\begin{aligned} &\text{Indoor Residential Use} \\ &+ \\ &\text{Outdoor Residential Use} \\ &+ \\ &\text{Dedicated Commercial Irrigation Use} \\ &+ \\ &\underline{\text{Distribution System Water Loss}} \\ &= \end{aligned}$$

Annual Water Use Objectives



Key Takeaway

- 1 EBMUD staff are stakeholders in the working groups for this legislation.

Water Conservation

Indoor Water Use Target



Gallons / Day / Person

- 2020 – 55.0
- 2025 – 52.5
- 2030 – 50.0



Water Conservation

Update on Residential Landscape Area Measurements



- DWR is approaching 50% delivery to water agencies
- Short agency turn-a-round review process
- The landscape efficiency factor is currently under development
- October 2021, DWR makes its recommendations to Water Resources Control Board



Satellite Parcel View

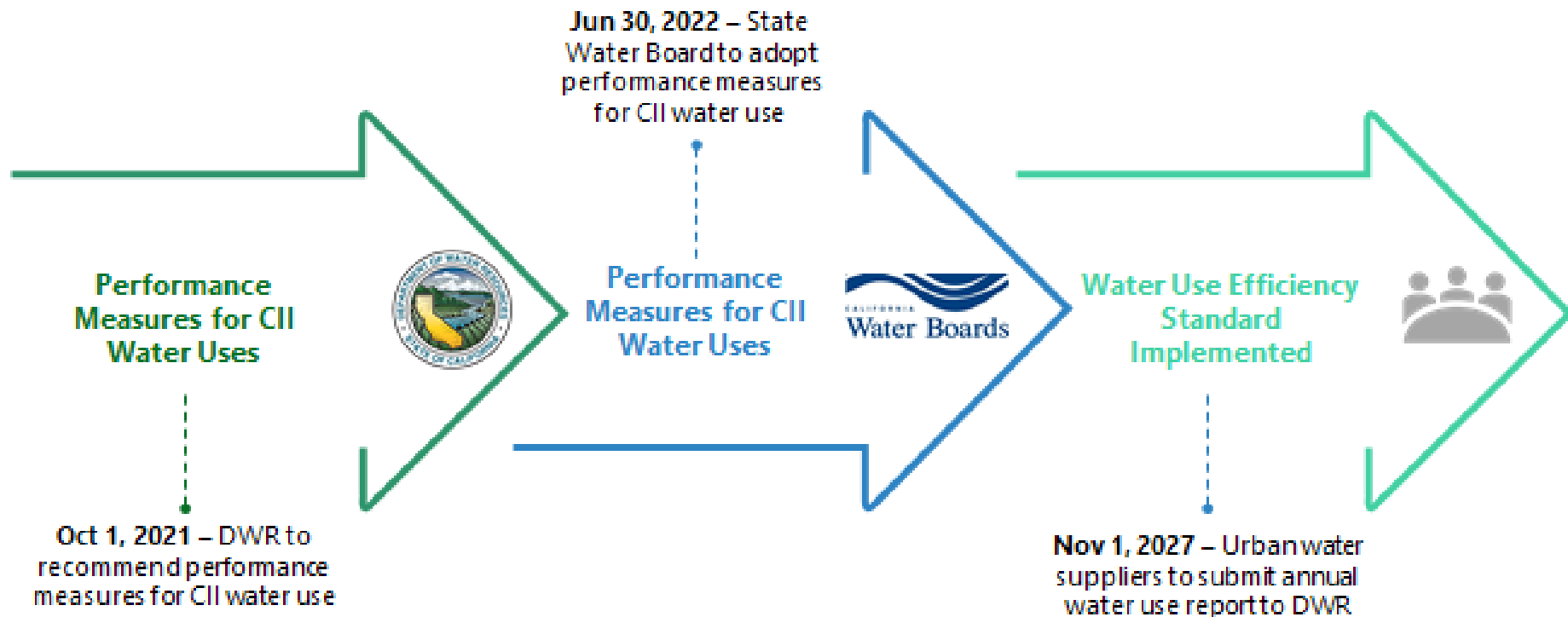
Area Measurements

Water Conservation

Dedicated Commercial Irrigation Use and Performance Measures for CII



- EBMUD has been installing dedicated irrigation meters for decades supported by the water budget program.
- The business CII BMP component is still under development.



Water Conservation

Water Loss Reporting – SB 555



- State Water Resources Control Board (SWRCB) released the draft regulation in December 2020.
- The draft regulation is required to be peer reviewed before performance standards are adopted.
- SWRCB has not initiated the comment period yet.
- The District is opposed to portions of the SWRCB's proposals. The District's previous comment letters have resulted in some improvements to the SWRCB's proposals.





Recycled Water Program

Recycled Water Program Updates



1



Residential Fill Station Pilot

2



East Bayshore Recycled Water Program

3



San Ramon Valley Recycled Water Program & DERWA

4



North Richmond and RARE

5



Phillips 66

6



Satellite Recycled Water Projects

Recycled Water Program

Residential Fill Station Pilot



Residential Fill Station Pilot Results

Employees Only

3 Months

11 Participants

27 Visits

1,500 Gallons

2 Agency
Agreements



Key Takeaways

- 1 Seeking approval of the Water Board to operate the fill station during drought years.
- 2 Working on a regional approach for recycled water use.

Recycled Water Program

East Bayshore Recycled Water Program



Water Quality Study Outcomes

EBMUD East Bayshore Water Quality Improvements RO Pilot Test Plan

Dec 2020

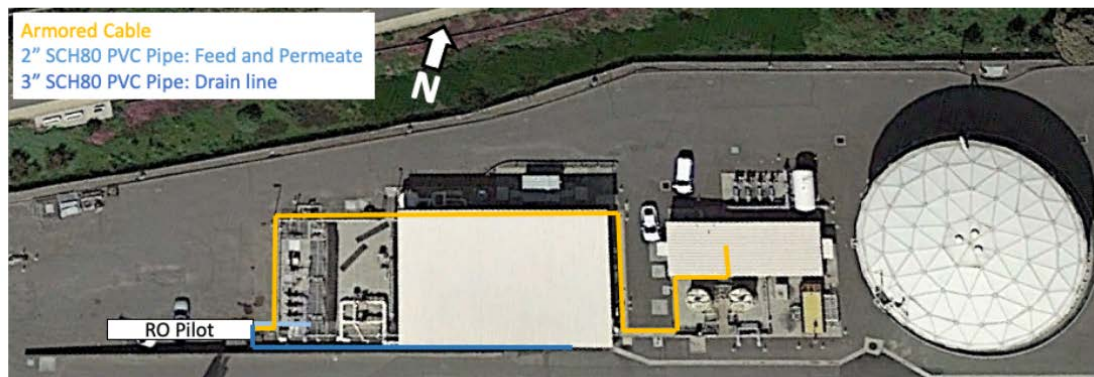


Figure 2-1. RO Pilot Unit and Connections Layout



Photo by: Trussell Technologies, Inc.

Key Takeaways

- 1 Study includes reverse osmosis and breakpoint chlorination alternatives.
- 2 Final recommendations from the pilot study available in spring 2022.
- 3 Recommended improvements will increase customer base.

Recycled Water Program

San Ramon Valley Recycled Water Program and DERWA



- San Ramon - Retrofits
 - Canyon Lakes Golf Course
 - Crow Canyon Country Club Golf Course
- DERWA
 - JPA negotiations
 - Supplemental Supply



Courtesy of: Crow Canyon Country Club Golf Course

Key Takeaways

- 1 Customer connections are nearing completion until supplemental supply is secured.
- 2 Work continues to update the JPA, Supply and Sales Agreements.

Recycled Water Program

North Richmond and RARE



Compliance by Nick Youngson CC BY-SA 3.0 Alpha Stock Images

Key Takeaways

- 1 Capital improvements to replace aging infrastructure at North Richmond will increase reliability.
- 2 Upcoming capital projects at RARE will improve regulatory compliance.

Recycled Water Program

Phillips 66



- Coming in 2023: Rodeo Renewed Project
 - Will decrease potable demand by 1 MGD
- Recycled water “fits” with renewable energy
- 2.8 MGD On-site Recycled Water Facility



Key Takeaways

- 1 Continue to coordinate with Phillips 66 as they transition to renewable energy.
- 2 Adapt our plans for an on-site recycled water facility to accommodate Phillip 66’s new business model.

Recycled Water Program

Satellite Recycled Water Projects



- Package plant to serve large customers far from centralized projects
- Customer-funded
- Three potential projects
 - Diablo Country Club
 - Rossmoor
 - Sequoyah Country Club



Photo by: Golden Rain Foundation/Rossmoor: Jeffrey Matheson

Key Takeaway

- 1 Staff will provide an update to the Planning Committee on March 9, 2021.

An aerial photograph of a city, likely San Francisco, showing a dense urban area with a river and a bridge. The image is in grayscale and serves as a background for the text.

Water Transfers Update

Introduction to Water Futures Market

Water Transfers Update

Long-Term Water Transfer Program Update



Placer County Water Agency Long-Term Water Transfer

- Working on USBR Long-Term Warren Act Contract (NEPA)
- Model update with 2019 Biological Opinions
- Target completion date: 2022
- Interim agreement in effect



Sycamore Mutual Water Company Ten-Year Water Transfer

- Feasibility study completed in May 2020
- Developing project description with SMWC & Environmental Defense Fund (EDF)
- Engaged with The Nature Conservancy (TNC) to expand project delivery



Yuba Water Agency Five-Year Water Transfer

- Developing project description under 2019 Biological Opinion
- 5-year Warren Act EA/BA is next step

Key Takeaways

- 1 District is working on long-term agreements with multiple agencies/sources.
- 2 District is prepared for short-term water purchases through interim agreements.

Water Transfers Update

Water Futures Market 101



Contract between
Buyer & Seller



Water Futures Contracts Trading

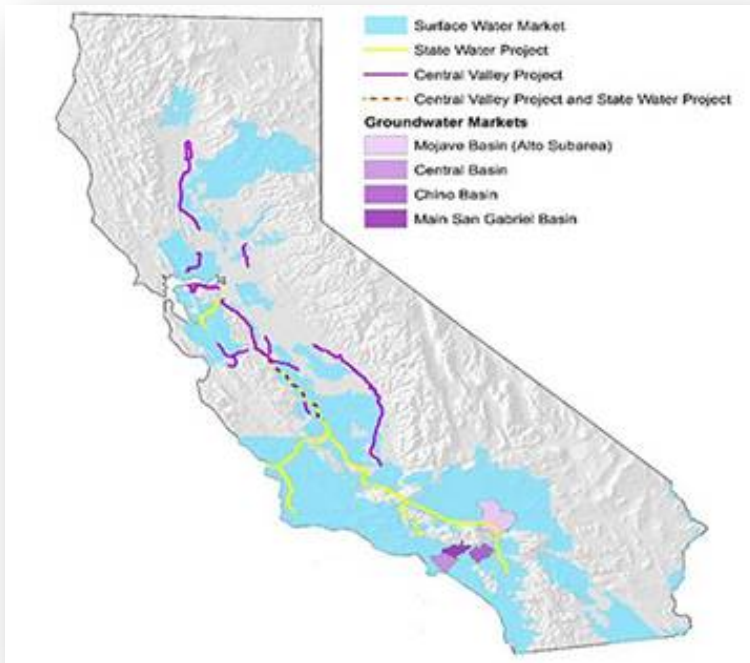
- CME started trading water futures on Dec 7
 - ✓ Each contract is to buy/sell 10 acre-feet
 - ✓ Week 1 of trading: 36 contracts were traded

Key Takeaways

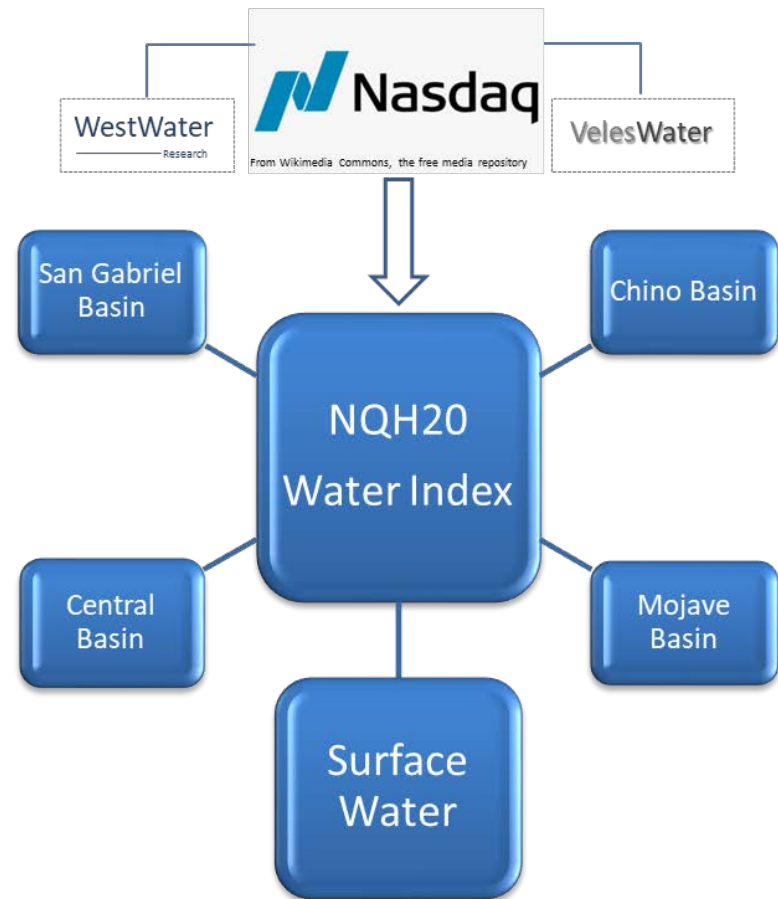
- 1 Futures can be used for hedging and/or financial speculation.
- 2 Water futures are cash-settled. No physical delivery required.

Water Transfers Update

Water Index (NQH20) – Basis for Water Futures



Source: CME Group

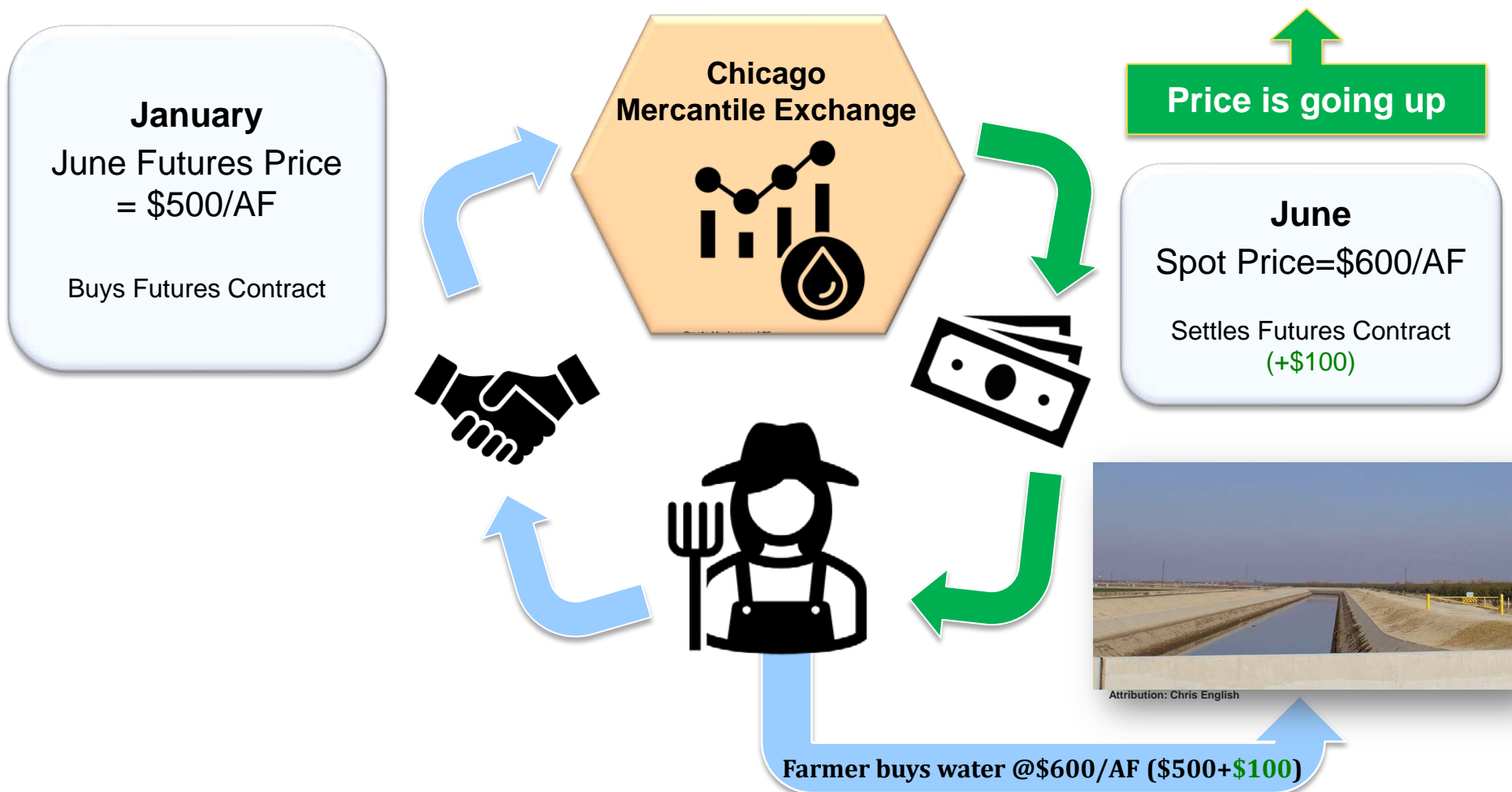


Key Takeaway

- 1 Price of surface water (and groundwater) dictates Water Index (NQH20) price.

Water Transfers Update

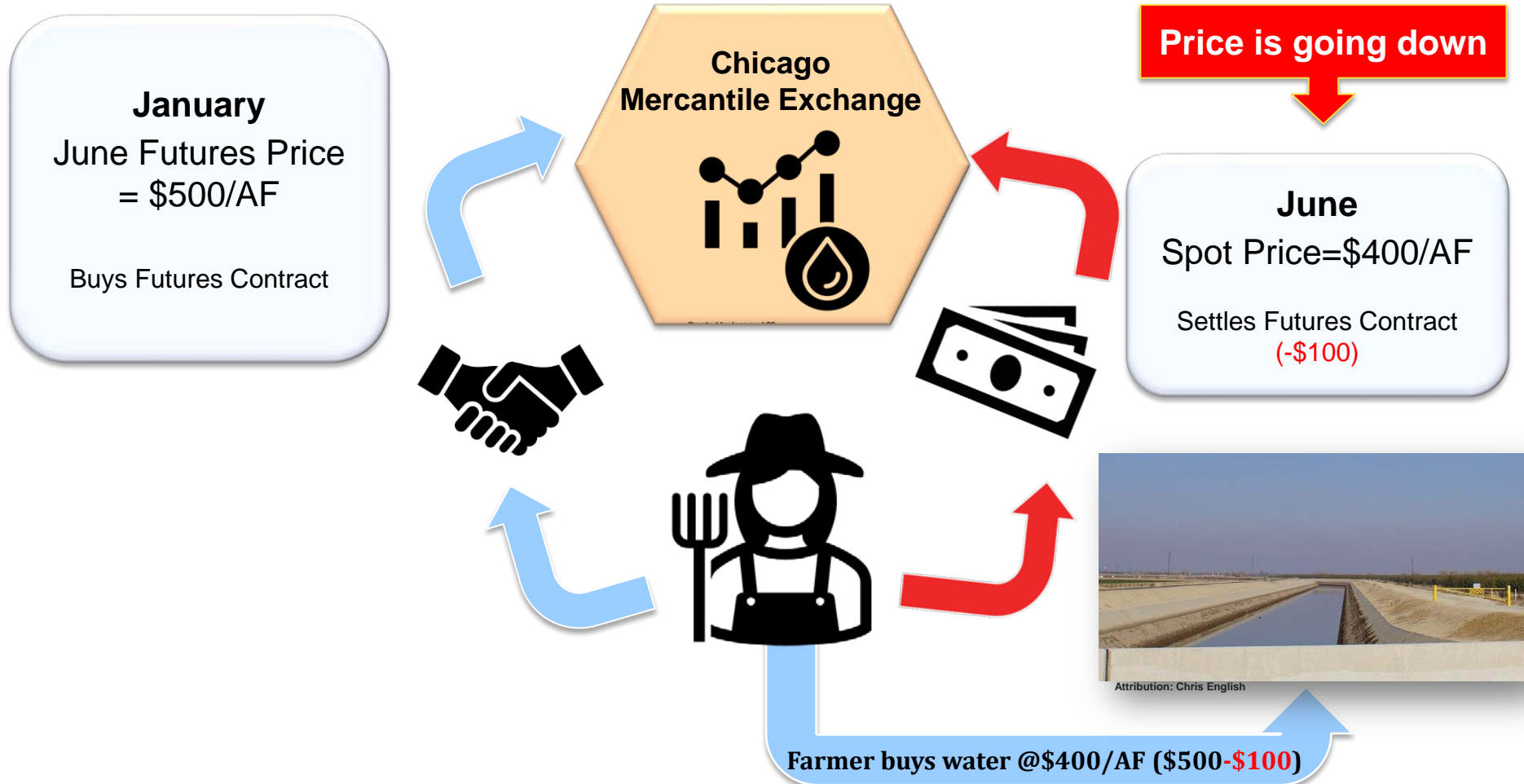
Example of a farmer buying water futures



Farmer needs 1 AF of water in June – budget is \$500/AF

Water Transfers Update

Example of a farmer buying water futures



Farmer needs 1 AF of water in June – budget is \$500/AF

Water Transfers Update

What are the potential impacts on the District?



Long-term Water Rights
Entitlements



Created by Eucalypt
from Noun Project



Stable
Demand and
Revenue

*"I don't think the futures
contract itself is really
changing the water
markets"*

Barton "Buzz" Thompson, professor of
natural-resources law at Stanford
University
(Source: Bloomberg.com, Dec 6, 2020)

Key Takeaways

- 1 Too early to tell but unlikely to impact District's water rights and CVP contract.
- 2 Impacts, if any, could occur in the water transfer market.
- 3 Keep monitoring and evaluating.

An aerial photograph of Los Vaqueros Reservoir, showing the large body of water surrounded by rolling hills and valleys. The reservoir is the central feature, with its shoreline curving through the landscape. In the lower-left corner, a dam and associated infrastructure are visible. The terrain is a mix of open fields and forested areas, with winding roads visible throughout. The overall tone is sepia, giving it a historical or archival feel.

Los Vaqueros Reservoir

Los Vaqueros Reservoir

Purpose & Participants



Los Vaqueros: 160 TAF to 275 TAF



8- Potential Partners (alphabetical)

| | | | |
|---|-----------------------------------|---|-----------------------|
| 1 | ACWD | 5 | San Luis DMWA |
| 2 | Contra Costa WD (w/ Brentwood) | 6 | SF PUC (w/ BAWSCA) |
| 3 | EBMUD | 7 | Valley Water |
| 4 | Grasslands | 8 | Zone 7 |

| Item | Capital, \$M (2020 \$) |
|-------------|---------------------------|
| Project | \$942 |
| CWC Grant | (\$470) |
| Local Share | \$472 |

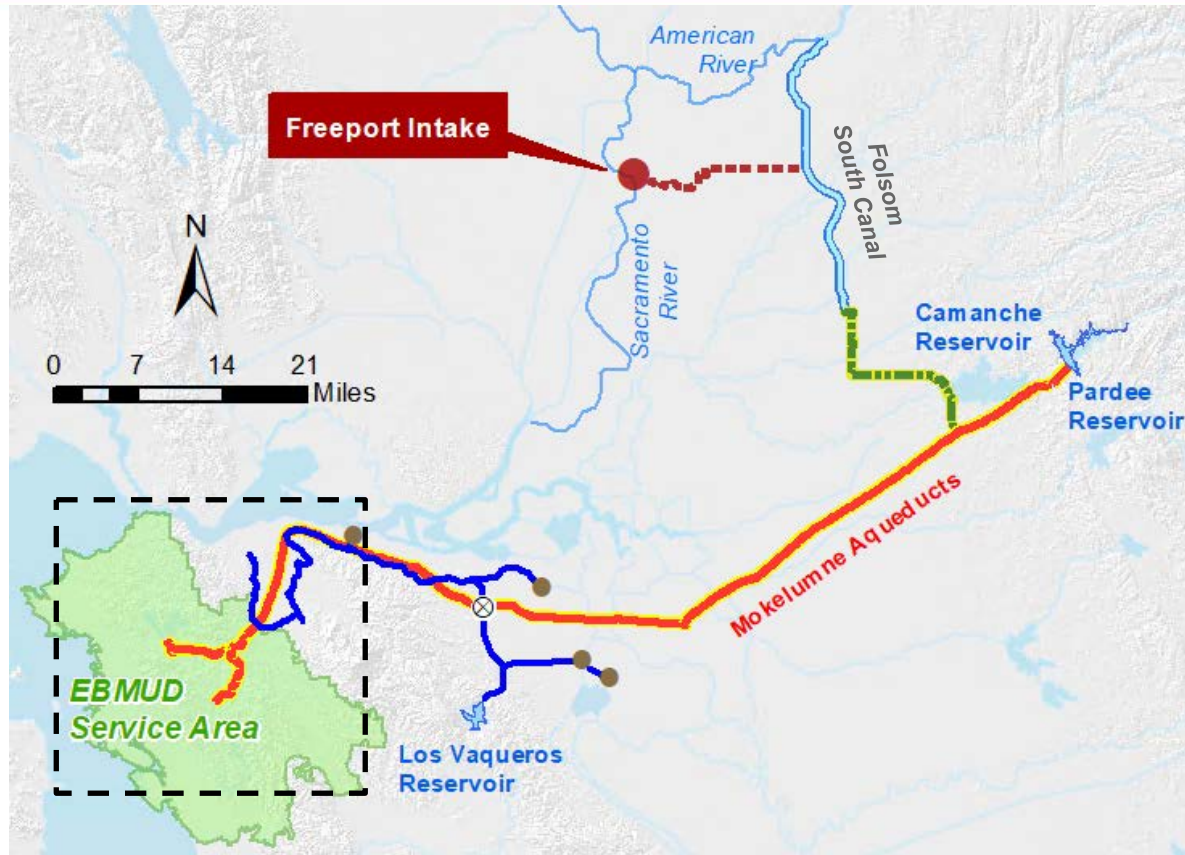
CWC: California Water Commission

Key Takeaways

- 1 District is evaluating whether to secure 30 TAF of storage in Los Vaqueros.
- 2 The estimated cost for the District is \$50M to \$100M depending on grant funding.

Los Vaqueros Reservoir

EBMUD Participation

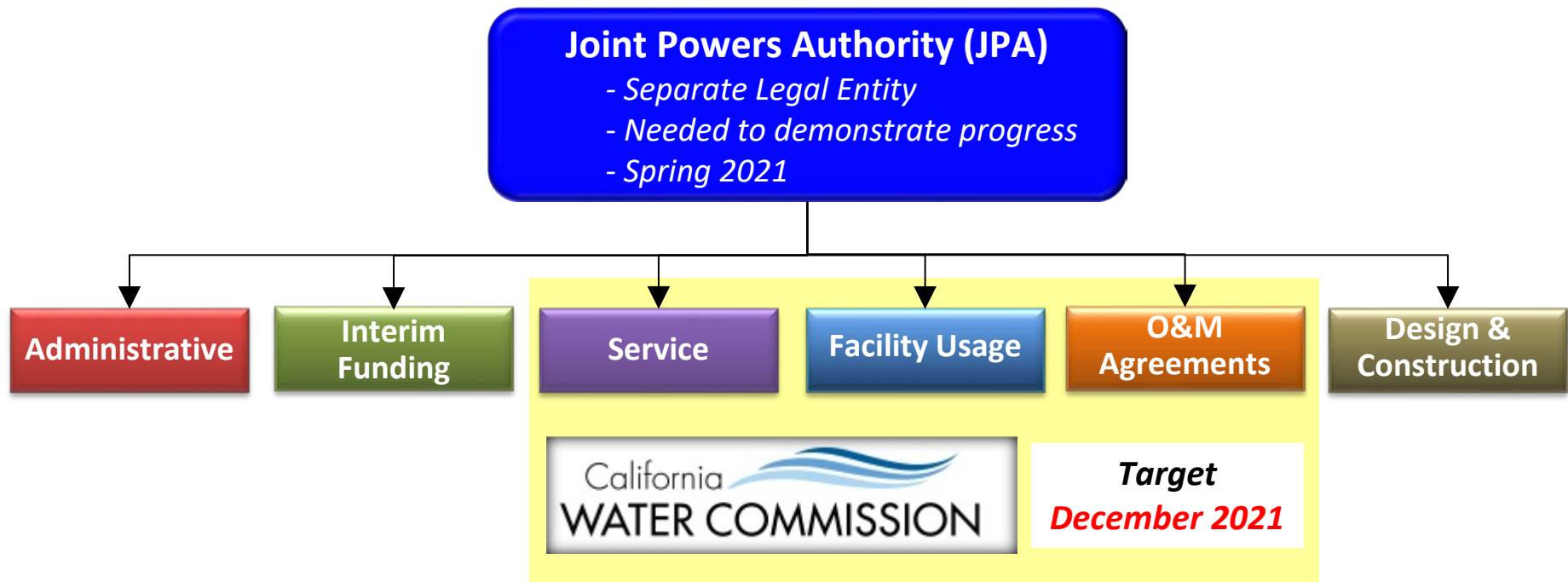


Key Takeaway

- 1 In addition to storage, District may also wheel for partners.

Los Vaqueros Reservoir

Upcoming Agreements



Key Takeaways

- 1 District will be negotiating a complex set of agreements over the next 2 years.
- 2 District will have “off-ramps” available pending costs and status of negotiations.

Los Vaqueros Reservoir

Backstop Memorandum of Understanding (MOU)



MOU to Study How EBMUD can help

- Conveyance – not supply
- Protect EBMUD customers
- Identify costs and constraints of EBMUD wheeling on behalf of CCWD
- Analysis expected to take 6 months.

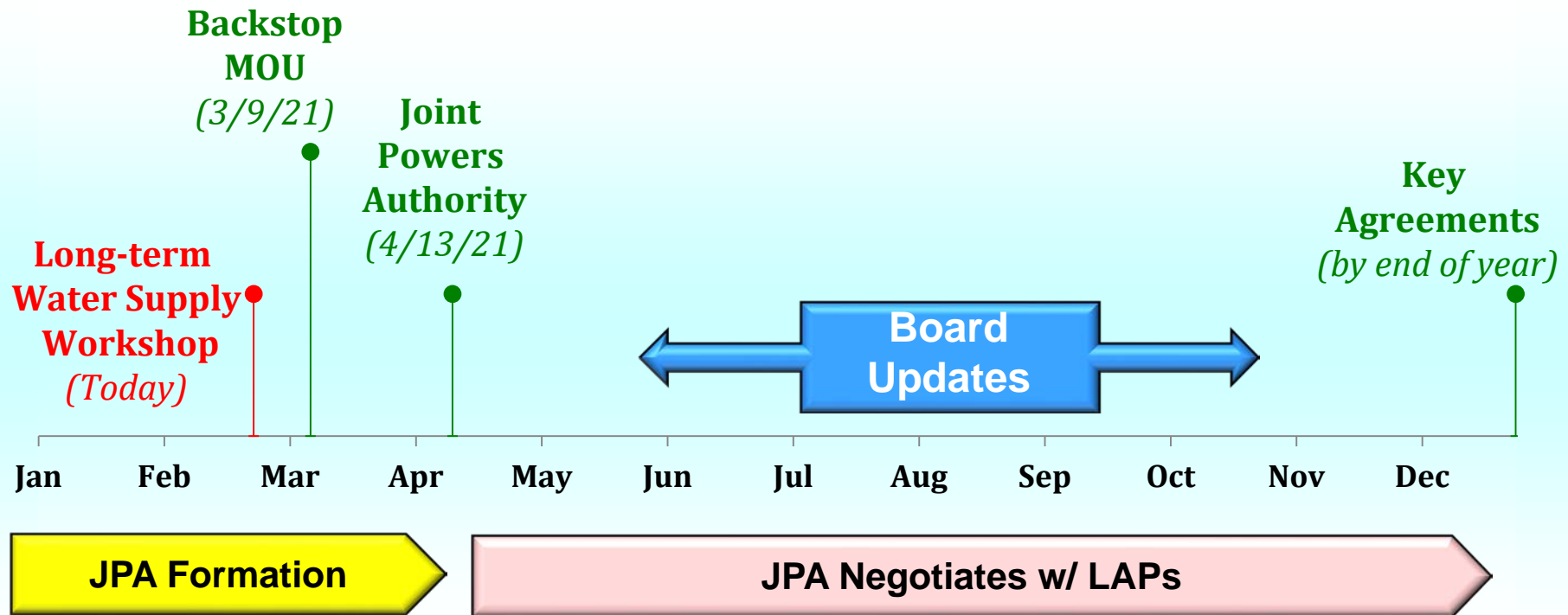
Board Consideration on March 9, 2021

Key Takeaways

- 1 MOU is a statement of intent to study – not the actual agreement.
- 2 A separate future agreement may be negotiated pending results of the study.

Los Vaqueros Reservoir

Near-Term Schedule for 2021



A grayscale map of the San Francisco Bay Area serves as the background. The map shows the bay, surrounding cities like San Francisco, Berkeley, Richmond, and San Jose, and various parks and natural areas. Overlaid on this map is the title 'Sustainable Groundwater Management Act (SGMA)' in a large, bold, black sans-serif font. The text is centered horizontally and vertically on the slide.

Sustainable Groundwater Management Act (SGMA)

Sustainable Groundwater Management Act

Phased Approach



Phase 1

GSA Formation

Completed in
4/2017

- Steward of Local Groundwater Resources
- Grant/Loan Eligibility
- Local Control

Phase 2

GSP Development

By 1/2022

- Establish standards for basin management
- Sustainability for current & future groundwater users
- 65% grant funded

Phase 3

GSP Implementation

Ongoing

- Annual Reporting & 5-year updates of GSP
- Oversight and enforcement of groundwater standards
- Coordination with groundwater users

Sustainable Groundwater Management Act

GSP – Outreach



- **General Stakeholder:** 32 general stakeholders including cities, counties, regulatory agencies, and the general public
- **Technical Advisory Committee:** 14 members including cities, counties, regulatory agencies, and national laboratory
- **Inter-basin Working Group:** ACWD, EBMUD, and Hayward

Key Takeaways

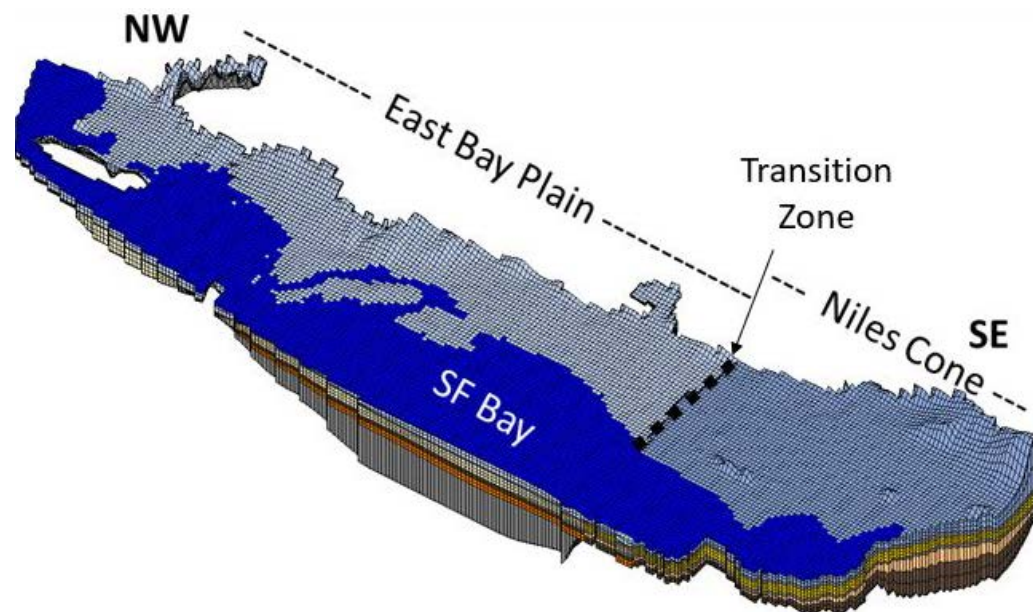
- 1 Extensive outreach is required by SGMA.
- 2 The GSP is being vetted with the general public, a specialized Technical Advisory Committee, and an Inter-Basin Working Group.

Sustainable Groundwater Management Act

GSP – New Groundwater Model



- Incorporates updated Hydrogeologic Conceptual Model
- Incorporates new studies completed since 2013
 - Refined transition zone w/ Niles Cone
- Model is calibrated and verified



Key Takeaway

1

An updated groundwater model will be used to evaluate future groundwater scenarios and help establish management standards and guidelines.

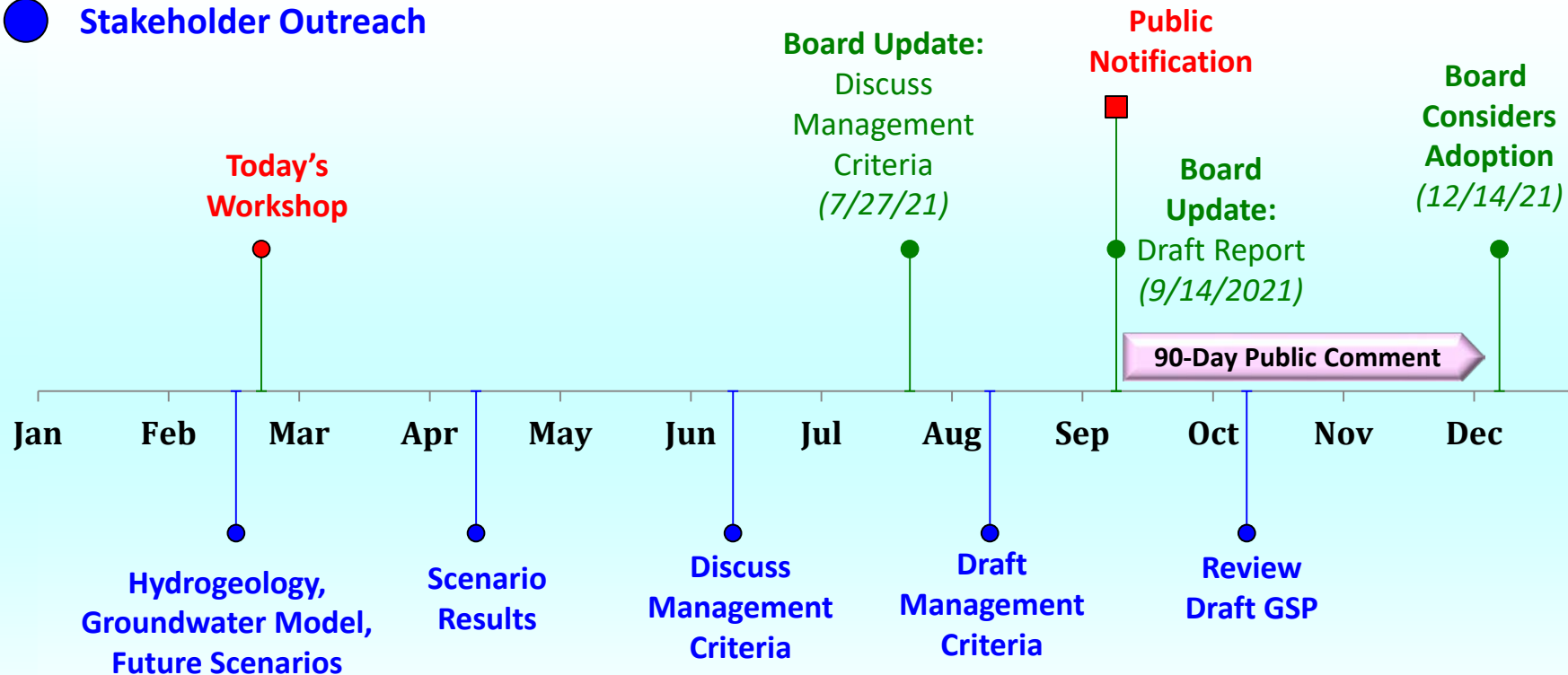
Sustainable Groundwater Management Act

GSP – 2021 Schedule



● Board Updates/Action

● Stakeholder Outreach



Demonstration Recharge, Extraction, and Aquifer Management (DREAM)

NSJWCD



DREAM Updates



2020 Key Accomplishments



Design
Completed
(January)



Contract Award
(July)



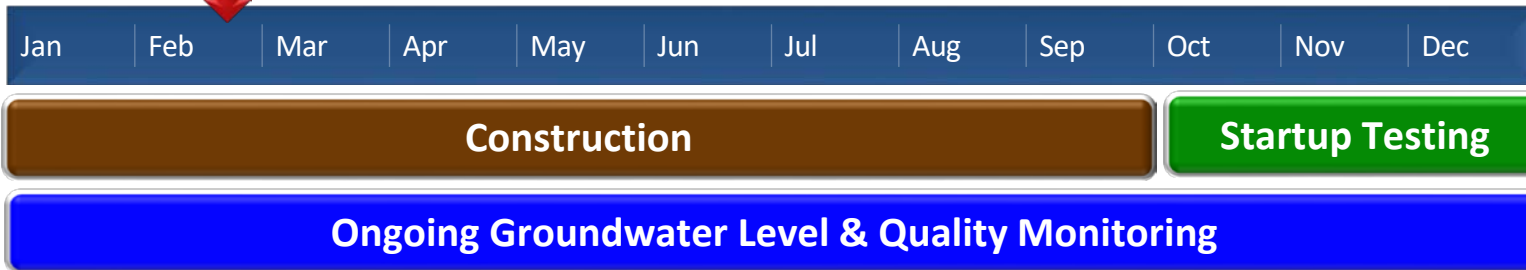
Construction
Commenced
(October)



Partner
Coordination
(ongoing)

2021 Schedule: Complete Construction and Startup Testing

Today's Workshop



After 2021

- Complete Releases (658 AF)
- Extraction

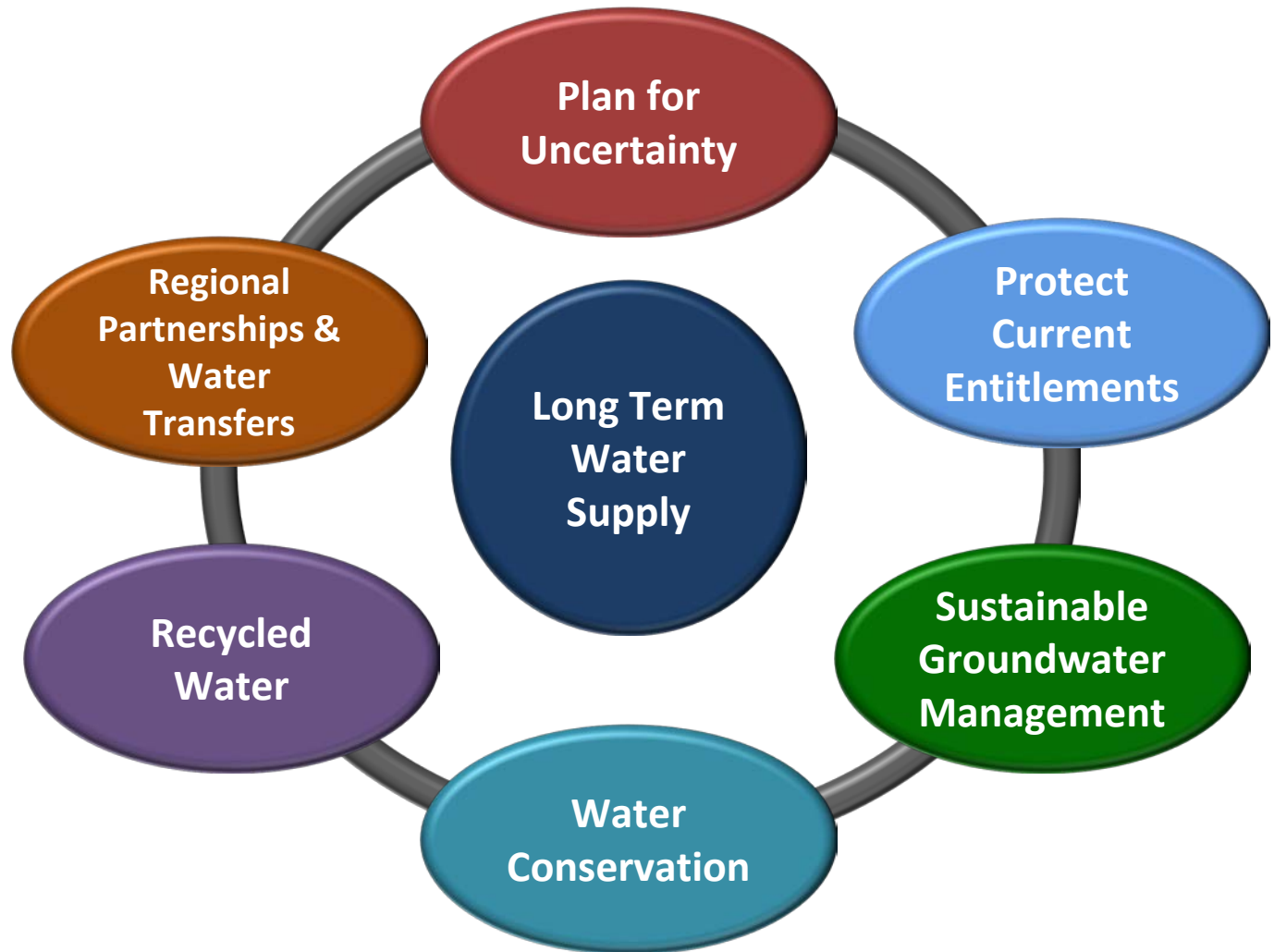


Closing Statements

Closing Statements

Workshop Theme

“Continue building a resilient and sustainable water supply through diversifying the water supply portfolio”





Board & Public Comment