



# Emergency Intertie Project Update

August 30, 2021



# Overview

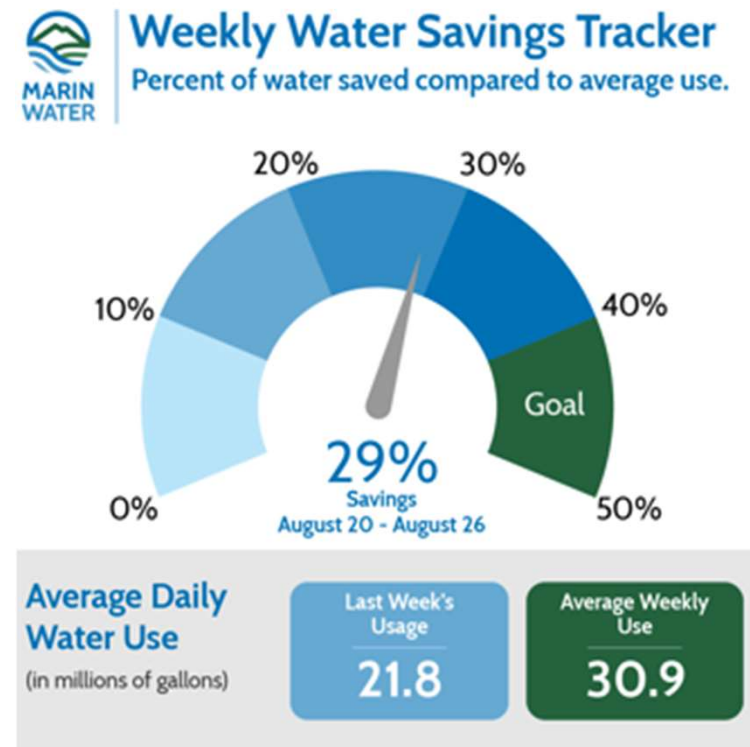
- Review drought project alternatives
- Schedule
- Status to-date of Emergency Intertie Project
- Pipeline alignment – bridge options and approaches
- Project team
- Agreements – Feasibility, Water Transfers & Wheeling
- Key Milestones
- Next Steps

# Emergency Drought Project Alternatives Summary

- ✓ **Conservation** – Continue as top priority, improve, refine and enhance
- ✓ **Sonoma Water** - Collaborate on any and all opportunities to address the drought
- ✓ **Recycled Water** – No short term expansion options, Residential Fill station, commercial hauling
- ✓ **Ground Water Storage and Recovery** – longer term opportunity, no near term solution for drought
- ✓ **Desalination** – timing dictates temporary, capacity limited
- ✓ **Water Transfers / Emergency Intertie** – pursuing feasibility of project
- ✓ **Back up options** - Water by rail, truck & barge, continuing to refine

# Enhance Conservation Efforts

- Continue to make progress, currently at 30% savings
- Exploring all options to achieve greater conservation and demand reduction



## Desalination - Temporary

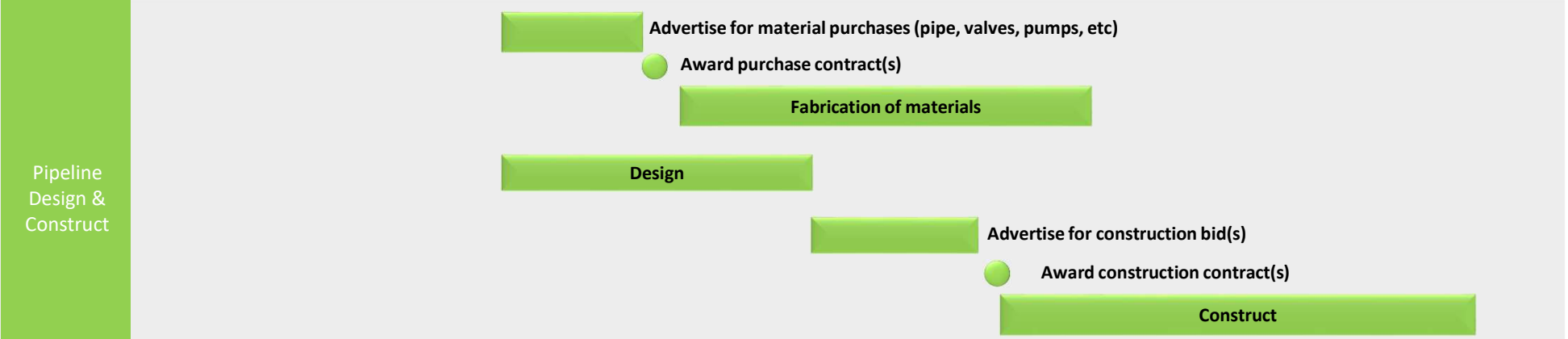
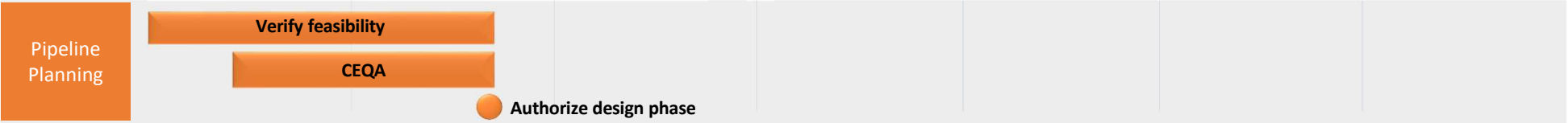
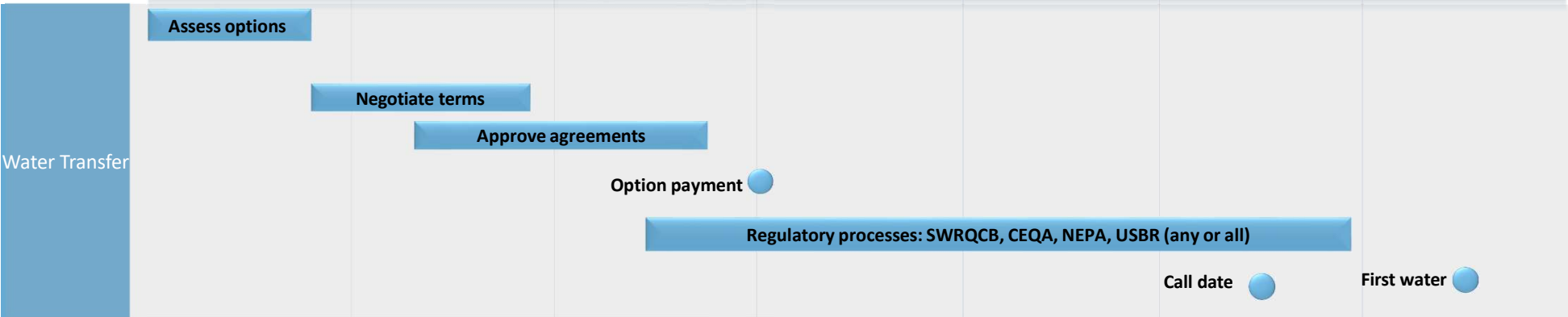
- Suez, Osmoflo and Seven Seas have equipment available
- Estimated Project Cost \$30M
- Schedule – 9 months
  - Permitting – 6 to 9 months (Emergency)
  - Equipment procurement and site work – 6-9 months
- Max Capacity 3.6 MGD – Does not meet identified need
- Note: Does not preclude long term desalination alternatives

# Emergency Intertie Project

2021

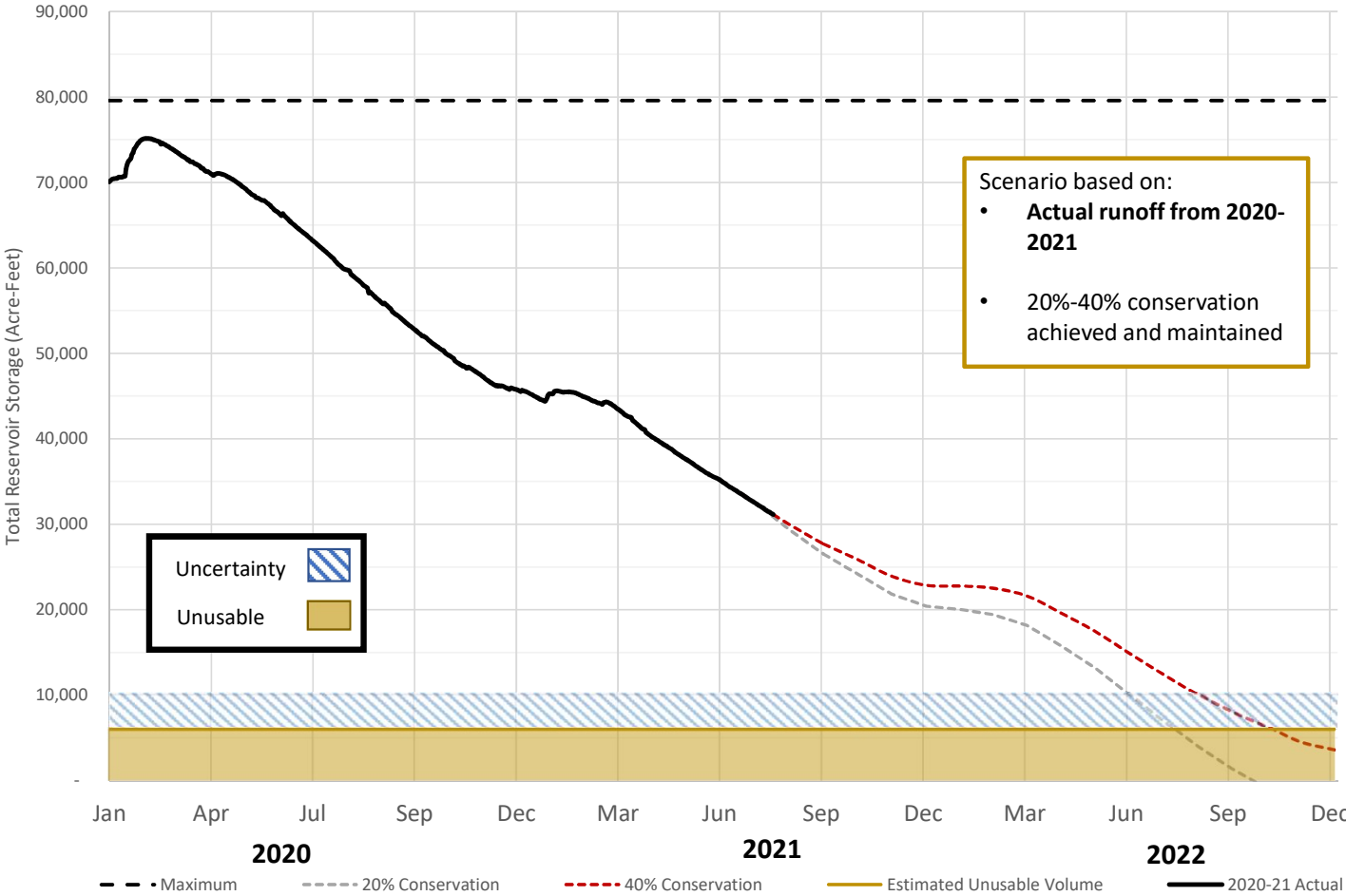
2022

Jun Aug Oct Dec Feb Apr Jun



● ● ● indicates Board decision required

# Drought Project Planning





## Other Schedule Factors

- Water supply
- Multiple agency coordination increases complexity and reduces control over schedule
- Technically challenging elements – Chevron facility, legacy bridge etc
- Materials lead time -
- Construction – unforeseen issues

# Feasibility - Progress Report

- On Bridge – Alternatives identified, geometric analysis complete and structural analysis partially complete
- East Approach –
  - 3 Possible Connection points to EBMUD identified
  - Pipe alignment to bridge
  - Pump station and hydraulic analysis
- West Approach –
  - Pipe alignment
  - Tank location
  - Pump station and hydraulic analysis

# Overall Project Alignment



## Locations For Pipeline on The Bridge

- **Alternative 1 Below the lower deck** - does not appear feasible due to construction challenges, maintenance challenges and permitting.
- **Alternative 2 Below the upper deck** - does appear feasible and we are still analyzing how all sections of the bridge will respond to pipe installation.
- **Alternative 3 In the multi-use pathway** - does appear feasible and we are assessing how a pipeline might impact current and future uses of this lane.

# Coordination with Key Agencies

- California Department of Transportation
- San Francisco Bay Conservation and Development Commission
- Chevron
- City of Richmond
- City of San Rafael
- East Bay Municipal Utilities District
- Contra Costa Water District
- Glenn-Colusa Irrigation District
- Yuba Water Agency
- California Department of Water Resources
- United States Bureau of Reclamation
- State Water resources Control Board
- Inverness Public Utility District (Other West Marin Agencies)

# Project Team

## Marin Water

Paul Sellier – Project Manager Planning & Design  
Crystal Yezman – Project Manager Construction  
Mark Kasraie - Project Engineer

Gary Andersen	}	Operations
Erik Westerman		Support & Design
Darren Machado		Review

## Consulting Team

Woodard & Curran – Program Management/Water Transfers  
Carollo Engineers – Off Bridge Engineering design and analysis  
WSP Global – Bridge Engineering design and analysis  
Diemer Engineering – Program Advisor  
ESA – Environmental Support

## Feasibility Phase - Contract Amendments

- Woodard & Curran - Program Management & Water Transfers
- Overall program management, coordination and review of all consulting teams, review of technical work, development of water transfers, and assisting with agency coordination efforts.
- Level of Effort to complete feasibility, transfers and 30% design - \$727,554

# Feasibility Phase - Contract Amendments

- Carollo Engineers – Off bridge engineering:

- Field Investigations
- Basis of Design
- Permitting & Stakeholder
- Pre-purchase Documents
- Bid Phase Services & Services During Fabrication

Level of Effort to complete Feasibility and 30% Design - \$1,274,466



## Feasibility Phase - Contract Amendments

- WSP – Bridge Structural and engineering design
- Pipeline Location on bridge
  - Seismic analysis of bridge components
  - Mechanical design for pipe supports
- Preparation of the Advanced Planning Report

Level of Effort to complete Advanced Planning Report - \$154,705

# Water Transfer & Wheeling Agreements

- Contra Costa Water District – Discussing support for storage of water transfers and wheeling
- East Bay Municipal Water District – Discussing conveyance of water through Freeport, potential short term storage of water, water treatment and delivery
- Glenn-Colusa Irrigation District – Discussing proposed terms of water transfer option
- Yuba Water Agency – Discussing potential transfer of water for Marin

# Emergency Intertie - Key Milestones

August 30 – Amendments for feasibility work and 30% design to support CEQA – (\$2.2M)

September 21 – CEQA & Authorize full Design – (~\$7M)

September- November – Various transfer and wheeling agreements

October 19 – Pre purchase of Material – (~\$20M)

February 2022 – Award Construction – (~\$40M)

# Emergency Intertie Project Conceptual Cost

- Capital Cost \$60M - \$90M Water Transfer Project
- Annual cost \$2.8M to \$4.2M debt service plus operational costs when in use
- Rate impact = 3.5% - 5.25% (one time) rate increase
- Grants and low-interests loans available

## Next Steps

- Key Agencies Coordination
- Complete Feasibility Analysis
- Further Board Consideration:
  - Water Transfer Agreements
  - Wheeling Agreements
  - CEQA & Design Phase authorization
  - Pre-purchase of materials
  - Construction
- Continue to develop back up options
  - Temporary desalination
  - Rail, truck and barge
- Conservation - Refine, improve and push for greater conservation