2023

Bay Planning Coalition

Water Infrastructure: Current Projects & Future Plans

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Friday, September 15th, 2023

Sites Reservoir Project Overview

Bay Area Planning Coalition
Sites Reservoir

September 15, 2023

How big would Sites be when built relative to other reservoirs in the state?

	CALIFORNIA'S LARGEST RESERVOIRS				
Rank	Name	County	Acre-Feet	Outflow	Dam
1	Lake Shasta	Shasta	4,552,000	Sacramento River	Shasta Dam
2	Lake Oroville	Butte	3,537,577	Feather River	Oroville Dam
3	Trinity Lake	Trinity	2,448,000	Trinity River	Trinity Dam
4	New Melones Lake	Tuolumne, Calaveras	2,400,000	Stanislaus River	New Melones Dam
5	San Luis Reservoir #	Merced	2,041,000	San Luis Creek	San Luis Dam
6	Don Pedro Reservoir	Tuolumne	2,030,000	Tuolumne River	New Don Pedro Dam
7	Lake Berryessa	Napa	1,602,000	Putah Creek	Monticello Dam
8	**Sites Reservoir #**	Colusa, Glenn	**1,500,000**	Stone Corral & Funks Creeks	Sites & Golden Gate Dams
9	Lake Almanor	Plumas	1,308,000	North Feather River	Canyon Dam
10	Folsom Lake	Sacramento, El Dorado, Placer	1,120,200	American River	Folsom Dam
		# - off stream reservoir			

Sites

General Comparison of Sites to Alternative Water Supply System Costs

TABLE 5-9. ALTERNATIVE WATER SUPPLY SYSTEM COSTS ($/AF; $2021)

	Supply Cost ($/AF; $2021)			Integration ($/AF; $2021)	Total Cost ($/AF; $2021)		
	Low	Medium	High		Low	Medium	High
Stormwater Capture							
Small (<1.5 TAF)	$653	$1,293	$1,415	$381	$1,061	$1,674	$1,796
Large (6.5 TAF - 8.1 TAF)	$259	$272	$286		$626	$653	$667
Recycled Water - Non-Potable Reuse							
Small (< 9.7 TAF)	$599	$653	$1,265	$1,048	$1,646	$1,701	$2,313
Recycled Water - Indirect Potable Reuse							
Small (< 9.7 TAF)	$1,646	$2,041	$2,449	$503	$2,163	$2,558	$2,953
Large (> 9.7 TAF)	$1,238	$1,442	$1,742		$1,742	$1,946	$2,259
Brackish Water Desalination							
Small (< 16.2 TAF)	$993	$1,660	$1,905	$122	$1,129	$1,782	$2,027
Large (> 9.73 TAF)	$925	$1,116	$1,347		$1,048	$1,238	$1,469
Seawater Desalination							
Small (< 16.2 TAF)	$2,735	$2,898	$4,504	$218	$2,953	$3,116	$4,721
Large (> 9.73 TAF)	$2,082	$2,136	$2,585		$2,299	$2,340	$2,803

Source: Cooley H., The Cost of Alternative Urban Water Supply and Efficiency Options in California 2019. **AF** (acre feet) **TAF** (thousand acre-feet)

Sites Reservoir	**$850**	**$450***	**$1,300**

Supply costs are FOB out of the reservoir. Integration is estimated cost of transmission plus Through - Delta and other conveyance losses. Total cost is delivered through the state water project system to the Los Angeles region.

Sites Water Rights Protestants – 16 Total (as of 9/12/23)

Non-Governmental Organizations:

1. San Francisco Baykeeper, The Bay Institute, Defenders of Wildlife, Golden State Salmon Association
2. CalWild
3. Center for Biological Diversity
4. California Sportfishing Protection Alliance, Friends of the River, Winnemem Wintu Tribe, AquAlliance, California Water Impact Network, CalWild, Fly Fishers of Davis, Friends of Swainson's Hawk, Northern California Council of Fly Fishers International, Restore the Delta, Save California Salmon, Sierra Club California, Water Climate Trust
5. North Coast Rivers Alliance, Pacific Coast Federation of Fisherman's Association, The Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, Winnemem Wintu Tribe
6. Trout Unlimited
7. Water Climate Trust, Waterkeeper Alliance, Winnemem Wintu Tribe, International Rivers

Water related organizations:

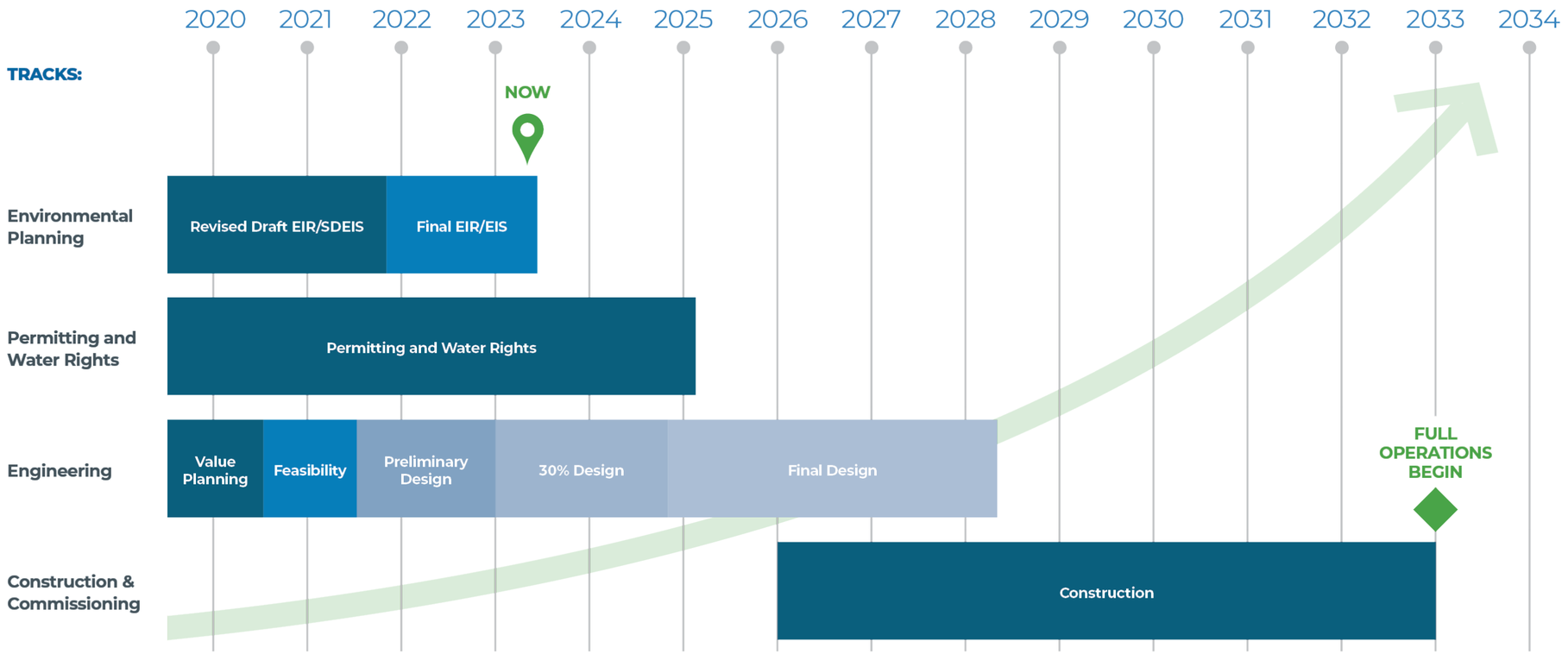
1. Central Delta Water Agency, South Delta Water Agency, Zuckerman-Mandeville, Inc, Delta Farms Reclamation District No. 2030 (McDonald Island), Randy Mussi Investment LP
2. Contra Costa Water District
3. County of San Joaquin
4. Bureau of Reclamation
5. State Water Contractors

Individuals:

1. Ben King
2. Richard Morat
3. Steve Owens
4. Clarke Ornbaun

Project Schedule

Sites Reservoir Project Schedule



Sites

Questions

COOPERATIVE WATER SOLUTIONS

FOR A SAFE, RESILIENT COMMUNITY

Monterey One Water

CENTRAL COAST OF CALIFORNIA

MONTEREY ONE WATER

A public utility providing wastewater and water reuse services in northern Monterey County

Monterey One Water

Providing Cooperative Water Solutions

Formed in 1972
in response to the Federal Clean Water Act

285,000
Community Members
+ 7,000 business
in the service area

17 MILLION Gallons,
on average, of wastewater processed each day

Monterey One Water
Providing Cooperative Water Solutions

29.6 MGD
Wastewater Treatment Facility and Non-Potable Reuse Facility

5 MGD
Advanced Water Purification Facility

100 EMPLOYEES
(Budgeted)

$93 MILLION
Operating Budget

MONTEREY ONE WATER

MUNICIPAL WASTEWATER
Inside water usage from the residents and businesses of our 10 member cities/districts

DRAINAGE WATER FROM CROP IRRIGATION
Excess water from the irrigation process which drains into channels

INDUSTRIAL PROCESSING WATER FROM FOOD PACKAGING
Water used to wash packaged produce, e.g. bagged salads, pre-washed veggies

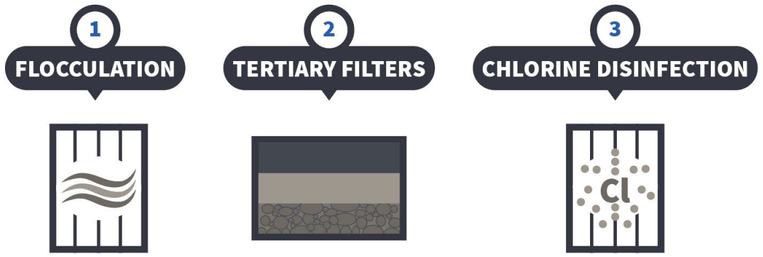
URBAN DRY AND WET WEATHER RUNOFF
Outside water usage that drains into a city's stormwater pipe system

4 SOURCE WATERS combine to form influent into M1W's Regional Treatment Plant

NON-POTABLE REUSE

CASTROVILLE SEAWATER INTRUSION PROJECT

Challenge: Seawater intrusion/groundwater quality
Solution: Recycled water for food crop irrigation
Production Start: April 1998
Facility Size: 29.6 million gallons per day
Influent: Secondary effluent
Treatment: Tertiary



Serves: 12,000 acres of fertile farmland
Annual Production: 12,300 acre feet (average)

EST. 1998
CSP

Pure Water Monterey

A Groundwater Replenishment Project

Challenge: State and court-mandated reductions to surface water and groundwater due to habitat degradation and limited natural replenishment (respectively)

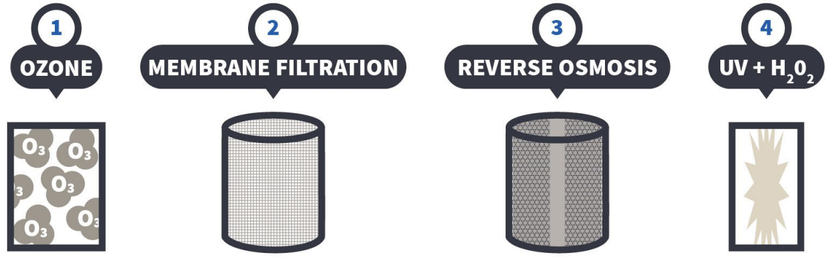
Solution: Recycled water for groundwater replenishment

Production Start: February 2020

Facility Size: 5 million gallons per day (expansion under construction)

Influent: Secondary effluent

Treatment: Advanced purification



Serves: Private water supplier's Monterey District of 104,000 residents, almost 5,000 businesses, and more than 9 million visitors a year

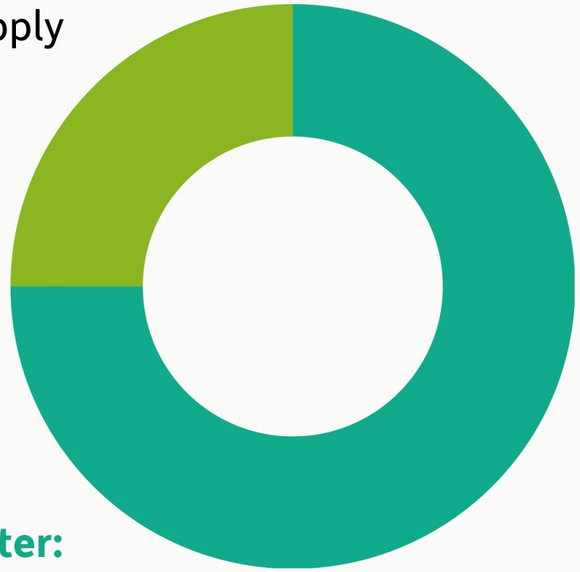
Annual Production: 3,500 acre feet (after expansion – 5,750 acre feet)

POTABLE REUSE

A Changing Water Supply

Historic Sources

Groundwater: Seaside Basin
25% of supply

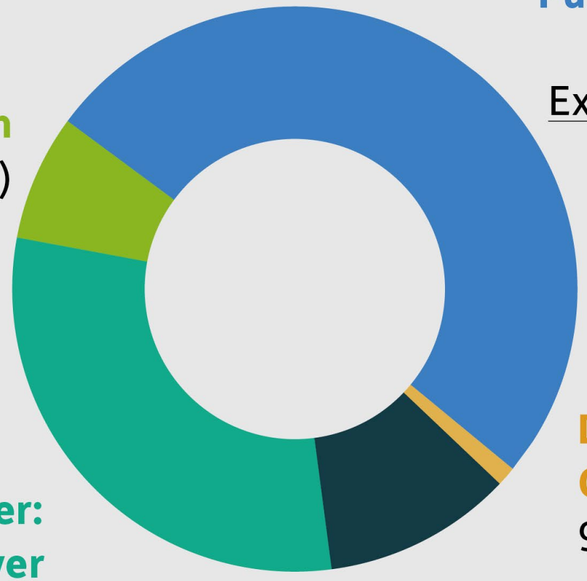


Surface Water: Carmel River
75% of supply

New Supply Portfolio

Potable Reuse: Pure Water Monterey
Base: 3,500 AFY
Expansion: 2,250 AFY
Total: 5,750 AFY (51%)

Groundwater: Seaside Basin
774 AFY (7%)



Desalination: City of Sand City
94 AFY (1%)

Surface Water: Carmel River
3,376 AFY (30%)

Aquifer Storage & Recovery
1,300 AFY (12%)

Desalination also under consideration by private water purveyor

RECYCLED WATER POWERED BY RENEWABLE ENERGY

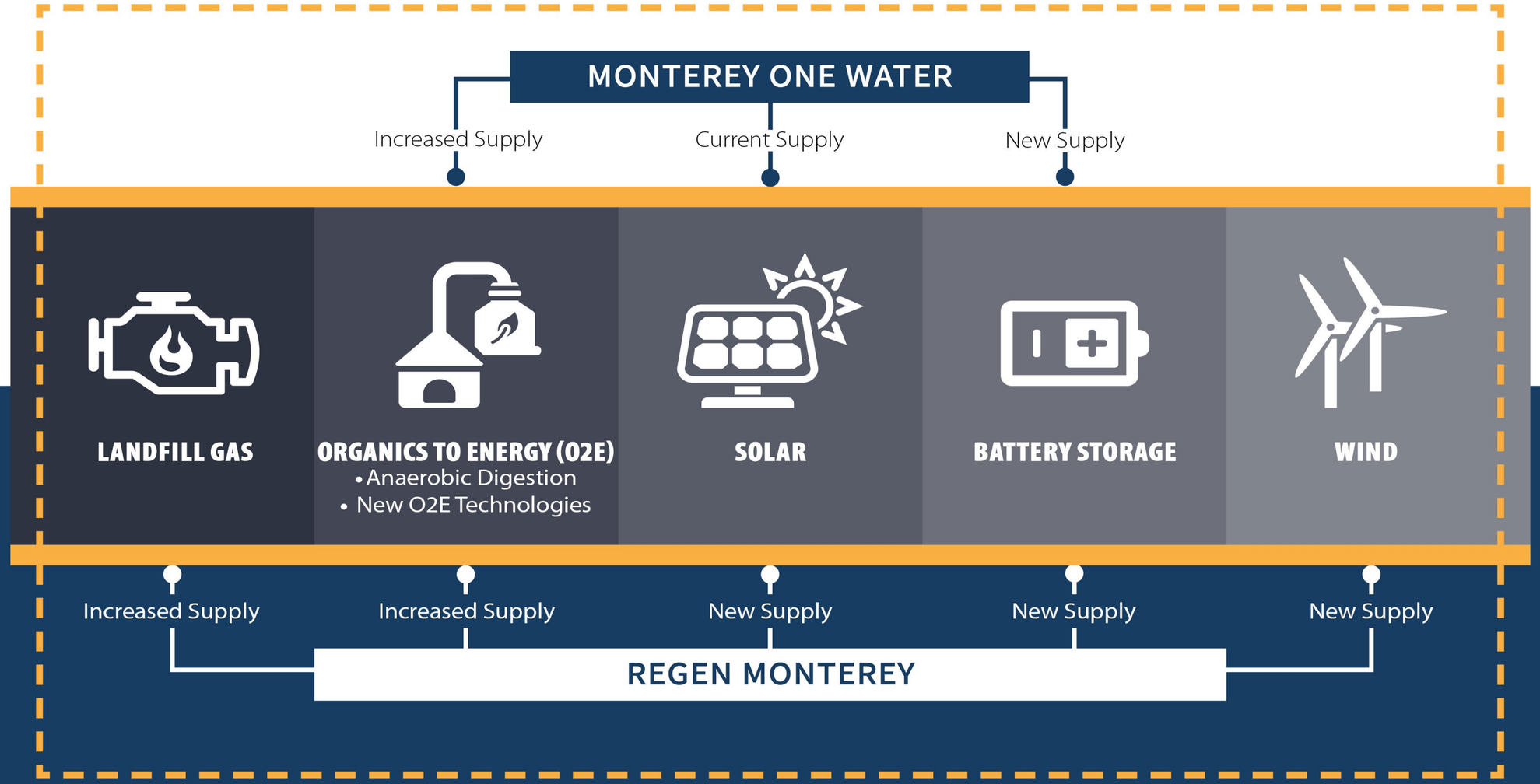
PIPELINE FROM REGEN MONTEREY TO THE ADVANCED WATER PURIFICATION FACILITY (AWPF)

Construction: Underway

Estimated Completion: End of 2023

MONTEREY MICROGRID PROJECT

Energy Reliability • Inter-Agency Collaboration • Utility Sustainability



Monterey One Water
Providing Cooperative Water Solutions

THANK YOU

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