



Water Supply for the Monterey Peninsula...

Date: August 15, 2016

General Manager's Report

Item 5: Update on Development of Water Supply Projects

Topics

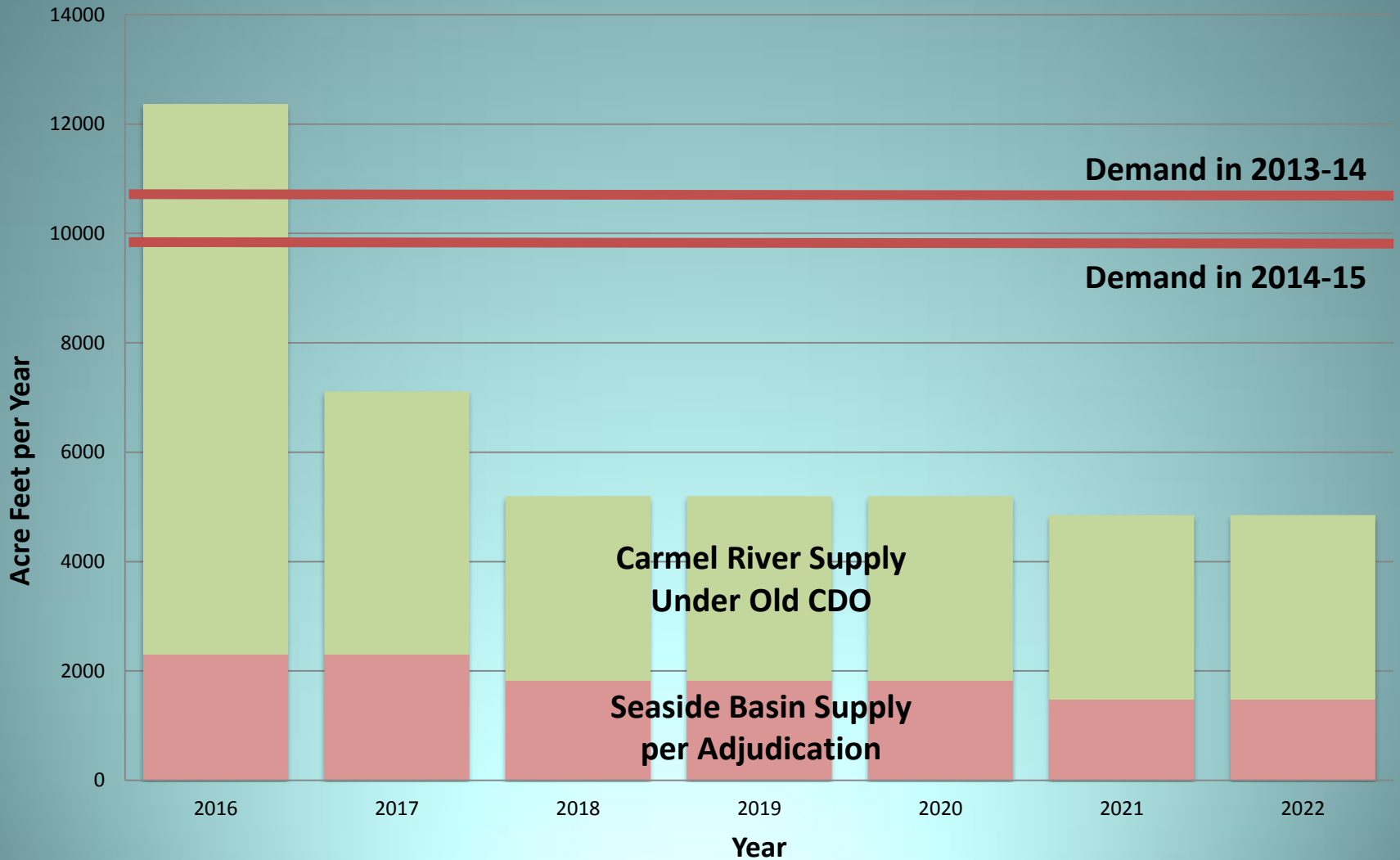
- 1. The New Cease and Desist Order**
- 2. Desalination Plant and Pure Water Monterey**
- 3. Soberanes Fire**

The New Cease and Desist Order

Legally Available Water Supply in MPWMD Territory

Compared to

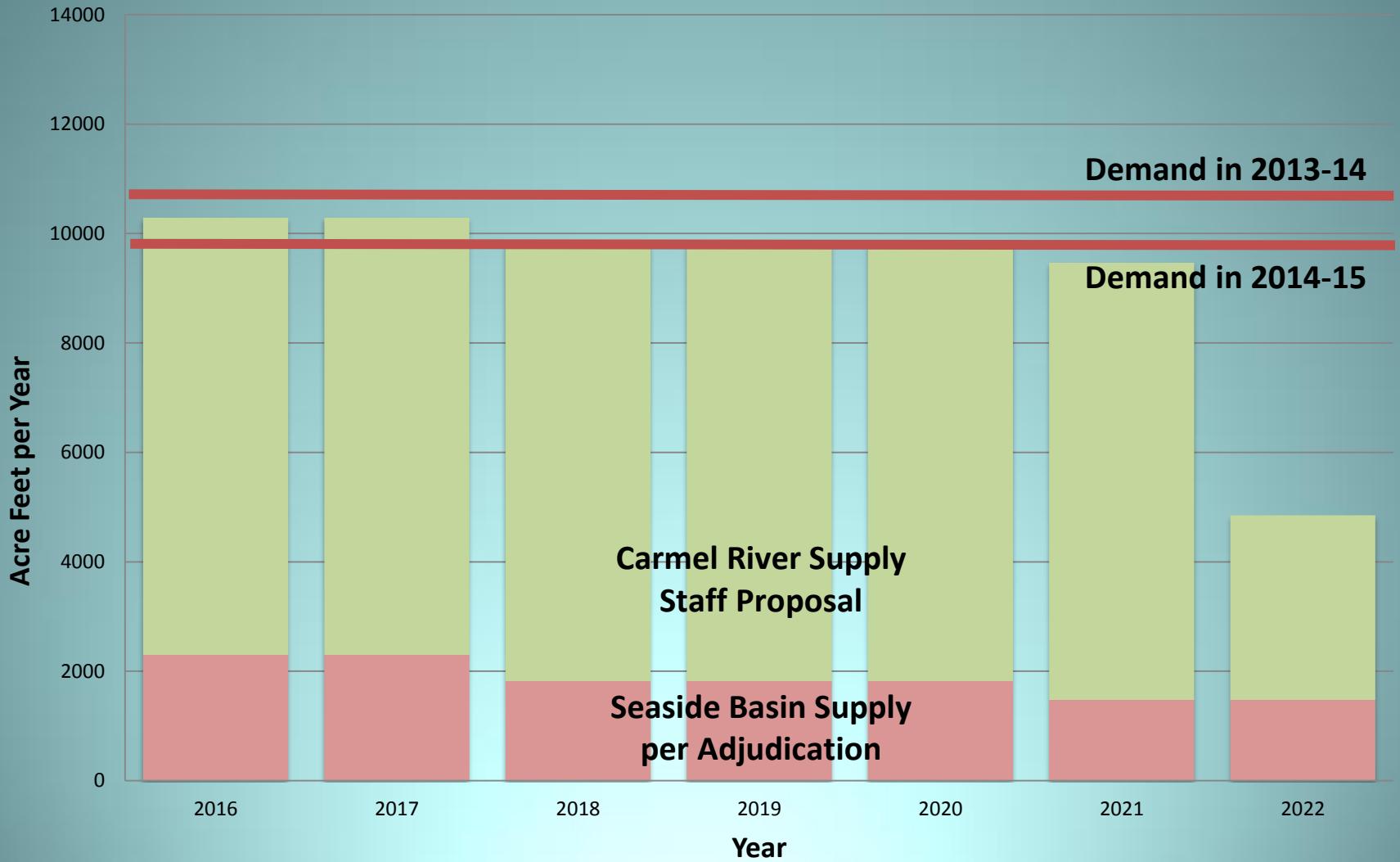
Consumer Water Demand in MPWMD Territory



Legally Available Water Supply in MPWMD Territory

Compared to

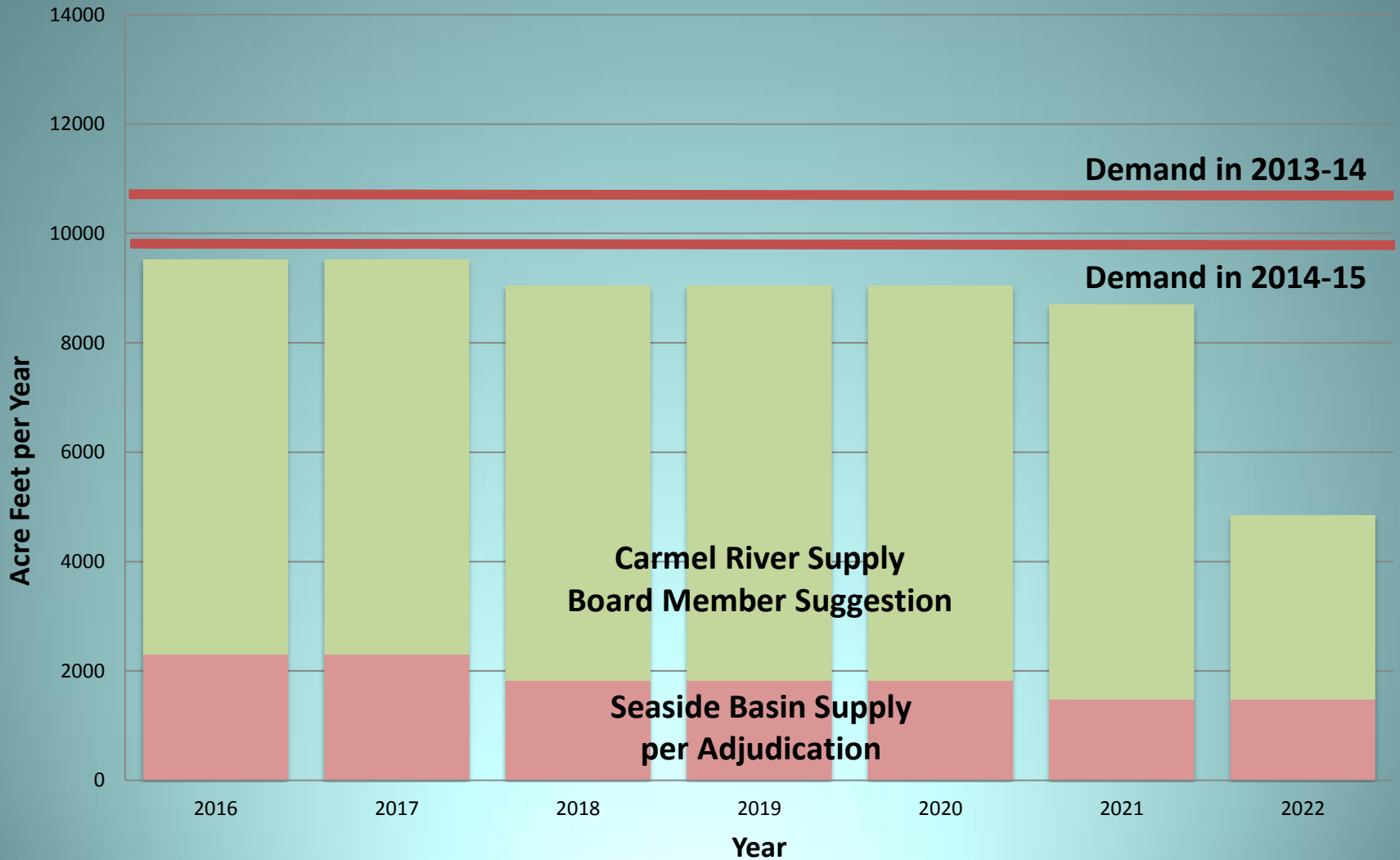
Consumer Water Demand in MPWMD Territory



Legally Available Water Supply in MPWMD Territory

Compared to

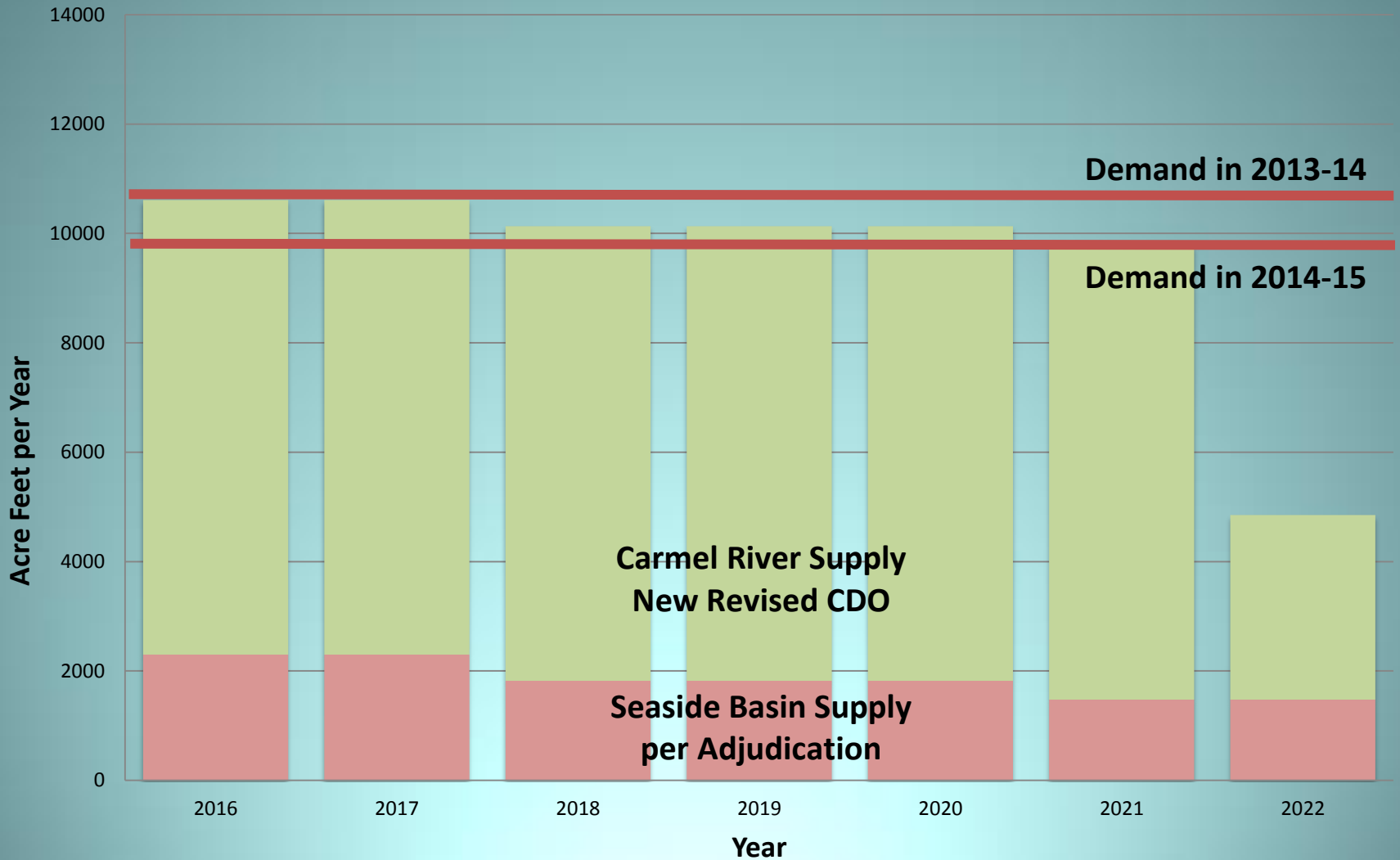
Consumer Water Demand in MPWMD Territory



Legally Available Water Supply in MPWMD Territory

Compared to

Consumer Water Demand in MPWMD Territory



Milestones for Potential 1,000 AF Reduction in Limit

2016. CPUC Approves Pure Water Monterey

2017. Start Construction of Cal-Am Pipeline

2018. CPUC Approves Desalination Plant

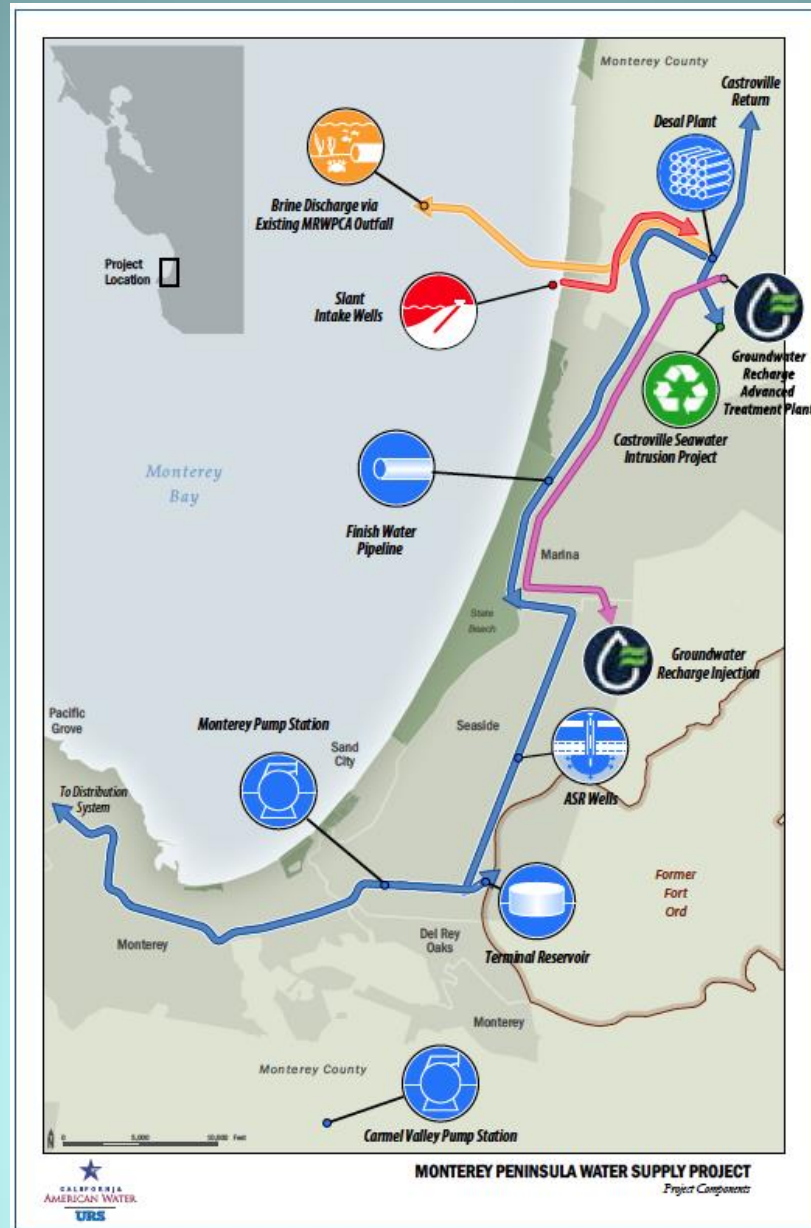
2019. Start Construction of Desalination Plant

2020. Drill Source Wells

2021. Substantial Completion

Desalination Plant and Pure Water Monterey

MPWSP Proposed Facilities



Project Milestones Achieved To Date

Desalination	Pure Water Monterey
<ul style="list-style-type: none">• Return Water Settlement Agreement• Brine Discharge Settlement Agreement• Test Slant Well Back On-Line• Monterey Pipeline Added to CPUC Decision• All Contracts (Except Brine Discharge) Have Been Awarded• Hurry-Up and Wait....	<ul style="list-style-type: none">• Salinas Produce Wash Water and Storm Water Connection Completed• Blanco Drain and Reclamation Ditch Water Rights Approved• State Revolving Fund (and Grants) Available in December• Working on Permits• Design of Facilities approaching 60% to 95%• Go, Go, Go....

Project Schedule

	Desalination Project	Pure Water Monterey
September 2016	Target for Proposed Pipeline Decision	Target for Proposed Decision
October 2016	Commission Action	Commission Action
December 2016	Draft EIR/EIS	Start Construction
January 2017	Start Construction on Pipeline	
November 2017	Final EIR/EIS	Delivery of Water to Seaside
March 2018	Coastal Commission Hearing for Permit	Delivery of Water to Cal-Am
April 2018	Start Construction on Desal	
March 2020	Project Complete – Delivery of Water	



Cal-Am Monterey Pipeline



Pure Water Monterey

Where Does the Water Come From?



Wastewater



Storm Water



Produce Wash Water



Irrigation Return Water

Pure Water Monterey

How Does It Work?

Proposed Water Purification Process

Water Source(s)
Includes secondary-treated wastewater and other water sources (to be determined).

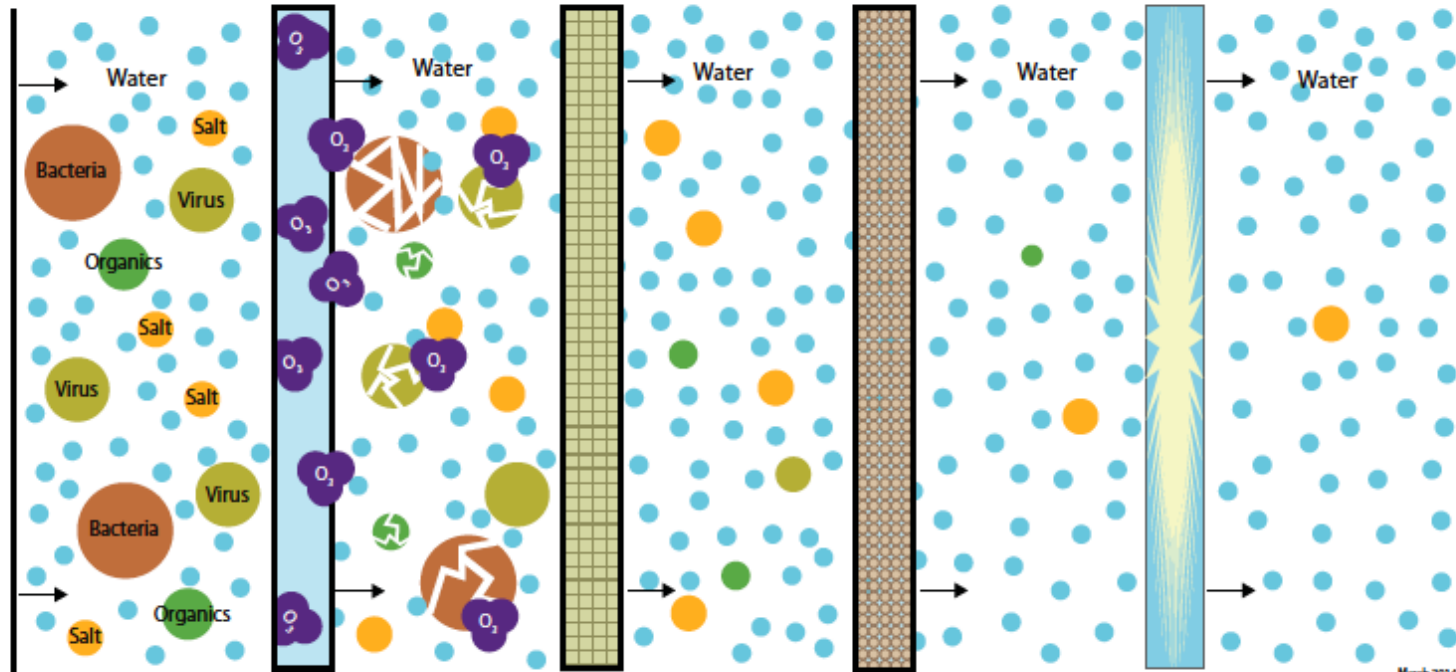
Ozone (O_3) Pretreatment
When ozone, a powerful disinfectant, is added to the water, it destroys bacteria and other pathogens.

Membrane Filtration
Water is pumped through tiny straw like tubes that filter out contaminants from the water.

Reverse Osmosis
Water is forced through membranes under high pressure to remove nearly all remaining impurities.

UV Disinfection & Hydrogen Peroxide

Hydrogen peroxide is added and reacts with exposure to ultraviolet light, breaking down trace compounds and leaving pure water.



March 2014

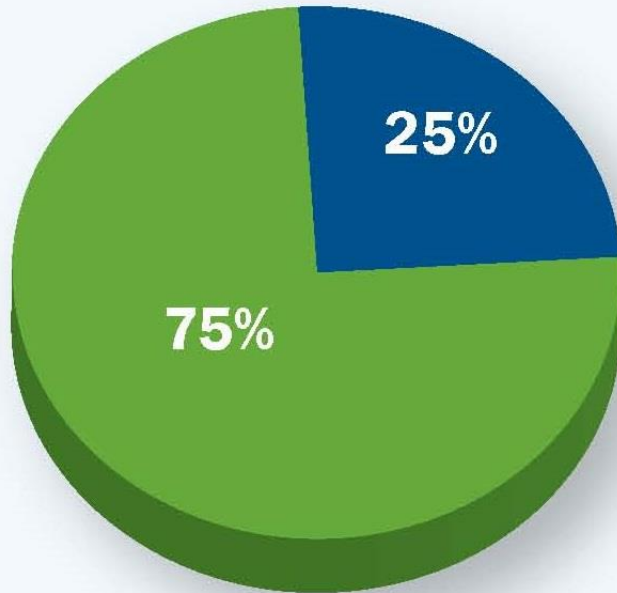
Project Sizing

Demand	Supply
13,290 AF 5-year customer demand	3,376 AF legally from Carmel River (2017)
500 AF for economic recovery	1,474 AF legally from Seaside Basin (2021)
325 AF for Pebble Beach buildout	(700) AF Cal-Am intends to leave in the Seaside Basin for recharge for 25 years
1,181 AF for legal lots of record	94 AF available from Sand City long term
-----	1,300 AF assumed available from ASR
15,296 AF total demand	3,500 AF from GWR
	6,252 AF from Desal

	15,296 AF total supply

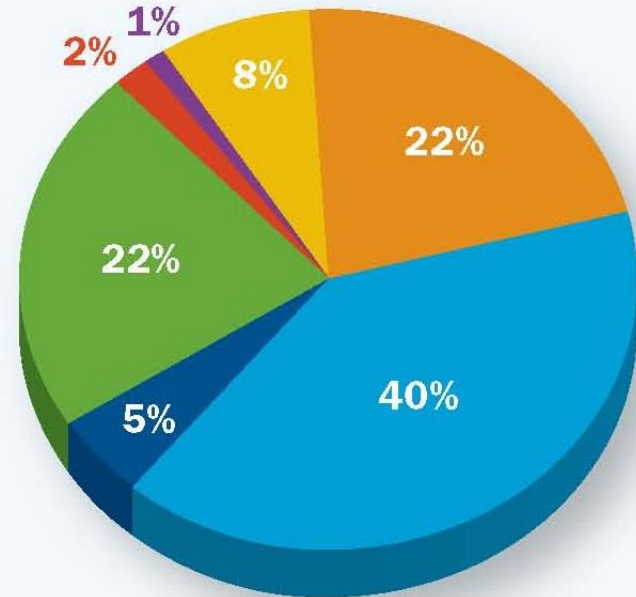
Changing Sources of Supply on the Monterey Peninsula

Traditional Sources



- Seaside Basin
- Carmel River

Proposed Water Sources



- Groundwater Replenishment
- Desalination
- Seaside Basin
- Carmel River
- Sand City
- Pacific Grove
- Aquifer Storage Recovery

The Water Supply Project will diversify the Monterey Peninsula's water supply portfolio. These new sources of water will be sustainable and help protect against drought while also protecting the natural resources of the Carmel River.

Soberanes Fire & Water

Towards Sleepy Hollow a Week Ago



Back Burn



Back Burn Last Monday



Fire & Water Concerns

- 1. Water Tenders**
- 2. Dust Control**
- 3. Staging Area Facilities**
- 4. “Dips”**
- 5. Impact on River**

First Settlement in the Area – Carmel Valley Airport



Above San Clemente Sunday



Setting Up the Staging Area



Assembly Area



Eating Area



Other Staging Area



People Have Basic Needs



Mobile Kitchen



Hand Washing Station at Eating Area



Brushing Teeth



Small Hand Washing Station



Mobile Laundry Unit



Laundry Truck



End of Shower Truck



Shower Truck



Heating the Showers



Portable Showers from Behind



Spent Shower Water



Spent Shower Water



Keeping Smokey the Bear Clean



Water Tender



Water Tender



Hydrant Meter at Rancho Staging Area



Hydrant Meter at Rancho Staging Area



Hydrant Meter in Hitchcock Canyon



Collateral Damage



What the Watershed Looks Like...

San Clemente Ridge



What the Watershed Looks Like...



What the Watershed Looks Like...



What the Watershed Looks Like...

