

August 15, 2024

# **Pure Water Peninsula**

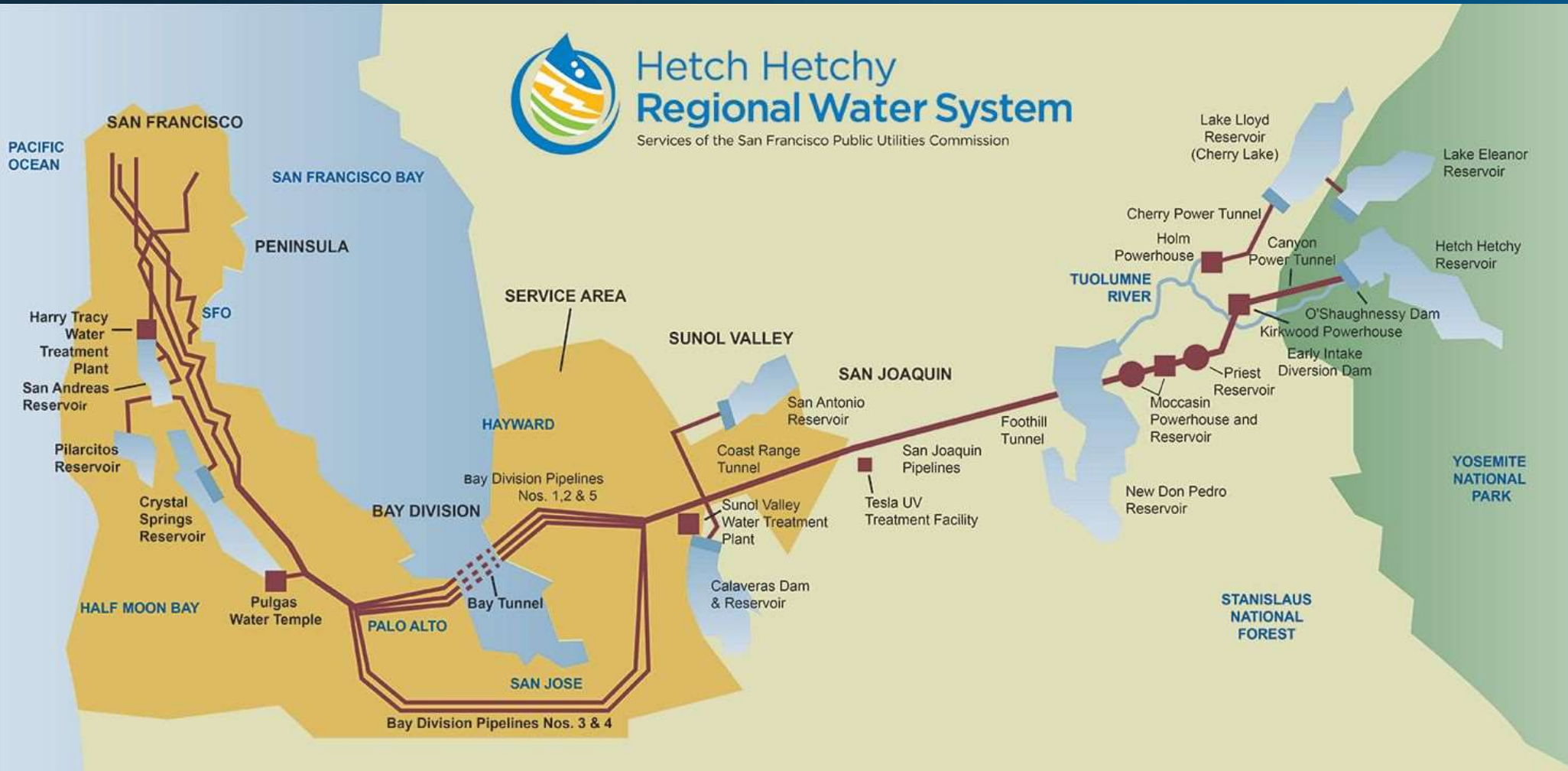
## **WaterReuse Northern California Chapter meeting**

# SFPUC Regional Water System



## Hetch Hetchy Regional Water System

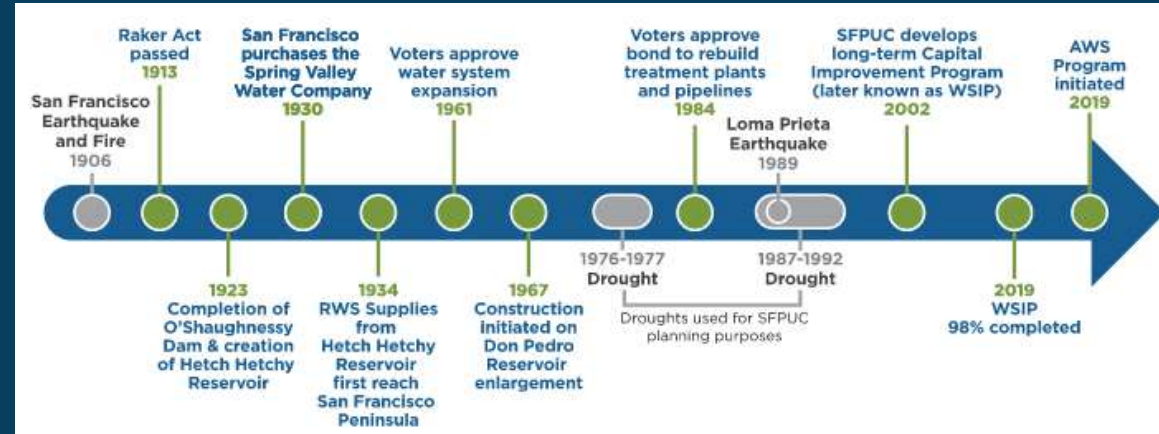
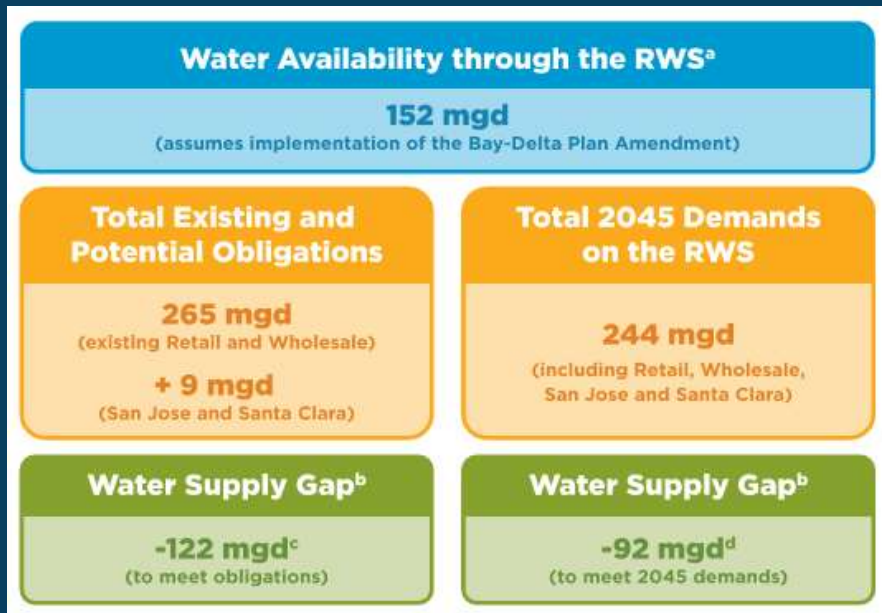
Services of the San Francisco Public Utilities Commission



# Project Needs: Water Availability during Dry Years

## Alternative Water Supply Program:

- Identified anticipated water supply gap through 2045
- Defined projects to augment water supply





















## Bay Delta Plan Amendment:

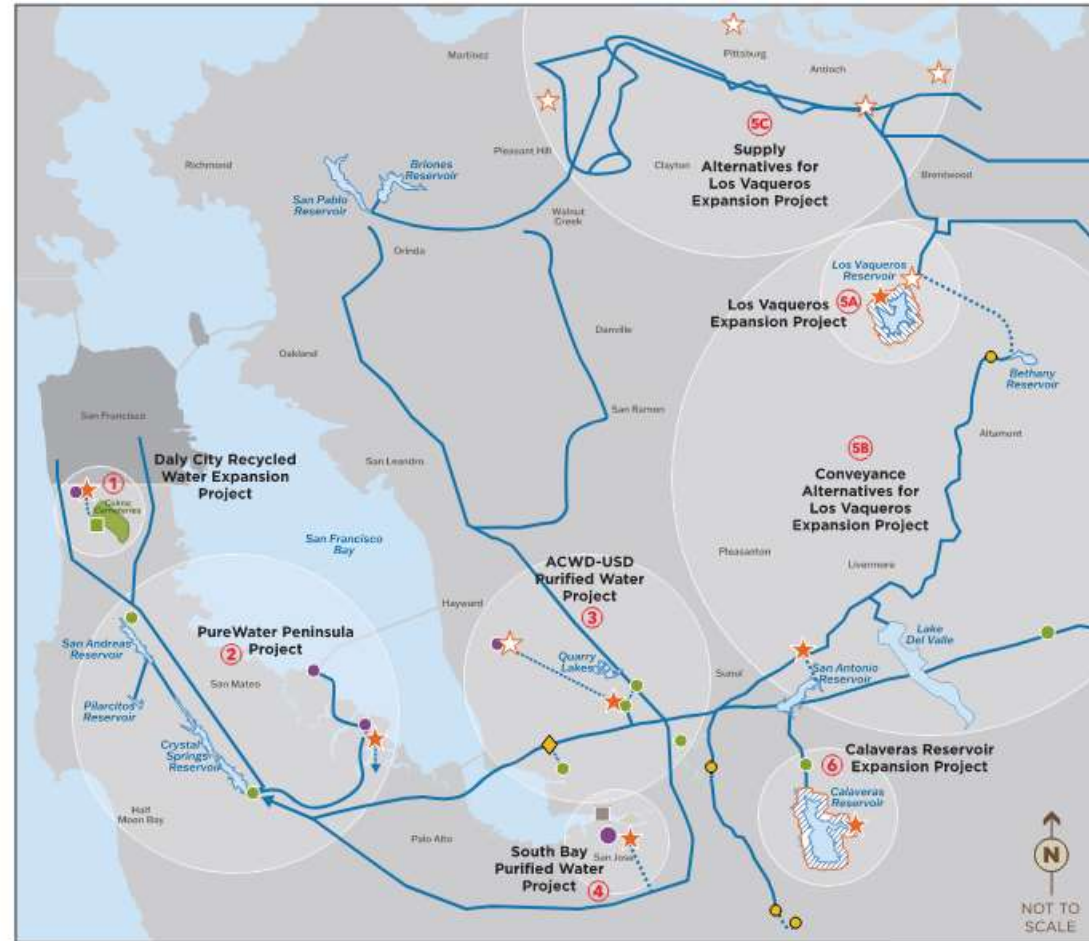
- New instream flow requirements
- Reduce available supply during dry years from 257 mgd to 152 mgd

# Alternative Water Supply Program Options

- Six Projects Identified:
  1. Daily City Recycled Water Expansion
  2. Pure Water Peninsula
  3. ACWD-USD Purified Water
  4. South Bay Purified Water
  5. Los Vaqueros Expansion
  6. Calaveras Reservoir Expansion

**LEGEND** All locations and sizes shown are approximate and represent the general vicinity for potential facilities. Shaded circles serve to indicate project facilities associated with each project; they do not indicate project size or volume of water produced.

- |   |   |
|---|---|
|  Existing Pipeline                               |  1 Daily City Recycled Water Expansion Project                   |
|  Potential/Proposed Pipeline                     |  2 PureWater Peninsula Project                                   |
|  Potential/Proposed Project Facility           |  3 ACWD-USD Purified Water Project                             |
|  Alternate Potential/Proposed Project Facility |  4 South Bay Purified Water Project                            |
|  Water Treatment                               |  SA Los Vaqueros Expansion Project                             |
|  Water Storage                                 |  SB Conveyance Alternatives for Los Vaqueros Expansion Project |
|  Potential New Outfall                         |  SC Supply Alternatives for Los Vaqueros Expansion Project     |
|  Wastewater Treatment                          |  6 Calaveras Reservoir Expansion Project                       |
|  Intertie                                      |   |
|  Turnout                                       |   |



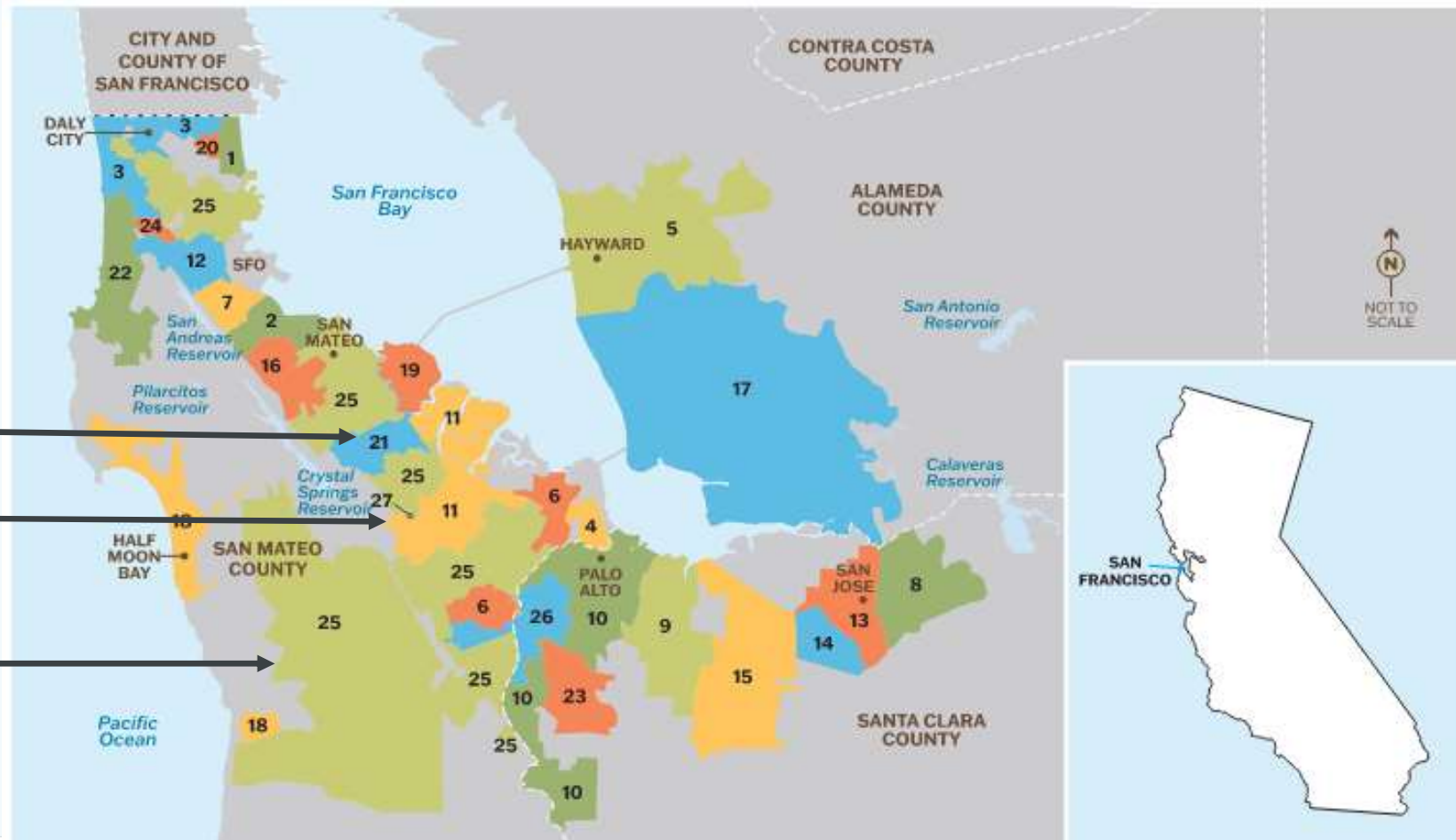
PURE WATER PENINSULA

# SFPUC Whole Sale Service Area – Partnerships

Mid Peninsula  
Water District

Redwood City

Cal Water



PURE WATER PENINSULA

# PureWater Peninsula Project

## Phase 1

- Reservoir Augmentation at Crystal Springs

## Phase 2 – Potential Future Expansion

- Treated Water Augmentation
  - Cal Water
  - Redwood City
  - Mid Peninsula Water District

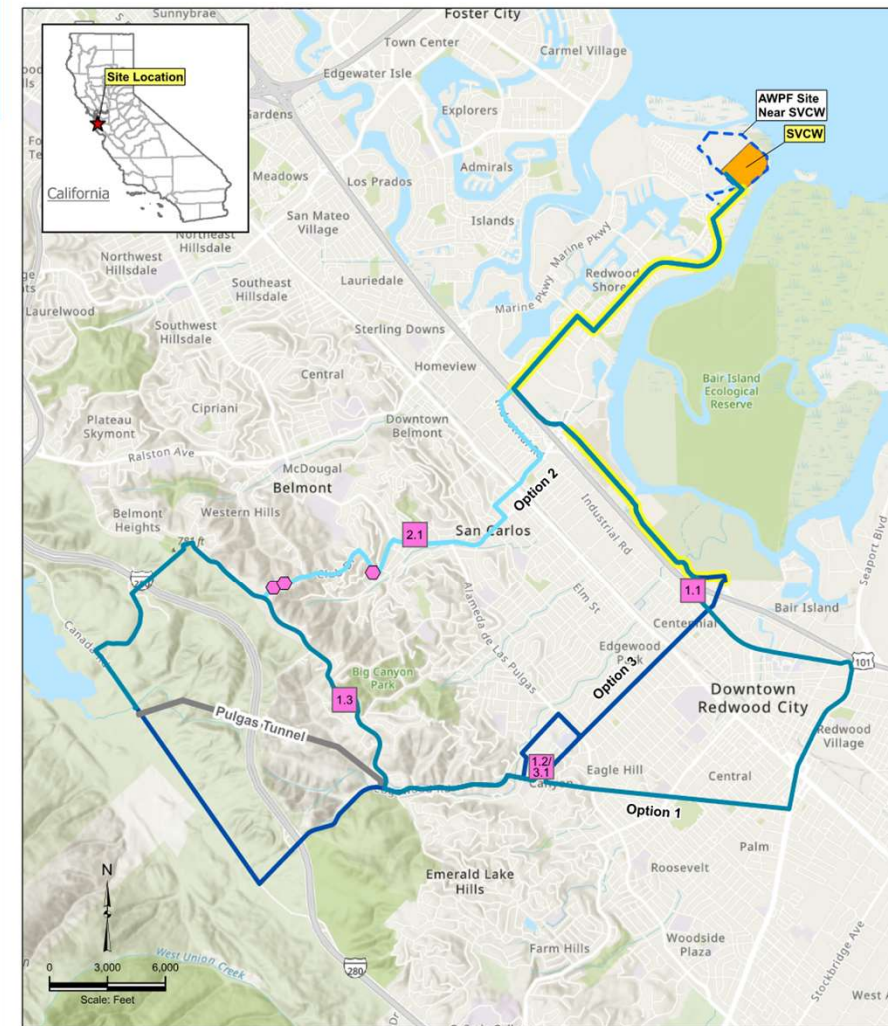


# PureWater Peninsula Project

## Reservoir Augmentation (ResWA)

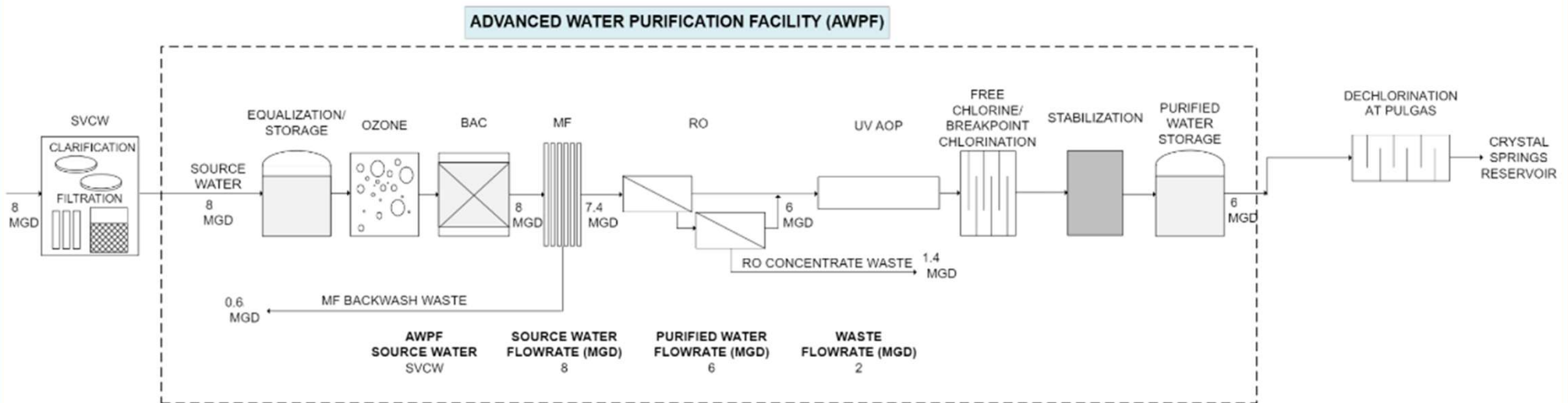
### Phase 1

- Silicon Valley Clean Water wastewater supply (8 MGD)
- New AWPf to produce 6 MGD Purified Water
- Multiple conveyance options considered
- Reservoir Augmentation at Crystal Springs
- Treatment at Harry Tracy WTP before distribution

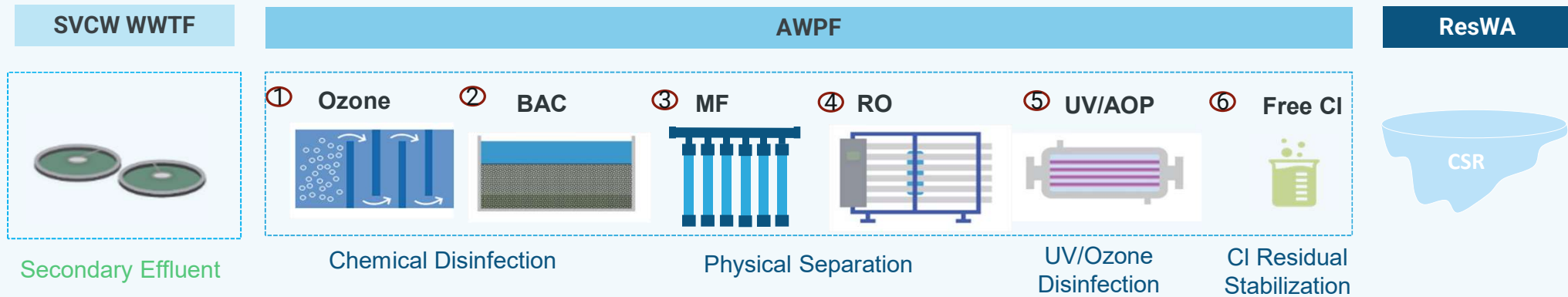


- Legend
- Alternative Additional Pump Station Locations
  - Pump Station Locations
  - Purified Alignment Option 1
  - Purified Alignment Option 2
  - Purified Alignment Option 3
  - Repurposed Pipeline Segment
  - Pulgas Tunnel
  - AWPF Site Near SVCW
  - SVCW

# AWPF Treatment – Full DPR Train



# AWPF Treatment – Full DPR Train



Treatment Processes	WWTP– Secondary Filtration <sup>1</sup>	Potential Log Removal Credits						Total Potential LRV Credits	TWA Log Removal Required	ResWA Log Removal Required
		Ozone	BAC <sup>2</sup>	MF	RO	UV/AOP	Free Chlorine			
<b>Virus</b>	2	2	1	1	2	6	6	20	20	9
<b>Giardia</b>	2	1	2	4	2	6	2	19	14	8
<b>Cryptosporidium</b>	2	0	2	4	2	6	0	16	15	9

1. LRV Credit to be evaluated based on WWTP performance
2. BAC LRV credits based on conservative estimate

# Implementation Timeline

