## CAPACITY CONSTRAINTS AND WATER BANKING

WORKSHOP 3/20/2023

#### **Discussion Topics**



SWP RECAP

#### CAPACITY CONSTRAINTS AND MITIGATION

#### POTENTIAL BANKING PARTNER

### An acre-foot is...

- A unit of volume
- Equal to 325,850 gallons
- Enough water for approximately 3 households each year

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## State Water Project Recap

- The State Water Project moves upwards of 4 million acre-feet annually
- For SWP to arrive at SGPWA, water moves from...
  - Lake Oroville to the Sacramento-San Joaquin Delta
  - Delta to San Luis Reservoir
  - San Luis Reservoir to Edmonston Pump Station
  - Edmonston Pump Station to Pearblossom Pump Station
  - Pearblossom to Lake Silverwood/Devils Canyon
  - Lake Silverwood/Devils Canyon to SGPWA
- Water travels over 500 miles before it gets to SGPWA

## Water Supply Contract Recap

- The Water Supply Contract grants Contractors access to SWP
- Table A is the annual entitlement water in which a Contractor participates
- Carryover water is unused from previous years Table A
- Interruptible water (Article 21) is excess water available to Contractors in very wet years
- Non-SWP water is water that originates outside the SWP family

SGPWA's Main Restriction is in the East Branch

During wet years, a restriction occurs at Pearblossom Pumping Plant

 This reduces SGPWA to 42 acre-feet per day

This last occurred in 2019



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Capacity constraints along the aqueduct can reduce the amount of water to our service area

This means we would leave more water in San Luis Reservoir as carryover

This last happened in 2019

2019 was a 75% allocation year

SGPWA spilled ~5,000 Acre-feet in 2019

#### 2019 Flow Conditions Flow Capacity to SGPWA Service Area



#### What if the capacity constraints in 2019 were to reoccur?

#### What if 2019 were to reoccur?



Operational realities may mean we're not able to deliver all our water in a very wet year

# How Can We Mitigate Capacity Restrictions?

#### 2019 Flow Conditions Flow Capacity to SGPWA Service Area



Delivering water earlier in the year

#### 2019 Flow Conditions Flow Capacity to SGPWA Service Area



#### Building additional facilities to increase local delivery capacity



Participating in a water bank

WATER WOULD BE STORED OUTSIDE OF THE SGPWA SERVICE AREA IN WET YEARS

#### Excess Capacity in Dry Years



Participating in a water bank

THE BANK WOULD PROVIDE WATER TO SGPWA SERVICE AREA DURING DRY YEARS



## New facilities to increase local deliveries



#### Optimization of deliveries



Water banking outside of service area

A combination of mitigation measures is likely

#### **Discussion Topics**



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#### POTENTIAL BANKING PARTNER

# Antelope Valley-East Kern is Looking for Banking Partners

## AVEK would like to develop Phase II of their High-Desert Water Bank



AVEK has multiple Water Banks that are already operational



Phase I of the High Desert Water Bank is being developed by Metropolitan Water District



AVEK is looking for potential banking partners to develop Phase II of the High-Desert Water Bank

### AVEK is located along the East Branch

AVEKs service area is
just downstream of
Edmonston Pumping
Plant and upstream
of the Pearblossom
Pumping Plant







The first step in this would be a feasibility study

Staff has requested a preliminary capacity of 20,000 acrefeet per year (80,000 acre-feet of total storage)

## The banking arrangement is still preliminary

## Questions?