

## Semitropic Groundwater Banking Program **New Opportunities for Storage**

**Semitropic Water Storage District  
Now Accepting Banking Partners for its New Unit**

**New Unit Participants Can Include:**

- *Current Banking Partners*
- *Public Agencies*
- *Metropolitan Sub-Agencies*
- *Environmental Water Account*
- *Private Investors*
- *Developers Requiring Assured Water Supply*
- *Power Companies Requiring Generator Cooling Water*



## Semitropic Groundwater Bank



The first phase of the Semitropic Groundwater Bank was initiated in the early 1990s and made available 1 million acre-feet of storage. The Banking Partners deliver their wet year or surplus water to Semitropic. When called on, Semitropic under its original phase of the program returns the water to the California Aqueduct by exchanging its entitlement (i.e., 0 to 133,000 acre-feet per year) and/or by reversing the intake facility to return an additional 90,000 acre-feet per year of water to the California Aqueduct. This program is fully subscribed with six banking partners who have delivered approximately 800,000 acre-feet of water to Semitropic, some of which has been returned at the 300 cfs rate. This is a proven and working water bank.

To answer additional needs, a **New Unit** has been developed to provide additional storage and return capacity to the California Aqueduct. An area in the northwest part of Semitropic is not irrigated because of its poor soil conditions. Good quality groundwater exists in an aquifer below the Corcoran Clay with a pump lift of about 275 feet. This **New Unit** is fully permitted to install up to 65 wells in this area and provide conveyance facilities to the California Aqueduct (see page 3). Model studies show that up to 150,000 acre-feet per year can be extracted over three consecutive years without causing unreasonable conditions. By adding another 50,000 acre-feet per year of recovery from the existing program recovery area, the new unit of the Semitropic Groundwater Bank can deliver up to 200,000 acre-feet per year of dry year yield to the California Aqueduct. The **New Unit** of the **Stored Water Recovery Unit** is available for subscription.

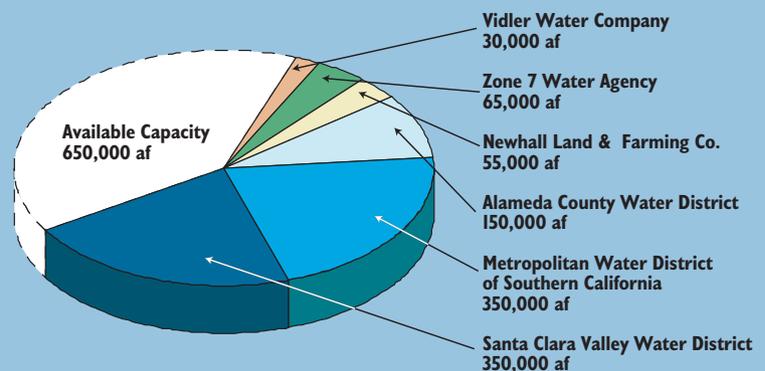
## Current Program

Six Banking Partners are currently contracted for 1 million acre-feet of storage capacity. (see chart below)

### How the Bank Works

Wet year and surplus water is conveyed to storage in the groundwater basin primarily by in-lieu deliveries. Farmers take imported water in lieu of pumping groundwater. The banked water is returned to the State Water Project (SWP) by the release of Semitropic's contract entitlement and/or by "pumpback" to the California Aqueduct at 300 cfs.

### Original Banking Partners



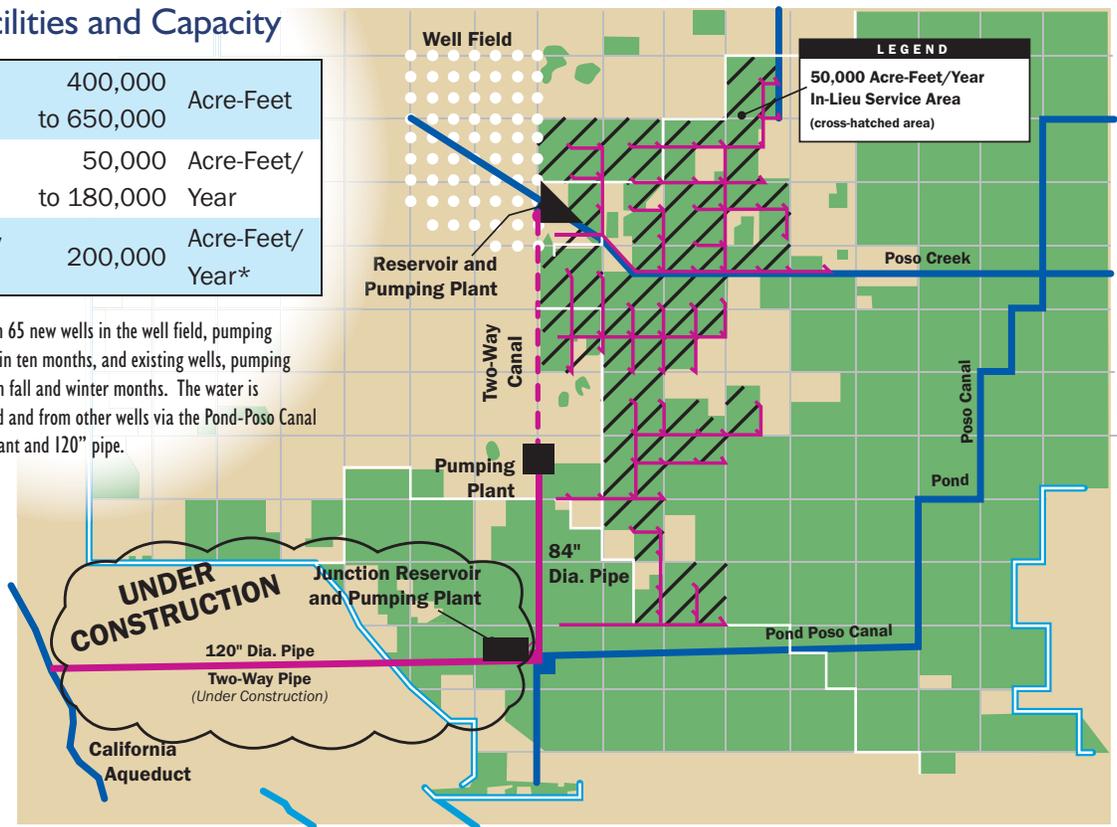
## New Unit

The New Unit was created to increase dry year deliveries to the California Aqueduct and is available for new banking partners. The heart of the project is a well field in an area of good quality, deep groundwater. This area is unfarmed because of unsatisfactory soil type. The New Unit is sized to deliver up to 200,000 acre-feet per year to the California Aqueduct via a seven-mile-long, 120-inch-diameter pipe (200,000 acre-feet per year, is 10% of the SWP yield in a 50% year).

### New Unit Facilities and Capacity

<b>Storage</b>	400,000 to 650,000	Acre-Feet
<b>Recharge</b>	50,000 to 180,000	Acre-Feet/ Year
<b>Return Capacity to Aqueduct</b>	200,000	Acre-Feet/ Year*

\* Return capacity comes from 65 new wells in the well field, pumping 150,000 acre-feet per year in ten months, and existing wells, pumping 50,000 acre-feet per year in fall and winter months. The water is conveyed from the well field and from other wells via the Pond-Poso Canal to the Junction Pumping Plant and 120" pipe.

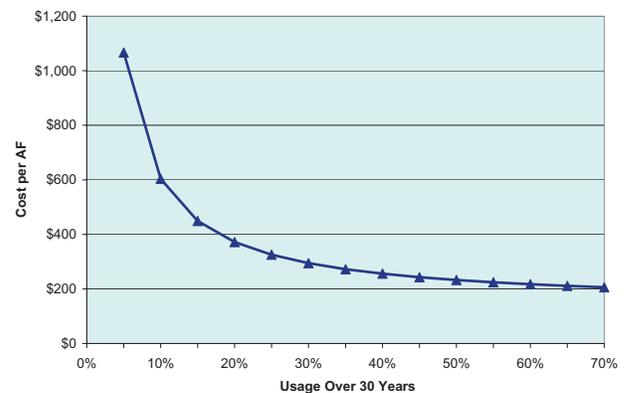


### Expected Water Quality of New Unit

	Aqueduct	Existing Wells	New Unit
TDS (mg/l)	260.0	390.0	160.0
As (µg/l)	2.0	8.0	*
CrVI (µg/l)	0.2	6.0	5.0
Ur (pCi/l)	1.5	2.0	0.13
NO <sub>3</sub> (mg/l)	2.3	5.0	0.6
Br (µg/l)	210.0	190.0	90.0
TOC (mg/l)	3.0	0.8	0.57

\* May require Arsenic removal depending on pending regulations

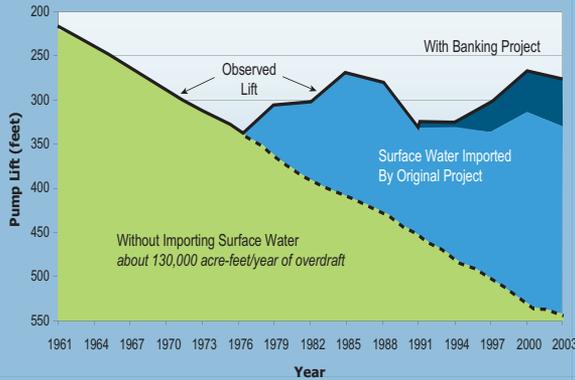
### Unit Cost of New Unit



## Proven Results

Semitropic's Groundwater Banking Program has proven results. It has increased groundwater levels by storing hundreds of thousands of acre-feet of water. It is positioned in an ideal location amongst the Central Valley and State Water Projects.

### Groundwater Levels



### Water in Storage

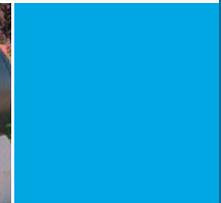


### Semitropic Ideally Located for Water Banking and Transfers



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