

## **Supplemental Water Pricing**

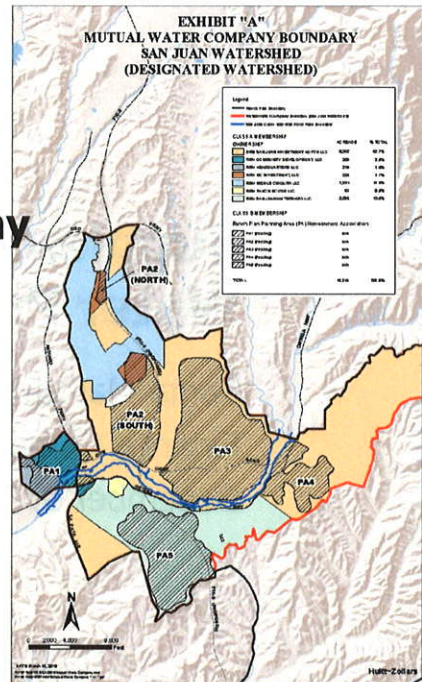
Santa Margarita Water District  
Finance Committee Meeting  
December 9, 2011

## **Rancho Mission Viejo Mutual Water Company**

- Agreement for Lease of Supplemental Water
  - Opportunity to contract with MWC to obtain up to 2,500 acre-feet of nondomestic water
    - May be used for irrigation, grading and construction activities for dust control, trench backfill and similar uses
- Advantages to SMWD
  - Reserves a local water supply for use by the District, future opportunities may include treating the water to domestic water standards for reliability.
  - Provides an opportunity to consider expansion of the recycled water system into Rancho Santa Margarita, Coto de Caza or for sale to City of San Juan Capistrano.
  - Provides a reliable back-up system in case of treatment issues with the recycled water.

## Mutual Water Company Boundaries

- RMV and SMWD initiated discussions in 2007/08
- Draft agreement discussed with Board in April 2011
- CEQA approval in November 2011

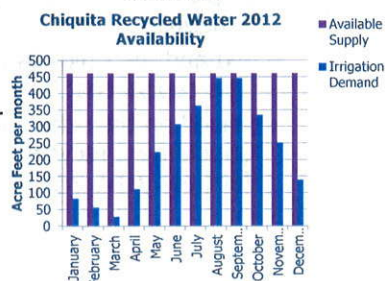


## Background: The Ranch Plan Water Supply

- Primary water supplies are imported domestic water and recycled water for irrigation purposes
- Agreements for groundwater in the Chino Basin reinforce the imported supplies to enhance the reliability of MWD.
- Recycled water supply can be reinforced with urban return flows, supplemental domestic water supplies or available local groundwater.
- Leased Supplemental Water is not relied on to ensure adequate water supply

## Recycled Water Supplies

- Oso Creek WRP
  - Serves Mission Viejo
  - Oso Creek Watershed
  - recycled water from the Oso Creek WRP, Oso Barrier and Upper Oso Reservoir
  - Supplement with recycled water from the Los Alisos Reclamation Plant or domestic water.
- Chiquita WRP
  - Serves Ladera Ranch and Talega
  - No seasonal Storage
  - Peak flow rate (5 MGD) matches peak demand



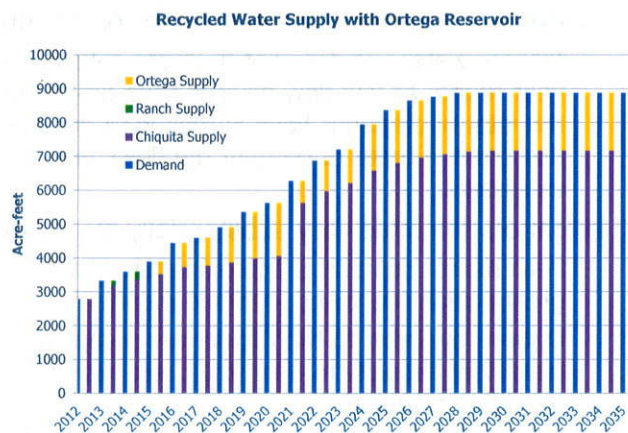
## Recycled Water Supplies

- Recycled water is a reliable drought-proof supply
  - Interior water use does not fluctuate substantially year-round. As low-flow devices have proliferated, the interior demands have hardened to the point that even in times of drought the flows are consistent.
- Irrigation demands vary substantially by seasons
  - Peak month demand is approximately 16 times greater than the lowest demand month.
  - Options available to the District are pumping and treatment capacity to meet the peak design or providing seasonal

## Ranch Plan Supply Options

- Build seasonal storage and increase treatment capacity.
  - The capital cost for Ortega Reservoir is approximately \$45 million with reservoir, pump station and pipelines.
  - Preliminary design is complete and the District is proceeding with CEQA
  - Final design and construction would take approximately three to five years with an aggressive schedule.
  - Expand the Chiquita Plant in approximately 2020. The capital cost is approximately \$37 million.
  - Based on the schedules, the District would need to supplement recycled water supplies up to 236 acre-feet per year until the facilities were on-line.

## Supply with Ortega Reservoir

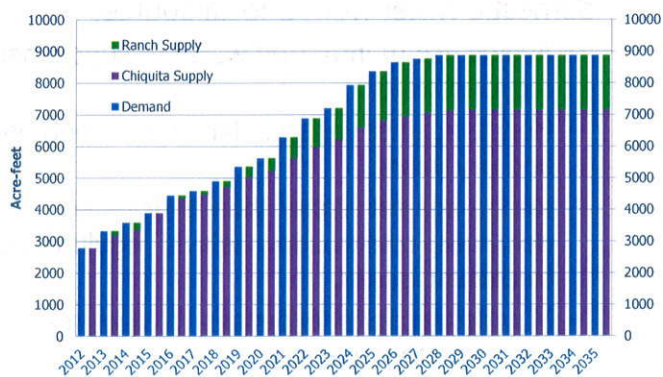


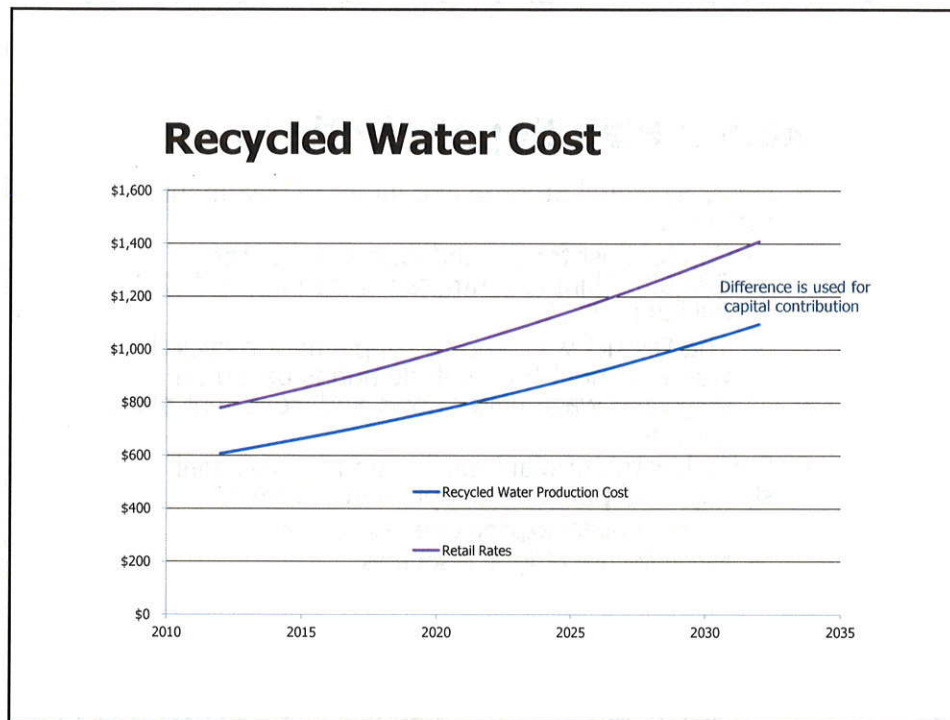
## Ranch Plan Supply Options

- Delay Seasonal Storage and increase treatment capacity.
  - Capital Cost for phased expansion of the Chiquita Plant is estimated to be initially \$22.4 million in 2015.
  - The District will need to supplement recycled water to meet the peak demands based on projected wastewater flows and treatment plant capacity.
- Delay treatment plant expansion and seasonal storage and purchase supplemental water.
  - District Capital expenditures are delayed.
  - Maximize use of local resources

## Recycled Water Supplemented by Mutual Water Company

Recycled Water Supply With Supplemental Water



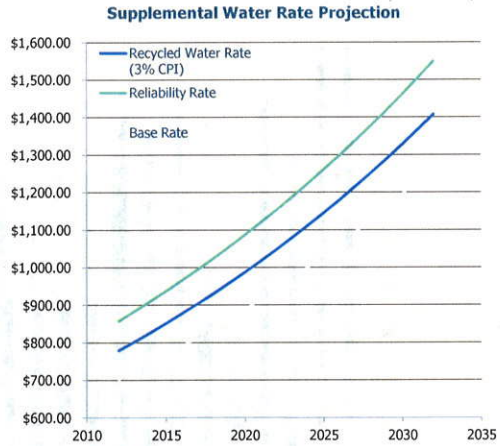


## Supplemental Water

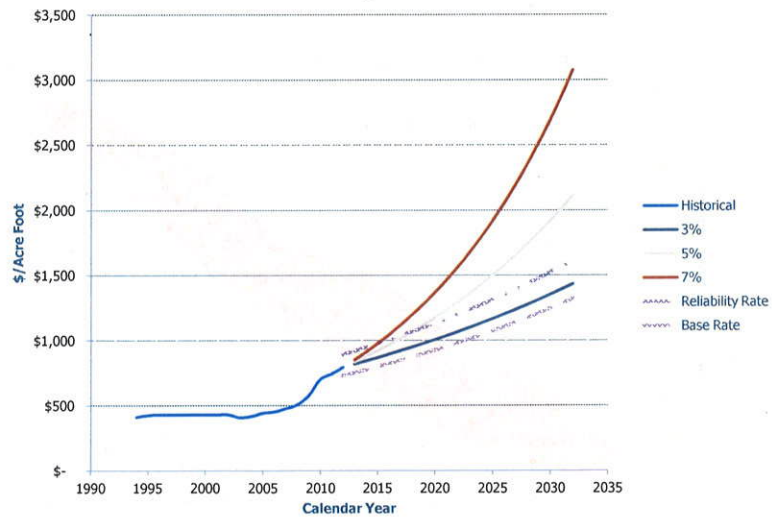
- Provides a layer of reliability for supply of non-domestic water from a local source.
  - Avoids use of imported water to supplement recycled water.
  - Hedge against variable demands in both wet and dry years.
  - Hedge against higher than anticipated demands, construction delays, regulatory or treatment issues.
  - May delay capital expenses to allow reasonable approach to expansion

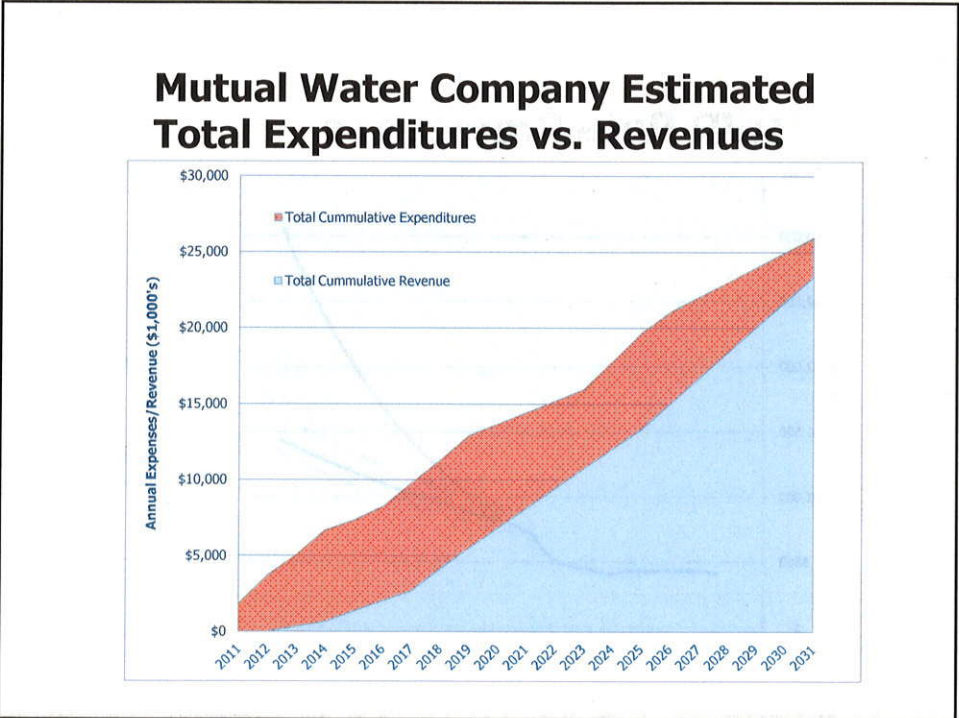
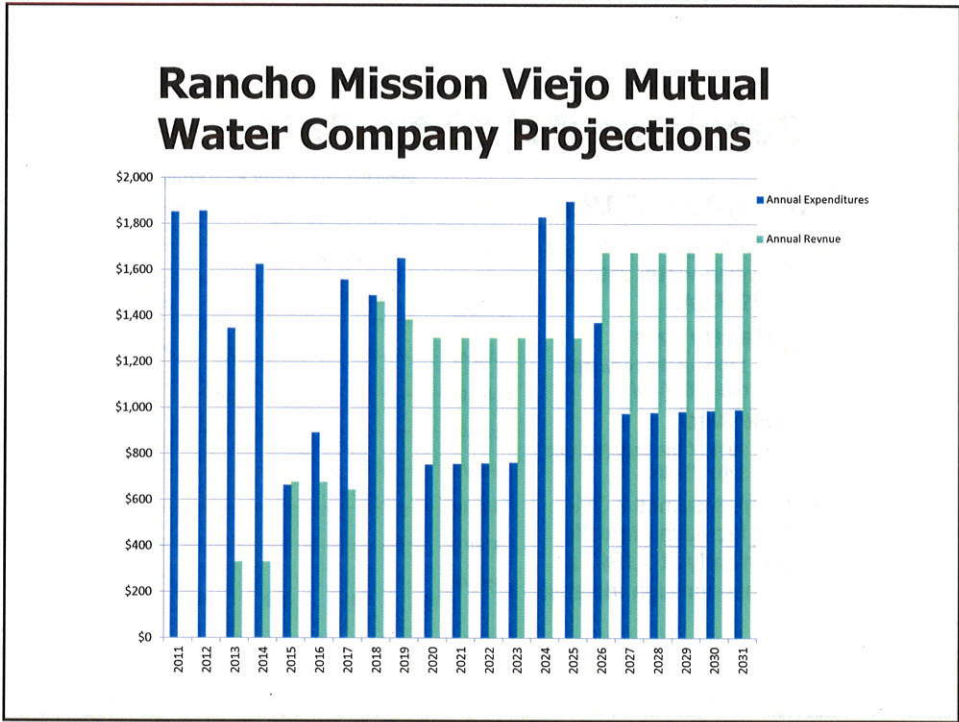
## Supplemental Water Rates

- Two water rates
  - Percentage of the 2012 recycled water rate of \$779.72/AF.
  - Reliability Rate
    - 110% of the recycled rate, \$857.70/AF
  - Base Rate
    - 90% of the recycled rate, \$701.75/AF.
  - Chart assumes a 3% CPI increase annually (currently at 2.8%) as a pass-through increase



## MWD Rate Projections





## Summary Comparison

\$/Acre Foot					
Year	MWD Imported Water	Recycled Water Production	Retail Recycled Water Rate	Supplemental Base Rate	Supplemental Reliability Rate
2012	\$ 794	\$ 607	\$ 780	\$ 701	\$ 858
2020	\$ 1,108	\$ 769	\$ 988	\$ 889	\$ 1,086

- Use of Supplemental Water will vary depending on availability of recycled water
  - Projected to be between 2% and 30%
- Melded costs for recycled water production In 2020 is estimated to be \$805/AF.

## Agreement

- Take or Pay based on development levels per table
  - Supplies above demand may allow for marketing of recycled water
  - Requires diligence on District's behalf to manage supplies
- Term
  - 20 years
  - Two 10-year extensions if mutually agreed
- Other Points
  - MWC will deliver water at SMWD Zone A pressure
  - Acceptable water quality for irrigation purposes, particularly in regards to Iron and Manganese
  - Price is subject to change if above points cannot be met

### Lease Amount of Supplemental Water (Riparian) by RMV for SMWD

Planning Area	Acres	Water Supply (ac ft/year)
1	577	400
2	895	416
3 & 4	2,721	1,131
5	1,191	553
<b>Total:</b>	<b>5,384</b>	<b>2,500</b>

