Presentation Outline

- Previous evaluation of District-only Desalination
- Reasons to possibly reconsider
- Discussion of primary project components
Was a District-only Desalination Project Previously Considered?

- **2006 Revised Integrated Resources Plan**
  - Identified as a local supplemental supply alternative

- **2012 Integrated Resources**
  - Considered District-only Desalination (similar to scwd² Project, except alone)
  - Considered District-only Desalination within Soquel Creek Water District’s service area
Why Reconsider District-only Desalination?

- City of Santa Cruz has decided to “reset” the discussion on their water supply issues
- Potential changes to regulations for brine handling
- Potential opportunity to explore with intake option(s)
- Potential cost could be comparable to mandatory water rationing
What could a conceptual project look like?

- Intake
- Brine Handling
- Size
INTAKE: Vertical Wells

- Previously looked at in 2001

- 2001 Study found that beach wells were not feasible
INTAKE: Slant Wells, Radial Collector Wells

- Needs suitable offshore alluvial material
- Previously looked at for proposed scwd² Project

(Graphic Courtesy of MWDOC)

Collector in Mad River
Previously looked at for proposed scwd² Project

Engineered infiltration gallery could work where natural sands aren’t suitable
INTAKE: Infiltration Gallery

The gallery would be approximately 4.5 football fields to account for the mobile sediment layer and require dredging of 100,000 CY of sediment.

- Previously looked at for the proposed scwd² Project but had sand sediment issues near San Lorenzo River
• scwd\textsuperscript{2} project looked at coastline from above Wilder Ranch to past Capitola for screen intake feasibility

• Deeper water and sandy bottom offshore
INTAKE: Screened Open-Ocean Intake

- Intake pipeline could be micro-tunneled into a sandy bottom area beyond kelp beds
BRINE HANDLING: Blend

- Blending brine from SWRO desalination process with wastewater effluent so the mixture would have similar salinity as seawater.
BRINE HANDLING: Direct Discharge

- Ocean Plan Amendments
- Pressurized brine discharged through direct brine line
District need in 2020 is ~ 500 MGY = 1.4 MGD

Other considerations