



# Cost Considerations for the Water Supply Options within the Community Water Plan

**This “FAQ” has been prepared to answer questions related to the various costs of water supply options within the Community Water Plan.**

The basis of the information is from the Technical Memorandum (TM) prepared by Brown and Caldwell in December 2018). The objective of the analysis was to provide updated cost estimates for water supply options presented in the Community Water Plan (CWP) to the Soquel Creek Water District (District) for comparative evaluation based on the cost. The focus of this TM is to bring parity to the basis of estimated costs (escalated to year 2022) for various CWP options and allow for “apples – to - apples” objective assessment. The information used for Pure Water Soquel was from the Feasibility Study (Carollo, 2018). For the River Water Transfer, the City of Santa Cruz Water Department requested we utilize options Scenario 4 and 5 of the Water Transfer Infrastructure Summary Report (Kennedy/Jenks, 2013) which was used by the City for their update to the Santa Cruz Water Commission on November 5, 2018. Deep Water Desal, LLC provided the District updated costs for the desalination option (communication with J. Chaparro dated November 28, 2018).

The District appreciates the coordination with the project sponsors (City of Santa Cruz and DeepWater Desal, LLC) for the sources of information to use in the Technical Memorandum.

## **What are the capital costs of the three primary water supply options within the Community Water Plan?**

The capital cost for Pure Water Soquel, the water transfers with the City of Santa Cruz and desalination from Deep Water Desal were all estimated in various reports and at various times. Thus, the costs were estimated in different years, had differing inflation rates, the projects varied in size, etc. and thus made it challenging to answer the question, “How much do each of the projects cost?”.

<b>Project</b>	<b>Cost</b>	<b>US Dollars</b>
Pure Water Soquel	\$68M	2017 US Dollars
Surface Water Transfer	\$86 - \$92M	2013 US Dollars
Desalination by DWD	\$422M + conveyance	2018 US Dollars

For parity, Brown and Caldwell calculated the project costs to all be at Year 2022 with a 5% inflation factor:

<b>Project</b>	<b>Cost</b>	<b>US Dollars</b>
Pure Water Soquel	\$90M	2022 US Dollars
Surface Water Transfer	\$133 - 142 M	2022US Dollars
Desalination by DWD	\$513M + conveyance	2022 US Dollars

## **What is the Unit Cost of Water (per acre-foot) for the three primary water supply options within the Community Water Plan?**

The unit cost of water is dependent on how much water is produced and the operating costs (such as staffing, power, maintenance). Brown and Caldwell estimated the unit cost of water in Year 2022 by escalating published unit costs in the previous studies for each option:

<b>Project</b>	<b>Unit Cost of Water (\$ per acre-ft)</b>
Pure Water Soquel	\$4,600
Surface Water Transfer	\$6,100 - \$11,500
Desalination by DWD	\$4,400 - \$4,900

**Do these costs reflect grants?**

No, Brown and Caldwell did not include any reductions that could apply any of the projects. The analysis was to objectively analyze capital and unit cost of water projections to 2022 Dollars.

It should be noted that the District has applied for a Title XVI Grant (which is up to \$20M) and was invited by the State to submit a Full Proposal for a Prop 1 Groundwater Grant (which is up to \$50M) for Pure Water Soquel project that could greatly benefit the District's ratepayers, if awarded.

For the District, purchasing water from the City of Santa Cruz or Deep Water Desal – is not considered a project that the District could apply for grants. The City or Deep Water Desal, as the lead sponsors of the surface water and desalination projects, could potentially apply for grants.

**Do the projects reflect any cost sharing between agencies?**

Cost sharing for the purchase of desalination or surface water is reflected in the unit cost of water calculations. The DeepWater Desal option is anticipated to produce up to 25,000 acre-feet per year (afy) of water that the District could potentially purchase 1,500 afy. The surface water options are anticipated to produce 800 afy (Scenario 4) that the District could potentially purchase ~420 afy and 1,712 afy (Scenario 5) that the District could potentially purchase ~1200 afy. With analysis done as a "unit cost of water", this total cost (capital and operating) for the options are monetized to a cost per acre-feet which creates a fair cost-share rate for collaboration with other entities.

Special negotiations or considerations (such as selling or transferring water back to the City to meet their drought needs) were not included.

**The District is currently purchasing a small amount of surface water from the City this winter for a pilot project. Could the District continue to just purchase water at this rate?**

The current water purchase, through 2020, is for 'research purposes' (per Rosemary Menard, City of Santa Cruz Water Director) as the City is evaluating the feasibility of a long-term transfer project. There is a possibility that the pilot contract could be extended; however, the duration and if the cost of water could be at the same rate is unknown.

It is expected that a longer-term agreement (i.e. 30+ years) would be more equitable to water rates the City charges for water to existing customers, per Prop 218 laws. Thus, the water could likely be more in the range of \$5,400 - \$6,270 per acre-ft (range reflects outside city rates for single-family and municipal customers, at 2020 approved Prop 218 water rates).

References:

- *Water Transfer Infrastructure Summary Report*, Kennedy Jenks, 2013.
- *Final Report Conjunctive Use and Water Transfers Phase II (Task 6)*, Santa Cruz County Environmental Health Services, 2015.
- *Recycled Water Feasibility Study - Final Report*, Carollo, November 2017.
- *Cost Estimate Updates for Pure Water Soquel and Community Water Plan Options related to Water Transfers, Technical Memorandum*, Brown and Caldwell, November 29, 2018
- Personal communication with staff from the City of Santa Cruz Water Dept. and Deep Water Desal.

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