

Factors that may lead to lower costs ...

The cost estimates for Elements 1, 2 and 3 contain a range of uncertainty. While it is possible that the final cost for implementing Strategy One may be substantially less it is also possible the costs may be more.

Focusing only on Strategy One, the factors that may lead to lower costs include the following:

- It is beyond the scope of the WSAC to recommend the actual design of these Elements. For example, in lieu recharge (Element 1) might be implemented in many different ways, depending on the interests of neighboring districts, the constraints of water treatment, the constraints of existing distribution pipelines, etc. Similarly, direct injection (Element 2) may be conducted by the City alone, or in conjunction with neighboring districts; focused on one aquifer strata, or focused on several strata, etc. I.e., there are many unknowns that will define the final project.
- The Project Elements Summary does not include the revenue from sale of water to neighboring districts, or other means of potential cost-sharing. It is premature to estimate that cost sharing contribution or possible revenues back to Santa Cruz.
- The cost of upgrade of Graham Hill Water Treatment Plant, \$62 million, is the largest single line item on the Gantt Chart. The purpose of this expenditure is to allow treatment of more winter water from the San Lorenzo River for the purpose of maximizing Elements 1 and 2. To be able to produce and deliver more water in the winter, we may need to deal with water with turbidity levels that are beyond that which can be effectively treated by the Graham Hill Water Treatment Plant. Lower cost options for addressing this purpose may be available and include 1) using existing Graham Hill treatment capacity 2) construction of a Ranney Collector to reduce turbidity 3) installation of a small-scale satellite treatment plant. The information needed for making these choices is not available at this time. A principal

piece of needed information is the ability of the current Graham Hill Water Treatment Plant to treat water at the quality and quantity needed for Elements 1 and 2 followed by an understanding of the most cost effective way of meeting treatment goals associated with these elements.

- The cost of upgrading the Tait St. Diversion, \$14 million, is included in the cost estimate and is a placeholder for achieving increased diversion capacity on the San Lorenzo River for the purposes of maximizing Elements 1 and 2. However, with the City adoption of the aquifer recharge strategy and the completion of a Habitat Conservation Plan, the expectation is that state and federal fisheries agencies will remove their long-standing protest of the City's water rights application to use Felton Diversion for direct pumping to Graham Hill Treatment Plant. State approval of this water rights revision may allow the City to use the Felton Diversion for additional winter water diversion, rather than expand the Tait St. Diversion.
- Current calculations are based on a 30-year lifecycle and do not account for residual value in capital expenditures beyond a 30-year lifecycle. Longer-lived infrastructure, such as pipelines between Santa Cruz and neighboring districts, likely has value that is not included in the cost accounting.
- Costs could be significantly greater in order to generate yield sufficient to meet the gap.

Strategy One will be implemented in incremental fashion. Initial expenditures are intended to define the project(s) and its feasibility at meeting the Plan's goals in the most cost effective way possible. Subsequent expenditures will be made based on feasibility and cost effectiveness with little risk of creating stranded assets.