

## New Water Alternatives Help Committee Plan For Likelihood Of Drier Future

By David Stearns

With the prospect of a fourth straight dry year bearing down on water agencies across the Western United States, the need for a drought-resilient water supply in Santa Cruz is becoming ever more apparent. While the Santa Cruz Water Department monitors hydrology, weather, and demand in case curtailments will once again be required this summer, the Water Supply Advisory Committee (WSAC) continued its deliberations on the community's long-term water needs. With nearly a year on the books, WSAC and its technical consultants have whittled a list of over 100 alternatives down to 20 consolidated alternatives that will form the basis of Santa Cruz's water portfolio through at least 2030. The latest list of consolidated alternatives is robust and includes, among other options, enhanced conservation, aquifer recharge through regional cooperation, and recycled water. *(online edition only - click here for the final list of alternatives)*  
[DRE: Perhaps include URL or tinyURL in the print edition?]

WSAC is using a scenario-based decision model in order to allow the group to consider a wide range of plausible water futures. Scenario planning is essential because no one can predict the future. Recent climate change modeling suggests the Central Coast will be drier and warmer, with spurts of torrential precipitation meaning that water systems must be designed to capture, store, and treat more intensive storm runoff. Because Santa Cruz is so dependent on surface water, improved stormwater management will be crucial for meeting human needs in the coming decades. Moreover, data from Australia and similar climates shows that reductions in rainfall leads to substantially larger drop in watershed runoff because the ground is unable to sufficiently saturate during shorter more extreme weather events.

During the committee's March meetings, using the 20 consolidated alternatives and a maximum acceptable system shortage of 15% guiding decision making, committee members delved into three theoretical future supply and demand scenarios that accounted for variables such as climate change, prolonged drought, and the Habitat Conservation Plan (HCP) that remains unsettled with federal and state regulators. The three hypothetical scenarios ranged in severity with the worst forecasting an eight-year drought using historical hydrologic data, Department of Fish Wildlife mandated stream flows, and a slightly higher annual demand projection, 3.4 billion gallons per year, than expected. The response from the committee was relatively uniform in terms of which alternatives would be used to bridge the yearly supply and demand gap that was 220 million gallons per year in the best case scenario to over one billion gallons per year in the worst case scenario. The committee agreed that enhanced conservation and harvesting untapped winter flows in the San Lorenzo river with yet to be constructed filtration, pumping and storage infrastructure were the best ways to meet the gap in supply. The most extreme future scenario required the committee to consider water recycling in the event that the San Lorenzo cannot meet our needs, because of its ability to deliver water irrespective of rainfall.

This was the Committee's first cycle of scenario planning. In the coming months, the Committee and its technical team will continue to refine and improve its scenarios, the consolidated

alternatives, and the technical data on which the Committee will base its recommendations. Consensus is beginning to form around a number of supply alternatives but much discussion remains on which suite of options will best serve Santa Cruz's water future.

WSAC fully encourages public participation throughout its process. The next meeting will be on April 30th from 5 - 9:30 pm and May 1st from 2 - 6pm at the Simpkins Family Swim Center (979 17th Ave.). During the upcoming meeting scenarios and portfolios will be further developed, discussed, and improved. Please check <http://www.santacruzwatersupply.com/> for more details. Those interested can also find the Water Supply Advisory Committee on Facebook.

David Stearns grew up in Santa Cruz, sits on the Water Commission, and works for sustainable solutions to our city's pressing challenges.