

WSAC: A Fresh Look at Water Demand

Our City Council has tasked the Water Supply Advisory Committee (WSAC) with crafting a solution that ensures the reliability and sufficiency of Santa Cruz's water supply now and in the future. The Committee has divided this work into two phases: the Reconnaissance (Recon) Phase and the Solutions Phase. During Recon, we gathered over 100 potential solutions from both inside and outside of our community. Many of these ideas were presented at the public *Our Water, Our Future* convention on October 16th, 2014.

The WSAC has now entered the Solutions Phase of our work plan - sorting through these options and developing solution portfolios that work in various future scenarios.

Our starting point is determining an accurate baseline prediction for our water use in future years. This baseline figure will help us anticipate, with some uncertainty, the supply/demand gap that we may have in the future. The bigger the gap, the more work the community must do to enhance supply and reduce demand.

Historically, water use projections throughout the United States, and here locally, have consistently over estimated future water demand. Technological improvements like low flow toilets, high efficiency washers, low-flow showerheads, and aerated faucets combined with building code updates have led to more effective use of our water resources. Embracing drought tolerant landscaping also reduces water use, especially in the summer when demand is highest. Increased urban density drives down per-capita water use. All of these factors, combined with our community's diligent conservation efforts, have resulted in much lower-than-projected water demand.

During our February meeting, the WSAC's technical consultants presented updated baseline projections. These projections show 2035 demand nearly 20% below the City's previous estimates, at 3,213 millions of gallons per year. David Mitchell of Oakland based firm M-cubed explained his approach as follows: "It is meant to characterize the amount of water customers are expected to demand, given projected water rates, income rates, population growth, and improvements in water use efficiency. It is a prediction of future demand assuming customers are free to choose how much they consume given the forecasted future cost of water and other factors." M-cubed has experience consulting with water related issues for groups such as Alliance for Water Efficiency and the Santa Clara Valley Water District.

Of course any prediction is uncertain; the WSAC voiced concerns about both over- and under-estimating our need. Factors such as growth within Santa Cruz, in the surrounding water use area and at UCSC, as well as the effects of lessons learned from the drought and a likely rebound of water use once the drought ends were considered. Because of these unknowns, the WSAC asked Mr. Mitchell to define a range for the baseline that captures these uncertainties.

The WSAC will then apply this baseline range to the several scenarios that we are developing. The scenarios will envision different community futures, such as a future characterized by increased droughts.

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At the same time, we are studying the many potential solutions to our supply/demand gap. A key part of that process is consolidating similar or complementary solutions, so that we can focus ourselves and our technical team. Using those consolidated solutions, the WSAC will then begin to develop different solution portfolios that address the scenarios. Ideas that work well in several scenarios will more likely be chosen for eventual implementation. This work will be iterative in nature, as we learn more about our available solutions, better characterize the uncertainties that we face, and hone our scenarios.

We encourage public participation throughout this process. Our next meeting will be on March 18th from 5 - 9:30 pm and March 20th from 2 - 6pm at the Peace United Church of Christ (900 High St.). During this meeting, we will further develop scenarios and portfolios, including enhanced opportunities for you to contribute . Please check <http://www.santacruzwatersupply.com/> for more details.

By Erica Stanojevic and Sarah Mansergh; members of the WSAC. Erica represents the Sierra Club and her 3-year-old son, and Sarah represents the Surfrider Foundation.