

Memorandum

To: Santa Cruz Water Supply Advisory Committee
From: Stratus Consulting Inc.
Date: 10/15/2014
Subject: Enrichment Opportunities

In this memorandum we present possible enrichment opportunities to share with the Santa Cruz Water Supply Advisory Committee (WSAC). We suggest offering a series of supplemental “enrichment” presentation/discussions because there are so many technical analysis issues for WSAC to consider within the context of its deliberations, and there is limited time available for such presentations and discussions within the constraints and other priorities associated with WSAC meetings. Some of the items listed below have been suggested by WSAC members. And, we are open to additional suggestions or requested priorities.

There are several options for how we can organize these enrichment presentations: immediately preceding the formal WSAC meetings, and/or at other times and venues as convenient for Committee members, as on-line Webinars, that can be recorded for viewing at any time, or perhaps some of the topics you want to actually include during a meeting.

Some of the topics that may be considered for the enrichment series include:

- ▶ **History of water treatment technology and where we are headed.** Some topics could include: membranes, UV and ozone today, and whether forward osmosis is a viable option in the near future.

Potential Presenter: Rhodes Trussell

- ▶ **Water reuse: regulatory, public health, and technology overview.** To provide more context before the enrichment presentation, we would first distribute a white paper on regulatory developments and public health implications of indirect potable reuse (IPR) and direct potable reuse (DPR), and on technologies for IPR and DPR, including status of deployment or planned deployment of such technologies. Some topics could include water quality, regulatory development, and public health perspectives.

Potential Presenter: Rhodes Trussell, George Tchobanoglous, or Bob Raucher

- ▶ **Desal technology** – A WSAC presentation on desal technology (including a glimpse at the concept and viability of forward osmosis) examples of technology applications, including capital and operating costs, energy footprint, energy offset strategy, life cycle cost analysis

Potential Presenter: Brown & Caldwell, or possibly others

- ▶ **Flows and Supply.** This could easily turn into two enrichment presentations. The first would focus on the relationship between surface water flows and extraction levels. The second would focus on how climate change will impact precipitation, temperatures and evapotranspiration and therefore flows and extraction levels.

Potential Presenters: Gary Fiske and Shawn Chartrand

- ▶ **Climate change impact on water demands.**

Potential Presenter: Karen or Bob Raucher, perhaps with input from Gary Fiske

- ▶ **Revenue Gaps and the Rate Impacts of Reduced Water Consumption.** In recent years, water utilities have struggled to develop appropriate pricing structures to allow for sufficient financial reserves for maintenance and growth and also promote conservation of water resources.

Potential Presenter: David Mitchell, or Bob Raucher, or possibly someone from Raftelis

- ▶ **Lowering Peak Season Demands** –Presentation on regarding potential demand management programs that would result in lowered peak season demand. Program design and analysis for 10, 20 and 30 % reductions in peak season demand including public and private cost analysis. Data inputs to TBL and regional economic analysis of these three levels of peak season demand reduction

Potential Presenter: Bill or Lisa Maddaus, possible input from John Rosenblum

- ▶ **Aquifer/hydrology/hydrogeology 101, as relates to Santa Cruz aquifers.**

Potential Presenter: To be determined (possibly a principal from Pueblo Water resources, or Andy Fisher)

- ▶ **Water rights 101, as relates to Santa Cruz water-rights issues.**

Potential Presenter: To be determined (probably Lennihan)

- ▶ **“Life Lessons” panel from the IRP on water-supply challenges they’ve faced and solved**

Presenters: IRP members

- ▶ **Carbon footprint.** What is a carbon footprint, how is one developed, how can WSAC use this information?

Potential Presenter: John Rosenblum