DATE: August 22, 2014

TO: The Water Supply Advisory Committee

FROM: WSAC Subcommittee on the Santa Cruz Water Supply Convention
               (Doug Engfer, Sarah Mansergh, Sid Slatter, and Rosemary Menard)

SUBJECT: Concept Paper on WSAC and participant experience at the Santa Cruz
               Water Supply Convention, including how the WSAC and other
               participants will evaluate Convention submissions for improving the
               reliability of Santa Cruz's water system

In planning for the Santa Cruz Water Supply Convention, the WSAC and the SIAC
subcommittee working on this effort have done only some general thinking about
what they want to get out of it. We all think that there are a lot of possibilities for
what this event can produce in terms of the participants' experiences – for the
Committee, those submitting proposals, and those visiting the event to learn more
about options for improving the reliability of the Santa Cruz water supply.

This note addresses two topics about the Convention: what we want the various
types of participants to experience (learn, practice, and come away with,
individually and collectively), and how we might provide participants the means to
evaluate the alternatives and communicate their evaluations to the Committee.

The Convention Experience

1. The Convention, in General

By way of context, here, in summary form, is our current working description of the
Convention agenda and logistics:

- Final date still TBD, pending venue, Committee, and public scheduling.
- All-day event, with public participation from 11a-9p. Venue would be open
  for participants to set up starting at 8a and would remain open until 10p to
  allow for removal of exhibits, etc.
- General format is similar to a science fair or scientific poster session. Each
  presenter would have a tabletop display and handouts. Presenters would
  then engage interested visitors in relatively brief, but reasonably detailed
  discussions of their proposed solutions.
- There would be two "Plenary Sessions", one at 12p and one at 6p. Each of
  these would consist of (1) brief welcome and context-setting remarks
  (speaker TBD) and (2) a series of very brief (1-2 minute) "elevator pitches"
  by each interested presenter, highlighting the salient characteristics of their
  solution(s).

- We would provide a handout to each participant, describing the event, their role, the overall context (e.g., approximate scale of the supply-demand mismatch, size of SCWD budget, etc.), and situating the Convention in the overall process (clarifying that we are collecting data right now, not making decisions).
- WSAC members would be free to roam the floor at will; however, each WSAC member will have one or more "assigned" solutions, so that we can ensure 100% coverage of all solutions by the Committee.
- Any member of the public is welcome to attend and/or evaluate the alternatives (that is, participation is not restricted).

Question to the Committee:
  - *Any questions or improvements?*

2. The WSAC Experience

For WSAC members, along with the experience of interacting personally with a wide range of submitters and learning about a wide range of approaches to improving water supply reliability, the Convention would provide a key opportunity to practice using the multi-criteria decision support (MCDS) tool that is being developed for the Committee. This tool would be useful at the Convention and when reviewing submissions online outside of the Convention.

The SIAC subcommittee therefore recommends that WSAC members use the MCDS as their primary evaluation tool.

This would require that the Committee will have established and agreed upon those criteria and rating scales to be used in this Convention, and that the MCDS tool will be ready and accessible by the Convention. Those agreed-upon criteria and associated rating scales would be available to WSAC members to use in evaluating the strategies, ideas and alternatives presented both at the event and in the written submittals that will have been provided by those choosing to continue with the SIAC process. The criteria provided to those submitting proposals for the next step continue to focus on Practicability, Effectiveness, Environmental Impact, and Community Impact. Some sub-criteria have been identified for each of the criteria, and a task yet to be completed is the development of rating scales for these sub-criteria as well as any other criteria that the WSAC may want to add to the existing ones.

Results of the composite ratings produced by WSAC members would be compiled and presented to the WSAC during the October meeting. The Committee would be able to specify further analyses of the preliminary results, and those additional results would come back to the Committee at the November meeting.

Whether additional functionality (for example, weighting of criteria, ranking the proposals, ability to note open questions, comments or concerns as free text, etc.) will be included in the instrument created to gather WSAC's ratings is an open question at this point. Input from the Committee and its facilitators would be valuable in considering this question.

> ***Questions to the Committee:***
> - *Do you want to use the MCDS solution to evaluate the solutions?*
> - *If so, what functionality do you want in the MCDS in order to support your evaluations?*

3. The Participant Experience

a. Submitter Participants

For those submitting strategies, alternatives, or ideas, a successful process and event will make them feel included, respected for their willingness to share their ideas and for the efforts that they have taken to do so, and exhilarated by the experience of being in a big hall with lots of citizens, elected officials, media, school children, college students, educators, business owners, and invited luminaries milling around, reading, talking, sharing, and learning. Whether their ideas rise to the top or ultimately are bypassed for other options, they will have had an opportunity to be heard, to have their input considered and to be a part of finding a solution the community can support.

Should these participants wish to do so, they could also participate in the same way that non-submitter participants will, by reviewing and evaluating some or all of the other presented solutions.

b. Convention-goer Experience

For those attending the Convention, their participation is a fabulous opportunity for them to be exposed to, learn about and consider a wide range of options for improving the reliability of Santa Cruz's water supply. Participants would be asked to circulate through the room and, using a much simplified set of criteria and rating scales, rate the submissions. For example, participants might be asked to score the submissions on a scale of 1 to 5, with 1 being low and 5 being high, on their Practicability, Effectiveness, Environmental Impact, and Community Impact. They might be asked to do forced rankings for these same criteria for categories of options such as demand management, storage, supply etc. (the basic list from the grouping on the website summary of submittals we received). They would be able to log free-text notes, questions, and comments, as well. This could be done using an online or interactive "app" on a smartphone, tablet or laptop.

Composite results from these ratings would be presented to the WSAC during the October meeting. The Committee would be able to specify further analyses of the

preliminary results, and those results would come back to the Committee at the November meeting.

Another complementary idea would be to create a face-to-face opportunity for some participants to interact and provide more qualitative input as they leave the event. For example, a participant might be asked to take part in an exit interview with an interviewer who would sit down with the person and ask questions such as:
- Did you see an option (or more than one option) that you really liked and think should be implemented? If so, what was it about this option that made you choose it?
- Tell us about one thing you learned from attending this event?
- What surprised you most about what you saw here?
- Anything by way of options you expected to see that you didn't see?

   c.   Non-Convention Goer Experience

For those not able to attend the Convention, we will provide an opportunity for them to give us the same kind of input as event-goers can provide. Online access to the rating app would seem to make sense. We would need to provide clear expectations about timeliness of feedback. Otherwise, it seems as though the same rating tool could be used for both types of participants. Results from these evaluations would be included in the reports delivered to the Committee in October.

   Question to the Committee:
   - *Does this approach for community engagement meet the Committee's expectations? Any suggested improvements?*

Skeletal Requirements for "Alts App": There's an app for that!

The purpose of this section is to collect the functional requirements for technology-based solutions that will allow WSAC members and the public to record their evaluations of, thoughts about, and reactions to the various Strategies, Ideas, and Alternatives ("Alts" for short) that surface during the Recon period. In particular, the solution should enable folks to record their observations both at and away from the Convention.

Note that we anticipate that the WSAC will use the MCDS solution, rather than this "survey app". However, the requirements here would help to define the functionality available to the Committee and to the Public, via those separate solutions.

> [Functional requirements discuss the "what" (and, to some extent, the "why") of the solution, without addressing the "how" – implementation is left largely up to the vendor/partner who will develop the solution. However, we may include some ideas or suggestions that read on "how," just because we can't help ourselves.]

Why Are We Doing This?
Here we list our goals in deploying this solution.

- Collect accurate, useful, analyzable, and reasonably complete evaluation information from respondents
- Get respondents thinking comprehensively about solutions for Santa Cruz's water supply/demand imbalance
- Gain insights into the values, vision, and mindset of the broader community as they relate to the City's water situation
- Generate outputs (reports) that deliver value to respondents (fulfilling the "bargain" for their time and effort in responding)

Users
Here we list the various Users of the solution.

- WSAC members (NB: will use MCDS solution, rather than public app)
- Solution submitters
- General public
- Local officials, office-holders, candidates
- Special guests, such as George T (UCD Emeritus), etc. (may want them to use MCDS solution, rather than public app)

Venues and Modes

Here we list the Venues where Users may use the solution and the technological Modes they may employ.

- At the Convention, based on prezos, handouts, and discussions
  - o Portable device (phone, tablet, laptop)
- At home, etc., based on review of online submissions
  - o Portable device or desktop

Evaluation Functionality

Here we describe the functionality that will support Users' Evaluations of "Alts". This focuses on "data entry" aspects of the solution.

- Simplicity and ease-of-use of the solution are critical, given that we are expecting untrained members of the Public to use this tool.
- Evaluate and "score" each solution based on previously-established criteria
  - o Criteria for WSAC will be more-detailed than those for other groups, but will still fit largely within the framework of Effectiveness, Practicability, Environmental Impact, and Community Impact (some WSAC criteria may go beyond those areas).
  - o Scoring v each criterion on a numeric scale (low values = poor; high values = outstanding).
  - o Would not be scored relative to other solutions – rather, each solution is scored absolutely and independently.
- Ability to identify and enter open questions, comments or concerns about the solution or criteria (limited in scope)
  - o Categorized? E.g., questions, comments, concerns, …
- Ability to "score" the criteria (in essence, determining the respondent's "weighting" of the various criteria)
- Ability to collect information about the respondent's "water-related vision" for the City
  - o [implementation note: this could be as simple as a single item that asks the respondent to choose (say) 5 adjectives that best-characterize their vision from a list of (say) 30.]
- Evaluate the Convention / process
- Ability to access and update one's evaluations from multiple venues and on different days.
  - o It may take folks several days to get through all of the submissions. Need to allow them to get into their evaluation repeatedly, and potentially from different venues.
  - o At the same time, need for their responses to be reasonably "secure" so that folks are confident that no one can change their responses.
- Do we allow folks to see the results of their evaluations, in a scoring hierarchy?
  - o There are psychometric arguments on both sides here.

- One option is to only allow the "review" mode after the person says that they are done scoring (and then not allowing them to go back and re-score). Alternatively, the scoring hierarchy could be highly interactive, with the solution permitting users to change their scoring at will.
- Collect some (very basic) demographics about the respondent (SCWD customer, City/non-City, etc.)
- Reasonable expectation of anonymity by respondents.

Analytics and Reporting

Here we discuss examples of the types of analyses we may want to conduct on the data we collect using this solution.

- Want to be able to view analytics by "group" (WSAC, Public, Officials, etc.), though not individually.
  - [implementation note: There is a case to be made that we would NOT see these analytics for the WSAC just yet.]
- Want to be able to see how solutions "scored", by each criterion.
- Both weighted and unweighted scoring
- View the Convention / process evaluations
- [maybe] Correlative analysis of Convention/process evaluations against solution scoring results (may help us understand any weird variances in either dataset)
- Basic demography of respondents: in/out city limits, SCWD customer or not, "group" (as identified above), etc.

Other Considerations and Open Questions

Here are some thoughts that don't fit into the other categories.

- [DRE] I'm hopeful that one basic solution can be used across the board here.
- [DRE] I'm thinking that something web-based probably makes the most sense.
- [DRE] How do we support folks at the event who do not have access to a portable computing device?
- [DRE] I presume that we can direct folks without computers to the Public Library for access to the system.
- [DRE] How do we prevent folks from submitting more than one set of evaluations (ballot-box stuffing)? Or do we really worry about this? Need advice here from survey folks.

Question to the Committee:
- *Any questions or improvements?*