

Water Supply Advisory Committee**Meeting July 23 and 24, 2015****Both sessions at the Simpkins Swim Center****Meeting Summary*****Use and Meaning of the Meeting Summary:***

The Summaries of the Water Supply Advisory Committee are intended to be general summaries of key issues raised and discussed by participants at meetings. The presentation of issues or items discussed is not designed to be totally comprehensive, or reflect the breadth or depth of discussions. However, it is intended to capture the gist of conversations and conclusions.

Where a consensus or other agreement was reached, it will be so noted. Where ideas or comments are from only one or several participants, or where a brainstormed list is presented the content of which was not agreed to by all Committee Members, the facilitators will to the best of their abilities note these qualifiers. Where the facilitators believe that the insertion of additional information would be useful to the group they insert it in this summary and indicate that the insertion comes from them, rather than from the Committee.

An early draft of this summary is sent to Committee Members so that they may provide comments to the facilitators and permit the preparation of a more reliable Presentation Draft for review at the Committee's next meeting. If the Members' comments conflict with each other the facilitators do their best to resolve the conflict in the Presentation Draft. When Members raise comments about the meeting Summaries, or make other suggestions or comments following meetings that propose changes that are more than "corrections" to the Summaries, the facilitators add these in a section at the end of the item or at the end of the meeting Summary captioned "Post Script".

This meeting consisted of two daily sessions. The first lasted 4 1/2 hours, the second lasted 4 hours. Here is a list of the Members of the Committee. All Members attended both sessions:

David Green Baskin, Dana Jacobson, Charlie Keutmann, Sue Holt, Rick Longinotti, Sarah Mansergh, Rosemary Menard, Mark Mesiti-Miller, Mike Rotkin,

Sid Slatter, Erica Stanojevic, Doug Engfer, Peter Beckmann, Greg Pepping, David Stearns.

First Session, Thursday July 23

Oral Communication

There was public comment by 3 members of the public regarding the following:

- Address the concerns about desalination;
- Explore the excess river flow concept including water rights and the likelihood of water to be returned to SCWD by SqCWD;
- No need to develop a Plan B.

Facilitators' note: Doug Engfer and Dana Jacobson have done substantial work with Carrie to improve the definitions of the Triggers. One of the results of their work is the recommendation that the elements formerly known as Triggers be henceforth referred to as Adaptation Strategies. We have adopted this recommended nomenclature in this Summary.

Committee Member updates

Six Committee Members reported as follows.

- Sarah Mansergh and Mike Rotkin reported on the discussion at the SqCWD Board meeting regarding near term water sales to the SqCWD and longer term water exchanges;
- Rick Longinotti mentioned that he and his constituents are concerned over the identification of a Plan B and inclusion in a final recommendation because Plan A may be abandoned prematurely as a result of having a backup plan. Rick also mentioned that Rosemary Menard, Water Department Director, attended a SCDA meeting and, as a result, they have more confidence that a Plan A will be pursued in a serious and earnest fashion and that any move to Plan B is not a foregone conclusion.
- Erika Stanojevic mentioned meeting with her constituents with the Sierra Club.
- Mike mentioned his discussions with Sustainable Water Coalition.

- Mark Mesiti-Miller mentioned the Chamber meeting and reported that participants “voted” on desal or recycled water with a near 50-50 split. ~1/3 of participants abstained from the vote.

The materials distributed in advance of the meeting can be downloaded at the following links:

[2a SqCWD Update Memo for July](#)

Agenda review

Co-facilitator Nicholas Dewar reviewed the meeting’s agenda with the Committee. The Committee agreed by consensus to accept the agenda.

Later in the meeting, because of time over-runs, the Committee agreed to postpone “Policy Options for Integrating Demand Management ...” (item #6) to the Friday Session immediately after the “Possible Framework ...” discussion (item #13).

The Flow Agenda and the Official Agenda can be downloaded from the list of documents at [this link](#) and [this link](#).

Quick Update on Meetings and Key Follow-Up Activities of the Technical Team

Bill Faisst of Brown & Caldwell and Gary Fiske of Gary Fiske and Associates presented the information that they shared at one-on-one meetings held earlier in the day with Jerry Paul, Scott McGilvrey and Bill Fieberling. Bill’s subject was focused on Hanson Quarry and Gary’s on the consequences of flow management protocols: “First Flush” and various protocols related to turbidity.

The materials distributed at the meeting can be downloaded at the following links:

[Misc. Handout: Gary Fiske & Associates: Improving Felton Diversions](#)

[Misc. Handout: Increasing Felton Diversions](#)

[Misc. Handout: Brown and Caldwell: Hansen Quarry](#)

The Committee discussed the Hanson Quarry topic with the following questions/comments:

- Who has jurisdiction over Hanson Quarry in the event condemnation was required;
- It was noted by John Ricker that there is an interested buyer of the property but they are aware of the potential function of the site as a recharge site and are willing to discuss this as an additional use;
- It was noted that Scotts Valley Water District would use treated wastewater and the City treated surface water;
- A Member asked how this type of project (GW injection/ASR/IPR) fits with the new groundwater regulations.

Gary made the following points:

- There are two operating conditions he is evaluating with staff: “first flush” and turbidity;
- He has modeled with climate change and DFG5 the following scenarios
 - Replace the existing pipe between Felton Booster and Loch Lomond
 - Add a second pipe
 - Improve the pumps at Felton Diversion to take full water right.
- Gary’s findings:
 - Changing the first flush protocol helps in dry years;
 - Relaxing the turbidity constraint does not help very much;
 - Improving the existing pipe through rehab and replacement helps a lot;
 - Adding a second pipe does not help much;
 - Adding pumps does help.

The Committee discussed these two operating protocols with the following questions/comments:

- Why was first flush established? Allows debris to pass by and not damage dam; allows potentially low quality water associated with a typical

first flush to pass; 300 cfs is required to raise the dam so as not to “starve” downstream as water pools behind dam.

- Why did we pump so much more this year? We had to and it required a lot of attention and hands on to do so.
- Rosemary explained that data is needed on water quality before these protocols are changed.

Presentation of Results of New Econometric Demand Modeling for Future Demand Forecast

David Mitchell of M.Cubed presented the preliminary results of his demand modeling work.

Public Comment

There was public comment including the following:

- Are results valid when historic data is used? Shouldn't peak season be used? Model can capture some behavioral changes that modify historical data for future projections. Both peak and average are used.
- Discussion about use of occupancy and vacancy.
- AMBAG forecasts have not been entirely precise, but pretty good.
- Model refinements may make small changes to demand figures but they would not be significant.
- Regarding demand hardening – it is difficult to predict how much slack is left.

By consensus the WSAC agreed to the demand forecasts presented by Dave.

The materials distributed in advance of the meeting and presented at the meeting can be downloaded at the following links:

[5a WSAC Econometric Demand Forecast](#)

[Presentation: David Mitchell: Summary of Econometric Analysis](#)

Presentation and Discussion of the Results of the Committee's Evaluation of Sample Portfolios Including Discussion of the Implications of these

Results on the Committee's Work to Develop their Recommendations and Agreements

Co-facilitator Carie Fox presented her and Philip Murphy's report on the evaluation conducted by the Committee Members on the sample portfolios using multi-criteria decision support.

Following the presentation Committee Members clarified with each other the meaning and significance of the interests that were revealed by their selected weightings and by their ratings of the selected portfolios against the specified Criteria.

The materials distributed in advance of the meeting and presented at the meeting can be downloaded at the following links:

[7a Committee Weights](#)

[7b Portfolio Evaluation Results - Ratings and Decision Scores July 2015](#)

[7c Copy of Spreadsheet of Committee Ratings July 2015](#)

[7d Instructions and Ground Rules for Thursday Committee Discussions](#)

[7e Common Themes in MCDS Comments](#)

[7f MCDS Comments Sorted by Criteria or Exit Questions](#)

[Poster: Plan A Decision Scores & Contribution Graphs Comparison Graphic](#)

[Poster: Plan B Decision Scores & Contribution Graphs Comparison Graphic](#)

[Poster: Plan A & B Comparison Graphic Key](#)

[Poster: Plan A & B Graphic Explanation](#)

Correspondence received from the community

Mike Rotkin, the Corresponding Secretary, reported that the community continues to send suggestions to the Committee and that he forwards all of them to the Committee Members.

Subcommittee and Working Group Reports and Technical Work Plan Update

The materials distributed in advance of the meeting can be downloaded at the following links:

[9a Agreement Development Subcommittee Agenda, June](#)

[9b Agreement Development Subcommittee Agenda, July](#)

[9c WSAC Outreach 6.17.15](#)

[9d Sentinel Op-Ed #5](#)

[9e WSAC Outreach 7.15.15](#)

[9f Tech Team Update July 2015](#)

[9g Copy of Technical Work Plan 7.16.15](#)

Solutions Phase Outreach Subcommittee

Charlie Keutmann invited questions about the material provided by the Outreach Subcommittee and reported that the subcommittee has developed a mailer, completed the Speaker's Bureau PowerPoint and is planning an open house for September 9.

Agreement Development Subcommittee

Doug Engfer invited questions about the material provided by the Agreement Development Subcommittee.

Sid Slatter explained that he will no longer be able to serve on this Subcommittee and Mike Rotkin volunteered to take his place. The Committee agreed by consensus on this change.

Technical Team Workplan Update

Committee Members raised the following questions about the Work of the Technical Team:

- What is happening, in terms of further vetting or a summary document, on the alternatives that have not been furthered in the committee discussions? (E.g., surface storage, forward osmosis, ...)
- Additional environmental information is needed on the building blocks
- Need more information on the cost and feasibility of property acquisition for the various building blocks.

Materials resulting from the June meeting

The Committee agreed by consensus to approve the Action Agenda and the Summary prepared for the June meeting.

The materials distributed in advance of the meeting can be downloaded at the following links:

[10a WSAC Action Agenda Meeting 6.11-12.15](#)

[10b WSAC Meeting Summary 6.11-12.15](#)

Evaluation of the Session

Eight Committee Members entered evaluations of this session at SurveyMonkey or by handing in hand-written evaluations.

- How well did the session meet your needs?
 - Participants all described this as a good or very good meeting, noting that it was a good discussion about their concerns.
- How did this session help the Committee work towards its long-term goal?
 - Participants all noted the benefit of better understanding of each others interests based on a better understanding of ratings and clarified issues. One said that the Q&A focused on interests is “jumping us forward.”
- What were the strengths and weaknesses of the session?
 - Participants noted the continued good communication between Members, the tight facilitation and the (mostly) good use of time.
 - Some would have preferred more time digging deeper into interests and looking for opportunities to build bridges and obtain insights.
 - One noted that presenters should remember not to repeat material that has been distributed in advance.
- What would you like to see at the next meeting?
 - Some hope for more open discussion and opportunities to look for areas of agreement or disagreement.

- One hoped for more discussion of Building-Blocks. One asked for Triple-Bottom-Line analysis of the Building-Blocks.
- One asked for a review of all the Alts.
- One asked for cost estimates that are better than “Level 5.”

Adjourn

PRESENTATION DRAFT

Second Session, Friday July 24

Oral Communication

There was public comment by two members of the public including the following:

- Support for further evaluation of the water transfer being considered in the near term (referring to the recent SqCWD Board meeting);
- Request for an equal level of information to be provided for the two desal building blocks and DPR.

Possible Framework for the committee's Agreements and Recommendations

Rosemary Menard, Water Department Director, led a discussion of the possible framework referring to the items in the packet. Discussion among the Committee Members included:

- Can the studies that will be needed to pursue various alternatives be staggered, now and moving forward, for one or more alternatives?
Rosemary commented that the final agreement will be the Committee's and they have the flexibility to make it how they want it. But, implementation schedules need to be achievable given current and future staff and funding resources.
- Is it enough to have an agreement that is policy only (as opposed to detailed specificity on projects, etc.)? Or is it a balance?
- Specificity will be in the performance standards and policy developed in the agreement; but it is OK to have staff implement as appropriate (let staff add and create the value).
- Make sure the appendices of the agreement capture the detailed work of the Committee.
- Final agreement needs to provide clear guidance particularly as it relates to decision making.

Public Comment

There was public comment including the following:

- Agreement needs specificity.
- Avoid specificity in the agreement

The Committee agreed by consensus with the format of the agreement as provided in Item 13b.

The materials distributed in advance of the meeting can be downloaded at the following links:

[13a Agreements and Recommendation Framework Overview Memo](#)

[13b Agreement Outline STRAWMAN](#)

[13c Summary Memo - Agreement Examples for 7.10.15](#)

Policy Options for Integrating Demand Management into the Committee's Recommendations

Rosemary Menard, Water Department Director, led a discussion of the possible ways to integrate demand management into the recommendations of the Committee. The Committee discussed how to incorporate the peak season related work done by the peak season working group into the City's existing Water Conservation Master Plan. The Demand Management Summary memo (document 6a) offered three alternatives to doing so: 1) Identify specific, individual, demand management programs; 2) Identify a package of demand management programs; and, 3) Provide results oriented, policy level direction with guidance about key criteria.

Public Comment

There was public comment including the following:

- Develop an accounting matrix to be used in decision making.

Committee discussion continued with a comment from Toby that 1) it is not yet clear whether or not there is overlap (i.e., double counting) between programs in C Rec and several recommended by the working group and 2) how will future curtailments be effective if the peak season is shaved through the conservation master plan by design.

The Committee reached consensus to develop an approach that was a combination of alternatives #2 and #3 described in the Demand Summary Management memo (document 6a). Staff will bring this item to the Committee's first September meeting together with an analysis of the double-counting question.

The materials distributed in advance of the meeting can be downloaded at the following links:

[6a Demand Management Summary Memo + Attachments](#)

Continuing Discussion of Committee Member Perspectives as Reflected in the Portfolio Evaluation Results

Committee Members continued their discussion about their assessments of the sample portfolios begun in the previous session. When asked if additional building blocks could be created that were operational (e.g., changing the first flush rule) Rosemary said no: operations of the system will not be changed without sufficient evaluation of repercussions. Some Committee members were interested in tweaking and/or adding to the list of building blocks as part of their task to prepare portfolios.

Members discussed the value of including timelines in the Portfolios that they will prepare in advance of the August meeting. Heidi Luckenbach, Deputy Water Director, agreed to help those preparing portfolios to compose a timeline.

Rosemary agreed to provide technical help to the portfolio groups by scheduling conference calls with members of the technical team.

Carie explained that the portfolios should be rated using the next generation of Criteria. The Committee agreed by consensus to the following changes to the Criteria:

- “Potential for Outside Grant Funding and/or Special Low Interest Loans for Engineering and/or Construction” should be removed;
- “Energy Profile” should be kept, but with a much simpler qualitative rating scale;

The Committee further agreed by consensus that:

- Performance measures, management structure and monitoring metrics for proposed portfolios need to be given substantial attention at the next meeting;
- Existing CIP expenditures should be netted out of projected cost data for

Building Blocks

During the discussion Committee Members made the following points:

- All three criteria related to Adaptation Strategies (formerly known as Triggers) need revision. Dana volunteered to work on these with the help of others;
- Members recognized that “Environmental Profile” includes improvements in groundwater resources that may result from a proposed portfolio;
- Long-term, multi-generational sustainability (as defined by the Brundtland Commission) is an important value for many Committee Members and is not included specifically as a Criterion. Some members noted how hard it is to quantify this. Rick offered to include an explanation in the portfolio that he will prepare.
- The inclusion of a “community vision” criterion is no longer necessary;
- The “Legal Feasibility” Criterion relates strictly to water rights, rights to easements, rights to acquire land and other legal rights.
- The “Regulatory Feasibility” Criterion relates to the feasibility of obtaining regulatory approvals. This does not relate to any of the litigation resulting from the regulatory process.
- The “Administrative Feasibility” Criterion relates to agreements between the City of Santa Cruz and other jurisdictions.
- Carie agreed to work with Doug to incorporate resolution of these concerns into the revised Criteria.

Public Comment

There was public comment including the following:

- Commended the Committee Members for the questions that they asked each other in the previous session and for the spirit in which they were asked and answered.
- Appreciation for the opportunity to meet with the Technical Team before yesterday’s session. This has resulted in significant changes to the Loquifer concept.

The Committee’s continuing conversation included discussion of the assumptions used in the development of various Building Blocks. Members of the Technical Team provided the following explanations about Building Block 1 (In Lieu)

- The period each year during which aquifers would recharge while resting would vary considerably from perhaps 90 days to 120 days or longer, depending on when Santa Cruz has excess supply.
- The worst-year yield of this item (and of Building Block 2) is a 17% shortfall.
- The calculations assume that Santa Cruz will contribute 2.6MG and receive in return 2.0MG, after allowing for “leakage.” In response to questions, Bill confirmed that, if aquifer levels were high enough, the

amount returned to Santa Cruz could rise to 2.6MG in dry years.

Committee Members asked for an explanation of what factors could prevent the development of 3BG of storage in the aquifers. Members of the Technical Team and of the Independent Review Panel described the following factors as examples:

- It may be impossible to find the water in the aquifer, even if it has certainly been put there.
- The chemistry of the water may be changed in the aquifer so that it cannot be used.
- Others who have access to the aquifer may pump the water for their own uses.
- The hydrological qualities of the aquifer may not hold the water adequately because of lower porosity than expected.

In response to the request by the Committee Rosemary briefly described the major features of each Building Block:

- Building Block 1 In-Lieu Recharge
This is a simple approach based on work by Kennedy/Jenks
- Building Block 2 Aquifer Storage and Recovery (ASR)
This actively gets water into the ground to produce a more dependable supply than BB 1.
- Building Block 3 Purified Recycled Water for Direct Potable Use (DPR)
- Building Block 4 Purified Recycled Water to Loch Lomond – Indirect Potable Reuse (IPR)
- Building Block 5 Purified Recycled Water for Seawater Intrusion Barriers – IPR
This uses IPR to respond directly to the problem of seawater intrusion while also potentially enhancing groundwater recharge via BB1 or BB2..
- Building Block 6 Purified Recycled Water: Converting IPR for Seawater Barrier (BB5) to Direct Potable Reuse (DPR)
This converts BB5 into a direct source of potable water.
- Building Block 7 Deep Water Desalination (DW Desal)
This would be a part of the production of a publicly owned desalination facility shared possibly with Salinas, Castroville, Soquel Creek and potentially others. The pipe connecting Santa Cruz to the facility could be used in wet years to sell recycled water to Pajaro, so it provides some flexibility. It would probably be relatively easy to dispose of the City's share in this facility if it was no longer needed.
- Building Block 8 Local Desalination (scwd2 Desal)
The local alternative desalination plant. It would be relatively difficult to dispose of this plant if it was no longer needed.

In response to questions about the reason for a shorter timeline for In-Lieu than for ASR the Technical Team members explained that whereas the ASR building

block requires more time to study the aquifer to assure that 3BG of water is stored, In-Lieu only waits until 500MG can be returned to Santa Cruz within the 180-day peak season.

Overview of August 13-14 Meeting Agenda and Committee Assignments for the Creation of Committee Generated Portfolios

The Committee reviewed the outline of the agenda for the August meeting. Rosemary explained that this will include inputs to the framework document and discussion of the factors that will be important in implementation such as performance measures, management structure and monitoring metrics.

The meeting will include discussion of the portfolios prepared by Committee members. The Committee discussed the format for this and agreed by consensus that presentation of each portfolio will take about five minutes using handouts rather than PowerPoint. This will be followed by a Q&A session to clarify the presentation and then deliberation. The Meeting will emphasize discussion rather than presentation.

The materials distributed in advance of the meeting and presented at the meeting can be downloaded at the following links:

[15a Preliminary Draft August Agenda](#)

[15b Build A Portfolio Task Instructions](#)

[15c Building Blocks](#)

[15c-1 Building Block 1 \(Isolated\)](#)

[15c-2 Building Block 2 \(Isolated\)](#)

[15c-3 Building Block 3 \(Isolated\)](#)

[15c-4 Building Block 4 \(Isolated\)](#)

[15c-5 Building Block 5 \(Isolated\)](#)

[15c-6 Building Block 6 \(Isolated\)](#)

[15c-7 Building Block 7 \(Isolated\)](#)

[15c-8 Building Block 8 \(Isolated\)](#)

[15d Update on Potential Operations](#)

[Misc. Handout: Building Block Summary](#)

Evaluation of the Session

Four Committee Members entered evaluations of this session at SurveyMonkey or by handing in hand-written evaluations.

- How well did the session meet your needs?
 - All reported that the meeting went well or very well.
- How did this session help the Committee work towards its long-term goal?
 - One noted that they gained understanding of the Building-Blocks and of the strategies and the background thinking that went into them.
 - One felt well positioned for portfolio-building and “rarin’ to go.”
- What were the strengths and weaknesses of the session?
 - One appreciated ending early.
 - Another noted the good tone of the discussions.
 - One noted that consensus was achieved on a couple of important pieces of the task.
 - Several appreciated the open discussion time allowing Q&A with the tech team that produced valuable understanding of the Building-Blocks.
 - One did not appreciate the insertion of non-agenda items to fill available time at the end of the session.
- What would you like to see at the next meeting?
 - Presentation of the Committee Members’ portfolios.
 - Better understanding of the risks associated with various alternatives. Understanding of the key pros and cons with examples to back them up such as Bill’s helpful example of the San Bruno area aquifer.
 - Fewer sugary snacks and more emphasis on protein.

Adjourn