Water Supply Advisory Committee

Meeting September 10 and 11, 2015

Both sessions at the Police Department community Room

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 except as specified.

David Green Baskin, Dana Jacobson, Charlie Keutmann, Sue Holt (attended via phone), Rick Longinotti, Sarah Mansergh, Rosemary Menard, Mark Mesiti-Miller, Mike Rotkin, Sid Slatter (absent from second session), Erica Stanojevic, Doug

Engfer, Greg Pepping, David Stearns, Peter Beckmann (absent from both sessions).

First Session, Thursday September 10

Oral Communication

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

- Surprised by, but not objecting to, the readiness to spend $85M extra to minimize carbon use. Dissatisfied by the number of conditions attached to the proposals and concerned that these may prevent any necessary changes. Favor a parallel development of desal or reuse.
- Noted that we have avoided the solutions adopted by Australia because we have more supply and storage capacity. Desalination is unsuitable as a fall-back for financial reasons. Also, because of changes in technology in the economy and demographically, immediate decisions about a new desalination facility would be premature and costly.
- Accelerating the schedule for construction of the pipeline to Felton so that it is completed next year would add 500MG to storage.
- We need a regional water authority: a smaller version of the Santa Clara Valley Water District. Some of the Committee's consultant work is poor engineering, opinionated and agenda driven; reminiscent of the Desal EIR.
- The Water Commission's request to provide input to the City Council regarding the WSAC's recommendations is shameful political manipulation of the Committee's process. This appears to give the Water Commission equal weight with the Committee.
- We can't depend on catching rainwater that may not be there. We should consider regional desal.
- ASR should be accelerated. The sooner you get it going the less anxious we will all be.
- Appreciated the mailer. The hard part will be figuring out Plan B. We need a plan B with trigger points for transition to it.

- The cost of this Committee is unprecedented in Santa Cruz. You must present solid recommendations.

Committee Member updates

Eight Committee Members reported the following.

- Mark Mesiti-Miller reported that the Chamber of Commerce has concerns about the reliability of the aquifer recovery elements
- David Baskin responded to the public comment about the Water Commission by explaining that the Water Commissioners, at their last meeting, asked questions regarding their role relating to the Committee. He emphasized that whatever water policy the City Council adopts, the Commission will support. There is a great depth of knowledge on the Commission and they will provide input to policy development.
- Erica Stanojevic reported that the Sierra Club supports a recommendation that maximizes Elements 0, 1 and 2, and that sets aside Element 3 unless substantial evidence shows it to be necessary.
- Sid Slatter reported that the County Business Council is keeping up with the material made available by the Committee. Its members are concerned about the uncertainty of some of the Elements and the timing of their implementation. They favor an early start to the implementation of solutions.
- Rick Longinotti reported that the SCDA is generally pleased with the City's water sale agreement with Soquel Creek Water District, and supports the ASR Elements.
- Sarah Mansergh reported that, although most of the general membership of the Surfrider Foundation is not staying up with the Committee's work, a core group of stakeholders is heavily engaged and optimistic about the outcome of the Committee's work.
- Greg Pepping reported that the Coastal Watershed Council is aware of the work of the Committee.
- Mike Rotkin reported that most members of the Sustainable Water Coalition, although they may not know the details of the Committee's work, understand the sources of supply that the Committee is considering.

There is strong consensus around the development of Elements 1 & 2 and strong support of the need for a back-up in case that doesn't work adequately.

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

2a Update on Activities of SqCWD

Agenda review

Co-facilitator Nicholas Dewar reviewed the meeting's agenda with the Committee. The Committee agreed to change the agenda so that item #10 "Materials resulting from the previous meeting" would occur immediately after the Agenda Review. The amended agenda was approved by consensus. The Flow Agenda and the Official Agenda can be downloaded from the list of documents at, respectively, this link and this link.

Materials resulting from the previous meeting

The Committee agreed by consensus to approve the Action Agenda and the Summary prepared for the August meeting. Doug abstained because he was absent from both sessions of the August meeting. Erica also abstained from the consensus concerning the Friday session which she missed.

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

10a WSAC August Meeting Action Agenda

10b WSAC August 2015 Meeting Summary

Updated econometric demand forecast and resulting updated gap analysis

David Mitchell, of M.Cubed, summarized the updated information presented in his memo. Gary Fiske, of Fiske and Associates, described the implications of the updated forecast for the analysis of the supply-demand gap.

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

4a Corrected Econometric Demand Forecast

4b Impact of Corrected Econometric Demand Forecast

Demand management program goal and direction

Toby Goddard, Water Conservation Manager and Sarah Mansergh led a discussion of the Recommendations on Demand Management prepared by the Working Group on Peak Season Demand Management and City staff. The following issues were discussed.

- The cost of the conservation measures in C Rec ranges from a few hundred dollars to $28,000 per million gallons saved. By considering the average cost of all the measures the program includes some high-cost measures that are believed to be effective.
- The demand management recommendations are, basically, “C Rec plus.” They go further than C Rec and some of the measures are expensive. However, all recommended measures are more cost-effective than supply options.
- The recommendations specify that there should be no duplications or double counting in the application of the recommendations, and no costs above the C Rec average.

The Committee accepted the Recommendations on Demand Management by consensus.

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

5a Memo on Recommendations on Demand Management

Recommended Portfolio and Adaptation Strategy

Adaptive Pathways and Phased Implementation

Carie Fox led a discussion about the recommended portfolio and adaptation strategy. Throughout this discussion the Committee reached provisional agreements on the basis of straw polls, recognizing that it needs to build a series of provisional agreements to construct a complex recommendation that it will consider formally only in its totality.

Committee Members identified a series of key questions without reaching agreement that this list is conclusive.

- The selection and prioritization of Elements.
- The timing of actions regarding each Element.
- Description of the program to approve any ASR Element.
- Descriptions of thresholds, ranges and values that are part of the adaptation strategy.

The Committee discussed Elements 1 & 2 (In-Lieu and ASR).

- Some members felt these elements are satisfactory as described in the materials provided.
- Other members felt that, in order to discover whether or not In-Lieu functions appropriately, we need to build a pipeline sooner than specified in the material. Others said that the timing of this construction should be up to the Water Department. Others said that if the construction of these features is found to be very expensive the plan will need to be changed.
- With regard to In-lieu in Scotts Valley committee members discussed whether their recommendation would be for the City to pursue this on an "if feasible" basis or to pursue it "diligently." The general agreement was to use the term "diligently" in circumstances such as this.

The Committee concluded with these provisional agreements:

- Pay less attention to the individual spreadsheet cells in the Gantt chart and work, instead, at a more general level focusing on line items and segments of each line.

- Support the pursuit of Element 1 (In-lieu) recognizing the concerns of some Members regarding the timing of decisions as to whether or not to build Element 3.

- Support the pursuit of Element 2 (ASR)

The Committee developed a list of items of concern regarding Elements 1 & 2. No attempt was made to reach agreement about the significance of each of these.

- Getting agreement with neighboring water districts

- The functionality of the aquifers for effective ASR

- Identification of the point on the timeline where confidence improves. Some Members felt that this is the point at which SqCWD feels able to return water to Santa Cruz without risking the adequacy of their supply.

- The timing of nodes 2.1 and 2.2. Bob Raucher, of Stratus Consulting/Abt Environmental Research, explained that 2.1 would occur after about two years when high-level analysis of ASR would be completed, and 2.2 would occur after about five years when field tests would be completed.

- What reasoning would ever result in the shut-down of Elements 1 & 2? This could result if Thresholds of cost, yield or time were crossed.

The Committee developed a series of alternative approaches to Element 3.

- Take no action on Element 3 unless signs of trouble appear in Elements 1 & 2. If that happens, immediately start planning Element 3. During subsequent discussion the proponent of this approach declared a preference for one of the subsequent proposed approaches.

- Start planning Element 3 immediately but do not construct it until Elements 1 & 2 have been evaluated and then decide whether or not to proceed with construction.

- Immediately start a study of the various options for Element 3 (desal, DPR, IPR, etc), select a preferred option and prepare preliminary designs. After arriving at node 2.2, when we have 80% confidence in the utility of ASR, size the plan for Element 3 and decide whether or not to proceed with the design of Element 3. The go/no-go decision about building Element 3 would come later. The planning of Element 3 would be broken into three phases with the cheaper work performed first.

Doug Engfer, Charlie Keutmann and Mark Mesiti-Miller agreed to meet at 1:00 p.m. on Friday to consider merging the remaining two proposed approaches so that they would be able to present this to the Committee at its second session.

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

6a-1 Materials on Adaptive Pathways

6a-2 Gantt chart for Possible Phased Implementation

Adaptive Pathways and Adaptation Strategy

Carie led a discussion about the components of the adaptation strategy starting with Thresholds.

- Threshold decisions were described as decisions to open a door to a new pathway. For example, at node 2.2, when 80% assurance about the data concerning ASR will have been achieved, updated projections may show that a Thrshold would be crossed relating to yield, timing, cost or public acceptance of ASR and of alternative pathways. At such a Threshold it may be necessary to make a decision as to whether or not to change to another pathway.

Carie explained that the Water Department needs guidelines in order for this adaptation strategy to work. These guidelines will need to address possible future conditions and comparisons among the Elements. One Committee Member anticipated that these guidelines might appear quite arbitrary, and that this Committee is the best group to decide them.

Members discussed the reasons for proposing a capital expenditure of $155M (for ASR) instead of $80M (for DPR) to achieve the same water supply. Reasons included the health concerns regarding DPR, and the better stream flows and habitat protection provided by ASR. The cost differential is probably not significantly different if, instead of comparing capital cost, we compare the "average year yield unit cost" shown at line K of the Building Block Summary. It was emphasized that the Committee picked ASR not because it is cheaper, but because the Members prefer it. Some Members urged that the Committee should be clear about which Elements are most important to it, and it should allow the City to decide what actions are appropriate. Rosemary Menard, Water Department Director, clarified that the Water Department prefers quantified guidelines.

Facilitator's note: guidelines that correspond with the Adaptation Strategy would not specify a particular quantity (of cost, yield, etc) but would require a future comparison of Elements based on updated information using specified Performance Measures.

Members briefly discussed the treatment of risk in the comparisons between Elements. Without reaching any conclusions, Members recognized that the Adaptation Strategy manages risk by regularly assessing each Element using Performance Measures to compare them to the Thresholds. These assessments prompt the need for decisions about how to proceed.

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

6b Materials on Change Management Strategy

6b-1 Adaptation Pathways Decision Types

6b-1.a Handout: Excerpt from 6b-1

6b-2 Building Block Summary Table Update

6b-3 Excerpt from the August 12 on Yield and Production

6c Memo on Governance Framework

Water Supply Alternatives Not Being Considered Further at this time

The Committee referred to the memo prepared by the Technical Team and explained that some of the listed items need to be changed.

The Committee accepted the memo with those changes by consensus.

Post Script: after the meeting Doug reviewed with Heidi the list of the changes that he referred to during the Committee Meeting. That review resulted in the following:

- CA-05 Home Water Recycling: zNano, is a system primarily for commercial applications. The Tech Team is currently considering whether to move zNano elsewhere in the document or to change the name of CA-05.
- CA-19 Ranney Collectors: this will be re-categorized as "Currently Included."

- CA-20 Interagency Cooperation/County Water Authority: "(Other)" to be removed from Status column and the status will be changed to "Preserved for Future Consideration."

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

7a Status of Water Supply Alternatives

Correspondence received from the community

Mike Rotkin, the Corresponding Secretary, reported that the community continues to send suggestions to the Committee and that the volume of correspondence has recently increased. He forwards all of them to the Committee Members.

Evaluation of the Session

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

- How well did the session meet your needs?
    - Very well
- How did this session help the Committee work towards its long-term goal?
    - The Committee is progressing towards an agreement and now has a clearer understanding of the framework of the agreement.
- What were the strengths and weaknesses of the session?

Strengths:

- The desire of Committee Members to reach consensus is a great strength that should not be taken for granted.
- This teed up the discussion for the next session.

Weaknesses:

- Less than perfect attendance.

- What would you like to see at the next meeting?
    - A consensus that is clearly recorded

Adjourn

Second Session, Friday September 11

Oral Communication

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

- The Committee should recommend developing all four Elements.
- Santa Cruz and its neighboring water districts have already spent $15 million of public funds on studies of desalination.
- Please would the Committee address the public concerns reported at these meetings.
- ASR and In-lieu are like organic vegetables: we're ready to pay more for a more nature-savvy solution.
- There are good opportunities for off-stream storage
- There are concerns about potable reuse. Please delay the use of this process until more is known about it.
- The Loquifer proposal shows that the harvest of winter flows need not be as expensive as shown in the Committee's material.
- There will be many improvements to the processes for potable reuse and desalination, so please do not select one of these now. Give the community a chance to feel confident that the Water Department is wholly on-board with In-lieu and ASR.
- We should recharge the aquifer with winter flows. Plan B needs to be a back up. We should go with Plan A and give it plenty of time to work.
- You should set clear Thresholds, however unprescriptive they may be, just so that you bring the Community along.

- The discussion of Thresholds and Risks at the last meeting was very authentic. The criteria identified include easily quantified ones as well as very subjective ones such as Public Acceptance. This will require a public conversation and a Measure P vote.
- Start the process of developing all of the Elements, but there's no need to start construction of Element 3.

After members of the public had finished, one Committee Member listed the reasons for supporting Elements 1 and 2.

- Elements 1 & 2 supplement the water supply immediately, although not by much;
- The City has all the water rights it needs to start the work
- This is a scalable, distributed system;
- Being distributed it provides built-in robustness;
- Scalability also allows us to add wells if needed in response to natural disasters;
- It is politically acceptable;
- It can work towards increase of in-stream flow and protection of habitat for fisheries;
- It can combat seawater intrusion in the Purisima;
- It helps restore depleted aquifers in neighboring districts;
- Once the 3BG store is established we can do repairs to Loch Lomond while less vulnerable to drought;
- It reduces the risk of holding stranded assets;
- It has lower O&M costs.

During a brief discussion on risk management, Rosemary explained that while recognizing the concerns about costs she is interested in doing what can get done. If that requires completing a more expensive project or studying a project that turns out to be inadequate that is what she will do. She will consider it an investment ensuring that we get the supply that we need – not a waste of money.

Continuation of the discussion from the Thursday Session

Doug and Charlie reported on the outcome of their meeting to consider resolving differences between their two approaches to Element 3. They resolved their differences and explained their approach which was described as “the Green Line”:

They recognize that the nodes will not occur at specific dates but according the progress achieved. For example, node 2.2 is the point where 80% confidence in the data from the ASR study is achieved and there is the first opportunity for a go/no-go decision regarding ASR. Up until node 2.2 Element 3 runs in parallel with Elements 1 & 2. During this time Element 3 will undertake tasks such as feasibility studies, demonstration testing, partnership negotiations, and initiation of the CEQA process. Costs incurred by Element 3 to this point will total about $9.3M. Node 2.2 will be the go/no-go decision point to complete the design documents for Element 3. Costs for Element 3 through the completion of the design documents so that it is “shovel ready” will be approximately $15M. At node 2.4 the ASR pilot will be complete and an assessment of ASR will be possible as well as a go/no-go decision on the construction of Element 3.

Committee Members described a number of concerns about the proposed approach to Element 3.

- The Committee needs to identify some usefully quantitative guidance so that the Water Department understands the Committee’s intentions regarding how to respond to Threshold events.
- The Committee has a stated preference for reuse over desal, but has not distinguished between DPR and IPR.
- The Committee needs to clearly characterize the decision point at which Element 3 would be selected.
- The eventual regulations for DPR may not protect public health enough to satisfy community concerns in Santa Cruz. What can we do in excess of any regulatory requirements to satisfy this?

The Committee discussed the experience of San Diego where IPR was chosen pending the development of regulations for DPR (these are expected in 2020). On the basis of a straw pole the Committee provisionally agreed by consensus that that no decision is necessary at this point to choose between IPR and DPR and that, for the time being, IPR would be treated as the default technology for Element 3.

Committee Members raised a further concern about the proposed approach to Element 3.

- What adjustments can be made regarding any partnership agreements with neighboring water districts? What will the costs of these be? Can we feel safe that the Water Department will commit to working this out so that ASR and In-lieu will succeed rather than saying that it couldn't get a deal and moving forward with Element 3?

Rosemary responded by explaining that negotiations with SqCWD and SVWD are done as business decisions. The agreement reached for this winter only reflects "consumables." If the price of water provided by Santa Cruz increases, the cost of alternatives available to SqCWD and SVWD will become more competitive. She pointed out that ASR could be done without local partners, although having the participation of SVWD would be very useful. The Committee considered the way that the proposed governance structure also provides comfort for these concerns: in the Assessment Cycle described in the Committee's documentation the Water Department, the Water Commission and the City Council each would transparently review any report proposing an adjustment to the project, so there would be a public review of any proposed adjustment.

The Committee invited Public Comment:

- Concerns about estimated expenditure.
- Concerns about the adequacy of any regulations for DPR and the importance of going beyond whatever is required by regulation.
- Whatever our source of water is, we need to recharge the aquifers.
- We already had an expensive planning process for Desal that we did not want.
- Any commitment to spend $9.3M for Element 3 destroys the integrity of the process that should focus on Elements 1 & 2. You should do as much as you can with Elements 1 & 2 before doing anything on Element 3.
- We don't yet have enough information to select between the types of reuse.

The Committee returned to discussion of the Green Line and clarified the following:

- There is a preference for IPR/DPR over desal.
- The Preliminary design of Element 3 would begin immediately and be completed by node 2.2. A full design and EIR and any construction of Element 3 would begin only after future assessments of ASR are completed.
- Whatever reuse system we use will exceed the regulatory requirements.

The Committee discussed the proposal to immediately start studying Element 3 and incurring $9M before there is any indication of the viability of Elements 1 & 2. One Member asked “is this pragmatic or irresponsible?” In the ensuing discussion the following points were made and this concern was resolved

- We should not start studying Element 3 until we know we need it.
- We should slow down Element 3 and wait until others have tried DPR so that we can learn from their experiences.
- Starting Element 3 now and committing to spend $9M is a relatively cheap way to obtain community agreement.
- $9M is a relatively cheap insurance against water curtailments.
- We have already agreed to prefer the more expensive option (ASR and In-lieu) so why should we balk at the proposed $9M?

The Committee further considered inserting an additional decision node before starting preliminary design on Element 3. The discussion resolved the concerns without the addition of another node.

- The proposed plan raises many issues that make it hard to trust that the implementation will be carried out as proposed. The insertion of decision points can build trust. For example, the insertion of a decision node that considers whether or not In-lieu is filling the aquifer would provide a Threshold for a decision about proceeding with Element 3.
- The success of In-lieu can be considered within the studies of ASR
- In-lieu has other important benchmarks:
    - Agreements with neighboring Districts
    - The effect of water sale revenues on the economics of the proposal

    - The amount of water that the neighbors agree to return to Santa Cruz

- The Assessment Cycle already has annual reviews that will permit consideration of such issues.

On the basis of a straw poll, the Committee reached consensus on a tentative agreement on the Green Line, recognizing that it will need some further clarifications.

Carie led a discussion into the Thresholds at node 2.4.

- The basic question at node 2.4 is: are Elements 1 & 2 working?
- The next question is: does the back-up plan (Element 3) look good?
- First look at the Plan level, taking into account most current gap analysis and other system information and ask: *will* the groundwater strategies, combined, meet the (adjusted) targets? (Are they going to be within range?)
    - for cost effectiveness, compare the projected cost-effectiveness of groundwater strategies to the cost-effectiveness of the 'candidate' backup plans. So long as the projected cost of groundwater strategies is within 30% of the projected cost of the backup plan, proceed with the groundwater strategies as planned.
    - If the cost effectiveness of the groundwater strategies is more than 30% worse than the cost effectiveness of the backup plan, and if the backup plan has met other threshold requirements (such as public health), then build the back up plan.
    - If the back up plan is to be built, consider which aspects of the groundwater strategies should proceed (are within the range of acceptable cost-effectiveness).
- Note that during the ramp up to full groundwater production, greater shortages may occur, but the projected yield for the system must meet the threshold in the IWP (no shortage greater than 15% etc)

On the basis of a straw poll, the Committee reached consensus on a tentative agreement that Cost Effectiveness Thresholds will be based on the calculations described on line K of the Building Blocks worksheet.

The Committee discussed the amount of water shortages that would be tolerated by Santa Cruz. Gary clarified that the current policy is that the worst-year shortage will be no greater than 15%, that other shortages will be much smaller – in the range of 5-10%. Rosemary added that until a store of water is established by In-lieu, and if the current conditions continue, we will have shortages greater than 15% and the Water Department will have to deal with this as best it can.

The Committee recognized that these details concerning adaptation need to be further developed by the Agreement Development Subcommittee.

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

9a Technical Team Update Memo

14a Working Draft of Agreements and Recommendations

Tasks and Assignments in Preparation for the final WSAC meeting

Agreement Document:

- Rosemary will manage the development of this.

Change Management Strategy:

- Committee Members will read the main document and send comments and questions
- Doug will truncate Appendix A and will send to the Committee Members for comments and questions.

Public Comment

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

- Use the word “diligent” when preparing the recommendations so that it is clear how diligently the Water Department must commit to Plan A.
- Reflected on changes since the Reset in August 2013.

- Spending on ASR and In-lieu is insufficient and it looks like you will not give Plan A a chance.

Evaluation of the Session

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

- How well did the session meet your needs?
    - Most felt the meeting met needs very well.
    - One noted that, because a number of decisions were made by straw votes without finally calling a roll-call vote, the Committee did not actually reach agreement on significant items.
- How did this session help the Committee work towards its long-term goal?
    - Most felt the progress made at the meeting was remarkable while recognizing some kinks to be worked out.
    - One noted that the lack of a formal agreement in the Committee will result in the need for a greater effort by the Agreement Development Subcommittee.
- What were the strengths and weaknesses of the session?

  Strengths:
    - The desire for consensus
    - Carie's strong focus and command without rushing the process.

  Weaknesses:
    - Although it appeared that we reached agreement on the portfolio, in fact this was never formalized.
- What would you like to see at the next meeting?
    - All look forward to consensus and the end of the Committee's work.

- One noted the importance of reaching agreement in the Wednesday session of the final meeting so that any necessary adjustments can be made on Thursday for approval at the Friday session.

Adjourn