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## Meeting Summary

### **Joint Santa Cruz Mid-County Groundwater Agency (MGA) Board and Groundwater Sustainability Planning (GSP) Advisory Committee Meeting #9 July 19, 2018, 6:30 – 9:00 pm**

This meeting was a joint convening of the Santa Cruz Mid-County Groundwater Agency (MGA) Board and the Groundwater Sustainability Planning (GSP) Advisory Committee. It took place on July 19, 2018 from 6:30 – 9:00 p.m. at the Simpkins Family Swim Center in Santa Cruz. This document summarizes only Agenda Item 8 of the joint meeting, pertaining to potential projects and concepts to support recovery and sustainability of the Santa Cruz Mid-County groundwater basin and relevant to the Advisory Committee's work. The following key discussions topics were covered at the meeting:

- Overview of historical and current work related to potential projects and concepts
- Review of the process in relation to the GSP development
- Board discussion and public input on potential projects and concepts

This summary is not intended to serve as a detailed transcript of the meeting or Agenda Item 8.

#### **Meeting attendance**

MGA Board members in attendance included:

1. Curt Abramson, Private Well Representative
2. David Baskin, City of Santa Cruz (also Advisory Committee member)
3. Bruce Daniels, Soquel Creek Water District
4. Jon Kennedy, Private Well Representative (also Advisory Committee member)
5. Jim Kerr, Private Well Representative
6. Tom LaHue, Soquel Creek Water District (Vice Chair)
7. Robert Marani, Central Water District (Chair)
8. Cynthia Mathews, City of Santa Cruz (Secretary)
9. Allyson Violante, County of Santa Cruz (Alternate)

Board members who were absent included:

1. Zach Friend, County of Santa Cruz
2. John Leopold, County of Santa Cruz



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Advisory Committee members in attendance included:

1. Kate Anderton, Environmental Representative
2. John Bargetto, Agricultural Representative
3. David Baskin, City of Santa Cruz
4. Rich Casale, Small Water System Management
5. Bruce Jaffe, Soquel Creek Water District
6. Dana Katofsky McCarthy, Water Utility Rate Payer
7. Jon Kennedy, Private Well Representative
8. Jonathan Lear, At-Large Representative
9. Marco Romanini, Central Water District
10. Charlie Rous, At-Large Representative
11. Allyson Violante, County of Santa Cruz
12. Thomas Wyner for Cabrillo College, Institutional Representative

Committee members who were absent included:

1. Keith Gudger, At-Large Representative
2. Douglas P. Ley, Business Representative

## **Agenda Item 8: Key Discussion on Potential Projects and Concepts to Support Recovery and Sustainability of the Santa Cruz Mid-County Groundwater Basin**

### **8.1 Summary of Potential Projects and Concepts**

John Ricker, County of Santa Cruz, opened the session after a roll call of the Advisory Committee members and introduction of the Kearns & West facilitation team. Mr. Ricker noted that this is an informational meeting regarding potential projects and concepts, and no Board action is requested.

- **Overview of Historical Work**

Mr. Ricker presented an overview of historical work related to projects and concepts, describing efforts of the County, City, local water agencies and advisory bodies with respect to regional water supply planning since the 1950s, including various water master plans and studies.

- **Overview of Current Work**

Rosemary Menard, City of Santa Cruz, and Ron Duncan, Soquel Creek Water District, provided an overview of water resource projects in their respective jurisdictions, including a description of the problem statement and proposed solutions.

Ms. Menard described how the City of Santa Cruz is currently developing supporting information and evaluating the feasibility and cost of the following efforts:



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- In-Lieu Recharge, in which wet season surface water would be provided to the water district to reduce groundwater pumping;
- Aquifer Storage and Recovery (ASR), which involves utilizing injection wells for recharging aquifer systems with excess water supplies for temporary storage and later recovery when needed;
- Advanced treated recycled water to be used as a source for groundwater replenishment, surface water augmentation or, if or when regulations provide a framework to do so, direct potable reuse; and
- Seawater Desalination.

Mr. Duncan described several projects Soquel Creek Water District is pursuing under its Community Water Plan:

- Pure Water Soquel, a proposed groundwater replenishment and seawater intrusion prevention project using advanced water purification methods to purify recycled water for replenishment and protection of the basin. Mr. Duncan noted that the project is currently under California Environmental Quality Act (CEQA) review and that the public comment period on the draft Environmental Impact Report (EIR) ends on August 13, 2018.
- Purchase of winter surface water from the City of Santa Cruz for direct use by Soquel Creek Water District.
- Possible purchase of desalinated water from a potential project in Moss Landing.
- Small-scale stormwater capture for groundwater replenishment.

A key takeaway from both presentations is that water conservation and groundwater well management are not sufficient solutions to address the groundwater overdraft and to ensure a reliable water supply.

- **Process and Relation to the GSP Development**

Ms. Menard described the process and relation of the GSP development, referring to various graphics illustrating the relationships of GSP elements and iterative nature of the Advisory Committee's work on the GSP. Projects and management actions will need to be evaluated and incorporated into the implementation section of the GSP to document how sustainability measures will be attained.

- **Public Presentations on Projects and Concepts**

Tom LaHue, Chair of the MGA Board, invited members of the public to present on other proposed or potential projects.



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Gary Linstrom, Water for Santa Cruz County, presented on a project that uses river water transfers as a solution to water supply replenishment. Mr. Linstrom posed several key questions that the project is attempting to address:

- How much water does the North Coast have to transfer?
- How can Santa Cruz replace water sent to Soquel Creek Water District customers?
- Is the current basin infrastructure sufficient to treat and transfer water?
- What constitutes a critical dry year and how does that classification impact the community and wildlife?

In conclusion, Mr. Linstrom emphasized that water supply available for the basin is sufficient and a compatible aquifer and river water infrastructure does exist if the Santa Cruz Water District is willing to make transfers.

Jerry Paul, Water for Santa Cruz County, provided an overview of the Lochquifer Alternative for drought prevention in the Mid-County Basin. He described the project's key objective as producing large volumes of water at a cost as low as 7% of the cost of other comparable projects. Mr. Paul discussed other key points of the Lochquifer project as follows:

1. It will render the basin "drought-proof" in three years and fill aquifers within a decade.
2. It will increase aquifer storage space three to six times over the Loch.
3. It will produce a net average annual transfer from Santa Cruz Water District to Soquel Creek Water District of greater than 800 MG.

- **Summary of Advisory Committee and Public Questions and Comments**

Mr. LaHue invited Advisory Committee members and members of the public to ask questions and provide comments on projects discussed. (*Questions are represented as (Q), comments as (C) and responses as (R) below.*)

(Q) An Advisory Committee member asked when the Pure Water Soquel project will start producing supply.

- (R) Mr. Duncan indicated that the project will start producing water in 2023.

(Q) An Advisory Committee member asked a few questions about the City of Santa Cruz's ASR project, and Ms. Menard provided responses accordingly as follows:

- Will withdrawals be made from the ASR in drought years?
  - (R) Ms. Menard indicated that it depends on the characteristics of the aquifer, but essentially the goal is to store water in wet years for use in dry years.
- Will the injection of water occur during wet months?



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- (R) Ms. Menard responded that the injection of water will occur during wet months, as the project analysis first applied all of the water (365 days/year) used for in-lieu recharge. She further explained that the idea is to end up taking water in the wet months, when the levels are above required fish flows and considering water rights constraints.
- Will water not be withdrawn again until it is needed?
  - (R) Ms. Menard confirmed that the water will not be withdrawn again until it is needed and added that the key issue for the City is honing the awareness of future extreme wet/dry seasonal patterns in order to plan and respond accordingly. Ms. Menard stressed that modeling the patterns, accounting for seawater intrusion, maintaining the seawall barrier, as well as looking at alternatives will help drive this planning effort forward.

(C) A member of the public commented that it may be worthwhile to look at the recycled water work that Scotts Valley is doing to raise groundwater levels.

(Q) An Advisory Committee member asked whether any of the options, facilities and infrastructure planning processes incorporate emergency/crisis responses.

- (R) Robert Marani, MGA Board member, responded that it is important to have a diversified portfolio, which includes emergency/crisis response plans.
- (R) Ms. Menard indicated that a recommended process going forward would include the following project components: criteria cost, timelines, adaptive flexibility to climate change, water system infrastructure, and supplies in order to anticipate future needs.

(Q) An Advisory Committee member asked questions regarding Soquel Creek Water District's Community Water Plan, and Mr. Duncan provided responses as follows:

1. How realistic is deep water desalination and the 15-mile pipeline from Moss Landing to Soquel?
  - (R) Mr. Duncan explained that the District is considering all options and not eliminating any ideas at this time.
2. Is the District considering storm water recharge in only two to three areas?
  - (R) Mr. Duncan responded that the District initially looked at the entire Soquel Creek area and eventually reduced the recharge focus to a few sites.
3. With reference to the Draft EIR, where is the District in narrowing down a location for potable water reuse?
  - (R) Under the EIR, an area expanding from Chanticleer Avenue out to Cabrillo College is under consideration for three pipeline routes, and other options are still under discussion.



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(Q) An Advisory Committee member asked questions regarding Ms. Menard's presentation, and she responded as follows:

1. Can you comment on how ASR is working toward the 3,000 AFY adjudicated safe yield for the Seaside groundwater basin?
  - (R) The Seaside project is being developed but is not fully implemented yet. Ms. Menard indicated that water has to be treated to drinking water standards for use in ASR, and in order to achieve this standard, the project has to consider building pipelines, a treatment plant and transmission infrastructure, recognizing the variability between size and cost. Ms. Menard added that there are also issues regarding additional storage, comparing past experiences with possible future concerns, sources of water, water rights, and coordination with agencies and stakeholders.
2. What about working with water from the North Coast?
  - (R) Ms. Menard explained that the North Coast has a healthy watershed, but a large part of it is unavailable for transfers as it is heavily dedicated to fish flows.

(Q) An Advisory Committee member asked Mr. Ricker whether the County has considered smaller recharge projects in prime areas (vs. focusing solely on larger projects) and whether they can be included in the GSP?

- (R) Mr. Ricker explained that the County is working with the Resource Conservation District regarding promoting managed recharge for medium projects and small scale stormwater capture and infiltration for both urban and rural property owners. He added that the County is also considering ways to offset climate change by capturing water in the hills.

(Q) An Advisory Committee member asked about the Pure Water Soquel facility and for confirmation that it can produce up to 8M gallon/day of purified water.

- (R) Mr. Duncan indicated that Soquel Creek Water District has a memorandum of understanding with the City of Santa Cruz to deliver 2M gal/day of tertiary sewage, which could produce on average or 1,500 acre-feet per year of purified water. He added that the consideration to build a pipe large enough to transfer that level of water is included in the EIR.

(Q) A public participant asked for clarification on several issues pertaining to the Pure Water Soquel EIR.

1. Alternative 2 under the project seems very similar to the Water Supply Advisory Committee's (WSAC) first recommendation. Is the WSAC recommendation an



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alternative? And is it setting an unrealistic and high bar for the City and the District to guarantee interagency water exchanges in drought and non-drought conditions when conditions can be very unpredictable?

- (R) Mr. Duncan urged the participant to submit her questions through the EIR process and added that it is necessary to have a guarantee as Pure Water Soquel's target is to produce 1,500 acre-feet of water, but that it does not mean that the District cannot also draw from river water.

(Q) A member of the public asked about the receptivity in the target recharge area for Pure Water Soquel.

- (R) Mr. Duncan replied that the conditions in the area are analogous to a "pancake" in that it is difficult to get water into the Purisima Aquifer. Therefore, the project would utilize injection wells to deliver water to more permeable layers.

(C) Mr. Paul addressed a comment that water transfers in the Lochquifer project do not appear to satisfy Santa Cruz's demand. He appealed to the group to look at a convergence analysis for the specifications that can confirm sufficient water for transfer.

(C) A member of the public announced that she has organized a study session for public review of the Pure Water Soquel draft EIR on August 8 and referred to her flyer (distributed at registration) for additional details.

(C) Mr. LaHue added that there is also a 20-page community guide available on the Pure Water Soquel project on the Soquel Creek Water District website.

(Q) A member of the public asked the following questions, which were addressed by various members of the Executive Team as follows:

1. Are you modeling shutting off Soquel Creek Water District wells?
  - (R) Mr. Ricker responded that some wells in the vicinity of Soquel Creek will be modelled as shut off, but not all.
2. Why is Laguna Creek not included in the pilot study for water transfers?
  - (R) Ms. Menard clarified that 100 M gallons of water for the pilot study was based on average flow from the Liddell area and not the Laguna site, as the Laguna water is mostly dedicated to fish flow.
3. Will Soquel Creek Water District decision makers allow ratepayers and private well owners impacted by the proposed injection wells and possible contamination to vote on the project before it begins?



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- (R) Mr. Duncan indicated that the Board of Directors will decide these types of issues, and there was 77% support for the project as proposed. He added that this decision is not a part of the EIR process.
4. With the Pure Water Soquel project, how will Soquel Creek Water District verify the required travel time for injected water to nearby wells and that drinking water standards are met?
- (R) Mr. Duncan explained that the State requires Bromine (or other State-determined substance) to be added to recharge water and tested to empirically ensure travel time and dilution requirements are met.

Mr. LaHue closed Agenda Item 8 of the meeting.