



*Groundwater is a vital resource, together let's protect it.*

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

## Meeting Summary

### **Santa Cruz Mid-County Groundwater Sustainability Planning Advisory Committee Meeting #11 September 26, 2018, 5:00 – 8:30 pm**

This meeting was the eleventh convening of the Santa Cruz Mid-County Groundwater Sustainability Planning (GSP) Advisory Committee. It took place on September 26, 2018 from 5:00 - 8:30 p.m. at the Simpkins Family Swim Center in Santa Cruz. This document summarizes key outcomes from Advisory Committee and staff discussions on the following topics: project updates; groundwater modeling presentation on pumping impacts on key sustainability indicators; articulation of a problem statement for the basin; and staff proposals on minimum thresholds for Chronic Lowering of Groundwater Levels and for developing measurable objectives for the Sustainability Indicators. It also provides an overview of public comment received. It is not intended to serve as a detailed transcript of the meeting.

#### **Meeting Objectives**

The primary objectives for the meeting were to:

- Share and discuss what the model tells us about pumping impacts by use type and location.
- Share and discuss proposed minimum thresholds for chronic lowering of Groundwater Levels and receive initial input from Advisory Committee.
- Discuss and provide Advisory Committee input on a draft proposal for developing measurable objectives.

#### **Action Items**

Key action items from the meeting include the following:

- Technical staff to address the following as they continue their work on groundwater modeling:
  - Review the new State guidelines<sup>1</sup> on sea level rise assumption recommendations and update Committee members.

---

<sup>1</sup> State of California Sea-Level Rise Guidance 2018 update;  
[http://www.opc.ca.gov/webmaster/ftp/pdf/agenda\\_items/20180314/Item3\\_Exhibit-A\\_OPC\\_SLR\\_Guidance-rd3.pdf](http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf)



*Groundwater is a vital resource, together let's protect it.*

---

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

- Present an example of how the model can be run to simulate potentially reduced recharge resulting from increases in storm intensity.
- Double-check and confirm whether monitoring well SC-8 is above 100 mg/L for Chloride level.
- Technical staff to invite Technical Advisory Committee (TAC) thoughts on climate change assumptions and report back to the GSP Advisory Committee
- Ms. Pruitt to send a reminder to Committee members to submit comments on the proposed draft for Groundwater Levels Sustainable Management Criteria, presented at the 9/26 meeting.
  - Committee members to review proposed draft by 10/10.
- Executive Team to discuss the possibility of replacing recently-resigned Advisory Committee member Doug Ley with the Mid-County Groundwater Agency (MGA) Board at the Board's next meeting (November 15, 2018).
- Kearns & West to prepare September 26 meeting summary.
- Executive Team to submit the August 22, 2018 Advisory Committee meeting summary to the MGA Board for information.
- Ms. Pruitt to send field trip update to Committee and field trip participants with carpooling details and publically post the field trip to inform the public consistent with the Brown Act.

### **Meeting attendance**

Committee members in attendance included:

1. Kate Anderton, Environmental Representative
2. John Bargetto, Agricultural Representative
3. David Baskin, City of Santa Cruz
4. Keith Gudger, At-Large Representative
5. Bruce Jaffe, Soquel Creek Water District
6. Jon Kennedy, Private Well Representative
7. Jonathan Lear, At-Large Representative
8. Marco Romanini, Central Water District
9. Charlie Rous, At-Large Representative
10. Allyson Violante, County of Santa Cruz
11. Thomas Wyner for Cabrillo College, Institutional Representative

Committee members who were absent included:

1. Rich Casale, Small Water System Management
2. Dana Katofsky McCarthy, Water Utility Rate Payer
3. Douglas P. Ley, Business Representative (resigned)



*Groundwater is a vital resource, together let's protect it.*

---

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

## **Meeting Key Outcomes (linked to agenda items)**

### **1. Introduction and Discussion of GSP Process Timeline and Project Updates**

John Ricker, Santa Cruz County, opened the meeting and welcomed participants. Mr. Ricker asked the GSP Advisory Committee members MGA Executive Team, and the consultant support team around the room to introduce themselves. He also addressed members of the public in attendance and asked them for self-introductions.

Eric Poncelet, Facilitator, reviewed the agenda, meeting objectives, the updated GSP process timeline, and the iterative process funnel graphic, noting that the group is still in the initial design phase of the GSP process.

Mr. Poncelet then asked staff to provide the following project updates:

- **Advisory Committee Field Trip**

Darcy Pruitt, Regional Water Management Foundation (RWMF), announced that the final date and time for the field trip is October 23, 2018 from 9:00 AM to 1:00 PM. Ms. Pruitt indicated that she is in the process of coordinating transportation for Committee members, and she will send an updated one on the logistics shortly. She also reminded Committee members to accept the calendar invitation to ensure that they receive the proper updates. Members of public are invited to attend but are responsible for their own transportation.

- **Committee Member Resignation**

Mr. Poncelet announced that Committee member, Doug Ley has submitted his resignation and that the Executive Team is discussing possible adjustments accordingly.

### **2. Oral Communications (for items *not* on the agenda)**

Members of the public provided comments on non-agenda items during this session.

- One participant indicated that he wanted to explore with the Committee water recycling and aquaculture utilizing the brackish groundwater that is in the basin due to seawater intrusion.
- Another participant requested the Committee's consideration of the Water for Santa Cruz project involving transfers from rivers to the Soquel Creek aquifers. The participant explained that she had presented this proposal to the Soquel Creek Water Board and that it has the Water Supply Advisory Committee's support.

### **3. Groundwater Modeling Results: Pumping Impacts on Sustainability Indicators**



*Groundwater is a vital resource, together let's protect it.*

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

Georgina King, Montgomery & Associates, presented on pumping impacts on key sustainability indicators. Her presentation focused on modeled groundwater level sensitivity to changes related to different hypothetical scenarios, which included (1) management actions that redistribute and reduce municipal pumping, (2) sensitivity to changes in inland pumping, (3) sensitivity to changes in assumed septic return flow, and (4) sensitivity to increased assumed groundwater levels at the Pajaro Valley Water Management Agency (PVWMA) boundary.

Advisory Committee members asked questions to clarify their understanding of model performance. These questions involved underlying model assumptions regarding water use, return flow, and climate conditions that are included in the model report. Generally, the Committee members seemed satisfied with the water use and return flow assumptions.

Several members requested more details about the Technical Advisory Committee's (TAC) perspective on the historical climate catalog approach used by the model. Utilizing warmer and drier years from the historic record, the simulated future conditions used by the model assumptions are +1.5 degrees F temperature increase, 10% less rainfall, and 1.5 feet of sea level rise. Additionally, several members wanted more detailed information on how the climate catalog was introduced into the model over time. Some of these members thought temperatures might need to be hotter at a later time and that sea level rise might be higher. There was significant discussion on the nature of models and model assumptions. Advisory Committee members expressed a general willingness to rely on the TAC's opinion, but they wanted more details on the model assumptions and the TAC's perspective on those assumptions.

When asked about model scenarios, the Committee wanted more information on how the TAC viewed:

- (1) more extreme climate scenarios (higher temps as we get closer to 2070),
- (2) reduced recharge rate relative to rainfall due to increased storm intensity,
- (3) changes to climate over time (want to understand model assumptions on climate over time),  
and
- (4) continuing to check model calibration over time as projects are implemented (e.g., validate with results of water transfers.)

#### **4. Public Comment**

During this segment, Mr. Poncelet invited members of the public to comment on the Committee's discussions on the impacts of pumping on key sustainability indicators and any other Advisory Committee work.

One participant was interested in looking at economics of the model predictions and how changes in water quality impact traditional agriculture and point to potential benefits of aquaculture.



*Groundwater is a vital resource, together let's protect it.*

---

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

## **5. Proposed Minimum Thresholds for Chronic Lowering of Groundwater Levels**

In this segment of the meeting, Ms. King presented on technical staff proposed Minimum Thresholds for Chronic Lowering of Groundwater Levels. Her presentation focused on a demand based approach to setting minimum thresholds for chronic lowering of Groundwater Levels using representative monitoring wells. Ms. King described the representative monitoring wells proposed for use and how they and the nearby production wells would be used to monitor this sustainability indicator.

The GSP Advisory Committee had questions about the interaction between this sustainability indicator and Groundwater Levels related to other sustainability indicators, including Seawater Intrusion and interconnected Surface Water. Ms. King explained that each sustainability indicator will, as appropriate, have its own set of representative monitoring wells. She also indicated that in situations where a monitoring well is used for more than one sustainability indicator, the higher groundwater elevation will be the target for that well. Further, she explained that currently there is no chronic lowering of groundwater levels in the basin, even though not all coastal monitoring wells are at their protective elevations to prevent Seawater Intrusion.

The Committee asked for recommendations on appropriately protective Groundwater Levels for the basin. Ms. King indicated that the Groundwater Levels should be realistic and should provide operational flexibility. There was general consensus that the basin's Measurable Objective should be aspirational but realistic in relationship to the basin's interest to prevent seawater intrusion and sustain stream flows.

## **6. Draft Proposal for Developing Measurable Objectives**

Ms. King provided the Committee with a presentation on proposed approaches to take for setting Measurable Objectives for Sustainability Indicators in the Santa Cruz Mid-County Groundwater Basin. She discussed setting desirable groundwater elevations for the basin, because except for Water Quality, groundwater elevations will be the primary indicator used to measure progress toward sustainability. Ms. King noted that Measurable Objectives are not enforceable but should be achievable and provide operational flexibility for the basin.

The Committee discussed Measurable Objectives as aspirational goals. There was general consensus that the groundwater elevations should:

- (1) provide a drought reserve,
- (2) provide for ecological needs,
- (3) protect against climate uncertainty,



*Groundwater is a vital resource, together let's protect it.*

---

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

- (4) protect the basin under stress, and
- (5) provide resilience to the basin's water supply.

The Committee discussed and provided initial feedback on the proposed processes for setting measurable objectives for each of the sustainability indicators. Key comments are captured below:

- (1) *Seawater Intrusion*. The Committee discussed key issues regarding chloride isocontours and protective elevations as follows.
  - a. For chloride, Committee members expressed some concern about using isocontours that cannot be accurately measured. In addition, they wanted to know if monitoring well SC-8 is over or under 100 mg/L. If it is over 100 mg/L, it might not be appropriate to select 100 mg/L as the Measurable Objective. [The data has been reviewed; SC-8 has always been below 100 mg/L.]
  - b. For protective elevations, the Committee members wanted to know the relative cost to set Measurable Objective at increments between 70% and 100% of model simulations protect against seawater intrusion.
- (2) *Chronic Lowering of Groundwater Levels*. As there is currently no chronic lowering of groundwater levels occurring in the basin, Committee members noted the following:
  - a. The technical proposal of 2013-2017 average groundwater elevation is a good starting point to develop a Measurable Objective.
  - b. Some Committee members expressed the interest to better understand the overall water budget
- (3) *Reduction of Groundwater in Storage*. The Committee discussed water budget and model information that would be provided at future meetings, including the following points:
  - a. The Committee wanted to understand the available information, especially modeling results regarding changing volume of groundwater in storage.
  - b. There was some discussion about the limited usefulness of thinking in terms of the total storage volume for the entire basin, including contemplation of the following questions:
    - i. Would it be useful to look at different areas within the basin?
      1. Purisima v. Aromas Red Sands
      2. Municipal and agricultural pumping impacts in specific areas
    - ii. Would analysis of aquifer storage and recovery provide useful information to understand changes within the basin?
- (4) *Depletion of Interconnected Surface Water*. The Committee recognized that the modeling work needed to address this sustainability indicator is still in process and will be reviewed first by the



*Groundwater is a vital resource, together let's protect it.*

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

Surface Water working group. The Committee will revisit this topic once it receives the next report back from the Surface Water working group.

- (5) *Groundwater Quality*. Committee members acknowledged that native Groundwater Quality, with a few exceptions, is good.
  - a. Committee members selected Maximum Contaminant Levels (MCLs) as Minimum Thresholds and discussed the following:
    - i. They accept that exceedances that occur naturally or from septic systems or agriculture in the Aromas Red Sands, which are preexisting conditions that don't need to be addressed except as they impact delivered water.
    - ii. They thought that using 2013-2017 average groundwater quality was a good Measurable Objective.
- (6) *Subsidence*. This sustainability indicator is not applicable in the Santa Cruz Mid-County Groundwater Basin, and therefore there was no discussion.

## **7. Public Comment**

During this last public comment session, Mr. Poncelet invited members of the public to focus comments on the Committee's recent discussions on staff's proposed minimum thresholds for chronic lowering of Groundwater Levels and staff's proposal for developing Measurable Objectives for each applicable sustainability indicator for the basin, and on any other Advisory Committee work.

There were no public comments during this session.

## **8. Confirm August 22, 2018 Advisory Committee Meeting Summary**

The Advisory Committee did not have any edits or comments on the draft August 22, 2018 Advisory Committee meeting summary. Mr. Poncelet confirmed it for submission to the MGA Board.

## **9. Next Steps**

In closing, Mr. Poncelet provided an overview of the GSP process timeline from October through December 2018.

Before the meeting adjourned, a Committee member asked staff for a brief update on water supply projects that may be under consideration for the basin and whether the focus will be only on projects in the basin. Staff responded that the MGA Board will discuss and provide guidance on which projects to consider in the GSP. Staff also noted that some projects being considered in adjacent basins could have impacts on the Mid-County basin and will therefore be taken into account in the GSP.



*Groundwater is a vital resource, together let's protect it.*

---

5180 Soquel Drive • Soquel, CA 95073 • (831) 454-3133 • [midcountygroundwater.org](http://midcountygroundwater.org)

Staff and the Committee also discussed how the selected projects will be implemented and the associated costs, which agencies will be coordinating on the projects, and land use considerations. Staff indicated that the Committee will interact more with the MGA Board on project details early next year.

Executive Team members closed the meeting by thanking the attendees for their participation.