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Meeting Summary

Joint Meeting of the Santa Cruz Mid-County Groundwater Agency (MGA) Board and Groundwater Sustainability Planning (GSP) Advisory Committee GSP Advisory Committee Meeting #19 May 16, 2019, 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 May 16, 2019 from 6:30 – 9:00 p.m. at the Simpkins Family Swim Center in Santa Cruz. This document summarizes Agenda Items 8-14 of the joint meeting. The following key discussions topics were covered at the joint meeting:

- Overview of the Advisory Committee charge, process progress, and desired outcomes of this joint meeting.
- Review the GSP Sustainability Goal.
- Review and discuss the sustainable management criteria (SMC), indicators, and modeling.
- Review and discuss the GSP review and approval process.

This summary is not intended to serve as a detailed transcript of the meeting or Agenda Items 8-14.

Meeting attendance

Advisory Committee members in attendance included:

1. Kate Anderton, Environmental Representative
2. John Bargetto, Agricultural Representative
3. Rich Casale, Small Water System Management
4. Keith Gudger, At-Large Representative
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. 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:



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1. Marco Romanini, Central Water District
2. David Baskin, City of Santa Cruz

Agenda Item 8: Oral Communications

Participating members of the public were invited to address matters not on the agenda but within the purview of the MGA. The following comments were recorded during these oral communications. (*Questions are represented as (Q), comments as (C) and responses as (R) below.*)

(C) A member of the public commented that he believed that Soquel Creek Water District should not be allowed to contaminate the aquifer by pumping water from Pure Water Soquel into it. He said that ratepayers don't own the aquifer and are not the only ones who depend on it. He disagrees with current water use law and believes that 50%+1 of ratepayers writing approval for projects like Pure Water Soquel should be necessary for such projects, rather than 50%+1 having to write a reply objecting to the project.

(C) A member of the public commented that there is pushback against the Pure Water Soquel project from the public within and outside of the Soquel Creek Water District because the aquifer is not exclusively used by the District's customers. She said that rate payers don't always know what goes on and that there was a perception that decisions were kept secret until late in the process. She is pursuing a California Environmental Quality Act (CEQA) writ of mandate against Pure Water Soquel for environmental and process violations. There is a preliminary injunctive hearing scheduled for June 20, 2019 in Santa Cruz.

Agenda Item 9: Overview of the GSP Advisory Committee's Charge, Process, Progress, and Desired Outcomes of this Joint Meeting.

Rosemary Menard, City of Santa Cruz, gave an overview of the process that the Advisory Committee went through to reach their recommendations, including learning the science behind each Sustainability Indicator and examining modelling results. Ms. Menard added that the goal of the Joint Meeting was to hear any comments from the Board that the Committee should consider before finalizing their recommendations.

Agenda Item 10: Review and Discuss the GSP Sustainability Goal

Jon Kennedy, Private Well Representative on the Advisory Committee, presented the Committee's proposed GSP Sustainability Goal, including language changes the Advisory Committee agreed on at the April 24th meeting. The following comment and responses were recorded following this presentation.

(C) Bruce Daniels, MGA Board member representing Soquel Creek Water District, suggested adding language to the Sustainability Goal explicitly incorporating climate change (e.g., "manage groundwater



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considering climate change,” or “taking climate change into account”). He suggested being careful to include language that addresses everything that the Sustainable Groundwater Management Act (SGMA) requires.

- (R) Allyson Violante, County of Santa Cruz, responded that the Advisory Committee had discussed climate change and decided that since managing climate change is beyond the capabilities and scope of what the MGA can manage, it was not included in the Sustainability Goal language. She added that the Committee did consider climate change extensively for each bullet in the Sustainability Goal. She agrees the MGA should, and in fact did, take climate change in consideration in developing the MGA’s groundwater management indicators in response to climate change. She suggested the Committee discuss inclusion of climate change language at their next meeting.
- (R) Bruce Jaffe, Soquel Creek Water District, commented that he had no problem including language explicitly mentioning climate change and agreed that this could be discussed at the next Advisory Committee meeting.

Agenda Item 11: Public Comment

Participating members of the public were given an opportunity to make public comment at this juncture. The following question and responses were recorded during this period.

(Q) A member of the public commented that in previous discussions it had been stated that the boundaries for the GSP purview could be extended north to show better benefit in the basin. She asked if there had been discussions of boundary changes with the Pajaro Valley to this effect.

- (R) Mr. Daniels responded that there had been no boundary changes.
- (R) John Ricker, County of Santa Cruz, responded that staff have worked closely with the Pajaro Valley Water Management Agency, since they influence each other’s basins, but there had been no discussion of boundary modifications.

Agenda Item 12: Review and Discuss the Sustainable Management Criteria

Georgina King, Montgomery and Associates, presented an overview of the Sustainable Management Criteria (SMCs) that make up the core of the GSP. Ms. King reviewed the proposed significant and unreasonable conditions, undesirable results, minimum thresholds, and measurable objectives for each Sustainability Indicator. The discussion of each of these Indicators is summarized below:

Groundwater Levels (proposal): Significant and unreasonable conditions for groundwater levels occur if a significant number of wells can no longer supply groundwater to supply beneficial uses. The minimum threshold for groundwater level is based on an elevation that meets the demand for overlying users and



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cannot be more than 30 feet below historic low groundwater elevations. The measurable objective is the 90th percentile of historic groundwater levels over the period of record.

Mr. Kennedy discussed the chronic lowering of groundwater and the choice of the 90th percentile for the measurable objective. The following questions, comments, and responses were recorded following this presentation.

(C) Mr. Daniels commented that the choice to only use areas inland of municipal pumping makes it seem as though it is not a concern if municipal pumps go dry. He added that the GSP would have to defend why it only focused inland of these wells.

- (R) Ms. King responded that there are several potential monitoring wells located near to the municipal pumping wells, but that we did not want to select monitoring wells that might be influenced by that associated cones of depression.

(Q) Mr. Daniels asked how many representative monitoring wells are used and how it was decided which wells to consider.

- (R) Ms. King responded that the choice of which wells to use for monitoring depended on available data, whether the associated aquifer was known, and if there were other wells nearby.

(Q) Mr. Jaffe asked how the choice of 30ft below historic low groundwater levels for the minimum threshold was defended, and whether there were significant effects associated with that level.

- (R) Ms. King responded that the minimum threshold choice was made by considering wells with a large range in water levels and looking at that range over the period of record.
- (C) Mr. Daniels commented that the minimum threshold choice should be defended in the plan.

Reduction in Storage (proposal): Significant and unreasonable reduction in groundwater storage is a net volume of groundwater extracted that will likely cause other Sustainability Indicators to have undesirable results. Undesirable results are a five-year average net extraction exceeding the minimum threshold for any one of a selected group of aquifers. The minimum threshold is the sustainable yield representing the net annual volume of groundwater extracted for the same group of aquifers. The measurable objective is set as the volume of groundwater that can be extracted that would not exceed the five-year minimum threshold if four of those years were at maximum projected groundwater extraction.

Jonathan Lear, At-Large Representative, discussed the Advisory Committee's decision to consider reduction in storage for multiple aquifers rather than a single volume for the entire basin. The following questions, comments, and responses were recorded following this presentation.

(C) Mr. Daniels suggested removing the term "management," because "managed aquifer recharge" is the term that the city of Santa Cruz uses for its program.



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- (R) Ms. King responded that this was a general term.

(Q) Mr. Daniels asked why certain aquifers were grouped together for determining total storage.

- (R) Cameron Tana, Montgomery and Associates, responded that aquifers were grouped as a way to simplify this Indicator.

Seawater Intrusion (proposal): The significant and unreasonable condition for seawater intrusion is seawater moving farther inland than has been observed from 2013-2017. Undesirable results are established both for chloride isocontours and protective groundwater elevations. Undesirable conditions occur if either of these show an undesirable result. The minimum threshold for the chloride isocontour is set at 250 mg/L chloride concentration for Aromas and Purisma aquifers, with the measurable objective set at 100 mg/L in the same locations. For protective elevations, the minimum threshold is the groundwater level that prevents the equilibrium freshwater/seawater interface from impacting aquifers from which production wells pump. The measurable objectives are higher groundwater elevations that are protective of the full depth of the aquifer.

Ms. Violante discussed the process that the Advisory Committee used to decide on significant and unreasonable conditions for this Indicator, and the decision to use both isocontours and protective elevations. The following questions, comments, and responses ensued.

(Q) Mr. Daniels asked for clarification on the isocontour measurable objectives.

- (R) Ms. King responded that the goal was for the chloride concentration to decrease along the isocontour from 250 to 100 mg/L.

(Q) Mr. Daniels asked whether concentrations along the isocontour would be interpolated.

- (R) Ms. King and Mr. Tana responded that there is a lack of data and concentrations would be evaluated at wells along the isocontour.

(Q) Thomas Wyner, Institutional Representative, asked whether the draft GSP specifically endorses the Pure Water Soquel and Aquifer Storage and Recovery (ASR) projects. In his view, the Advisory Committee had not considered the potential negative consequences of either project enough to officially recommend them. He added that he was not objecting to either project, but he anticipated hearing objections if the Advisory Committee did not consider project consequences in greater depth.

- (R) Ms. Menard responded that the MGA Board had directed the Advisory Committee to include the ASR and Pure Water Soquel projects in the implementation section of the GSP.
- (C) Mr. Daniels commented that it was important to reference specific projects for the GSP to seem feasible.
- (C) Ms. Violante commented that the Advisory Committee had been directed to include these projects in the GSP and that they had agreed to that when they joined the Advisory Committee.



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- (R) Mr. Wyner replied that he did not believe that he had agreed to support specific projects about which he had no knowledge when he joined the Advisory Committee.
- (C) Mr. Kennedy commented that the Advisory Committee had considered the groundwater modeling enough to understand that ASR and water transfer measures on their own would not be sufficient to meet basin needs with regard to sustainability. He agreed with Mr. Wyner that it was worth looking further into the negative effects of the ASR and Pure Water Soquel projects.

(C) Mr. Jaffe commented that, in his view, the five-year average used to determine undesirable results for protective elevation was not restrictive enough. One year of low groundwater levels would allow seawater intrusion that would not simply be pushed out by higher levels on a five-year average.

- (R) Mr. Tana responded that the five-year average is used because protective elevations are long-term elevations used to prevent intrusion. He added that the plan does not rely solely on protective groundwater elevations but also chloride concentrations. The combination of these Indicators makes the five-year average a reasonable way of evaluating undesirable results.
- (Q) Mr. Daniels asked what alternatives were considered besides the five-year average for groundwater levels.
- (R) Ms. King and Mr. Tana responded that there were other alternatives considered, including quarterly and annual values.

(C) Ron Duncan, Soquel Creek Water District, suggested adding language about considering trends and not just minimum thresholds, saying that if there was a trend towards an undesirable result, management actions would be taken before the minimum threshold was reached.

- (R) Mr. Daniels responded that explicitly stating this was not necessary in the GSP, but that management actions could be taken to achieve higher standards than what is included in the GSP.

(Q) Kate Anderton, Environmental Representative, asked whether SGMA included an approach to meeting the isocontour requirement. She added that she struggles with the notion of a jagged line isocontour that would be variable and not smooth.

- (R) Mr. Tana responded that monitoring for the chloride isocontour would be done using the concentrations measured from representative monitoring wells on either side of the isocontour. He added that as the concentrations measured at monitoring wells change, it is not necessary to redraw the isocontour line.

(C) Mr. Daniels commented that the SC-A8A well fails to meet thresholds on the hydrograph, and the reason for this should be mentioned.

- (R) Ms. King responded that there are certain effects out of their control, and their plan is to show that the GSP won't affect neighboring basins.

(C) Mr. Daniels suggested continuing this discussion at the next GSP Advisory Committee meeting.



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(C) Ralph Bracamonte, Central Water District, commented that this will be a living document that can be adjusted as necessary.

Degraded Groundwater Quality (proposal): Significant and unreasonable groundwater quality degradation occurs when groundwater quality, attributable to groundwater pumping or managed recharge, fails to meet state drinking water standards, which are used as minimum thresholds. Undesirable results occur if any representative monitoring well exceeds any minimum threshold as a result of groundwater pumping or managed aquifer recharge. The measurable objective equals the 2013-17 average concentrations for each constituent of concern at each representative monitoring well.

Keith Gudger, At-Large Representative, discussed the Advisory Committee's process for selecting undesirable results for groundwater quality. The Committee wanted to take a conservative approach and decided that this criterion would apply to any representative monitoring. The following question and responses ensued.

(Q) Mr. Daniels asked how it was determined what groundwater quality changes were attributable to groundwater pumping or managed recharge.

- (R) Ms. King responded that this Indicator is meant as a do no harm provision. Other regulatory agencies are already managing water quality. Projects are not allowed to degrade groundwater quality per those regulations.
- (R) Ms. Violante added that the GSP was not responsible for natural changes to water quality, hence the use of the term "attributable."

Subsidence (proposal): This Sustainability Indicator is not applicable to this basin, but significant and unreasonable conditions were defined as any land subsidence caused by lowering groundwater levels occurring in the basin.

There was no discussion on the topic of subsidence.

Depletion of Interconnected Surface Water (proposal): The significant and unreasonable condition is surface water depletion, due to groundwater extraction, in interconnected streams supporting priority species greater than that over the period of record through 2015. Undesirable results occur when any representative monitoring well's groundwater elevation falls below its minimum threshold. Minimum thresholds are set as the highest seasonal-low groundwater elevation in representative monitoring wells during below-average rainfall years of the period of record through 2015.

Ms. Anderton discussed the Advisory Committee's process for deciding to use priority species in defining significant and unreasonable conditions, and for using groundwater levels as a proxy for this Indicator. The following comment was recorded following this presentation.



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(C) Mr. Daniels commented that in addition to isotopes, temperature is another way to track source water.

Agenda Item 13: Review and Discuss the GSP Review and Approval Process and Timeline, and Ongoing Funding Approach

Darcy Pruitt, Regional Water Management Foundation (RWMF), discussed the GSP review and approval process. The Advisory Committee will provide recommendations to the MGA Board on the GSP Sustainability Goal and Sustainability Indicator Sustainable Management Criteria. The MGA Board will make a decision based on what they receive from the Advisory Committee, and on information from staff received between June and July. The draft GSP will be available on July 12th, to be discussed at the July 18th MGA Board meeting which will open the public comment period for through September 19th. At the September Board meeting, there will be a public hearing. The required notice will be sent to cities and counties on July 12th.

Sierra Ryan, County of Santa Cruz, discussed the GSP implementation and ongoing funding approach. The Board decided that it is not their role to implement projects in the GSP, rather that responsibility falls to individual member agencies. The role for the MGA going forward will be funding for ongoing administrative work, annual reviews, reports to the Department of Water Resources (DWR), additional monitoring, data management, and ongoing modelling and outreach. Near-term funding will be sourced from the MGA member agencies, both cash and in-kind.

Agenda Item 14: Public Comment

Participating members of the public were invited to make public comment at this juncture. The following comment was recorded during this period.

- A member of the public commented that it would be helpful if the seawater intrusion presentation noted the location of SC 11, because that is a shallow well in the vicinity of multiple private pumpers and knowing the location would be helpful. She commented that Montgomery and Associates has stated that if ASR and Pure Water Soquel occurred at the same time it would bring groundwater levels to the ground surface and would create competition for storage capacity if both were done. She thanked Mr. Wyner for his comments about the projects and agreed that there has been little discussion of the negative effects of Pure Water Soquel. She would like a definition of inland and coastal wells. She sees the GSP as biased for not including the north coast streams and other alternatives.
 - Mr. Wyner clarified that his objection was not and could not be to the project, since the Committee has not had sufficient opportunity to review benefits, costs, risks and alternatives, but was limited to the issue of the lack of information to make an informed recommendation.