

# Santa Rosa Plain Groundwater Sustainability Agency Advisory Committee Meeting Meeting Summary

Date/time: Monday, May 11, 2020; 3:00 pm-5:30 p.m.

Meeting Location: <https://csus.zoom.us/j/96660794188>

Contact: Andy Rodgers, Santa Rosa Plain Groundwater Sustainability Agency (GSA), Administrator

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Next meeting: June 22, 2020, 3:00-5:30 pm

## MEETING SUMMARY

### Welcome, Introductions and Agenda Review

Sam Magill, Facilitator, Sacramento State University – Consensus and Collaboration Program, welcomed the group, reviewed the agenda and conducted roll call.

### General Public Comment Period

None.

### Advisory Committee Update

Bob Anderson, Advisory Committee Chairman, opened the meeting and expressed his appreciation for new Advisory Committee members David Noren and Beth Lamb joining the group.

### Minutes (March 9), Requested Corrections before Posting

Craig Scott – P. 9 Should read

that is registered will get a mailer – that is, they are already registered and do not need to complete the form to get registered”.

Wayne Haydon – P. 6 Should read “I have a question about the 98% of the shallowest well depth. So that means we want to prevent impacts on 98% of the wells when ranking the wells deepest to shallowest?”

Wayne Haydon – P. 7 Should read “Yes, but water supply wells are generally deeper than the average well, perhaps 1000 feet deep, so in general to lower water levels with 50 feet of the bottom of a deep-water supply well would allow the groundwater table to decline over 900 feet and this seems pretty drastic. I am not sure that is good criteria for us as a goal.”

## Updates

*Objective: Provide relevant updates that inform the Advisory Committee to ask questions if needed.*

Andy Rodgers, Administrator gave a brief update. The last Board meeting was virtual with narrowed scope and had good attendance. The Board received updates on Sustainable Management Criteria (SMC) progress from the Advisory Committee, status of the \$1 million Proposition 68 grant, and the Groundwater User Registration Program. The Groundwater User Registration Program is slightly delayed because of staff being reassigned to the Covid-19 EOC. The Board approved the appointment of David Noren as Advisory Committee rural residential representative.

Mr. Rodgers noted a Request for Proposals (RFP) has been sent out for a rural residential well owner engagement campaign. The RFP for all the Groundwater Sustainability Agencies (GSAs) is funded by the Prop 68 grant. The second version of the RFP, including questions received, is available online at [santarosaplainingroundwater.org](http://santarosaplainingroundwater.org). Responses to the RFP are due on May 22, 2020.

Marcus Trotta mentioned that some work has started with the Prop 68 grant including planning for rural residential outreach, deep monitoring wells, streamflow groundwater interaction studies, and practitioner workgroups. The Grants department is working on amending the agreement for signature. Staff is also developing criteria for the Chronic Lowering of Groundwater SMC; results will be discussed at a future Advisory Committee meeting.

## Questions/Comments Advisory Committee

O'Connor – Practitioner workgroups – have they been formed? Are they being formed?

Jasperse – They are in the process of being formed. We sent out an email request, heard back from some, and are still waiting for some responses.

Rosenblum – Will the staff time of the workgroup folks be charged against the budget or will it be voluntary?

Jasperse – We are expecting them to do it voluntarily or through their jobs.

Joe Gaffney – I heard a rumor that because of Covid-19, the CA budget could affect the status of some of our grants, have you heard anything?

Trotta – I haven't heard anything yet. We are expecting the grant agreements to be signed this week, we will track closely and let you know.

## Current and Historical Water Budget Updates

*Objective: Learn about the water budget components, SGMA requirements and existing hydrologic models, provide feedback on recommended areas for refinements.*

Marcus Trotta introduced the current and historical water budget model, and noted Andy Rich (Sonoma Water), and Lisa Porta (Montgomery Associates) are updating the model for inclusion in the GSP. There is some ongoing work, but no big changes expected. Neither the model nor water budget determine if the basin is sustainable or not – this is determined through the establishment

and monitoring of SMCs for the five sustainability indicators applicable in the Subbasin. The model is an important tool for evaluation, well suited to address questions in the GSP.

Andy Rich, Sonoma Water provided an overview of the model; a more detailed presentation will be provided at the next meeting. The USGS finished their update to the model in 2016 including data up to 2015 and passed it to us to update for SGMA. Two type of updates are under development by Sonoma Water and Montgomery Associates to 1) extend the timeframe to 2018; and 2) perform revisions and improvements of groundwater processes, including simulated rural domestic and agricultural groundwater pumping.

Mr. Rich noted the original model appears to have overestimated rural domestic pumping and did not include septic return flows. The new methodology uses better information on location of pumping and is applied in the model. One of the main improvements in the model is that land uses and criteria used to determine which crops are simulated in model, used DWR land use map as a starting point.

The water budget provides an accounting and assessment for the total annual volume of surface water and groundwater entering and leaving the basin, change in the volume of groundwater in storage, and current, historical and projected future pumping estimates. The model water budget is also needed for informing estimates of sustainable yield (once SMCs are established), evaluating surface water depletion, evaluating how surface and groundwater systems have responded to historical changes, evaluating the effect of proposed projects and management actions that help achieve sustainability goal, and help identify monitoring requirements.

After the presentation, Mr. Rich posed the following questions to Advisory Committee members:

1. Is the current period representative of current conditions? 2 dry years + 1 wet years (slide incorrectly says 2 dry years and 2 wet years).
2. When should the historical period start? Historical period needs to start at water year 1976 at earliest (due to model) and should extend to most recent available data.  
Suggested water budget periods are:
  - a. Historical period: water years 1976-2018
  - b. Current period: water years 2012-2018

#### *Questions/Comments Advisory Committee*

Geary – Does the model incorporate frost protection pumping for vineyards in the winter?

Andy Rich -it does not.

O'Connor –Can you remind us what the grid scale is in the ag package.

Andy Rich – 660ft x 660 ft (10 acres)

O'Connor – In the slide that showed use rates, there is a big jump in 1999 for vineyard acreage.

Andy Rich – It reflects changes in cropping patterns from land use mapping between 1986 and 1999. The abrupt jump occurs because there was a significant increase in vineyard acreage during this timeframe and we don't have any land use maps available between the two time periods. In order to have a smoother transition in the model we would need to make assumptions regarding when and where the crop conversions occurred within this 13-year gap in land use maps.

Peter Martin – On the streamflow, the USGS gauge data only went up to a certain time, will it be upgraded moving forward to include data up until today?

Andy Rich – The data is used as a calibration; the streamflow is an estimate and being used to determine how well the model is doing.

Rosenblum – It is a great improvement in modeling, my concern is in calibration, are there enough data points? What could happen if we use the wrong data? There is additional data but maybe not in the right form for your use right now. I am concerned that using 2015 to 2018 to develop the model might be problematic, might be better to go back to 2005. Considerations are the drought in 1977 and Rohnert Park using more groundwater these days and less surface water. Would like to see model developed from 2005 to 2018. Also, would hate septic returns to flow into deep groundwater. I hope you are not expecting that will balance out.

Andy Rich – Septic return flows go to the first layer of the model, the shallowest water. The model and our proposed timeframe for the historical water budget extends back to 1976, so it does currently capture both 1977 drought and the noted changes in urban groundwater uses.

Gaffney – On slide 10, why are there two different scales on the y Axis?

Andy Rich – The y Axis on the left refers to the yearly inflows and the y Axis on the right reflects the cumulative storage change.

Furch – How can the future water budget include projected land uses?

Andy Rich – Generally, agricultural projections can go through same process described on crop map – we will have to decide on rate of growth of vineyards and other crops.

Noren – So this is a model input, how does SGMA allow for an update of this model when information gets better and more accurate?

Andy Rich – Once we submit our final GSP we need to supply an update every five years, it will be part of the 5-year update review.

Anderson – Can you calculate deep percolation from precipitation?

Andy Rich – Yes, is calculated by the PRMS model.

Anderson – How does it handle the difference year to year?

Andy Rich – Precipitation is going to be the main input and the evapo-transpiration from the soil zone will change from year to year and be a function of the climate.

Anderson – How does the updated model compare to original USGS model on percolation?

Andy Rich – I don't know so I can't speculate at this point. We can provide a little more detailed information at the next meeting.

Scott – How is the impervious data set determined and does it or will it incorporate low impact development to slow, sink and store water?

Andy Rich – For the 2001 to 2016 updates, we used a USGS product, National Land Cover Data set (NLCD). We took those per model cells, aggregated it, and calculated the average imperviousness. For earlier periods we used land data sets. For how we are going to incorporate the slow it, spread it, sink it effects as people build more homes, the increased imperviousness will be reflected but the actual run-off and where it ends up, I don't know if we will be able to capture the individual homeowner changes.

Rosenblum – Unless the current period includes calibration and variation that has happened, it can be improved with additional data. The current period shouldn't only be from 2012; we need to include the drought years from 2005 onwards. This draft model needs improvement before it can be submitted.

Andy Rich – The model is already simulating from 1976 to 2018. We are incorporating the data that we know exists until now.

Sam Magill asked for feedback on the question “Is the current period representative of current conditions? And When should the historical period start?”

Anderson – Sonoma Valley data starts with 1970, is that data available for Santa Rosa Plain?

Andy Rich – We started with 1977 which is basically for when the model was developed. We could go back to 1970 but it would set us back a few months.

Noren – Is the data good quality for these periods of time? Is there variability of the data over time?

Andy Rich – Land use data is critical to the input; it has probably improved from 1999-2012 land use maps. The climate inputs are similar throughout the period.

Noren – Do they bias the data? Some of the drought years would be good to include.

Porta – One question on the data – models are never perfect; they are tools for different purposes. DWR doesn't expect the perfect model. At this point the project needs to move forward with the tool. As far as the specific question about including more years in the current water budget, it wouldn't make sense to go too far back in time or it wouldn't be current.

Noren – The current model appears to be an exercise in estimation instead of precise measurements; it will be improved over time as more information is available.

Porta – The data, inputs and models will be documented as an appendix to the GSP and water budget so during the review process, you can relook at this information. This is one of the better models I have seen in a GSP so far.

O'Connor – On topic of “if current data is valid”, I don't think there is any justification for asking the model to be changed at this point, this process has been going on for a long while and has been done very carefully. If there are questions about input data, that could be done and factored in.

Potter – I support what has already been said, that the model is a tool to get us where we need to be with the GSP. A question about the annual reporting requirements - because we are expanding our monitoring program and comparing that with the actual data coming in. That will be driving the implementation on groundwater sustainability. I thought it would be helpful to hear if that is something we will hear every year on a 5-year basis and is that the mechanism for adjusting the model as we move forward.

Andy Rich – The process moving forward is not determined at this stage. Given the timeframe it might be more on the 5-year timescale rather than annually.

Porta– It will part of the 5-year process. The annual updates are more of a look at monitoring water data for the previous water year. Model updates would likely be more on the 5-year update timeframe.

Sam Magill summarized the input that Advisory Committee members were generally comfortable with the proposed current and historical period ranges, but noted there are still some questions from members on incorporating additional data sets. The topic will be covered more in depth at the next meeting. He closed the agenda item by encouraging the Advisory Committee to send questions to staff so it could be incorporated in the materials for the June meeting.

### Sustainable Management Criteria: Subsidence

*Objective: Review and discuss Subsidence SMC strawman proposal and confirm next steps.*

Marcus Trotta delivered a presentation on the proposal for the Subsidence SMC. He called attention to the fact that the GSAs are only responsible for managing inelastic or unrecoverable subsidence caused by groundwater pumping. Available data, while limited, indicates historical inelastic subsidence has not occurred in the subbasin.

DWR’s GSP Regulations define metrics for measuring subsidence as the rate of change in ground surface elevation. There are several techniques that can be used to measure total subsidence such as GPS stations, InSAR data, levelling surveys, etc.

The suggested approaches to significant and unreasonable condition, minimum threshold and measurable objective and undesirable result are included in the chart below.

Sustainability Indicator	Significant & Unreasonable Condition	Minimum Threshold	Undesirable Result	Measurable Objective
Land Subsidence	Any inelastic subsidence caused by groundwater pumping is a significant and unreasonable condition, everywhere in the subbasin and regardless of the beneficial uses and users.	Zero inelastic subsidence caused by groundwater pumping.	Any exceedance of a minimum threshold or five continuous years of subsidence due to lowered groundwater levels, even if each year’s subsidence rate is less than the annual minimum threshold.	Zero inelastic subsidence caused by groundwater pumping.

Marcus Trotta asked the Advisory Committee if there were any concerns about the suggested approach for setting the proposed subsidence SMC and inquired if there were additional considerations to contemplate for the proposed subsidence SMC.

#### *Questions/Comments Advisory Committee*

Furch – We may not be responsible for inelastic land subsidence, but it will be impacted by loss of groundwater storage capacity. How will the GSA be expected to deal with this?

Trotta – We will be observing any subsidence occurring that isn't caused by groundwater pumping. Generally, the loss of groundwater storage related to subsidence is small because the water is coming out of the clay aquitards which hold a low amount of water storage.

Rosenblum – Won't elastic subsidence impact building foundations? Is 1.2 inches per year of changes rather large?

Trotta – For the elastic if it occurs at a continuous rate over time, it would cause problems, that is why we have the 5-year threshold built in for the undesirable results. There is a certain amount of elastic subsidence that occurs year over year that the GSA has no control over addressing. In terms of monitoring, as we will be monitoring throughout the basin, it is something we would be able to observe during the implementation of the GSP.

Gaffney – The GIS and InSAR historical plots, show a variability of plus/minus ¼ inch. Unless plotting against total rainfall, looking for drought conditions, we don't know how much of that is variability in the measurement and how much is the rise and fall of groundwater surface during a wet year. Is there any way to filter for that?

Trotta – Going forward if we see subsidence exceeding thresholds we would want to compare with what we are seeing with climate and most importantly, any groundwater levels in the area so we can have an understanding if any of the subsidence we are seeing is caused by groundwater level declines or not.

Martin – Why can't we use the chronic lowering of groundwater levels as a proxy?

Trotta – DWR is pretty clear in their regulations that if you use groundwater as a proxy, we have to show a correlation is there and we don't have data going back far enough in the whole basin to establish the correlation is acceptable to DWR to use groundwater levels as a proxy. As additional data sets become available, we could use groundwater levels instead of measuring land subsidence. Lisa Porta and her team have been helping with developing the strawman.

Lisa Porta – DWR is generally looking for groundwater lowering due to groundwater pumping.

Noren – I think that using InSAR data is modeled to a very high degree. I am quite comfortable with the approach right now.

Gaffney – I am a little concerned about Minimum Thresholds and Measurable Objectives about elastic subsidence when we have seen the variability in the GPS and InSAR data. If we are quibbling over +/- ¼ inch, we should revise the statement to "within tolerances of the measuring device", an attorney could sue.

Martin – I would like to see if we can come up with a proxy. I don't feel comfortable with where the data is coming from and the risk of it being a localized issue that wouldn't reflect upon the entire basin. Don't like imposing it basin-wide. Could say that as a result there are risks for over pumping and causing subsidence.

Sam Magill asked the Advisory Committee to send additional feedback to staff by email.

### **Sustainable Management Criteria: Water Quality**

*Objective: Review and discuss Water Quality SMC strawman proposal and confirm next steps.*

Marcus Trotta delivered a presentation on the Water Quality SMC, and noted this SMC is a little different from the others as degraded water quality is already the subject of robust federal, state and local regulatory programs. Mt. Trotta provided a background on Santa Rosa Plain groundwater quality, and the steps for developing sustainable management criteria for water quality.

1. Define level of groundwater quality management and coordination
2. Determine type of metric to use
3. Determine and identify beneficial users
4. Define Constituents of Concern (COC) for identified beneficial users
5. Determine the limits and concentrations for each COC and category of beneficial user
6. Identify existing water quality monitoring programs that can be used for setting SMCs
7. Establish SMC

Sam Magill asked for preliminary feedback from the Advisory Committee's on Step 7, Establish Sustainable Management Criteria:

**Draft Significant & Unreasonable Statement:** Significant and unreasonable water quality conditions occur if Santa Rosa Plain GSP projects or management activities cause an increase in the concentration of constituents of concern in groundwater that lead to adverse impacts on beneficial users or uses of groundwater. Adverse impacts include diminished supply due to water quality impacts, such as non-compliance with drinking water standards or undue costs for mitigating such negative impacts such as wellhead treatment or well replacement.

### **Questions/Comments Advisory Committee**

Furch – What if any opportunities does the Groundwater Sustainability Plan have to affect water quality problems that are outside the basin?

Trotta – The representative monitoring points would need to be within the basin, but we are developing the GSP with an eye towards the contributing watershed areas and are including data from those areas. We would be tracking potential changes in water quality along the basin boundaries through the representative monitoring network and consultations with other agencies. It will be important if there are issues with neighboring basins that affect our basin.

Rosenblum – I represent mutual water systems; we monitor annually and quarterly. The map you show doesn't explain how our monitoring is included. If we have water quality issues, will the GSA help us address some of the water issues and define what the cause was?

Marcus – The map I showed is just one example of an existing monitoring network that was finalized last month by the City of Santa Rosa. The technical teams next steps will include compiling relevant existing monitoring programs to develop a proposed monitoring network for the GSP, which will likely include public water supply wells and mutual water supply wells. It would be important for the GSA to coordinate closely with the existing regulatory agencies. Regional Boards usually take the lead on identifying sources of contamination. But if any problems are caused by groundwater pumping or recharge that the GSA is managing, then the GSA would probably take the lead.

Noren – Bob Anderson and I spent many years on the Regional Board as Board members. Water quality and water quality objective, beneficial uses, is the sole focus of the Porter Cologne Water Quality Act. There is a vast amount of documentation about beneficial uses ensuring anti-degradation policy – federal and state standards. This is a big deal, committing the GSA to having a stake in groundwater quality monitoring and bound by the larger picture. Dose of caution, I don't want to see the GSA responsible for water quality in the basin when a lot of it is outside their control.

Magill / Trotta – That is very helpful.

Martin – David Noren mentioned what I was going to say. We need to be careful about what we can control and what we can impact on water quality in the basin.

Lamb – As a former employee of the Regional Board, I have similar comments to David Noren. The table on p. 3 is incomplete/not accurate. Is it going to be in the document?

Trotta – Some form of it could go in the document. If something is inaccurate, we would want to know.

Lamb – There is lots that isn't that accurate. My other comment is that we have a naturally occurring hexavalent chromium problem in the wells in Santa Rosa. We should keep that on our radar screen. Also, the use of MCLs vs water quality objectives (slide 5), do we have background? The Regional Board is always talking about anti-degradation not MCLs.

Porta – SGMA focus is not water quality, it is water storage and water quantity. The main item is to not disturb anything that would affect existing programs such as Regional Board. SGMA is not supposed to affect any of the existing programs. Thank you for the comment.

## Review Action Items and Advisory Committee Charter

Sam Magill restated the action items and what he heard from the group:

**Water budget:** General comfort with identified periods. There continue to be questions and concerns about data sources. Some additional work is needed for land use projections for non ag uses and they are still under developments.

**Subsidence:** There are mixed opinions on strawman. Some concern about data variability particularly in relation to the use of InSAR, and some questions if groundwater levels be used as a proxy.

**Water quality:** It is clear there are additional questions; staff will incorporate these questions into the presentation for the next meeting.

The next meeting is June 22, it will be a virtual meeting. If you have suggestions for meeting format improvements, let Sam Magill know.

Andy Rodgers thanked everyone for reading the material ahead of time, staff for the material, Sam Magill for facilitating, and Bob Anderson for working with him between meetings.

Marcus Trotta mentioned his appreciation for the group's patience as there is lots of material. Provide any input by email to Trotta between meetings.

Ann DuBay said the Advisory Committee had been sent a spreadsheet with organizations to reach out to. We are rethinking the approach and will be sending the Advisory Committee a reminder with specific talking points to those organizations. The workshop in early June is cancelled and will be replaced with a meeting late July, date TBD; it will most likely be a virtual meeting.

Rue Furch thanked the team that put the material together noting lots of work had gone into preparation, and reiterated Bob Anderson's welcoming to the new Advisory Committee members.

Bob Anderson thanked everyone and asked that he be copied on any comments for improving the meeting, schedule, etc.

Meeting Adjourned 5:45 p.m.

### Attendees:

#### Advisory Committee Members (present)

Agricultural representative, Bob Anderson

Agricultural representative, David Long

Business representative, Joe Gaffney

City of Cotati appointee, Craig Scott

City of Santa Rosa appointee, Peter Martin

City of Sebastopol appointee, Henry Mikus

Environmental representative, Beth Lamb

Environmental representative, Rue Furch

Federated Indians of Graton Rancheria representative, Maureen Geary

Gold Ridge RCD appointee, Matt O'Connor

Independent Water Systems appointee, John Rosenblum

Rural Residential representative, Marlene Soiland

Rural Residential representative, David Noren

Sonoma County Water Agency appointee, Carolyn Dixon  
Sonoma RCD appointee, Wayne Haydon  
Town of Windsor appointee, Sandi Potter

#### Advisory Committee Members (absent)

County of Sonoma appointee, Mark Grismer  
City of Rohnert Park appointee, Mary Grace Pawson

#### Staff/Presenters

Andy Rodgers, SRP GSA Administrator  
Marcus Trotta, Sonoma Water, Technical Staff  
Andy Rich, Sonoma Water, Technical Staff  
Lisa Porta, Montgomery Associates  
Jay Jasperse, Plan Manager  
Ann DuBay, Sonoma Water  
Simone Peters, GSA Administrative Aide, (recorder of meeting notes)

#### Facilitator

Sam Magill, Sacramento State University – Consensus and Collaboration Program

#### Other Attendees

Andrea Rodriguez, Sonoma Water  
Elizabeth Cargay, Town of Windsor  
John Nagle, Sonoma RCD  
Noelle Johnson, Gold Ridge RCD  
Douglas Bauer  
Sarah Raker