

Board Meeting

Petaluma Valley Groundwater Sustainability Agency

Meeting Minutes

Date: August 27, 2020

Time: 4:00 p.m.

Location:

<https://scwa-ca-gov.zoom.us/j/95619601034?pwd=SkJURjB1bE83a2tKd3dQd29UTINXQT09> Meeting ID: 956 1960 1034
<http://www.petalumavalleygroundwater.org>

Agenda

1. Call to Order and Roll Call

Chairman David Rabbitt called the meeting to order at 4: 01 p.m. and roll call was conducted by Marcus Trotta. **Chairman David Rabbitt, Vice-Chairman Bruce Abelli-Amen, Director Susan Gorin, Director Carolyn Wasem, and Director Mike Healy** were present. Also, in attendance were Jay Jasperse, Plan Manager; Marcus Trotta, Technical Staff; Andrea Rodriguez, Outreach staff; Kent Carothers, City of Petaluma; Jason Beatty, City of Petaluma; Chelsea Thompson, City of Petaluma; John Shribbs, AC member (joined late) and Simone Peters, recorder of meeting minutes.

2. Consent Calendar

- a. Approve Minutes of June 25, 2020
- b. Approve Year-to-Date Financial Report
- c. Approve Year-to-Date Member Agency Contributions
- d. Approve Fiscal Year 2020-21 Budget Adjustment

Director Abelli-Amen commented on the good quality minutes from the last meeting.

No public comment.

Director Abelli-Amen moved to approve the Consent Calendar as presented, seconded by **Director Healy**. The motion passed unanimously 5-0-0.

Roll Call Vote

Director Abelli-Amen -aye

Director Gorin -aye

Director Healy -aye

Director Rabbitt -aye

Director Wasem -aye

3. Directors/Subcommittee Report

None.

4. Advisory Committee Report

Marcus Trotta told the Board members that a written report is in the meeting packet and summarized that Sustainable Management criteria for land subsidence and seawater intrusion were the focus of last Advisory Committee meeting. The next meeting will take place on September 9 with focus on water budget, climate change scenarios and water quality degradation.

No public comment.

5. Information items

None.

6. Action Items

- a. **Draft Sustainable Management Criteria – Seawater Intrusion:** Receive update on GSP, and provide feedback on proposed Sustainable Management Criteria for Seawater Intrusion

This item requests Board input and recommendation regarding the key elements of a proposed draft SMC for seawater intrusion that is being developed by staff with input from the Advisory Committee.

Jay Jasperse said staff was bringing two proposals for draft Sustainable Management Criteria to the Board for their consideration. He reviewed work to-date on the SMC Seawater Intrusion describing key points and considerations and reminding the Board that impacts from sea level rise are not required to be addressed in Sustainable Management Criteria. Because of a lack of data, staff is proposing an adaptive approach, rather than presenting a range of options, with the aim to refine it at the five-year review.

The GSA is not responsible for seawater intrusion due to sea level rise or wetlands restoration and other land use activities in the Baylands that could affect the occurrence of saline groundwater in the future. Jasperse said the proposed approach for significant and Unreasonable Conditions is *“Seawater intrusion inland of areas of existing brackish groundwater due to groundwater pumping is a significant and unreasonable condition”*.

Marcus Trotta explained the adaptive approach for Minimum Threshold, three options for Measurable Objective and proposed approach for Undesirable Results.

Board Questions/Comments

Director Abelli-Amen – The interface between saline or brackish and fresh water is typically a sloping plane, is it just one point per well or is it depth dependent?

Trotta – We have only defined one single principal aquifer as we don’t have enough information to divide it up into more than one. There would be one ISO contour but with seawater intrusion there is a depth dependent component to it, and we will take it into consideration when we map out the contours.

Director Abelli-Amen – I imagine it would be unusual to have a well that is constructed so you can monitor it at different levels?

Trotta – We are planning to construct some depth dependent wells in the Petaluma Valley.

Director Healy – You say the GSA isn't responsible for seawater intrusion due to sea level rise, how do you distinguish between seawater intrusion due to sea level rise or other things?

Trotta – That is a challenge. If we see changes in chloride concentration in wells, we will look at nearby wells to see if there have been changes in pumping or groundwater level declines.

Jasperse – We will also rely on the numerical model to look at that.

Director Healy – Will you be looking at the proximity of the wells to tidal influence of rivers and creeks and the shift over time?

Jasperse – Yes.

Director Wasem – How vast is your database right now for establishing baseline of chloride so we know how dependent it is on groundwater pumping or something else? Do we have a good database related to that?

Trotta – It will have to be improved over time. Similarly, with distribution of groundwater level data, there are lots of data gaps; it is the main reason we are proposing this adaptive approach.

Director Wasem – I suggest you speak to some Ag folks because I know Jackson Family Wines and a lot of people in the various sustainability programs already test well water on a regular basis. I don't know if they test for chloride or other constituents but that could easily be added to their tests that are conducted at least once every three years.

Trotta – If the data can be made available to the GSA, it would be very helpful.

Jasperse – The questions highlight the consequences of developing this SMC; this is the best data we have so you can see why we aren't confident to take anything other than the adaptive approach.

Director Healy – If we picked a measurable objective that was more stringent than the Minimum Threshold, does that obligate the agency to take proactive steps to try to achieve the Measurable Objectives?

Trotta – When setting your Measurable Objective, you need to identify interim milestones on how you get there over the course of twenty years. DWR would review them every five years.

DWR is really looking for the avoidance of undesirable results.

Director Healy – It sounds like a more protective Measurable Objective could be more expensive for us.

Trotta – Yes, potentially.

Director Abelli-Amen – I would say Option 3 would be very difficult to achieve, you're really reversing seawater intrusion and that's very expensive.

Jasperse – We discussed this with the Advisory Committee. One might lean more towards Option 1 at this point. We will have the opportunity to revisit this in five years when we have some better data.

Director Healy – Is there any basis for distinguishing between areas that are within the city limits and outside the city limits? There might be more concern in the unincorporated areas where people are relying on wells. Is it a distinction we can or want to make?

Trotta – We can describe those differences in the text of the GSP.

Jasperse – I don't think we have two Minimum Thresholds.

Director Healy – It seems if the city's wells are outside the area that could be affected, it might take care of itself. I see we have City staff on the line, maybe they can help.

Jason Beatty – I can check and get back to you when the meeting is over. [Later during the meeting] Jason Beatty said he had spoken with Kent Carothers about the well sighting and the criteria. He said it was the first time they had seen the map. The southern part of the map doesn't seem to be a problem, but they would need more information about the northern part where the wells are and how the different criteria may impact the city well. There are currently no issues with chloride.

Jasperse – It comes back to the lack of data and getting a better data monitoring network, so we know what we are up against and then acting and refining the SMC in five years.

Marcus Trotta said the Advisory Committee recommended Option 1 (6-1 vote of 10 members present) for the Measurable Objective is:

Same location and same concentration as Minimum Threshold – e.g. 250mg/l inland of baseline isocontour.

For defining Undesirable Results – it occurs when two conditions are met:

The Minimum Threshold is triggered because the monitoring data indicates that the current extent of the 250 mg/l chloride isocontour encroaches inland relative to the Minimum Threshold Reference contour and

The Minimum Threshold exceedance is caused by groundwater pumping.

Director Abelli-Amen – When you say any encroachment, that means a foot of encroachment would be an undesirable result. If one well goes from below to above 250, would that be considered encroachment or how would you define that?

Trotta – That would be defined based on the contouring which is going to be based on concentrations detected at wells. It is essentially looking at changes in concentrations in wells year to year and that is why we built in the three consecutive years of Minimum Threshold exceedances.

Director Abelli-Amen – And it does seem like some discussion of the sensitivity of the change. There is variability in those, it could look like there is a change and there isn't a change, or it might not show a change. Looks like a sensitivity analysis on the contouring would be needed.

Trotta – Yes, including some sort of sensitivity analysis would help.

Based on the feedback received and the information just provided, staff recommends that:

1. *Seawater intrusion inland of areas of existing brackish groundwater that may affect beneficial uses of water is considered significant and unreasonable*
2. *The MT be set as a 250 mg/L chloride "reference" isocontour*
3. *Undesirable result determination also incorporate:*
 - a. *Three consecutive years of MT exceedances*
 - b. *Correlation assessment with groundwater-levels*

Jay Jasperse reiterated that using the ISO contours is required by DWR so it's a methodology we need to use. He said the Advisory Committee concurred with staff recommendations above, and we

will revisit this Sustainable Management Criteria at the five-year milestone for any potential refinement or changes.

Director Rabbitt – I am glad the approach we are taking is adaptive and iterative, I appreciate that.

No public comment.

Director Healy motioned to approve the sustainable management criteria as outlined, seconded by **Director Gorin**. The motion passed unanimously 5-0-0.

Roll Call Vote

Director Abelli-Amen -aye

Director Gorin - aye

Director Healy -aye

Director Rabbitt -aye

Director Wasem -aye

Jay Jasperse announced that Petaluma Valley GSA is the first of the Sonoma County GSAs to move forward with an SMC.

- b. Draft Sustainable Management Criteria - Land Subsidence:** Provide feedback to staff and take possible action on proposed draft Sustainable Management Criteria for Land Subsidence

This item requests Board feedback on the overall approach to the draft SMC for land subsidence and to consider approval of one of the draft options for undesirable result determination, with the understanding that all the SMCs will be revisited in total prior to final adoption.

Jay Jasperse reviewed the key points/considerations for land subsidence, highlighting the GSAs are only responsible for managing inelastic subsidence caused by groundwater pumping.

Marcus Trotta provided information on InSAR data considerations. He followed with the staff recommendation for Significant and Unreasonable conditions:

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.

The recommendation for Measurable Objective is:

The Measurable Objective for land subsidence is 0.1 feet per year total subsidence (elastic & inelastic) measured by InSAR for each 100-meter x 100-meter grid.*

The recommendation for Minimum Threshold is:

The Minimum Threshold for land subsidence is 0.1 feet per year of total subsidence (elastic and inelastic) measured by InSAR for each 100 meter by 100-meter grid.

The staff recommendation for Undesirable Result (with option) is:

1. *Undesirable result occurs if:*
 - a. *Annual MT of 0.1 feet total subsidence due is exceeded* **OR**
 - b. *Cumulative total subsidence of 0.2 feet is exceeded within 5-year period*
 - c. **AND** *MT exceedance is determined to be correlated with: (1) groundwater pumping and (2) a MT exceedance of the Chronic Lowering of GWLs SMC (e.g., groundwater levels have fallen below historical lows).*

Options for undesirable result determination based on minimum-sized area over which subsidence occurs are 2.5 acres, 25 acres, and 50 acres.

Jay Jasperse said that staff asked the Advisory Committee for their feedback about 1.a, b, and c. 6-1 voted in support of this. One was against, the rural residential representative felt 0.1 per year or the 0.2 feet cumulative was too sensitive and would prefer to see a larger number. Overall, 6-1 supported 1. a or b and c. The Advisory Committee was then asked about the size/area option. There was strong support for 50 acres, 6-1 voted in favor. The one vote against was from the environmental representative who felt the area was too big. There was mixed support for 25 acres (4 in favor, 3 against), and no support for 2.5 acres.

Board Questions/Comments

Director Rabbitt – How were the sizes selected?

Jasperse – The sizes were selected because each pixel is equal to InSAR's.

Director Rabbitt – I have a feeling that if we select things and then want to get additional data, the onus is always going to be on us to prove a change. Do we want to go in more liberal or conservative? We could find ourselves getting squeezed into a corner with limited data. If it becomes a bureaucratic situation about changing a number that we think is unreasonable, how hard will it be?

Jasperse – My opinion is, we will always be smarter tomorrow than today. I think we can justify all these with data (except seawater intrusion). I would not want to be spending a lot of staff resources and money chasing “false” positives.

Director Abelli-Amen – How would the different areas be defined? I assume 50 contiguous acres are a consistent shape.

Jasperse – Contiguous acres, it couldn't be a hodge-podge, basically if 10 pixels are touching each other. It is more significant than if you had two and half acres here and another two and a half acres there, etc.

Director Abelli-Amen – I wonder if that wording could be added (insert *contiguous*).

Trotta – It is in the staff report.

Director Abelli-Amen – 0.1 being at sensitivity of InSAR data. There could be a false positive issue. I think you said you could go back to the raw data – 0.01. I was more comfortable with the .01 than with the 0.1 feet.

Trotta – You are correct. We are looking into the possibility of using just the raw data rather than the raster, which would cut the error by half. We feel the error 0 .1 would not trigger a lot of chasing false positives based on the data we have seen.

Director Abelli-Amen – Thank you. A couple of us had an issue with this, staff helped explain it and I feel more comfortable now.

Director Rabbitt – Does anyone have a strong opinion on the acreage?

Director Healy – I would be happy to support either 25 or 50.

Director Abelli-Amen – I would too. I am inclined to go with 50 since it was the strong preference of the Advisory Committee.

Director Wasem – I am happy to go with 50 as it was the advice of the Ag Advisory Committee representative.

Director Gorin – I appreciate everyone else’s approach and it is in sync with the Advisory Committee. Let’s go for it.

Director Rabbitt – I would be happy to go with 50 acres.

No public comment.

Director Abelli-Amen moved to accept the staff recommendation with 50 acres option, seconded by **Director Wasem**. The motion was approved 5-0-0.

Roll Call Vote

Director Abelli-Amen -aye

Director Gorin -aye

Director Healy -aye

Director Rabbitt -aye

Director Wasem -aye

7. Legal Counsel, Plan Manager and Administrator Report

Jay Jasperse said the Plan Manager and Administrator report is in the package.

8. Public comment on matters not listed on the agenda but within the subject matter jurisdiction of the Board

None.

9. Adjournment

Director Rabbitt thanked the staff and meeting attendees for participating and said he hoped to be able to have an in-person meeting sometime in the not-too-distant future. The meeting adjourned at 5:23 p.m.