



Turlock *Virtual* Community Workshop #2 | SUMMARY NOTES

Meeting Date: September 16, 2020

Session #1: 11:00 a.m. – 12:00 p.m.

Session #2: 5:30 p.m. – 6:30 p.m.

Workshop Overview

The fifth in a series of Turlock Subbasin Groundwater Sustainability Plan (GSP) Community Workshops was held remotely during two sessions on September 16, 2020. The two sessions, 11:00 a.m. – 12:00 p.m. and 5:30 – 6:30 p.m., featured the same presentations, as summarized below. The sessions were held on the Zoom virtual meeting platform and simultaneously livestreamed on YouTube. The workshop was supported by the Turlock Subbasin Ad-hoc Communications Committee. The focus of this workshop was to update the community and interested parties about progress related to development of the GSP, discuss policy components of groundwater sustainability and sustainable management criteria, share an update on the Proposition 218 proposed water rate process in the East Turlock Subbasin GSA, and receive stakeholder input and concerns to inform GSP development. Approximately 45 stakeholders attended between the two workshops. See Appendix A for list of registered participants.

In addition to the summary below, supplementary details such as the meeting recording, slide deck, and meeting agenda can be found on the workshop page on the Turlock Groundwater website, under GSP Community Workshops: <https://turlockgroundwater.org/events/11-am-and-530-pm-turlock-subbasin-virtual-community-meetings>.

Summary

Meagan Wylie, facilitator from California State University, Sacramento, welcomed participants, explained the remote participation tools, and reviewed the agenda.

Groundwater Sustainability: That Concept Guiding GSP Development

[Reference slides 6-38 of the workshop's slide deck.]

Amanda Peisch-Derby, Senior Water Resources Engineer and Regional Coordinator for South Central Regional Office at the Department of Water Resources (DWR), shared background on the Sustainable Groundwater Management Act (SGMA), a series of bills passed in 2014 and added to the California Water Code. The legislation tasks DWR and the State Water Resources Control Board (SWRCB) with oversight of the implementation of SGMA, with DWR focused on the development and adoption of local Groundwater Sustainability Plans (GSPs) and SWRCB in charge of enforcement. DWR was also tasked with drafting and adopting GSP emergency regulations.

A central aspect of SGMA was to ensure local control of groundwater decisions through open, public processes. SGMA requires basins to develop GSPs that will bring them to sustainable use

of groundwater within twenty years. SGMA defines sustainability as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. Each basin will work toward achieving a sustainability goal, which will be defined as part of the stakeholder process developing the GSP.

The GSP emergency regulations include nine articles, with one that lays out the contents for the GSPs. Per the article, GSPs will include *who* will be managing the water in the basin, *what* they will be managing (laying out the groundwater conditions in the subbasin through basin setting), *where* there is potential for undesirable results (defined through the sustainable management criteria) and *where* the subbasin will be monitoring to track the effects of groundwater extraction, and *how* the local agencies will achieve sustainability through projects and management actions. GSPs are adopted by the GSAs and submitted to DWR by the statutory deadline (which is January 31, 2022 for Turlock Subbasin). DWR will then review each plan to ensure it meets the regulatory requirements.

In addition to the regulations, DWR was tasked with providing technical assistance, including providing best management practices for the SGMA requirements, incorporating sustainable management criteria (SMCs). Ms. Peisch-Derby shared DWR's draft Best Management Practices for SMCs (<https://www.water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents>) and a webcast on the same topic (https://www.youtube.com/watch?v=LUicg6Ot6_k&feature=youtu.be).

Ms. Peisch-Derby said that the key to sustainable groundwater management under SGMA is to avoid undesirable results, which are defined as "significant and unreasonable" effects related to six sustainability indicators:

- Lowering Groundwater Levels
- Reduction of Storage
- Seawater Intrusion
- Degraded Quality
- Land Subsidence
- Surface Water Depletion

Each GSP will define undesirable results for the sustainability indicators by setting what will be considered significant and unreasonable effects in the basin. Basins only need to set undesirable results for those indicators that are relevant in the basin, however each basin must consider and address all six, demonstrating that any indicator for which an undesirable result is not set does not and will not occur in the basin.

When defining an undesirable result, a GSA must consider all beneficial uses and users of groundwater, as well as land use and property interests in the subbasin. These are mostly policy decisions that are typically supported by data and local understanding of the groundwater conditions within the subbasin.

Undesirable results are prevented by defining clear, specific, and quantifiable metrics for minimum thresholds, measurable objectives, and interim milestones. The basin's monitoring network will measure conditions against these metrics to determine compliance. The total package becomes the Plan's Sustainable Management Criteria.

Once a GSA has determined that an undesirable result may occur for an indicator, the GSA needs to define a numeric value for the related metric that, if exceeded, is considered the undesirable result. This metric is the minimum threshold.

GSAs may not have all the data needed to set all of these metrics. If data specific to an indicator is unavailable, the GSA can use groundwater elevation as a proxy, however the GSP must be clearly justify how elevation will be applied as a proxy.

A participant asked for further information on the measurement of total volume of groundwater storage. Ms. Peisch-Derby said that the regulations ask for groundwater storage in order to know the numeric value of the total volume of water that can be extracted from a subbasin before an undesirable result would occur. Many basins calculate this through their groundwater model, based on the groundwater elevations in monitoring wells.

The measurable objective is a metric for where the GSA would like to be at the end of the planning horizon (for the Turlock Subbasin this is in 2042). This metric is based upon historical data and modeled future groundwater conditions.

In the twenty years of the implementation period leading to 2042, conditions should be progressing toward the measurable objectives. The margin between the minimum thresholds and measurable objectives is called the zone of operational flexibility. Each GSA also includes metrics that tell the story of where the basin plans to be in the meantime, with interim milestones set for every five years. For each sustainability indicator, the package of minimum threshold, measurable objective, and interim milestones makes up the sustainable management criterion.

Each GSA has to review its Plan every five years to compare actual conditions to the interim milestones and modify groundwater management as needed to stay on track toward the measurable objective. DWR also reviews the GSPs every five years.

While the sustainable management criteria are made up of quantifiable metrics, the basin-wide Sustainability Goal is more of a "mission statement" supported by the absence of undesirable results. The Sustainability Goal will likely be defined after setting the minimum thresholds, measurable objectives, and interim milestones, and will include a statement of the goal and describe the measures that will be implemented to achieve sustainability over the next twenty years.

A participant asked how drought is defined and modeled under SGMA and how it relates to the minimum thresholds set in GSPs. Ms. Peisch-Derby said that many plans use data from 2015 as part of a baseline because of the timing of the beginning of SGMA implementation, rather than because of the state of drought at that time. Agencies will need to monitor and update their plans throughout implementation to ensure that sustainability is achieved by 2042.

Michael Cooke, Director of Water Resources and Regulatory Affairs for TID, and Chair of the West Turlock Subbasin GSA Technical Advisory Committee, presented on sustainable management criteria and undesirable results for the Turlock Subbasin and the management actions that will be needed in Turlock to ensure long-term groundwater sustainability.

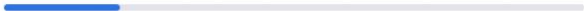
Participants were invited to respond to a poll about what groundwater sustainability means to

them. Responses shared during the two sessions of the workshop diverged somewhat. 60% of respondents in the first workshop session said it is a combination of a qualitative definition focused on ensuring that peoples’ homes and businesses have access to safe and reliable water, and a technical definition focused on determining whether the Subbasin is operating in a state of sustainability according to input and output scenarios. During the second session, 80% of participants emphasized the technical definition.


Session 1 Responses (below)

1. What does groundwater sustainability mean

It means my home or business has access to safe, reliable water, regardless of what is happening (3) 20%



It's a technical definition, whereas a variety of inputs and scenarios determine if the Subbasin is operating in a state of sustainability. (2) 13%



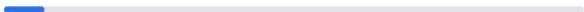
It's probably a combination of the first two (9) 60%



I'm not sure (0) 0%




It means something else to me (1) 7%




Session 2 Responses

1. What does groundwater sustainability mean


It means my home or business has access to safe, reliable water, regardless of what is happening (1) 20%



It's a technical definition, whereas a variety of inputs and scenarios determine if the Subbasin is operating in a state of sustainability. (4) 80%



It's probably a combination of the first two (0) 0%



I'm not sure (0) 0%



It means something else to me (0) 0%



The Turlock Subbasin set forth an initial sustainability goal to manage groundwater in a

sustainable manner that avoids undesirable results. This goal will be revised as needed as the components of sustainability are developed, ensuring that the sustainable management criteria align with the sustainability goal. Mr. Cooke emphasized that these definitions rely on input from all stakeholders, as under SGMA undesirable results are defined locally, while taking all beneficial users and interests into account. The goal and criteria will be developed in an iterative process based on information and input gathered.

The Turlock Subbasin GSAs anticipate that the sustainability goal will be supported by and include the following actions:

- Manage groundwater within defined sustainable yield within 20 years.
- Implement projects and programs to ensure a sustainable groundwater supply.
- Achieve groundwater supply reliability through multi-year droughts.
- Optimize conjunctive use of surface water and groundwater.
- Monitor groundwater conditions to avoid undesirable results.
- Allow for operational flexibility in the use of regional water resources.
- Modify groundwater management activities, as needed.

The groundwater budget for the subbasin looks, like any budget, at the inputs and outputs within the system. The budget shows the historical average annual balance of -65,000 acre-feet per year, meaning that on average there is 65,000 acre-feet more groundwater used in the subbasin than recharged. The groundwater budget includes significant detail that informs the total annual balance, including historical and current conditions as well as projected conditions that will affect water supply over the 20-year implementation period.

In the Turlock Subbasin, sustainable management criteria will be developed for five of the six sustainability indicators, since the distance from the ocean means that seawater intrusion is not a factor in the subbasin. The Subbasin Technical Advisory Committee has developed initial working definitions of undesirable results for the Turlock Subbasin:

- Significant and unreasonable **water level declines** such that water supply wells are adversely impacted during multi-year droughts in a manner that cannot be readily managed or mitigated.
- Significant and unreasonable depletions of total **groundwater in storage** have not occurred; usable storage accessed by existing wells has been impacted. Protect future depletion with SMC of water level indicator above.
- Significant and unreasonable impacts to **groundwater quality**, as identified by the GSAs as a constituent(s) of concern, affect the reasonable and beneficial use of groundwater and has been caused by or exacerbated by GSA projects or management actions.
- Significant and unreasonable inelastic **land subsidence** that adversely affects land use or reduces the viability of the use of critical infrastructure (critical infrastructure to be determined).
- Model **surface water depletions** associated with management actions and GSP projects and consider impacts to land uses. Water levels can also serve as a proxy.

Mr. Cooke noted that groundwater levels change each year, so the focus for the first sustainability indicator is on long-term trends. He said that there are various ways to define the thresholds, and the goal of the GSAs is to manage and mitigate impacts. For example, the focus

could be on preventing wells from going dry, based on the depth of wells in the area. The minimum threshold and likelihood of undesirable results could be determined based on patterns of past domestic well failures. During the last drought, management actions were taken to address these failures, and similar actions could be considered for inclusion in the GSP as well.

Mr. Cooke asked participants to share feedback on additional considerations and adverse impacts that should be taken into consideration in framing undesirable results in the Subbasin.

The Turlock Subbasin released a Framework for Definitions of Undesirable Results: https://static1.squarespace.com/static/5d7933d76e273f425b42ae8b/t/5f47e2e6b90eaf1c6f0e0586/1598546664043/RevDraft_UndesirableResultsMemo_08-24-20.pdf. Participants were invited to share feedback about the framework during the meeting or through comments to turlockgroundwater@gmail.com.

Undesirable Results must be quantitatively measurable; they will be defined as an exceedance of the minimum threshold in multiple of the Subbasin's monitoring wells in multiple consecutive semiannual monitoring events. The number of wells and consecutive measurements that will define an undesirable result has not yet been set, but will be determined and defined in the GSP. Because supply projects and demand management actions cannot be implemented overnight, there may be points during the 20-year implementation period during which minimum thresholds are exceeded. However, the general trend must be movement toward the measurable objective, the levels at which there will be no undesirable results.

For each of the sustainability indicators, the same framework will be applied:

1. Analyze the sustainability indicator
2. Define the undesirable results related to that indicator
3. Select the minimum threshold for the indicator (the point past which undesirable results will occur)
4. Set the measurable objective for the indicator
5. Set the interim milestones that show progress toward the measurable objective over the 20-year implementation horizon

During the implementation period (2022-2042 for Turlock), indicators will be monitored for undesirable results, projects and management actions will be implemented, and GSP implementation will be modified as needed to stay on target to reach the measurable objective.

Proposition 218 Update

[Reference slides 39-41 of the workshop's slide deck.]

Kevin Kauffman, East Turlock Subbasin GSA (ETSGSA) Technical Advisory Committee, gave an update on the ETSGSA Proposition 218 proposed water rate process which intends to raise funds to complete the Turlock Subbasin GSP, which is a joint GSP for both the East and West Turlock Subbasin GSAs. Before placing a new charge on land, State law requires government agencies to go through the Proposition 218 process:

1. Undertake and complete a cost and charge analysis study
2. Agency considers the study recommendation and landowner input

3. Landowners may protest the charge through a ballot sent out by the agency; if more than 50% of landowners protest, the agency may reevaluate and revise the charge or if fewer than 50% protest, the agency may adopt the charge

Mr. Kauffman said that the charge is likely to be in the range of \$2-3 per acre. ETSGSA will be holding a virtual public workshop in December and those in the ETSGSA area will receive a postcard with information about the workshop. During the workshop, participants will hear about the ongoing rate study to pay for the ETSGSA portion of development of the Turlock Subbasin GSP. Mr. Kauffman said that interested parties can talk to Dan Degraffe or Mike Day with any questions in the interim or bring them to the workshop.

The West Turlock Subbasin GSA does not intend to add such a charge at this time and is therefore not undertaking a Proposition 218 process.

Results are Coming In!

[Reference slides 42-43 of the workshop's slide deck.]

Herb Smart, regulatory analyst with Turlock Irrigation District (TID), shared initial results from a stakeholder survey and encouraged participants to respond to the survey. With 24 responses collected, 55% indicated they were extremely concerned and 33% moderately concerned about the region's water supply. 50% of respondents said identified increasing laws and regulations as a top water supply challenge, 42% indicated uncertainty as a key challenge, and 38% identified water contamination and/or pollution as a top challenge.

Respondents identified items that should be considered to reach groundwater sustainability in the basin, with 75% identifying the need to build recharge or SW storage projects, 58% site on farm water conservation, and 58% site expanding water recycling programs.

The survey will remain active indefinitely, continually gathering input and perspectives related to SGMA in Turlock. Participants were encouraged to respond to the survey in English or Spanish at the following links:

- English: <https://www.surveymonkey.com/r/TurlockSGMA>
- Spanish: <https://www.surveymonkey.com/r/TurlockSGMASpanish>

A participant shared about a project on subsurface orchard irrigation, conducted in partnership with the Fresno State Center for Irrigation Technology, and said he would be interested in submitting a proposal for the research to be included as a project within the GSP. Mr. Cooke noted that the subbasin does not have funds to dedicate to research, however measures to reduce water use are of interest. Mr. Cooke and Mr. Kauffman both expressed interest in writing letters of support for such research and in seeing the research carried out in the Subbasin.

Moving Forward

[Reference slides 44-50 of the workshop's slide deck.]

Mr. Smart reviewed the next steps in preparing the Turlock Subbasin GSP:

- Address comments on model calibration, as appropriate
- Projected water budgets
- Selection of preliminary sustainable management criteria
 - Input needed on definitions and frameworks for undesirable results

- Projects and management actions – beginning in October

Mr. Smart emphasized the request for input on the definitions and frameworks for undesirable results, which are going to be instrumental in guiding the GSP.

He reviewed the GSP development timeline: the subbasin is currently in the process of developing sustainable management criteria and starting to discuss actions to meet these criteria. A draft GSP is expected to be released for review in summer 2021 and the GSP will be finalized by January 2022 and submitted to DWR.

Mr. Smart reviewed the GSP components, per the SGMA regulations guidelines.

Mr. Smart reviewed the “4 Cs of GSP Communications” (content, channels, communities, comprehension) and requested continued feedback on whether outreach is meeting the mark in these four areas.

Participants were invited to respond to a poll about the part of the GSP they are most interested to hear about in upcoming workshops. In both sessions, participants emphasized hearing about projects and programs to achieve sustainability, and in the second session participants also requested to hear more about water budgets.

A participant asked Ms. Peisch-Derby whether there had been any GSPs submitted in 2020 that were rejected due to insufficient outreach to disadvantaged communities (DACs). She said that there had been no GSPs considered incomplete because of lack of DAC outreach. She emphasized that the Human Right to Water must be upheld and will be considered in DWR’s GSP review process.

A participant noted that companies are increasingly facing pressure by capital markets to show strong environmental, social, and governance performance, including related to climate change. Implementation of SGMA aligns with this push and growers in the State have an opportunity to take advantage of that alignment and increase pricepoints accordingly.

Adjourn

The official meeting times were one-hour long, however participants were invited to stay after to discuss any additional questions or comments. The discussions are captured above in the sections to which they related.

APPENDIX A: Registered Participants

11:00 am Workshop Registered Participants	
Name	Affiliation
Amanda Peisch-Derby	California Department of Water Resources
Bill Penney	Turlock Irrigation District
Brandon McMillan	Turlock Irrigation District
Breanne Ramos	Merced County Farm Bureau
Debbie Liebersbach	Turlock Irrigation District
Eddie Ocampo	Self Help Enterprises
Ernie Garza	Keyes Community Services District
Jose Borroel	Manos Unidas of south Modesto
Joseph Gallegos	Umida AG
Kaleigh Hill	
Leandro Maldonado	Delhi County Water District
Lisa McMullen	Turlock Irrigation District
Mary Mitchell	Environmental Defense Fund
Michael Cooke	City of Turlock
Michael Day	
Michelle Harris	Keyes Community Service District
Miguel Alvarez	City of Modesto
Rick Rogers	National Marine Fisheries Service
S. Severson	
Sallie Ayala-Perez	LEC and Alzheimer's Association
Thomas Xiong	GHD
Tou Her	Turlock Irrigation District
Ward Burroughs	East Turlock Subbasin GSA

5:30 pm Workshop Registered Participants	
Name	Affiliation
Alexander Kirshen	
Amanda Peisch-Derby	California Department of Water Resources
Ana Lucia Garcia Briones	Environmental Defense Fund
Jeff Strom	
John Lambie	PurWater
Joseph Gallegos	Umida AG
Michael Cooke	City of Turlock
Nav Athwal	TriNut Farms

Peter Drekmeier	Tuolumne River Trust
Roger Masuda	Griffith & Masuda
Trina Walley	East Stanislaus Resource Conservation District

Staff Support

- Herb Smart, Turlock Irrigation District
- Kevin Kaufman, East Turlock GSA
- Meagan Wylie, California State University, Sacramento
- Julia Van Horn, California State University, Sacramento