

## Turlock Community Workshop #3 | SUMMARY NOTES

Meeting Date: March 12, 2019

### Workshop Overview and Introductory Presentations

The third Turlock Subbasin Groundwater Sustainability Plan (GSP) Community Workshop was held during the afternoon of March 12, 2019, from 4:00pm – 6:00pm at the Denair Community Center. 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 Turlock Subbasin Groundwater Sustainability Plan (GSP), thus preparing stakeholders for future discussions about the key decisions in development of the GSP. Agenda topics were supported via a PowerPoint Presentation, available for download on the Turlock Groundwater website, public workshop page: <https://turlockgroundwater.org/public-workshop/>. Approximately 40 stakeholders attended.

### Primary Workshop Objectives:

1. Inform the community and interested stakeholders about work recently accomplished related to development of a GSP for the Turlock Subbasin.
2. Discuss and share updates on other Turlock Subbasin activities.
3. Obtain general feedback from stakeholders on groundwater management activities.
4. Prepare stakeholders for major discussions to come.

Herb Smart, regulatory analyst with Turlock Irrigation District (TID), welcomed participants, introduced the Turlock Subbasin ad-hoc Communications Committee, and invited participants to self-identify which type of groundwater beneficial user(s) they classify as and/or frequently work with. The majority of the participants identified with agricultural interests, under a quarter were urban and domestic water use interests, and there were no participants representing environmental water uses. Mr. Smart noted that participants would continue to have many opportunities to provide feedback that would be incorporated into development of the GSP over the next couple of years.

Meagan Wylie, California State University, Sacramento, provided framing remarks. Ms. Wylie noted that this workshop would center on providing an update about the technical work associated with GSP development that has been completed over the last six months, and educating stakeholders about key concepts so that they would be able to participate in the policy and management discussions that will inform the development of these respective sections of the GSP.

### SGMA Recap: What We're Doing and Why We're Doing It

*[Reference slides 4-15 of the workshop's PowerPoint slide deck.]*

Mr. Smart provided an overview of the Sustainable Groundwater Management Act (SGMA), the legislation that mandates development of GSPs in many of the groundwater subbasins throughout California. The Turlock Subbasin is required to complete a GSP because it was identified by the Department of Water Resources (DWR) as a high priority subbasin. As it was not identified as being in critical overdraft, the GSP for Turlock Subbasin needs to be completed and adopted by January 31, 2022. Of the three subbasins adjacent to the Turlock Subbasin, the Merced and Delta-Mendota Subbasins are in critical overdraft and must complete their GSPs by January 2020; Modesto Subbasin will turn its GSP in by January 2022.

There are two Groundwater Sustainability Agencies (GSAs) within the Turlock Subbasin – the East Turlock Subbasin GSA (ETSGSA) and the West Turlock Subbasin GSA (WTSGSA) – which are working together to prepare a single GSP for the Subbasin. The Boards and Technical Advisory Committees (TAC)

of each GSA hold regular open meetings which stakeholders are encouraged to attend to provide input about development of the GSP. Please visit [turlockgroundwater.org/meetings](http://turlockgroundwater.org/meetings) to view the schedule.

DWR defined the elements required within each GSP, including groundwater conditions, sustainability criteria, monitoring, and projects and management actions. The GSP can be divided into technical components, policy components, and management/plan components. Mr. Smart noted that the current workshop would cover groundwater conditions of the Subbasin, including institutional setting of the water supply and plan area, as well as the groundwater hydrogeologic conceptual model (HCM). The HCM will be released in late March or early April of 2019.

Mr. Smart reviewed the GSP adoption and review process, which includes DWR review of the GSP at Plan adoption, as well as at five-year intervals throughout the implementation of the GSP.

#### PARTICIPANT QUESTIONS & DISCUSSION:

- Is the Turlock Subbasin coordinating with the Modesto Subbasin?
  - Yes. Coordination with adjacent subbasins will be discussed later in the workshop.

#### What We're Learning: Hydrogeologic Conceptual Model and Basin Setting

*[Reference slides 17-39 of the workshop's PowerPoint slide deck.]*

Kevin Kauffman, East Turlock Subbasin GSA, gave a presentation about basin setting and the HCM. He noted that the engineering firm, Todd Engineering, is providing the technical components of the GSP.

One element of the GSP is to provide a description of the Subbasin, including existing land and water use, monitoring, and water resource management and land use planning currently being implemented. The subbasin has a total area of 544 square miles, with 327 square miles (60% of the total GSP area) being in WTSGSA and 217 square miles (40% of the GSP area) in ETSGSA.

Mr. Kauffman presented on some of the kinds of information and analyses that will inform the GSP, including of agencies and jurisdictional boundaries, existing land use, surface water supply and infrastructure, and geological analysis (slides 19-23).

There are three main requirements within what DWR calls "basin setting": the HCM, groundwater conditions, and water budget analysis (slides 24-39). The HCM will describe the physical setting, the groundwater basin, and aquifers, and creates the framework for managing the Subbasin. The HCM provides a general understanding of the movement of groundwater in the Subbasin, but it does not quantify the movement. It aids in the development of the water budget, which does quantify movement of groundwater.

The GSP is required to present current and historical groundwater conditions, including hydrographs, groundwater elevation contour maps, changes in groundwater storage, groundwater quality, land subsidence, and groundwater dependent ecosystems. The information related to groundwater conditions will inform models that will predict the sustainability of the Subbasin, taking into account variation across the Subbasin, for example geological differences, that will affect ability to use groundwater.

Mr. Kauffman said that the Technical Advisory teams of the two Turlock Subbasin GSAs are currently reviewing the components of the GSP's chapters on basin setting and groundwater conditions. He noted that the chapter on basin setting will include sections discussing model representation of the Subbasin and data gaps. The chapter on groundwater conditions will include groundwater elevation contour maps, changes in groundwater storage, interconnected surface water, and groundwater dependent ecosystems. Mr. Kauffman noted that the GSP is intended to determine what level of overdraft is sustainable in the Subbasin.

#### PARTICIPANT QUESTIONS & DISCUSSION:

- Is measuring groundwater levels twice per year sufficient to fully understand groundwater conditions, especially during dry seasons and drought periods?
  - Information about historical groundwater levels is available for up to 90 years in some parts of the Subbasin, so it is possible to compare measurements to historical trends. In addition, levels may be measured more often in particular areas as needed. There are some locations where monitoring already occurs more often, including using “representative wells” to conduct monthly monitoring.
  - A program just being implemented will measure representative well levels every fifteen minutes or as levels change, which may establish a future trend for measurements.
  - These are critical questions to deliberate in the future, when the GSAs begin discussions regarding policy and management actions for inclusion in the GSP. GSAs will have the authority to set requirements for water monitoring and reporting within the Subbasin. It will be important to consider not only the type, amount and frequency of monitoring data needed to measure/monitor for sustainability, but also the cost of monitoring at different frequencies.
- In this context, does “fresh water” denote potable water?
  - Yes, it does.
- Has the Turlock subbasin has experienced subsurface compaction of the Corcoran Clay such that the water storage potential has been reduced? And, is possible to restore compacted areas to their original state and raise subsided areas?
  - The Turlock Subbasin does not seem to have experienced compaction.
  - It is not possible to significantly raise subsided land.
- What is an aquitard?
  - An aquitard is a layer of sediment or other substance, such as Corcoran Clay, which slows or prevents water from moving deeper.
- As the models are based on historical records, how is the future considered/accounted for?
  - Historical data allows for modeling of future projections, accounting for State mandated environmental uses, climate change, and expected water use levels.

#### Coming Soon: Water Budget, Sustainability Indicators & Undesirable Results

*[Reference slides 40-45 of the workshop's PowerPoint slide deck.]*

The final technical component of the GSP is the water budget. Mr. Kauffman explained that the water budget builds on the groundwater model, using complex calculations to quantify the movement of water in the Subbasin. This will allow sustainability to be projected over the next twenty+ years.

Primary policy components of the GSP are sustainability goals and criteria. DWR defined five sustainability indicators, all of which must be addressed in the GSP. These are: chronic lowering of water levels; reduction of groundwater storage; degradation of water quality; land subsidence affecting land use; and depletion of interconnected surface water affecting beneficial use. See slide 44 in the slide deck, as well as the Groundwater Sustainability Indicators handout, for more details. Mr. Kauffman explained that sustainability is defined by DWR as conditions through which none of the indicators would occur at a “significant and unreasonable” level. Measurements and minimum thresholds will be developed for each indicator.

Ms. Wylie noted that sustainability indicators will be an important subject of upcoming discussions in development of the GSP, particularly definition of the levels that constitute “significant and unreasonable” outcomes for each indicator.

#### PARTICIPANT QUESTIONS & DISCUSSION:

- How far east does the Turlock Subbasin extend, and does how water enter into the Subbasin?
  - The Subbasin does not extend into Mariposa or Tuolumne Counties. There are historical studies that look at the specifics of how water moves into the Subbasin, but in general water flows from northeast to southwest within the Subbasin. Water enters the Subbasin via surface water input, rainfall or snowmelt input, and groundwater recharge.

#### What’s Going On with Our Neighbors?: Adjacent Subbasin Activities

*[Reference slides 46-50 of the workshop’s PowerPoint slide deck.]*

Mr. Smart presented an update on coordination efforts with Turlock’s adjacent subbasins. Under SGMA, GSP implementation must show coordination with adjacent subbasins and must show no adverse effects on adjacent subbasins. Coordination agreements are being developed with the three subbasins adjacent to Turlock. Because two of Turlock’s three adjacent subbasins must complete their GSPs by January 2020, some technical analysis of the Turlock Subbasin must be expedited.

#### Ways to Stay Informed & Get Involved

*[Reference slides 51-58 of the workshop’s PowerPoint slide deck.]*

Mr. Smart said that stakeholder engagement is the most important component of SGMA. He noted that interested stakeholders could find information and stay updated about GSP development through the Subbasin’s website ([TurlockGroundwater.org](http://TurlockGroundwater.org)) and its social media accounts. Mr. Smart stressed the importance of receiving stakeholder feedback throughout the GSP development process and reiterated that public input can be provided at the public meetings of the GSA boards and TACs of both of the GSAs in the Subbasin.

Mr. Smart presented GSP development and implementation timelines, reiterating that DWR will review GSP implementation every five years. The GSP can be updated over the twenty years of implementation, based on changes in conditions such as surface water supply, technological advances, or others. The Subbasin must achieve sustainability by 2042.

For upcoming meeting dates, including technical workshops, community workshops, subbasin coordination meetings, GSA Board meetings, and GSA TAC meetings, see slide 58 of the slide deck.

Mr. Kauffman noted that stakeholder input is critical in defining sustainability for the Subbasin as well as determining how to address challenges. Stakeholders have valuable knowledge that can make the GSP successful, for example, local knowledge about areas where groundwater recharge may occur.

#### PARTICIPANT QUESTIONS & DISCUSSION:

- How can a landowner find out specific information about their own land, for example if it has recharge potential?
  - Stakeholders can get in touch with the technical team for more information. It is possible for to conduct monitoring and tests on specific plots of land, if necessary.

#### Adjourn

Ms. Wylie polled the group regarding the detail of content presented in the workshop, and participants unanimously agreed, by show of hands, that the material presented was neither too technical nor too general for a community workshop. Mr. Smart then closed the meeting, noting that its purpose had been to provide an update to stakeholders about recent work developing the GSP, and to lay the groundwork for stakeholder participation in upcoming meetings as they become more technical and begin to address policy and management components. Stakeholders were encouraged to attend the various public meetings in the Subbasin and were invited to provide feedback at any time through the Turlock Subbasin website.

#### Staff Support

- Herb Smart, TID
- Brandon McMillan, TID
- Kevin Kaufman, East Turlock GSA
- Meagan Wylie, CSUS
- Julia Van Horn, CSUS

## Attendee List

Note: *Sign-in was optional. Several attendees elected to abstain from signing in.*

| <b>NAME</b>       | <b>AFFILIATION</b>  |
|-------------------|---------------------|
| Bart Muller       | Muller Berry Farms  |
| Brandon McMillan  | TID                 |
| Chris Montoya     | DWR                 |
| Darby Toth        | WVD                 |
| Dave Richmond     |                     |
| Eric Muller       | Muller Berry Farms  |
| Garner Reynolds   | City of Turlock     |
| Jason Chandler    |                     |
| Jay Fiorini       | BCWD                |
| Jeff Stram        |                     |
| Jennifer Pacheco  | JP Ranch            |
| Tou Her           | TID                 |
| Justin Smith      | NRCS                |
| Justine Pitts     | JP Ranches          |
| Karen Rapp        | Rapp Ranch          |
| Ken Rapp          | Rapp Ranch          |
| Ken Chandler      | Chandler Farms      |
| Leandro Maldonado | DCWD                |
| Les Pacheco       | JP Ranch – Ballin   |
| Michael Cooke     | City of Turlock     |
| Mike Day          | Provost & Pritchard |
| Milt Trieweiler   | Citizen             |
| Phil Govea        | TID                 |
| Richard Lindo     | Denair CSA          |
| Roger Masuda      | Griffith & Masuda   |
| Ted Thorn         | JP Ranch – E Ave    |
| Tosh Kaioka       |                     |
| Vito Chiesa       | Stan Co             |