



Summary of Merced Subbasin Groundwater Sustainability Plan Community Workshops in Planada and Franklin

December 4 and 13, 2018

Overview

A second round of Merced Subbasin Community Workshops were held in Planada and Franklin in December 2018.

Tuesday, December 4, 2018

6 p.m. to 8 p.m.

Planada Community Center

Main Hall

9167 Stanford Ave., Planada, CA 95365

Thursday, December 13, 2018

6 p.m. to 8 p.m.

Franklin Elementary School

Multipurpose Room

2736 Franklin Rd, Merced, CA 95348

The goals for the public workshops included the following:

1. Provide information about options for sustainable management for the Merced Subbasin Groundwater and obtain participant feedback including input on preliminary ideas for projects and management actions.
2. Encourage attendees to share their knowledge and experiences with groundwater in the Merced Subbasin.

Both workshops were publicized using the following methods:

1. Press Release was issued to the Merced Sun-Star, Merced County Times, and posted on the GSP website. The workshops were mentioned by Mike Jenkins, Merced Irrigation District (MID) during a Merced radio station interview several days prior to the first workshop.
2. Workshop Notices (in English and Spanish) were widely distributed by partner organizations to their email distribution lists and were posted on the three GSA websites as well as several partner websites.
3. Self-Help Enterprises and The Leadership Counsel for Justice and Accountability assisted with outreach by distributing flyers and calling contacts that they have in Planada, South Merced, and Franklin.

The attendance at the December 4, 2018, Planada workshop included approximately 30 members of the public. The December 11, 2018 Franklin workshop was attended by approximately 24 members of the public. Self-Help Enterprises (SHE) provided a communications system at both workshops to support simultaneous Spanish translation. At the

Planada workshop two people took advantage of translation; no one utilized the translation option at the Franklin workshop.

The presentations for both workshops included the following topics with discussion questions (included below) asked of the participants after each presentation:

1. **Project Overview** – This presentation provided a review of the Sustainable Groundwater Management Act, the Groundwater Management Agencies involved and the Groundwater Sustainability Plan.
2. **Sustainable Management for the Merced Subbasin** – This presentation covered both reducing water use and allocating groundwater pumping as well as options for increasing water supplies and groundwater recharge.
3. **Groundwater Conditions** – This presentation was tailored for each workshop to include groundwater information relative to each area.

Presentation 1 - Project Overview

The following three questions were asked of the participants following the presentation.

1. Do you have any questions and discussion about what SGMA requires and the agencies preparing the Groundwater Sustainability Plan?
2. Do you have any questions and discussion about the Merced Subbasin groundwater conditions?
3. What thoughts do you have about current or future conditions?

There were no questions from the participants at the Planada workshop and at the Franklin workshop, two questions were asked:

Question: What is the projected acre-feet (amount of water) that will be allowed for pumping and will that vary across the Merced Subbasin?

Answer: This question was answered during the second portion of the presentation. On average, a reduction of 25% in pumping is estimated as needed to achieve sustainability over time. The goal is to halt overdraft and get to a sustainable condition. The estimate of future pumping is 660 thousand acre feet (TAF) per year. The estimated amount of pumping for a sustainable groundwater basin is 500 TAF. The difference is what is needed to be reduced in pumping, which could be achieved looking at options for increasing supply, increasing groundwater recharge, or decreasing demand. The Coordinating Committee (CC) and the Stakeholder Committee (SC) are looking at possible approaches for allocating groundwater pumping. The team will be developing projects and management actions including options such as groundwater recharge projects and surface water projects for consideration by the CC and SC. The availability and benefits of these actions vary across the basin.

Question: What is the current status of connections at Meadowbrook?

Answer: There are 3 groundwater wells that range from 300 to 500 feet deep to provide water to 1,730 connections.

Presentation 2 - Sustainable Management for Merced Subbasin Groundwater

Four questions were posed to participants at each workshop. The comments and questions received are summarized by workshop location.

1. What do you see as the most important issues related to groundwater pumping and water use? For residents and businesses? For agriculture?

Planada Workshop Questions and Comments

Question: Are there or will there be more projects beyond the Planada area? There must be other areas where there can be recharge projects.

Answer: Yes. Merced Irrigation District (MID) is working with farmers on this now. Le Grand and Livingston have good soil for recharge. Recharge projects in the eastern side of the basin, such as LeGrand and Planada have the potential to benefit the entire basin (groundwater generally flows from east to west).

Question: Is the land subsidence in the El Nido area due to pumping? What can be done about it?

Answer: There is land subsidence in the El Nido area. Generally, land subsidence is caused by pumping below the Corcoran clay layer (a layer of clay that separates upper and lower groundwater aquifers in the western portion of the basin). Pumping can lower groundwater levels, which dewater the clay layer, which in turn compresses, lowering the ground levels. It cannot necessarily be reversed, but it can be slowed. If there is recharge in El Nido, it will take a long time to be able to raise the level of groundwater to reduce the subsidence.

Question: Will Planada recharge benefit Planada or flow to El Nido?

Answer: This is the purpose of doing a feasibility study—to evaluate how much water can be infiltrated into the groundwater, how it moves, and where the benefits would be. There is an MID recharge basin in El Nido putting water into the ground to benefit that area.

Question: Can forest management (e.g., tree thinning) help with groundwater recharge and groundwater levels by allowing more water to flow into the groundwater?

Answer: UC Merced conducted studies of forest management in the foothills and headwaters areas. The studies had difficulties getting measurement equipment installed on federal lands (including concerns about impacts to endangered species in the area).

Franklin Workshop Questions and Comments

Question: How many acre feet of water can be stored in the ground? Is there a model that can tell us how much storage we have?

Answer: In terms of total storage, the model estimates a capacity of 50 million acre-feet of water. The challenge is access. As the storage is depleted, groundwater levels decline, potentially dewatering wells, which is one of the undesirable results the plan seeks to avoid. The goal is to increase recharge and storage in wet years, when there is additional supply. The challenge is finding locations where flooding is occurring and where floodwaters can be stored to help the Merced Subbasin.

Question: What does recharge represent in terms of bringing the Merced Subbasin to sustainability?

Answer: Recharge is one important component of management actions and projects that can be effective.

Question: There a number of dry creeks like Bear Creek, as well as canals that have dried up. Where is that water going?

Answer: The creeks and canals provide recharge to the groundwater when there is water flowing in them. When the rain stops, there is not a constant flow of water in these areas. The flow of water depends on seasonal rainfall.

Question: Recharge projects involve a lot of time, available ground, planning, and approvals to put the infrastructure in place. The State requires a permit and that process is challenging. Will the State make the permit process easier?

Answer: All water has to be used for beneficial use. Recharge by itself is not consider a beneficial by the State Water Resources Control Board (State Board). The State Water Board prefers projects that show additional benefits, such as reducing subsidence, assistance to Disadvantaged Communities (DACs), or improved water quality. Recharge projects should be combined with benefits to other uses. MID is working on Flood-MAR (using flood water for managed aquifer recharge) with the Department of Water Resources (DWR).

Question: The participant had recently purchased property with several 80-foot irrigation wells that have gone dry. They sought a permit for a new, deeper well, but they can't drill below the Corcoran Clay layer. How will the GSP development process take into account the Corcoran Clay layer when considering management actions and projects, e.g. recharge projects. We need to understand the Corcoran Clay layer.

Answer: When drilling you can only go so deep until you hit the Corcoran Clay, then you would have to drill below the clay layer. However, additional pumping below the Corcoran Clay can increase land subsidence, therefore, the County restricts new wells

below the Corcoran Clay. The GSP will be looking at issues below, above, and outside of the Corcoran Clay. Some areas above Corcoran Clay layer have lower groundwater levels, but not all. The plan will consider approaches for getting groundwater in balance above and below the Corcoran Clay. Some other basins have abandoned the upper layer (above Corcoran), but we will not.

Comment: Corcoran Clay is located in the west and southwest portion of the basin.

Question: We should try to know where we can recharge. Can recharge go below the Corcoran Clay layer?

Answer: There are two other types of possible recharge: (1) Dry wells can recharge below the Corcoran Clay, but this might not be in the best area for recharge; (2) Aquifer storage and recovery (ASR) wells are another possibility. ASR wells are used to recharge deep aquifers and form a “bubble” of recharged water. The approach is often used in areas where existing groundwater quality is poor.

Question: Will there be incentives offered for recharge projects including stormwater capture?

Answer: If people want to self-recharge, this may be able to be worked into a credit system that provides an additional pumping allowance for those that recharge groundwater to the basin.

Question: Why is there more subsidence when pumping occurs below the Corcoran Clay layer?

Answer: Below the Corcoran Clay layer, the water could be considered pressurized. If water is pumped out, the pressure is removed, and land subsides. The same process doesn't occur above the Corcoran Clay layer.

Question: When the GSP is implemented, can people purchase additional pumping allocations?

Answer: It is likely that an allocation system would be implemented around 2030, but it is up to the three GSAs to adopt the GSP and implementation plan. Initial discussions by the Coordinating Committee have included ideas for a water market to allow people to purchase available groundwater pumping allocations from others in the basin.

Question: For MID recharge projects that exists now, what is their impact on the aquifers?

Answer: Currently MID has 40 acres being used for recharge including areas in El Nido, in Winton). By current estimates, MID recharges approximately 100,000 acre-feet per year to the basin through the canals and recharge basins.

Question: What about the sustainable yield estimate? How do we have this projected until 2040?

Answer: The sustainable yield estimate assumes that there is a transition period between now and 2040. Once we have identified projects and management actions and the timing for implementation (including pumping allocation), we can forecast the water budget more specifically for the period between now and 2040.

Comment: Hard decisions and investment will be needed going forward to reduce pumping.

Question: With a growing population, where will the water come from to reach sustainability unless we include more surface water storage? It doesn't seem solvable.

Answer: Estimated population growth has been included in the model. Additional surface storage options will also be evaluated.

Question: Do we have any data on how the Fresno storage basins are working, and if this is a good example to follow for our subbasin?

Answer: The storage basins in Fresno have experienced several issues and are using surface water.

Question: A participant's well is only at 65 feet, yet his neighbor has had to drill to 110 feet to get to water. Why is there a difference?

Answer: This comes back to what undesirable results we want to avoid. We have about 40 CASGEM (California Statewide Groundwater Elevation Monitoring) wells. The plan will include groundwater level thresholds to prevent domestic wells within a 3-mile radius of these wells from going dry.

Question: When it comes to cutting back, how do you view cutting back groundwater use for agriculture versus targeting cuts in other uses?

Answer: Groundwater pumping allocations would reduce water use for all users. For recharge and water supply projects, we are looking at all possible sources, stormwater recharge, recycled water, etc.

Question: Is climate change included in the modeling?

Answer: Climate change will be factored into the GSP. For 2040, significant change is not expected but climate change analysis will continue and be a part of the GSP updates.

Question: Can urban stormwater recharge projects be considered?

Answer: Yes.

Comment: We need to see more conservation in the urban/city areas. Municipalities have to educate residents more and come up with plans to limit the water use. It would be good to have incentives and rebates for dry landscape in communities.

Comment: Generally, people in cities do not understand how precious water is. There needs to be more education for people to understand this. Farmers are using a third less water now than they used to as they understand what a precious resource it is.

Question: Is there a way for the public to see/access the hydrogeologic model (HCM) online?

Answer: There is a report on the hydrogeologic model available online at the Merced SGMA website.

2. How can groundwater pumping be allocated fairly across the basin for all users?

Planada Workshop Questions and Comments

Comment: Allocation cannot be historical. Certain trees take more water than others. The allocated amounts should be left to each grower as they know best what to do. Growers aren't wasting water.

Comment: Drip irrigation is good for trees but not as cost effective for crops such as tomatoes.

Comment: There is a stereotype that farmers want to use a lot of water. This is not true as most farmers put a lot of care into what they put on their plants.

Comment: We all have to take part in achieving groundwater sustainability, not just farmers. Every individual is going to have to take a part in recharging the Merced Subbasin. We need to work together to figure out a way to do this. Education is important. Doing little changes in every area might help (an example from Santa Barbara was cited).

Comment: Given the human right to drinking water (law in California), the GSP projects and management actions need to consider the effect on access to safe drinking water.

Comment: In 20 years, the water situation will get worse.

Comment: Climate is changing.

Franklin Workshop Questions and Comments

There were no comments on this question at the Franklin workshop.

3. How can the GSP help address groundwater quality issues?

Planada Workshop Questions and Comments

Comment: El Nido has a salinity problem in the water.

Comment: In Stevinson, there is potential for Aquifer Storage and Recovery (ASR) wells to allow both pumping and recharge.

Comment: South Merced is on domestic wells and some are contaminated. This area should be connected to the Merced municipal water system.

Comment: Shallow wells are accessing perched water with more contamination. In some areas, a solution may be to re-drill wells.

Franklin Workshop Questions and Comments

There were no comments on this question at the Franklin workshop.

4. What projects and actions could increase groundwater recharge and available water supplies?

Planada Workshop Questions and Comments

Comment: Farmers have spent millions of dollars putting in efficient irrigation systems. This could be part of the problem as flood irrigation used to help recharge the aquifer. In the past, flood irrigation was cheap and now it's expensive. Flood irrigation should be allowed again as it would help recharge the aquifers.

Question: Are injection wells being considered?

Answer: Water has to be treated before injecting which makes this option too costly.

Comment: Another Merced Irrigation District (MID) big lake/reservoir and more canals are needed to address climate change impacts.

Comment: MID is doing some recharge in rice growing areas, which is resulting in limited recharge.

Comment: Explore further the benefits of forest management for improving recharge of the aquifers.

Franklin Workshop Questions and Comments

See the comments and questions under question #1 as there was significant input about recharge projects during the discussion of that question.

Additional Written Comments Received Via Comment Forms Available at the Workshops

Question: Do we know how much water Safeway/Lucerne Foods is bottling up from the Merced River? Is this information considered proprietary?

Answer: The team can see if this information is available.

Comment: Have the State Water Resource Control Board (SWRCB) explain to the public how the public, undergoing sustainability actions to undertake recharge projects,...at least how to avoid being faced with restrictions to stormwater recharge.

Comment: I am going to retire, then I don't have to worry about water for farming.