MEETING MINUTES

MIUGSA Stakeholder Guidance Committee Meeting #2

Date:	9/7/2021
Attendees:	Olsson: Jim Schneider, Stacey Roach, Brian Dunnigan, Mallory Morton MID: Hicham ElTal, Matt Beaman SGC: Stu Nakashima, Arlan Thomas, Maxwell Norton, Breanne Vandenberg, Joe Scoto, Olivia Gomez, Tom Dinwoodie, Ben Migliazzo, Craig Arnold, Bob Weimer Online: East Merced RCD (Jean Okuye), Lacy Carothers, Lisa Kayser-Grant, Susan Walsh, Emma Reyes Others Present: Leah Brown
Project #	021-03426

MIUGSA GSP IMPLEMENTATION – SGC MEETING #2

1. **Welcome/Introductions/"Parking Lot" [Meeting commenced at 1:00 PDT]**
   - Participants introduced in the room and online
   - Agenda and handouts posted to Zoom chat
   - "Parking Lot" (Stacey Roach/Jim Schneider)
     - Issues or questions that have been brought up in previous meetings not directly related to this project can be addressed later during the optional discussion time at the end of the meeting.
     - Our goal is to focus on the policies involved with the Merced Irrigation-Urban Groundwater Sustainability Agency (MIUGSA) Groundwater Sustainability Plan (GSP) Implementation.

2. **Presentation/Discussion**
   - Update on Urban Water Use (Matt Beaman/Leah Brown)
     - Matt explained that a few slides have been included to discuss how urban water use is addressed in the GSP. Model runs were summarized in the GSP that explain historical water budget, current water budget, and projected water budget under a sustainable-conditions run.
     - Matt explained that the sustainable yield estimates are found by mirroring the percent reduction for ag users as well as urban users.
     - The sustainable-yield scenario in the GSP required approximately 40% reduction from agricultural and urban uses (accounting for future growth and without projects); or an approximately 10% reduction from agricultural and urban uses (with projects).
       - This scenario was not intended to represent how actual reductions in pumping would occur to achieve sustainability during GSP implementation.
     - There is a recognition that there must be a reduction across all users – including urban and agricultural users.
     - In the GSP, urban water use includes industrial and commercial use.
     - Leah Brown (City of Merced Water Conservation Coordinator) introduced the Senate Bill X7-7 with the goal of decreasing urban water use by 20% from the baseline by 2020.

- Baseline data was developed using an average from 1996-2005. The baseline water use for the City of Merced (City) was determined to be 310 gallons per capita per day (gpcd), making the 20% reduction goal 248 gpcd by 2020.
- The 20% reduction goal was surpassed by the City, and the reductions were actually around 41% at 181 gpcd.
- Leah explained that urban water use is trending downward. For example, in 2013, the per capita water use was 277 gpcd in the City (not including the University of California-Merced). In 2015, that number went down to 177 gpcd during the height of the drought. Installation of water meters and conservation programs were largely responsible for those reductions.
    - Comment from SGC member: what's the difference when you include the University of California-Merced (UCM)?
    - Response: When UCM is included in the City budget, the average decreases because they are very water efficient.
- The reduction in per capita water use in the City can be attributed to the drought, 100% metered services, city ordinance, water rate structure, outreach in the community, and the "Eye on Water" program. The City began installing idler bars and some meters in 2013, 2014, and 2015. The City is now 100% metered.
    - Comment from SGC member: did you say there are 20,000 [water service] accounts?
    - Response: Yes, there are approximately 20,000 accounts including businesses and residences. Businesses were already metered pre-2015.
- There has been a City of Merced water conservation city ordinance in place since 1993. The ordinance has experienced changes since then based on community needs and legislation. Currently there are six levels of conservation that correspond to the desires of the state for reductions (e.g. 10% reduction, 20% reduction, etc.). The City is at a Level 2 stage which allows customers to water their lawns and landscaping three times per week. The levels change according to City Council direction. Drought has a significant impact on water use and the city ordinance allows the City to issue notices, orders of cease and desist, and penalties for wasted water.
- The state has passed the Model Water Efficient Landscape Ordinance (MWELO) which applies to new buildings. New buildings are required to follow water efficient landscaping guidelines.
- Using the program "Eye on Water", customers can monitor their water use using charts and history of use. Customers can access their data on the computer.
    - Comment from SGC member: are all of the wells metered? Do you compare your input and your output that way? Is landscape watering by the City monitored?
    - Response: Yes, all of the wells and houses are metered. The previous data given on per capita water use includes water pumped by wells. Landscape watering by the City is also monitored and paid for by the division using the water.
    - Comment from SGC member: with all of the growth occurring in north Merced, there is a perception that the City is using a lot of water and a way we can solve our water issue would be to restrict growth. What is the total consumption for the city for the past five years, not by per capita?

        - Response: It is included in the presentation slide: 20,076 acre-feet per year for the total use in 2020.
        - Comment from SGC member online: does the Merced urban water use include county islands within the city limits?
        - Response: Yes, it does include the county islands within the city limits.
    - The City has been constantly surpassing mandated and requested reductions.
        - Comment from SGC member: what is this "55 gallons" that we keep hearing?
        - Response from Hicham: That is the minimum needed for health and safety. There is an emergency rule now to cut back on diversions except if you need it for health and safety.
        - Comment from SGC member: are Atwater and Livingston achieving similar goals like the City of Merced?
        - Response from Hicham: Livingston has a heavy industrial user so their situation is a little different. We can show data from these other communities in the future. They are not exempt from regulations under the GSP.
- SGC #1 Recap (Jim Schneider)
    - Jim reviewed topics discussed in the first SGC meeting, including the different "types" of water in MIUGSA (precipitation, surface water, native groundwater, developed supply), and Merced Irrigation District (MID) supplies and deliveries.
    - Supplemental and exclusive private groundwater pumping terms were defined and explained. Supplemental refers to users that supplement their groundwater pumping with MID deliveries. Exclusive refers to users that do not supplement their groundwater pumping with MID deliveries. A parcel can move between these categories year to year depending on surface water availability.
    - In general, 3-4 acre-feet per acre (AF/A) is the average total irrigation depth in MIUGSA. The exact number varies from year to year.
    - Based on data provided by MID, there are no less than 22,000 acres that rely on groundwater exclusively. That number grows during times of drought when surface water supply is low.
    - Jim reminded the group that 1.1 AF/A is the average pumping depth for supplemental users from 2010-2020, while 2.97 AF/A is the average pumping depth for exclusive users.
- Flexibility vs. Certainty (Breakout Session 1) (Jim Schneider)
    - Jim introduced the concept of flexibility vs. certainty of the allocation program with a quadrant map showing the four different options. Jim asked the group to think of which quadrant they feel personally comfortable with during the upcoming breakout session.
    - Quadrant A: Low Flexibility, Low Certainty
        - Initial allocation can start higher, but may need to be lowered over time
        - Few to no opportunities to move water between years or tracts
        - Generally simple to implement
    - Quadrant B: Low Flexibility, High Certainty
        - Initial allocation needs to be set conservatively low
        - Few to no opportunities to move water between years or tracts
        - Generally simple to implement

- Quadrant C: High Flexibility, Low Certainty
    - Initial allocation can start higher, but may need to be lowered over time
    - Many opportunities to move water between years or tracts
    - Can require significant resources to implement, depending on sources of flexibility
- Quadrant D: High Flexibility, High Certainty
    - Initial allocation needs to be set conservatively low
    - Many opportunities to move water between years or tracts
    - Can require significant resources to implement, depending on sources of flexibility

Breakout Session 1 Discussion (Flexibility vs. Certainty)

- Report Out:
    - First group: "We tended toward high certainty but also high flexibility. We are talking about things we never have before in this area, so it was somewhat difficult to grasp what all of this means. You can look at example systems around the country, but this system is down to the individual and every place is different. Part of our discussion landed more on the certainty side to avoid the state coming back in and regulating. It is hard to determine where we want to go with flexibility, because we don't fully understand those options yet."
    - Second group: "We like maximum flexibility because that allows people to be more creative and gives people options to get by. I think we will see some clever solutions emerge over the next few years if we were to go that route. We know the plan will need to be adjusted several times. We would like to allow individuals to trade water within the Basin or Irrigation District as long as it's carefully regulated. Need to have some certainty, but we could start low or in the middle and refine."
    - Third group: "We definitely thought higher flexibility is the most important to get water to where it's needed. Cities could also move the water to where it's needed most. Mid-certainty or high certainty would be nice. For example, we would like to know the allocation for five years and then we can re-evaluate."
    - Fourth group (meeting virtually): "We have never seen high flexibility be a benefit to small farmers and cities. We need high certainty and start with what we believe will meet the goals of the State. If we have high certainty, we will have a bar that people need to reach for, and they will try harder. We do not believe in moving water around. If you allow for high flexibility, decisions would be made away from public comment and that is very concerning. Water should not be commoditized and it's about the people, environment, and food we raise. We are quite concerned that we are in a drought, and we must protect our water within the Basin, including small farmers and cities. We have seen changes happen dramatically in the Valley regarding crop types and water supply. We continue to see corporate interests drill more wells and plant more trees."
        - Response from Hicham: I would like to clarify that the agriculture we are discussing today is happening in the Merced Subbasin. We know with reasonable certainty that pumping 0.75 AF/A over the entire Basin would be sustainable. Those that supplement with surface water, like the growers in MIUGSA, are expected to be better off while still protecting groundwater sustainability. If you happen to be a surface water user, you

will likely be able to have high certainty that you will have the water you need.

- Comment from SGC member (Susan Walsh): we need to examine philosophically where we stand on water and life in our Basin. We know there are legal and physical limits that will determine how water is allocated, but we see a larger picture at work here and the questions of flexibility or certainty are very philosophical.
- Response from Hicham: Yes, that is exactly what we want from the SGC. We are bringing up these numbers to put into perspective what we can and cannot afford to do.

[Break at 2:12 PDT]
[Meeting resumed at 2:21 PDT]

- Additional Examples from Mature Allocation Programs (Jim Schneider)
    - Jim introduced the next portion of the meeting as beginning to look into the details of what an allocation program could look like for MIUGSA. Jim explained that the group will be hearing some examples of mature allocation programs around the state of Nebraska and how they build in flexibility to address local issues. Regarding flexibility, these [allocation program component] terms explain how flexibility could be provided. The following examples will be using these terms.
    - Allocation program component term definitions:
        - Borrow-ahead: using a portion of the next allocation to supplement the current allocation.
        - Carry-over: the unused portion of the current allocation that can be used in the next allocation period.
        - Dry-year considerations: special regulations that activate during dry years (e.g. maximum annual use).
        - Length of allocation period: the length of time over which an allocation can be applied. Jim commented that this may be very important to MIUGSA.
        - Penalties: actions that can be taken against a producer that exceeds their allocation.
        - Pooling: grouping separate parcels together so that they are considered one unite under the allocation.
        - Trading: buying or selling water between farmers or other entities.
    - Upper Republican Natural Resources District (NRD) Example: Jim mentioned that there is a large range in percentage of irrigated land among these examples. In the Upper Republican NRD, program components include local rules for allocations over multiple years, carry over of allocation, pooling, penalties, cease and desist orders
        - Comment from SGC member: at what point do they [URNRD] set the next allocation during the current five-year allocation?
        - Response from Jim: Generally, they address that a year in advance.
        - Comment from SGC member: how long have they been at 65 inches?
        - Response from Jim: Since about 2006, they have been stable since then.
    - Middle Republican NRD Example: In the Middle Republican NRD, program components include rules for allocations over multiple years, carry over of allocation, pooling, maximum annual use, penalties, cease and desist orders

    - Comment from SGC member: do they review the maximum annual use number?
    - Response from Jim: yes, the maximum annual use limit is reviewed for every dry year period.
    - Comment from SGC member: is flexibility limited during those dry year periods?
    - Response from Jim: you could still pool your acres, but you would still be subject to that maximum annual use cap. There is limited flexibility.
- Lower Republican NRD Example: In the Lower Republican NRD, program components include rules for allocations over multiple years, carry over of allocation, pooling, maximum annual use, penalties, cease and desist orders
- South Platte NRD Example: In the South Platte NRD, program components include rules for allocations over multiple years, carry over of allocation, limitations on pooling, no maximum annual use, penalties, cease and desist orders:
    - Comment from Hicham: what is the range in precipitation across the state of Nebraska?
    - Response from Jim: 16" in western Nebraska to 36" in eastern Nebraska.
- Upper Niobrara-White NRD Example: In the Upper Niobrara-White NRD, program components include rules for allocations over multiple years, carry over of allocation, no pooling, maximum annual use, penalties, specific allocations per identified beneficial use (not allowed in California).
    - Comment from SGC member: could you apply that logic to tree species?
    - Response from Jim: That's not out of the realm of possibility if you have the ability to enforce it.
    - Comment from SGC member: are the actions of these entities subject to approval by a state water control board? Who is enforcing these regulations?
    - Response from Jim: No, these are independent entities. The only time the State gets involved is if groundwater use is impairing surface water use. Their authorities are limited by the State, but the State does not have direct oversight. They are locally elected Boards of Directors.
- Upper Big Blue NRD Example: In the Upper Big Blue NRD, program components include rules for setting allocations over multiple years, no provisions for carry over, pooling, maximum annual use, and penalties,:
    - Comment from SGC member: is groundwater pumping self-reported or who monitors this [in these allocation program examples]?
    - Response from Jim: some [of these allocation programs] are self-reported; some [have flow meters that] are read by an NRD staff member once or twice a year. The NRD's have rules on what types of meters can be used, how they should be maintained, and how they should be calibrated.
    - Comment from Hicham: regarding pooling, we have surface water pooling agreements. It would be more complicated for groundwater because we may include specific limitations to areas that may negatively impact certain sustainability indicators under SGMA; while still not ruling out water trading and keep our options open.
    - Comment from SGC member: how did the local NRD locate the historical wells that were unregulated?
    - Response from Jim: every high capacity well drilled after the 1950s was required to be registered with the state. Replacement wells also need to be registered.

Breakout Session 2 Discussion (Allocation Program Components)

- Report Out:
    - First group (meeting virtually): “We believe that the allocation should be one year but could be flexible. We like pooling with stipulations. We would like to allow carry-over, but it should be limited. We do not support borrow-ahead. Penalties are necessary to ensure enforcement is uniform. We think trading is ok, but it should not be allowed out of the Basin. We do like the idea of a dry year component that reflects all of the other pieces. We would like to hear more about others’ ideas and examples of creative efforts that others have done. We would like more information on recharge and how other agencies do it. Where is it appropriate to do it in our Basin? We would like to have access to the meeting minutes of the NRD’s that have these programs in place so we can hear about the issues they had. We need flow meters and would like that to start sooner rather than later.”
    - Second group: “We think borrow-ahead is a very low priority. Carry-over is nice but should be limited. One idea we came up with would be some kind of incentive for not pumping and using all of your allocation. We like a three-year allocation because you can see weather patterns and still plan. We support pooling but there may need to be some limitations on that if it’s surface water or groundwater. We need penalties. Dry year considerations could be made depending on reservoir levels, but we acknowledge that management is limited too. We like the idea of conserving during wet years so that we can use groundwater during dry years.”
    - Third group: “We are in favor of borrow-ahead and carry-over with limits. Dry year considerations are not a problem. We think the initial allocation period should be three years and that could perhaps change to five years in the future. We support both penalties and pooling. The only concern we had with trading would be if someone were to take land out of production to increase the amount of water to ground still in production. We are interested in the political structure of these NRDs.”
    - Fourth group: “Borrow-ahead is not important to us. We think carry-over is important, but are there ever problems with that?”
        - Response from Jim: There are typically no problems that arise with carry-over, and it often leads to water conservation because people like to hold onto it for a worst-case scenario. Pooling has caused some issues in Nebraska, because it unfairly benefitted large producers over small producers in some cases.
    - Fourth group: “Dry year considerations seem almost backwards, and we should encourage conservation in wet years so that we have it in the dry years. We talked about a three-year period as well. We agree that penalties should exist. We like pooling and trading. We started talking about if penalties should be applied to producers that have access to surface water but choose to use groundwater instead. But there are some cases where a producer does not have a surface water connection, so they are forced to use groundwater. How could these rules apply to parcels that change hands frequently? For example, if a parcel changes hands midway through an allocation but all of the water has been used, that makes it worth much less. We also want to know more about where the recharge areas are and if we could consider credits.”
        - Response from Hicham: Some of your comments pertain to MIUGSA and some pertain to MID. As MIUGSA, we cannot tell MID to connect someone. As far as recharged surface water, the MIUGSA should consider a carry-over rule for that.

- Comment from Jim: thank you for having such great discussions on these topics. You could have a wet-year restriction on using a multi-year allocation.
- Comment from SGC member: I like the "Zoom" group's comments on the mistakes made by the NRDs. It would be appropriate to bring forward some of those lessons learned from the Nebraska examples.
- Response from Jim: There are a lot of things these NRDs didn't think of. We have provided the South Platte NRD's Rules and Regulations as a handout to show the number of revisions and language they use for these regulations. I hope this is helpful to see the examples of the mature programs. We can post the NARD link that takes you to each NRD's website where they post meeting minutes.
- Comment from Hicham: we will include surface water (developed water) in our future presentations and discussions to help you be more informed.

[Formal Meeting Ended at 3:34 PDT]

3. Optional Time for More Discussion