

Merced GSP Coordination Committee Meeting

November 8, 2022

Meeting will begin at 2 pm or a few minutes after – thank you
for joining us!

**Merced Irrigation-Urban GSA
Merced Subbasin GSA
Turner Island Water District GSA-1**

Image courtesy: Veronica Adrover/UC Merced



Agenda

- ~~1.~~ Call to Order and Welcome
- ~~2.~~ Roll Call
- ~~3.~~ State of Emergency Teleconference Findings
4. Public Comment
5. Prop 68 Implementation Planning & Projects Grant Round 2 Application
6. Next steps and adjourn

***Coordination Committee members in attendance did not form a quorum, so the Coordination Committee meeting was not formally called to order**

Image courtesy: Veronica Adrover/UC Merced



Questions/Comments from Public:

If you would like to make a comment, please type the comment in the chat or raise your hand to request to be taken off mute

Image courtesy: Veronica Adrover/UC Merced



Prop 68 Implementation Planning & Projects Grant Round 2 Application

Image courtesy: Veronica Adrover/UC Merced



Background

- Round 2 adds medium & high priority basins, in addition to critically overdrafted
- \$200M funding available; \$1M-\$20M per basin
- One application per basin – competitive!
- Schedule:
 - Application due **December 16, 2022 (just extended)**
 - Draft awards announced May 2023
 - Final awards Aug 2023
 - Agreements executed Sep-Nov 2023

Image courtesy: Veronica Adrover/UC Merced

La Paloma MWC Bear Creek Groundwater Recharge & Land Repurposing Project (Planning)

- \$750,000
- La Paloma Mutual Water Company (LPMWC) proposes the Bear Creek Ranch Ground Water Recharge & Land Repurposing Project (Project). LPMWC will work with River Partners, Ducks Unlimited, Merced Irrigation District, and the United States Fish and Wildlife Service on the planning and design of **dual-purpose groundwater recharge ponds to enhance Pacific Flyway wetland habitat**. The project would be located on approximately 2,111-acres within the Bear Creek-Ranch property.
- The Project would **re-establish approximately 1,171-acres of irrigated farm ground to floodplains**, providing habitat for migrating waterfowl. Through the fallowing of this farm ground, the Merced Subbasin would get a net benefit through **decreased pumping of approximately 5,400 acre-feet per year**.
- The project would include the installation of four (4) 75 HP lift pumps from Bear Creek and additional facilities from the Livingston Drain. The pumps would convey approximately 1,300 acre-feet of floodwater per year through approximately 28,000 linear feet of new pipelines distributed across the 2,111-acre ranch. The Project would utilize flood water from Bear Creek, Livingston Drain, and other purchased water. The four (4) points of diversion are included in the Permanent Water Rights Application submitted to the State Water Resources Control Board on December 30, 2019 and May 28, 2020, and the project area is within the Place of Use.

Benefits

1. Permanent fallowing of 1,171-acres of farmland primarily served with groundwater.
2. Groundwater recharge in an area of the Merced Subbasin where there are thousands of acres of productive agriculture.
3. Wetland enhancement and/or creation.
4. Reduced overdraft.
5. Reestablish natural water drainage and treatment.
6. Addresses impacts of current and future droughts and other water shortages.
7. Environmental protection and improvement.
8. Habitat enhancement and/or creation.
9. Decreased flood risk by reducing runoff rate and/or volume into rivers, lakes, or streams

La Paloma MWC G Ranch Groundwater Recharge, Habitat Enhancement & Floodplain Expansion (Implementation)

- \$ 2,610,000
- La Paloma Mutual Water Company (LPMWC) proposes the G Ranch Groundwater Recharge & Ecosystem Enhancement Project. The project would consist of the **implementation and construction of groundwater recharge ponds**. The ponds would be designed to enhance the Pacific Flyway wetland habitat. The project would be located on approximately **439 acres within the G-Ranch property**.
- This project would enhance 270-acres of existing wetlands and re-establish the remaining 169 acres of double-cropped farmland to floodplains. The entire project would be utilized for **habitat enhancement and groundwater recharge**, providing additional wetland habitat for migrating waterfowl.
- Re-establishing the farmland to floodplains would permanently reduce demand by approximately 5 acre-feet per acre per year or 850 acre-feet per year (AFY). One supply of surface water for the project would be flood water from Bear Creek. Joseph Gallo Farms hold the License for Diversion and Use Application #16604 for 10 CFS from January 1 through December 31 each year.
- A second source of surface water would be diverted from the Atwater/Peck Drain. Joseph Gall Farms has an Agreement with the City of Atwater for the Atwater/Peck Drain.
- The combined total project net benefit would be **4,270 AFY**.

Benefits

1. Permanent following of 169 acres of irrigated cropland primarily serviced with groundwater
2. Groundwater recharge in an area of the Merced Subbasin where there are thousands of acres of
3. productive agriculture reliant on groundwater.
4. Wetland enhancement and/or creation.
5. Reduced Overdraft.
6. Reestablish natural water drainage and treatment.
7. Addresses impacts of current and future droughts and other water shortages.
8. Environmental protection and improvement.
9. Habitat enhancement and/or creation.
10. Decreased flood risk by reducing runoff rate and/or volume into rivers, lakes, or streams.
11. The G Ranch Groundwater Recharge, Habitat Enhancement & Floodplain Expansion Project provides floodplain expansion to benefit both **groundwater recharge and habitat**

Lone Tree & Sandy Mush MWC Monitoring and Shallow Well Investigation and Construction (Implementation)

- \$2,105,000
- Lone Tree and Sandy Mush Mutual Water Companies propose a Monitoring and Shallow Well Project. The project consists of **drilling 15 new test wells within the upper aquifer in the Merced Subbasin Subsidence Area**. Subsidence in this region is thought to be caused by groundwater extraction below the Corcoran Clay and compaction of clays below the Corcoran Clay (Merced Subbasin GSP, page 3-17). The test wells (or CPT) would be **located near locations where Flood-MAR is planned to occur** and/or other data indicate sufficient upper aquifer groundwater is available. Once the best locations are determined, 3 monitoring wells and 7 shallow ag wells will be installed near locations where Flood-MAR projects are being implemented. Extraction from the upper aquifer water would not occur until monitoring suggests domestic wells would not be affected.

Benefits

1. Minimize subsidence impacts by replacing deep aquifer pumping
2. Improve groundwater levels

Image courtesy: Veronica Adrover/UC Merced

Lone Tree MWC Reservoir and Recharge Project (Implementation)

- \$3,820,000
- The Lone Tree Mutual Water Company Reservoir and Recharge Project consists of the construction of a **675 acre-foot storage and regulating reservoir situated** on 155 acres. In addition, a **80-acre recharge field** would be established. The 235-acre property is owned by LTMWC and would assist in the operation of their recently completed 100 CFS canal, which supports conveying additional service water into the mutual water companies jurisdiction. The Project would provide **surface water storage and recharge of floodwater**. The source of the water is from Deadman Creek and Merced Irrigation District, with whom LTMWC has a long-term contract to purchase surface water. The project would provide new surface water to the approximately 12,500-acres in LTMWC, as well as approximately 1,000-acres of Sandy Mush Mutual Water Company, a neighboring mutual water company also within the Merced Subbasin GSA. This farmland is all within the Merced Subbasin's identified subsidence focus area.

Benefits

1. Mitigate subsidence
2. Improve groundwater levels
3. Decreasing the amount of groundwater extracted and support meeting the Sustainability Goal and extracting within the Sustainable Yield of the subbasin.

Veronica Adrover/UC Merced

Merced Subbasin GSA Water Accounting Platform (Planning)

- \$250,000-\$500,000
- This proposed project develops a water accounting framework for the Merced Subbasin Groundwater Sustainability agency and an accompanying platform for **stakeholder and grower interaction and information**.
- This Water Accounting Framework and Platform Project will support the implementation of Phase 1 and Phase 2 of the Two Phased GSP Implementation Approach. The goal is **to support MSGSA management activities that will lead to successful implementation of the GSP**. A Water Accounting Framework and Platform will establish a secure on-line platform that allows the MSGSA and landowners to access vital information regarding actual evapotranspiration (ET), also referred to as consumptive use, and estimated ET of applied water (ETAW) on a parcel-by-parcel basis. Access to near real-time data regarding ET and ETAW will aid irrigators with important water management decisions.
- The Platform will also support Phase 2 activities such as a **groundwater allocation** and the necessary reduction of groundwater pumping by allowing the MSGSA to communicate with growers and landowners through an easily accessible online portal. Depending upon the allocation policies ultimately adopted by the MSGSA, users would be able to access their allocation balance, carryover, groundwater recharge credits, and consumption among other data, helping them make informed decisions as the basin transitions to more sustainable farming practices.

Benefits

1. Facilitate implementation of the GSP
2. Enhance coordination and communication with growers
3. Monitor consumptive use to support water management decisions

MIUGSA Pilot, Small-Scale Recharge Projects (Planning)

- \$1,850,000
- Through extensive discussions with its stakeholders during the development and subsequent implementation of the Merced Subbasin GSP, MIUGSA is proposing a planning project component consisting of various **small-scale recharge projects that individual landowners and growers could implement** on their own properties. If successful, significant recharge benefit could be seen throughout the GSA boundaries. The four small-scale recharge concepts include:
 - **Reverse Tile Drain Systems**
 - **1-2 Acre Recharge Basins**
 - **Dry Well Recharge Facility**
 - **Dual Irrigation Systems**
- While the volume of recharge benefit for the individual pilot recharge projects are small, a successful pilot program would help identify opportunities for many growers to implement their own recharge facility.

Benefits

1. Facilitate implementation of the GSP
2. Plan for reduced overdraft and improved groundwater levels

Merced ID Howard McCoy Regulating/ Recharge Reservoir and Well Site (Implementation)

- \$11,000,000
- Construction of a **regulating/recharge reservoir/well site**, including two production wells to **recover seeped water**.

Benefits

1. Recharge 2,880 AFY and reduce overdraft
2. Supplement water supply by conserving 2,400 AFY in McClure reservoir
3. Improve groundwater levels near DACs

Image courtesy: Veronica Adrover/UC Merced

MIUGSA Well Registration and Extraction Measurement Program (Implementation)

- \$1,145,000
- The **well registration tool** will utilize the same infrastructure as the Water Accounting Platform being built by the Water Data Consortium and Environmental Defense Fund. Portal will function as a standalone tool, but is intended to be incorporated into the larger Water Accounting Platform.
- Within MIUGSA, the total number of active production wells, and related extraction is currently estimated through modeling and water budget calculations. This project would include in the installation of flow measurement devices throughout MIUGSAs, with the primary goal of **collecting accurate groundwater extraction data from within the GSA**. According to Merced County Department of Environmental Health records, approximately 400 irrigation wells were installed between 1996 and August 2018. Of these, approximately 276 irrigation wells were located within a DAC Tract, Block, or Place. As part of the SGMA Implementation Grant, MIUGSA is proposing the **installation of up to 100 flow meters on production wells** within MIUGSA's boundaries.

Benefits

1. Install up to 100 flow meters on production wells
2. Facilitate implementation of the GSP by improving monitoring and management of groundwater extraction

Image courtesy: Veronica Adrover/UC Merced

Project Prioritization

- Projects do not need to be scored by DWR's evaluation criteria
- Projects need to be ranked by local preference in case of partial funding
- Seven (7) CC members ranked projects with representatives from each GSA – see following slides

Image courtesy: Veronica Adrover/UC Merced

Merced Subbasin SGM Grant Round 2 Project Ranking

Merced Subbasin SGM Grant Round 2 Project Ranking (\$16.98M)

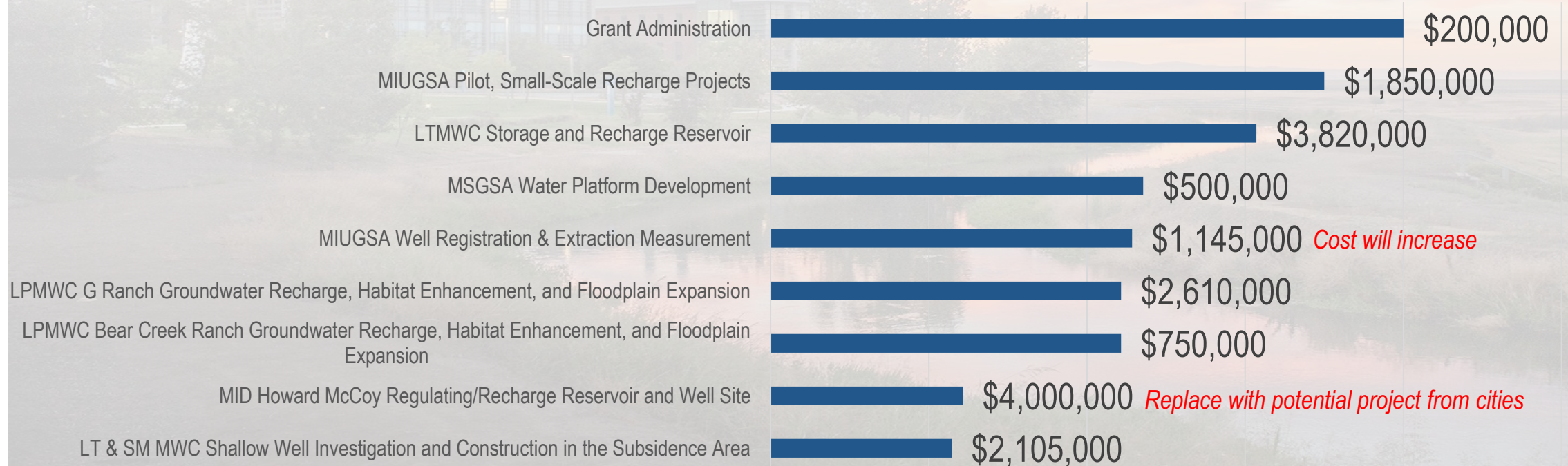


Image courtesy: Veronica Adrover/UC Merced



Next Steps

Image courtesy: Veronica Adrover/UC Merced



What's coming up next?

- Adjourn to next meeting: expected January 2023

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