
GSP Stakeholder Committee

Stakeholder Committee Meeting – October 28, 2019

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

Image courtesy: Veronica Adrover/UC Merced



Agenda

1. Call to order

2. Finalizing Merced GSP

- a) Joint GSA Boards Meeting September 18, 2019
- b) Response to Public Comments Received on draft GSP
- c) Final GSP
- d) Dates for Adoption Hearings for GSA Boards

3. GSP Implementation Planning

- a) First year priority items
- b) Prop 68 funding opportunity (deadline Nov. 1, 2019)
- c) Annual report preparation proposal from Woodard & Curran
- d) Water Allocation Framework update
- e) Integrated Regional Water Management Plan

4. Coordination with Neighboring Basins

Image courtesy: Veronica Adrover/UC Merced

Agenda

- 5. Public Comment
- 6. Next Steps and Adjourn

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Finalizing Merced GSP

Image courtesy: Veronica Adrover/UC Merced



Timeline for Finalizing GSP

July	Aug	Sept	Oct	Nov	Dec	Jan 2020	
30-day Public Review Period		Consideration of Comments & Preparation of Final GSP			GSA Adoption Hearings		Submittal to DWR by Jan 31

Image courtesy: Veronica Adrover/UC Merced

Review of Public Draft GSP

- Published on Website **July 19**
- Executive Summary, GSP (375pp), Appendices
- 30-day public comment period closed on **August 19**
- Comments received in writing and at Sept 18 Joint GSA Boards Meeting
- After Sept 18 meeting, GSA board members and staff gave direction to consultant team in preparing response to comments and draft Final GSP



Image courtesy: Veronica Adrover/UC Merced

Response to Comments

- SGMA requires the GSP include:
 - *Comments regarding the Plan received by the Agency and a summary of any responses by the Agency. § 354.10(c)*
- Response to comments for Merced GSP
 - Revisions to GSP: Redline of GSP provided for CC and SC review
 - Master Response to Comments to be included as appendix to GSP
 - All written comments received plus minutes from 9/18/19 Joint GSA Boards meeting will be included in GSP Appendix

Image courtesy: Veronica Adrover/UC Merced

Master Response to Comments Topics

1. Stakeholder Outreach
2. Basin Settings
3. Groundwater Dependent Ecosystems
4. Water Budget Documentation
5. Climate Change
6. Sustainability Goal
7. Management Areas
8. Groundwater Level Sustainable Management Criteria
9. Groundwater Quality SMC
10. Groundwater Storage SMC
11. Subsidence SMC
12. Depletions of Interconnected Surface Waters
13. Groundwater Levels as Proxy for depletion of interconnected surface waters
14. Monitoring Networks
15. Allocation Framework
16. Demand Management
17. New Project Recommendations
18. Project-Specific Recommendations
19. Project Prioritization
20. Plan Implementation

Image courtesy: Veronica Adrover/UC Merced

Discussion Items

- Subsidence Sustainable Management Criteria
- Water Quality Sustainable Management Criteria

Image courtesy: Veronica Adrover/UC Merced

Subsidence SMC – Neighboring Basin Approaches

	Merced	Chowchilla	Delta-Mendota (multiple)
Measurable Objective	-0.25 ft/yr	GWLs as a proxy, Lower Aquifer only	Varies by GSP and region, but most -0.01 to -0.1 ft/yr
Minimum Threshold	-0.75 ft/yr, based on max subsidence rates observed 2011-2018	GWLs as a proxy (adaptive mgmt. approach trigger of -0.25 ft/yr for 3 yrs in Eastern MA where less subsidence observed historically)	Varies by GSP and region, but most -0.1 to -0.2 ft/yr San Joaquin River Exchange Contractors: The Minimum Threshold is that which doesn't reduce SJREC's conveyance capacity without appropriate mitigation.

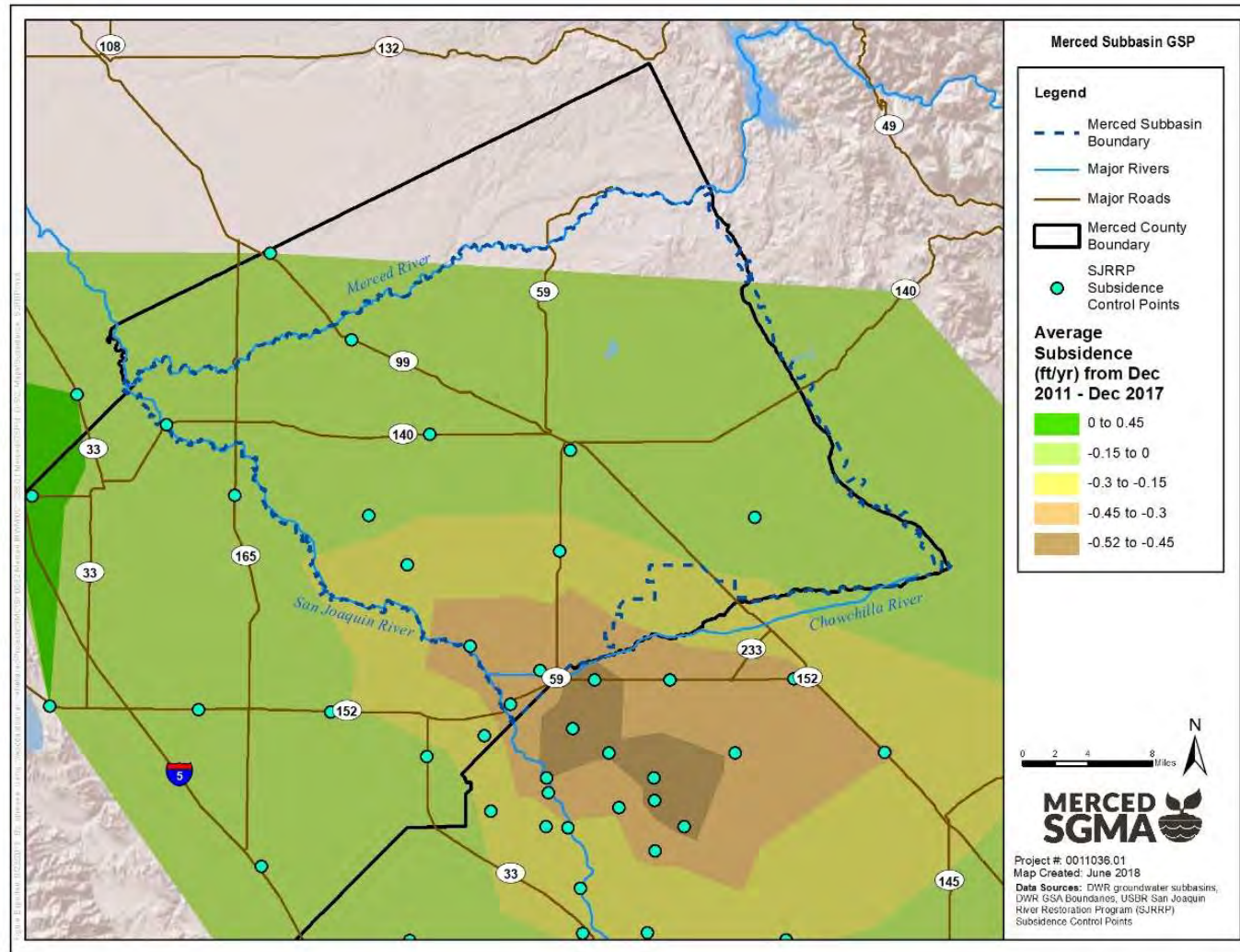
Image courtesy: Veronica Adrover/UC Merced

Summary of Response to Comments on Subsidence

- Gradual process that takes time to develop and time to halt
- Despite wetter conditions 2017-2018, still between -0.17 ft/yr and -0.32 ft/yr
- Due to the thickness and low permeability of clayey units responsible for subsidence, may take years or decades to be fully realized after groundwater levels decline
- Some level of future subsidence, likely at similar rates, likely to be underway already and will not be able to be prevented
- Continue coordinate efforts with Chowchilla & Delta-Mendota to develop regional or local solutions to regional subsidence
- InSAR data potentially useful in Annual Reporting in conjunction with existing USBR control points and will be evaluated more thoroughly as part of the GSP 5-year update

Image courtesy: Veronica Adrover/UC Merced

Subsidence map



Water Quality SMC – Merced GSP Approach

- Set minimum thresholds for constituents where groundwater extractions affect groundwater quality (causal nexus) and GSAs have authority to control
- Minimum Threshold: 1,000 mg/L Total Dissolved Solids (TDS, measurement of salinity)
- Based on:
 - 1,000 mg/L TDS upper limit Secondary Maximum Contaminant Level (SMCL) from SWRCB – aesthetic standard
 - Agricultural salt tolerances range from 640 - 1,100 mg/L TDS
- Numerous other programs and authorities govern and monitor drinking WQ and contaminants:
 - US Environmental Protection Agency
 - State Division of Drinking Water (DDW) and Department of Pesticide Regulation (DPR)
 - Regional Water Board Irrigated Lands Regulatory Program (ILRP)
- GSAs will conduct ongoing water quality coordination activities

Image courtesy: Veronica Adrover/UC Merced

Summary of Response to Comments on WQ

- Salinity selected as indicator – causal nexus
- GSAs recognize importance of protecting drinking water quality
- Water quality addressed through various water quality programs and agencies that have authority and responsibility to address
 - Desire to coordinate with these agencies and their ongoing efforts to avoid duplication of efforts and efficiently use limited resources
- Coordination activities include:
 - Monthly data review DPR, DDW, EnviroStor, & GeoTracker GAMA.
 - Quarterly check-ins with existing monitoring programs
 - Annual review of monitoring reports (e.g. CV-SALTS & ILRP)
 - Invite agencies to annual meeting constituent trends and concerns
 - Consider potential beneficial and adverse effects on groundwater quality in siting groundwater recharge projects and other management actions

Tentative Dates for GSP Adoption Hearings

- TIWD GSA-1: *November 19, 2019*
- MSGSA: *to be scheduled second week of December*
- MIUGSA: *December 11, 2019*

Image courtesy: Veronica Adrover/UC Merced



GSP Implementation Planning

Image courtesy: Veronica Adrover/UC Merced



First Year Implementation Priority Items

- Pursue funding opportunities
 - Create a Data Gaps plan
 - Address Data Gaps
 - Establish groundwater pumping monitoring and reporting program
- Preparation of First Annual Report – due April 1
 - GSP Program Management (CC/SC coordination, outreach)
 - Collect and analyze water level, water quality, and subsidence data
 - Develop methodology for establishing minimum thresholds at new wells
- Finalize allocation framework and implementation plan

Prop 68 Grant Proposal

W&C Proposal

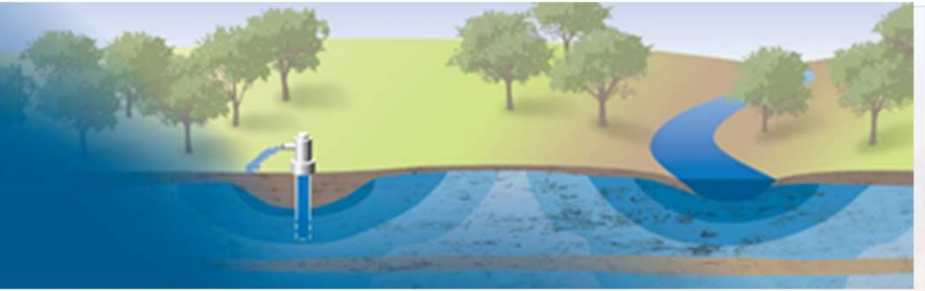
Image courtesy: Veronica Adrover/UC Merced

Discussion – Stakeholder Committee During Implementation

- Which topics are most of interest to SC?
 - Allocation Framework
 - Monitoring and Reporting GW Use (Remote-sensing, metering...)
 - Funding
 - Projects
 - Water Quality
 - Subsidence
 - Water Level
 - Groundwater Dependent Ecosystems/Environmental Water Use
 - Other
- Composition of Stakeholder Committee
- Frequency and Structure of Meetings

Image courtesy: Veronica Adrover/UC Merced

Sustainable Groundwater Management (SGM) GRANT PROGRAM



- Prop 68 Grant Application due November 1, 2019
- Submitting grant for maximum eligible amount, \$500,000
- Coordinating Committee ad hoc working group directed development of grant content focusing on 2 items:
addressing data gaps and remote-sensing of basin water use
- Anticipated to be highly competitive
- Collecting letters of support from communities/organizations within basin, Stakeholder Committee, and neighboring GSAs (Turlock, Delta-Mendota, Chowchilla)

Image courtesy: Veronica Adrover/UC Merced

Merced Subbasin Grant Proposal Summary

Component 2: Addressing GSP Data Gaps

- Develop plan to address gaps
- Upgrade & incorporate existing wells into network
- Install new well(s) in critical locations
- Stakeholder outreach

Component 3: Develop Remote Sensing Decision Support Tool

- Develop a GIS-based tool that can utilize satellite-based evapotranspiration data to estimate net groundwater use
- Develop estimates of current and ongoing net groundwater use in the basin
- Create TM documenting tool, uses, and limitations
- Stakeholder Outreach

Merced Subbasin GSP Development Project for Addressing Critical Data Gaps

Project Goal: to advance the development of the Merced Subbasin GSP by addressing critical data gaps related to groundwater monitoring and basin water use

Project Objectives:

1. Prioritize data gaps
2. Increase the number of wells in the monitoring networks
3. Improve understanding of current groundwater use in the basin
4. Develop tool to quantify ongoing basin water use to support development of basin management actions
5. Engage stakeholders to participate in the SGMA process, data gathering, and prioritization

Merced GSP

GSP Goal: to achieve sustainable groundwater management on a long-term average basis by increasing recharge and/or reducing groundwater pumping, while avoiding undesirable results

Letters of Support (as of 10/25)

1. City of Atwater
2. City of Livingston
3. City of Merced
4. City of Merced Fire Department
5. City of Merced School District
6. County of Merced
7. East Merced Resource Conservation District
8. Merced County Farm Bureau
9. Planada CSD
10. Sandy Mush Mutual Water Company
11. Stevinson Community Post Office Association
12. Stevinson Water District
13. Valley Land Alliance
14. Bill Spriggs, SC Member

Neighboring Subbasin Letters

1. Chowchilla
2. Turlock
3. Delta-Mendota

Image courtesy: Veronica Adrover/UC Merced

GSP First Annual Report

- Due April 1, 2020 and must cover WYs 2015-2019
- At staff request, W&C prepared a proposal for preparing first annual report.
- Proposal includes optional tasks for: Program Management, Stakeholder Engagement Plan Update, and Evaluation of GDE Pulse Tool

	Nov 15- 30	Dec 01- 15	Dec 16- 31	Jan 01- 15	Jan 16- 31	Feb 01- 15	Feb 16- 29	Mar 01- 15	Mar 16- 30	Apr 01
Notice to Proceed; Develop Data Request										
Collect required data										
Compile and QC required data										
Prepare annual report										
Review draft annual report										
Approval annual report										
Submit annual report										
Project Management										



Water Allocation Framework

Image courtesy: Veronica Adrover/UC Merced



Here's what is in document

- Explanation that GSAs intend to allocate water to each GSA but have not yet reached agreement on allocations or how they will be implemented
- Estimates of basin-wide sustainable yield and developed supply for illustrative purposes

Image courtesy: Veronica Adrover/UC Merced



Public Outreach Update

Image courtesy: Veronica Adrover/UC Merced



Public Outreach Update

- Adoption hearings to be held in Fall 2019

Image courtesy: Veronica Adrover/UC Merced

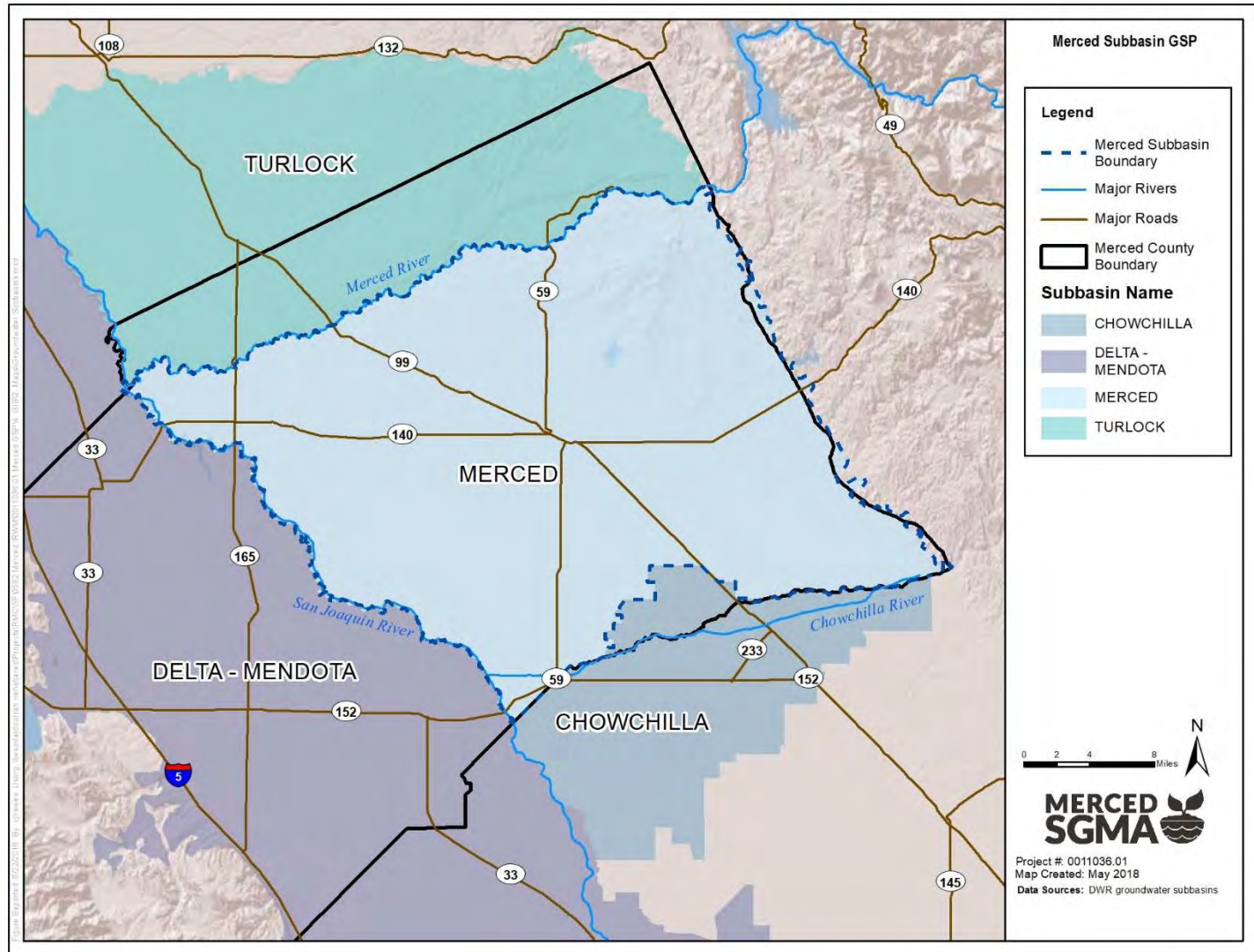


Coordination With Neighboring Basins Update

Image courtesy: Veronica Adrover/UC Merced



Coordination with Neighboring Basins





Questions/Comments from Public

Image courtesy: Veronica Adrover/UC Merced





Next Steps

Image courtesy: Veronica Adrover/UC Merced



What's coming up next?

- Submission of Prop 68 Grant Application by Nov 1
- GSA Board Adoption Hearings
- Adjourn to next meeting: not currently scheduled

Image courtesy: Veronica Adrover/UC Merced

GSP Stakeholder Committee

Stakeholder Committee Meeting – October 28, 2019

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