
Merced GSP Stakeholder Advisory Committee

Stakeholder Advisory Committee Meeting – January 31, 2022

Image courtesy: Veronica Adrover/UC Merced

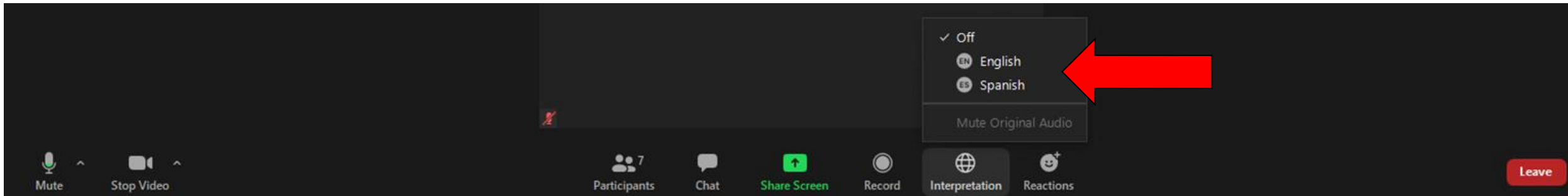
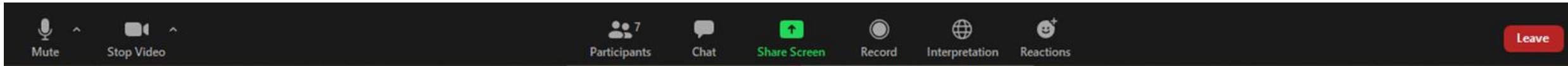


Welcome, Instructions for Zoom

Bienvenidos, Instrucciones para Zoom

We have two language audio channels available. English only speakers, please select English.

Si solamente habla español, debe seleccionar un canal de idioma



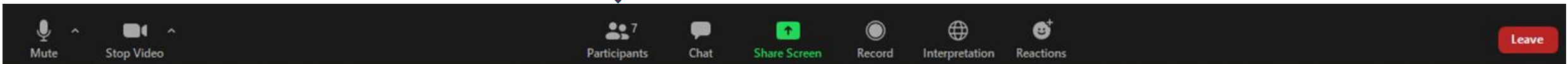
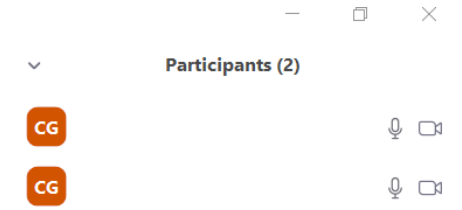
The meeting will have simultaneous interpreting, so you are welcome to comment in your native language.
La junta será interpretada simultáneamente, así que le invitamos a que haga comentarios en su lenguaje nativo.

Welcome, Instructions for Zoom

- We are beginning the meeting with everyone on mute.
- Please keep yourself muted until called upon and asked to unmute.
- We recommend that you view in “Gallery View” to see the project team and Stakeholder Committee members.
- If you have comments, please use the “**Raise Hand**” feature:
 - Stakeholder Committee: during discussion time
 - Members of the Public: during Public Comment or when the moderator asks for public comments.
- The moderator will call on you to unmute.
- If you cannot hear the host or have technical issues, use the **Chat** to Host and we will try to address the issue.

Stakeholder Advisory Committee Members

- Please keep your video on whenever possible.



SAC January 31 Agenda

1. Call to Order and Welcome
2. Roll Call
 - a) Review of Agenda and Meeting Guidelines, Charles Gardiner
3. SGMA Implementation Grant Application
 - a) Existing projects and new projects considered, Jim Blanke
 - b) Project selection approach, Jim Blanke
 - c) Status and next steps, Jim Blanke
 - d) SAC discussion and input
4. DWR GSP Comments
 - a) Update on DWR comments on the GSP, Jim Blanke
5. Drought Update
 - a) Drought update, Jim Blanke
 - b) SAC discussion
6. GSA Reports
 - a) Coordination Committee, Jim Blanke
 - b) Merced Subbasin GSA, Lacey McBride
 - c) Merced Irrigation-Urban GSA, Hicham ElTal
 - d) Turner Island Water District GSA #1, Kel Mitchel
 - e) SAC questions and discussion
7. Public Comment
8. Next Steps and Adjourn

Stakeholder Advisory Committee Members

Present	Committee Member	Interest/Affiliation	Present	Alternate	Interest/Affiliation
	Arlan Thomas	MIDAC member		Ben Migliazzo	Live Oak Farms
	Bob Kelley	Stevinson Representative		Blake Nervino	Stevinson/Merquin
	Breanne Ramos	MCFB			
	Craig Arnold	Arnold Farms			
	Darren Olguin	Resident of Merced County			
	Dave Serrano	Serrano Farms - Le Grand			
	David Belt	Foster Farms			
	Emma Reyes	Martin Reyes Farm/Land Leveling			
	Greg Olzack	Atwater Resident			
	Jean Okuye	E Merced RCD			
	Joe Sansoni	Sansoni Farms/MCFB			
	Joe Scoto	Scoto Brothers/McSwain School Dist.			
	Jose Moran	Livingston City Council			
	Lacy Carothers	Cal Am Water			
	Lisa Baker	Clayton Water District			
	Lisa Kayser-Grant	Sierra Club			
	Mark Maxwell	UC Merced			
	Maxwell Norton	Unincorporated area			
	Nav Athwal	TriNut Farms			
	Olivia Gomez	Community of Planada		Nataly Escobedo Garcia	Leadership Counsel
	Parry Klassen	ESJWQC			
	Darcy Brown	River Partners			
	Rick Drayer	Merced/Mariposa Cattlemen			
	Robert Weimer	Weimer Farms			
	Simon Vander Woude	Sandy Mush MWC			
	Susan Walsh	City of Merced		Bill Spriggs	Resident City of Merced
	Thomas Dinwoodie	Master Gardener/McSwain			
	Trevor Hutton	Valley Land Alliance			
	Wes Myers	Merced Grassland Coalition		Lou Myers	Benjamin Land LP

Stakeholder Advisory Committee Meeting Agreements

Guidelines for successful meetings

- Civility is required.
 - Treat one another with courtesy and respect.
 - Be honest, fair, and as candid as possible.
 - Personal attacks and stereotyping are not acceptable.
- Creativity is encouraged.
 - Think outside the box and welcome new ideas.
 - Build on the ideas of others to improve results.
 - Disagreements are problems to be solved rather than battles to be won.
- Efficiency is important.
 - Participate fully, without distractions.
 - Respect time constraints and be succinct.
 - Let one person speak at a time.
- Constructiveness is essential.
 - Take responsibility for the group as a whole and ask for what you need.
 - Enter commitments honestly and keep them.

Image courtesy: Veronica Adrover/UC Merced

Topics Covered at November Stakeholder Advisory Committee

- 1) DWR GSP Review (updates on GSPs in other subbasins)
- 2) Data Gaps Plan (results, status, and well identification)
- 3) Drought Update (status and resources)

Reminder: Slides, notes, and all GSP documents are publicly available at www.mercedsgma.org



SGMA Implementation Grant Application

Image courtesy: Veronica Adrover/UC Merced



SGMA Implementation Grant Funding

- Round 1: \$171M available for grant awards,
 - \$152M for critically overdrafted basins.
 - Total amount will be split evenly to provide \$7.6M per critically overdrafted basin.
- Round 1 is not competitive between basins.
- Later Round 2 is open to all medium and high priority basins not receiving money in Round 1.



Image courtesy: Veronica Adrover/UC Merced

SGMA Implementation Grant Funding

- Incorporates a local scoring process to identify projects for funding
- First step: Identify the projects for consideration
 - GSP contains a list of Projects and Management Actions
 - Some of these have been accomplished
 - Newer projects have been identified
 - GSAs identified existing and new projects for potential funding



SAC questions to be considering:

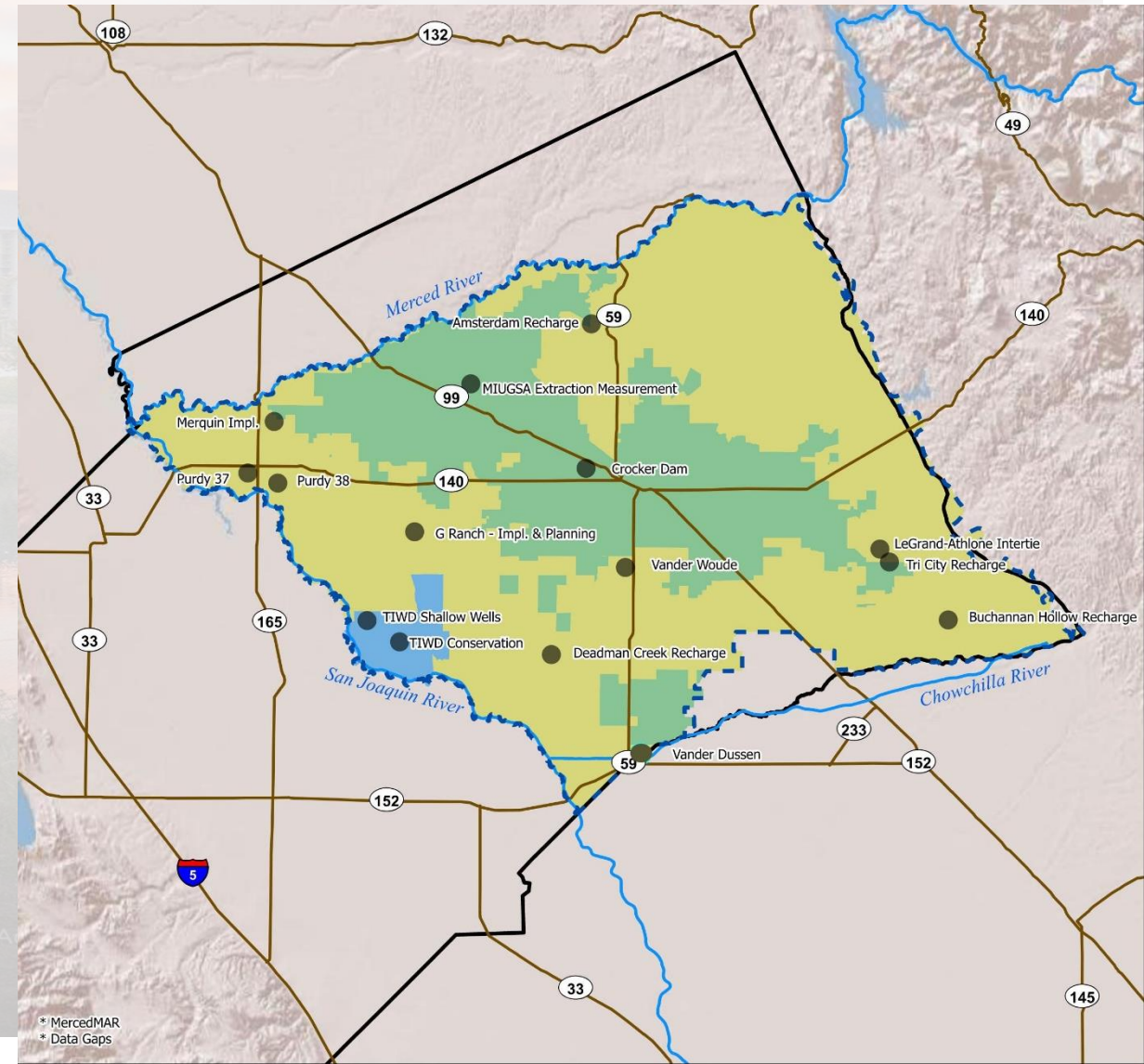
Are these appropriate projects?

Are there other projects that need to added for future consideration?

18 Existing Projects and New Projects Considered

11 Storage and Recharge Projects

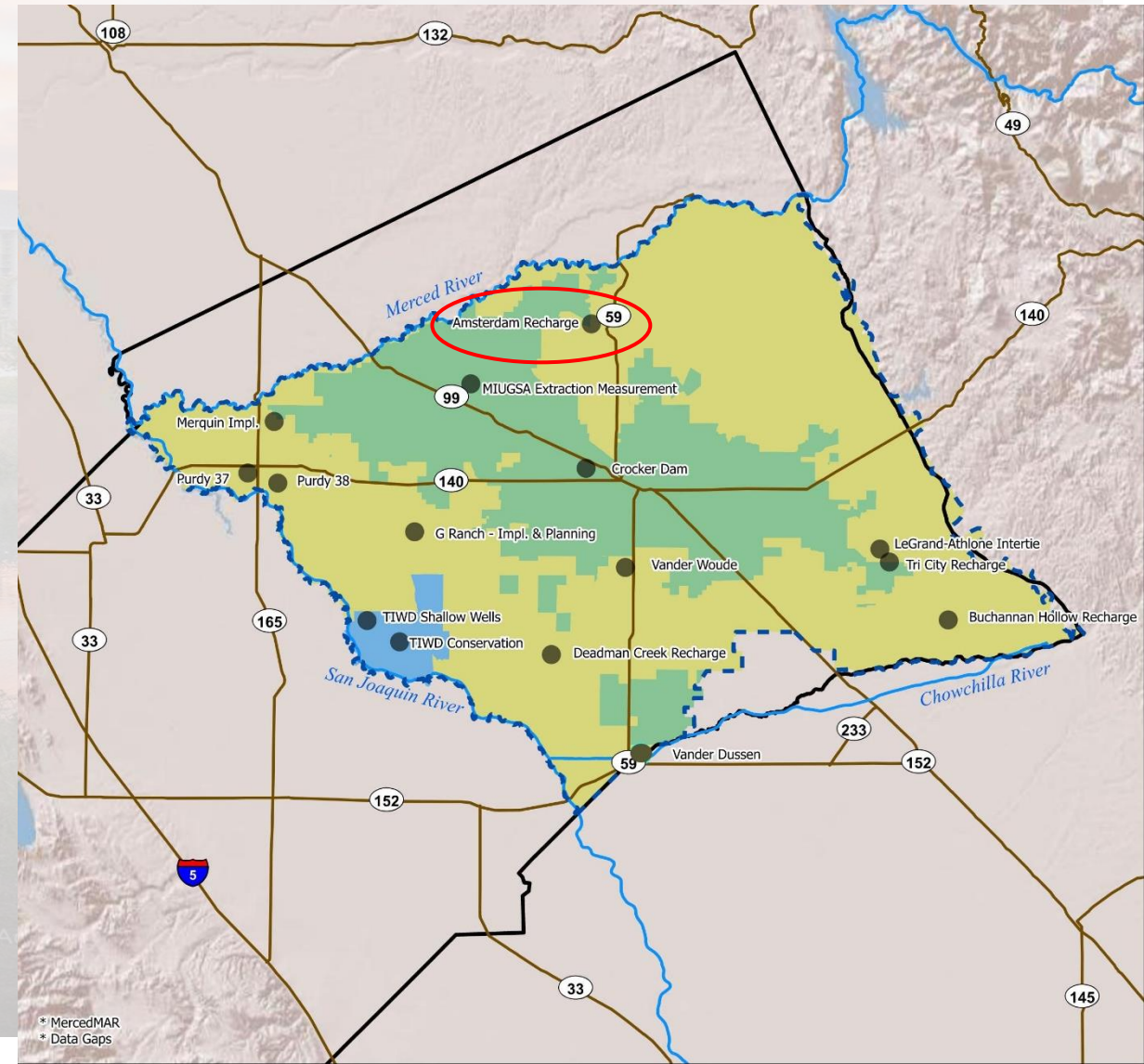
- Amsterdam Water District Surface Water Conveyance and Recharge Project
- Buchanan Hollow Mutual Water Company Floodwater Recharge Project
- Crocker Dam Modification (GSP Project 31)
- Deadman Creek Canal Off Stream Storage and Recharge
- G Ranch Groundwater Recharge, Habitat Enhancement & Floodplain Expansion Project
 - Planning
 - Implementation
- Purdy Project (East Pike Recharge Basin) (Project No. 37)
- Purdy Project (E. Purdy, W. Purdy, and Kevin Recharge Basins) (Project No. 38)
- Tri City's Water Recharge/Underground Storage Feasibility
- Vander Dussen Subsidence Priority Area Flood-MAR Project
- Vander Woude Storage Reservoir



Amsterdam Water District Surface Water Conveyance and Recharge Project

Four project components with an estimated benefit of 6,580 acre-feet per year.

- Approximately 1-mile of 21" PVC pipeline to convey surface water from Canal Creek to an existing 125 acre-foot irrigation reservoir.
- 3 recharge ponds totaling approximately 53-acres.



Buchanan Hollow Mutual Water Company Floodwater Recharge Project

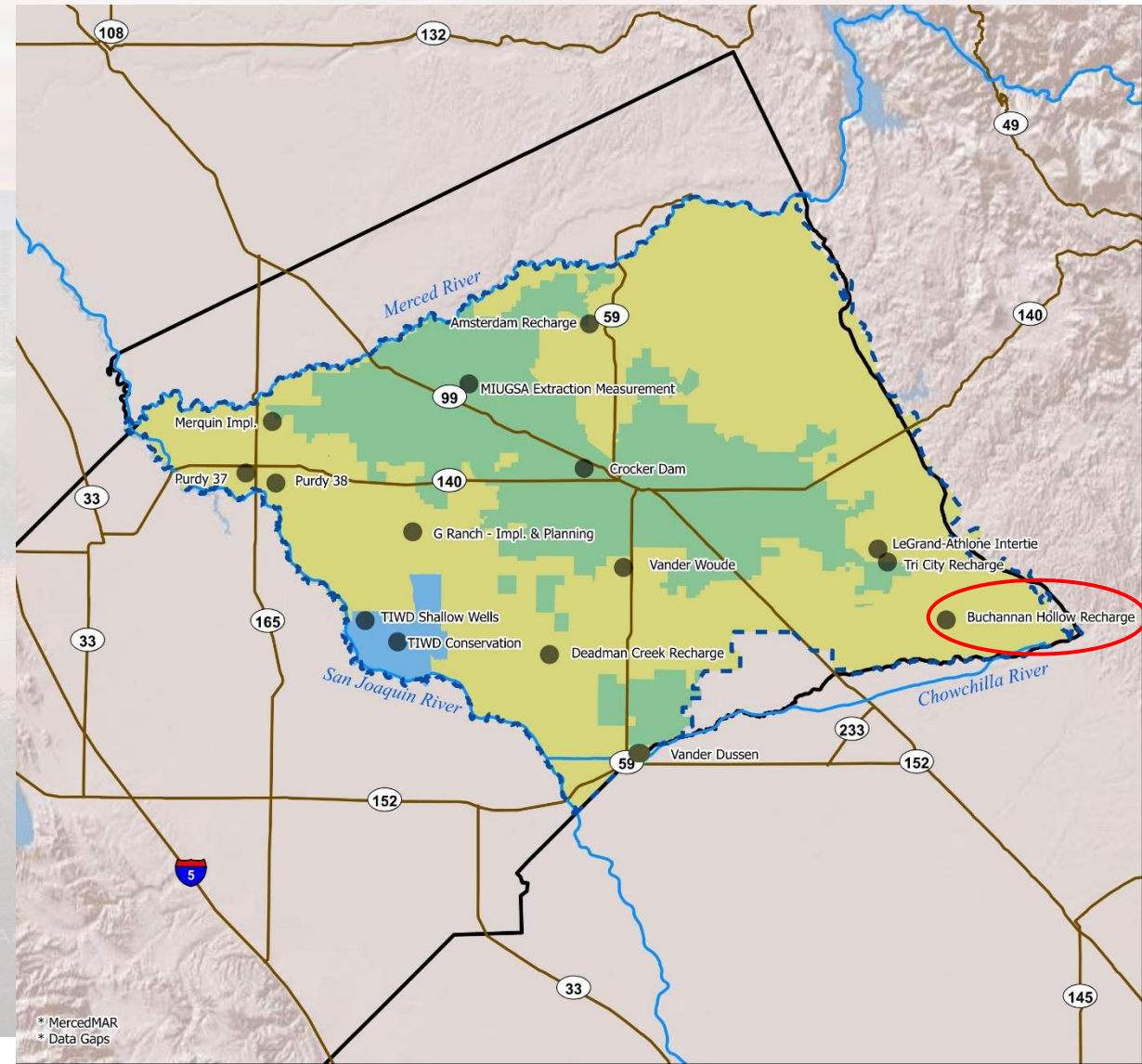
Three recharge ponds utilizing floodwater from Dutchman Creek.

- 25.2-acres
- 5.8-acres
- 16.4-acres

Floodwater diverted using two 5 cubic feet per second pumps, approximately 900 acre-feet per year (AFY).

The total yield: approximately 1,030 AFY.

The land is currently farmed with figs and almonds with a current crop demand of 130 AFY.

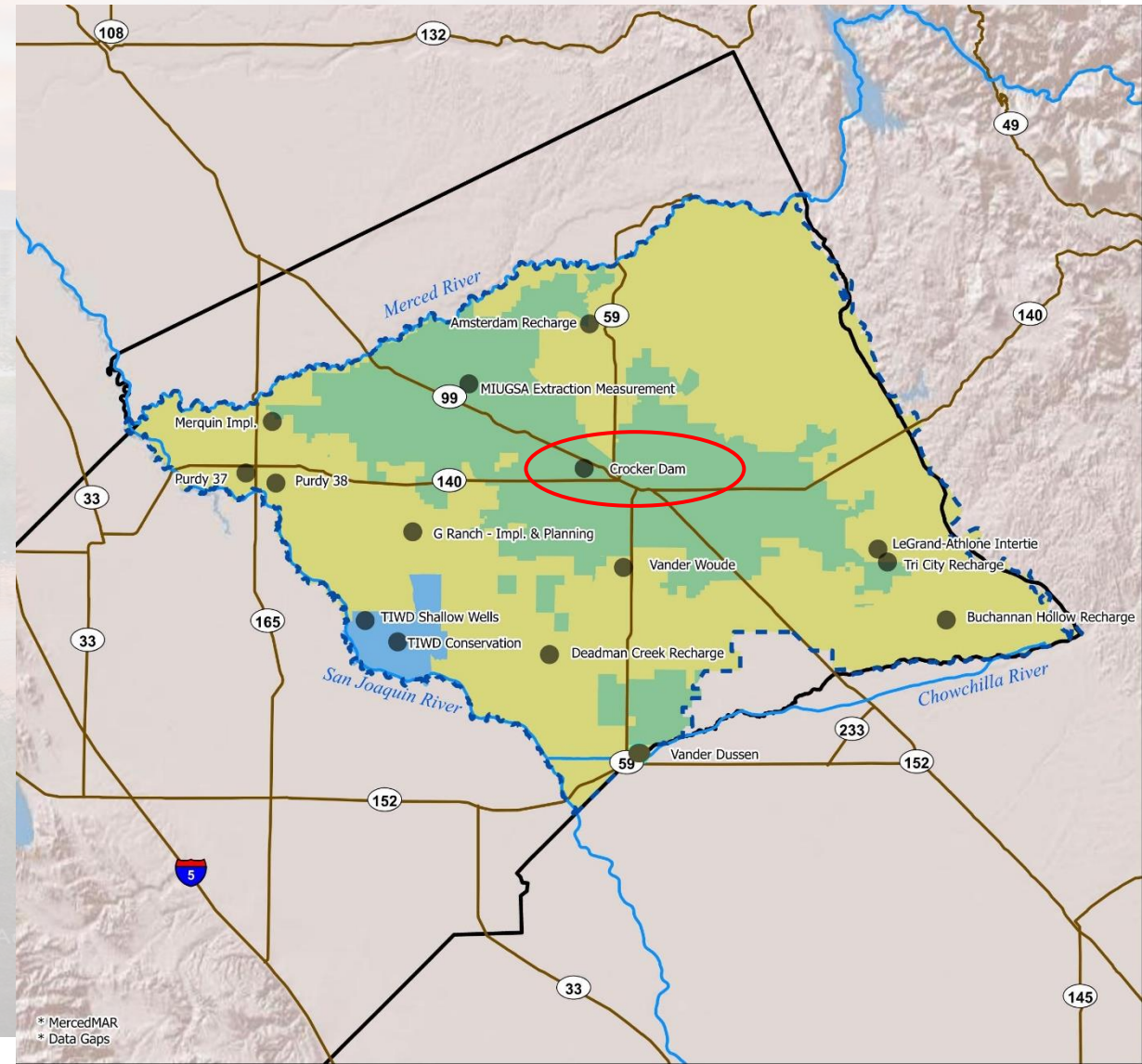


Crocker Dam Modification (GSP Project 31)

Automatic gates at MID's Crocker Dam, located just west of Merced at the bifurcation of Black Rascal Creek and Bear Creek.

Automatic gates would allow for MID to remotely operate the dam and adaptively manage the flows in Bear Creek/Black Rascal Creek.

Provides improved flood control downstream, water storage, and be a supply for groundwater recharge from stormwater (Flood-MAR).



Deadman Creek Canal Off Stream Storage and Recharge

The project will allow for acceptance of MID in-season flows when available.

A 675-acre-foot storage and regulating reservoir situated on 160 acres (gross) and an 80-acre recharge project

Conveyed via 2-mile-long 100 CFS Deadman Creek Canal linking Deadman Creek and the terminus ends of MID's Benedict and CaseBeer canals with Lone Tree MWC's Fenceline Canal.

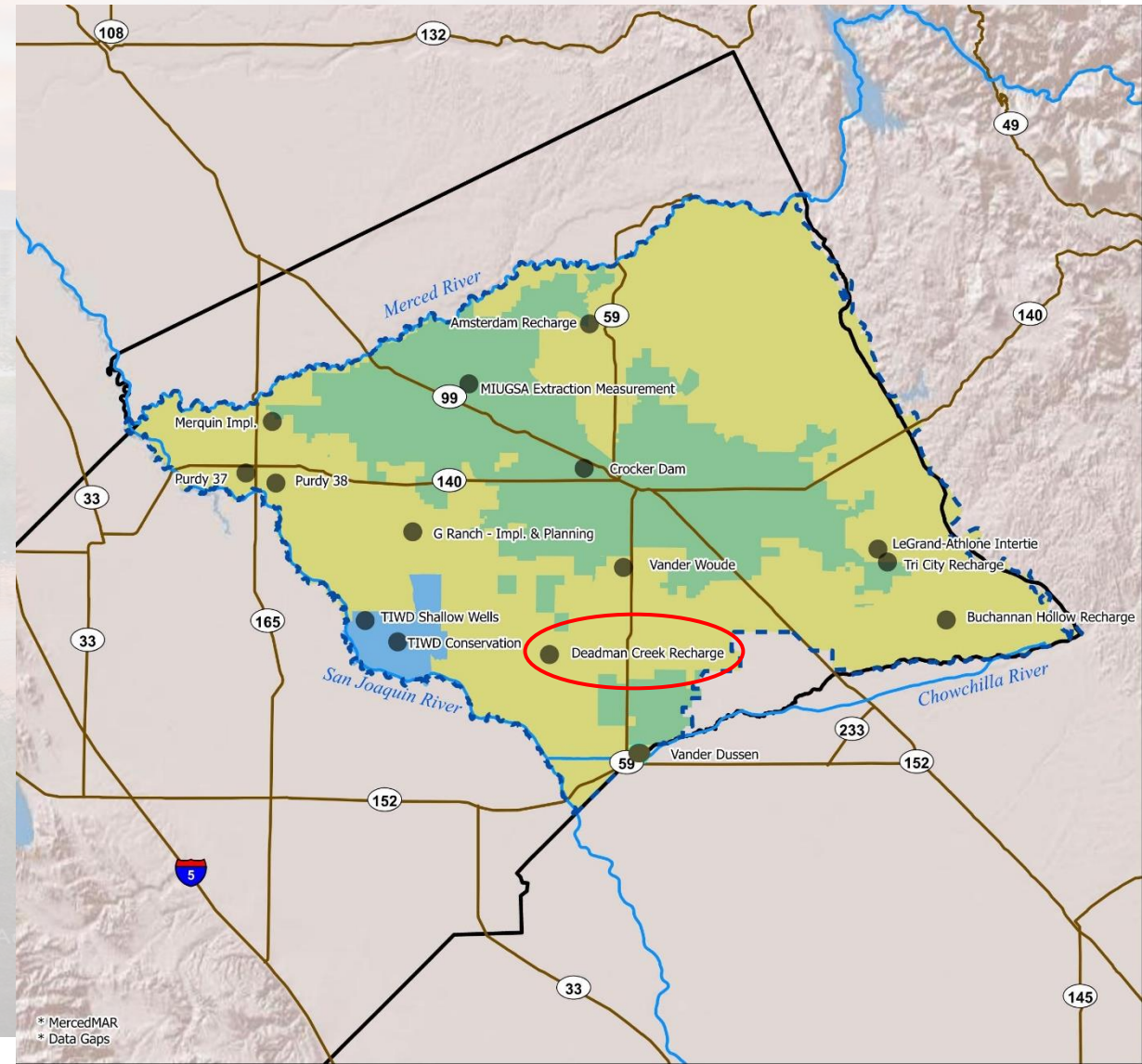


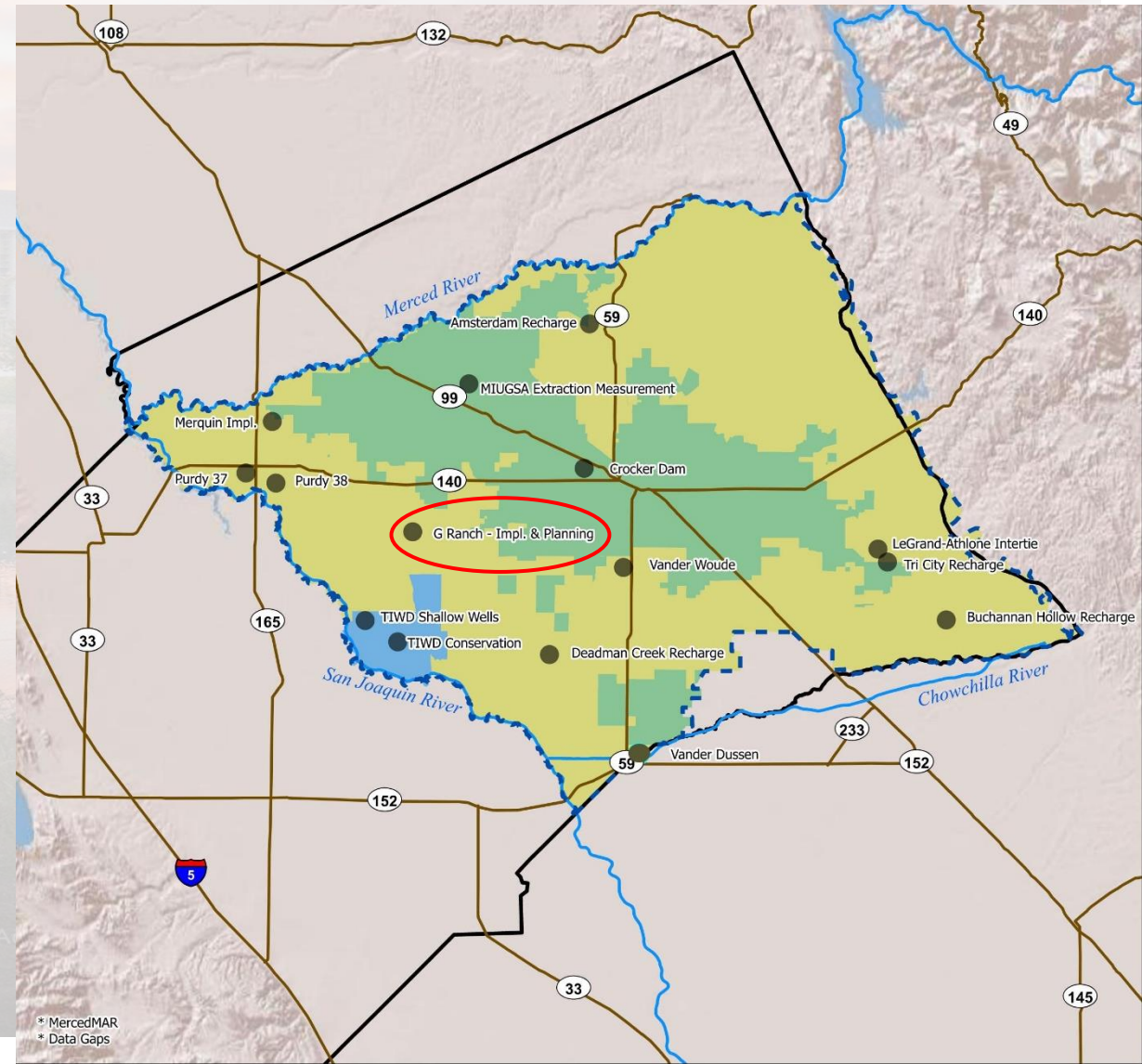
Image courtesy: Veronica A

G Ranch Groundwater Recharge, Habitat Enhancement & Floodplain Expansion Project - Planning

Planning, design, and environmental permitting of the groundwater recharge ponds and floodplain re-establishment.

The entire project would be utilized for habitat enhancement and groundwater recharge, providing additional wetland habitat for migrating waterfowl.

- Enhance 270-acres of existing wetlands
- Re-establish the remaining 169 acres of double-cropped farmland to floodplains



G Ranch Groundwater Recharge, Habitat Enhancement & Floodplain Expansion Project - Implementation

Implementation and construction of wetlands and floodplains described on the previous slide

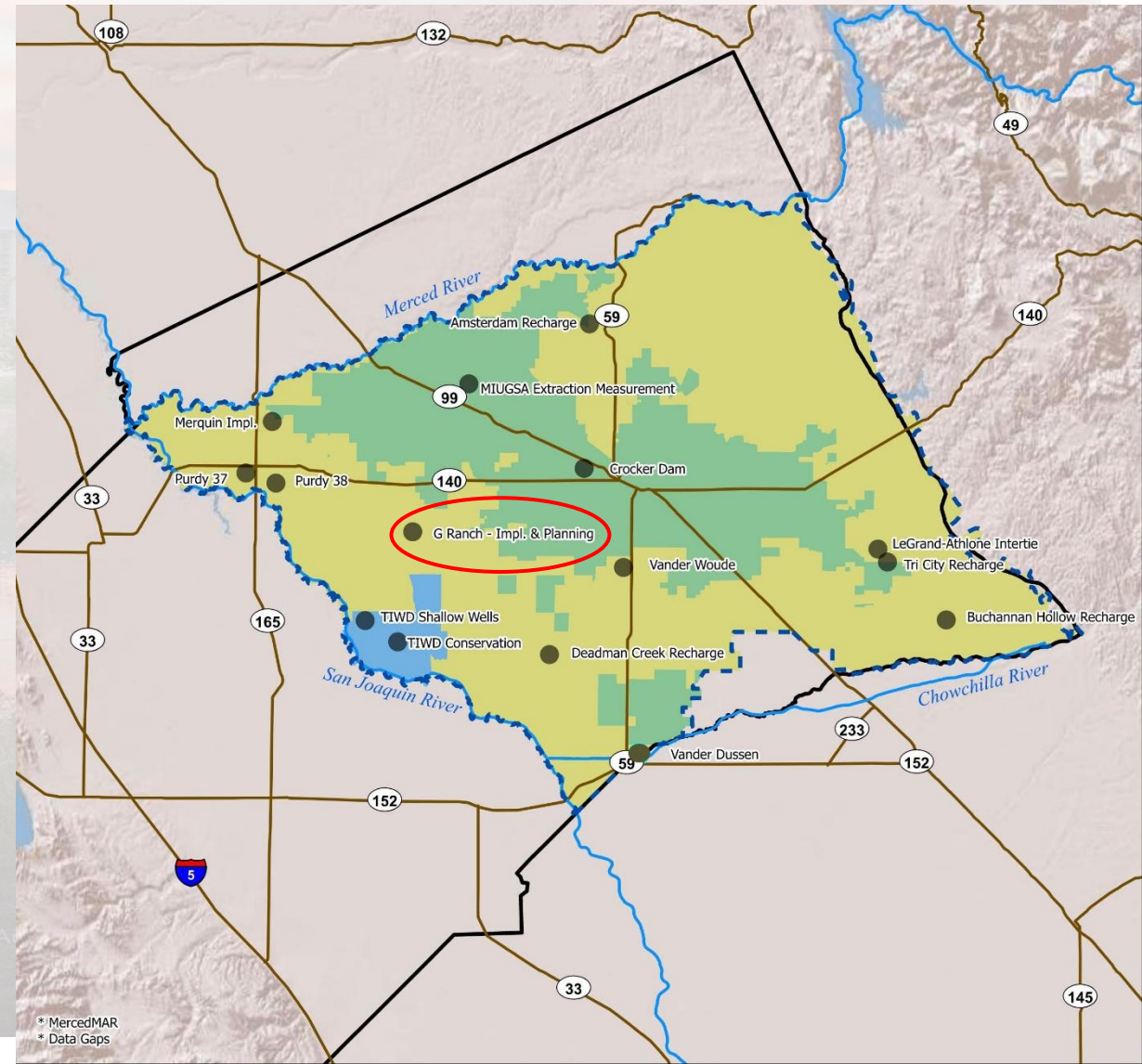


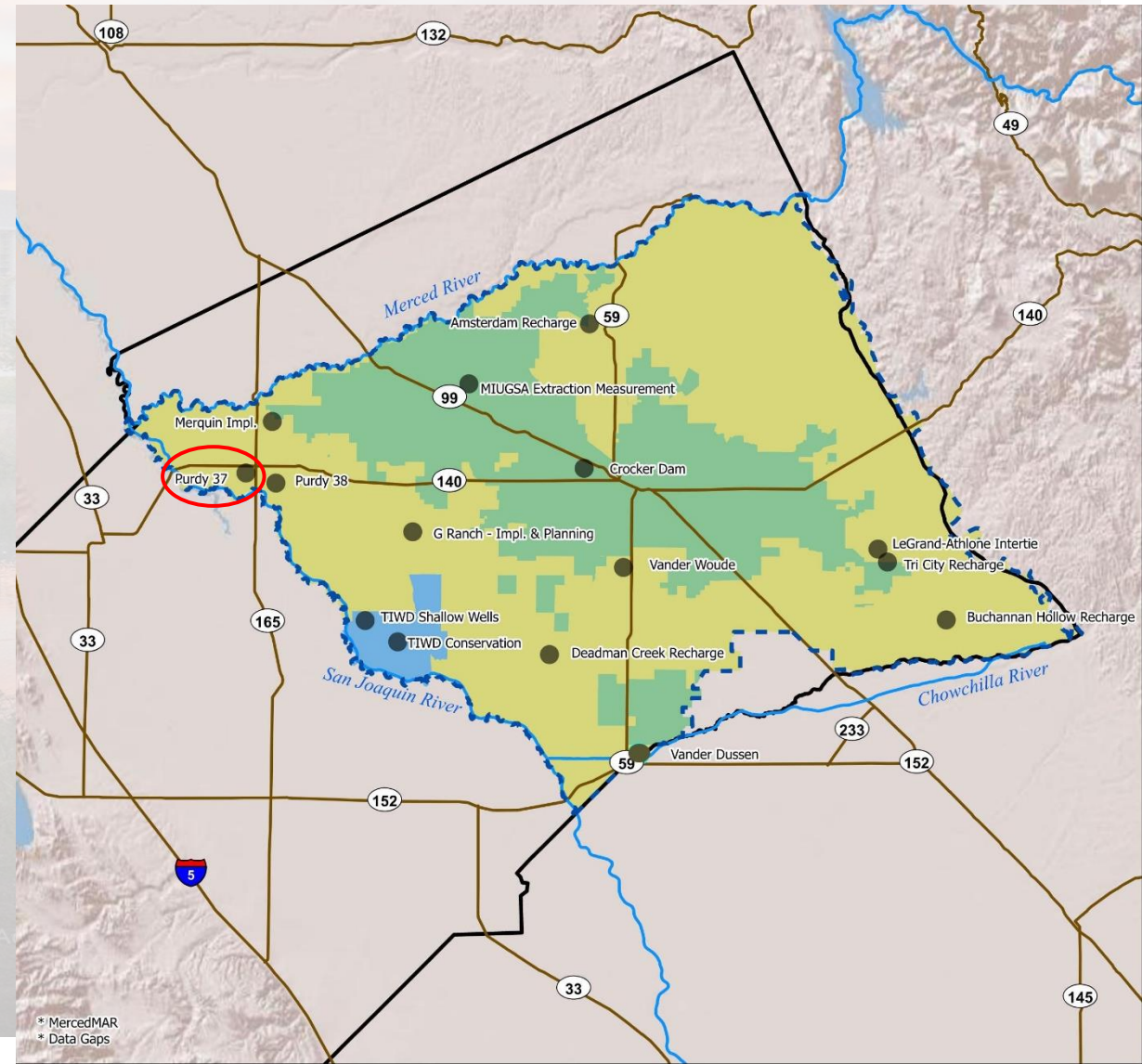
Image courtesy: Veronica A

Purdy Project (East Pike Recharge Basin) (Project No. 37)

Stormwater recharge on 130 acres of farmland

Capacity to recharge up to 1,080 acre-feet/year of storm event runoff captured during above normal and wet hydrologic year types

Conveyance by Stevinson WD distribution facilities and the East Side Canal assuming a two-month period of operation during years when storm water is available for recharge.

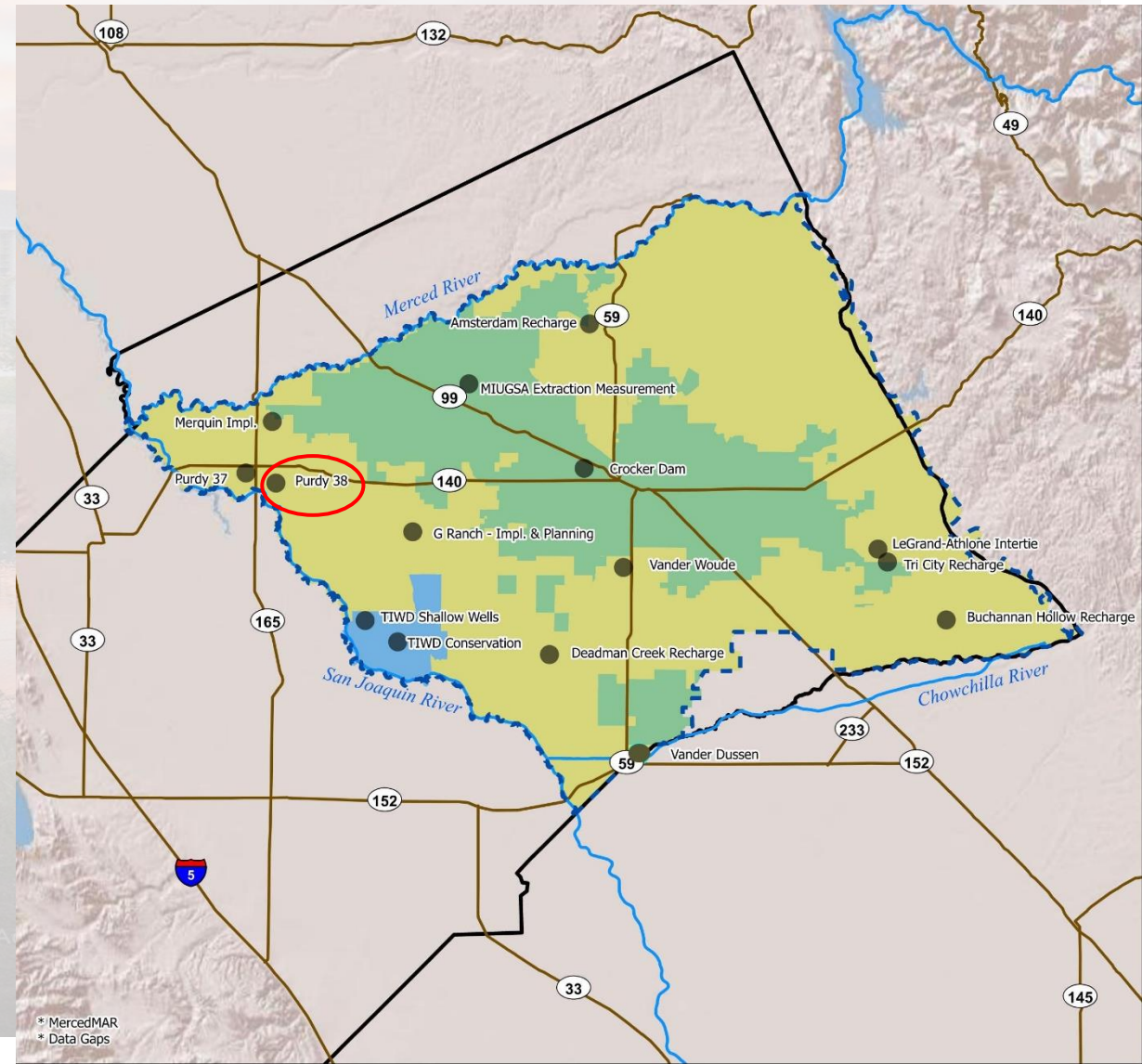


Purdy Project (E. Purdy, W. Purdy, and Kevin Recharge Basins) (Project No. 38)

Stormwater recharge on 157 acres of farmland

Capacity to recharge up to 1,300 acre-feet/year of storm event run off captured during above normal and wet hydrologic year types

Conveyance by Stevinson WD distribution facilities and the East Side Canal assuming a two-month period of operation when stormwater is available for recharge.



Tri City's Water Recharge/Underground Storage Feasibility

Geo-technical analysis to determine floodMAR recharge feasibility and aquifer conditions to store recharged water.

Analyze the ability to recharge outside of Corcoran clay to benefit sub Corcoran water levels further west in the basin.

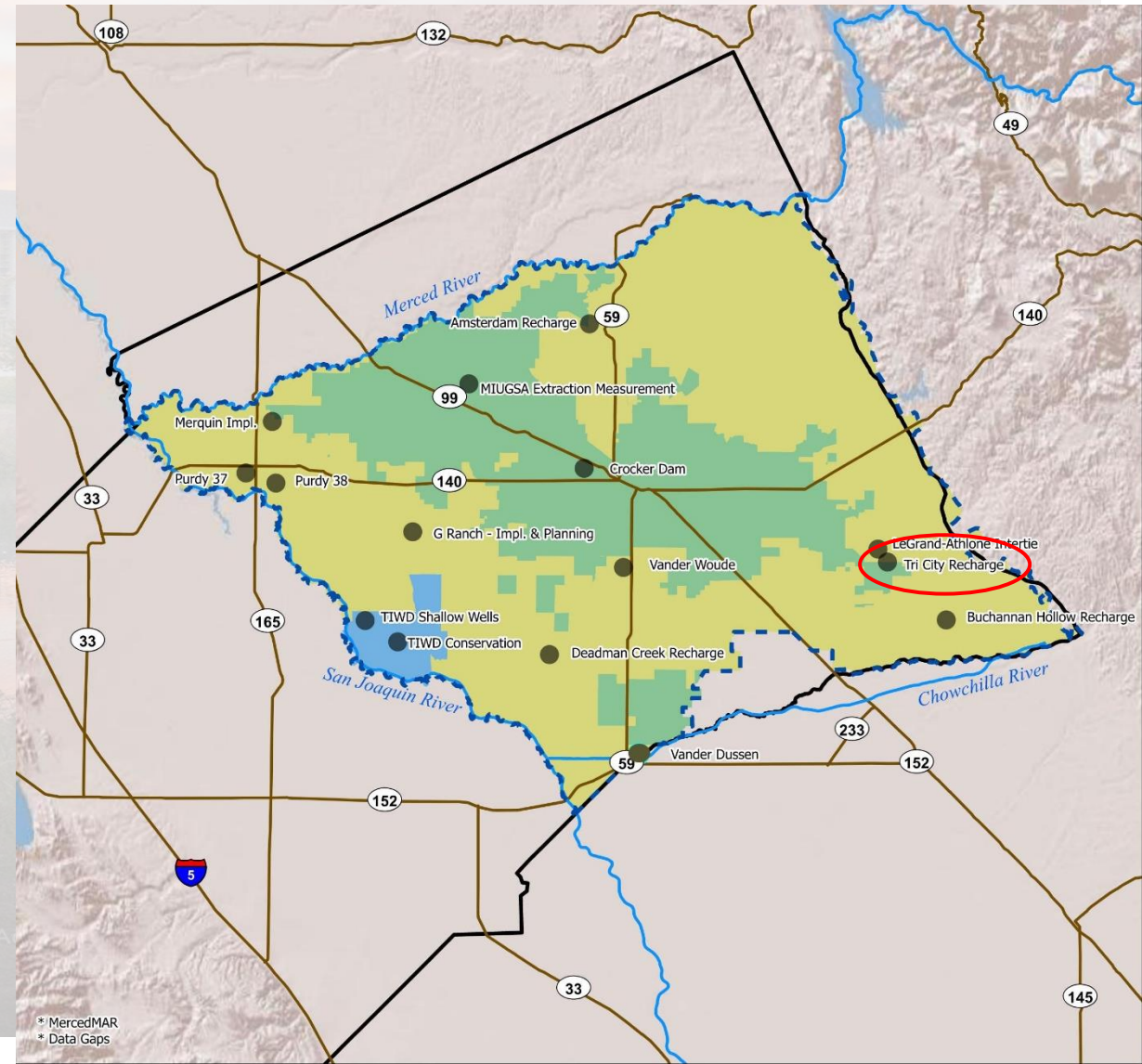
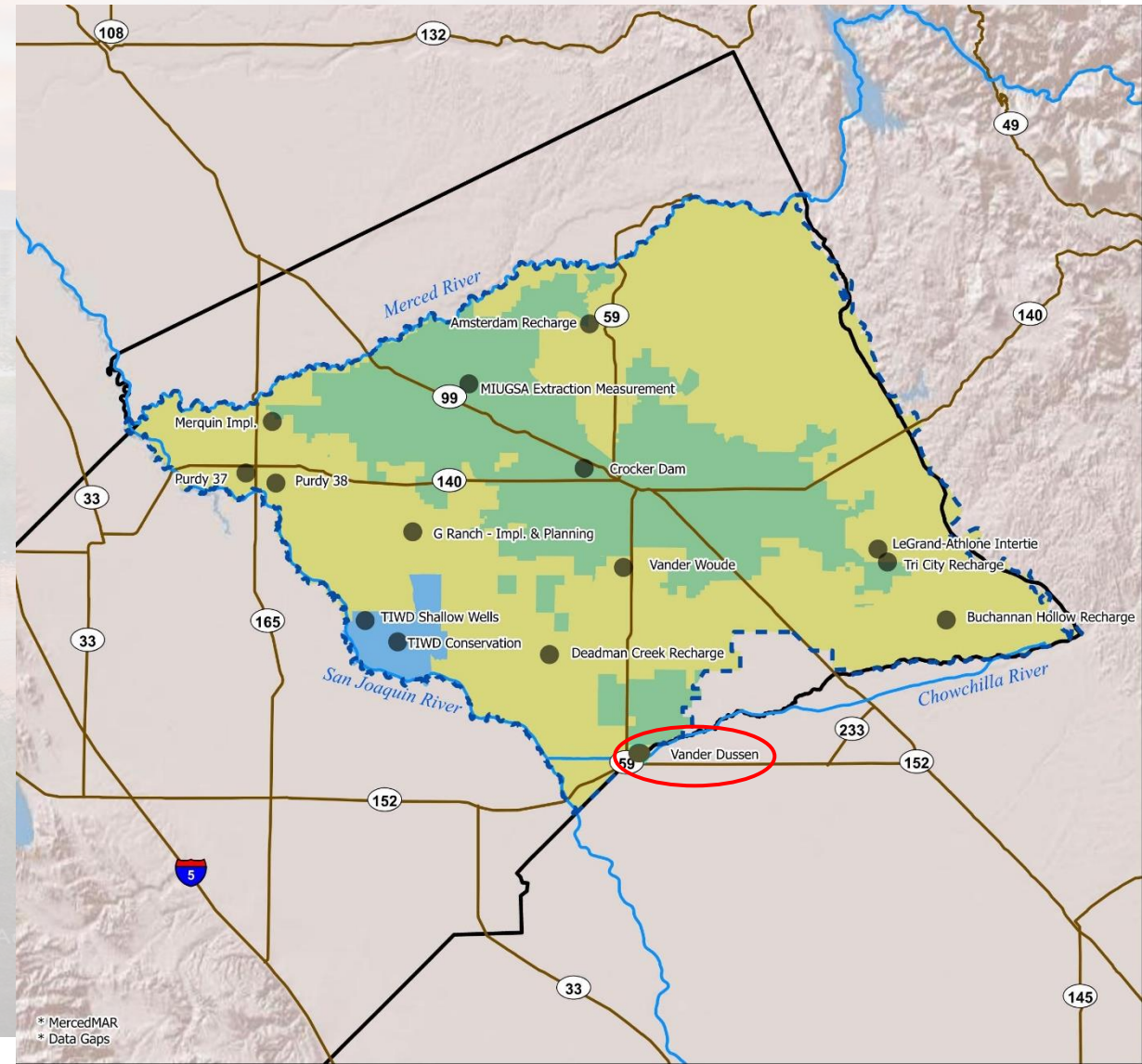


Image courtesy: Veronica A

Vander Dussen Subsidence Priority Area Flood-MAR Project

1.25 mile earthen canal from Merced Irrigation District's El Nido Canal to 685 acres of agricultural fields

With 90 days of flood flows, the 20 cubic feet per second canal will yield ~3,600 acre-feet of recharge.



Vander Woude Storage Reservoir

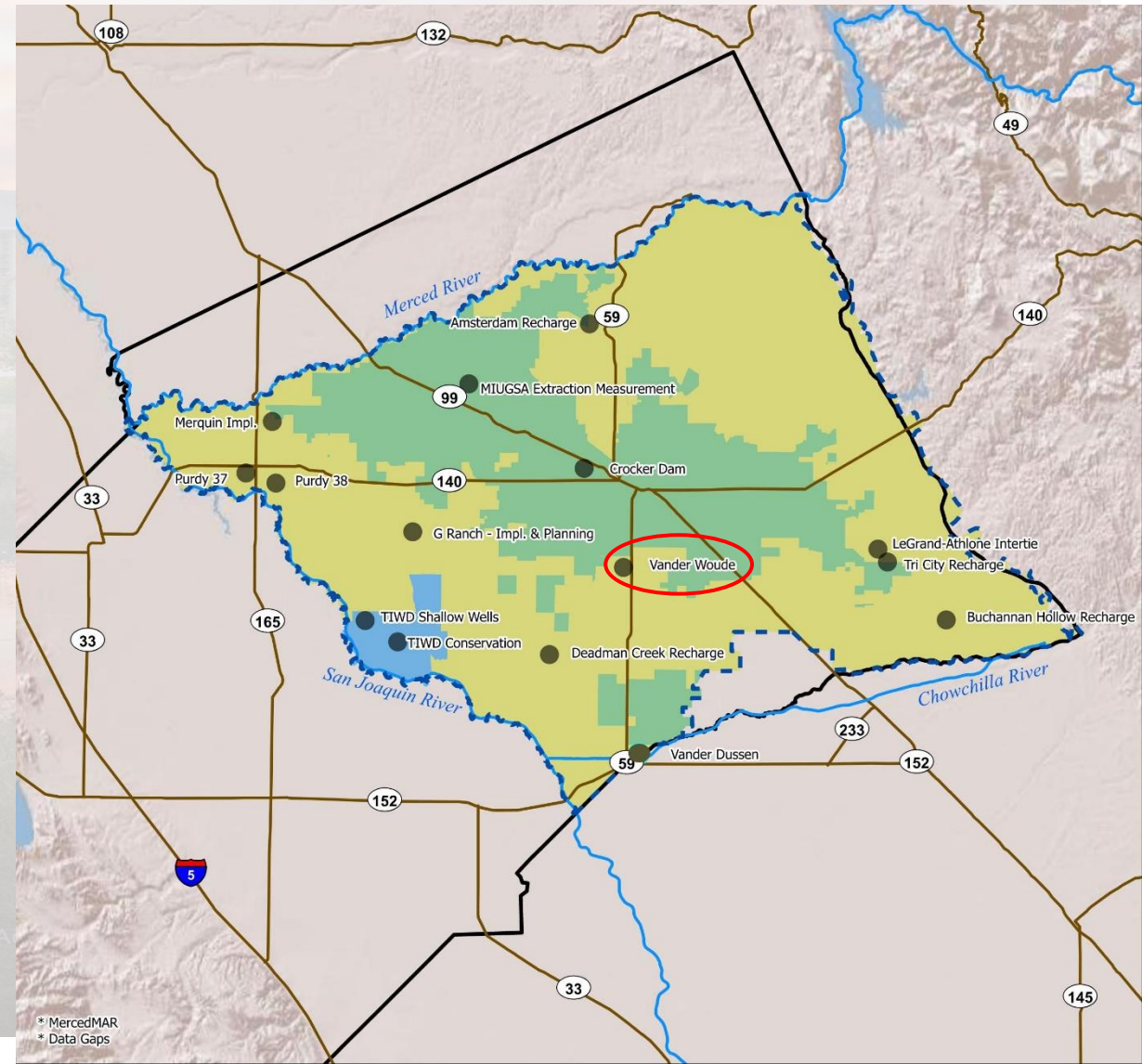
30-acre storage reservoir with a capacity of 250 acre-feet (AF).

Divert flood water from Mariposa and Owens Creeks and store it for later use to meet crop demand.

It's estimated the reservoir would be filled 3 times per year for an estimated yield of 750 AFY.

Project would permanently fallow 30-acres of productive farmland that has a crop demand of 150 AFY.

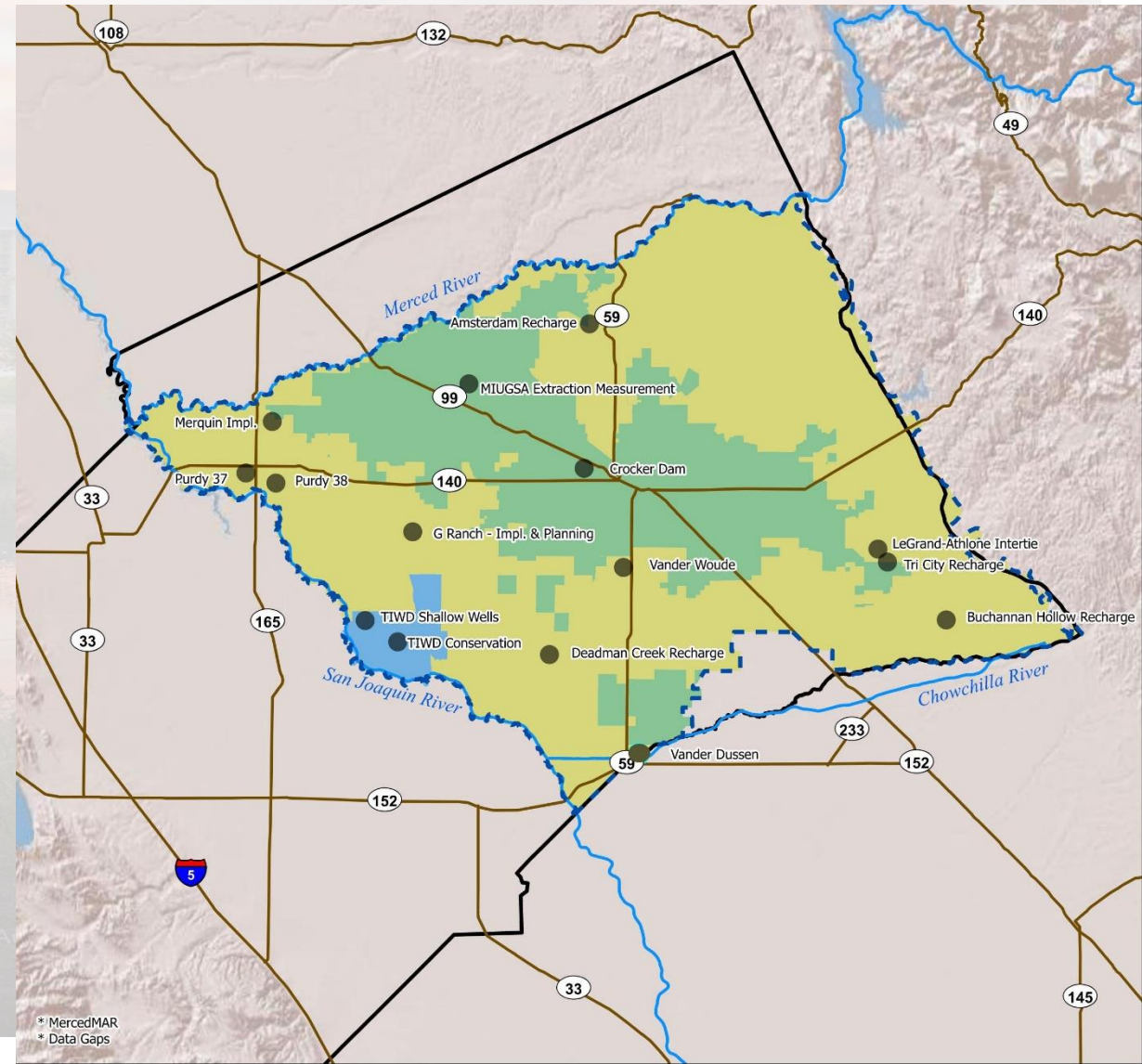
The total project yield is 900 AFY.



18 Existing Projects and New Projects Considered

7 Interties and monitoring/management projects

- Filling Data Gaps Identified in Data Gaps Plan
- LeGrand-Athlone Water District Intertie Canal - Phase 2
- Merced Water Resources Model Enhancement
- Merquin County Water District Sustainable Yield Management Plan and Plan Implementation
- MIUGSA Groundwater Extraction Measurement Program
- Turner Island Water District (TIWD) Water Conservation
- TIWD Shallow Well Drilling



Filling Data Gaps Identified in Data Gaps Plan

Monitoring well drilling to improve monitoring networks, based on priority areas identified in the Data Gaps Plan

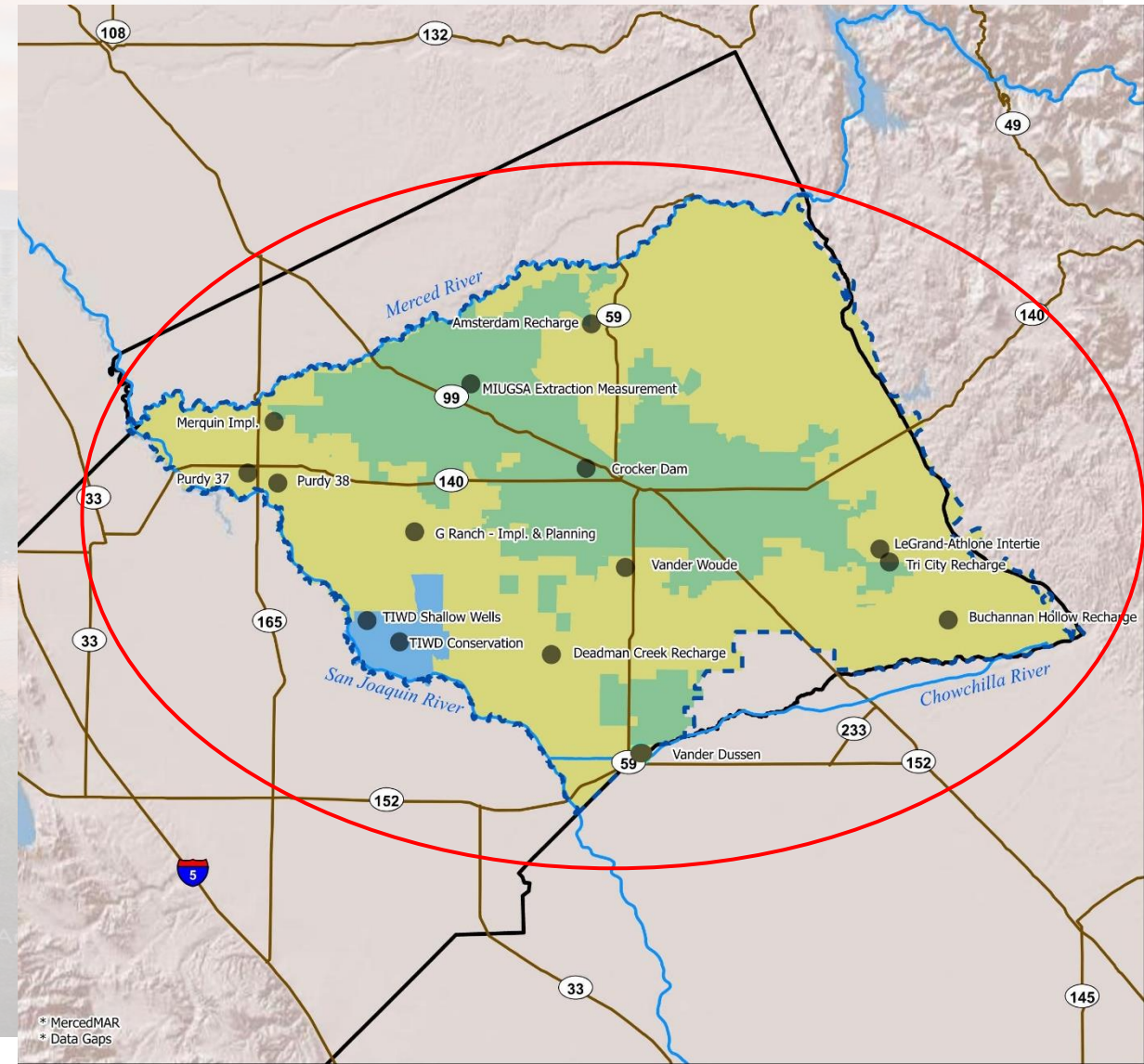


Image courtesy: Veronica A

LeGrand-Athlone Water District Intertie Canal - Phase 2

Funding towards completion of Phase 2 of the LGAWD Intertie Canal.

2-mile canal would capture and store floodwaters conveying 125 cubic feet per second of floodwater for Flood Managed Aquifer Recharge (Flood-MAR) on approximately 40,000 acres of productive farmland in the Merced Subbasin.

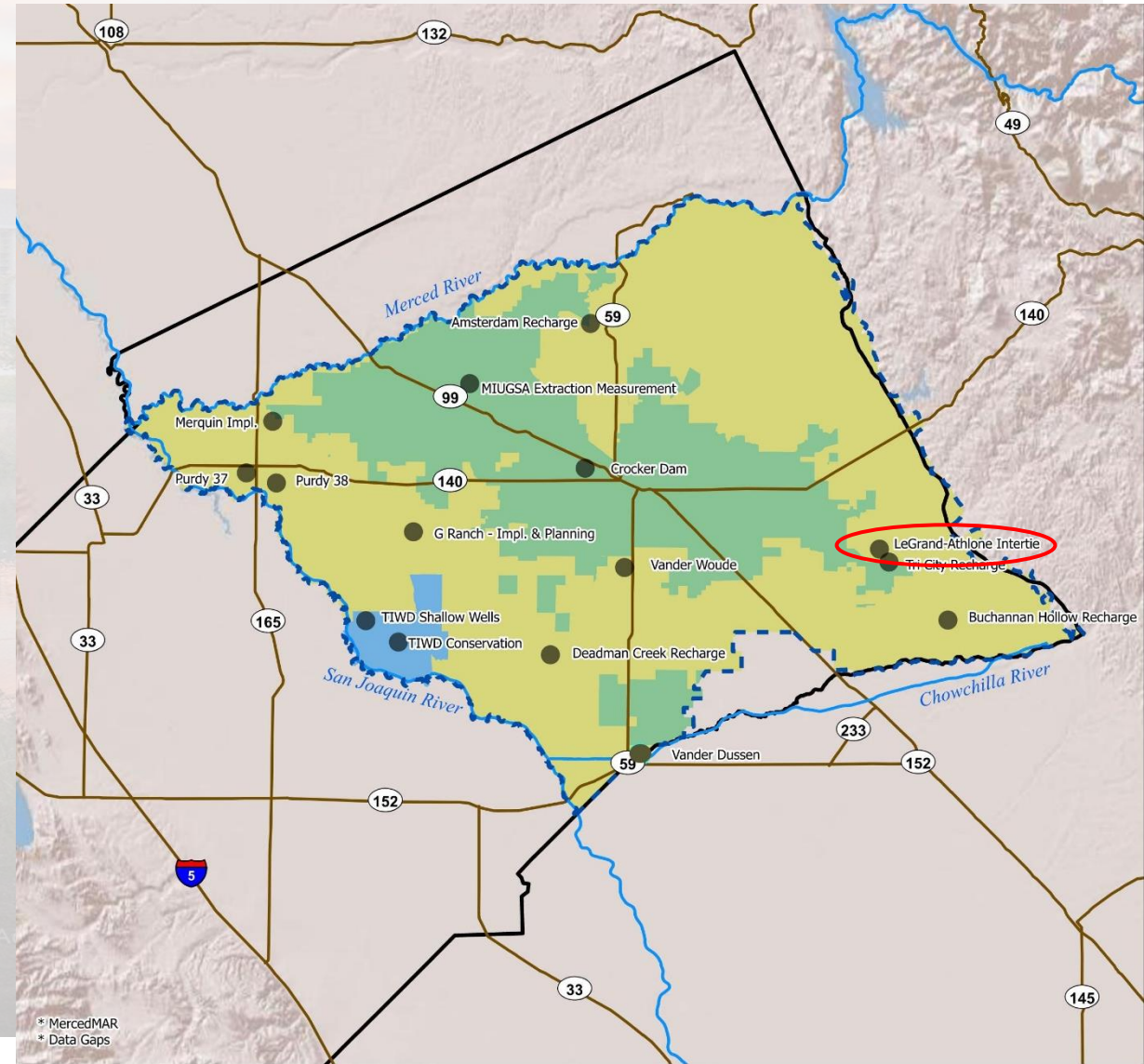


Image courtesy: Veronica A

* MercedMAR
* Data Gaps

Merced Water Resources Model Enhancement

Extension and integration of existing Merced models

- Merced Water Resources Model
- GRAT

Provides integrated identification and quantification of recharge opportunities.

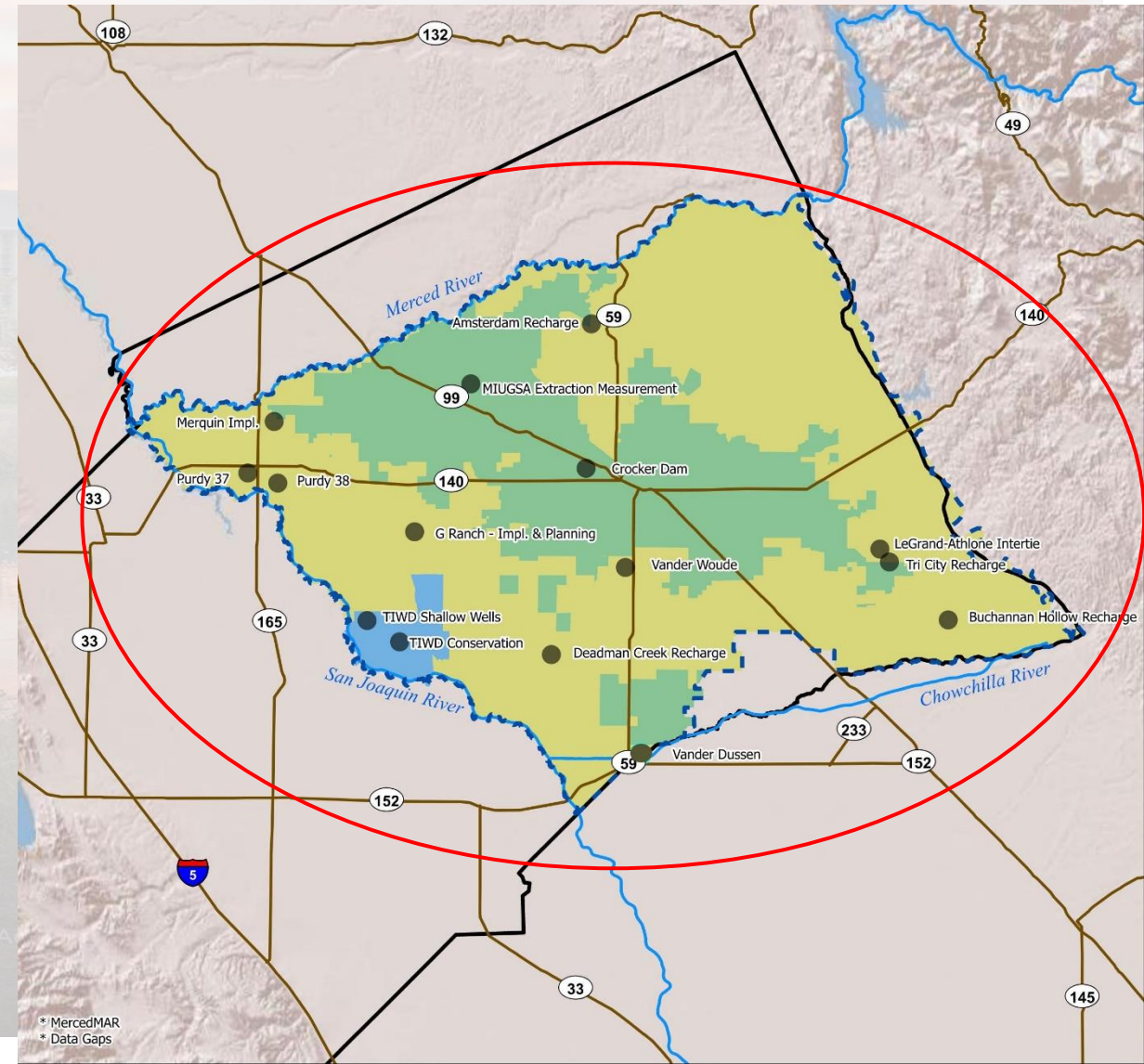
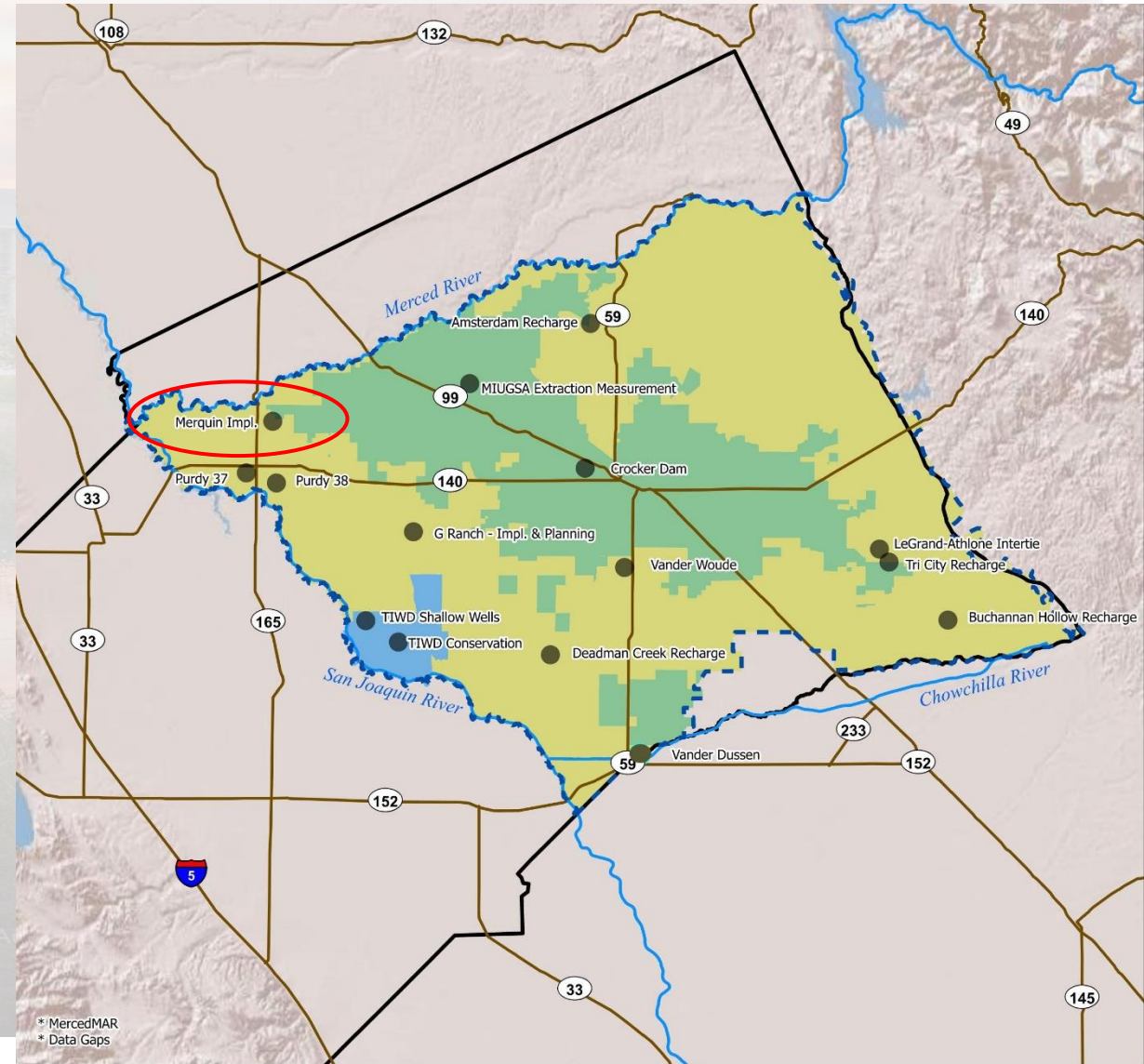


Image courtesy: Veronica A

* MercedMAR
* Data Gaps

Merquin County Water District Sustainable Yield Management Plan and Plan Implementation

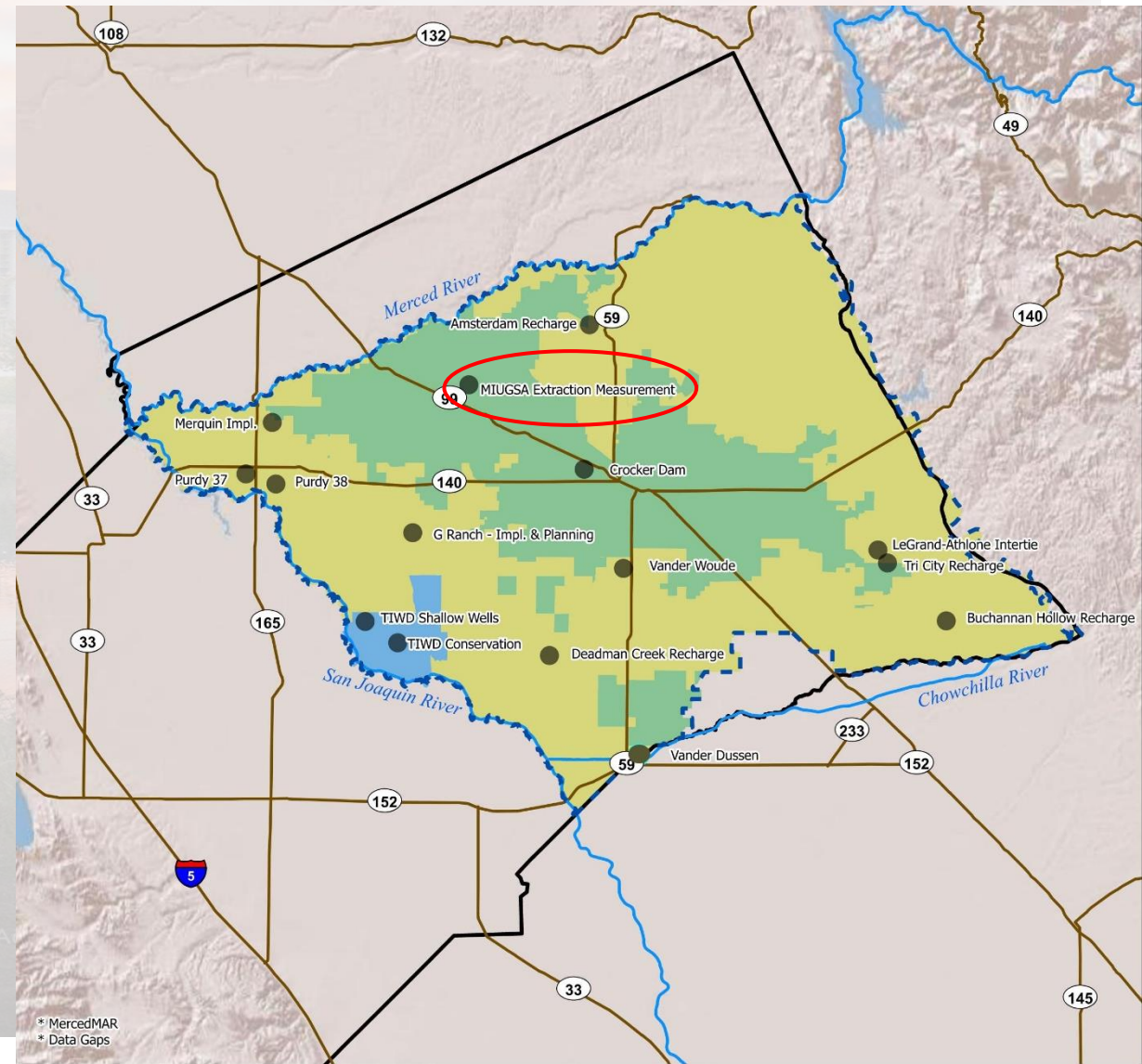
- An average of up to 666 AF per year of groundwater recharge outside the normal irrigation season
- Study of groundwater gradients and optimal locations for recharge facilities.
- Management to minimize salinity of delivered water.
- Optimize location for installation of replacement wells when minimal surface water is available.
- Evaluation of need for pipeline interconnects to optimize water operations when minimal surface water is available.
- Estimation of long-term groundwater recharge for sustainability.



MIUGSA Groundwater Extraction Measurement Program

Installation of flow measurement devices throughout MIUGSAs, with the primary goal of collecting accurate groundwater extraction data from within the GSA.

MIUGSA is proposing the installation of up to 200 flow meters on production wells within MIUGSA's boundaries



Turner Island Water District (TIWD) Water Conservation

Construction of a surface water reservoir and installation of pumps/piping to return water to the TIWD system, reducing groundwater use.

Estimated savings of more than 1,500 AF per year in groundwater use, not including the ability to capture wet year water, potentially an additional 750-1,000 AF per year.

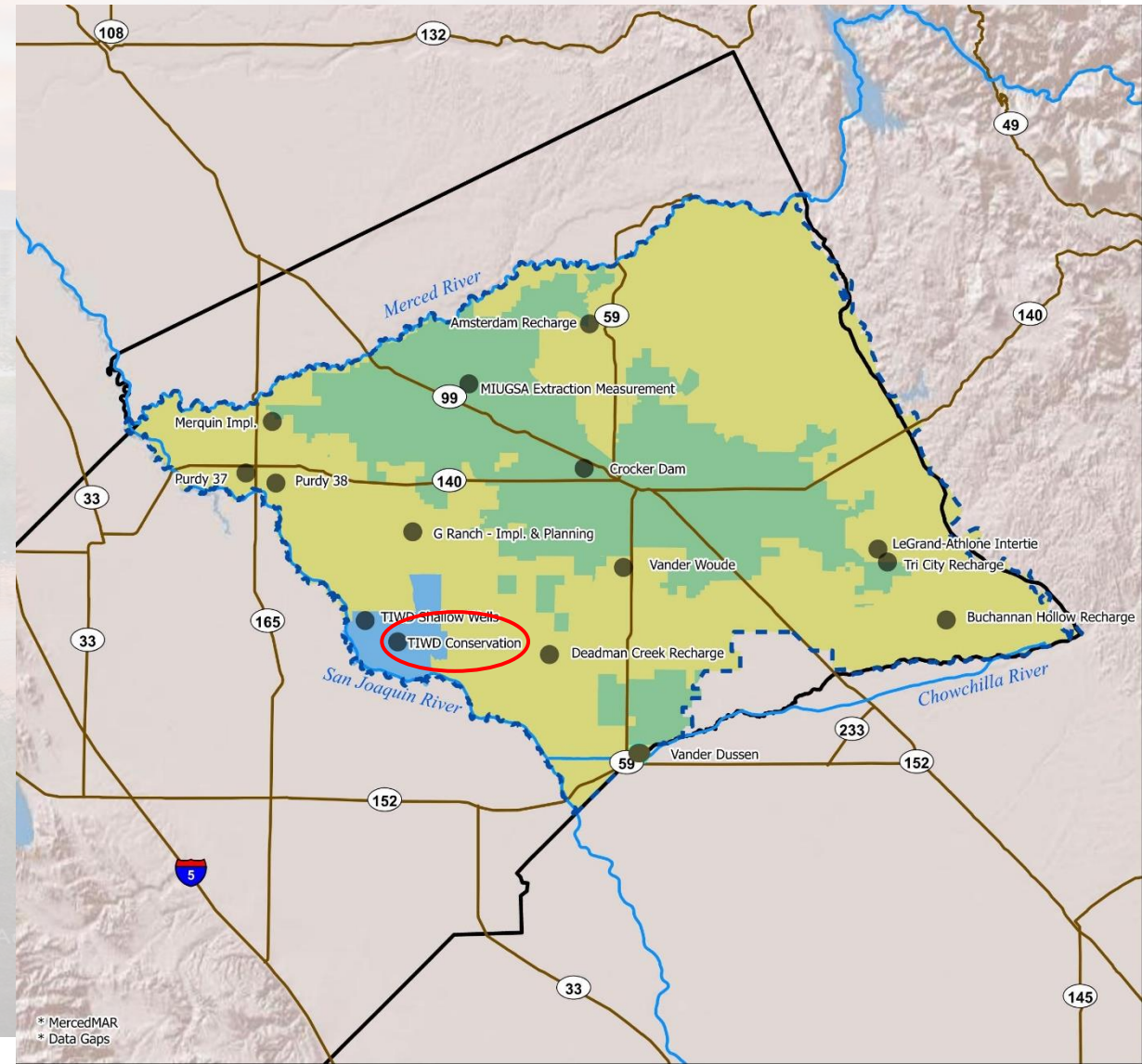


Image courtesy: Veronica A

TIWD Shallow Well Drilling

Construction of wells screened above the Corcoran Clay to replace sub-Corcoran wells, reducing subsidence impacts.

Includes scoping of locations to ensure good production followed by drilling and installation of new wells.

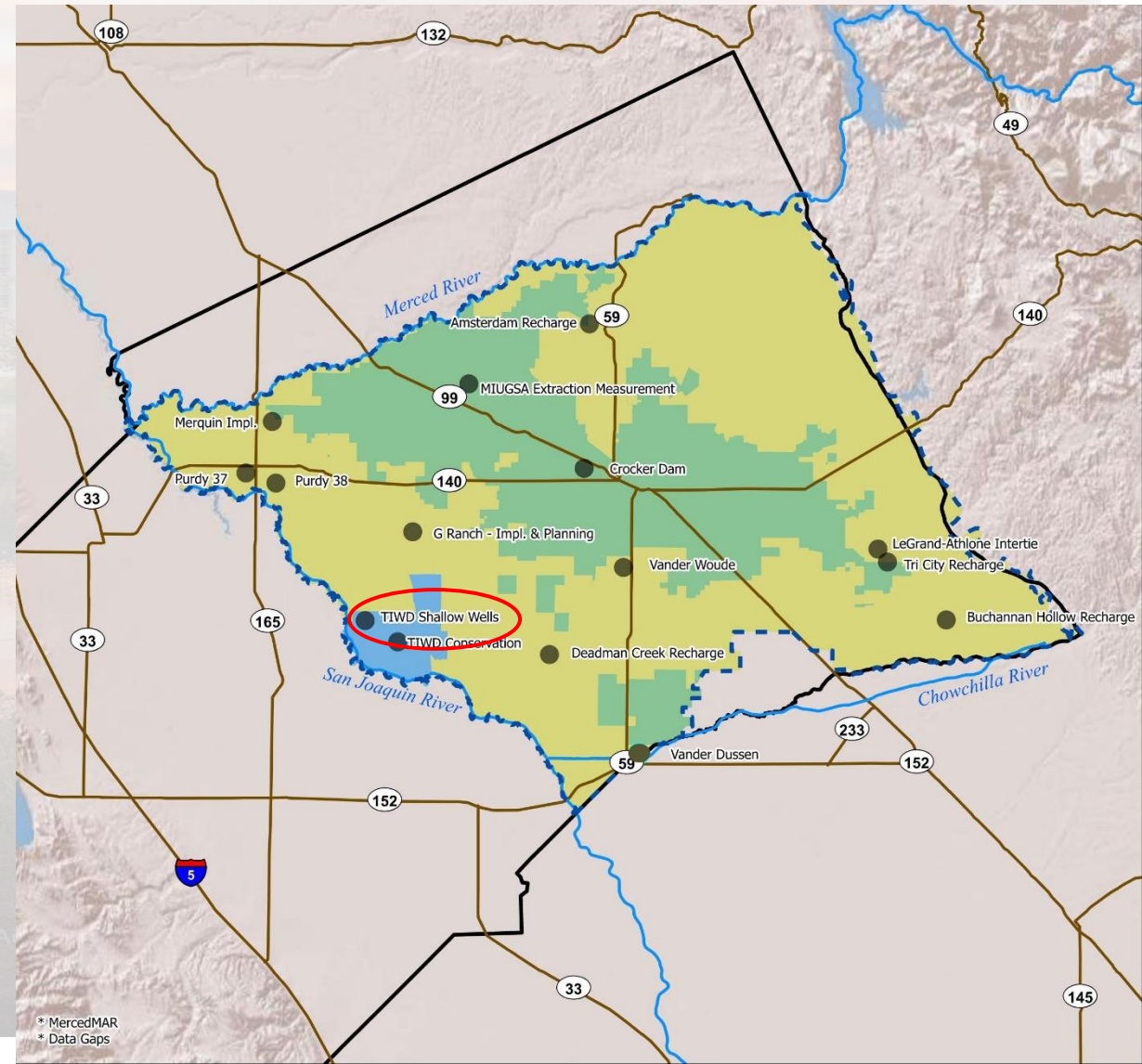


Image courtesy: Veronica A

Projects Recap

Storage and Recharge Projects

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Interties and Monitoring/Management Projects

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SAC questions:

Are these appropriate projects?

Are there other projects that should be added for future consideration?

Image courtesy: Veronica Adrover/UC Merced

Requested Funding in Proposed Projects

- 18 projects proposed
 - Total proposed amount: \$27.4 million
 - Maximum available amount: \$7.6 million
 - Minimum to be listed in grant: \$10 million
- Requires ranking
- Potential to reduce requested amounts
- Retain projects for future funding



Image courtesy: Veronica Adrover/UC Merced

Project Selection Approach



Image courtesy: Veronica Adrover/UC Merced

DWR Application Evaluation Criteria

1. **Description** and clear justification (4 points)
2. Description of quantifiable **benefits** (implementation) **OR** description of subbasin-wide **coordination** (planning) (4 points)
3. Outline of community **outreach and engagement** plan (3 points)
4. Project **maps** (2 points)
5. Does the project benefit **Underrepresented Communities**? Maps provided? (3 points)
6. Does the project positively impact **small water systems**/private domestic wells? (3 points)
7. Does the project address **Human Right to Water**? (4 points)
8. Description of **tasks/subtasks**? (3 points)
9. Is a reasonable **budget** table provided? (3 points)
10. Is a **schedule** provided and consistent with the budget/tasks? (1 point)

Image courtesy: Veronica Adrover/UC Merced

Potential modifications to rankings

- Modifications will be presented transparently, “documenting and justifying why a lower scoring project was included within the Spending Plan versus a higher scoring project.” (Proposal Solicitation Package)
- Several factors may drive modifications
 - Feasibility
 - Water Rights
 - Realistic recharge potential
 - Project proponent ability to provide materials and meet grant requirements
 - Location
 - Subsidence
 - Areas with declining groundwater
 - Areas surrounded by domestic wells
 - Priority areas according to the sustainability indicators
 - GSAs / geographic distribution
 - Others

Image courtesy: Veronica Adrover/UC Merced

SAC:
What criteria are reasonable for changing rankings or modifying funding amounts?

Status and Next Steps

- Application due February 18 at noon
- Coordination Committee has scored the projects
- GSA staff are developing draft recommended modifications, with consideration of SAC comments
- Staff proposal, with rankings, to Coordination Committee in early February
- Necessary resolutions to GSA boards in February
- Staff and consultants to work with project applicants to assemble needed information

Image courtesy: Veronica Adrover/UC Merced



DWR GSP Comments

Image courtesy: Veronica Adrover/UC Merced



Merced Groundwater Subbasin GSP

- Developed in a collaborative stakeholder environment
- Completed November 2019
- Adopted January 2020
- DWR provided 2 years to review the GSP
- GSP being implemented during review

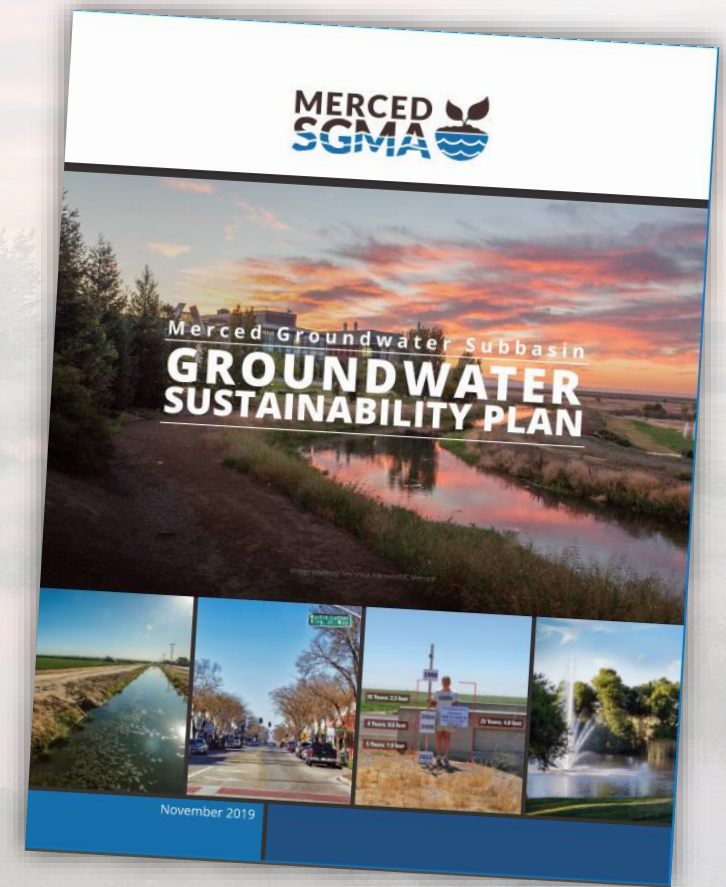


Image courtesy: Veronica Adrover/UC Merced

DWR GSP Comments

- DWR issued a consultation letter on 11/18/21
 - <https://sgma.water.ca.gov/portal/service/gspdocument/download/4646>
- Includes results of initial review of the GSP
- Identified three potential deficiencies, with potential corrective actions (discussed on next 3 slides)
- Final determination released 1/28/22, 180 days to respond (7/27/22 due date)

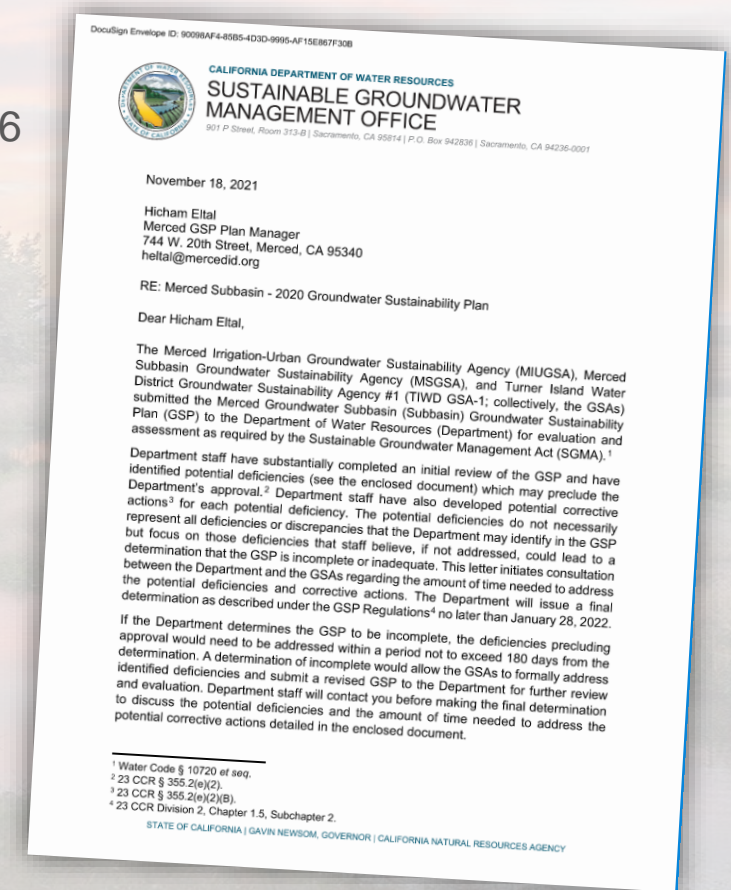
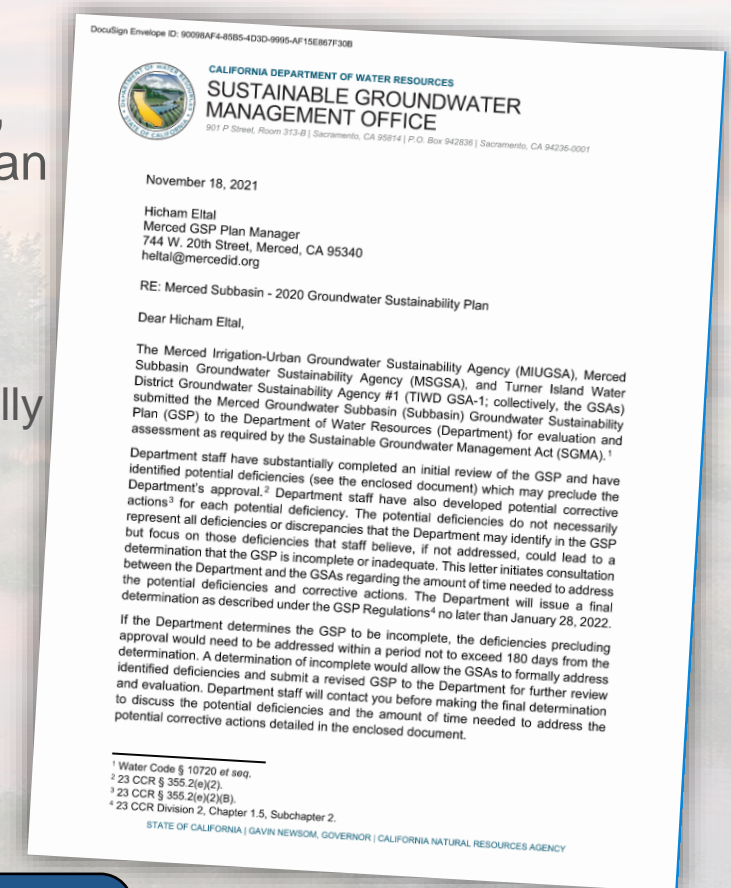


Image courtesy: Veronica Adrover/UC Merced

Non-consecutive dry years

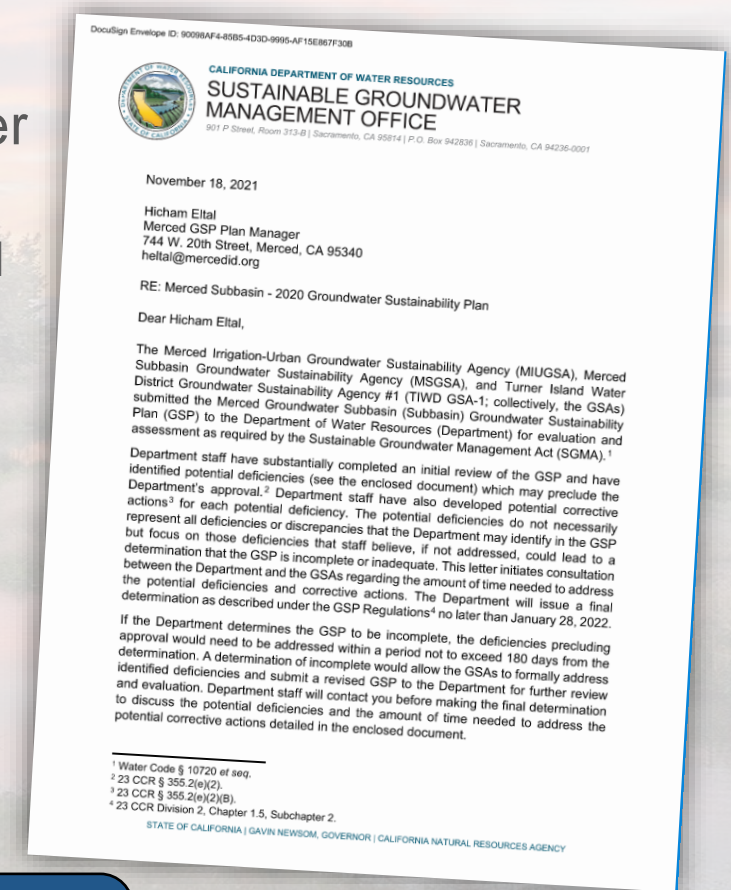
- The GSP lacks sufficient justification for identifying that undesirable results for chronic lowering of groundwater levels, subsidence, and depletion of interconnected surface waters can only occur in consecutive non-dry water year types.
 - Undesirable results defined as “...when November groundwater levels at greater than 25% of representative monitoring wells (at least 7 of 25) fall below their minimum thresholds for two consecutive years where both years are categorized hydrologically as **below normal, above normal, or wet.**”
 - SGMA allows for overdraft in storage and levels during drought, with increases in other periods, but not for other indicators
 - GSP uses groundwater levels as a proxy for subsidence and depletions
 - DWR asserted that allowance for drought-period declines does not apply to subsidence and depletions
- GSAs intend to revisit this language

SAC request: Review the letter ahead of the next meeting when potential solutions will be presented



Groundwater level Sustainable Management Criteria

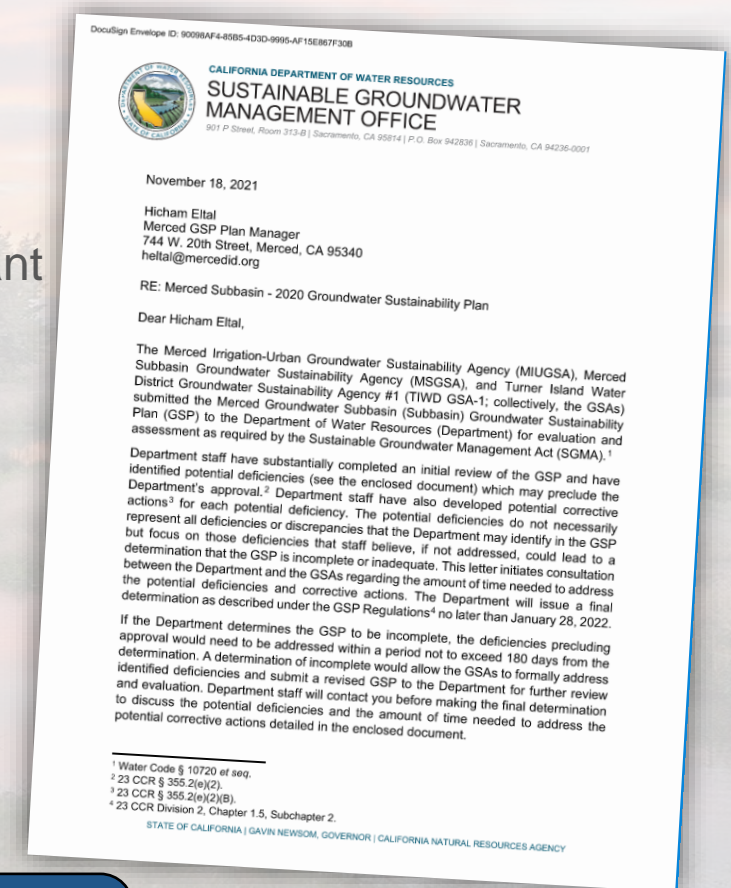
- The GSP does not provide sufficient information to support the selection of chronic lowering of groundwater levels sustainable management criteria
 - Notes discrepancy between use of shallowest domestic well depth and studies by other entities showing potential for domestic well dewatering
- GSAs intend to revisit the SMCs



SAC request: Review the letter ahead of the next meeting when potential solutions will be presented

Subsidence

- The GSP does not provide sufficient information to support the selection of land subsidence sustainable management criteria
 - DWR notes that additional work is needed to identify significant and unreasonable levels of subsidence
 - DWR notes the intent of legislature was to avoid or minimize subsidence
 - GSP includes minimum thresholds that allow continued subsidence
 - GSAs intend to revisit the Sustainable Management Criteria



SAC request: Review the letter ahead of the next meeting when potential solutions will be presented

Progress on DWR GSP Comments

- Held a meeting with DWR staff on January 10, 2022 to discuss potential deficiencies and pathways to approval
- Technical team is evaluating new data and new approaches to respond to the comments, focused on:
 - Groundwater level thresholds
 - Subsidence
- Drafting approaches to be developed and shared with CC and SAC
- Likely endpoint:
 - Updated version, with redline, for all or certain portions of the GSP
 - Adopted by GSAs by late July 2022

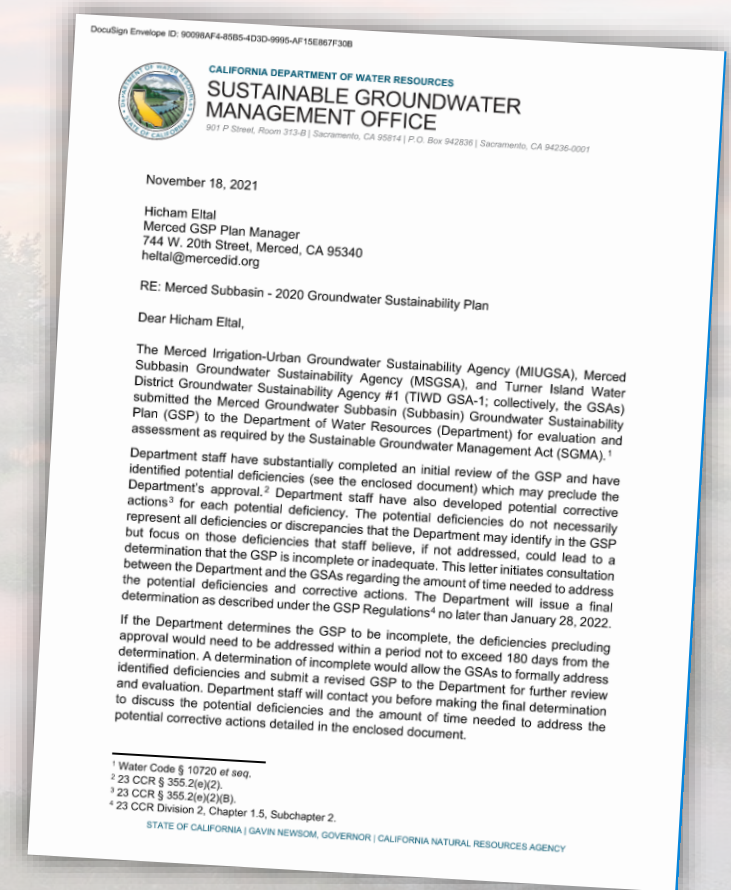


Image courtesy: Veronica Adrover/UC Merced

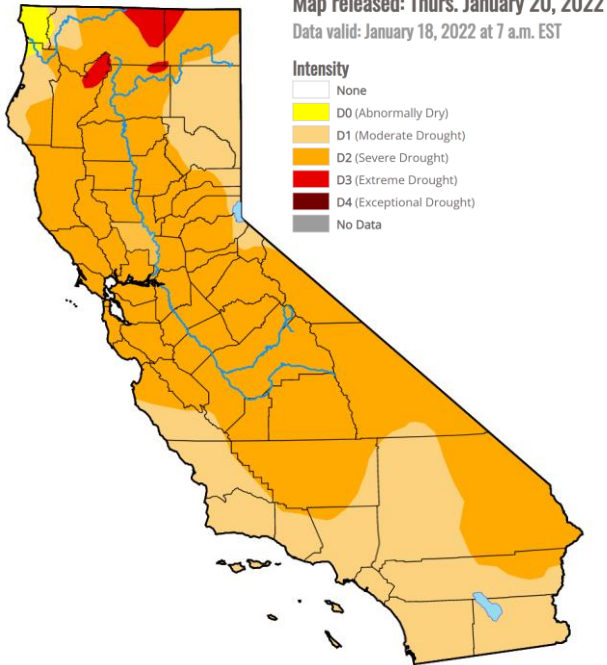


Drought Update

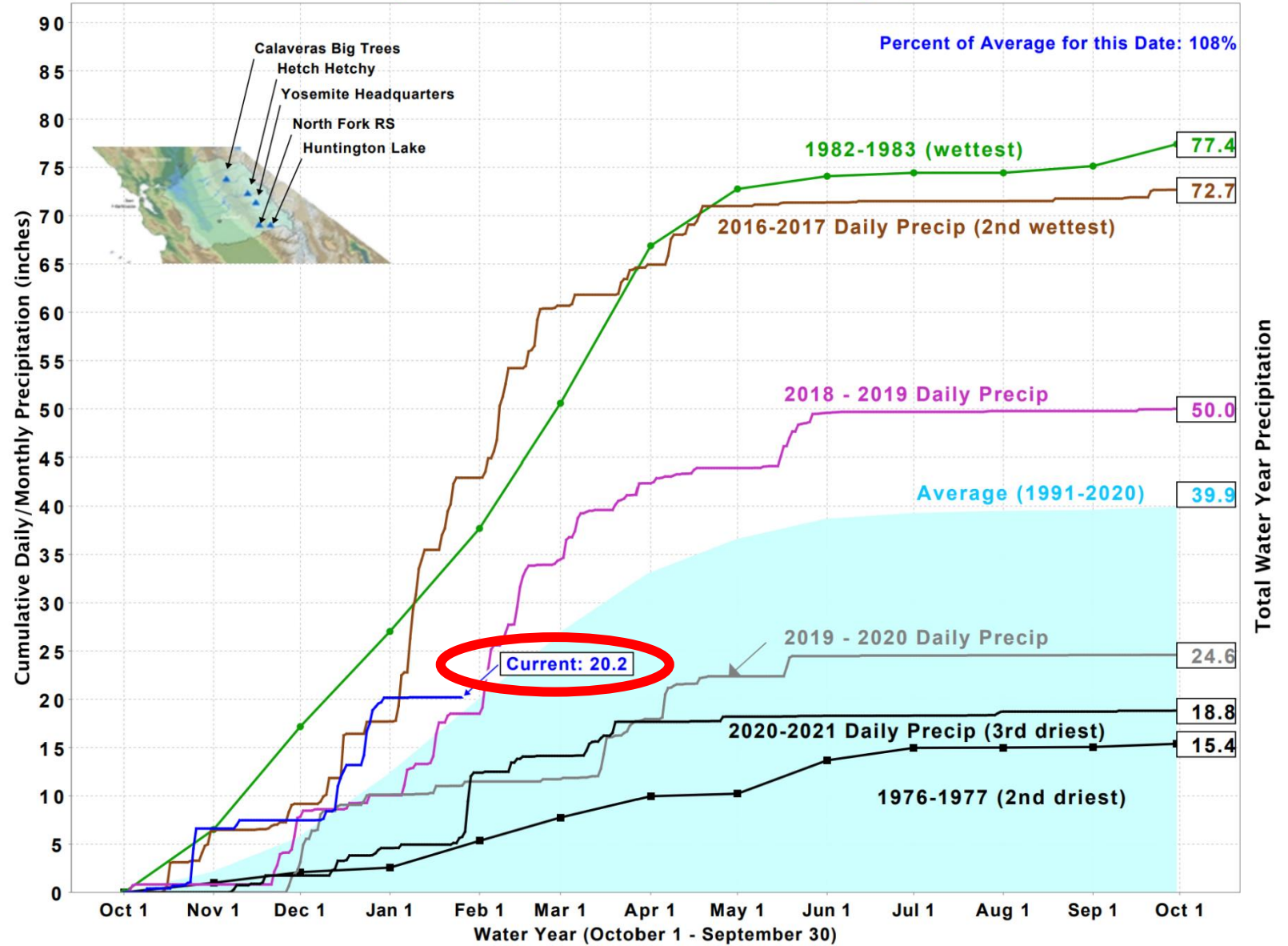
Image courtesy: Veronica Adrover/UC Merced



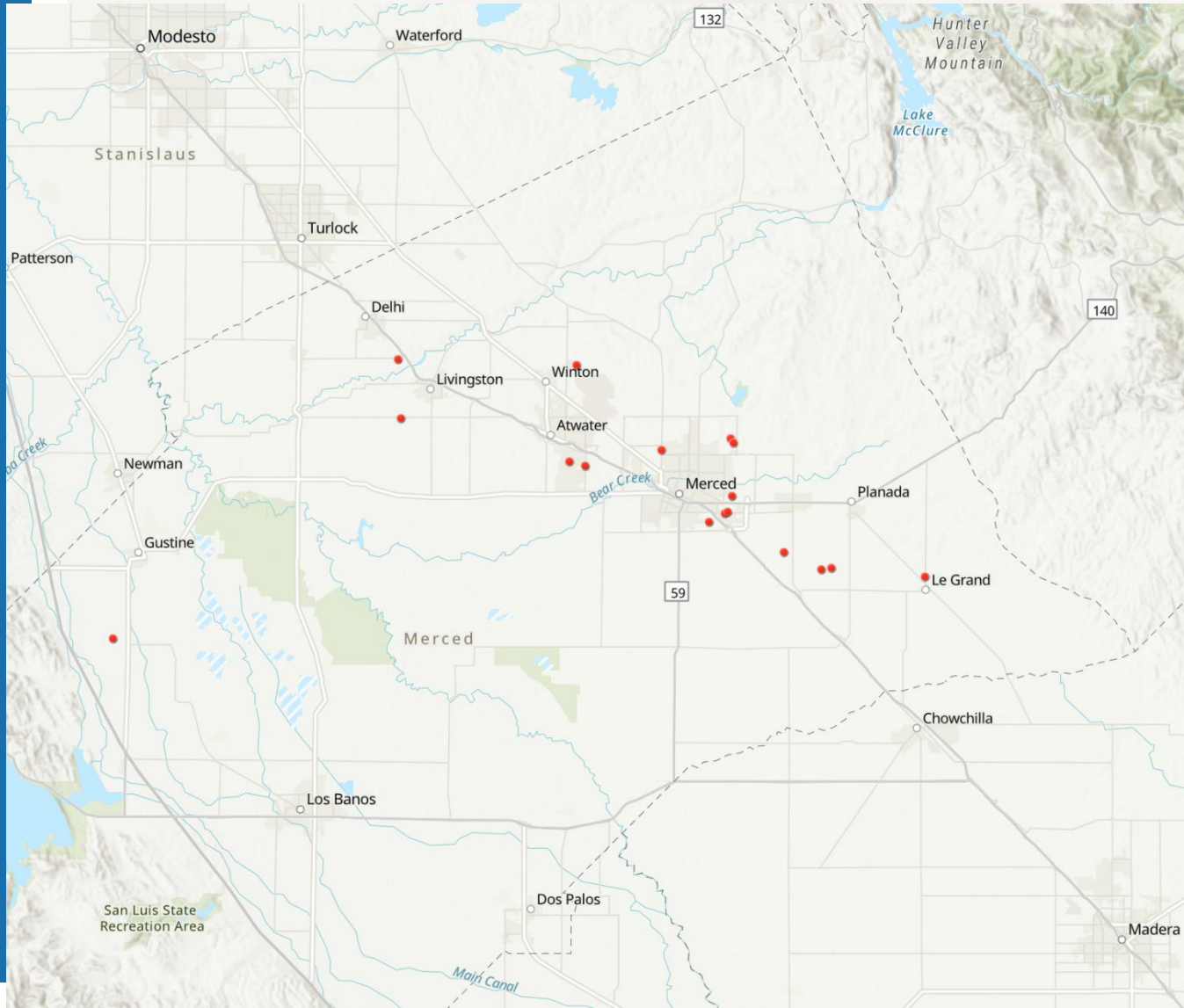
Current Conditions



San Joaquin Precipitation: 5-Station Index, January 26, 2022



Tanked Water Program Participation



- Self-Help Enterprises and the California Partnership for the San Joaquin Valley have put together a map of tanked water locations in the San Joaquin Valley
- <https://arcg.is/WqOGD>



GSA Reports

Image courtesy: Veronica Adrover/UC Merced



GSA Reports

- Coordination Committee
- Updates from each GSA on activities they are undertaking in their own jurisdiction:
 - Merced Subbasin GSA
 - Merced Irrigation-Urban GSA
 - Turner Island Water District GSA #1

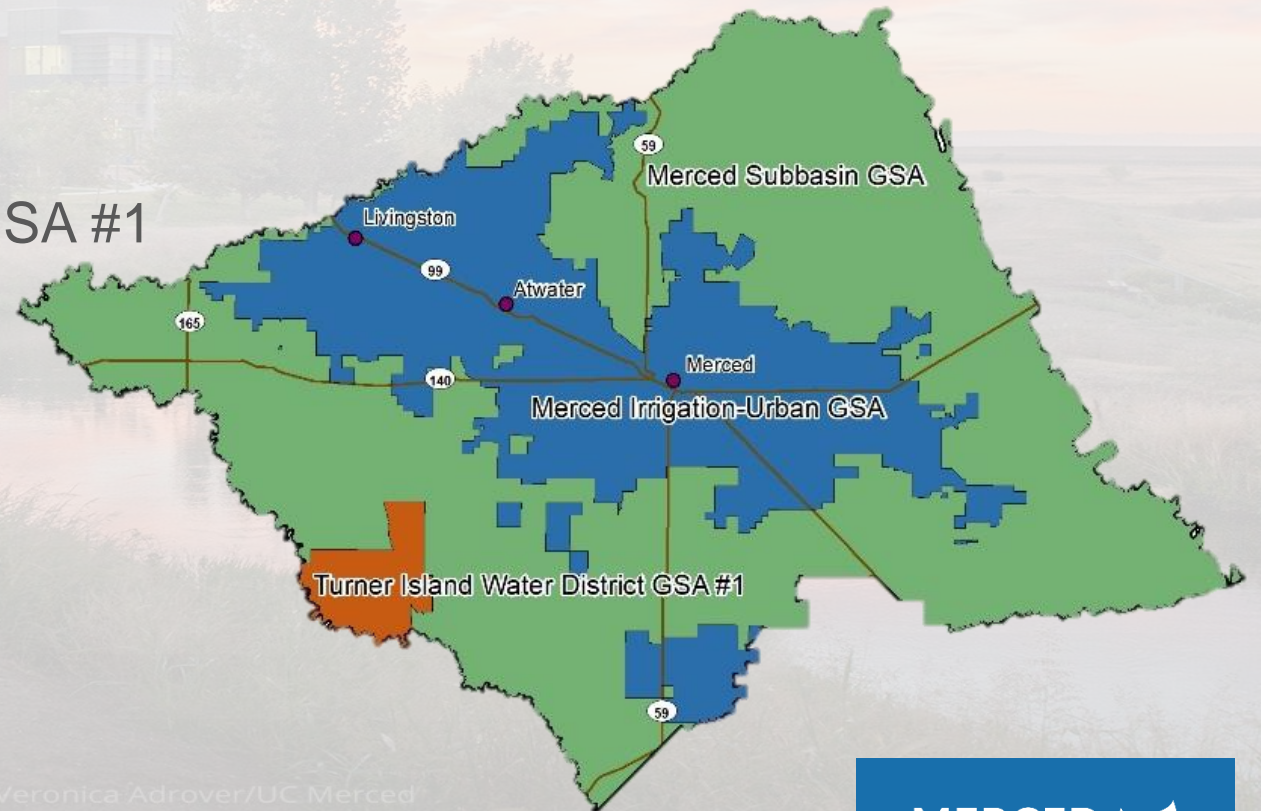


Image courtesy: Veronica Adrover/UC Merced



Public Comment

Image courtesy: Veronica Adrover/UC Merced





Next Steps

Image courtesy: Veronica Adrover/UC Merced



What's coming up next?

- Adjourn to next Stakeholder Advisory Committee meeting: March 2022

Image courtesy: Veronica Adrover/UC Merced