

**JOINT MEETING OF THE NORTHERN AND CENTRAL DELTA-MENDOTA REGION
MANAGEMENT COMMITTEES AND CENTRAL DELTA-MENDOTA REGION GSA STEERING
COMMITTEE**

MEETING MINUTES FOR FEBRUARY 28, 2019

Management Committee Members Present

Augustine Ramirez – Fresno County (Alternate)
Amy Montgomery – Santa Nella County Water District (Member)
Ben Fenters – San Luis Water District (Alternate)
Damian Aragona – Widren Water District (Member)
Ryan Stager – Oro Loma Water District (Member)
Juan Cadena – Mercy Springs Water District & Pacheco Water District (Alternate)
Aaron Barcellos – Pacheco Water District (Member)
Lacey Kiriakou – Merced County (Member)
Vince Lucchesi – Patterson Irrigation District (Member)
Bobby Pierce – West Stanislaus Irrigation District (Member)
Fernando Ulloa – City of Patterson (Alternate)
Danny Wade – Tranquillity Irrigation District (Alternate)
Walt Ward – Stanislaus County (Member) – Phone

Authority Representatives Present

Andrew Garcia
Seth Harris
Claire Howard – CivicSpark

Others Present

Kirsten Pringle – Stantec
Leslie Dumas – Woodard & Curran
Diane Rathmann – SLDMWA/Districts
Sean Allen – California Department of Fish and Game
Zachary Roy – Woodard & Curran (Phone)
Christina Guzman – Fresno County (Phone)
Joe Hopkins – Provost & Pritchard (Phone)

AGENDA

1. Call to Order/Roll Call

Aaron Barcellos called the meeting to order at approximately 10:09 AM.

2. Committees to Consider Corrections or Additions to the Agenda of Items, as authorized by Government Code Section 54950 et seq.

No comments were received for corrections or additions to the agenda of items for this meeting.

3. Opportunity for Public Comment

No public comments were received.

Consent Calendar

4. Committees to Consider Approval of January 31, 2019 Meeting Minutes

The Committees discussed approving the minutes from the January 31, 2019 meeting with a clarification that the historic and current water budgets are not use as a basis for cost. Aaron Barcellos/Pacheco asked for the Committees' approval of the minutes with this change incorporated. Vince Lucchesi/Patterson ID motioned for the Northern Region Management Committee, and Bobby Pierce/West Stanislaus ID seconded. Ben Fenters/San Luis WD motioned for the Central Region Management Committee, and Juan Cadena/Mercy Springs WD & Pacheco WD seconded. The minutes were approved by both Committees.

Action Items

5. Committees to Consider Approval of Projected Water Budgets with and without Climate Change Factors and Authorize GSP Group Representatives' Votes at the Coordination Committee Level Consistent with the Committees' Directions, Dumas

Leslie Dumas/Woodard & Curran provided an overview of the projected water budget results developed by her team. Dumas explained the inclusion of land surface and groundwater information, groupings of water year types, and inclusion of results with and without application of climate change factors. She reminded the Committees that the results for 2014-2017 used real data, and the results for 2018-2070 used representative year times. The entire timeframe for the projected water budgets spans 2014-2070. Dumas provided additional clarification on the process of developing these results, including explaining that the climate change factors were applied only to precipitation and evapotranspiration.

Dumas explained that the results show a long term increase in change in storage. She had discussed these preliminary results with other GSP groups in the Subbasin, and the results showed similar trends. Dumas said that the problem in the Subbasin is not as much a result of the amount of water as it is how groundwater is extracted with regard to subsidence impacts. Dumas said that the next steps will include determining sustainability goals and sustainable yield for the upper and lower aquifers.

Ben Fenters/San Luis WD expressed concern regarding the incorporation of high evapotranspiration values for all idle and fallow lands within the GSP group. Fenters demonstrated through San Benito County that fallowed and native land should have evapotranspiration levels reflective of vegetation which exists entirely on precipitation and that it is not possible that such areas consume more evapotranspiration than total rainfall. He said that improving the idle and fallow lands' water budget results will provide less restrictive management actions. Fenters urged the Committees to take the time to adjust these results now, even if it does involve more time. The Committees voted to approve the projected water budgets with the recommended changes for evapotranspiration values on fallowed areas, idle land, and spaces with native grasses. Lucchesi provided the motion for the Northern Management Committee, and Fernando Ulloa/City of Patterson seconded. Ben Fenters provided the motion for the Central Management Committee, and Ryan Stager/Oro Loma seconded.

6. Committees to Consider Approval of Budget to Actuals Report, Garcia/Neves

Garcia presented the budget to actuals report for the Northern and Central Management Committees. He explained that dues will be collected March 1st, and that grant money will cover the remainder of the year through GSP adoption. Lacey Kiriakou/Merced explained that Merced County approved a higher budget estimate in case of an increase to ensure cash flow. She confirmed that an earned value analysis will be provided by Andrew Garcia.

Aaron Barcellos asked the Committees to approve the budget to actuals report. Lucchesi motioned for the Northern Management Committee and Ulloa seconded. Amy Montgomery/Santa Nella County WD motioned for the Central Management Committee and Ramirez seconded.

7. Committees to Consider Approval of the Prioritized Project and Management Action List for Simulation, Dumas

Dumas presented a shortlist of projects and management actions up for consideration within the North-Central region. She explained that Patterson Irrigation District's intended projects are not included, including a recharge project that Lucchesi explained has been identified for investigation and feasibility. Dumas explained that the anticipated benefits of each project and management action need to be simulated, so sufficient details for each are necessary. Bobby Pierce/West Stanislaus ID requested that a project involving fish screens be removed. The Committees approved the list with the associated edits. Lucchesi provided the motion for the Northern Management Committee and Ulloa seconded; Ramirez provided the motion for the Central Management Committee and Stager seconded.

Report Items

8. Discussion of Memorandum of Intent for Interbasin Coordination, Garcia

Garcia shared a Memorandum of Intent previously used for the Turlock and Merced Subbasins to introduce the concept of an MOI within the Delta-Mendota Subbasin to help shape future interbasin coordination. He explained that an MOI can memorialize continued coordination. Kiriakou, familiar with the Merced/Turlock MOI, explained that since Turlock is on a 2022 GSP timeline, Turlock wanted to ensure that its subbasin and water would be considered as Merced developed its GSP by the 2020 deadline.

Stager asked who would sign this type of agreement. Garcia explained that the direct neighbors of an adjoining subbasin would be the signatories, so along some boundaries the North-Central group borders other subbasins. Diane Rathmann encouraged the Committees to consider the timing of approving an agreement of this nature in relation to the North-Central GSP group's January 31, 2020 submission deadline.

9. Discussion of Future Governance and Update on Central JPA Formation, Garcia/Others

The Committees discussed options for the future governance leading into GSP implementation, focusing on options for the Northern Management Committee. Walt Ward/Stanslaus explained that he views JPA formation as the natural next step. Pierce said that he wants the group to focus on GSP finalization and adoption prior to considering formation of a new entity. Lucchesi explained that he is concerned about his agency's autonomy if the Committee were to form a JPA. Rathmann assured the group that language within the JPA agreement can protect against changes in autonomy for individual agencies. Andrew Garcia said he will follow up with the Northern Committee.

10. Discussion of Future Cost Allocations and Funding Mechanisms, Dumas/Garcia/Pringle

Kirsten Pringle/Stantec led a discussion regarding future costs and funding options within the North-Central region. This conversation allowed the members of both Committees to consider their individual agency's capacity for supporting SGMA requirements within the implementation phase, including monitoring needs, regulatory costs, filling data gaps, data QA/QC, and future reports required for DWR. The Committees focused their discussion on how the agencies and SLDMWA will divide

responsibilities. One concern presented was that individual agencies collecting data will likely use varied processes and formats, which would require significant time by each agency, SLDMWA, or a consultant to review the collected data and reformat into a common structure. This conversation provided a necessary opportunity for the agencies to consider their individual capacities to successfully implement the GSP, as well as for SLDMWA to consider probable expansion to accommodate SGMA requirements.

The Committees also discussed strategies for cost distribution, including dividing costs by acreage, shortfalls, keeping the current cost distribution, or using an approach that would weigh regional and local costs. The Committees will revisit this topic at future meetings, including the March 28th North-Central meeting.

11. Discussion of Fiscal Year 2020 Budget and Membership Dues, Garcia

The Fiscal Year 2020 Budget was previously approved and had been provided prior to the new fiscal year beginning March 1st.

12. Next Steps
- Kirsten Pringle and SLDMWA will share the compiled notes regarding the financing discussion
 - W&C will share updates to the water budget calculations

13. Reports Pursuant to Government Code Section 54954.2(a)(2)

14. ADJOURNMENT

The meeting was adjourned at 11:47 AM.

Fee Estimate

San Luis & Delta-Mendota Water Authority
GSP Development Amendment for SGWP Projects

Tasks							Outside Services				ODCs		Total		Total		
	Leslie Dumas	Reza Namvar	Ian Jaffe	Natalie Cochrane	Zachary Roy	Staff Support	Total Hours	Total Labor Costs (1)	Houston Engineering	Stantec	Subtotal	Sub Consultant Total Cost (2)	ODCs	Total ODCs (3)	Total New Fee	Existing Fee	Total Fee (with reallocation)
	Project Manager	Modeling Lead	Project Controls / Technical Lead	Technical Lead	Modeling Support	Misc.			DMS	Outreach							
	\$282	\$282	\$212	\$187	\$162	\$162											
Phase 1: Northern and Central GSP (Category 2 Project)																	
1.3 Flow Modeling							0	\$0			\$0	\$0		\$0		\$376,131	\$436,311
Finalize Historical and Current Water Budgets	4	8		12	24		48	\$9,516			\$0	\$0		\$0	\$9,516		
Develop Future Baseline Water Budgets	2	8		2	16		28	\$5,786			\$0	\$0		\$0	\$5,786		
Develop Future Baseline Water Budgets with Climate Change	2	8		2	20		32	\$6,434			\$0	\$0		\$0	\$6,434		
Develop Scenarios using Future with CC Water Budgets	4	12		12	32		60	\$11,940			\$0	\$0		\$0	\$11,940		
Prepare Water Budgets TM	4	12		16	16		48	\$10,096			\$0	\$0		\$0	\$10,096		
Attend meetings and Conference Calls	8	8		8	8		32	\$7,304			\$0	\$0		\$0	\$7,304		
Additional Documentation		4		8	40		52	\$9,104			\$0	\$0		\$0	\$9,104		
1.5 Intrabasin Coordination	210		50	50			310	\$79,170			\$0	\$0	\$150	\$165	\$79,335	\$152,188	\$231,688
Subtotal Phase 1:	234	60	50	110	156	0	610	\$139,350	\$0	0	\$0	\$0	\$150	\$165	\$139,515		\$667,999
Phase 2: Coordinated Activites (Category 1 Project)																	
2.2 Coordinated DMS			10	32		32	74	\$13,288			\$0	\$0		\$0	\$13,288	\$28,614	\$41,902
2.3 Intrabasin Coordination	140		40	40			220	\$55,440			\$0	\$0	\$329	\$362	\$55,802	\$139,564	\$195,728
2.6 (New Task) Coordinated Flow Modeling																	
2.6.1 D-M Water Budgets & Scenarios																\$0	\$44,604
Compile Historical and Current Water Budgets and Compare Total S	4	8		16	32		60	\$11,560			\$0	\$0		\$0	\$11,560		
Compile Future Baseline Water Budgets	2	4		2	16		24	\$4,658			\$0	\$0		\$0	\$4,658		
Compile Future Baseline Water Budgets with Climate Change	4	8		2	24		38	\$7,646			\$0	\$0		\$0	\$7,646		
Compile Scenarios using Future with CC Water Budgets	4	8		8	16		36	\$7,472			\$0	\$0		\$0	\$7,472		
Prepare Water Budgets Sections of GSP Common Chapter	4	4		12	16		36	\$7,092			\$0	\$0		\$0	\$7,092		
Attend meetings and Conference Calls	8	4		8	8		28	\$6,176			\$0	\$0		\$0	\$6,176		
2.6.1 Interbasin Underflows and Water budgets																\$0	\$50,326
Evaluate neighboring Subbasins Water Budgets and Underflows	8	24			60		92	\$18,744			\$0	\$0		\$0	\$18,744		
Technical Support for Preparation for meetings with Neighboring Sub	8	16			24		48	\$10,656			\$0	\$0		\$0	\$10,656		
Update N-C and D-M Water Budgets, as needed	8	16		2	32		58	\$12,326			\$0	\$0		\$0	\$12,326		\$0
Attend Meetings and Conference Calls	8	8		8	16		40	\$8,600			\$0	\$0		\$0	\$8,600		\$0
Subtotal Phase 2:	198	100	50	130	244	32	754	\$163,658	\$0	0	\$0	\$0	\$329	\$362	\$164,020		\$332,560
Phase 3: Facilitation and Outreach Support (Category 1 Project)																	
SDAC Engagement and Education Program							0	\$0		\$35,568	\$35,568	\$39,125		\$0	\$39,125	\$48,442	\$99,695
Public Meeting Support	40		4				44	\$12,128			\$0	\$0		\$0	\$12,128		
SDAC Representation							0	\$0		-\$8,078	-\$8,078	-\$8,886		\$0	-\$8,886	\$44,984	\$37,694
Technical Assisstance Request			4	4			8	\$1,596			\$0	\$0		\$0	\$1,596		
Vulnerability Assessment and Project Development							0	\$0		\$41,216	\$41,216	\$45,338		\$0	\$45,338	\$25,370	\$106,872
Component Administration	8		32				40	\$9,040			\$0	\$0		\$0	\$9,040		
Rapid Appraisal Form	4		8	12			24	\$5,068			\$0	\$0		\$0	\$5,068		
Vulnerability Assessment Report of SDAC	4		8	12		28	52	\$9,604			\$0	\$0		\$0	\$9,604		
Conceptual Project Development Memos	8		16			42	66	\$12,452			\$0	\$0		\$0	\$12,452		
Subtotal Phase 3:	64	0	72	28	0	70	234	\$13,724	\$0	68,706	\$68,706	\$75,577	\$0	\$0	\$125,465		\$244,261
TOTAL	64		72	28		70	234	\$49,888	\$0	68,706	\$68,706	\$75,577	\$0	\$0	\$429,000	<--Amendment Request	

1. The individual hourly rates include salary, overhead and profit.
2. Subconsultants will be billed at actual cost plus 10%.
3. Other direct costs (ODCs) such as reproduction, delivery, mileage (rates will be those allowed by current IRS guidelines), and travel expenses, will be billed at actual cost plus 10%.
4. The RMC/W&C Team reserves the right to adjust its hourly rate structure and ODC markup at the beginning of the calendar year for all ongoing contracts.

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	N-C DM GSP	440 days	Mon 5/14/18	Fri 1/17/20		
2	Water Budgets	220 days	Mon 5/28/18	Fri 3/29/19		
3	Historic water budget	210 days	Mon 5/28/18	Fri 3/15/19		
4	ID current conditions	167 days	Thu 8/9/18	Fri 3/29/19		
5	current water budget	15 days	Mon 2/25/19	Fri 3/15/19	3FS-15 days	
6	Historic/Current Water Budget Review/Approval	57 days	Wed 11/14/18	Thu 1/31/19	5	
7	collect projection data	92 days	Thu 8/9/18	Fri 12/14/18		
8	future water budget (baseline)	27 days	Fri 2/1/19	Mon 3/11/19	7,6	
9	Projected Baseline Budget Review/Approval	28 days	Mon 1/28/19	Wed 3/6/19		
10	Sustainability Criteria	44 days	Tue 2/26/19	Fri 4/26/19		
11	Preliminary sustainability criteria	10 days	Tue 2/26/19	Mon 3/11/19		
12	ID projects/mgt actions	5 days	Thu 2/28/19	Wed 3/6/19	11,9	
13	revised sustainability criteria	15 days	Tue 3/26/19	Mon 4/15/19	11FS+10 days,12FF+5 days	
14	refine projects/mgt actions	14 days	Tue 3/19/19	Fri 4/5/19	13	
15	confirm sustainability criteria	15 days	Mon 4/8/19	Fri 4/26/19	14FF+5 days,13FS+10 days	
16	Implementation plan	35 days	Mon 4/15/19	Fri 5/31/19	15FS-5 days	
17	Coordinating implementation	20 days	Mon 4/15/19	Fri 5/10/19		
18	Implementation fee and plan for meeting regulatory costs	30 days	Mon 4/22/19	Fri 5/31/19	14SS	
19	Public Workshops	380 days	Mon 5/14/18	Fri 10/25/19		
20	Workshop 1	5 days	Mon 5/14/18	Fri 5/18/18		
21	Workshop 2	5 days	Mon 10/22/18	Fri 10/26/18		
22	Workshop 3	5 days	Mon 2/18/19	Fri 2/22/19		
23	Workshop 4	5 days	Mon 5/20/19	Fri 5/24/19	16FS+20 days	
24	Workshop 5	5 days	Mon 10/21/18	Fri 10/25/19	40FS+25 days	
25	GSP Sections	305 days	Mon 5/28/18	Fri 7/26/19		
26	Plan Area	26 days	Mon 7/9/18	Mon 8/13/18		
27	Governance- Admin	20 days	Mon 5/28/18	Fri 6/22/18		
28	Outreach	15 days	Mon 5/27/19	Fri 6/14/19	23	
29	Basin Setting	253 days	Wed 6/13/18	Fri 5/31/19		
30	HCM	182 days	Wed 6/13/18	Thu 2/21/19		
31	Groundwater Conditions	187 days	Thu 8/9/18	Fri 4/26/19		
32	Water Budget	45 days	Mon 4/1/19	Fri 5/31/19	2	
33	Sustainable Mgt Criteria	45 days	Mon 4/29/19	Fri 6/28/19	15	
34	Projects-Mgt Actions	60 days	Mon 4/8/19	Fri 6/28/19	14	

Project: N-C GSP schedule_21M
Date: Thu 3/21/19

Task Split

Milestone Summary

Project Summary

Inactive Task

Inactive Milestone Summary

Manual Task Duration-only

Manual Summary Rollup Manual Summary

Start-only Finish-only

External Tasks External Milestone

Deadline Progress

Manual Progress

May 4/295/65/135/205/276/36/106/176/247/17/817/157/227/298/58/128/198/269/29/9/169/239/3010/710/140/210/2811/411/111/181/2512/212/912/162/232/301/61/131/201/272/32/102/172/243/313/103/173/243/314/74/144/214/285/55/125/195/266/26/96/166/236/307/77/147/217/288/48/118/188/259/19/89/159/229/2910/610/130/200/2711/311/101/171/2412/112/1812/2513/113/1813/2514/114/1814/2515/115/1815/2516/116/1816/2517/117/1817/2518/118/1818/2519/119/1819/2520/120/1920/2621/121/1921/2622/122/1922/2623/123/1923/2624/124/1924/2625/125/1925/2626/126/1926/2627/127/1927/2628/128/1928/2629/129/1929/2630/130/1930/2631/131/1931/2632/132/1932/2633/133/1933/2634/134/1934/2635/135/1935/2636/136/1936/2637/137/1937/2638/138/1938/2639/139/1939/2640/140/1940/2641/141/1941/2642/142/1942/2643/143/1943/2644/144/1944/2645/145/1945/2646/146/1946/2647/147/1947/2648/148/1948/2649/149/1949/2650/150/1950/2651/151/1951/2652/152/1952/2653/153/1953/2654/154/1954/2655/155/1955/2656/156/1956/2657/157/1957/2658/158/1958/2659/159/1959/2660/160/1960/2661/161/1961/2662/162/1962/2663/163/1963/2664/164/1964/2665/165/1965/2666/166/1966/2667/167/1967/2668/168/1968/2669/169/1969/2670/170/1970/2671/171/1971/2672/172/1972/2673/173/1973/2674/174/1974/2675/175/1975/2676/176/1976/2677/177/1977/2678/178/1978/2679/179/1979/2680/180/1980/2681/181/1981/2682/182/1982/2683/183/1983/2684/184/1984/2685/185/1985/2686/186/1986/2687/187/1987/2688/188/1988/2689/189/1989/2690/190/1990/2691/191/1991/2692/192/1992/2693/193/1993/2694/194/1994/2695/195/1995/2696/196/1996/2697/197/1997/2698/198/1998/2699/199/1999/26100/1100/26101/1101/26102/1102/26103/1103/26104/1104/26105/1105/26106/1106/26107/1107/26108/1108/26109/1109/26110



San Luis & Delta-Mendota Water Authority GSP Implementation

Regulation Section (if applicable)	Activity	Activity Description	Level of Responsibility		
			My GSA	Shared Resources	Confidence (Low, Medium, High)
	Regulatory Activities				
Activities to fill data gaps: § 354.34	Task 1: Monitoring Program	Data collection, monitoring performed on a monthly basis			
	1.1 Coordination with Monitoring Entities	GSP participation at the Coordinated level			
	1.2 Data Field Collection				
	1.3 Monitoring Data QC and Analysis	Data collection and entry from local entities, performing QC on collected data			
	1.4 Oversight and Coordination of Monitoring	Staff oversight and scheduling (focal and contract labor)			
	1.5 Monitoring Network Maintenance				
	1.6 Data Gap Tracking	Activities to fill Data Gaps: Data Collection: Extraction volumes, Groundwater extractions, Stage data (water levels in rivers), Impacts to groundwater dependent ecosystems Data Collection and Monitoring: Upper and lower aquifer groundwater levels, Upper and lower aquifer groundwater quality, Land surface elevation, Temperature and precipitation			
	1.7 Local Monitoring	Data collection and reporting to GSP			
	1.8 Lab Testing	Costs related to sending samples to lab, chain of custody			
	§ 356.2	Task 2: Annual Reporting and Analysis	Development and submission of annual reports, including maps, contours, and other supporting technical documentation, to DWR.		
	Task 3: Interim Update	GSP update prior to the 5-Year Update required by DWR (optional). Includes updating threshold evaluation, updating numerical models, coordinating with GSA representatives and technical staff, and evaluating GSP effectiveness			
§ 356.4	Task 4: 5-Year Update	Development and submission of five-year assessments to DWR, including updating threshold evaluation, updating numerical models, coordinating with GSA representatives and technical staff, and evaluating GSP effectiveness.			
n/a	Task 5: Coordination				
	5.1 Advisory Committee Meeting Support				
	5.2 GSA Board Meeting Support				
	5.3 Public Outreach	Public outreach for modifications and readoption of GSP; supporting fee development; promote compliance with program, etc.			
	5.4 Website Maintenance				
	5.5 Interbasin Coordination				
	5.6 Intrabasin Coordination	Monthly meetings for first 2 years; quarterly thereafter			
§ 352.6, 354.40	Task 6: DMS Maintenance	Oversight to ensure efforts are staying on Plan			
	6.1 Data QC				
	6.2 DMS Cleanup/Maintenance				
	6.3 DMS Upgrades				
n/a	Task 7: Budget and Schedule Monitoring				
	7.1 Monitoring of Budget and Schedule				
n/a	Task 8: Grant Writing and Administration	Grant support and administration, including tracking and developing grant proposals, administering grant funding and preparing grant reports.			
	8.1 Grant Tracking & Pursuit	Tracking grants and writing RFPs (assuming two grant RFPs per year); no grant application writing			
	8.2 Grant Administration				
	8.3 SGMA GSP Grant Funding - Part 2				
n/a	Task 9: General Administration				
	9.1 Accounting				
	9.2 Auditing				
	9.3 Document Management				
	9.4 General Staff Oversight				
	9.5 Office Expenses				
	9.6 Insurance				
n/a	9.7 Contract Management	Consultant contracts			
	Task 10: Legal Support				
n/a	10.1 Legal Support	Legal support for committees and workgroup meetings, Northern and Central Delta-Mendota Region GSAs, cost share agreements and other activities.			
Projects and Management Actions					
§ 354.44	Los Banos Creek Recharge	Source: CCID; Anticipated Implementation Timeline: Next 5 Years; Anticipated benefits: 200 AFY			
	Orestimba Creek Recharge & Recovery Project	Source: CCID, ESIRWMP; Anticipated Implementation Timeline: Next 5 Years; Anticipated benefits: 7,500 AFY			
	West Stanislaus ID Fish Screen Project	Source: East Stanislaus IRWMP; Anticipated Implementation Timeline: Next 5 Years; Anticipated Benefits: 3,000 AFY of runoff infiltrated; 85,000 AFY increase in water supply through direct use; 2,000 cfs reduction in peak flow discharge; 3,500 AFY reduction in volume of potential flood water; 3,500 acres of habitat protected or improved			
	City of Patterson Percolation Ponds for Stormwater Capture and Recharge	Source: East Stanislaus IRWMP; Anticipated Implementation Time: Next 5 Years, Next 10 Years; Anticipated Benefits: 1,700 AFY of direct groundwater recharge			
	Terra Linda Farms Recharge Ditch (West of the Pool)	Source: FWD/Fresno Mgt Area B			
	Del Puerto Canyon Reservoir	Source: Westside-San Joaquin IRWMP; Anticipated Implementation Time: Next 10 Years, Further Out; Anticipated Benefits: 5,260 cfs reduction in peak flow discharge; 2 cfs stream flow improvement; 85,000 AF of additional storage			
	Kallian Drainwater Reuse Project	Source: Westside-San Joaquin IRWMP; Anticipated Implementation Time: Next 5 Years; Anticipated Benefits: 500 AF to recharge			
	North Valley Regional Recycled Water Program (Turlock part)	Source: Westside-San Joaquin IRWMP; Anticipated Implementation Time: Next 5 Years; Anticipated Benefits: 48,000 AFY to DPWD and wildlife refuges			
	West Stanislaus Irrigation District Lateral 4-North Recapture and Recirculation Reservoir	Source: Westside-San Joaquin IRWMP; Anticipated Implementation Time: Next 5 Years; Anticipated Benefits: 1,800 AFY of recapture			

To:	Andrew Garcia San Luis & Delta-Mendota Water Authority	From:	Kirsten Pringle Stantec
File:	Summary of Northern and Central Delta-Mendota Region Management Committee Discussion on GSP Implementation Cost Allocation	Date:	March 8, 2019

On February 28, 2019 the Northern and Central Delta-Mendota Region Management Committee (Committee) discussed Groundwater Sustainability Plan (GSP) implementation costs at its regular meeting. Discussion topics included types of costs to implement the Northern-Central Delta-Mendota Region GSP and methods to allocate these costs among groundwater sustainability agencies (GSA) in the region. This memo summarizes the Committee's discussion in order to inform future decision-making on GSP implementation and cost allocation.

Types of GSP Implementation Costs

The Committee identified three types of GSP implementation costs: (1) regulatory costs; (2) costs to fill data gaps; and (3) costs for projects and management actions. Each of these is further described below.

Regulatory Costs

Regulatory costs include costs for activities that all GSAs must do to comply with the Sustainable Groundwater Management Act (SGMA), regardless of the level of subsidence or other undesirable impacts in each GSA's management area. These costs include, but are not limited to:

- Development and submission of annual reports, including maps, contours, and other supporting technical documentation to the California Department of Water Resources (DWR).
- Development and submission of five-year updates to DWR, including updating threshold evaluations, updating numerical models, coordinating with GSA representatives and technical staff and evaluating GSP effectiveness.
- Updates to the data management system.
- Support for Committee, workgroup and other meetings, including meeting coordination and preparation of meeting materials.
- Financial support, including budget management and invoicing.
- Legal support for Committee and workgroup meetings, northern-central Delta-Mendota region GSAs, cost share agreements and other activities.
- Grant support and administration, including tracking and developing grant proposals, administering grant funding and preparing grant reports.
- Public outreach support, including maintaining and updating the public website and conducting other public outreach activities as needed.
- General administration and coordination.

The Committee recognized that there are efficiencies to sharing regulatory costs among all northern and central Delta-Mendota region GSAs and requested that the San Luis & Delta-Mendota Water

Authority (Authority) develop an estimate for conducting all regulatory activities. The Committee also requested that the Authority provide a list and cost estimate of subbasin-wide shared costs.

Costs to Fill Data Gaps

Existing data gaps in the north-central Delta-Mendota region include, but are not limited to, data on:

- Extraction volumes,
- Surface water-groundwater interactions,
- Shallow wells,
- Stage data (water levels in rivers),
- Groundwater dependent ecosystems,
- Upper and lower aquifer groundwater levels,
- Upper and lower aquifer groundwater quality,
- Subsidence, and
- Evapotranspiration.

In order to fill these data gaps, GSAs will need to install new monitoring wells, collect data from new and existing wells, analyze monitoring data and develop monitoring reports. Leslie Dumas, Woodard & Curran, noted that the Committee should also consider what data will be needed to move from an Excel-based analysis of the subbasin to a computer model, such as CVHM2. The Committee recognized that some costs to fill data gaps may be shared by all the GSAs in the region, while other costs may be funded by an individual GSA or agency. The Committee decided to discuss this further at its next meeting.

The Committee also discussed potential approaches for conducting the groundwater monitoring required by SGMA. Under one approach, Authority staff and/or consultants would conduct the SGMA monitoring for the entire northern and central Delta-Mendota region. Committee members noted that this approach may be more expensive but would ensure consistency in data collection and testing methodologies and may create some efficiencies. The second approach would use a mix of Authority and water agency staff to collect the monitoring samples. Samples would be sent to a single lab for analysis and collection staff would undergo a training session. Concerns about this approach included potential inconsistencies in methodology for collecting and recording samples and lack of availability of agency staff time to conduct additional monitoring. Some Committee members noted that monitoring may be automated over time. The Committee decided to further discuss groundwater monitoring approaches at its next meeting.

Costs for Projects and Management Actions

The third type of costs covers construction, implementation and monitoring of projects and management actions identified in the GSP. These projects and management actions were discussed under a separate agenda item. The Committee discussed whether these costs should be wholly or partially shared by all the GSAs in the region, or whether the costs should be funded by the GSA(s) in the region that will most benefit from the project. The Committee decided to discuss this further at its next meeting.

Considerations for Allocation GSP Implementation Costs

Throughout the discussion, the Committee identified issues and questions to be considered when selecting a cost allocation methodology. These considerations include:

- Should everyone pay for a project if the benefits are localized to one area of the subbasin?
- How should costs for monitoring surface water – groundwater interactions be allocated if only certain agencies are focused on this type of data?
- How will the group handle ‘local’ costs that agencies may not be able to afford? Should these costs be shared to avoid the cost of state intervention (estimated at \$6 million per year)?
- How will costs within individual GSAs be collected? Will costs be paid by each agency, or will multi-agency GSAs seek to collectively implement fees through a joint powers authority or other mechanism?
- If subsidence is occurring throughout the subbasin, should costs for monitoring and addressing subsidence be considered a shared cost?

Methods to Allocate GSP Implementation Costs

Six different method to allocate GSP costs were identified:

- Allocate costs using the existing cost distribution method.
- Allocate costs by acreage (either by acreage of all land types or only irrigated lands).
- Allocate costs by water budget ‘short falls.’
- Allocate costs using a ‘hybrid’ approach where certain costs or a percentage of the costs are shared by all GSAs in the northern and central Delta-Mendota region, and other costs are paid for by individual GSAs.
- Allocate costs based on a combination of the acreage, population, and disadvantaged community designation of each GSA.
- Allocate costs using a baseline cost for each GSA and then adding an additional per acre foot overproduction charge.

The Committee decided to remove allocating costs by shortfalls from further consideration due to the number of gaps in the data that informed the water budget. The method to allocate costs using a baseline cost with additional per acre foot overproduction charge was discussed further. Overproduction charges could be calculated through monitoring all production wells or having owners/operators of production wells submit electric bills. The Committee expressed interest in further exploring this cost allocation methodology and understanding what would be required to implement it.

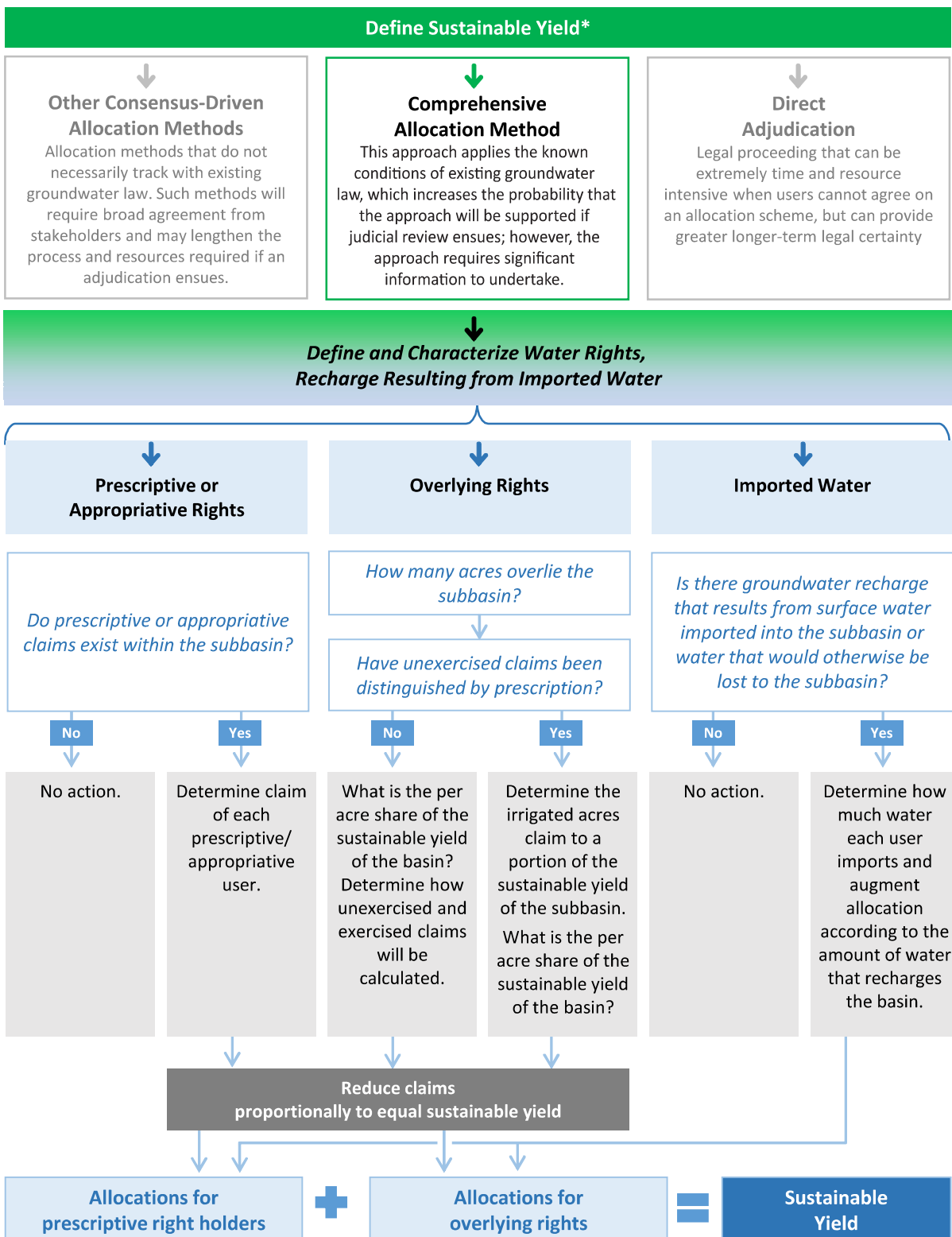
Next Steps and Action Items

The Committee decided to further discuss groundwater monitoring approaches and GSP implementation cost allocation methods at its next meeting. Andrew Garcia will estimate potential costs for the Authority to conduct all GSP implementation regulatory activities and share this estimate with the Committee. Andrew Garcia and Leslie Dumas will identify costs for subbasin-wide GSP implementation activities and share this with the Committee. Kirsten Pringle, Stantec, will summarize input from the meeting and share with the Committee.

Hypothetical Decision Tree Example using the Comprehensive Allocation Method

In order to illustrate how all of these factors might be utilized by a GSA to make pumping allocations consistent with groundwater rights law, Figure 1 provides a hypothetical scenario.

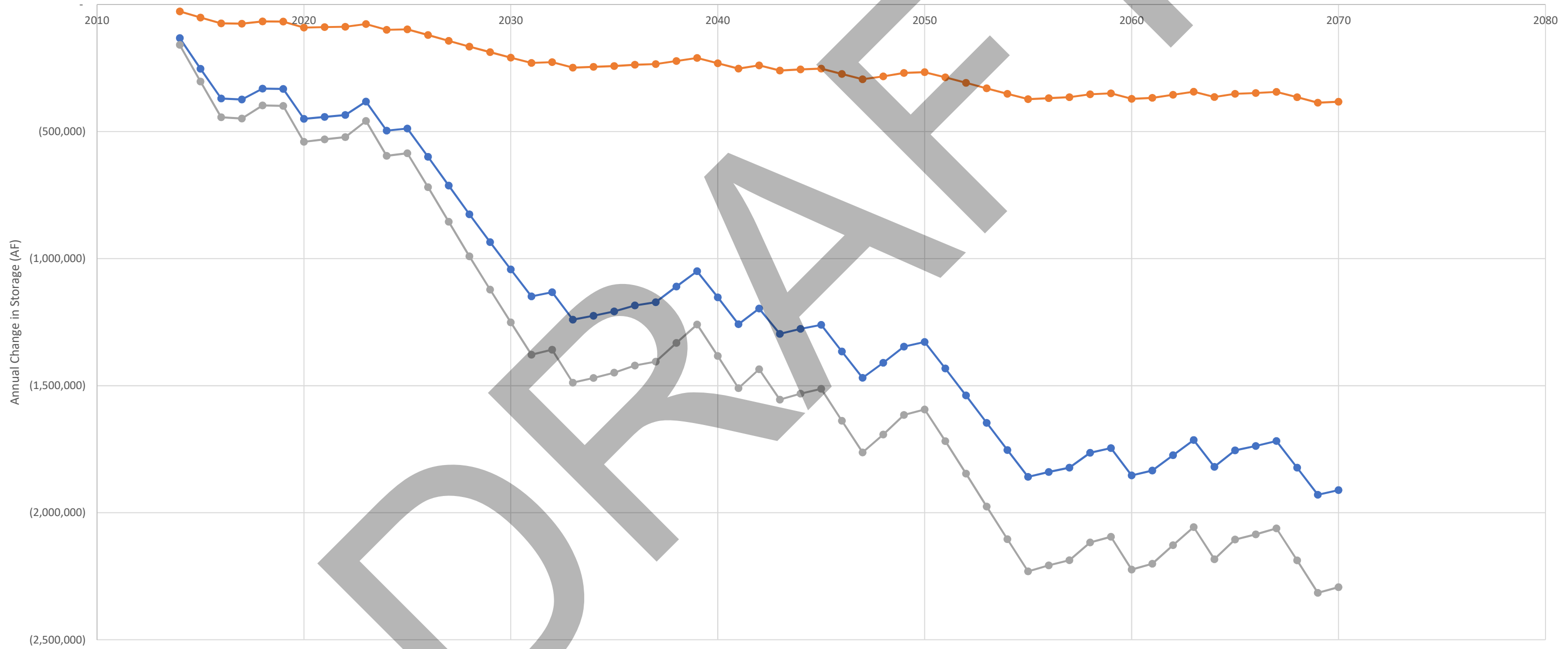
Figure 1: Comprehensive Allocation Method Decision Tree Example¹¹



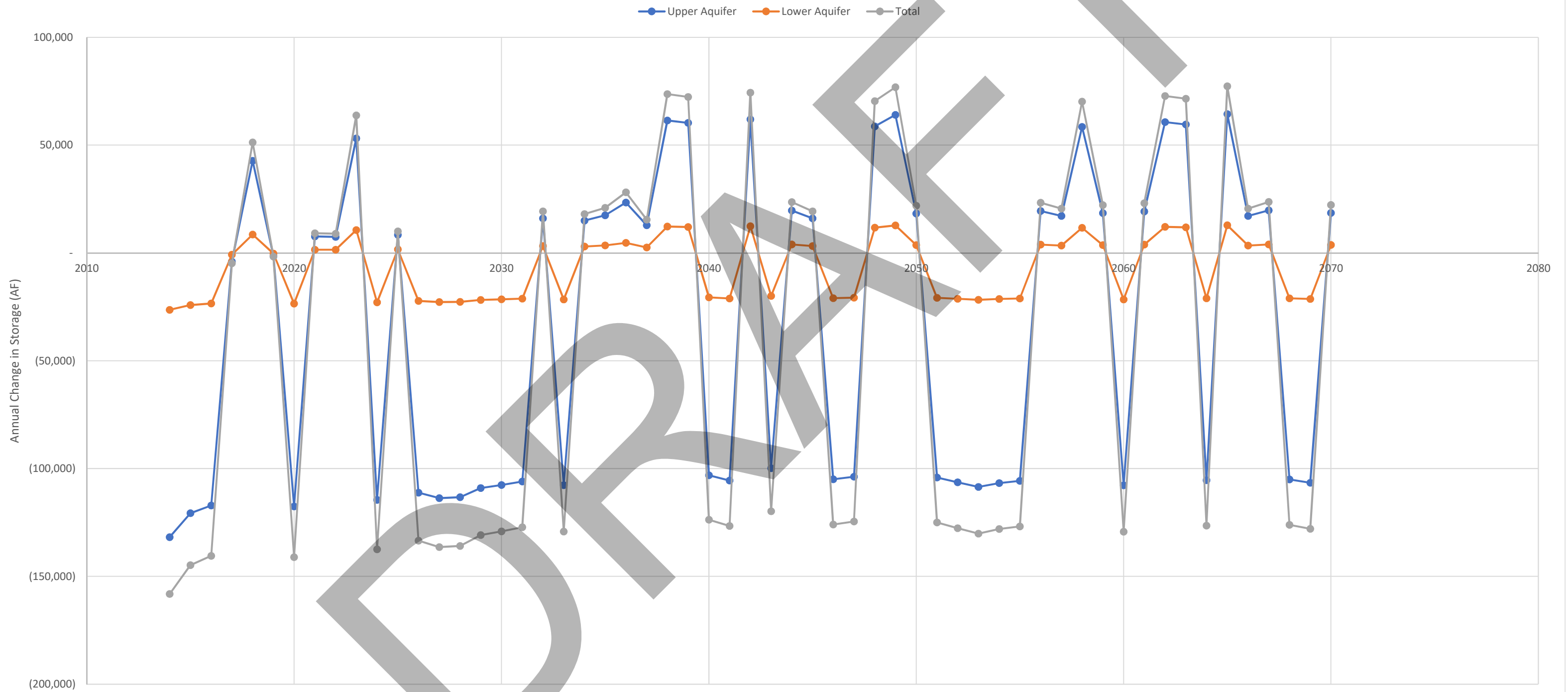
¹¹ If conditions in the subbasin change, allocated shares of the sustainable yield of the subbasin may need to be adjusted.

Cumulative Change in Storage
Northern & Central Delta-Mendota Projected Water Budget with CCF and Projects

Upper Aquifer Lower Aquifer Total



Change in Storage
Northern & Central Delta-Mendota Projected Water Budget with CCF and Projects



Northern/Central Delta-Mendota Region Groundwater Sustainability Plan

Annual Report Outline

- 1) Executive Summary
- 2) Groundwater Elevation Data
 - a. Seasonal High and Seasonal Low Contour Maps
 - b. Hydrographs for Subbasin Monitoring Network representative monitoring sites, at a minimum
- 3) Annual Aggregated Data Identifying Groundwater Extraction Data for the Preceding Water Year (by water use sector)
- 4) Surface Water Use for or Available for Use for Groundwater Recharge or in-lieu use
 - a. SW use by source
 - b. SW use by sector
- 5) Total Water Use
- 6) Change in Groundwater Storage for both upper and lower aquifers
 - a. Graph depicting water year type, groundwater use, annual change in groundwater storage, cumulative change in groundwater storage for the basin based on historical data to the greatest extent (minimum from Jan 1, 2015, to current reporting year)
- 7) Regional Monitoring Program – Subsidence Rates and Survey Data
- 8) Description of progress towards implementing the Plan, including progress toward interim milestone and implementation of projects or management actions since previous annual report.
 - a. Monitoring Network Representative Monitoring Sites Tracking of Sustainable Management Criteria
 - b. Water Quality Data Reporting (Chemographs or some other information at representative monitoring sites)
 - c. Beneficial Uses of Groundwater – Comparison of Shallow water and deeper groundwater elevations vs river stage at representative monitoring locations (related to interconnected surface water)

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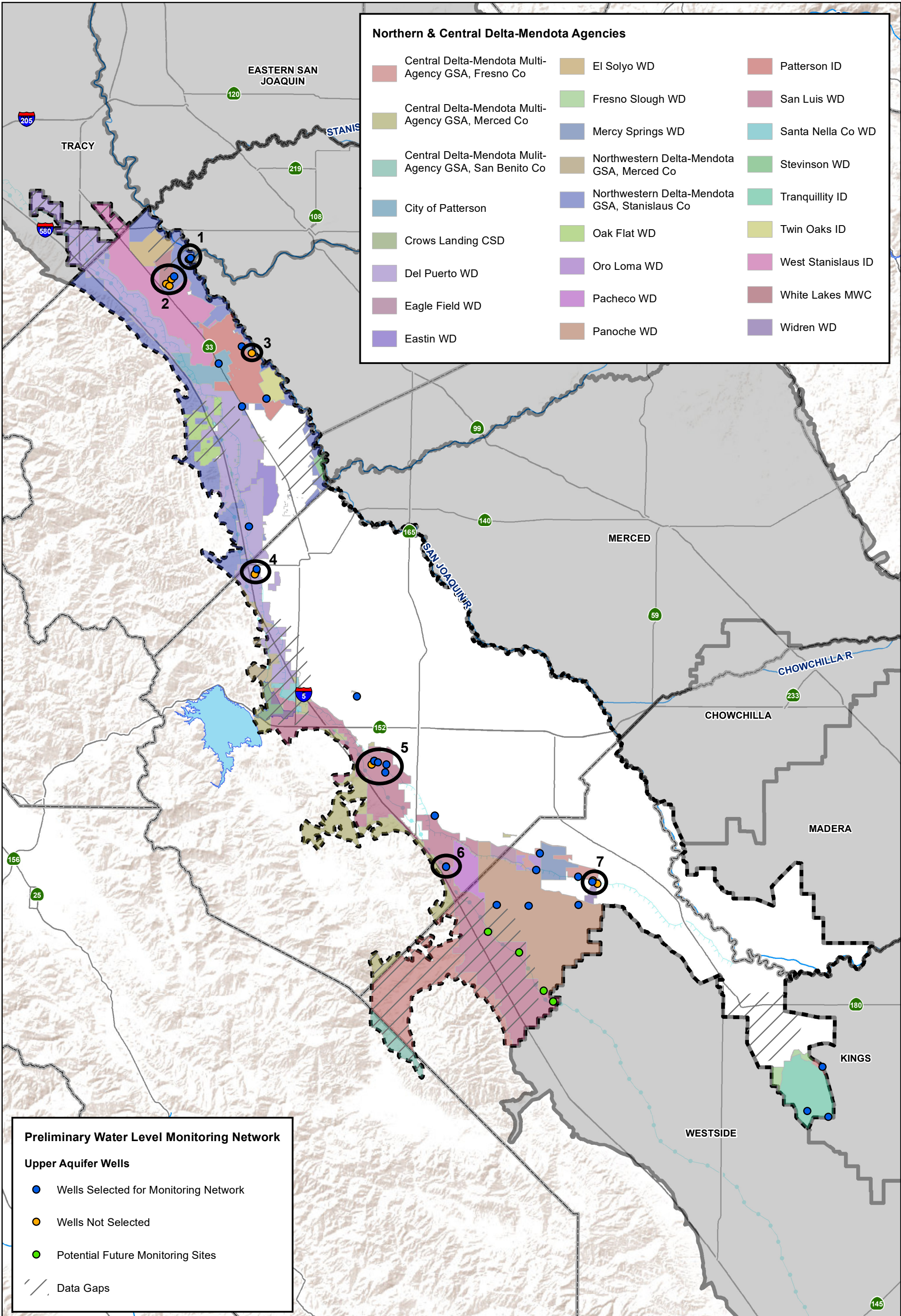
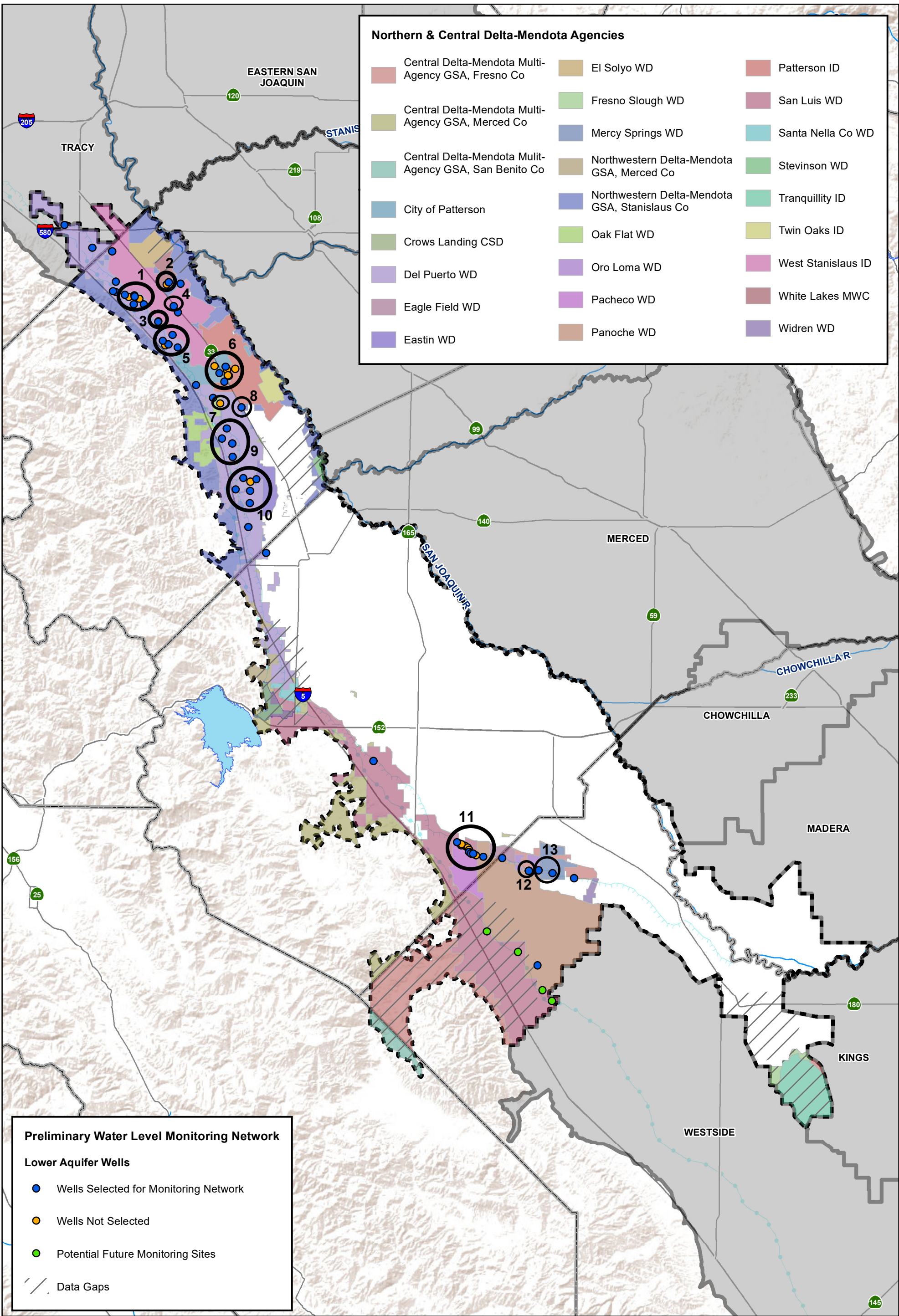


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Primary Well ID	CASGEM ID	Local ID	Status	Well Use	Agency	Program	Latitude	Longitude	County	Aquifer Designation	Depth (ft)	Screen Intervals (ft)	Cluster or Isolated?	Cluster Number	Selected?
06S08E09E003M	374316N1210994W003	P259#3	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.43139	-121.0994	Stanislaus	Upper	115	95 - 115	Isolated		Yes
07S08E28R002M	372907N1210875W002	MC10#2	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.2907	-121.0875	Stanislaus	Upper	135	115 - 135	Isolated		Yes
MW-1	374410N1210638W001		Active	Monitoring	Patterson ID	Patterson ID, CASGEM (Mandatory)	37.4411	-121.06386	Stanislaus	Upper	250	220 - 250	Isolated		Yes
MW-3				Monitoring	Patterson ID	Patterson ID	37.48156	-121.13503	Stanislaus	Upper	260	220 - 250	Isolated		Yes
GDA001		11S/11E-30		Domestic		Grassland Drainage Area GQTMP	36.9539	-120.8101	Merced	Upper	160	76 - 116	Isolated		Yes
Well 1				Public Supply	Volta Community Services District	Volta Community Services District	37.09294	-120.92581	Merced	Upper		170-253	Isolated		Yes
366000N1202300W001	366000N1202300W001	KRCDTID03	Active	Irrigation		CASGEM (Mandatory)	36.60276	-120.23201	Fresno	Upper	543	434-510	Isolated		Yes
366500N1202500W001	366500N1202500W001	KRCDTID02	Active	Irrigation		CASGEM (Mandatory)	36.66167	-120.241	Fresno	Upper	540	295-535	Isolated		Yes
368805N1205994W001	368805N1205994W001	MP100.85L		Irrigation	SLDMWA	SLDMWA Well Network Table	36.8833	-120.5994	Fresno	Upper	400	240 - 260; 280 - 380	Isolated		Yes
GDA002		12S/12E-04R		Domestic		Grassland Drainage Area GQTMP	36.9104	-120.6555	Fresno	Upper	227	200 - 220	Isolated		Yes
GDA003		12S/12E-16B		Irrigation		Grassland Drainage Area GQTMP	36.891	-120.6609	Fresno	Upper	410	270 - 390	Isolated		Yes
GDA005		12S/12E-33D		Domestic		Grassland Drainage Area GQTMP	36.8489	-120.6717	Fresno	Upper	200	130 - 190	Isolated		Yes
GDA006		12S/13E-31D		Monitoring		Grassland Drainage Area GQTMP	36.8501	-120.5985	Fresno	Upper	153	84 - 104	Isolated		Yes
GDA008		12S/12E-33		Domestic		Grassland Drainage Area GQTMP	36.8494	-120.71852	Fresno	Upper	190	130 - 190	Isolated		Yes
WSJ001		15S/16E-20		Domestic		Western San Joaquin GQTMP	36.6098	-120.26264	Fresno	Upper	205	165 - 205	Isolated		Yes
P1				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.60469	-121.17842	Stanislaus	Upper			Cluster	1	Yes
P2				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.60385	-121.17922	Stanislaus	Upper			Cluster	1	No
P3				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.60377	-121.17936	Stanislaus	Upper			Cluster	1	No
P4				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.60365	-121.17957	Stanislaus	Upper			Cluster	1	No
P5				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.6031	-121.1811	Stanislaus	Upper			Cluster	1	No
P6				Monitoring	West Stanislaus ID	West Stanislaus ID Fish Screen Dewatering	37.60329	-121.17977	Stanislaus	Upper			Cluster	1	No
MP031.31L1-L2Well1						DMC Pump-in Program	37.58298	-121.20243	Stanislaus	Upper		140-160; 200-240	Cluster	2	Yes
MP031.31L1-L2Well2						DMC Pump-in Program	37.57942	-121.20616	Stanislaus	Upper		140-160; 180-260	Cluster	2	No
MP031.31L1-L2Well4						DMC Pump-in Program	37.57385	-121.21397	Stanislaus	Upper		100-120; 160-260	Cluster	2	No
WSJ002		04S/07E-21M		Domestic		Western San Joaquin GQTMP	37.5716	-121.2091	Stanislaus	Upper	212	172 - 212	Cluster	2	No
MW-2	375015N1211011W001		Active	Monitoring	Patterson ID	Patterson ID, CASGEM (Mandatory)	37.50146	-121.10113	Stanislaus	Upper	250	220 - 250	Cluster	3	Yes

Primary Well ID	CASGEM ID	Local ID	Status	Well Use	Agency	Program	Latitude	Longitude	County	Aquifer Designation	Depth (ft)	Screen Intervals (ft)	Cluster or Isolated?	Cluster Number	Selected?
WSJ003		05S/08E-16R		Irrigation		Western San Joaquin GQTMP	37.494	-121.0862	Stanislaus	Upper	255	130 - 250	Cluster	3	No
08S08E15G001M	372424N1210754W001	MP058.28L	Active	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.24066	-121.07519	Merced	Upper	170	120 - 150	Cluster	4	Yes
MP058.60L						DMC Pump-in Program	37.23827	-121.07551	Merced	Upper			Cluster	4	No
MP058.73R						DMC Pump-in Program	37.23492	-121.07821	Merced	Upper			Cluster	4	No
10S10E32L002M	370173N1208999W002	MC15#2	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.0173	-120.8999	Merced	Upper	160	150 - 160	Cluster	5	Yes
10S10E32L004M	370173N1208999W003	MC15#3	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.0173	-120.8999	Merced	Upper	110	90 - 110	Cluster	5	Yes
10S10E32R001M	370155N1208942W001	MP080.03L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.0155	-120.8942	Merced	Upper	243	0 - 243	Cluster	5	Yes
10S10E33P001M	370132N1208820W001	MP080.62L	Active	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.01312	-120.88189	Merced	Upper	200	140 - 200	Cluster	5	Yes
11S10E04L001M		MP081.08R				DMC Pump-in Program	37.00386	-120.8833	Merced	Upper			Cluster	5	Yes
10S010E32L005M		3.70102E+14				USGS	37.01728	-120.89993	Merced	Upper	160		Cluster	5	No
10S010E32L006M		370102120535903				USGS	37.01728	-120.89993	Merced	Upper	110		Cluster	5	No
10S10E32N001M		MP079.13R				DMC Pump-in Program	37.01304	-120.90364	Merced	Upper		60 - 160	Cluster	5	No
12S11E17R001M	368777N1207820W001	PWD 5	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	36.89406	-120.793	Fresno	Upper	140	50 - 80; 100 - 140	Cluster	6	Yes
GDA004		12S/11E-08P		Irrigation		Grassland Drainage Area GQTMP	36.8941	-120.793	Merced	Upper	205	50 - 140	Cluster	6	No
Well M2			Active	Irrigation	Widren WD	Widren WD	36.87742	-120.5788	Fresno	Upper	600	220 - 240; 280 - 340	Cluster	7	Yes
Well M1			Inactive	Irrigation	Widren WD	Widren WD	36.87915	-120.57814	Fresno	Upper	420	183 - 223; 233 - 393	Cluster	7	No
Well M2A			Inactive	Irrigation	Widren WD	Widren WD	36.8754	-120.57101	Fresno	Upper	400	220 - 250; 360 - 390	Cluster	7	No
MP021.12L						DMC Pump-in Program	37.64286	-121.36512	San Joaquin	Lower			Isolated		Yes
MP024.38L						DMC Pump-in Program	37.61653	-121.32375	San Joaquin	Lower			Isolated		Yes
07S08E28R001M	372907N1210875W001	MC10-1	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.2907	-121.0875	Stanislaus	Lower	380	240 - 260	Isolated		Yes
374568N1211673W001	374568N1211673W001	50A	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.45683	-121.1673	Stanislaus	Lower	570	250 - 500	Isolated		Yes
375650N1212877W001	375650N1212877W001	90	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.56498	-121.2877	Stanislaus	Lower	600	290 - 420; 450 - 510; 540 - 570	Isolated		Yes
375658N1212922W001	375658N1212922W001	97	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.56583	-121.2922	Stanislaus	Lower	530	280 - 405; 455 - 480	Isolated		Yes
375758N1211918W001	375758N1211918W001	32	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.57578	-121.1918	Stanislaus	Lower	660	300 - 350; 450 - 610	Isolated		Yes
375773N1212880W001	375773N1212880W001	78	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.5773	-121.288	Stanislaus	Lower	600	330 - 465; 495 - 550	Isolated		Yes
376129N1212942W001	376129N1212942W001	121	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.6129	-121.2942	Stanislaus	Lower	600	400 - 570	Isolated		Yes
10S10E32L001M	370173N1208999W001	MC15-1	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.0173	-120.8999	Merced	Lower	355	335 - 355	Isolated		Yes
372604N1210611W001	372604N1210611W001	91	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.26042	-121.0611	Merced	Lower	260	120 - 210	Isolated		Yes
12S12E07E001M	369044N1207092W001	MP094.26L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.90433	-120.70913	Fresno	Lower	840	440 - 600; 640 - 720	Isolated		Yes
12S12E13Q002M		MP100.65L				DMC Pump-in Program	36.88126	-120.60377	Fresno	Lower			Isolated		Yes
13S12E22F001M	367885N1206510W001	PWD 48	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	36.77859	-120.65611	Fresno	Lower	1002	542 - 982	Isolated		Yes

Primary Well ID	CASGEM ID	Local ID	Status	Well Use	Agency	Program	Latitude	Longitude	County	Aquifer Designation	Depth (ft)	Screen Intervals (ft)	Cluster or Isolated?	Cluster Number	Selected?
04S06E25F001M	375614N1212602W001	MP030.43L	Active	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.56129	-121.26026	Stanislaus	Lower	442	210 - 267; 298 - 310; 319 - 326; 336 - 435	Cluster	1	Yes
04S06E36C001M	375509N1212609W001	MP030.43R	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.55086	-121.26092	Stanislaus	Lower	475	230 - 475	Cluster	1	Yes
375508N1212462W001	375508N1212462W001	55	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.55082	-121.2462	Stanislaus	Lower	400	220 - 310; 330 - 350	Cluster	1	Yes
375601N1212599W001	375601N1212599W001	67	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.56012	-121.2599	Stanislaus	Lower	610	200 - 310; 350 - 480; 520 - 560	Cluster	1	Yes
375621N1212742W001	375621N1212742W001	94	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.56205	-121.2742	Stanislaus	Lower	600	320 - 460; 490 - 550	Cluster	1	Yes
MP029.95R						DMC Pump-in Program	37.55915	-121.2684	Stanislaus	Lower			Cluster	1	No
MP030.95L						DMC Pump-in Program	37.55722	-121.25249	Stanislaus	Lower			Cluster	1	No
375774N1212096W001	375774N1212096W001	WSID 3	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.5774	-121.20957	Stanislaus	Lower	400	280 - 380	Cluster	2	Yes
MP031.31L1-L2Well3						DMC Pump-in Program	37.5744	-121.2129	Stanislaus	Lower		230-380	Cluster	2	No
05S07E05F001M	375313N1212242W001	MP033.71L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.53138	-121.22431	Stanislaus	Lower	510	235 - 475	Cluster	3	Yes
375307N1212247W001	375307N1212247W001	51	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.53067	-121.2247	Stanislaus	Lower	560	250 - 300; 400 - 510	Cluster	3	Yes
375423N1211955W001	375423N1211955W001	33.1	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.54232	-121.1955	Stanislaus	Lower	770	270 - 410; 460 - 710	Cluster	4	Yes
375494N1212018W001	375494N1212018W001	29	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.54943	-121.2018	Stanislaus	Lower	470	300 - 420	Cluster	4	Yes
05S07E16C001M		MP036.01L				DMC Pump-in Program	37.50445	-121.20882	Stanislaus	Lower			Cluster	5	Yes
375008N1211953W001	375008N1211953W001	MP36.80L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.5008	-121.1953	Stanislaus	Lower	520	190 - 350; 370 - 410; 440 - 500	Cluster	5	Yes
375085N1212174W001	375085N1212174W001	80	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.5085	-121.2174	Stanislaus	Lower	520	240 - 380; 410 - 470	Cluster	5	Yes
375152N1212031W001	375152N1212031W001	120	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.51524	-121.20311	Stanislaus	Lower	620	200 - 400	Cluster	5	Yes
05S07E17H001M		MP035.73R				DMC Pump-in Program	37.50337	-121.21391	Stanislaus	Lower			Cluster	5	No
WELL 02 - NORTH 5TH STREET				Public Supply	City of Patterson	City of Patterson	37.4712	-121.13283	Stanislaus	Lower			Cluster	6	Yes
WELL 05 - HARTLEY STREET				Public Supply	City of Patterson	City of Patterson	37.47879	-121.12409	Stanislaus	Lower			Cluster	6	Yes
WELL 06				Public Supply	City of Patterson	City of Patterson	37.46122	-121.12526	Stanislaus	Lower			Cluster	6	Yes
WELL 04 - WARD AVE				Public Supply	City of Patterson	City of Patterson	37.47945	-121.14055	Stanislaus	Lower			Cluster	6	No
WELL 07				Public Supply	City of Patterson	City of Patterson	37.47512	-121.12159	Stanislaus	Lower			Cluster	6	No
WELL 08				Public Supply	City of Patterson	City of Patterson	37.46833	-121.11917	Stanislaus	Lower			Cluster	6	No
WELL 09 - RAW				Public Supply	City of Patterson	City of Patterson	37.4689	-121.1202	Stanislaus	Lower			Cluster	6	No
WELL 11 - RAW				Public Supply	City of Patterson	City of Patterson	37.4765	-121.1099	Stanislaus	Lower			Cluster	6	No
374418N1211418W001	374418N1211418W001	86	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.44177	-121.1418	Stanislaus	Lower	630	420 - 450; 490 - 530; 550 - 600	Cluster	7	Yes
MP043.22L						DMC Pump-in Program	37.43551	-121.13124	Stanislaus	Lower			Cluster	7	No
06S08E09E001M	374316N1210994W001	P259-1	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.43139	-121.0994	Stanislaus	Lower	430	390 - 410	Cluster	8	Yes

Primary Well ID	CASGEM ID	Local ID	Status	Well Use	Agency	Program	Latitude	Longitude	County	Aquifer Designation	Depth (ft)	Screen Intervals (ft)	Cluster or Isolated?	Cluster Number	Selected?
06S08E09E002M	374316N1210994W002	P259-2	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	37.43139	-121.0994	Stanislaus	Lower	255	235 - 255	Cluster	8	Yes
06S08E20D002M	374061N1211212W001	MP045.78R	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	37.4062	-121.12127	Stanislaus	Lower	721	218 - 242; 290 - 346; 353 - 358; 418 - 480; 490 - 538; 562 - 550; 600 - 595; 658 - 610	Cluster	9	Yes
373730N1211119W001	373730N1211119W001	64	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.37297	-121.1119	Stanislaus	Lower	650	360 - 410; 440 - 470; 500 - 600	Cluster	9	Yes
373887N1211126W001	373887N1211126W001	38	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.38868	-121.1126	Stanislaus	Lower	550	440 - 500	Cluster	9	Yes
373943N1211280W001	373943N1211280W001	54	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.39427	-121.12795	Stanislaus	Lower	380	190 - 330	Cluster	9	Yes
373468N1210766W001	373468N1210766W001	84	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	37.34682	-121.0766	Stanislaus	Lower	500	290 - 470	Cluster	10	Yes
MP048.97L						DMC Pump-in Program	37.34797	-121.09559	Stanislaus	Lower			Cluster	10	Yes
MP051.00R						DMC Pump-in Program	37.33473	-121.10675	Stanislaus	Lower			Cluster	10	Yes
MP051.66L						DMC Pump-in Program	37.33295	-121.08571	Stanislaus	Lower			Cluster	10	Yes
MP052.40L						DMC Pump-in Program	37.31855	-121.08599	Stanislaus	Lower			Cluster	10	Yes
MP050.46L						DMC Pump-in Program	37.34393	-121.08553	Stanislaus	Lower			Cluster	10	No
12S11E03P001M	369112N1207584W001	MP091.57R	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.91124	-120.75821	Merced	Lower	700	400 - 480; 480 - 560; 560 - 680	Cluster	11	Yes
12S11E03Q001M	369097N1207554W001	MP091.68R	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.90965	-120.75525	Merced	Lower	615	425 - 455; 495 - 615	Cluster	11	Yes
12S11E03Q003M	369094N1207520W001	MP091.80L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.90936	-120.75182	Merced	Lower	600	440 - 600	Cluster	11	Yes
12S11E04C001M		MP090.18R				DMC Pump-in Program	36.92257	-120.77583	Merced	Lower			Cluster	11	Yes
12S11E11C001M	369057N1207373W001	MP092.72L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.9056	-120.73714	Merced	Lower	700	360 - 400; 520 - 560	Cluster	11	Yes
12S11E03E001M		MP090.91L				DMC Pump-in Program	36.91845	-120.7639	Merced	Lower			Cluster	11	No
12S11E03E002M		MP091.15L				DMC Pump-in Program	36.91644	-120.76013	Merced	Lower			Cluster	11	No
12S11E03L001M		MP091.36L				DMC Pump-in Program	36.91375	-120.75824	Merced	Lower			Cluster	11	No
12S11E03Q002M		MP091.77R				DMC Pump-in Program	36.909	-120.75379	Merced	Lower			Cluster	11	No
12S11E04B001M		MP090.39R				DMC Pump-in Program	36.92105	-120.77237	Merced	Lower			Cluster	11	No
12S11E04G001M		MP090.61R				DMC Pump-in Program	36.91896	-120.76983	Merced	Lower			Cluster	11	No
12S11E04H001M		MP090.60L				DMC Pump-in Program	36.92017	-120.76887	Merced	Lower			Cluster	11	No
12S11E10A002M		MP092.14L				DMC Pump-in Program	36.90712	-120.7478	Merced	Lower			Cluster	11	No
12S12E16E002M	368896N1206702W002	MC18-2	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	36.8896	-120.6702	Fresno	Lower	395	375 - 395	Cluster	12	Yes
12S12E16E003M	368896N1206702W001	MC18-1	Active	Monitoring	SLDMWA	CASGEM (Mandatory)	36.8896	-120.6702	Fresno	Lower	550	530 - 550	Cluster	12	Yes
12S12E16E004M	368896N1206702W003	MC18-3	Active	Observation		CASGEM (Mandatory)	36.8896	-120.6702	Fresno	Lower	215	195-215	Cluster	12	No
12S12E14M001M	368871N1206355W001	MP098.74L	Inactive	Irrigation	SLDMWA	DMC Pump-in Program, CASGEM (Mandatory)	36.88702	-120.63531	Fresno	Lower	400	300 - 390	Cluster	13	Yes
12S12E16H004M	368904N1206558W001	MP97.69LH-6	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	39.8904	-120.6558	Fresno	Lower	500	470-500	Cluster	13	Yes

Primary Well ID	CASGEM ID	Local ID	Status	Well Use	Agency	Program	Latitude	Longitude	County	Aquifer Designation	Depth (ft)	Screen Intervals (ft)	Cluster or Isolated?	Cluster Number	Selected?
12S12E16H005M	368904N1206554W001	MP97.69LH-5	Active	Irrigation	SLDMWA	CASGEM (Mandatory)	36.8904	-120.6554	Fresno	Lower	720	670 - 712	Cluster	13	Yes

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