

DWR TECHNICAL SUPPORT SERVICES GRANT APPLICATION & OTHER SGMA UPDATES

20 JUNE 2018

COSUMNES SUBBASIN WORKING GROUP / TAC MEETING



OUTLINE

- Technical Support Services (TSS) Grant Summary
 - Grant Application Overview
 - SGMA Well Monitoring Requirements
 - Discussion of Basin-Level Data Gaps
 - Proposed TSS Grant Application Approach
- SGMA Coordination Updates – Eastern San Joaquin Subbasin



DWR TECHNICAL SUPPORT SERVICES GRANT

- TSS Grant Application
 - **General Application** – completed on behalf of the Basin
 - **Well Service Request Form** – completed for each “Project” (i.e., monitoring well installation / service)
- “Funding will be prioritized based on identified need”; priority is critically overdrafted basins (CODs)
 - Initial funding availability of ~\$2 million
 - Future funding for TSS may become available at a later date



<https://www.water.ca.gov/Programs/Groundwater-Management/Assistance-and-Engagement>

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TECHNICAL SUPPORT SERVICES (2)

TSS General Application

- One application per Basin, to be submitted by a designated “Basin Coordinator”
- Includes general questions about the SGMA process, current funding programs within the Basin (e.g., *How many GSPs?*)
- Applicants must describe “the most challenging technical needs of the Basin”, and how the GSAs are collaborating to meet those needs
- *Suggestion by DWR is to submit ASAP (i.e., before completing well service requests)*

The screenshot shows the following content:

CA.GOV
Department of Water Resources
Technical Support Services General Application
Groundwater Sustainability Plan Development

The Department of Water Resources (DWR) is offering Technical Support Services (TSS) to assist Groundwater Sustainability Agencies (GSAs) with the development of their Groundwater Sustainability Plans (GSPs).

This TSS General Application collects information that applies to all GSAs located in the groundwater basin/subbasin and only one application per groundwater basin/subbasin is allowed. By submitting a TSS General Application for the groundwater basin/subbasin, you are volunteering to be the **Groundwater Basin/Subbasin Coordinator** for all TSS located in the groundwater basin/subbasin.

The **Groundwater Basin/Subbasin Coordinator** will be responsible for facilitating communication and planning for all GSAs located in a groundwater basin/subbasin when applying for TSS Requests (e.g. Groundwater Monitoring Well Installation, Geophysical Logging, Video Logging, etc.) You or your designee can submit a TSS Request after completing this application.

For questions or assistance with this TSS General Application, please contact Steven Springhorn at Steven.Springhorn@water.ca.gov or (916) 651-9273 or the following DWR Region Office representatives:

- Northern Region Office - Michelle Dooley, Michelle.Dooley@water.ca.gov, (530) 529-7380
- North Central Region Office - Bill Brewster, Bill.Brewster@water.ca.gov, (916) 376-9657
- South Central Region Office - Mike McKenzie, Charles.McKenzie@water.ca.gov, (559) 230-3308
- Southern Regional Office - Tim Ross, Timothy.Ross@water.ca.gov, (818) 549-2345

This application will be evaluated on its merits. Please answer each question and provide supporting documentation where possible.

I. Applicant Background
 (Questions 1–5 of 8)



<https://www.water.ca.gov/Programs/Groundwater-Management/Assistance-and-Engagement>

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TECHNICAL SUPPORT SERVICES (3)

TSS Well Service Request Form

- One application submitted for each well service request (e.g. installation, geophysical logging, borehole video)
 - *Requests are reviewed & processed individually, can be modified without losing your “place in the queue”*
- Requires specific details about proposed site location, landowner contacts, nearby wells and/or previous subsurface investigations, etc.
- Well installation needs to be planned ahead of time, including desired well & screening interval depths, target aquifer zones, etc.
- Applicants must describe services that can be provided by the GSA(s) during installation, including permitting needs, access arrangements, traffic control, etc.

CA .GOV
Testing Server
Department of Water Resources
Technical Support Services: Well Service Request
Groundwater Sustainability Plan Development

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This request will be evaluated on its merits. Please answer each question and provide supporting documentation where possible.

TSS Well Service Request - Groundwater Basin/Subbasin, Needs Assessment, Collaboration
(Questions 1 - 3 of 6)

* A blue asterisk denotes required information.

* 1) Select the groundwater basin/subbasin where TSS are to occur:
Only groundwater basin/subbasins that have a TSS General Application on file are shown in the drop down below.

* 2) Groundwater Basin/Subbasin Applicant Information

GSA Name: _____
Point of Contact: _____

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<https://www.water.ca.gov/Programs/Groundwater-Management/Assistance-and-Engagement>

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SGMA REQUIREMENTS FOR MONITORING WELLS

- Monitoring well network density between 0.2 – 10 wells per 100 mi²
 - Density should be greater in areas of greater pumping, complex geology, and anticipated undesirable results,
- Wells should be dedicated monitoring wells*
- Minimum biannual monitoring required, during seasonal highs/lows
- Well screens should be aquifer specific
 - Each principal aquifer should be monitored to density requirements stated above
- Consider proximity to pumping wells, basin boundaries, and significant recharge areas
- For wells monitoring GW-SW interactions, well network should:
 - Extend parallel & perpendicular to connected streams
 - Identify, quantify timing and volume of GW pumping within ~3 miles of the stream

* Production wells can be used in the initial SGMA monitoring network, but a dedicated monitoring network will be required by the 2042 SGMA implementation deadline



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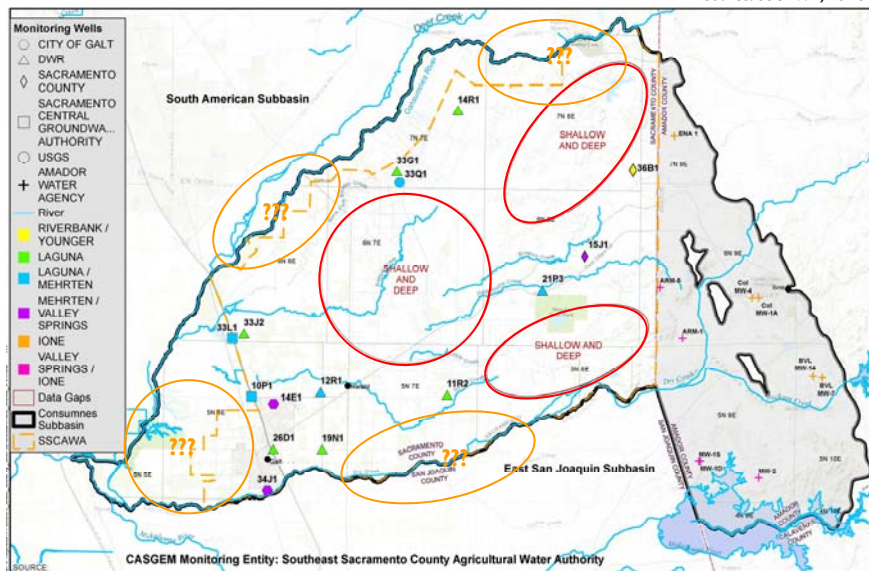
Source: DWR Best Management Practices #2 – Monitoring Networks and Identification of Data Gaps

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DATA GAPS – WELL LOCATIONS



Source: SSCAWA, 2018

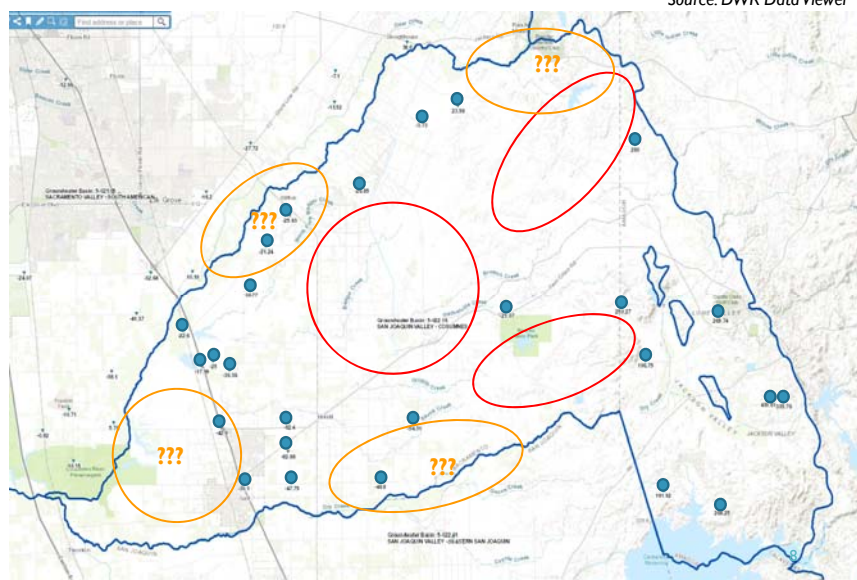
-  Data gap identified in SSCAWA CASGEM 2018 Addendum – Well Locations
-  Potential SGMA data gap (cross-boundary flows)




DATA GAPS – WATER LEVEL DATA (SPRING 2017)


Source: DWR Data Viewer

-  Data gap identified in SSCAWA CASGEM 2018 Addendum – Well Locations
-  Potential SGMA data gap (cross-boundary flows)



DATA GAPS – GEOLOGIC DATA

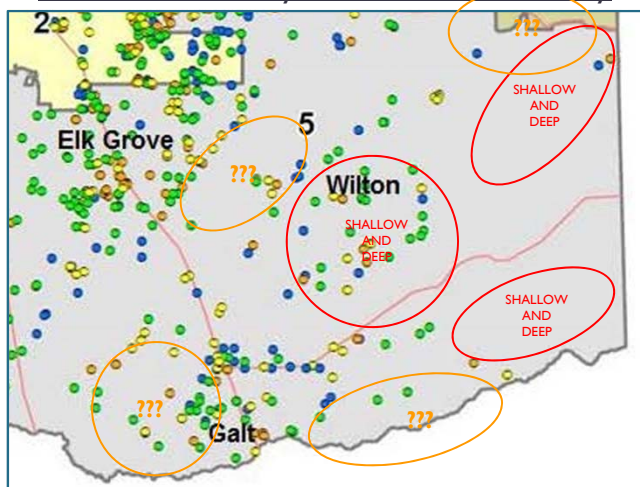
 Data gap identified in SSCAWA CASGEM 2018 Addendum – Well Locations

 Potential SGMA data gap (cross-boundary flows)

Abandoned Well Program

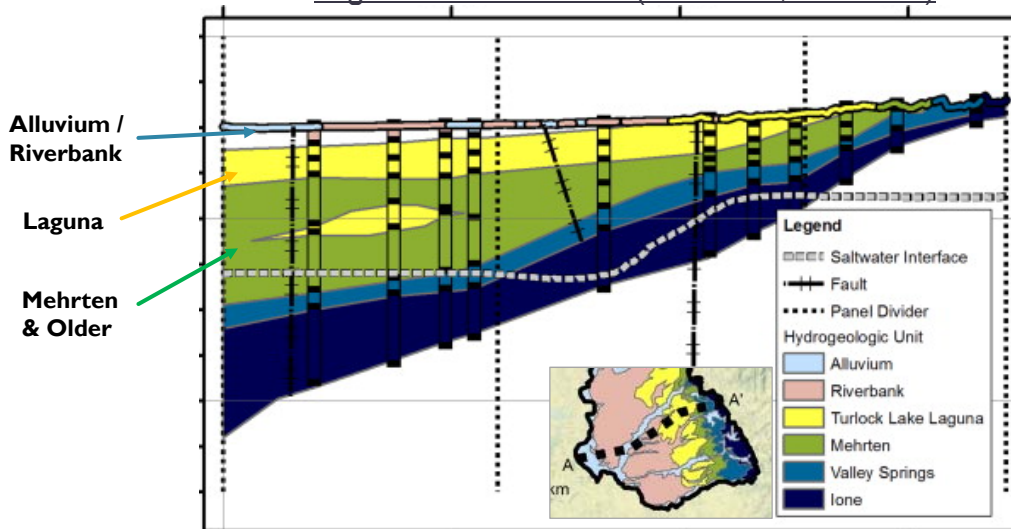
-  Inactivation Permit
-  Destruction Completed
-  Active Well
-  In Process
-  Highway

Sacramento County Abandoned Well Survey



DATA GAPS – PRINCIPAL AQUIFER UNITS

Regional Cross Sections (Whiteaker, et al. 2011)



PROPOSED APPROACH TO TSS APPLICATION

Cosumnes Workgroup could submit a TSS grant application to install one to five nested monitoring wells in areas of existing data gaps within the Basin

Wells will be sited and designed to:

- Function as dedicated monitoring wells
- Screen all principal aquifer units within the Basin
- Provide a refined understanding of groundwater recharge sources, vertical gradients, spatial/temporal trends in groundwater elevations, and impacts to pumping within each principal aquifer unit

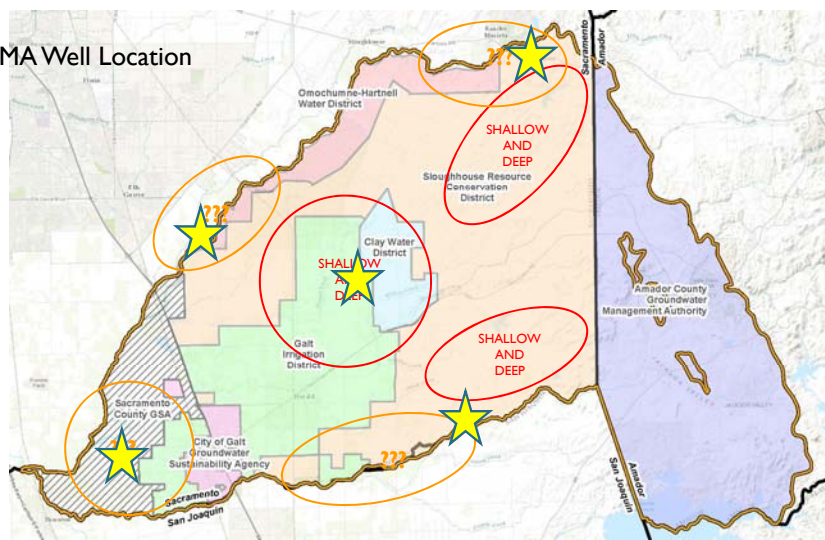


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PROPOSED APPROACH – APPROX. SITE LOCATIONS



Proposed SGMA Well Location



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PROPOSED APPROACH TO TSS APPLICATION (2)

Cosumnes Workgroup could also submit a TSS grant application for well videologging services to retrofit existing well(s) for inclusion in the SGMA monitoring network

Working Group / GSAs will need to identify “candidate wells” for video logging that:

- Are still intact (i.e., not destroyed)
- Screen individual principal aquifer units within the Basin*
- Could be converted into a permanent monitoring well
- Can be accessed regularly by the GSAs and/or other SGMA monitoring entities



*Multi-completion (i.e., nested) wells that screen all principal aquifer units are preferred to wells screening only one aquifer unit, but in all cases each SGMA monitoring well must not screen multiple units simultaneously

PROPOSED APPROACH – DIVISION OF LABOR

EKI / Water Forum

- ✓ 1. Identify regional data gaps & propose approximate MW locations
- 2. Define hydrogeologic conditions under specific MW sites, upon selection by GSAs
- 3. Design MWs at selected sites (depth, screening intervals, etc.)
- 4. Prepare TSS General Application
- 5. Finalize, consolidate TSS Well Service Requests and submit to DWR

GSAs

1. Identify specific sites for MW installation within GSA boundaries based off locations proposed by EKl
2. Develop details regarding MW installation plans (e.g., land access, water supplies, in-kind GSA services, etc.)
3. Formalize access agreements, installation / monitoring schedules, etc. with site landowners
4. Draft TSS Well Service Request forms for individual sites based on data/info obtained from Steps 1-3

Water Forum / Sacramento County

- ✓ 1. Coordinate with EKl to identify data gaps and propose approximate MW locations
- 2. Coordinate with GSAs to request site-specific details for MW installation in proposed areas
- 3. Facilitate transfer of data, information between GSAs and EKl regarding MW site specifics, installation plans, etc.

Total EKl fee \$5,000-\$15,000 (depends on well count and data availability)



SGMA UPDATES – EASTERN SAN JOAQUIN SUBBASIN

- EKI attended the regular Board meeting and Technical Advisory Committee (TAC) meeting of the Eastern San Joaquin Groundwater Authority on 13 June 2018
- Main takeaways from the TAC / Board meeting:
 - ESJ Subbasin is referencing local and regional planning documents (e.g., IRWMPs, AWMPs, UWMPs, etc.) to establish baseline conditions for current and projected water budgets
 - ESJ Subbasin is initiating discussion re: defining *Undesirable Results*, assigning *Minimum Thresholds* related to groundwater elevations
 - Considering using historical lows as a criteria to set *Minimum Thresholds* across the Basin
 - ESJ GWA approved a motion to write a letter in support of the Northern Delta GSA's proposed Basin Boundary Modification to form a new "Northern Delta Subbasin" in the Delta portions of the Solano and South American Subbasins



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QUESTIONS?

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