



## Meeting of the Northern Delta-Mendota Region Management Committee

**Wednesday, July 1, 2026, 1:00 PM**

### **In person:**

Patterson City Council Chambers  
1 Plaza Circle, Patterson, CA 95363

### **Zoom Webinar Link:**

<https://zoom.us/j/97464044803>

**Webinar ID: 974 6404 4803**

**Call-In: +16694449171,,97464044803# US**

**NOTICE IS HEREBY GIVEN** that a Meeting of the Northern Delta-Mendota Regional Management Committee has been called for **Wednesday, July 1, 2026, 1:00 PM**, on items listed on the attached agenda, which is incorporated by reference and made a part hereof.

Persons with a disability may request disability-related modification or accommodation by contacting Karlee Liddy at the Hallmark Group Office, 500 Capital Mall Suite 2350, Sacramento CA 95814, via telephone at (916) 767-4287, or via email at kliddy@hgcpm.com. Requests should be made as far in advance as possible before the meeting date, preferably 3 days in advance of regular meetings or 1 day in advance of special meetings/workshops.

### **AGENDA**

1. Call to Order/Roll Call ([Pierce](#))
2. Pledge of Allegiance ([Pierce](#))
3. Consider Corrections or Additions to the Agenda of Items, as Authorized by Government Code Section 54950 et seq. ([Pierce](#))
4. Opportunity for Public Comment ([Pierce](#))

### **Consent Calendar**

5. Review and Take Action on the Consent Calendar ([Pierce](#))
  - a. Minutes of the June 3, 2026 Meeting
  - b. Budget to Actual Report

### **Closed Session**

6. Conference with Legal Counsel – Anticipated Litigation ([Layne](#))

*The Committee will meet in closed session to confer with legal counsel on significant exposure to anticipated litigation pursuant to paragraph (2) of subdivision (d) of Government Code Section 54956.9: (1 case)*

**Action Items**

7. Direction on the P&P Proposal to Continue Monitoring Subsidence Benchmarks (Liddy)
8. Direction on Well Registration and Metering Compliance (Liddy/Mani)

**Report Items**

9. Update on Pumping Reduction Plan (PRP) Implementation, Q2 Groundwater Level Data and Exceedance Reporting (Mani)
10. Update on Scope of Work for the Phased Approach to the DM Subbasin Model Calibration (Mani)
11. Program Management Report (Liddy)
12. Next Steps (Liddy)
13. Reports Pursuant to Government Code Section 54954.2(a)(3) (Layne)
14. Next Meeting(s): (Pierce)
  - a. August 5, 2026, 1 p.m. PST, Patterson City Council Chambers
15. Adjournment (Pierce)



TO: Northern DM Region Management Committee  
Agenda Item No. 5

FROM: Taylor Blakslee, Hallmark Group

DATE: July 1, 2026

SUBJECT: Review and Take Action on the Consent Calendar

**Recommendation**

Approve the Consent Calendar.

**Discussion**

The documents below are included in the consent calendar for consideration of approval:

- a. Minutes of the June 3, 2026 Northern DM Region Management Committee Meeting (**Attachment 1**).
- b. Budget to Actual Report (**Attachment 2**).



**Meeting of the Northern Delta-Mendota Region Management Committee**

Wednesday, June 3, 2026, 1:00 PM

Patterson City Council Chambers, 1 Plaza Circle, Patterson, CA 95363

**Draft Meeting Minutes**

**In-Person Attendees (Members):**

Vince Lucchesi, Patterson Irrigation District  
Maria Encinas, City of Patterson  
Joel Andrews, City of Patterson  
Anthea Hansen, Del Puerto WD  
Christy McKinnon, Stanislaus County

**Other Attendees:**

Amir Mani, EKI  
Karlee Liddy, Hallmark Group  
Larrisa Camara, City of Patterson

**Online Attendees:**

Bobby Pierce, West Stanislaus Irrigation District, *No Noticed Location*  
Lacey McBride, Merced County, *No Noticed Location*  
Lauren Layne, Baker Manock & Jensen  
Anona Dutton, EKI  
Brittany Harker, Stanislaus County  
Caleb Stearns, West Stanislaus Irrigation District  
Debbie Gavaghan  
Hailey Rowbatham, EKI  
Matt Garcia, Del Puerto Water District  
Maria Razo, Stanislaus County  
Michael Miller  
Taylor Blakslee, Hallmark Group

**AGENDA**

- 1. Call to Order/Roll Call**  
Member Lucchesi called the meeting to order at 1:01 pm PST.
- 2. Pledge of Allegiance**  
Member Lucchesi led the Committee in the pledge of allegiance.

**3. Consider Corrections or Additions to the Agenda of Items, as Authorized by Government Code Section 54950 et seq.**

No corrections or additions were made.

**4. Opportunity for Public Comment**

There were no comments from members of the public at this time.

**Consent Calendar**

**5. Review and Take Action on the Consent Calendar**

- a. Minutes of the May 4, 2026 Special Meeting
- b. Budget to Actual Report

**Motion:**

Member McKinnon made a motion to approve the consent calendar, which was seconded by Member Encinas and passed unanimously.

**Closed Session**

**6. Conference with Legal Counsel – Anticipated Litigation**

The Committee entered closed session at 1:04 pm.

**Open Session**

**7. Report from Closed Session**

The Committee entered back into open session at 1:25 pm with no reportable action.

**Action Items**

**8. Direction on the Proposed Subbasin Model Calibration Cost Share**

Member Lucchesi provided background on this item, noting some of the Delta-Mendota Subbasin JPA Board members' concerns regarding the cost share allocation for the model calibration and other technical costs for the Subbasin.

Taylor Blakslee, Hallmark Group, stated that at the May 19, 2026 meeting of the DM JPA Board, the Board noted the costs for the consolidation of the GSP also included a basin-wide model and potential calibration, which was deferred due to timing and costs. He stated that staff seeks direction to the Northern DM GSA Group representative to the DM Subbasin JPA Board regarding agreement to cost sharing the model calibration through the current 1/7<sup>th</sup> cost share (option 1 in the Northern DM packet) or through the cost share percentages outlined in Exhibit B of the SPA for the development of the single GSP.

Member Lucchesi provided further detail of the May 19, 2026 meeting, summarizing the opinions of the cost share allocation for the model calibration from each of the seven GSA Group representatives on the Board. He then asked each member of the Northern DM GSA Committee to speak to their opinions on the options presented in the meeting packet.

Member McKinnon expressed agreement with sticking to the 1/7<sup>th</sup> cost share as outlined in the JPA Agreement, and noted that the single GSP that all GSAs agreed to includes language to calibrate the model. She also asked what authority the group has to avoid further discussion on technical costs each time they come up and Lauren Layne stated that a special project agreement could be written to include specific technical items.

Member Encinas stated strong preference for the 1/7<sup>th</sup> cost share as outlined in the JPA Agreement, and stated she does not see benefits of agreeing to option 2 (Exhibit B).

Member Hansen asked staff to provide more background on the phased approach to better understand the additional costs that the GSAs have agreed to associated with a phased approach to the model calibration. She stated she prefers the current 1/7<sup>th</sup> cost share, but proposed that if the DM JPA votes for option 2 (Exhibit B), that Member Lucchesi should recommend the model calibration be performed in one single phase to potentially save costs.

Member Pierce, though not able to vote on this item, stated that there will be additional costs associated with grant administration, if the Subbasin is awarded the WaterSMART fund. He stated that although he was speaking as a member of the public at this meeting, he recommends the Subbasin stick with the current 1/7<sup>th</sup> split or reconsider the voting structure at the DM JPA Board level.

Member Lucchesi iterated the direction he received from the group, stating the bookends were the preference of a 1/7<sup>th</sup> (14.3%) cost share or use Exhibit B to the special project agreement from formation of the single GSP (16.7%), but with the understanding that the DM JPA Board will not continue to revisit cost share allocation discussions for Subbasin-wide items and that they strive to perform the model calibration in an expedited process to avoid additional costs.

Member Lucchesi asked EKI to develop a modified scope of work and cost estimate for performing the model calibration under a non-phased approach, broken down by cost share percentages laid out in Exhibit B of the SPA for the single GSP.

### **Report Items**

#### **9. Update on GSP Implementation**

- a. Pumping Reduction Plan (PRP) Implementation and Exceedance Reporting
- b. Q1 Water Level and Quality Monitoring Event and DMS Upload

Amir Mani (EKI) provided a summary of the PRP implementation and exceedance reporting requirements and stated that the Q1 and Q2 water level and quality data should be uploaded to the DMS as soon as possible, as biannual reports to DWR are due at the end of the month. He stated that there are no new exceedances of TDS for Q1 water quality data. Member Encinas stated that Well 06 replaced well 02-002, which is no longer accessible for monitoring. Staff will work with GSAs to confirm the representative monitoring wells for the Subbasin. Lastly, Mani highlighted the watchlist wells in the Northern DM region, and identified wells triggered for nitrate which need to be investigated by the respective Northern DM entities.

#### **10. Program Management Report**

Blakslee provided a summary of the action items completed since the last Northern DM Region Management Committee meeting, and there were no additional questions from the Committee.

#### **11. Next Steps**

Blakslee and Liddy outlined the following next steps to the Committee:

- EKI submit a scope of work for a non-phased approach to the model calibration for DM JPA Board consideration of approval.
- Staff send the DM JPA Board meeting invitation to all Northern DM Committee members.
- Staff continue working with GSA representatives to upload Q2 data to the DMS and follow up on any exceedances.

**12. Reports Pursuant to Government Code Section 54954.2(a)(3)**

Nothing to report.

**13. Next Meeting(s):**

The next meeting of the Northern DM Region Management Committee is scheduled for July 1, 2026 at 1 p.m. PST at Patterson City Council.

**14. Adjournment**

Member Lucchesi adjourned the meeting at 2:43 p.m.

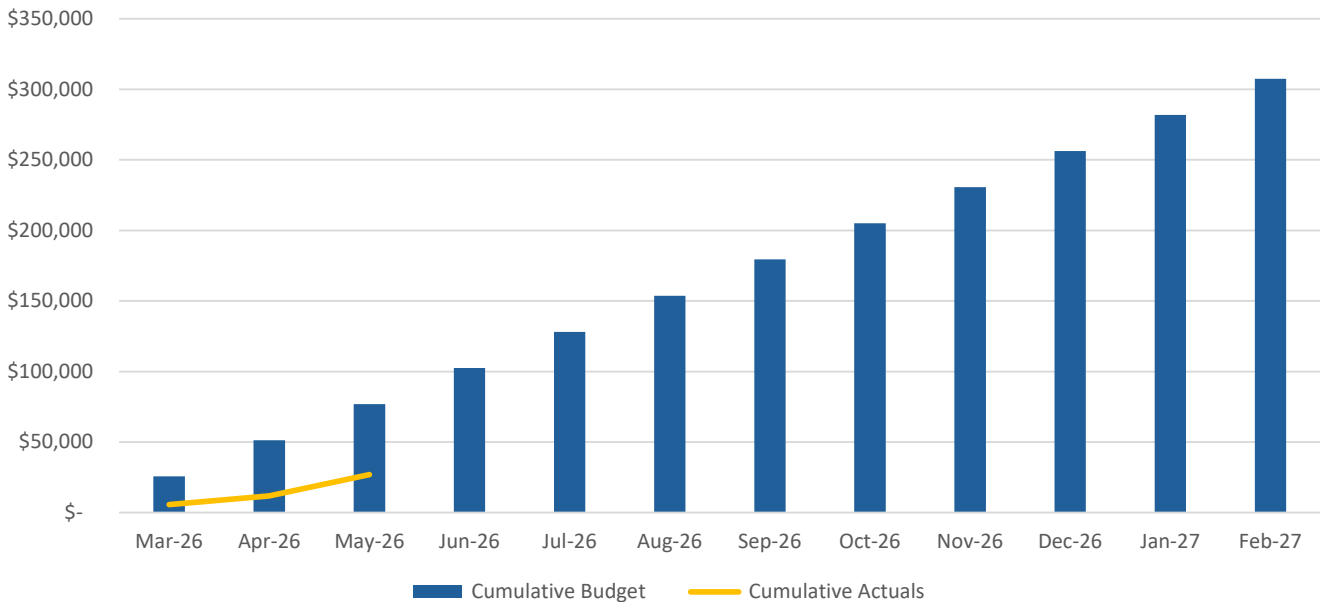
## Northern Delta-Mendota Region Management Committee Budget Variance Report Fiscal Year-to-Date Through June 24, 2026

Operating Expenses	Actual	Budget	Variance
Legal Counsel	\$ 3,203	\$ 5,000	\$ (1,797)
Program Manager/Executive Director	13,499	26,871	(13,372)
Technical Consultants	10,208	20,000	(9,792)
Annual Report	-	18,750	(18,750)
Contingency	-	6,250	(6,250)
<b>Total Operating Expenses</b>	<b>\$ 26,910</b>	<b>\$ 76,871</b>	<b>\$ (49,961)</b>

### FY27 Operating Budget

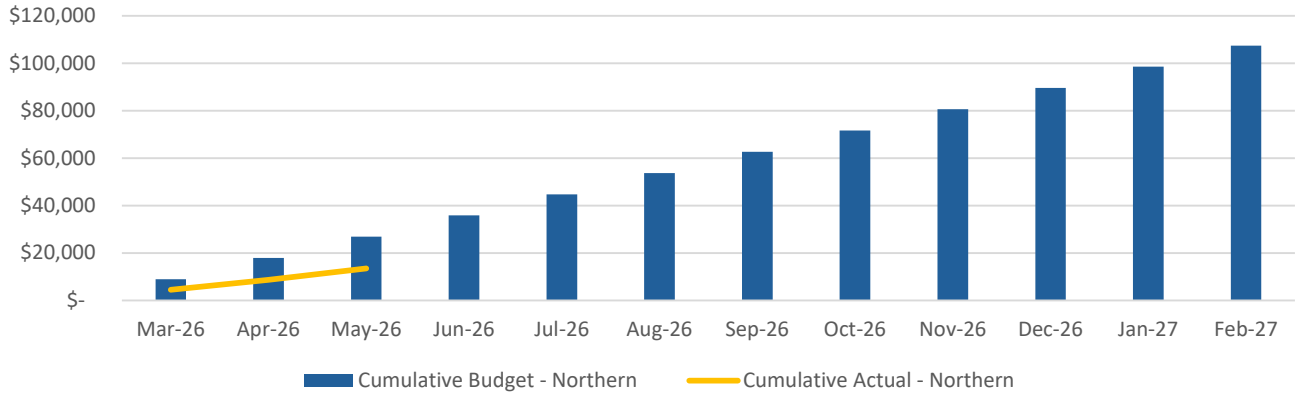
Legal Counsel	\$ 20,000
Program Manager/Executive Director	107,482
Technical Consultants	80,000
Annual Report	75,000
Reserve Fund for GSP Update	100,000
Contingency	25,000
<b>Subtotal FY27 Operating Budget</b>	<b>\$ 407,482</b>
Reserve Funds (Restricted Cash Deposits):	
Reserve Fund for GSP Update	100,000
<b>Net FY27 Operating Budget</b>	<b>\$ 307,482</b>

### Cumulative Budget-to-Actual

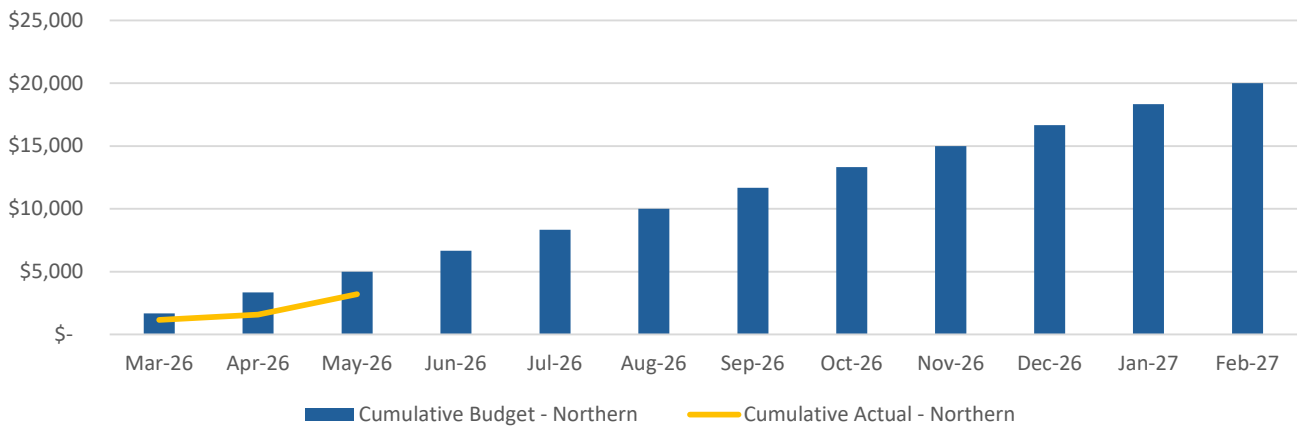


## Northern Delta-Mendota Region Management Committee Primary Contracts

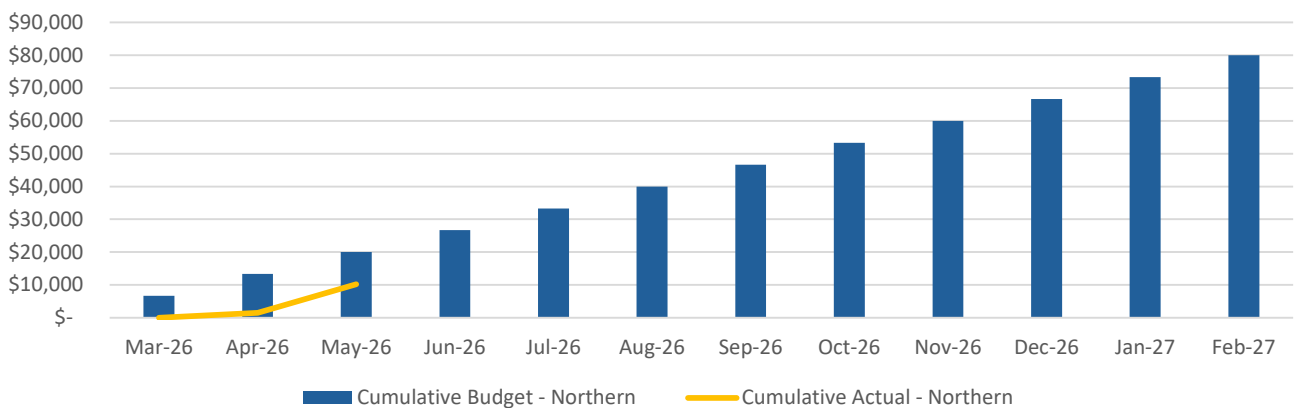
### Hallmark Group Cumulative Budget-to-Actual



### Baker Manock & Jensen Cumulative Budget-to-Actual



### EKI Environment & Water FYTD Budget-to-Actual



## Attachment 2

### Northern Delta-Mendota Region Management Committee Receipts and Disbursements - Checking Account Fiscal Year-to-Date Through June 24, 2026

Transaction Date	Transaction Type	Number	Name	Amount
04/14/26	Payment	1694878	Merced County	\$ 3,056.12
04/14/26	Payment	10245	West Stanislaus ID GSA	32,598.56
04/14/26	Payment	9041	Patterson ID GSA	28,523.74
04/27/26	Payment	991060685	Stanislaus County	58,066.19
05/12/26	Transfer	N/A	Transfer From JPA to Northern <sup>1</sup>	76,606.62
05/29/26	Bill Payment	ACH	Baker Manock & Jensen	(1,575.00)
05/29/26	Bill Payment	ACH	EKI Environment & Water	(1,487.98)
05/29/26	Bill Payment	ACH	Hallmark Group	(8,689.06)
06/16/26	Payment	1109	Oak Flat Water District	4,889.78
06/24/26	Transfer	N/A	Fund Northern GSP Update Reserve	(50,000.00)
				<b><u>\$ 141,988.97</u></b>

<sup>1</sup> Two Member Agencies paid JPA and Northern initial cash calls on a single check. Checks were deposited into the JPA checking account and the appropriate Northern funds were subsequently transferred to the Northern checking account.

As of June 24, 2026, the Northern Delta-Mendota Region Management Committee checking account balance at JPMorgan Chase Bank was \$141,988.97 and the Committee's GSP Update Reserve account balance was \$50,000.

**Attachment 2**

**Northern Delta-Mendota Region Management Committee  
Member Agency Contribution Invoicing  
As of June 24, 2026**

All initial cash call Member Agency contributions have been collected as of June 24, 2026.

**Northern Delta-Mendota Region Management Committee  
Summary of Invoices Memo  
As of June 24, 2026**

The invoices below have been reviewed and approved for payment by the Executive Director and are expected to be paid by June 30, 2026.

<b>Vendor/Consultant</b>	<b>Billing Period</b>	<b>Invoice Total</b>
Baker Manock & Jensen	May-26	\$ 1,627.50
EKI Environment & Water	May-26	\$ 8,720.14
Hallmark Group	May-26	\$ 4,809.92
<b>Total</b>		<b>\$ 15,157.56</b>



TO: Northern DM Region Management Committee  
Agenda Item No. 6

FROM: Karlee Liddy, Hallmark Group

DATE: July 1, 2026

SUBJECT: Direction on Well Registration and Metering Compliance

**Recommendation**

Provide direction on well registration and metering compliance for the Northern DM region.

**Discussion**

The Delta-Mendota Subbasin GSP identifies Well Permitting and Metering (ALL-1) and Well Cataloging (ALL-2) as Tier 1 Projects and Management Actions that apply to all Groundwater Sustainability Agencies (GSAs). These actions establish a consistent framework for collecting well construction and pumping information needed to support sustainable groundwater management across the Subbasin.

In addition to the GSP requirements, the Pumping Reduction Plan (PRP) requires each GSA or GSA Group to adopt well registration and metering policies, and established January 2026 as the deadline to do so.

An overview of the GSP and PRP requirements and recommended next steps are provided as

**Attachment 1.**

**Staff seeks Committee direction regarding implementation of these requirements to ensure timely compliance with the GSP and PRP.**

# GSP AND PRP REQUIREMENTS

- GSA Well Permitting and Metering (ALL-1) and Well Cataloging (ALL-2) are Tier I P/MAs in GSP assigned to all GSAs (*GSP §15.3.1; Table PMA-1*).
  - ALL-1 supports GSA review of new well permits, including review of well location, depth, perforated intervals, aquifer of extraction, and metering needs.
  - ALL-2 calls for GSAs to catalog/register wells in a database with well construction, pump size, extraction amounts, water quality, and related records.
  - Where well construction or metering data are missing, landowners may be asked to provide well logs, pump tests, water quality reports, or obtain additional information such as video logging.
- PRP requires each GSA/GSA Group to adopt a policy for mandatory metering and pumping measurement/reporting for production wells, excluding de minimis and small-volume pumpers by Jan 2026 (*GSP §16.1.1*)
- PRP requires each GSA/GSA Group to adopt and maintain a well registry that, at minimum, includes well location, perforated interval, and active status (*GSP §16.1.1*)
  - Well registry data must be collected consistently enough to support Basin-wide data sharing and must be fully catalogued by 2030.

# WHY IS THIS INFORMATION NEEDED?

- Supports model calibration and refinement: Improves aquifer-specific pumping and local water budget inputs.
- Supports Subsidence avoidance: Better accounting of Lower Aquifer pumping.
- Supports PRP implementation: PRP requires aquifer-specific pumping from composite wells to be calculated using a method agreed to by the DM Subbasin JPA Board.

# SUMMARY OF INFORMATION NEEDED

- Resolution/policies adopted for well registration and metering by GSAs.
- A database/spreadsheet that holds well registration data (EKI will share a general template)
  - Well-ID, latitude, longitude, well depth, screen intervals, aquifer assignment, well use, status, parcels served, crop type and age, irrigation method, meter status, meter information (type, calibration, etc.)
- Metered volume of pumping per GSA, annually and for the WY, reported in October of each year for purposes of Annual Report and PRP compliance.
  - Monthly reporting may be needed if GSA RMWs, or nearby RMWs, are under a PRP trigger.

# CALL TO ACTION FOR GSAs

- Conduct well registration as required in GSP/PRP
  - EKI will share a well registration template form in July
  - If well registration exists, identify gaps in information, fill those gaps as much as possible, and transfer well registration into the template provided.
  - Upload well registration into SharePoint folders that will be provided for each GSA to be used throughout the model development process → **By November 30<sup>th</sup>**
  - Confirm point of contact for follow-up questions and data QA/QC.
- Establish a mechanism to update the well registration form as a living document, as new wells are drilled and installed.
- Provide metered (or estimated with an equally accurate method) pumping for WY 2026 → **By November 30<sup>th</sup>**

PROVOST & PRITCHARD  
CONSULTING GROUP

455 W Fir Ave, Clovis, CA 93611 • (559) 449-2700  
www.provostandpritchard.com

May 4, 2026

John Davids  
Davids Engineering on behalf of the Madera Subbasin  
346 East F Street, Suite A  
Oakdale, CA 95361

**Subject: Land Surveying Services for Geodetic Network for Subsidence Monitoring,  
San Joaquin River Valley, California**

Dear Mr. Davids:

Thank you for the opportunity to submit this proposal to provide land surveying services for the subject project. This proposal discusses our understanding of the project, recommends a scope of services together with associated fees, deliverables and approximate schedules, sets forth our assumptions and discusses other services that may be of interest as the project proceeds.

## PROJECT UNDERSTANDING

Due to funding constraints, the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), Mid-Pacific Region, Surveying and Mapping Branch is no longer providing bi-annual (twice-yearly) survey data for the geodetic benchmark network within the San Joaquin River Valley. The original *San Joaquin River Restoration Project – Geodetic Network GPS Survey Report*, published on May 4, 2012 for the December 2011 survey, identified approximately 61 control points. More recent Bureau of Reclamation documentation, provided as an excel spreadsheet of benchmark coordinate data dated July 2025, indicates that the network has since expanded to approximately 74 control points used for regional subsidence monitoring. No accompanying technical report was available to us with this dataset; the spreadsheet reflects published benchmark positions only.

The discontinuation of this bi-annual dataset directly affects Groundwater Sustainability Agencies' (GSAs) ability to comply with the Sustainable Groundwater Management Act (SGMA). SGMA requires GSAs to monitor land subsidence and report subsidence conditions and trends in Annual Reports and five-year Groundwater Sustainability Plan updates submitted to the California Department of Water Resources (DWR). Without current, repeatable, high-accuracy geodetic data, GSAs are limited in their ability to support required subsidence monitoring and reporting.

Provost & Pritchard has been tasked with surveying the existing geodetic benchmark network to generate replacement data formerly provided by Reclamation. Our approach will reference *the San Joaquin River Restoration Project – Geodetic Network GPS Survey Report* published in 2012 as the primary guideline for survey methodology, network design, and performance criteria, as no subsequent technical reports have been released beyond bi-annual positional updates to benchmark coordinates. The July 2025 Bureau of Reclamation excel spreadsheet will be used to confirm the current benchmark inventory and identify benchmarks that may have been destroyed or disturbed. The survey will be planned and executed to achieve the original network accuracy goals of  $\pm 2$  centimeters horizontal accuracy and  $\pm 3$  centimeters vertical accuracy, consistent with the intent of the geodetic network.

## SCOPE OF SERVICES

Our proposed scope of work for this proposal is described below.

### PHASE GEO: (GEODETIC NETWORK)

The work will include reviewing the San Joaquin River Restoration Project – Geodetic Network GPS Survey Report published in 2012, along with the July 2025 Bureau of Reclamation Excel spreadsheet that lists benchmark coordinates. This review will be used to understand how the original network was built and to identify any benchmarks that may have been damaged or removed. The field work will consist only of a static GNSS (GPS) survey, following the same general approach used in the original study. Each benchmark will be surveyed at least twice, with observation times of up to 30 minutes, during periods with good satellite coverage. Coordinates will be based on the same horizontal and vertical reference systems used previously, and all data will be processed using Leica Infinity, with final network adjustments completed using Star\*Net.

To improve long-term consistency and reliability, the survey will also tie into publicly available Continuously Operating Reference Stations (CORS). While six control benchmarks were originally used in 2012, the 2025 spreadsheet shows that only three are currently used as control points. Using CORS adds backup reference points in case any of the existing benchmarks are damaged and helps ensure future surveys can be accurately compared over time. Linking the network to CORS also allows the data to be updated or converted in the future if reference systems or units change, while keeping results consistent. This work will re-establish a reliable dataset to support subsidence monitoring and SGMA compliance. A map showing the benchmarks and planned CORS locations is attached.

Tasks associated with this phase include:

- Project Management and coordination
- Prepare field plan and delegate field tasks
- Perform field survey of the benchmarks
- Download data and offload supporting documents
- Process baseline data for GNSS network
- Perform network least squares adjustment
- Prepare memo describing survey methodology and results of survey

## PROFESSIONAL FEES

Provost & Pritchard Consulting Group will perform the services in this Phase for the fixed fee amount of \$127,300. Reimbursable Expenses are included in the Fixed Fee amount stated.) (We understand that multiple sub-basins/GSAs will be contributing to this effort, and a cost share amongst the participating agencies is yet to be determined. Once the cost share has been determined, this proposal can be updated and then Provost & Pritchard can invoice the participating agencies directly in accordance with cost share.

## SCHEDULE

Once we receive an executed copy of this Proposal together with the signed Consultant Services Agreement and are authorized to proceed, we will perform the survey within the month of July. The summary report will be provided within six (6) to eight (8) weeks of completion of the survey.

## ASSUMPTIONS

- This proposal is based on information provided in the San Joaquin River Restoration Project – Geodetic Network GPS Survey Report dated May 4, 2012, and the July 2025 spreadsheet prepared by the Bureau of Reclamation.
- The project schedule does not include allowances for delays due to weather conditions.
- All coordinates are based on NAD83, Zone 4 (2007), in U.S. Survey Feet, with orthometric heights derived from NAVD 1988 using the Geoid03 geoid model.
- All benchmarks are assumed to be accessible and safe to occupy at the time of survey. If a benchmark is determined to be inaccessible or unsafe, it will not be collected.
- If a benchmark has been destroyed or cannot be located, it will be documented and noted accordingly.
- Any destroyed or unusable benchmarks will be reestablished during a subsequent survey phase, and newly established benchmarks will be collected at an additional cost.
- No gauge stations will be measured, and no total station or digital leveling methods will be utilized.

This scope of work and associated fee cover a single Geodetic Network survey. Based on past practice, these surveys have been performed on a bi-annual basis, typically in July and December.

## ADDITIONAL SERVICES

The following services are not included in this proposal, however, these and others can be provided at additional cost, upon request.

- Establishment of additional survey benchmarks
- Topographic and Boundary Survey

## TERMS AND CONDITIONS

In order to convey a clear understanding of our mutual responsibilities under this proposal our standard Consultant Services Agreement is attached. Please sign both of these documents and return by email. These documents will serve as our Notice to Proceed. This proposal is valid for 30 days from the date above.

Respectfully,  
Provost & Pritchard Consulting Group

Analisa Gonzales, PLS 9496  
Licensed Surveyor

Gavin O’Leary, GISP 99023  
Director of Operations, GIS/Survey

## TERMS AND CONDITIONS ACCEPTED

By (Client Name)

---

Signature

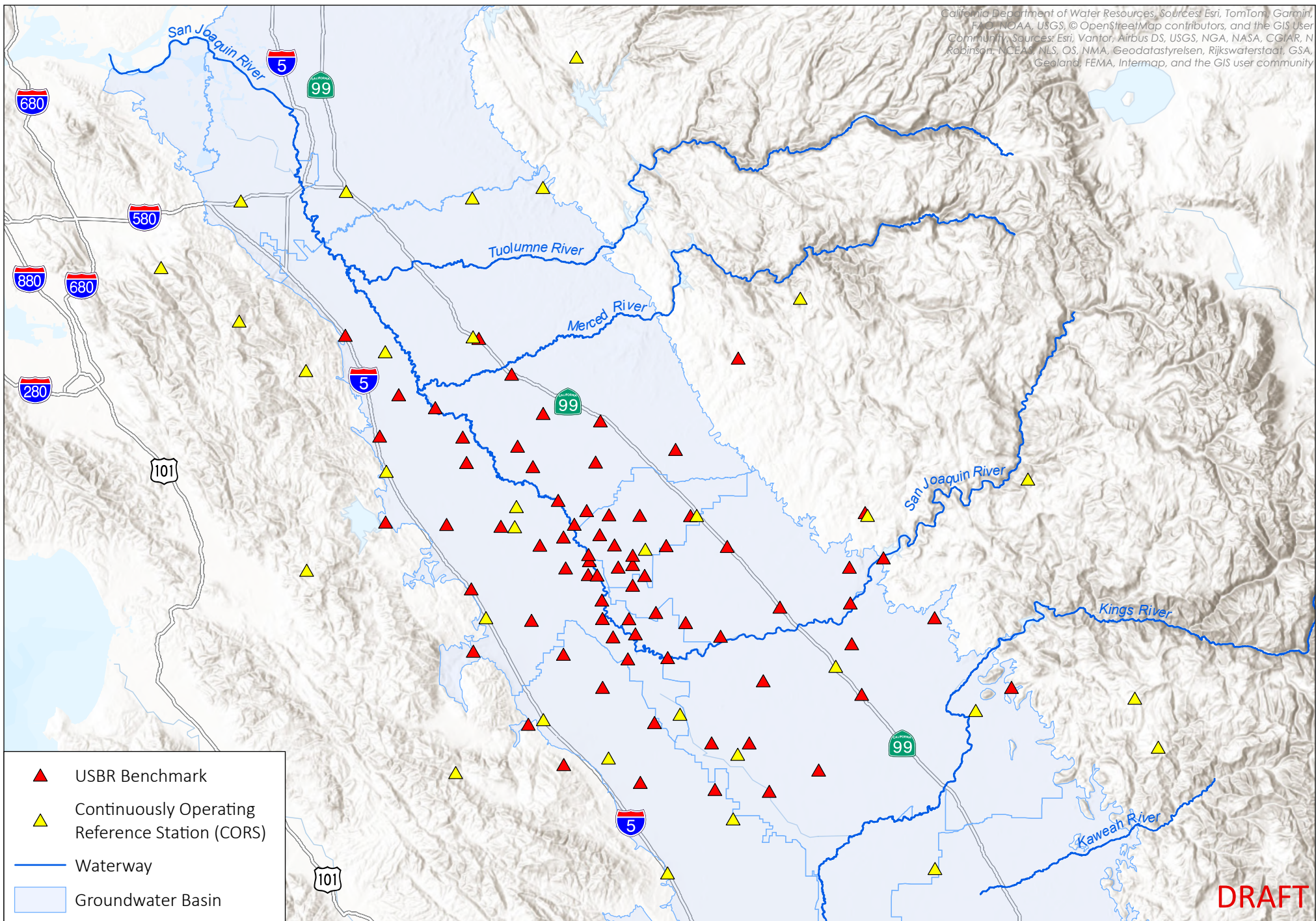
---





Printed Name

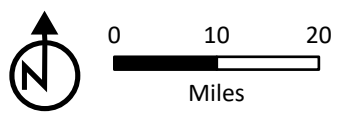
---

Title Date

DRAFT



-  USBR Benchmark
-  Continuously Operating Reference Station (CORS)
-  Waterway
-  Groundwater Basin



### Subsidence Monitoring Locations

**DRAFT**



TO: Northern DM Region Management Committee  
Agenda Item No. 8

FROM: Karlee Liddy, Hallmark Group

DATE: July 1, 2026

SUBJECT: Direction on the P&P Proposal to Continue Monitoring Subsidence Benchmarks

**Recommendation**

Consider approval of the Provost & Pritchard proposal to monitor the subsidence benchmarks.

**Discussion**

In March 2026, in response to the U.S. Bureau of Reclamation no longer providing critical bi-annual monitoring of the San Joaquin River Restoration Program (SJRRP) subsidence benchmarks, several Groundwater Sustainability Agencies (GSAs) signed a letter to the California Department of Water Resources (DWR) requesting the continued monitoring of the benchmarks.

Through subsequent discussions with DWR, it has been determined that DWR will not be assuming the monitoring responsibilities and recommended that the San Joaquin Subbasin GSAs use InSAR data to inform subsidence in the region. However, several subbasins have noted that they strongly prefer to rely primarily on continued ground-based measurements. As a result of those discussions and direction provided, **P&P prepared a proposal for a one-time monitoring event for the subsidence benchmarks in 2026, with an estimated cost of \$127,300 per event (Attachment 1)**. July was originally proposed as the date of the first subsidence monitoring event, but technical consultants in neighboring Subbasins have approved the one-time monitoring event to occur in December 2026.

An update on the approval status from the other Subbasins is provided as **Attachment 2**. If approved, P&P staff has recommended an equal cost share of the monitoring work across the six major Subbasins of the San Joaquin Valley, as outlined below.

**FISCAL IMPACT:** This amount is not included in the approved Fiscal Year 2027 budget and if authorized, would require a potential budget amendment and adjustment to the upcoming second cash call.

	Subbasin	Cost Share
1	CHOWCHILLA	\$21,216
2	DELTA-MENDOTA	\$21,216
3	KINGS	\$21,216
4	MADERA	\$21,216
5	MERCED	\$21,216
6	WESTSIDE	\$21,216
	<b>Total</b>	<b>\$127,300</b>

# P&P Proposal

- Estimated cost is for July 2026
  - Subsequent surveys should be able to be completed at a lesser cost
- Includes ground-based measurements of USBR benchmarks and continuously operating reference stations
- Summary report provided within 6-8 weeks
- Cost = \$127,300, recommend equal split across 6 subbasins

Subbasin	Cost Share
DELTA-MENDOTA	\$21,216.67
WESTSIDE	\$21,216.67
MERCED	\$21,216.67
MADERA	\$21,216.67
KINGS	\$21,216.67
CHOWCHILLA	\$21,216.67
	\$127,300.00

# Subbasin Update

Subbasin	Update
DELTA-MENDOTA	To Board for consideration on July 13.
WESTSIDE	No Update
MERCED	Approved by MIUGSA Board on June 10.
MADERA	No Update, presented at Coordination workgroup meeting on May 26.
KINGS	No Update, P&P checking w/ their clients.
CHOWCHILLA	GSP Advisory Committee approved on June 17.



TO: Northern DM Region Management Committee  
Agenda Item No. 9

FROM: Karlee Liddy, Hallmark Group

DATE: July 1, 2026

SUBJECT: Update on Pumping Reduction Plan (PRP) Implementation, Q2 Groundwater Level Data  
and Exceedance Reporting

**Recommendation**

None; Information only.

# PRP REMINDER #1: MONITORING & REPORTING

- Q1 and Q2 water level data will be uploaded to DWR by July 1 deadline
- Q3 sampling (WL and WQ) should be conducted **by August 31<sup>st</sup>**, with data QAQC and upload to the DMS **by September 30<sup>th</sup>**
  - Data should be collected and uploaded to the DMS *on time* to ensure adequate time for QAQC and timely PRP updates
- Continue with pending investigation or required actions:
  - Submit your investigations to the PRP Dashboard within 60-day investigation period
  - Submit monthly pumping volumes (reduction) if pumping reduction is triggered and required; provide quarterly updates on other courses of action determined by investigation
  - Conduct required higher frequency monitoring for WQ Exceedance Mitigation based on Fall 2025 samples, unless investigation resulted in finding of no GSA cause

# **GWL EXCEEDANCES & TRIGGERS: 2026 Q2 (APR/MAY)**

- **No quarterly GWL exceedances occurred during Q2 2026, based on data uploaded to DMS as of 6/17**
  - One well (06-008) is missing groundwater level measurements for Q1 and Q2 → EKI, Hallmark Group, and Stanislaus County are working together to resolve this. The well does not have SMC yet.
- **NDM GWLs remain without a watchlist (Well done!)**

# GWQ EXCEEDANCES & TRIGGERS: 2026 Q1 (FEB)

## ■ Previously triggered TDS RMWs

DMS Site Name	COC	Local Well Name	GSA	Aquifer	Trigger Reason	QI Results
01-002	TDS	MP033.71L	DM-II GSA	Lower	MT exceedance of 2025/08 sample. Not Enough Samples to Establish Correlation Between GWL and GWQ → <b>Recommend more frequent Monitoring</b>	No Exceedance (remain triggered till August sample)
02-002	TDS	WELL 02 - NORTH 5TH ST	City of Patterson GSA	Lower	Investigation Done and PRP Not Required: Statistical Correlation Cannot Be Established between GWL and GWQ.	Well collapsed; Removed from network; monitoring conditions in proxy and nearby RMWs

## ■ Watchlist TDS RMWs for August 2026 Monitoring

DMS Site Name	COC	Local Well Name	GSA	Aquifer	Watchlist Reason	QI Results
01-001	TDS	MP030.43R	DM-II GSA	Lower	Statistically significant increasing trend.	Watchlist
01-008	TDS	MP051.66L	DM-II GSA	Lower	Statistically significant increasing trend.	Watchlist
06-001	TDS	P259-1	Northwestern Delta-Mendota GSA	Lower	Statistically significant increasing trend.	Watchlist

# GWQ EXCEEDANCES & TRIGGERS: 2026 Q2 (FEB)

## ■ Previously triggered Nitrate RMWs

DMS Site Name	COC	Local Well Name	GSA	Aquifer	Trigger Reason	QI Results
01-004	Nitrate	MC10-2	DM-II GSA	Upper	Investigation Done and Not Enough Samples to Establish Correlation → <b>Recommend more frequent Monitoring</b>	MT Exceedance (increased concentration)

## ■ Watchlist Nitrate RMWs for August 2026 Monitoring

DMS Site Name	COC	Local Well Name	GSA	Aquifer	Watchlist Reason	QI Results
01-008	Nitrate	MP051.66L	DM-II GSA	Lower	Feb 2026 Sample MT Exceedance	MOA Report/ Watchlist
05-124	Nitrate	6S8E3405124 U	Northwestern Delta- Mendota GSA	Upper	Feb 2026 Sample MT Exceedance	MOA Report/ Watchlist
01-001	Nitrate	MP030.43R	DM-II GSA	Lower	Statistically significant increasing trend.	Watchlist

- Nitrate conditions at these RMWs are concerning. Given the upcoming August sampling and potential PRP, UR, and well mitigation implications, we recommend proactive investigation before sampling and confirmation samples if August results exceed applicable thresholds.

# Q1 AND Q2 MISSING SAMPLES

- No missing GWL or GWQ samples in Q1 and Q2 other than new ISW well in Stanislaus County that is actively being addressed.
- However, in the Basin, we had several missing GWQ samples.
- If a well is unable to be sampled, the reasoning should be well documented and submitted to the DMS, and shared with EKI.
- DWR has not viewed missed samples favorably.

## Water Levels

DMS Site Name	Local Well Name	Missing WL	Notes	Missing In
06-008	ISW-1-165 Planned	Yes	Replacement well for 05-127, included in Annual Report in monitoring network and drilled in January 2026	Q1, Q2

# PRP REMINDER #2: WELL REGISTRATION & OVERDRAFT REDUCTION

## ■ Component #1: Monitoring & Reporting

- Well registration and Well Metering deadline was January 2026 → *Needs to be tracked and submitted to Dashboard*
- Need to replace composite or production wells used as RMWs by 2030.

## ■ Component #2: Overdraft Reduction

- Zones are required to reduce pumping by the totals provided as part of the PRP → *Updates should be tracked by GSAs.*
- Baseline for comparison used to calculate the overdraft reduction was the projected average annual pumping under CC-2030 scenario.

Projected Baseline Pumping with P/MAs

	Upper Aquifer (AFY)	Lower Aquifer (AFY)
Zone 1	-93,120	-18,947
Zone 2	-152,995	-20,609
<b>Zone 3</b>	<b>-29,650</b>	<b>-59,242</b>
Zone 4	-33,901	-114,501
<b>Basin</b>	<b>-309,666</b>	<b>-213,299</b>

Required Reduction for Overdraft Mitigation

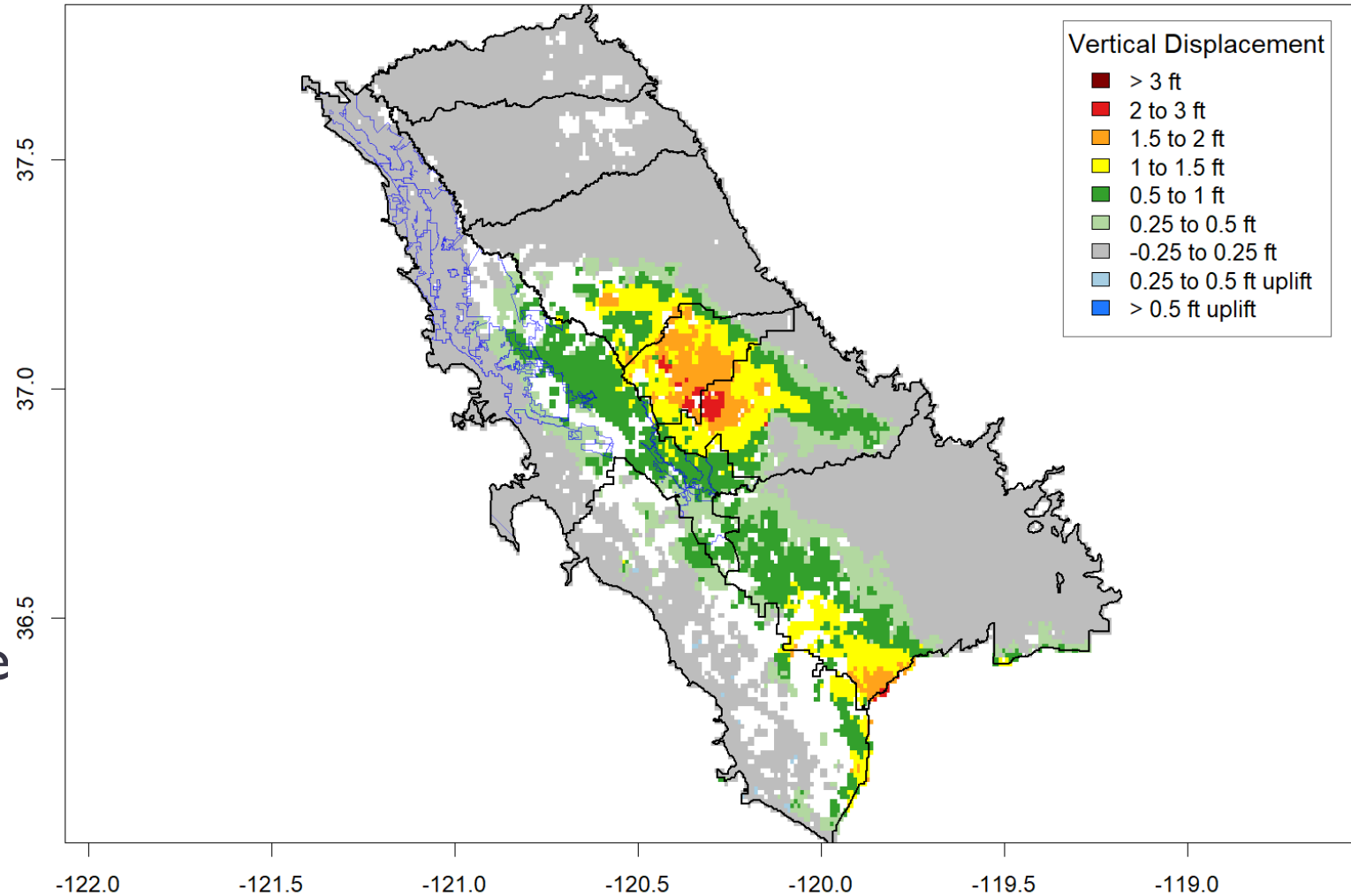
	Upper Aquifer Reduction (AFY)	Lower Aquifer Reduction (AFY)
Zone 1	2,798	2,886
Zone 2	4,619	3,139
<b>Zone 3</b>	<b>803</b>	<b>9,023</b>
Zone 4	1,303	17,440
<b>Basin</b>	<b>9,523</b>	<b>32,487</b>

Member GSA	2026 Lower Aquifer Reduction (AFY)
City of Patterson	92
DM-II	1,100
NW-DM	194
PID	83
WSID	336
<b>Total</b>	<b>1,805</b>

# PRP REMINDER #3: SUBSIDENCE AVOIDANCE

- 2030 Subsidence IM = **1.5 ft since 2020**
- 2040 Subsidence MT = **2 ft since 2020**
- Maximum subsidence between Jan 2020-Jan 2026 within Delta-Mendota Subbasin = **1.41 ft**
- Remaining allowed subsidence from MT ~ 0.6 ft (30 months → June 2028)

Total Subsidence Since 2020 (ft)





TO: Northern DM Region Management Committee  
Agenda Item No. 10

FROM: Karlee Liddy, Hallmark Group

DATE: July 1, 2026

SUBJECT: Update on Scope of Work for the Phased Approach to the DM Subbasin Model Calibration

**Recommendation**

None; Informational only.

**Discussion**

On March 5, 2026, the U.S. Bureau of Reclamation (USBR) announced the WaterSMART Applied Science Grants opportunity which supports modeling, forecasting, and data accessibility projects that help improve water delivery, enhance water supply forecast skill, and improve drought management throughout the state.

EKI identified this grant opportunity which may provide up to 50% of the total proposed costs, up to \$400,000, for the model calibration. On May 19, 2026, the DM JPA Board approved the contract for EKI to develop and submit a grant application on behalf of the DM Subbasin (totaling \$30,000). While this cost is not directly listed in the current Fiscal Year 2027 budget, this cost could be absorbed in the in budgeted model calibration budget line item of \$525,000 since under the phased approach ~\$300,000 is anticipated to be spent in Fiscal Year 2027.

During the May meeting, the Northern DM Committee directed staff to provide an updated scope of work and tasks for the model calibration with and without the USBR Grant. Therefore, an updated scope of work for the phased model approach is provided as **Attachment 1**, and a refined proposal for the model calibration is provided as **Attachment 2**.

# UPDATED SCOPE ON PHASED MODEL APPROACH

## Delta-Mendota Subbasin - Proposed Model Budget

Task	EKI Proposal Budget	Grant Application	Basin's Phased Scope
<b>Phase 1 – Model Framework Refinement and Historical Model Development</b>			
<b>Task 1</b> - Technical Coordination, Data Review and Model Framework Refinement	\$130,800	Included	Included
<b>Task 2</b> - Hydrostratigraphic Framework, Well Inventory, Lithologic Interpretation, and Subsidence Representation	\$77,400	Included	Included
<b>Task 3</b> - Refinement of Land Surface Inputs and Water Budget Representation	\$64,500	--	--
Subtask 3.1- Develop GSA and water district scale water budget units and repeatable workflow codebase	\$29,669	Included	Included
Subtask 3.2- Pilot detailed water budget calculation units (up to 7 fields, 20 hours of tech support per field)	\$34,830	Included	Included
<b>Task 4</b> - Historical Model Development, Precalibration Evaluation, and Calibration Plan	\$110,300	Included	Included
<b>Phase 1 Total</b>	<b>\$383,000</b>	<b>\$383,000</b>	<b>\$383,000</b>
<b>Phase 2 – Calibration, Predictive Modeling, and Documentation</b>			
<b>Task 5</b> - Model Calibration, Validation, and Uncertainty Analysis	\$119,300	Included	Included
<b>Task 6</b> - Scenario Analyses and Predictive Model	\$81,000	Included	Included
<b>Task 7</b> - Decision Support Tool Integration and Enhancement	\$53,200	Included	Not Included
<b>Task 8</b> - Model Documentation and Reporting	\$37,100	Included	Included
<b>Task 9</b> - Grant Administration, Project Management, and Stakeholder Coordination	\$54,400	--	--
Subtask 9.1- Grant Administration	\$34,661	Included	Not Included
Subtask 9.2- EKI Project Management	\$19,644	Included	Included
<b>Phase 2 Total</b>	<b>\$345,000</b>	<b>\$345,000</b>	<b>\$257,000</b>
<b>Total Budget</b>	<b>\$728,000</b>	<b>\$728,000</b>	<b>\$640,000</b>

\*Total values are rounded to the nearest 100

24 June 2026

Taylor Blakslee  
General Manager  
Delta-Mendota Subbasin Joint Powers Authority

Subject: Proposal to Provide Technical Support for Phased Refinement of the Delta-Mendota Subbasin Groundwater Modeling Framework (EKI C50346.05)

Dear Mr. Blakslee:

EKI Environment & Water, Inc. (EKI) is pleased to submit this proposal to provide technical support for phased refinement of the Delta-Mendota Subbasin (Subbasin) groundwater modeling framework. The proposed scope of work is based on the scope developed for the WaterSMART Applied Science grant application, subsequent discussions with the Subbasin Joint Powers Authority (JPA) and its technical advisory committee (Tech Ad-Hoc), and the JPA's direction to proceed with a phased scope that focuses on the model-related tasks identified herein.

Due to evolving processes in the Subbasin, this proposal replaces and supersedes the prior model-related scopes, assumptions, deliverables, schedules, and expectations previously discussed or proposed for the Subbasin modeling effort, including previously proposed calibration-focused scopes or subtasks submitted, including Subtask 3.2 of the Scope of Work dated 30 January 2026 and executed on 24 February 2026. Work performed under this proposal will be limited to the specific tasks, assumptions, deliverables, schedule, and budget described herein. Any services not expressly included in this proposal are excluded and would require separate written authorization.

The work will be conducted in two phases. Phase 1 will include Tasks 1 through 4 and is anticipated to be completed within approximately one year from authorization to proceed. Phase 2 will include Tasks 5 through 8 and is anticipated to be completed during the second year, subject to completion of Phase 1, available data, and JPA direction.

## **SCOPE OF WORK**

### **Phase 1 – Model Framework Refinement and Historical Model Development**

#### **Task 1 – Technical Coordination, Data Review, and Model Framework Refinement**

EKI will review the existing CVHM2-based modeling framework and available data to confirm the appropriate model platform, domain, resolution, layering, temporal extent, and boundary condition approach for Subbasin-scale groundwater management applications. This task will include review of available datasets, including Groundwater Sustainability Plan (GSP) materials, annual report data, groundwater level and subsidence monitoring data, operational records, well inventory information, land use and water budget datasets, and relevant information from neighboring basins.

EKI will coordinate with the JPA, Subbasin Groundwater Sustainability Agencies (GSAs), and the Tech Ad-Hoc to define the model framework and support consistent use of available data. Because the Subbasin is hydraulically connected to adjacent groundwater basins, this task will also include coordination with up to nine neighboring subbasins to: (1) compile available models and data, understand relevant pumping, recharge, surface water delivery, management operations, and boundary conditions, and (2) define a model domain and buffer area sufficient to represent regional groundwater conditions and boundary flows affecting the Subbasin.

EKI will also review and refine the overall model framework to support improved simulation of Subbasin-scale and local-scale groundwater conditions. The model framework will build from the existing CVHM2-based framework and may include extraction or refinement of a local MODFLOW-based model, as appropriate, to better represent Subbasin-scale operations, groundwater-surface water interactions, aquifer layering, pumping, recharge, and subsidence processes.

#### *Deliverables*

- (1) Request for information; (2) Meeting materials, including agendas, presentations, and notes; (3) Draft Technical Memorandum (TM) documenting model platform and extent; and (4) Bibliography of source materials and data.

#### *Assumptions*

- (1) Meetings will be held remotely; (2) Tech Ad-Hoc meetings (up to six meetings) meetings and Meetings with neighboring subbasins (up to nine meetings) are assumed to be up to two hours; (3) Data and information will be provided in a timely manner; and (4) Comments on Draft TM will be incorporated into final model documentation.

### Task 2 – Hydrostratigraphic Framework, Well Inventory, Lithologic Interpretation, and Subsidence Representation

EKI will refine the hydrostratigraphic framework, well inventory, lithologic interpretation, and subsidence representation used in the Subbasin model. This work will build on the Subbasin hydrogeologic conceptual model, Subbasin lithologic Leapfrog model, geophysical logs, airborne electromagnetic (AEM) data, subsidence monitoring data, well registration information, and well construction information being compiled by the GSAs as part of GSP implementation and the Subbasin's Pumping Reduction Plan (PRP).

This task will focus on improving representation of the Upper Aquifer, Lower Aquifer, Corcoran Clay, and other fine-grained units and interbeds that influence groundwater flow, vertical gradients, pumping distribution, storage, and aquifer compaction. Available well location, construction, screen interval, and aquifer assignment information will be incorporated, where appropriate, to improve consistency between the well inventory, model layering, hydrostratigraphic framework, and vertical pumping assignments.

EKI will also review available subsidence data and related hydrogeologic information to support improved representation of subsidence processes in the refined model framework. This may include review of InSAR data, extensometer data, continuous Global Positioning System (CGPS) data, groundwater level data, and available lithologic interpretations to identify areas where subsidence representation should be refined. EKI will apply the 1-D compaction modeling framework described in California Department of Water Resources (DWR) Subsidence Best Management Practice (Subsidence BMP) at up to four location-specific

evaluation sites, depending on the availability of sufficient groundwater level, subsidence, and lithologic data..

#### *Deliverables*

- (1) Presentation(s) of updated layering, Leapfrog model, and 1-D Subsidence modeling; (2) Updated Leapfrog Model; and (3) Draft TM documenting updated model layering and 1-D subsidence modeling.

#### *Assumptions*

- (1) This task is limited to review, interpretation, and integration of existing available data; (2) Field investigations, drilling, well construction, well video logging, new geophysical surveys, new AEM data collection, or new subsidence monitoring installations are not included; (3) Well construction and well registration data will be provided by the GSAs in a timely manner as one formatted consolidated data share per GSA Group; (4) Where well construction data are incomplete or unavailable, EKI will use professional judgment and available regional information to assign wells or pumping to model layers, schedule of the project will not be extended for well registration and data gathering to be completed outside the schedule assumed here, unless otherwise agreed upon; and (5) Comments on Draft TM will be incorporated into final model documentation.

### Task 3 – Refinement of Land Surface Inputs and Water Budget Representation

EKI will refine the land surface water budget framework and associated model input workflows used to estimate agricultural and municipal water demands, groundwater pumping, recharge operations, surface water deliveries, return flows, and evapotranspiration (ET) within the Subbasin. This task will include review and reconciliation of available metered pumping data, well registration information, surface water delivery records, land use, ET, crop water demand, recharge, and other operational datasets to develop GSA- and water district-scale water budget inputs that can support model simulation and future model updates. EKI will hold one meeting with each GSA Group (up to 2 hours), after receiving their data and developing a preliminary water budget to review, modify, and finalize.

EKI will develop GSA- and water district-scale water budget units and a repeatable workflow codebase to support preparation and updating of model input files. The workflow will be designed to incorporate available land use, ET, crop demand, surface water delivery, groundwater pumping, recharge, and related operational datasets.

This task will also include detailed water budget calculations for up to seven fields or representative pilot areas to better refine the relationships between the Open ET and crop factor water demand assumptions and metered pumping and surface water delivery data. This effort will also be used to test assumptions regarding crop demand, surface water supply, groundwater pumping, recharge, return flows, and related water budget components before broader application within the Subbasin model framework.

#### *Deliverables*

- (1) GSA- and water district-scale water budget unit framework; (2) Repeatable workflow codebase for model input development; and (3) Draft TM documenting water budget development.

### *Assumptions*

- (1) This task assumes up to seven pilot fields or representative areas and up to 20 hours of technical support per pilot field or area; (2) Additional pilot fields, parcel-by-parcel accounting beyond the pilot areas, additional field coordination, or expanded technical support are not included; (3) Land use, ET, delivery, pumping, recharge, and operational data will be provided by the GSAs and water districts in a timely manner and in one consolidated formatted data share; (4) EKI will not be responsible for independently verifying all metered pumping, delivery, or land use data; (5) Comments on Draft TM will be incorporated into final model documentation, and (6) This task does not include development of a public-facing water accounting portal, dashboard, or decision support tool; (7) If more than one meeting is needed to review and finalize the local water budgets for any GSA Groups or their member agencies, the additional meeting(s) will be completed under a separate scope of work.

### Task 4 – Historical Model Development, Verification, and Calibration Plan

EKI will integrate the refined model framework developed under Tasks 1 through 3 into an updated historical model simulation through Water Year (WY) 2026. This task will include preparation of updated model input packages, transient stresses, boundary conditions, pumping estimates, recharge inputs, surface water budget components, and subsidence-related assumptions.

EKI will conduct initial model runs and diagnostic evaluations to assess whether the updated model is physically and scientifically coherent prior to formal calibration. These evaluations will include review of model convergence, mass balance, groundwater budgets, simulated groundwater level patterns, vertical gradients, streamflow conditions where applicable, subsidence response, and sensitivity to key input assumptions.

Model performance evaluation will include hydrographs, groundwater elevation maps, water budget comparisons, subsidence comparisons, residual patterns, and summary statistics, such as bias, correlation, and root mean square error, as appropriate. The findings will be used to identify remaining structural or input refinements, prepare calibration datasets, define calibration targets and weighting, and develop a calibration plan for Phase 2.

### *Deliverables*

- (1) Updated historical model framework through WY 2026; (2) Presentation of the historical model results and preliminary model diagnostic summary; and (3) Calibration plan presentation.

### *Assumptions*

- (1) Model input data developed under Tasks 1 through 3 will be sufficient to support model assembly and initial diagnostic runs; (2) Model improvements will depend on the availability, quality, and completeness of data; and (3) If substantial data gaps or model convergence issues require major restructuring or additional model development beyond the assumed level of effort, additional scope and budget may be required.

## **Phase 2 – Calibration, Predictive Modeling, and Documentation**

### Task 5 – Model Calibration, Validation, and Uncertainty Analysis

EKI will conduct formal calibration of the refined historical model using the calibration plan, datasets, and diagnostic findings developed under Task 4. Calibration will focus on improving simulation of groundwater levels, groundwater storage conditions, streamflow conditions where applicable, and land subsidence responses within the Subbasin.

The calibration approach will use supervised automated parameter estimation workflows and statistical evaluation techniques to improve predictive reliability and reduce uncertainty in model simulations. Calibration parameters may include aquifer parameters, storage properties, subsidence-related parameters, recharge distributions, pumping distribution factors, and boundary condition representations. Calibration and validation results will be evaluated using hydrographs, residual analyses, scatterplots, spatial bias evaluations, groundwater budget comparisons, subsidence comparisons, and other relevant diagnostics. EKI will also conduct uncertainty analysis to characterize remaining uncertainty and identify where future data collection or model refinement would most improve confidence in management applications.

#### *Deliverables*

- (1) Presentation of final calibration and validation results, (2) Draft TM documenting historical model and calibration results.

#### *Assumptions*

- (1) Calibration efforts will be constrained by the availability and quality of data and by the inherent limitations of the model structure, model resolution, boundary conditions, and interbasin connectivity; (2) EKI does not guarantee that specific calibration statistics or model performance thresholds will be achieved; (3) Major recalibration efforts, substantial model restructuring, incorporation of new datasets after calibration has begun, or repeated calibration cycles would require additional authorization; and (4) Comments on Draft TM will be incorporated into final model documentation.

### Task 6 – Scenario Analyses and Predictive Model

EKI will develop a predictive model framework to evaluate future groundwater conditions and subsidence risks over a long-term projection period of at least 50 years. The predictive model will be developed from the calibrated historical model.

EKI will develop and simulate up to four predictive scenarios: (1) one predictive baseline scenario; (2) one scenario incorporating selected Projects and Management Actions (P/MAs); and (3) up to two subsidence sensitivity scenarios. Scenario assumptions will be developed in coordination with the JPA, GSAs, and technical stakeholders using available data and management assumptions provided by the JPA and GSAs. Results will include comparisons of projected groundwater levels, groundwater storage, water budgets, streamflow conditions where applicable, and subsidence response under selected future conditions.

*Deliverables*

- (1) Presentations of scenario results and comparisons; (2) Draft TM summarizing scenario generation and results

*Assumptions*

- (1) This task assumes development and simulation of up to four predictive scenarios; (2) Additional scenarios, repeated revisions to scenario assumptions, optimization modeling, or detailed project-level design evaluation are not included; and (3) Comments on Draft TM will be incorporated into final model documentation

Task 7 – Model Documentation and Reporting

EKI will combine the draft TMs developed under each Task above and prepare model documentation summarizing the model refinement, datasets, assumptions, model development process, calibration and validation results, uncertainty analysis, predictive scenarios, model limitations, and recommendations.

*Deliverables*

- Draft and final model documentation report.

*Assumptions*

- (1) This task assumes preparation of one draft report and one final report; (2) The JPA will provide one consolidated set of comments on the draft report

Task 8 – Project Management and Client Coordination

EKI will perform regular project management activities, including preparing monthly invoices, tracking project schedule and budget, and conducting routine communications with the JPA.

*Deliverables*

- Monthly invoices and progress summaries.

*Assumptions*

- (1) This task is limited to EKI project management; (2) Grant administration, grant reimbursement support, preparation of grant reports, and funding agency coordination are not included.

**COMPENSATION**

Inasmuch as the exact level of effort required to complete the above Scope of Work cannot be known precisely, EKI proposes to perform the work on a time and materials expense reimbursement basis in accordance with our current Schedule of Charges (Attachment A). The estimated budget for this Scope of Work is \$640,000 (**Table 1**), from which \$383,000 is associated with completion of Phase 1 and \$257,000 is associated with Phase 2.

**TABLE 1. ESTIMATED BUDGET**

<b>Tasks</b>	<b>Cost Estimate</b>
<b><i>Phase 1 – Model Framework Refinement and Historical Model Development</i></b>	
Task 1 - Technical Coordination, Data Review and Model Framework Refinement	\$130,800
Task 2 - Hydrostratigraphic Framework, Well Inventory, Lithologic Interpretation, and Subsidence Representation	\$77,400
Task 3 -Refinement of Land Surface Inputs and Water Budget Representation	\$64,500
Task 4 - Historical Model Development, Precalibration Evaluation, and Calibration Plan	\$110,300
<b><i>Phase 1 Total:</i></b>	<b><i>\$383,000</i></b>
<b><i>Phase 2 – Calibration, Predictive Modeling, and Documentation</i></b>	
Task 5 - Model Calibration, Validation, and Uncertainty Analysis	\$119,300
Task 6 - Scenario Analyses and Predictive Model	\$81,000
Task 7 - Model Documentation and Reporting	\$37,100
Task 8 – Project Management and Client Coordination	\$19,600
<b><i>Phase 2 Total:</i></b>	<b><i>\$257,000</i></b>
<b>Total</b>	<b>\$640,000</b>

**SCHEDULE**

EKI is prepared to start work on the above scope of work immediately upon authorization to proceed. Phase 1, consisting of Tasks 1 through 4, is anticipated to be completed within approximately one year from authorization to proceed. Phase 2, consisting of Tasks 5 through 8, is anticipated to be completed during the second year, subject to completion of Phase 1, available data, and JPA direction.

**TERMS AND CONDITIONS**

All work performed by EKI under this proposal will be pursuant to the Terms and Conditions of our existing Agreement with the JPA, executed on 24 February 2026.

We are happy to discuss the proposed approach and anticipated level of effort for the proposed Scope of Work in more detail with you and look forward to working with you on this important project. Please do not hesitate to contact me if you have any questions or wish to discuss this proposal in greater detail.

Taylor Blakslee  
Delta-Mendota Subbasin Joint Powers Authority  
24 June 2026  
Page 8 of 8

Very truly yours,

EKI ENVIRONMENT & WATER, INC.



Anona L. Dutton, PG, CHg  
CEO / Principal-In-Charge



Amir Mani, PhD, PE  
Supervising Water Resources Engineer / Project  
Manager

Attachments

Attachment A. Schedule of Charges

Copy:

Board of Directors, Delta-Mendota Subbasin Joint Powers Authority

**ATTACHMENT A  
EKI 2026 Schedule of Charges**

**SCHEDULE OF CHARGES FOR EKI ENVIRONMENT & WATER, INC.**

**1 January 2026**

<u>Personnel Classification</u>	<u>Hourly Rate</u>
Officer and Chief Engineer-Scientist	366
Principal Engineer-Scientist	353
Supervising I, Engineer-Scientist	343
Supervising II, Engineer-Scientist	329
Senior I, Engineer-Scientist	315
Senior II, Engineer-Scientist	304
Associate I, Engineer-Scientist	291
Associate II, Engineer-Scientist	275
Engineer-Scientist, Grade 1	255
Engineer-Scientist, Grade 2	241
Engineer-Scientist, Grade 3	221
Engineer-Scientist, Grade 4	199
Engineer-Scientist, Grade 5	175
Engineer-Scientist, Grade 6	152
Project Assistant	143
Technician	137
Senior GIS / Database Analyst	180
CADD Operator / GIS Analyst	157
Senior Administrative Assistant	172
Administrative Assistant	136
Secretary	114

**Direct Expenses**

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus fifteen percent (15%) for items such as:

- a. Maps, photographs, reproductions, printing, equipment rental, and special supplies related to the work.
- b. Consultants, soils engineers, surveyors, drillers, laboratories, and contractors.
- c. Rented vehicles, local public transportation and taxis, travel, and subsistence.
- d. Special fees, insurance, permits, and licenses applicable to the work.
- e. Outside computer processing, computation, and proprietary programs purchased for the work.

A Communication charge for e-mail access, web conferencing, cellphone calls, messaging and data access, file sharing, local and long distance telephone calls and conferences, facsimile transmittals, standard delivery U.S. postage, and incidental in-house copying will be charged at a rate of 4% of labor charges. Large volume copying of project documents, e.g., bound reports for distribution or project-specific reference files, will be charged as a project expense as described above.

Reimbursement for company-owned automobiles, except trucks and four-wheel drive vehicles, used in connection with the work will be at the rate of sixty cents (\$0.60) per mile. The rate for company-owned trucks and four-wheel drive vehicles will be seventy-five cents (\$0.75) per mile. There will be an additional

charge of thirty dollars (\$30.00) per day for vehicles used for field work. Reimbursement for use of personal vehicles will be at the federally allowed rate plus fifteen percent (15%).

CADD and other specialized software computer time will be charged at twenty dollars (\$20.00) per hour. In-house material and equipment charges will be in accordance with the current rate schedule or special quotation. Excise taxes, if any, will be added as a direct expense.

Rate for professional staff for legal proceedings or as expert witnesses will be at a rate of one and one-half times the Hourly Rates specified above.

The foregoing Schedule of Charges is incorporated into the Agreement for the Services of EKI Environment & Water, Inc. and may be updated annually.