MONO COUNTY TRI-VALLEY GROUNDWATER MANAGEMENT DISTRICT

123B Valley Road
Chalfant, California 93514

BOARD OF DIRECTORS:

Greg Allen, Chairperson
Don Moss, Vice-Chairperson
Geri Bassett, Secretary
Carol Ann Mitchell
Ed Parkinson
Josh Rhodes
Matt Doonan
Rhonda Duggan, Mono County District 2 Supervisor (Ex-Officio Member)

REGULAR MEETING AGENDA

Wednesday, July 24, 2024 at 6:30 p.m.

Benton Community Center
Hwy 120, Benton, CA 93512

Mission: The mission of the Tri-Valley Groundwater Management District is to comply with the California Sustainable Groundwater Management Act (SGMA) of 2014 and other applicable laws (government code, water code etc.) as the law pertains to the District. Core Vision: To preserve the groundwater within the boundaries of the District (Chapter 844 of 1989 California Statutes).*

1. **Advisory Board.**
   A. **Report.**
   B. **Recommendation and possible action on renewing term of office for one year for Gina Barsi.**

2. **Public Comment.**

3. **Discussion and possible approval of minutes from the May 29, 2024 meeting and the June 18, 2024 Special Meeting. (See attachments # 3A and # 3B)**

4. **Update by C.C. Beck or Director Bassett on the Groundwater Model Project. (See attachment # 4).**

5. **Update and possible action on the Directors insurance. (See attachment # 5).**

6. **Update on the status of TVGMD website and email address and recommendations for website content.**

7. **Update of the 2023 Strategic Plan. (See attachment # 7).**
   A. **Review plan and prepare Summary of Accomplishments.**
   B. **Prepare Strategic Plan update for 2024/25; possible committee selection.**

8. **Board of Directors reports.**

9. **Adjournment to Wed., August 28, 2024, 6:30 p.m. at the Chalfant Community Center.**

DRAFT

MINUTES

attachment item #3A

MONO COUNTY TRI-VALLEY GROUNDWATER MANAGEMENT DISTRICT
Regular Meeting of May 29, 2024 6:30 P.M.
Benton Community Center

Chairperson Allen called the meeting to order at 6:30 P.M. on Wednesday, May 29, 2024. The meeting was held in person.

Roll Call:

Directors Present: Allen, Moss, Mitchell, Parkinson, Rhodes (at 7:30), Doonan, Duggan and Bassett.

Directors Absent: None.

Advisory Board (A.B.) present: McDonald, Barth

Mono County (M.C.) Personnel in attendance: None [County Counsel (C.C.) Chris Beck was out of town]

1. Advisory Board.

A. A.B. McDonald reported that they had a meeting on May 13th. See attachment item # 1A. Discussion included:

- Recommendation to reappoint Murphy, Barth, and McDonald to A.B. (item 1B).
- A.B. Saladin's request to not be reappointed.
- A.B. Murphy and McDonald will be co-Chairs. The secretary position will rotate among the other A.B. members.
- C.C. Beck's presentation on the powers of the A.B.
  1. A.B. has an obligation to comment on any action the Board will take relevant to groundwater sustainability. They need to know ASAP about such topics so they can research, meet and advise. A.B. McDonald requested notification from the Board of action agenda items as soon as they are known.
- They set 2 more meeting dates for 2024. The meetings will be rotated between Chalfant and Benton and will be available via Zoom.
- A.B. Phillips offered a field trip to his ranch; date to be determined.
- Topics for future newsletters, possibly including an article on Montgomery Creek Ranch and articles about the two newest Board members.
- The next scheduled regular meeting will be September 16, 2024 at the Benton Community Center; 6:30 P.M.

B. Recommendation and possible action on renewing terms of office for one year for Betsy McDonald, Janet Barth, and Dennis Murphy.

A motion to renew one-year terms for A.B. McDonald, Barth, and Murphy was made by Director Mitchell and seconded by Director Bassett.

Vote – ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, and Bassett.

Nayes – none.

Absent – Director Rhodes not present yet.

2. **Public Comment.**
Aaron Johnson (DFW) – Good evening Board members. Thank you for your time. I'm a scientist with the California Department of Fish and Wildlife and I'm just here to express my support and appreciate the Board's efforts to move forward with this groundwater modeling project. As you recall, when I spoke to you last, in April of 2023, that was in addition to the groundwater monitoring project that we're undertaking in partnership with USGS, Department of Water Resources and California Department of Fish and Wildlife, the model is a very important part of understanding sustainability of groundwater in our basin and appreciate the efforts to move that project forward.

3. **Discussion and possible approval of minutes from the April 24, 2024 meeting. (Attachment item #3)**
A motion to approve the draft minutes for April 24, 2024 was made by Director Mitchell and seconded by Director Parkinson.
Vote – ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, and Bassett.
Nayes – none.
Absent – Director Rhodes not present yet.

4. **Update on the Groundwater Model Project. See Draft RFP attachment item # 4.**
Tim Moore, hydrologist, and Holly Alpert, Director, from the Inyo County Water Department, presented the draft Request for Proposal for the groundwater model project. Based on comments received, the isotope study has been added back into the project. The peer review has been removed but might still be done if finances allow. The final RFP will be sent to the developed list of consultants and will be posted on the TVGMD and Mono County websites.

Comments from the Board included:
Director Mitchell was pleased to see that the isotope study was back in the proposal.
Director Bassett asked that:
- On page 3, field visits should be required rather than optional.
- The peer review should be done if at all possible.
- The isotope study should not just be a repeat of what was done in 2019, it should achieve additional information to help understand the basin.
- The consultant should record the public meetings and provide a written report of the public comments.

Director Bassett will send an email with these comments to Tim and Holly.

Comments and/or questions/answers from the public included:
- It's possible that the study could show the percentage of the different waters that flow into Fish Slough. But, often times that clear of a response is not achieved.
- The isotope study needs to include samples down to Laws and Five Bridges, not just to the south end of Fish Slough.
- Possible effects on Fish Slough from the pumping done by the Los Angeles Department of Water and Power (LADWP) needs to be considered.
- The modeling team is going to define the domain of the project. This will be discussed at the first public meeting.
- Is the isotope study really necessary? Or, would that money be better spent on peer review and the model itself? This might necessitate a work plan change with The Department of Water Resources (DWR), which is doable.
- Doing another isotope study might not give us any better results than the 2019 study did. The data from new samples might not be ready in time to use on the model.

- The study needs to be unbiased. We need to figure out what water is being used in the Tri-Valley but also what is being used south of Fish Slough.
- 30 days for the consultants to submit their proposals seems short. It was pointed out that most of the consultants that will submit proposals already know about this project. The timeframe could be extended, possibly to 45 days.
- The 2019 study, being close to 5 years old, is not considered to be outdated.
- The pumping status of wells 385 and 386. Use of groundwater pumped for mitigation projects, especially the McNally Ponds.
- Peer review should be done if at all possible.

5. County Counsel Beck regarding legal processes of the Advisory Board. (See attachment item #5, pages 5 and 6)

Director Allen reported that C.C. Beck was not able to attend the meeting. The statute is attached. Board members should read the attachment. It will be covered as part of a workshop at a future date.

6. Approval of Warrants:

A. Reimbursement to Director Bassett for payment to The Sheet for publication of vacancy notice (from Director West's resignation) in the amount of $105.00. (See attachment item # 6A)

A motion to approve the warrant request was made by Director Parkinson and seconded by Director Mitchell.

Vote - ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, and Bassett.
Nayes – none.
Absent – Director Rhodes not present yet.

B. Reimbursement to Director Bassett for payment to The Sierra Reader for publication of vacancy notice (from Director West's resignation) in the amount of $420.00. (See attachment item # 6B)

A motion to approve the warrant request was made by Director Mitchell and seconded by Director Parkinson.

Vote - ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, and Bassett.
Nayes – none.
Absent – Director Rhodes not present yet.

C. Reimbursement to Director Rhodes for domain name and website hosting costs.

Director Bassett reported that the invoice(s) for these expenses have not yet been received. Director Rhodes is working on getting them from Hughes net. She believes that the costs will be the same as discussed in the April 24, 2024 meeting; $15.99 and $108.00.

Director Duggan suggested that we approve reimbursement to Director Rhodes for those invoices, to not exceed the amounts listed.

A motion to approve the reimbursement to Director Rhodes up to the $15.99 and $108.00 amounts was made by Director Parkinson and seconded by Director Mitchell.

Vote - ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, and Bassett.
Nayes – none.
Absent – Director Rhodes not present yet.

7. Discussion and possible action on June 2024 meeting date.

Director Allen reported that, due to Director Bassett not being able to attend the June 26, 2024 meeting, as well as some of the Board needing time to catch up on Board projects they are working on, he would like to cancel the June 26, 2024 meeting.

This led to a discussion of:

- when the final RFP would be approved if the meeting was canceled
- who actually approves the final RFP
- if the June meeting is canceled and the Board needs to vote on the final RFP, they can hold a special meeting
- in the RFP, referring to responsibilities of Mono County, who is "Mono County"? Is that the M.C. Board of Supervisors? Community Development? Or?
- the 30 day timeframe for consultants to submit proposals could always be extended if not enough proposals are received.

Director Bassett will contact Tim Moore and find out who approves the final RFP.

A motion to cancel the June 26, 2024 meeting and hold a special meeting if needed was made by Director Parkinson and seconded by Director Mitchell.

A.B. McDonald asked that the Board give the A.B. time to meet if a special meeting was needed. A couple of days notice would be good; 72 hours would be better. She also asked if it was a normal thing for the Board to cancel a public meeting. Director Duggan replied, yes, if they won't have a quorum or if there are conflicts. Director Allen replied that it is at the Board's discretion; the Board does not have to have 12 meetings a year.

Meeting location would be decided on if the special meeting was needed.

Vote - ayes – Directors Allen, Moss, Mitchell, Parkinson, Doonan, Rhodes, and Bassett.
Nayes – none.

8. Board of Directors reports.

Director Allen reported that:

- he has contacted the Bishop Paiute Tribe regarding the letter received from them in April 2024. He will be working with Andy, from their Environmental branch, to set up a meeting between Tribal representatives and some Tri-Valley Board members, possibly Directors Moss, Bassett, and Allen.
- he is still working on the Director insurance and hopes to have more information by the July 24, 2024 meeting.

Director Bassett reported she:

- received an email from the Clerk/Recorder/Elections office saying that it is time to review and possibly update our Conflict-of-Interest Code. She will be working with Director Allen and C.C. Beck on that. Director Mitchell commented that C.C. Beck was the only person on the Board that the code applied to.
- will be working with Queenie, our Elections Clerk, to post the required notices of the 4 Board positions that expire this November and will be on the November 2024 ballot. The candidacy paper filing period opens July 15, 2024. The information will be put on the TVGMD website and sent out to the M.C. email address group for Tri-Valley, as well as any other required postings. A.B. McDonald offered to send it out to the newsletter email address group. Director Bassett will send her the information as soon as possible.

Director Mitchell:

- has researched the cost of a Zoom account for the Board. The lowest feasible cost is $15.99 per month if paid monthly or $159 if paying a year in advance ($13.25 a month). That covers 1 to 9 users.
- is recommending that, especially due to the 3 new Board members not being present at the time, the Board go back and rethink the idea of making changes to the statute regarding the membership/position categories that have been discussed. The Board can revisit this topic at a later meeting, possibly when C.C. Beck gives his review on the statute. She will work with Director Bassett to find the pertinent meeting minutes and related information and send it out to the Board members.

Director Duggan commented that she had found, on the M.C. Elections web page, a list of important dates. Candidacy papers can be submitted starting July 15 and the deadline for submission is August 9, 2024. The final date will be extended to August 14th if incumbents don't file. But, we should assume the final date is August 9, 2024.

9. Adjournment to Wednesday, June 26, 2024, 6:30 p.m. at the Chalfant Community Center.

Per vote in item # 7, this item was changed to:

Adjournment to Wednesday, July 24, 2024, 6:30 p.m. at the Benton Community Center.

A motion to adjourn the meeting was made by Director Parkinson and seconded by Director Mitchell.

Vote – ayes – Directors Allen, Moss, Mitchell, Parkinson, Rhodes, Doonan, and Bassett.
Nayes – none.

Meeting was adjourned at 7:50 PM.

The next regular meeting is Wednesday, July 24, 2024 at 6:30 p.m. at the Benton Community Center.

Geri Bassett, Secretary, TVGMD

DRAFT

MINUTES

attachment item #3B

MONO COUNTY TRI-VALLEY GROUNDWATER MANAGEMENT DISTRICT
Special Meeting of June 18, 2024 6:30 P.M.
Chalfant Community Center

Chairperson Allen called the meeting to order at 6:30 P.M. on Tuesday, June 18, 2024. The meeting was held in person.

Roll Call:

Directors Present: Allen, Moss, Mitchell, Parkinson, Rhodes, Duggan, and Bassett.
Directors Absent: Doonan.
Advisory Board (A.B.) present: None.
Mono County (M.C.) Personnel in attendance: County Counsel (C.C.) Chris Beck

1. **Advisory Board.**
   A. **Report.**
   There were no A.B. members present and no report sent ahead of time. Director Bassett commented that the A.B. Co-Chairs had been sent the draft resolution on June 6, 2024, allowing them time to determine if they wanted to have a meeting and be able to comment on the resolution.

2. **Public Comment.**
   None.

3. **Review and possible approval of Resolution 24-02 regarding calling of election (see attachment # 3)**
   At Chairperson Allen's request, Director Bassett explained that this special meeting was basically a formality required by the Elections Code to enable the Director positions with terms expiring on November 30, 2024 to be put on the Nov. 5, 2024 General Election ballot. The Board is required to specify "yes" or "no" on the two items on page 3.

   Discussion on the resolution itself included:
   - Director Mitchell asking that the title of the District be changed to "Mono County TVGMD", not just "TVGMD".

   A. Qualifications of candidates.
   This was page 4 of the attachment and comes right from the TVGMD statutes. It was accepted as presented.

   B. Who will be responsible for paying for the cost of publishing the Candidate's Statement of Qualifications (CSQ) in the Voter's Information Guide – the individual candidates or the District.
   Discussion on this section included:
   - Historically, candidates have always paid for their CSQ.
   - Why these positions were being put on the ballot rather than being filled by appointment. It was explained that the election is the primary option in filling seats/positions with expiring

terms. Appointments by the Board or M.C. BOS are secondary options for filling vacancies.

- The cost is $250 for a CSQ in English and an additional $250 if a Spanish CSQ is requested. The $250 per statement would be for anyone that filed candidacy papers with a CSQ, not just incumbents.
- If less than 4 qualified candidates file candidacy papers, C.C. Beck will provide information and relevant dates on filling the vacancies.
- The positions that will be on the ballot are currently held by Chairperson Allen, Co-chair Moss, and Directors Bassett and Doonan.
- The District received some funds from M.C. this FY, but, that budget request did not include this type of expense and TVGMD is not assured of receiving more funds from M.C.
- Submitting a CSQ is not mandated.

C. Approval of District map that Mono County has on file.

The map that the M.C. Registrar/Clerk/Recorder has on file has not yet been received. It is believed that the map they have is the most current one that was approved by the TVGMD Board.

C.C. Beck commented that the Board can approve the draft resolution answering "no" to that section and, if necessary, provide the correct map at a later date.

Director Mitchell asked that we make sure the map is the most current one approved by the Board.

A motion to approve the resolution with the addition of "M.C." to the title on page 1 and 2, answering "yes" to the candidates paying for their CSQ, and "no" to a map being attached (map on file will be used) was made by Director Parkinson and seconded by Director Mitchell.

Vote – ayes – Directors Allen, Moss, Mitchell, Parkinson, Rhodes, and Bassett.
Nayes – none.
Absent – Director Doonan.

4. **Adjournment to Wednesday, July 24, 2024, 6:30 p.m. at the Benton Community Center.**

Meeting was adjourned at 6:51 PM.

The next regular meeting is Wednesday, July 24, 2024 at 6:30 p.m. at the Benton Community Center.

Geri Bassett, Secretary, TVGMD

attachment item #4

Request for Proposals
for the Development of a
Numerical Groundwater Flow Model of the
Tri-Valley Portion of Owens Valley and Fish Slough Subbasins
and Isotope Study in Mono County, California

FINAL

June 27, 2024

Proposals will be received until 5:00 p.m., August 16, 2024
via e-mail to the Project Manager: Tim Moore, PG, CHG
tmoore@inyocounty.us

Request for Proposals for the Development of a Numerical Groundwater Flow Model of the Tri-Valley Portion of Owens Valley and Fish Slough Subbasins and Isotope Study in Mono County, California

Mono County, in collaboration with the Tri-Valley Groundwater Management District (TVGMD), is seeking proposals from qualified firms with experience and expertise in developing and applying computer models of groundwater flow to multi-aquifer hydrogeologic systems having structural controls on groundwater flow to develop a numerical groundwater flow model of the Tri-Valley portion of Owens Valley and Fish Slough subbasins (the Basins) in Mono County. Locally, the northern arm of the Owens Valley subbasin that includes Chalfant, Hammil, and Benton Valleys is referred to as the "Tri-Valley" (see Figure 1 for a project location map). Additionally, this project includes an isotope study to help determine key characteristics of the groundwater in the region, such as source and age.

The groundwater model will be used to predict groundwater level fluctuations, flow, and spring discharge. Inyo County Water Department (ICWD) is working collaboratively with TVGMD and is under contract with Mono County for project management services. **The selected modeling firm (Consultant) will be required to work closely with Mono County, TVGMD, and ICWD.**

This Request for Proposals (RFP) describes the required scope of services, consultant selection process, and the minimum information that must be included in the proposal. Failure to submit information in accordance with these requirements and procedures may be cause for disqualification.

Project Overview and Structure

This project shall develop a numerical MODFLOW groundwater model covering the Tri-Valley area and the Fish Slough subbasin, which is designated as an Area of Critical Environmental Concern (ACEC), for the purpose of better understanding and quantifying the amount and the flow of groundwater in these areas. The groundwater model will be calibrated to existing historical data and is intended to provide confidence in the state-of-science of the Tri-Valley/Fish Slough groundwater system. It will serve as a predictive tool to analyze simulated future groundwater conditions and to provide a framework for analyzing future groundwater management options. This project will also include an isotope study to help determine key characteristics of the groundwater in the region that will be used in updating the existing hydrogeologic conceptual model.

Mono County and the Tri-Valley Groundwater Management District (TVGMD) will both make use of the model and isotope study. TVGMD has been approved to be a Groundwater Sustainability Agency (GSA) within its statutory boundaries, and Mono County has been approved to be the GSA for the other parts of the Mono County portions of the Basins that are not included within TVGMD's boundary. Thus, both policymaker entities will use the MODFLOW model to inform their decisions as GSAs which will become even more important if the region is recategorized in the future to medium or high priority by DWR. This model will help inform both agencies on how,

where, and when new wells should be constructed. This model will also help both agencies make decisions about whether water usage should be curtailed in the future. The model will be insightful as to the "health" of the groundwater basins and will be instrumental in making conservation decisions should they need to be made. This model may also be used to inform permitting decisions for new wells or other projects that may impact the overall sustainability of the groundwater resources of the Basins.

The primary work of the project will be to develop a numerical MODFLOW groundwater model and to update the existing hydrogeologic conceptual model (HCM), as needed. Once created, the model will be calibrated to existing data, and a sensitivity analysis will be conducted. Aspects of numerical simulation such as the mass-balance components, boundary conditions, and aquifer layers and properties will be compared to the HCM, and areas of discrepancy will receive additional evaluation. This project shall require that the modeling team conduct a field visit to become acquainted with the area (unless they are already familiar with the area) and to hear from key agency personnel. Field work will also be required to perform the water sampling for the isotope study.

The modeling team will review existing hydrogeologic studies and build upon recent advances in knowledge such as the December 2023 DWR-sponsored Airborne Electromagnetic (AEM) survey if the processed data availability align with the project schedule. Once the numerical groundwater flow model has been created and calibrated to historical data, the modeling team will collaboratively develop and then analyze three predictive simulations to inform current and future groundwater management options.

The Consultant will be required to work closely with Mono County, TVGMD, and ICWD and receive public input throughout the span of the project. There may be a peer review component of the overall modeling project. An independent third-party peer reviewer may be hired outside of the scope of this RFP to provide review services at significant project milestones. The Consultant will be required to work professionally and respond promptly to any requests received from a peer reviewer that pertain directly to their project review role. Any project scope or task changes will only be authorized by Mono County with input from the Project Manager.

Background

This numerical model development project was included as Project and Management Action #4 in the Owens Valley Groundwater Authority (OVGA) Groundwater Sustainability Plan (GSP). The OVGA GSP was submitted to the California Department of Water Resources (DWR) in voluntary compliance with the Sustainable Groundwater Management Act of 2014 (SGMA). Owens Valley Subbasin (DWR Basin ID: 6-012.01) is categorized by DWR as Low Priority, and Fish Slough Subbasin (6-012.02) is categorized as Very Low Priority. The three management areas included in the GSP from north to south are:

- Tri-Valley Management Area including the Fish Slough subbasin;
- Owens Valley Management Area; and

- Owens Lake Management Area.

Significantly more data collection, modeling, and verification of inflow/outflow components have occurred in the Owens Valley and Owens Lake management areas compared to the Tri-Valley area due to the development and implementation of the County of Inyo and the City of Los Angeles Inyo/LA Long Term Water Agreement (LTWA). The Owens Valley and Owens Lake management areas are intensively monitored by LADWP, and recharge and discharge components of the water balance are better understood than the Tri-Valley portion of Owens Valley and Fish Slough subbasins. Insufficient information exists in the Tri-Valley area to design an effective program to manage pumping to ensure the GSP Sustainable Management Criteria (SMC) for water levels in the valleys and spring flow are achieved.

Funding

In June 2022, a model development and isotope study project proposal was approved by the Inyo-Mono Integrated Regional Water Management Program (IRWMP) to be put forward for Proposition 1 grant funding administered by DWR. The project was accepted and awarded a grant through Proposition 1 IRWM Implementation funding.

Hydrogeology

Available records in the Tri-Valley area indicate that water levels have been steadily declining approximately 0.5-2 ft/year for 20-30 years (depending on location and data record). The existing monitoring well network may not be representative of the Tri-Valley area as a whole since existing monitoring wells tend to be located near production wells. Spring discharge into Fish Slough likewise has steadily decreased over the past 30 years. Available geologic and hydraulic evidence suggests there is hydrologic connection between the Tri-Valley and Fish Slough areas, and that the declining water levels in Tri-Valley are associated with reduced spring discharge in Fish Slough. If these trends continue, spring discharge may cease completely or intermittently at some locations as was recorded in 2022, which could severely degrade or eliminate a significant portion of remaining habitat for the endangered Owens pupfish and threatened Fish Slough milk-vetch which are dependent on spring flow and water management.

Fish Slough spring discharge water source is inferred indirectly from geologic and hydrologic data. Based on general geochemistry, stable isotopes, and tritium, Zdon et al. (2019) concluded Fish Slough springs were sourced by a combination of water from Tri-Valley to the east (Northeast Spring had the strongest reported signature for Tri-Valley area waters) and the shared recharge areas for Adobe Valley and the Volcanic Tablelands to the north and northwest. The geochemistry of source water analyzed by Zdon et al. varied spatially within Fish Slough, suggesting it is located at a convergence of regional groundwater flow paths.

Most small creeks from the White Mountains are ungauged, but the few data available suggest the contribution is small and almost entirely used for irrigation on the valley floor. No direct surface-water connection exists between the Tri-Valley area and the Owens River except for an ephemeral wash that occasionally flows from Chalfant into the Laws area during extreme precipitation events. Surface water that enters the Tri-Valley area as runoff from the surrounding

mountains, less any water lost to evapotranspiration or vadose zone storage, is believed to recharge groundwater.

Structural boundaries of the Tri-Valley area aquifer system are generally delineated by the contact between alluvium and the bedrock of the adjacent mountain blocks. The boundary west of Chalfant and Hammil valleys is formed by the contact between valley fill alluvium and the Bishop Tuff. At this boundary, the Bishop Tuff likely overlies valley fill that was present when the tuff was deposited. Faults are roughly parallel to the axis of the valley and form barriers to groundwater flow across their strike (orientation) due to offset of high permeability layers and formation of low permeability material in the fault zone. Faults can also serve as conduits to groundwater flow in the Subbasin along their strike and create discharge zones where faults intersect.

The Tri-Valley area aquifer system can be generalized into a shallow unconfined zone and a deeper confined or semi-confined zone separated by confining unit(s) that are laterally discontinuous. In Fish Slough, relatively thin locally derived alluvium overlies Bishop Tuff. Most of the valley fill in the Basin is clastic material shed from the surrounding mountains, the majority of which is sand and gravel. Alluvial fan sediments are coarse, heterogeneous, and poorly sorted at the head of the fans and finest at the toe, beyond which fans transition to fluvial plain sediments.

Previous Models

The most geographically extensive model development for Owens Valley was performed by Danskin (1998) of the United States Geological Survey (U.S. Geological Survey or USGS). His conceptual model relied heavily on previous USGS investigations (e.g., Hollett, e. al., 1998 and 1991) in which he was also an author. A three-layer conceptual model was used in the USGS numerical groundwater flow model for Owens Valley. The model domain only captures the southerly portions of the Tri-Valley and Fish Slough management area. Ensuing modeling efforts generally relied on the USGS model as their starting point (e.g., Bishop/Laws Area Model developed by Harrigton, 2007).

TEAM Environmental (TEAM) developed a preliminary numerical groundwater flow model of the Tri-Valley area. The results of the model were presented in MHA (2001). The development of the preliminary numerical model was focused on modeling the occurrence and movement of groundwater in the Tri-Vally area. The model was developed in response to a proposed groundwater export project by the USFilter Corporation. Three export project alternatives were evaluated, none of which were implemented. The preliminary numerical model was a steady-state model. General hydrogeologic assumptions and inputs that were used in the model were based on previous work in the Tri-Valley area and research conducted by the USGS in the Owens Valley as described above (Hollett, e. al., 1991 and Danskin, 1998). TEAM later used the model to conduct a surface water and groundwater availability assessment for the Tri-Valley area (TEAM, 2006) for the County of Mono.

As part of the OVGA GSP development project, Daniel B. Stephens & Associates (DBS&A) developed a Distributed Parameter Watershed Model (DPWM) that they used to prepare an estimate of natural groundwater recharge that occurs via precipitation or surface water

percolation within the Basins. The DPWM is a spatially discretized "tipping bucket" type soil-water balance model, which evaluates precipitation, evapotranspiration, and resultant percolation through the soil column. The modeling approach includes methods previously applied in similar basin and range locations by the USGS (e.g., Flint et al., 2007).

Available Data and Information

The following is a summary of the information and data that will be available for project execution. Where available, links are provided to online sources. Many of the datasets required to develop the proposed numerical groundwater flow model have already been compiled and processed as part of the OVGA GSP preparation. Groundwater pumping data do not exist or are unavailable for the Basins, and the Consultant will need to propose an appropriate method for estimating pumping in the Tri-Valley area. Available groundwater data for the Tri-Valley area are sparce, largely consisting of records from landfill monitoring wells in Benton and Chalfant, a private well in Hammil, and Los Angeles Department of Water and Power (LADWP) monitoring wells in the vicinity of Chalfant Valley. Available Fish Slough area data include groundwater levels from six monitoring wells and flow records from permanent surface water gauges.

Hydrogeologic Conceptual Model

Harrington (2016) completed a recent available evaluation of water budget components for the Basins. He reviewed previous studies (e.g., Danskin, 1998; MHA, 2001 and TEAM, 2006) to estimate the water budget for the entire Owens Valley groundwater basin and also for the Tri-Valley, Owens Valley, and Owens Lake areas to assess regional differences in the Owens Valley Basin. Harrington also prepared original estimates for some water balance components that were poorly or not quantified by previous studies. In each of the subareas, the greatest uncertainty in the water balance were inflows from recharge and runoff. The groundwater extraction outflow (pumping) component for the Tri-Valley management area was uncertain due to lack of monitoring data, as mentioned above. Pumping was estimated based on irrigated acreage totals obtained from remote sensing/GIS analysis and approximate water duty for alfalfa. The pumping total in Tri- Valley also included the estimated domestic pumping use based on the approximate water duty and number of households.

The OVGA GSP includes a hydrologic conceptual model for Owens Valley groundwater basin that relied on Harrington (2016) and other sources. It also includes a water budget analysis (Appendix 10) that utilized the Basin Characterization Model (BCM) developed by the USGS (Flint, et al., 2013) to quantify water budgets, including those for the Fish Slough and Tri-Valley management area.

Other Information and Data

DWR sponsored an Airborne Electromagnetic (AEM) survey in which the Basins were flown in November 2023. The flight lines for all survey areas can be viewed online via DWR's AEM flown Flight Line Map. The flown flight lines shapefile for Owens Valley and Fish Slough (Survey Area 11) can be downloaded from the CNRA Open Data Portal. Raw AEM data are available, and processed data, texture interpretations, and final reports are expected to be available in late

2024. In addition, an LADWP-funded AEM survey was flown in April 2024 that targeted their areas of interest in more tightly spaced flight lines than the DWR AEM survey. These included the southern portion of Fish Slough subbasin and Laws. It is unknown if the LADWP AEM survey data will be available for this modeling project. To the extent feasible, the Consultant should use the available AEM data to refine the hydrogeologic conceptual model.

The California Department of Fish and Wildlife (CDFW), DWR, and United States Geologic Survey (USGS), in cooperation with the Bureau of Land Management (BLM) Bishop Field Office, propose to install two multi-completion groundwater monitoring facilities (i.e., nested monitoring wells) in southern Hammil Valley. A third multi-completion groundwater monitoring facility is planned to be installed on LADWP-owned land in the Fish Slough subbasin to a depth below the Bishop Tuff. The monitoring well construction is scheduled to begin in fall of 2024. The proposed project includes provision to equip the monitoring facilities with pressure transducers and dataloggers. Availability of data collected during and after this monitoring well installation project will not likely align with the schedule for use in this groundwater model development project.

However, in support of the monitoring well installation project, DWR has compiled the available well completion reports for the Tri-Valley and Fish Slough areas. They have assigned preliminary lithology picks from the driller log descriptions and plan to prepare a series of cross-sections as part of their Basin Characterization Program. This preliminary effort is planned to be available in July 2024, in draft form for use in this modeling project (i.e., hydrogeologic conceptual model update). In the future, DWR plans to refine this preliminary effort into a work product that will be made publicly available.

The Consultant will be provided with the following reports and data currently available for download online, or in TVGMD or ICWD files:

- Hydrogeologic Conceptual Model for the Owens Valley Groundwater Basin (6-12), Inyo and Mono Counties (Harrington, 2016) report.
- OVGA GSP and Appendices.
- OVGA WY 2022 Annual Report.
- Distributed Parameter Watershed Model (DPWM) Tri-Valley Area Watershed.
- USFilter Tri-Valley Groundwater Surplus Program (MHA, 2001) and Tri-Valley Area Surface Water and Groundwater Availability Assessment (TEAM, 2006) reports.
- USGS Model report (Danskin, 1998).
- USGS Groundwater Ambient Monitoring and Assessment (GAMA) Program in Owens Valley.
- Fish Slough source water chemistry study (Zdon et al., 2019).
- OVGA Data Management System (OVGA DMS) of well locations and groundwater level data. Records extend from the 1990s to fall 2023 with a few LADWP monitoring well records in Laws/Chalfant Valley that extend back to the 1970s.

- W385/W386 Operational Test Baseline Hydrologic Study - Quarterly Updates. These reports contain available groundwater level data from LADWP monitoring wells and flow data from permanent surface water gauges in Fish Slough subbasin since 2017.
- Water level pressure transducer and datalogger records from three wells in Fish Slough subbasin and one well in Tri-Valley area.
- LADWP gauged surface water flow data, where available.
- Weather data for the Paiute Ridge transect prepared by the University of California San Diego (UCSD) from 2007 to 2021. These data are from a transect of weather stations running from Fish Slough to the top of the White Mountains.
- USGS Fault Coverage (shapefile).
- USGS Quadrangle Geologic Maps (PDF format).

Anticipated Scope of Services

Groundwater flow model development is anticipated to include the scope of services described in the following sections.

The Consultant is expected to work closely with the Project Manager and Mono County throughout the project, sharing working drafts and meeting frequently as the work progresses (via a web meeting service or in-person, if appropriate).

Task 1: Project Kick-Off

Subtask 1a: Develop Working Knowledge of the Basins

The Consultant shall develop a working knowledge of the Tri-Valley portion of Owens Valley and Fish Slough subbasins (the Basins) and surrounding areas. This includes becoming familiar with available datasets, hydrostratigraphic units, aquifer flow system, and groundwater recharge/ discharge processes.

Subtask 1b: Project Kick-Off Meeting(s)

After the Consultant has developed a working knowledge of the Basins, a meeting will be held in-person in Mono County or via a web (virtual) meeting platform. The meeting will be between the Consultant and the Project Manager and will include a review of the existing hydrogeologic conceptual model, project goals, and project objectives, and a discussion of the project schedule and logistics. If needed, there may be a second web meeting that will be with Mono County, TVGMD representative, and the Project Manager to discuss the scope, approach, and assumptions for the remaining tasks.

Task 2: Isotope Study

The same modeling team or a separate teaming subconsultant will, contemporaneously with Task 3, complete an isotope study of the groundwater in the region. The purpose of the study is to better understand sources that contribute to surface water (e.g., flow from Fish Slough springs) and provide recharge to groundwater both spatially and temporally. Detection of dominant or preferential groundwater flow paths associated with source water mixing is an objective of the study. The Task is intended to build on the Zdon et al. (2019) study that examined water quality

and isotope chemistry samples to identify source water mixing in the Fish Slough spring complex described in the Hydrogeology subsection above.

The study results will inform Subtask 3a, item 4 (hydrogeologic conceptual model update). Proposals should include a schedule that corresponds to an outline of the proposed study design to answer the general study objectives identified herein. Water sampling and accredited laboratory analysis costs should be included in the proposed budget.

Subtask 2a: Isotope Study Design

One of two potential isotope studies (or combination of both types) will be completed by the Consultant: stable (e.g., ^{18}O and ^{2}H) or radioactive (e.g., ^{222}Rn, ^{14}C and ^{3}H). A stable isotope study is likely relatively cheaper and would help answer questions such as groundwater sources whereas a radioactive isotope study is likely relatively more expensive and would help determine age.

The Consultant will propose a detailed study design that includes objectives, methods, and anticipated limitations. Mono County and the Project Manager will determine which type of isotope study to use through recommendations and discussion with the Consultant. The study is intended to evaluate isotope chemistry data compiled from both previously published sources and collection of new samples from springs and wells. Water sampling shall be conducted in accordance with industry standards by experienced field personnel. During site visit sampling events, field water quality parameters of temperature, pH, and electrical conductivity shall be measured, at a minimum. An accredited water testing laboratory shall be identified by the Consultant and approved by the Project Manager before samples are submitted for laboratory analysis.

Subtask 2b: Isotope Data Evaluation

The interpretation and conclusions of the isotope study shall be included as a section in the Subtask 3e draft technical memorandum (tech memo) deliverable. The laboratory analytical results from the new samples collected as part of the study shall be included in tabular form and presented in graphical form (e.g., graphs and diagrams) in the draft tech memo.

Task 3: Pre-Modeling

The pre-modeling task consists of the following:

1. Review initial hydraulic property estimates, if available;
2. Develop a hydrogeologic conceptual model including the recharge and discharge processes in the model domain;
3. Establish an appropriate model domain which may extend south to include Laws and the Five Bridges area in Inyo County;
4. Propose steady-state and transient model calibration periods;
5. Develop initial water budgets for each calibration period to help guide and constrain numerical model calibration;

6. Prepare a description of the proposed numerical modeling approach, including the proposed model code(s) and associated packages, layering, gridding, and the overall proposed calibration approach (based on review of the existing conceptual hydrogeologic model and results of items 1-5 listed above).

These efforts are organized into the subtasks described below. The consultant shall not begin work on Task 4 until Task 3 is complete or is otherwise authorized to proceed by the Project Manager.

Subtask 3a: Data Review, HCM update and Preliminary Analysis

The Consultant shall complete the following:

1. Review available data and compile additional data, as needed.
2. Review the available hydraulic properties and property zones from Danskin (1998), TEAM's investigation (MWH, 2001), DBS&A's DPWM report (2021), and BCM modeling for the OVGA GSP, and propose changes and other sources, as needed.
3. Review available data and information relevant to developing groundwater budget estimates.
4. Update the existing hydrogeologic conceptual model, as needed. Develop a descriptive diagram of the aquifer flow system and recharge and discharge processes.
5. Complete a preliminary analysis to determine data gaps and key uncertainties for developing water budget estimates. Identify a recommended approach for estimating each water budget component.
6. **Deliverable:** Brief, draft written summary of findings. The results of the isotope study and interpretation should be included along with a summary of existing hydrogeologic conceptual models. Note: the write-up will ultimately be incorporated into the Subtask 3e technical memorandum (see below).

Subtask 3b: Progress Meeting and TVGMD Board Meeting

After Subtask 3a is completed, a progress meeting will be held virtually (or in-person in Mono County, if feasible) with the Project Manager to discuss the findings and recommendations and confirm the details of the scope for Subtasks 3c and 3d. The Consultant shall also assume that they will present the results in-person at a subsequent TVGMD Board meeting (**Public Meeting 1**). These two meetings may be scheduled so that the Consultant only needs to travel to Mono County one time for these meetings.

Subtask 3c: Estimate Water Budget Components

The purpose of this subtask is to develop pre-numerical model development water budget estimates to help guide and constrain numerical model calibration, where appropriate. The Consultant shall estimate the groundwater budget components identified in Subtask 3a from historical estimates and pre-modeling analysis. It is recognized that it will not be possible to estimate some of the water budget components with great accuracy and will include a high level of uncertainty. For groundwater pumping, the Consultant shall assign the hydrostratigraphic

unit(s) from which each well extracts groundwater or propose an appropriate method for estimating pumping from each of the hydrostratigraphic units.

Subtask 3d: Develop Numerical Modeling Approach

The purpose of this subtask is to work with the Project Manager to develop the overall numerical modeling approach. The numerical modeling approach will consist of a written description of:

1. Proposed MODFLOW code(s) and associated packages, layering, and initial grid spacing.
2. Approach for simulating each water budget component.
3. Recommended steady-state and transient model calibration periods and associated stress period durations and time step lengths.
4. Recommended approach for constraining uncertainty and increasing the model uniqueness during calibration, particularly as it relates to the water budget components having the greatest uncertainty.
5. Description of the proposed approach to model calibration and verification, including development of calibration goals, identification of calibration and verification targets, and description of the proposed sequence of calibration tasks, including any proposed use of automated calibration tools (e.g., PEST).

Subtask 3e: Pre-Modeling Draft Technical Memorandum

Deliverable: The Consultant shall prepare a draft technical memorandum that documents the work performed in Task 2 and Subtasks 3a – 3d. The purpose of the draft technical memorandum is twofold: (1) communicate Tasks 2 – 3 work results to the stakeholders and (2) serve as a reference tool for the modeling team to help guide and constrain model development and calibration. The Consultant shall assume that the draft memorandum will be reviewed and revised once, following comment by Mono County and the Project Manager. However, the technical memorandum will not be finalized; rather, relevant content will be incorporated into the model report (Task 6).

Subtask 3f: Progress Meeting

A progress meeting will be held among the Consultant, Mono County, TVGMD representative, and the Project Manager following completion of subtasks 3c -3e.

Task 4: Numerical Model Development

The numerical model development task consists of the following:

1. Initial model setup and evaluation of model runtime for various discretization (grid–spacing and layering) options.
2. Perform steady-state and transient model calibration runs. Revisit the conceptual model and water budget estimates during calibration and refine as needed.
3. Execute verification run(s) and perform additional calibration, as needed, based on the results.
4. Perform sensitivity analyses to inform model calibration and document parameter sensitivity of the calibrated model.

The consultant shall not begin work on Task 5 until Task 4 is complete or is otherwise authorized by the Project Manager.

Subtask 4a: Initial Numerical Model Setup

The Consultant shall set up the numerical model and assess runtimes for a range of grid-size and layering options during early transient calibration runs. Final grid-size and layer definition will be determined by the Consultant and Project Manager.

Subtask 4b: Numerical Model Calibration and Verification

The Consultant shall provide a list of their proposed criteria of a well-calibrated model (e.g., residual mean close to 0.0, absolute residual mean less than 10% of data range, etc.) to the Project Manager for approval before beginning the calibration process.

The Consultant shall perform steady-state and transient calibration model runs in accordance with the approved Pre-Modeling Draft Technical Memorandum developed in Task 3. The Consultant shall avoid allowing the model calibration to proceed with water budget component fluxes and/or hydraulic properties that lie well outside of the anticipated ranges developed in Task 3. If the calibration includes significant deviation from the anticipated ranges, an explanation shall be provided in the Model Report (Task 6). The Consultant shall perform sensitivity analyses throughout the model calibration process to help guide calibration decision-making. Model calibration shall proceed until calibration goals are met or the calibration process has reached a point of diminishing returns, as determined by the Consultant and Project Manager.

The Consultant is expected to critically reevaluate the Task 3 updated hydrogeologic conceptual model work on a continuous basis during the model calibration process. To this end, the Consultant shall not rely on automated calibration tools as a primary means of calibration and shall only use such tools in accordance with the approved Pre-Modeling Draft Technical Memorandum.

The model calibration efforts shall be documented in a detailed model run log. The log shall clearly document the calibration decision-making process and shall contain sufficient detail such that a peer reviewer (i.e., 3rd party modeler) could reconstruct and review the model calibration process. Model input files for each calibration run shall be saved and provided, if requested, as an attachment to the final report. The Consultant and the Project Manager (as appropriate) will review the calibration run results to determine if further calibration is needed.

A final sensitivity analysis shall be performed after the calibration and verification process has been completed.

Subtask 4c: Progress Meeting and TVGMD Board Meeting

A progress meeting will be held virtually among the Consultant, Mono County, TVGMD representative, and the Project Manager following model calibration and verification. The Consultant shall assume that they will attend a TVGMD Board meeting (**Public Meeting 2**) to discuss the proposed scenarios and receive public input. If logistically feasible, Consultant meeting attendance may be virtual via a web meeting platform.

Task 5: Calibrated Numerical Model Initial Simulations

Subtask 5a: Predictive Simulations

Using the calibrated numerical model, the Consultant shall propose, set up, execute, postprocess, and present the results of three modeling scenarios that will be cooperatively developed by the Consultant, Mono County, and the Project Manager with input from TVGMD. It is anticipated that the modeling scenarios will address a range of groundwater basin management alternatives. Predictive simulation efforts shall be documented in the same manner as the calibration efforts (described above).

Subtask 5b: TVGMD Board Meeting

The Consultant shall also assume that they will present the results and receive public comments at a subsequent TVGMD Board meeting (**Public Meeting 3**). If logistically feasible, Consultant meeting attendance may be virtual via a web meeting platform.

Task 6: Modeling Report and Files

Subtask 6a: Draft Modeling Report

Deliverable: The Consultant shall prepare a draft report documenting Tasks 2 – 5. The draft report will be reviewed and comments provided by Mono County and the Project Manager. At a minimum, the report shall include:

1. Brief summary of the project background, purpose, and scope of work;
2. Pre-Modeling Draft Technical Memorandum content (Task 2 and Subtasks 3a – 3d), including a description of the updated hydrologic conceptual model (e.g., hydrostratigraphic units, flow barriers, and aquifer flow system) and a description of the analysis to determine data gaps and key uncertainties in the development of the water budget estimates;
3. Description of the final model setup: domain, grid spacing, layers, stress periods, time steps, approach to simulating boundary conditions, and rationale for any significant changes relative to the Pre-Modeling Draft Technical Memorandum;
4. Detailed description of the calibration and verification process, including descriptions of insights gained during calibration and any significant deviations from the numerical modeling approach described in the Pre-Modeling Draft Technical Memorandum;
5. Description of the calibrated model parameters and boundary conditions;
6. Description of the final sensitivity analysis results;
7. Model run log (to be included as an appendix);
8. Evaluation of the model calibration, including discussion of the spatial and temporal distribution of model error and limitations on predictive capabilities;
9. Description of the three model scenario runs, including discussion and interpretation of the results.
10. Discussion of opportunities for model improvement and recommended data collection actions to reduce uncertainty in key areas or input parameters for future model updates;
11. Model input files for all model runs;

12. Model output files and post-processed results from the final calibrated model run and all scenario runs; and
13. Appendices containing electronic versions of all raw and processed data, calculations, spreadsheets, and GIS file summary index table.

Subtask 6b: Final Modeling Report

Deliverable: The Consultant shall prepare a final report that addresses the comments from Mono County and the Project Manager.

Subtask 6c: Model Files

Deliverable: All electronic model files including predictive scenario input and output files will be provided to Mono County and the Project Manager. All files shall be organized in a logical manner and a brief description of each file shall be included in a file index. The standard will be that an experienced modeler who did not work on the project could run the model and reproduce the model calibration and predictive scenario results.

General Requirements

The following are general project or proposal requirements.

CEQA

This is primarily a data compilation and groundwater modeling project, and the California Environmental Quality Act CEQA is not likely applicable. However, filing for a CEQA exemption may be required for the isotope study. If a CEQA categorical exemption is required, Mono County staff will file the exemption.

Professional Services Agreement

If selected, the Consultant will be required to sign an Agreement for Professional Services. If the Consultant has a standard Agreement that they would like to use, Mono County, at their discretion, may use the selected Consultant's Agreement. Otherwise, Mono County will provide an Agreement for Professional Services to the selected Consultant. Proof of professional liability (errors and omissions) insurance will be a requirement of the Agreement.

GIS Files

All GIS files shall be prepared in accordance with the industry standard format and metadata documentation. All GIS files shall be named and stored using a logical and consistent file structure. All geographic data used in each map shall be provided as an ESRI ArcGIS software-compatible shapefile (.shp) or geodatabase (.gbd) and shall be registered to the California State Plane NAD 83, Zone IV (EPSG 2228) coordinate system, units in feet.

Proposals

Content Requirements

1. Proposals shall be concise, organized, and presented in a neat and logical format. They shall be relevant to the services required and shall be accurate and comprehensive.

Proposals shall be no more than 30 single-sided pages (not including resumes). Excessive or irrelevant material will not be favorably reviewed.

2. Failure to provide all requested information may be sufficient grounds to disqualify respondents from further consideration.
3. Proposals shall include:
    a. Cover letter.
    b. Qualifications and relevant experience of Consultant, including listing of relevant previous projects with current contact information for the client.
    c. Organizational chart for the Consultant project team. List key personnel that will actually work on the project and provide resumes in an appendix. Resumes will not count against the page limit but shall be no longer than three pages per person. Note: Consultant shall not substitute key personnel during the project without prior written permission from the Project Manager.
    d. Proposed Scope of Work and Schedule. The requested timeframe for project completion is nine (9) to 12 months from the project award date. Proposals should include a detailed schedule that identifies the estimated time required to complete each task. Prospective consultants are encouraged to submit proposals with an alternative schedule timeframe if they do not believe they can complete all of the project deliverables within one year of project initiation.
    e. Proposed budget, including schedule of hourly billing rates and estimated labor hours and billing rates by subtask (summed by task) for each team member.
    f. The Proposal must be signed by company officers who can attest to the accuracy of the answers provided. Discovery of any fraudulent or substantially false answers or statements will be grounds for immediate disqualification from further consideration.

Submittal and Point of Contact

1. Respondent shall e-mail their Proposal in PDF format to the Project Manager, Tim Moore, at tmoore@inyocounty.us with a subject line reading: Tri-Valley GW Model Proposal – Company Name. Prospective consultants may **only** contact the Project Manager via email or at (760) 878-8834 with questions or requests for additional information. Any consultant who contacts Mono County staff or a TVGMD Board member may be **disqualified**.
2. Proposals will be received until **5:00 p.m., August 16, 2024**. Late responses will not be accepted and will be deleted. It is the respondent's responsibility to ensure proposal delivery by this closing date which includes potential electronic file transfer issues such as large file sizes. Evaluation of the proposals will occur following this closing date.

Selection Process

1. Selection of qualified consultant respondents will be based on the written material submitted. Mono County and the Project Manager reserve the right to verify all information submitted in the Proposal. As a part of the evaluation, the Project Manager may select any or all projects from each respondent's experience list and contact the

owner or other relevant parties to verify the information presented. Project information included that cannot be verified will not be considered in the evaluation process. The Project Manager may obtain assistance from outside entities in the evaluation of the Proposals.

2. The Proposals will be reviewed and evaluated by Mono County and the Project Manager with input from the TVGMD Board of Directors. Evaluation criteria shall be as follows:
    a. Project Approach (Modeling and Isotope Study Approach and Techniques): **35%**
    b. Consultant's Qualification & Experience (including project area expertise): **35%**
    c. Proposed Rates, Budget, and Schedule: **30%**
3. Within 60 calendar days of the due date for submittal of proposals, the Project Manager will provide written notification to all prospective consultants who have submitted proposals as to whether they have been selected. Do not contact the Project Manager, Mono County staff, or TVGMD Board members during this time.
4. Interviews may be held.

References

Daniel B. Stephens & Associates (2021). Distributed Parameter Watershed Model Tri-Valley Area Watershed. Submitted to the Owens Valley Groundwater Authority.

Danskin, W. R. (1988). Preliminary Evaluation of the Hydrogeologic System in Owens Valley, California. U.S. Geological Survey Water-Resources Investigations Report 88-4003.

Danskin, W. R. (1998). Evaluation of the Hydrologic System and Selected Water-Management Alternatives in the Owens Valley, California. U.S. Geological Survey Water-Supply Paper 2370-H. In Hydrology and Soil-Water-Plant Relations in Owens Valley, California.

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Harrington, R. H. (2016). Hydrogeologic Conceptual Model for the Owners Valley Groundwater Basin (6-12), Inyo and Mono Counties. Prepared for submittal to the California Department of Water Resources. Prepared by Inyo County Water Department, Independence, California.

Hollett, K. J., W. R. Danskin, W. F. McCaffrey, and C. L. Walti. (1988). Geology and Water Resources of Owens Valley, California. U.S. Geological Survey Open-File Report 88-715.

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MHA. (2001). Task 1 Report: Preliminary Data Collection and Hydrologic Models for the USFilter Tri-Valley Surplus Groundwater Program, Mono County, California.

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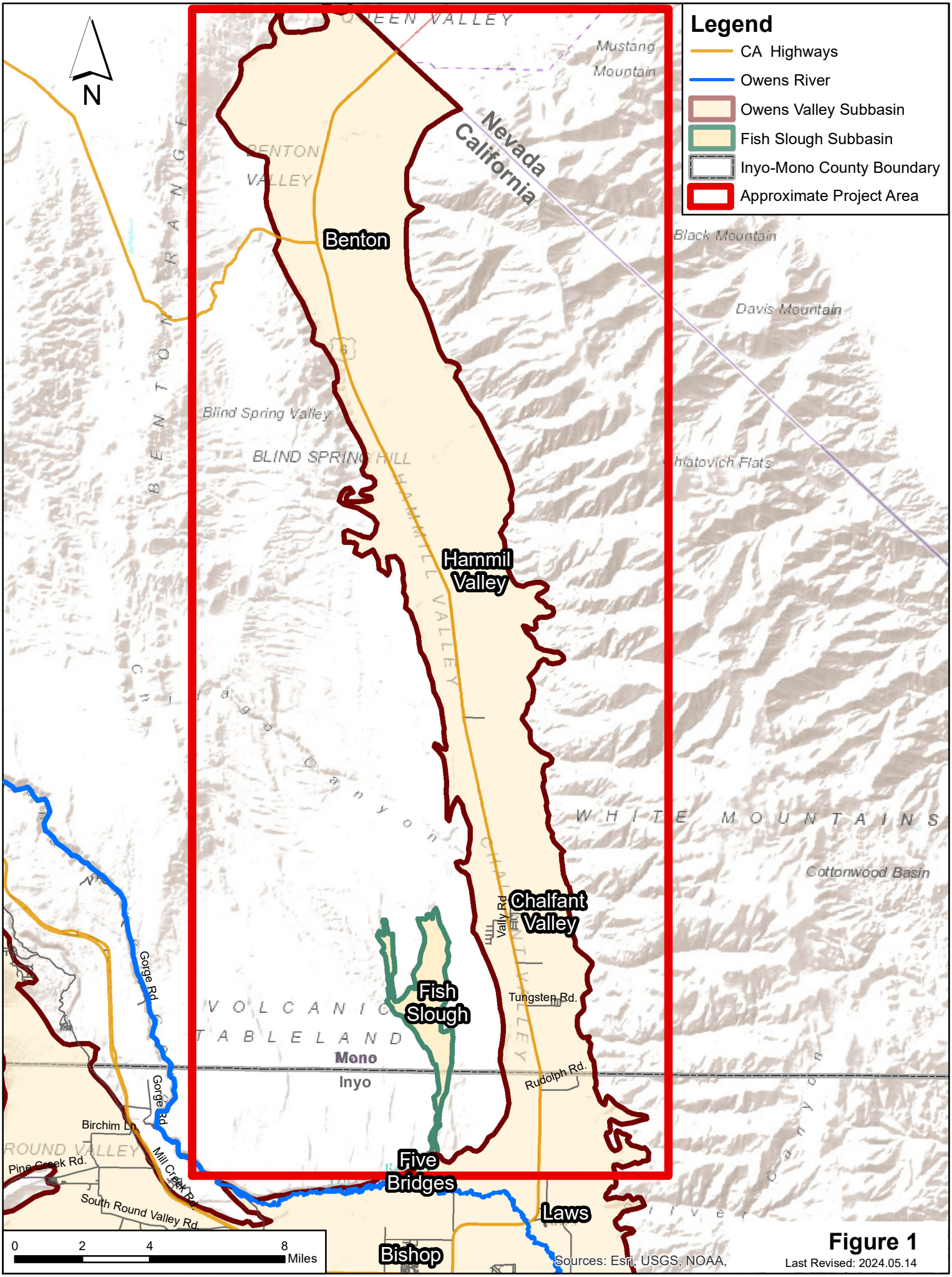

Figure 1

Last Revised: 2024.05.14

attachment item #5

GSRMA
GOLDEN STATE RISK MANAGEMENT AUTHORITY

www.gsrma.org

March 21, 2024

Greg Allen
Tri-Valley Groundwater Management District
123B Valley Road
Chalfant, CA 93514

Re: Indication for Coverage – Tri-Valley Groundwater Management District

Dear Greg,

Thank you for the opportunity to provide this proposal for Tri-Valley Groundwater Management District's membership in Golden State Risk Management Authority (GSRMA). GSRMA has proven to be an excellent risk-pooling option for California special districts.

Unless approved as an exception by the Board, GSRMA requires participation in all coverage programs applicable to your district. In doing so, GSRMA has been able to provide its members with stable rates, and high coverage limits, since 1979. GSRMA currently has over 300 member agencies throughout the State of California.

Please take a moment to review the attached indication which is based on the information you have provided. The following additional documentation is required before a final quote can be prepared and coverage bound:

- "No known loss" letter, or 10-year loss history, for all lines of coverage;
- Signed JPA Agreement (acceptance of, and agreement to abide by, the Golden State Risk Management Authority Joint Exercise of Powers Agreement, and the Golden State Risk Management Authority By-Laws).

Additionally, your Agency's information will be provided to PRISM, our excess carrier, for approval. PRISM must approve your Agency for membership before coverage can be bound. Note that this is an *indication* for coverage and estimates may be modified based on loss experience or change in circumstances.

We look forward to working with your agency. Please feel free to call with any questions.

Sincerely,

Elizabeth Smith

Elizabeth "Liz" Smith, CPCU, ARM
Underwriter
Golden State Risk Management Authority

2023-24 Coverage Summary and Limits

Comprehensive General Liability

$50,000,000 Per Occurrence Limits
Broad Occurrence Coverage Including:

- First-dollar coverage – no member retention or deductible for liability losses
- Bodily Injury & Property Damage
- Personal Injury
- Public Officials Errors & Omissions
- Automobile Liability
- Contractual Liability
- Employment Practices Liability
- Excess coverage is provided through PRISM (Public Risk Innovation, Solutions, and Management), one of the largest and most respected public entity insurance programs in the nation.

Major Exclusions

- Airports/Aircraft
- Health Care Professional Liability (limited)
- Eminent Domain/Inverse Condemnation
- Failure to Supply Fuel, Water or Electricity
- Subsidence
- Nuclear Material
- Pollution (limited)
- Dam Failure (unless endorsed)
- Asbestos
- Fixed Route Transit (unless endorsed)
- Punitive Damages
- Fiduciary Liability
- Employment Retirement Income Security Act (ERISA)
- Care Custody and Control
- Benefits payable under an employee benefit plan
- Non-monetary damages
- Breach of Contract
- Unlawful Discrimination intentionally committed by, at the direction of, or with the consent of the Covered Party
- Violation of Economic or Trade Sanctions
- Strip Search (limited)
- Violation of Communication or Information Law
- Employee Benefits Limitation
- Fair Labor Standards Act
- Wrongful Incarceration - prior to being a member
- Cyber
- Organic Pathogen (Communicable Disease)
- Polyfluoroalkyl (PFAS)

2023-24 Coverage Summary and Limits

Cyber Liability*

$16,000,000 Aggregate Limit
Claims Made and Reported Coverage Including:

- GSRMA members share a single sublimit of $16,000,000 Aggregate for all coverages combined (including Claims Expenses)
- Additional sub limits may apply
- Member's Self Insured Retention is $10,000 and there is an eight (8) hour waiting period for first party claims
- Coverage includes Breach Response
- Coverage includes First Party Loss (Business Interruption, Dependent Business Interruption, Cyber Extortion, Data Recovery)
- Coverage includes Third Party Liability (Data and Network, Regulatory Defense and Penalties, Payment Card Liabilities and Costs, Media Liability)
- Coverage includes eCrime (Fraudulent Instruction, Telephone Fraud)

Crime

$20,000,000 Limit Occurrence
Coverage Including:

- GSRMA members have a $2,500 deductible per occurrence
- Coverage includes Employee Theft including Faithful Performance of Duty (per loss coverage)
- Coverage includes Depositor's Forgery or Alteration including Credit, Debit or Charge Card Forgery
- Coverage includes Theft, Disappearance and Destruction – Inside and Outside the Premises
- Coverage includes Computer Fraud and Funds Transfer Fraud
- Coverage includes Money Orders and Counterfeit Paper Currency

Major Exclusions

- Exclusion information available upon request

*Not all members will qualify for Cyber coverage.

GSRMA
GOLDEN STATE RISK MANAGEMENT AUTHORITY

Contribution Indication

Policy Period: ***2024-25***
Coverage Dates: ***7/1/2024-7/1/2025***
Account No: ***TRIVALL***

Customer Service

For Information on Your Account Visit:

www.mygsrma.org

GSRMA
PO Box 706
Willows, CA 95988

Phone: 530-934-5633
Fax: 530-934-8133

Tri-Valley Groundwater Management District

COVERAGES			CONTRIBUTION
General Liability	*Estimated Payroll*	*$0*	$3,000
Crime Bond	*Exposure*	*1*	$18
TOTAL ESTIMATED ANNUAL CONTRIBUTION*			**$3,018**
DIVIDENDS			**ADJUSTMENTS**
Workers' Compensation			Not Applicable
General Liability			Not Applicable
TOTAL CONTRIBUTION ADJUSTMENT			**$0.00**
TOTAL ESTIMATED PAYMENT			**$3,018**

*Total Contribution is an ESTIMATE ONLY and may not be equal to the final Contribution amount when coverage is bound.
Finance charges apply when paying in installments.

NOT AN INVOICE. INDICATION DATED 3/22/2024 DOES NOT BIND COVERAGE.

CONTRIBUTION INDICATION VALID FOR 60 DAYS FROM INDICATION DATE.

GSRMA
GOLDEN STATE RISK MANAGEMENT AUTHORITY

Contribution Comparison

Policy Period: ***2024-25***
Coverage Dates: ***7/1/2024-7/1/2025***
Account No: ***TRIVALL***

Customer Service

For Information on Your Account Visit:

www.mygsrma.org

GSRMA
PO Box 706
Willows, CA 95988

Phone: 530-934-5633
Fax: 530-934-8133

Tri-Valley Groundwater Management District

COVERAGE	CURRENT YEAR	PRIOR YEAR	DIFFERENCE	% CHANGE
General Liability	**$3,000**	**$ 0**	**$3,000**	**0%**
Estimated Payroll	$0	$0	$0	0%
*Effective Rate**	$0	0.00	$0	0%
Experience Ratio	0	0.00	0	
Crime Bond	**$ 18**	**$ 0**	**$ 18**	**100%**
# of Employees	1	0	1	100%
TOTAL CONTRIBUTION **	**$3,018**	**$0**	**$3,018**	**100.0%**

*Amounts are shown rounded to the nearest cents. Actual Effective Rate = Contribution / Payroll * 100
**Total Contribution is an ESTIMATE ONLY and may not be equal to the final Contribution amount when coverage is bound.

Indication dated 3/22/2024

GSRMA
GOLDEN STATE RISK MANAGEMENT AUTHORITY

Disclosures/Disclaimers

Policy Period:	***2024-2025***
Coverage Dates:	***7/1/2024-7/1/2025***
Account No:	***TRIVALL***

Customer Service

For Information on Your Account Visit:

www.mygsrma.org

GSRMA
PO Box 706
Willows, CA 95988

Phone: 530-934-5633
Fax: 530-934-8133

This proposal for coverage is provided as a matter of convenience and information only. All information included in this proposal, including but not limited to personal and real property values, locations, operations, products, data, vehicle schedules, financial data and loss experience, is based on facts and representations supplied to Golden State Risk Management Authority by your agency. This proposal does not reflect any independent study or investigation by Golden State Risk Management Authority or its agents and employees.

Please be advised that this proposal is also expressly conditioned on there being no material change in the risk between the date of this proposal and the inception date of the proposed coverage (including the occurrence of any claim or notice of circumstances that may give rise to a claim under any policy which the policy being proposed is a renewal or replacement). In the event of such change of risk, GSRMA may, at its sole discretion, modify, or withdraw this proposal, whether or not this offer has already been accepted.

This proposal is not confirmation of coverage and does not add to, extend, amend, change, or alter any coverage in any actual policy of insurance your agency may have. All existing policy terms, conditions, exclusions, and limitations apply. For specific information regarding your coverage, please refer to the policy itself. Golden State Risk Management Authority will not be liable for any claims arising from or related to information included in or omitted from this proposal for coverage.

This proposal is valid for 60 days from the date of the Indication.

Attachment #7

Mono County Tri-Valley Groundwater Management District Strategic Plan 2023-24

Introduction
Tri-Valley groundwater supports both residential and agricultural wells. Groundwater in the Tri-Valley area is likely thousands of years old due to low precipitation amounts and the slow recharge rate in our desert environment. California is currently experiencing a drought unprecedented in modern times. With modern well technology, groundwater can be pumped at high flow rates that can quickly lower the water table.

Mission: The mission of the Tri-Valley Groundwater Management District is to preserve the groundwater within the boundaries of the District (Chapter 844 of 1989 California Statutes).

Core Vision: Tri-Valley Groundwater Management District has become a Groundwater Sustainable Agency (GSA) under the Department of Water Resources and California water laws, with the purpose of preserving the rural nature of our area and developing long term sustainable groundwater yield.

Strategies 2023-24

Appoint a Board of Directors Finance Committee
To explore and address short and long term funding for operations, consulting, equipment, administrative costs, grant writers.

- Create an annual budget
    - Education
    - Consulting
    - Management of Groundwater Model grant monies with Mono County
- Research applicable water conservation modalities applicable to the Tri-Valley.

Improve Communication and Outreach
Stakeholder involvement is critical as we prepare to develop a Groundwater Sustainabiltiy plan (GSP).

- Develop landowner/parcel database with mailing addresses from Mono County.
    - This will allow more complete communication as we move forward with surveys regarding well levels, solicit ideas for conservation projects, etc.
- Mail a newsletter to all residents, especially important for those not receiving the e-newsletter.

- Engage with local communities on a summer/fall event (one in Benton, one in Chalfant) to educate about groundwater, SGMA, and the responsibilities and ongoing work of TVGMD.
- Engage with the local school to encourage students to learn about and develop community education resources about local groundwater issues, drought, and climate change.
    - Solicit interest and provide resources to teachers
- Continue emailed quarterly TVGMD newsletter.

Increase Coordination with Mono County

- Research how TVGMD might be consulted when new well permits are applied for in Mono County. New wells will impact the Groundwater Sustainability Plan (GSP)

Continue Education for Board and Stakeholders

To preserve groundwater, our core vision, we must continually educate ourselves and stakeholders (all community members) about groundwater, how it works, and how it is impacted by humans and nature.

- Research and document impact from climate change and long drought periods in the TVGMD area.
- What are the impacts of pumping groundwater to meet agricultural needs? What are the elements of sustainable agricultural practices?
- Solicit knowledgeable speakers to present at meetings and special events.

Prepare for Groundwater Model Work

- Work with Advisory Board, special interest groups (i.e. Sierra Club) and the public arena to develop critical skills and the knowledge base required to select a consultant to perform the groundwater model and isotope test.
- Begin to research companies to hire for the Groundwater model consulting firm.
    - Develop a specific list of what TVGMD expects from the consultant.
    - Ask for recommendations from other GSA's and professionals in the field, particularly those with knowledge of the Tri-Valley area and its specific needs.

For future revisions - add rules about mandating dust prevention issues from fallowed fields.

Jan. 2023