

Marengo/Elder Creek Pilot Project, Tehama County

Based on public records and permit filings from late 2025, the **Marengo/Elder Creek Pilot Project** is a **Groundwater Recharge Pilot Project** managed by the Tehama County Flood Control and Water Conservation District. Its primary goal is to capture excess winter storm flows from Elder Creek and divert them onto agricultural land at **Marengo Ranch** to replenish the groundwater aquifer.

Key Project Details

- **Official Context:** The project is part of the implementation of the *Red Bluff Subbasin Groundwater Sustainability Plan (GSP)*. You may see it referenced in documents as "Task 4.2 Thomes Creek and Elder Creek Diversions" or under Temporary Permit Application **T033522A**.
- **Location & Infrastructure:**
 - **Source:** Elder Creek (a tributary to the Sacramento River).
 - **Diversion Point:** The project utilizes a specific diversion point at **Marengo Ranch** (referred to as "POD 3" in state filings).
 - **Method:** It uses "On-Farm Recharge," where existing agricultural pumps and canals divert water to flood approximately **39–48 acres** of dormant farmland or open space, allowing the water to percolate down into the aquifer.
- **Operational Timeline:**
 - **Season:** Diversions are permitted only during the winter season, typically **December 1 through March 31**.
 - **Trigger:** Water is only diverted during "high-flow events" (specifically when flows exceed the 90th percentile) to ensure that downstream water rights and environmental needs (like fish passage) are not harmed.
 - **Duration:** Recent filings indicate a **5-year temporary permit** intended to run from December 2025 through March 2030.
- **Volume:** The project is permitted to divert up to roughly **2,250 acre-feet per year** (combined across its diversion points) for underground storage.

Strategic Purpose

1. **Groundwater Sustainability:** It is a direct effort to reverse groundwater overdraft in the Tehama/Red Bluff area, complying with the Sustainable Groundwater Management Act.
2. **Flood Mitigation:** By diverting peak flows during storms, it provides a secondary benefit of reducing flood pressure on the Elder Creek channel.
3. **Cost-Effectiveness:** It leverages existing private infrastructure (Marengo Ranch's conveyance systems) rather than building expensive new public reservoirs.

SUPPLEMENTAL MATERIALS

Item 10: General Manager Report

Subject: Overview of Comments & Strategic Positions at Joint Vina/RCRD GSA Meeting

At last week's joint Vina GSA and Rock Creek Reclamation District (RCRD) meeting, AGUBC representatives provided specific comments and strategic recommendations to the GSA Boards. The following summarizes the formal positions we advocated for regarding the upcoming Periodic Evaluation and Staff Report recommendations:

1. Requests for Process Transparency & Data

To ensure stakeholders can adequately review the GSA's proposed actions, we publicly requested the following:

- **"Required vs. Optional" Matrix:** We requested that the GSA produce a clear table or matrix to distinguish between tasks strictly mandated by DWR (to address RCAs/BMPs) versus tasks that are merely optional or recommended, including the justification for any optional work.
- **Early Data Access:** We asked that relevant data be shared with stakeholders earlier in the evaluation process to allow us to assess information availability and address questions before decisions are made.
- **Ongoing Technical Input:** We expressed our commitment to continuing to provide technical input throughout the coming year as the GSA prepares the Periodic Evaluation.

2. Positions on Staff Report Recommendations (Page 16)

Regarding the specific decision items presented in the Staff Report, we placed the following comments on the record:

- **Minimum Thresholds (Item 1) – Support OPTION 3:**
 - We advocated for **Option 3** (retention of current Minimum Thresholds).
 - We noted that Options 1 and 2 (recalculating MTs) would likely trigger an unnecessary Plan Amendment.

SUPPLEMENTAL MATERIALS

- We stated our opposition to establishing new Minimum Thresholds or Measurable Objectives for Interconnected Surface Water (ISW) before the State provides clear guidance and defines undesirable outcomes.
- **Domestic Well Mitigation (Item 2) – Define as "Feasibility Study":**
 - We argued that developing a full mitigation plan at this stage is premature.
 - We stated we would support a "Framework" only if it is explicitly defined as a **2–3 year scope and feasibility study**, combined with a voluntary well registry to refine the data.

3. General Comment on Basin Status

- We reinforced the position that a Plan Amendment is not beneficial or necessary at this time.
- We emphasized that the basin is not in crisis and is in better shape than when the GSP was submitted in 2022.
- We noted that the Projects and Management Actions (PMAs) currently in place are sufficient to address deficits without requiring drastic changes to the GSP.

SUPPLEMENTAL MATERIALS

Item 4.6: Appointment to the Vina GSA Board of Directors

1. Acknowledgment of Shared Goals & "Non-Ag" Intent

- "We appreciate the Board's valid goal of ensuring diverse representation and preventing any single interest group from dominating the GSA. We agree that the 'Non-Agricultural Domestic Well User' seat signals a clear intent to represent residential interests distinct from large commercial agriculture."

2. The Unintended Exclusion of the "Middle Majority"

- "However, applying a strict interpretation that disqualifies anyone with *any* connection to agriculture inadvertently creates a massive representation gap. In our region, 'residential' and 'agricultural' uses are often intertwined on the same parcel. Data shows that **60.7% of parcels (1,906 out of 3,137)** in the Tuscan Water District are between 1 and 40 acres—mixed-use rural parcels where residents rely on domestic wells but may also have small-scale agricultural features."

3. "Use vs. User" Distinction

- "We believe the eligibility criteria should focus on the **character of the water use**, not the occupation or associations of the person. If an applicant extracts groundwater for their home via a private domestic well, they are a Domestic Well User under the plain text of the JPA, even if they also manage family land or have agricultural employment. Disqualifying them based on status rather than well use disenfranchises the majority of rural residents."

4. The Board's Sole Discretion on "Mixed-Use"

- "While we respect Staff's diligence in filtering applications, the determination of eligibility for these complex 'mixed-use' scenarios is a matter of policy that the JPA explicitly reserves for the **Board's sole discretion**. Ms. Schneider's application represents this exact scenario, and we believe the Board—not Staff—should have the opportunity to review it and decide if rural residents on mixed-use parcels are eligible to serve."

5. The Request for Continuance

- "To ensure our GSA is truly inclusive of the entire community, we respectfully request that the Board **continue Item 4.6**. This will allow the Board time to review all submitted applications (including Ms. Schneider's) and provide clear guidance on whether the 60% of rural residents living on mixed-use parcels are eligible to represent domestic well interests."

SUPPLEMENTAL MATERIALS



December 1, 2025

The Honorable Tod Kimmelshue, Chairman
Butte County Board of Supervisors
25 County Center Drive, Suite 200
Oroville, CA 95965

**Re: Letter in Support of Ms. Theresa Schneider Appointment & Comments
Regarding Legal Interpretation of Vina GSA JPA Section 7.1.2(b)**

Dear Mr. Chairman and Members of the Board:

On behalf of the Agricultural Groundwater Users of Butte County (AGUBC), we respectfully submit this letter in support of Ms. Theresa Schneider's appointment to the Board of Directors of the Vina Subbasin Groundwater Sustainability Agency (GSA) as the Non-Agricultural Domestic Well User Stakeholder Director.

Ms. Schneider possesses the necessary temperament, knowledge, and collaborative spirit required for this position. And most importantly, she satisfies each of those qualifications for the position of the Non-Agricultural Domestic Well User Stakeholder Director, as set forth in the GSA's Joint Powers Agreement (JPA): she resides within the GSA's jurisdictional boundary; she owns or leases residential real property within the GSA's jurisdictional boundary; she extracts groundwater from within the GSA's jurisdictional boundary for domestic water use only; and she is not party to any pending litigation against the GSA or its Members (i.e., the County of Butte, the City of Chico, and the Durham Irrigation District).

In submitting this letter of support, we must address an assertion made by some stakeholders that the Non-Agricultural Domestic Well User Stakeholder Director not have any professional or personal connection to agriculture. This assertion is not supported by the plain language of the JPA and, if inappropriately applied, would disenfranchise a significant portion of those would-be eligible applicants. We respectfully request that the Board of Supervisors (Board) consider the following comments before making its appointment of the Non-Agricultural Domestic Well User Stakeholder Director:

1. Analysis of JPA Section 7.1.2(b)

The GSA is governed by a five-member Board of Directors made up of one representative from each of its Members; one Stakeholder Director representative of agricultural groundwater users (referred to as the "Agricultural Stakeholder Director"); and one Stakeholder Director representative of domestic well users (referred to as the "Non-Agricultural Domestic Well User Stakeholder Director"). (See JPA, §§ 7.1, 7.2.)

SUPPLEMENTAL MATERIALS

A. Textual Interpretation: The Criteria Applies to the Use, Not the User

Section 7.1.2(b) of the JPA expressly states that:

The Non-Agricultural Domestic Well User Stakeholder Director shall meet the following criteria, *determined at the sole discretion of the Butte County Board of Supervisors*: (1) reside in the Agency Jurisdiction and owns or leases residential real property in the Agency Jurisdiction; and (2) extracts groundwater from the Agency Jurisdiction for domestic water use only. The Domestic Well User Stakeholder may not be a party to any pending litigation against the Agency or any of its Members.

(Emphasis added.)

Accordingly, when considering whether an applicant for the Non-Agricultural Domestic Well User Stakeholder Director position is eligible for appointment, the Board of Supervisors must be able to check each of the following boxes:

QUALIFICATIONS	CHECK
The applicant resides within the GSA's jurisdictional boundary.	<input type="checkbox"/>
The applicant owns or leases residential real property within the GSA's jurisdictional boundary.	<input type="checkbox"/>
The applicant extracts groundwater from within the GSA's jurisdictional boundary.	<input type="checkbox"/>
The applicant's extraction of groundwater from within the GSA's jurisdiction boundary is for domestic water use only.	<input type="checkbox"/>
The applicant is not party to any pending litigation against the GSA or its Members.	<input type="checkbox"/>

As you can see, nowhere within the JPA is the Board of Supervisors called to consider an applicant's employment or personal activities. The JPA does not state that the Non-Agricultural Domestic Well User Stakeholder Director "shall not be employed in agriculture." Nor does it state that the Non-Agricultural Domestic Well User Stakeholder Director "shall own no agricultural land." Therefore, an applicant should not be deemed ineligible simply because of their association with agriculture so long as they satisfy each of the criteria set forth above.

B. A Narrow Interpretation Disenfranchises the Majority

In addition, this assertion that the Non-Agricultural Domestic Well User Stakeholder Director not have any professional or personal connection to agriculture also calls into question what actually constitutes "residential real property."

According to the GSA, there are approximately 37,000 parcels and, at most, 4,200 total domestic wells, within the Subbasin's 180,000-acre boundary. Of the Subbasin's 180,000-acre boundary, the Tuscan Water District (TWD) encompasses roughly 100,000 acres, consisting of 3,137 parcels. Those parcels can be categorized as follows:

SUPPLEMENTAL MATERIALS

Parcel Size	Number of Parcels	% of Total
0 to 1.0 acres	653	20.8%
1.01 to 10.0 acres	1,146	36.5%
10.0 to 20.0 acres	401	12.8%
20.0 to 40.0 acres	359	11.4%
Above 40 acres	578	18.4%
Total	3,137	100%

The data above reveals a demographic reality that overrides simplistic definitions of land use. Parcels between 1 acre and 40 acres—traditionally the heart of Butte County's rural-residential community—constitute 60.7% of the total parcels (1,906 out of 3,137), at least within TWD. Residents on these small- to mid-sized parcels often have personal or professional ties to the agricultural community—whether they are retired farmers, agricultural mechanics, or families with 4-H or Junior Livestock projects. So, if the Board of Supervisors adopts this assertion that the Non-Agricultural Domestic Well User Stakeholder Director not have any professional or personal connection to agriculture, the Board of Supervisors could be faced with a number of questions, like:

- Is a resident on a 2 to 5-acre parcel with a large garden ineligible?
- Is a resident on a 5-acre parcel with a 4-H or Junior Livestock project ineligible?
- Is a resident on a 15-acre parcel who leases pasture to a neighbor ineligible?
- Is an orchard manager living on a 2-acre lot ineligible?

If the Board of Supervisors disqualifies an applicant based on their employment, association, or even their hobby on their land, then the Board of Supervisors would be creating a "status-based" eligibility requirement that does not exist within the plain text of the JPA. Under the plain language of the JPA, it is irrelevant whether an applicant is engaged in agriculture or is employed within the agricultural industry. The JPA was not designed to control the social or professional associations of the Director; it was designed to represent the specific interests of domestic groundwater extraction. By focusing on the person rather than the water use, the narrow eligibility interpretation risks disenfranchising over 60% of the very domestic well users this seat was designed to represent.

2. Request for Statement of Legislative Intent

To prevent future uncertainty, we also urge the Board to include the following interpretive statement in its motion of appointment:

"For purposes of Section 7.1.2(b) of the Vina Subbasin JPA, the Board determines that 'Non-Agricultural Domestic Well User' refers to the character of the water use, not the occupation or associations of the Stakeholder Director. Any resident of the

SUPPLEMENTAL MATERIALS

Subbasin who owns or leases residential property and extracts groundwater for domestic use only—regardless of parcel size, zoning, or the individual’s employment in the agricultural sector—is eligible for appointment."

3. Clarification Regarding the Role of the Alternate Director

Finally, we must address the suggestion that the current Alternate Director serve as a sort of “successor-in-waiting.” This suggestion conflates that process set forth in the GSA’s governing document – the Vina GSA JPA – and the Board of Supervisors’ general appointment practice where an alternate often transitions into a primary role based on custom or ease.

As explained above, the JPA expressly sets forth the procedure for the appointment of the Stakeholder Director positions. Section 7.3 expressly requires that Stakeholder Directors be appointed via an "open application process" determined at the "sole discretion" of the Board of Supervisors. The JPA does not grant the Alternate Director a right of automatic succession; rather, Section 7.7 clarifies that in the event of a vacancy, the Alternate Director serves only *temporarily* "until a new Director is appointed as set forth in Section 7.3." Therefore, the Board of Supervisors is the sole appointing authority, and it must select the most qualified candidate from the current applicant pool rather than elevating an Alternate Director by default.

4. Conclusion

The JPA was designed to represent water users, not to create social silos. By interpreting the "Non-Agricultural Domestic Well User Stakeholder Director " position to focus on the domestic use of the well, the Board of Supervisors ensures that the majority of rural residents—specifically the 60% living on parcels between 1 and 40 acres—are not disenfranchised simply because they live a rural or agricultural lifestyle.

We respectfully request the Board of Supervisors appoint Ms. Theresa Schneider and adopt the interpretive clarification proposed above.

Respectfully submitted,



Rich McGowan, President

Agricultural Groundwater Users of Butte County (AGUBC)

cc: Dillon McGregor, GSA Program Manager, Vina GSA

SUPPLEMENTAL MATERIALS

AGUBC Comments Item 4.11 (Cost Share Agreement)

1. The County is the "Institutional Brain"

- I'll start by framing what the Department of Water and Resource Conservation actually is. It is not just a service provider; it is this region's historic guardian of water data and institutional knowledge.
- The County has invested 30 years into understanding our water—long before SGMA existed—and staff have extensive and long-standing relationships with stakeholders.
- In contrast, the Vina and Wyandotte Creek GSAs are "paper agencies." By design, they have no employees.
- The risk here is creating "hollow" governance. If you remove the County staff, you are left with a shell entity entirely dependent on outside contractors who simply cannot replace the deep, local expertise of your current staff.

2. The "Who Else?" Problem & Misaligned Incentives

- If the County steps down as the lead, who fills the void?
- **Misaligned Incentives:** The GSAs would be forced to hire external consulting firms, but a consultant's goal is often just to "get to yes" - to check the regulatory box and move on. They are incentivized to find the path of least resistance to get an agreement signed, not to fight for the difficult outcomes that are best for the subbasin.
- **Divided Loyalties:** Furthermore, many firms have deep ties to Sacramento or neighboring districts. We need leadership that answers to Butte County voters, not to a client list that includes the very agencies regulating us.

3. Bad Timing (The Periodic Evaluation)

- Critically, we are considering changing horses mid-stream.

SUPPLEMENTAL MATERIALS

- We are in the thick of the 5-year Periodic Evaluation with a hard deadline of January 2027. This is the data-driven process that determines regulatory limits for all stakeholders, including farmers.
- Farmers have built trust with current staff. If the County disengages now, right as the math is being done, stakeholders will likely lose confidence in the process.
- Distracting the GSA with a complex RFP process for new management while trying to complete this evaluation is a recipe for failure.

4. Conclusion: We Need More Involvement, Not Less

- Finally, we hear the argument that we need "greater distinction" between the County and the GSAs. We strongly disagree.
- Success requires **leadership, not distinction**.
- GSAs were developed in the late teens and the 2022 plans were approved precisely because County leaders drove the process and engaged stakeholders directly.
- Instead of sitting on the sidelines to avoid liability or effort, the County should continue to lead from the front.
- The Board of Supervisors is ultimately responsible for water issues in this region. You appoint the majority of the GSA Boards.
- We believe it is your duty to leverage your staff's deep experience and network of relationships and 30 years of data to ensure the GSAs succeed. We need you **more** involved right now, not less.

SUPPLEMENTAL MATERIALS

SUBJECT: SUCCESSFUL RECHARGE PILOT RESULTS - SITE A

Executive Summary We have received preliminary data from the pilot test conducted on December 2, 2025, at a “Site A” (located just south of Comanche Creek, on the east side of Dayton Road, and south of the mobile home park - see attached map). The results are highly encouraging. The data indicates that the site’s hydrogeology is suited for high-volume subsurface recharge. Additionally, recent surface testing indicates the site possesses exceptional permeability rates that far exceed standard expectations.

Key Findings from the Pilot Test The engineering team ran a constant injection test at 80 gallons per minute (gpm) into a short trench segment (see attached Cross-Section). The resulting hydrographs (attached) provided three critical confirmations:

1. **High Intake Capacity:** The trench water levels stabilized quickly (at ~2.7 feet depth) and did not overflow. This indicates the soil can accept water as fast as we injected it.
2. **Confirmed Aquifer Connection:** Approximately 10 hours into the test, monitoring wells showed a clear rise in groundwater levels. This proves the injected water is not getting stuck in shallow clay layers but is successfully recharging the target aquifer.
3. **Rapid Drainage:** Once pumping ceased, water levels dropped at a rate of 40–90 feet per day. This high permeability suggests the system can handle significant storm flows without backing up.

Surface Verification (New Data) Following the trench test, the team conducted a surface infiltration test in the site’s pond area. Initial results are consistent with the subsurface data, showing an infiltration rate of approximately 45 vertical feet per day. This is an exceptional rate, confirming the presence of highly permeable subsurface strata.

Scalability Based on these metrics, the team model that a full-scale build-out (4,000 feet of drain line) on this 100-acre site could handle:

- **Flow Rate:** Up to **4,000 GPM**
- **Daily Volume:** Up to **17 Acre-Feet per day**

Note: These projections assume linear scaling and will include safety factors, but even conservative estimates (around 8 to 12 acre-feet per day) place this project as a significant contributor to our sustainability goals.

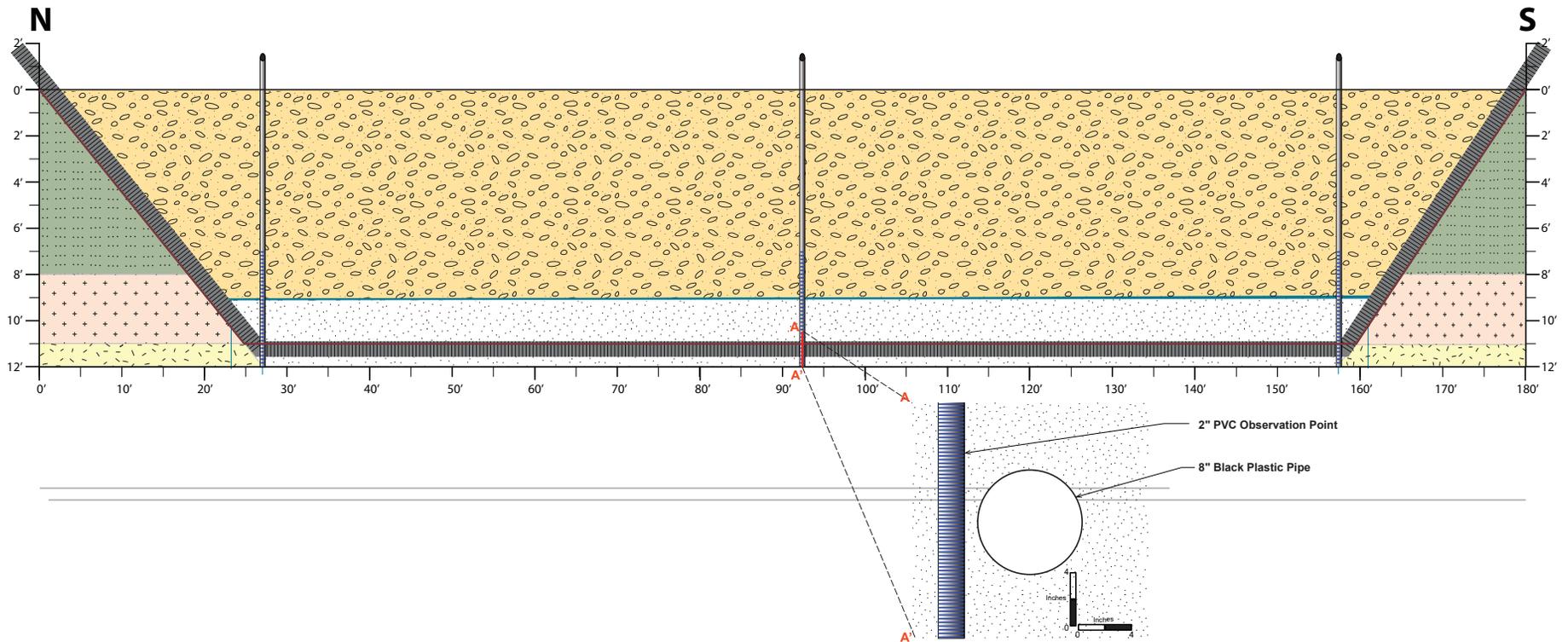
Strategic Next Steps & Phase 2 Testing With the landowner’s approval, we are moving immediately to Phase 2 to capture data during upcoming storm events:

1. **Sediment Load Test:** We plan to direct actual floodwaters into both the pond and the tile drain system. This will provide critical “real world” data on how the system manages native sediment loads and what filtration designs will be necessary for long-term operations.
2. **FloodMAR Comparison:** The landowner has authorized a Flood-Managed Aquifer Recharge (FloodMAR) test. We will flood a designated portion of the field to generate comparative data between the high-speed tile drain system and traditional surface spreading.
3. **Regional Hub Evaluation:** We continue to evaluate the southern acreage as a “Sedimentation & Distribution Hub” to support these high-volume flows.

This pilot validates the "Reverse Tile Drain" concept as a viable, land-efficient tool for the Subbasin. We look forward to presenting a more detailed engineering report shortly.

SUPPLEMENTAL MATERIALS

GREF Cross-Section



Legend	
	Top of Surface
	Trench
	8" Black Plastic Pipe
	1/4" Ground Cloth
	Cross Section Line
	Backfilled Material
	SP-SM
	SM
	ML
	Gravel
	2 inches PVC Observation Point
	5 ft screen

Explanations
ft: feet

GREF Cross-Section

Violich Property,
2100 Dayton Rd,
Chico CA

Geosyntec
consultants

Oakland

October 2025

Figure

1

