CALIFORNIA CLIMATE RESILIENCE CHALLENGE GRANT

Fairmead Groundwater Resilience Project

Final Report

MADERA COUNTY AND PARTNERS

March 30, 2024

Acknowledgment

The Fairmead Groundwater Resilience Project was funded by the 2021 California Resilience Challenge Grant Program, an initiative of the Bay Area Council Foundation. The 2021 California Resilience Challenge Grant Program is a statewide effort to support innovative climate adaptation planning projects that strengthen local resilience to wildfire, drought, flood, and extreme heat events in under-resourced communities. The project and final grant report were developed with the California Resilience Challenge grant funds, and the project team deeply appreciates the support to create the Fairmead Groundwater Resilience Project.

Executive Summary

Thanks to funding received through the 2021 California Resilience Challenge (CRC) Grant, the Madera County Water and Natural Resources Department, CivicWell, Leadership Counsel for Justice and Accountability (LCJA), and Sustainable Conservation partnered in identifying and evaluating opportunities for groundwater recharge, land repurposing, and other climate resiliency alternatives for the community of Fairmead in Madera County.

Working together and engaging with community members have been the keys for the development of the Fairmead Groundwater Resilience Project (the Project). Between 2021 and 2023, the project team held three different workshops at Fairmead Elementary School. Each of the workshops had Spanish simultaneous interpretation, activities for children, and food. The goal was to create a space where residents could learn and provide input for the project, and to share their concerns and questions about Fairmead's groundwater resilience with other community members. Fairmead Community and Friends (FCF) has been an essential collaborative partner to the project team during the project.

With the support from the project partners and other non-profit organizations, Madera County applied for and was awarded several funding opportunities, including grants from the Department of Water Resources' LandFlex program and the Department of Conservation's Multi-Benefit Land Repurposing Program. The project team also applied for potential funding from private organizations like the Battery Powered grant and the Community Economic Resilience Fund (CERF) Catalyst Program.

Through the County's work with the Fairmead community, the project team identified multiple water needs, and residents are eager to learn and participate in the process to design and implement groundwater resiliency projects. The project team also recognizes that there is a need for not only outreach, but also educational tools that can help empower community members. The team has found that visual presentations work more effectively in communities that are still learning new and complex water terminology.

The project partners have also worked closely with Madera County's technical consultant (Davids Engineering) to design recharge project proposals and share them with community members. The project team also worked with the Environmental Defense Fund (EDF) to share with residents the benefits of land repurposing for communities affected by the over pumping of groundwater in the area, and the potential of multi-benefit projects.

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Key Personnel

The Fairmead Groundwater Resilience Project was a collaborative planning effort led by Madera County, CivicWell, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Fairmead Community and Friends. Additional groups that contributed to the project included Self-Help Enterprises and Union of Concerned Scientists.

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Problem Statement

Water is a basic and essential resource for residents. Funding for the infrastructure to fix some of the local water challenges is hard to come by for Madera County. Groundwater levels are declining in Fairmead and throughout the Valley-floor portion of Madera County. Residents who have experienced already dry wells and received state assistance from the State Water Resources Control Board are more concerned than ever with the climate change events adversely impacting water supplies including groundwater. The County Maintenance District in Fairmead also struggles to provide reliable water to residents due to agricultural pumping in the surrounding area.

However, there are several solutions that build groundwater resiliency. Land Repurposing with multi-benefits remains a key option moving forward. In addition to repurposing agricultural land from high-water-using crops to lower-water-using crops, solar development, or other land uses, there is a need for recharge—both on-farm and in basins—to help replenish the groundwater aquifer. Fairmead residents have expressed a deep desire for more water infrastructure where only some currently exist, and to improve their basin's groundwater levels as well as improve air quality and living conditions in the community.

Project Description

The Project explored ideas and developed an initial plan for groundwater recharge and/or land repurposing to benefit the community broadly. With the completion of three community workshops, the project team learned more about the various needs in the community and set the ground for outreach efforts by providing information about recharge and land repurposing in the area. The project team strengthened relationships with Fairmead Community and Friends and community members. The project team applied for several funding efforts including the LandFlex Program with the CA Department of Water Resources (DWR), the Multi-Benefit Land Repurposing Program (MLRP), and the Battery Powered Grant.

During the technical portion, the project team prepared a water supply analysis report, and a multi-benefit assessment for the area to identify benefits and risks for water projects. As part of the project alternatives for recharge and land repurposing, the project team included the project designs and the budget costs. The project team created a case study that provides a road map of the work completed and includes the next steps that the project partners have worked on in the interest of continuing this effort to benefit the residents of Fairmead.

Project Results

Outcomes

Task 1: Project Management

1.1 Execute Grant and Subawards

Madera County Water and Natural Resources Department fully executed the grant agreement and the sub- awards with the project partners and consultants by May 20, 2022.

Deliverables:

- The agreement with the California Resilience Challenge Grant was signed on 02/01/2022.
- Sustainable Conservation: The Purchase Agent Agreement and the Notice of Proceed was signed with Madera County on May 20, 2022.
- CivicWell (formerly the Local Government Commission): The Purchase Agent Agreement and the Notice of Proceed was signed with Madera County on May 11, 2022.
- Leadership Counsel for Justice and Accountability. The Purchase Agent Agreement and Notice of Proceed was signed with Madera County on May 10, 2022.

1.2 Team Communication

CivicWell took the lead in the organization of meetings, preparation of the agendas, scheduling coordination meeting, taking notes, and sending reminders to the project partners during the development of the grant.

The project team met monthly to go over task completion schedules, prepare for workshops, review, and give feedback on outreach materials, discuss funding options, and develop proposals, and periodically used the meetings as opportunities to connect with Fairmead Community and Friends board members for project updates and outreach coordination. After the third workshop in October 2023, the project partners decided to schedule the team calls as needed to complete the work for this grant.

Deliverables:

- Project management structure and protocol. This information has been included in the notes from the monthly call meetings.
- Monthly meetings agenda and notes. At the beginning of the project timeframe, the team met monthly, then after the second workshop the project team decided to schedule the team meetings on an as-needed basis.

1.3 Invoicing /Reporting

Madera County staff were responsible for sending the monthly invoice reminders, along with reviewing and approving the project partners' project invoices. The staff were also responsible

for submitting the invoices for payment to the Auditor's Offices. Project partners included their project reports to track work efforts for the grant. Sustainable Conservation provided in-kind support during the period of the grant by developing and applying for the Battery Powered Grant to fund designing and initial implementation of a groundwater resilience project.

Deliverables:

- Invoices from June 2022 to February 2024 from Sustainable Conservation, CivicWell and Leadership Counsel for Justice and Accountability. Not all project partners invoiced for every month.
- Reports from June 2022 to February 2024. Not all project partners completed reports for every month.

Task 2: Community Engagement and Stakeholder Coordination

2.1 Community Stakeholder Engagement

Leadership Counsel for Justice and Accountability prepared a community engagement plan that incorporated feedback from the project partners for the final draft and helped set the course for community engagement for the duration of the project.

The main components of community engagement were informational fact sheets, community surveys, workshops, and community meetings. The fact sheets provided information about purpose and goal of the project, groundwater recharge process, and the different types of land repurposing and potential community benefits of land repurposing. The surveys collected information about residents' concerns and their input preferences for different types of potential projects. The workshops served as opportunities to explore the community's issues and concerns about groundwater availability, help residents learn about the groundwater recharge and land repurposing concepts, and focus in on potential project options for further design and development in phase two of the project.

The project team developed and adapted the community surveys over the course of the project. Each iteration of the survey was in direct response to community feedback about the need for clarification of the concepts and elements proposed. From the feedback, the final survey incorporates more images and graphics to present information that elucidates the concepts. The project team distributed the community surveys during outreach events, community meetings, and at the second community workshop.

As part of the outreach effort, the project team prepared factsheets in English and Spanish with information about the work for the grant, groundwater recharge, and land repurposing. The final draft of the factsheets incorporated feedback from members of the Fairmead Community and Friends. The project team shared the factsheets with community members at the workshops, and at the 2023 Fairmead Community Action Plan event hosted by the Madera County Community and Economic Development on July 19, 2023. Leadership Counsel for Justice and

Accountability also distributed the factsheets at the food bank events, Fairmead Community and Friends board meetings, and other events where project partners could talk about the project.

The project partners planned and organized three (3) community workshops. The three workshops included translation staff, and the project partners helped to facilitate the workshops in both English and Spanish. The support of community members' interpretation needs by project team members who are bilingual and live the Central Valley was an important demonstration of the project team's commitment helping workshop participants access and understand the information provided and ensure that their input and concerns were captured correctly. Additionally, Fairmead Community and Friends board members' outreach support and workshop participation were important elements in successfully engaging with the community.

A brief summary of the three workshops is as follows:

The first workshop took place on October 22, 2022, in the Fairmead Elementary School Cafeteria. The purpose was to introduce the project goals, and to identify and explore options for groundwater resilience such as groundwater recharge and agricultural land repurposing to reduce groundwater use.

- The initial plan was to schedule the event for the morning. Food was available for the attendees. A Spanish interpreter was present to support Spanish speaking participants. Attendance was low, as residents and community members were hesitant to attend an in-person event given the previous gathering restrictions imposed during the COVID-19 Pandemic.

The second workshop was held on April 27, 2023, in the Fairmead Elementary School Cafeteria. At this workshop, attendees participated in a mapping and survey exercise after hearing two presentations from guest speakers.

- The first presentation was by Eddie Ocampo from Self-Help Enterprises. He spoke about the Multi-Benefit Land Repurposing Program and how switching to less water-intensive agricultural activities can help lessen groundwater demands. The second presentation was by Allison Hirsch from the University of Southern California School of Architecture. She spoke about future planning scenarios for the community of Allensworth, an unincorporated community in Tulare County that has groundwater challenges like Fairmead.
- The event was scheduled during the afternoon and included children's activities in the hopes that families would attend the workshop. There was also food available for the attendees. Again, a Spanish interpreter was available to support Spanish speaking participants.

The third workshop took place on October 21, 2023, in the Fairmead Elementary School Cafeteria. For this last workshop, Fairmead Community and Friends took on the lead on community and resident outreach and engagement, provided the food, and organized a raffle for attendees.

- The focus for the third workshop was to summarize and recognize community needs and concerns raised at the previous workshops and from various meetings with Fairmead Community and Friends board members and residents. The project team sought to acknowledge the community's concerns and build on the information sharing to explore potential and desirable projects with the workshop participants. There was a visual presentation about what recharge options might look like for the community, including costs and a potential timeline for project installation, to help attendees understand better this option.

Deliverables:

- Community Engagement Plan
- Factsheets in English and Spanish (Overview of the grant, Recharge and Land Repurposing)
- Surveys (collected at the second workshop and the Fairmead Resources Event on June 24, 2023)
- Presentations for the second and third workshops

2.2 Local Jurisdiction Coordination

The Madera County Water and Natural Resources Department manages the County Groundwater Sustainability Agency (GSA) working closely with other GSAs in the area. County staff worked with CivicWell to prepare a contact list for other GSAs located near the Fairmead area. Sustainable Conservation has worked on other projects with Madera Irrigation District and was a point of contact to inform the district about the project work for the grant.

Deliverables:

- Contact list for other GSAs around the Fairmead area.
- Preparation meetings between Madera County GSAs and project partners.

2.3 Potential Landowner Consultation

Staff from Madera County prepared a spreadsheet with a list of landowners in the Fairmead area. This list was extracted from the GIS file for the Madera County GSAs. With their work in the LandFlex program from the California Department of Water Resources, they reached out to the landowners to see if they would be interested in retiring their agricultural land for other purposes.

Staff from Davids Engineering supported the project by creating a map with the likelihood/greatest interest property locations. Their analysis concluded that greater economic incentives or conditions needed to be provided to landowners in this area to help them understand the benefits of converting their land to less water-intensive agricultural uses.

Deliverables:

- Contact list of landowners in the Fairmead area.
- Map of highest likelihood/greatest interest project locations.

Task 3: Research and Analysis

3.1 Hydrogeologic and Geospatial analysis

Staff from Davids Engineering, Sustainable Conservation, and Madera County analyzed groundwater flow and areas for potential recharge flow as part of the effort to develop and complete the deliverables for this task.

Deliverables:

- Hydrogeologic and Geospatial Site Assessments that include nutrient management considerations.

3.2 Landowner Identification

Staff from Madera County solicited suggestions from local growers for potential recharge areas, and Davids Engineering mapped and prioritized those areas as part of work to develop and complete the deliverable for this task.

Deliverables:

- Parcel Prioritization including a summary and justification of the process.

3.3 Financial Analysis

Staff from ERA Economics analyzed local agricultural land values as part of the work to develop and complete the deliverable for this task.

Deliverables:

- Regional Real Estate Market Analysis: Parcel valuations and compensation options added to the database of priority parcels.

3.4 Local Land-Use and Development Compatibility

Staff from Madera County departments of Water and Natural Resources and Community and Economic Development explored land use restrictions related to various potential land changes within the County in coordination with the County Agriculture Commission to develop and complete the deliverables for this task.

Deliverables:

- Local Land Use and Development Directory.
- Land Use Regulations and development implications added to database of priority parcels.
- Summary of recommendations for integrating groundwater resilience project concepts into regional and local planning documents.

3.5 Water Supply Analysis

Staff from the Madera County Water and Natural Resources Department identified potential water sources around the Fairmead area, and potential next steps to access those supplies, as part of the effort to develop and complete the deliverable for this task.

Deliverables:

- Water Supply Analysis Summary Report: Including potential source and amount of recharge water.

3.6 Multi-Benefit Assessment

Staff from Sustainable Conservation identified options for land changes with multiple benefits—such as open space or community parks—to develop and complete the deliverable for this task.

Deliverables:

- Multi-Benefit Assessment Identification of potential multiple benefits associated with each site added to the database of priority parcels (see Task 3.2 above).

Task 4: Conceptual Project Design

4.1 Hydrologic and Environmental Engineering

Staff from Davids Engineering created a conceptual design for a standard groundwater recharge basin, and a multi-benefit recharge basin that included a park for community use, as part of the effort to develop and complete the deliverables for this task.

Deliverables:

- Potential Project Concept Design Package:
    - Conceptual Design for at least one and up to five groundwater recharge projects.
    - Monitoring Plan Framework for identified projects.
    - Cost estimate for identified projects.

4.2 Multi-Benefit Design Components

Staff from Davids Engineering have developed the conceptual design for a multi-benefit and monitoring plan framework.

Deliverables:

- Inclusion of multiple benefits into conceptual design and monitoring plan framework.

4.3 Develop Implementation Plan and Budget

Staff from CivicWell were responsible for the completion of the deliverable for this task. At this time, without a preferred project identified to pursue, no implementation plan and budget can be developed.

Deliverables:

- Proposal-quality implementation plan and budget for phase 2

Task 5: Implementation Grant Writing and Case Study Documentation

5.1 Review Relevant Funding Programs

Staff from CivicWell and Sustainable Conservation tracked and reviewed private, foundation, state, and federal funding opportunities to develop the deliverables for this task.

Deliverables:

Fundraising Strategy/Financing Plan

- List of funding programs relevant to implementing phase 2.

5.2 Engage Potential Funders

Staff from CivicWell, Sustainable Conservation, and Madera County Water and Natural Resources Department developed a list of funders interested in supporting groundwater resilience project implementation, shared resources with potential funders, and conducted exploratory calls with potential funders.

Deliverables

- Funder Engagement Documentation.

5.3 Case Study Documentation

Staff from CivicWell and Sustainable Conservation worked to develop and complete the deliverables for this task. Staff from CivicWell wrote a draft of the case study and shared it with the project team members for input before creating a final version. Staff from Sustainable Conservation developed the project story map from the content of the case study.

Deliverables:

- Case Study Documentation.
- Story map. (https://storymaps.arcgis.com/collections/fd45341248c146749a468280d89e917d?item=1)

5.4 Write and Submit Funding Proposals

Staff from CivicWell, Sustainable Conservation, and Madera County Water and Natural Resources Department developed and submitted three funding proposals as the effort to develop and complete the deliverables for this task.

Deliverables:

- Battery Powered Grant Proposal. (https://www.thebatterysf.com/batterypowered/givingproject/sustainable-conservation-fairmead-groundwater-resiliency-project)
- Site visit with California Water Action Collaborative (CWAC) representatives.
- Proposal to the Valley Community Economic Resilience Fund Catalyst Program.

Barriers Encountered

Relationship Building and Education

From the beginning of the project, the team worked to build and maintain relationships with community members and focused on making educational materials available and accessible. The project team heard that terms like recharge and land repurposing were new for some, and that people needed to see the concepts visually represented to understand how the strategies could potentially improve community groundwater resiliency.

The need for clear and concise information about the concepts of groundwater recharge and multi-benefit land repurposing was one of the prominent takeaways of the first workshop. Therefore, for the second workshop, the project team included more visual information about these terms, showing how different types of recharge or land repurposing projects work in other communities with similar characteristics. By the third workshop, the project team made sure there was a table with informational and educational resources, not only from the project partners about local groundwater recharge options, but also from other county agencies with services and resources that can help Fairmead residents' concerns around dry wells and drinking water quality. The goal of third workshop was to share potential designs for groundwater recharge sites and multi-benefit land repurposing projects, gather input about the project design options, and offer resources and educational tools to help community members understand how the different options influence and enhance groundwater resiliency.

Role of Agencies and Need for Short- and Long-Term Solutions

The three workshops clearly showed that residents wanted solutions to improve their groundwater situation. They wanted to know the short- and long-term solutions to groundwater depletion for residents that rely on domestic wells in Fairmead. They also wanted to know the role that each agency, public and private, has in improving their access to water. The project partners worked to inform residents about the role of each agency, and how each might participate in different potential solutions. In the third workshop, the project team presented short- and long-term solutions and the roles of the state, county, and non-profit organizations. Residents understood that there are multiple stakeholders, as well as the scope of work of each of these agencies and the costs and timeline for possible water solutions.

Unfamiliar Technical Project Concepts

At the second workshop, residents had trouble visualizing how recharge projects could work in Fairmead. They showed interest in this alternative, but they wanted to know more about the operation and maintenance costs. For the third workshop, the project partners provided more visual recharge information that help residents understand the concept of recharge. Some residents were concerned that if a recharge project was built but not maintained properly, it could create an unsafe area in the community.

In terms of land repurposing, residents needed more information about the types of land repurposing projects that are feasible for implementation in the area. To address this question, the project team used a mapping exercise at the second workshop, and asked residents to complete a survey that included questions related to land repurposing.

Event Dates and Times

Attendance was low for the first workshop, but much higher at the second and third workshops. The key to improving attendance was to schedule the workshops for dates and times that work for most residents, and to use consistent and frequent outreach such as door-to-door canvassing with fliers, event announcements, reminders at local group events and activities, and direct mailers to community members and residents.

Fairmead Childcare Challenges

For the second and third workshop, we wanted to improve inclusivity. Initially the project team wanted to hire a licensed childcare provider to support community members with children at the workshops but found a lack of licensed childcare options available. The project team then decided to welcome families to the workshops and include activities for the children.

Community Engagement Lessons Learned

The Project team worked with community members through a series of workshops and outreach events to understand the community's preferences for securing a better and more resilient water future. At the heart of the planning effort was the intent to engage with residents to gather input and preferences for what groundwater resiliency could look like in their community and which benefits they desired from potential projects. Toward this goal, the project team conducted numerous outreach and engagement activities including surveying community members, conducting door-to-door canvassing, and attending events for Fairmead residents such as site visits, Fairmead Community and Friends monthly board meetings, and local community meetings.

A big focus of the Project was the series of three dedicated community workshops—the first on October 22, 2022, the second on April 27, 2023, and the third on October 21, 2023. Of these community workshops, the first focused on how groundwater recharge could potentially improve community drinking water access, and the second highlighted different aspects of land repurposing and how it could improve water reliability. The third workshop offered an opportunity to confirm community preferences and build on input shared at the previous meetings to refine potential groundwater recharge and repurposed land sites. All three events requested and received valuable feedback from community members related to a wide range of water issues, some outside the scope of this work.

Education

Participants at the workshops and community meetings wanted to learn more about potential groundwater resiliency projects, as well as both short-term and long-term solutions. They were interested in groundwater recharge and agricultural land repurposing, and how these projects could address their need for reliable drinking water and clean air while offering benefits like community gathering and open space, supporting ecosystems, improving income-generating repurposed land options, and reducing flooding.

NOTE: Both groundwater recharge and land repurposing are technical and cutting-edge responses to drought and climate extremes, so it takes time to familiarize people with these concepts. Multiple workshops, along with helpful visuals and site visits to exemplary projects nearby, can help people understand what projects look like and how they function, which will help them clarify their priorities and make informed decisions.

Continued and Consistent Outreach

Continued consistent community outreach is essential to achieve community engagement for planning and implementation of on-the-ground projects. Ultimately, meaningful outreach led by Fairmead Community and Friends with committed partners at Madera County Water and Natural Resources Department and the Community and Economic Development Department, will achieve several positive outcomes. The first is greater empowerment and capacity building for Fairmead Community and Friends. The group already advocates for community needs and interests. With greater involvement in local groundwater resiliency project planning and implementation, community needs and preferences stay at the forefront. The project team wanted more community members to attend each workshop. Frequent and consistent outreach led to greater turnout at the workshops. Some effective outreach strategies include:

- Door-to-door canvassing at least once a week for several weeks ahead of meetings and workshops, in partnership with Fairmead Community and Friends and other trusted community leaders.
- Create information sheets and event announcement flyers (in English and Spanish).
- Share flyers with school staff and children.
- Attend locally organized community meetings and engage with residents at their meetings and events.

Effective Engagement

When community members are involved from the start of the planning effort; have frequent opportunities to share their concerns, needs, and preferences at workshops and meetings; and have their input meaningfully considered; the community develops a sense of ownership around what gets implemented. This meaningful engagement leads to community buy-in and support for the project. This high degree of community engagement and support makes the project more competitive for many implementation funding opportunities.

The project team dedicated time and energy to design the workshops to facilitate community members' meaningful participation. Some factors and strategies that improved attendance and participation by the third workshop included:

- Providing food for attendees.
- Scheduling the event on the weekend, during a time when people were most likely to attend.
- Offering a raffle.
- Coordinating with Fairmead Community and Friends leaders to tailor the event to community members' comfort levels.

Workshop Participation

The project team explored ways to help people feel comfortable participating in meetings and workshops. Factors such as the meeting space, technology and audio equipment, materials, and event plan or run-of-show all contribute to people sharing openly during an event. A well-prepared and skilled facilitation team can have a smoother workshop and the flexibility to handle any issues that may arise. Preparations included:

- Clarifying roles for each project team member during the workshop.
- Developing clear and easily understood presentations, with language interpretation.
- Testing the presentation and audio equipment (connectivity and functionality of the laptop, screen, projector, microphones, and speakers) to address any technical issues before the start of the event.
- Having interpretation services on hand to overcome language barriers.

Another important consideration of lively workshop participation is helping residents and community members feel comfortable in the space, and able to interact with the information and their tablemates. The project team planned for people to share ideas out loud, or as notes or drawings on handouts and maps. Elements like comfortable chairs, microphones and speakers, good visual aids and examples, and small group activities support attendees' willingness to share ideas, offer input, and join the conversation.

Connect and Empower

A primary element of the project team's outreach was engaging with local community groups at the level they were comfortable with, even if it was just joining meetings. Showing groups that the team was open and flexible to their comfort level, consistently inviting them into the process and conversations, and giving them space to engage on their terms, builds trust that their involvement is welcomed.

When initially asked by some of the project team members to join the grant proposal, Fairmead Community and Friends said they were not ready to be part of the project. As the project moved forward, and the project team continued to engage with them, their comfort level grew to where they were helping with outreach efforts and ultimately organizing the third community workshop. Fairmead Community and Friends' trust in the project allowed the project team to connect with community members ahead of workshops, local meetings, and site visits by potential funders and policy officials. During the project, the group hosted the Self-Help Enterprises' water tour site visit and participated in a field visit from the California Water Action Collaborative that built a bond with potential funders. They are now very willing and interested in future grant opportunities.

Future Funding Opportunities Lessons Learned

The project team has learned from pursuing funding opportunities from a variety of sources that identifying and winning funding is opportunistic. However, going through the process is helpful to learn about refining potential project design and implementation approaches! Land repurposing efforts can be supported by existing local and state initiatives like the California Department of Water Resources' LandFlex program and the California Department of Conservation's Multi-benefit Land Repurposing program. The Madera County Groundwater Sustainability Agency procured $200,000 in funding from the California Department of Conservation's Sustainable Agricultural Lands Conservation (SALC) Program to create an incentive structure for repurposing land within Madera County to improve groundwater recharge potential and groundwater sustainability in compliance with Sustainable Groundwater Management Act (SGMA) regulations. While state or federal funding may be a source of implementation funding, it can be highly competitive, slow, and very specific.

Funding from private groups is another avenue to explore to help the project break ground. Pursuing two such funding opportunities provided some great lessons learned:

- Growing a strong relationship with Fairmead Community and Friends helped them feel empowered and confident to be included in the proposal as a primary partner.
- Fairmead Community and Friends' participation in the proposal process gave them the confidence to engage with the funders rather than be represented by third-party groups, gaining admiration, and building bonds with potential funders.
- After the first funding pursuit, Fairmead Community and Friends are willing to host and meet funders, and to travel to funder events.

External Factors

Impacts of COVID-19 Social Distancing Norms

During the first half of the project, public health officials were slowly lifting restrictions on people gathering or being in close proximity. The project team considered the change in restrictions as an opportunity to see whether people might attend and participate at in-person events and planned the first workshop to be in-person. Few residents attended the first workshop, which seemed to indicate that community members were still engaging in social distancing norms created by the COVID-19 Pandemic gathering restrictions.

LandFlex Timeline Impacts on Implementation Funding

LandFlex was a program created by the Department of Water Resources that would award GSAs with funding to grant to growers interested in limiting their agricultural water use. The purpose of this grant was to reduce pumping impacts to nearby drinking water wells. At the time of the program rollout, California's Central Valley counties experienced severe storms and flooding, making water conservation a less urgent task for farmers. The program timeline and the income cap requirement of potential landowner recipients were factors that impacted grower participation for this funding opportunity.

Participating Stakeholders

Fairmead Community and Friends

Working closely with Fairmead Community and Friends board members helped the project team strengthen local relationships. Board members provided feedback, assisted with the outreach efforts, and served as a key partner when applying for funding opportunities to continue the planning and implementation efforts of this project.

Fairmead Residents

Residents who attended the workshops provided feedback, expressed concerns, and shared their interest in learning more about this project. They participated in the mapping activity to identify potential project locations, and breakout exercises to discuss preferences and goals of potential projects, as well as completing surveys. Their feedback helped shape the work for this project.

Fairmead Elementary School Staff

Staff from the Fairmead Elementary School accommodated all the workshop events for this project. Their IT team helped set up the cafeteria for the events. Their willingness to serve the community is evident in that they allowed the project team to use the school cafeteria on the weekend for the third workshop.

Contributors

Environmental Defense Fund

Staff from Environmental Defense Fund helped connect the project team with Allison Hirsch from the University of Southern California School of Architecture. Ms. Hirsch has done research in the planning landscape for unincorporated communities in the Central Valley.

Self-Help Enterprises

Eddie Ocampo from Self-Help Enterprises provided a presentation about the Multi-Benefit Land Repurposing Program at the second workshop. Armando Ortiz provided support in the application for the Battery Powered Grant.

University of Southern California School of Architecture

Allison Hirsch has completed planning research for the area of Allensworth, a community located in Tulare County south of Madera County. The project team saw the value of having similar planning research done in Fairmead.

Madera County Community and Economic Development (CED)

Staff from CED provided information about land uses in Fairmead and invited the project team to learn and provide feedback for the Public Draft of the 2023 Fairmead Action Plan.

Madera County Public Works

As part of the County's work for this grant, the County Water and Natural Resources staff reached out to the Public Works Department to learn more about Maintenance District 33 (Fairmead) activities and operations. The project team wanted to understand the infrastructure and budgetary challenges for this maintenance district.

Luhdorff and Scalmanini

Staff from Luhdorff and Scalmanini did an analysis of the maintenance district's current state and needs under separate funding. A copy of their findings is included in this report.

ERA Economics

Staff from ERA Economics conducted property valuations to analyze appropriate incentives to entice growers to take action.

Task 1 Deliverables

- California Resilience Challenge Grant Agreement
- Sustainable Conservation Purchase Agent Agreement and the Notice of Proceed
- CivicWell (formerly the Local Government Commission)Purchase Agent Agreement and the Notice of Proceed
- Leadership Counsel for Justice and Accountability Purchase Agent Agreement and Notice of Proceed
- Project management structure and protocol.
- Monthly meetings agenda and notes.
- Reports from June 2022 to February 2024. Not all project partners completed reports for every month.

CALIFORNIA
RESILIENCE
CHALLENGE

Grant Installments and Reporting Agreement

Grants from the California Resilience Challenge shall be disbursed in installments determined by the Resilience Challenge. All grantees of the California Resilience Challenge 2021 Grant Program are required to complete and submit to the Challenge a Final Grant Report. Certain grantees may also be required to complete and submit an Interim Grant Report. **All grant reports must adhere to the following guidelines and to the terms of the Request for Proposals and the Grantee's Proposal Worksheet submitted to the Challenge.**

Grantee	Madera County Department of Water and Natural Resources
Total Grant Amount	$180,188
Number of Installments	2
Date of First Installment	2/1/22
First Installment Amount	$90,094
Interim Grant Report Due	10/1/22
Date of Second Installment	11/1/22
Second Installment Amount	$90,094
Final Grant Report Due	11/1/24

Grant disbursements will be sent through wire transfer. **Please complete the bank information below and attach a copy of the grantee's W9 Form, a voided check and/or a letter issued by the grantee's bank.**

Full Name of Grantee	Madera County Department of Water and Natural Resources
Address	200 W 4th Street, Suite 3100, Madera, CA 93637
Name of Bank	Bank of America
Bank Address	501 E. Yosemite Ave, Madera, CA 93638

P 415.946.8746 353 Sacramento Street, 10th Floor
F 415.981.6408 San Francisco, California 94111

ABA/Routing Number	121000358
Bank Account Number	0023680104
Name of Bank Account	Madera County Active
Account Address	200 W Fourth Street 2nd Floor, Madera CA 93637
W9 Attached	**Yes**/No
Voided Check and/or Bank Letter Attached	Yes/**No**

Interim Grant Report

- Format: Microsoft Word; 12-point Times New Roman font. May include attachments for pictures, budgets, etc.
- Key Personnel (Names, titles, and contact information for grant manager(s) and other key personnel)
- Executive Summary (500 words): Summarize milestones, accomplishments, successes, setbacks, and obstacles that have occurred within the current reporting period.
- Completed Outcomes: Summarize by task all deliverables or outcomes completed during this reporting period.
- Interim Findings: If applicable, what interim findings or success stories can you produce as a result of your work during this reporting period?
- Financial Update: Provide a brief narrative explaining the grant's financial expenditures for this period that includes cash and/or in-kind items. Do you anticipate major modifications to the grants budget or workplace for the remainder of the grant?

Final Grant Report Format

- Format: Microsoft Word; 12-point Times New Roman font. May include attachments for pictures, budgets, etc.
- Cover Page
- Acknowledgement page which recognizes that the project and report were produced with funding from the California Resilience Challenge.

- Executive Summary (500 words)
- Table of Contents
- Key Personnel (Names, titles, and contact information for grant manager(s) and other key personnel)
- Problem Statement (200 words): A description of the problem your project is seeking to address and any other necessary contextual information
- Project Description (200 words): A description of the project methods and desired outcomes
- Project Results:
    - Actual outcomes
    - Barriers encountered
    - External Factors
    - Participating Stakeholders
    - Lessons for other communities considering similar projects
- Next steps (additional planning, implementation, etc.)
- Bibliography and appendices (if applicable)

Madera County	Stephen	2/1/2022
Grantee Name (Print)	Grantee Signature	Date

Bay Area Council Foundation (Julie Rowe)	Signature	Date

MADERA COUNTY PURCHASING AGENT AGREEMENT NO. 2021-110
Contract with Sustainable Conservation for Services related to California Resilience Grant

THIS AGREEMENT is made and entered into this 20th day of May, 2022, by and between the COUNTY OF MADERA ("COUNTY") and SUSTAINABLE CONSERVATION ("CONSULTANT").

RECITALS

A. COUNTY desires to obtain services to assist with the California Resilience Grant Agreement.

B. COUNTY does not have available employees to perform the services for the Project.

C. CONSULTANT has the experience and expertise necessary for the performance of the professional services required for the Project.

D. COUNTY has requested that CONSULTANT perform services for the Project and CONSULTANT has agreed to do so under the terms and conditions of this Agreement.

AGREEMENT

1. **TERM.** This agreement will commence on issuance of a notice to proceed and will terminate upon completion of the services outlined in the California Resilience Grant Agreement, or February 29, 2024, whichever is sooner.

2. **SCOPE OF SERVICES.**

CONSULTANT will perform the tasks described in **Exhibit A** to this document.

3. **INCORPORATION OF MASTER AGREEMENT.** Except as provided below, Madera County Master Contract No. 009 is incorporated herein by reference as if fully stated. CONSULTANT (referred to in the Master Contract as "CONTRACTOR") shall comply with all terms and conditions of Madera Contract No. 009.

4. **COMPENSATION AND COSTS**. COUNTY will pay CONSULTANT on a time and materials basis, in accordance with the attached **Exhibit A**, not to exceed $14,071.00. Attached in **Exhibit A** is a description of the project section for CONSULTANT. CONSULTANT will notify COUNTY in writing if the established budget is insufficient to complete the desired scope of work.

5. **INSURANCE**. CONSULTANT shall maintain the following insurance: General liability, One Million Dollars ($1,000,000.00) per occurrence and Two Million Dollars ($2,000,000.00) aggregate, with additional-insured endorsement; Automobile liability, One Million Dollars ($1,000,000.00); Worker's Compensation as required by California law; Professional liability, One Million Dollars ($1,000,000.00) per claim and One Million Dollars ($1,000,000.00) aggregate.

6. **NOTICES**. All notices required by this Agreement shall be in writing and shall be effective upon personal service or deposit in the mail, postage prepaid and addressed as follows:

COUNTY

Stephanie Anagnoson, Director
Water and Natural Resources Dept.
200 West 4th Street
Madera, CA 93637

CONSULTANT

Aysha Massell, Program Director
Sustainable Conservation
98 Battery St, Suite 302
San Francisco, CA 94111

With Copy to

Darin McCandless, Purchasing Agent
County Administrative Office
200 West 4th Street
Madera, CA 93637

//

* * * * * * * * * * *

IN WITNESS WHEREOF the foregoing Agreement is executed on the date and year first above-written.

COUNTY OF MADERA

Darin McCandless, Purchasing Agent

Approved as to Legal Form:
COUNTY COUNSEL

Michael R. Linden

Digitally signed by: Michael R. Linden
DN: CN = Michael R. Linden email = mlinden@lozanosmith.com C = US O = LOZANO SMITH
Date: 2022.03.18 15:42:25 -07'00'

By:_____

Approved as to Form:
COUNTY ADMINISTRATIVE OFFICER

By:_____

Approved as to Accounting Form:
COUNTY AUDITOR-CONTROLLER

By:_____

ACCOUNT NUMBER(S)

05950-721400

SUSTAINABLE CONSERVATION

By:_____
(Signature)

Ashley Boren
(Print)

Title: CEO

J:\wdocs\01246\040\AGT\00933520.DOCX

Exhibit A

Madera County Purchasing Agent Agreement

Partner: Sustainable Conservation

Agreement

1. **TERM**. This agreement will commence on issuance of a notice to proceed and will terminate upon completion of the services outlined in the California Resilience Grant Agreement, or February 29, 2024, whichever is sooner.

2. **SCOPE OF SERVICES.** The Partner for this grant will collaborate with the tasks described in "Exhibit A" of this document.

3. **COMPENSATION AND COSTS.** The Partner shall be compensated in the amount that does not exceeds $14,071. Attached in Exhibit "A" is a description of the project section for the Partner. The Partner will notify the County in writing if the established budget is insufficient to complete the desire scope of work.

Exhibit "A"

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet

1. Sustainable Conservation List of Tasks

TASK 3: RESEARCH AND ANALYSIS

3.5 Water Supply Analysis	
Lead	Madera County Department of Water and Natural Resources
Co-lead	Sustainable Conservation (18 hours)
Co-Lead Tasks	Research and Analysis
Time Frame	May 1, 2022 - April 30, 2023
Activities	• Coordinate with water suppliers to determine potential source and amount of water available for recharge. • Facilitate potential water supply agreements once project site/s is/are confirmed; to be executed prior to project construction.
Deliverables	• Water Supply Analysis Summary Report ○ Including potential source and amount of recharge water

3.6 Multi-benefit Assessment	
Lead	Sustainable Conservation
Time Frame	May 1, 2022 - April 30, 2023
Activities	• Assess potential multiple benefits and risks of recharge activities and land use planning, including topics related to water quality, flood risk reduction, habitat enhancement, open space, subsidence protection, and farmland conservation: ○ Evaluate community concerns/requests from Task 2.1, local planning goals from Task 2.2, and landowner feedback from Task 2.3 to document issues important to local people and agencies; ○ Develop multi-benefit assessment metric based on community-identified topics/issues, in coordination with considerations from Tasks 3.1, 3.2, 3.4 and 3.5; ○ Evaluate specific, potential project parcels (identified in Task 2.3) using the multi-benefit assessment metric.
Deliverables	• Multi-benefit Assessment ○ Identification of potential multiple benefits associated with each site added to the database of priority parcels (see Task 3.2, above)

TASK 4: CONCEPTUAL PROJECT DESIGN

4.2 Multi-benefit Design Components	
Lead	Sustainable Conservation
Time Frame	March 1, 2023 - October 31, 2023
Activities	• Work with technical consultants to include multi-benefit aspects in conceptual design and monitoring elements. • Review draft conceptual design and monitoring plan framework for identified project(s). • Incorporate multi-benefit aspects identified previously (see Task 3.6, above) into draft conceptual design. • Help establish monitoring considerations for multiple benefits. • Coordinate with the consultant team to finalize conceptual project design.

Deliverables	• Inclusion of multiple benefits into conceptual design and monitoring plan framework

Task 5: Implementation Grant Writing and Case Study Documentation

5.3 Case Study Documentation	
Lead	Civic Well
Co-Lead	Sustainable Conservation (9 Hours)
Co-Lead Tasks	Case Study Documentation
Time Frame	January 1, 2023 - February 29, 2024
Activities	• Document entire grant period, with special attention to replicability (e.g., systems, processes, collaborations, overcoming barriers, lessons learned).
	• Catalog all data and collateral generated throughout the funding period (including meeting notes, outreach materials, reports, and analyses). • Regularly reflect on the process and outcomes to identify areas for improvement and best practices for future replication. • Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to: storymap, cut sheets, blog post, podcast episode, newsletter article, slide deck, presentation, etc.).

Deliverables	• Case Study Documentation
	  ○ Storymap of project development and implementation (with special emphasis on partnerships, coordination, and funding strategy)
	  ○ Project case study cut sheets with recommendations for replication
	  ○ Presentation of case study for at least one and up to three events (e.g., conferences, workshops, webinars, etc.)

2. Sustainable Conservation Project Budget

Task		Subtasks	Entity	Hours	Labor Cost	Direct Expenses	Task Subtotal
3	Research and Analysis	3.5 Water Supply Analysis	Sustainable Conservation	18	$2,160	$0	$2,160
3	Multi-benefit Assessment	3.6 Multi-benefit Assessment	Sustainable Conservation	36	$4,320	$0	$4,320
4	Conceptual Project Design	4.2 Multi-benefit Components Analysis and Scoping	Sustainable Conservation	54	$6,480	$0	$6,480
5	Implementation Grant Writing & Case Study Documentation	5.3 Case Study Documentation	Sustainable Conservation	9	$1,111	$0	$1,111
						Total	$14,071

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet

NOTICE TO PROCEED

NOTICE IS HEREBY GIVEN TO: Sustainable Conservation, in accordance with Madera County Purchasing Agent Agreement Number 2021-110.

TO PROCEED WITH: The Fairmead Groundwater Resilience Project, led by the County of Madera and their nonprofit partners, will design, and develop a plan for implementing a groundwater resilience project involving groundwater recharge and/or land repurposing efforts within the severely disadvantaged community of Fairmead, in order to buffer this area from the water security impacts of climate-induced drought.

The contract days for the project shall begin immediately from the Approved Effective Date of the Purchasing Agent Agreement signed by the County of Madera Administrative Officer, or after providing signed written verification of receiving the original document of this Notice to Proceed or a copy in either analog or digital format.

Approved Effective Date: May 20, 2022

Notice to Proceed: May 20, 2022

First Chargeable Day on Contract: May 20, 2022

Notice to Proceed prepared by: Jeannie Habben

Issued By Stephanie Anagnoson Date 5/20/2022

Via: ☐ Fax (_____)

☒ Email (Address: saulbach@suscon.org)

☐ Mail (Address: _____)

☐ Hand Delivery (Date: _____)

Received By Contractor _____ Date _____

MADERA COUNTY PURCHASING AGENT AGREEMENT NO. 2021-107
Contract with Civic Well for Services related to California Resilience Grant

THIS AGREEMENT is made and entered into this 9th day of May, 2022, by and between the COUNTY OF MADERA ("COUNTY") and CIVIC WELL ("CONSULTANT").

RECITALS

A. COUNTY desires to obtain services to assist with the California Resilience Grant Agreement.

B. COUNTY does not have available employees to perform the services for the Project.

C. CONSULTANT has the experience and expertise necessary for the performance of the professional services required for the Project.

D. COUNTY has requested that CONSULTANT perform services for the Project and CONSULTANT has agreed to do so under the terms and conditions of this Agreement.

AGREEMENT

1. **TERM**. This Agreement will commence on issuance of a notice to proceed and will terminate upon completion of the services outlined in the California Resilience Grant Agreement, or February 29, 2024 , whichever is sooner.

2. **SCOPE OF SERVICES**.

CONSULTANT will perform the tasks described in **Exhibit A** to this document.

3. **INCORPORATION OF MASTER AGREEMENT.** Except as provided below, Madera County Master Contract No. 009 is incorporated herein by reference as if fully stated. CONSULTANT (referred to in the Master Contract as "CONTRACTOR") shall comply with all terms and conditions of Madera Contract No. 009.

4. **COMPENSATION AND COSTS.** COUNTY will pay CONSULTANT on a time and materials basis, in accordance with the attached **Exhibit A**, not to exceed $44,198.00. Attached in **Exhibit A** is a description of the project section for CONSULTANT. CONSULTANT will notify COUNTY in writing if the established budget is insufficient to complete the desired scope of work.

5. **INSURANCE.** CONSULTANT shall maintain the following insurance: General liability, One Million Dollars ($1,000,000.00) per occurrence and Two Million Dollars ($2,000,000.00) aggregate, with additional-insured endorsement; Automobile liability, One Million Dollars ($1,000,000.00); Worker's Compensation as required by California law; Professional liability, One Million Dollars ($1,000,000.00) per claim and One Million Dollars ($1,000,000.00) aggregate.

6. **NOTICES.** All notices required by this Agreement shall be in writing and shall be effective upon personal service or deposit in the mail, postage prepaid and addressed as follows:

COUNTY

Stephanie Anagnoson, Director
Water and Natural Resources Dept.
200 West 4th Street
Madera, CA 93637

CONSULTANT

Angela Islas
Civic Well
Project Manager
980 9th Street, #1700
Sacramento, CA 95814

With Copy to

Darin McCandless, Purchasing Agent
County Administrative Office
200 West 4th Street
Madera, CA 93637

//

* * * * * * * * * * *

IN WITNESS WHEREOF the foregoing Agreement is executed on the date and year first above-written.

COUNTY OF MADERA

Darin McCandless, Purchasing Agent

Approved as to Legal Form:
COUNTY COUNSEL

Michael R. Linden

Digitally signed by: Michael R. Linden
DN: CN = Michael R. Linden email = mlinden@lozanosmith.com C = US O = LOZANO SMITH
Date: 2022.04.19 10:37:16 -07'00'

By: _____

Approved as to Form:
COUNTY ADMINISTRATIVE OFFICER

By: _____

Approved as to Accounting Form:
COUNTY AUDITOR-CONTROLLER

By: _____

ACCOUNT NUMBER(S)

05950-721400

CIVIC WELL

By: _____
(Signature)

Kare Bloodworth
(Print)

Title: Chief financial Officer

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Exhibit "A"

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet

1. Civic Well List of Tasks

TASK 1: PROJECT MANAGEMENT

1.2 Team Communication and Facilitation	
Lead	Civic Well
Time Frame	March 1, 2022 - February 29, 2024
Activities	• Establish and maintain project team information flow processes, regular communication protocols, and accountability structures. • Facilitate monthly team meetings, including schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, sharing follow-up items. • Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly scheduled grant reporting to CRC.

Deliverables	• Project Facilitation Documentation
	  ○ Project management structure and protocol
	  ○ Monthly meeting agendas and notes documents

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet

TASK 2: COMMUNITY ENGAGEMENT AND STAKEHOLDER COORDINATION

2.2 Local Jurisdiction Coordination	
Lead	Civic Well
Time Frame	March 1, 2022 - February 29, 2024
Activities	• Establish primary points of contact with each participating agency and department (e.g., Madera County, Madera County GSA, Madera Irrigation District, etc.). • Maintain regular communications with each participating agency or department and facilitate information-sharing between them. • Coordinate relevant agency and/or department meetings across project team calendars to ensure representation. • Host coordination meetings between project partners and relevant agencies (including scheduling, agenda-setting, facilitation, and note-taking) as needed to ensure integrated planning.

Deliverables	• Local Jurisdiction Outreach Materials
	  ○ Primary contacts roster
	  ○ Calendar of meetings
	  ○ Hosted meeting agendas

TASK 4: CONCEPTUAL PROJECT DESIGN

4.3 Develop Implementation Plan and Budget	
Lead	Civic Well
Time Frame	March 1, 2023 - October 31, 2023
Activities	• Coordinate with the county and consultant team through Tasks 3 & 4 to ensure a broad understanding of project needs. • Review hydrogeologic and geospatial analyses and conceptual project design. • Develop a draft implementation plan and corresponding budget for potential projects. • Circulate draft for feedback from the rest of the project team. • Revise draft implementation plan and budget based on team feedback.
Deliverables	• Proposal-quality implementation plan and budget for Phase 2

TASK 5: IMPLEMENTATION GRANT WRITING AND CASE STUDY DOCUMENTATION

5.1 Review Relevant Funding Programs	
Lead	Civic Well
Time Frame	March 1, 2023 - December 31, 2023
Activities	• Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s). • Maintain a list of potential funding sources or programs for Phase 2 implementation. • Discuss potential funding sources or programs with the project team during monthly meetings. • Select 1-3 funding sources or programs for which Phase 2 implementation of designed groundwater resilience project(s) would be highly competitive.

Deliverables	• Fundraising Strategy / Financing Plan
	  ○ List of funding programs relevant to implementing Phase 2
	  ○ Monthly meeting notes

5.2 Engage Potential Funders	
Lead	Civic Well
Time Frame	March 1, 2023 - December 31, 2023
Activities	• Generate list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry). • Share project communications resources with potential funders via email. • Schedule and conduct exploratory calls with potentially interested funders. • Follow up as appropriate.
Deliverables	• Funder Engagement Documentation ○ List of potential funders engaged including summary notes
5.3 Case Study Documentation	
Lead	Civic Well
Time Frame	January 1, 2023 - February 29, 2024
Activities	• Document entire grant period, with special attention to replicability (e.g., systems, processes, collaborations, overcoming barriers, lessons learned).

	• Catalog all data and collateral generated throughout the funding period (including meeting notes, outreach materials, reports, and analyses). • Regularly reflect on the process and outcomes to identify areas for improvement and best practices for future replication. • Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to: storymap, cut sheets, blog post, podcast episode, newsletter article, slide deck, presentation, etc.).

Deliverables	• Case Study Documentation
	  ○ Story map of project development and implementation (with special emphasis on partnerships, coordination, and funding strategy)
	  ○ Project case study cut sheets with recommendations for replication
	  ○ Presentation of case study for at least one and up to three events (e.g., conferences, workshops, webinars, etc.)

5.4 Write and Submit Funding Proposals	
Lead	Civic Well
Time Frame	January 1, 2023 - February 29, 2024
Activities	• Analyze application requirements and proposal guidelines for 1-3 prioritized funding sources (see Task 5.1, above). • Attend grantee or applicant workshops and follow up with funders as available and appropriate. • Draft Phase 2 Project Implementation proposal, incorporating plan and budget from Task 4.3, above. • Circulate draft with the team and incorporate any feedback into the draft proposal. • Finalize the proposal and submit for 1-3 funding sources.
Deliverables	• Draft Phase 2 Project Implementation Proposal ○ At least one and up to three funding proposals submitted

2. Civic Well Project Budget

Task		Subtasks	Entity	Hours	Labor Cost	Direct Expenses	Task Subtotal
1	Project Management	1.2 Team Communication	Civic Well	190	$22,800	$398	$23,198
2	Community Engagement and Coordination	2.1 Local Jurisdiction Coordination	Civic Well	48	$5,760	$0	$5,760
4	Conceptual Project Design	4.3 Develop Draft Implementation Plan and Budget	Civic Well	18	$2,160	$0	$2,160
5	Implementation Grant Writing & Case Study Documentation	5.1 Review Relevant Funding Programs	Local Government Commission	25	$3,000	$0	$3,000
		5.2 Engage Potential Funders	Local Government Commission	9	$1,080	$0	$1,080
		5.3 Case Study Documentation	Local Government Commission	25	$3,000	$0	$3,000
		5.4 Write & Submit Grant Proposals	Local Government Commission	50	$6,000	$0	$6,000
						Total	44,198

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet

NOTICE TO PROCEED

NOTICE IS HEREBY GIVEN TO: Civic Well, in accordance with Madera County Purchasing Agent Agreement Number 2021-107.

TO PROCEED WITH: The Fairmead Groundwater Resilience Project, led by the County of Madera and their nonprofit partners, will design, and develop a plan for implementing a groundwater resilience project involving groundwater recharge and/or land repurposing efforts within the severely disadvantaged community of Fairmead, in order to buffer this area from the water security impacts of climate-induced drought.

The contract days for the project shall begin immediately from the Approved Effective Date of the Purchasing Agent Agreement signed by the County of Madera Administrative Officer, or after providing signed written verification of receiving the original document of this Notice to Proceed or a copy in either analog or digital format.

Approved Effective Date: May 9, 2022

Notice to Proceed: May 9, 2022

First Chargeable Day on Contract: May 9, 2022

Notice to Proceed prepared by: Jeannie Habben

Issued By Stephanie Anagnoson Date 5/11/2022

Via: ☐ Fax (_____)

☒ Email (Address: aislas@civicwell.org)

☐ Mail (Address: _____)

☐ Hand Delivery (Date: _____)

Received By Contractor _____ Date _____

MADERA COUNTY CONTRACT NO. 12187-22
(Leadership Counsel for Justice and Accountability)

THIS AGREEMENT is made and entered into this 10TH day of MAY, 2022, by and between the COUNTY OF MADERA, a political subdivision of the State of California ("COUNTY"), and LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY ("PARTNER").

RECITALS

A. The COUNTY Groundwater Sustainability Agency (GSA) has partnered with PARTNER, Local Government Commission, and Sustainable Conservation to work together in the development of the California Resilience Challenge (CRC) Grant for the Fairmead Groundwater Resilience Project ("Project").

B. The Board of Directors for the COUNTY GSA has authorized the application for the CRC Grant through Resolution No. 2021-118.

C. The CRC grant application has been approved in the amount of One Hundred Eighty Thousand One Hundred Eighty-Eight Dollars ($180,188.00) and the date of the first installment was scheduled for distribution on January 1, 2022.

D. An agreement with Leadership Counsel for Justice and Accountability is required to distribute the portion of funds allocated to the COUNTY GSA in the CRC grant.

AGREEMENT

1. **TERM**. This Agreement will commence on March 1, 2022 and will terminate upon completion of the services outlined in the California Resilience Grant Agreement, or February 29, 2024, whichever is sooner.

2. **SCOPE OF SERVICES**. PARTNER, for the CRC Grant shall collaborate with the development and implementation of a Community Stakeholder Engagement as described in

the extract from the California Resilience Challenge 2021 Grant Proposal Worksheet (p.17-p.18), a copy of which is attached as Exhibit "A," and incorporated into this Agreement.

PARTNER shall keep residents of Fairmead apprised of all project updates and will support residents in giving feedback on the project at every stage of design. When the Project is complete, PARTNER shall communicate the results to Fairmead residents.

3. **COMPENSATION AND COSTS**. PARTNER shall be compensated in an amount not to exceed Twenty-Four Thousand Three Hundred One Dollars ($24,301.00), as outlined in Section 2 of Exhibit "A." PARTNER's compensation under this Agreement, including the labor rates charged for work under this Agreement, shall not be increased without the written modification of this Agreement by the COUNTY and PARTNER.

4. **NOTICES**. All notices required by this Agreement shall be in writing and shall be effective upon personal service or deposit in the mail, postage prepaid and addressed as follows:

COUNTY

County of Madera
Administrative Management Dept.
P.O. Box 569
Madera, CA 93638

PARTNER

Leadership Counsel for Justice and Accountability
2210 San Joaquin St.,
Fresno, CA 93721

With Copy to

Clerk of the Board
Madera County
Board of Supervisors
200 West 4th Street
Madera, CA 93637

5. **INDEPENDENT CONTRACTOR**. All services performed pursuant to this Agreement by PARTNER shall be performed as an independent contractor. Under no circumstances shall PARTNER, its officers, employees, or agents, look to COUNTY as its employer, or as a partner, agent, or principal. PARTNER shall not be entitled to any benefits

MADERA COUNTY CONTRACT NO. 12187-22
(Leadership Counsel for Justice and Accountability)

THIS AGREEMENT is made and entered into this 10TH day of MAY, 2022, by and between the COUNTY OF MADERA, a political subdivision of the State of California ("COUNTY"), and LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY ("PARTNER").

RECITALS

A. The COUNTY Groundwater Sustainability Agency (GSA) has partnered with PARTNER, Local Government Commission, and Sustainable Conservation to work together in the development of the California Resilience Challenge (CRC) Grant for the Fairmead Groundwater Resilience Project ("Project").

B. The Board of Directors for the COUNTY GSA has authorized the application for the CRC Grant through Resolution No. 2021-118.

C. The CRC grant application has been approved in the amount of One Hundred Eighty Thousand One Hundred Eighty-Eight Dollars ($180,188.00) and the date of the first installment was scheduled for distribution on January 1, 2022.

D. An agreement with Leadership Counsel for Justice and Accountability is required to distribute the portion of funds allocated to the COUNTY GSA in the CRC grant.

AGREEMENT

1. **TERM**. This Agreement will commence on March 1, 2022 and will terminate upon completion of the services outlined in the California Resilience Grant Agreement, or February 29, 2024, whichever is sooner.

2. **SCOPE OF SERVICES**. PARTNER, for the CRC Grant shall collaborate with the development and implementation of a Community Stakeholder Engagement as described in

the extract from the California Resilience Challenge 2021 Grant Proposal Worksheet (p.17-p.18), a copy of which is attached as Exhibit "A," and incorporated into this Agreement.

PARTNER shall keep residents of Fairmead apprised of all project updates and will support residents in giving feedback on the project at every stage of design. When the Project is complete, PARTNER shall communicate the results to Fairmead residents.

3. **COMPENSATION AND COSTS**. PARTNER shall be compensated in an amount not to exceed Twenty-Four Thousand Three Hundred One Dollars ($24,301.00), as outlined in Section 2 of Exhibit "A." PARTNER's compensation under this Agreement, including the labor rates charged for work under this Agreement, shall not be increased without the written modification of this Agreement by the COUNTY and PARTNER.

4. **NOTICES**. All notices required by this Agreement shall be in writing and shall be effective upon personal service or deposit in the mail, postage prepaid and addressed as follows:

COUNTY

County of Madera
Administrative Management Dept.
P.O. Box 569
Madera, CA 93638

PARTNER

Leadership Counsel for Justice and Accountability
2210 San Joaquin St.,
Fresno, CA 93721

With Copy to

Clerk of the Board
Madera County
Board of Supervisors
200 West 4th Street
Madera, CA 93637

5. **INDEPENDENT CONTRACTOR**. All services performed pursuant to this Agreement by PARTNER shall be performed as an independent contractor. Under no circumstances shall PARTNER, its officers, employees, or agents, look to COUNTY as its employer, or as a partner, agent, or principal. PARTNER shall not be entitled to any benefits

documents upon request. PARTNER shall not apply for copyrights or patents on all or any part of the work performed under this Agreement.

10. **TERMINATION FOR CONVENIENCE**. COUNTY may terminate this Agreement without cause by giving at least thirty (30) days written notice to the other party, which notice shall include the date of termination. If this Agreement is terminated prior to completion, PARTNER shall be paid for all work satisfactorily performed through the date of termination.

11. **REMEDIES UPON BREACH**. If PARTNER materially breaches the terms of this Agreement, COUNTY shall have all of the following remedies:

11.01: Immediately terminate the Agreement with PARTNER;

11.02: Retain the reports and other documents prepared by PARTNER;

11.03: Complete the unfinished work under this Agreement with a different consultant;

11.04: Charge PARTNER with the difference between the cost of completion of the unfinished work pursuant to this Agreement and the amount that would otherwise be due PARTNER, had PARTNER completed the work.

12. **SUCCESSION AND ASSIGNMENT**. This Agreement is binding on PARTNER and its successors. Except as otherwise provided herein, PARTNER shall not assign, sublet, or transfer its interest in this Agreement, or any part thereof or delegate its duties hereunder without the prior written consent of the COUNTY.

13. **ENTIRE AGREEMENT**. This Agreement, any exhibits attached hereto and incorporated by reference, shall constitute the entire agreement between PARTNER and COUNTY with respect to the subject matter hereof, and supersedes in its entirety all previous negotiations, proposals, commitments, writings, advertisements, publications, and understandings of any nature whatsoever unless expressly included in this Agreement. No other agreement, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind either of the parties herein.

14. **GOVERNING LAW**. The laws of the State of California shall govern the rights, obligations, duties and liabilities of the parties to this Agreement and shall also govern the interpretation of this Agreement. Venue for any dispute arising under this Agreement shall be the Superior Court for the County of Madera, California.

15. **INDEMNITY**. Each of the Parties to this Agreement shall indemnify, defend (with counsel reasonably acceptable to the other) and hold each other and their respective partners, members, officers, directors, employees, shareholders, affiliates, agents, and attorneys and their respective successors and assigns, harmless from and against all claims, damages, liens, suits, causes of action, legal or administrative proceedings, fines, penalties, judgments, demands, obligations, costs, liability, and losses to the extent arising out of the conduct or activities caused or precipitated by a Party arising out of this Agreement.

16. **SURVIVAL OF OBLIGATIONS**. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between the parties shall survive the completion of the services hereunder and/or the termination of this Agreement.

17. **SEVERABILITY**. In the event that one or more provisions of this Agreement may be deemed unenforceable, the remainder of the Agreement shall continue in full force and effect.

18. **SECTION HEADINGS**. The section headings, enumeration, and sequence of sections appearing herein are for convenience purposes only and shall not be deemed to govern, limit, modify, or in any manner affect the scope, meaning or intent of the provisions of this Agreement.

19. **TIME OF ESSENCE**. Time is of the essence to this Agreement.

20. **FORCE MAJEURE**. Neither the COUNTY nor PARTNER shall be liable to the other for damages or delay in performing under this Agreement, or for the direct or indirect

costs resulting from such delay, arising out of labor strikes, riot, public disturbances, war, fire, accidents, extraordinary weather conditions, natural catastrophes, or any other cause beyond the control of either party.

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IN WITNESS WHEREOF the foregoing Agreement is executed on the date and year first above-written.

COUNTY OF MADERA

Chairman, Board of Supervisors

ATTEST:

Clerk, Board of Supervisors

LEADERSHIP COUNSEL FOR JUSTICE AND ACCOUNTABILITY

By: _____
(Signature)

Kaylon Hammond
(Print Name)

Title: CFO, Director of Operations

Approved as to Legal Form:
COUNTY COUNSEL

Michael R. Linden

Digitally signed by: Michael R. Linden
DN: CN = Michael R. Linden email = mlinden@lozanosmith.com C = US O = LOZANO SMITH
Date: 2022.04.18 08:47:22 -07'00'

By: _____

ACCOUNT NUMBER(S)

_____

_____

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Exhibit "A"

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet (p. 17-p.18)

1. **Leadership Counsel for Justice and Accountability List of Tasks**

TASK 2 - COMMUNITY ENGAGEMENT AND STAKEHOLDER COORDINATION	
2.1 Community Stakeholder Engagement	
Lead	Leadership Counsel for Justice and Accountability
Time Frame	March 1, 2022 - February 29, 2024

Activities	• Develop community stakeholder engagement plan to direct project development and implementation. Plan components may include but are not limited to:
	  ○ Informing the general community and key stakeholders about the Fairmead Groundwater Resilience Project through implementation of community stakeholder engagement plan, through outreach (door-to-door outreach, phone calls and texting, and community meetings). Ensure outreach is language appropriate, including Spanish and English.
	  ○ Educating community members about groundwater depletion and the need for a community resilience solution to the current and future droughts through outreach (door-to-door, phone calls and texting, community meetings, and possibly tabling at community events). Ensure educational materials and outreach are language appropriate, including Spanish and English.
	  ○ Soliciting feedback and active participation from Fairmead community members and organizations on alternative solutions, project planning, and project design, through community meetings, one-on-one conversations (via telephone or in person), and possibly including surveys that are language appropriate.
	  ○ Reporting back to community members how their input shaped project implementation through community outreach and engagement, including community meetings, door-to-door outreach, and phone calls and texts.
	• Implement community stakeholder engagement plan. Engagement methods may include but are not limited to social media, informative events (virtual, hybrid, and/or in person), local print, radio, and local television stations, community forums and message boards, and any outreach methods discussed above.

	• Coordinate with the project team to adapt project planning and implementation in response to community and stakeholder input through regular participation in project team calls/meetings to ensure community feedback is incorporated into the project.
Deliverables	• Community Stakeholder Engagement Plan ○ Engagement event agendas ○ Engagement materials (e.g., flyers, presentations, etc.) ○ Summary of engagement outcomes and community input

2. Leadership Counsel for Justice and Accountability Project Budget

Task		*Subtasks*	*Entity*	*Hours*	*Labor Cost*	*Direct Expenses*	*Subtask subtotal*
2	Community Engagement & Coordination	2.1 Community Stakeholder Engagement	Leadership Counsel for Justice and Accountability	140	$16,800	$3,301	**$20,101**
			Leadership Counsel for Justice and Accountability	30	$3,600	$0	**$3,600**
		2.3 Potential Landowner Consultation	Leadership Counsel for Justice and Accountability	5	$600	$0	**$600**
							Total $24,301

This is an extract from the California Resilience Challenge 2021 Grant Proposal Worksheet (p.26)

NOTICE TO PROCEED

NOTICE IS HEREBY GIVEN TO: Leadership Counsel of Justice and Accountability, in accordance with the Madera County Contract.

TO PROCEED WITH: The Fairmead Groundwater Resilience Project, led by the County of Madera and their nonprofit partners, will design, and develop a plan for implementing a groundwater resilience project involving groundwater recharge and/or land repurposing efforts within the severely disadvantaged community of Fairmead, in order to buffer this area from the water security impacts of climate-induced drought.

The contract days for the project shall begin immediately from the Approved Effective Date of the contract signed by the Chairman of the County of Madera Board of Supervisors, or after providing signed written verification of receiving the original document of this Notice to Proceed or a copy in either analog or digital format.

Approved Effective Date: May 10, 2022

Notice to Proceed: May 10, 2022

First Chargeable Day on Contract: May 10, 2022

Notice to Proceed prepared by: Jeannie Habben

Issued By Stephanie Anagnoson Date 5/10/2022

Via: ☐ Fax (_____)

☒ Email (Address: lluquin@leadershipcounsel.org)

☐ Mail (Address: _____)

☐ Hand Delivery (Date: _____)

Received By Contractor _____ Date _____

2023 Rolling Notes
Fairmead Groundwater Resilience Team Meeting
Recurring Meeting - Third Thursday, 2-3:30pm
Zoom Meeting: https://civicwell.zoom.us/j/89819817288

Oct 12, 2023

Agenda

- October 21st Workshop Run through
    - Review Checklist - Facilitator's Guide
        - Starting time adjusted to 1:15pm - allow time for residents to settle in, and receive lunches and raffle tickets. The whole team is open to having the workshop end after 2:30pm
        - Aysha suggested adjusting presentation #3 to be moved toward the end of the agenda to be presented after the breakout report backs
        - Fairmead Community and Friends to make announcements of raffle throughout the workshop - during breakouts session and end the workshop with the raffle giveaway
        - Angela adjusted agenda items and finalized the times for each item
        - Share the final guide with the team
    - PowerPoint slides
        - Jenny will work to rearrange the slides
        - Aysha will work to finalize the SusCon slides
        - Jenny will work to finalize the translation of words into Spanish
        - Suggestion to adjust the wording to be clearer for residents to understand
        - SusCon to present David's Engineering designs in their presentation slides, as well as costs associated with the designs
        - SusCon will provide slides by Wednesday morning. Joe can support with the translation of slides and Angela/Andrea support with adjusting the translation
    - Workshop Logistics
- Task 5: Funding Opportunities
    - Battery Powered Grant Update
    - CVCF Catalyst Program Update

Aug 17, 2023

Agenda

- October 18th workshop preparation
    - Outline, activities, presenters, timing, etc
    - Additional outreach efforts
- Funding opportunities discussion -
    - Battery-Powered Grant Proposal Status
    - Implementation Grants
- Grant task deliverables
    - Task 5.3 Case Study Documentation
- Final grant report discussion

Notes:

- Invite David's Engineering to present on draft designs for community input
- Address resident questions related to maintenance of options and how projects would benefit their water/electric bill rates.
- Begin addressing concerns highlighted from the April workshop
- Also explain short, medium and long term solutions per project
- Draft Outline
    - Welcome and Introductions
    - Summary of CRC grant to-date
    - Recap of April 27th workshop
        - Addressing concerns from last workshop
        - Defining short term, medium- and long-term solutions
    - Key Findings to-date and Project Ideas
        - Multi-benefit Land repurposing
            - Multi-benefit recharge
                - Native habitat
                - Community recreation / parks
        - Consolidation
        - Water tank and Well replacement
        - Maintenance and Cost Overview
    - Activity - *Draft Ideas*
        - Messaging activity - CivicWell share offline and determine in September
            - Determine their understanding and articulate the importance of the multi-benefit projects supporting their community needs.
            - Identifying their key values that align with desired projects that will meet their community's long-term solutions.
                - LCJA - would like to see an exercise presented but concerned about the timing for this exercise
                - SusCon - guidance needs to be clear on how residents can formulate the ask of highlighting the best option for their community needs
                - Madera Co - Can residents determine their messaging not

just to one topic?
- CivicWell - you can tie your topics to your concerns that are identified
- SusCon - Aysha is concerned of timing with this exercise but would like to see if this could be part of a different grant effort (i.e. Battery Powered grant)

- Joe - could we present a handout of options for residents to review and provide final input post workshop?
  - Andrea - Based on the concept presented in the July Action Plan meeting, it was not favorited and well-facilitated. Feel that a walkthrough of the information may be helpful to receive feedback
  - Grace - suggest to do walkthrough of options prior to October workshop and may help residents feel more prepared coming into the event
    - Madera Co - agree with having materials ready before the day of the workshop and suggest presenting handouts 3-4 weeks in advance for review
    - SusCon - good idea but don't feel that we'll be ready with the conceptual designs to share in advance of the workshop. We should think about language to share with residents on how they should prepare for the workshop
- Keep workshop at hour and a half
- Presenters: Stephanie, Aysha and Joe (present conceptual designs)

- Determining outreach events/days for October 18th workshop
  - Ideas for outreach strategies?
  - AI: Set up call for determining outreach strategies by end of August
- Battery Powered Grant Update
  - Final draft is currently Ashely Boren and will submit proposal on behalf of SusCon
  - Hoping to hear back from granters by September 15th.
  - If invited back, it will be a short turnaround - submit in the next two weeks
  - Total grant amount would be $300,000
  - In the meantime, defining roles and responsibilities for each organization for this grant and capacity.
    - Grace - This will start opening up funding opportunities - CDFA just had a presentation about "agro voltaics" and the possibility/need for such projects in California. So Ag land with Solar is very promising and seeing that happen in Fairmead will help show how the community is in the first wave of trying to address their needs holistically
  - Include Self-Help Energy Sustainability work to the Stormapping
- Grant task deliverables
  - Task 5.3 Case Study Documentation
    - Create final folder to receive all documentation to begin create case studies

        - SusCon will lead stormapping development
        - Community Center updates
            - 5 acres approved for community center. Still need to hear from the landowner for purchase to move forward. There is a rumor that community could purchase additional acres for affordable housing
        - Storymap can highlight what is established that supports the community to be ready for climate-resilience projects
    - Andrea: What are the steps for the engineering group to create the visualization materials?
        - Aysha - Joe will check in with David's for the latest. Hope to have those done by the October 18th workshop

Action Items:

- ☑ ~~CivicWell send follow up email with team to determine activities for Oct 18th workshop~~
- ☑ ~~SusCon to check in with David's Engineering on conceptual designs~~
- ☐ CivicWell create case study documentation folder on project team folder
- ☑ ~~CivicWell design outline for case study~~

Jul 17, 2023

Special Meeting

July 19th Action Plan Meeting

- Agenda for not finalized; looking to just focus the discussion on the Action Plan.
    - Plan is on county website:
- Do not want to have other resources presented during the duration of the action plan event, but can share resources as needed throughout the meeting
    - Planning staff will have the presentation set up, but planning on bringing other CDBG type resources for residents to have which also includes having Fairmead resources there to share
- Joe to be available to clarify any questions regarding recharge as well as have factsheets to share out
- Meeting will run from 6-7:30pm; early set up at 5:30pm
- Info sharing limited to groundwater recharge, land repurposing and project updates
- Andrea and Joe will be present
    - Create a signup sheet to record emails/numbers for folx that want to stay in contact with project updates.
    - Make copies of factsheet to distribute

May 30, 2023
Meeting Agenda
90 minutes

A. Debrief of Community Outreach and Engagement Events
a. April 27th Second Fairmead Community Workshop
i. Additionally - CNC Community Meeting presenting Fairmead Project
b. May 3rd SHE Northern SJV Water Tour
c. High Country News Magazine Interview
i. LCJA
ii. CivicWell
B. Draft Proposal Planning + Timeline
a. Status of tasks to complete
i. Task 3: Research and Analysis (June 30)
ii. Task 4: Conceptual Project Design (October 31)
b. Survey Distribution - Future outreach efforts?
C. CRC Grant Final Report Overview

Team Notes:

Debrief of Community Outreach and Engagement Events

- Debrief of April 27 event
  - Andrea - good turnout, not perfect, small tech difficulties but info was presented, food and interpreters good, highlighted blank spots, learned a lot as a facilitator (lost people on the way to the map), people passionate about getting connected to the water system
  - Jenny - address concerns, long and short term
  - Stephanie - presenting med/long term solutions, but people are interested in short term solutions, what is the way to organize that, show that the county heard their concerns; getting there earlier, checking IT, needing a mic (air conditioner is very loud); map needed more landmarks
  - Aysha - we have a list of what worked/what didn't work here: Fairmead Community Workshop #2 Notes.docx - Google Docs
  - Madeline -
    - did Self-Help Enterprises share re: water connections? no
    - did we get info we needed? no; may need to think how to increase survey results
- Communities of New CA - Angela presentation on Fairmead project to Merced County residents and CNC staff
  - invitation from El Nido resident and CNC staffer, small presentation on recharge pros/cons
  - lots of positive feedback on urban green infrastructure, opportunity for urban greening, address flooding in Merced and other communities, skepticism about

water quality, many residents curious about how recharge would affect water quality, Angela will get Aysha connected with CNC
    - Fairmead residents also express skepticism on this aspect, noticed on survey that not as much interest in Fairmead about parks
    - Madeline: working on Planada with flood recovery, connect with Madeline, Rosa is the connection
        - Rosa Inguanzo - rosa@cncedfund.org
            - Cell - 209-489-5921
    - Aysha - Kathy Schaefer deals with flood insurance issues, can connect with
        - Angela - mention this in our Fairmead proposal? depends on flood occurrences
    - Stephanie - not really a flood issue in Fairmead, more of a stormwater issue; Wildwood mobile home community is subject to flooding
    - Stephanie - buffer zone folks are precluded from LandFLEX, larger growers (above around Fairmead are not eligible, this is a significant hurdle to getting buffer zone implemented, most of Fairmead is surrounded by larger farmers,
    - Aysha - consider including policy change criteria for Fairmead proposal?
    - Madeline - does MLRP have similar limitations like LandFlex? (answer: no)
- May 3rd SHE Northern SJV Water Tour
    - went really well, people interested in learning more
    - mentioned floodmar.org website, Angela to share photos that can be used to make the project web presence more interesting
    - UCS was there, draft concepts of buffer zones that include recharge, would like to present draft concepts
        - Pablo Ortiz, and Alejandro Bau (new staff at UCS)
        - Interest in connecting with SusCon to draft buffer zone scenarios out
        - Aysha looking to connect with UCS before June 30th to collect information - Angela tasked to connect Aysha with UCS staff
    - Andrea - get Vickie on monthly project calls?
        - Vickie has a laptop for board members to join
        - Thoughts?
            - Madeline says to invite them to all meetings, but if our times don't work with them then LCJA can provide updates at FCF monthly board meetings (2nd Monday of each month at 5pm)
            - Maybe the July 10th FCF board meeting? Madeline will confirm agenda item for Fairmead project analysis update
            - Aysha will work with Davids Engineering to get task 3 analysis presentation developed before July 10th board meeting
- High Country News interview
    - LCJA and CivicWell interviewed about Fairmead
    - Andrea - 15 min interview, breakdown on community, job transition?, madeline land repurposing from a bigger farm, so would be easy to have workers somewhere else, interviewer was looking for something else
    - Angela - 1 hr interview with Grace too, told her to connect with UCS re job transitioning and land repurposing, workforce development, not anticipating this as a huge impact on Fairmead, gave emphasis on this as a planning project, shooting for implementation, preparing community to focus on long term planning, there is support on short term

solutions (e.g. SHE), we are focusing on long term solutions with climate resilience, interviewer focused more economics,
    - Stephanie - really curious about eventual article,
    - Angela will send team a copy of the High Country News interview article when available

Draft Proposal Planning + Timeline

- Status of tasks to complete
    - Task 3: Research and Analysis (June 30)
    - Task 4: Conceptual Project Design (October 31)
- Survey Distribution - Future outreach efforts?

- Madeline and Andrea brainstorming about more feedback - Thursday and Friday follow up calls to attendees
    - project preference is important to know
    - Aysha asked to look at Task 3.6-specific feedback
        - "Assess potential multiple benefits and risks of recharge activities and land use planning, including topics related to water quality, flood risk reduction, habitat enhancement, open space, subsidence protection, and farmland conservation"
    - Jenny would like more interviews (only 10 so far)
        - not sure how much is enough
    - June 24, community resource fair!
        - booth? one on one conversations
        - survey helps, but probably needs photos?
        - Angela would like to attend too!
        - gather any small items to give away, etc
            - LCJA can bring snacks
            - Jenny will check if madera county has anything to give away
    - Next monthly call is June 15
    - SusCon and Madera County to review survey results, adjust as needed for 3.6 deliverable (SusCon leading)
        - reduce wording
        - self explanatory
        - could have survey ready for June 12 FCF meeting
    - Aysha and Jenny to meet on June 9th at 10am to update survey template

Grant final report

- Documentation for Task 5
- narrative, set backs, opps to learn
- issues with google drive vs dropbox
- Jenny will check if Madera county can use dropbox, or offer different sharing platform

Action Items

- Angela will reach out to Pablo and Alejandro to set up preliminary buffer zone concept conversation BEFORE June 30, and after too
- Angela will share photos that can be used to make the project web presence more interesting

- Aysha will work with Davids to get the July FCF board presentation set up
- Aysha and Jenny work on survey updates - June 9th at 10am
- Jenny will check if Madera county can use dropbox, or offer different sharing platform

June 15, 2023

Agenda

- 2023 Events
    - June 24 Resources Fair
        - CED will attend - info on grant programs (i.e CBDG)
    - July 19th Action Plan
        - Second community workshop held at Fairmead Elementary School
            - Suggestion to keeping it informational for the team to present on current analysis info - Jamie will get back to team on any issues with having CRC team set up a info table at July 19th Action Plan event
        - Stephanie - can CRC participate and what capacity?
            - Wouldn't recommend presentation at July 19th more to June 24th to provide resources
            - We should invite as many community members as possible.
            - CivicWell will staff the table.
            - We will have our table set up prior to the event.
            - Also give our FAQ sheets with the surveys to residents.
    - October Community Workshop to share draft plan concepts
- Review remaining grant budget
    - Update by Jenny: we have a budget for labor and direct costs
    - For some project partners we may have to limit our work due to budget constraints.
    - Additional workshop in October that we need to include in this budget discussion.
        - Kaylon discussing Oct. workshop: They've spent ⅔'s of their budget on one workshop: outreach, prep and actual workshop. They may need to limit their prep work for the Oct. event.
        - Angela can step in and support with canvasing and outreach to community members, flier translation, and attending the workshop.
        - SusCon's participation critical at October workshop and suggestion to attend July 19th Action Plan workshop
        - Remaining outreach:
            - Resource fair 12:00-4:00pm - LCJA, CivicWell
            - July 10th: Fairmead Community Board Meeting - LCJA and SusCon

        - July 19th: Community Action Workshop - CivicWell, LCJA, SusCon, Madera Co CED
        - Oct. Community event: CivicWell, LCJA, SusCon, Madera Co
- Outreach event deliverables
    - Flyers/Resource sheets
        - Update design work on all three sheets to match
        - Analysis resource sheet
            - Community survey evaluation
            - Multibenefit options
    - Schedule/Agenda
        - October workshop agenda
            - What we heard?
                - Previous planning efforts
                    - 2011 Mobility Revitalization (LGC)
                    - Feb 2012 Fairmead Colony Plan (LGC)
                - Informal conversations; Survey eval and popups; FCF board meeting, July Action Plan workshop
                    - Ex: Annex to City of Chowchilla for water supply
            - Layout next steps:
                - Maintenance District: what would be required to achieve this
                    - Ex - Annexation
                - Recharge: explain the steps required to achieve this and why this takes time
                - Land repurposing
            - Funding Application Steps
            - County finance discussion will also be described here.
            - Water Supply Analysis summary would also be included in this part of the presentation
    - FYI: Meeting summaries
- June 24th Resource Fair Pop-up (12:00p - 4:00p) arrive by 11am
    - Resources needed for pop-up
    - Andrea will be in a support role; Angela will lead; reach out to Stephanie to have Jenny attend June 24th before sending calendar hold
        - Materials
            - Survey copies
                - Andrea reach out to Jenny for added pics (cc Angela)
            - Program fact sheet
        - Event booth needs

        - Andrea will confirm with Vickie if event will be held inside or outside - will determine set up needs
    - Coordinator contact: Vickie and Ms Barbara for event location and time of arrival
    - Table incentives?
        - Angela reach out to Jenny to confirm free incentives to hand out
        - Angela responsible for goodies (i.e. granola bars, candies)

April 20, 2023
Agenda (30 minutes)

A. April 27th Community Workshop Planning
    a. Key items (Agenda) + Next Steps
        i. AI: Madera WNR adjust timing on agenda for more time on mapping activity - share with group via email
        ii. Survey - Spanish and English surveys ready front and back
        iii. Key outcome of community meeting is to receive first set of feedback on land repurposing and recharge for the community of Fairmead
    b. Presentation Bilingual MLRP .pptx - Google Slides (deadline for finishing is Friday 4/21/2023).
B. Review of Workshop Checklist
    a. Checklist update via Madera WNR - email Jenny
    b. AI: speakers coordinate checklist items via email communications
C. May 3rd SHE Water Tour Check-in
    a. Confirm final speakers (Jenny is not attending; she is presenting on the project at a SHE leadership institute)
        i. Andrea Uribe - LCJA
        ii. Joe Choperena - SusCon
        iii. Angela - CivicWell
    b. Discussion of presentation
        i. Highlight goal and outcome of Fairmead project and key items specific to community decision-making and planning design of their future recharge/land repurposing options
    c. Arrival on day of water tour
        i. Team can arrive at 9:45am at residential location - confirm with Sonia Sanchez of location
        ii. No presentations are needed. Can look into sharing factsheets if needed.
            1. AI: Send email to coordinate prep meeting on talking points for May 3rd Water Tour presentation
D. Project Task Updates (if time allows)
    a. Table for next month's check-in

February 16, 2023
Agenda (90 minutes)

Attendance: Stephanie and Jeannie (Madera WNR), Jamie and Annette (Madera CED), Chad and John (Davids Engineering), Aysha and Joe (SusCon), Madeline (LCJA); Josh, Grace and Angela (CivicWell)

A. **Grant Purpose Refresher** Build shared understanding on project goals and final deliverable(s) - ***CivicWell*** (30 - 35 min)

- Review Grant Scope & Project Components (Grant Deliverable Content)
    - **Task 2 Community Engagement and Stakeholder Coordination *(see Agenda Item C)***
        - Summary of engagement outcomes and community input
            - In need of more information sharing and education to plan out before we begin with receiving feedback
                - Aysha - we need to be clear on the intent of the future workshop coming up - thinking about additional information to share related to the project
        - Local Jurisdiction Coordination
            - Opportunities to connect with the GSA?
                - Madera County GSA and Flood Control District are within Madera WNR purview and Fairmead resides within these jurisdictions
                - Chowchilla Subbasin has a coordination committee, and meets as needed (sporadically); Madera Subbasin has a coordination committee
                    - Identify opportunities to participate at following meetings above to pass along information about the CRC Fairmead Project - very important
            - Build partnership opportunities with Madera Irrigation District and Chowchilla Water District - SusCon has a great partnership with Madera Irrigation District
        - Potential Landowner Consultation
            - Landowner survey completed
            - Would like to identify opportunities to engage landowners to provide feedback with identified parcels that could support with pilot recharge near the community of Fairmead (TBD)
            - Any additional follow ups needed to engage landowners?
    - **Task 3 Research and Analysis *(Updates from David's Engineering and others)***

- Hydrogeologic and Geospatial Analysis
    - Would the mappings shared by Davids Engineering make sense to share at a future community workshop? Any adjustments needed? Simplifying language?
    - Aysha - looking for other recharge sites outside of Fairmead boundaries? Feedback included that benefits may not be seen if recharge sites are outside the boundary and need clarification.
        - Chad - any farther away from Northeast of the boundary the harder to identify surface water sources for the basin. Also, the boundary is leading to Southeast towards Madera Irrigation District and are currently limited to County lines
            - Is there any ability to reconsider this limitation?
            - Stephanie - grant was accepted on behalf of the Madera County GSA and can't expand GSA funds that are looking outside of the boundaries towards Madera Irrigation District. Encouraged to look into Madera County GSA boundaries that are near Fairmead to consider potential recharge sites
                - Even the light-blue shaded areas can't be considered if it's land sites under MID? Would recharge be off the map if those sites are (hypothetically) the only options available?
            - Grace - possible option can be that the MID sites can be considered, if MID can pursue potential implementation funds that can support with the pilot site to be built
                - Stephanie - MID has the capacity to help with implementation phase of the sites but it has to be in their jurisdiction and don't want to overstep
            - Joe - what's the feasibility of the options identified? Including water rights, extending conveyance, etc. Want to see if those options can be available for review and what are required to have those options come to fruition. Also, what's the easiest,

cost effective paths to secure clean and reliable drinking water?
    - Stephanie - the options Joe mentioned can be included in the final report as potential options. Recommends to keep projects at demand management and not as much on water rights. Water rights has been a concern with MID that projects recommend.
    - Aysha - at least having all options as an overview
    - Josh - we don't have to say all but highlight specific projects that can be considered. What would work well and highlight cons as well to have a balanced understanding of the choices selected.
- Madeline - is the issue that some of the areas where recharge could be of benefit within MID could be a political challenge?
    - Yes - not right framing but it is correct.
- How many of the viable locations are within MID and in Madera County GSA?
    - Davids Engineering cannot do that assessment based that it is on MID's jurisdiction
    - Aysha - Northwest corner near Chowchilla Water District and
- ~~AI: Share ppt slides to Madeline for her review - Davids Engineering / Madera WNR~~
- Both MID and Chowchilla Water District can bring water sources that are outside of their jurisdiction.

- Takeaways - we want more opportunities than few opportunities to be shared. There are legal sensitivities with two agencies that have similar boundaries and the community is in between. Understand that we may have barriers that we can't get around but we can approach this through diplomacy and negotiations. For transparency, this may be something to consider sharing with the community in a future workshop once we begin with review of potential recharge sites that are identified

        - Land Ownership Identification
        - Financial Analysis
        - Local Land-use and Development Directory
        - Water Supply Analysis Summary Report
            - Aysha - would like to ensure that SusCon and Davids Engineering can coordinate on this deliverable under Task 3. Keeping in mind of other water supply options that may have barriers that need to be addressed (i.e. flood water associated with water rights)
            - AI: SusCon and Madera WNR connect to coordinate Water Supply Analysis with Davids Engineering
            - AI: Madera WNR work with CivicWell to create Task 3 assessment document to share at the next meeting
        - Multi-benefit Assessment
            - this task dependent on community workshops
    - **Task 4 Conceptual Project Design *(Updates from Davids Engineering, Madera Co, and Sustainable Conservation)***
        - Hydrologic and Environmental Engineering
        - Multi-benefit Design Components
        - Proposal Implementation Plan and Budget for Phase 2
    - **Task 5 Implementation Grant Writing and Case Study Documentation *(Pending)***
        - Fundraising strategy/financing plan
        - Engage Potential Funders
        - Case Study Documentation
        - Draft Phase 2 Projects Implementation Proposal
- Final Deliverable to Bay Area Council
    - **ACTION/DECISION POINT**: What to call the deliverable?
        - Report or Plan

B. **CED Updates** - ***Madera Co. CED*** (10 min)

- Status of County Wide Action Plan

i. Current in the document - include background history, current/past initiatives, previous planning efforts (planning area plan), water services / connections, sidewalks, public safety and services (community center, schools), land use, recreation, housing, industrial (may leave out), quality of life and environmental. Identify agencies and funding that could support with the implementation of this action plan

ii. Final draft to be released in late Spring 2023 and will notify the Fairmead community to receive feedback

iii. Grant funding for this plan came from CA HCD

1. Stephanie - nexuses identified with this grant related to the action plan include: land repurposing and water needs identified from the community
2. Grace - parks and flood control

3. Aysha - environmental, quality of life, land-use - did any stormwater make it into the plan?

a. Jamie - it will be tied with sewer storage and storm drainage and will have background information that can highlight the need for stormwater

b. Also open to have the next workshop to be tied with a future action plan workshop or at next community meeting with FC&F

4. Madeline - spoke with FC&F on Monday about combing workshops and recommended to keep the workshops separate as it may be too substantial with lots of information to share with the residents

iv. Could current grant efforts look at mitigating action plan needs?

1. Jamie - could consider that as we can identify funding opportunities to mitigate commonalities seen in the action plan and CRC grant

- Action Plan components
- How can GW Resiliency Project connect and contribute to Action Plan

B. **Community Engagement** - ***CivicWell*** (45 min)

- Leveraging Additional Engagement Opportunities
  - SHE Water Tour - Fairmead Project Presentation; event on 5/3 or 5/9
    - **ACTION/DECISION POINT**: Who's presenting and what to share about the project as an update
  - CED Action Plan Workshop; event tentative for last week of May.
    - Option for third community engagement workshop to share potential projects (benefits and locations)
    - Option for project status update to community
    - **ACTION/DECISION POINT**: Who's presenting and what to share about the project as an update?
  - CCAC and MCCJ Air monitoring meeting in early March (March 7th or 9th) to combine second workshop for this grant effort
    - Is this group okay with combining our workshop with their efforts?
      - Aysha - okay with proceeding
      - Grace - opportunity to attend and possibly do more of an informational workshop as opposed to gathering feedback
        - 1 hour to present the project to the residents and the other half hour can be for further discussion
      - Madeline - also mentioned the second workshop should be at hour max and condense questions to avoid going over time.
      - Joe - consider maybe follow up meetings to be organized as a field day? Make it more interactive. Include food!!! (TY!)

- Consider the SJVAPCD to be a part of the land repurposing discussions related to dust mitigation - and make it a part of the air quality workshop to bring up

- FCF Board Member Participation in Project Planning Team Meetings
- Second Workshop Planning (30 min)
  - Review draft workshop agenda (attached)
    - Break agenda time into two separate meetings
    - Aysha - if focus is on land repurposing, we should consider bringing EDF / USC in to provide quick visualizations (if possible)
    - Joe - Groundwater resilience can be paired with Air Quality Mtg
  - Update on coordination with EDF/USC on Visualization Tool-use (Madera WNR)
    - Last week, Madera WNR met with USC and sounds like they will be able to build scenarios in City of Madera with key elements similar in Fairmead (park, school, facility, etc), and show how the options would (hypothetically) look like as a starting point for the residents to see
    - Aysha - might be helpful to give an overview of the MLRP and the types of projects that the program would be able to support. Even if the tool isn't ready, maybe having EDF come in and provide a small presentation to speak on examples to discuss about the current efforts and what's been identified so far
      - AI: CivicWell coordinate with Madera WNR to invite EDF to speak at next community workshop re: MLRP and land repurposing
  - Consider target audiences for participation
  - **ACTION/DECISION POINT**: Identify and set event date
- What materials are needed in advance to prepare for future workshops and other special events?
  - Air Quality Meeting - if presenting on land repurposing, need factsheets about basic information of land repurposing and where residents would like to see in their community of available land be repurposed to which project options
  - GW Recharge - What types of recharge would be of interest; where would they like to see that developed in their community?
  - Aysha - need factsheets about the project, GW recharge, and land repurposing
    - GW recharge fact sheet ready for review in the google drive
    - ~~AI: Send out GW recharge factsheet to project team open for review~~
  - Consider a "charrettes" approach to develop large map and perform "pop-up event" of two to three days of allowing community residents to show where they'd like to see potential sites and land repurposing opportunities

- May 3 Self Help Enterprises - Water tour at about 10am
    - need to identify project members to be part of that
    - Who wants to volunteer?
        - ~~AI: Angela send out email re: SHE Water Tour in Fairmead with expectations and date / time~~

Action Items:

Madera Co

- Share Davids Engineering ppt slides with project team for review
- Confirm with EDF for future presentation on land repurposing at next community meeting
- Send GW Factsheet to Project Team for further review

Sustainable Conservation

- Connect with Madera WNR and Davids Engineering re: Water Supply Analysis

LCJA

- Confirm date / time for March Air Quality Workshop
- Develop additional factsheets related to project and land repurposing

CivicWell

- Build table of contents with Madera WNR - outline of project options

Fairmead Project Prep Meeting
Madera County / CivicWell
Rolling Notes
Microsoft Teams Meeting

[Draft for Consideration and Input]
January 17, 2023
Agenda

1. Check-in: Status of 12/15 Meeting Action Items
    a. EDF/USC coordination
        i. County WNR met with DOC in monthly call and are not involved in the visioning collaboration efforts (County WNR to follow up with EDF)
    b. 2009 Action Plan project case studies/implemented projects (20 mins total)
        1. Overview of Action Plan for 5-10 mins and end with 10 mins of Q&A
        2. Not in the scope of our current Fairmead grant to look into - but can ask for examples
        3. Has snowballed due to inadequate answers for these projects under the 2009 action plan
            a. Questions to ask: What was implemented? Could have been street lights, stormwater and others that can be shared in the meeting Thursday
            b. Difficulties of Prop 218
    c. Stephanie to follow up with Shapefiles with SusCon
    d. Pending scheduling Task 3 coordination call in January - Madera County, SusCon, and Davids Engineering
        i. Task Table created
2. "Looking Ahead" Discussion
    a. Coordination among three planning efforts
        i. Groundwater Resiliency (recharge and land repurposing)
        ii. Madera County Community and Economic Development "Action Plan" (CED - Annette)
        iii. Multi-benefit Land Repurposing (WNR - Jeannie)
    b. Task 3 Coordination - Take item out; offline talk with SusCon, Madera County and David's Engineering
    c. Ready to draft potential event schedule?
        i. Consider other option of events to receive feedback from Fairmead residents
        ii. Consider aligning CED's schedule to piggy-back on their Action Plan updates
3. Topics for Next Team Meeting

a. Task 2.2 - Local Jurisdiction Coordination contacts to consider
    i. City of Madera
    ii. City of Chowchilla
    iii. Madera Irrigation District
    iv. Chowchilla Irrigation District
    v. NGOs - Self-Help Enterprises, CWC
    vi. GSAs -
        1. Chowchilla Subbasin: Triangle T, Merced and Madera Counties and Chowchilla ID
        2. GSAs in Madera Subbasin: Gravelly Ford, New Stone, Root Creek, Madera Irrigation District, Madera Water District, City of Madera, County of Madera
        3. Secondary list: GSAs in Delta Mendota Subbasin (that are in the County): San Joaquin River Exchange Contractors (sellers of water supply) Water Authority GSA, Aliso, and County of Madera
b. Data management
    i. Consider different management platform to share project information with all stakeholders, including Madera County
    ii. Continues running into issues opening Google docs
4. Next Steps/Wrap Up
5. Adjourn

2023 Rolling Notes
Fairmead Groundwater Resilience Team Meeting
Recurring Meeting - Third Thursday, 2-3:30pm
Zoom Meeting: https://civicwell.zoom.us/j/89819817288

January 19, 2023
Agenda

1. Check-in: Status of 12/15 Meeting Action Items (~30 mins)
    a. EDF/USC Coordination
    b. 2009 Action Plan Overview
        i. County has shared that in the 2009 plan the plan was looking to establish road maintenance as most viable for available funds. Because of severe limitations of funding towards road maintenance there's been delays to implementing this project. Street lights were also mentioned as a project priority in the 2009 plan - but the county doesn't cover this necessarily unless assessment fee.
        ii. Well was drilled recently; other wells in need of drilling will need to apply for state funds
        iii. Aysha - recalls that the plan also covers stormwater projects as a consideration, combining with green infrastructure project options
            1. Better setup for funding opportunities to draft for Fairmead project - combining the multibenefit approach of recharge, stormwater and green infrastructure
            2. Document flooding impacts in Fairmead to include
                a. Maple St and Ave 22 1/2 - (due to dip in the road)
                b. Sycamore St - part of it is unpaved and floods/gets very muddy when it rains
                c. Ave 22 ½ and Hickory (near two story, white house with the white fence)
        iv. Assessment fee not feasible for low income fees, and there is frustration that other countywide fees are not helping locally
        v. Recent Action Plan workshop in November - residents highlighted concerns with connecting domestic wells to municipal well, need of street repairs, pedestrian walk street improvements, stormwater drainage, affordable housing, expediting(?) community center/parks under discussion
            1. AI: Madeline share November workshop notes to team
    c. Madera County follow up - Shapefile documentation (parcels and landowner info)
        i. 3-mile boundary examples to the east of Fairmead of consideration to develop scenarios for residents to consider (ag land)

1. Possible but need coordination/understanding from landowners and residents to consider these sights

ii. Madeline - to get commitment from farmers, how do you see us securing those lands with landowners in agreement?
1. Aysha - 1) complying with ILRP, 2) legacy loading, 3) following 4 R's of Fertilization
2. Grace - should these be shared during the outreach effort to landowners?
3. Good to start conversations with Madera ID and Chowchilla ID about impacts of recharge and how this can present benefits/concerns with the community of Fairmead - most importantly aligning with qualifications of appropriate lands to manage a recharge site that can benefit the community

iii. Recommendation - consider recharge basins as a top option for preference over on-farm recharge. Avoids further concerns related to contaminants of concern and allows water to be directly captured and not be diverted from another source

iv. Aysha action: Can consider developing a guideline

d. Task 3 Coordination Call - Madera County, SusCon, David's Engineering
i. AI: Angela check-in late January re: Task 3 Coordination Call

2. "Looking Ahead" Discussion (45 mins)
a. Coordination among three planning efforts
i. GWRecharge
1. Recommendations for funding
a. See below.

ii. Madera Co. Planning Dept. "Action Plan"
1. Suggest add stormwater mitigation and green Infrastructure for road improvements to Planning Dept. team.

iii. MLRP - Jeannie Habben, Madera County
1. Want to ensure that we keep aware of the progress of each of these efforts and anything that comes up from our project efforts we can align and possibly coordinate for our planning development
2. Stormwater resource plan
a. Project list
b. can add projects to the SWRP as needed (don't need to wait) - just pull a form off the web and submit it at a meeting (FC&F is a member of the coalition)
c. Updates are in conjunction with IRWM project list updates - Not sure of when the update cycle is. There's been two updates since the first IRWM Plan.
d. Indian Lakes is a DAC member that has got multiple projects funded after listing them in the plan

iv. IRWM Strategies for funding

1. DWR is running out of funding for IRWM projects. Consider the timeline
    a. Madera IRWM currently applying for round of IRWM funds - estimated $500k. Looking to submit around February 1st

v. Add as outcome in Fairmead GW Recharge Plan - Get projects listed in SWR Plan and IRWM plan
    1. Can be conceptual; or as more detailed/planned out.

b. Events brainstorming
    i. Format and timing/schedule
        1. For next meeting, begin building out the agenda for the next community workshop
        2. Develop a list of stakeholders to reach out for next workshop
        3. Timing/scheduling for next workshop
            a. Madeline - combine next workshop with FC&F events
                i. AI: Madeline follow up with FC&F event scheduling
            b. February - April to schedule next workshop - shooting for April to schedule
            c. Aysha - After community meeting, mid-May to share analysis
            d. AI: get list of dates of future Action Plan workshops/Board meetings
    ii. Topics, Feedback, Needs
        1. Are we info-gathering? Or are we looking for immediate reactions from the community?
            a. Madeline - we need feedback on what project community residents prefer? Are people interested in a stormwater basin in addition? On the land repurposing side, we'd like to know if they'd like to use this in addition to recharge - what land use decisions do they want to see? (e.g. vegetation barrier, affordable housing, parks, etc.)
            b. Jenny - we'd like to listen to their needs and keep in mind of sharing the limitations of what we're working on. Need to differentiate.
            c. Grace - reminder of purpose of grant, connections to other planning efforts, think about audience (who shows up/doesn't show up - residents vs ag landowners, or bring them together)
            d. Madeline - think that is an interesting idea, but residents who usually don't show up, harder to get input from quieter residents - might be less inclined to talk
            e. Aysha - Groundwater resilience - are we trying to steer clear from LP because we want MLRP to take care of this? Or do we still want to keep incorporating LP efforts alongside the recharge planning?

i. There was a request from the community workshop to share visuals at the next meeting. Would like to focus on this to develop and team up with EDF/USC to support on this

iii. Timelines
1. coordinate with FC&F meetings, but not sure when next one
    a. Madeline will ask when is the next one
2. coordinate with county outreach events (planning dept)
    a. Jenny will find out list of dates so we don't compete and/or coordinate with them
3. Task 3 deadline extension is June 30
4. Late April is latest for the community meeting

iv. Materials
1. Provide small pamphlets of what we will cover, Q&A
2. Factsheet one pager - what it is (goals), when is plan due, 3-4 FAQs - Angela and Grace and Madeline will spearhead

v. Outreach

3. Topics for Next Team Meeting (10 mins)
    a. AI: Action Plan presentation - Jeannie/Jenny follow up and confirm future speaker
4. Next Steps/Wrap Up (5 mins)
    a. One-page factsheet development
    b. Upcoming event logistics
    c. Madera County - EDF/USC follow-up
    d. FC&F event schedule
5. Adjourn

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

Rolling Notes
Fairmead Groundwater Resilience Team Meeting
Recurring Meeting - Third Thursday, 2-3pm
Zoom Meeting: https://civicwell.zoom.us/j/88047871411

12/15/2022

Attendees: Grace, Angela (CivicWell); Stephanie, Jeannie, Jenny (Madera Co); Madeline Harris (LCJA); Aysha, Joe Choperena (SusCon)

Agenda

- **(Re) Introductions**
- **Multi-Benefit Land Repurposing Visioning Partnering Meeting Update (Aysha, SusCon; Stephanie, Madera Co.)**
    - EDF (Anna Shuller)/USC Engagement - Visualization Tool (examples from Huron, others)
        - Tulare basin; Allensworth visuals and Poplar to show examples of land repurposing scenarios
        - Offered to do visualizations for the community of Fairmead
        - Bring back as a proposal to the Fairmead team to move forward with potential collaboration - check in with Fairmead Community and Friends on this collaboration
        - Good opportunity to have for the Fairmead project to develop visualizations
        - Steph - this could be a good help for the community to see what could be helpful for their community to have. Concerned with timing for this effort and the CRC grant. Consider having this concept be more county-wide.
        - Action Item: Madera Co - Follow up with EDF/USC to see if they'd be open to having this visualizations be done in other communities (at meeting on Monday).
        - Aysha - may have limited ability to reach out to other communities and would like to keep Fairmead at the top of the list for consideration (aligning with current deliverables), but no harm asking if they could support
        - Action Item: County WNR met with DOC in our monthly call and they are not involved in this "visioning" (County WNR will follow up with EDF) (Done)
    - Alignment among the three planning efforts (Fairmead GW Recharge; MLRP; Planning Dept. Action Plan; SB1000 EJ Compliance in the General Plan Update -

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

Jamie/Matt, Madera Co. CED) - For January
- Might be additional funds that can continue to support Fairmead's recharge planning efforts but will need to go through the process of the grant before considering
- Action Plan - see how we can incorporate the EJ element alongside with Fairmead recharge project
  - Of interest - inviting the CED to present on action plan (Done)
- Action Item: 2009 Action Plan around Lighting and Stormwater initiatives - explore/research what was implemented from the 2009 County Planning Dept. Action Plan.
  - Stephanie to coordinate with Jamie and Matt re: this research and projects implemented since then.
  - AI: Aysha - Share Link to County 2011 Action Plan
    - https://www.maderacounty.com/Home/ShowDocument?id=680

- Fairmead GW Resiliency info & MLRP Planning Effort
  - LCJA and SusCon in-kind contributions
  - Note: MLRP is a pilot project and require that the planning efforts of specific projects are to be reported back to DOC for approval (with possible changes) which would possibly move forward with implementing projects
    - Similar guidelines from LandFlex (link to program - comment period through Dec 29)
  - Aysha - at a minimum, ensure that we're continuing to coordinate alongside the MLRP efforts during it's planning phase (outreach component perfect timing to engage)

- **Community Engagement Planning & Future Outreach Coordination (All)**
  - Identify Goals and Objectives for an event
    - Updates/content/items to share out or community input to collect
    - What would we like to achieve with future event and workshops?
    - Aysha - not ready to present; need to still meet the April 30th deadline. We're more in the information gathering phase of our event planning
    - Need more work around recharge content, but do need to focus content on land repurposing to present to the community
    - Joe - good to review the 2011 action plan and acknowledge the successes from that plan, what existed and what we could bounce off from other than "reinventing the wheel"
    - Madeline - can focus the next event with continued recharge content and follow up with more information to present on land repurposing

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

- Aysha - information gathered from event can be shared with EDF to show what the community wants and vision the scenario that way
- Grace - what were next steps and action items from the October 22nd workshop?
  - Stephanie - would like to invite the planning department to the next event if possible
  - Might want some alternatives for the next workshop - pop-up event, canvassing
  - Would like to wait until David's engineering to present findings before scheduling the next workshop - would like to present findings at the next event
  - Aysha - can we push the April 30th deadline out?
    - Jenny - flexibility with deadlines to be moved around; can provide explanation for grant purposes (to note for final report)
  - AI: Jenny will send an update to the Grant Administrator about moving the Task 3 April 30th deadline to June 30 (Done)
- Identify key feedback from community residents to support the continued planning for recharge and multibenefit land use in Fairmead
- Joe - Request for Shapefiles about parcels/landowner information to help with seeing potential recharge sites
  - Offer to assess and rank sites for possible recharge sites.
  - **AI:** Stephanie will send files early next week.
- Steph - sent out letter for MLRP landowner coordination; lots of feedback provided from landowners stating their property eligibility for recharge

- Request for more advance notice of events
  - Mailers
  - Flyers/canvassing
  - Madera Co. Public Health Dept. Events co-event outreach
  - Fairmead and Friends Event Announcements
- Madera is submitting a SGMA proposal tomorrow morning which includes a feasibility study evaluating City of Chowchilla annexing in Fairmead and providing drinking water to the community.

- **Grant Financial Update (Jenny, Madera Co.)**
  - Received 2nd installment of the grant.
  - No feedback on the last report.
    - Interim report information was sufficient.
  - Need to confirm who is the new Grant Administrator

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

    - Transaction Report
        - Summary of the Invoices from the Partners
        - Jenny will try to send by the end of the year.
- **Coordination Meeting for Task 3 Efforts w/ Madera Co, Davids Engineering and SusCon**
    - To schedule in January 2023
    - AI: Stephanie to support with scheduling future coordination meeting with Davids and SusCon in the new year (January) (Pending plus a task table was created)
- **Upcoming Deliverable Due Dates and Steps Needed (from scope of work)**
    - Madera Co. Updates:
        - April 30, 2023 - *Action Item: Madera Co. coordinates with David Engineering and SusCon at the beginning of the year.*
        - Temporary injunction impacts to Task 2.3 for Madera Co.
- **Next Steps and Action Items:**
    - Assess potential dates for future community Fairmead GW Recharge Planning Update event/Workshop
        - Potentially have content for events in February or April 2023 to plan accordingly
        - Madera Co can include Fairmead Community and Friends in a future county agenda/calendar updates or create an internal list to share out future events through
            - Fairmead board meetings - 2nd Monday of every month @ 5pm
    - Dedicated "Looking Ahead" Discussion (January 2023)
        - Ongoing Discussion Items:
            - Potential funding sources for Phase 2 Implementation.
                - AI: Joe to send potential funding options for implementation running document to Grace/Angela.
                - Some of these programs were brought up during the Nov. SusCon Board Site Visit in Fairmead
            - Dec 14 "Action Plan" workshop Recap
- How did the meeting go? What are you excited for 2023?
    - Jenny - more workshop and community engagement
    - Madeline - covered a lot and excited to work with residents to id land use changes
    - Stephanie - went well and would be great to know what is need for the recent grant award
    - Joe - very focused and on a better path with Grace's support
    - Jeannie - meeting flowed and we get all the contracts signed for the MLRP to get started

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

- Aysha - went great and hoping for action getting into the project! Suggest one and a half hour meeting?
- Angela - glad to have Grace back and that I'm being challenged with note taking during team calls
- 2023 new year resolution - lots of more action with recharge project!

Resources

- 11/09 DWR GW Recharge and CEQA Exemption Notes
- Miro board of Land repurposing community visionary examples: https://miro.com/app/board/uXjVPPcoMTg=/?share_link_id=992805858187

11/29/2022

Special meeting with EDF (notes taken by Aysha)

Attendees: Aysha, Madeline, Stephanie, Jenny, Joe, Josh, Angela,
Guests: Anna Schiller (EDF), Allison Hirsch (USC - professor landscape architecture), Jade Orr (doctoral student at UC Denver),

Anna -

- biggest challenges are storytelling for land repurposing, usually relied on maps with polygons or field level photos of one site,
- struggled to represent ideas better
- Allison working on land repurposing, deep expertise in SJ Valley
- hypothetical visuals
- not to predict, more to help create a picture of alternatives possible
- want to demonstrate uncoordinated land repurposing, worst case scenario as well as great examples
- created through a process with communities
- 2 communities already engaged in Tulare, with existing relationships
- Interested in another community, Fairmead seems ripe for this
- Still thinking it through, no final decisions on how visuals are presented, labeled, to be sensitive to privacy, etc

Madeline

- Are visuals modeling how gw conditions would be impacted by land repurposing
- Anna - alison's research is more about land use planning, birds eye view of landscape, more about topographic variation, buildings, image from 45 degree view

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

Alison

- started looking at SJV land use transitions, equity, with students a few years ago
- specifically Tulare Lake basin
- rural redlining - Fairmead has come up quite a bit, women's prison, sidewalks etc
- Jade and another student working with Huron (Mayor Ray), Lemoore, historically black communities that have transitioned to Latinx communities,
- SGMA could be transformative, seize opportunities where they exist
- working with students in large land transition, with food and ag focus
- How would visual scenarios be effective to help with visioning
- scales and where is appropriate

Joe

- what are the audiences? communities yes, but what about agencies, growers, etc. to educate and build momentum on the importance of strategic land use planning, fallowing and repurposing of land.
- Alison - centering on 2 communities Huron and Allensworth, but could talk about broader strokes and be more anonymous and show regional contexts that show an array of different types of conditions
- Anna - more towards community-centric visuals, changes will impact the communities at the human level, but opportunity to zoom out to landscape level, mosaic and patterns,
    - audience could be GSAs, policy makers with DOC grant,

Josh

- rural/urban interface or transect; legislative impacts and voters tend to be in cities

Alison

- overview in

Madeline

- buffer zones in high demand but how to enact with willing landowners
- Anna - the way to present is very sensitive (false hope, alarming people)
- not a planning tool - more about a way to describe opportunities
- Madeline - key area of collaboration would be in workshops, esp when we focus on land repurposing to have some visuals, next workshop - wou

Angela

- landowner issue is tied in with other land planning efforts in later 2023

Anna

- ideally would vet draft visuals with community members as an activity

Aysha

- could use existing graphics and really start from scratch at the Fairmead level
- what about on the ground visuals as well, so people can understand what it looks like

Josh

Early 2022 Project Team Rolling Notes
Fairmead Groundwater Resilience Project Budget
Fairmead Project Deliverables - Scope of Work

- bring hard copy maps

Jenny

- community centers, land zoning might exclude some uses, have that available
- Alison - anticipate land use, build on policies already in place
- Jenny - sometimes people have expectations of immediate change
- Jade - working off of area plans to make sure ideas are somewhat in the realm of possibility,

Joe

- if acquisition of private land is needed and prioritized parcels identified to the general public, then landowners will most likely offer high sale prices
- a strategy is to not disclose the prioritized parcels and include a land acquisition proposal within a general vicinity including many parcels.
- Have landowners offer parcels with already included final sales prices to avoid a bidding war.

Anna

- next steps?
- Madeline will help to coordinate a meeting with Fairmead and Friends and Anna/Alison/Jade and others as available
- 1st quarter is available for community workshop
- pre work could be done in next month - mid Jan?
- Fairmead team meeting in mid Dec, will get back

Alison

- would like to have some opportunity to visit the community
- also would like to see past/current planning efforts

Joe

- compiled implementation funding sources yet? They have not but are also interested in seeing what funding sources are available.
- Unconventional funding sources should also be pursued, like ag industry, businesses, etc.
- Huron is a good opportunity and potential example with Woolfe & Reiter interest. Their support could help a project with benefits to Huron & ag users.

Next steps:

- discuss at fairmead project team meeting in mid December
- Madeline will set up intro meeting bw EDF team and Fairmead & Friends
- meet again with EDF team in mid Jan
    - Alison will share work in SJ valley and miro board link
    - Fairmead team will compile data/resources for past/current work in Fairmed
- potential community visioning meeting in Q1 2023

11/29/2022
Special meeting with EDF and USC

Attendees: Aysha, Madeline, Stephanie, Jenny, Joe, Josh, Angela,
Guests: Anna Schiller (EDF), Allison Hirsch (USC - professor landscape architecture), Jade Orr (doctoral student at UC Denver)

Anna -

- biggest challenges are storytelling for land repurposing, usually relied on maps with polygons or field level photos of one site,
- struggled to represent ideas better
- Allison working on land repurposing, deep expertise in SJ Valley
- hypothetical visuals
- not to predict, more to help create a picture of alternatives possible
- want to demonstrate uncoordinated land repurposing, worst case scenario as well as great examples
- created through a process with communities
- 2 communities already engaged in Tulare, with existing relationships
- Interested in another community, Fairmead seems ripe for this
- Still thinking it through, no final decisions on how visuals are presented, labeled, to be sensitive to privacy, etc

Madeline

- Are visuals modeling how gw conditions would be impacted by land repurposing
- Anna - alison's research is more about land use planning, birds eye view of landscape, more about topographic variation, buildings, image from 45 degree view

Alison

- started looking at SJV land use transitions, equity, with students a few years ago
- specifically Tulare Lake basin
- rural redlining - Fairmead has come up quite a bit, women's prison, sidewalks etc
- Jade and another student working with Huron (Mayor Ray), Lemoore, historically black communities that have transitioned to Latinx communities,
- SGMA could be transformative, seize opportunities where they exist
- working with students in large land transition, with food and ag focus
- How would visual scenarios be effective to help with visioning
- scales and where is appropriate

Joe

- what are the audiences? communities yes, but what about agencies, growers, etc. to educate and build momentum on the importance of strategic land use planning, fallowing and repurposing of land.
- Alison - centering on 2 communities Huron and Allensworth, but could talk about broader strokes and be more anonymous and show regional contexts that show an array of different types of conditions
- Anna - more towards community-centric visuals, changes will impact the communities at

the human level, but opportunity to zoom out to landscape level, mosaic and patterns,
    - audience could be GSAs, policy makers with DOC grant,

Josh

- rural/urban interface or transect; legislative impacts and voters tend to be in cities

Alison

- overview in

Madeline

- buffer zones in high demand but how to enact with willing landowners
- Anna - the way to present is very sensitive (false hope, alarming people)
- not a planning tool - more about a way to describe opportunities
- Madeline - key area of collaboration would be in workshops, esp when we focus on land repurposing to have some visuals, next workshop - wou

Angela

- landowner issue is tied in with other land planning efforts in later 2023

Anna

- ideally would vet draft visuals with community members as an activity

Aysha

- could use existing graphics and really start from scratch at the Fairmead level
- what about on the ground visuals as well, so people can understand what it looks like

Josh

- bring hard copy maps

Jenny

- community centers, land zoning might exclude some uses, have that available
- Alison - anticipate land use, build on policies already in place
- Jenny - sometimes people have expectations of immediate change
- Jade - working off of area plans to make sure ideas are somewhat in the realm of possibility,

Joe

- if acquisition of private land is needed and prioritized parcels identified to the general public, then landowners will most likely offer high sale prices
- a strategy is to not disclose the prioritized parcels and include a land acquisition proposal within a general vicinity including many parcels.
- Have landowners offer parcels with already included final sales prices to avoid a bidding war.

Anna

- next steps?
- Madeline will help to coordinate a meeting with Fairmead and Friends and Anna/Alison/Jade and others as available
- 1st quarter is available for community workshop
- pre work could be done in next month - mid Jan?
- Fairmead team meeting in mid Dec, will get back

Alison

- would like to have some opportunity to visit the community
- also would like to see past/current planning efforts

Joe

- compiled implementation funding sources yet? They have not but are also interested in seeing what funding sources are available.
- Unconventional funding sources should also be pursued, like ag industry, businesses, etc.
- Huron is a good opportunity and potential example with Woolfe & Reiter interest. Their support could help a project with benefits to Huron & ag users.

Next steps:

- discuss at fairmead project team meeting in mid December
- Madeline will set up intro meeting bw EDF team and Fairmead & Friends
- meet again with EDF team in mid Jan
    - Alison will share work in SJ valley and miro board link
    - Fairmead team will compile data/resources for past/current work in Fairmed
- potential community visioning meeting in Q1 2023

selected chats from chat log:

10:32:17 From Josh Meyer, CivicWell.org To Everyone:
https://www.cnu.org/publicsquare/2017/04/13/great-idea-rural-urban-transect

10:44:24 From Alison Hirsch To Everyone:
We've spoken with Nataly at LC about Lanare.

10:52:49 From Alison Hirsch To Everyone:
Ideally, this would be inputted into animation software. So you could navigate at any level. That's a project where I'd have to hire a team

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10/28/2022
Special meeting

Attendees: Jenny, Jeannie, Stephanie (Madera Co), Aysha (SusCon), Madeline (LCJA), Angela (CivicWell)

- **Overview of Oct 22 Workshop**
    - Next workshop to host
        - Madeline noted that the Fairmead Community and Friends board could host our next workshop at their next board meeting
            - Board meetings are now set quarterly - Madeline can check with the board to see if the Fairmead team can be added to their next agenda
    - Host another meeting before February workshop?
        - SusCon suggests to host another workshop before the February board meeting
        - Madeline confirms that for public participation in board meetings it varies - depends on what the activities will be (i.e. hosting giveaways or holiday related activities)
            - Aysha has concerns that if adding the workshop to an existing meeting would take away from getting appropriate community feedback

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- ■
  - Comments throughout the meeting
    - Stephanie heard that folx commented about not visualizing what a basin looks like or how it works
      - Is reaching out to EDF to get more visual pictures to share in the next workshop for the topic of land repurposing
      - Aysha agrees to have more visuals in the next meeting to explain the concepts to folx
    - Provide information about the Action Plan (i.e. Area Plan Update)
      - Has information about including language of land-use changes and rezoning that may be helpful for Fairmead residents to learn about
      - This will be discussed in a public workshop in December - Stephanie to identify the date
        - Aysha - is it possible for the Fairmead team to attend this workshop and add more context of Land repurposing with the Area Plan Update (i.e. Action Plan)?
        - possible booth, survey, raffle etc
  - Future outreach efforts
    - Aysha - we can possibly include our flier (and maybe recharge presentation, or narrated presentation) to their website for more awareness
      - Madeline pointed out that Fairmead board noted that their website and facebook page don't get a lot of traffic to them, but could reach out to see if they could add our flyer
- Grant Admin Review
  - MLRP grant
    - Approval of projects will need to go through extended process
      - Grant manager is to submit proposals to DOC and they will take that back to their board to give the green light for basins to move forward
        - Jeannie clarified that DOC wants to be very involved in the proposals for each basin awarded - learn of the challenges and projects that could help support their land repurposing efforts
      - Land Flex program by DWR - potential support for fallowing land around drinking water wells
    - Angela - how is the Statewide Support Entity involved with the approval of proposed projects?

Commented [1]: might be a different name

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        - Jeannie - will find that out during the monthly meetings. Currently just noted that proposals go directly to the board.
- **Add to December's Agenda**
    - SusCon Board meeting debrief
    - "Action Plan" workshop Recap
    - February board meeting - host second workshop
    - Future outreach coordination

Action Items
- Madeline coordinate with Stephanie to email Action Plan consultants to possibly include the Fairmead project team to attend Action Plan workshop in December 2022
- ~~10/31: Angela to send doodle poll to reschedule November 17th team call~~

10/20/2022

Agenda

- **October 22nd Workshop**
    - Agenda Setting/Framework Review
        - Stephanie's comments
            - To me, I think the heart of the workshop is these three items:
                - Madeline explains the project - 10 minutes
                - Stephanie explains the GSP and repurposing - 20-30 minutes
                - Aysha drills down into recharge specific to Fairmead (30-45 minutes)
                - There are natural points for small group discussion there about "What are your concerns about water in Fairmead?" and then "What are the benefits and/or concerns with recharge?"
    - Proposed Agenda (2 hour workshop)
        - **Intro to Project - LCJA (Madeline) (10 mins)**
            - Introductions
            - Purpose of the project
        - **Framework setting - Madera County *(Stephanie or Jeannie, but need to confirm)* (20 mins)**
            - Why We're Here (Where does Fairmead's water come from? Water extraction, GW levels dropping)
            - Overview of Groundwater in Madera Subbasin and GSP review
        - **Recharge & options (SusCon) (30 mins; 10-15 minute discussion)**

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        - Discussion prompts to encourage personal reflections (LCJA with support from Madera County)
            - OFR vs recharge basins
    - **Breakout Session**
        - Proposed questions/prompts [add here]
    - **Report outs**
    - **Next Steps/Next Workshop?**
  - Presentation slides
    - Add Aysha's slides to the presentation slide deck and Madeline will take lead to translate the rest of the slide deck
- **Public Event Checklist**
  - Spreadsheet review
    - Please see sheet for further details of items/materials that need to be brought to workshop

Action Items

- Aysha/Madeline: Coordinate on finalizing presentation slide deck
- All: review public event checklist to gather items/materials needed for October 22nd workshop

09/15/2022

Agenda

- October Fairmead Community Workshop
  - Updates - Madeline (LCJA)
    - October dates: Oct 22 and Oct 29
      - Madeline will reserve the Fairmead Elementary Cafeteria today
  - Agenda setting/Framework from last meeting
    - **Intro to Project - LCJA (Madeline) (10 min)**
      - Introductions
      - Purpose of the project
    - **Framework setting - Madera County *(Stephanie or Jeannie, but need to confirm)* (20 min)**
      - Why We're Here (Where does Fairmead's water come from? Water extraction, GW levels dropping)
      - Overview of Groundwater in Madera Subbasin
    - **Recharge & options (SusCon) (20 min)**
      - Discussion prompts to encourage personal reflections (LCJA with

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support from Madera County)
        - OFR vs recharge basins
    - **Group discussion (10 min)**
    - **5 min break**
    - **Land repurposing (in general) (Madera County/SusCon) (20 min)**
        - Connection between water, land use, community design, sustainability/resiliency, adaptation and revitalization
        - Area plan updates
        - Multi-benefit land repurposing
            - Examples & pictures for the attendees to react
            - connect with area plan, but not parallel discussions
            - good idea document: https://www.legacy.civicwell.org/reports/fairmead/Fairmead_Report_010611.pdf
        - Discussion prompts (LCJA with support from Madera County)
    - **Group discussion (10 min)**
    - **5 min break**
    - **Breakout groups brainstorm (20 min)**
    - with big paper to write on
        - have questions to prompt discussion
    - **Next steps and timeline (LCJA - Madeline) (10 min)**
        - Final Q&A
- Objectives:
    - Residents to understand the project
    - Residents to provide feedback on type of land use changes and GW recharge
    - LCJA to get a community members list willing to engage
- Logistics for workshop
    - Availability & support
        - SusCon
            - Aysha
            - and Modibo Keita, Grizzly Corps fellow
        - LCJA
            - Madeline
        - Madera Co
            - Stephanie
              Jenny maybe come?
        - CivicWell
            - Angela

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        - Fairmead Community and Friends? (Compensation?)
            - Vickie or others
    - Estimate numbers of attendees
        - maybe 25? dependent on door-to-door outreach
    - Roles:
        - Who's going to facilitate breakout sessions?
        - Notetakers
    - Interpretation
        - Reyna will have headsets for general discussion
        - Madeline bi lingual
        - Jenny bi lingual
        - Angela bi lingual
        - (Aysha semi bi lingual)

- MLRP Grant Update (Madera County)
    - Grant signed last Friday
    - Preparing partner contracts to onboard to grant project (4 partners)
        - Madera Farm Bureau
        - Ag Water Association
        - CA farmland trust
        - Madera Chowchilla RCD
    - Developing RFP to recruit for MLRP efforts
    - Focus is DACs
    - Contract work - 3 ½ years
- Interim Report Template
    - Review of Report - Madera County
- Grant Timeline (CivicWell)

Resources:
- MLRP Blog: https://civicwell.org/civic-news/padilla-land-repurposing/

Action Items
- ~~Angela due 9/19: confirm preferred availability for October Workshop with Madera County~~
- ~~Jenny due 9/19: communicate if changes (time/date) are needed for the workshop day to Madeline~~
- ~~Madeline/Stephanie/Aysha: prepare draft presentations due by ??? (what's the date we determined?)~~
- Madera Co/LCJA due/?: Identify discussion prompts and questions for breakout sessions

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08/19/2022

Rescheduled time: 12:00-1:00pm

Agenda

1. Debrief - Senator Padilla's Staff Visit: MLRP
    1. Photos!
    2. Senator's Padilla staff met in the county room with residents of Fairmead, county staff, and representatives from CivicWell, LCJA, and SusCon
    3. Learned about the issues of domestic well impacts, County maintenance, the opportunities currently for MLRP under SGMA, and an overview of the Fairmead recharge project
        i. CivicWell will develop a small summary of the visit and share it under August Newsletter; share with the team and Senator Padilla's staff
2. Action Items Follow Up
    1. Small check-in write-ups
        i. Angela to check in consistently, via email, with the team leads to keep track of progress on tasks
    2. Potential Landowner Consultation: Outreach
        i. County identified a list of key landowners
        ii. Conducted outreach via letters for recharge
            1. Open to having a phone-call campaign - staff has been focusing on "taking land out of production" so far - temporary land following
            2. Potential for purchasing land to convert into different use - there are funding opportunities that could support this effort
                a. The county doesn't have the resources to purchase land
                b. Interesting in finding out if there are flooding areas
                c. County suggests continuing informal conversations until we get more feedback from the community
                d. County farmers will be upset about GW fee - maybe leave them be for about 6 months
3. CEP Update - Leadership Counsel
    1. Site Visits/Outreach
    2. Sept Fairmead Community Workshop
        i. Date, outline, speakers, outreach strategy
        ii. Considering the option of combining the site visit with SusCon's board meeting in November (16th & 17th)
            1. LCJA is hoping to the workshop prior to 11/16, ideally during

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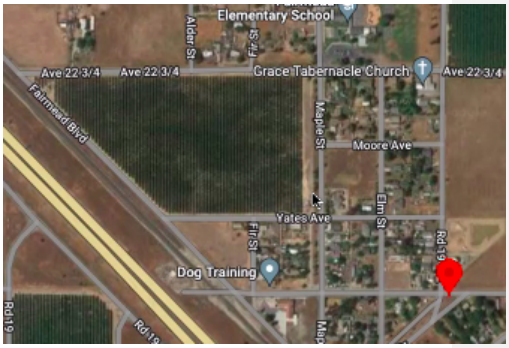
Saturday

a. Aysha is not available to attend in-person events until October 22nd (available earlier if the workshop takes place during weekdays) - Joe can provide support while Aysha is out. (Aysha is NOT available the following dates in October: 1,2, 3, 4, 8, 9, 11, 12, 15, 16, 19)
b. Important to understand the many options available for land-use
c. Outreach strategies: Targeted phone outreach & flyer distribution

2. Workshop format & outline:
    a. Informational/introductory workshop (1.5 hrs)
        i. **Framework setting - Madera County**
            1. Why We're Here (Water extraction, GW levels dropping)
            2. Overview of Groundwater in Madera Subbasin
        ii. **Land repurposing (in general) - Madera County/SusCon**
            1. area plan updates?
                a. 27-acre parcel near maple and 22 ½ - planted almonds but want a community center there - first priority
                b. 2nd priority on Fairmead blvd further south
                c. could be ag land repurposing area
                d. need contract amendment
            2. 

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3. Alternative site for a community center (14-acre lot, currently not used)

4. Locations are probably not good recharge areas for the community well
    a. However, in second parcel - area towards the east might work

iii. Recharge & options (more specifically) - 20 min

1. Context on how recharge works
2. Aysha to get info on flooding from Sam at county

iv. Breakout groups

1. Time?

v. Multi-benefit land repurposing - Madera County/SusCon

1. Examples & pictures for the attendees to react
2. connect with area plan, but not parallel discussions
3. good idea document: https://www.legacy.civicwell.org/reports/fairmead/Fairmead_Report_010611.pdf
4.

vi. Breakout groups

1. Time?

vii. Important to include discussion questions throughout the presentation, to break it up and make it more manageable for attendees

viii. KWL charts to gather feedback

1. *what I know - lo que sé actualmente*
2. *What I want to know - lo que quiero aprender*

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3. *What I learned - lo que aprendí*

ix. *Looking into having Spanish interpretation during the workshop*

1. *need to prep presentations for Reyna review*
2. *potential script for Reyna for review? NO*

b. Goals:

i. Gather feedback from the community to understand priorities, challenges & needs
ii. Share concepts/options for recharge and multibenefit projects
iii. Gather support and momentum for project!

4. Interim Report - Madera County
    1. List of deliverables to cover for October 1st Report
        i. CivicWell - Task 1.2, local-jurisdiction coordination, outreach strategy for local-jurisdiction consultation
        ii. LCJA - CEP
        iii. SusCon - outline on presentation for workshop, update on coordination with county
        iv. Madera County - list and mapping of land-owners, grant application time, visit from Senator's Padilla staff, project management (contracts, invoicing & reporting)

Resources

- https://www.legacy.civicwell.org/reports/fairmead/Fairmead_Report_010611.pdf
- https://sites.google.com/site/theamazingworldofteaching/kwl-charts

Action Items:

- ~~Angela to draft language to summarize senator's Padilla visit by Monday 8/22~~
- ~~Angela to share summary in LPU with the project team and senator Padilla's staff by 8/31~~
- Madeline to follow up w/the Fairmead community and friends regarding participation in the workshop by Tuesday 8/23
- Angela to connect with Madeline regarding Fairmead Community & Friends participation & dates for the workshop by 8/26
- ~~Aysha to add SusCon's recharge ppt and water quality documents in the shared team folder - In Background Info folder~~

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07/21/2022

Agenda

5. Action Items Follow Up
    1. Madeline to coordinate w/Joe & Aysha for site visits and outreach effort in July
        i. Continue to follow up - meet with Fairmead Community and Friends to discuss dates to meet
            1. Madeline - possible availability during the day to schedule
    2. Aysha to send recharge parameters to team for review - by end of June
        i. Worked with David's Engineering
    3. Jeannie send parcel information to Angela
        i. Sent parcel information to Aysha
            1. Needs more information to be sent
    4. Jenny to confirm is report submission is online or printed
    5. Aysha to connect with Madeline about SusCon board meeting in Fairmead - Nov 2022
6. CEP Outreach Update - Leadership Counsel
    1. reformatting spreadsheet to word doc narrative
    2. Landowner outreach - include direct outreach on GW recharge and ag land
        i. Madera County's Initial outreach w/recharge took place a long ago - it now looks different due to allocations and potential penalties
            1. Might be beneficial to include strategies for internal/direct outreach to water districts for example:
                a. 1:1 conversations
                b. Possible small meetings
        ii. There might be some sensitivities around "Land-repurposing" - should be careful with the language used when communicating with growers.
        iii. Allow time for internal team review prior to releasing outreach materials & talking points
        iv. Think about key messages for repurposing and "incentives"
            1. Important to acknowledge the challenges and difficulties, while offering support
            2. Assistance programs (e.g. fallowing program, EQIP/NRCS) & funding opportunities
            3. "I'm not sure where CWD is getting their funding, but as Stephanie mentioned, Madera County's and CWD's funding should also be mentioned for land owners who may be considering fallowing their field(s)."
        v. Community wants to target industrial agriculture
            1. LCJA supporting Madera Co with planning process looking at

Commented [2]: @aislas@civicwell.org
Assigned to Angela Islas

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unused plots of land

7. Recharge Guidelines - Sustainable Conservation
    1. There are veins f permeable soil in Fairmead that could facilitate GW recharge
        i. East side of Fairmead looks more suitable for recharge
        ii. One caveat to consider: railroad line
        iii. Nutrient management would be key if recharge takes place in areas such as almond farms
            1. Guidelines on shared drive file
        iv. Priorities for the team - What does the team need for SusCon?
            1. More visuals - an updated version of PowerPoint with more text

Attendees
CivicWell: Angela Islas, Diana Voss-Gonzalez, Josh Meyer
Madera County: Stephanie Anagnoson, Jenny Nunez-Rodriguez
SusCon: Aysha Massell, Joe Choperena
LCJA: Madeline Harris

Items for Future Discussion
- Local Jurisdiction and Landowner Outreach?
- Reporting Template
- NRCS Grant Opportunity

Notes
1. Follow Up
    a. Joe C. - implementation question - will we see farmers, water districts following through with transfer of water towards the recharge project?
        i. Stephanie A: hoping to have SusCon continue those conversations with the local landowners/farmers/water districts (Note: County is fine having these conversations too, and has been having them)

Action Items:
- Aysha follow up with Stephanie re land parcel info
- Angela follow up with Madeline re: Landowner Outreach Plan
- Angela follow up re: small group check-ins based on topic

June 23, 2022, 10am-11am

Agenda

1. **Community Engagement Plan (CEP) - LCJA**

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a. Community meeting - August, with outreach materials/door-to-door in weeks leading up to the meeting.
    i. Second round of feedback/follow-up meeting - 3-4 month after 1st meeting
b. Q&A
    i. How many materials are we going to develop?
        1. AgLand repurposing - what is it?, multiple benefits
        2. Factsheet - what is GW recharge, considerations, risk & benefits, tangible examples
    ii. Could we quantify the outreach effort?
        1. Develop a survey to quantify specific questions around knowledge of recharge from the community - as an example
    iii. Interpretation available?
        1. LCJA will conduct meeting in both english and spanish
c. SusCon team will be in Madera July 13 - can support with outreach and potential site visits to areas for recharge
d. Considerations for potential sites
    i. Retiring of land;
    ii. Using land for Recharge - directionality and distance from the well - Aysha will send some parameters
    iii. County has land data sets looking at irrigated vs non irrigated lands
e. SusCon in person attendance to community workshop
    i. Aysha will be available in person up until July 8, then August 7-19, then after Oct 1; (note that I will be working remotely most of this time when I am out of town)
    ii. alternative can be Joe, available in person most of the summer

2. Deliverables Timeline Overview - CivicWell
a. Need to establish a way for SusCoN to coordinate and work w/consultants
b. SusCon available to help with other tasks not assigned to us if wanted/needed (we have another funding source), for instance outreach to landowners, etc

3. Invoicing & Reporting - Madera County
a. Interim report due on October 1st
    i. Finding & success stories - think in terms of community outreach
    ii. Narrative and including quantifiable numbers for the outreach effort will work for the first report
    iii. Report submission
        1. Madera Co to submit to resilience@bayareacouncil.org
        2. Cc Anna (xx) with Bay Area Council Foundation when submitting reports

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4. **Offline Item**
    a. SusCon - Board meeting in November to be located in Madera County
        i. Appropriate for Fairmead team join and present at the November SusCon board meeting?
            1. CivcWell is okay with this; Madera County to confirm.
            2. LCJA - if board meeting to be scheduled in Fairmead, considerations of locations include
                a. Local church
                b. Fairmead Elementary Cafeteria
                    i. Madeline to check in with FC&F on this
5. **Meeting Set Up**
    a. Monthly project team calls
        i. Every third Friday of the month
6. **Next Steps**

Action Items

- Madeline to coordinate w/Joe & Aysha for site visits and outreach effort in July
- Aysha to send recharge parameters to team for review - by end of June
- Jeannie send parcel information to Angela
- Jenny to confirm is report submission is online or printed
- Aysha to connect with Madeline about SusCon board meeting in Fairmead - Nov 2022

June 1, 2022, 9am-10am

Kickoff Call

Agenda

In attendance: LCJA: Kaylon Hammond and Madeline Harries, SusCon: Aysha Massell, Madera Co: Jenny Nunez-Rodriguez, Jeannie Habben, Tristan Shamp, Stephanie Anagnoson

1. **Introductions/Attendance (5 mins)**
    a. Ice-breaker - Best 3-day weekend activity you did?
2. **Directory List (5 mins)**
    a. LCJA don't have a policy advocate in Madera County. Madeline will be primary contact, with Kaylon as secondary. Things might change once LCJA fill out the position.
    b. Aysha will add info (2nd contact and admin contact) after talking to SC team.
3. **Review of California Resilience Grant Project Deliverables - Scope of Work (20 mins)**
    a. List of Deliverables
        i. LCJA will plan for a couple of rounds of outreach in the next few months

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1. Kick-off workshop with residents - Late July to Early August

ii. Key to get engagement plan in place
1. CivicWell and LCJA could start drafting plan for community and jurisdictional outreach
2. Madera Co following statewide guidelines for Covid, and the department continues to wearing masks internally.

iii. SusCon can support in person community workshops/outreach August 7-19
1. Aysha summer plans: in town until July 8, after that working remotely until Oct 1 except for the 2 week period in August mentioned above

b. Draft timeline for Tasks and Sub-Tasks
i. LCJA can draft plan in the next 3-4 weeks
1. Madera Co has seen better results when hosting small group meetings

ii. Aysha - no deliverables due before Sept, may have some milestones completed by then (ex: community outreach meeting)
1. Supporting outreach

iii. For consultants
1. Madera Co is the first point of contact, Stephanie will facilitate communications with Luhdorff & Scalmanini and Davids Engineering

4. **Grant Administration - Madera County (20 mins)**
a. Invoicing, format and information needed
i. Hours should be shown by task
ii. Stay and bill within the tasks amounts
1. Jenny will be sending alerts if necessary

b. Reporting, format and information needed
i. For description of the task, use some of the language used on the proposal

5. **Monthly Team Check-in Meetings (~5 mins)**
a. More frequent meetings to get things started, reduced frequency once project is more established
i. 2nd check-in before the end of June

6. **Next Steps (~5 mins)**

- CivicWell prepare doodle poll to schedule 2nd check-in meeting
- CivicWell will adjust the project deliverables table
- Madera Co will share invoicing and reporting template with team members

Fairmead Project Team

Madera County
- Stephanie Anagnoson
- Jeannie Habben
- Jenny Nunez-Rodriguez
- Tristan Shamp

Leadership Counsel
- Leticia Luquin
- Madeline Harris
- Kaylon Hammond

CivicWell
- Angela Islas
- Diana Voss-Gonzalez

SusCon
- Aysha Massell

Project Meeting
04/13/22
Participants: Kaylon (LCJA); Grace, Josh, Angela (CivicWell); Aysha (SusCon)

Updates
- Contract Updates
    - LCJA - Continuing to follow up
    - CivicWell - still working with Leadership team re: subcontract
    - SusCon - still working internally; awaiting partners' finalization of their contracts
    - Clock is ticking on CRC grant - the longer we wait to start contracts, the less time we have to complete our work, internal deadlines apply for sub-contractors (e.g. SC completes all work by Feb 2024)
- Other Updates
    - Follow up on GRA conference panel discussion - Land repurposing
        - Fairmead team be a part of the panel? - Sept 19-21, 2022
            - SusCon speak on Recharge component
            - CivicWell speak on land use components
            - LCJA speak on community engagement component?
    - Email from EDF below:
        - Hope you had a great weekend! I wanted to reach out to see if you may be interested in joining a proposed EDF facilitated panel on land repurposing at the GRA's 2022 Western Groundwater Congress conference? The event will take place September 19-21 in Sacramento. We anticipate the land repurposing panel will be an hour session with 3-4 additional panelists. It would be great to hear from you about your experience working on the Farimead Groundwater Resilience Project. If there are others from Fairmead and Friends or another organization that you think could also speak to that effort, we are also very welcome to inviting additional panelists! We haven't firmly decided on a format yet, but it will likely include short presentations from panelists followed by general Q&A. I've included the proposed panel abstract below:
        - Abstract *
            - The Department of Conservation launched a new state Multibenefit Land Repurposing Program this year with $50 million in initial funding and additional funding expected. This voluntary program aims to help landowners reduce groundwater use by repurposing

farmland to other uses that deliver new benefits, including outdoor strecreational spaces, wildlife habitat, renewable energy, soil health and groundwater recharge.
    - The program is one of several strategies needed to help California adapt to climate change and transition to balancing groundwater demand with supply, as required by the Sustainable Groundwater Management Act. As much as 750,000 acres of agricultural land may need to be taken out of production to reduce groundwater use in the San Joaquin Valley alone. What happens to this land will shape the Valley's future, which is why the state's new Multibenefit Land Repurposing Program is so important.
    - This panel discussion will feature various types of multibenefit projects and their role in achieving long-term groundwater resources sustainability – and delivering new benefits to people and ecosystems. The hope is to inform the audience about potential projects that can be funded by this new state funded and inspire new projects and ideas.
- Next Steps
    - Follow up on contracts, internally

Project Meeting
04/05/22
Participants: Kaylon (LCJA); Angela, Grace (CivicWell); Aysha (SusCon)

Updates
- Contracting Process Cont'd
    - LCJA
        - Still in conversations with Madera Co
    - SusCon
        - Still under internal review
    - CivicWell
        - Following up internally on review
- Other Updates
    - Aysha reach out to Stephanie re recharge site locations
    - GRA conference panel invitation
        - Aysha will send out to the group via email
- Next Steps
    - CivicWell will touch bases internally to follow up and will ping partners on updates

3/25/22

Fairmead Project Team

Participants: Kaylon Hammond (LCJA), Leticia Casillas (lCJA), Aysha Massell (SustainableConservation) Angela Islas (CivicWell), Madeline Harris (LCJA), Michael Clairbone (LCJA)

Updates

- CivicWell Updates
    - Introducing Grace
    - Welcome Angela
- Contracting Process
    - Madera County:
        - Different types of contracts
            - Under 50K expedited type of contract
                - Purchase agent agreement
                - Routes internally and faster
            - More than 50K more complicated contract that needs council approval
        - Every organization has a draft of a contract
        - Madera Co is available to schedule conversations counsel to counsel to discuss potential issues with contracts.
    - LCJA
- Other Updates
    - LCJA can't start doing extensive outreach for a convening in May without contracts being executed
        - Next feasible window: timeline is unknown at this point
        - Stakeholder outreach plan is the foundation to decide where to start the outreach, seems to be best to start with this deliverable
        - LCJA will continue to update community at standing community, but won't do targeted outreach until all of the contracts are executed.
        - Community is really excited about the recharge project.
    - Fairmead is hosting the Fairmead area plan this saturday, LCJA drafted a flyer ready, however they can't move forward without the contract.
        - Community is very interested in the land repurposing element.
        - Potential to develop a community center in part of land occupied by an orchid.
    - Water Foundation funding
        - LCJA funding is paying for the meetings/conversations, but not enough to cover extensive work
    -

Immediate Needs

- Materials
    - Stakeholder outreach plan

Fairmead Project Team

Action Items

- Stephanie connect w/Aysha regarding community center plan in Fairmead
- ~~Kaylon to schedule call with Madera County to discuss clause language changes (correct if necessary)~~
    -

Project Meeting
3/8/22
Atley, Jeannie, Leticia, Diana, Kaylon, Jenny, Aysha, Stephanie

Updates

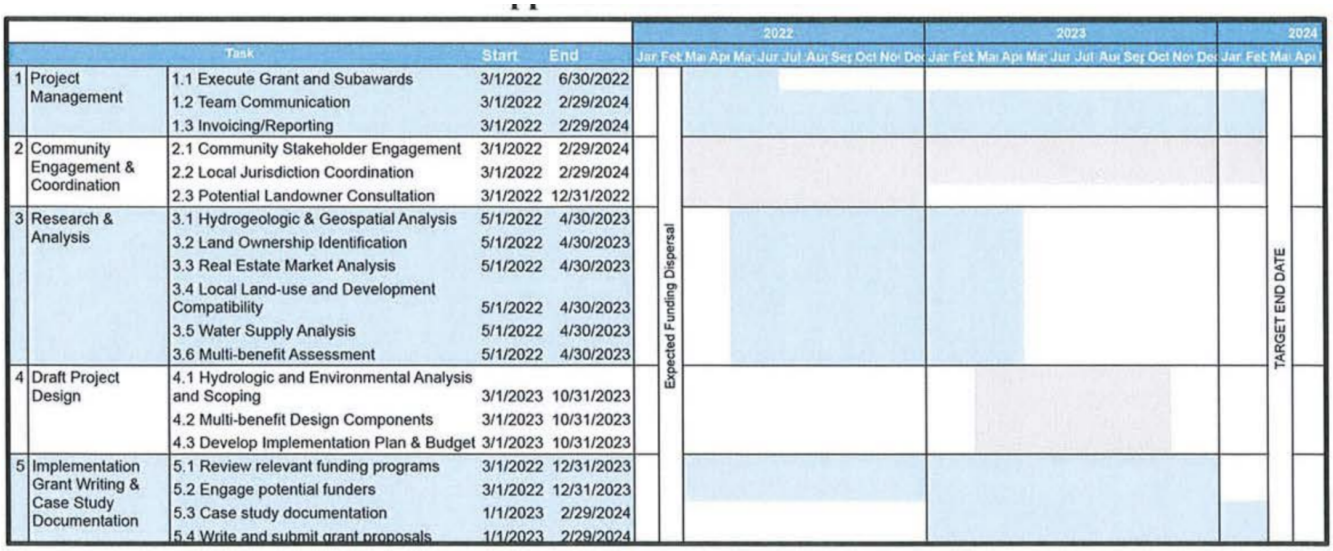
- Youtube Video: https://www.youtube.com/watch?v=EEpb7beSzRc (about 10 min in)
- CivicWell Updates
    - New PM (Angela Islas) starting at the end of the month (3/24)
        - Angela will manage project, with support from Diana to during transition from Atley
- Contracting?
    - All moving forward. Contracts are in different phases. Madera Co will follow up with each team member individually.
    - Madera Co is working on scope and amendments, contracts should be ready in about a month. - County experienced some changes in staff that has delayed the process
        - SusCon - Purchase agreement - just goes to the county admin
- Other updates?
    - Aysha: Recharge Pilot program from NRCS in Madera area
        - Cost-share program / NRCS offers money to farmers doing recharge project along the NRCS guidelines
        - Applications due April 1st, 2022.
    - DOC Mutlitbenefit Land Repurposing

Immediate Needs

- Program overview / intro materials ? - CRC Award - Team Drive
    - Community engagement and communication
        - Where the kick off should be an what can be do in the meantime to prepare?
    - Would Madera Co be able to take on the piece re: talking to land-owners? Leticia to follow-up offline w/ Stephanie
        - Fairmead area plan is hosting a meeting soon. Might be a good opportunity to educate residents.
    - Materials for local jurisdictions, land-owners, residents

- Focus on “What is recharge? What is land-repurposing?” - Madera Co has language available on website that could be use as part of first draft flyer.
  - What are the information gaps that should informed the flyers?
    - Letitia to engage with Fairmead and Friends in the next coming days - will let them know current status of the project, and pin-down the information gaps that we have to address.
  - Community engagement team needs to determine the number of languages we need to translate the flyers
    - Start with Spanish / English
  - Putting together language for different pieces of engagement.
- Should we share information and materials on website (Madera Co/CivicWell/Water website (madercountywater.com)?
  - Direct outreach will be main form of communication
  - SusCon has capacity to quickly develop webpages

- Outreach (Gatherings/Events)
  - County not hosting a lo of in-person meetings. Following state guidelines for community events
    - Maks are optional
    - Test the waters - are people comfortable meeting with maks - what kind of protocols should be implemented?



		Task	Start	End
1	Project Management	1.1 Execute Grant and Subawards	3/1/2022	6/30/2022
		1.2 Team Communication	3/1/2022	2/29/2024
		1.3 Invoicing/Reporting	3/1/2022	2/29/2024
2	Community Engagement & Coordination	2.1 Community Stakeholder Engagement	3/1/2022	2/29/2024
		2.2 Local Jurisdiction Coordination	3/1/2022	2/29/2024
		2.3 Potential Landowner Consultation	3/1/2022	12/31/2022
3	Research & Analysis	3.1 Hydrogeologic & Geospatial Analysis	5/1/2022	4/30/2023
		3.2 Land Ownership Identification	5/1/2022	4/30/2023
		3.3 Real Estate Market Analysis	5/1/2022	4/30/2023
		3.4 Local Land-use and Development Compatibility	5/1/2022	4/30/2023
		3.5 Water Supply Analysis	5/1/2022	4/30/2023
		3.6 Multi-benefit Assessment	5/1/2022	4/30/2023
4	Draft Project Design	4.1 Hydrologic and Environmental Analysis and Scoping	3/1/2023	10/31/2023
		4.2 Multi-benefit Design Components	3/1/2023	10/31/2023
		4.3 Develop Implementation Plan & Budget	3/1/2023	10/31/2023
5	Implementation Grant Writing & Case Study Documentation	5.1 Review relevant funding programs	3/1/2022	12/31/2023
		5.2 Engage potential funders	3/1/2022	12/31/2023
		5.3 Case study documentation	1/1/2023	2/29/2024
		5.4 Write and submit grant proposals	1/1/2023	2/29/2024

Next meeting:

- 30 min check-in meting on **March 29, from 1 - 1:30 pm.**

Action Items:

- Leticia to follow-up offline w/ Stephanie re coordination for land-owner consultation

Fairmead Project Team

- Team to develop language for promotional flyers (GWX, proposal, DOC, Madera Co water website)
- ~~DVG set up calendar invite for team meting on March 29, from 1 - 1:30 pm.~~

NGO CHECK-IN
Aysha, Atley, Leticia, Kaylon
2/23/22

Purpose: Coordinating on NGO funds from Water Foundation to kickstart Fairmead Project
Resource: Original Shared Drive (from Amanda); CRC Award - Team Drive

AgendaFAIRMEAD TEAM

- Intros
    - Leadership Counsel
        - Amanda gone to DC
        - Madeline now regional policy manager - supporting role
        - Leticia - policy advocate - leading work with community,
        - Kaylon - Director of Ops - admin & finances
        - Include Leticia, Madeline, and Kaylon on all comms moving forward
    - CivicWell
        - Atley is leaving CivicWell in 3 weeks (March 11th is last day)
        - No replacement yet, currently hiring or existing PM
    - SusCon
        - Aysha brought this project over to SusCon from time at American Rivers
        - Aysha & Amanda worked on it through the GLF

- Set up a meeting for early March to transition the project and discuss next steps;
    - AK will have more info on who will take over as PM
    - **March 8th 3-4pm**

FEBRUARY CHECK-IN
2/8/22 9:00 am
Reference: Grant Agreement

- Intros/updates
- Grant agreement logistics
    - Just signed master agreement last week
    - Now working through sub-agreements; work with Jenny on that
    - Contracts under $50k will be a purchase agent agreement
    - Otherwise will be a formal contract which will go through the Board of Directors

        - Applicable to LCJA (who has another contract with the County)
    - County follows old fashion standards (requires 2 copies, wet signature, blue ink, one sided)
    - Contracts need board approval - it may take longer than expected, however County is aiming for mid-late March.
- CRC Video (70- seconds total)
    - Video needs to be completed by 2/10
    - Stephanie attending on zoom / Aysha might be able to attend
    - ~~**AI: AK shares zoom registration with project team**~~
    - More impactful to have a resident from Fairmead, rather than a member of the project team
    - ~~AI: Leticia will follow-up w/Vicki re: video participation~~
- Early outreach possibilities
    - Suscon starting to rampt out spring blog series - would like to include Fairmead
        - Should we strategic about outreach? Are we ready to share?
        - Work (communications/outreach) can start when all project members are in contract by March
    - Might be able to leverage CA resilience challenge (CRC) expertise and network
        - Would it be ok to say we're part of the grant?
            - People might want to meet
        - CW, Suscon, Leadership COuncil might have some funds from WF that could use for this projects
            - AI: set up meeting with Suscon & Leadership council to discuss WF & Fairmead project alignment
- Coordinating our roles, agreeing on meeting times/frequencies, timeline of deliverables
    - Plan to meet in March, once in contract, and then determine the frequency of meetings.
        - Anything we should do to put us in a position to be ready to kickstart?
        - LCJA - Leticia main point of contact, Madeline and Kaylon will support adm. effortsof the grant
        - DVG: Set up team meeting for 3/25/22, 9 am.
- End right before 10am

Presentation Format - Talking Points

1. Name and Organization
2. Description of under-resourced community
3. Description of climate challenge
4. Project description (answer question, "How will the CA Resilience Challenge grant help improve resilience for this area?
    - ACTION ITEM Please indicate your availability to pre-record this presentation by filling out this Doodle poll as soon as possible

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: CivicWell (formerly Local Government Commission)

Reporting Period: July 2022

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**
    a. Angela Islas, Project Manager (L1)
    b. Task 2.2 – Local Jurisdiction and Coordination
2. **Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period**.
    a. For this reporting period, CivicWell has completed a draft list of local jurisdiction and agency contacts for future outreach and engagement efforts.
3. **Share the success stories that you can produce because of your work during this reporting period**.
    a. Nothing to report at this time.
4. **Share any setbacks or obstacles that occurred during this reporting period**.
    a. There were no challenges, setbacks that occurred during this reporting period.
5. **Please describe what your organization has learned based on the results and challenges**.
    a. There are none to report for this reporting period.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period**.
    a. A measurable result to update is the creation of a contact list for future outreach and engagement to local jurisdictions and agencies in the Chowchilla/Madera area to engage in the Groundwater Recharge study.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period**.
    a. Please see an attached copy of the draft contact list for Task 2.2: Local Jurisdiction and Coordination

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: CivicWell (formerly Local Government Commission)

Reporting Period: August 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

    - Angela Islas, Water Project Manager, CivicWell
    - Diana Voss-Gonzalez, Project Associate, CivicWell
    - Josh Meyer, Project Director, CivicWell

2. **Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.**

    - **Task 1.2: Team Communication**
        - Activities:
            - ✓ Establish and maintain project team information flow processes and regular communications
            - ✓ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, sharing follow-up items
            - ✓ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County)
        - Deliverables:
            - ✓ Monthly meeting agendas and notes documents

    - **Task 5.2: Engage Potential Funders**
        - Activities:
            - ✓ Schedule and conduct exploratory calls with potentially interested funders

- Deliverables
    - ✓ Funder Engagement Documentation

3. **Share the success stories that you can produce because of your work during this reporting period.**

   CivicWell developed a newsletter highlighting the Fairmead Recharge project partner's coordination with US Senator Alex Padilla's staff to discuss future funding opportunities to support multibenefit land repurposing projects related to groundwater recharge and urban greening/community projects.

4. **Share any setbacks or obstacles that occurred during this reporting period.**

   No setbacks or obstacles occurred during this reporting period.

5. **Please describe what your organization has learned based on the results and challenges.**

   CivicWell has begun preliminary discussions on potential funding sources and partners to consider for future deliverables identifying key sources to pursue upon reaching deliverable timeline.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for administrative tasks, agenda setting, partner coordination, monthly meetings, note taking and scheduling exploratory meeting with potential funding partners. See invoice for more details.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
    - Developing newsletter highlighting the Fairmead Recharge project partner's coordination with US Senator Alex Padilla's staff to discuss future funding opportunities to support multibenefit land repurposing projects related to groundwater recharge and urban greening/community projects.

<u>Documents</u>:

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: CivicWell (formerly Local Government Commission)

Reporting Period: September 2022

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**
    a. Angela Islas, Project Manager (L1)
        i. Task 1.2 – Team Communications
    b. Diana Voss-Gonzalez, Project Associate
        i. Task 1.2 – Team Communications
    c. Josh Meyer, Project Director
        i. Task 1.2 – Team Communications

2. **Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period**.
    a. For this reporting period, CivicWell has completed communications and agenda setting for the project team, and supported with grant reporting alongside Madera County.

3. **Share the success stories that you can produce because of your work during this reporting period**.
    a. Nothing to report at this time.

4. **Share any setbacks or obstacles that occurred during this reporting period**.
    a. There were no challenges, setbacks that occurred during this reporting period.

5. **Please describe what your organization has learned based on the results and challenges**.
    a. There are none to report for this reporting period.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period**.
    a. A measurable result to update is continued facilitation and organization of monthly project team meeting calls and maintaining line of communication with project team stakeholders.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period**.
    a. None to report at this time.

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: October 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Water Project Manager - CivicWell
   - Josh Meyer, Program Director - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1.2: Team Communications
   Activities:

   - ✔ Establish and maintain project team information flow processes, regular communication protocols, and accountability structures
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, sharing follow-up items
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee

   Deliverables:

   - ✔ Project management structure and protocol
   - ✔ Monthly meeting agendas and notes documents

   Task 5.2: Engage Potential Funders
   Activities:

   - ✔ Share project communications resources with potential funders

   Deliverables:

   - ✔ Funder Engagement

3. **Share the success stories that you can produce because of your work during this reporting period.**

Engaging with potential funders to continue supporting community-driven groundwater recharge projects; supporting first community workshop providing note-taking for project partners

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   Additional communications were required to clarify some of the language for the contracts and purchase agent agreements (PAA) with the project partners. As a part of the process, there was a delay in approving the contracting documents.

5. **Please describe your organization has learned based on the results and challenges.**
   No setbacks identified.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for maintaining project team information flow processes, regular communication protocols; facilitate monthly team meetings, and coordinate with lead awardee with grant-related administration. Please see attached invoice for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Creating project summary presentation slides to archive for future presentations with potential funders
   - Creating note-taking template for project team to utilize for future community workshop events

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   Please attached find a copy of the following documents:

   - Workshop notes for October 22nd Fairmead Community Meeting
   - Fairmead Community Recharge Project presentation slides

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: November 2022

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Water Project Manager - CivicWell
   - Diana-Voss Gonzalez, Project Associate - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1.2: Team Communications
   Activities:

   - ✔ Establish and maintain project team information flow processes, regular communication protocols, and accountability structures
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, sharing follow-up items
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee

   Deliverables:

   - ✔ Project management structure and protocol
   - ✔ Monthly meeting agendas and notes documents

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Maintaining team communications with project stakeholders to discuss next steps for future event/workshop planning in the coming 2023 year.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   Due to time constraints with project partners, the scheduled monthly team call was canceled for the month of November. This, otherwise, did not impact project deliverables for project partners.

5. **Please describe what your organization has learned based on the results and challenges.**
   No setbacks identified.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for maintaining project team information flow processes, regular communication protocols; facilitate monthly team meetings, and coordinate with lead awardee with grant-related administration. Please see attached invoice for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - No measurable results to report for the reporting period.

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - No documentation to report at this time.

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: November 20, 2022 to December 31, 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager
   - Josh Meyer, Program Director
   - Diana Voss-Gonzalez, Project Associate

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1.2: Team Communication
   Deliverables:

   - ✔ Project Management
   - ✔ Create agendas and facilitate project team communications

   Task 5.2: Engage Potential Funders
   Deliverables:

   - ✔ Schedule and conduct exploratory calls with potentially interested funders

   Task 5.3: Case Study Documentation
   Deliverables:

   - ✔ Catalog all data and collateral generated throughout the funding period (including meeting notes, outreach materials, reports, and analyses)

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Beginning communications with potential partners to support land repurposing visioning scenarios for future project planning (i.e. community workshops). Continuing to maintain communications with project partners and build collaborative efforts outside project grant.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   No setbacks determined during this reporting period.

5. **Please describe your organization has learned based on the results and challenges.**
   No lessons learned determined during the reporting period.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time allocated towards continuing facilitation and development of monthly communications and agenda to project team; engaging with potential funding opportunities on land repurposing and beginning conversations of land repurposing visioning for future case study documentation.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   No measurable results to share at this time.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Documents to share include the following:

- Preliminary notes for land repurposing visioning with stakeholders

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 01/01/2023 - 01/28/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Water Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✓ Establish and maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✓ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, sharing follow-up items.
   - ✓ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC

   Deliverables:

   - ✓ Project Facilitation Documentation
     - Project management structure and protocol
     - Monthly meeting agendas and notes documents

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✓ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✓ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation

   Deliverables:

- ✓ Local Jurisdiction Outreach Materials
  - Primary contacts roster
  - Calendar of meetings

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Deliverables:

- ✓ List of potential funders engaged including summary notes

3. **Share the success stories that you can produce because of your work during this reporting period.**
   None to report during this reporting period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   No setbacks identified during this reporting period.

5. **Please describe what your organization has learned based on the results and challenges.**
   None to report during this reporting period.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for project management tasks related to team communications, facilitating team calls, developing meeting agendas; and engaging with potential funders for groundwater resilience project.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   No measurable results to share during the reporting period.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   Please attached find a copy of the following documents:

   - Project team meeting notes

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 01/29/2023 - 02/25/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell
   - Josh Meyer, Program Director - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.
   - ✔ Review and comment on draft factsheets for the project and related topics.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes.

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Maintain regular communications with each participating agency or

department, and facilitate information-sharing between them.

- ✔ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✔ Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s).
- ✔ Maintain a list of potential funding sources or programs for Phase 2 implementation.

Deliverables:

- ✔ Fundraising Strategy / Financing Plan
  - List of funding programs relevant to implementing Phase 2

3. **Share the success stories that you can produce because of your work during this reporting period.**
   None to report during this reporting period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   A setback experienced during the reporting period was related to recent flooding conditions in Madera County. Madera Water and Natural Resources staff have been unavailable during the reporting period responding to current flood emergencies in Madera County. Documentation of factsheets were on hold to accommodate Madera County during their responses to flood management.

5. **Please describe what your organization has learned based on the results and challenges.**
   Based on the challenges faced this reporting period, it did not majorly impact finalization of factsheet materials.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for project management tasks related to team communications, facilitating team calls, developing meeting agendas; maintaining regular communications with

regulatory agencies or departments; and maintaining a list of potential funding sources or programs for Phase 2 implementation.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   No measurable results to share during the reporting period.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   Please attached find a copy of the following documents:
   - Project team meeting notes
   - List of potential funding sources for Phase 2 implementation
   - Draft Project Fact Sheets
     - English Project Overview Factsheet
     - Spanish Project Overview Factsheet
     - Draft Fairmead Project Groundwater Recharge Factsheet

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 2/26/2023 - 3/25/2023

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes.

3. **Share the success stories that you can produce because of your work during this reporting period.**
   None to report during this reporting period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   A setback experienced during the reporting period was related to the recent flooding conditions in Madera County in the month of March. Madera Water and Natural

Resources staff were unavailable during the reporting period responding to current flood emergencies in Madera County. This caused a delay with the monthly scheduled team call and was rescheduled to a later date in March for the project team to check in.

5. **Please describe what your organization has learned based on the results and challenges.**
   Based on the challenges faced this reporting period, it did not majorly impact project deliverables and tasks.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for project management tasks related to team communications, facilitating team calls, developing meeting agendas; and maintaining regular communications with regulatory agencies or departments.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   No measurable results to share during the reporting period.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   No attachments to share for this reporting period.

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 3/26/2023 - 4/22/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✓ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✓ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✓ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✓ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✓ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✓ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation

3. **Share the success stories that you can produce because of your work during this reporting period.**
   None to report during this reporting period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   None to report during this reporting period.

5. **Please describe what your organization has learned based on the results and challenges.**
   None to report during this reporting period.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for project management tasks related to team communications, facilitating team calls, developing meeting agendas; and maintaining regular communications with regulatory agencies or departments.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   A measurable result on the tasks completed for this reporting period include the preparation of documents and resources for the second community workshop scheduled for April 27, 2023. Please see the documents section to find the following attachments for review.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - April 20th Monthly Meeting Notes
   - Final agenda for Second Community Workshop
   - Final survey for Second Community Workshop
   - Community workshop checklist sheet

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: April 23, 2023 - May 20, 2023

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✓ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✓ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✓ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✓ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✓ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✓ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✓ Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to: storymap, cut sheets, blog post, podcast episode, newsletter article, slide deck, presentation, etc.)

Deliverables:

- ✓ Case Study Documentation

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Successes to report for this grant period include completing the second round of community workshops and presenting on the Fairmead Groundwater Resiliency project in two different community-driven meetings.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   For this grant period, the project team did not receive data related to the Madera County Water and Natural Resources LandFlex program due to minimal landowner interest to join the LandFlex program, as well as program criteria being set during the irrigation watering cycle period. The lack of landowner participation in the LandFlex program will have some impact on the list of potential recharge sites and location options for project consideration for our groundwater resiliency plan.

5. **Please describe what your organization has learned based on the results and challenges.**
   We have learned that we need to continue doing community outreach to receive input and feedback about potential recharge or land repurposing options. We have also learned that there is interest from High Country News (a news media outlet focused on environmental issues in the west) and other community based organizations about the efforts to address groundwater sustainability and climate resiliency for the community of Fairmead.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed include team email communications, developing meeting agendas, and participating in news media interviews and water tour events; creation and

refinement of outreach materials and presentations related to the status of the Fairmead Groundwater Resiliency project to partnering organizations or interest groups; maintaining regular communications and coordination with regulatory agencies or departments.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   A measurable result includes collecting survey responses and creating a summary of the survey responses during the second community workshop.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - Copies of survey responses (English and Spanish)
   - Survey evaluation summary

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: May 21, 2023 - June 30, 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✔ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Generate list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).
- ✔ Participated in an informational interview with High Country News Magazine about the Fairmead Groundwater Resiliency Project.

Deliverables:

- ✔ Funder Engagement Documentation
    - o List of potential funders engaged including summary notes

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✔ Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to: storymap, cut sheets, blog post, podcast episode, newsletter article, slide deck, presentation, etc.)

Deliverables:

- ✔ Case Study Documentation

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Successes to report for this grant period include completing the multi-benefit assessment that summarizes the multibenefit aspects of the community looking into the options of groundwater recharge and/or land repurposing to support with the community's groundwater resiliency challenges.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   For this grant period, the project team did not receive enough public feedback on the available options for the groundwater resiliency plan. Although, the project team has been actively reaching out to community residents in bringing more awareness and interest to the project efforts.

5. **Please describe what your organization has learned based on the results and challenges.**
   We have learned that we need to continue doing community outreach to engage Fairmead residents in sharing the groundwater resiliency plan benefits and encourage residents to participate in a future community workshop to learn more about the option benefits.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed include team email communications, developing meeting agendas; maintaining regular communications and coordination with regulatory agencies or departments; participating in community outreach activities; documenting potential funding opportunities and case study documentation.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   A measurable result includes the final multibenefit assessment report.

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - May and June project team meeting notes
   - Multibenefit Assessment Report
   - Livable Places Update blog post on May 3rd Water Tour Presentation

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: July 1, 2023 - July 29, 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✔ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✔ Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s).
- ✔ Maintain a list of potential funding sources or programs for Phase 2 implementation.
- ✔ Discuss potential funding sources or programs with the project team during monthly meetings.
- ✔ Select 1-3 funding sources or programs for which Phase 2 implementation of designed groundwater resilience project(s) would be highly competitive.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Generate list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).
- ✔ Participated in an informational interview with High Country News Magazine about the Fairmead Groundwater Resiliency Project.

Deliverables:

- ✔ Funder Engagement Documentation
    - o List of potential funders engaged including summary notes

3. **Share the success stories that you can produce because of your work during this reporting period.**
   There are no successes to report for this grant period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   For this grant period, there have been no setbacks or obstacles that occurred.

5. **Please describe what your organization has learned based on the results and challenges.**
   None to describe for this grant period.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed include team email communications, developing meeting agendas; maintaining regular communications and coordination with regulatory agencies or departments; and documenting potential funding opportunities for phase 2 of the Fairmead Groundwater Resiliency project.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   No measurable results to share for this grant period.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - Notes from July 17th Madera County Community and Economic Development call with project partners
   - Notes from July 20th project team meeting notes

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 7/30/2023 - 8/26/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including: schedule, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with lead awardee (Madera County) for inclusion in regularly-scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✔ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✔ Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s).
- ✔ Maintain a list of potential funding sources or programs for Phase 2 implementation.
- ✔ Discuss potential funding sources or programs with the project team during monthly meetings.
- ✔ Select 1-3 funding sources or programs for which Phase 2 implementation of designed groundwater resilience project(s) would be highly competitive.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Generate list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).
- ✔ Participated in an informational interview with High Country News Magazine about the Fairmead Groundwater Resiliency Project.

Deliverables:

- ✔ Funder Engagement Documentation
    - o List of potential funders engaged including summary notes

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✔ Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to: storymap, cut sheets, blog post, podcast episode, newsletter article, slide deck, presentation, etc.).

Deliverables:

- ✔ Case Study Documentation
    - o Storymap of project development and implementation (with special

emphasis on partnerships, coordination, and funding strategy)
- Project case study cut sheets with recommendations for replication

Task 5: Implementation Grant Writing and Case Study Documentation
5.4 Write & Submit Grant Proposals

Activities:

- ✔ Analyze application requirements and proposal guidelines for 1-3 prioritized funding sources (see Task 5.1, above).
- ✔ Attend grantee or applicant workshops and follow up with funders as available and appropriate.
- ✔ Draft Phase 2 Project Implementation proposal, incorporating plan and budget from Task 4.3, above.
- ✔ Circulate draft with the team and incorporate any feedback into the draft proposal.
- ✔ Finalize the proposal and submit for 1-3 funding sources.

Deliverables:

- ✔ Draft Phase 2 Project Implementation Proposal
  - At least one and up to three funding proposals submitted

3. **Share the success stories that you can produce because of your work during this reporting period.**
   A success to report is the submission of grant proposals for Phase II of the Fairmead Groundwater Resiliency project, which include the Battery Powered Grant program and Central Valley Community Foundation California SERF Catalyst Program.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   For this grant period, there have been no setbacks or obstacles that occurred.

5. **Please describe what your organization has learned based on the results and challenges.**
   None to describe for this grant period.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

Staff time for tasks completed include team email communications, developing meeting agendas; maintaining regular communications and coordination with regulatory agencies or departments; developing outline for Fairmead Groundwater Resiliency case study; and reviewing and pursuing funding opportunities for Phase II of the Fairmead Groundwater Resiliency project.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   Measurable results to report include outline of case study for Fairmead Groundwater Resiliency Project and two grant proposals for funding opportunities related to Phase II of the project.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - August 17th project team meeting notes
   - CRC Fairmead Groundwater Resilience Case Study Outline

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 9/24/2023 - 10/21/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✔ Facilitate monthly team meetings, including scheduling, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Share all team meeting agendas, notes, and other communications materials with the lead awardee (Madera County) for inclusion in regularly scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✔ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✔ Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s).
- ✔ Maintain a list of potential funding sources or programs for Phase 2 implementation.
- ✔ Discuss potential funding sources or programs with the project team during monthly meetings.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Generate a list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).

- ✔ Coordinated with Sustainable Conservation, Madera County, and Self-Help Enterprises on the Battery Powered Grant application, and the Central Valley Community Foundation CERF Catalyst Program grant application. Met with the Central Valley Community Foundation's Senior Fellow for Climate Equity.

Deliverables:

- ✔ Funder Engagement Documentation
    - o List of potential funders engaged including summary notes.

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✔ Develop communications materials to share lessons learned, best practices, and recommendations for community-based climate resilience projects (materials may include but are not limited to story maps, cut sheets, blog posts, podcast episodes, newsletter articles, slide decks, presentations, etc.).
- ✔ Met with project team members to develop an initial outline for the project case study product.

Deliverables:

- ✔ Case Study Documentation Outline
    - o Storymap of project development and implementation (with emphasis on partnerships, coordination, and funding strategy)
    - o Project case study cut sheets with recommendations for replication

Task 5: Implementation Grant Writing and Case Study Documentation
5.4 Write & Submit Grant Proposals

Activities:

- ✔ Analyze application requirements and proposal guidelines for 1-3 prioritized funding sources (see Task 5.1, above).
- ✔ Attend grantee or applicant workshops and follow up with funders as available and appropriate.
- ✔ Draft Phase 2 Project Implementation proposal, incorporating plan and budget from Task 4.3, above.
- ✔ Circulate the draft with the team and incorporate any feedback into the draft proposal.
- ✔ Finalize the proposal and submit for 1-3 funding sources.

Deliverables:

- ✔ Draft Phase 2 Project Implementation Proposal
    - o At least one and up to three funding proposals submitted

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Conducted community outreach ahead of the third community workshop and had the highest level of resident participation at the workshop than the two previous workshops.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   For this grant period, there have been no setbacks or obstacles that occurred.

5. **Please describe what your organization has learned based on the results and challenges.**
   None

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed include team email communications, developing meeting agendas; maintaining regular communication and coordination with regulatory agencies or departments; refining an outline for the Fairmead Groundwater Resiliency case study;

and reviewing and pursuing funding opportunities for Phase II of the Fairmead Groundwater Resiliency project. Conduct community outreach to engage residents around the final community workshop planned for October. Supported planning and logistics for the final community workshop that happened on October 21st.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   Measurable results include refinement of the case study outline for the Fairmead Groundwater Resiliency Project. Also increased outreach and engagement with residents around the final community workshop to consider and gather input on possible projects for groundwater resiliency.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - 21st project team meeting notes

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 10/22/2023 - 11/18/2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Angela Islas, Project Manager - CivicWell
   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✓ Maintain project team information flow processes, regular communication protocols, and accountability structures.
   - ✓ Facilitate monthly team meetings, including scheduling, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✓ Share all team meeting agendas, notes, and other communications materials with the lead awardee (Madera County) for inclusion in regularly scheduled grant reporting to CRC.

   Deliverables:

   - ✓ Project Facilitation Documentation
     - Monthly meeting agendas and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✓ Maintain regular communications with each participating agency or department, and facilitate information-sharing between them.
   - ✓ Coordinate relevant agency and/or department meetings across project team calendars to ensure representation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✓ Regularly review and assess available funding programs for alignment with Phase 2 implementation of identified groundwater resilience project(s).
- ✓ Maintain a list of potential funding sources or programs for Phase 2 implementation.
- ✓ Discuss potential funding sources or programs with the project team during monthly meetings.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✓ Maintained a list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).
- ✓ Coordinated with Sustainable Conservation, Madera County, Friends of the Community of Fairmead, and Self-Help Enterprises on the Battery Powered Grant application. Received notice that the Fairmead Community application was not selected for the Battery Powered Grant, but that the proposal and Fairmead Community and Friends will receive fund of $10,000 to continue their community engagement efforts.
- ✓ Received an update from Sustainability Conservation regarding an additional funding opportunity through the California Water Action Collaborative (CWAC).

Deliverables:

- ✓ Funder Engagement Documentation
    - List of potential funders and funding opportunities.

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✓ Reviewed project materials to assess lessons learned, best practices, and recommendations for community-based climate resilience projects.
- ✓ Reviewed the case study outline to share information about the project.

Deliverables:

- ✓ None at this time

Task 5: Implementation Grant Writing and Case Study Documentation
5.4 Write & Submit Grant Proposals

Activities:

- ✓ Analyze application requirements and proposal guidelines for prioritized funding sources (see Task 5.1, above).

Deliverables:

- ✓ None at this time

3. **Share the success stories that you can produce because of your work during this reporting period.**
   None at this time for this grant period.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   There have been no setbacks or obstacles that occurred for this grant period.

5. **Please describe what your organization has learned based on the results and challenges.**
   None at this time for this grant period.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed include team email communications, developing meeting agendas; maintaining regular communication and coordination with regulatory agencies or departments; reviewing project items and materials for the Fairmead Groundwater Resiliency case study; and reviewing and pursuing funding opportunities for Phase II of the Fairmead Groundwater Resiliency project.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   Measurable results include refinement of the case study outline for the Fairmead Groundwater Resiliency Project.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   Please find the following documentation for this reporting period:

   - November 16th project team meeting notes

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 1/01/2024 - 1/27/2024

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Facilitated the team check-in meeting, including scheduling, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Shared all team meeting agendas, notes, and other communications materials with the lead awardee (Madera County) for inclusion in regularly scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Meeting agenda and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ None at this time.

Task 5: Implementation Grant Writing and Case Study Documentation
5.1 Review Relevant Funding Programs

Activities:

- ✔ None at this time.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Maintained a list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).

Deliverables:

- ✔ Funder Engagement Documentation
  - o List of potential funders and funding opportunities.

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✔ Reviewed project materials to assess lessons learned, best practices, and recommendations for community-based climate resilience projects.
- ✔ Reviewed the case study outline to share information about the project.
- ✔ Developed and refined case study document from the outline. Shared the draft case study with the project team for input and edits.

Deliverables:

- ✔ Draft case study document.

Task 5: Implementation Grant Writing and Case Study Documentation
5.4 Write & Submit Grant Proposals

Activities:

- ✔ None at this time.

Deliverables:

- ✔ None at this time

3. **Share the success stories that you can produce because of your work during this reporting period.**

   Fairmead Community and Friends are now an integral member of the project. When initially asked by some of the project team members to join the grant proposal, Fairmead Community and Friends said they were not ready to take on being a part of the project. As the project moved forward, and the project team continued to engage with them, their comfort level grew to where they were helping with outreach efforts and ultimately organizing the third community workshop. Fairmead Community and Friends' trust in the project allowed the project team to connect with community members ahead of workshops, local meetings, and site visits by potential funders and policy officials. During the project, the group felt more confident to do things like hosting the Self-Help Enterprises' water tour site visit and participating in a field visit from the California Water Action Collaborative (CWAC) that built a bond with potential funders. A result of their engagement in this project, and growing capabilities is their planning and hosting the third community workshop. They are now very willing and interested in future grant opportunities.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   There have been no setbacks or obstacles that occurred during this grant period.

5. **Please describe what your organization has learned based on the results and challenges.**

Community Engagement Lessons Learned

The Project team worked with community members through a series of workshops and outreach events to understand the community's preferences in securing a better and more resilient water future. At the heart of the planning effort was the intent to engage with residents and community members to gather their input and preferences for what groundwater resiliency could look like in their community and what benefits they wanted from potential projects. This meant that the Project team needed to engage directly with community members. Thus, throughout the Project, the team conducted numerous outreach and engagement activities such as surveying community members, conducting door-to-door canvassing, and attending events for Fairmead residents like site visits, Fairmead Community and Friends monthly board meetings, and local community meetings.

A big focus of the Project was devoted to holding three dedicated community workshops, the first on October 22, 2022, the second on April 27, 2023, and the third on October 21, 2023. Of these community workshops, the first focused on how groundwater recharge could potentially be implemented to improve community drinking water access, and the second focused on different aspects of land repurposing and how

that could improve water reliability in the community. The third workshop was an opportunity to confirm community preferences and build on input shared at the previous meetings to refine potential groundwater recharge and repurposed land sites. All three events requested and received valuable feedback from community members related to a wide range of water issues, some outside the scope of this work.

RESPECT LOCAL KNOWLEDGE The project team and others learned that community members of Fairmead intimately understand the harm and challenges they face from the depletion of groundwater water and air quality issues. They have a wealth of knowledge based on their experiences and perspectives that are incredibly valuable in understanding the Fairmead context and potential solutions.

EDUCATION Participants at the workshops and community meetings want to learn more about potential groundwater resiliency projects, as well as both short-term and long-term solutions. These could include groundwater recharge and agricultural land repurposing, and how these projects can address their need for reliable drinking water and clean air, while offering benefits like community gathering and open space, supporting ecosystems, improving income-generating repurposed land options, and reducing flooding.

NOTE: Both groundwater recharge and land repurposing are rather technical and cutting-edge responses to drought and climate extremes, so it takes time to get people familiar with these concepts. Repeated workshops, along with helpful visuals and site visits to exemplary projects nearby, can help people understand what projects look like and how they function, which will help them clarify their priorities and make informed decisions.

CONTINUED & CONSISTENT OUTREACH Continued consistent community outreach is essential to being able to achieve community engagement for the planning and implementation of on-the-ground projects. Ultimately, meaningful outreach led by the work of Fairmead Community and Friends, with committed partners at Madera County Water and Natural Resources Department and the Community and Economic Development Department, will achieve several positive outcomes. The first is greater empowerment and capacity building for Fairmead Community and Friends group. The group advocates for community needs and interests already. With greater involvement in local groundwater resiliency project planning and implementation, community needs and preferences stay at the forefront. The project team wanted more community members to attend each workshop. When the team frequently and consistently reached out to the residents, there was greater turnout at the workshops. Some effective outreach strategies include:

- Door-to-door canvassing at least once a week for several weeks ahead of meetings and workshops, in partnership with Fairmead Community and Friends and other trusted community leaders.
- Create information sheets and event announcement flyers (in English and Spanish).
- Share flyers with school staff and children.
- Attend locally organized community meetings and engage with residents at their meetings and events.

EFFECTIVE ENGAGEMENT Like lesson 3, meaningful engagement happened after residents and community members heard about the workshops, but what happened when people attended is incredibly important to the success of a potential project. An outcome of meaningful engagement is community buy-in and support for the project. When community members are involved from the start of the planning effort, have frequent opportunities to share their concerns/needs and preferences at workshops and meetings, and have their input meaningfully considered on options to implement their contribution can result in community members having a sense of ownership of what gets implemented. A high degree of community support means the project will be more competitive for a variety of implementation funding opportunities with such community engagement and support.

The project team dedicated time and energy to plan and prepare the workshop to facilitate community members' meaningful participation. Some factors and strategies that improved attendance and participation by the third workshop included:

- Providing food and feeding people.
- Scheduling the event during the weekend, during a time when people were most likely to attend.
- Offering a raffle.
- Coordinating with the Fairmead Community and Friends leaders to tailor the event to community members' comfort levels.

WORKSHOP PARTICIPATION There are many ways to help people feel comfortable to participate in meetings and workshops. Such factors as the meeting space, technology and audio equipment, materials, and event plan or run-of-show all contribute to people sharing during an event. A well-prepared and skilled facilitation team can have a smoother workshop and the flexibility to handle any issues that may arise. Preparations included:

- Roles for each project team member during the workshop.
- Clear and easily understood presentations, with language interpretation.
- Testing the presentation and audio equipment (connectivity and functionality of the laptop, screen, projector, microphones, and speakers) to address any technical issues before the start of the event.
- Having interpretation services on hand to overcome language barriers.

Another important consideration of lively workshop participation is helping residents and community members feel comfortable in the space, and able to interact with the information and their table mates. The Project team planned for people to share ideas out loud, as notes, or drawings on handouts/maps. It is worth noting that the ways the room is set up, having comfortable chairs, using microphones and speakers, having good visual aids and examples, and using small group activities and exercises support people being able to share their ideas, offer input, and be willing to join the conversation.

CONNECT AND EMPOWER Engage with local community groups at the level they are comfortable with, whatever that might be, such as just joining meetings. Show groups that being open and flexible to their comfort level, consistently inviting them into the process and conversations, gives them space to engage on their terms, and builds trust that you welcome their involvement.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed includes team email communications, developing a meeting agenda; conducting communication and coordination with regulatory agencies or departments; and reviewing project items and materials for the Fairmead Groundwater Resiliency case study.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   Measurable results include the development of the case study document for the Fairmead Groundwater Resiliency Project.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   Please find the following documentation for this reporting period:
   - January Budget Check-in Meeting notes
   - Draft Fairmead Groundwater Resilience Case Study

Fairmead Groundwater Resilience Project

Project Partner: CivicWell

Reporting Period: 1/28/2024 - 2/25/2024

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Grace Person, Senior Project Manager - CivicWell

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 1: Project Management
   1.2 Team Communication and Facilitation

   Activities:

   - ✔ Facilitated the team check-in meeting, including scheduling, sending reminders, creating agendas, preparing content, coordinating with other team members, taking notes, and sharing follow-up items.
   - ✔ Shared all team meeting agendas, notes, and other communications materials with the lead awardee (Madera County) for inclusion in regularly scheduled grant reporting to CRC.

   Deliverables:

   - ✔ Project Facilitation Documentation
     - Meeting agenda and discussion notes

   Task 2: Community Engagement and Stakeholder Coordination
   2.2 Local Jurisdiction Coordination

   Activities:

   - ✔ Reviewed, revised, and refined the final grant report.

   Task 5: Implementation Grant Writing and Case Study Documentation
   5.1 Review Relevant Funding Programs

   Activities:

   - ✔ Maintained a list of potential funding sources or programs for Phase 2 implementation.

Task 5: Implementation Grant Writing and Case Study Documentation
5.2 Engage Potential Funders

Activities:

- ✔ Maintained a list of funders potentially interested in supporting groundwater resilience project implementation (including but not limited to private foundations, state or federal agencies, and private industry).

Deliverables:

- ✔ Funder Engagement Documentation
  - o List of potential funders and funding opportunities.

Task 5: Implementation Grant Writing and Case Study Documentation
5.3 Case Study Documentation

Activities:

- ✔ Finalized the case study document from the comments and edits provided by the project team members.

Deliverables:

- ✔ Final case study document.

Task 5: Implementation Grant Writing and Case Study Documentation
5.4 Write & Submit Grant Proposals

Activities:

- ✔ Analyze application requirements and proposal guidelines for prioritized funding sources (see Task 5.1, above).

Deliverables:

- ✔ None at this time

3. **Share the success stories that you can produce because of your work during this reporting period.**

   None at this time

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   There have been no setbacks or obstacles that occurred during this grant period.

5. **Please describe what your organization has learned based on the results and challenges.**
   None at this time.

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for tasks completed are team email communications, development of a meeting agenda; conducting communication and coordination with project partners to close out the project; reviewing and finalization of project items and materials for the Fairmead Groundwater Resiliency case study; and reviewing and finalization the final grant report.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   Measurable results include the finalization of the case study document for the Fairmead Groundwater Resiliency Project and the finalization of the final grant report.

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**
   None at this time.

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: June 2022-July 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Develop Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Drafting Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Community Engagement Plan is being drafted.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   The Policy Advocate that was to be leading this work is no longer with Leadership Counsel.

5. **Please describe your organization has learned based on the results and challenges.**

We have been working with Madera County to ensure that the Community Engagement Plan meets the needs of this project.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and development of the community engagement plan. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Draft Community Engagement Plan to be circulated in August.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - Draft Community Engagement Plan to be circulated in August.

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: August 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Develop Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Drafting Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Community Engagement Plan is drafted and circulated with stakeholders.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   The Policy Advocate that was to be leading this work is no longer with Leadership Counsel.

5. **Please describe your organization has learned based on the results and challenges.**

We have been working with Madera County to ensure that the Community Engagement Plan meets the needs of this project.

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and development of the community engagement plan. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Community Engagement Plan circulated in August.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - Please reference the Community Engagement Plan

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: September 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to Fairmead residents.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and calls with Fairmead residents. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Community Engagement Plan circulated in August.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - Please reference the Community Engagement Plan

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: November 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to Fairmead residents. Meeting with SusCon in Fairmead on 11/16/22. Coordination meeting with EDF on 11/30/22.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**

N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and meetings. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Meeting with Suscon 11/16/22.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: December 2022

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and meetings. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: January 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, and meetings. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: February 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, and meetings. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: March 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including preparation for April community meeting.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Preparation for April meeting

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: April 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including preparation for April community meeting, workshop on 4/27/23.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, workshop on 4/27/23 and outreach for that meeting, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Preparation and coordination for workshop
   - Workshop 4/27/23

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: May 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including debrief from April workshop.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, debrief for workshop on 4/27/23, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Debrief and calls with stakeholders

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: June 2023

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability
   - Leslie Martinez, Community Engagement Specialist, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including tabling at the Fairmead Resources Fair.

4. **Share any setbacks or obstacles that occurred during this reporting period.**

N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, the Fairmead Resources Fair, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Debrief and calls with stakeholders
   - Fairmead Resources Fair on 6/24/23

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: July 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including the Fairmead Community and Friends board meeting.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Debrief and calls with stakeholders
   - Fairmead Community and Friends board meeting 7/10/23

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: August 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including the Fairmead Community and Friends board meeting.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: September 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community, including meeting with Fairmead Community and Friends.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: October 2023

Summary:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Madeline Harris, Regional Policy Manager, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability
   - Nicola Steelnack, Legal Fellow, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team
   - ✓ Workshop on October 21, 2023

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders and outreach to community in preparation for workshop, workshop on 10/21/23.

4. **Share any setbacks or obstacles that occurred during this reporting period.**

N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

<u>Finance</u>:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks, collaboration with project partners, coordination with Fairmead residents, outreach, workshop, and meetings. See invoices for more detail.

<u>Measurable Results</u>:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.
   - Workshop 10/21/23

<u>Documents</u>:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting Template

Fairmead Groundwater Resilience Project

Project Partner: Leadership Counsel for Justice and Accountability

Reporting Period: November 2023

<u>Summary</u>:

1. **Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.**

   - Kaylon Hammond, Director of Operations, Leadership Counsel for Justice and Accountability
   - Andrea Uribe, Policy Advocate, Leadership Counsel for Justice and Accountability

2. **Summarize the tasks, activities, and deliverables completed or in progress and state the outcomes for this reporting period**

   Task 2: Community Stakeholder Engagement
   2.1 Community Stakeholder Engagement

   Activities:

   - ✓ Implement Community Stakeholder Engagement Plan
   - ✓ Coordinate with project team

   Deliverables:

   - ✓ Community Stakeholder Engagement Plan

3. **Share the success stories that you can produce because of your work during this reporting period.**
   Coordination with stakeholders.

4. **Share any setbacks or obstacles that occurred during this reporting period.**
   N/A

5. **Please describe your organization has learned based on the results and challenges.**
   N/A

Finance:

1. **Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.**

   Staff time for the administrative tasks and collaboration with project partners. See invoices for more detail.

Measurable Results:

1. **Please provide an update of the measurable result for the tasks or tasks completed for the reporting period.**
   - Monthly coordination meeting.

Documents:

1. **Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.**

   - n/a

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: July 2022

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.5 Water Supply analysis
        i. Met with Madera County to discuss their recharge program and begin thinking about water supply analysis (1 hour, 7/7/2022)
    b. Task 3.6 Multibenefit assessment
        i. Developed recharge parameters, communicated with Davids Engineering to verify findings and add data (3 hours, 7/8/2022)
        ii. Attended Fairmead team meeting and reported back on recharge parameters (1.5 hours, 7/21/2022)
3. Share the success stories that you can produce because of your work during this reporting period.
    a. Sustainable Conservation verified our early work on assessing Fairmead's recharge potential with Davids Engineering. Davids helped us gain insight into historical groundwater gradients (NE to SW before pumping, which changed to SE to NW after pumping) and sent us a database of landowners who are interested in a county recharge program.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. Originally, we had planned to meet in person with community members in July or August. However, one community member came down with Covid and had other family obligations, so the trip was postponed to September or October.
5. Please describe what your organization has learned based on the results and challenges.
    a. We are still in the very early stages of this project and look forward to continuing to build and strengthen our relationships with all project partners and stakeholders.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. NA

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. NA

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: August 2022

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Attended Fairmead team meeting (1 hour, 8/19/2022)
3. Share the success stories that you can produce because of your work during this reporting period.
    a. NA
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. Originally, we had planned to meet in person with community members in July or August. However, one community member came down with Covid and had other family obligations, so the trip was postponed to September or October
5. Please describe what your organization has learned based on the results and challenges.
    a. We are still in the very early stages of this project and look forward to continuing to build and strengthen our relationships with all project partners and stakeholders.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. NA

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. NA

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: September 2022

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Attended Fairmead team meeting (1 hour, 9/15/2022)
3. Share the success stories that you can produce because of your work during this reporting period.
    a. NA
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. NA
5. Please describe what your organization has learned based on the results and challenges.
    a. We are still in the very early stages of this project and look forward to continuing to build and strengthen our relationships with all project partners and stakeholders.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. NA

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. NA

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: October 2022

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha read the Fairmead Neighorhood Mobility and Revitalization Strategy (Jan 6, 2011) to understand community priorities identified during a previous in-depth community engagement planning project. Many of the topics discussed in the document are relevant to the multi-benefit framework we are attempting in this current project, which gives valuable background to community priorities and concerns. Also, there was considerable discussion of stormwater flooding in the area, which is particularly interesting in relation to potential groundwater recharge. Many of the projects identified in the strategy were intended to be short term, but it is unclear how many have been enacted in the 12 years since the strategy was developed.
        ii. Most of this month was occupied with preparing for the first project-based in-person community meeting on October 22, 2022. This work is included under the "Multibenefit assessment" task because these meetings are in part a way to gather information about community priorities and concerns from which to shape multibenefit project outcomes.
            1. Aysha worked with the full Fairmead project team to prepare for various aspects of the meeting, including logistics and agenda-setting.
            2. Aysha worked with Madera County and Leadership Counsel to coordinate the content of the presentations – Leadership Counsel gave a general overview of the project, the County presented a general introduction to the local groundwater situation and

potential for multipurpose projects, and Aysha focused on the details of groundwater recharge, including what recharge is, how to evaluate potential for recharge to improve the community well, and how to assess where and how to implement recharge.

3. Aysha presented at the community meeting on 10/22. The presentation is included in this packet of materials.
4. The project team debriefed after the community meeting and determined a few improvements that could be made for the next meeting, including earlier outreach to get more attendees and providing visual examples of recharge and multipurpose projects to help people visualize the concepts.

3. Share the success stories that you can produce because of your work during this reporting period.
    a. The community meeting was a great introduction to the community and their concerns, priorities and strong civic engagement. Although the attendance was lower than expected (6 people attended), the participants were very engaged and asked a lot of detailed questions. They requested more information on examples of recharge, and conveyed that the multibenefit component is not necessary for every project. For instance, a recharge basin could be just a recharge basin and not serve another function such as a soccer field or habitat area.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. The attendance was lower than expected, and the project team determined that in addition to earlier outreach, we might coordinate with other meetings happening in the area in order to get more people aware of and involved in the project.
5. Please describe what your organization has learned based on the results and challenges.
    a. We learned that the community members are supportive of a multibenefit framework that does not require multiple benefits for every individual project.
    b. We also learned that community members would like more examples of what recharge and multipurpose projects look like in various forms. In future presentations, we will try to include more visual examples.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period

a. We are just beginning to understand community priorities, from which we will develop a rubric to evaluate potential sites for multibenefits and recharge.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. See the linked presentation (Spanish translation by Leadership Counsel). The recharge presentation starts on slide 16. https://docs.google.com/presentation/d/1EbNAYWWVlDBy0qtUlcApTaxz84yIQn6Ccan4wbQCyCc/edit#slide=id.g16ed4ceeef1_0_69

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: December 2022

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.5 Water supply analysis – met with Joe Choperena at SC to discuss water supply strategy and negotiations with local irrigation districts
    b. Task 3.6 Multibenefit assessment – prepared for the monthly Fairmead project team meeting and attended the meeting.
    c. In kind – Joe and Aysha met with other staff at SC to reiterate our commitment to the Fairmead project, including providing extra hours as needed above the contracted amount. We also discussed funding strategies for the implementation phase of the project (after the planning grant).
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The project team meeting helped to hone our objectives for 2023 and to track them in line with the grant deliverables.
    b. The Environmental Defense Fund is interested in working with our team to present visuals of recharge and land repurposing to enable community visioning of alternative land uses. This development is helpful, especially given that community members expressed during the October meeting that they wanted more examples of recharge in order to visualize it better.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

<u>Finance</u>:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. We are planning for a second community meeting focused on land repurposing, which will help us to develop a rubric to evaluate potential sites for multibenefits and recharge. This meeting is being coordinated with land use efforts occurring in the region, in order to ensure maximum attendance and coordination with other local planning efforts.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: January 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. prepared for the monthly Fairmead project team meeting and attended the meeting.
        ii. Met with Davids Engineering and Madera County to coordinate Task 3 items.
        iii. Met with Madera County planning staff to discuss the Fairmead Action Plan and potential for collaborative planning efforts
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The project team meeting helped to hone our strategy to meet objectives for 2023, including increased collaboration with other planning efforts in the region.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period

a. We are planning for a second community meeting focused on land repurposing, which will help us to develop a rubric to evaluate potential sites for multibenefits and recharge. This meeting is being coordinated with other land use efforts occurring in the area, in order to ensure maximum attendance and coordination with other local planning efforts.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: February 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha and Joe prepared for the monthly Fairmead project team meeting and attended the meeting.
    b. Task 3.5 Water Supply analysis
        i. Joe scheduled and made draft agenda items for an upcoming meeting with Davids Engineering & Madera County to discuss conveyance infrastructure and potential recharge locations.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The project team meeting is preparing for the next round of community outreach.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. We are planning for a second community meeting focused on land repurposing, which will help us to develop a rubric to evaluate potential sites for multibenefits and recharge. This meeting is being coordinated with other land use efforts occurring in the area, in order to ensure maximum attendance and coordination with other local planning efforts.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: March 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha and Joe met with Davids Engineering and Madera County to discuss methodology of determining locations and types of potential recharge sites
    b. Task 3.6 Multibenefit assessment
        i. Aysha and Joe prepared for the monthly Fairmead project team meeting and attended the meeting.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The project team meeting is preparing for the next round of community outreach.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period

a. We are planning for a second community meeting focused on land repurposing, which will help us to develop a rubric to evaluate potential sites for multibenefits and recharge. This meeting is being coordinated with other land use efforts occurring in the area, in order to ensure maximum attendance and coordination with other local planning efforts.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: April 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha met with the team on 4/18 to prepare for the community presentation on 4/27.
        ii. Aysha presented on the topic of multi-benefit recharge at the in-person community meeting on 4/27.
        iii. Joe met with team members on 4/18 and 4/25 to prepare for the 5/3 Self Help Enterprise tour of Fairmead.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The community meeting on 4/27 was a success, with 25 adult attendees and some children present as well.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. We are still processing the information from the community meeting.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. We are still processing information from the second community meeting and integrating with results from the first community meeting, in order to inform the deliverables for Task 3.6 (multibenefit assessment).

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: May 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha met with the team on 5/18 to debrief the community presentation that occurred on 4/27.
        ii. Aysha attended the monthly team phone call on 5/30.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The team developed a useful list of successes, challenges and lessons learned from the 4/27 community meeting, in order to inform future meetings. We also gathered some useful information from the surveys, and planned next steps to gather more information from the community.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. We are still processing the information from the community meeting.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period

a. We are still processing information from the second community meeting and integrating with results from the first community meeting, in order to inform the deliverables for Task 3.6 (multibenefit assessment).

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: June 2023

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha drafted, solicited feedback, incorporated edits, finalized, and submitted the Task 3.6 Multibenefit Assessment report. This report assessed the potential multiple benefits and risks of recharge activities and land use planning, including topics related to water quality, flood risk reduction, habitat enhancement, open space, subsidence protection, and farmland conservation. Activities included evaluating community concerns/requests gathered as part of Project activities and reviewing local planning documents. From this information, SC developed a multi-benefit assessment metric based on community-identified topics/issues, and evaluated specific, potential project parcels using the multibenefit assessment metric.
        ii. Joe reviewed the report and gave suggested edits and comments.
        iii. Joe met with the project team on 6/15.
        iv. Aysha and Joe met with Davids Engineering to coordinate aspects of the 3.6 report writing.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. The deliverables for Task 3 (all due June 30) will help to move the project to the next stage, Task 4, which is the conceptual design and budgeting phase of identified projects.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. Task 3.6 has been completed by Sustainable Conservation.
    b. Madera County is the lead entity responsible for 3.5 Water Supply Analysis. As of June 30, 2023, Sustainable Conservation has concluded supplemental activities for this task.

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. See Task 3.6 report, attached.

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: July 2023

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 3.6 Multibenefit assessment
        i. Aysha shared the Task 3.6 Multibenefit Assessment report with community members at the Fairmead Community and Friends (FC&F) board meeting. Community members gave feedback.
    b. Joe tabled at the July 19th Fairmead Action Plan workshop hosted by the Madera County planning department. He prepared and printed out materials related to the CRC project in English and Spanish.
    c. Joe and Aysha worked with the project team to determine if a potential grant opportunity is suitable for continuing the next phase of the Fairmead Groundwater Resilience Project.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. FC&F reviewed and gave comments on the Multibenefit Assessment report.
    b. The project team is ready to pursue funding for the next stage of this project.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

<u>Finance</u>:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.
    a. N/A

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. N/A

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: August 2023

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 5.3 preparation
        i. Aysha and Joe met with CivicWell to strategize how to set up the case study framework
    b. Task 4.2
        i. Aysha and Joe attended the monthly project team meeting
    c. Task 5.4 (in kind)
        i. Aysha and Joe worked with SC staff and project partners to develop language for a promising grant opportunity and submitted the application in mid-August.
    d. Task 4.2 (in kind)
        i. Joe met w/ Stephanie with Madera County and Chad Tienken with Davids Engineering on concept designs for multibenefit recharge options for Fairmead and preparations for the Oct. 18th community workshop/presentation.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. FC&F reviewed and gave comments on the Multibenefit Assessment report.
    b. The project team is ready to pursue funding for the next stage of this project.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.
    a. N/A

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. N/A

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: September 2023

<u>Summary</u>:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 4.2
        i. Aysha attended the monthly project team meeting
        ii. Joe met with internal staff to discuss concept designs for multibenefit recharge options for Fairmead and preparations for the Oct. 18th community workshop/presentation.
    b. Task 5.3
        i. Joe reviewed the outline of the case study as developed by CivicWell.
    c. Task 5.4 (in kind)
        i. SC was invited back to pursue a grant opportunity for Phase 2 of this project. Joe and Aysha met with project partners to develop specific roles and budgets, and to gather photos, testimonials and other requested materials to submit in time for the final application on September 29.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. SC submitted the final grant materials for a potential Phase 2 implementation. This is an exciting development that could facilitate the next step towards on-the-ground project implementation.
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

<u>Finance</u>:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.
    a. N/A

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. N/A

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: October 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 4.2
        i. Aysha and Joe worked on the October 18 community presentation, and coordinating the event with project partners.
        ii. Aysha travelled to and presented at the Fairmead community meeting on October 18.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. N/A
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. N/A
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.
    a. N/A

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period

a. N/A

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Grant Reporting

Fairmead Groundwater Resilience Project

Project Partner: Sustainable Conservation

Reporting Period: November 2023

Summary:

1. Please state the name of the staff from your organization and other project partners for the task or tasks completed for the reporting period.
    a. Aysha Massell, Program Director, Water for the Future
    b. Joe Choperena, Project Director, Water Resources
2. Summarize the tasks, activities and deliverables completed or in progress and state the outcomes for this reporting period.
    a. Task 4.2
        i. Joe and Aysha are working on a Fairmead-specific land repurposing paper to complement the work already done on groundwater recharge.
        ii. Aysha attended the Nov 21 online MLRP workshop to understand local efforts and opportunities in the realm of land repurposing.
3. Share the success stories that you can produce because of your work during this reporting period.
    a. N/A
4. Share any setbacks or obstacles that occurred during this reporting period.
    a. Although the project team did not receive funding from a proposal we submitted in September, we are exploring other funding sources to pursue the next phase in this collaboration.
5. Please describe what your organization has learned based on the results and challenges.
    a. N/A

Finance:

1. Please provide a description of the use of funds for the tasks that are completed or are in progress for this reporting period.
    a. N/A

Measurable Results:

1. Please provide an update of the measurable result for the tasks or tasks completed for the reporting period
    a. N/A

Documents:

1. Please provide any documentation (For example: reports, contracts, pictures, outreach material, etc.) for the tasks that have been completed or are in progress for this reporting period.
    a. N/A

Task 2 Deliverables

- Community Engagement Plan
- Factsheets in English and Spanish (Overview of the grant, Recharge and Land Repurposing).
- Surveys (collected at the second workshop and the Fairmead Resources Event on June 24, 2023)
- Presentations for the first, second, and third workshop
- Contact list of landowners in the Fairmead area
- Map of highest likelihood/greatest interest project locations
- Contact list for other GSAs around the Fairmead area.
- Preparation meetings between Madera County GSAs and project partners.
- Meeting agendas for preparation meetings.
- Contact list of landowners in the Fairmead area.
- Map of highest likelihood/greatest interest project locations.

Community Engagement Plan

Fairmead Groundwater Resilience Project

Purpose:

Inform Fairmead Community residents and surrounding landowners about the project and solicit feedback.

Overview:

This is a planning grant in a specific community that is a prototype for planning and community engagement around Sustainable Groundwater Management Act issues.

The grant includes planning around recharge as well as land repurposing in a disadvantaged, unincorporated community facing unique groundwater threats.

The project partners working in this project are: Civic Well, Leadership Counsel for Justice and Accountability, the Madera County Department of Water and Natural Resources, and Sustainable Conservation.

Background:

The community of Fairmead is a census-designated place in Madera County, located 11 miles northwest of Madera and six miles south of Chowchilla. Demographics in the area have shifted over time; the predominantly African American population (now only 7%) has been replaced by Hispanic community members (now roughly 70% of the local population). Like many unincorporated communities in the San Joaquin Valley, Fairmead lacks critical infrastructure including municipal water and wastewater services. The community has a small, County-operated water system consisting of two wells and serving approximately 170 homes. Additional homes in Fairmead rely on private domestic wells. The Fairmead community faces significant drinking water challenges, especially as more water-intensive orchards are planted in the surrounding region, increasing demand on limited groundwater supplies. Many domestic wells went dry during the 2012-2016 drought, and well dewatering continues to be an issue. Until recently, Fairmead's community water system relied on just one 300-foot deep well. The well was only 10 years old when it started drawing up air and sediment in 2020, prompting the county to drill a second well for the community, to 530 feet. Groundwater levels in the area continue to decline, which will likely also threaten this second well.

Goals:

1. Educate stakeholders about:
    a. SGMA and its requirements
    b. Individual GSAs within the Madera Subbasin,
    c. Potential changes o current groundwater management under SGMA, and
    d. How stakeholder will be represented in their GSAs.

2. Coordinate outreach and engagement activities between project partners, Fairmead residents and surrounding landowners to ensure efficiency and to support stakeholders in project planning
3. Articulate strategies and channels for obtaining ongoing stakeholder input
4. Provide a roadmap to project partners on ways to effectively and efficiently reach all impacted stakeholders
5. Encourage stakeholder engagement and promote a community driven process

Audiences:

Fairmead residents and surrounding landowners

Key Educational Messages:

- ✓ SGMA, GSAs, and potential improvements and changes
- ✓ Groundwater recharge, including risks and benefits
- ✓ Land repurposing, including risk and benefits
- ✓ Relevant background information about aquifers and domestic and municipal wells.
- ✓ The importance of community input and feedback

Recommended Strategies and Mechanisms

There will be specific questions utilized during the workshops to try to solicit feedback from residents and landowners.

Community Engagement Activities

Community Meetings and Workshops

Activity 1: Community meeting with Fairmead residents to discuss background research regarding viable locations for groundwater recharge, aquifer conditions, and possible sites for agricultural land repurposing.

a. Overview

Set up a meeting to discuss additional research/findings regarding viable sites for groundwater recharge, aquifer conditions, and sites where landowners have expressed interest in having a recharge basin on their property and/or retiring agricultural land. This will take place electronically via zoom, hybrid, or in-person meetings in Fairmead at the FC&F Board meeting location.

b. Purpose

To inform Fairmead community leaders of any additional research/findings regarding viable sites for groundwater recharge and hear initial feedback from a core group of engaged residents about where they would like the project(s) to be considered.

c. Background and Goals

1. Review any possible overlay between sites where landowners have expressed interest in MLRP or recharge basins and sites that are viable for groundwater recharge.
2. Get initial feedback from the FC&F Board re: possible sites for recharge and possible new land uses if ag land is converted.
3. Coordinate with FC&F re: a larger community meeting as a next step.

d. Audiences

FC&F board. LCJA, Madera County, & Sustainable Conservation will compile the information needed for this meeting.

e. Key Messages

The pros and cons of different recharge locations - possible risks of groundwater contamination depending on siting - the importance of reviewing municipal and domestic well locations in considering sites for recharge

f. Timeline: August 2022

Activity 2: Community meeting with broader Fairmead community to provide background information on the project and solicit initial community feedback.

a. Overview

Community meeting between project partners, Fairmead Community & Friends, and Fairmead residents to inform residents about the project and solicit substantive community feedback regarding possible groundwater recharge and multi-benefit agricultural land repurposing sites.

b. Purpose

(1) To inform Fairmead residents about the project, relevant background research, and the project's status and possible next steps.

(2) To solicit feedback from Fairmead residents about possible sites, concerns, and priorities for the project.

c. Background and Goals

(1) Discuss possible recharge and land repurposing locations with community & collect feedback from residents re: preferred location(s).

(2) Discuss possible benefits and risks of groundwater recharge with residents at each prospective site & get feedback from residents.

(3) Discuss possible new land uses and multi-benefit projects at each land repurposing candidate site and receive feedback from residents re: which site(s) they'd like to see get prioritized and how they would like to see the land get repurposed.

(4) Identify next steps before the end of the meeting re: how resident feedback will be incorporated into the project.

d. **Audience(s):**
(1) Fairmead Community & Friends
(2) Fairmead residents
(3) Interested landowners

e. Key Messages:
(1) Background information:
- ✓ Information on what groundwater recharge is and basic information about groundwater and aquifers.
- ✓ Information on the possible risks or threats and possible benefits of groundwater recharge, depending on the location.
- ✓ Information regarding agricultural land repurposing: an explanation of what multi-benefit land repurposing is as well as relevant programs and funding mechanisms that can be leveraged.

(2) Discussion questions to solicit community feedback:
- ✓ What locations for ag land repurposing would you like to see the County try to pursue?
- ✓ What types of multi-benefit projects would you like to see?
- ✓ What would you not like to see?
- ✓ What are some concerns you have for groundwater recharge?
- ✓ What risks should be avoided?
- ✓ What benefits would you hope to achieve with groundwater recharge?

f. Timeline: Autumn 2022

Activity 3: Follow-up community meetings as needed throughout the project.

a. Overview:

As the project progresses and additional feedback is required from residents, LCJA will coordinate a follow-up meeting with project partners and Fairmead residents to discuss any additional decisions that need to be made (e.g., reviewing the draft plan, seeking out construction funding, etc.) as well as to provide updates on the final draft plans for the project to get any remaining community feedback once the plans are near complete. Will take place at Fairmead Elementary School Cafeteria.

b. Purpose:

(1) To keep Fairmead residents informed about project updates, and
(2) To solicit, receive, and incorporate community feedback on project updates.

c. Background and Goals:

(1) Present residents with updated educational materials re: the project
(2) Present a draft plan for land repurposing and/or groundwater recharge to the community
(3) Receive any remaining community feedback on the plan and make next steps at the end of the meeting for how the feedback will get implemented.

d. **Audiences:**

(1) Fairmead Community & Friends
(2) Fairmead residents

e. Key Messages:

- ✓ Summarize the background information regarding SGMA, groundwater, local aquifer conditions, groundwater recharge, and agricultural land repurposing that was shared at previous community meetings.
- ✓ Share project status.
- ✓ If relevant, present a draft plan to Fairmead residents.
- ✓ Solicit feedback regarding the plan, especially pertaining to groundwater recharge locations, possible land repurposing sites, and plans for new land uses at multi-benefit land repurposing site.

f. Timeline: As needed throughout the course of the project, at least quarterly.

Ongoing Discussions and Coordination

Activity 4: Maintaining communication and relationship-building with Fairmead residents and landowners.

a. Overview:

Ongoing discussions between project partners, Fairmead residents, and landowners regarding possible sites for agricultural land repurposing and groundwater recharge.

b. Purpose

The first purpose of this activity is to discuss possible sites for agricultural land repurposing with Fairmead residents & hear community feedback on (a) interest in pursuing the locations,

(b) any additional locations that should be looked at or where landowners should be reached out to, and (c) what land use(s) or type(s) of multi-benefit project(s) community members would like to see there instead.

Secondly, based on Fairmead residents' feedback, the purpose is to then reach out to relevant landowners to assess their interest in participating in agricultural land repurposing.

c. Background and Goals

1. Inform Fairmead residents and agricultural landowners about agricultural land repurposing, relevant funding mechanisms/programs that can be utilized for land repurposing, and the parameters or guidelines of those programs.

2. Discuss the possibility of leveraging a portion of the County's $10 Million MLRP award in Fairmead at the almond orchards between Yates and Fairmead Elementary School Along Maple and receive initial feedback from Fairmead Community & Friends about the idea.

3. Discuss possible new land uses at the site with community residents and receive initial feedback on which new land uses they find acceptable & unacceptable.

4. Discuss and identify additional sites for possible agricultural land repurposing with Fairmead residents.

5. Approach landowners at community-identified sites and assess landowner interest in participating in agricultural land repurposing.

d. Audiences

The appropriate audiences for these discussions are: (a) Fairmead Community & Friends, (b) other Fairmead residents, and (c) landowners with agricultural lands in and around the community, especially near sensitive land uses and/or drinking water sources.

e. Key Messages

- ✓ Explain what agricultural land repurposing is (including the possible risks and benefits)
- ✓ Provide background information to Fairmead residents and landowners about current funding mechanisms and programs that can be leveraged to achieve agricultural land repurposing.
- ✓ Communicate to Fairmead residents why their feedback is critical for identifying possible sites and new land uses/multi-benefit projects.
- ✓ Respond to any questions from Fairmead residents and landowners regarding land repurposing and possible multi-benefit projects.

f. Timeline: As needed throughout the course of the project, at least quarterly.

Activity 5: Providing regular updates to engaged Fairmead residents and community leaders throughout the course of the project.

a. Overview:

As updates emerge throughout the course of the grant period, LCJA will keep closely engaged Fairmead residents up-to-date on project progress through periodic phone calls on a monthly basis, as well as regular attendance of Fairmead Community & Friends Monthly Board Meetings at minimum.

b. Purpose:

To ensure that closely-engaged Fairmead residents are updated and informed regarding project status so that they can provide feedback on an ongoing basis.

c. Background & Goals:

(1) To keep closely-engaged Fairmead residents updated on project progress.
(2) To foster a community-driven process.
(3) To continue to develop trusting relationships with community members.
(4) To solicit and receive feedback from residents and ensure that community input is being regularly incorporated throughout the duration of the project.

d. Audience:

(1) Fairmead Community & Friends
(2) Prior community meeting and workshop attendees
(3) Any additional Fairmead residents who express interest in receiving project updates

e. Key messages:

- ✓ Updates regarding groundwater recharge and multi-benefit land repurposing.
- ✓ Questions regarding residents' opinions and feedback pertaining to project status and next steps.

f. Timeline: As needed throughout the course of the project, at least quarterly.

Creation of Outreach Materials and Fact Sheets

Activity 6: Creating outreach materials and fact sheets for Fairmead residents.

a. Overview:

LCJA will create flyers for community meeting(s) re: the project as well as fact sheets regarding the recharge and land repurposing components of the project & project status to be used as outreach/educational materials.

b. Purpose:

To inform residents about (a) what groundwater recharge is, (b) the possible risks and benefits of groundwater recharge, (c) what agricultural land repurposing is, and (d) what multi-benefit land repurposing means and can entail.

c. Background and Goals:

(1) Create outreach materials with key information to invite residents to community meetings re: the project
(2) Create educational fact sheets with more detailed information on the project and status of the project so that residents who arrive to the meeting can learn necessary background information
(3) To create materials that residents who are unable to attend our meetings can still utilize to become adequately informed on the project & provided with contact information should they have any questions.

d. Audience(s):

The audience for these outreach materials and fact sheets are Fairmead residents who do not have prior knowledge about local aquifer conditions, groundwater recharge, and multi-benefit agricultural land repurposing.

e. Key Messages:

Background information regarding the following:

- ✓ what groundwater recharge is;
- ✓ local aquifer conditions;
- ✓ the possible risks and benefits of groundwater recharge;
- ✓ what agricultural land repurposing is; and
- ✓ what multi-benefit land repurposing means and can entail.

f. Timeline: Prior to the Autumn 2022 community meeting, and as needed throughout the course of the project prior to future meetings.

Direct Stakeholder Outreach

Activity 7: Direct outreach to residents for community meetings.

a. Overview:

LCJA will conduct door-to-door and telephone outreach for community meetings regarding this project.

b. Purpose:

(1) To inform Fairmead residents about the groundwater recharge and agricultural land repurposing project; and
(2) To invite residents to community meetings about the project in order to solicit meaningful community feedback.

c. Background and Goals:

1. Share fact sheets/information regarding the project with community members to educate residents about the project.
2. Ask initial questions at the door/on the phone to get a sense of residents' initial feedback about the project (e.g. where would they like to see ag land repurposed; what new land uses would they like to see in their community, etc.).
3. Gain additional contact information for folks interested in participating in this project.
4. Invite residents to our meeting and ensure a good turnout (15 or more residents) for the meeting

d. Audiences:

The audience for this in-person and telephone outreach will be Fairmead residents.

e. Key messages:

- ✓ A brief overview of the importance, need for, and potential benefits of groundwater recharge.
- ✓ A brief overview of what agricultural land repurposing is and how it could impact the community.
- ✓ An invitation to a community meeting in order for residents to learn more and influence the location(s) and plans for this project.

f. Timeline: Ongoing, as updates emerge throughout the course of the project.

Activity 8: Direct Landowner Outreach.

a. Overview:

Sustainable Conservation and Madera County will reach out to landowners in and around the Fairmead community to assess landowner interest in participating in groundwater recharge and/or agricultural land repurposing.

b. Purpose:

(1) To inform agricultural land owners about the project and about the possible benefits of participating in groundwater recharge and land repurposing;
(2) To invite agricultural land owners to express interest in participating in one or both programs;

(3) To assess interest from landowners with land in and around Fairmead in order to develop a list of possible sites for groundwater recharge and/or a land repurposing project.

c. Background and Goals:

(1) Sustainable Conservation and Madera County will create landowner-geared outreach materials regarding groundwater recharge and multi-benefit land repurposing.
(2) Project partners will conduct an internal review of outreach materials prior to conducting outreach.
(3) Sustainable Conservation and Madera County will conduct widespread direct outreach to landowners in and around the community to inform them about the various components of the project and assess interest in participating.

d. Audiences:

The audience for this activity will be agricultural landowners with property in and around the Fairmead community.

e. Key messages:

- ✓ A brief overview of the importance, need for, and potential benefits of groundwater recharge.
- ✓ A brief overview of what agricultural land repurposing is and available funding sources/programs that landowners can utilize for land repurposing and multi-benefit projects on their land.
- ✓ Incorporate key messages for landowners who may be concerned about land repurposing.
- ✓ Information for landowners regarding incentives and regulations that may increase interest in possible participation in land repurposing and groundwater recharge.

f. Timeline: Throughout the duration of the project, at least quarterly.

Activity 9: Direct outreach, communication, and coordination with irrigation districts

a. Overview:

Sustainable Conservation and Madera County will reach out to the Chowchilla Water District and Madera Irrigation District regarding surface water acquisition for the project and will maintain close coordination and hold periodic meetings with these agencies as needed.

b. Purpose:

(1) To acquire and convey surface water for a groundwater recharge project in Fairmead.

c. Background and Goals:

(1) Sustainable Conservation and Madera County will reach out to Chowchilla Water District and/or Madera Irrigation District to inform the district(s) of the project and possible groundwater recharge locations;
(2) Sustainable Conservation and Madera County will coordinate as needed with each district regarding water availability and conveyance;
(3) Sustainable Conservation will facilitate one-on-one introductory meetings with interested landowners and irrigation districts;
(4) Sustainable Conservation will consider planning and facilitating broader group meetings between landowners and irrigation districts if/as needed;
(5) Sustainable Conservation, Madera County, Madera Irrigation District, and/or Chowchilla Water District will coordinate the logistics for surface water conveyance and acquisition with landowners at potential groundwater recharge sites in order to bring surface water to the project site. This will require ongoing meetings and communication.

d. Audiences:

The audience for this activity will be Madera Irrigation District and/or Chowchilla Water District, depending on the service area of the potential sites for groundwater recharge that are pursued over the course of the project.

e. Key messages:

- ✓ A brief overview of the aquifer conditions in and around the community of Fairmead, and analysis of viable locations for groundwater recharge.
- ✓ An overview and introduction of landowners who have expressed interest in developing a recharge project on their land as well as an overview of possible sites.
- ✓ Discussion of available surface water supplies for the near and long-term life of the project.
- ✓ Discussion of logistics for surface water acquisition and conveyance for the near and long-term life of the project.

f. Timeline: Ongoing throughout the duration of the project, as needed.

Fairmead Groundwater Resilience Project

A Grant-Funded Planning Effort

What is the project?

This project has multiple partners including Civic Well, Leadership Counsel for Justice and Accountability, Madera County Water & Natural Resources, and Sustainable Conservation. This group of partners will be working to address groundwater resilience in the Fairmead area. The work includes meetings with residents about water concerns, as well as scientific and engineering analysis of recharge and land repurposing potential, to create a report detailing the work they have completed and the potential solutions with possible funding sources.

What are some of the solutions?

- ⇒ Groundwater recharge in dedicated basins and on farm fields
- ⇒ Taking land out of irrigated production (land repurposing)
- ⇒ Additional wells for the existing drinking water System
- ⇒ Additional large storage tanks for emergencies
- ⇒ Connecting adjacent landowners to the existing drinking water system

Contact Information:

Madera County Water and Natural Resources

(559) 662-8015

Leadership Counsel For Justice and Accountability

(559) 369-2790

MADERA COUNTY

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

CIVICWELL

Transforming Local Vision into Action

Formerly Local Government Commission (LGC)

Sustainable Conservation

Proyecto de Resiliencia de Aguas Subterráneas en Fairmead

Un esfuerzo de planificación financiado por una subvención privada

¿Cual es el proyecto?

Este proyecto tiene varios socios, entre ellos se encuentran: Civic Well, Leadership Counsel for Justice and Accountability, Madera County Water & Natural Resources, y Sustainable Conservation.

Este grupo de socios trabajará para abordar el tema de resiliencia de las aguas subterráneas en el área de Fairmead. Parte del trabajo incluye reuniones con los residentes para entender sus preocupaciones respecto al agua subterránea, así mismo presentar información científica y de ingeniería respecto al análisis del potencial de recarga y reutilización de la tierra, para crear un informe que detalle el trabajo que se ha completado , las posibles soluciones y fuentes de financiación.

¿Cuáles son algunas de las soluciones?

- ⇒ Recarga de agua subterránea en determinadas cuencas y tierras de cultivo
- ⇒ Remover tierras de cultivo fuera de producción (reutilización de tierras)
- ⇒ Pozos adicionales para el sistema de agua existente
- ⇒ Tanques para el almacenamiento de agua en situaciones de emergencia
- ⇒ Conectar a los propietarios al existente sistema de agua.

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Información de Contacto:

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(559) 662-8015

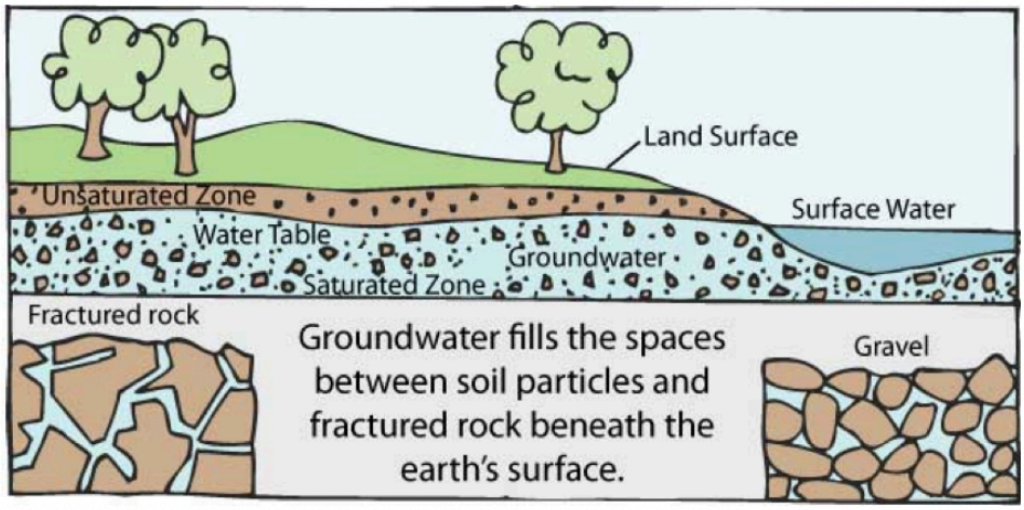
Leadership Counsel For Justice and Accountability

(559) 369-2790

Everything you need to know about groundwater recharge:

Part 1: How does a groundwater aquifer work?

Our water comes from two sources: surface water, in canals, rivers and lakes, and groundwater, which is under the surface of the earth. When we drink water from a well, we are drinking groundwater. Groundwater is under the surface of the earth, and fills the spaces between the rocks and soil particles. Every winter, rain falls, and snow falls and later melts. This water accumulates in rivers and canals, and as it flows it fills the land with water. The water sinks down into the aquifers and becomes groundwater.



What is groundwater recharge?

Projects that put more water in the ground are called "groundwater banking" or "groundwater recharge" projects. There are four main types of groundwater banking projects: groundwater recharge basins, on-farm recharge, recharge in ecological habitat, and injection wells. With all three, surface water from canals or streams is conveyed to the recharge site so that additional water can seep back into the ground and raise water levels.

Things to keep in mind:

In order for groundwater recharge to work, conditions have to be right. **First**, the soil can't be too clay-like, otherwise the water won't percolate into the aquifer. **Second**, we have to pay attention to the direction the groundwater flows, so that any water recharged into the aquifer flows towards the area we are trying to benefit, and not away from the community's water wells. **Third**, the soil cannot be contaminated with anything that could seep into the groundwater, otherwise there is a risk of groundwater contamination.

1. Recharge Basins

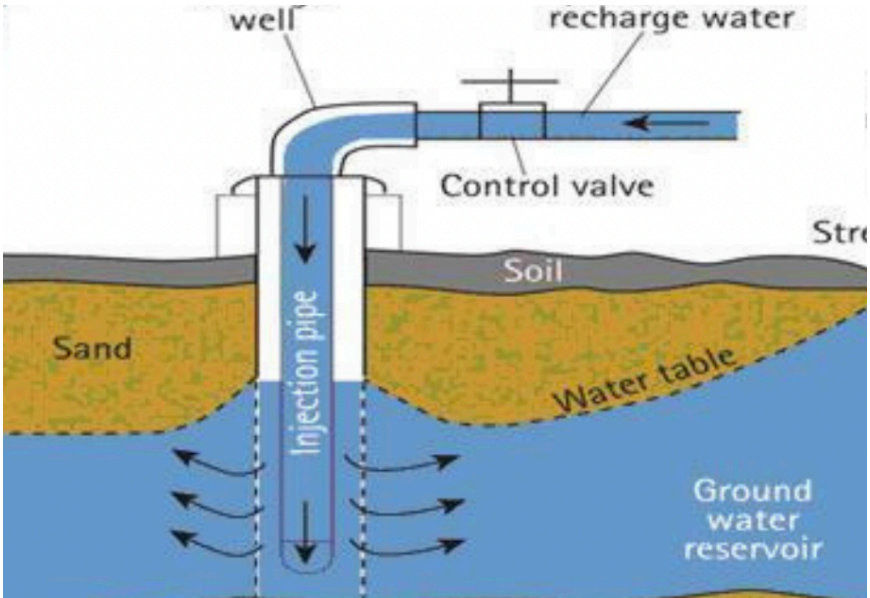
Groundwater recharge basins are large ponds that are filled with water from rivers or canals. Over time, this water seeps into the ground and raises the.

2. Wetlands Habitat Restoration

Another option for recharge is to do recharge in wetlands, nature reserves or other natural habitat areas. When recharge is done in these areas, it also has good effects for plants, birds and other animals that use those areas.

3. On-Farm Recharge

On-farm recharge is basically the same, except that canal water is put on farmland instead of a canal. If the farmer puts much more water on the ground than is used by the crops, the rest of the water will sink down and add to the groundwater below. With on-farm recharge, however, it is important to make sure that pesticides and fertilizers that have been applied to the farm in the past do not leech into the aquifer.



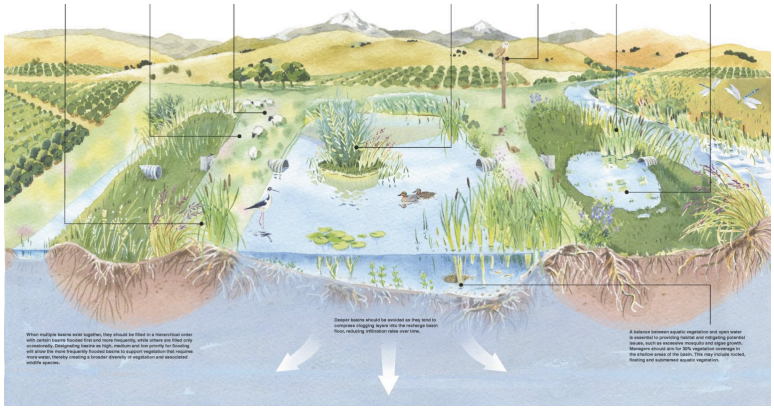
4. Injection Wells

On-farm recharge is basically the same, except that canal water is put on farmland instead of a canal. If the farmer puts much more water on the ground than is used by the crops, the rest of the water will sink down and add to the groundwater below. With on-farm recharge, however, it is important to make sure that pesticides and fertilizers that have been applied to the farm in the past do not leech into the aquifer.

COMMUNITY WORKSHOP

About Water & Fairmead

Saturday Oct. 22nd
Fairmead Elementary School Cafeteria
10am-12pm



Worried about wells going dry & the future of water in Fairmead?

Join us for a workshop to discuss how we can help stop over-pumping & start replenishing groundwater in the community.

We need YOUR input about two possible water projects:
(1) repurposing agricultural land to reduce over-pumping, &
(2) applying water from canals to farms or basins to start putting water back in the ground.

Questions about this workshop?

Contact **Madeline** from Leadership Counsel at **(206) 853-9575.**

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Sustainable Conservation

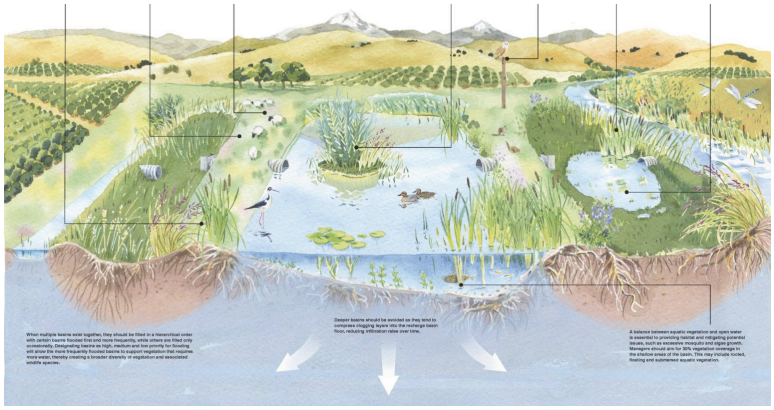
TALLER COMUNITARIO

Sobre el Agua y Fairmead

sábado 22 de Octubre

Cafeteria de Fairmead Elementary School

10am-12pm



Tiene preocupaciones sobre los pozos que se están secando y el futuro de agua en Fairmead?

Acompáñenos para un taller para platicar sobre cómo podemos ayudar a poner fin a la extracción del agua subterránea y comenzar a reponer el agua subterránea en la comunidad.

Necesitamos SUS aportes sobre dos posibles proyectos:
(1) quitar y cambiar terrenos agrícolas para reducir la extracción del agua, y
(2) aplicar agua de canales a ranchos o a cuencas para comenzar a reponer agua en la tierra.

¿Preguntas sobre este taller?

Contáctese con **Madeline** de Consejo de Liderazgo al **(206) 853-9575.**

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

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Sustainable Conservation

Welcome
Bienvenidos

Our agenda for today:

- Introductions
- Overview of the project
- Overview of groundwater conditions
    - Discussion about water-related concerns & solutions
- Potential for groundwater recharge in Fairmead
    - Discussion about this
- Breakout groups
- Recap and next steps
- Lunch!

Nuestro agenda para hoy:

- Introducciones
- Repaso de proyecto
- Repaso de las condiciones del agua subterránea
    - Conversación sobre preocupaciones y soluciones relacionadas al agua
- Posibilidad de recarga de agua en Fairmead
    - Conversación sobre esto
- Pláticas en grupos
- Repaso y próximos pasos
- Almuerzo!

Purpose for a Groundwater Project

- It's no secret that groundwater levels in Fairmead are lowering quickly.
  - How many people have had or know someone who has had a domestic well run dry?
  - How many people have experienced issues with the community water system?
  - Do you ever worry about wells you rely on for running water in your home going dry?
- Fairmead has a lot of acres of irrigated agriculture.
  - How do you think this impacts water?
  - How do you think this impacts air quality?

Propósito para un Proyecto de Agua

- No es secreto que los niveles de agua en Fairmead se están bajando rápidamente.
  - ¿A cuántas personas se les ha secado un pozo doméstico? ¿Cuántos conocen a alguien que ha pasado por eso?
  - ¿Cuántos han tenido problemas con el agua del sistema comunitario?
  - ¿Cuántos tienen preocupaciones que el pozo de donde agarra agua para su casa se le va a secar?
- Fairmead tiene muchos acres de agricultura irrigada.
  - ¿Cómo cree que esto impacta el agua?
  - ¿Cómo cree que esto impacta la calidad del aire?

Purpose for a Groundwater Project

The organizations here today have received funding from the government to plan a groundwater sustainability project in Fairmead. We are looking into two different approaches & we want your direction on how to plan:

1. Repurposing agricultural land
    a. For example: Removing almond trees from an orchard and turning it into green space for a park or planting native plants that can help restore the soil & use significantly less water.

2. Creating a groundwater recharge project
    a. For example: Taking water from a canal and putting it into a basin so the water can seep back into the ground and bring groundwater levels back up.

Propósito para un Proyecto de Agua

Las organizaciones presentes aquí hoy han recibido fondos del gobierno para planificar un proyecto para la sostenibilidad del agua subterránea en Fairmead. Estamos viendo dos diferentes opciones y queremos sus aportes sobre cómo planear el proyecto:

1. Cambiar terrenos agrícolas
    a. Por ejemplo: Quitar acres de almendras y convertirlo en espacio verde para un parque o poner plantas nativas que pueden restaurar la tierra y usar mucho menos agua.

2. Crear un proyecto para recargar el agua subterránea
    a. Por ejemplo: Traer agua de un canal y ponerlo en una cuenca para que el agua llene el acuífero de nuevo y los niveles de agua subterránea se suban.

Groundwater Conditions Without Projects

Condiciones de Agua Subterránea Sin Proyectos

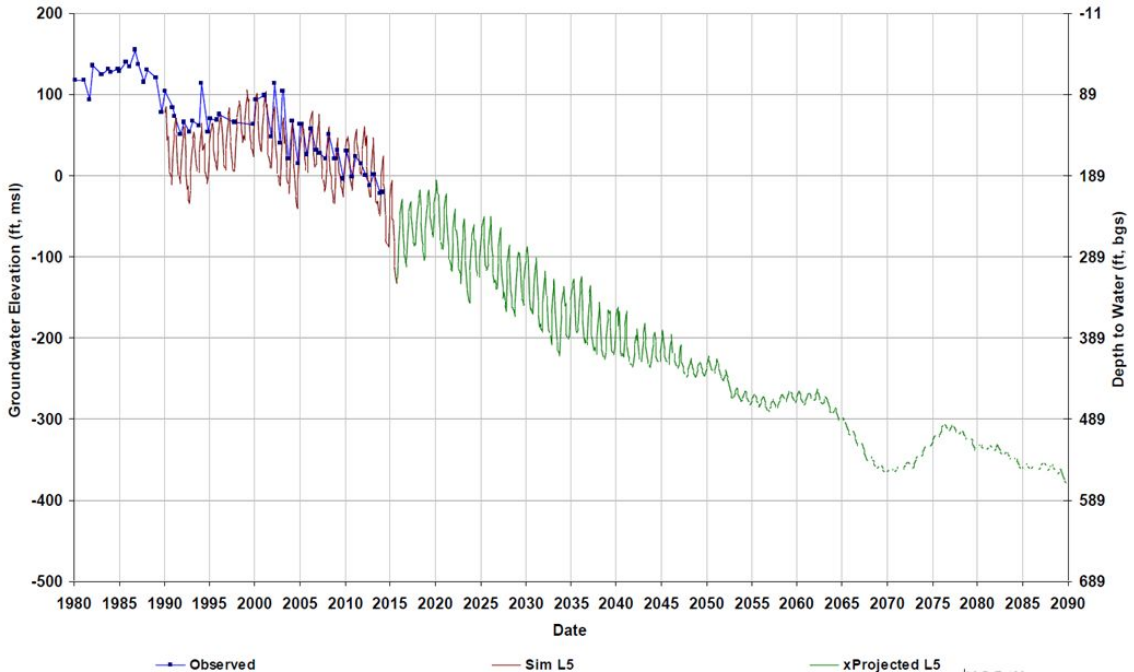
MCSim - Projected

Appendix E.3.

Well Name: 11S15E01H002M
Depth Zone: Unknown; Outside CC
Subbasin: Madera
GSE (ft, msl): 189

SAMPLE WELL

Total Depth (ft):
Perf Top (ft):
Perf Bottom (ft):
Top Model Layer: 5
Bottom Model Layer: 5



Water-related concerns

- How long have you lived in Fairmead?
- Have you noticed wells going dry in that time?
- Have you noticed any issues with the community water system?
- Other concerns?

Preocupaciones relacionadas con el agua

- ¿Cuánto tiempo ha vivido en Fairmead?
- ¿Se han secado pozos durante este tiempo?
- ¿Ha notado problemas con el sistema comunitario?
- ¿Otras preocupaciones?

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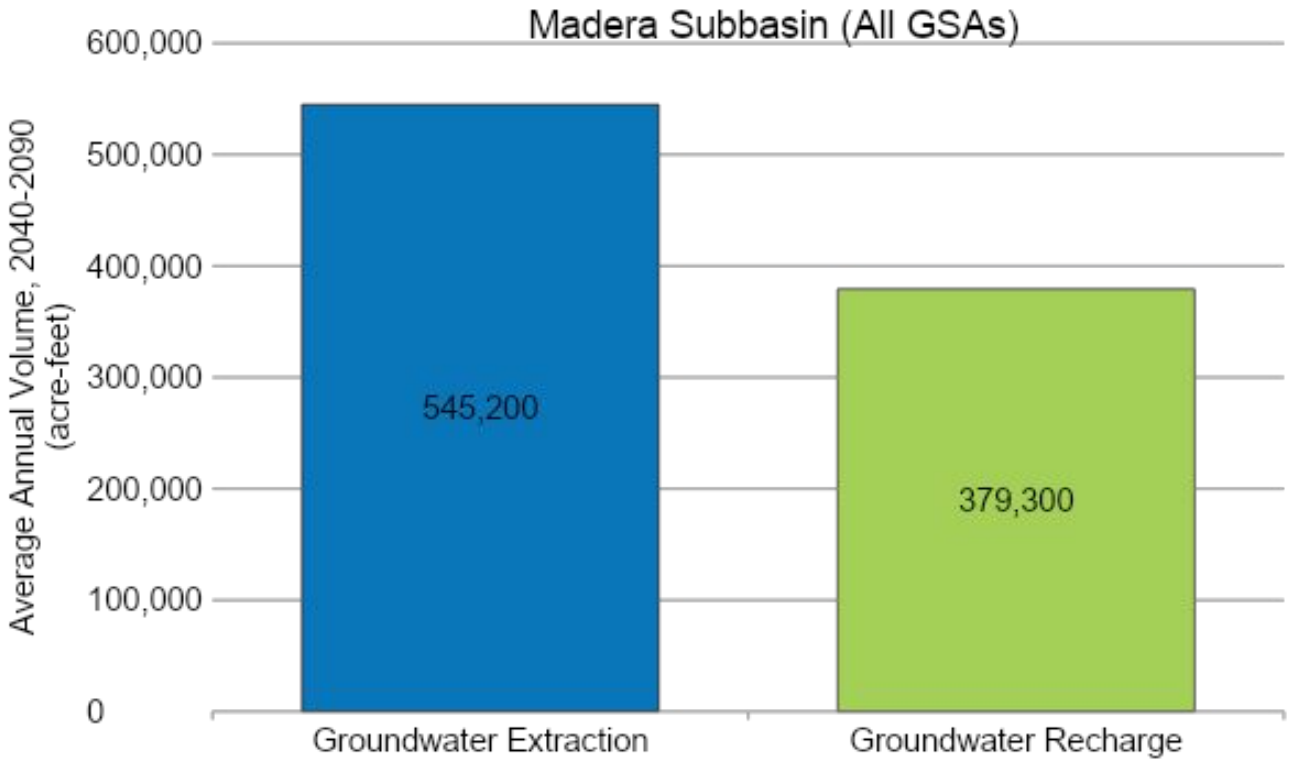
maderacounty.com

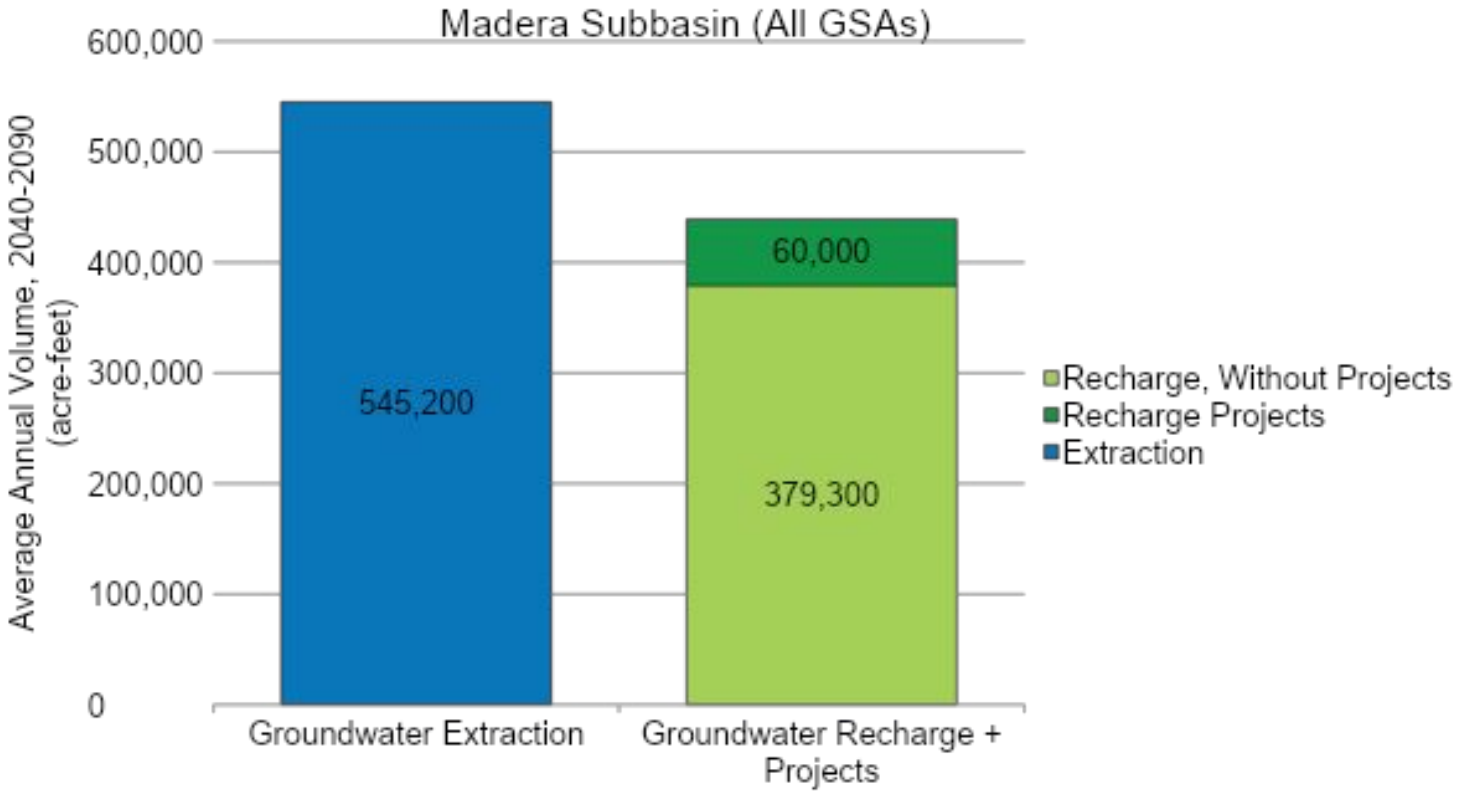
Simplified Groundwater Budget Without Projects

Presupuesto Básico de Agua Sin Proyectos



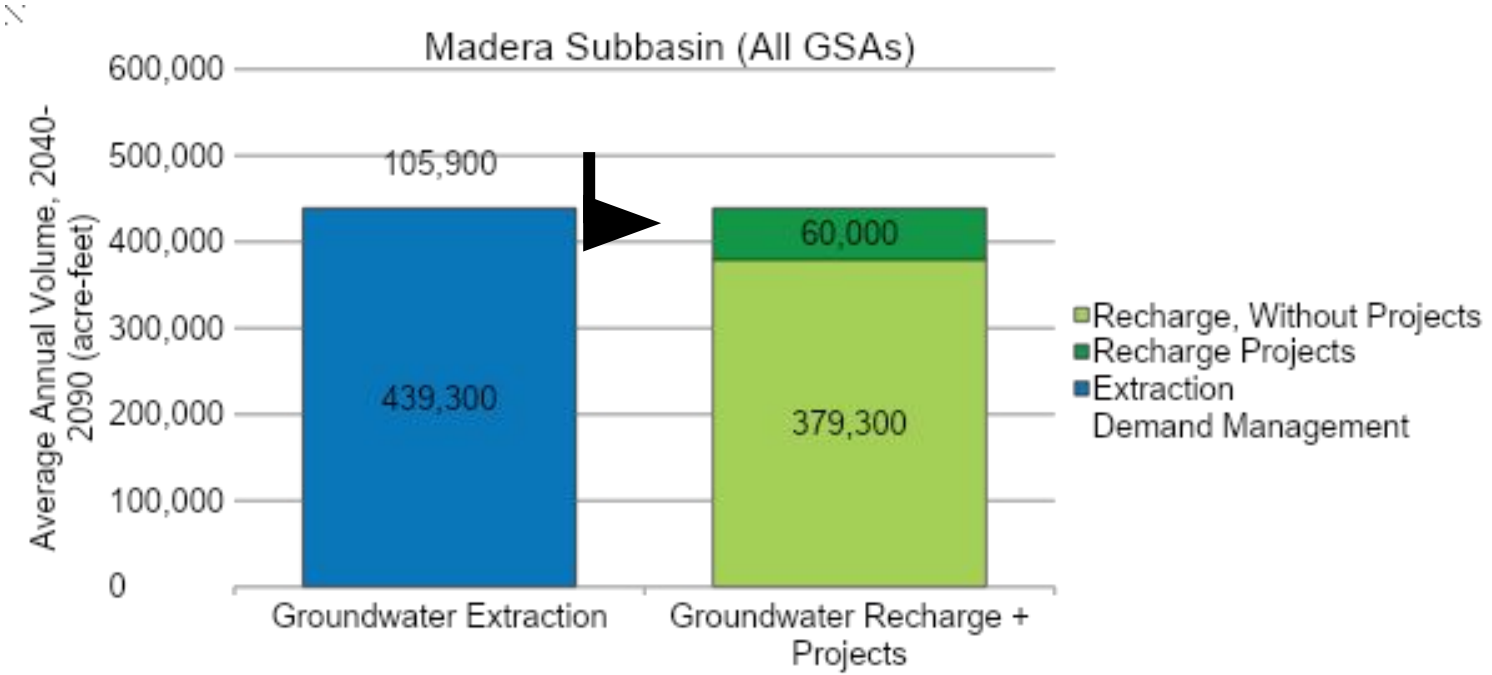
Develop Projects to Increase Recharge

Desarrollo de Proyectos Para Recargar el Agua Subterránea



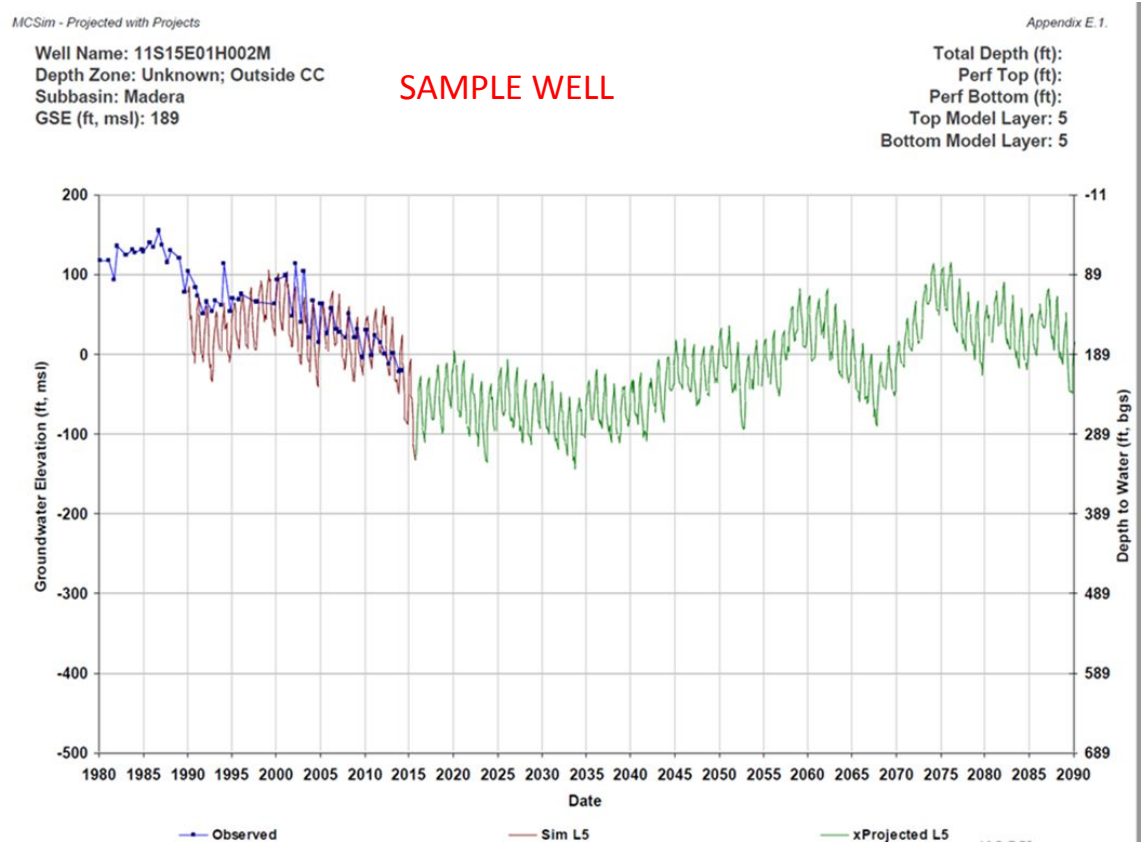
Develop Programs to Reduce Demand

Desarrollo de Programas para Reducir la Demanda de Agua



Groundwater Conditions With Projects

Condiciones de Agua Subterránea Con Proyectos



Summary of Projects/Management Actions

- Bring in as much water as possible (supply augmentation)
- Use less water (demand reduction)
    - Allocation for farmers in county-managed areas
    - Land repurposing of land in county-managed areas
        - Multi-Benefit Land Repurposing
            - Rewilding
            - Unirrigated agricultural use
            - Recharge

Resumen de Proyectos/Acciones

- Traer tanto agua como posible (aumentar el suministro)
- Usar menos agua (reducir la demanda)
    - Asignación de agua para los rancheros en áreas manejadas por el condado
    - Cambio de terrenos agrícolas en áreas manejadas por el condado
        - Cambio de Terrenos con Varios Beneficios
            - Restauración de ambientes naturales
            - Usos agrícolas que no requieren irrigación (ej: pasturas)
            - Poner el agua subterránea (ej: aplicar agua de canales al terreno)

Water-related solutions

- What do you think about the types of projects that we just shared about?
- Of the types of projects we just discussed, which are most appealing to you? Why?
- Are there any that you definitely wouldn't want in Fairmead? Why?
- Are there other solutions you'd like to see get implemented in Fairmead that we discuss?

Soluciones Relacionadas con el Agua

- ¿Qué opina de los diferentes proyectos que platicamos?
- De los diferentes tipos de proyectos que repasamos, ¿cuáles le interesan más? ¿Por qué?
- ¿Hay algunos proyectos que repasamos que definitivamente no quisiera en Fairmead? ¿Por qué?
- ¿Hay otras soluciones que quisiera ver en Fairmead que todavía no hemos platicado?

Groundwater Recharge Potential in Fairmead

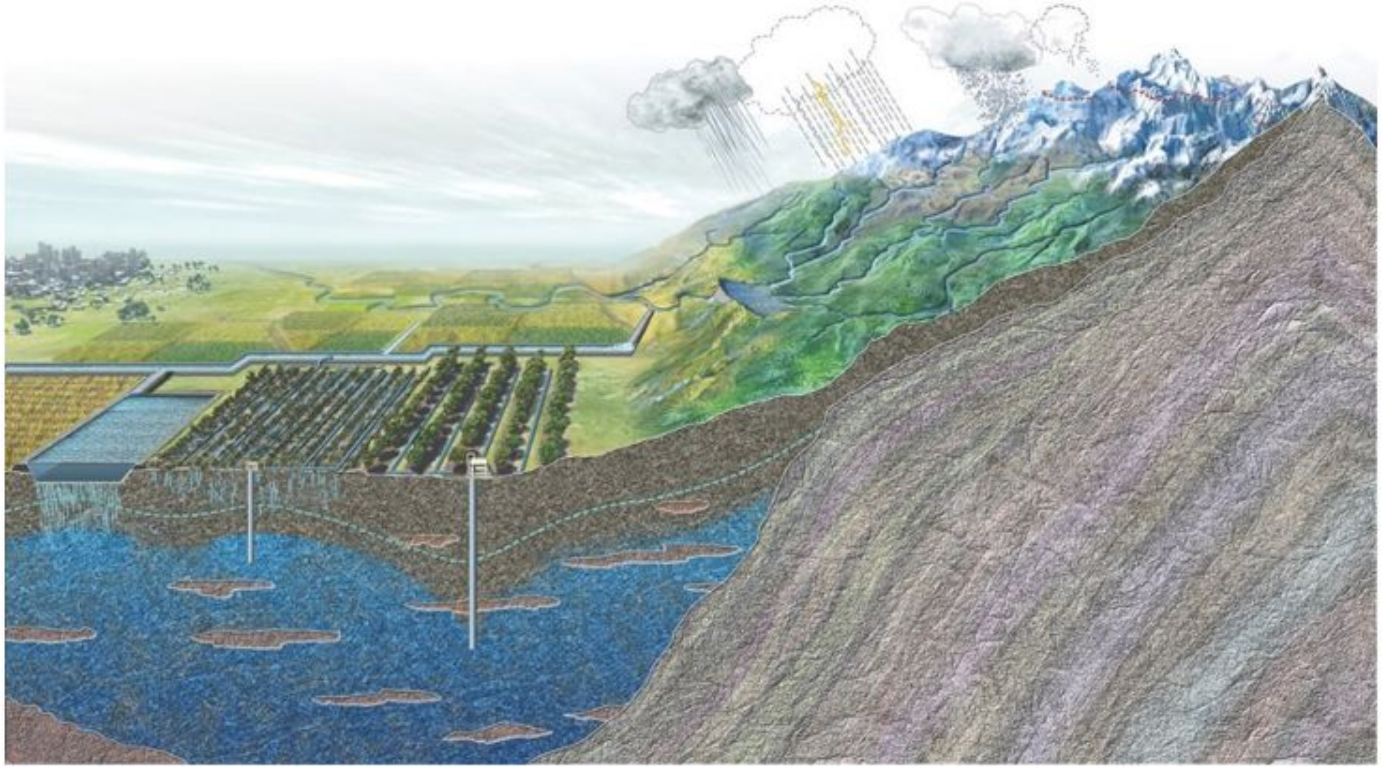
Posibilidades para Reponer el Agua Subterránea en Fairmead

By Aysha Massell, Sustainable Conservation

October 2022

What is groundwater recharge?

¿A qué se refiere la recarga de agua?



What does it look like?

¿Cómo se ve?

On-farm recharge / inundación de agua en un rancho

Recharge basins / Cuencas o estanques

Multi-benefit recharge has lots of potential

Recarga de agua con varios beneficios brinda muchas oportunidades

Recharge aquifers

Rellenar el acuífero

Parks and open space

Parques y espacio verde

Reduce flooding

Reducir el riesgo de inundaciones

Provide habitat

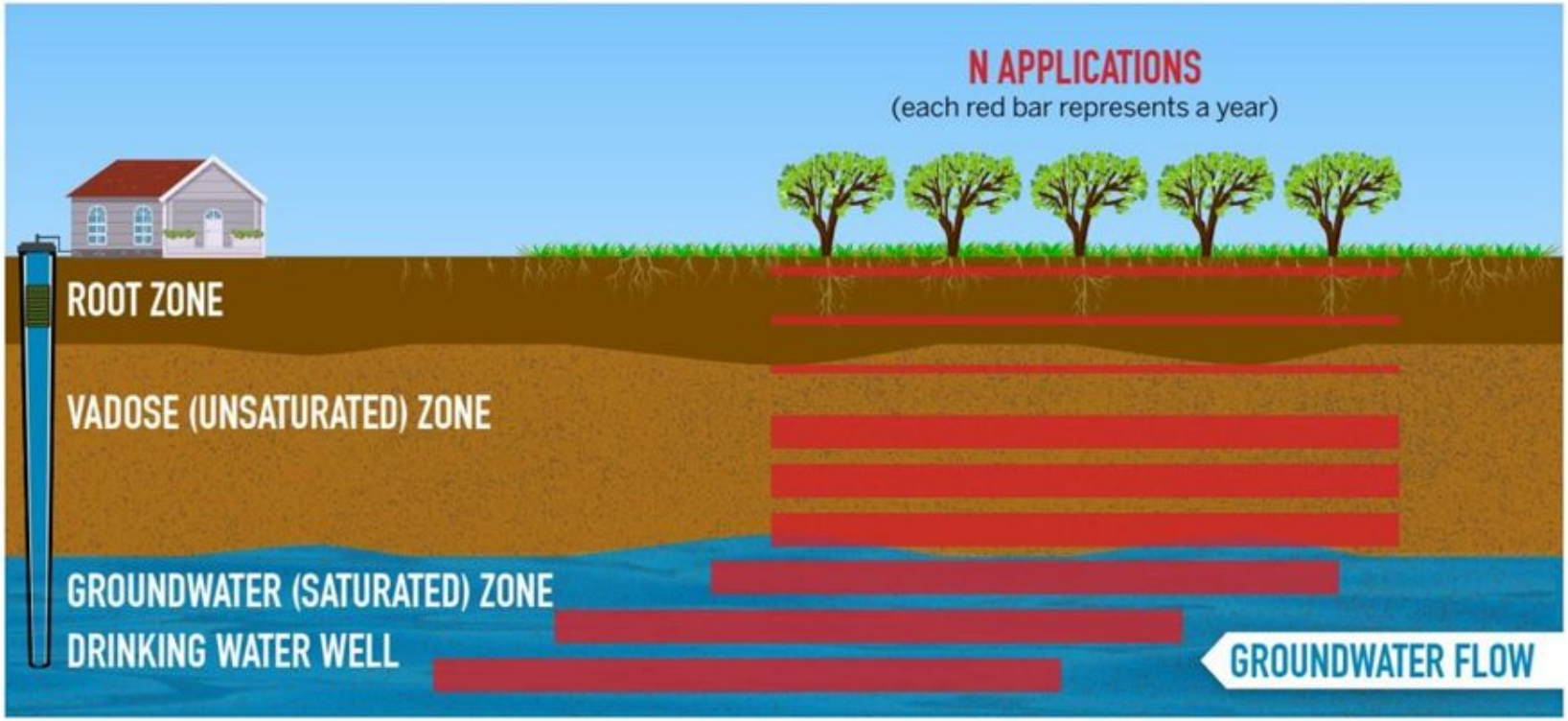
Proporcionar hábita

Carbon sequestration

Capturar el carbono

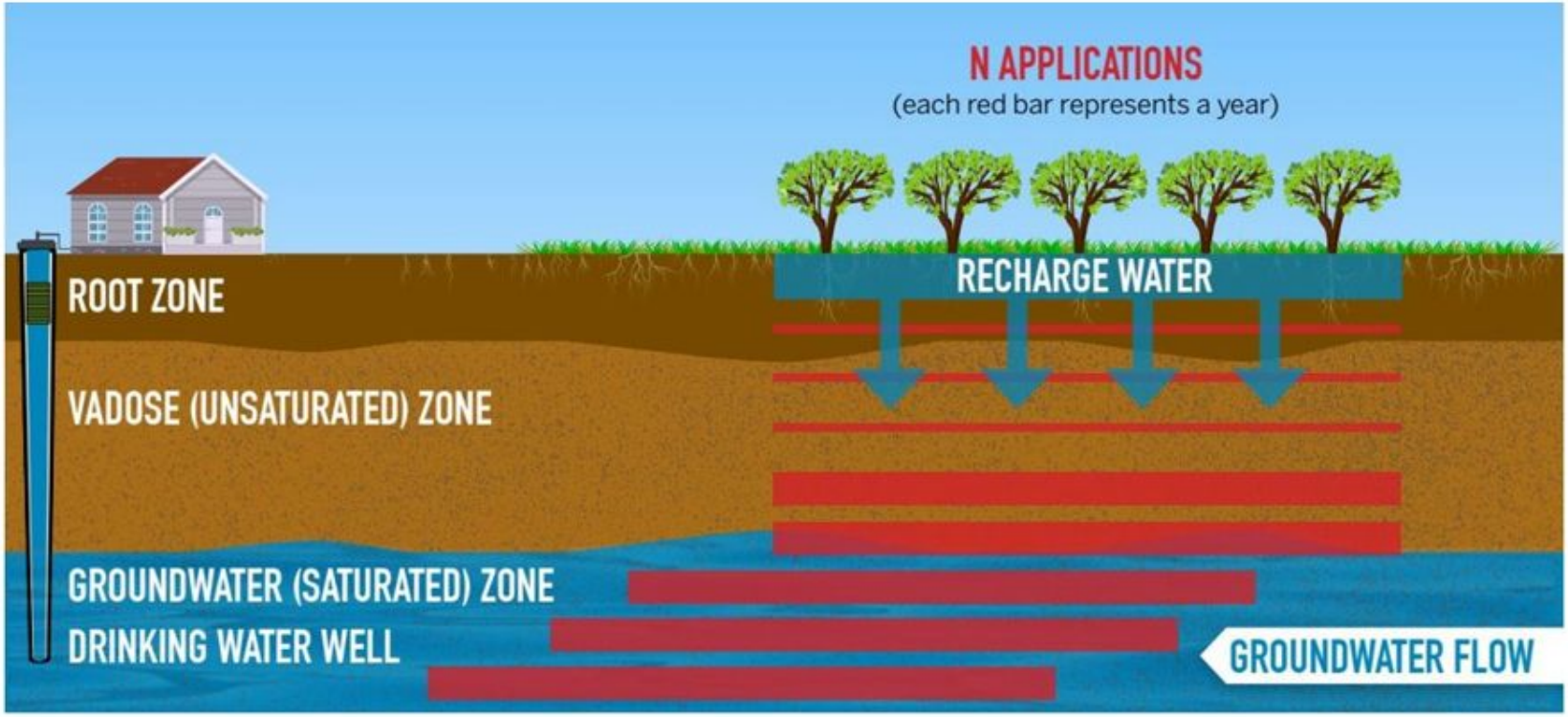
What are some concerns with recharge?

¿Cuáles son algunas preocupaciones con la recarga de agua?



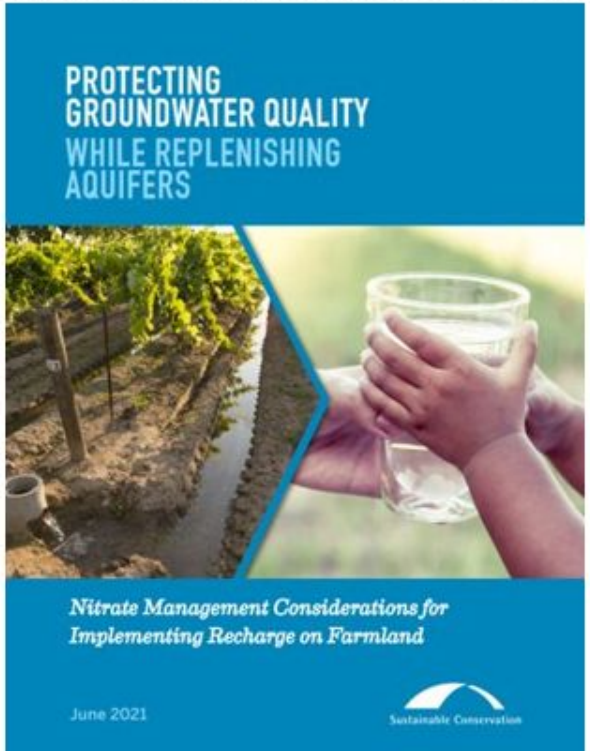
What are some concerns with recharge?

¿Cuáles son algunas preocupaciones con la recarga de agua?



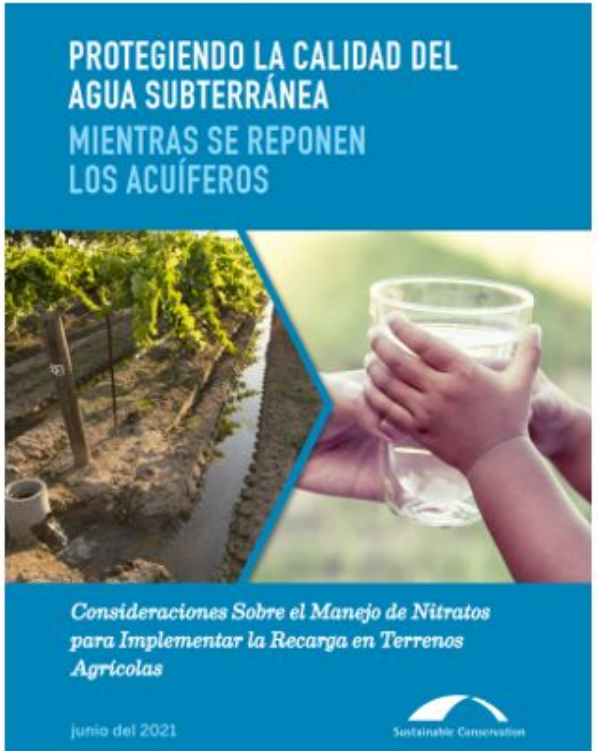
For more information check out our water quality resources

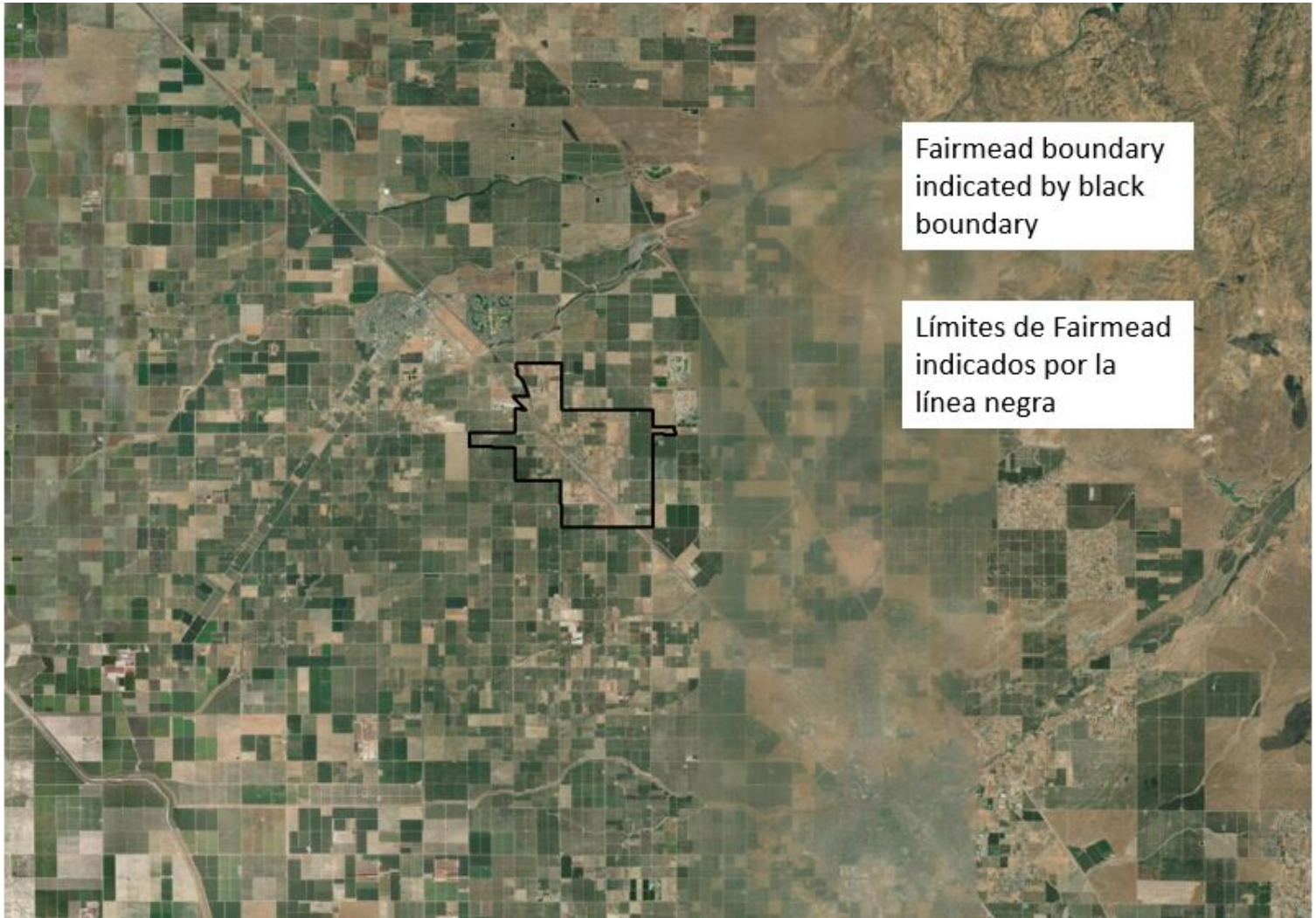
www.suscon.org/technical-resources



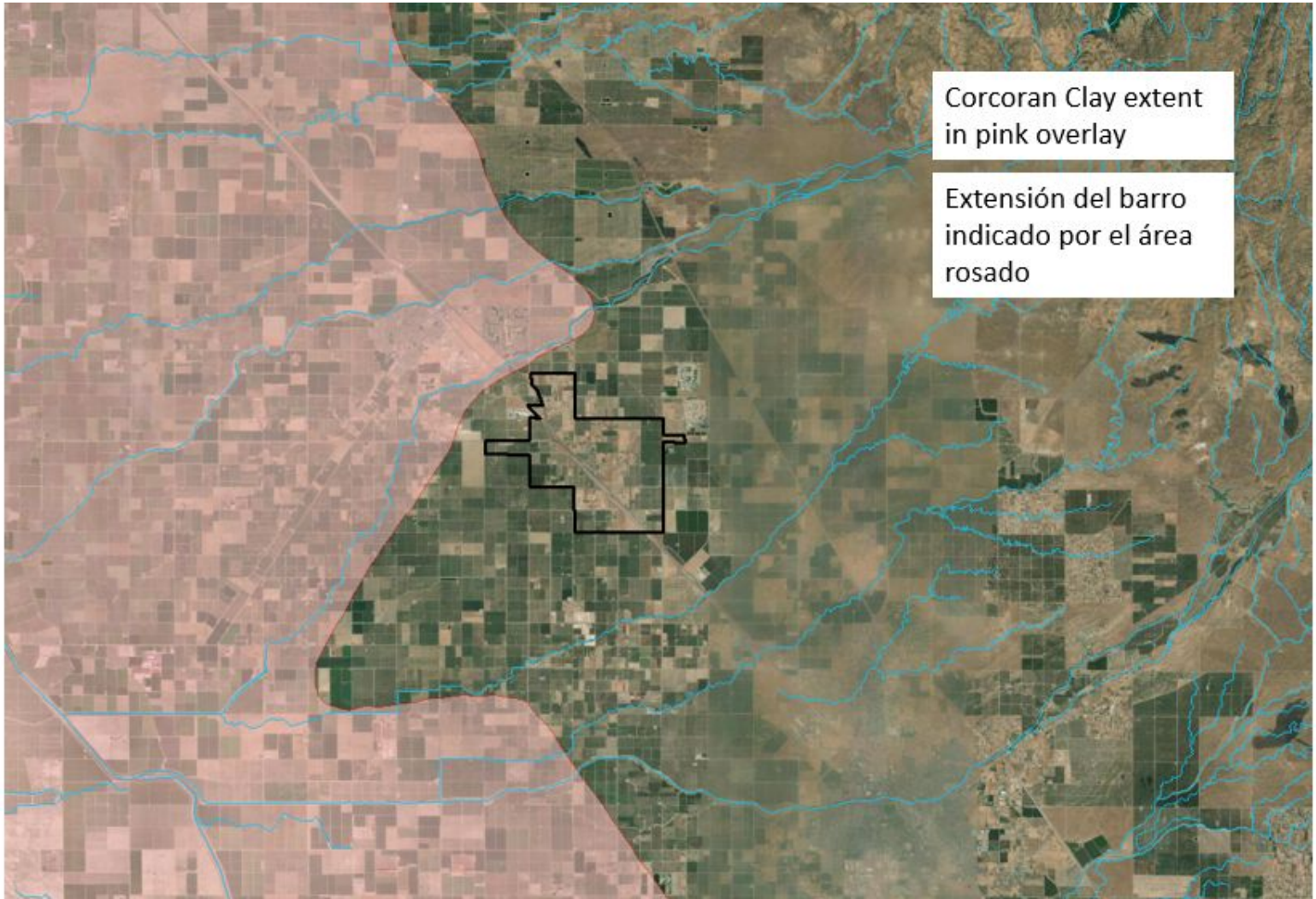
Para más información, vea nuestros recursos sobre la calidad de agua

www.suscon.org/technical-resources




Fairmead boundary indicated by black boundary
Límites de Fairmead indicados por la línea negra

Rivers and streams in blue lines
Ríos y arroyos indicados por las líneas azules


Corcoran Clay extent in pink overlay
Extensión del barro indicado por el área rosado

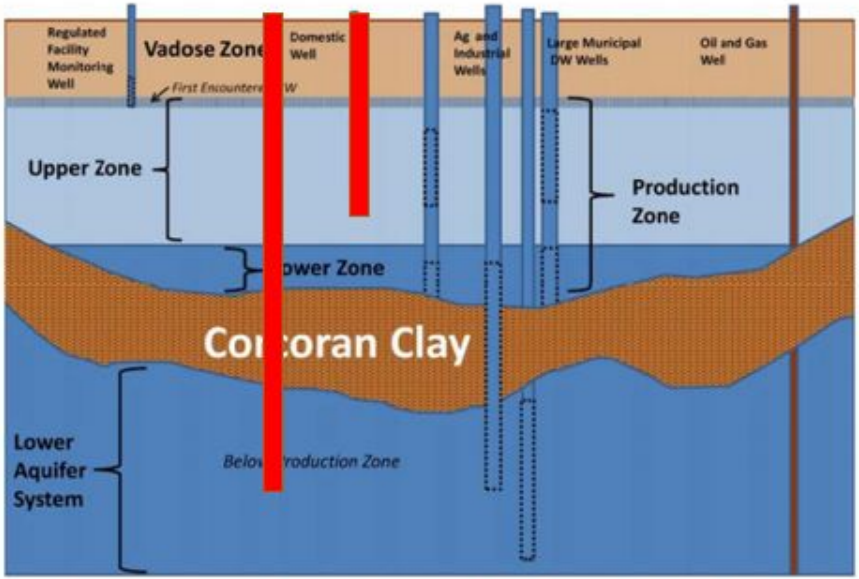


Figure ES-5. Schematic of Aquifer System (Where Corcoran Clay Layer Present)

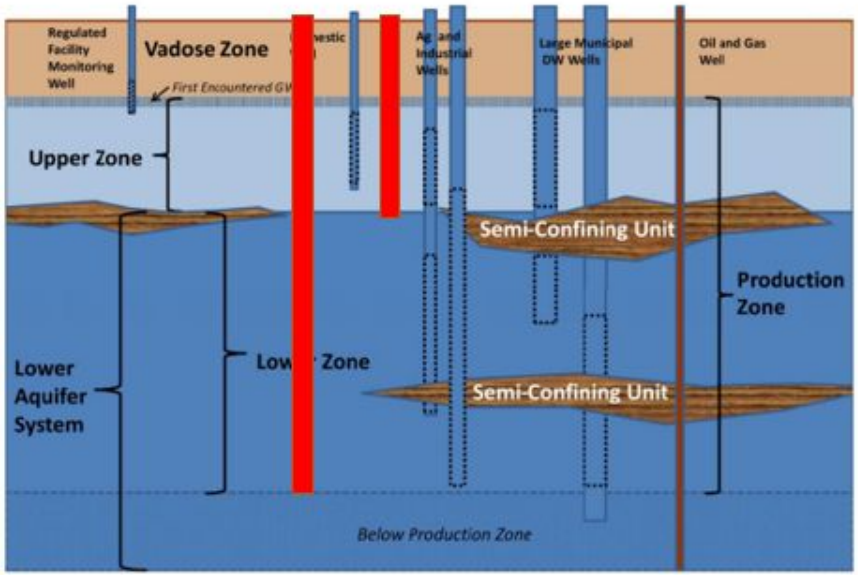
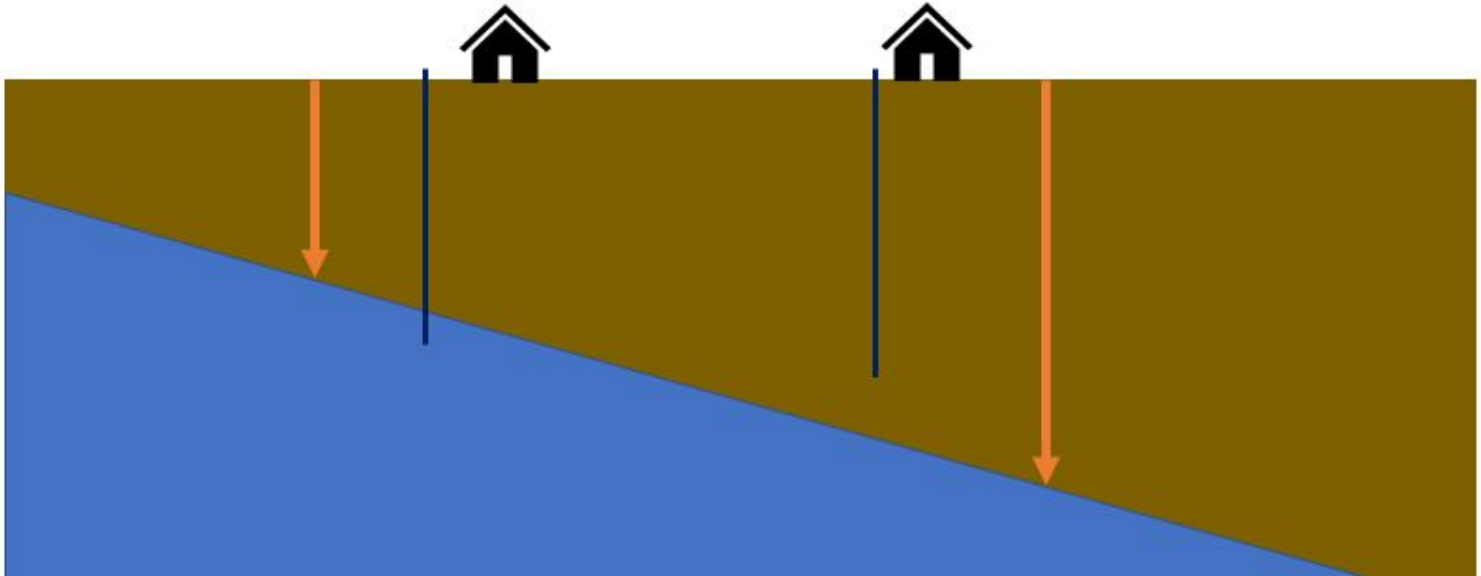


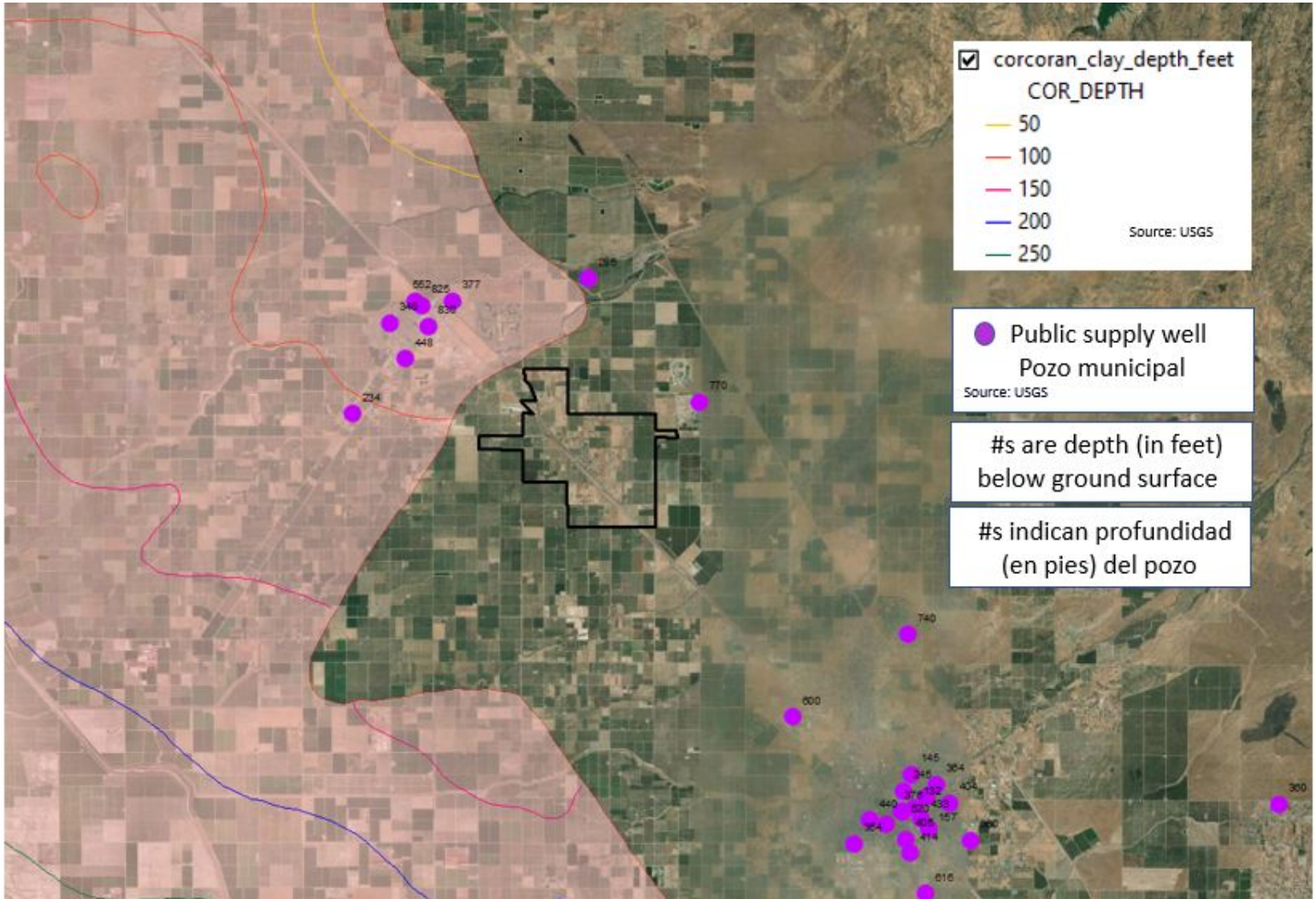
Figure ES-4. Schematic of Aquifer System (Where Corcoran Clay Absent)

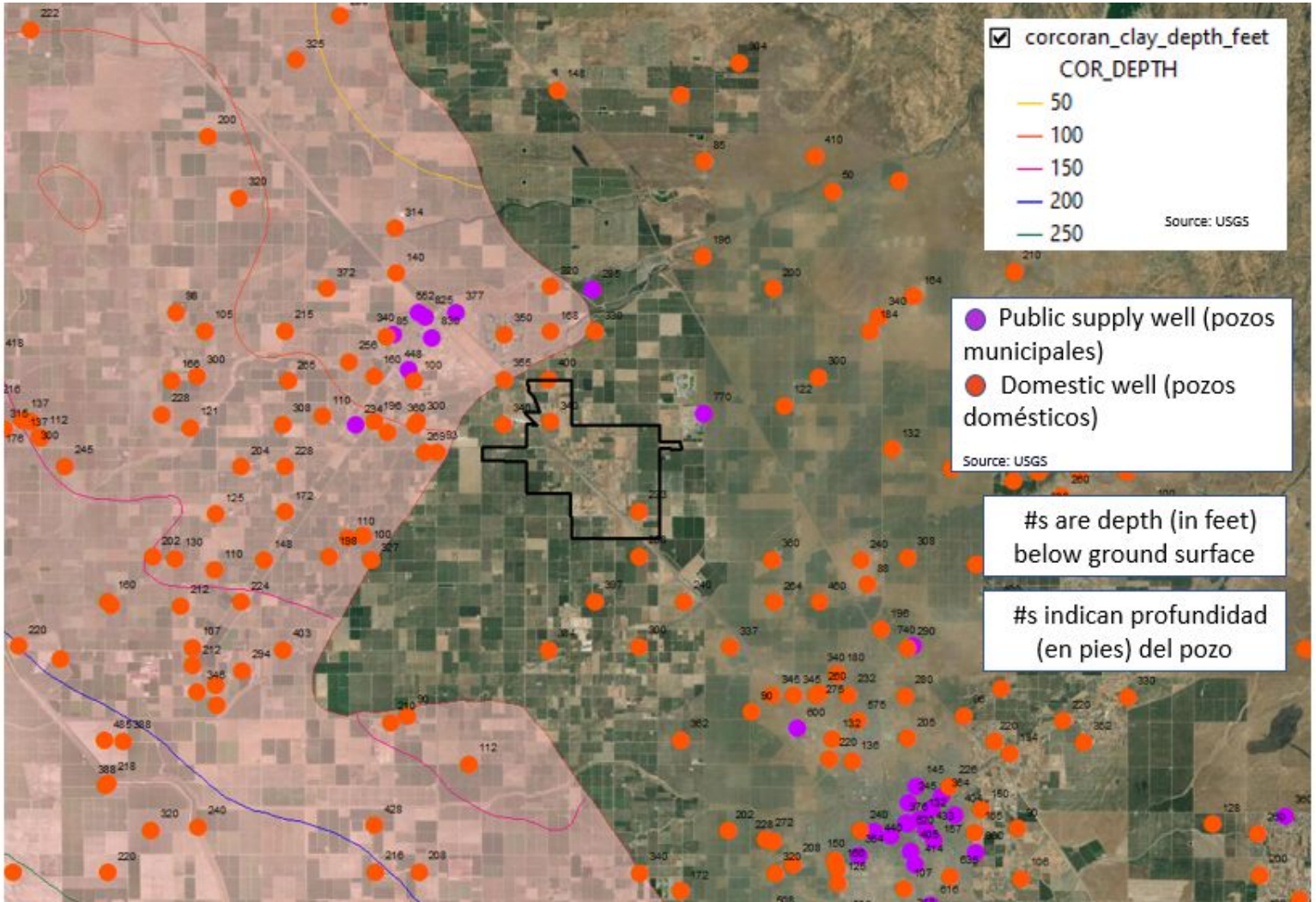
From Central Valley Salt and Nitrate Management Plan Executive Summary, 2016

Different ways to measure groundwater levels
Diferentes maneras de medir los niveles de agua subterránea

Depth below ground surface
Profundidad del agua por debajo de la tierra




corcoran_clay_depth_feet
COR_DEPTH
50
100
150
200
250
Source: USGS
Public supply well
Pozo municipal
Source: USGS
#s are depth (in feet) below ground surface
#s indican profundidad (en pies) del pozo


corcoran_clay_depth_feet
COR_DEPTH
50
100
150
200
250
Source: USGS
Public supply well (pozos municipales)
Domestic well (pozos domésticos)
Source: USGS
#s are depth (in feet) below ground surface
#s indican profundidad (en pies) del pozo

Fall 2018

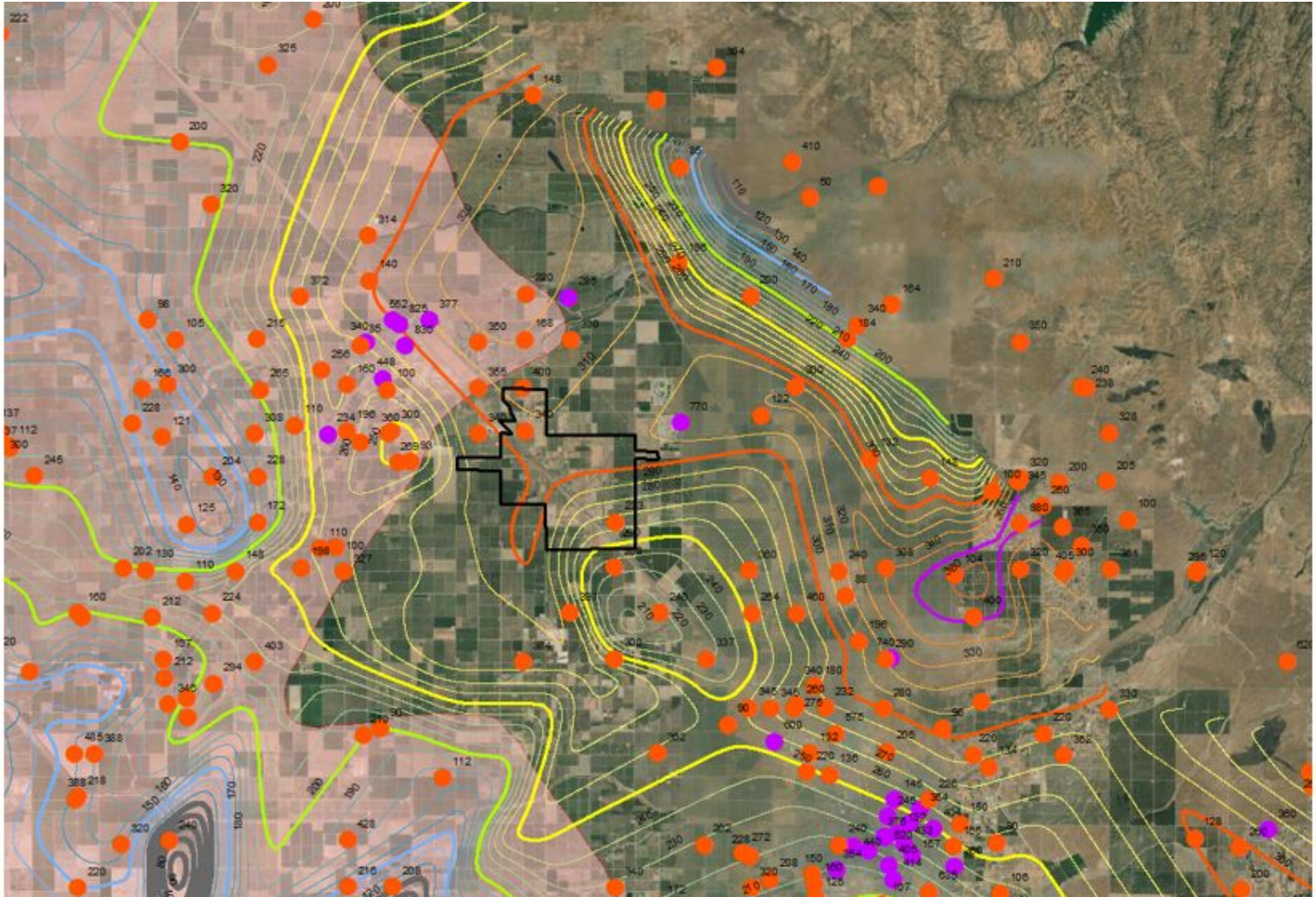
Depth (in feet) Below Ground Surface

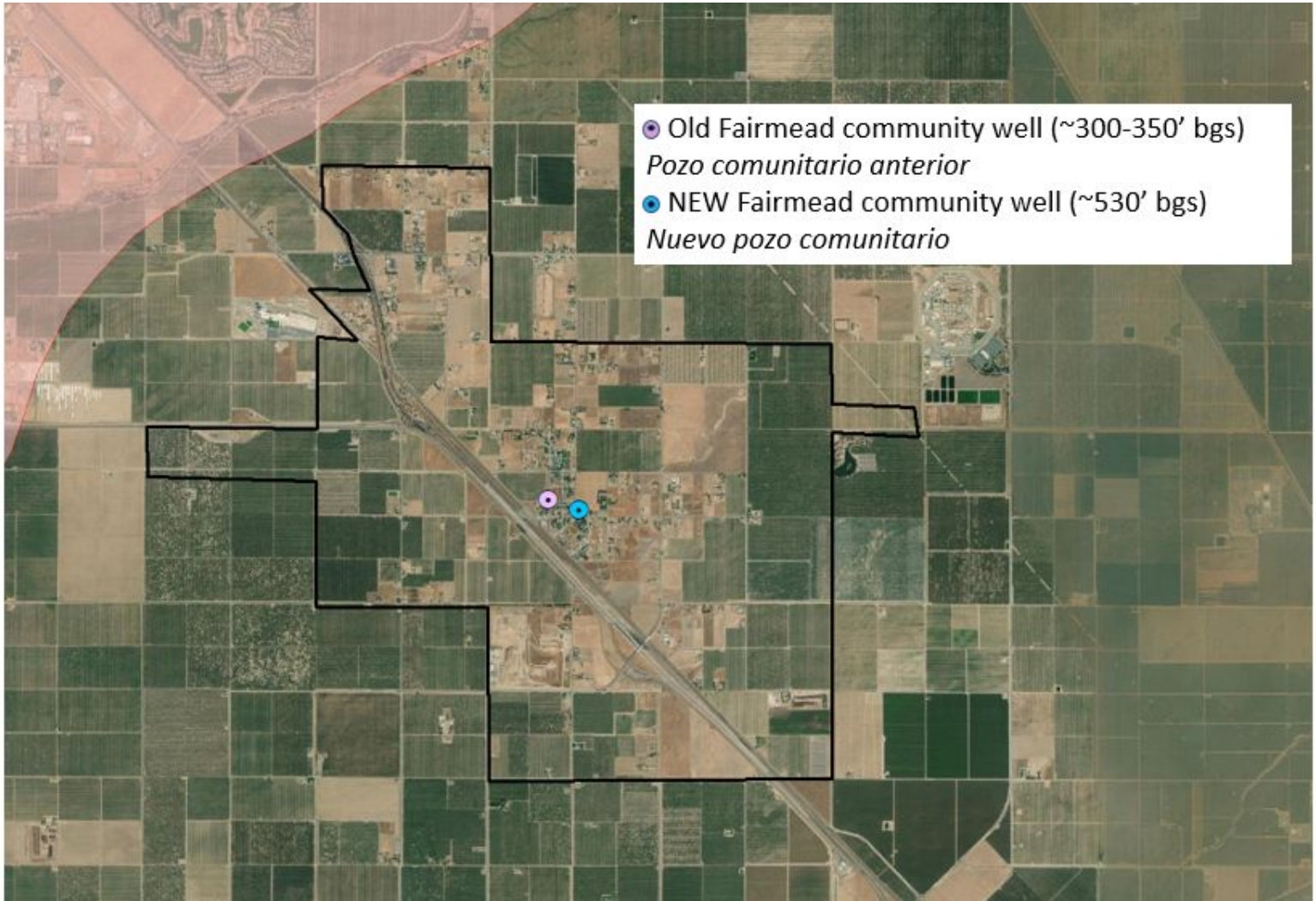
Source: DWR

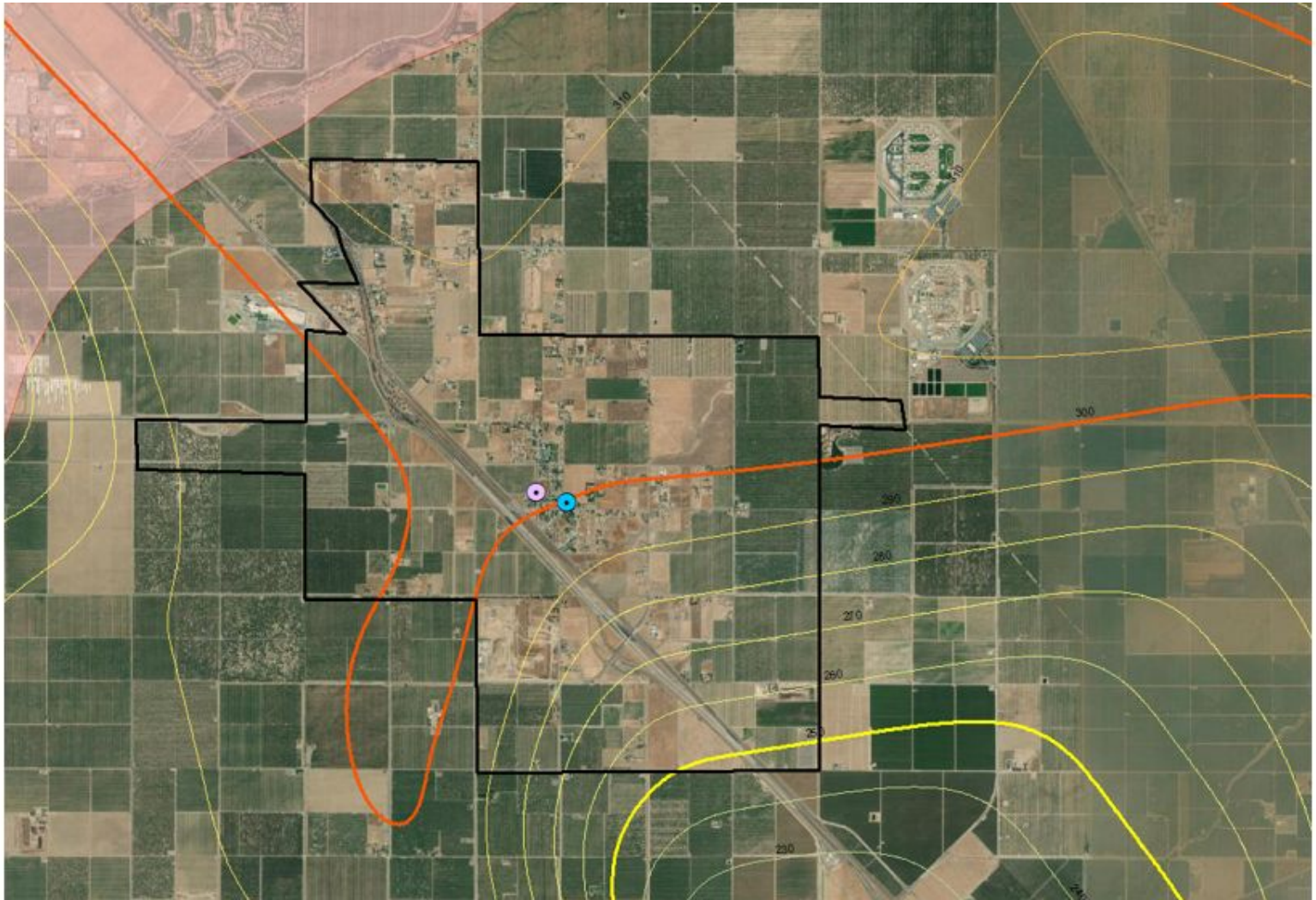
Otoño 2018

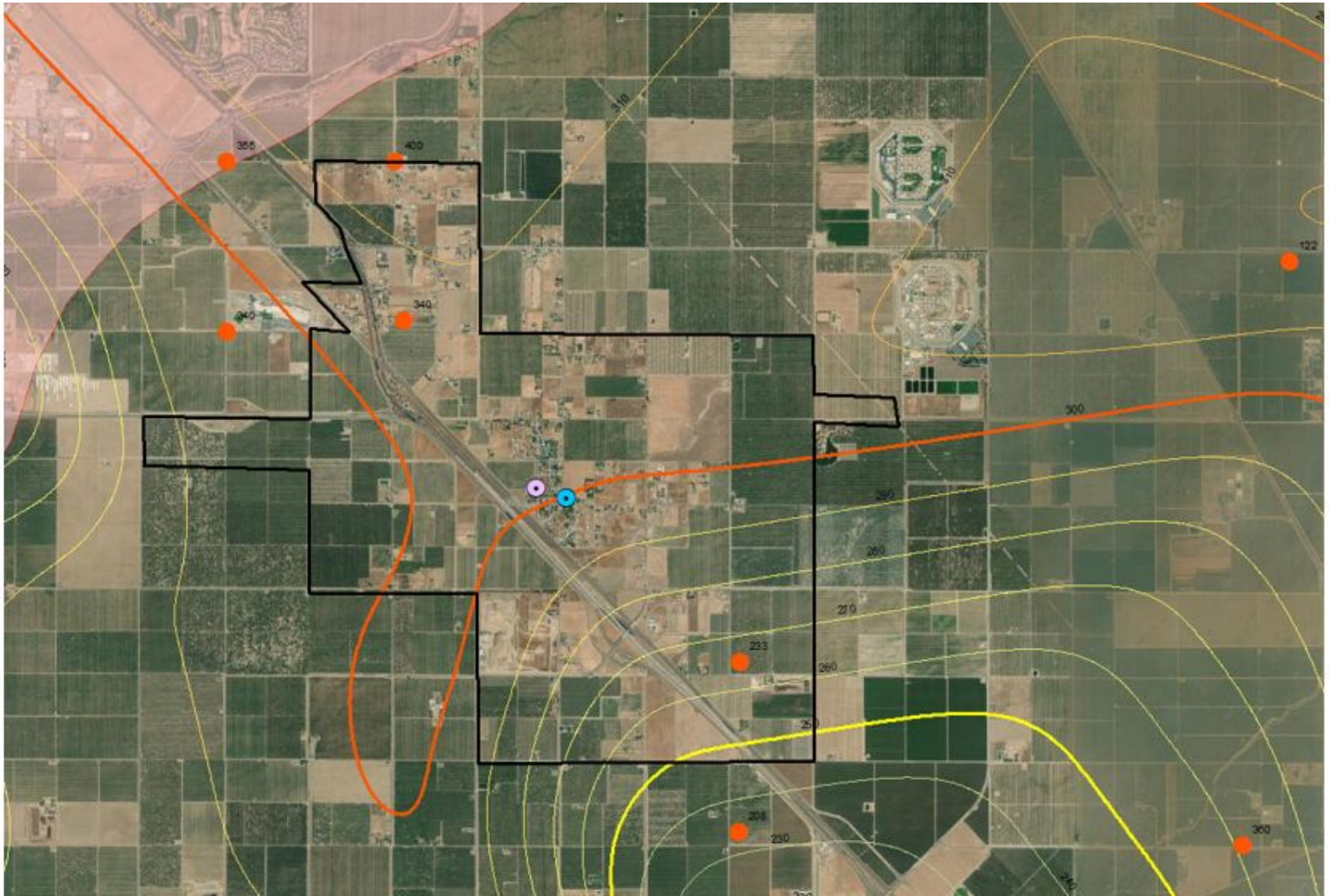
Profundidad (en pies) bajo la tierra

Source: DWR



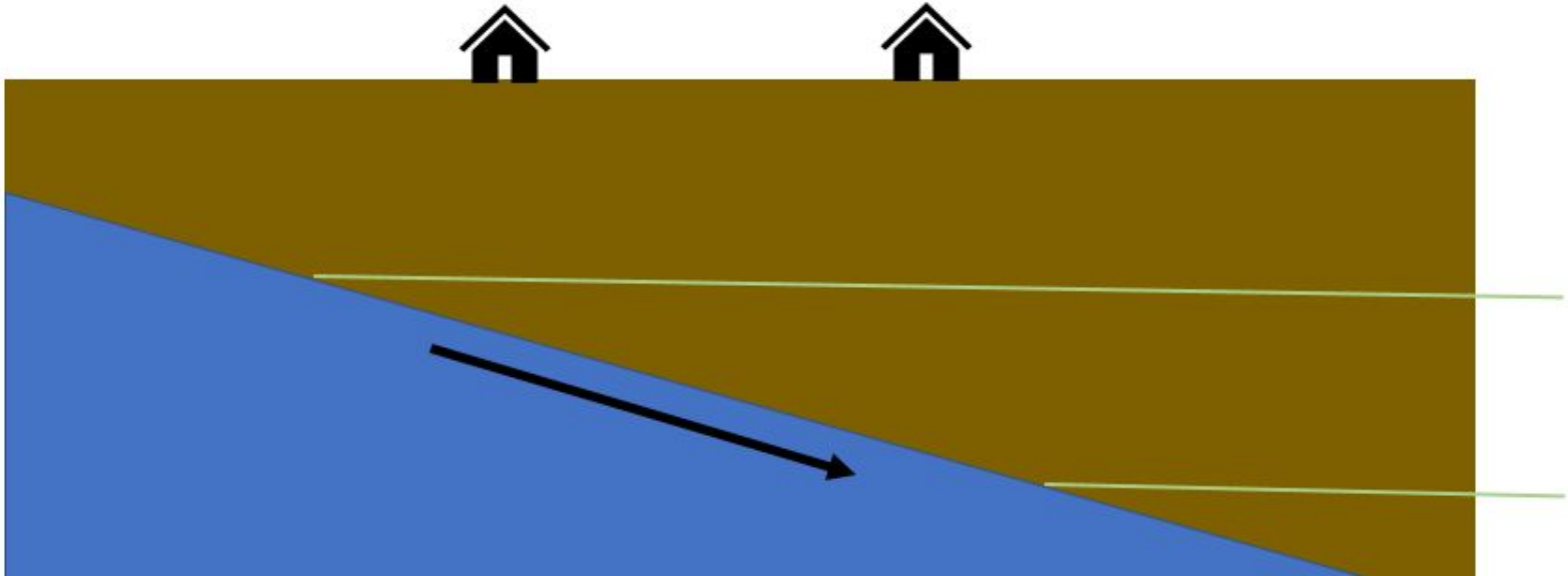

Old Fairmead community well (~300-350’ bgs)
Pozo comunitario anterior
NEW Fairmead community well (~530’ bgs)
Nuevo pozo comunitario


310
300
290
280
270
260
250
240


365
400
340
340
122
300
290
280
270
233
260
250
208
230
360

Different ways to measure groundwater levels
Diferentes maneras de medir los niveles del agua subterránea

Mean sea level elevation
Elevación de promedio del nivel del mar



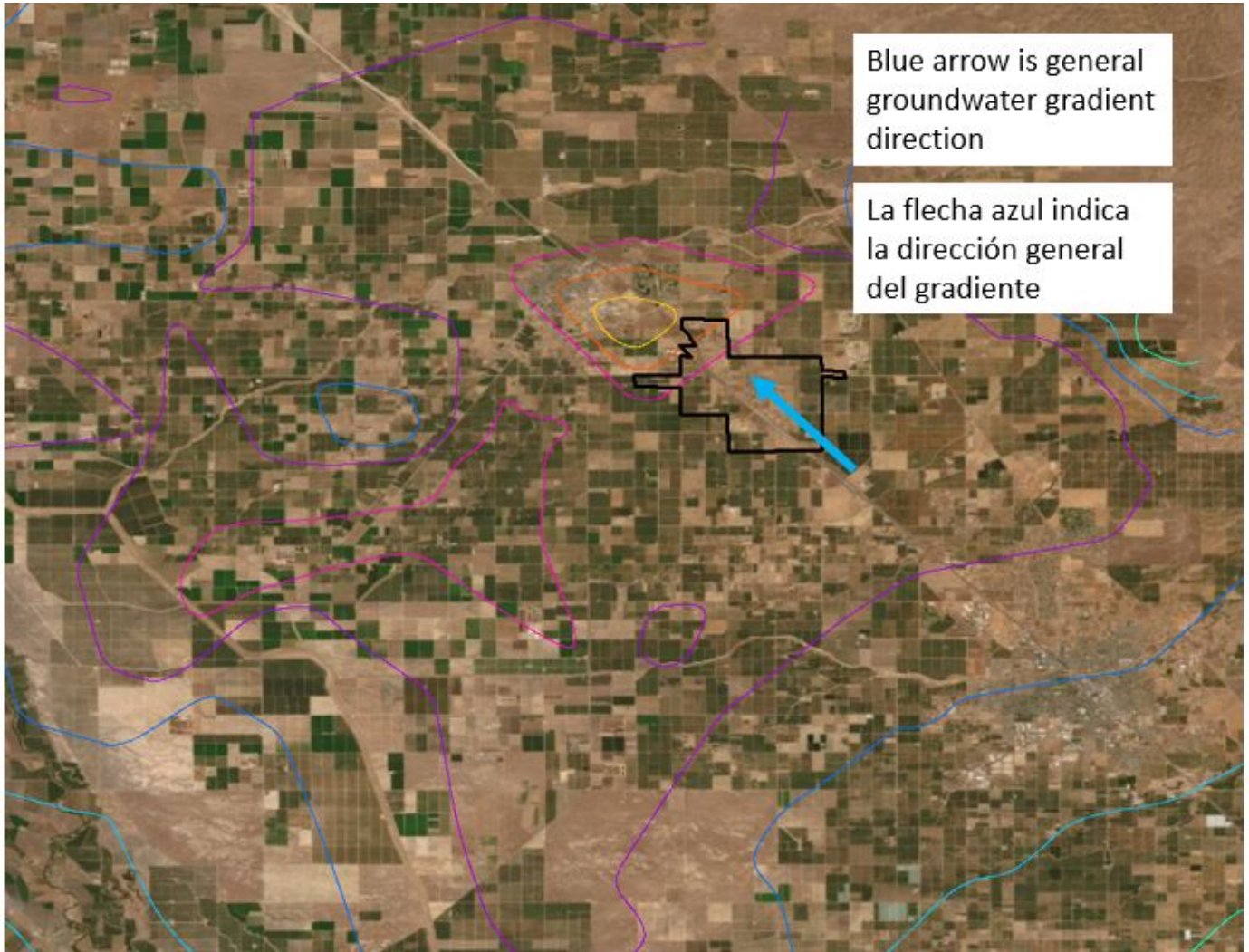
Spring 2016
Primavera 2016

Groundwater (mean sea level elevation)

Agua subterránea (elevación de promedio del nivel del mar)

-150
-100
-50
0
50
100
150

Source: DWR



Fall 2016
Otoño 2016

Groundwater (mean sea level elevation)

Agua subterránea (elevación de promedio del nivel del mar)

- -150
- -100
- -50
- 0
- 50
- 100
- 150

Source: DWR

Spring 2017
Primavera 2017

Groundwater (mean sea level elevation)

Agua subterránea (elevación de promedio del nivel del mar)

- -150
- -100
- -50
- 0
- 50
- 100
- 150

Source: DWR

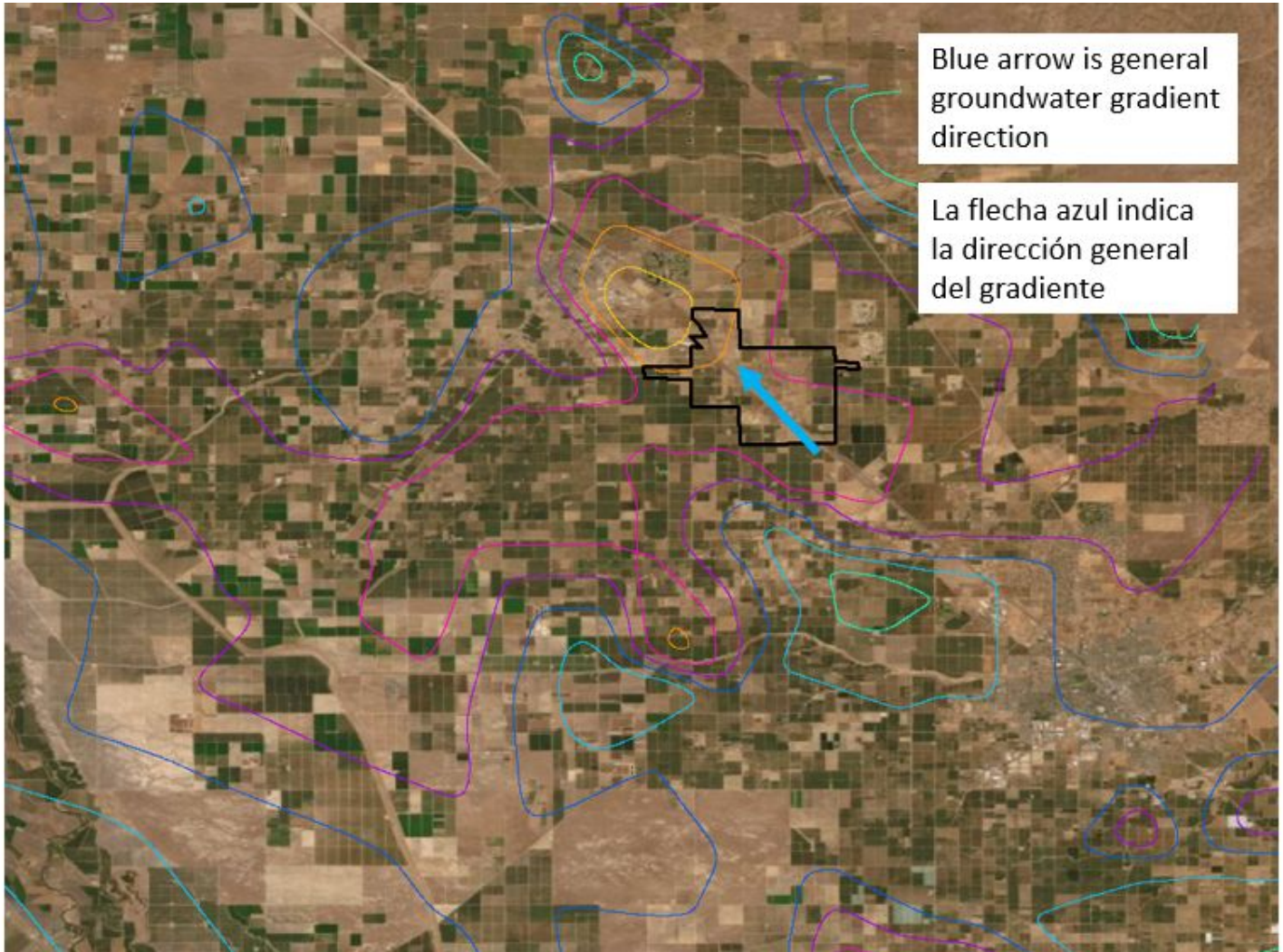
Fall 2017
Otoño 2017

Groundwater (mean sea level elevation)

Agua subterránea (elevación de promedio del nivel del mar)

- -150
- -100
- -50
- 0
- 50
- 100
- 150

Source: DWR



Spring 2018
Primavera 2018

Groundwater (mean sea level elevation)

- -150
- -100
- -50
- 0
- 50
- 100
- 150

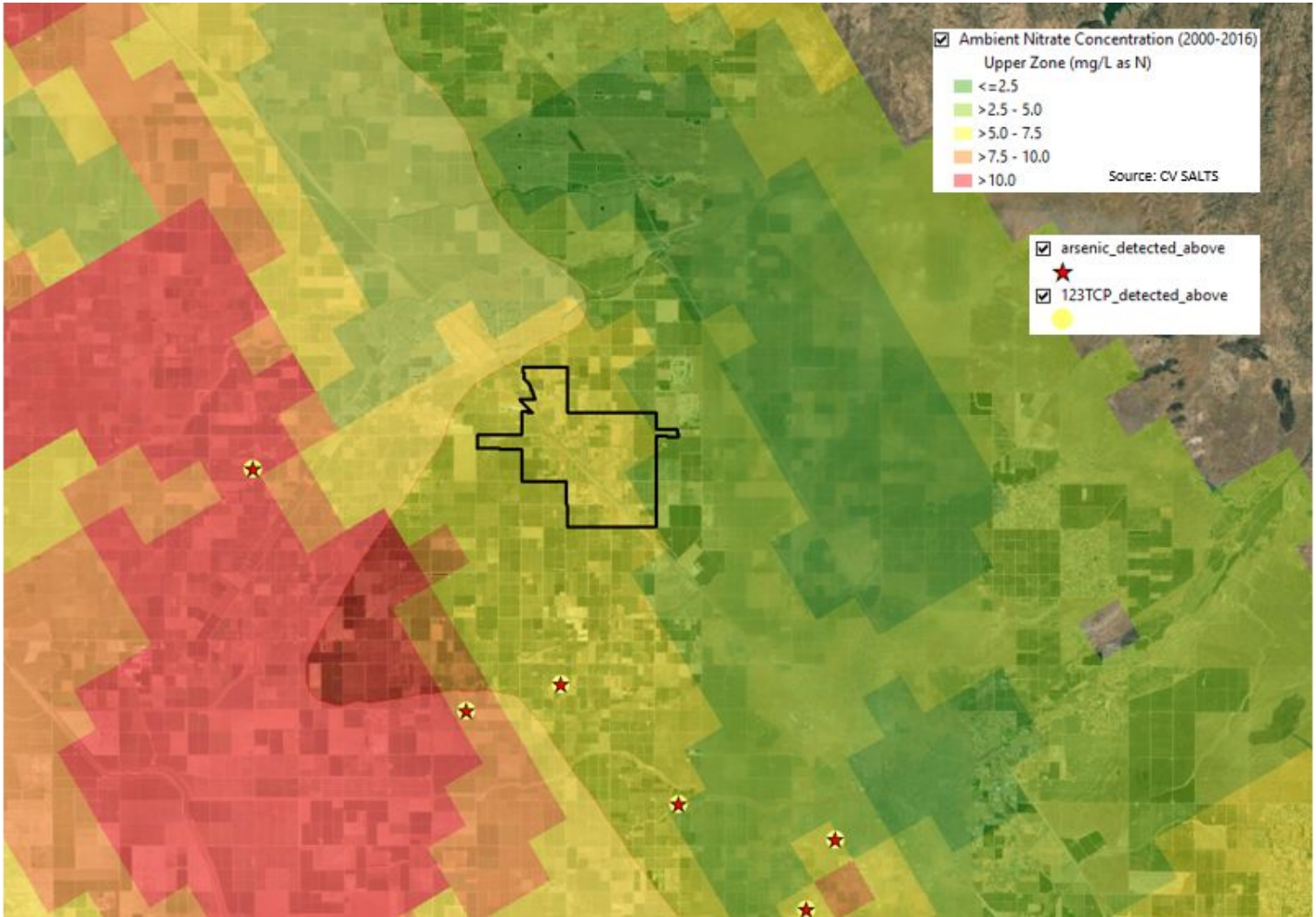
Source: DWR

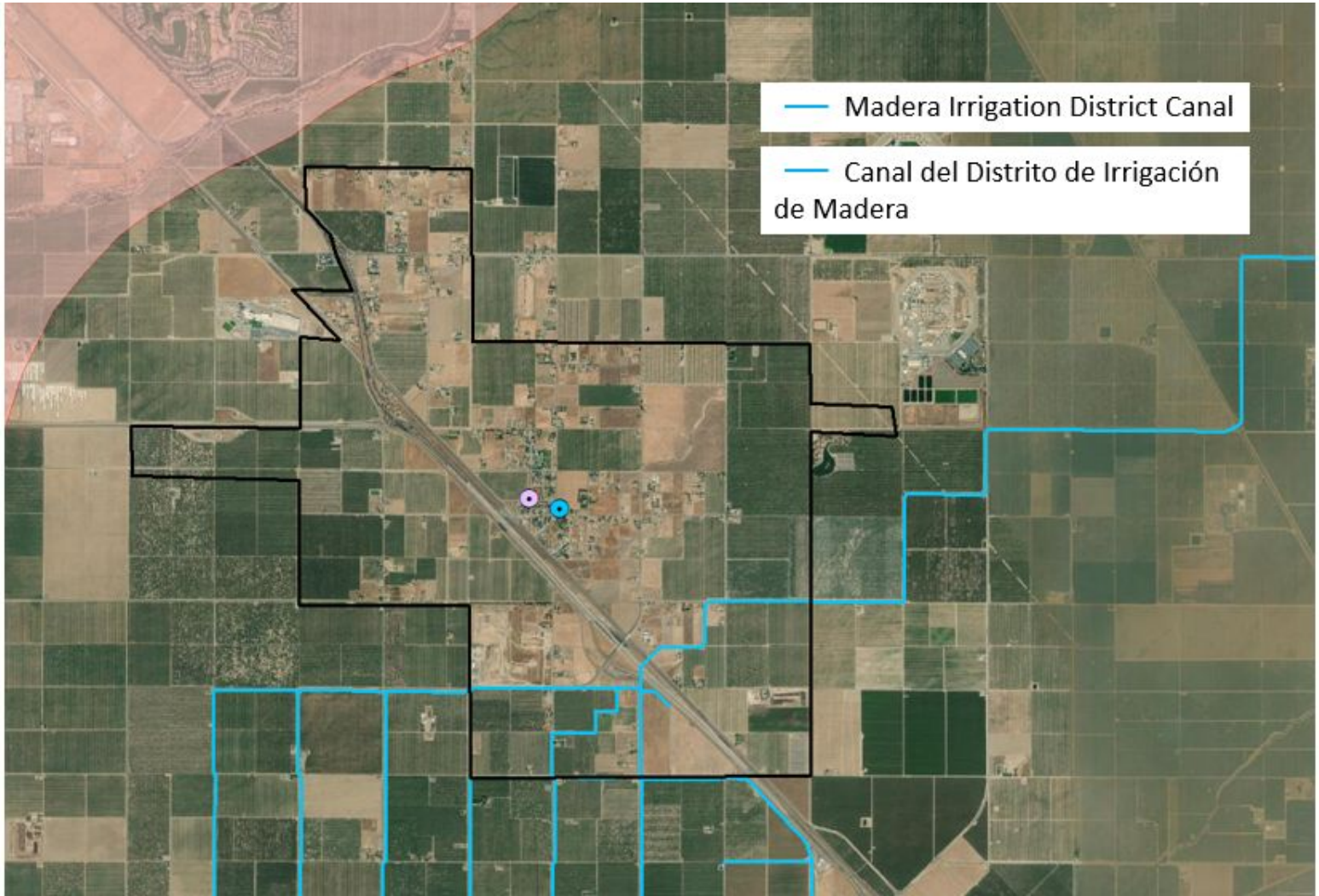
Fall 2018
Otoño 2018

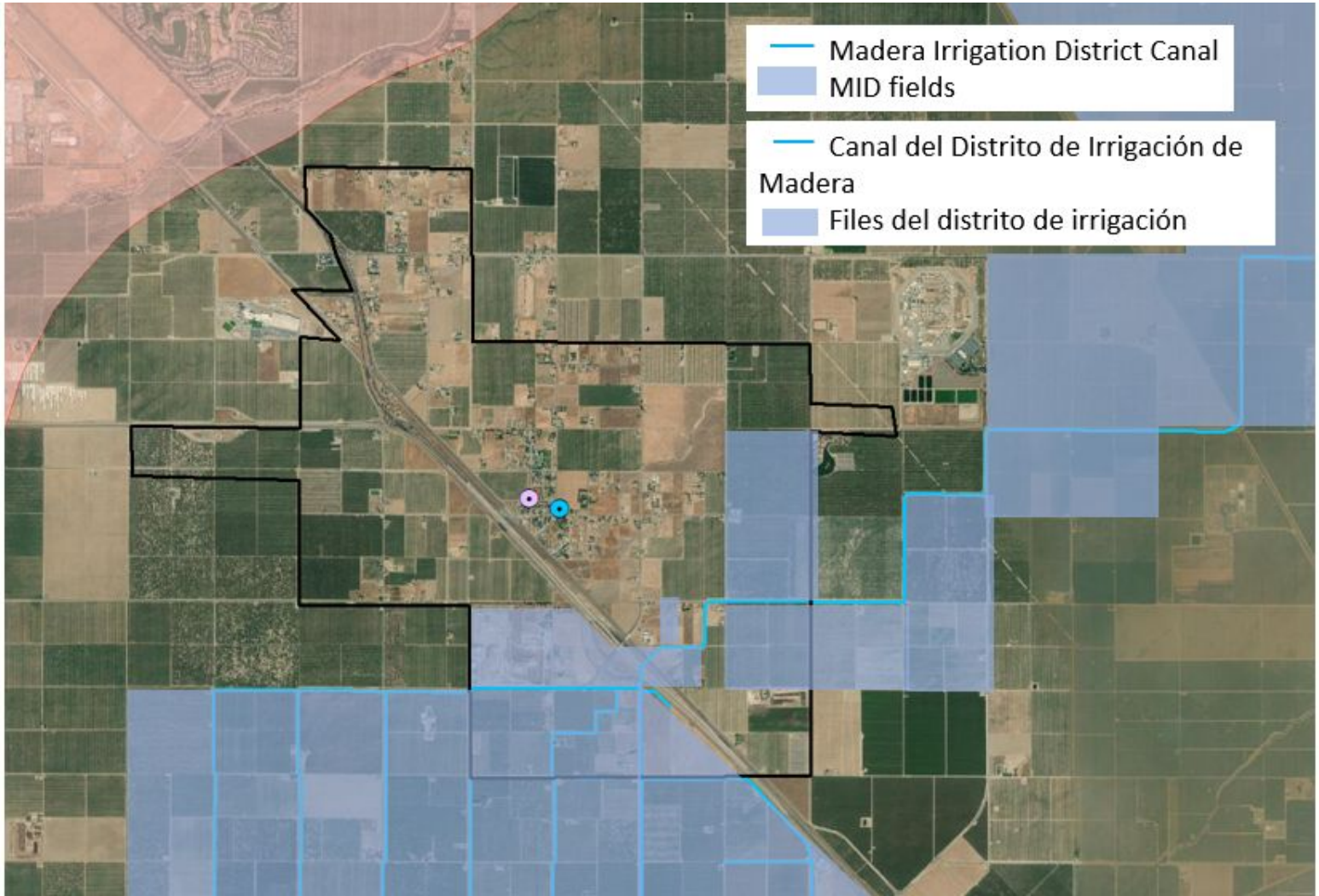
Groundwater
(mean sea level
elevation)

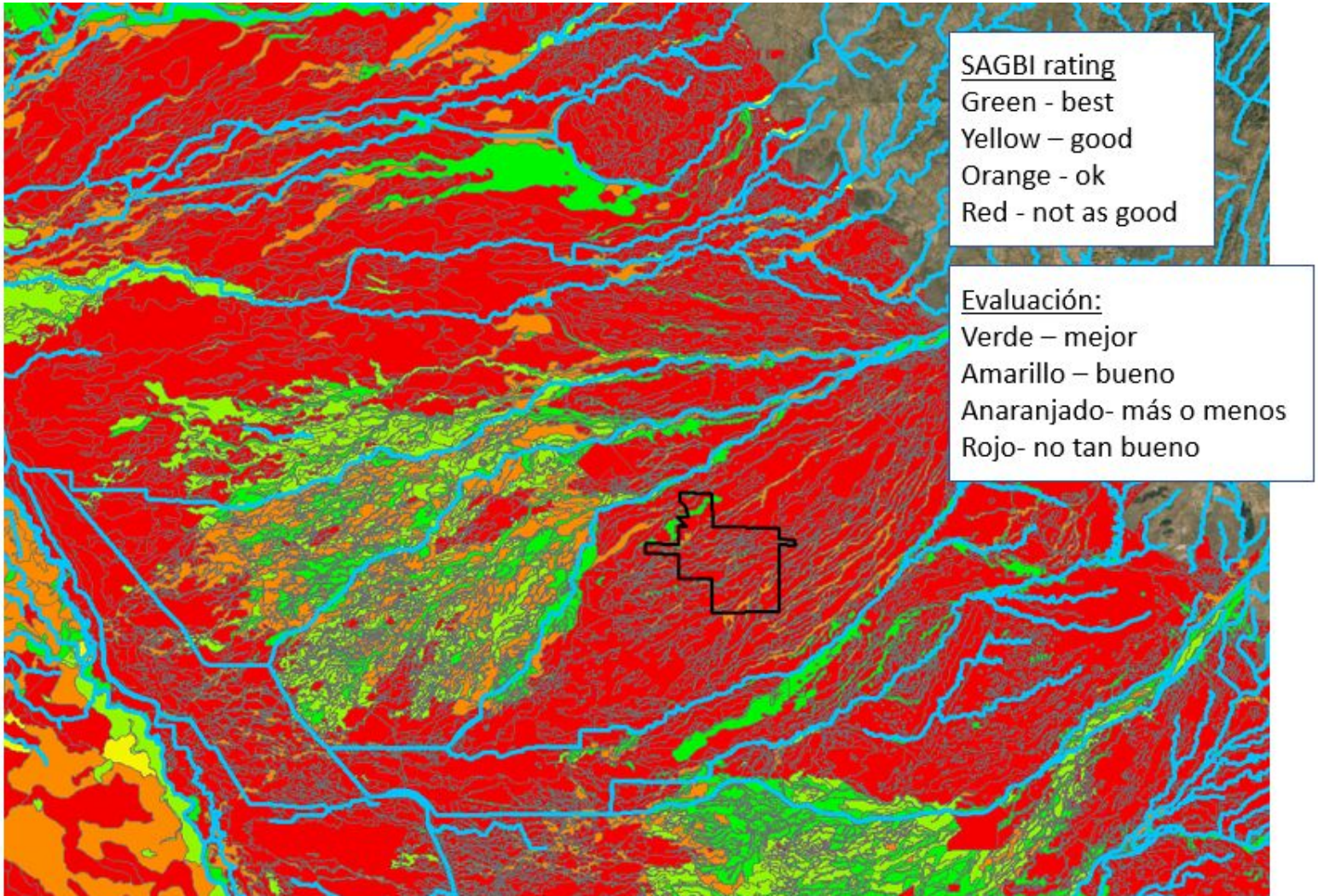
- -150
- -100
- -50
- 0
- 50
- 100
- 150

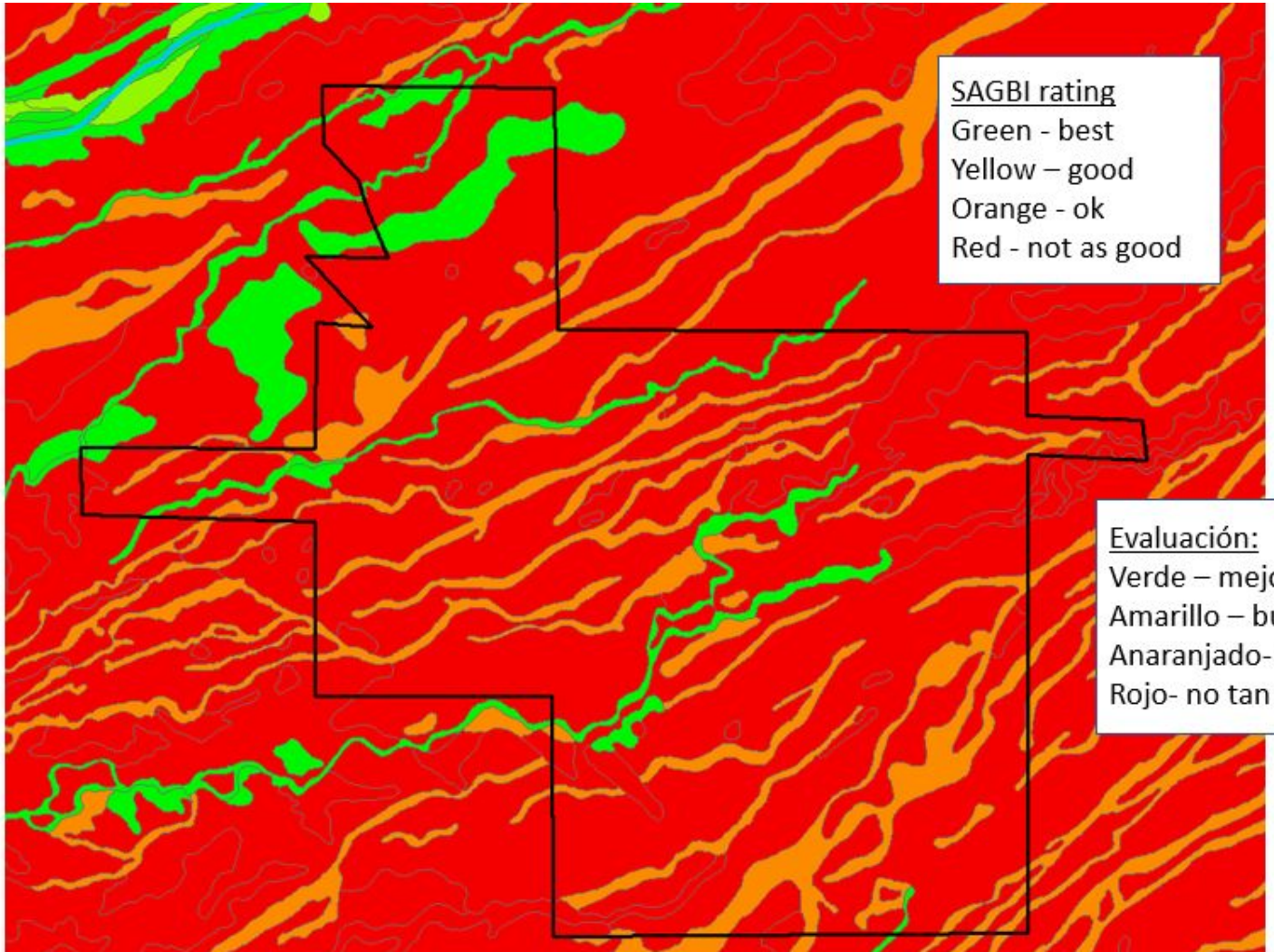
Source: DWR

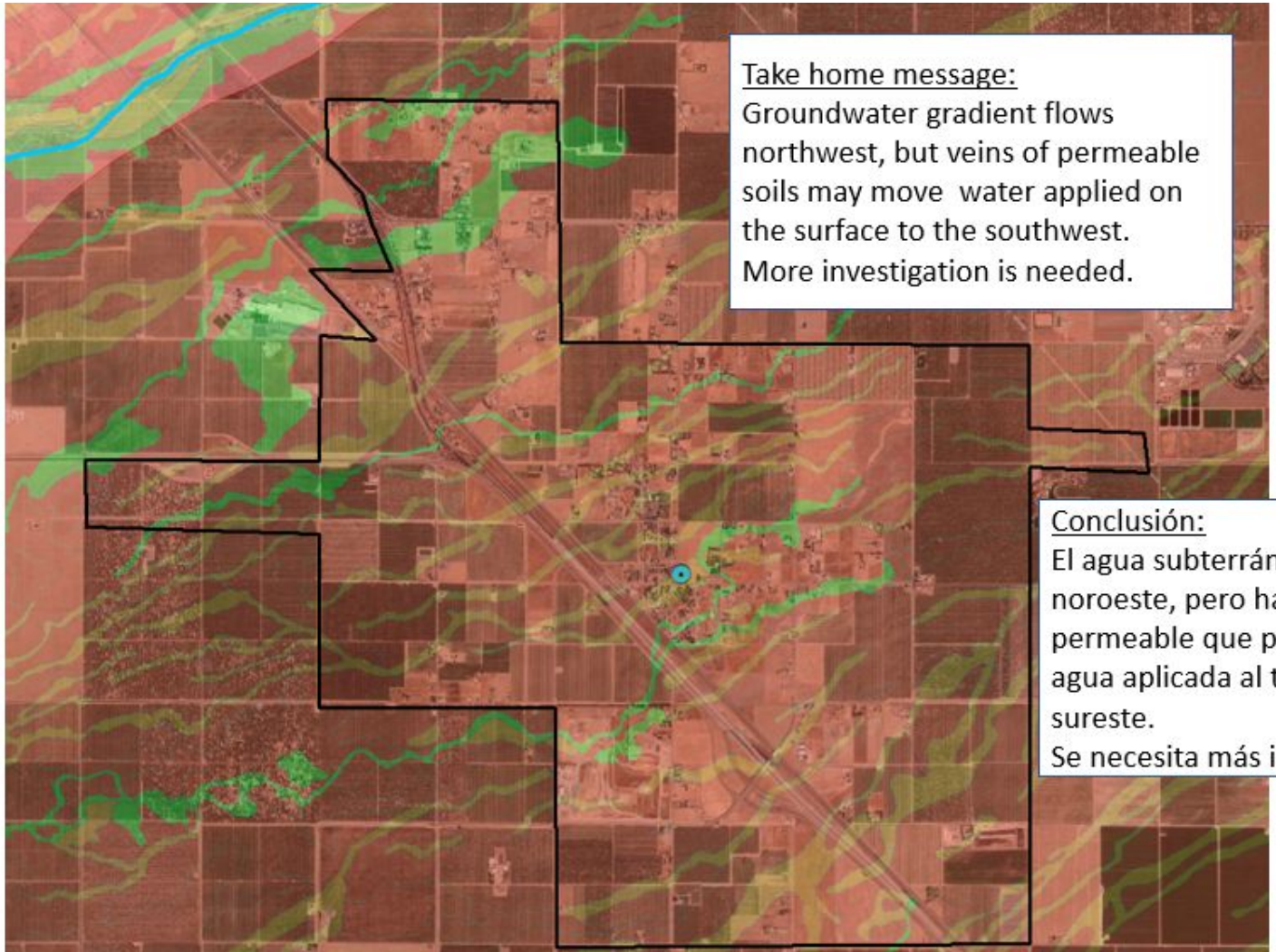

Ambient Nitrate Concentration (2000-2016)
Upper Zone (mg/L as N)
<=2.5
>2.5 - 5.0
>5.0 - 7.5
>7.5 - 10.0
>10.0
Source: CV SALTS
arsenic_detected_above
123TCP_detected_above

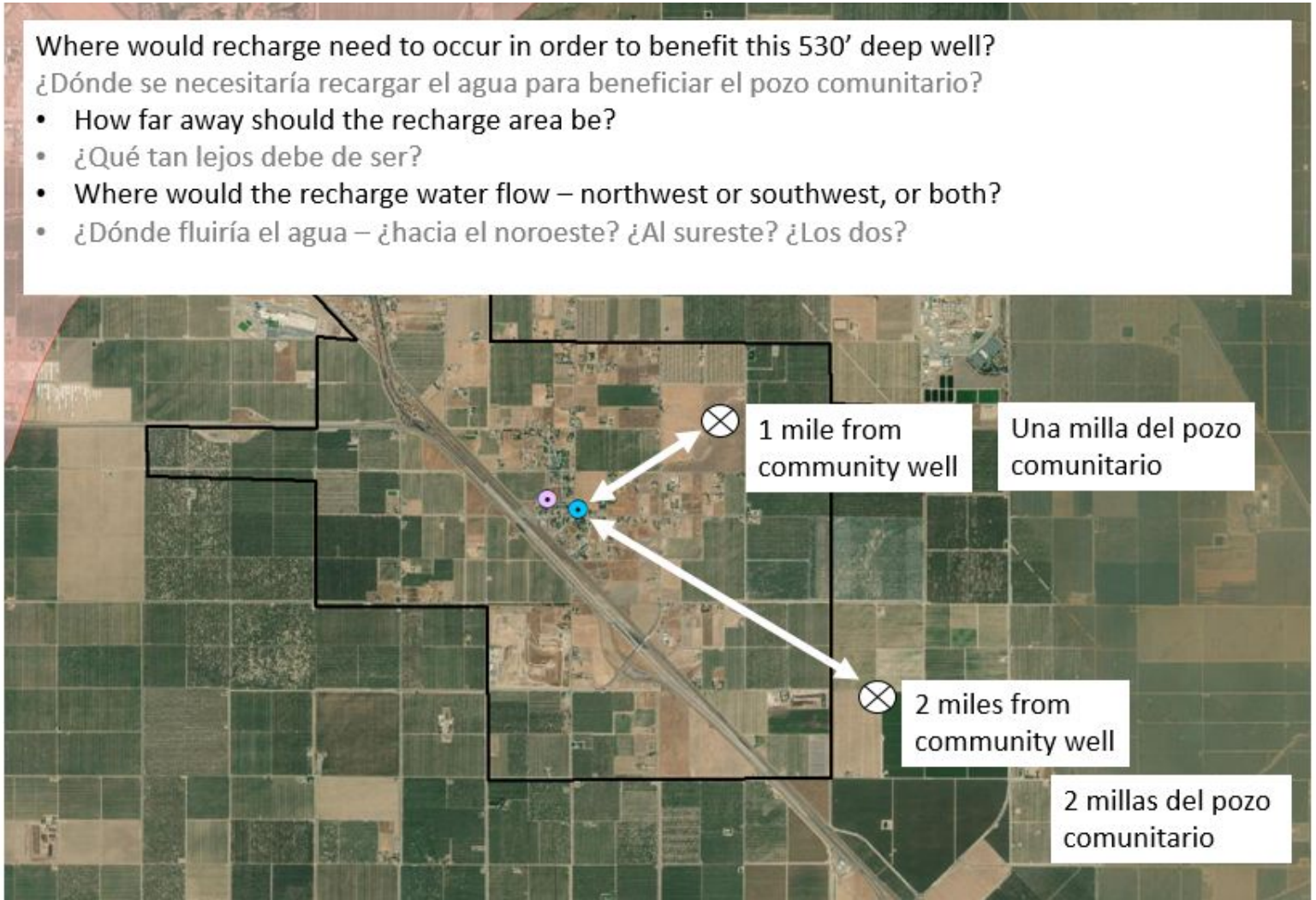

Madera Irrigation District Canal
Canal del Distrito de Irrigación de Madera

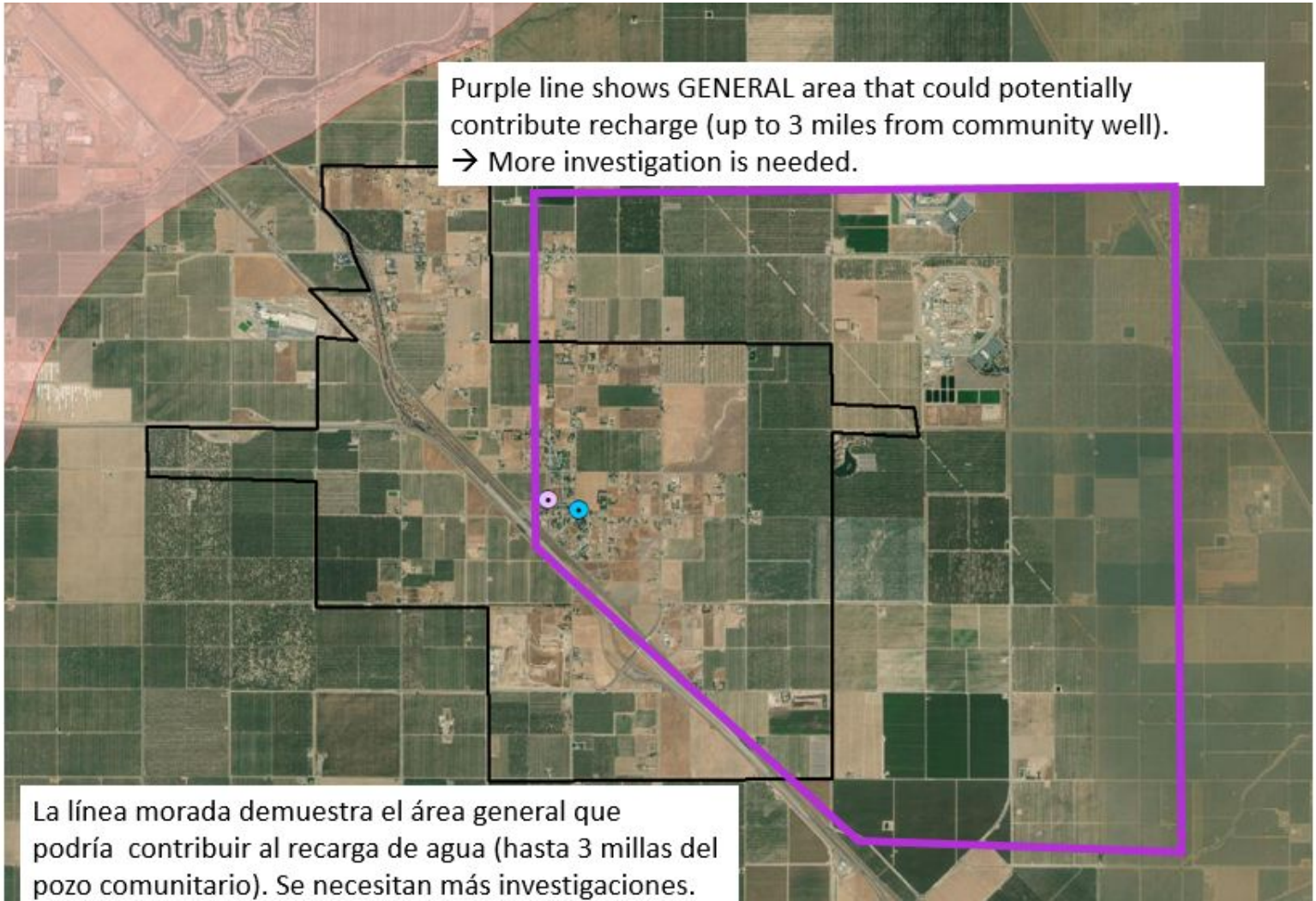

Madera Irrigation District Canal
MID fields
Canal del Distrito de Irrigación de Madera
Files del distrito de irrigación


SAGBI rating
Green - best
Yellow – good
Orange - ok
Red - not as good
Evaluación:
Verde – mejor
Amarillo – bueno
Anaranjado- más o menos
Rojo- no tan bueno


SAGBI rating
Green - best
Yellow – good
Orange - ok
Red - not as good
Evaluación:
Verde – mejor
Amarillo – bueno
Anaranjado- más o menos
Rojo- no tan bueno


Take home message:
Groundwater gradient flows northwest, but veins of permeable soils may move water applied on the surface to the southwest.
More investigation is needed.
Conclusión:
El agua subterránea fluye al noroeste, pero hay venas de tier permeable que podrían mover e agua aplicada al terreno hacia el sureste.
Se necesita más investigación.


Where would recharge need to occur in order to benefit this 530’ deep well?
¿Dónde se necesitaría recargar el agua para beneficiar el pozo comunitario?
• How far away should the recharge area be?
• ¿Qué tan lejos debe de ser?
• Where would the recharge water flow – northwest or southwest, or both?
• ¿Dónde fluiría el agua – ¿hacia el noroeste? ¿Al sureste? ¿Los dos?
1 mile from community well
Una milla del pozo comunitario
2 miles from community well
2 millas del pozo comunitario


Purple line shows GENERAL area that could potentially contribute recharge (up to 3 miles from community well).
→ More investigation is needed.
La línea morada demuestra el área general que podría contribuir al recarga de agua (hasta 3 millas del pozo comunitario). Se necesitan más investigaciones.

Thank you!
Gracias

Sustainable Conservation

Aysha Massell
amassell@suscon.org

Group discussion on groundwater recharge

- What do you think are the benefits and risks of groundwater recharge?
- Of the different types of groundwater recharge, which ones appeal the most to you? Why?

- ¿Qué opina sobre la idea de recarga de agua subterránea? ¿Cuáles son los riesgos y beneficios?
- De los diferentes tipos de proyectos para recargar el agua subterránea, ¿cuáles le interesan más? ¿Por qué?

Breakout discussion questions re: groundwater recharge

- Are there any projects you would like to see, or that you definitely don't want?
- Are there any locations in town where you would (or would not) like a groundwater recharge project to go? Why?

Preguntas sobre recarga de agua subterránea

- ¿Hay proyectos que quisiera ver, o que definitivamente no quisiera ver, en Fairmead?
- ¿Hay sitios o terrenos en la comunidad donde definitivamente no quisiera un proyecto para recarga agua subterránea? ¿Por qué?

Final questions, recap, & next steps

1. Madera County & Sustainable Conservation will reach out to growers/landowners in the area to assess interest in participating.
2. Sustainable Conservation will reach out to irrigation districts to assess availability of surface water.
3. LCJA will update the community with progress on this planning and to solicit additional feedback.
4. We will do another workshop again about land repurposing.
5. Fairmead Action Plan workshop in December

Preguntas, repaso, y próximos pasos

1. El Condado de Madera y Conservación Sostenible se comunicarán con rancheros en el área para averiguar si tienen interés en participar.
2. Conservación Sostenible hablará con los distritos de irrigación para investigar el acceso a agua de los canales.
3. LCJA dará novedades a la comunidad sobre el desarrollo de este plan y para buscar aportes adicionales.
4. Haremos otro taller sobre el cambio de terrenos agrícolas.
5. Taller sobre el Plan de Acción de Fairmead en diciembre

Fairmead Community Workshop #1
Saturday, October 22, 2022
Fairmead Elementary School Cafeteria
Meeting Notes

Date/Time	October 22, 2022
Participants	8

What should you be tracking?

Must-Capture:	Capture At Your Discretion
● Key Action Items	● Misc. Discussion Points ● Opinions & Comments ● Brainstorming

Introductions - Names of each participant

Note-taker: Angela, CivicWell

Project Team:

- Madera Co Water & Natural Resources: Stephanie Anagnoson, Jenny Nunez-Rodriguez
- Matt Treber, Chief of Development Services
- LCJA: Madeline Harris
- SusCon: Aysha Massell
- CivicWell: Angela Islas

Community participants:

- Vickie Ortiz - Secretary, board member - Fairmead Community & Friends
- Tomas Chairez - Board member, Fairmead Community & Friends
- Caroline Harrow - Board member, Fairmead Community & Friends
- Benjamin Harrow - Fairmead resident
- Diane Williams - Fairmead resident
- Priscilla Williams - Fairmead resident
- 2 Children (between ages 10-16)

Overview of the Project - Madeline, LCJA

Note-taker: Angela, CivicWell

- Majority of the room (~5 folx) have experienced a dry well go dry and express their concerns of their wells and others going out.

- Fairmed residents feel that the increased production of almond orchards affect their groundwater levels greatly as the more orchards get put in, the more water gets sucked out and leaves the community wells with no water. Community residents also expressed that air quality is impacted by the amount of production surrounding them and raising more dust impacts in the area.
- Fairmead resident - where does the canal water come from?
    - Madera Co - MID and CWD have contracts for water that is delivered through the Madera Canal (Central Valley Project)
- Fairmead resident - are those the only two options that are available?
    - Madeline - those are but we're open to receiving other ideas that are related to projects that can benefit from the land repurposing component of the planning grant

Overview of GW Conditions - Stephanie, Madera Co.

Note-taker: Angela, CivicWell

- Two Fairmead residents have lived over 50 years in the community and have experienced the direct impacts of their water levels declining
- Fairmead resident - what about extra water that needs to be seeped into the basin to distribute to other private community wells that need extra water?
    - Stephanie - this can be done by the purchase of water through the groundwater allocation program the county is implementing - this could help level out the groundwater in the basin to be evenly distributed to all and stabilize
- Vickie - what is the status of the monitoring well that's near Fairmead?
    - Stephanie - you can access this online - the monitoring well is located near a median in Fairmead and can show how residents can access this through the portal
- Resident - will percolated water be able to be potable water once it hits our faucets?
    - Stephanie - Your maintenance service district performs multiple water quality tests to determine that it's clean to drink
        - Resident - If you're going to have this recharge option, you need spend your money to have the clean water option available for our community to count on this project tot help
- Fairmead resident - what can you do to control stagnant water that can attract mosquitoes in the basin?
    - Stephanie - we need to add a pump into the basin to help the water within the basin circulate and not be left just sitting there stagnant
- Madeline - initial thoughts on the projects of rewilding and other?
    - Fairmead resident: How would this affect the property taxes in the community?
        - Stephanie - recharge efforts will be paid upfront by the farmers. They have a fee to do these projects of recharge and basin setup. They are to be responsible under SGMA to pay for these projects and not affect the residents

financially

- Madeline - are there some projects that you like, and you don't want?
    - Resident - I don't want more sheep.
    - Resident - the big question is who would ultimately benefit from the recharge basin.
    - Vickie - I like the idea of growing vegetation for wildlife and animals in the community - or other agricultural uses
- Madeline - other solutions that you would like to see?
    - Resident - Why doesn't city water come into the community? Chowchilla and Madera are right in between us. Why can't we talk to them about that?
        - Madeline - agrees and can talk to the city's to discuss this option
    - Caroline - we need to know what kind of cost will come with connecting to city water
    - Resident - has heard that it's too costly to extend the pipes from the city to connect Fairmead to it and sees this as unfair

Potential for GW Recharge in Fairmead - Aysha, SusCon

Note-taker: Angela, CivicWell

- USGS mapping on ppt slides are outdated - residents have expressed that their wells are more than 400 ft deep and the mapping shows that they're 250-300 ft deep. Matt with public works clarified that the new community well is more than 600 ft deep.
- Vickie - domestic well only lasted 13 years since she had moved to Fairmead and with the new well, she's been good so far
- Aysha: Which part of Fairmed faces most of the well outages?
    - Resident - Wells along Rd 20 (Ave 24 towards the freeway) face the most well outages and take the longest to get water back - most residents need to be careful on their usage of water
    - Stephanie - well outage alerts do get received by Madera Co but Self-Help Enterprises has been the main organization that has been reporting dry wells in real time
        - Matt, Madera Co - well outages is not just a Fairmead issue, but it is a countywide issue as other wells in Madera Ranchos are competing with
        - Caroline - she's at her second well and had dug not too long ago and has already gone dry. There's been 2,000 acres of new ag that went in and we've seen the impact increase more
    - Aysha - wells have gone dry since the almonds came in?
        - Resident - that was also way before the almonds came in that wells have experienced outages
- Residents - what causes the flows to go down?
    - Stephanie - it's ag pumping;
        - Resident - but how are we controlling this?? How can we avoid these further impacts?
            - Stephanie - we have ag farmers on budgets and give them penalties for continuing to pump
        - Vickie - she's experienced the farmers being very upset with these penalties

and fees but she can attest that something is happening and positive impact is continuing with our presence and participation.
                - Madeline - offering to have folks sign up to receive calls for the next GSA meetings in Madera County to have more community representation and stop farmers for continuing their agenda to continue “business as usual”
        - Aysha - if you’re interested in going to GSA meetings, I highly encourage you all to attend. Madera County doesn’t have an easy job dealing with the emotions of many of these farmers that don’t agree with it, but they also have to deal with other impacts to small farmers and jobs that need to balance with managing the available source of water in their basin. The state is becoming more aware of the human right to water.
        - Resident - first time hearing about the corcoran clay, is this an issue when you’d want to have water percolate into the ground?
            - Aysha - yes this can be an issue
- Vickie - does it take awhile for contaminants to flow and travel underneath the ground through the groundwater?
    - Stephanie - many contaminants may take decades to travel across underneath the ground
- Residents have concerns about the recharge basin being affected still with water levels because of continued ag surrounding the community
    - Madeline - future workshops we’ll get into discussions of land repurposing and how we can see ag farming be repurposed to avoid further impacts
        - Residents - even if it’s not all the ag farm around us, at least some of the ag farming can be repurposed to avoid there being more impact to our water
- Aysha - do you know how Fairmead’s flood water flows in the community?
    - Residents - unaware of how this looks like in our area
    - Vickie - experiences flood flows going South to West right in front of her home and that is making sense on how the flow may be in their community
    - Madeline - clarified that with the historic stream flows it is supposed to go Southwest towards the community but with groundwater pumping it actually migrates from the South end towards the Northwest
        - Resident - how do we avoid this “pull” of groundwater from further happening if we put it in the recharge basin?
    - Aysha - providing options of locations of the basin towards the Southeast - East ends of the community that could potentially support with the recharge basin stopping the pull of groundwater flows and can capture enough water before groundwater extraction takes that away from the community
    - Resident - we have areas that are already recharging?
        - Stephanie - we have many recharge basins active around the community miles away but they’re in private farmlands as well as irrigation districts on private lands
            - Residents are interested in seeing these basins - how they look like, how they function

Group Discussion - Madeline, LCJA

Note-taker: Angela, CivicWell

- Madeline - what do you think are the benefits and risks of GW?
    - Resident - what I'm seeing is that the farmers would have more say since they're paying for the land and will want to have more of a say of how that will benefit them instead of it benefiting the community
        - Stephanie - agrees that's the case but there is funding available that will help support recharge to benefit community and have this as a priority
- Madeline - What projects interest you the most that you'd like to see us pursue? What doesn't appeal to you that we should be cautious with?
    - Vickie - she does like the rewilding project and the basin becoming a park option when there is no water
- Madeline - are there any locations in the community where you'd not want the basin to be at?
    - Resident - this is too early to ask us. We may need more time to collect enough information to answer these planning questions.
    - Vickie - concerned if the basin is set up next to the community well or areas that could attract mosquitoes. Also not have it placed in the center of the community. Would like to see the basin be fenced off to avoid children going in there.
        - Aysha - when do mosquitoes come into the community during the seasons?
            - Residents - see them often around the month of October (Fall season), not as much since there hasn't been much water in the community to cause this to happen
    - Residents - how many basins are we talking to consider?
        - Aysha - I think in this scenario, we're thinking about how many different projects could benefit the community - ag land, publicly accessible land - I'd keep it all of the above to consider what projects could help benefit your community
    - Residents - can't picture the connection between park and recharge - how do we utilize it if there's no water for the community of Fairmead?
        - Aysha - there are examples of how to beautify the basin when there is no water and not have it be seen as "unusable"
            - Resident - emphasized that she understands the purpose of seeing a park benefiting the community, but would like to see the basin be useful for other necessities in the community other than it being a park. Wants to examine this more throughout the project
    - Resident - unclear from what kind of feedback you need from our community but in my opinion, I'd like to see the basin be where we're going to get the most water that can benefit the community and you all test that it's the best location
        - Stephanie - this will be part of the planning and also seeing the number of locations (estimated 10 locations) and owners that will be willing to work with you and dig holes to determine which location would be the best for the basin
            - Resident - how deep can the holes be dug to determine its compatibility?
                - Stephanie - it can go as deep as 50 ft to determine its usefulness for the recharge basin
    - Resident - has there been any areas considered for the recharge basin?
        - Aysha - ppt slide of the proposed purple lining of where the recharge basin

should be located is where ideally we have suggestions for where it needs to go but would like to understand where the majority of domestic wells are to have the idea of the suggested available lands can help these stakeholders
    - What will determine ultimately the recharge basin being placed is available lands and owner willingness to participate in the project

Next Steps - Madeline, LCJA

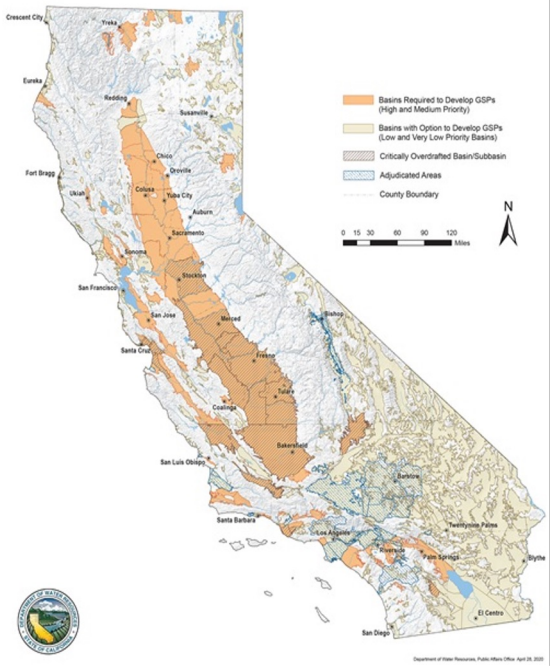
- Final questions?
    - Madeline - would you like more conversations about these opportunities for recharge basins in your community?
        - Residents are interested
    - Residents - Governor had suggested that funding for desalination plants would support receiving clean water to our communities but is this something that we can look into?
        - Aysha - sees these projects being more in the coastal regions, they are pretty costly and can be timely with determining how clean water can be determined. Also sees this as not possible in Fairmead since the ocean water is far from the community

Overview of Multibenefit Land Repurposing

Resumen de la Reutilización de Tierras con Beneficios Múltiples

Over the next two decades, major agricultural regions in California will transition to sustainable groundwater use

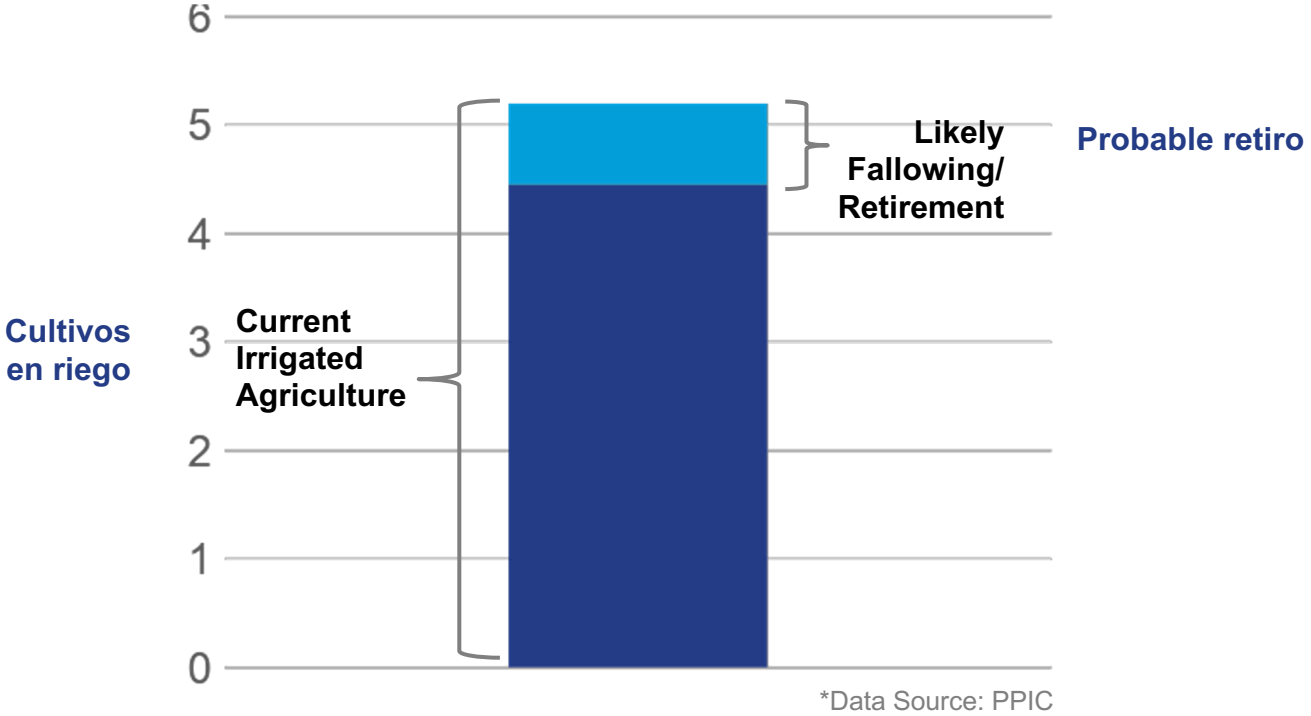
- By 2040 or 2042 as mandated by the Sustainable Groundwater Management Act (SGMA)
- Sustainable management will help avoid land subsidence, lowering groundwater levels, and other undesirable results



- Para 2040 o 2042 según la Ley de Manejo Sostenible del Agua Subterránea (SGMA por sus siglas en inglés)
- El manejo sostenible ayudará evitar el hundimiento de la tierra, la reducción de los niveles de agua subterránea y otros resultados indeseables

En las próximas dos décadas, las principales regiones agrícolas de CA harán la transición al uso sostenible de las aguas subterráneas

SGMA + Droughts will lead to 10-20% reduction in irrigated farmland in the SJV by 2040*



SGMA + Las sequías conducirán a una reducción del 10-20% en las tierras agrícolas de riego en el Valle de San Joaquín para 2040 *

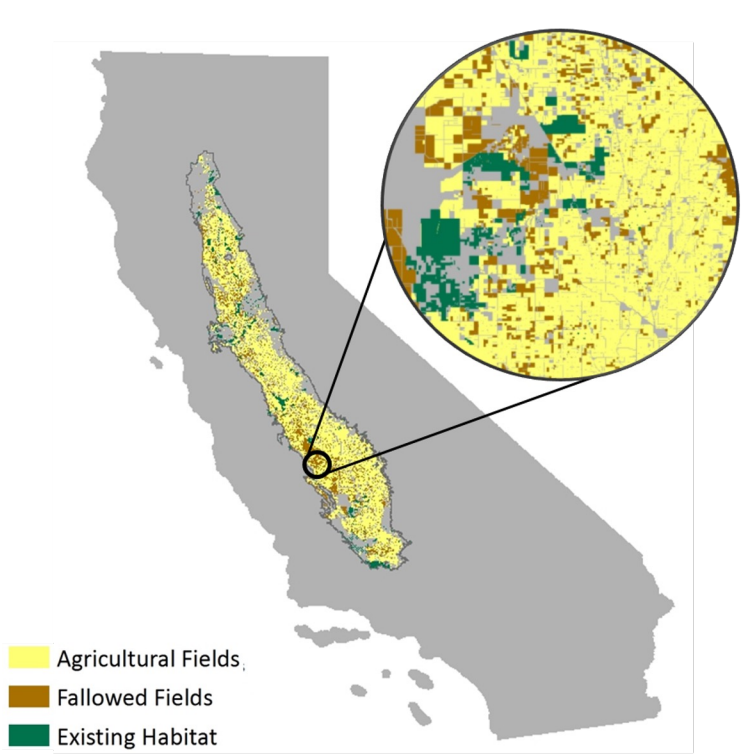
Uncoordinated land use changes could have detrimental impacts across the Valley

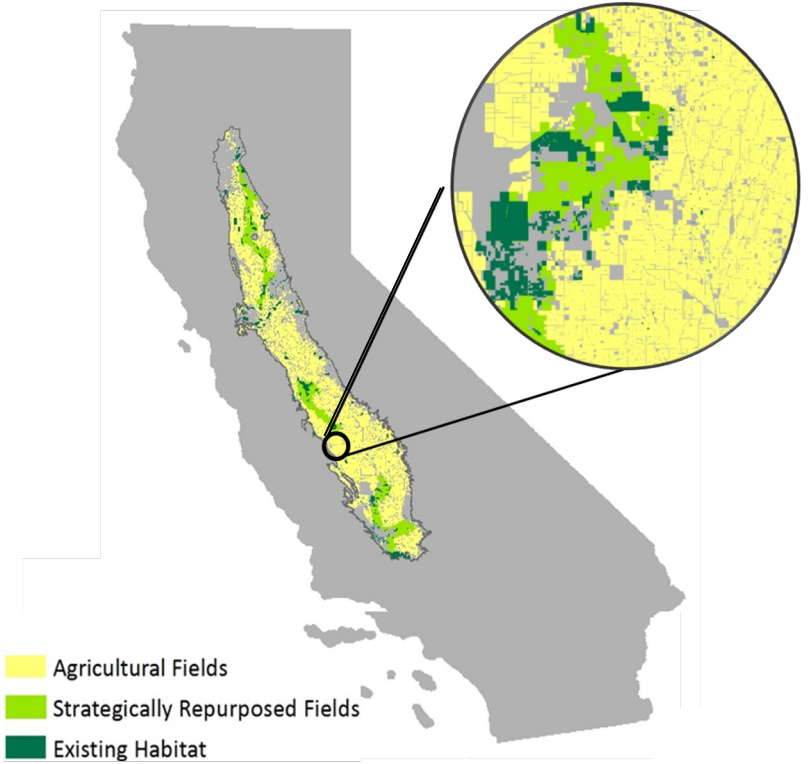
Los cambios descoordinados en el uso de la tierra podrían tener impactos perjudiciales en todo el Valle

Alternative path: multibenefit land repurposing

Vía alternativa: reutilización de tierras multibeneficio

Planning and coordination can improve outcomes





La planificación y la coordinación pueden mejorar los resultados

Multibenefit Land Repurposing Program est. in 2021 to:

1. Support groundwater sustainability and drought relief
2. Convert land to less intensive water uses
3. Sustain land-based economies
4. Create or restore wildlife habitat
5. Reduce the impacts of groundwater depletion on lives, property, and the economy
6. Prioritize disadvantaged community benefits

Programa de Reutilización de Tierras de Beneficios Múltiples establecido en 2021 para:

1. Apoyar la sostenibilidad de las aguas subterráneas y la sequía
2. Convertir la tierra en usos hídricos menos intensivos
3. Sostener las economías basadas en la tierra
4. Crear o restaurar el hábitat de la vida silvestre
5. Reducir los impactos del agotamiento de las aguas subterráneas en las vidas, la propiedad y la economía
6. Priorizar los beneficios de la comunidad desfavorecida

California
Department of Conservation

Multibenefit Land Repurposing Program Key Features:

- $90 million in first 2 years
- Block grants up to $10 million
- Allows for permanent and term projects (>10 years)
- Requires inclusive planning

Características Clave del Programa de Reutilización de Tierras de Beneficios Múltiples:

- $90 millones en los primeros 2 años
- Becas en bloque de hasta $10 millones
- Permite proyectos permanentes y a plazo (>10 años)
- Requiere una planificación inclusiva

Multibenefit Land Repurposing Program Key Features:

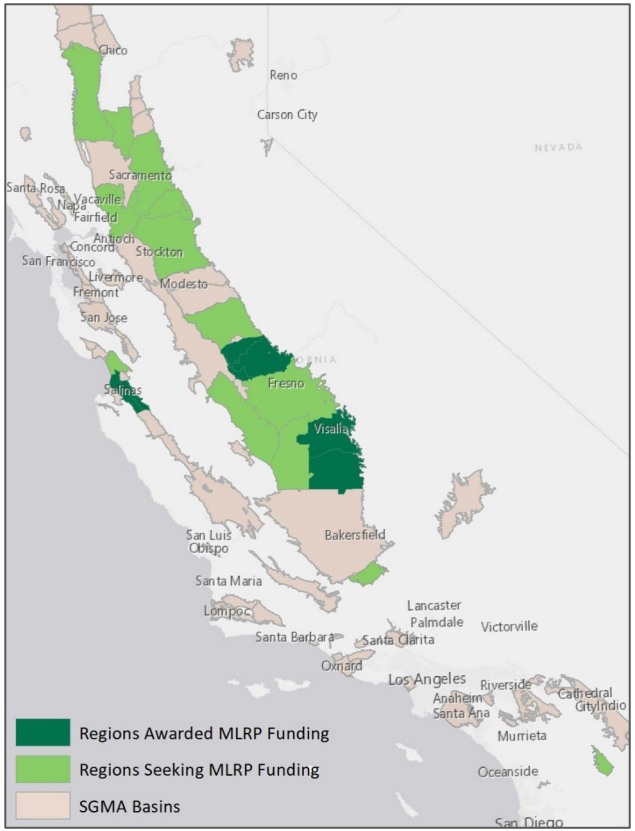
- Eligible costs: education, engagement, planning, project development & implementation
- Statewide Support Entity

Características Clave del Programa de Reutilización de Tierras de Beneficios Múltiples:

- Costos elegibles: educación, compromiso, planificación, desarrollo e implementación de proyectos
- Entidad de Apoyo Estatal

Awarded Block Grants
Becas en Bloque Concedidas

- **Kaweah Subbasin / Subcuenca Kaweah** - Kaweah Delta Water Conservation District & Greater Kaweah Groundwater Sustainability Agency
- **Tule Subbasin / Subcuenca Tule** - Pixley Irrigation District Groundwater Sustainability Agency
- **Madera County/ Condado de Madera** - County of Madera Groundwater Sustainability Agency
- **Salinas Valley / Valle de Salinas** - California Marine Sanctuary Foundation



Summary and Priorities Going Forward

- Multibenefit land repurposing can help agriculture transition while creating benefits for rural communities, ecosystems, and groundwater aquifers
- To be successful, the following are required:
  - Funding and incentives
  - Inclusive planning
  - Regional coordination and partnerships
  - Stakeholder engagement and buy-in

Resumen y Prioridades Para el Futuro

- La reutilización de tierras con múltiples beneficios puede ayudar a la transición agrícola creando beneficios para las comunidades rurales, los ecosistemas y los acuíferos de aguas subterráneas
- Para tener éxito, se requiere:
  - Financiación e incentivos
  - Planificación inclusiva
  - Coordinación y asociaciones regionales
  - Participación y aceptación de las partes interesadas

Madera County Goals and Priorities

- **Develop a plan in a robust stakeholder-driven process**
- **Support coordinated efforts towards groundwater sustainability**
- **Support long-term repurposing of lands least viable for agriculture and multi-benefit opportunities**
- **Support regional efforts to sustain land-based economies**
- **Provide drought relief**

- **Desarrollar un plan con un proceso orientado a impulsar a las partes interesadas**
- **Apoyar esfuerzos coordinados hacia la sostenibilidad del agua subterránea**
- **Apoyar la reutilización a largo plazo de tierras menos viables para la agricultura y oportunidades de beneficios múltiples**
- **Apoyar los esfuerzos regionales para sostener las economías basadas en la tierra**
- **Proporcionar alivio para la sequía**

Madera County MLRP Opportunities for Engagement

Website: maderacountywater.com

Join our Interested Parties List:
maderacountywater.com/join-list/

Make an Appointment to Talk:
maderacountywater.com/appointments/

Madera County Water & Natural Resources
200 W. Fourth Street, Madera, CA 93637
(559) 662-8015
WNR@maderacounty.com

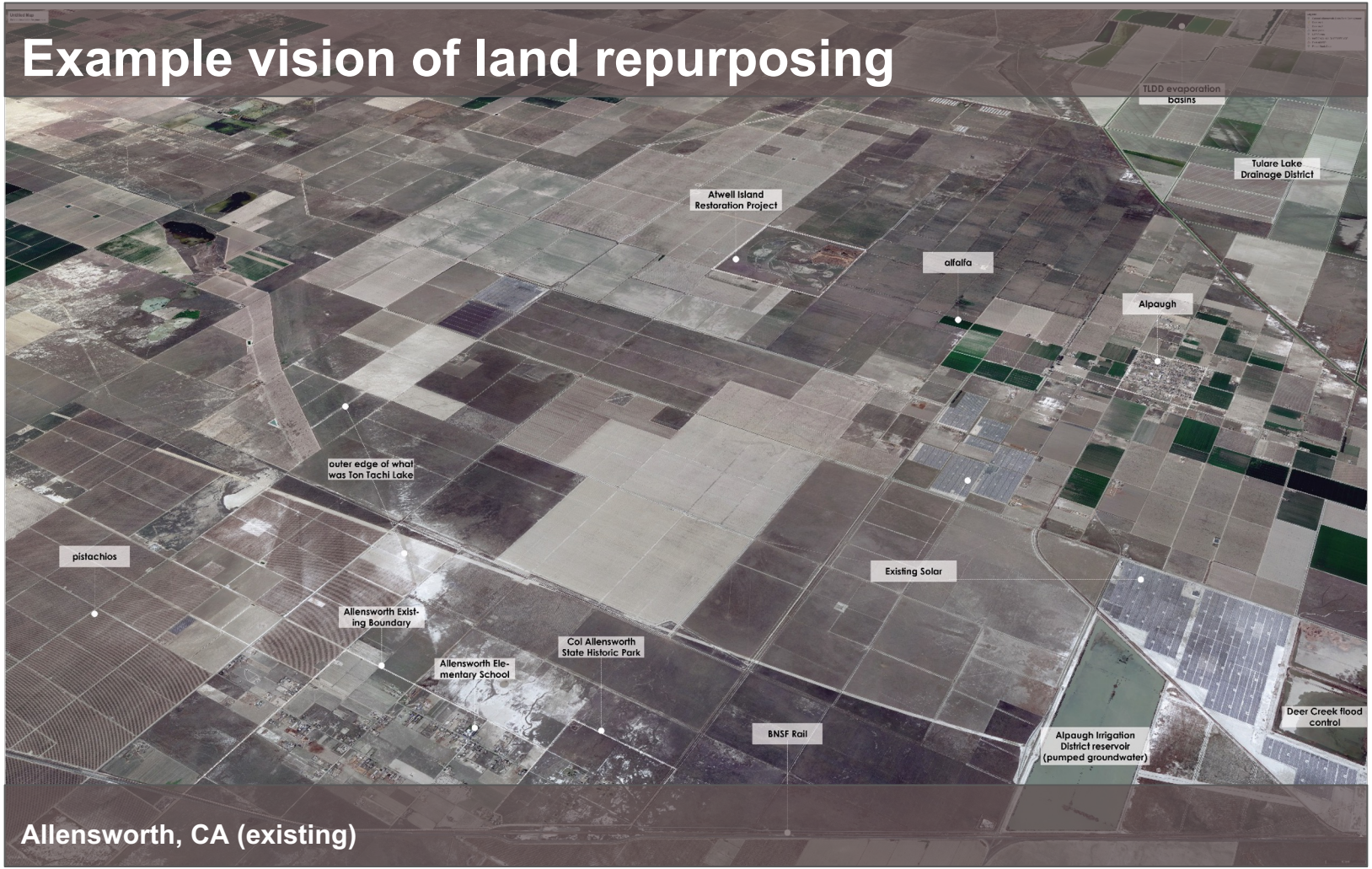
Sitio web: maderacountywater.com

Únase a nuestra lista de personas interesadas:
maderacountywater.com/join-list/

Para programar una cita para conversar:
maderacountywater.com/appointments/

Madera County Water & Natural Resources
200 W. Fourth Street, Madera, CA 93637
(559) 662-8015
WNR@maderacounty.com

Example vision of land repurposing

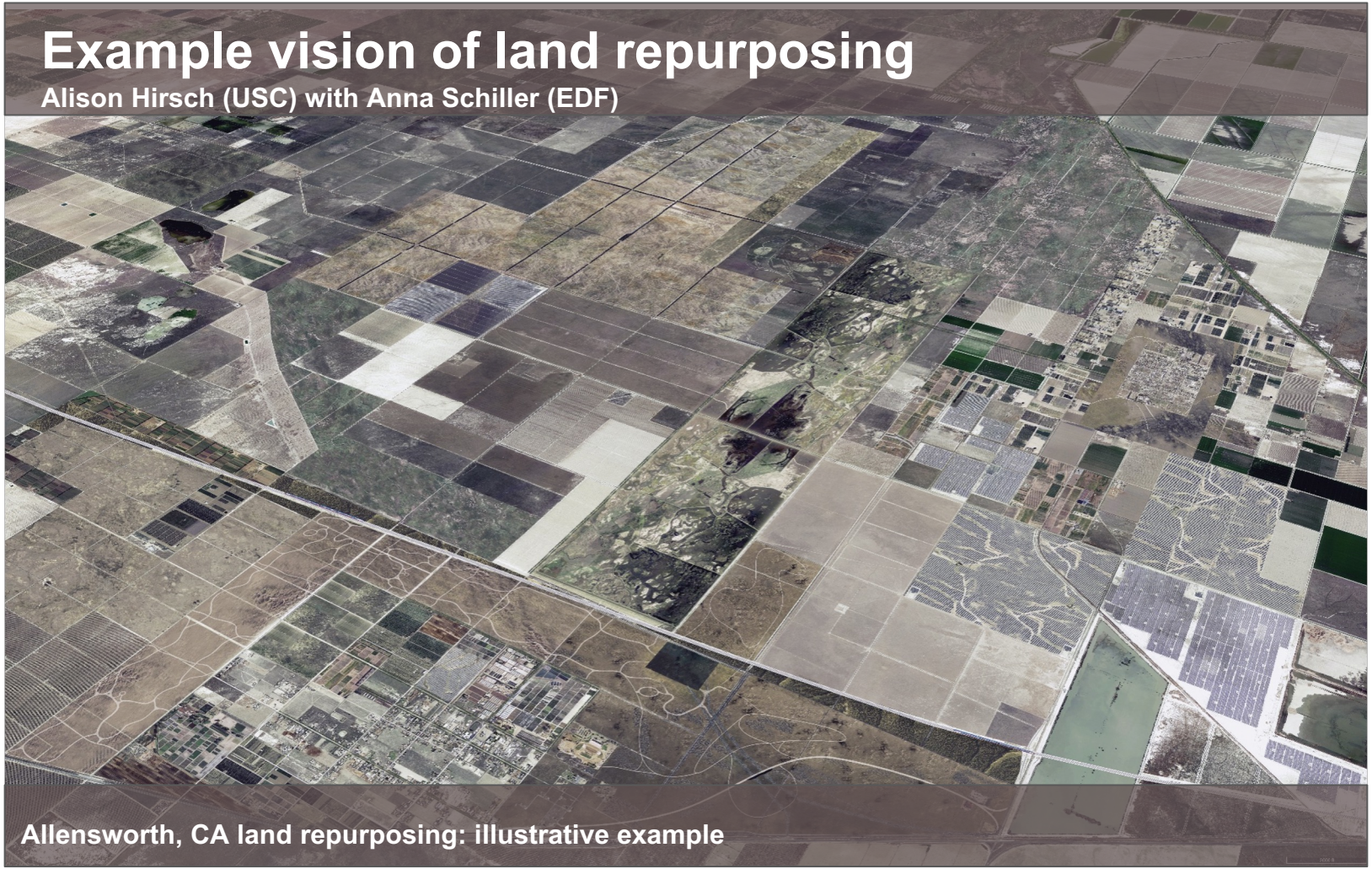


Allensworth, CA (existing)

Land Repurposing Visualization Methods: meeting with community

Example vision of land repurposing

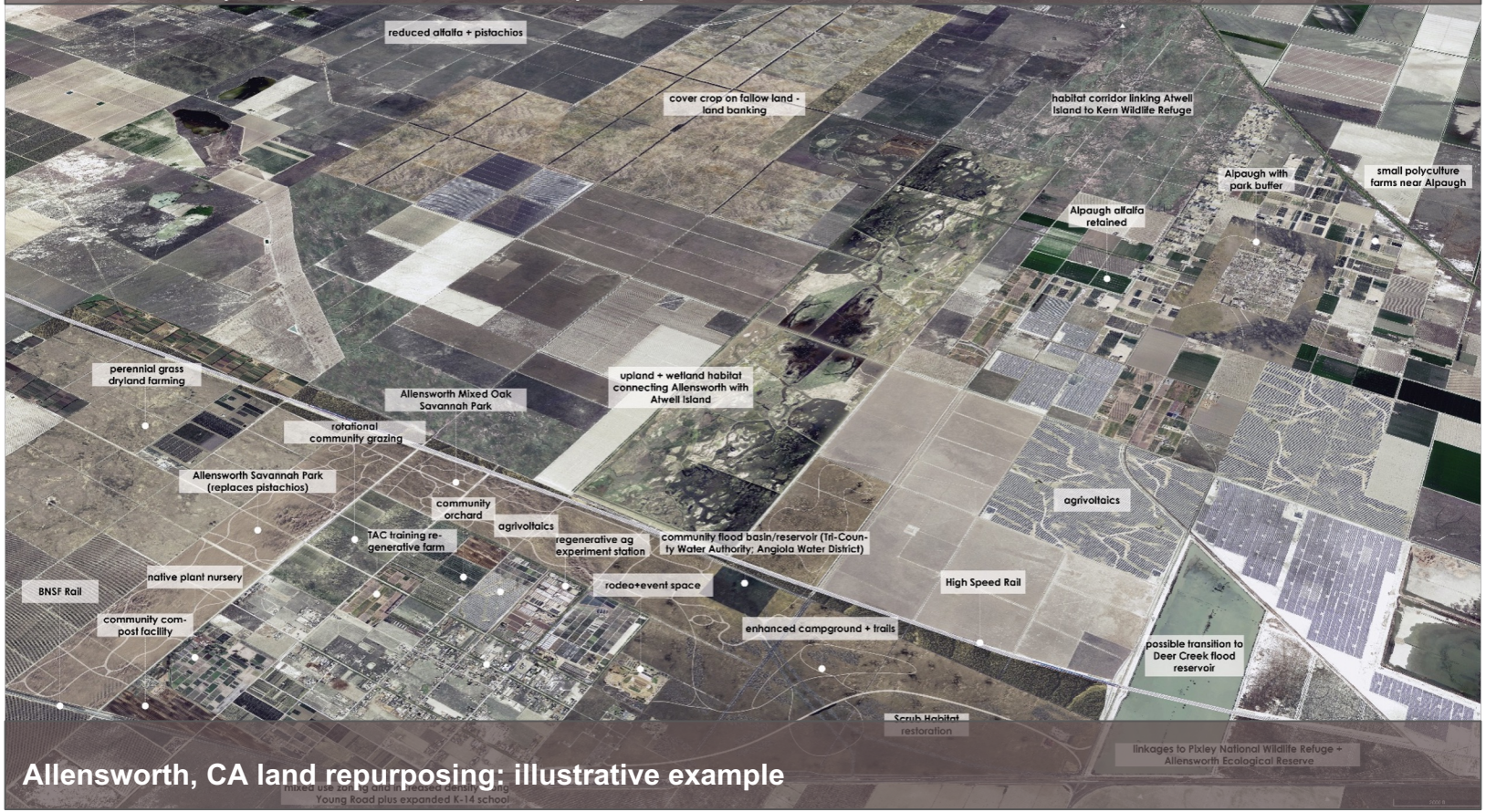
Alison Hirsch (USC) with Anna Schiller (EDF)



Allensworth, CA land repurposing: illustrative example

Example vision of land repurposing

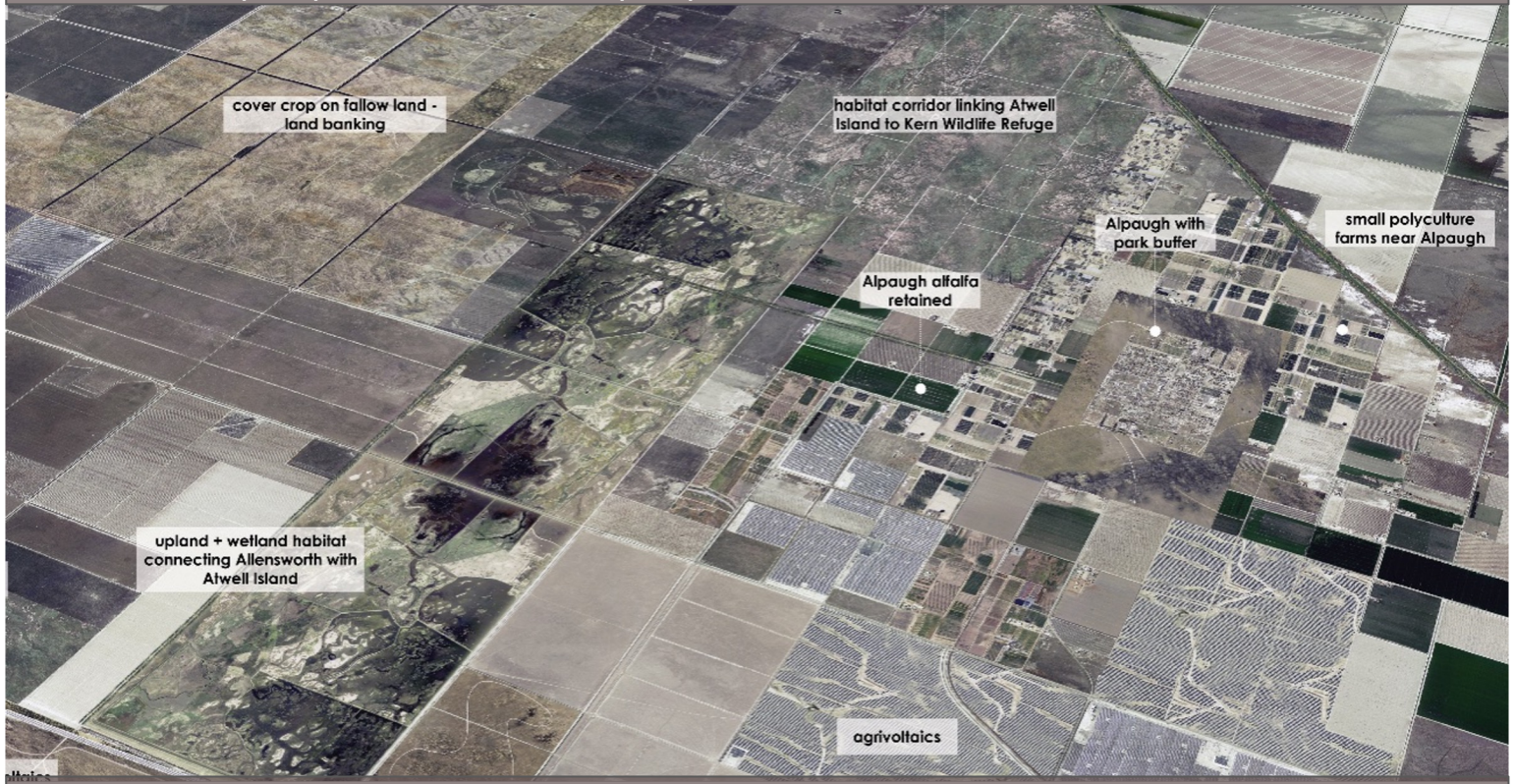
Alison Hirsch (USC) with Anna Schiller (EDF)



Allensworth, CA land repurposing: illustrative example

Example vision of land repurposing

Alison Hirsch (USC) with Anna Schiller (EDF)



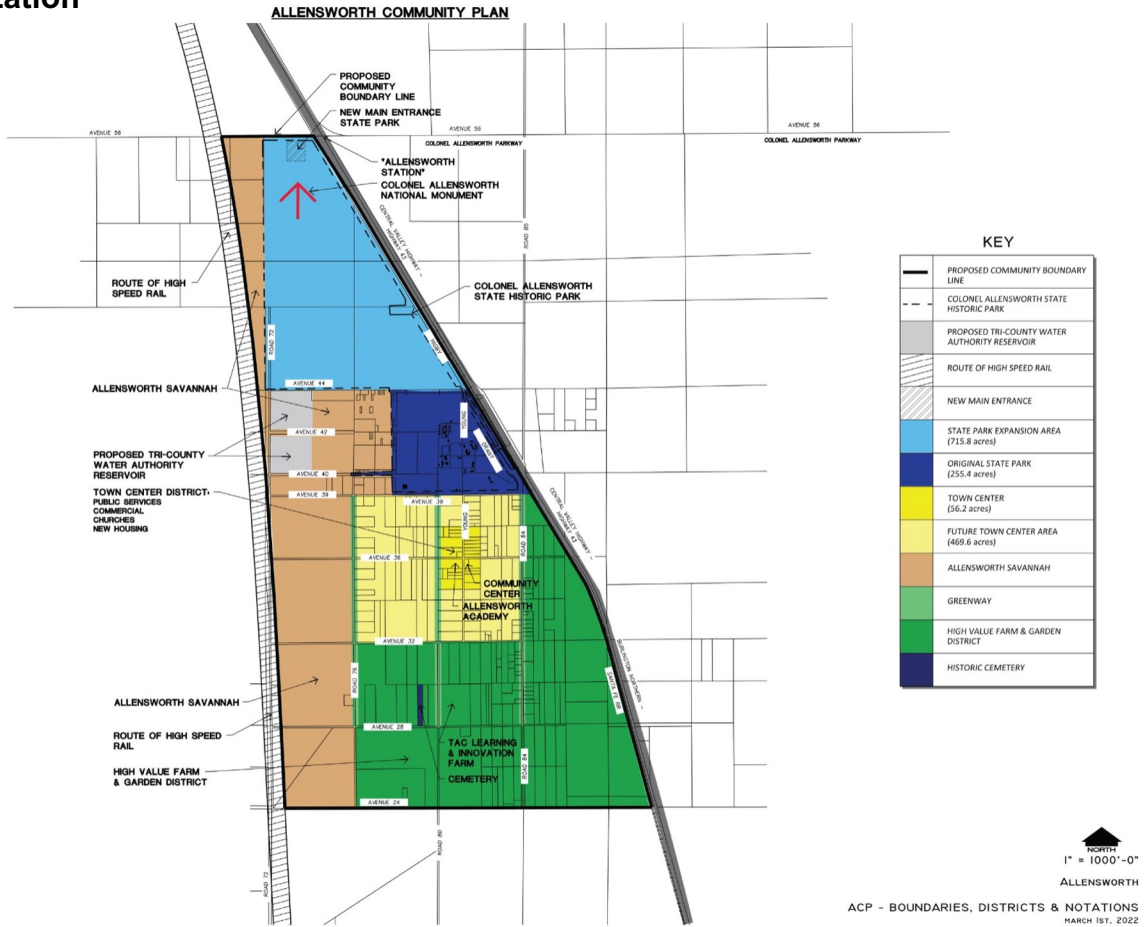
Alpaugh, CA land repurposing illustrative example

Example vision of land repurposing

Alison Hirsch (USC) with Anna Schiller (EDF)

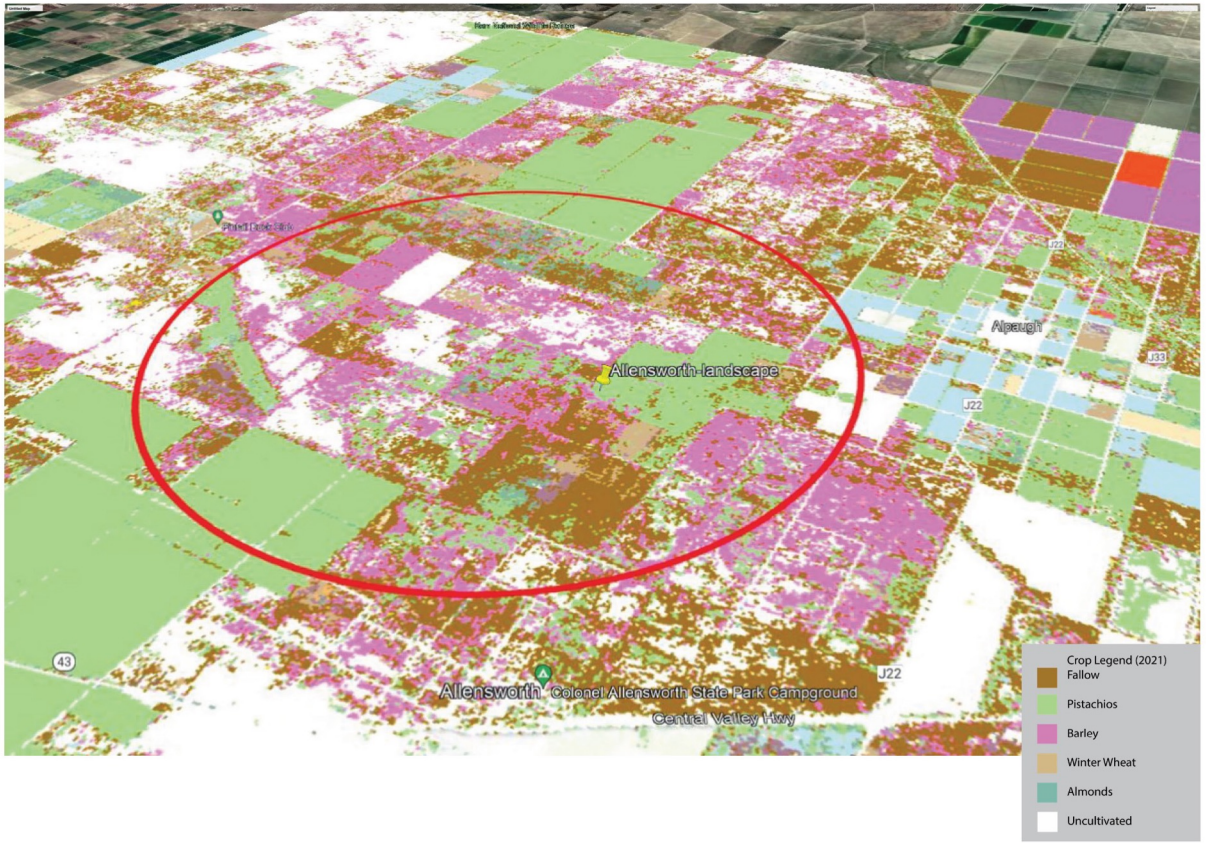
Allensworth, CA land repurposing illustrative example

Land Repurposing Visualization Methods



MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - Crops

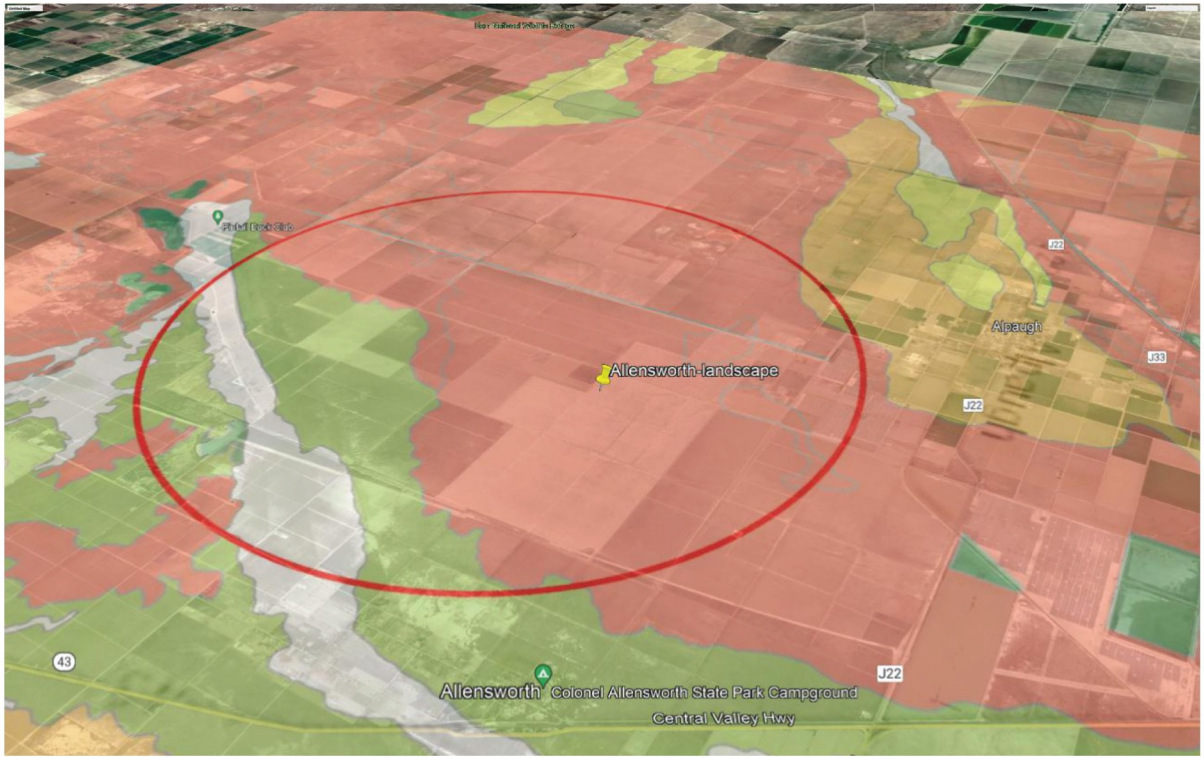


MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - Public Land

MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - SAGBI

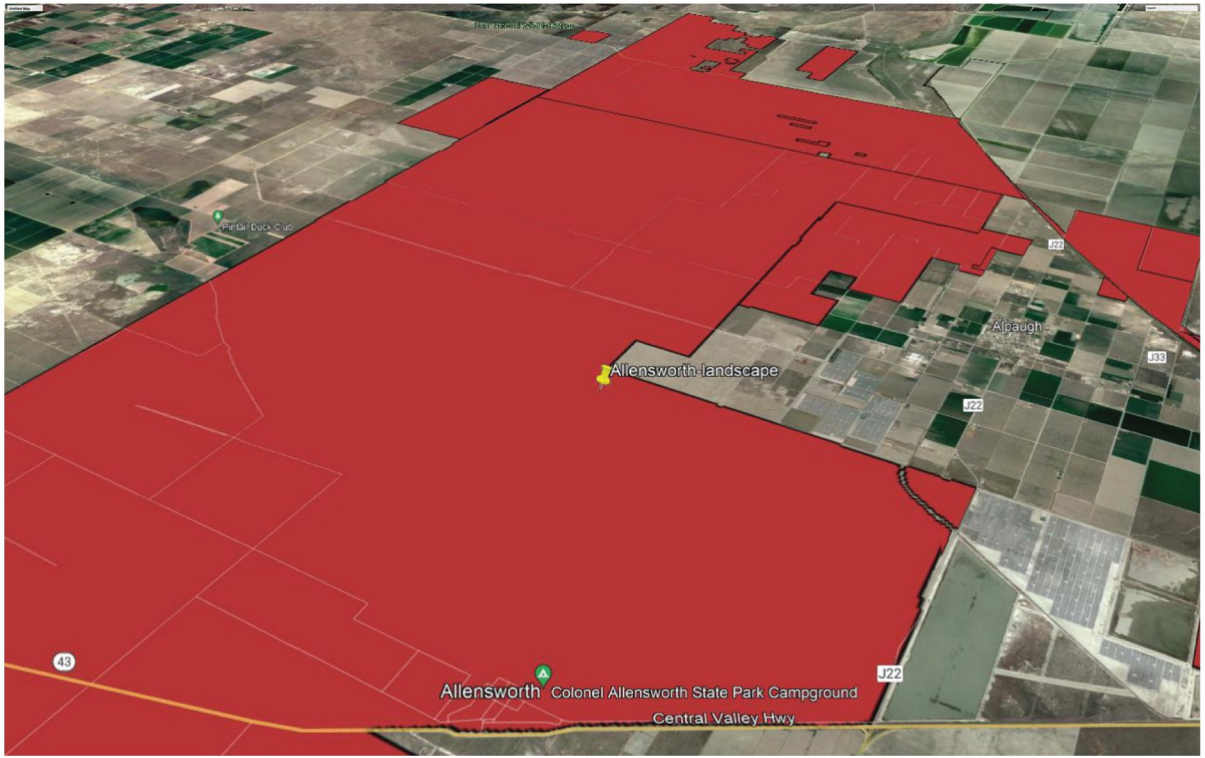


MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - Habitat Value

MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - White Areas



MLRP Visualization Methods: data layers

ALLENSWORTH REFERENCE - Small Growers

Thank you! Questions?

¡Gracias! ¿Preguntas?

Groundwater Recharge Potential in Fairmead

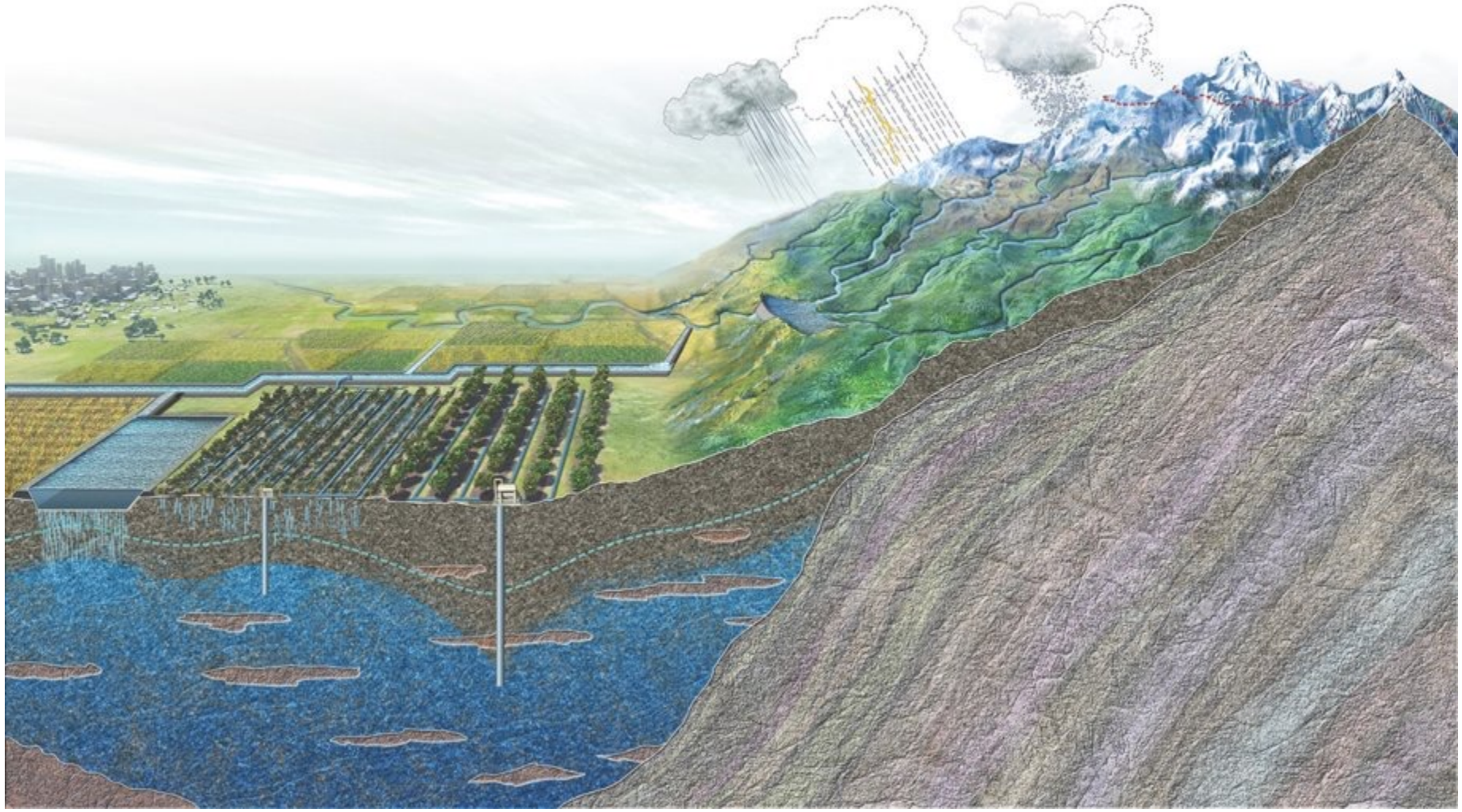
Posibilidades de Recarga de Agua Subterránea en Fairmead

By Aysha Massell, Sustainable Conservation

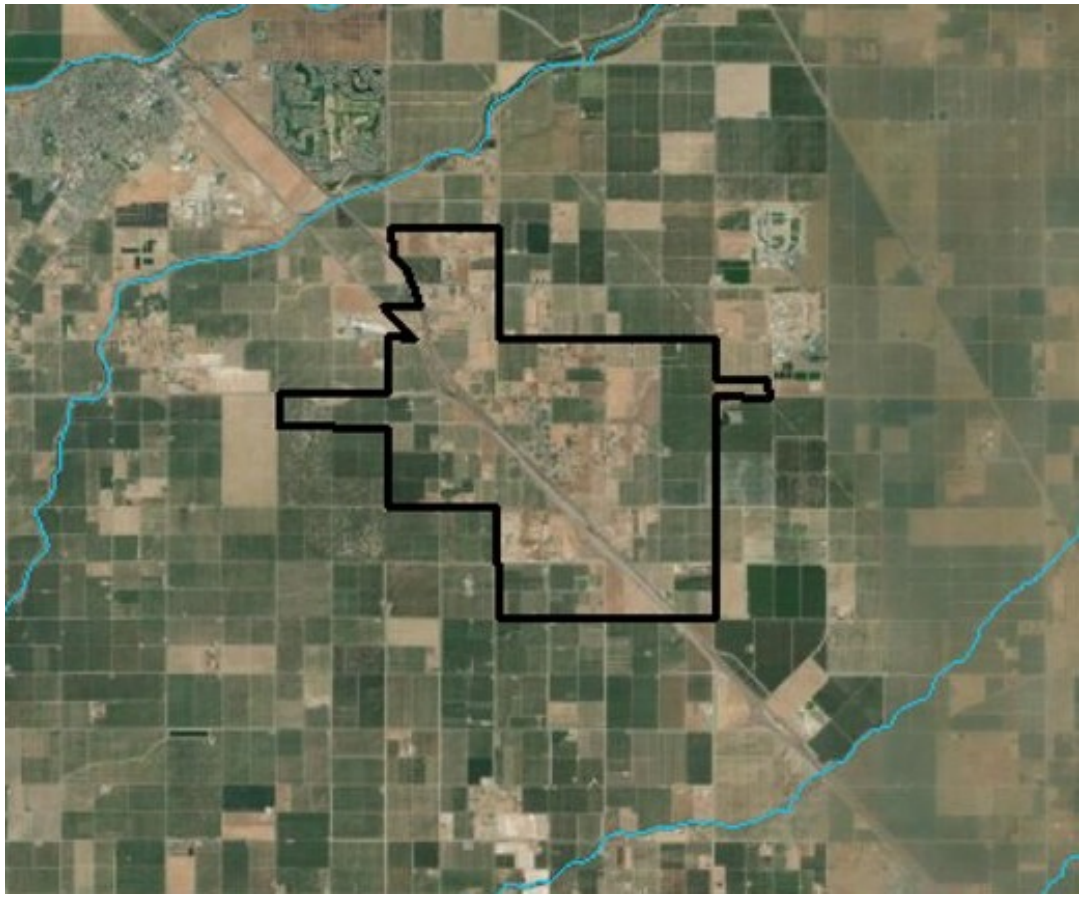
April 2023

What is groundwater recharge?

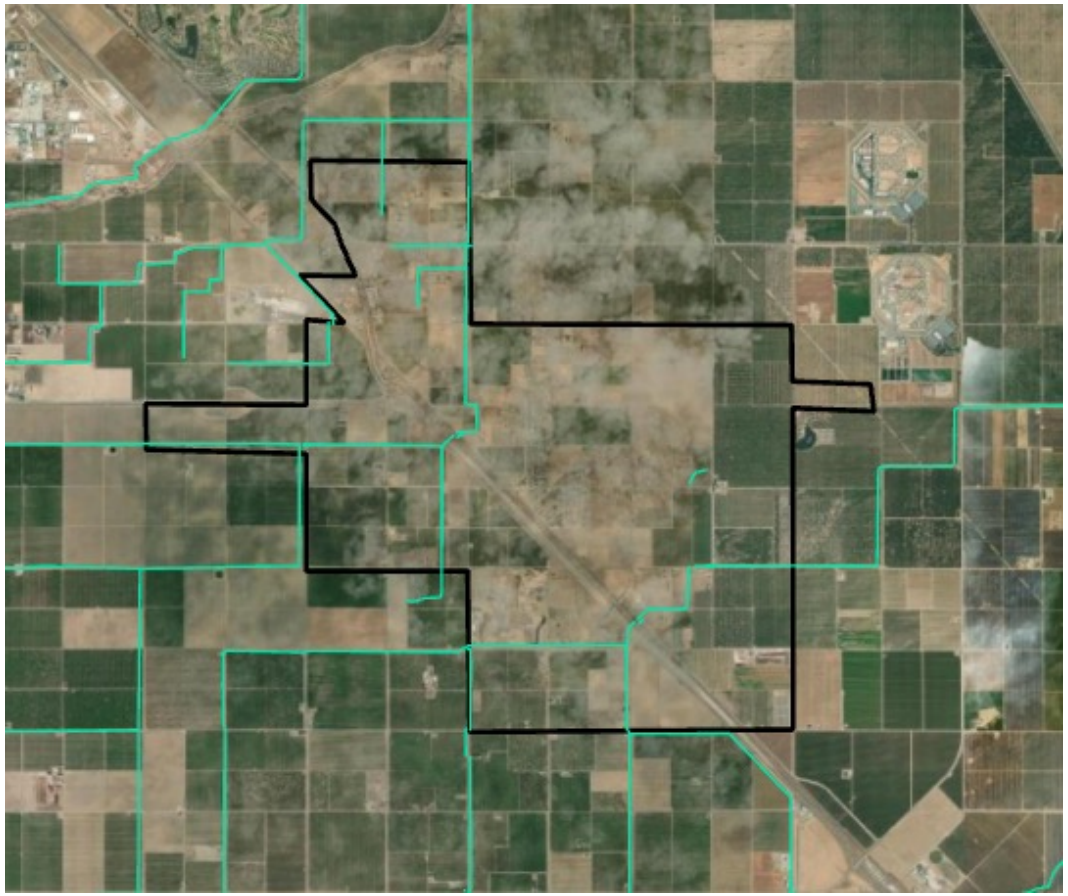
¿A qué se refiere la recarga de agua?



How could surface water get to Fairmead?

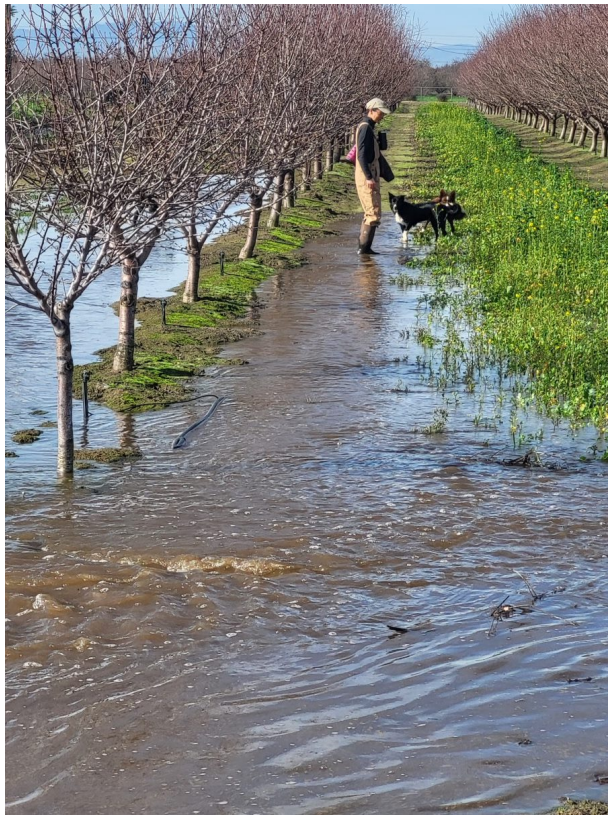


¿ Cómo podria el agua de la superficie llegar a Fairmead?



What does recharge look like?

¿Cómo se ve?



Source of all 3 photos: Sustainable Conservation

On-farm recharge / inundación de agua en un rancho

What does it look like? ¿Cómo se ve?

Source: Department of Water Resources

On-farm recharge / inundación de agua en un rancho

What does it look like?

¿Cómo se ve?

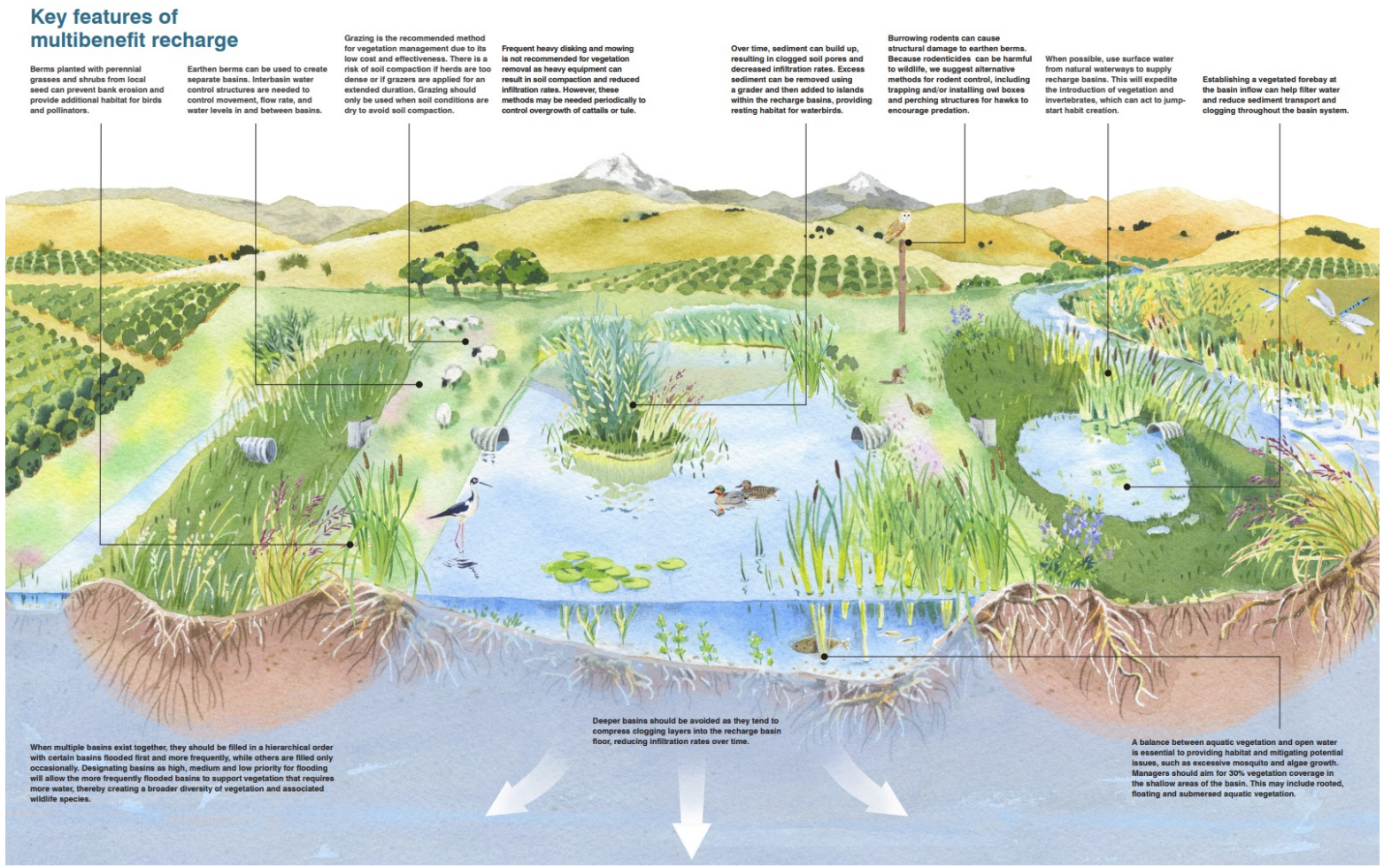
The Savory Basin outside of Fresno. Photo by Larry Valenzuela, CalMatters/CatchLight Local

Tulare Irrigation District basins. Photo source: Aaron Fukuda, TID

Recharge basins / Cuencas o estanques

Multi-benefit Recharge Basins

Multiples beneficios Cuencas de Recarga



Source: Environmental Defense Fund

Multi-benefit Recharge Basins

Multiples Beneficios Cuencas de recarga

Source: Environmental Defense Fund

Multi-benefit recharge has lots of potential

La recarga de agua brinda muchos beneficios y oportunidades

Source: Environmental Defense Fund

Source: The Xerces Society, Jessa Kay Cruz

Provide habitat

Proporcionar hábitat

Multi-benefit recharge has lots of potential

La recarga de agua brinda muchos beneficios y oportunidades

Source: Michael R. Eaton

Parks and open space

Parques y espacios abiertos

Source: Cosumnes River Preserve

Carbon sequestration

Capturar el carbono

Multi-benefit recharge has lots of potential

La recarga de agua tiene muchos beneficios y brinda muchas oportunidades

Source: Dean Johnson

Source: Miguel Gutierrez Jr., CalMatters

Reduce flooding

Reducir el riesgo de inundaciones

Stormwater solutions (green infrastructure)

Source: Brad Davis, AICP

Soluciones de aguas pluviales (infraestructura verde)

Source: Wikimedia Commons

Thank you!
Gracias

Sustainable Conservation

Aysha Massell
amassell@suscon.org

FAIRMEAD

FUTURE OF OUR WATER

COMMUNITY WORKSHOP

Come join to listen and discuss:

- Overview and updates of Fairmead Water and Land use project
- Identify possible projects to increase groundwater supply in Fairmead
- Presentations and feedback on identified projects
- Free lunch, children's activities, and live raffle

FOR MORE INFORMATION:

Call (209) 247-8000 or
(510) 915-3035

Date: Saturday, October 21st, 2023
Time: 1:00pm to 2:30pm

Place: 19421 Ave 22 3/4,
Chowchilla, CA 93610

TALLER COMUNITARIO

EL FUTURO DE NUESTRA AGUA

FAIRMEAD

Únase para escuchar y discutir:

- Descripción general y actualizaciones del proyecto de agua y tierra de Fairmead
- Identificar posibles proyectos para aumentar el suministro de agua en Fairmead
- Presentaciones y comentarios sobre proyectos identificados
- Almuerzo gratis, actividades de niños y sorteos en vivo

PARA MAS INFORMACION:
Llame (209) 247-8000 o
(510) 915-3035

Fecha: Sabado, 21 de Octubre, 2023
Tiempo: 1:00pm a las 2:30pm
Lugar: 19421 Ave 22 3/4
Chowchilla, CA 93610

Climate Resilience Challenge (CRC)
Groundwater Resilience Community Project
Third Community Workshop
October 21, 2023, 1:30 pm - 3:00 pm
Fairmead Elementary School Cafeteria
19421 Ave 22 3/4, Chowchilla, CA 93610

AGENDA

Time	**Agenda Item**
1:15 pm (5 mins)	Welcome and Introductions ● Who is in the room today? Who are the partners? Speaker: Andrea Uribe, Leadership Counsel, and everyone in the meeting
1:25 pm (5 mins)	What is the Fairmead Groundwater Resiliency project – Recap Speaker: Jenny Nunez-Rodriguez, Madera County Water and Natural Resources
1:30 pm (20 min)	Summary of Needs from Previous Workshops (October 2022- April 2023) ● Project Status Update Funding Opportunities • DWR LandFlex • DOC Multi-Benefit Land Repurposing Program (MLRP) • Battery Powered Grant Speaker: Jenny Nunez-Rodriguez, Madera County Water and Natural Resources
1:50 pm (5 min)	5-minute Break - Walk/Stretch/Hydrate
1:55 pm (20 mins)	Moving Ahead: Review of Project Options Speaker: Aysha Massell, Sustainable Conservation Joseph Choperena, Sustainable Conservation
2:25 pm (15 mins)	Breakouts: Community Feedback on Project Options Facilitator: Andrea Uribe, Leadership Counsel
2:40 pm (15 minutes)	Review Community Feedback Announce winner of the raffle
3:00 pm	Adjourn

- Lunch provided.
- Activities for children

Groundwater Recharge and Land Repurposing in Fairmead

October 21, 2023 workshop

By Aysha Massell, Sustainable Conservation

We looked at 2 main strategies:

#1: Reduce pumping – repurpose irrigated land

Photo credit: Environmental Defense Fund

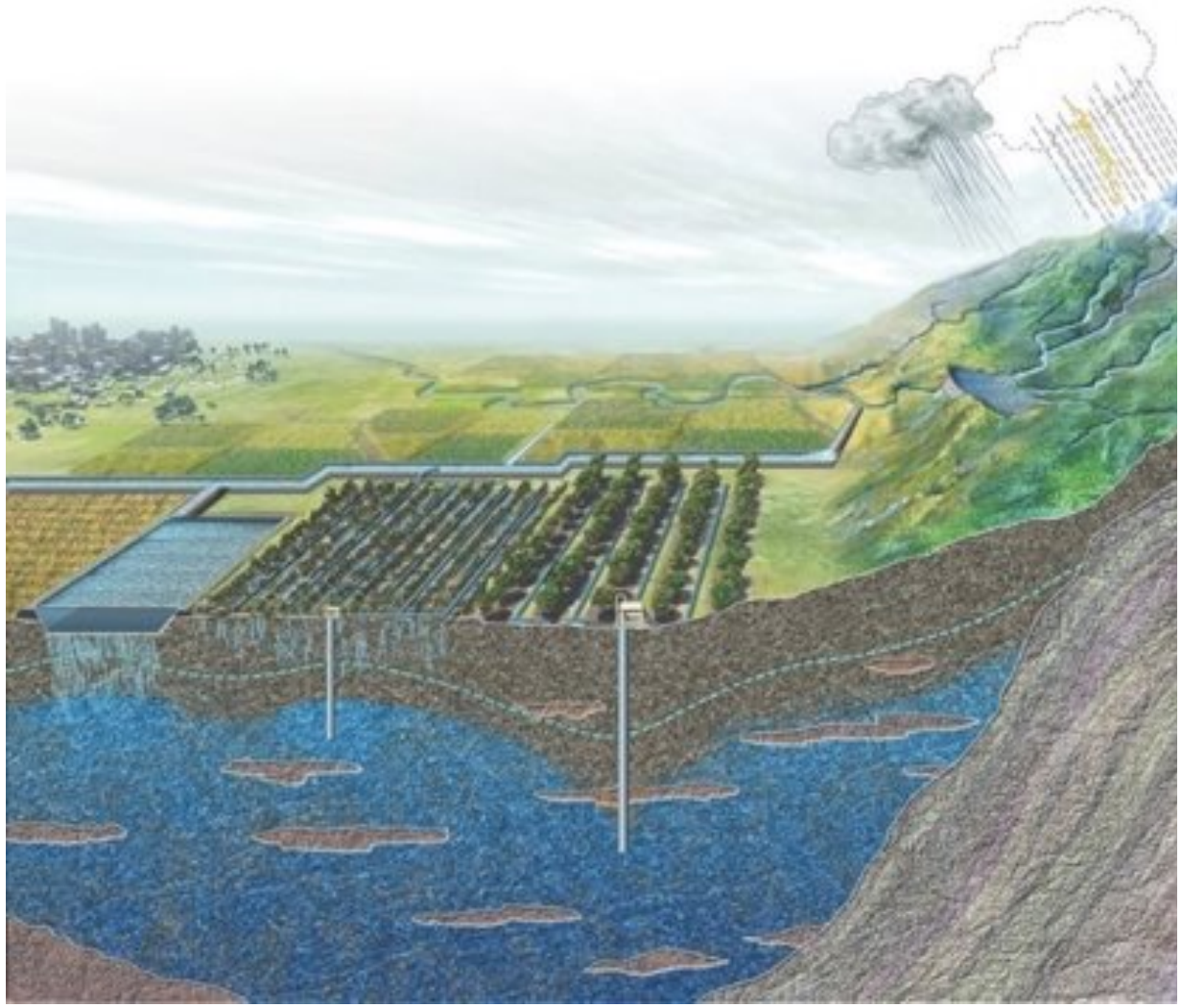


Image credit: Sustainable Conservation

We looked at 2 main strategies:

#2: Increase groundwater levels – recharge aquifers

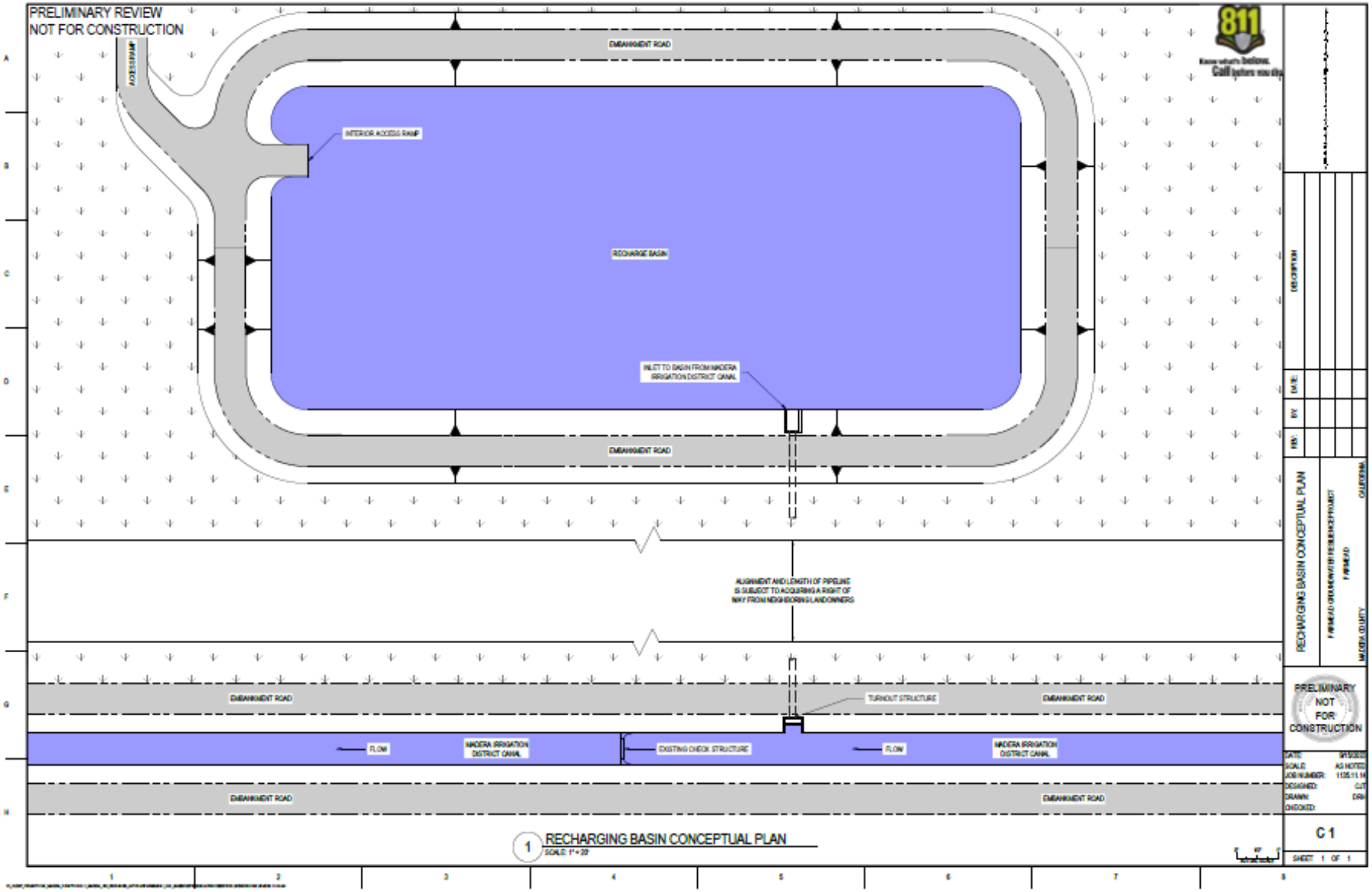
Recharge Basins – aerial view

Temporary diversion equipment provided by DWR is deployed by Fresno Irrigation District to divert excess water from Kings River to reduce flood risk and expand groundwater recharge. Photo taken April 27, 2023.

Central Basin site at W. Central Ave and S. Hughes Ave was completed in 2021, with operations beginning in 2022. Photo from Fresno Irrigation District.

Recharge Basins – view from the ground

Photos of recharge basins taken by Chad Tienken, 2023.



Draft plan by Davids Engineering. 2023.

One-Acre Recharge Basin (8 ft deep)

~$550,000

~$7,100 per year for maintenance

Recharge Basins – habitat focus

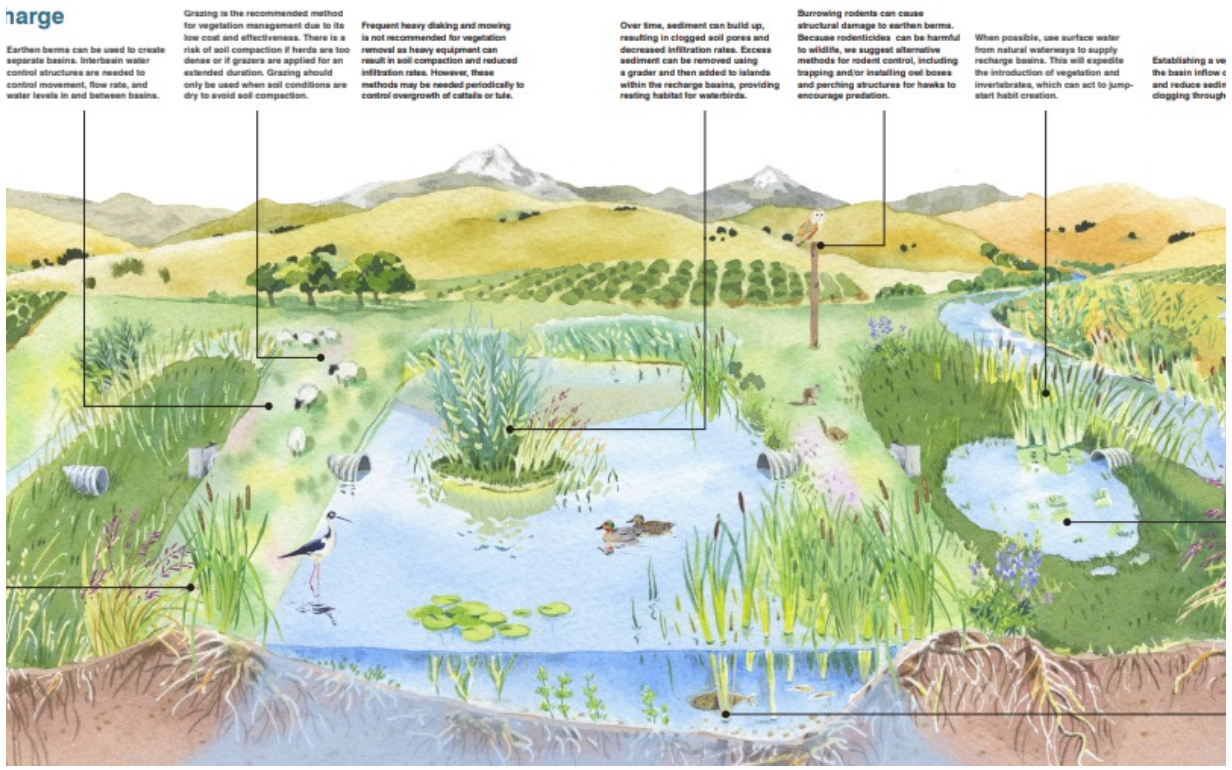


Image credit: Environmental Defense Fund

The Paregien Basin Recharge Expansion Project. Photo from Greater Kaweah GSA.

Recharge Basins – park focus

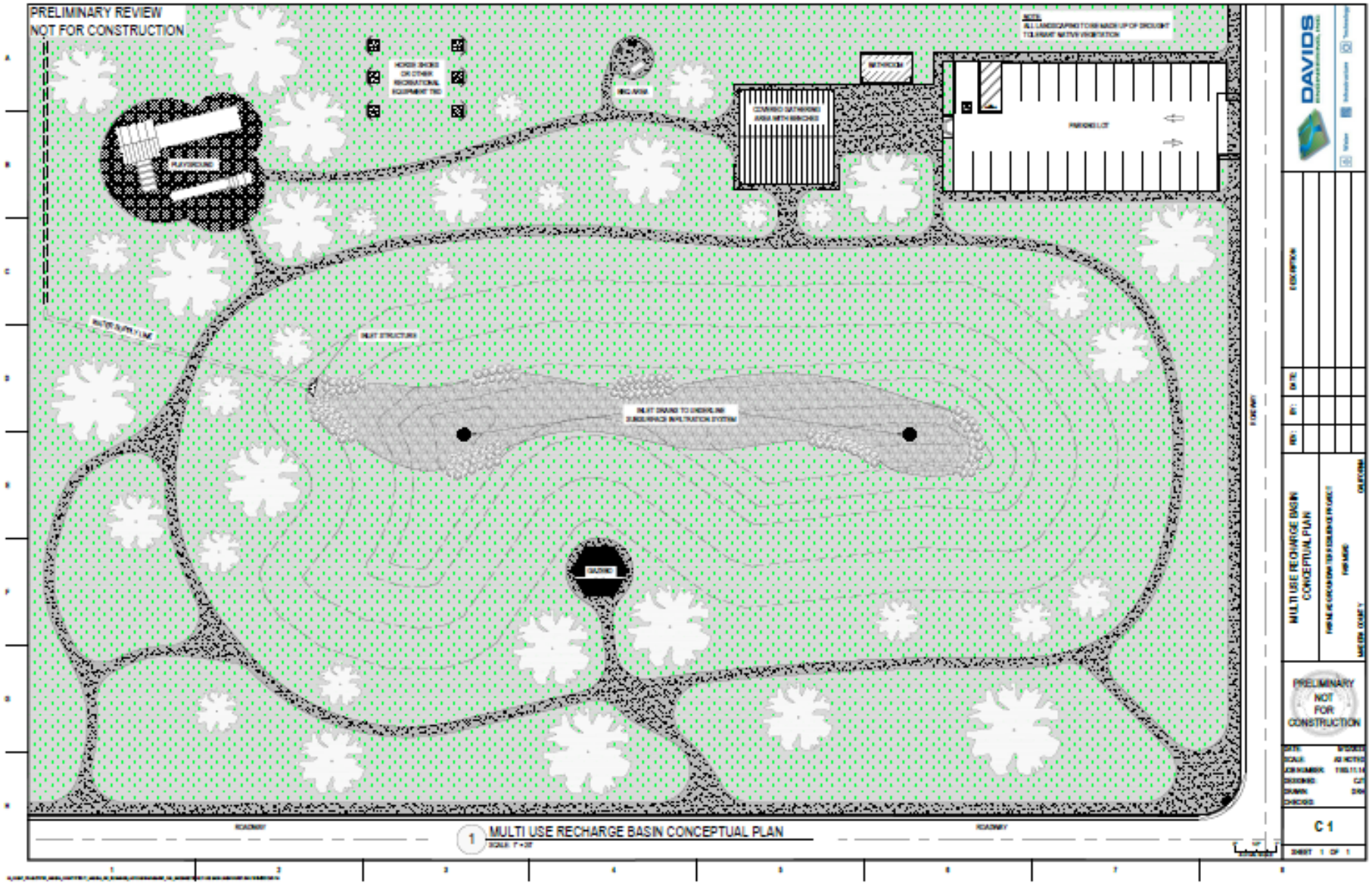
Portero County Park Campground. Photo from Yelp.

San Diego County Potrero Regional Park. Photo from The Dyrt.

Recharge Basins – park focus

Portero County Park. Photo from Park Advisor.

Portero County Park. Photo from The Dyrt.



Draft plan by Davids Engineering. 2023.

Five-Acre Park with Recharge Basin

~$2,500,000

~$32,500 per year for maintenance

On-Farm Recharge

Recharge on Almond orchard. Photo by Sustainable Conservation.

Recharge on Almond orchard. Photo credit: unknown.

Land Fallowing – reduce pumping

Some acres of irrigated land in Madera County will be fallowed.

Image from The Independent.

Land Fallowing – reduce pumping

Image from The Independent.

Why not fallow farmland to benefit communities?

Land Repurposing – low water crops

Agave field. Photo by Getty Images.

Land Repurposing - solar farms + pollinators

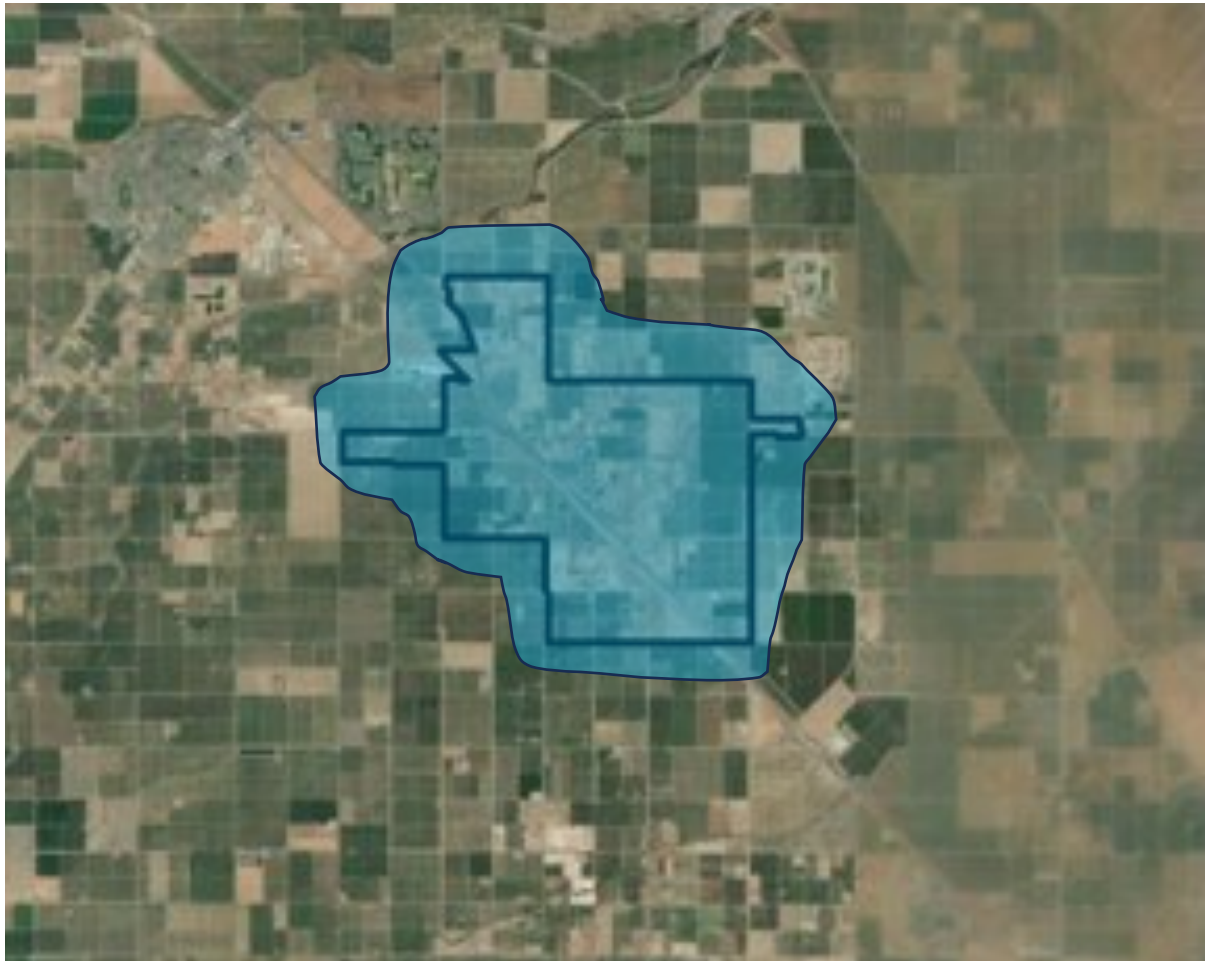
Gullen Solar Farm. Photo from Country Living.

Land Repurposing – open space + habitat + recharge

Photo from California Farm Water Coalition.

Buffer Zones –
Repurpose farmland in and around communities

Buffer Zones –
Repurpose farmland in and around communities



Reduce:

- Groundwater pumping
- Dust
- Pesticide/fertilizer exposure

Increase:

- Groundwater levels
- Open space/parks
- Habitat
- Shade

Fairmead Community and Friends.

Photo by Sustainable Conservation.

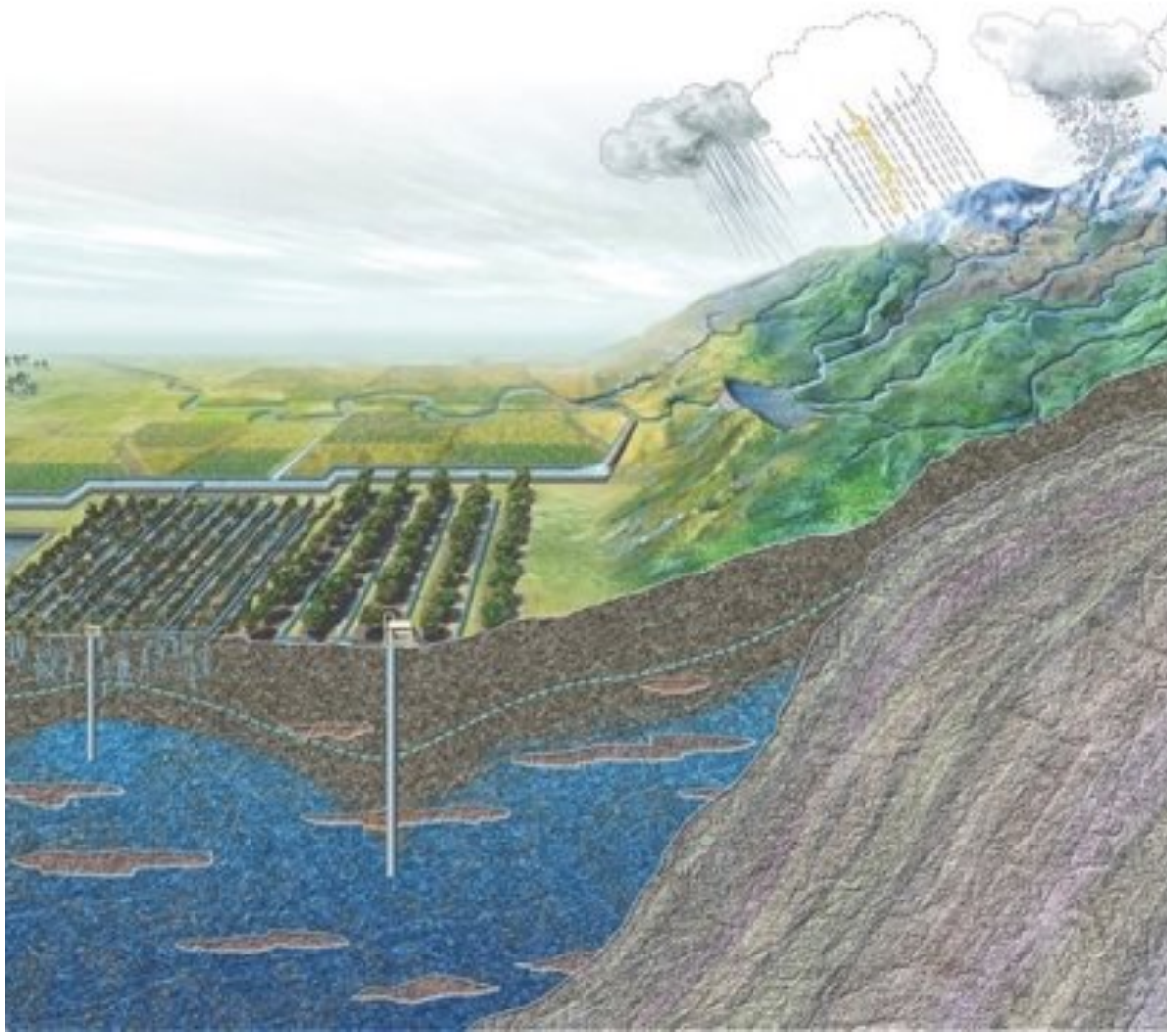
Recarga de Aguas Subterráneas y Reutilización de Tierras en Fairmead

21 de octubre del 2023- Evento Comunitario

Aysha Massell, Sustainable Conservation

Vamos a analizar 2 estrategias

#1: Reducir el bombeo–
Reutilización de tierras agrícolas

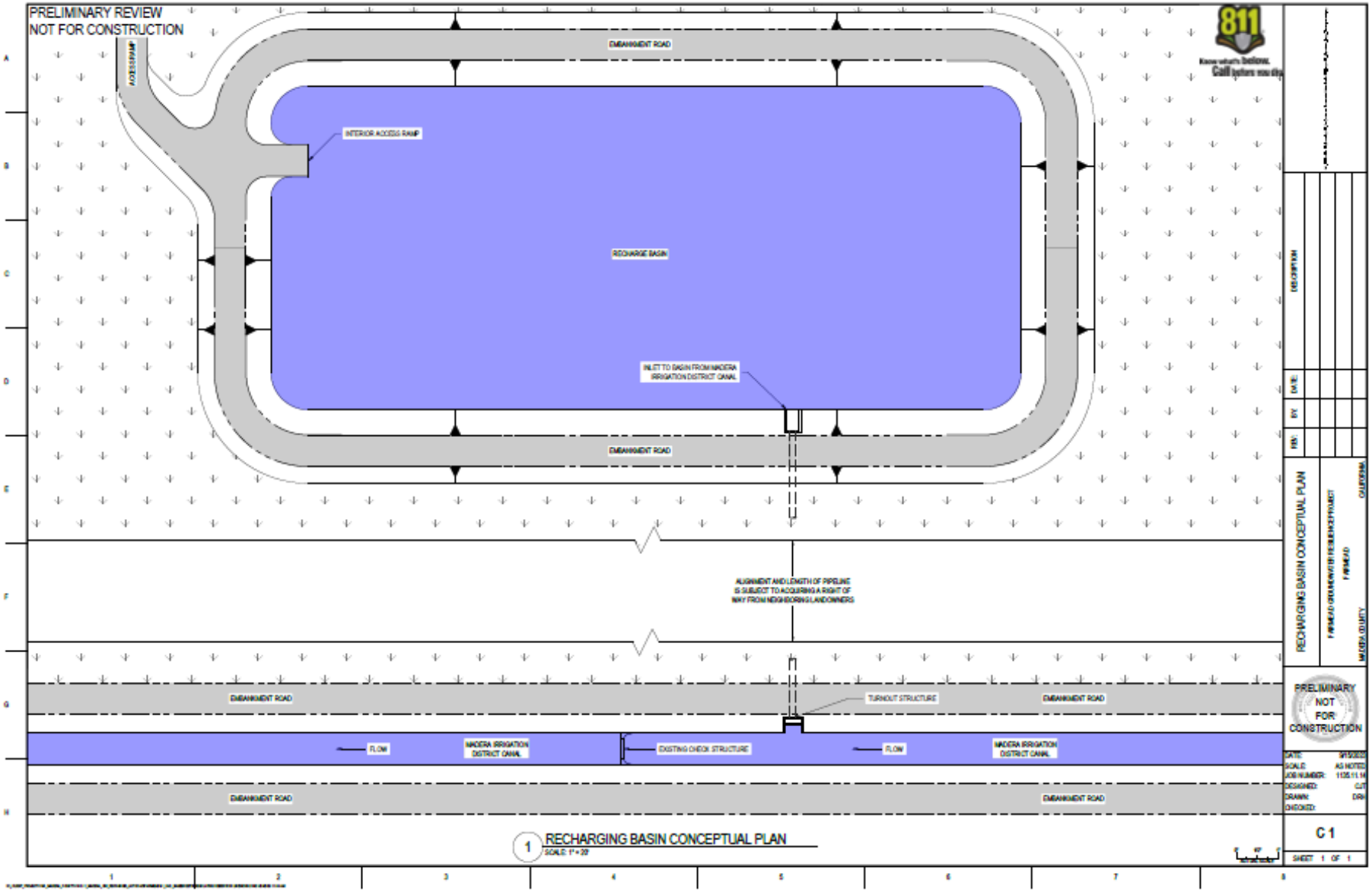


Vamos a analizar 2 estrategias:

#2: Incrementar los niveles de agua subterránea– recarga de acuíferos

Cuenca de recargas– vista aérea

Cuenca de recargas– vista desde el suelo

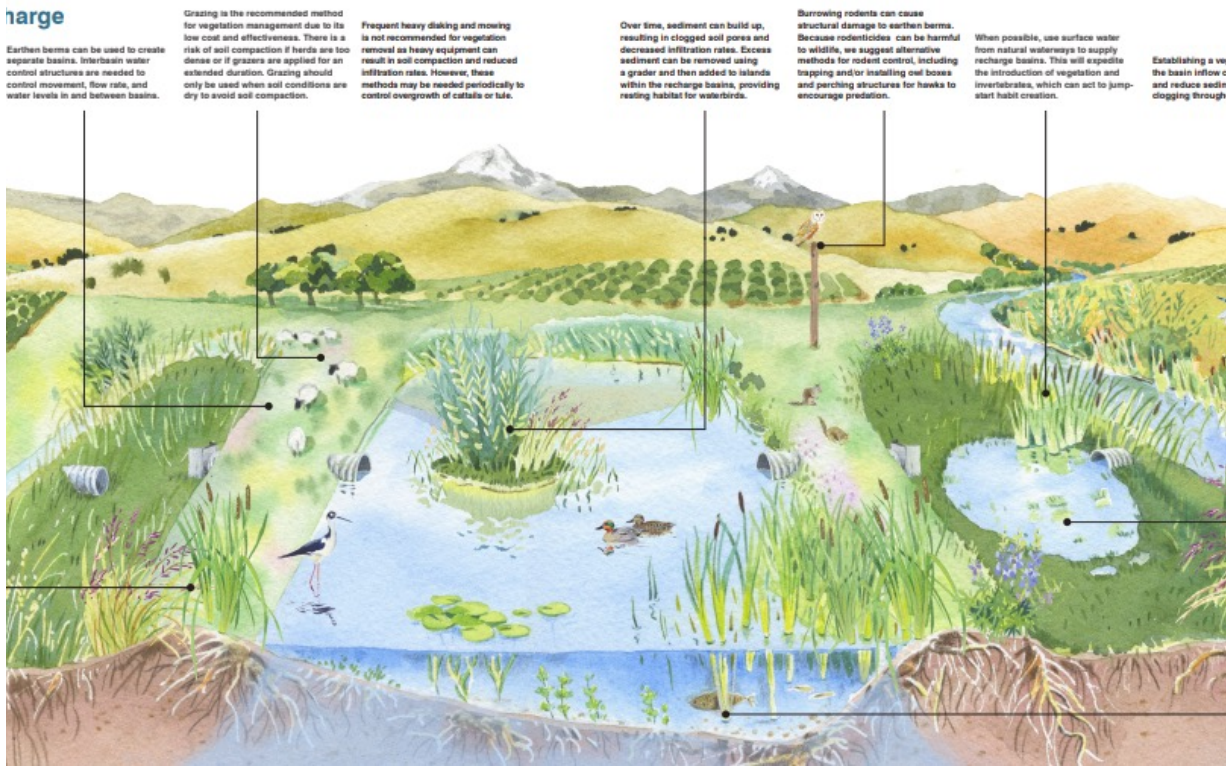


Cuenca de recarga de un acre
(8 pies de profundidad)

~$550,000

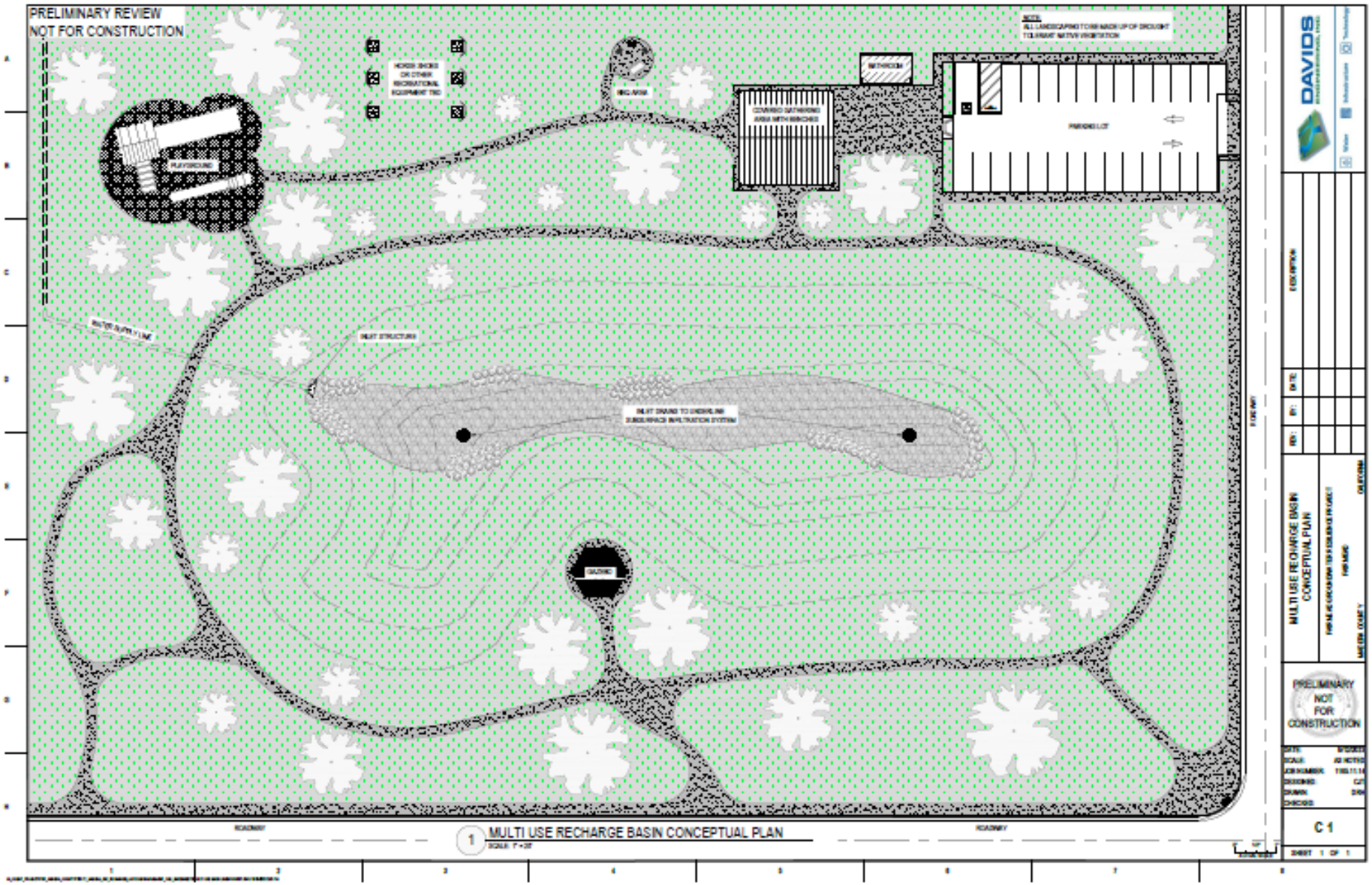
~$7,100 al año por mantenimiento

Cuenca de recargas– enfoque del hábitat



Cuenca de recargas– enfoque del parque

Cuenca de recargas– enfoque del parque



Parque de 5 acres con una cuenca de recarga

~$2,500,000

~$32,500 al año por mantenimiento

Recarga en los campos de cultivo

Retiro de tierras de cultivo– reducir el bombeo

Cerca de 50,000 acres de tierra de cultivo irrigada en el condado de Madera necesitará ser retirada

Retiro de tierras de cultivo– reducir el bombeo

¿Por qué no retirar tierras de cultivo en “ zonas de amortiguamiento" alrededor de las comunidades?

Retiro de tierras de cultivo

- Granjas de paneles solares
- Parques
- Cultivos de bajo uso de agua

Addressing Groundwater Needs in Fairmead

- California Resilience Challenge Grant
  - Fairmead Groundwater Resiliency

Saturday, October 21, 2023, 1-2:30 p.m.

Fairmead Groundwater Resilience Project

Presenters:

- Jenny Nunez-Rodriguez, Madera County Water and Natural Resources
- Aysha Massell, Sustainable Conservation
- Joseph Choperena, Sustainable Conservation

Facilitator:

- Andrea Uribe, Leadership Council for Justice and Accountability

Support:

- Angela Islas, Civic Well
- Fairmead Community and Friends

Recap

The Fairmead Groundwater Resilience

Working with the community:

- Civic Well
- Leadership Counsel for Justice and Accountability
- Madera County
- Sustainable Conservation

Examining water related needs in Fairmead

Workshop #1

Fairmead Community Workshop

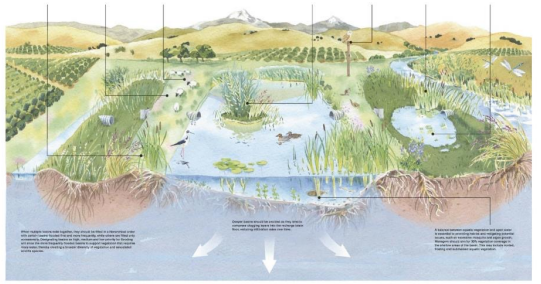
October 22, 2022

In this workshop, Fairmead residents shared concerns about water and learned more about recharge.

COMMUNITY WORKSHOP

About Water & Fairmead

Saturday Oct. 22nd
Fairmead Elementary School Cafeteria
10am-12pm



Worried about wells going dry & the future of water in Fairmead?

Join us for a workshop to discuss how we can help stop over-pumping & start replenishing groundwater in the community.

We need YOUR input about two possible water projects:
(1) repurposing agricultural land to reduce over-pumping, &
(2) applying water from canals to farms or basins to start putting water back in the ground.

Questions about this workshop?
Contact **Madeline** from Leadership Counsel at **(206) 853-9575.**

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

CIVICWELL
Transforming Local Vision into Action
Formerly Local Government Commission (LGC)

MADERA COUNTY

Sustainable Conservation

Workshop #2

Fairmead Community Workshop

April 27, 2023

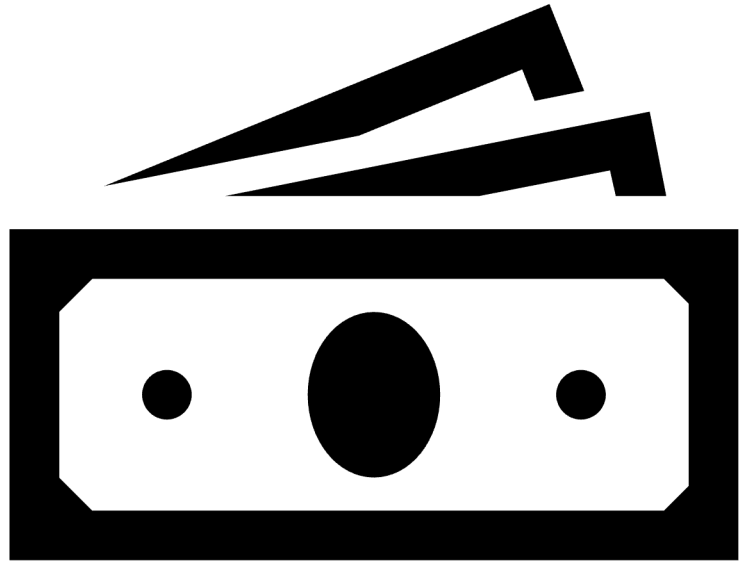
In this workshop, Fairmead residents shared their visions to improve their groundwater situation and learned more about land repurposing.

List of Needs that we heard

- Connecting to an existing water system
- Wait time to get an emergency tank
- Expensive to transition from a tank to an individual well
- Financial cost of drilling a new well
- Maintenance District water rates
- Buffer zones/Land Repurposing
- Recharge

Water Rates

- Water rates must reflect cost of service
- Grants offset water rates, but rates are still higher than some can pay
- Residential water use is high
- Statewide lobbying to get permanent state support for water rates in small communities
- Potential solar panels might stabilize electricity costs



When would you see an improvement?

0- 5 years	6-10 years	11-20 years
Tanks	Tanks	Tanks
Recharge	Recharge	Recharge
Solar Panels	Land Repurposing	Land Repurposing
	Allocations	Allocations
		Annexing

Current Funding Efforts

What has been done?

Madera County WNR was awarded funding for:

- LandFlex program – CA Department of Water Resources

Payment for taking land out of agricultural production. It was offered in Fairmead, but no one applied.

- Multi-Benefit Land Repurposing Program MLRP- CA Department of Conservation

It will repurpose irrigated agricultural land while creating community and environmental benefits. Plan is in process.

Future Funding Efforts

Future Funding Opportunities:

- Battery Grant

Let’s Get Started

- Looking at the proposed concept plans for Fairmead Project

Abordando las necesidades del agua subterránea en Fairmead

- California Resilience Challenge Grant
  - Fairmead Groundwater Resiliency

21 de Octubre del 2023 desde 1-2:30 p.m.

Fairmead Groundwater Resilience Project

Presentadores:

- Jenny Nunez-Rodriguez, Madera County Water and Natural Resources
- Aysha Massell, Sustainable Conservation
- Joseph Choperena, Sustainable Conservation

Facilitador:

- Andrea Uribe, Leadership Council for Justice and Accountability

Apoyo:

- Angela Islas, Civic Well
- Fairmead Community and Friends

Resumen

Resiliencia de las aguas subterráneas en Fairmead

Trabajando con la comunidad:

- Civic Well
- Leadership Counsel for Justice and Accountability
- Madera County
- Sustainable Conservation

Analizando las necesidades respecto al agua en Fairmead

Evento Comunitario #1

Evento Comunitario en Fairmead

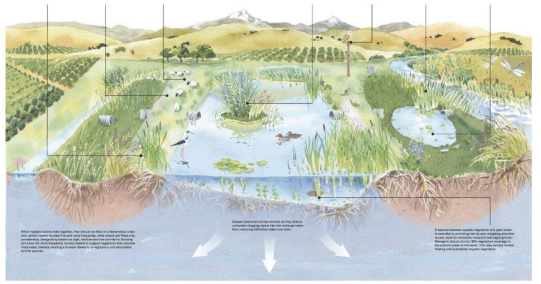
22 de octubre del 2022

En este evento comunitario, los residentes de Fairmead expresaron sus preocupaciones respecto al agua subterránea y aprendieron del tema de recargas.

COMMUNITY WORKSHOP

About Water & Fairmead

Saturday Oct. 22nd
Fairmead Elementary School Cafeteria
10am-12pm



Worried about wells going dry & the future of water in Fairmead?

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We need YOUR input about two possible water projects:
(1) repurposing agricultural land to reduce over-pumping, &
(2) applying water from canals to farms or basins to start putting water back in the ground.

Questions about this workshop?
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LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY
CIVICWELL Transforming Local Vision into Action
MADERA COUNTY
Sustainable Conservation

Evento Comunitario #2

Evento Comunitario en Fairmead

27 de abril del 2023

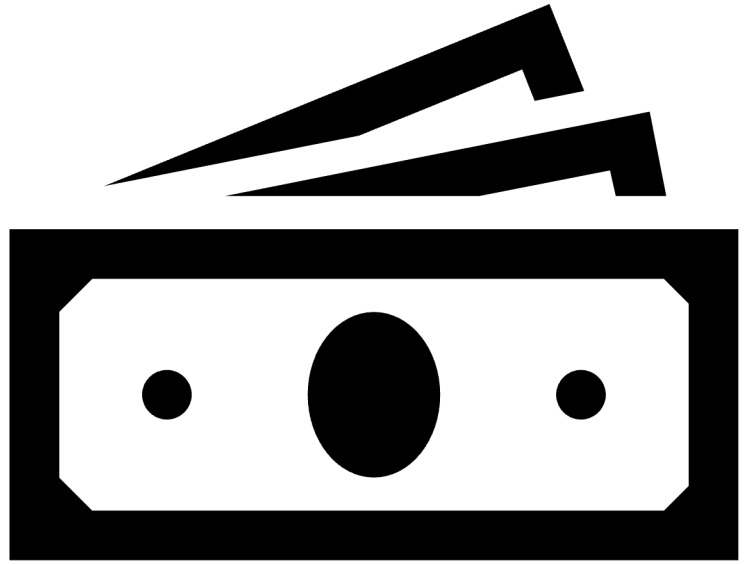
En este evento comunitario, los residentes de Fairmead expresaron su visión de como mejorar los niveles de agua subterránea y aprendieron del tema de recarga.

Lista de necesidades que escuchamos

- Conectarse a un existente sistema de agua
- Tiempo de espera para recibir un tanque
- Altos costos para la transición de un tanque a un nuevo pozo
- Costo de excavar un nuevo pozo
- Costo del agua en el distrito de mantenimiento
- Zonas de amortiguamiento/retiro de tierras de cultivo
- Recarga

Tarifas de agua

- Las tarifas de agua deben reflejar el costo del servicio
- Las subvenciones compensan las tarifas de agua, pero el costo aun sigue siendo muy alto y muchos no pueden pagar por estos costos
- El uso de agua en las residencias es alto
- Esfuerzos a nivel del estado para obtener subvenciones permanentes para poder reducir el costo de las tarifas del agua en pequeñas comunidades
- Paneles solares podrían ayudar a estabilizar los costos de la electricidad



¿Cuanto tengo que esperar para ver un mejoramiento?

0- 5 años	6-10 años	11-20 años
Tanques	Tanques	Tanques
Recarga	Recarga	Recarga
Paneles Solares	Retiro de tierras de cultivo	Retiro de tierras de cultivo
	Asignaciones	Asignaciones
		Anexando

Esfuerzos actuales de financiamiento

¿Que se ha hecho?

Madera County WNR ha recibido fondos para:

- Programa de LandFlex – CA Department of Water Resources

Pagos por retirar y dejar de cultivar tierras de cultivo. Se ofreció en Fairmead, pero nadie aplico al programa.

- Multi-Benefit Land Repurposing Program MLRP- CA Department of Conservation

Retiro de tierras de cultivo para crear beneficios comunitarios y ambientales. El plan esta en proceso.

Esfuerzos futuros de financiamiento

Esfuerzos futuros de financiamiento:

- Battery Grant

¡Empecemos!

- Analizando los planes conceptuales propuestos para Fairmead.

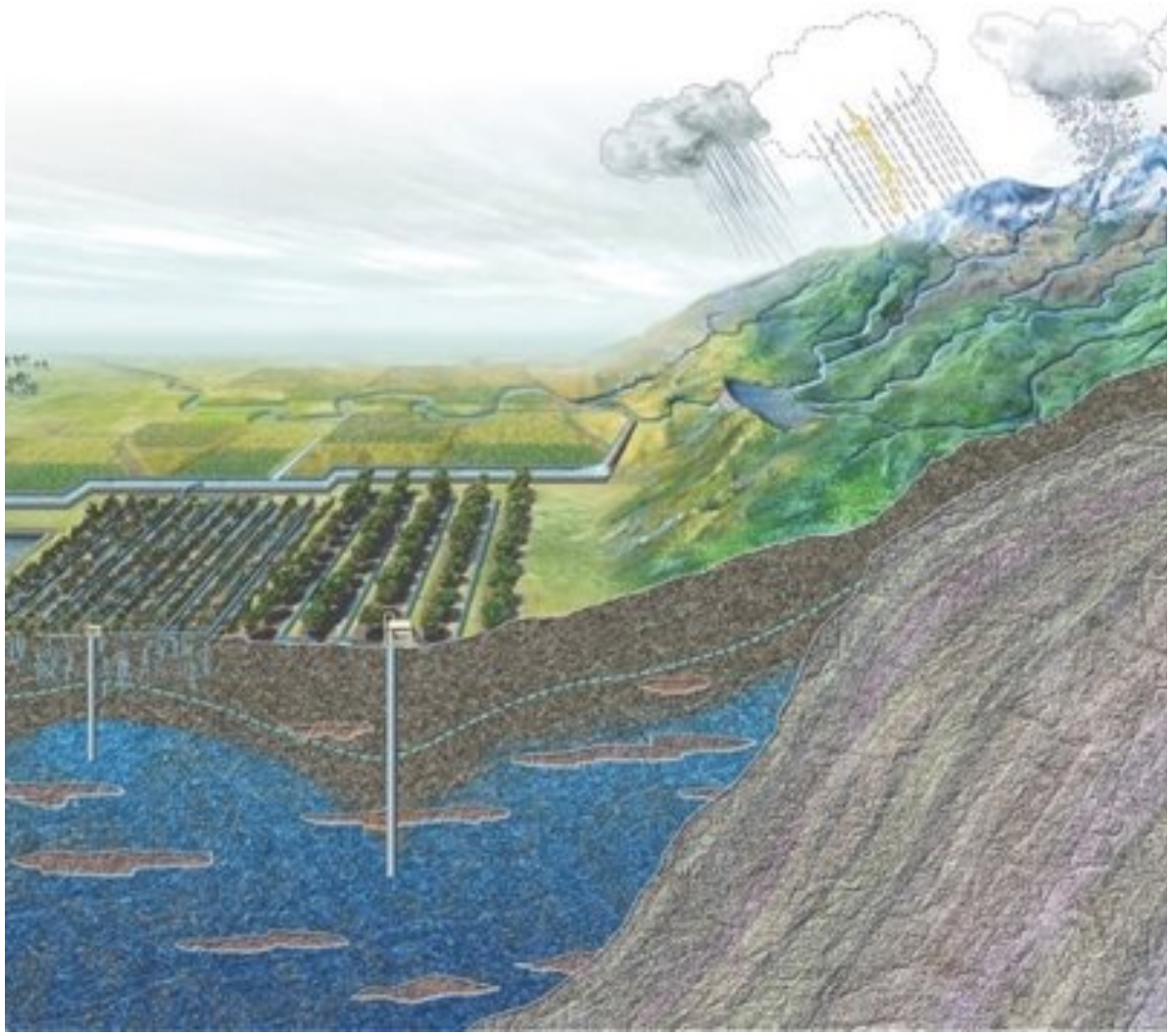
Recarga de Aguas Subterráneas y Reutilización de Tierras en Fairmead

21 de octubre del 2023- Evento Comunitario

Aysha Massell, Sustainable Conservation

Vamos a analizar 2 estrategias

#1: Reducir el bombeo–
Reutilización de tierras agrícolas

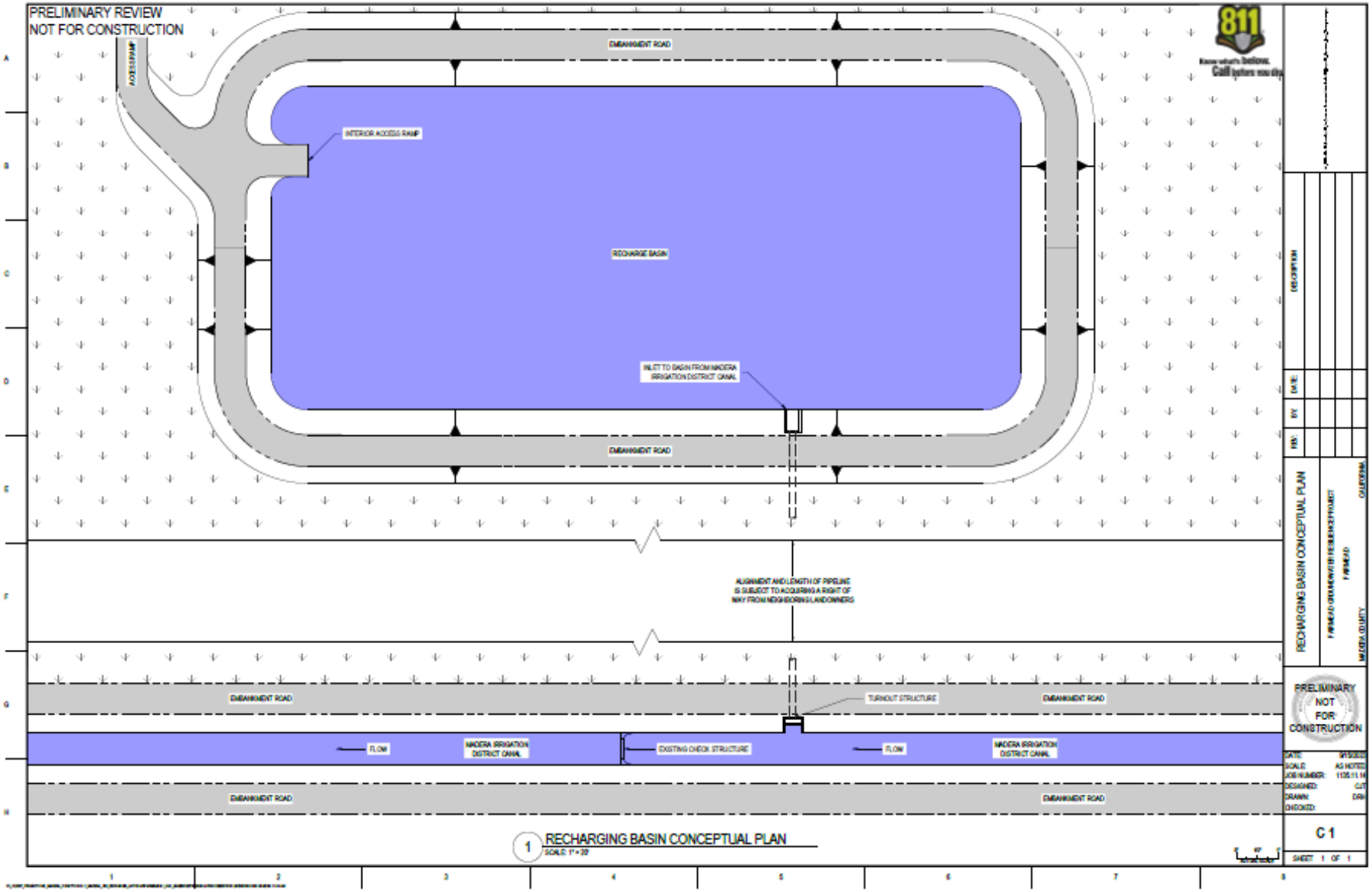


Vamos a analizar 2 estrategias:

#2: Incrementar los niveles de agua subterránea– recarga de acuíferos

Cuenca de recargas– vista aérea

Cuenca de recargas– vista desde el suelo

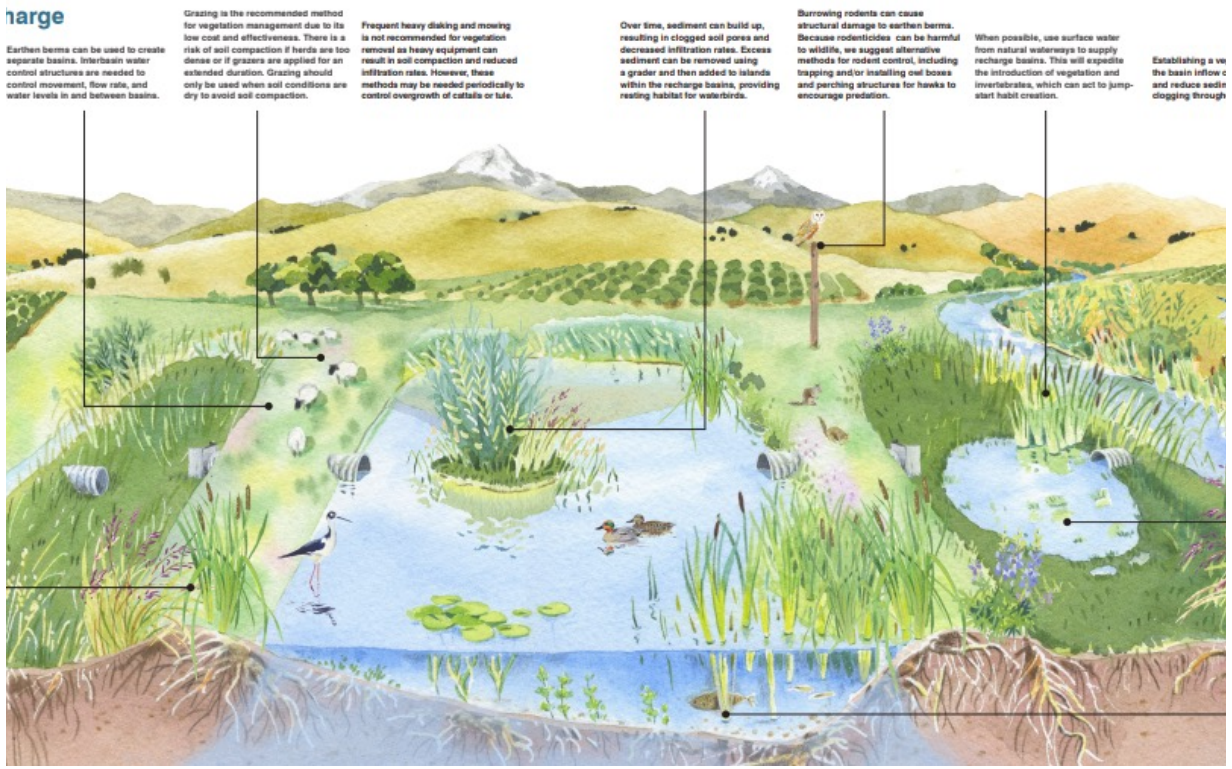


Cuenca de recarga de un acre
(8 pies de profundidad)

~$550,000

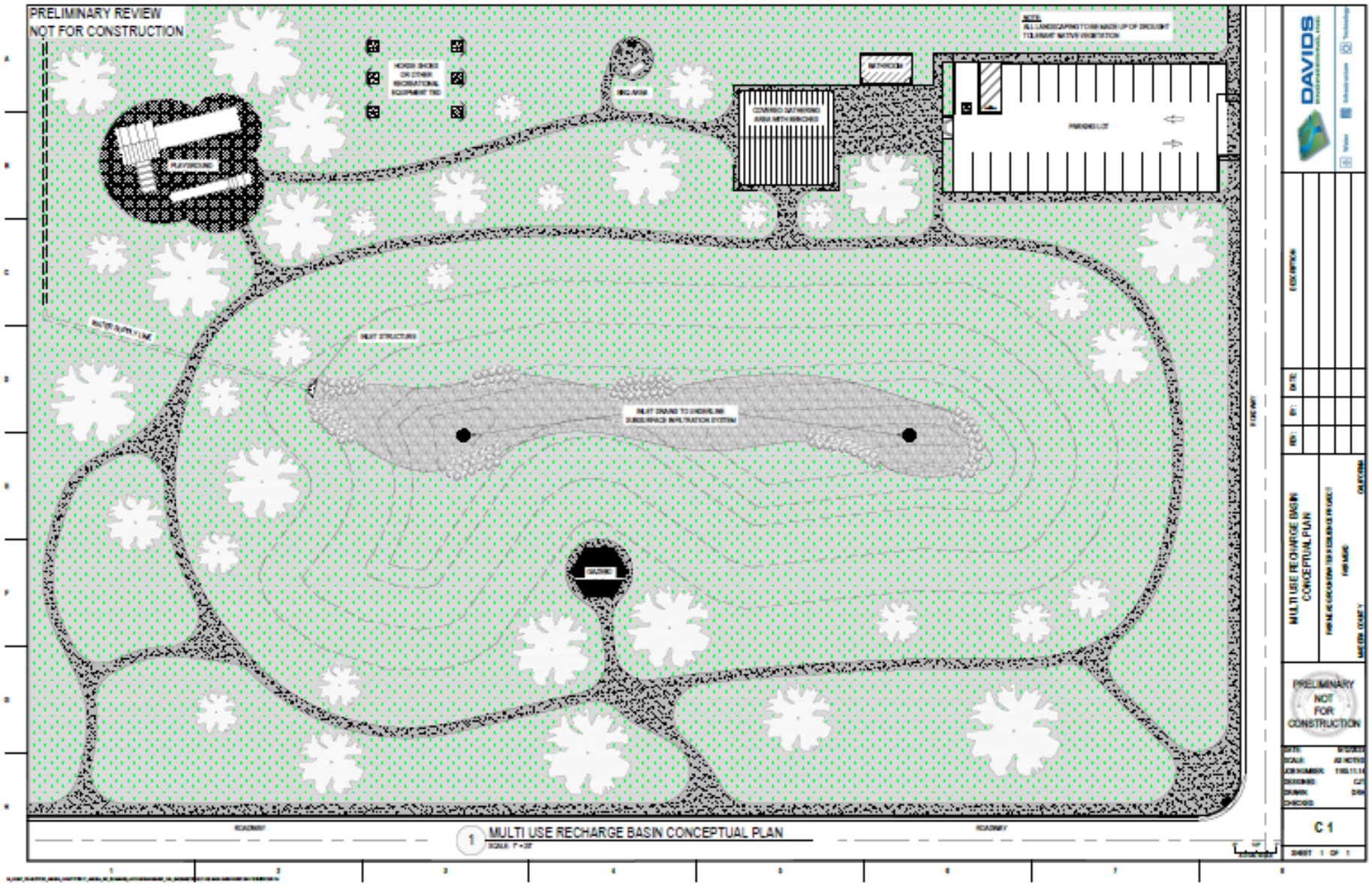
~$7,100 al año por mantenimiento

Cuenca de recargas– enfoque del hábitat



Cuenca de recargas– enfoque del parque

Cuenca de recargas– enfoque del parque



Parque de 5 acres con una cuenca de recarga

~$2,500,000

~$32,500 al año por mantenimiento

Recarga en los campos de cultivo

Retiro de tierras de cultivo– reducir el bombeo

Cerca de 50,000 acres de tierra de cultivo irrigada en el condado de Madera necesitará ser retirada

Retiro de tierras de cultivo– reducir el bombeo

¿Por qué no retirar tierras de cultivo en “ zonas de amortiguamiento" alrededor de las comunidades?

Retiro de tierras de cultivo

- Granjas de paneles solares
- Parques
- Cultivos de bajo uso de agua

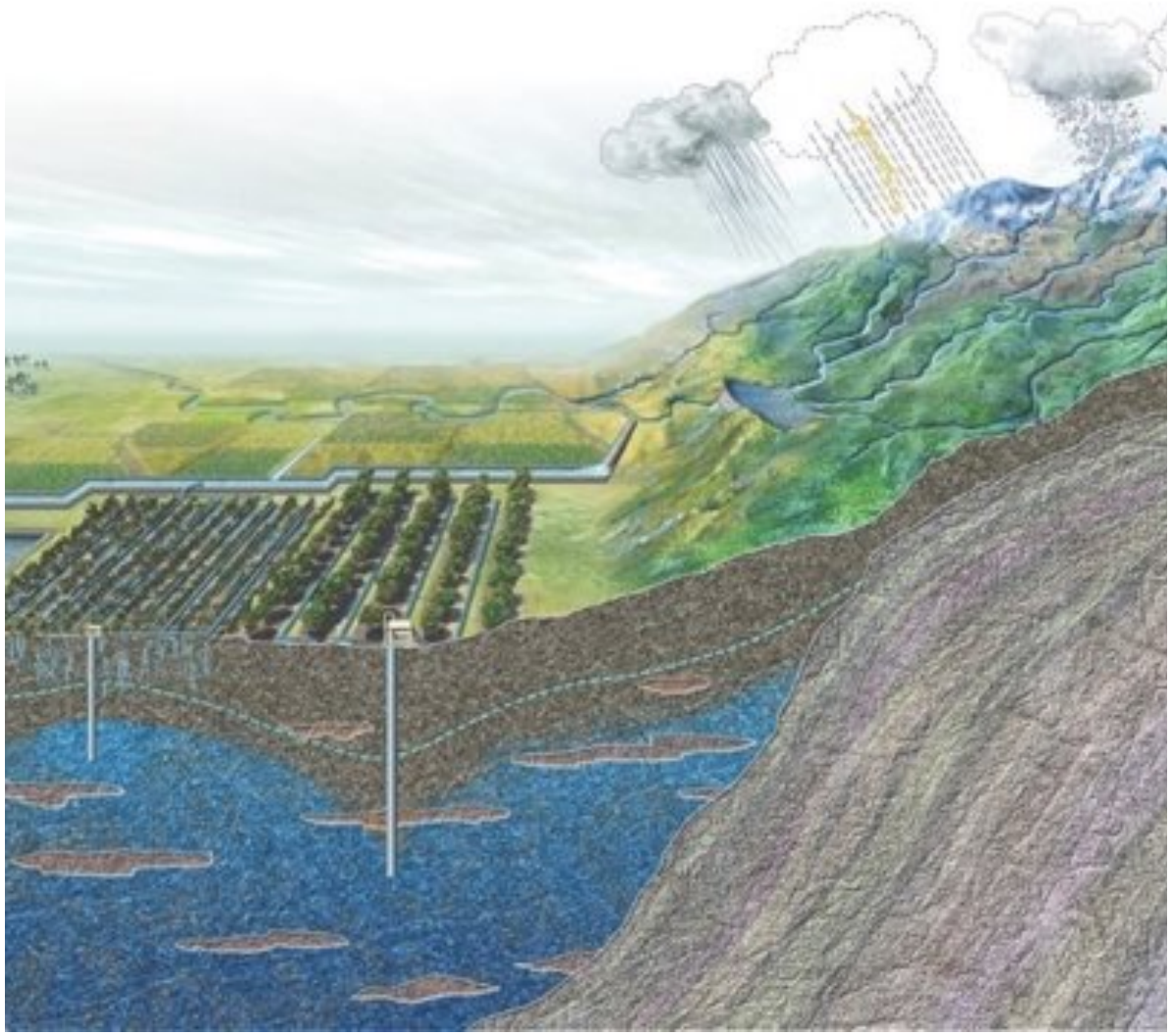
Groundwater Recharge and Land Repurposing in Fairmead

October 21, 2023 workshop

By Aysha Massell, Sustainable Conservation

We looked at 2 main strategies:

#1: Reduce pumping – repurpose irrigated land

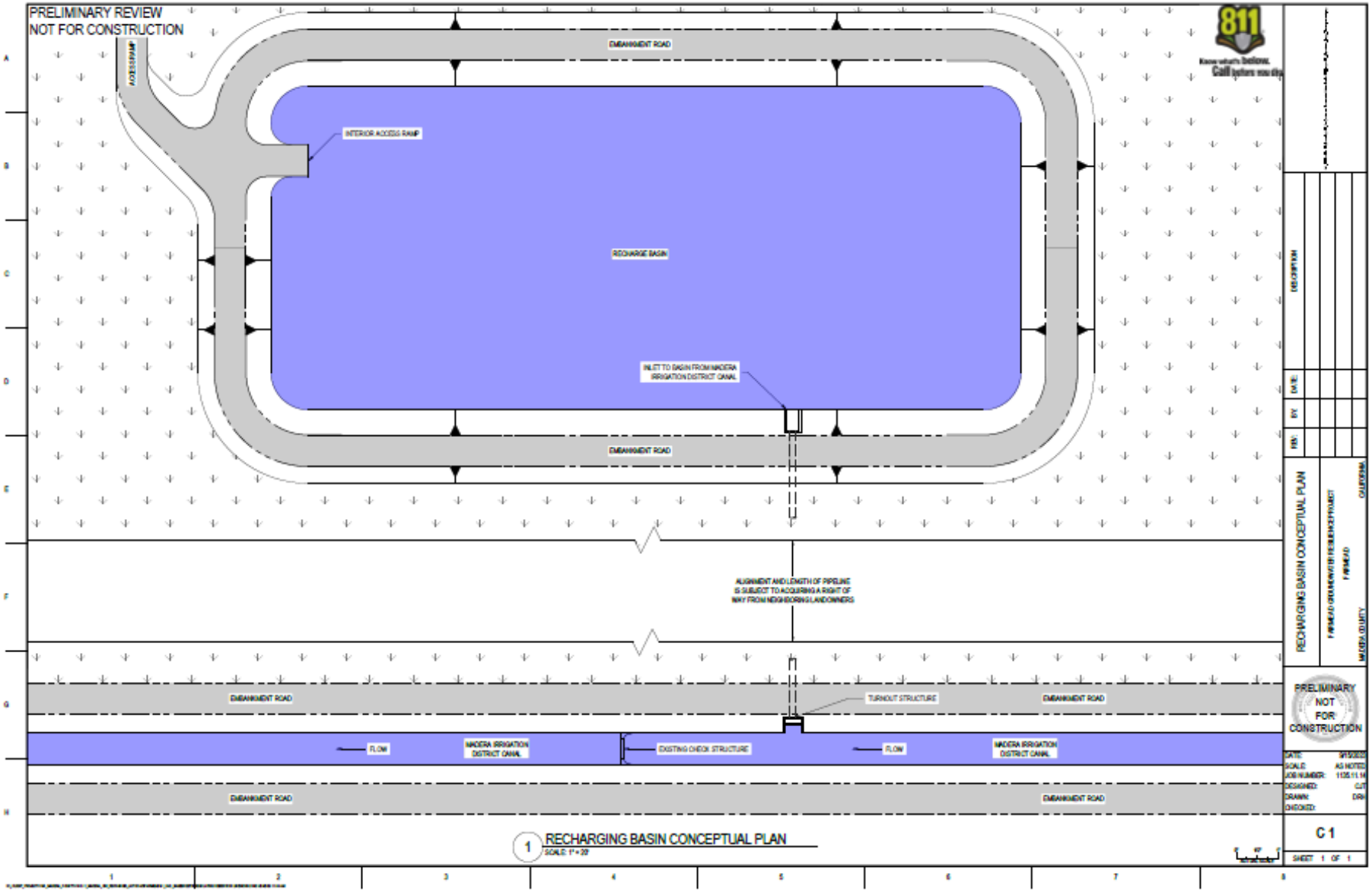


We looked at 2 main strategies:

#2: Increase groundwater levels – recharge aquifers

Recharge Basins – aerial view

Recharge Basins – view from the ground

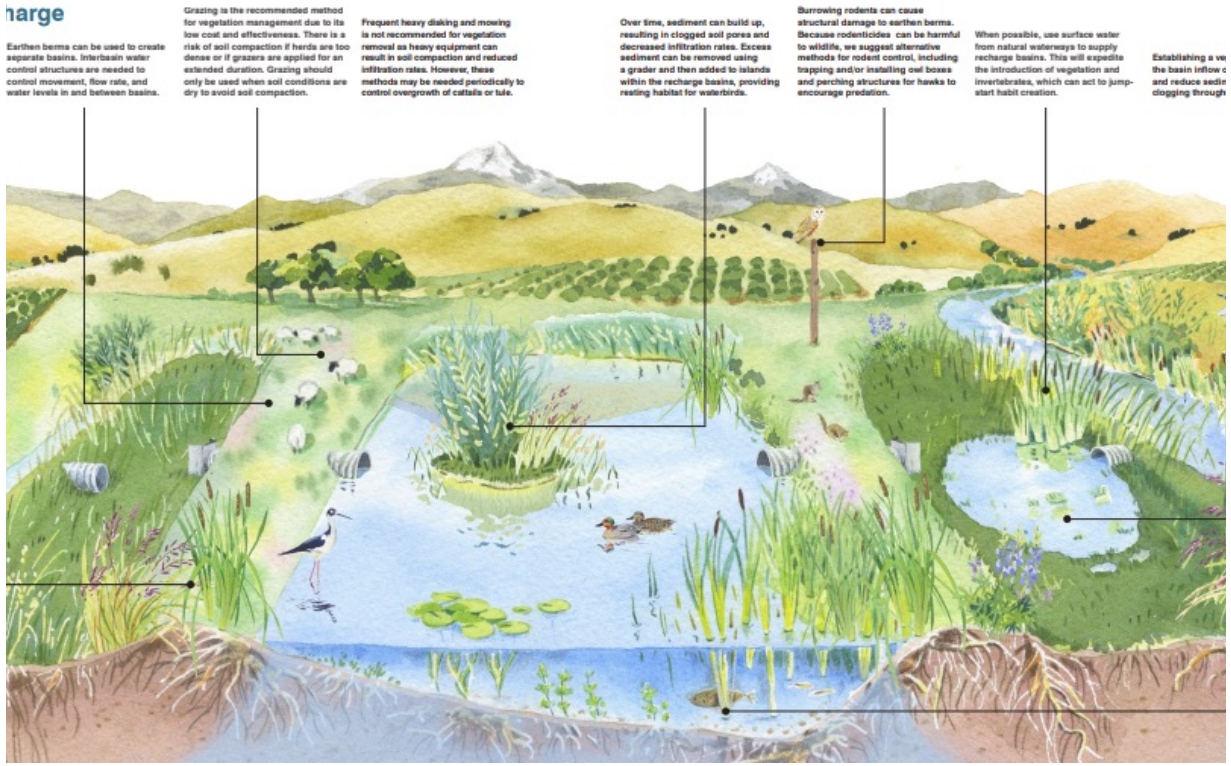


One-Acre Recharge Basin (8 ft deep)

~$550,000

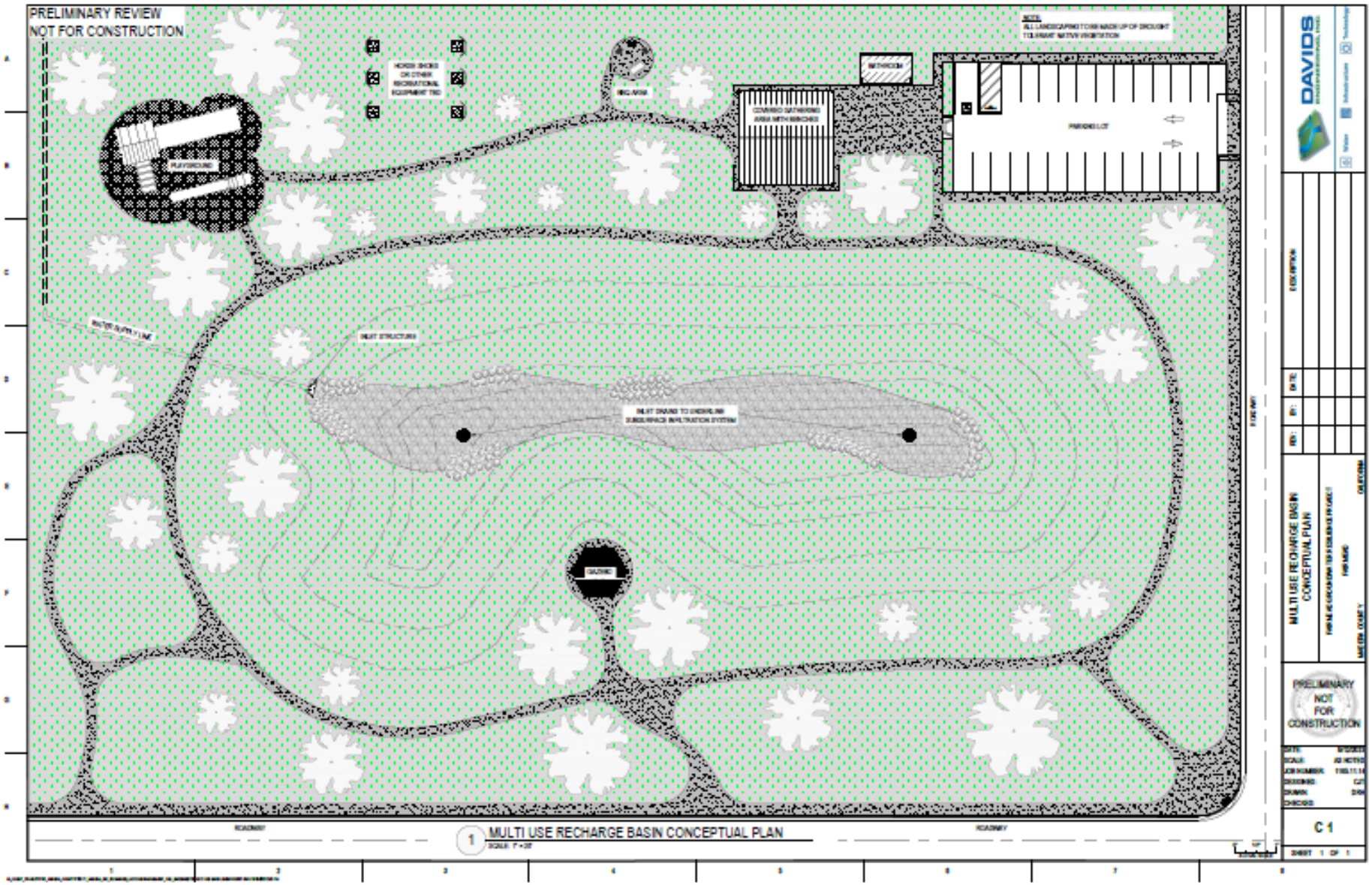
~$7,100 per year for mainten ance

Recharge Basins – habitat focus



Recharge Basins – park focus

Recharge Basins – park focus



Five-Acre Park with Recharge Basin

~$2,500,000

~$32,500 per year for maintenance

On-Farm Recharge

Land Fallowing – reduce pumping

About 50,000 acres of irrigated land in Madera County will be fallowed.

Land Fallowing – reduce pumping

Why not fallow farmland
in "buffer zones"
around communities?

Land Repurposing

- Solar farms
- Parks
- Low water crops

Survey Results- Second Fairmead Community Workshop

Residents selected different options for the survey questions.

Few of the workshop participants use the different ranking alternatives: High (H), Medium (M) or Low (L).

6 surveys completed in Spanish and 5 surveys completed in English. 11 surveys completed for this workshop.

Recharge

1. Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

Recharge Options	Total	Option
Improving water quality	6	Highest
Raising groundwater levels to ensure that residents have access to water	4	
Protecting plants and animals that rely on groundwater	4	
Connect to main water line	2	

Note: More than (1) option was chosen for this question.

Land Repurposing

2. If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

Land Repurposing Options	Total	Option
A groundwater recharge basin	4	
Wetland of flood plain restoration	3	
Land with sheep and goats grazing	1	
Cover crops	1	
Solar panels	4	
Low water uses agriculture area	5	Highest
Land for houses, stores, and others	1	
Park	3	

Note: More than (1) option was chosen for this question.

3. If a permanent orchard were removed, which do you think would improve the groundwater situation? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

Land Repurposing Options	Total	Option
A groundwater recharge basin	5	Highest
Wetland or floodplain restoration	3	
Solar panels	4	
Low water uses agriculture area	3	
Park	3	

Note: More than (1) option was chosen for this question.

4. Below is a list of some of the benefits of land-repurposing in the communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

Land Repurposing Options	Total	Option
Reduction in water overpumping	5	Highest
Less use of pesticides	2	
Better-paying jobs	1	
To be connected to water line	2	

Note: More than (1) option was chosen for this question.

5. If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

Land Repurposing Options	Total	Option
Connect residents on domestic wells to an existing water system	7	Highest
Install more storage tanks in Fairmead	2	
Build a recharge basin	1	

Note: More than (1) option was chosen for this question.

PUBLIC EVENT CHECKLIST		
Second Workshop		
Fairmead Project		
Planning Questions	**In Progress**	**Complete**
Goal of The Event		x
Target Audience		x
Dates and Location		x
Speakers for the event		x
Title of the Event		X
Location secured		x
Sign-In Sheet		x
Translation Services		x
Food/Drinks		x
Create a Flyer		x
Distribution of Flyers		x
Tables/Chairs		X
Projector/ Speakers		X
Signs with Directions for the Event		X
Note- taking		x
Printing (Survey and Agenda)		x
Printing (FAQ Sheets)		x
Worshop Material for Activities (markers, maps, writing board)		x
Management- Before, During and After the Event		
Preparation meeting		x
Slide Presentations		X

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater		2 Park
Less use of pesticides and fertilizers		
Better paying jobs		
Better air quality		
More shade		
More open and community space		

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system	X	
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Groundwater Recharge is when extra water is put onto land, seeps into the ground and groundwater levels rise.
Here are some potential benefits of groundwater recharge in communities. Which of these benefits are most important for you? Please mark with an "x". You can choose one more than option.

Recharge Benefits	Mark with an "X"	Comments
Stabilizing or improving groundwater levels to ensure that residents have access to water.		
Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)	X	
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)		

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin		
Open space/ natural habitat	X	→ can provide many extern benef
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels		

Please list other ideas for land repurposing:

Recharge Basin

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater	X	
Less use of pesticides and fertilizers		
Better paying jobs		
Better air quality		
More shade		
More open and community space		

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system	X	
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

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Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)		
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)	X	

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin		
Open space/ natural habitat	X	
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels		

Please list other ideas for land repurposing:

Housing for homeless folks

Recharge Basin

Fairmead Groundwater Resilience Project

Financiado por el California Resilience Challenge (CRC) Grant

La recarga de agua subterránea sucede cuando agua adicional se coloca en la tierra, el agua es absorbida y lo niveles de agua subterránea se incrementan.
A continuación, se encuentra una lista de algunos de los beneficios de la recarga de aguas subterráneas en las comunidades. ¿Cuáles de estos beneficios son más importantes para usted? Marque con una "x". Puede elegir más de una opción.

Beneficios de la Recarga	**Marque con una "X"**	**Comentarios**
Estabilizar o mejorar los niveles de agua subterranea para que los residentes puedan tener acceso al agua	X	
Prevenir el hundimiento de la tierra (esto sucede cuando la tierra se hunde debido al excesiva extracción de agua subterránea)		
Mejorar el hábitat de plantas y animales que dependen del agua subterránea		
Mejorar los niveles de agua subterránea para mejorar la agricultura y otras industrias		
Reducir el riesgo de inundación (tomar el agua de inundación para la recarga)	X	

Por favor mencione otros beneficios de recarga que son importantes para usted:

<u>La reutilización de tierras</u> sucede cuando la tierra irrigada se remueve de producción y se utiliza menos agua subterránea.
Si se eliminara un huerto, ¿Qué desearía en su lugar? Marque con una "x". Puede elegir más de una opción.

Opciones para la reutilización de tierras	**Marque con una "X"**	**Comentarios**
Una cuenca de recarga de agua subterránea / cuenca de aguas pluviales		
Espacio abierto/ habitat natural	X	
Terreno con áreas de pastoreo para ganado		
Terreno con ovejas y cabras pastando		
Hábitat polinizador (flores y abejas)		
Menor uso de agua para la agricultura		
Paneles solares		

Por favor mencione otras opciones para la reutilización de tierras

Recharge Basin

Fairmead Groundwater Resilience Project

Financiado por el California Resilience Challenge (CRC) Grant

A continuación, se encuentra una lista de algunos de los beneficios de la reutilización de tierras en las comunidades ¿Cuáles de estos beneficios son más importantes para usted? Marque con una "x". Puede elegir más de una opción.

Beneficios de la reutilización de tierras	**Marque con una "X"**	**Comentarios**
Reducción del sobrebombeo de agua		
Menor uso de pesticidas y fertilizantes		
Mejores trabajos		
Mejor calidad del aire	X	
Mas sombra	X	
Mas espacios abiertos para la comunidad	X	

Mencione otros beneficios de la reutilización de tierras que son importantes para usted:

Si pudiera mejorar su acceso a una fuente de agua confiable y segura, ¿Qué haría para mejorarlo? Marque con una "x". Puede elegir más de una opción.

Mejorar el acceso de Fairmead a una fuente de agua confiable y segura	**Marque con una "X"**	**Comentarios**
Conectar a los residentes a un sistema de agua existente	X	
Instalar más tanques de almacenamiento en el sistema de agua de Fairmead		
Mejorar la calidad o/reparar las fosas sépticas existentes		
Construir una cuenca de recarga para mejorar los niveles de agua subterránea		
Reutilización de tierras para reducir el sobre pompeo		

Mencione otras opciones que le gustaría ver:

Por favor proporcione comentarios adicionales

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Groundwater Recharge is when extra water is put onto land, seeps into the ground and groundwater levels rise.
Here are some potential benefits of groundwater recharge in communities. Which of these benefits are most important for you? Please mark with an "x". You can choose one more than option.

Recharge Benefits	Mark with an "X"	Comments
Stabilizing or improving groundwater levels to ensure that residents have access to water.		
Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)	X	
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)		

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin		
Open space/ natural habitat	X	
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels		

Please list other ideas for land repurposing:

Recharge Basin

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater		
Less use of pesticides and fertilizers	X	
Better paying jobs		
Better air quality		
More shade		
More open and community space		

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system	X	
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Groundwater Recharge is when extra water is put onto land, seeps into the ground and groundwater levels rise.
Here are some potential benefits of groundwater recharge in communities. Which of these benefits are most important for you? Please mark with an "x". You can choose one more than option.

Recharge Benefits	Mark with an "X"	Comments
Stabilizing or improving groundwater levels to ensure that residents have access to water.	X	
Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)	X	
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)		

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin		
Open space/ natural habitat	X	
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels		

Please list other ideas for land repurposing:

Recharge Basin

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater		
Less use of pesticides and fertilizers	X	
Better paying jobs		
Better air quality	X	
More shade	X	
More open and community space		

"This all sounds good"

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system	X	
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Groundwater Recharge is when extra water is put onto land, seeps into the ground and groundwater levels rise.
Here are some potential benefits of groundwater recharge in communities. Which of these benefits are most important for you? Please mark with an "x". You can choose one more than option.

Recharge Benefits	Mark with an "X"	Comments
Stabilizing or improving groundwater levels to ensure that residents have access to water.		
Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)	X	
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)	X	

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin		
Open space/ natural habitat	X	parks → walk - elders
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels	X	Bill reductions

Please list other ideas for land repurposing:

Recharge Basin

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater		
Less use of pesticides and fertilizers		
Better paying jobs		
Better air quality	X	
More shade		
More open and community space		

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system		
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Here are some potential benefits of land repurposing in communities. Which ones are the most important for you? Please mark with an "x". You can choose one more than option.

Land Repurposing Benefits	Mark with an "X"	Comments
Reduce pumping of groundwater		
Less use of pesticides and fertilizers		
Better paying jobs		
Better air quality		
More shade	X	
More open and community space	X	

Please list other benefits of land repurposing that are important to you:

If you could improve your access to a reliable and safe source of water, what would you do to improve it? Please mark with an "x". You can choose more than one option.

Improving Fairmead access to a reliable and safe source of water	Mark with an "X"	Comments
Connect residents to a nearby water system		
Install more storage tanks in the Fairmead water system		
Improve the quality or/repair existing septic tanks		
Build a recharge basin to improve groundwater levels		
Repurpose irrigated land to reduce pumping		

Please list other options that you would like to see:

Please provide any additional comments:

Habitat

Fairmead Groundwater Resilience Project

Funded by the California Resilience Challenge (CRC) Grant

Groundwater Recharge is when extra water is put onto land, seeps into the ground and groundwater levels rise.
Here are some potential benefits of groundwater recharge in communities. Which of these benefits are most important for you? Please mark with an "x". You can choose one more than option.

Recharge Benefits	Mark with an "X"	Comments
Stabilizing or improving groundwater levels to ensure that residents have access to water.		
Preventing land subsidence (this is when the land sinks because the water has been pumped out from the ground)	X	Concern for Fresno
Improving habitat for plants and animals that rely on groundwater.		
Improving groundwater levels to support agriculture or other industries.		
Reducing flood risk (by taking flood water and using it for recharge)	X	

Please list any other benefits of recharge that are important to you:

Land Repurposing is when irrigated land is taken out of production and uses less groundwater.
If an orchard were removed, what might you want there instead? Please mark with an "X". You can choose one more than option.

Land Repurposing Options	Mark with an "X"	Comments
Groundwater recharge basin/ stormwater basin	X	
Open space/ natural habitat	X	
Land with cattle grazing		
Land with sheep and goats grazing		
Pollinator habitat/ cover crops		
Low water use agriculture		
Solar Panels		

Please list other ideas for land repurposing:

Recharge Basin

↑ Gusta que hay pago fijo → mantener con proyecto
↳ NO METER

WATER?

↳ connection to water system → "Don't have water now!"

Resource center houseless

LAND?

PARK

↳ shade, ↓ water, ↓ pesticide, community use, ↑ Aire & calidad

↓ WANT LESS PESTICIDES

↓ Anything but almonds

→ Who will upkeep

Land with Sheep and Goats Grazing

Solar Panels

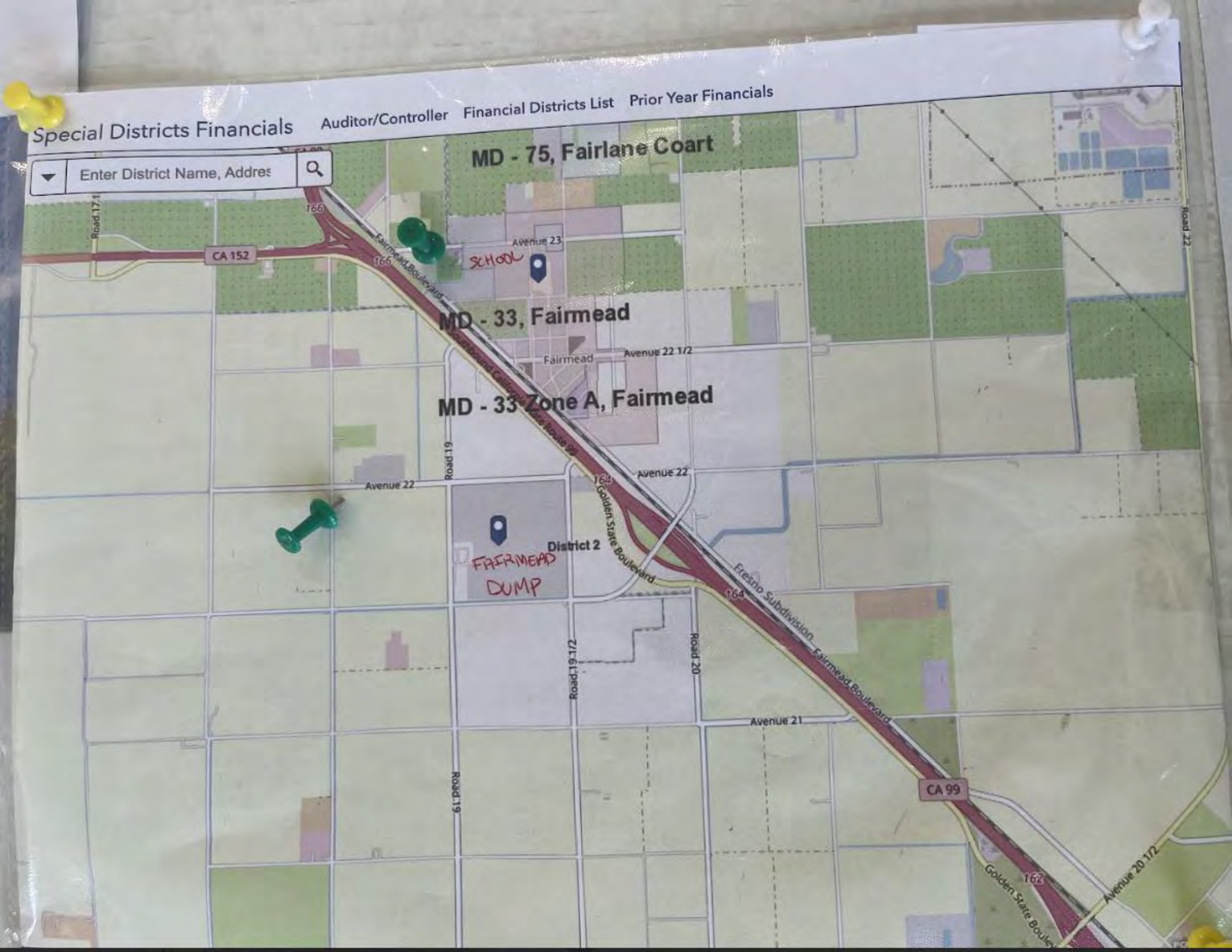
Low Water Use Agriculture

Pollinator habitat / Cover crops

OPEN SPACE / Natural Habitat

Groundwater Recharge Basin

Land with Cattle Grazing


Special Districts Financials
Auditor/Controller
Financial Districts List
Prior Year Financials
Enter District Name, Addres
MD - 75, Fairlane Coart
MD - 33, Fairmead
MD - 33 Zone A, Fairmead
SCHOOL
FAIRMEAD DUMP
District 2
CA 152
CA 99
Avenue 23
Avenue 22 1/2
Avenue 22
Avenue 21
Avenue 20 1/2
Fairmead
Road 17
Road 19
Road 19 1/2
Road 20
Road 22
Fairmead Boulevard
Golden State Boulevard
Fresno Subdivision
166
165
164
163

Survey Draft
Fairmead Project
Second Workshop

Recharge

Below is a list of some of the benefits of groundwater recharge in the communities. Please rank the following in order of importance where 1 is the most important to you and 4 is the least important for you.

- Enhancing water quality (e.g., nitrate contamination) ☐
- Preventing land subsidence ☐
- Enhancing groundwater levels to ensure that residents have access to water. ☐
- Protecting groundwater dependent ecosystems ☐

Land Repurposing

If a parcel is coming out of irrigated production, which would you prefer to live next to? *Irrigated production refers to an area in which water is use for crops.

-recharge basin ☐

-wetland ☐

-land with cattle grazing ☐

-land with sheep and goats grazing ☐

-pollinator habitat (flowers and bees) ☐

-park with trails ☐

-cover crops ☐

-open space ☐

- senior center ☐

- solar rentals ☐

If a parcel is coming out of irrigated production, which do you think would improve the groundwater situation? *Irrigated production refers to an area in which water is use for crops.

-recharge basin ☐

-wetland ☐

-land with cattle grazing ☐

-land with sheep and goats grazing ☐

-pollinator habitat (flowers and bees) ☐

-park with trails ☐

-cover crops ☐

-open space ☐

- solar rentals ☐

Below is a list of some of the benefits of land-repurposing in the communities. Please rank the following in order of importance where 1 is the most important to you and 4 is the least important to you.

- Air quality improvement ☐
- Reduction in water overdraft ☐
- Less use of pesticides ☐
- Better-paying jobs ☐

If you can improve Fairmead residents to access to a sustainable and safe source of water, you will choose to:

- Connect to an existent water system. ☐
- Install more storage tanks. ☐
- Improve the quality of the existing septic systems. ☐
- Build a recharge basin. ☐
- All of them ☐

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recharge
Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] Improving water quality (e.g., preventing water from being contaminated)
- [ ] Preventing land subsidence (This is when the land sinks because the water has been pumped out from the ground)
- [ ] Raising groundwater levels to ensure that residents have access to water. (e.g., if the water is 300 ft below the ground due to over pumping, recharge could help raise the groundwater levels to 250 ft below the ground)
- [x] Protecting plants and animals that rely on groundwater
- [ ] Other _____

Land Repurposing
If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [x] wetland or floodplain restoration
- [ ] land with cattle grazing
- [x] land with sheep and goats grazing
- [ ] pollinator habitat (flowers and bees)
- [x] cover crops
- [ ] solar panels
- [x] low water use agriculture area
- [ ] Other _____

If a permanent orchard were removed, which do you think would improve the groundwater situation?
Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [x] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing

- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [ ] low water use agriculture area
- [ ] Other: _____

Below is a list of some of the benefits of land-repurposing in the communities.
Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Reduction in water overpumping
- [ ] Less use of pesticides
- [ ] Better-paying jobs
- [ ] Other _____

If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Connect residents on domestic wells to an existing water system
- [ ] Install more storage tanks in the Fairmead water system
- [ ] Improve the quality or/repair the existing septic tanks
- [ ] Build a recharge basin
- [ ] Other _____

Please provide any additional comments:

Thank you for completing this survey!
The Project Partners for the Fairmead Project

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recharge
Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Improving water quality (e.g., preventing water from being contaminated)
- [ ] Preventing land subsidence (This is when the land sinks because the water has been pumped out from the ground)
- [ ] Raising groundwater levels to ensure that residents have access to water. (e.g., if the water is 300 ft below the ground due to over pumping, recharge could help raise the groundwater levels to 250 ft below the ground)
- [ ] Protecting plants and animals that rely on groundwater
- [H] Other Connect To Main Water line Madera County in Fairmead

Land Repurposing
If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing
- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [H] low water use agriculture area
- [ ] Other _____

If a permanent orchard were removed, which do you think would improve the groundwater situation? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [H] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing

- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [ ] low water use agriculture area
- [ ] Other: _____

Below is a list of some of the benefits of land-repurposing in the communities.
Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Reduction in water overpumping
- [ ] Less use of pesticides
- [ ] Better-paying jobs
- [ ] Other _____

If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Connect residents on domestic wells to an existing water system
- [ ] Install more storage tanks in the Fairmead water system
- [ ] Improve the quality or/repair the existing septic tanks
- [ ] Build a recharge basin
- [ ] Other _____

Please provide any additional comments:

Thank you for completing this survey!
The Project Partners for the Fairmead Project

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recharge
Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Improving water quality (e.g., preventing water from being contaminated)
- [ ] Preventing land subsidence (This is when the land sinks because the water has been pumped out from the ground)
- [ ] Raising groundwater levels to ensure that residents have access to water. (e.g., if the water is 300 ft below the ground due to over pumping, recharge could help raise the groundwater levels to 250 ft below the ground)
- [ ] Protecting plants and animals that rely on groundwater
- [X] Other Connect To main water Line in Fairmead

Land Repurposing
If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing
- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [ ] low water use agriculture area
- [X] Other All Land within 1 mile of Fairmead community should be Left Available for Housing Store ~~Gas~~ Electric charge Station etc.

If a permanent orchard were removed, which do you think would improve the groundwater situation? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing

- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [ ] low water use agriculture area
- [ ] Other: _____

Below is a list of some of the benefits of land-repurposing in the communities.
Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Reduction in water overpumping
- [ ] Less use of pesticides
- [ ] Better-paying jobs
- [ ] Other _____

If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Connect residents on domestic wells to an existing water system
- [ ] Install more storage tanks in the Fairmead water system
- [ ] Improve the quality or/repair the existing septic tanks
- [ ] Build a recharge basin
- [ ] Other _____

Please provide any additional comments:

Thank you for completing this survey!
The Project Partners for the Fairmead Project

Park

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recharge
Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Improving water quality (e.g., preventing water from being contaminated)
- [ ] Preventing land subsidence (This is when the land sinks because the water has been pumped out from the ground)
- [x] Raising groundwater levels to ensure that residents have access to water. (e.g., if the water is 300 ft below the ground due to over pumping, recharge could help raise the groundwater levels to 250 ft below the ground)
- [x] Protecting plants and animals that rely on groundwater
- [ ] Other _____

Land Repurposing
If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing
- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [ ] solar panels
- [ ] low water use agriculture area
- [ ] Other Park

If a permanent orchard were removed, which do you think would improve the groundwater situation?
Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing

- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [x] solar panels
- [ ] low water use agriculture area
- [x] Other: Park

Below is a list of some of the benefits of land-repurposing in the communities.
Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] Reduction in water overpumping
- [ ] Less use of pesticides
- [ ] Better-paying jobs
- [ ] Other _____

If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] Connect residents on domestic wells to an existing water system
- [ ] Install more storage tanks in the Fairmead water system
- [ ] Improve the quality or/repair the existing septic tanks
- [ ] Build a recharge basin
- [ ] Other _____

Please provide any additional comments:

Thank you for completing this survey!
The Project Partners for the Fairmead Project

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recharge
Below is a list of some of the benefits of groundwater recharge in communities. Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] Improving water quality (e.g., preventing water from being contaminated)
- [ ] Preventing land subsidence (This is when the land sinks because the water has been pumped out from the ground)
- [x] Raising groundwater levels to ensure that residents have access to water. (e.g., if the water is 300 ft below the ground due to over pumping, recharge could help raise the groundwater levels to 250 ft below the ground)
- [x] Protecting plants and animals that rely on groundwater
- [ ] Other _____

Land Repurposing
If a permanent orchard were removed, what might you want there instead? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing
- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [x] solar panels
- [ ] low water use agriculture area
- [x] Other Park

If a permanent orchard were removed, which do you think would improve the groundwater situation?
Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [ ] a groundwater recharge basin
- [ ] wetland or floodplain restoration
- [ ] land with cattle grazing
- [ ] land with sheep and goats grazing

- [ ] pollinator habitat (flowers and bees)
- [ ] cover crops
- [x] solar panels
- [ ] low water use agriculture area
- [x] Other: Park

Below is a list of some of the benefits of land-repurposing in the communities.
Please rank the following in order of importance to you. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] Reduction in water overpumping
- [ ] Less use of pesticides
- [ ] Better-paying jobs
- [ ] Other _____

If you can improve Fairmead residents access to a reliable and safe source of water, what would you do to improve it? Please rank the following in order of importance. Please choose one of the three options: High (H), Medium (M), or Low (L).

- [x] Connect residents on domestic wells to an existing water system
- [ ] Install more storage tanks in the Fairmead water system
- [ ] Improve the quality or/repair the existing septic tanks
- [ ] Build a recharge basin
- [ ] Other _____

Please provide any additional comments:

Thank you for completing this survey!
The Project Partners for the Fairmead Project

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recarga
A continuación, se encuentra una lista de algunos de los beneficios de la recarga de aguas subterráneas en las comunidades. Por favor, clasifique las siguientes opciones en orden de importancia para usted. Por favor elija una de las tres opciones: Alto (H), Medio (M) o Bajo (B).

- [ ] Mejorar la calidad del agua (por ejemplo, evitar que el agua se contamine)
- [ ] Prevenir el hundimiento de la tierra (Esto es cuando la tierra se hunde porque el agua ha sido bombeada desde el suelo)
- [x] Elevar los niveles de las aguas subterráneas para garantizar que los residentes tengan acceso al agua (por ejemplo, si el agua está a 300 pies por debajo del suelo debido al exceso de bombeo, la recarga de aguas podría ayudar a elevar los niveles de agua subterránea a 250 pies debajo del suelo)
- [x] Protección de plantas y animales que dependen de las aguas subterráneas
- [ ] Otro _____

Reutilización de tierras
Si se eliminara un huerto permanente, ¿Qué desearía en su lugar? Por favor, clasifique las siguientes opciones en orden de importancia. Por favor elija una de las tres opciones: Alto (H), Medio (M) o Bajo (B).

- [x] una cuenca de recarga de agua subterránea
- [ ] restauración de humedales o llanuras aluviales
- [ ] terreno con áreas de pastoreo para ganado
- [ ] terreno con ovejas y cabras pastando
- [ ] hábitat polinizador (flores y abejas)
- [ ] cultivos de cobertura
- [x] paneles solares
- [ ] área de agricultura de bajo consumo de agua
- [x] Otro Parque

Si se eliminara un huerto permanente, ¿Cuál de las siguientes opciones cree que mejoraría la situación del agua subterránea? Por favor, clasifique las siguientes opciones en orden de importancia. Por favor elija una de las tres opciones: Alto (H), Medio (M) o Bajo (B).

- [ ] una cuenca de recarga de agua subterránea
- [ ] restauración de humedales o llanuras aluviales
- [ ] terreno con áreas de pastoreo para ganado

- [ ] terreno con ovejas y cabras pastando
- [ ] hábitat polinizador (flores y abejas)
- [ ] cultivos de cobertura
- [x] paneles solares
- [ ] área de agricultura de bajo consumo de agua
- [x] Otro Parque

A continuación, se encuentra una lista de algunos de los beneficios de la reutilización de tierras en las comunidades. Por favor, clasifique las siguientes opciones en orden de importancia para usted. Por favor elija una de las tres opciones: Alto (H), Medio (M) o Bajo (B).

- [x] Reducción del sobrebombeo de agua
- [ ] Menos uso de pesticidas
- [ ] Trabajos mejor pagados
- [ ] Otro _____

Si pudiera mejorar el acceso de los residentes de Fairmead a una fuente de agua confiable y segura, ¿Qué haría para mejorarlo?
Por favor, clasifique las siguientes opciones en orden de importancia. Por favor elija una de las tres opciones: Alto (H), Medio (M) o Bajo (B).

- [x] Conectar a los residentes con pozos domésticos a un sistema de agua existente
- [ ] Instalar más tanques de almacenamiento en el sistema de agua de Fairmead
- [ ] Mejorar la calidad o/reparar las fosas sépticas existentes
- [ ] Construir una cuenca de recarga
- [ ] Otro _____

Por favor, proporcione comentarios adicionales

Gracias por completar la encuesta
The Project Partners for the Fairmead Project

California Resilience Challenge (CRC) Grant- Fairmead Project
04.27.2023

Recarga
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- [H] Mejorar la calidad del agua (por ejemplo, evitar que el agua se contamine)
- [ ] Prevenir el hundimiento de la tierra (Esto es cuando la tierra se hunde porque el agua ha sido bombeada desde el suelo)
- [ ] Elevar los niveles de las aguas subterráneas para garantizar que los residentes tengan acceso al agua (por ejemplo, si el agua está a 300 pies por debajo del suelo debido al exceso de bombeo, la recarga de aguas podría ayudar a elevar los niveles de agua subterránea a 250 pies debajo del suelo)
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- [ ] terreno con áreas de pastoreo para ganado
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- [ ] hábitat polinizador (flores y abejas)
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California Resilience Challenge (CRC) Grant- Fairmead Project
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Fairmead Community Workshop #2
Thursday, April 27, 2023
Fairmead Elementary School Cafeteria
Meeting Notes

Date/Time	April 27, 2023
Participants	25 adults/ 8 children

Note-Taker: Jenny Nunez-Rodriguez

Project Team:
Madera County Water and Natural Resources: Stephanie Anagnoson, Jenny Nunez-Rodriguez
LCJA: Andrea Uribe
SusCon: Aysha Massell
Eddie Ocampo, Self-Help Enterprises
Alison Hirsch, USC
2 Staff Persons from Linguistica- Translation Services

Introductions, Andrea started the meeting but introducing who it was in the room and the reason why we are here.

Multi-Benefit Land Repurposing Program (MLRP)

Eddie from Self-Help Enterprises started the presentation explaining how different land uses can create a more sustainable environment. He provided an overview of the MLRP and explain some of the key features and benefits of this program.

Alison from USC provided the environmental historical planning and how can communities use their legacy to improve the challenges in water security. She talked about the community of Allensworth (Tulare Lake Basin) as an example for the vision of land repurposing.

Recap of Groundwater for Recharge

Aysha from SusCon provided an overview of groundwater recharge and show examples of recharge basins.

Resident: Is there land in this area use for recharge? How many acres are needed for a recharge area?

Resident: How this recharge will help with dry domestic wells?

Resident: Where is a good place for recharge?

Resident: How does the water is moving underground?

Madera County WNR has an allocation program to reduce the groundwater use from growers in the "white areas" of the county. Residents express their concern that growers are still overpumping and they need to have deeper wells to being able to access to the water.

One of the residents express that it could take up to 18-month to get a water emergency tank. Residents cannot afford to take a loan of $50,000 for a new well. Residents express their desire to connect to a water system.

Clarification about the role of the maintenance districts was provided to the residents at the meeting. It was important for residents to understand the limited budget for the operation of the maintenance districts.

Some of the residents also asked if the information for the workshops can be sent to residents in advance and via mail. They let us know that not everyone has access to a computer or uses social media. Since some of them provided their address information in the sign-in sheet, they would like to receive the notice of the meetings in advance. Other forms of outreach are needed.

There are also a lot of gaps in data, and a lot of data is missing. Eddie from Self-Help let residents know that we are working in ways how to make data accessible to the communities. There is a need to make data more accessible and more reliable.

Residents also let us know that there is a high number of households in the county on water tanks. One of the residents express that they have seen foreign agricultural investments in their community. For some of them, they are not only taking water from the community but also other resources.

Walk/Stretch/Hydrate

In this part of the meeting, we invited the residents to have dinner and relax before starting the mapping and survey activity.

Mapping Activity and Survey

We started this part with the mapping activity. Andrea from LCJA started explaining what we are trying to accomplish with this activity. Jenny from Madera County WNR, Aysha from SusCon, Alison from USC, and Eddie from Self-Help assist residents in completing the activity.

As some of the residents were completing the mapping activity, we also asked them to complete a survey. 5 surveys in English and 6 surveys in Spanish were completed at the meeting. Jenny from Madera County WNR, Andrea from LCJA and Eddie from Self-Help assist residents in completing this activity. Jenny from Madera County WNR also assisted one of the children (age 11) to complete the survey.

Adjournment

Andrea from LCJA adjourned the meeting letting know residents about the upcoming workshop close to the end of the year and thanking residents for their attendance to the meeting. No additional questions were asked at this time.

Stephanie and Jenny from Madera County WNR, Andrea from LCJA, Eddie from Self-Help, Alison from USC, and Aysha from SusCon met at the end of the meeting to discuss next collaboration steps.

Climate Resilience Challenge (CRC)

Groundwater Resilience Community Project

Third Community Workshop

Facilitators and Staff: Andrea Uribe (facilitator), Jenny Nunez-Rodriguez (staff, WNR County), Aysha Massell (staff, Sustainable Conservation, Stephanie Anagnoson (staff, WNR County)

There were approximately 40 people present for the meeting including staff and translators.

Welcome and Introductions – 1:15

Five minutes before the event started, Andrea Uribe checked if anyone needed translation. No one needed translation at the time.

At 1:15, Andrea welcomed people to the event and thanked them for attending. She checked for translation again and there were several people who requested translation. Andrea, Jenny and Aysha introduced themselves to the group. Andrea reviewed the agenda with the participants.

What is the Fairmead Groundwater Resiliency Project? 1:20

Jenny provided an overview of the project itself and the first two workshops.

Summary of Needs from Previous Workshops 1:25

Jenny then reviewed the needs identified from previous workshops, water rates basics, and a timeline for improvement. She explained LandFlex and Multi-Benefit Land Repurposing as grant funding for some of the needs.

A participant asked about emergency help for wells that go dry. Jenny gave an overview of the Self-Help Enterprises (SHE) programs that offer new wells, tanks for water and bottled water. A different participant asked if access could be denied for emergency access to water. Jenny explained that SHE has regulations for implementing the emergency well program.

Moving Ahead: Review of Project Options – 1:30 p.m.

Aysha reviewed two options for addressing some of the water-related needs:

1. Reduce Pumping by repurposing irrigated land – Aysha showed how taking out some land could lower demand, including using cover crops.
2. Increase Groundwater Levels by recharging the aquifers – Aysha emphasized that adding water into the ground could benefit the groundwater levels. She outlined two major options
    a. Recharge Basins are able to be used for percolation
        i. 1-acre basin that is 8 feet deep with a cost of about half a million dollars
            1. Question: What would maintenance look like? Answer: Maintenance for the basin includes weed eating and de-silting the basin
            2. Question: Where would the water come from? Answer: A local district could deliver the water.
            3. Question: Where would the money to fund the basin come from? Answer: We would get grants.

ii. Multi-Benefit Benefits – Basins can provide habitat for birds. Oak woodlands might be able to be used around basins. A multi-benefit recharge basin might also include a park-like setting and playground.
    1. Question: Would the multi-benefit basin use the five acres of the community center? Answer: It might need to be adjacent. It is not replacing the community center.
    2. Question: Is the multi-benefit project instead of extending water lines from Chowchilla? Answer: That is a separate project. (Andrea jumped in to clarify multiple projects)
    3. I'm not sure exactly what the question was here. Main idea was that farmers made too much money and shouldn't be paid to take land out of production.

b. On-farm Recharge includes flooding fields that can result in nitrogen going in the ground. A farmer jumped to explain that he had done this and his well levels had bounced up 11 feet. Other people said their levels had dropped.

3. Aysha presented the Glass Half Full v. Glass Half Empty approach. The potential benefit of taking land out of production around areas would be some alternative uses for land. Aysha showed agave, solar farms and pollinators, open space + habitat + recharge.

Review Community Feedback on Project Options 2 p.m.

Andrea asked for questions/feedback from the group:

Question: How can you tell where the water comes from? Answer: If it's winter, then it's potentially from an irrigation district's supply of water or flood flows.

Question: Can residents get free water? Answer: There was a lot of free water for farmers to take on their water.

Andrea passed a yellow and blue sticky note. The Blue sticky note was to vote whether you preferred a basin/recharge, low-water crops, solar, open space, or buffer zones. There was a wide variety of feedback.

Comments on the activity included:

- solar panels remove land that could be used for residential or commercial development
- farmers need to be willing to change to lower water-use crops
- Fairmead would become the sewer (seemed connected to the placement of the landfill).
- No buffer zones!
- Yes, buffer zones!

Review Community Feedback : More information on buffer zones seems necessary in terms of what they look like and how they could be used. There was a need for buffer zones to be used as usable space and not "dirt."

Other thoughts from Stephanie: Food and raffle seem to bring out a lot of people! Good job Fairmead and Friends! The mailer seemed to bring out people I hadn't seen before, including more families with children. Clearly we need two microphones or one that moves better around the room.. One for facilitator and one for residents asking questions.

Notes: Aysha, can we use your multi-benefit photos? We can give you credit.

Email	Contact Number	Last Name	County you are located in?	First Name
ksudac@gmail.com	4159138282	Cederquist	Madera	Karen
water@eastmercedrcd.org	209-345-3939	Hutton	merced	Trevor
SCOTT.ARNOLDFARMS@GMAIL.COM	2096179216	Dias	Merced	Scott
aflores@sierrarcd.com	5599605333	Flores	Fresno	Alyssa
jmorgan@sierrarcd.com	5594517527	Morgan	CA	Justin
aislas@civicwell.org	916.448.1198	Islas	Fresno County	Angela
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sared.yim@usda.gov	206-293-2696	Yim	Madera	Sared
roberto.godinez39@gmail.com	8312103134	Godinez	Madera	Roberto
joseph@malcolmmedia.com	5592986020	Malcolm	Fresno	Joseph
matthew@malcolmmedia.com	5592986020	Malcolm	Fresno	Matthew
topazjatt@gmail.com	12096487810	Johal	CA	Sukhvir
stuartlweil@gmail.com	15593496187	Weil	ca.	Stuart
smith415@gmail.com	5598407985	Smith	Madera	Taisto
priscilla.baker@usda.gov	5593634599	baker	madera	priscilla
solf@selfhelpenterprises.org	5599679196	Flores	Tulare County	Sol
evelyn@evelynwagner.net	2075153302	Wagner	Maine	Evelyn
joeygallucci@gmail.com	7079721410	Gallucci	Sonoma	Joey
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jennifer.marr@water.ca.gov	9166284529	Marr	Yolo	Jenny
jtvraisons@gmail.com	5596984472	Vera	California	Juvenal
jenny.nunezrodriguez@maderacounty.com	5599755072	Nunez-Rodriguez	Madera	Jenny
amacias@fagundesdairy.com	209-383-6075	Azevedo	Merced	Allison
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markjw1980@yahoo.com		Wolfshorndl	Madera	Mark
	Call-Ins			
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	(559) 709-0805			
	Mike Marquis, santafefarms@outlook.com			
	(209) 631-3160			
	Brad Robson			
	(408) 761-4098			

Fairmead Potential Recharge Projects

Area Description	Parcel Count	Total Acres
Recharge Interest Form Parcels within Fairmead, CA	6	90.6

Recharge Interest Forms Submitted
Fairmead Boundary
Madera Subbasin Boundary
Madera
Madera ID Facilities
Chowchilla WD Canals
Waterways
Local Roads
RMS Water Level Well

SAGBI Classification

Excellent
Good
Moderately Good

0 0.6 1.2 Miles

GSA_Name

Chowchilla Water District GSA
County of Madera GSA - Madera
Madera Irrigation District GSA

DAVIDS ENGINEERING, INC

Disclaimer: This map and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Task 3 Deliverables

- Hydrogeologic and Geospatial Site Assessments that include nutrient management considerations.
- Parcel Prioritization including a summary and justification of the process.
- Regional Real Estate Market Analysis: Parcel valuations and compensation options added to the database of priority parcels.
- Local Land Use and Development Directory.
- Land Use Regulations and development implications added to database of priority parcels.
- Summary of recommendations for integrating groundwater resilience project concepts into regional and local planning documents.
- Water Supply Analysis Summary Report: Including potential source and amount of recharge water.
- Multi-Benefit Assessment Identification of potential multiple benefits associated with each site added to the database of priority parcels (see Task 3.2 above).

Technical Memorandum

Date:	June 30, 2023
To:	Stephanie Anagnoson, Director of Water and Natural Resources, Madera County
From:	Chad Tienken, PE, PLS
Topic:	**Fairmead Groundwater Resilience Project** **Task 3.1 - Hydrogeologic and Geospatial Analysis**

1 Introduction

The Madera County Groundwater Sustainability Agencies (GSAs) are currently implementing Groundwater Sustainability Plans (GSPs) for the Chowchilla, Madera, and Delta-Mendota Subbasins to achieve groundwater sustainability by 2040. The GSPs include a mix of projects and management actions that will lead to sustainable groundwater management. To aid in groundwater recharge project development, Madera County (County) is currently engaged in the development of a strategic recharge plan and implementation program. One project in this program is the Fairmead Groundwater Resilience Project (Project). This Project is a collaborative effort between the County, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Local Government Commission to plan a Groundwater Resilience Project in the community of Fairmead. The Project is intended to improve local and regional resilience to drought and climate change, including water quality and subsidence impacts that worsen with drought. The Project will also attempt to incorporate other climate resilience benefits, such as reducing local flood risk, enhancing valuable habitat, and improving outdoor spaces for public health.

Davids Engineering Inc. (DE) has been assigned with four (4) tasks related to the Project, Task 3.1 is a desktop hydrogeologic site assessment to determine recharge and land use change potential to benefit the Fairmead community wells while evaluating nutrient management concerns and potential mitigation options. Given the “desktop” nature of this study additional research and fieldwork is required prior to subsequent desire efforts.

2 Methods

DE has conducted a spatial analysis of SAGBI ratings, groundwater flow paths, and contaminant concentrations in and around the Fairmead Boundary. All figures referenced within this document are contained within Attachment A. In analyzing areas suitable for recharge, the following factors were considered:

- Landowner Interest and Willingness (i.e., survey response)
- Recharge Rate and Other Hydrogeologic Factors
- Water Quality Considerations
- Relationship to Disadvantaged Communities (DACs) and Severely Disadvantaged Communities (SDACs)
- Potential to Benefit Multiple Users
- Distance to Conveyance
- Cropping and Land Use

Landowner Interest and Willingness: Madera County GSAs distributed a survey to landowners throughout the County requesting their feedback and interest in participating in groundwater recharge. Fairmead was included as part of that effort. Landowners interested in conducting recharge on their property were asked to complete and submit a form expressing that interest, providing the parcel APN, type of recharge, acreage available for participation, and other relevant information.

Recharge Rate and Other Hydrogeologic Factors: DE conducted a review of lands most suitable for recharge by assessing both the SAGBI rating and Land IQ Recharge Suitability Rating of agricultural land within and around the Fairmead Boundary. Additional information related to recharge suitability is provided in Section 3.2 below. Lands with an "Excellent", "Good", or "Moderately Good" SAGBI rating were prioritized for potential recharge projects. Another hydrogeologic factor considered was the general direction of groundwater flow paths as indicated in the DWR SGMA Data Viewer (https://sgma.water.ca.gov/) for the years 2012 through 2022. Recharge areas upgradient and around the community wells were prioritized.

Water Quality Considerations: Areas that have a lower potential for impacting local groundwater quality and a lower potential for mobilizing groundwater quality constituents were given priority. Areas with a lower average potential nitrogen load were also prioritized. Additional analyses were conducted to confirm that no other key groundwater quality constituents (1,2,3 TCP; BTEX; DBCP; EDB; PCE and Perchlorate) were detected at levels of concentration higher than the Maximum Contaminant Level (MCL) at the nearest well with water quality data. Dairy land application areas were not included as potential areas for recharge.

Relationship to Disadvantaged Communities (DACs) and Severely Disadvantaged Communities (SDACs): Preference was given to potential recharge areas located within DACs and SDACs, as the recharge benefits in these areas would most directly benefit those communities. The entire Fairmead Boundary in the Madera and Chowchilla Subbasins is categorized as severely disadvantaged. All potential recharge areas in the Project area will benefit these local communities and support the Human Right to Water.

Potential to Benefit Multiple Uses: Potential recharge areas located near groundwater dependent ecosystems (GDEs) and domestic well users were also prioritized. Enhanced recharge provided by this Project would benefit all groundwater users by helping to maintain groundwater levels in the Project area and to support groundwater sustainability in the subbasins. These benefits are consistent with the sustainability goal established in the GSP.

Distance to Conveyance: Priority was given to potential recharge areas in close proximity to existing surface water conveyance infrastructure to help minimize new construction and Project costs.

Cropping and Land Use: Preference was given to parcels with landuses favorable for recharge activities. Residential, commercial, or otherwise "occupied" parcels were not considered favorable. DE consulted 2022 crop data prepared by Land IQ. Specifically, preference for potential recharge areas was given to fields that are currently irrigated or are fallowed.

3 Results

Mapping results can be found in Attachment A. These maps depict the various layers used in the process to identify geographic areas where potential recharge and/or landuse changes would best benefit the community wells.

3.1 Landowner Interest and Willingness

Three (3) parcels within the Fairmead Boundary submitted Recharge Survey Forms, totaling approximately 90 acres of available recharge area. Parcel 1 (50 acres) is located northwest of the Fairmead Community and is downgradient from a groundwater flow perspective providing little or no benefit to the community wells. Parcel 2 (30 acres) is located within the Fairmead Community and is directly adjacent to Well #1, the failed community well. Parcel 3 (10 acres) lies about 3500 feet to the east of Well #2 and is upgradient to both wells and the Fairmead Community (see Figure 1).

While some landowners have shown interest in recharge activities and arguably more may be interested, ultimate willingness to participate is predicated on economic incentive. Simply put, the economic incentives must be at a level sufficient to motivate landowner participation. Recent Madera County experience with incentive based alternate land use programs has highlighted that achieving a sufficient incentive is difficult. Moving forward, it may be necessary to "stack" available incentives in an effort to make participation economically viable for the underlying landowner(s). As GSP implementation continues, more work is required to better understand and develop programs that appropriately incentivize landowner participation.

3.2 Recharge Rate and Other Hydrogeologic Factors

Recharge suitability ratings were used to assess hydrogeologic recharge potential within the Fairmead Boundary. The SAGBI rating is a suitability index for groundwater recharge on agricultural land. The SAGBI rating is based on five major factors that are critical to successful agricultural groundwater banking: deep percolation, root zone residence time, topography, chemical limitations, and soil surface condition. Using the modified SAGBI rating, DE found that the Fairmead area was mainly composed of "Moderately Good", "Good", or "Excellent" soil types. However, "Moderately Good" is the dominant soil type (see Figure 2). All parcels selected for consideration have a SAGBI rating of Moderately Good or better.

In addition to SAGBI ratings, DE considered Land IQ recharge suitability ratings and found that, in general, the two rating systems agreed with one another with the study area. Land IQ recharge suitability ratings indicate the study area to consist of "Moderately Good" and "Good". Land IQ recharge suitability ratings extend well below the root zone and consider suitability of conditions at deeper levels within the aquifer. Data inputs include SAGBI, USGS Groundwater levels, Central Valley Hydrologic Model and Irrigation District Coverage.

DE analyzed the direction of the groundwater flow paths using DWR's SGMA Data Viewer. Prior to the drought period of 2012-2014 groundwater within the Fairmead area flowed in southwesterly direction. Following that drought period it was found to shift to a northwesterly direction in 2018 (Figure 3) before switching back to the southwest in 2022 (Figure 4). This indicates that the greatest potential for recharge benefits to the Fairmead Community will occur by selecting sites within the easterly portions of the study area. Review of SAGBI mapping supports recharge within this area as veins of lands with "good" and "excellent" extend to the northeast providing potential for better hydraulic conductivity.

3.3 Water Quality Considerations

Water quality mapping (Figures 5 through 7) found only one point of concern related to the detection of Perchlorate and Nitrate, suggesting that the majority of the study area can be considered relatively low risk in terms of migration of soil contaminates from existing wells. There is also low potential for enhanced recharge activities in the study area to adversely impact beneficial users/uses because of the limited number of contaminants identified.

In addition to well water quality data, DE omitted dairy lands from prospective recharge parcels. Dairy lands can present considerable risk related to leaching large amounts of nitrate, and potentially other chemicals, into groundwater due to manure loading. Most dairy land application areas are irrigated using furrow or flood irrigation and are therefore, subject to significant recharge and to nitrate leaching. Dairy operators must carefully balance applied water taking into consideration soil type, manure loading, and crop type to prevent nitrates or other chemicals from passing out of the root zone and into deeper sections of the vadose zone.

3.4 Relationship to Disadvantaged Communities (DACs) and Severely Disadvantaged Communities (SDACs)

The 2016-2020 Disadvantaged Community Census Place categorizes the entire Fairmead Boundary as severely disadvantaged (see Figure 8). Groundwater recharge projects that occur in this area would directly increase groundwater levels, in turn leading to safer, cleaner, and more affordable water for human consumption, cooking, and sanitary purposes, all while supporting the Human Right to Water.

3.5 Potential to Benefit Multiple Users

During the desktop analysis, DE concluded that the nearest GDEs are over 15 miles away and recharge in the Fairmead Boundary poses no threat or benefit to those ecosystems. However, there are many domestic well users within the area, so recharge will potentially benefit users of both the community wells and private domestic wells (see Figure 9). In addition, this Project will help maintain groundwater levels within the Fairmead Boundary and support groundwater sustainability in both the Chowchilla and Madera subbasins.

3.6 Distance to Conveyance

Both Madera Irrigation District and Chowchilla Water District have surface water conveyance systems that run through the Fairmead study area and are considered the primary sources of surface water for groundwater recharge. Madera Irrigation District has several canal ways on the southside of Fairmead while Chowchilla Water District owns conveyance facilities on the north and west side of Fairmead (see Figure 1). Any projects occurring on the northeastern portion of Fairmead would require additional infrastructure and the cost of constructing that infrastructure has been considered when identifying potential recharge locations.

3.7 Cropping and land use

Land use data from 2022 was analyzed, and DE found most parcels contained either almond orchards, pasture or have been fallowed. Of the data provided by Land IQ, there are approximately 715 acres of almonds and approximately 430 acres of fallowed lands (see Figure 10). Fallowed lands offer great

potential for direct recharge while lands planted in pasture and orchards offer excellent opportunity for flood MAR or in-lieu recharge. Landowner coordination would be required for any recharge method. As previously noted, dairy pastures and manure application lands were not considered as potential recharge parcels.

4 Discussion and Conclusion

Task 3.1 required DE to perform a desktop hydrogeologic and geospatial analysis to identify potential areas in which groundwater recharge could occur, or where landuse changes would benefit the Fairmead community wells. Issues related to nutrient management and mitigation obligations were also considered when reviewing potential recharge locations.

4.1 Owner Interested Parcels

The County GSAs has received Survey Recharge Forms for all parcels discussed in section 4.1 There are a total of three (3) parcels that submitted an interest form. Two out of the 3 parcels show good recharge potential for the community wells. However, Parcel 1 (see Figure 1) is located northwest of Fairmead and is, therefore, down gradient. Together, Parcels 2 and 3 could provide approximately 40 acres of recharge area and are generally located upgradient or adjacent to the community wells (see Figure 1).

In addition to showing interest in participating in a recharge project, these parcels have acceptable recharge suitability ratings. Parcel 1, a 50-acre almond orchard, contains mostly “Moderately Good” SAGBI rated soils with small veins of “Excellent” soils passing through the parcel. Parcel 2, a 30-acre almond orchard, is largely composed of soils with a “Good” SAGBI rating, accompanied by some soils with a “Moderately Good” rating and one small area of soils with a “Poor” rating. Parcel 3, about 10 acres, has been fallowed and contains mostly “Moderately Good” soils, with a small area of “Excellent” soils on the southern end (see Figure 2). Recharge on Parcels 2 and 3 is anticipated to benefit the community as they are both located upgradient or adjacent to the community wells.

Within the data provided (late 2020), there is no trace of any contaminants 1, 2, 3 TCP, BTEX, DBCP, EDB, and PCE in, around, or downgradient of these potential recharge parcels. There is however a site that detected both Perchlorate and Nitrate near Highway 99, just south of Parcel 2 (see Figure 5). It is important to note that at this site, Perchlorate is above the MCL and Nitrate is within the range of 7.6 to 10.0 mg/L but remains below the MCL of 10 mg/L. If this parcel is chosen for recharge additional investigation should be undertaken to review the status of contaminants and the potential for negative impacts to local groundwater quality. All other contaminant results can be found in Figures 6 and 7. Due to concern to potential migration of nitrates dairy lands have been excluded from consideration.

As mentioned above in Section 3.4, the entire Fairmead Boundary is categorized as severely disadvantaged, consequently any groundwater recharge near the community wells will benefit a SDAC (see Figure 8). Being a SDAC, this Project would improve groundwater levels and storage leading to safer, cleaner, and more affordable water for human consumption, cooking, and sanitary purposes; overall supporting the Human Right to Water.

The three parcels identified through receipt of landowner submitted recharge survey forms are all in relative proximity to surface water conveyance facilities. Parcel 1 has a direct connection to a Chowchilla Water District canal, requiring very little additional infrastructure for a recharge project to occur. Parcel 2

is approximately 500 feet south of a Chowchilla Water District canal, requiring infrastructure that is likely feasible to construct. Parcel 3 would require significantly more infrastructure as it is located north about 2500 feet from a Madera Irrigation District canal (see Figure 1).

Lastly, the landuse data and aerial imagery (Figure 10) show good potential for a recharge project to occur on these specified lands. Within the submitted Recharge Survey Forms, each landowner was asked to describe in detail how many acres they would be willing to recharge on and what recharge methods they prefer (in-lieu, flood MAR, dedicated recharge basin, and other). Some forms are completed with excellent detail while others are not, requiring additional communications with the landowners. Parcel 1's Recharge Survey notes that they are willing to recharge using any method other than building a dedicated recharge basin but does not denote desired acreage. Parcel 2's Recharge Survey indicates that the landowner is open to recharging on all 30 acres and will use any recharge method necessary, including a dedicated recharge basin. Parcel 3's Recharge Survey indicates that the landowner is open to using the entire 10 acres for dedicated recharge.

4.2 Other Potential Areas

In addition to the parcels that submitted a Recharge Survey Form, DE has identified other general areas that groundwater recharge could take place on and provide a benefit to the Fairmead community. These general areas (Figure 1) still meet most of the criteria listed above, however would need further landowner coordination.

All other potential recharge areas contain at least a "Moderately Good" modified SAGBI rating and contain veins of either "Good" or "Excellent". In addition, they are all upgradient to the community wells (see Figure 2).

The 2020 Well Data shows that there have not been any contaminants (1,2,3 TCP; BTEX; DBCP; EDB; PCE and Perchlorate) detected other than Nitrate, which is below the MCL and poses no threat to the current water quality, in the areas chosen upgradient of the community wells (see Figures 5 through 7).

These areas once again fall within the Fairmead Boundary and are categorized as severely disadvantaged, so recharge within these areas will benefit SDAC's, ultimately supporting the Human Right to Water (see Figure 8).

In addition to the broader areas identified in Figure 1, DE has selected two potential areas, A and B, that could be prioritized over the other potential areas if landowner cooperation was achieved. Areas A and B can be seen in all Figures represented with a purple outline. These two areas have the advantage of being adjacent to existing surface water conveyance requiring, by comparison, minimal investment in infrastructure. Landowner coordination would be necessary to reveal additional details about these areas. All other parcels within the identified area would require, by comparison, a significantly larger investment in infrastructure to receive surface water.

4.3 Final Suggestions

Table 1 below ranks each identified parcel or area with priority given to lands with the lowest implementation effort and greatest potential benefits. All factors were based on a five-point scale, except for "Survey Response" which is represented with a "Yes" or "No" and has no impact on final score.

Landowner identification, financial analysis, and conceptual designs will follow the decisions made during Task 3.1.

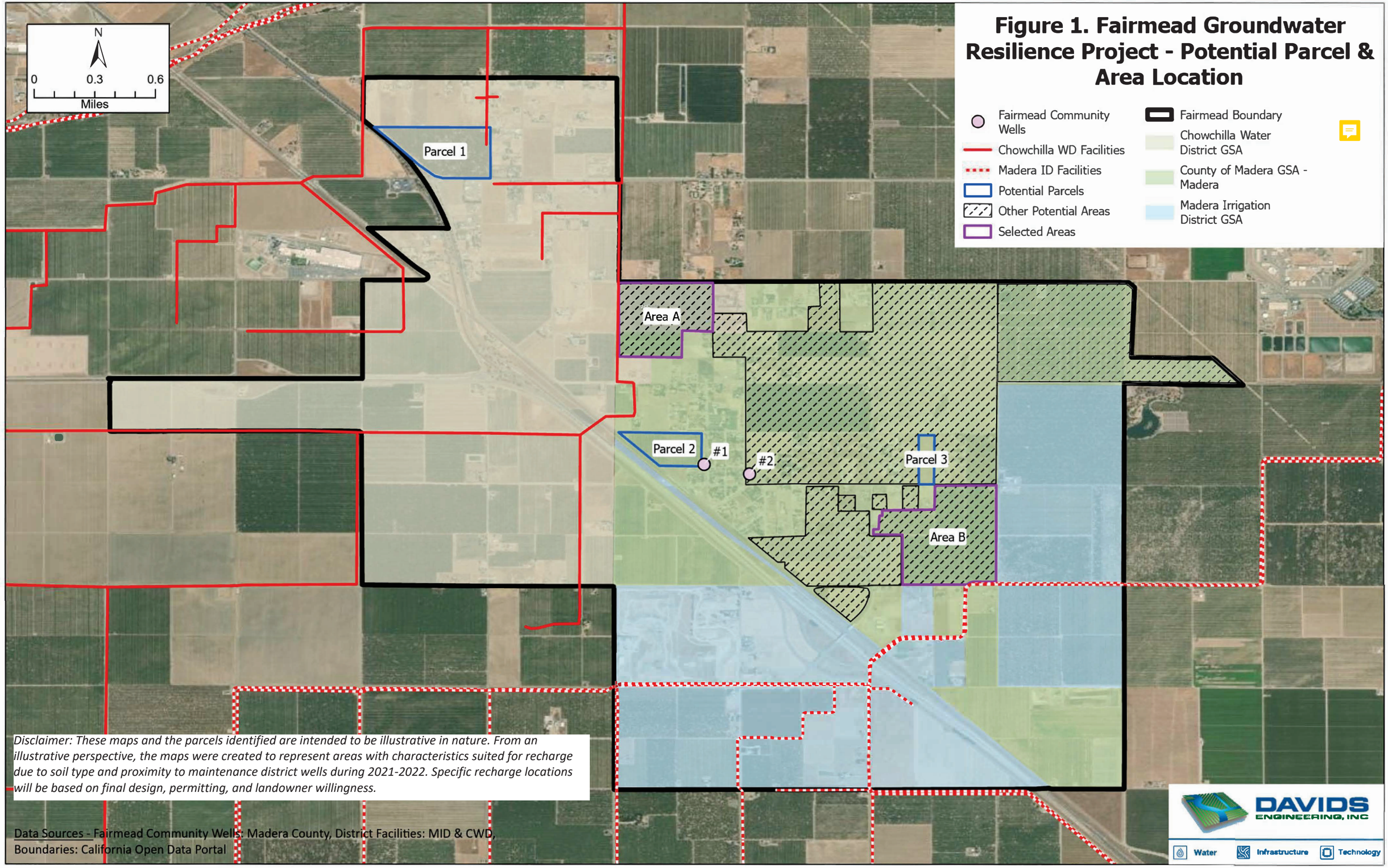
Parcels and areas identified within this report are intended to be illustrative in nature. From an illustrative perspective, the parcels and areas shown represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Table 1: Final Results – Parcel/Area Prioritization

Recharge Location	Survey Response	Recharge Suitability Rating	Water Quality	DAC's & SDAC's	Multiple Users Benefits	Groundwater Flow Direction	Distance to Conveyance	Cropping & Land Use	Total Score
Area A	No	4	5	5	5	3	5	4	**31**
Area B	No	3	5	5	4	5	5	4	**31**
Parcel 3	Yes	3	5	5	4	5	3	5	**30**
Parcel 2	Yes	4	3	5	5	4	4	4	**29**
Parcel 1	Yes	3	5	5	4	1	5	4	**27**

Attachment A

Figure 1. Fairmead Groundwater Resilience Project - Potential Parcel & Area Location



Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundaries: California Open Data Portal

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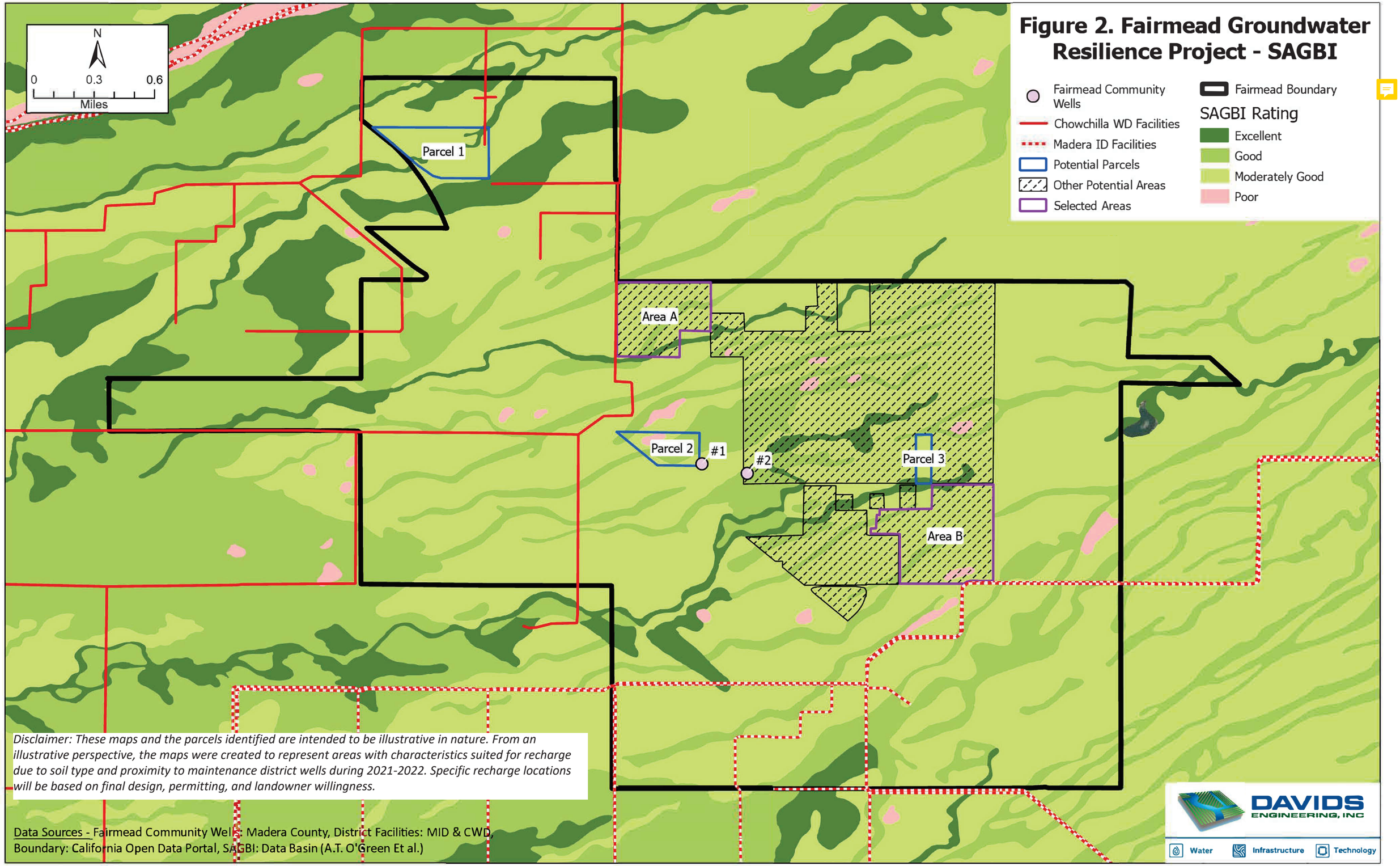
Figure 2. Fairmead Groundwater Resilience Project - SAGBI



Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, SAGBI: Data Basin (A.T. O'Green Et al.)

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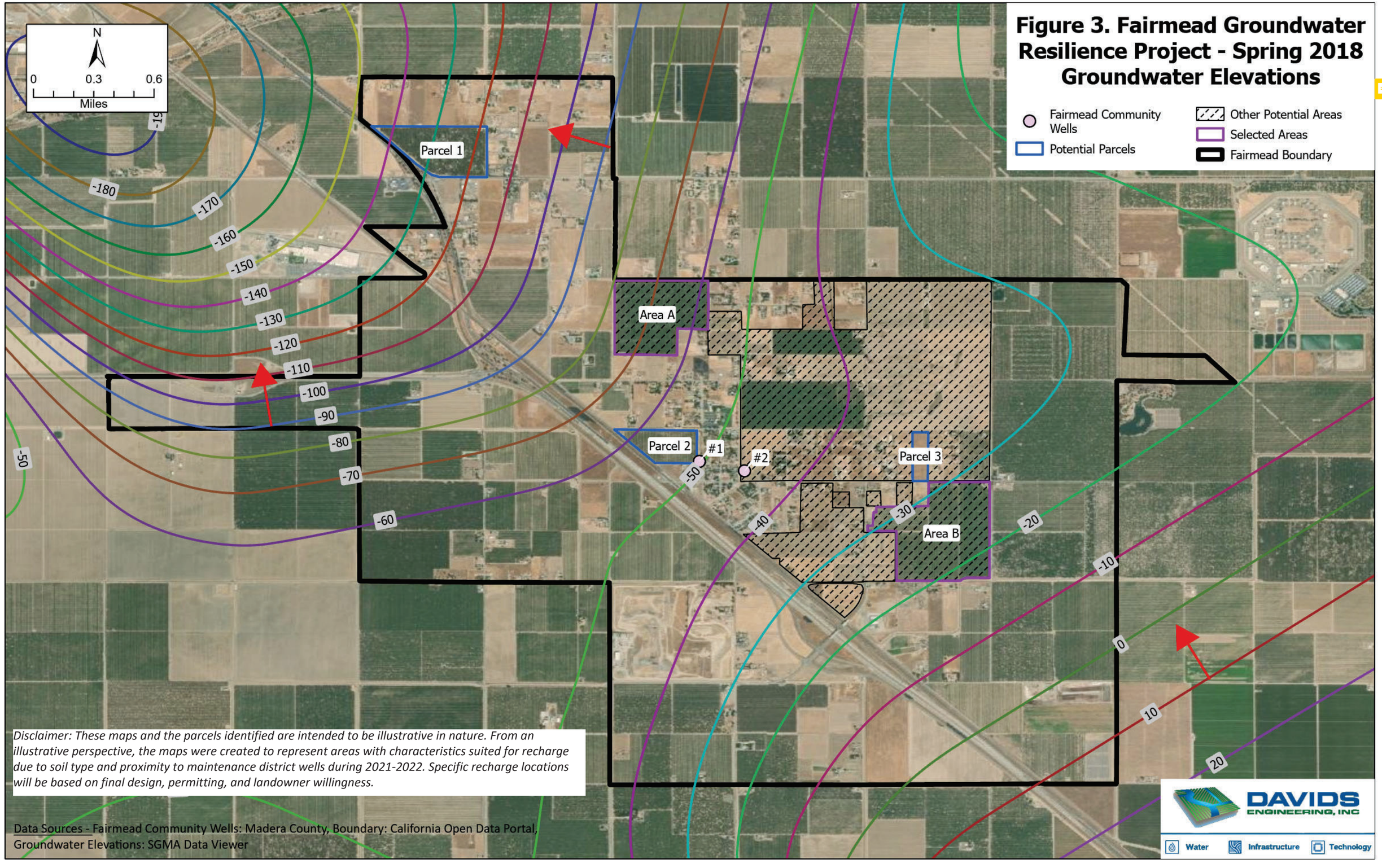
Figure 3. Fairmead Groundwater Resilience Project - Spring 2018 Groundwater Elevations



Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, Boundary: California Open Data Portal, Groundwater Elevations: SGMA Data Viewer

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Figure 4. Fairmead Groundwater Resilience Project - Spring 2022 Groundwater Elevations

N

0 0.3 0.6

Miles

Fairmead Community Wells

Potential Parcels

Other Potential Areas

Selected Areas

Fairmead Boundary

Parcel 1

Parcel 2

#1

#2

Parcel 3

Area A

Area B

-20

-40

-50

-60

-70

-50

Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, Boundary: California Open Data Portal, Groundwater Elevations: SGMA Data Viewer

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Figure 5. Fairmead Groundwater Resilience Project - Perchlorate & Nitrate

N

0 0.3 0.6

Miles

Fairmead Community Wells

Chowchilla WD Facilities

Madera ID Facilities

Potential Parcels

Other Potential Areas

Selected Areas

Fairmead Boundary

Perchlorate Results

Above MCL

Detection, below MCL

Not detectable

NO3 as N2 (mg/L)

<=2.5

2.6 - 5.0

5.1 - 7.5

7.6 - 10.0

>10.0

Parcel 1

Area A

Parcel 2

#1

#2

Parcel 3

Area B

Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, Contaminants: Luhdorff & Scalmanini Consulting Engineers

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Figure 6. Fairmead Groundwater Resilience Project - BTEX & DBCP

N

0 0.3 0.6

Miles

Parcel 1

Area A

Parcel 2

#1

#2

Parcel 3

Area B

Fairmead Community Wells

Chowchilla WD Facilities

Madera ID Facilities

Potential Parcels

Other Potential Areas

Selected Areas

Fairmead Boundary

BTEX Results

Above detectable level

Not detectable

DBCP Results

Above MCL

Detection, below MCL

Not detectable

Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, Contaminants: Luhdorff & Scalmanini Consulting Engineers

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Figure 7. Fairmead Groundwater Resilience Project - 1, 2, 3-TCP, EDB, & PCE

N

0 0.3 0.6

Miles

Fairmead Community Wells
Chowchilla WD Facilities
Madera ID Facilities
Potential Parcels
Other Potential Areas
Selected Areas
Fairmead Boundary

1,2,3-TCP Results
- Above MCL
- Detect, Below MCL
- Not detectable

PCE Results
- Above MCL
- Detect, Below MCL
- Not detectable

EDB Results
- Above MCL
- Detection, below MCL
- Not detectable

Parcel 1
Area A
Parcel 2
#1
#2
Parcel 3
Area B

Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, Contaminants: Luhdorff & Scalmanini Consulting Engineers

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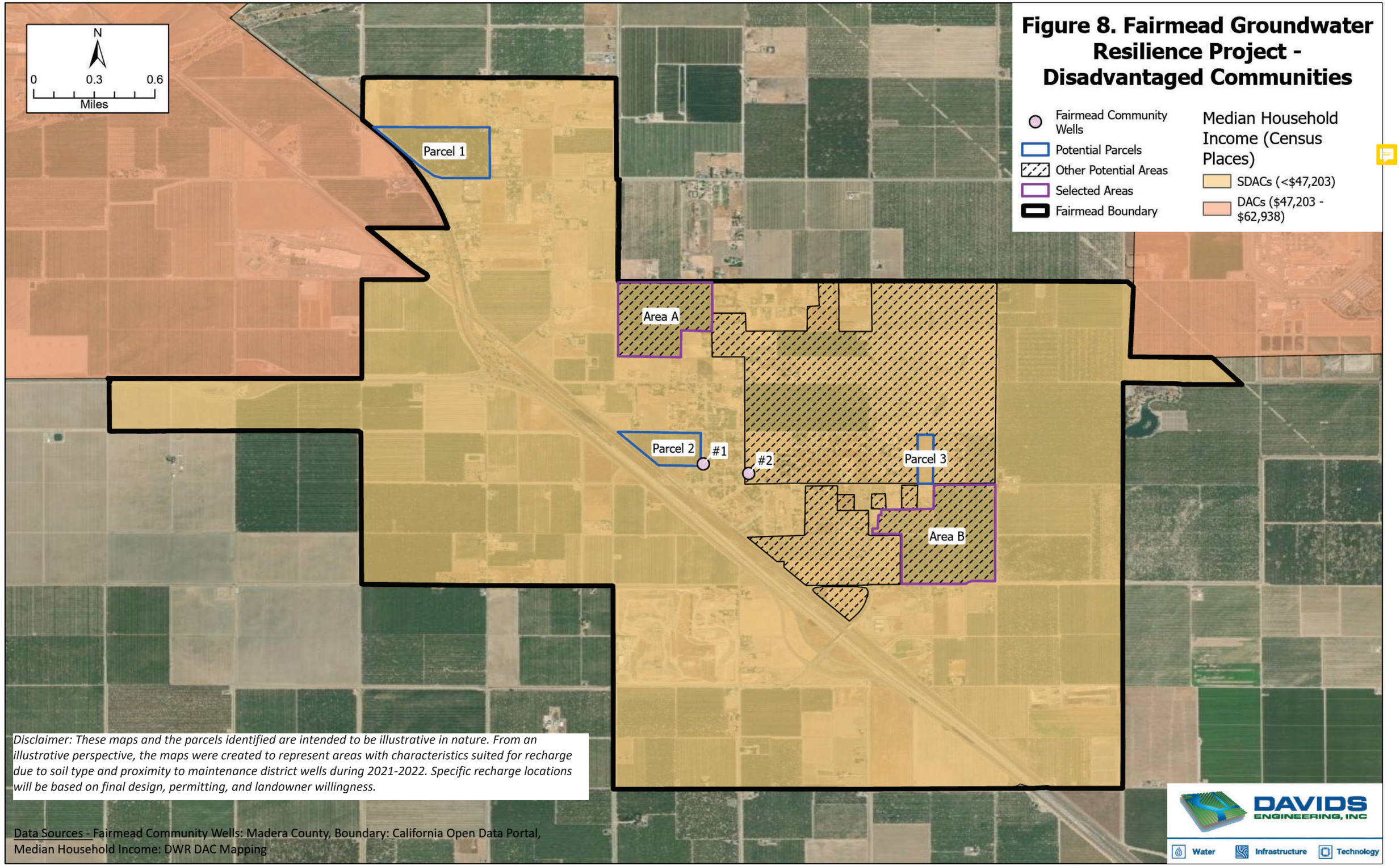
Figure 8. Fairmead Groundwater Resilience Project - Disadvantaged Communities



Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, Boundary: California Open Data Portal, Median Household Income: DWR DAC Mapping

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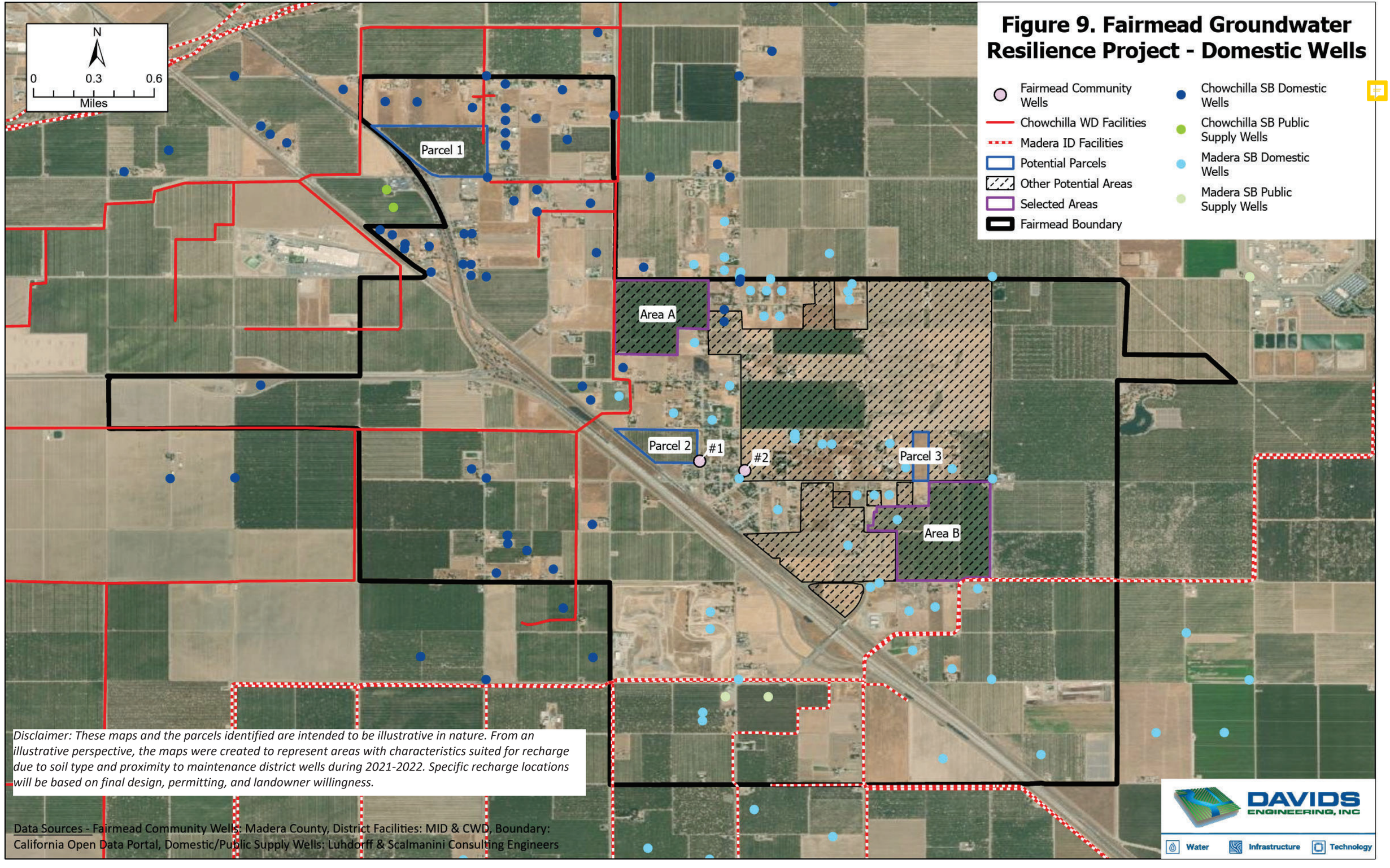
Figure 9. Fairmead Groundwater Resilience Project - Domestic Wells



Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, Domestic/Public Supply Wells: Luhdorff & Scalmanini Consulting Engineers

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Figure 10. Fairmead Groundwater Resilience Project - Cropping & Land Use

N

0 0.3 0.6

Miles

- Fairmead Community Wells
- Chowchilla WD Facilities
- Madera ID Facilities
- Potential Parcels
- Other Potential Areas
- Selected Areas
- Fairmead Boundary

Crop Type

- Pasture (Shallow Roots)
- Almonds
- Fallow

Parcel 1

Area A

Parcel 2

#1

#2

Parcel 3

Area B

Disclaimer: These maps and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Data Sources - Fairmead Community Wells: Madera County, District Facilities: MID & CWD, Boundary: California Open Data Portal, Crop Type: Based on LandIQ 2018 w/ refinements by IrriWatch

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Water Infrastructure Technology

Technical Memorandum

Date:	June 30, 2023
To:	Stephanie Anagnoson, Director of Water and Natural Resources, Madera County
From:	Chad Tienken, PE
Topic:	**Fairmead Groundwater Resilience Project - Task 3.2 Land Ownership List**

1 Introduction

Davids Engineering Inc. (DE) has been assigned four (4) tasks related to the Fairmead Groundwater Resilience Project. This technical memorandum (TM) has been prepared as the deliverable for Project Task 3.2 Land Ownership List. ERA Economics performed Task 3.3 Financial Analysis as part of the DE team. The following TM's are companion documents and should be consulted prior to review of this list:

- **Fairmead Groundwater Resilience Project, Task 3.1-Hydrogeologic and Geospatial Analysis**
- **Fairmead Groundwater Resilience Project, Task 3.3-Economic and Financial Analysis**

2 Methods

The Land Ownership List contained within this TM was created using results from Task 3.1 and 3.3 as noted above. In summary, the following methods were used to identify potential Project parcels.

2.1 Hydrogeologic and Geospatial Analysis

DE conducted a spatial analysis of SAGBI ratings, groundwater flow paths, and contaminant concentrations in and around the Fairmead Boundary. In appraising parcels suitable for groundwater recharge, the following factors were considered:

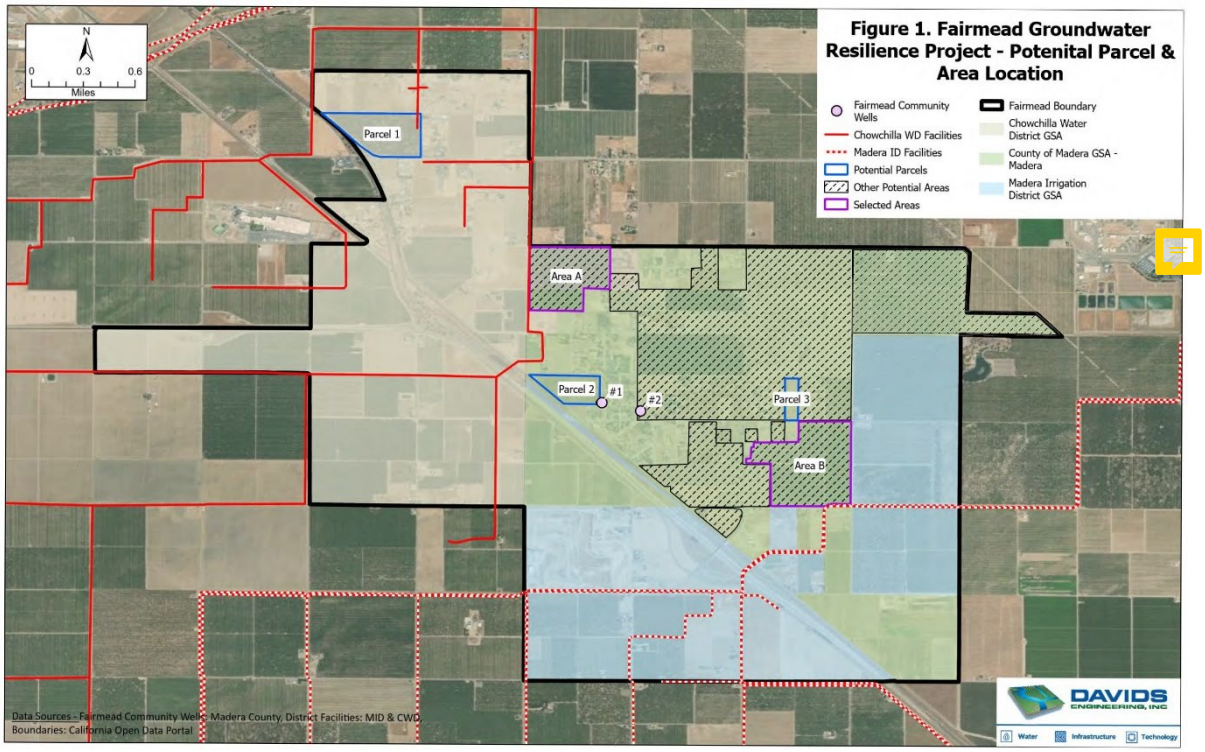
- Landowner Interest and Willingness (i.e., survey response or interest in other land repurposing efforts)
- Recharge Rate and Other Hydrogeologic Factors
- Water Quality Considerations
- Relationship to Disadvantaged Communities (DACs) and Severely Disadvantaged Communities (SDACs)
- Potential to Benefit Multiple Users
- Distance to Conveyance
- Cropping and Land Use

Three (3) parcels within the Fairmead Boundary submitted Recharge Survey Forms, indicating landowner interest. These parcels are identified in the Table 1 as "Potential Recharge Parcels with Survey Responses (Parcels 1, 2, & 3 in Task 3.1 TM)." The parcels total approximately 90 acres of available recharge area.

In addition to the parcels with recharge survey responses, Parcels 1, 2, & 3, DE has selected two potential areas, A and B, that could be prioritized over the other potential areas if there is landowner interest. Areas A and B are identified in the Land Ownership List as "Potential Recharge Areas (Areas A & B)." These two areas have the advantage of being adjacent to existing surface water conveyance requiring, by comparison, minimal investment in infrastructure. Landowner coordination would be necessary to reveal additional details about these areas.

Figure 1 below depicts all potential parcels identified as a result of performing the Hydrogeologic and Geospatial Analysis including other general areas that groundwater recharge could take place on and provide a potential benefit to the Fairmead community. These general areas meet most of the criteria listed above, however would need further landowner coordination.

Figure 1: Potential Parcel and Area Location



Disclaimer: This map and the parcels identified are intended to be illustrative in nature. From an illustrative perspective, the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

2.2 Economic and Financial Analysis

ERA Economics performed reconnaissance-level economic and financial analysis to provide additional criteria for identifying potential Project parcels. The following provides some elements considered in the economic and financial analysis:

- Cropping and Land Use
- Market expectations
- Land Valuation
- Potential Financial Incentives

- Evidence of Landowner Interest
- Member of a Farm Unit

Project implementation requires identifying landowners that meet established criteria that are interested in participating in a land repurposing effort and providing sufficient incentive to execute an agreement. Values presented in the Financial Analysis provide the GSA with a reasonable basis for starting a negotiation, and the narrative accompanying the values identifies factors that will affect the final negotiated price.

3 Results

Table 1 provides a full listing of parcels identified through completion of Tasks 3.1 Hydrogeologic and Geospatial Analysis and Task 3.3-Economic and Financial Analysis. Parcels listed below meet desktop screening criteria and this list is not indicative of landowner willingness to participate. Please note that missing Crop Type fields are due to that field not being populated within the county database.

Parcels and areas identified within this report are intended to be illustrative in nature. From an illustrative perspective, the parcels and areas shown represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Table 1: Land Ownership List

Parcel APN	Acres	Mailing	City, State, Zip Code	Crop Type
Potential Recharge Parcels with Survey Responses (Parcels 1, 2, & 3 in Task 3.1 TM)				
027-031-055	53.18	PO BOX 11089	TERRA BELLA CA 93270	
027-110-004	6.86	PO BOX 2717	MERCED CA 95344	almonds
027-110-005	0	PO BOX 2717	MERCED CA 95344	fallow
027-110-010	18.39	PO BOX 2717	MERCED CA 95344	almonds
027-110-012	2.35	PO BOX 2717	MERCED CA 95344	almonds
027-172-006	9.81	PO BOX 539	MADERA CA 93639	fallow
Potential Recharge Areas (Areas A & B in Task 3.1 TM)				
027-172-010	58.56	21251 ROAD 19 1/2	CHOWCHILLA CA 93610	almonds
027-172-011	19.02	3152 DUBLIN CT	SO SAN FRANCISCO CA 94080	almonds
027-172-014	15.82	3152 DUBLIN CT	SO SAN FRANCISCO CA 94080	almonds
027-172-015	1.82	3152 DUBLIN CT	SO SAN FRANCISCO CA 94080	almonds
027-172-026	19.56	21251 ROAD 19 1/2	CHOWCHILLA CA 93610	almonds
027-062-009	57.99	7230 EDGEWATER ST	CHOWCHILLA CA 93610	
027-062-011	19.4	7230 EDGEWATER ST	CHOWCHILLA CA 93610	almonds
Other Potential Areas for Recharge				
027-062-012	9.7	23140 RD 19 1/2	CHOWCHILLA CA 93610	fallow
027-062-013	9.33	26168 POSEY AVE	MADERA CA 93638	fallow

027-062-015	9.63	19279 AVENUE 23	CHOWCHILLA CA 93610	Misc. Grain and Hay
027-062-034	4.56	23482 ROAD 19 1/2	CHOWCHILLA CA 93610	
027-062-035	4.56	23418 RD 19 1/2	CHOWCHILLA CA 93610	
027-062-045	4.63	102 S 24TH ST	MADERA CA 93638	
027-062-046	4.63	17122 HEATHERWOOD WAY	MORGAN HILLS CA 95037-5037	
027-071-018	4.64	6998 WHITE ROCK RD	LE GRAND CA 95333	
027-071-019	4.64	23115 RD 19 1/2	CHOWCHILLA CA 93610	
027-071-020	4.55	P O BOX 690444	STOCKTON CA 95269-0444	
027-071-021	4.55	P O BOX 690444	STOCKTON CA 95269-0444	
027-071-024	18.9	10 MARIPOSA DR	SAN LUIS OBISPO CA 93401	fallow
027-071-026	9	19797 AVENUE 23 1/2	CHOWCHILLA CA 93610	fallow
027-071-027	9	742 GLENPINE CT	TRACY CA 95377	fallow
027-071-030	3.2	PO BOX 21102	CASTRO VALLEY CA 94546	
027-071-031	3.2	19212 AVENUE 23	CHOWCHILLA CA 93610	
027-071-032	3.04	981 SUBURBAN AVE	MADERA CA 93637-2686	
027-071-033	3.04	PO BOX 220	CHOWCHILLA CA 93610	
027-071-034	3.4	23414 ROAD 20	CHOWCHILLA CA 93610	
027-071-035	4.78	19631 AVENUE 23	CHOWCHILLA CA 93610	
027-071-036	4.78	19673 AVENUE 23	CHOWCHILLA CA 93610	
027-071-037	4.5	19525 FAIRLANE CT	CHOWCHILLA CA 93610	Misc. Deciduous
027-071-038	4.5	19524 FAIRLANE CT	CHOWCHILLA CA 93610	
027-071-045	13.92	1020 SAN BRUNO AVE	MADERA CA 93637	almonds
027-071-046	14.81	1020 SAN BRUNO AVE	MADERA CA 93637	almonds
027-072-009	38.49	19898 AVE 24	CHOWCHILLA CA 93610	almonds
027-072-010	38.49	19898 AVE 24	CHOWCHILLA CA 93610	almonds
027-072-011	38.49	10 MARIPOSA DR	SAN LUIS OBISPO CA 93401	fallow
027-072-012	38.49	10 MARIPOSA DR	SAN LUIS OBISPO CA 93401	fallow
027-072-013	153.91	22483 ROAD 20 1/2	CHOWCHILLA CA 93610	almonds
027-072-014	3	200 W 4TH ST	MADERA CA 93637-3548	
027-093-009	10.2	C/O NILESH CHOUDHARY	4010 FOOTHILLS BLVD STE 103	Almonds
027-093-011	4.1	19177 AVENUE 22 3/4	CHOWCHILLA CA 93610	Misc. Grain and Hay
027-103-005	36.65	2240 GOLDEN OAK LANE SPC 114	MERCED CA 95341	almonds
027-103-007	0.64	2240 GOLDEN OAK LANE SPC 114	MERCED CA 95341	
027-125-001	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-125-002	11.7	16475 FALLEN OAK RD	HACIENDA HEIGHTS CA 91745-3743	
027-125-003	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-125-004	0	22564 SYCAMORE	CHOWCHILLA CA 93610	

027-143-001	0	200 W 4TH ST	MADERA CA 93637-3548	
027-144-001	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-144-002	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-146-001	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-146-005	0.23	1398 W HERNDON AVE STE 205	493C S PAHA LN	
027-161-001	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-161-002	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-161-003	2.32	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-161-004	0	22564 SYCAMORE	CHOWCHILLA CA 93610	
027-161-005	0.74	11816 EMERY ST	EL MONTE CA 91732	
027-161-007	1.88	2418 E ROESER RD	PHOENIX AZ 85040-3624	
027-161-008	0.94	2418 E ROESER RD	PHOENIX AZ 85040-3624	
027-161-010	2.68	2418 E ROESER RD	PHOENIX AZ 85040-3624	
027-161-011	0.94	2418 E ROESER RD	PHOENIX AZ 85040-3624	
027-161-012	1	PO BOX 282	CHOWCHILLA CA 93610-7910	
027-161-013	1	22657 SYCAMORE ST	CHOWCHILLA CA 93610	
027-161-014	1	1013 TRINITY AVE	CHOWCHILLA CA 93610	
027-162-016	0	22313 SYCAMORE	CHOWCHILLA CA 93610	
027-163-001	3.82	9539 BONANZA DR	STOCKTON CA 95209	
027-163-002	0.96	3509 SANTA CRUZ WAY	SACRAMENTO CA 93817	
027-163-003	0.96	4323 PIEDMONT AVE	OAKLAND CA 94611	
027-163-004	0.96	19764 AVE 22 3/4	CHOWCHILLA CA 93610	
027-163-005	0.96	5550 N FIGARDEN DR #121	FRESNO CA 93722	
027-163-006	0.96	14415 CHADRON AVE APT 217	HAWTHORNE CA 90250	
027-163-007	1.08	19794 AVENUE 22 3/4	CHOWCHILLA CA 93610-9631	
027-171-001	28.64	2240 GOLDEN OAK LANE SPC 114	MERCED CA 95341	almonds
027-171-002	9.24	PO BOX 89	CHOWCHILLA CA 93610	almonds
027-171-003	9.32	4630 BORDER VILLAGE RD STE 1713	SAN YSIDRO CA 92173	fallow
027-171-004	9.62	2418 E ROESER RD	PHOENIX AZ 85040-3624	
027-171-009	9.32	22322 ROAD 20	CHOWCHILLA CA 93610-9621	fallow
027-171-011	9.32	22220 ROAD 20	CHOWCHILLA CA 93610	fallow
027-171-013	14.59	C/O DENNIS L VALENTINE	BONITA CA 91902	fallow
027-171-014	9.24	3919 CHERRY AE	SAN JOSE CA 95118-1714	fallow
027-171-015	4.8	701 ROCKWOOD AVE	TURLOCK CA 95380	
027-171-016	4.44	22464 ROAD 20	CHOWCHILLA CA 93610	
027-171-017	14.83	3203 W PASA TIEMPO AVE	FRESNO CA 93711	fallow
027-171-018	9.31	3203 W PASA TIEMPO AVE	FRESNO CA 93711	fallow
027-171-019	4.81	19696 AVENUE 22 1/2	CHOWCHILLA CA 93610	fallow
027-171-020	14.81	19780 AVE 22 1/2	CHOWCHILLA CA 93610	fallow
027-171-021	4.59	19817 AVENUE 22 1/2	CHOWCHILLA CA 93610	

027-171-022	4.52	C/O HAZEL RONE JACKSON	CHOWCHILLA CA 93610	fallow
027-172-001	28.67	10 MARIPOSA DR	SAN LUIS OBISPO CA 93401	fallow
027-172-002	48.44	10 MARIPOSA DR	SAN LUIS OBISPO CA 93401	fallow
027-172-003	58.11	22483 ROAD 20 1/2	CHOWCHILLA CA 93610-9641	
027-172-004	58.11	22483 ROAD 20 1/2	CHOWCHILLA CA 93610-9641	
027-172-008	93.75	22483 ROAD 20 1/2	CHOWCHILLA CA 93610-9641	
027-172-012	38.64	22483 ROAD 20 1/2	CHOWCHILLA CA 93610	
027-172-016	54	22483 ROAD 20 1/2	CHOWCHILLA CA 93610	
027-172-017	4.81	20289 AVENUE 22 1/2	MODESTO CA 95358	
027-172-018	4.37	20363 AVENUE 22 1/2	CHOWCHILLA CA 93610	
027-172-019	4.77	20371 AVE 22 1/2	CHOWCHILLA CA 93610	
027-172-020	4.77	PO BOX 539	MADERA CA 93639	
027-172-021	19.92	22680 ROAD 20 1/2	CHOWCHILLA CA 93610	almonds
027-172-022	4.34	22481 ROAD 20	CHOWCHILLA CA 93610	
027-172-023	4.77	20178 AVENUE 22 1/2	CHOWCHILLA CA 93610	
027-172-024	4.77	20178 AVENUE 22 1/2	CHOWCHILLA CA 93610	
027-172-025	4.77	20278 AVE 22 1/2	CHOWCHILLA CA 93610-8204	
027-172-027	5	20217 AVENUE 22 1/2	CHOWCHILLA CA 93610	fallow
027-172-028	5	20179 AVENUE 22 1/2	CHOWCHILLA CA 93610	fallow
027-172-029	5	22581 ROAD 20	CHOWCHILLA CA 93610-8522	
027-172-030	13.42	22633 RD 20	CHOWCHILLA CA 93610	
027-172-031	9.11	#2 ISABELLA AVE	ATHERTON CA 94027	fallow
027-172-032	9.11	#2 ISABELLA AVE	ATHERTON CA 94027	fallow
027-202-001	14.34	5557 GRIFFITH AVE	MARYSVILLE CA 95901	fallow
027-202-008	19.02	12006 E LEGRAND	LEGRAND CA 95333	Almonds
027-202-032	8.42	12006 E LEGRAND	LEGRAND CA 95333	Almonds
029-010-001	442.76	22483 ROAD 20 1/2	CHOWCHILLA CA 93610	
030-260-001	658.35	CENTRAL CALIFORNIA WOMEN'S FACILITY		

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Technical Memorandum

Subject: Fairmead Groundwater Resilience Project Economic and Financial Analysis (Task 3.3)

By: Brooks Ronspies and Duncan MacEwan ERA Economics LLC

To: Chad Tienken, Davids Engineering

Date: June 23, 2023

Purpose and Background

The Madera County Groundwater Sustainability Agency (GSA) prepared the Joint Groundwater Sustainability Plan (GSP) for the Madera Subbasin. The GSP specified a series of projects and management actions (PMAs) for the Madera County GSA, as well as all other agencies in the subbasin, that would result in sustainable groundwater conditions by 2040. Given the GSA's limited access to surface water supplies, the GSP PMAs included groundwater recharge, limited imported water supplies, and a phased demand management (groundwater pumping reduction) program.

The GSA immediately started implementing its PMAs after the GSP was submitted to the Department of Water Resources (DWR). It pursued and won DWR grant funding for its recharge program development, as well as DWR and Department of Conservation (DOC) grant funding for two land repurposing (demand management) programs.

Davids Engineering (DE) is assisting the GSA with implementation of its groundwater recharge program. This includes a program in and around Fairmead, the Fairmead Groundwater Resilience Project (Project). DE is working with the GSA, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Local Government Commission to improve local and regional resilience to drought and climate change. The Project will also attempt to incorporate other climate resilience benefits, such as reducing local flood risk, enhancing valuable habitat, and improving outdoor spaces for public health.

DE and the GSA requested assistance with reconnaissance-level economic and financial analysis of the Project. This analysis will support broader Project development and implementation by identifying lands that are most suitable and outlining potential incentive structures to encourage private landowners to participate in the Project. The specific components of the analysis completed by ERA include:

- Analyze regional real estate market for Madera County and Fairmead community

- Conduct parcel valuation for all priority parcels
- Determine financial incentives and/or compensation option(s) for the landowner of each priority parcel

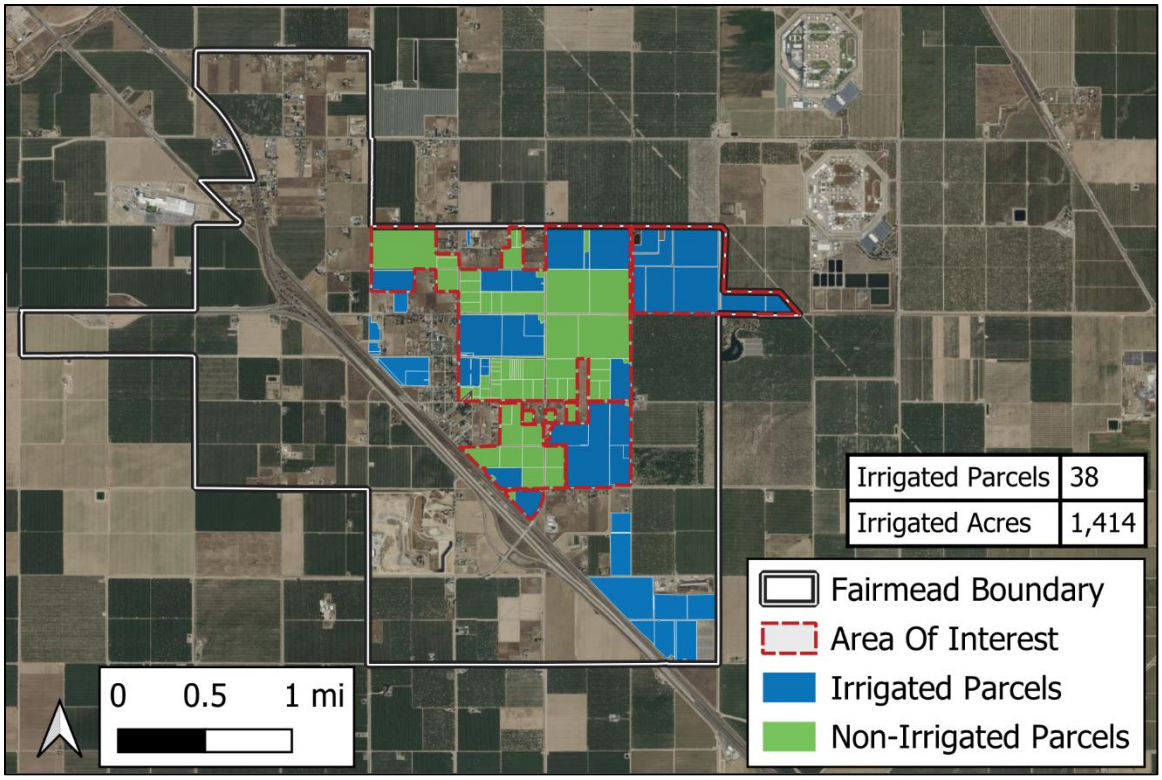
This technical memorandum (TM) documents the data, methods, and analysis for the economic and financial analysis for the Project. This TM is the deliverable for Task 3.3: regional real estate market analysis, including parcel valuations and compensation options for priority parcels.

Parcels and areas identified within this TM were provided to ERA. ERA did not select these parcels and these parcels are intended to be illustrative in nature. From an illustrative perspective, ERA understands that the parcels and areas shown represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations would be based on final design, permitting, and landowner willingness.

Fairmead Project Area and Priority Parcels

The Fairmead Project covers lands in and around Fairmead. The purpose of the Project is to improve drought resilience in the area, focusing on recharge and other land repurposing opportunities. Priority areas/parcels were defined in consultation with DE. These are generally based on proximity to existing water conveyance (Chowchilla Water District or Madera Irrigation District), proximity to domestic wells, groundwater conditions (groundwater flows south and east), and lands within the Madera County GSA. Figure 1 illustrates the Fairmead area and "area of interest" priority parcels. There are around 1,400 acres on 38 irrigated parcels in the area of interest and neighboring areas (seen in Figure 1 in blue) that were included in the economic and financial analysis.

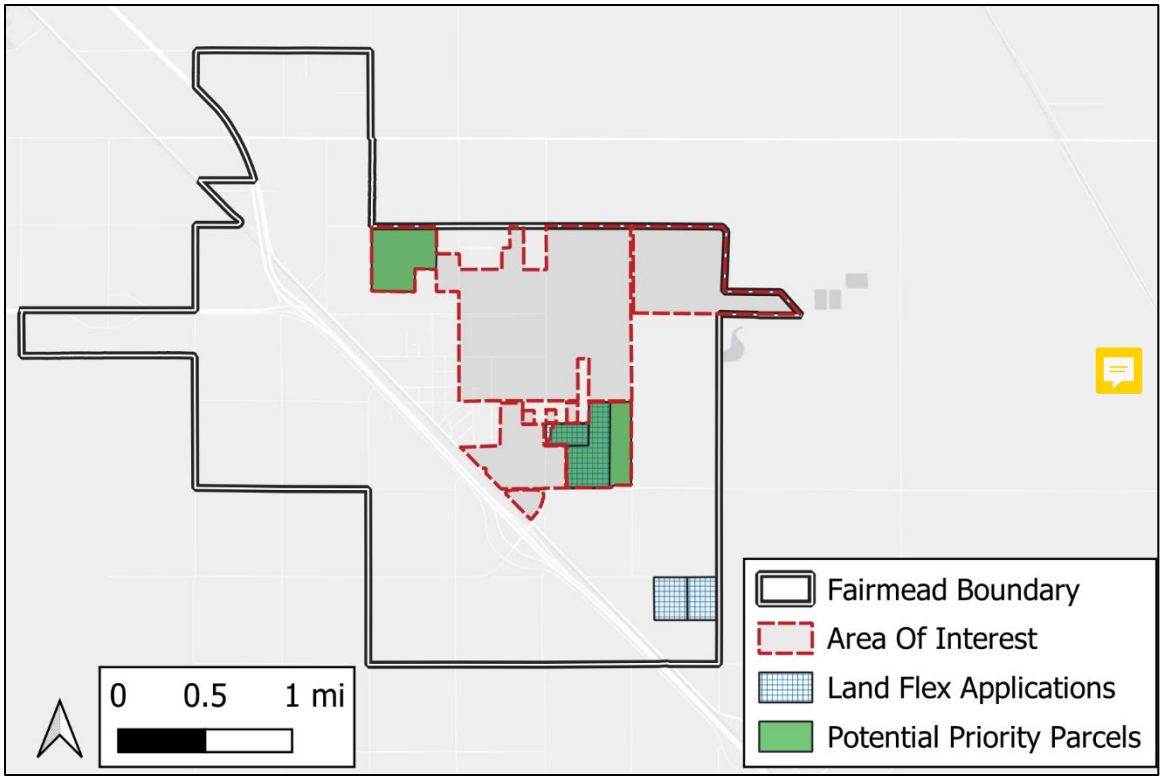
Figure 1. Fairmead Project Parcel Overview



Disclaimer: These maps and the parcels identified were provided to ERA and are intended to be illustrative in nature. From an illustrative perspective, ERA understands that the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

The GSA is concurrently implementing the LandFlex (Targeted Land Repurposing) program that offers payments to transition currently irrigated lands to sustainable pumping levels. ERA reviewed applications for the GSA LandFlex program and identified parcels that have submitted applications in the Fairmead area of interest. These parcels have not contracted with the GSA to enter into the program and the landowners have subsequently indicated that they are not likely to move forward with the LandFlex program. However, submitting an application to the LandFlex program indicates some landowner interest in land repurposing. This may be helpful for the Fairmead Project. Figure 2 shows the Project area of interest and parcels that submitted LandFlex applications.

Figure 2: Area of Interest and LandFlex Applications



Disclaimer: These maps and the parcels identified were provided to ERA and are intended to be illustrative in nature. From an illustrative perspective, ERA understands that the maps were created to represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Financial Incentives for Land Repurposing

The Fairmead Project should be developed to work in consultation with other projects being implemented by the GSA, and potentially other GSAs in Madera County. Specifically, financial incentives and the implementation approach should be aligned with other GSA programs.

The Project focus is to repurpose lands to other uses for multiple, non-water benefits in the GSA. The area of interest is privately owned lands. Landowners would need incentives to participate in the Program and repurpose lands to alternative uses. One way to encourage private landowners to change land use is to develop appropriate financial incentives (see the Financial Incentives and Compensation Options below). The Madera County GSA is currently implementing other land repurposing programs that may provide financial incentives for landowners in the Fairmead area (and other areas). These include:

- **LandFlex (Targeted Land Repurposing Program)**. LandFlex is a Department of Water Resources (DWR) grant-funded program that provides payments to growers to forgo irrigation this year, remove trees or vines, and forgo use of any overdraft groundwater allocation (called Transitional Water in the GSA) for the duration of GSP implementation (through 2040). It is available in the GSA this year and is not currently available in future years.

- **Multi-Benefit Land Repurposing Program (MLRP)**. MLRP is a Department of Conservation (DOC) grant funded program that would provide incentives to repurpose agricultural lands to non-irrigated, or less-irrigated, uses. The program guidelines will be defined in a plan that is being developed this year. The program would be implemented next year and available in future years.
- **Voluntary Land Repurposing Program (VLRP)**. The VLRP is a GSA-funded program that would provide growers with a payment to forgo use of groundwater allocation for a period of one or more years. Compensation terms would be set under a competitive bidding process. Potential compensation ranges were set under the initial program design to support the GSA rate study.

The Project financial incentives defined in this technical memorandum were set to be consistent with existing GSA programs. We completed a review of recent land sales and developed an economic analysis to establish a range of agricultural land values for the Project area of interest, as well as compensation options for the Project.

Recent Land Sales

County assessor data were reviewed for recent market transactions for lands in the Fairmead area of interest. Recent transactions can reflect current market conditions. However, some transactions may not be arms-length deals. In addition, it is not clear that the effect of GSP implementation (importantly, the groundwater allocation) is carefully factored into recent sales prices since the effect of the allocation may not be entirely clear to all landowners/parties in a real estate transaction. Therefore, our preferred method for valuing agricultural land and water assets is an income capitalization approach (see subsequent section).

Eleven transactions were recorded for parcels in the area of interest since 2013. Of the eleven transactions, 5 were in the last 8 years (since 2016) and involved agricultural land with little or no additional development (no residential units). Table 1 summarizes recent transactions in the Fairmead area of interest.

Table 1. Fairmead Area Agricultural Land Sales Since 2016

Purchase Date	Parcels	Crops	Acres	Average Age of Orchard	Price	Price per Acre	
						Nominal	Inflation-Adjusted
2/18/2022*	027-202-032, 027-202-008, 027-202-040, 027-202-007, 027-202-006	Almonds	198.6	13	$5,500,000	$27,701	$28,369
1/2/2020	027-202-046	Almonds	19.6	8	$535,000	$27,240	$31,856
4/7/2020	027-202-019, 027-202-018	Corn, Dairy Facility	51.2	*n/a*	$1,200,000	$23,460	$27,435
8/11/2016	027-072-010, 027-072-009	Almonds	77.0	*Old; since replanted*	$1,848,000	$24,006	$30,265
6/24/2016	027-110-004, 027-110-012, 027-110-010	Almonds	27.6	*Preplant*	$375,000	$13,587	$17,129

* Note: This 2/18/22 transaction includes APNs that were located in district lands as well as the County GSA, therefore the per acre price is higher than would be expected for a transaction involving only non-district lands without access to surface water.

ERA was asked to review recent agricultural land sales. As described below, the sales shown in table 1 are for illustrative purposes. The value of a specific parcel for a to be determined recharge site will vary based on prevailing market conditions at that time and other parcel-specific features.

The sales price for almond orchards with trees was between $27,500 and $31,900 per acre in inflation-adjusted 2023 dollars[1]. These prices reflect the value of the land plus the capital value of the orchard and any other improvements on the land. We note that the purchase on 6/24/2016 was for ground suitable for almonds without trees currently established. The inflation-adjusted price of $17,129 for this transaction reflects the value of the land without the capital value of an established orchard.

Agricultural land prices are driven by the value of the commodities that can be produced on the land[2]. Between 2016 and 2022 the price of almonds and milk (the two primary commodities produced in the area of interest) changed substantially. Milk prices were around $15 per cwt in 2016 before increasing to over $25 per cwt in 2022. Almond prices were around $2.50 per lb in 2016 (and had been over $4 per lb in 2014/15) before falling to under $1.50 per lb in 2022. These trends affect price expectations used to value the land. In addition, interest rates were generally decreasing over this period, which leads to lower expectations for alternative rates of return applied to future income streams.

The per acre transaction prices in the data we reviewed generally range between $17,000 and $30,000. This includes the value of the land, orchards (or other capital improvements such as a well), and the value for potential non-agricultural development.

Parcel Valuation

Our preferred approach for valuing land and water when the water supply cost and availability is changing rapidly over time (such as under the GSA allocation) is income capitalization. This allows us to carefully consider changing water supply available to the land under SGMA implementation and isolate the value of the land for farming from other speculative development opportunities. We can also include the effect of broader market changes that affect crop prices in this type of approach (but we have not done so in this analysis).

The income capitalization approach applies current expected prices, costs, and we allow the Transitional Water (TW) allocation to ramp down over the GSP implementation period (through 2040). We apply a real alternative rate of return to capitalize the income stream.

We reviewed GIS data for crops in the Fairmead area of interest to evaluate current crops and the age distribution of existing orchards. Approximately 80 percent of the currently irrigated acreage in the Fairmead area is almonds and roughly 90 percent planted with a permanent crop (i.e., orchard or vineyard). Table 2 summarizes the crop and age distribution in the Fairmead area of interest.

Table 2. Fairmead Area Crop Acreage Summary

[1] Values adjusted to 2023 dollars using the US Bureau of Labor Statistics historical CPI-U Table.

[2] In addition, agricultural land can have additional value for speculative development purposes or other uses. It is likely that some of these lands near the Fairmead area have development potential but we were not tasked with isolating the value of development pressure from farming and other activities in this initial analysis.

Crop	Annual Crop Acres	Permanent Crop Age/Acres			Total
		1-10	10-20	>20	
Almonds		2,036	646	665	3,348
Pistachios		32		178	210
Young Orchard		160			160
Walnuts		24	13	64	101
Misc. Deciduous		11	~1		13
Misc. Subtropical fruit			~1		~1
Misc. Truck Crops	13				13
Corn, Sorghum, or Sudan	134				134
Misc. Grain and Hay	232				232
Mixed Pasture	35				35
Total	415	2,265	662	907	4,248

The value of an agricultural parcel depends on the characteristics of the land (i.e., what crops can be grown and at what cost) and non-agricultural development opportunities (e.g., urban development). This analysis focuses on agricultural land uses only. Agricultural values depend on supply (e.g., production costs, water supply conditions) and demand (e.g., export and domestic market conditions for California crops) conditions. In resource-constrained areas like the GSA agricultural land values are directly linked to current and future access to water because water availability limits crop choice and how much can be produced on the land.

We apply an income capitalization approach to estimate a reasonable range of values for parcels located in the Fairmead area of interest. This approach considers the income from the crops currently being grown, as well as the potential future income derived from continued farming (including annual crops and periodic replanting of orchards). The value of permanent plantings includes planting, establishment, and full bearing years. As such, a newly planted orchard with a 20-year economic life remaining is more valuable than an orchard near the end of its economic life.

Table 3 summarizes our estimated land values by crop category. We include annual crops and break down permanent crops into crop type and 10-year age increments. The values shown are the per acre value of the land in its current use including the decrease in groundwater available under the GSA allocation. These values do not include any speculative development value or other non-farming related values. Lastly, these values reflect the opportunity cost to the landowner. A landowner would typically need to receive a small premium over these values to complete a sale. This sale premium was not analyzed as part of this initial analysis but can be considered in future studies.

Table 3. Income Capitalization Estimates for All Fairmead Area Crops, ($ per acre)

Crop	Annual Crops	Permanent Crop Age (Years)

		1 - 10	11 - 20	>20	>30
Permanent Crops					
Almonds		$13,685	$12,495	$7,250	
Walnuts		$6,475	$7,535	$2,955	
Other Deciduous		$20,475	$22,585	$17,335	$15,310
Annual Crops					
Grain/Misc. Field	$3,000				
Silage/Dairy Feed	$17,275				

Within the area of interest, the range of values is between approximately $3,000 and $22,000 per acre. Older orchards and some of the grains and hay field crops offer the lowest potential opportunity cost for the Project. Many of the oldest orchards are in the northeast corner of the Fairmead area of interest boundary. There are also older orchards in the eastern portion of Fairmead, but these are in Madera Irrigation District and are subsequently excluded from the Project area of interest.

Our analysis is based on current market conditions, costs, returns, and the Madera County GSA allocation. Factors that will additionally affect willingness to accept (financial incentives) include:

- **Development potential**. Parcels near existing residential development may be more expensive because there is an opportunity for these to be developed in the future.
- **Crop price/market expectations**. Most of the irrigated acreage in the Fairmead area of interest is almonds. Small changes in price expectations substantially affect the capitalized value of the land.
- **Other land owned by the grower within his/her farm unit**. The grower or landowner of a parcel in the Fairmead area of interest may own other land within the GSA farm unit. This allows the grower to effectively transfer some of the groundwater allocation from lands in Fairmead to other areas within the farm unit. Therefore, land that is viewed as potentially "lower valued" because it is an older orchard could be viewed as more valuable if the allocation is planned to be used on younger plantings in other parts of the GSA.
- **Other farmer-specific factors** that include but are not limited to: property tax considerations, and the timing of operation transitions are all factors that can influence a landowner's willingness to accept.
- **Price premium**. Values shown in this report reflect the opportunity cost to the landowner. A landowner would typically need to receive a small premium over these values to complete a sale. This sale premium was not analyzed as part of this initial analysis but can be considered in future studies.

These sensitivity factors were not evaluated. The analysis could be extended in the future to include them.

Financial Incentives and Compensation Options

This section describes financial incentives and compensation options for each landowner and priority parcel in the Project area. The financial incentives are an approximate range based on the analysis described in the preceding sections. Depending on how the Project is structured, the actual transaction price will be a negotiation between the GSA/Project proponent and the landowner. This section summarizes recommended values to use as a starting point for such a negotiation.

Table 4 summarizes a range of values for each of the crop categories in the Fairmead area of interest. The values are based on the income capitalization approach and shown as a range based on recent price expectations. These values include the GSA allocation implementation schedule. That is, by 2040 the available ETAW per acre is the Sustainable Yield, which is approximately 1.06 AF per acre in the GSA.

Table 4. Fairmead Area of Interest Financial Incentive Range

Crop	Age	Incentive Range ($/acre)	
Almonds	Young Orchard	$9,405	$15,020
	10 - 20 Year Old	$7,310	$12,495
	Old Orchard	$3,225	$7,250
Other Tree Crops	Young Orchard	$15,405	$21,590
	10 - 20 Year Old	$12,205	$18,780
	Old Orchard	$2,490	$10,920
Silage/Dairy Feed	*NA*	$17,275	$20,145
Grain/Hays	*NA*	$3,000	$5,000

The financial incentive values shown in this report reflect the total value of the land/water used for farming. Any Project payments should be net of other payments or indirect benefits received by the grower. For example, if the project includes a recharge basin and the landowner would receive a water credit for recharge on his/her lands, then the value of that water would be subtracted from the total land values shown in this technical memorandum. Other potential compensation and project benefits were not available to us as we prepared this memorandum and therefore could not be included in the calculations.

Compensation options for the Project can be structured in different ways. The GSA could make offers, accept bids, or develop a competitive bidding process. The GSA may structure payments and enrollment in different ways, depending on the Project goals and how it is ultimately designed. This information was not available to us as we prepared this memorandum. Options for structuring the enrollment process include:

- **Fixed annual payment**. The GSA offers a fixed annual amount for acres to enroll. The capital values shown in table 4 would be converted to annual payments in perpetuity (or over an appropriately defined period). The GSA would define the payment and if it does not receive sufficient interest in the program would need to increase the payment. Similarly, if there was too much interest (more acres than the program had funds to pay in a given year), it could lower the incentive payment and/or develop a process for selecting acres.
- **Bidding**. The GSA could solicit bids from interested landowners. The bid could specify, for example, the price and current crop type. The GSA could then rank bids, selecting the lowest cost bids up to the target Fairmead Project area enrollment. The GSA could then offer the highest cost bid to all acres, or pay each acre based on its bid price. Payments could be equivalently structured as one-time or annual amounts.
- **Other auction approaches**. Other bidding approaches include reverse auctions and standard auctions. These types of bidding structures are used to reduce the cost of the Project.
- **Other land goals**. The GSA may want to target lands in specific areas based on prioritization, such as considering the social, economic, or environmental multiple-benefits of that land's enrollment. These objectives would presumably be defined as part of the Fairmead Project and included in the selection process.

Given the age structure of orchards located nearest to conveyance facilities, our analysis indicates that one-time payments should be in the range of $6,000 to $12,000 per acre. The Project can be structured to receive competitive bids to keep costs down and encourage enrollment.

Summary

The project team has identified a subset of parcels within the Fairmead boundary that could be used to achieve program goals. A review of recent transactions in the study area and an income capitalization approach to value land in the study area was used to develop a range of payments for Project participation.

The Project implementation would involve identifying a specific parcel (or parcels) for the Project. These would ideally be landowners that are interested in participating in land repurposing programs. Therefore, starting with landowners that submitted applications for LandFlex may be a reasonable next step. The Project should target the lowest value land in the area of interest. Examples of lands most suitable for the Project include:

- Land that is planted in lower value grain/hay crops (that is not part of a dairy operation). If this land is not part of a larger Farm Unit, is not suitable for development, and is not suitable for permanent crop development, the per acre opportunity cost to the landowner is low, in the range of $3,000 to $5,000 per acre. This type of land is generally not

present in the Fairmead area because most irrigated parcels are almonds or other permanent crops, and lands have some non-agricultural development potential. Even if such lands were identified, an additional price premium would apply to incentivize participation in the Project, which would be negotiated with the landowner.

- In practice, as noted above, low value annual crop ground is unlikely to be found in the area of interest. Most land is part of a larger farm unit. And even if land is not currently part of a larger farm unit another landowner/grower would recognize the value of the groundwater allocation and be willing to pay its incremental value on his/her farm unit operation. This would likely be almonds or pistachios. Therefore, a more plausible scenario is finding a willing landowner for the Project that has land that has desirable attributes for the Project (e.g., is located near domestic wells and existing conveyance), has limited development potential, and is not suitable for permanent crop development. The per acre opportunity cost to the landowner would be in the range of $9,000 to $15,000 per acre. An additional price premium would apply to incentivize participation in the Project, which would be negotiated with the landowner.
    - We note that historical transactions were in the $20,000 to $30,000 per acre range. However, those transactions were for land plus the capital value of an established orchard. Those values reflect the value of the land (and trees) with water supply sufficient to irrigate the orchard in perpetuity. And those historical transactions also occurred during years with higher nut prices that affect price expectations used to develop a capital value of the land and orchard. Today there is a groundwater allocation and nut price expectations have substantially decreased. Therefore, the value of the land is less. This is reflected in the analyses shown in this TM.

In short, Project implementation requires finding marginal land and landowners that are interested in land repurposing, and then negotiating a fair deal with the landowner. The values presented in this TM provide the GSA with a reasonable basis for starting a negotiation, and the narrative accompanying the values identifies factors that will affect the final negotiated price.

Recommended next steps:

- The GSA is implementing programs including LandFlex, Mulit Benefit Land Repurposing, and Voluntary Land Repurposing that provide growers with funds to idle or switch lands to non-irrigated uses. Each of these programs shares common goals with the Fairmead Groundwater Resilience Project. Identifying lands eligible or participating in these programs would help minimize Fairmead project costs.
- The total values shown in this report should be refined and tailored based on the final project guidelines. For example, payments to growers should be reduced if they receive groundwater recharge credits or other project benefits. Program payments should be adjusted accordingly.

- If specific lands are identified for the project the value of these lands can be refined to establish the opportunity cost to the landowner. This would include assessing factors described in this memorandum including development potential, other crops in the farm unit, and other project options.
- Any price premium above the opportunity cost of agricultural land was not analyzed as part of this initial analysis but can be considered in future studies.

Parcels and areas identified within this TM were provided to ERA. ERA did not select these parcels and these parcels are intended to be illustrative in nature. From an illustrative perspective, ERA understands that the parcels and areas shown represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations would be based on final design, permitting, and landowner willingness.

Date: June 30, 2023

From: Stephanie Anagnoson, Director of Water and Water and Natural Resources

Topic: Fairmead Groundwater Resilience Project
Task 3.4- Local Land Use and Development Compatibility

Task 3.4. Local Land Use and Development Compatibility

Madera County's Department of Water and Natural Resources (WNR) and Madera County's Department of Community and Economic Development (CED) have met a number of times related to options for growers and the communities that are impacted by the Sustainable Groundwater Management Act (SGMA).

Madera County has a General Plan that includes a related goal as Goal 5.A:

> To designate adequate agricultural land and promote development of agricultural uses to support the continued viability of Madera County's agricultural economy.

Chapter 18.53 of the Madera County Code – Agricultural Zone Districts governs use of agricultural lands. "Agriculture" is a permitted use, meaning no discretion is made when crops are planted to encourage one crop rather than another:

> "Agriculture" means the tilling of the soil, the raising of crops, horticulture, viticulture, small livestock farming, dairying and/or animal husbandry, including all uses customarily incidental thereto but not including slaughterhouses, fertilizer yards, bone yards or plants for the reduction of animal matter or any other industrial use which is similarly objectionable because of noise, odor, smoke, dust or fumes. "

There are additional restrictions, including a Conditional Use Permit (CUP) and analysis for dairies, feedlots and processing plants.
For the various options that have been explored during the Fairmead Groundwater Resiliency Project, here is some analysis of regulatory requirements:

- On-farm recharge – Best practices in recharge include avoiding application of pesticides and fertilizers in close proximity in time to recharge activities. There are no additional County requirement though additional state permits or requirements may be necessary for acquiring water or if building infrastructure to deliver water.

- Dedicated Recharge basins – Grading and drainage permits would be required from County Public Works as well as potentially electrical permits. Additional state permits or requirements may be necessary for acquiring water or building infrastructure to deliver water.

- Establishment of pollinator habitat – No additional permits would be required for this practice on agricultural land though it can be self-reported to the Agricultural Commissioner with more than nine hives.

- Change in type of crop farmed – No additional permits would be required for this practice on agricultural land.

- Conversion of ag land into a park – This potentially requires a zone change or Conditional Use Permit. Ag and Open Space zoning require a CUP for “Outdoor Recreational Facilities.”

	County Community and Economic Development Department (CED) Requirements	Public Works Department Requirements	Ag Commissioner Requirements
On-farm recharge	N/A	N/A	Refer to pesticide label for timing of recharge and use of pesticide
Digging of a dedicated recharge basin	N/A	Grading/Drainage permit and electrical permit	N/A
Establishment of Pollinator Habitat	As long as it is ag land originally, no permits from CED	N/A	The site may be permitted with Ag Commissioner. It is operator's choice on acquiring permit if have 9 or more hives
Change of crop within Ag Land	See above	N/A	The grower would update his permit with Ag Commissioner
Conversion of Ag Land to a Park	Zone Change or CUP	Grading/Drainage permit and electrical permit	N/A

In terms of recommendations for integrating groundwater resilience project concepts into regional and local planning documents, our recommendations are multi-fold:

1. Communicate among County Public Works, Community and Economic Development, Water and Natural Resources and the Agricultural Commissioner's Office regarding potential changes in agricultural practices under the Sustainable Groundwater Management Act

2. Provide guidance for growers on permits required by local agencies
3. Consider providing guidance for growers on permits required by state agencies

Date: June 30, 2023

From: Stephanie Anagnoson, Director of Water and Water and Natural Resources

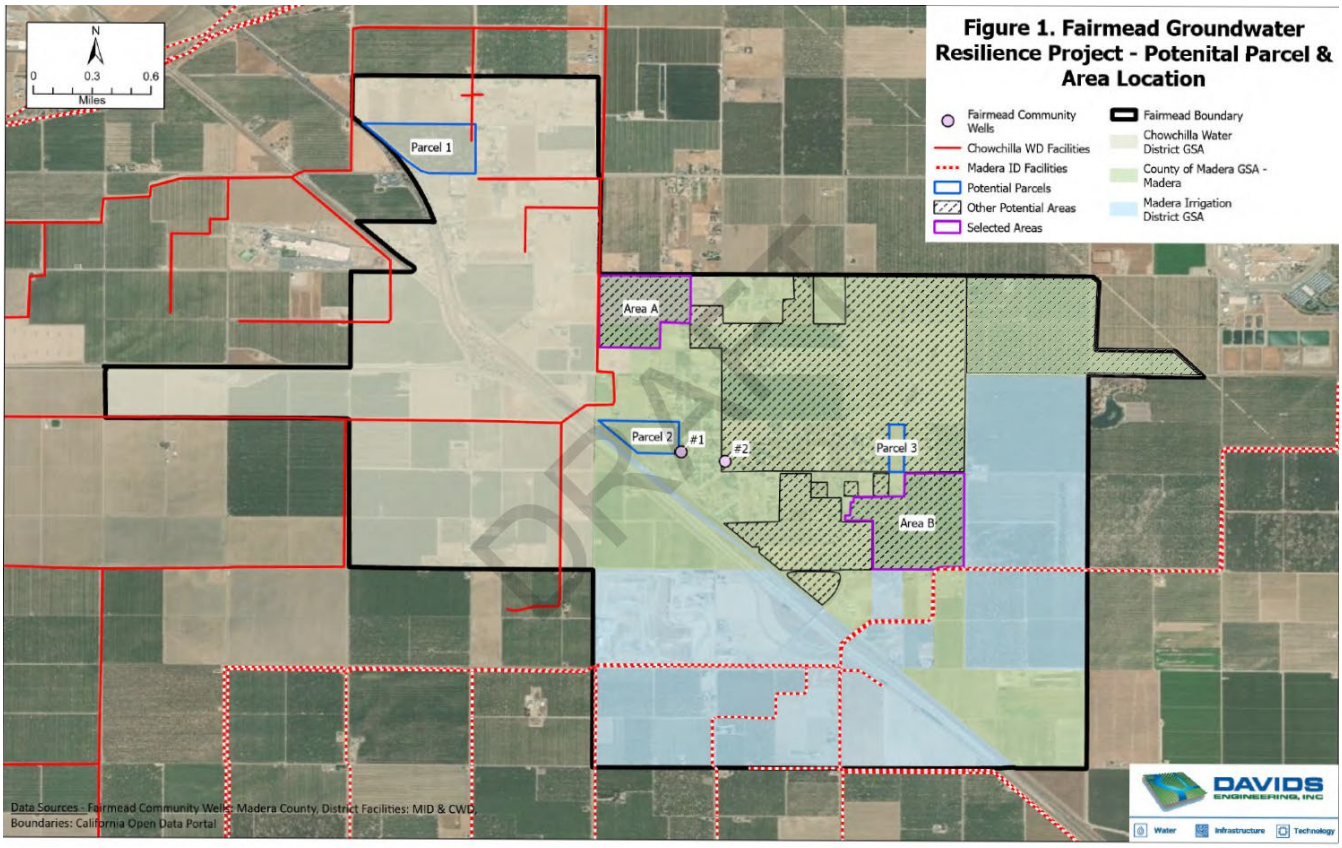
Topic: Fairmead Groundwater Resilience Project
Task 3.5- Water Supply Analysis

Task 3.5 Water Supply Analysis

Without a doubt, the community of Fairmead would benefit from an increase in water supply. Residents indicated that connecting to the nearby County maintenance district for their potable supply is a top water priority. The existing maintenance district could be expanded to supply water to other homes but at the present, it struggles to provide for existing homes because of 1-2 wells operating at any given time and competing with agricultural water demands. On a regular basis, the County general fund must lend the maintenance district money because residents are not paying their bills regularly.

Fairmead is, in some ways, ideally located between two water suppliers for additional non-potable supply: Madera Irrigation District (MID) and Chowchilla Water District (CWD). Both water suppliers have surface water conveyance, which could provide water for recharge outside their service area under some (limited) conditions. Both water suppliers have access in some years to water that can be sold outside their service areas and both water suppliers are obligated to wheel water for other CVP contractors, including the County of Madera, for a fee. Amounts of water vary greatly as both CWD and MID are attempting to increase the amounts of water used for recharge within their own agencies first and foremost.

What could water be used for? Recharge and creation of habitat are two options suggested for water purchased through MID or CWD. As you can see from the map below in Task 1, there is infrastructure for both CWD and MID nearby.



The focus for the Fairmead Groundwater Resiliency Project is on sources of water on the eastside of the Madera and Chowchilla Subbasins. Section 215 water is water that is purchased under flood conditions from the Bureau of Reclamation. The County of Madera is a Central Valley Project contractor and working to expand where it can take different water types within the County, including Section 215 water. It is possible that other water is available as well.

Table 1. Water Sources, Supply Contract, Conveyance, and Project Area summary for each region of each subbasin (Davids Engineering Recharge Memo)

Subbasin	Region	Primary Water Source	Water Supply Contract Mechanism	Conveyance	Project Areas
Chowchilla	**Westside**	Eastside/ Chowchilla Bypass	Appropriative Water Rights(s) held by TTWD and Madera Co.	Eastside/ Chowchilla Bypass	WR POU's, Recharge Interest Forms adjacent to Bypass and within County GSA.
Chowchilla	**Eastside**	Section 215 Water	Contract with USBR	Madera Canal/ Chowchilla WD	Recharge Interest Forms adjacent to CWD but within County GSA.
Madera	**Westside**	Eastside/ Chowchilla Bypass	Appropriative Water Rights(s) held by Madera County	Eastside/ Chowchilla Bypass	WR POU's, Recharge Interest Forms adjacent to Bypass and within County GSA.
Madera	**Eastside**	Section 215 Water	Contract with USBR	Madera Canal/ Madera ID	Recharge Interest Forms adjacent to MID, but within County GSA.

Fairmead MD33 – Water System Project List

Index	Item	Project	DWSRF Project Category[1]
1	Additional Well Source	The Fairmead water system is designated as a community water system. The system has two groundwater wells while only one well is operational. Following the Title 22 §64554[2] requirements, c*ommunity water systems using only groundwater shall have a minimum of two approved sources before being granted an initial permit. The system shall be capable of meeting [the maximum day demand] MDD with the highest-capacity source off line.* Well #1, the non-operational well, was constructed in 1978 to a depth of 552 feet with screens starting at 240 feet depth. The water levels of Well #1 dropped below in the top of the well screens at 240 feet depth prior to 2014 and continued to decline through 2021 (available data January 2014 through July 2021). The pumping flow rate also declined from a high flow rate of 300 gpm down to less than 50 gpm. The decline in flow rate may be due to a biofouling which clogs the well screens and pumping equipment; the biofouling develops from an increase in oxygen concentration as the water cascades across the well screens. Well #2 was constructed in April 2021. Well #2 is located about 1,000 ft to the southeast from Well #1. The well station is still under construction, but it has power (observed in August 2022) and it is actively pumping for supplying drinking water. The estimated capacity is 450 gpm. Fairmead's maximum day demand was estimated at 310 gpm using the available data set from 2013 through 2014 and following the Title 22 estimation guidelines. Project: Find a second water source. This may include construction of a new groundwater well station, or consolidation with nearby public and/or private well owners.	C – Compliance or Shortage Problems

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Fairmead MD33 – Water System Project List

Index	Item	Project	DWSRF Project Category[1]
2	Generator	The Safe and Affordable Drinking Water Fund (SADW) established the Backup Generator Funding Program[3] to ensure drinking water system have adequate electrical supply during power outages. The Well #2 station includes an emergency generator. Well #1 - assuming water level conditions improve and Well #1 becomes useful for water production, a generator is needed at the Well #1 to operate the pump, and the air compressor for the hydropneumatic tank. Project: equip Well #1 with a generator assuming Well #1 becomes operational.	F – Other Projects
3	Distribution System Piping	The distribution piping is asbestos-cement pipe. While this material may have been acceptable at one time, it does not meet Title 22 §64570 for new distribution piping. Asbestos is a known carcinogen. While airborne asbestos is a respiratory health concern, asbestos leaching into water from either the geologic formation or the distribution piping is an intestinal concern. Furthermore, the material is soft and brittle and therefore subject to failing. Project: a conceptual engineering design shall be completed to replace the distribution piping with PVC C900.	F – Other Projects
4	Monitoring and Compliance	The distribution piping is made of asbestos cement. Per Title 22 §64432.2, a water sample from a consumer's tap shall be analyzed for asbestos. Project: collect water sample and monitor for asbestos.	F- Other Projects
5	Service Lateral Leaks	As reported by the County's water operator, the typical leak of the system occurs at the service laterals. The volume of water lost is not known as the system is not equipped with service meters. Project: without metering data, an estimated volume of water lost from leaks shall be determined by comparing well production and the estimate water consumption.	F - Other Projects

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Fairmead MD33 – Water System Project List

Index	Item	Project	DWSRF Project Category[1]
6	Meters	The system is not equipped with customer service meters. Per California Assembly Bill 2572 (April 2004), meters shall be installed Project: equip the service laterals with meters.	D – Inadequate Reliability
7	Well Station Improvements	Well #1 does not meet Title 22 §64560 requirement for the well head to terminate at a minimum of 18 inch above finished grade. Project: The well casing and concrete pedestal shall be extended to 18 inch in height. Modification to the station piping will be necessary to accommodate the height increase.	F – Other Projects

Sources:

(1) Policy for Implementing the Drinking Water State Revolving Fund, State Water Resources Control Board, Amended December 3, 2019.
(2) California Regulations Related to Drinking Water, State Water Resources Control Board, March 28, 2019.
(3) Backup Generator Funding Program, California State Water Resources Control Board, updated August 30, 2022.

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Sustainable Conservation

Date: June 30, 2023

To: Stephanie Anagnoson, Director of Water and Natural Resources, Madera County

From: Aysha Massell, Director of Water for the Future Program, Sustainable Conservation

Topic: Fairmead Groundwater Resilience Project - Task 3.6 - Multi-benefit Assessment

Introduction

The Fairmead Groundwater Resilience Project (Project) aims to improve local resilience to drought and climate change by examining potential for land repurposing and groundwater recharge. In addition to improving groundwater resources, this project incorporates other potential climate resilience benefits, such as reducing local flood risk, enhancing valuable habitat, and improving outdoor spaces for public health.

For Task 3.6, Sustainable Conservation (SC) assessed the potential multiple benefits and risks of recharge activities and land use planning, including topics related to water quality, flood risk reduction, habitat enhancement, open space, subsidence protection, and farmland conservation. Activities included evaluating community concerns/requests gathered as part of Project activities and reviewing local planning documents. From this information, SC developed a multi-benefit assessment metric based on community-identified topics/issues, and evaluated specific, potential project parcels using the multi-benefit assessment metric.

Community Data Sources

1. Community meetings

As part of Project activities, two community meetings were held in the Fairmead Elementary cafeteria on October 22, 2022 and April 27, 2023. The first focused on how groundwater recharge could potentially be implemented to improve community drinking water access, and the second focused on different aspects of land repurposing and how that could improve water reliability in the community. Both forums requested and received valuable feedback from community members. The following text is a brief summary of the community discussions.

Water supply – A majority of participants have experienced their wells going dry, and most people can't afford $50,000 to drill a deeper well (the groundwater levels are greater than 400' deep now). As a result, many people are dependent on water tanks. Some who are on domestic wells want to connect to a water system (Chowchilla, Madera, or the Fairmead community system), but they are also aware that the costs of this might be prohibitive, which seems unfair to some. New almond production in the area

(upwards of 2,000 acres) has accelerated the rate of dry wells, but this problem existed before, as well. Participants think that growers are still over pumping, even with the newer groundwater pumping allocations imposed by the county.

Water quality – Some participants expressed that if money is spent for recharge facilities, then it must be ensured that the pumped groundwater is clean enough to drink.

Flood risk reduction – Due to recent multi-year droughts, the community has not experienced flooding for a long time. However, a previous planning effort identified typical flooding areas due to lack of drainage infrastructure in Fairmead (see XX below). One person noted that overland flows tend to flow south and southwest.

Habitat enhancement – One participant mentioned that they would like to grow vegetation for wildlife and animals.

Farmland conservation – One participant noted that they would like to see continued agricultural uses in the area.

Open space – No comments.

Subsidence – No comments.

Other topics – Residents talked about air quality as a problem in the community, particularly during almond harvest when excessive dust is in the air. Some wondered about how projects might affect property taxes.

Recharge – Community members had many questions about the effectiveness of recharge in improving their water supply. The following is a list of the questions as recorded during the meetings:

- Placement
    - How many acres are needed for a recharge area?
    - Where is a good place for recharge?
    - How does the water move underground?
    - Residents are interested in seeing examples of nearby recharge basins - what they look like and how they function.
    - One person prefers a recharge basin to be outside of the community center, and multiple people expressed that the basin should serve a primary purpose to augment water supply.
- Water supply
    - Where does the canal water for recharge come from?
- Water quality
    - Will percolated water be able to be potable water once it hits our faucets?
    - Does it take a while for potential contaminants to flow and travel underneath the ground through the groundwater?
- Maintenance
    - What can you do to control stagnant water that can attract mosquitoes in the basin?
    - Can basins be fenced off to avoid children going in there?
- Benefits

- How would recharge help with dry domestic wells (vs the public supply well)?
- How do we avoid the "pull" of groundwater away from the community if we construct the recharge basin?
- Who would ultimately benefit from the recharge basin?

2. Community Surveys

Surveys were handed out at the April 27, 2023 meeting and at a June 24, 2023 community fair. The second round of surveys was slightly altered to make the process simpler for the respondents. A total of 18 people filled out a survey – 11 from the meeting, and 7 from the community fair. Below are the collated results of the two surveys.

In your opinion, what is the order of importance of the **benefits of groundwater recharge**:

- Highest rank
  - Improve water quality
  - Raise groundwater levels to ensure that residents have access to water
- Medium rank
  - Prevent land subsidence
  - Protect plants and animals that rely on groundwater
  - Reduce flood risk

In your opinion, what is the order of importance of the **benefits of land repurposing**:

- Highest rank
  - Reduce groundwater pumping
- Medium rank
  - Less use of pesticides
  - Better air quality
  - More shade
  - More open/community space

If a permanent orchard were removed, **what would you want there instead**:

- Highest rank
  - Open space/ natural habitat, including park or floodplain
- Medium rank
  - Solar panels
  - Groundwater recharge basin
  - Low water use agriculture

What do you think is the best way to **improve Fairmead residents' access to a reliable and safe source of water:**

- Highest rank
  - Connect residents on domestic wells to an existing water system
- Note that there was no medium rank. Almost all respondents replied as indicated above.

3. Review of previous planning documents

In 2009, a series of public design charrettes informed the Fairmead Neighborhood Mobility and Revitalization Strategy document (2011, CivicWell – formerly known as Local Government Commission). This effort focused on many aspects of the community such as transportation, public lighting, infrastructure, and it includes some valuable information about stormwater and drainage that is informative for the current Project. Notably, the report states:

> *...half of the existing community to the east of Highway 99 is located in a flood zone. Without a drainage system in place there is frequent flooding or ponding in streets and localized areas. Many homes are built within these flood zones and threatened by periodic flooding.*

A significant portion of the document outlines a strategy to incorporate "low impact development" techniques such as vegetated medians in the center of wide streets, swales on the edges of streets and rain gardens and detention basins to receive waters in order to reduce ponding on streets and improve water quality. The authors recommend "...a comprehensive network of naturally vegetated, small-scale treatment systems treat and infiltrate stormwater runoff near its source, thereby reducing or eliminating the need for conveyance." The following figure shows a conceptual network of storm drainage and detention areas, based on observations and analysis of available data.

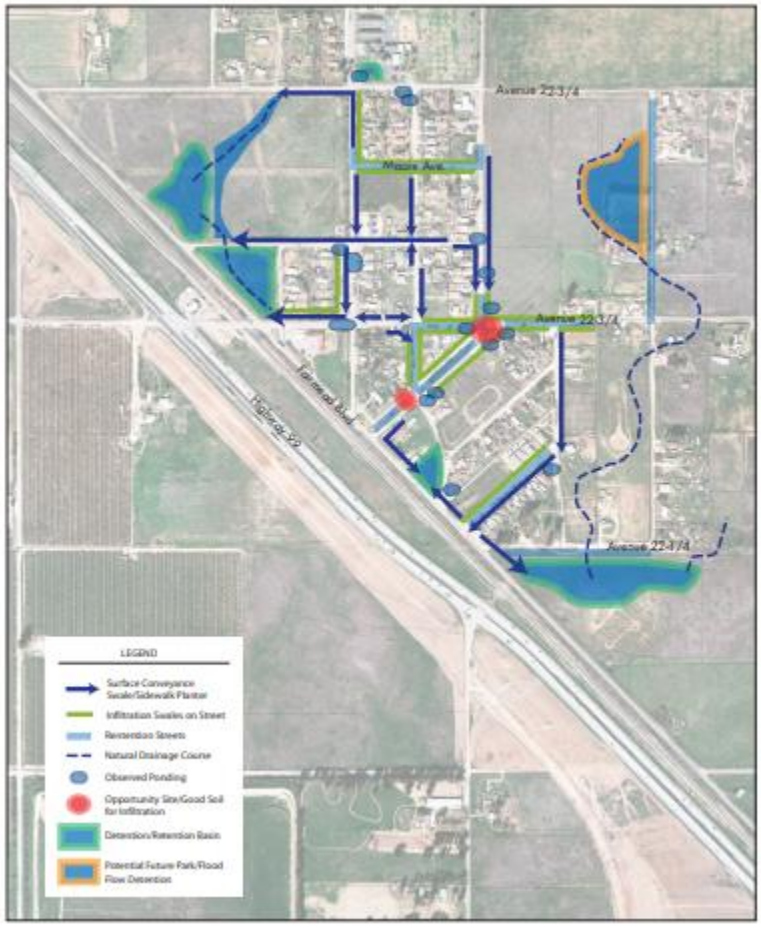


Figure from Page 3-30 of the report: Conceptual Stormwater Master Plan showing appropriate low impact design techniques based on the existing topography, street network, field observations and the County's proposed Drainage Master Plan.

Summary of Fairmead Community Preferences

The community of Fairmead has a variety of needs and preferences expressed in various land planning meetings, surveys, and documents. The Project objective is a narrower slice of the total community needs and focuses on helping to achieve community water resiliency using a multiple benefit and community-driven approach. In sum, the participants have expressed some important points relevant to the Project:

- They are interested but skeptical about recharge being able to serve their needs. If implemented, they want recharge basins outside of the center of the community, to serve the primary purpose of increasing water supply, and to avoid mosquitoes and safety hazards.
- They would prefer for domestic well users to be connected to a public water supply, but some expressed concern that this might be prohibitively expensive.
- They are concerned about the large acreage of almond orchards directly adjacent to the community, both for water quantity and air quality issues.
- If land were to be repurposed, they would want open space or natural habitat, like a park or floodplain. They are also interested in solar panels, a groundwater recharge basin, and low water-use agriculture.

Multi-benefit Metric Development

As identified during the community discussions, the following outcomes were mentioned as priorities for participants, with examples of types of projects under each bullet. These outcomes form the basis of a community-identified metric system by which potential projects can be evaluated.

- Outcome A: Improve water supply for the community.
    - Connect to an existing water supply system.
    - Reduce agricultural pumping.
    - Implement recharge to raise groundwater levels.
    - Install more water tanks.
- Outcome B: Protect or improve water quality
    - If recharge is implemented, water needs to be potable
- Outcome C: Improve air quality
    - Retirement of orchard land to reduce dust and pesticide drift
- Outcome D: Community gathering space
    - Develop a community park
    - Construct a community center (this project is currently underway)
- Outcome E: Support ecosystems
    - Restore a floodplain natural area
    - Maintain a natural area to support native animals and vegetation
- Outcome F: Income-generating land repurposing
    - Solar panel farms
    - Low water use agriculture (e.g. agave or pastureland)
- Outcome G: Reduce flooding
    - Network of vegetated medians and roadside swales
    - Rain gardens and detention basins that receive drainage waters

Summary of Selected Parcels

Under Project deliverables, Davids Engineering (DE) was contracted by Madera County to conduct a hydrogeologic assessment to determine the recharge potential of land parcels to benefit Fairmead community wells. DE conducted a spatial analysis of SAGBI ratings, groundwater flow paths and contaminant concentrations and evaluated potential suitable sites with other factors, such as landowner interest surveys and distance to conveyance. The end result was the identification of three suitable parcels where the landowners were interested in recharge. DE also identified two larger suitable areas where more targeted landowner outreach could be conducted.

- Parcel 1: 50-acre almond orchard located NW of Fairmead, with a direct connection to a Chowchilla Water District (CWD) canal. Note that the landowner does NOT want to repurpose this parcel to a recharge basin.
- Parcel 2: 30-acre almond orchard located within Fairmead, adjacent to the old community supply well, and 500 feet south of a CWD canal. The landowner is open to any recharge method.
- Parcel 3: 10-acre fallow field located upgradient to the new community supply well, and 2,500 ft north of a Madera Irrigation District (MID) canal. The landowner is open to any recharge method.
- Area A: This large area is adjacent to a CWD canal and would need further engagement with the landowner(s).
- Area B: This large area is adjacent to a MID canal and would need further engagement with multiple landowner(s).

DE then evaluated and ranked each parcel and area to determine the best suitability for recharge and came up with the final scoring as noted in the table below (higher points indicated a higher ranking).

Table 1: Final Results – Parcel/Area Prioritization

Recharge Location	Survey Response	Recharge Suitability Rating	Water Quality	DAC's & SDAC's	Multiple Users Benefits	Groundwater Flow Direction	Distance to Conveyance	Cropping & Land Use	Total Score
Area A	No	4	5	5	5	3	5	4	**31**
Area B	No	3	5	5	4	5	5	4	**31**
Parcel 3	Yes	3	5	5	4	5	3	5	**30**
Parcel 2	Yes	4	3	5	5	4	4	4	**29**
Parcel 1	Yes	3	5	5	4	1	5	4	**27**

Table 1 from page 7 of the DE report

Multi-benefit Assessment of Identified Parcels and Areas

SC used the multi-benefit assessment criteria developed earlier to evaluate each of the parcels and areas that were identified by DE. We also used information from the Fairmead Neighborhood Mobility and Revitalization Strategy document and information from more recent land planning efforts to evaluate these sites and identified some other multi-benefit land repurposing potential (not related to recharge specifically).

See **Attachment A** for the multi-benefit matrix assessment of each of the parcels and areas, with a narrative summary below of the potential of each of the locations.

Parcel 1: Since this landowner is only interested in recharge on an existing almond orchard (also known as on farm recharge), there may be limited benefit of recharge on this parcel to nearby domestic wells. Recharge for community drinking water supply is most easily achieved by devoting land to recharge basins, which allows for minimal leaching of potential contaminants and maximum volume of water applied per acre to improve groundwater levels. However, recharge on the orchard could minimize water quality risks if the grower practices excellent land stewardship and applies plenty of recharge water in order to dilute any potential migration of legacy nutrients and contaminants.

Parcel 2: This parcel has plenty of potential for community benefit by reducing agricultural pumping and improving air quality in the center of the community due to the planned conversion of irrigated orchard land to a community center. Depending on the preferences of the community and/or landowner, various portions of this parcel could also be used to improve Fairmead stormwater drainage by hosting a rain garden or detention basin, augment water levels near the old community well by implementing a recharge basin, and/or including native vegetation in the landscaping of the community center. Further examination of how water quality may be impacted should occur if recharge or stormwater projects are planned.

Parcel 3: A recharge basin on this parcel shows great potential to augment the water supply of the primary Fairmead community well. Since it is currently fallow land, little to no water quality impacts are expected, except for potential legacy nutrients present in the vadose zone, which should be explored more if a recharge project is planned. If desired, habitat benefits could be incorporated in the recharge basin itself.

Area A: Recharge and/or orchard land fallowing on this parcel could improve the water supply of a cluster of domestic wells located to the northwest of Fairmead. Air quality could also be improved with agricultural land repurposing of the orchard.

Area B: Recharge and/or orchard land fallowing on this parcel could improve the Fairmead community well water supply. Air quality could also be improved with reduction of orchard land.

Next steps

Further work should be done to identify parcels of land that are suitable for land repurposing, in addition to the work already done by DE on assessing parcels for their potential for groundwater recharge. The 2011 CivicWell report outlines a community-designed plan that can inform locations for parks and stormwater facilities, among other priorities. The following list shows just some of the community priorities that could be addressed by land repurposing and other actions to support water security in the community:

- Improve water supply
    - Domestic wells could be connected to the Fairmead community water system or to nearby Chowchilla.
    - People with dry domestic wells could get more tanks installed to store delivered water.
- Community gathering space

    - Locations for potential parks are noted in the 2011 planning report and could include walking trails and other community amenities.
- Support Ecosystems
    - Parks, recharge basins and stormwater facilities could incorporate native vegetation landscaping.
- Income-generating land repurposing
    - Solar panels could potentially be incorporated on any of the parcels already identified, and could be extended to other areas as well.
    - Transitioning orchard land to low water use farmland is a potential on any of the parcels.
- Reduce flooding
    - Locations for potential vegetated medians/swales and rain gardens/detention basins are described in the 2011 planning report.

In addition, SC recommends reviewing the article "Water, environment, and socioeconomic justice in California: A multi-benefit cropland repurposing framework" (2023, Fernandez-Bou et al), which examines the effects of retiring irrigated cropland in buffers around communities in order to reduce their exposure to pesticides, nitrogen leaching, nitrogen emissions, and groundwater overdraft. The paper explores various ways to transition the land to other uses, such as recharge and solar energy energy. This article represents a growing trend in planning for land retirement anticipated under the Sustainable Groundwater Management Act expressly for the benefit of communities.

Attachment A:

Multi-benefit Assessment Metric

			Parcel 1	Parcel 2	Parcel 3	Area A	Area B	Other parcels/ options not identified in DE report
Outcome A	Improve water supply	Reduce agricultural pumping	(no - landowner wants to keep orchard)	reduce ag pumping by conversion to community center/recharge basin	(no - already fallow)	potentially reduce ag pumping by conversion to recharge basin	potentially reduce ag pumping by conversion to recharge basin	
		Implement recharge to raise groundwater levels	on farm recharge only	recharge basin could benefit old community well; however, community members expressed they do not want a recharge basin inside community center	recharge basin could directly benefit nearby community supply well	recharge basin could improve cluster of domestic wells to northwest of Fairmead	recharge basin could directly benefit nearby community supply well	
		Connect to an existing water supply system						Domestic wells could be connected to the Fairmead community water system or to Chowchilla or Madera
		Install more water tanks						People with dry domestic wells could get more tanks installed to store delivered water.
Outcome B	Protect or improve water quality		(depends - grower would have to practice excellent nutrient and pest management to avoid water quality issues with recharge)	recharge basin could improve water quality, careful of hotspot nearby	fallow land indicates minimal to no water quality risk of recharge	recharge basins could protect or improve water quality. On farm recharge would have to be conducted with care (see description in Parcel 1)	recharge basins could protect or improve water quality. On farm recharge would have to be conducted with care (see description in Parcel 1)	
Outcome C	Improve air quality				could improve air quality if implemented well	could improve air quality if some orchard land is fallowed		
Outcome D	Community gathering space	Develop a community park						Locations for potential parks are noted in the 2011 planning report
		Construct a community center		plans for community center underway currently				
Outcome E	Support ecosystems	Restore a floodplain natural area			could incorporate habitat aspects in recharge basin	could incorporate habitat aspects in recharge basin	could incorporate habitat aspects in recharge basin	
		Maintain a natural area to support native animals and vegetation		could incorporate native habitat in community center landscaping				Parks could incorporate native vegetation landscaping
Outcome F	Income-generating land repurposing	Solar panel farms						Solar panels could potentially be incorporated on any of the parcels already identified, and could be extended to other areas as well.
		Low water use agriculture (e.g. agave or pastureland)						Transitioning orchard land to low water use farmland is a potential on any of the parcels
Outcome G	Reduce flooding	Network of vegetated medians and roadside swales						Locations for potential vegetated medians and swales are described in the 2011 planning report
		Rain gardens and detention basins that receive drainage waters		West side of this parcel was identified as potential rain garden/detention basin in 2011 community plan				Locations for rain gardens and detention basins are described in the 2011 planning report

Task 4 Deliverables

- Potential Project Concept Design Package:
    - Conceptual Design for at least one and up to five groundwater recharge projects.
    - Monitoring Plan Framework for identified projects.
    - Cost estimate for identified projects.
- Inclusion of multiple benefits into conceptual design and monitoring plan framework.
- Proposal-quality implementation plan and budget for phase 2

Luhdorff & Scalmanini
Consulting Engineers

DRAFT TECHNICAL MEMORANDUM

DATE: March 29, 2024 Project No. 24-1-027

TO: Chad Tienken, PE, PLS

FROM: Peter Leffler, PG, CHG
Nick Watterson, PG, CHG

SUBJECT: Fairmead Groundwater Resilience Project – Monitoring Program Framework

1. INTRODUCTION AND STUDY PURPOSE

This Technical Memorandum (TM) describes a monitoring plan framework that is intended to provide the basis for future development of a more detailed Project Monitoring Plan to provide sufficient data to allow tracking of potential water quality changes resulting from the proposed project, protect drinking water supplies, and to support quantification of the benefits of the recharge project to groundwater levels and overall groundwater system from the proposed Fairmead Groundwater Resilience Project (Fairmead Recharge Project). This monitoring plan framework describes the objectives, considerations, and general conceptual approach suggested for incorporation into the final detailed Project Monitoring Plan. The future development of a more detailed Project Monitoring Plan would follow the selection of the final location of the recharge facility. The more detailed Project Monitoring Plan would be coordinated with other existing monitoring programs, such as those conducted for the Groundwater Sustainability Plan (GSP) and Irrigated Lands Regulatory Program (ILRP).

As part of the GSP implementation, Madera County is currently engaged in the development of a strategic recharge plan that includes the Fairmead Recharge Project. The Fairmead Recharge Project is a collaborative effort between the County, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Civic Well. It is intended to improve local and regional groundwater conditions and resilience to drought and climate change through benefits to groundwater levels, groundwater quality, and land subsidence. The overall project is described in more detail in a TM prepared by Davids Engineering (DE, 2023).

2. PROJECT AREA DESCRIPTION

The proposed area for the Fairmead Recharge Project includes the community of Fairmead and the surrounding area located along Highway 99 within Madera Subbasin near the boundary with Chowchilla Subbasin (**Figure 1**). The DE TM describes five potential parcels and areas that have been identified as being potentially suitable for a recharge project (**Figure 2**). The DE study was a desktop assessment to evaluate potential locations for the siting of future recharge projects in the vicinity of Fairmead, considering characteristics including land availability and landowner interest, land use, various hydrogeologic factors, relationship to disadvantaged communities, distance to conveyance facilities, and benefits to multiple users. The five specific parcels/areas were ranked based on the different variables considered. Four of the five sites are immediately adjacent to the main developed area comprising the community of Fairmead, and the fifth site is located about 1.5 miles northwest of Fairmead. Parcels and areas identified within the DE TM are intended to be illustrative in nature. From an illustrative perspective, the parcels and areas shown represent areas with characteristics suited for recharge due to soil type and proximity to maintenance district wells during 2021-2022. Specific recharge locations will be based on final design, permitting, and landowner willingness.

Fairmead has two water supply wells operated by Madera County Maintenance District (MD) 33 that serve the community, and both wells are located near the middle of the community (**Figure 3**). The two wells currently represent the only source of water supply for MD 33. In addition, available records indicate there is a supply well located at Fairmead School, approximately 0.25 miles north of the Fairmead Community wells.

Figure 4 shows the service area for MD 33 (i.e., the area served by the two Fairmead community wells). This map suggests that the MD 33 service area may have approximately 15 to 20 domestic wells outside of its boundaries but within one mile to the east and another 15 to 20 domestic wells outside its boundary but within one mile to the north. Data suggests that a few additional domestic wells may be located west and south of the MD 33 service area. While this mapping of domestic wells is derived from Well Completion Report (WCR) data and has limitations (e.g., location accuracy, likely includes some wells that are no longer active, etc.), it does highlight general areas with wells that warrant consideration in the Project Monitoring Plan along with the Fairmead Community wells and the Fairmead School well shown in **Figure 4**. It is recommended that a more detailed inventory of active domestic wells in the vicinity of the project be completed following the selection of the final recharge site.

3. PROJECT MONITORING PLAN FRAMEWORK

The purpose of developing a detailed and site-specific Project Monitoring Plan will be to provide sufficient data to allow tracking of potential water quality changes resulting from the proposed project, protecting drinking water supplies, and to support quantification of the benefits of the recharge project to groundwater levels and overall groundwater system. Given the significant depths to groundwater in this area (300 to 350 feet bgs), it may take significant time (months to years) for major recharge events to be fully reflected in the regional water table. Monitoring of groundwater levels at high temporal resolution with automated pressure transducers will provide important data to support the evaluation of the benefits of recharge projects/events on regional groundwater levels. There is potential for project

recharge activities to flush chemical constituents from the vadose (unsaturated) zone down to the water table during the early implementation of the recharge project. It is anticipated that longer-term operations of the project will ultimately result in improvements to water quality conditions. Thus, it would be prudent to conduct more higher-intensity (more dense and more frequent) water quality sampling initially, with the potential to reduce water quality monitoring intensity over time depending on the initial sampling results.

3.1 Planning Activities

As the proposed project moves forward, it will be important to conduct public outreach and coordinate closely with the local community and other stakeholders as part of developing the detailed project monitoring plan. This will allow local community members and basin stakeholders to provide input on the plan and may help facilitate coordination with domestic well owners interested in having their well incorporated into the monitoring program. Preparation of the detailed Project Monitoring Plan should also consider recommendations provided in Sustainable Conservation's white paper entitled "Protecting Groundwater Quality While Replenishing Aquifers – Nitrate Management Considerations for Implementing Recharge on Farmland" (2021).

3.2 Borings Drilled During Recharge Basin Construction

It is recommended that two to four borings be drilled prior to recharge basin construction to collect soil/sediment samples in the vadose zone with subsequent submittal of selected samples to a certified laboratory for analysis for key constituents that may be present in the vadose zone beneath the recharge site (e.g., nitrogen/nitrate, DBCP, etc.). Samples would also be evaluated for lithology to construct boring logs to aid in developing an improved understanding of subsurface stratigraphic conditions. It is anticipated that these borings would be drilled using a hollow-stem auger drilling rig with split-spoon samples (or using other equivalent sampling methods) collected at periodic intervals to depths of 70 to 90 feet below ground surface (bgs).

3.3 Number and Location of Monitoring Wells

Given that the final recharge site location has not been selected yet, the Project Monitoring Plan should be based on a generalized framework that is applied to the final selected location. The general Project Monitoring Plan framework includes incorporating monitoring of existing monitoring wells (e.g., nested monitoring well MSB-10, Fairmead Community Well #2 monitoring well), selected existing domestic wells (to the extent well owner agreements can be obtained), and possibly the Fairmead School well, and construction of two new single-completion dedicated monitoring wells (estimated depths of 550 feet to be refined based on project site selection). The two new single-completion monitoring wells would be sited at the following locations (to the extent practical and feasible): on or adjacent to the property selected for the Fairmead Recharge Project and approximately midway between the Project site and the nearby production well most likely to be influenced by Project recharge activities (likely a Fairmead Community well). Information on existing wells in the Project vicinity is summarized in **Appendix A**. The final selection of existing and new monitoring wells for the Project Monitoring Plan should take into consideration and coordinate with any other monitoring occurring as part of other programs.

3.4 Monitoring Parameters and Frequency

Groundwater levels in the existing nested monitoring wells and two new monitoring wells will be measured continuously with automated transducers, with data downloads and manual water level measurements to be conducted at least twice per year to confirm that equipment is operating correctly. More frequent data downloads and manual measurements may be warranted during periods of Project recharge activities. If possible, transducers would also be installed in other wells included in the monitoring program, such as the Fairmead Community Well 2 monitoring well, Fairmead School Well, and selected domestic wells.

Water quality monitoring should focus on key constituents identified based on known or potential water quality constituents of interest in the area. The final list of water quality constituents to be monitored should be reviewed after a Project site is selected (including results from any chemical analyses conducted on sediment in the vadose zone at the site) but is expected to include total dissolved solids (TDS); nitrate; arsenic; 1,2,3-Tricholoropropane (1,2,3-TCP); Dibromochloropropane (DBCP); perchlorate, and periodic general mineral analyses (and various field parameters such as ORP, Redox, temperature, EC, pH, turbidity).

The frequency of groundwater quality sampling is also subject to further refinement but would likely be comprised of two components: baseline (ongoing) monitoring and targeted recharge event monitoring. The baseline monitoring frequency is proposed to begin on a semi-annual basis for key constituents every three to five years for general mineral analyses. It would include all wells in the proposed monitoring network. The targeted recharge event monitoring frequency (operational monitoring) is proposed to begin on a monthly interval during and after Project recharge operations for the key constituents of nitrate and TDS for two key wells (the proposed new onsite monitoring well and the proposed new monitoring well between the recharge site and Fairmead Community water supply wells). The operational water quality monitoring would occur during months of active recharge at the Project and for an equal number of months after recharge stops (e.g., monthly sampling during a four-month recharge event would extend over a total of eight months).

3.5 Project Monitoring Plan Cost Estimate

3.5.1 Initial Capital Costs

The cost of installing two new monitoring wells to recommended depths of 550 feet is approximately $300,000, which includes transducer installation for automated recording of groundwater levels and one groundwater quality sampling event for establishing baseline conditions for key constituents.

The monitoring well at the site of Fairmead Community Well #2 should be considered for the installation of a transducer and periodic collection of water quality samples. In addition, the Fairmead School well and two or three domestic wells located outside the MD 33 service area should be included in a baseline monitoring program, with the installation of transducers in each of these wells. The estimated cost for the purchase and installation of transducers at up to five existing wells is approximately $8,000.

3.5.2 Baseline and Operational Monitoring Costs

Estimates of baseline monitoring costs assume that it will involve the collection of water level and water quality data from six dedicated monitoring wells at four sites (MSB-10 shallow, MSB-10 intermediate, MSB-10 deep, the two new monitoring wells, and the Fairmead Community Well #2 monitoring well). Up to four additional existing wells could also be included in baseline monitoring from among the Fairmead School well and nearby domestic wells.

Baseline monitoring (initially proposed to occur on a semi-annual basis) is assumed to include manual measurement of water levels, downloading of transducers, and water quality sampling of between five and ten wells. The estimated labor cost for fieldwork related to each sampling event[1] is estimated to be approximately $4,000 to $5,000. The estimated lab costs for each monitoring event will depend on the number of samples and list of constituents to be analyzed but are estimated to range from $2,000 to $5,000. Thus, total costs per monitoring event can be expected to be in the range of $6,000 to $10,000.

Operational monitoring (initially proposed to occur on a monthly basis) is recommended for two wells: the new onsite monitoring well and the new monitoring well located between the recharge site and the Fairmead Community wells. Operational monitoring would initially focus on nitrate and TDS as indicator constituents together with field parameters. The total estimated costs, including both field and laboratory costs, are approximately $5,000 per operational monitoring event.

Table 1. Summary of Approximately Monitoring Program Costs

Item	Cost	Type
Drill/Install New Monitoring Wells (2)	$300,000	Capital; one-time
Equip Existing Wells (5)	$10,000	Capital; one-time
Groundwater Level and Groundwater Quality Baseline Monitoring Event (up to 10 wells)	$6,000 to $10,000	Ongoing; per event
Groundwater Quality Operational Monitoring Event (2 wells)	$5,000	Ongoing; per event

4. ANALYSIS OF PROJECT MONITORING PLAN DATA

The collection of water level and water quality data from the monitoring program will support the evaluation of project benefits and potential impacts. Project benefits will be largely reflected in the response of local groundwater levels and groundwater quality to recharge operations implemented under the proposed project. The project benefits relative to groundwater levels may be manifested as either slowing or partially mitigating the ongoing decline of groundwater levels – especially during GSP Implementation, or the project may potentially result in an increase in groundwater elevation over current

[1] A sampling event would generally be comprised of a field visit to measure water levels, download transducers, and collect water quality samples. Sampling events for water quality are expected to involve use of HydaSleeves and likely require two separate trips to the wells, one to set the HydraSleeve bags and one to pull the HydraSleeve bags to collect water samples.

conditions. The project benefits relative to groundwater quality may be manifested as long-term improvements (decreases) in key constituent concentrations.

The primary potential impact of the proposed project would be the possibility of a short-term increase in key constituent (e.g., nitrate) concentrations as the rate of downward vertical movement of these constituents within the vadose zone is increased by recharge activities. Because the quality of water being recharged is expected to be good, it is anticipated that longer-term water quality impacts will be beneficial following possible initial flushing out of the vadose zone. Without the Project, the downward migration of chemical constituents within the vadose zone would occur more slowly but would eventually reach the regional water table, and this slow downward migration would likely continue for a much longer time than with the Project. The water quality sampling program to be implemented for the Project is intended to provide early indications of such potential short-term water quality impacts while also tracking longer-term changes in water quality that occur relating to the Project.

REFERENCES

Davids Engineering (DE). 2023. Technical Memorandum - Fairmead Groundwater Resilience Project; Task 3.1 – Hydrogeologic and Geospatial Analysis, June 2023.

Sustainable Conservation. 2021. Protecting Groundwater Quality While Replenishing Aquifers – Nitrate Management Considerations for Implementing Recharge on Farmland, June 2021.

LIST OF FIGURES

Figure 1. Regional Location Map.

Figure 2. Expanded Project Area and Parcel Location Map.

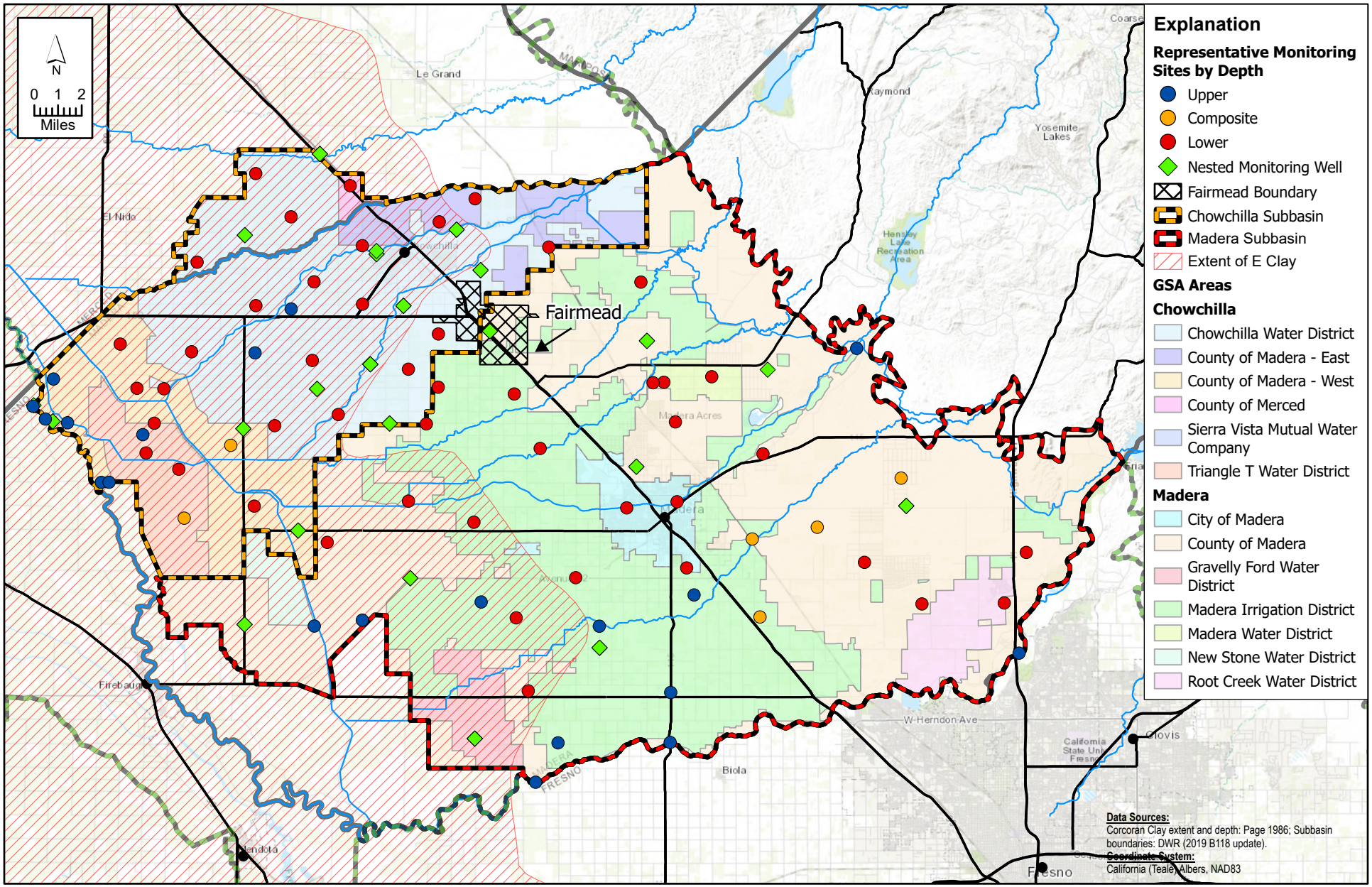
Figure 3. Local Project Area and Parcel Location Map.

Figure 4. Domestic Well and Maintenance District Area Location Map.

LIST OF APPENDICES

Appendix A. Existing Well Information.

FIGURES



X:\2024\24-027 (1) Davids Eng. - Fairmead GW Resilience Project\GIS\Figures\Figures.aprx; Figure 1

DAVIDS ENGINEERING, INC

Luhdorff & Scalmanini Consulting Engineers

FIGURE 1

Regional Location Map

Fairmead Groundwater Resilience Project
Monitoring Program Framework

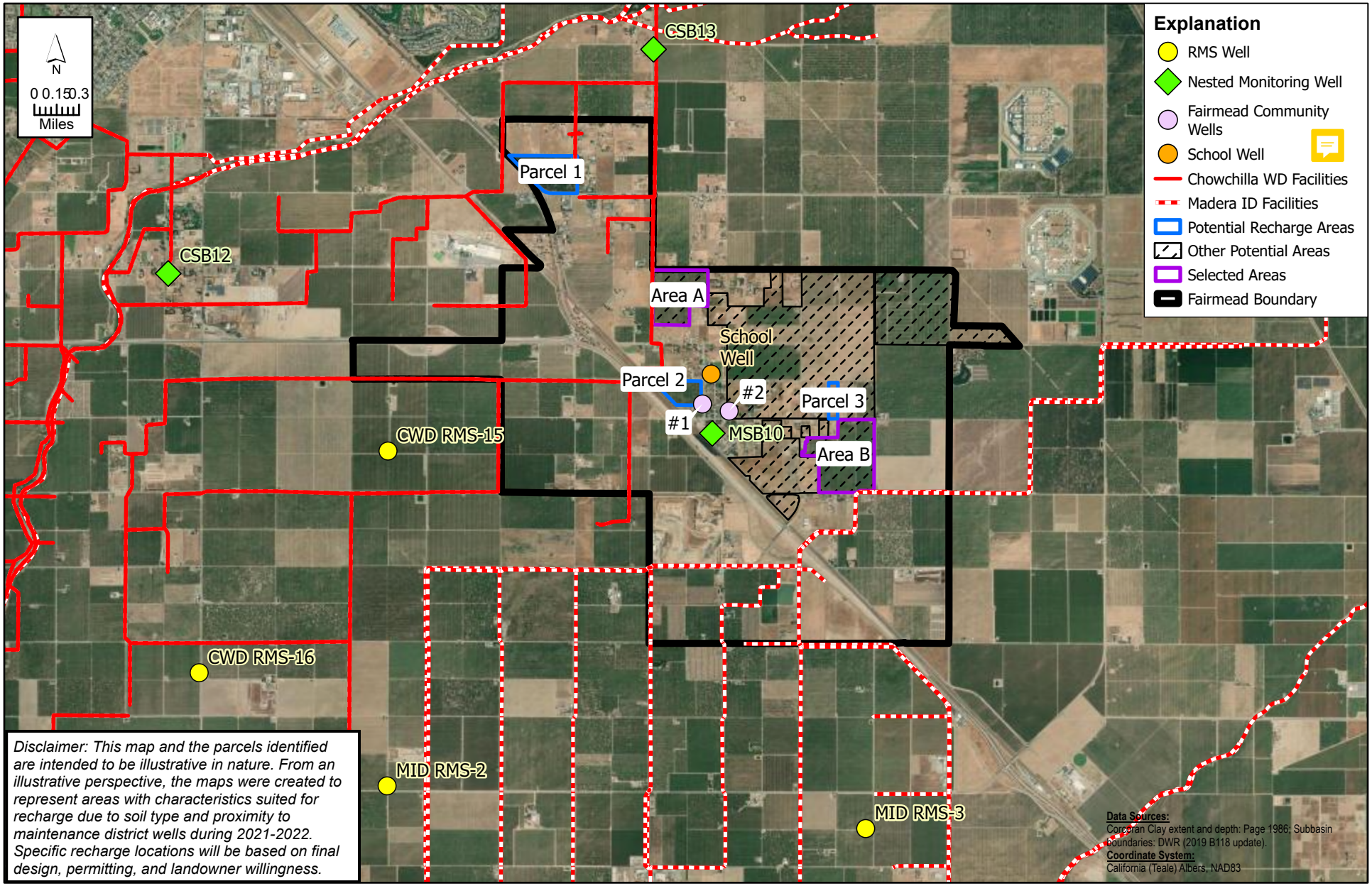


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FIGURE 2

Expanded Project Area and Parcel Location Map

Fairmead Groundwater Resilience Project
Monitoring Program Framework

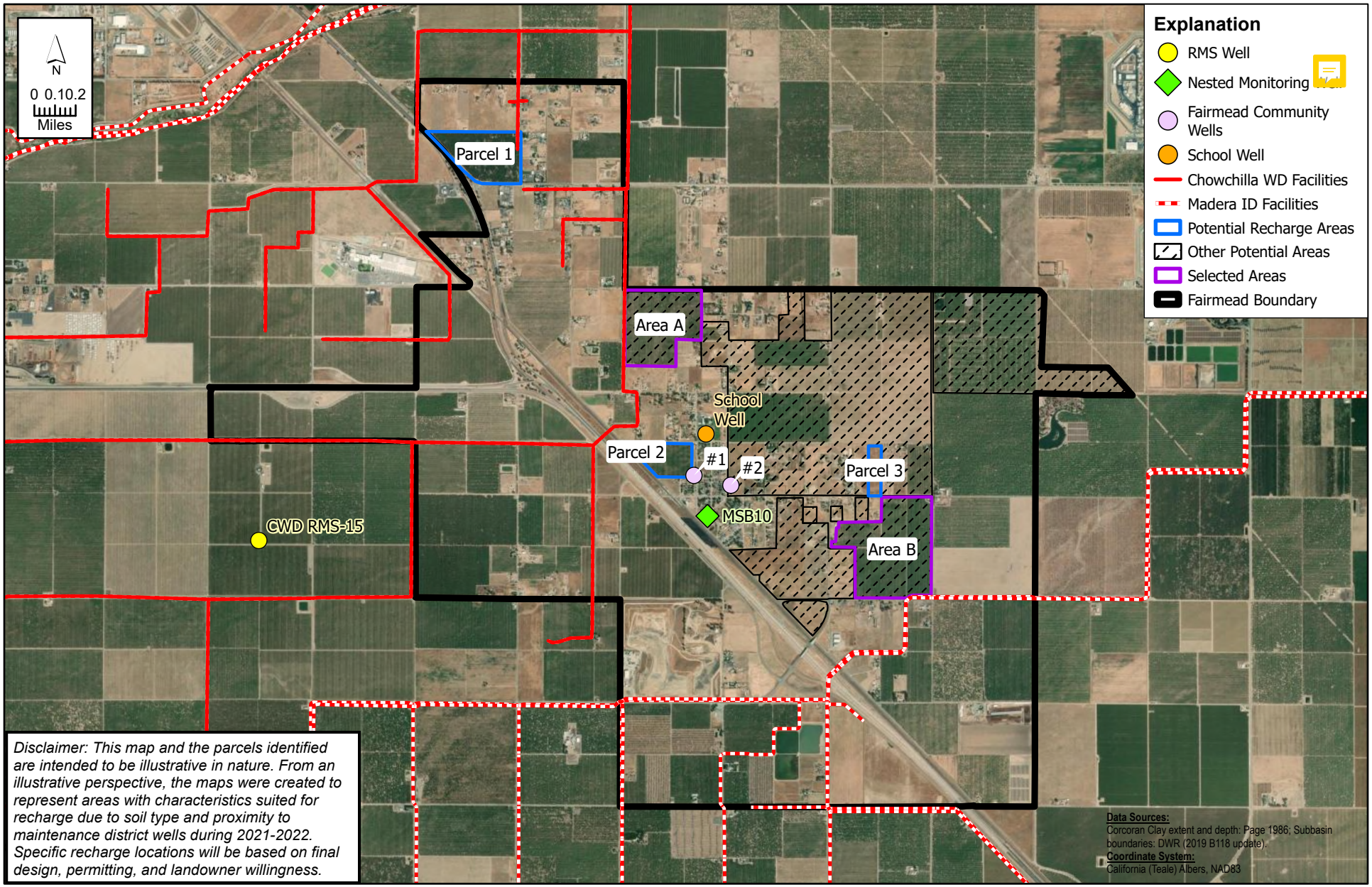

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FIGURE 3

Local Project Area and Parcel Location Map

Fairmead Groundwater Resilience Project
Monitoring Program Framework

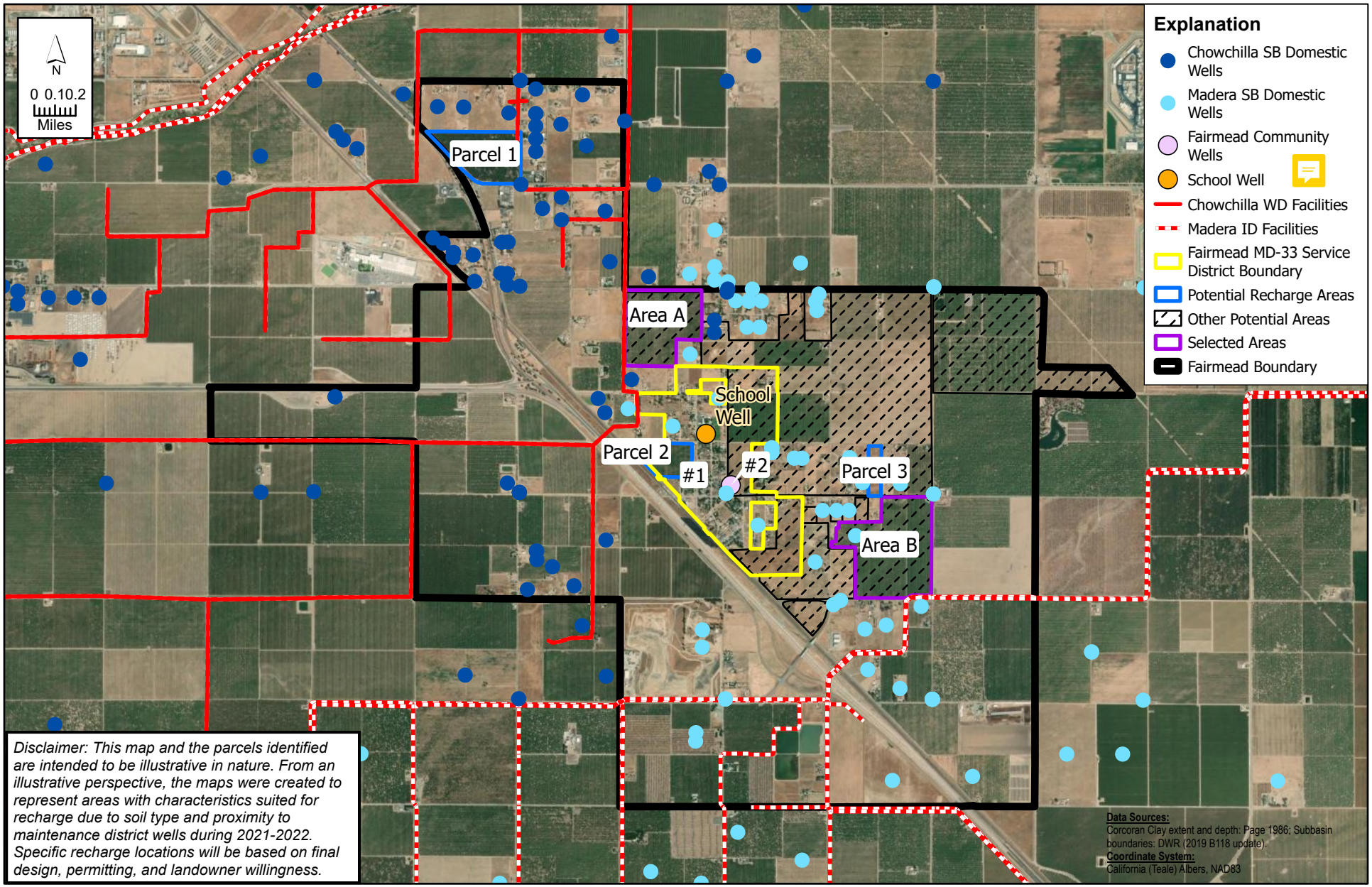

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FIGURE 4

Domestic Well and Maintenance District Area Location Map

Fairmead Groundwater Resilience Project
Monitoring Program Framework

APPENDIX A – EXISTING WELL INFORMATION

The existing dedicated monitoring well in the project area is MSB-10, located about 0.25 miles southeast of Parcel 2 and about 0.25 miles south of the two Fairmead community wells. This monitoring well has three nested wells screened at the following intervals:

- **Shallow Zone:** 190-210, 230-240, and 310-320 feet bgs
- **Intermediate Zone:** 400-420 and 470-500 feet bgs
- **Deep Zone:** 790-810 and 840 to 870 feet bgs

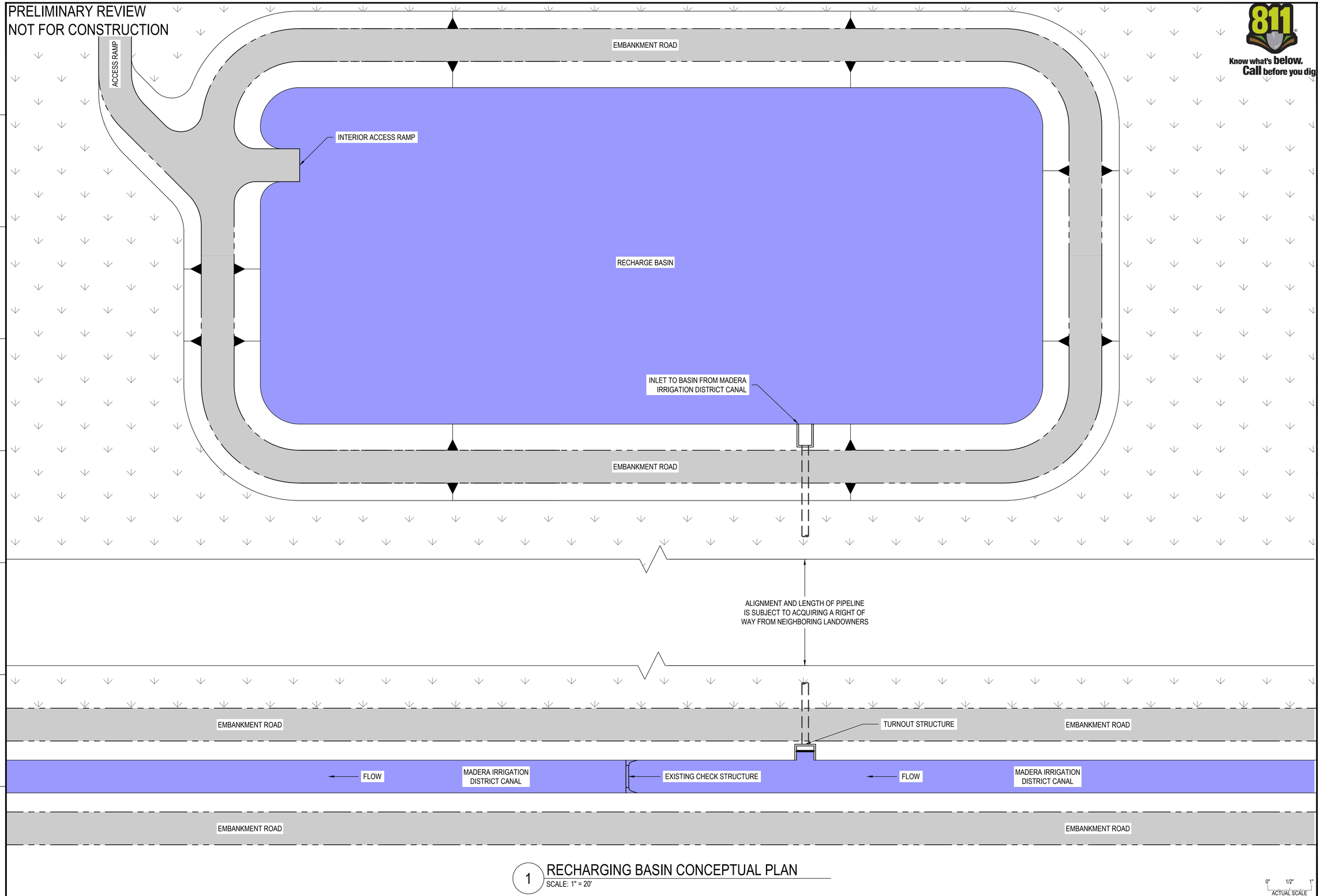
The current depth to water is about 315 feet bgs in the shallow zone, 340 feet bgs in the Intermediate Zone., and 350 feet bgs in the Deep Zone. The nearest RMS wells are at least three miles away from this nested monitoring well.

Community of Fairmead Old Well – Drilled in 1978, Screened 240-504 and 528-552 feet, total well depth = 552 feet, total drilled depth = 560 feet. There is no static water level or estimated yield information on the DWR Well Completion Report.

Community of Fairmead New Well – Drilled in 2021, Screened 432-472 and 506-526 feet, total well depth = 531 feet, total drilled depth = 550 feet. SWL = 325 feet on 4/30/21. Estimated Yield = 450 gpm with 30 feet drawdown.

Community of Fairmead Elementary School Well – Located approximately 2,200 feet north of MSB-10; Drilled in 2015, Screened 340-600 feet, total well depth = 600 feet, total drilled depth = 620 feet. There is no static water level or estimated yield information on the DWR Well Completion Report.

PRELIMINARY REVIEW
NOT FOR CONSTRUCTION



1 RECHARGING BASIN CONCEPTUAL PLAN
SCALE: 1" = 20'

0" 1/2" 1"
ACTUAL SCALE

Know what's below. Call before you dig

O:_NCS\Active Agreements\NCS_Projects\ - Documents\Thunderbird\NCS_Logo\NCS_Square Icon_Logo_Vector.eps

DESCRIPTION	DATE:	BY:	REV:

RECHARGING BASIN CONCEPTUAL PLAN

FAIRMEAD GROUNDWATER RESILIENCE PROJECT
FAIRMEAD
MADERA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

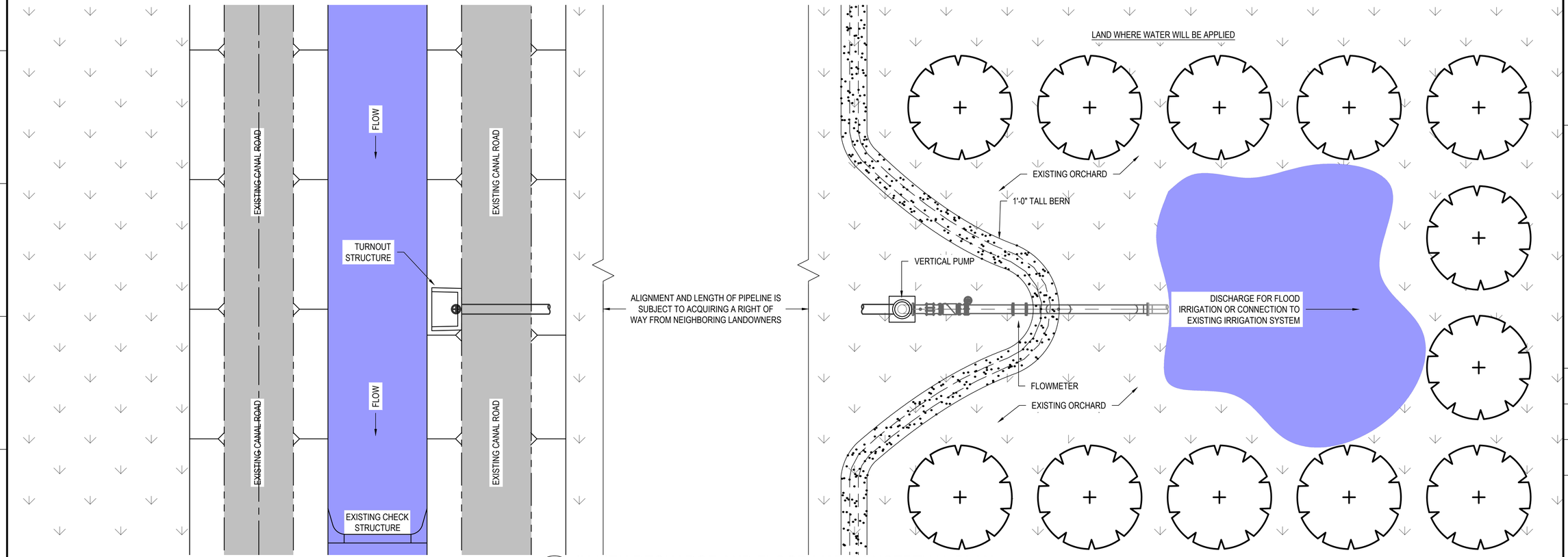
DATE:	9/15/2023
SCALE:	AS NOTED
JOB NUMBER:	1135.11.14
DESIGNED:	CJT
DRAWN:	DRH
CHECKED:	

C 1

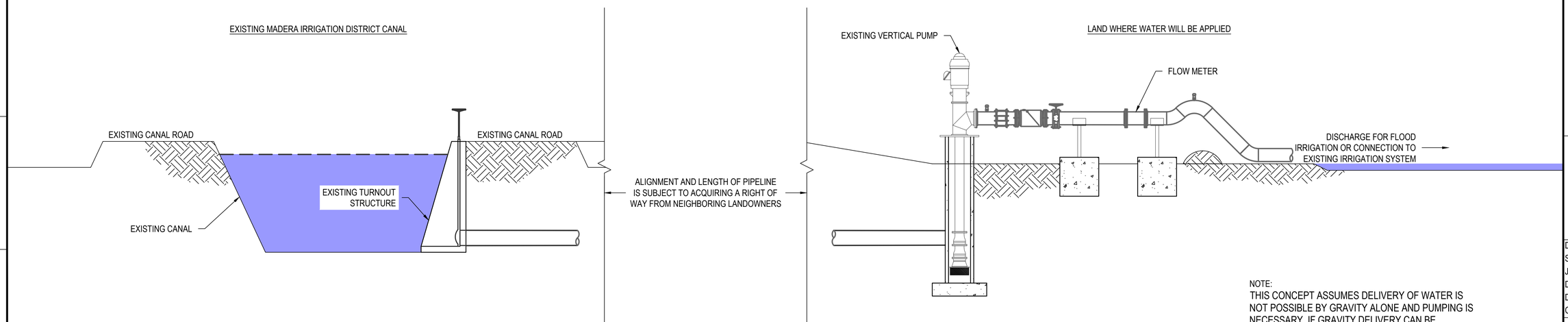
SHEET 1 OF 1

H:_CLIENT_PROJECT\1165_MADERA_COUNTY\1165.11_MADERA_GW_RECHARGE_AUTOCAD\FAIRMEAD\D1_CAD_BASESHEETS\REGULATING RESERVOIR LINEWORK.DWG 9/28/2023 11:06 AM

PRELIMINARY REVIEW
NOT FOR CONSTRUCTION



1 IN-LIEU RECHARGE AND FLOOD MAR CONCEPTUAL PLAN
SCALE: 1" = 6'



2 IN-LIEU RECHARGE AND FLOOD MAR CONCEPTUAL PROFILE
SCALE: 1" = 4'

NOTE:
THIS CONCEPT ASSUMES DELIVERY OF WATER IS NOT POSSIBLE BY GRAVITY ALONE AND PUMPING IS NECESSARY. IF GRAVITY DELIVERY CAN BE ACCOMPLISHED, THE PUMP SYSTEM WOULD BE OMITTED BUT FLOW MEASUREMENT WOULD REMAIN.

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Water Infrastructure Technology

REV:	BY:	DATE:	DESCRIPTION

IN-LIEU RECHARGE AND FLOOD MAR CONCEPTUAL PLAN

FAIRMEAD GROUNDWATER RESILIENCE PROJECT
FAIRMEAD
MADERA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

DATE:	9/14/2023
SCALE:	AS NOTED
JOB NUMBER:	1165.11.14
DESIGNED:	CJT
DRAWN:	DRH
CHECKED:	

C 1

SHEET 1 OF 1

H:_CLIENT_PROJECT\1165_MADERA_COUNTY\1165.11_MADERA_GW_RECHARGE_AUTOCAD\FAIRMEAD\01_CAD_BASESHEETS\IN-LIEU TITLE LINEWORK.DWG 9/28/2023 11:14 AM

PRELIMINARY REVIEW
NOT FOR CONSTRUCTION

NOTE:
ALL LANDSCAPING TO BE MADE UP OF DROUGHT TOLERANT NATIVE VEGETATION

HORSE SHOES OR OTHER RECREATIONAL EQUIPMENT TBD

BBQ AREA

BATHROOM

COVERED GATHERING AREA WITH BENCHES

PARKING LOT

NO PARKING

PLAYGROUND

WATER SUPPLY LINE

INLET STRUCTURE

INLET DRAINS TO UNDERLINE SUBSURFACE INFILTRATION SYSTEM

GAZEBO

ROADWAY

ROADWAY

1 MULTI USE RECHARGE BASIN CONCEPTUAL PLAN
SCALE: 1" = 20'

0" 1/2" 1"
ACTUAL SCALE

ROADWAY

DAVIDS ENGINEERING, INC
Technology
Infrastructure
Water

REV:	BY:	DATE:	DESCRIPTION

MULTI USE RECHARGE BASIN CONCEPTUAL PLAN

FAIRMEAD GROUNDWATER RESILIENCE PROJECT
FAIRMEAD
MADERA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

DATE:	9/12/2023
SCALE:	AS NOTED
JOB NUMBER:	1165.11.14
DESIGNED:	CJT
DRAWN:	DRH
CHECKED:	

C 1

SHEET 1 OF 1

H:_CLIENT_PROJECT\1165_MADERA_COUNTY\1165.11_MADERA_GW_RECHARGE_AUTOCAD\FAIRMEAD\01_CAD_BASESHEETS\MULTI USE BASIN LINEWORK\R01.DWG 9/28/2023 10:55 AM

DAVIDS ENGINEERING, INC

PRELIMINARY

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

Fairmead In-Lieu Recharge & Flood MAR

Date: 10/5/2023

Item no.	Item Description	QTY	Unit	Unit Cost	Extended Cost
1	**Turnout and Conveyance System**				
	Diversion Facilities/Pump Station				
	Clear and Grub	1	AC	$ 7,200	$ 7,200
	Structural Excavation	150	CY	$ 30	$ 4,500
	F&I 24" PVC PIPE (PIP SDR 41)	1,250	LF	$ 120	$ 150,000
	Shoring, Sheeting, and Bracing	1	LS	$ 2,500	$ 2,500
	Standard MID Turnout - New	1	EA	$ 30,000	$ 30,000
	F&I 24" Starter Coupling	1	EA	$ 1,800	$ 1,800
	F&I Air Vents/Vacuum Relief	5	EA	$ 1,000	$ 5,000
	F&I Thrust Blocks	8	EA	$ 600	$ 4,800
2	**Vertical Pump**				
	Structural Excavation	20	CY	$ 30	$ 600
	F&I 24" Magnetic Flow Meter	1	EA	$ 20,000	$ 20,000
	Structural Concrete Foundations	3	CY	$ 700	$ 2,100
	Pump Sump Pit Concrete Walls	5	CY	$ 3,000	$ 15,000
	Shoring, Sheeting, and Bracing	1	LS	$ 2,500	$ 2,500
	F&I Vertical Pump 30 HP	1	LS	$ 60,000	$ 60,000
	Perimeter Berm	4,000	LF	$ 1	$ 4,000
	Total Construction Field Cost =				**$ 310,000**
	Indirect Construction Costs				
	Mobilization/Demobilization			5%	$ 15,500
	Bonding and Insurance			3%	$ 9,300
	Design Contingency/Minor Item Allowance			5%	$ 15,500
	Contractor Profit/Markup			6%	$ 18,600
	Worker and Public Protection/Traffic Control			2%	$ 6,200
	Miscellaneous Facilities and Operations			3%	$ 9,300
	Bidding and Contracting			5%	$ 15,500
	Construction Contingencies				
	Construction Contingency			10%	$ 31,000
	Subtotal (Indirect Construction Costs/Construction Contingencies) =				**$ 120,900**
	Construction Management & Support				
	Field Inspection and Reporting			4%	$ 4,836
	Material Testing			3%	$ 3,627
	Engineering and Technical Support			5%	$ 6,045
	Labor Compliance Support			2%	$ 2,418
	Engineering, Environmental, Technical Costs, etc.				
	Geotechnical			4%	$ 4,836
	Surveying			4%	$ 4,836
	Environmental Permitting			20%	$ 24,180
	Design			20%	$ 24,180
	Technical Specifications			2%	$ 2,418
	Subtotal (Engineering, Environmental, Technical Costs, etc./Construction Management & Support) =				**$ 77,376**
	Project Cost =				**$ 508,276**

	Assumptions
1	A 30 HP Pump will be required
2	Alignment length of pipeline will be 1250'-0" & delivery to site can be accomplished by gravity
3	Parcel is relatively clear of debris, no structures or orchards
4	Agency permit fees are not included
5	The orchard in approximately 20 acres in size
6	Supply canal is earthen, not lined with concrete or other liner
7	Pump sump pit assumed to be 12'-0" deep

DISCLAIMER Davids Engineering has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect this estimate of probable project cost. All these factors are unavoidably dynamic due to Acts of God and other market events beyond the control of DE. This estimate is a "snapshot in time" and the reliability of the estimate will degrade over time. DE cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, construction costs, or costs of O&M functions will not vary from this estimate.

PRELIMINARY

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

Fairmead Multi-Use Recharge Basin Project

Date: 10/5/2023

Item no.	Item Description	QTY	Unit	Unit Cost	Extended Cost
	Fairmead Multi-Use Recharge Basin				
1	Clear and Grub	5	AC	$ 7,200	$ 36,000
2	Compact Fill Areas	87,120	SF	$ 0.15	$ 13,068
3	Earthwork - Cut to Fill	25,000	CY	$ 5.25	$ 131,250
4	Off Haul Excess Soil	15,000	CY	$ 16	$ 240,000
5	Concrete Flatwork	22,000	SF	$ 8	$ 176,000
6	Curb & Gutters	1,250	LF	$ 46	$ 57,500
7	Vertical Curb in Parking Lot	350	LF	$ 41	$ 14,350
8	Gravel Walking Path	12,800	SF	$ 2	$ 25,600
9	Asphalt Paving - Parking lot	8,000	SF	$ 6	$ 48,000
10	Asphalt Paving - Frontage Roads	13,750	SF	$ 8	$ 110,000
11	Parking Lot Driveway	85	SF	$ 10	$ 850
12	Parking Lot Striping & Signage	1	LS	$ 5,000	$ 5,000
13	ADA Accessible Ramps	3	EA	$ 1,500	$ 4,500
14	Restroom Building	375	SF	$ 200	$ 75,000
15	F&I Covered Area w/ Benches	2,025	SF	$ 70	$ 141,750
16	Gazebo	550	SF	$ 100	$ 55,000
17	F&I BBQ Area w/ Benches	1	LS	$ 7,500	$ 7,500
18	F&I Horse shoe or Other Recreational Equipment TBD	1	LS	$ 10,000	$ 10,000
19	F&I Playground Prep and Equipment	1	LS	$ 50,000	$ 50,000
20	F&I Inlet Drains	2	EA	$ 5,000	$ 10,000
21	F&I French Drainage System	1,100	LF	$ 300	$ 330,000
22	F&I 24" PVC PIPE (PIP SDR 41)	1,250	LF	$ 120	$ 150,000
23	F&I Headwall for 24" Pipe w/ Trash Rack	1	LS	$ 7,500	$ 7,500
24	F&I Erosion Protection at Headwall	250	SF	$ 4	$ 1,000
	Total Construction Field Cost =				**$ 1,699,868**
	Indirect Construction Costs				
	Mobilization/Demobilization			3%	$ 50,996
	Bonding and Insurance			3%	$ 50,996
	Design Contingency/Minor Item Allowance			5%	$ 84,993
	Contractor Profit/Markup			6%	$ 101,992
	Worker and Public Protection/Traffic Control			2%	$ 33,997
	Miscellaneous Facilities and Operations			3%	$ 50,996
	Bidding and Contracting			5%	$ 84,993
	Construction Contingencies				
	Construction Contingency			10%	$ 169,987
	Subtotal (Indirect Construction Costs/Construction Contingencies) =				**$ 628,951**
	Construction Management & Support				
	Field Inspection and Reporting			4%	$ 25,158
	Material Testing			3%	$ 18,869
	Engineering and Technical Support			5%	$ 31,448
	Labor Compliance Support			2%	$ 12,579
	Engineering, Environmental, Technical Costs, etc.				
	Geotechnical			2%	$ 9,434
	Surveying			2%	$ 9,434
	Environmental Permitting			15%	$ 94,343
	Design			10%	$ 62,895
	Technical Specifications			2%	$ 12,579
	Subtotal (Engineering, Environmental, Technical Costs, etc./Construction Management & Support) =				**$ 276,739**
	Project Cost =				**$ 2,605,558**

	Assumptions
1	Parcel size will be 5 acres
2	Basin to be located within 1250 LF of water source
3	Asphalt Paving - Parking lot is 3"AC/6"AB
4	Asphalt Paving - Frontage Roads is 4"AC/8"AB
5	1 ADA parking space will be required
6	Parcel is relatively clear of debris, no structures or orchards
7	Agency permit fees are not included
8	Bid Item "ADA Accessible Ramps" accounts for additional labor & truncated domes associated w/ construction of ADA ramps. Concrete material and placement is included in Bid Item "Concrete Flatwork" for all ramps being installed
9	Concrete flatwork is assumed to consist of 4" unreinforced concrete over native soil
10	French drainage system is assumed to be 30" HDPE w/ crushed rock backfill. Assume 5 interconnected rows @ 220'-0" each

DISCLAIMER Davids Engineering has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect this estimate of probable project cost. All these factors are unavoidably dynamic due to Acts of God and other market events beyond the control of DE. This estimate is a "snapshot in time" and the reliability of the estimate will degrade over time. DE cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, construction costs, or costs of O&M functions will not vary from this estimate.

DAVIDS ENGINEERING, INC

PRELIMINARY

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

Fairmead Recharging Basin

Date: 10/5/2023

Item no.	Item Description	QTY	Unit	Unit Cost	Extended Cost
1	**Turnout and Conveyance System**				
	Diversion Facilities/Pump Station				
	Clear and Grub	1	AC	$ 7,200	$ 7,200
	Structural Excavation	150	CY	$ 30	$ 4,500
	F&I 24" PVC PIPE (PIP SDR 41)	1,250	LF	$ 120	$ 150,000
	Shoring, Sheeting, and Bracing	1	LS	$ 2,500	$ 2,500
	Standard MID Turnout - New	1	EA	$ 30,000	$ 30,000
	F&I 24" Starter Coupling	1	EA	$ 1,800	$ 1,800
	F&I 24" Magnetic Flow Meter	1	EA	$ 20,000	$ 20,000
	F&I Air Vents/Vacuum Relief	5	EA	$ 1,000	$ 5,000
	F&I Thrust Blocks	8	EA	$ 600	$ 4,800
2	**Recharge Basin (2.5 Acres)**				
	Clear and Grub	2.5	ac	$ 7,200	$ 18,000
	Compact Fill Areas	29,040	SF	$ 0.15	$ 4,356
	Earthwork Cut to Fill	23,000	CY	$ 5.25	$ 120,750
	Basin Discharge Structure	1	EA	$ 10,000	$ 10,000
	F&I Fencing	1,325	LF	$ 22	$ 29,150
	F&I Access/Fence Gate	1	LS	$ 3,000	$ 3,000
	F&I Erosion Protection at Headwall	250	SF	$ 4	$ 1,000
	Embankment Road Surface - 4" Class II AB	18,600	SF	$ 3	$ 55,800
	Total Construction Field Cost =				**$ 467,856**
	Indirect Construction Costs				
	Mobilization/Demobilization			5%	$ 23,393
	Bonding and Insurance			3%	$ 14,036
	Design Contingency/Minor Item Allowance			5%	$ 23,393
	Contractor Profit/Markup			6%	$ 28,071
	Worker and Public Protection/Traffic Control			2%	$ 9,357
	Miscellaneous Facilities and Operations			3%	$ 14,036
	Bidding and Contracting			5%	$ 23,393
	Construction Contingencies				
	Construction Contingency			10%	$ 46,786
	Subtotal (Indirect Construction Costs/Construction Contingencies) =				**$ 182,464**
	Construction Management & Support				
	Field Inspection and Reporting			4%	$ 7,299
	Material Testing			3%	$ 5,474
	Engineering and Technical Support			5%	$ 9,123
	Labor Compliance Support			2%	$ 3,649
	Engineering, Environmental, Technical Costs, etc.				
	Geotechnical			2%	$ 2,737
	Surveying			2%	$ 2,737
	Environmental Permitting			15%	$ 27,370
	Design			10%	$ 18,246
	Technical Specifications			2%	$ 3,649
	Subtotal (Engineering, Environmental, Technical Costs, etc./Construction Management & Support) =				**$ 80,284**
	Project Cost =				**$ 730,604**

	Assumptions
1	Basin size Assumed to be 2.5 acres
2	Basin to be located within 1250 LF of water source
3	Parcel is relatively clear of debris, no structures or orchards
4	Basin can be supplied via 24" gravity pipeline
5	Agency permit fees are not included
6	Supply canal is earthen, not lined with concrete or other liner
7	The proposed recharge basin is assumed to be 8 feet in depth & with 3:1 internal slopes & 2:1 outside slopes

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PRELIMINARY REVIEW
NOT FOR CONSTRUCTION

NOTE:
ALL LANDSCAPING TO BE MADE UP OF DROUGHT TOLERANT NATIVE VEGETATION

HORSE SHOES OR OTHER RECREATIONAL EQUIPMENT TBD

BBQ AREA

BATHROOM

COVERED GATHERING AREA WITH BENCHES

PARKING LOT

PLAYGROUND

WATER SUPPLY LINE

INLET STRUCTURE

INLET DRAINS TO UNDERLINE SUBSURFACE INFILTRATION SYSTEM

GAZEBO

ROADWAY

ROADWAY

ROADWAY

1 MULTI USE RECHARGE BASIN CONCEPTUAL PLAN
SCALE: 1" = 20'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology
Infrastructure
Water

REV:	BY:	DATE:	DESCRIPTION

MULTI USE RECHARGE BASIN CONCEPTUAL PLAN

FAIRMEAD GROUNDWATER RESILIENCE PROJECT
FAIRMEAD
MADERA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

DATE:	9/12/2023
SCALE:	AS NOTED
JOB NUMBER:	1165.11.14
DESIGNED:	CJT
DRAWN:	DRH
CHECKED:	

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SHEET 1 OF 1

H:_CLIENT_PROJECT\1165_MADERA_COUNTY\1165.11_MADERA_GW_RECHARGE_AUTOCAD\FAIRMEAD\01_CAD_BASESHEETS\MULTI USE BASIN LINEWORKR01.DWG 10/16/2023 2:05 PM

DAVIDS ENGINEERING, INC

PRELIMINARY

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

Fairmead Multi-Use Recharge Basin Project

Date: 10/17/2023

Estimate Year:	2023
Project Life (years):	100
Discount Rate:	3.5%

Item no.	Item Description	QTY	Unit	Unit Cost	Extended Cost	Percent of Total Construction Field Cost	%OM	Useful Life	OM&R Annual Cost
	Fairmead Multi-Use Recharge Basin								
1	Clear and Grub	5	AC	$ 7,200	$ 36,000	1.4%	0.0%	100	$ -
2	Compact Fill Areas	87,120	SF	$ 0.15	$ 13,068	0.5%	1.0%	100	$ 131
3	Earthwork - Cut to Fill	25,000	CY	$ 5.25	$ 131,250	5.3%	1.0%	100	$ 1,313
4	Off Haul Excess Soil	15,000	CY	$ 16	$ 240,000	9.7%	0.0%	100	$ -
5	Concrete Flatwork	22,000	SF	$ 8	$ 176,000	7.1%	1.0%	50	$ 2,900
6	Curb & Gutters	1,250	LF	$ 46	$ 57,500	2.3%	1.0%	50	$ 947
7	Vertical Curb in Parking Lot	350	LF	$ 41	$ 14,350	0.6%	1.0%	50	$ 236
8	Gravel Walking Path	12,800	SF	$ 2	$ 25,600	1.0%	3.0%	25	$ 1,160
9	Asphalt Paving - Parking lot	8,000	SF	$ 6	$ 48,000	1.9%	2.0%	25	$ 1,694
10	Asphalt Paving - Frontage Roads	13,750	SF	$ 8	$ 110,000	4.4%	2.0%	25	$ 3,883
11	Parking Lot Driveway	85	SF	$ 10	$ 850	0.0%	1.0%	25	$ 22
12	Parking Lot Striping & Signage	1	LS	$ 5,000	$ 5,000	0.2%	2.0%	25	$ 177
13	ADA Accessible Ramps	3	EA	$ 1,500	$ 4,500	0.2%	1.0%	25	$ 114
14	Restroom Building	375	SF	$ 200	$ 75,000	3.0%	2.5%	50	$ 2,361
15	F&I Covered Area w/ Benches	2,025	SF	$ 70	$ 141,750	5.7%	2.0%	50	$ 3,753
16	Gazebo	550	SF	$ 100	$ 55,000	2.2%	2.0%	50	$ 1,456
17	F&I BBQ Area w/ Benches	1	LS	$ 7,500	$ 7,500	0.3%	2.5%	25	$ 302
18	F&I Horse shoe or Other Recreational Equipment TBD	1	LS	$ 10,000	$ 10,000	0.4%	1.0%	25	$ 253
19	F&I Playground Area w/ Equipment	1	LS	$ 50,000	$ 50,000	2.0%	2.0%	25	$ 1,765
20	F&I Inlet Drains	2	EA	$ 5,000	$ 10,000	0.4%	1.5%	50	$ 215
21	F&I French Drainage System	1,100	LF	$ 300	$ 330,000	13.3%	1.0%	50	$ 5,437
22	F&I 24" PVC PIPE (PIP SDR 41)	1,250	LF	$ 120	$ 150,000	6.0%	1.0%	100	$ 1,500
23	F&I Headwall for 24" Pipe w/ Trash Rack	1	LS	$ 7,500	$ 7,500	0.3%	1.0%	50	$ 124
24	F&I Erosion Protection at Headwall & Basin Bottom	10,000	SF	$ 4	$ 40,000	1.6%	1.5%	50	$ 859
25	F&I Landscaping & Irrigation	5	AC	$ 15,000	$ 75,000	3.0%	1.0%	25	$ 1,898
		Total Construction Field Cost =			**$ 1,813,868**				**$ 32,497**

Estimate Prepared by
Davids Engineering, Inc.

10/17/2023

	Indirect Construction Costs			
	Mobilization/Demobilization	3%	$	54,416
	Bonding and Insurance	3%	$	54,416
	Design Contingency/Minor Item Allowance	5%	$	90,693
	Contractor Profit/Markup	6%	$	108,832
	Worker and Public Protection/Traffic Control	2%	$	36,277
	Miscellaneous Facilities and Operations	3%	$	54,416
	Bidding and Contracting	5%	$	90,693
	Construction Contingencies			
	Construction Contingency	10%	$	181,387
	Subtotal (Indirect Construction Costs/Construction Contingencies) =		**$**	**671,131**
	Construction Management & Support			
	Field Inspection and Reporting	4%	$	26,845
	Material Testing	3%	$	20,134
	Engineering and Technical Support	5%	$	33,557
	Labor Compliance Support	2%	$	13,423
	Engineering, Environmental, Technical Costs, etc.			
	Geotechnical	2%	$	10,067
	Surveying	2%	$	10,067
	Environmental Permitting	15%	$	100,670
	Design	10%	$	67,113
	Technical Specifications	2%	$	13,423
	Subtotal (Engineering, Environmental, Technical Costs, etc./Construction Management & Support) =		**$**	**295,298**
	Project Cost =		**$**	**2,780,297**

	Assumptions
1	Parcel size will be 5 acres
2	Basin to be located within 1250 LF of water source
3	Asphalt Paving - Parking lot is 3"AC/6"AB
4	Asphalt Paving - Frontage Roads is 4"AC/8"AB
5	1 ADA parking space will be required
6	Parcel is relatively clear of debris, no structures or orchards
7	Agency permit fees are not included
8	Bid Item "ADA Accessible Ramps" accounts for additional labor & truncated domes associated w/ construction of ADA ramps. Concrete material and placement is included in Bid Item "Concrete Flatwork" for all ramps being installed
9	Concrete flatwork is assumed to consist of 4" unreinforced concrete over native soil
10	French drainage system is assumed to be 30" HDPE w/ crushed rock backfill. Assume 5 interconnected rows @ 220'-0" each

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DAVIDS ENGINEERING, INC

PRELIMINARY

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

Fairmead Recharging Basin

Date: 10/17/2023

Estimate Year:	2023
Project Life (years):	100
Discount Rate:	3.5%

Item no.	Item Description	QTY	Unit	Unit Cost	Extended Cost	Percent of Total Construction Cost	%OM	Useful Life	OM&R Annual Cost
1	**Turnout and Conveyance System**								
	Diversion Facilities/Pump Station								
	Clear and Grub	1	AC	$ 7,200	$ 7,200	1%	0.0%	25	$ 110
	Structural Excavation	150	CY	$ 30	$ 4,500	1%	1.0%	100	$ 45
	F&I 24" PVC PIPE (PIP SDR 41)	1,250	LF	$ 120	$ 150,000	23%	1.0%	100	$ 1,500
	Shoring, Sheeting, and Bracing	1	LS	$ 2,500	$ 2,500	0%	0.0%	100	$ -
	Standard MID Turnout - New	1	EA	$ 30,000	$ 30,000	5%	1.0%	50	$ 494
	F&I 24" Starter Coupling	1	EA	$ 1,800	$ 1,800	0%	1.0%	50	$ 30
	F&I 24" Magnetic Flow Meter	1	EA	$ 20,000	$ 20,000	3%	2.5%	25	$ 806
	F&I Air Vents/Vacuum Relief	5	EA	$ 1,000	$ 5,000	1%	1.5%	100	$ 75
	F&I Thrust Blocks	8	EA	$ 600	$ 4,800	1%	1.0%	100	$ 48
2	**Recharge Basin (2.5 Acres)**								
	Clear and Grub	2.5	ac	$ 7,200	$ 18,000	3%	0.0%	100	$ -
	Compact Fill Areas	29,040	SF	$ 0.15	$ 4,356	1%	1.0%	100	$ 44
	Earthwork Cut to Fill	23,000	CY	$ 5.25	$ 120,750	19%	1.0%	100	$ 1,208
	Basin Discharge Structure	1	EA	$ 10,000	$ 10,000	2%	1.0%	100	$ 100
	F&I Fencing	1,325	LF	$ 22	$ 29,150	4%	2.0%	25	$ 1,029
	F&I Access/Fence Gate	1	LS	$ 3,000	$ 3,000	0%	2.0%	25	$ 106
	F&I Erosion Protection at Headwall	250	SF	$ 4	$ 1,000	0%	2.0%	100	$ 20
	Embankment Road Surface - 4" Class II AB	18,600	SF	$ 3	$ 55,800	9%	2.0%	50	$ 1,477
		Total Construction Field Cost =			**$ 467,856**				**$ 7,091**

Estimate Prepared by
Davids Engineering, Inc.

10/17/2023

	Indirect Construction Costs			
	Mobilization/Demobilization	5%	$	23,393
	Bonding and Insurance	3%	$	14,036
	Design Contingency/Minor Item Allowance	5%	$	23,393
	Contractor Profit/Markup	6%	$	28,071
	Worker and Public Protection/Traffic Control	2%	$	9,357
	Miscellaneous Facilities and Operations	3%	$	14,036
	Bidding and Contracting	5%	$	23,393
	Construction Contingencies			
	Construction Contingency	10%	$	46,786
	Subtotal (Indirect Construction Costs/Construction Contingencies) =		**$**	**182,464**
	Construction Management & Support			
	Field Inspection and Reporting	4%	$	7,299
	Material Testing	3%	$	5,474
	Engineering and Technical Support	5%	$	9,123
	Labor Compliance Support	2%	$	3,649
	Engineering, Environmental, Technical Costs, etc.			
	Geotechnical	2%	$	2,737
	Surveying	2%	$	2,737
	Environmental Permitting	15%	$	27,370
	Design	10%	$	18,246
	Technical Specifications	2%	$	3,649
	Subtotal (Engineering, Environmental, Technical Costs, etc./Construction Management & Support) =		**$**	**80,284**
	Project Cost =		**$**	**730,604**

	Assumptions
1	Basin size Assumed to be 2.5 acres
2	Basin to be located within 1250 LF of water source
3	Parcel is relatively clear of debris, no structures or orchards
4	Basin can be supplied via 24" gravity pipeline
5	Agency permit fees are not included
6	Supply canal is earthen, not lined with concrete or other liner
7	The proposed recharge basin is assumed to be 8 feet in depth & with 3:1 internal slopes & 2:1 outside slopes

DISCLAIMER Davids Engineering has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect this estimate of probable project cost. All these factors are unavoidably dynamic due to Acts of God and other market events beyond the control of DE. This estimate is a "snapshot in time" and the reliability of the estimate will degrade over time. DE cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, construction costs, or costs of O&M functions will not vary from this estimate.

Task 5 Deliverables

- List of funding programs relevant to implementing phase 2.
- Funder Engagement Documentation.
- Case Study Documentation.
- Story map. (https://storymaps.arcgis.com/collections/fd45341248c146749a468280d89e917d?item=1)
- Battery Powered Grant Proposal. (https://www.thebatterysf.com/batterypowered/givingproject/sustainable-conservation-fairmead-groundwater-resiliency-project)
- Site visit with California Water Action Collaborative (CWAC) representatives.

Potential Funding Sources & Supportive Contacts

Phase 2 Fairmead Implementation

Background:

During the Fall 2022 Sustainable Conservation (SC) Board of Directors tour of Madera County project, several of the attendees (SC Board Members and others) discussed funding opportunities that could potentially be used to fund Fairmead water security projects.

Below is a list of some of these potential opportunities and the individuals who could play strategic roles in soliciting funds.

Please add to or edit the information below with additional programs that could be used to help with implementation.

Potential funders:

State Water Resources Control Board (SWRCB):

- DeeDee D' Adamo & Sean Maguire were in attendance:
  - DeeDee mentioned there might a possibility of funding through the:
    - § SAFER program for feasibility studies needed for the possibility of consolidation with the City of Chowchilla.

USDA Rural Development (RD):

- No staff members were in attendance at this Fairmead visit but this agency could potentially be a funder.
- Maria Herrera is the RD State Director and is very supportive of community projects.
  - Community Facilities Program
  - Water & Environmental Programs, etc.

Department of Water Resources (DWR):

- Land Flex grant: Guidelines still under development but $25M in funds for land fallowing incentives, etc.
  - Kamyar Guivetchi was in attendance and could play a strategic role

SGMA Implementation Grants:

- MID or the County would have to be the lead grantee.

IRWM Phase II Implementation Grant:

- Madera RWMG project list

CA Water Action Collaborative (CWAC) and other potential corporate funders:

Madera County GSA Programs

- SGC SALC program
- DWR LandFlex program

<u>Support organizations and contacts:</u>

Self Help Enterprise (SHE):

- Eddie Ocampo: In attendance at Nov. Site Visit.
- SHE has many years (decades?) of supporting Fairmead and would provide ongoing support.

North San Joaquin Valley Water Tour Stop at Residential Home in Fairmead. Source: Self-Help Enterprises

Fairmead Groundwater Resilience Project Team Presents at Northern Valley Water Tour

As members of the Fairmead Groundwater Resilience project team, CivicWell and Leadership Counsel for Justice and Accountability shared project updates with stakeholders during Self-Help Enterprises' Northern San Joaquin Valley Water Tour. The water tour showcased Northern San Joaquin Valley communities that are working to buffer against climate change impacts and improve access to safe drinking water.

Community members and partners learned about the process of designing and developing a community-driven plan for groundwater resilience projects that may involve groundwater recharge and/or land repurposing.

CIVICWELL

Transforming Local Vision into Action

Formerly Local Government Commission (LGC)

Fairmead Groundwater Resilience Project

Proyecto de resiliencia de aguas subterráneas de Fairmead

Angela Islas, Water Project Manager | Gerente de Proyectos de Agua
CivicWell (formerly | anteriormente Local Government Commission)

MADERA COUNTY

LEADERSHIP COUNSEL FOR JUSTICE & ACCOUNTABILITY

Sustainable Conservation

civicwell.org

Project Overview

The project is geared towards designing, and developing a plan for implementing a groundwater resilience project the involves groundwater recharge and/or land repurposing efforts in the severely disadvantaged community of Fairmead, CA, to buffer this area from the water security impacts of climate-induced drought.

This was funded through the California Resilience Challenge Foundation and will be a 2-year long project to support the community of Fairmead implementing a plan that will improve local and regional resilience against drought and climate change.

Descripción del proyecto

El proyecto está orientado a diseñar y desarrollar un plan para implementar un proyecto de resiliencia de aguas subterráneas que involucra esfuerzos de recarga y/o reutilización de tierras en la comunidad gravemente desfavorecida de Fairmead, CA, para amortiguar esta área de los impactos en la seguridad del agua de las inundaciones inducidas por el clima y la sequía.

Esto fue financiado a través de la Fundación Desafío de Resiliencia de California y será un proyecto de 2 años para apoyar a la comunidad de Fairmead implementando un plan que mejorará la resiliencia local y regional contra la sequía y el cambio climático.

Project Outcomes

In addition to improving groundwater resources, the project will focus to incorporate other climate resilience benefits that includes reducing local flood risk, habitat restoration, and improving outdoor spaces for public health.

The project team will work alongside with local landowners to explore options of land repurposing to meet project outcomes for the community of Fairmead.

Most importantly, this project support decision making power for the Community of Fairmead

Resultados del proyecto

Además de mejorar los recursos de agua subterránea, el proyecto se enfocará en incorporar otros beneficios de resiliencia climática que incluyen la reducción del riesgo de inundación local, la restauración del hábitat y la mejora de los espacios al aire libre para la salud pública.

El equipo del proyecto trabajará junto con los propietarios de tierras locales para explorar opciones de reutilización de tierras para cumplir con los resultados del proyecto para la comunidad de Fairmead.

Lo más importante es que este proyecto respalda el poder de toma de decisiones de la comunidad de Fairmead.

CivicWell, EDF, US Senator Alex Padilla's staff, Sustainable Conservation, and Triangle T Water District visit recharge basin site.

Groundwater Recharge
Recarga de aguas subterráneas

Multi-benefit Land-Repurposing
Multibeneficio Reutilización de Suelos

Where are we at in the project?

Project team continues to launch the Fairmead Groundwater Resilience Project

- Community Engagement Plan was completed
- Various stakeholder engagement opportunities to collaborate in the near future
- First community workshop to introduce project in the Community of Fairmead

¿Dónde estamos en el proyecto?

El equipo del proyecto continúa lanzando el Proyecto de resiliencia de aguas subterráneas de Fairmead

- El plan de participación comunitaria fue completado
- Varias oportunidades de participación de las partes interesadas para colaborar en un futuro
- Primer taller comunitario para presentar el proyecto en la comunidad de Fairmead

Thank you!
¡Gracias!

Angela Islas, Water Project Manager

CivicWell (formerly/anteriormente Local Government Commission)

For more information/Para mas información: aislas@civicwell.org

CIVICWELL
Transforming Local Vision into Action

Planning for Drinking Water Sustainability in the San Joaquin Valley

Communities across California are facing extreme water challenges. Decades of overpumping groundwater coupled with ongoing drought has led to crises including depleted aquifers, domestic and shallow wells running dry, issues with groundwater salinity, and devastating floods.

Fairmead, an unincorporated community in the San Joaquin Valley, faces significant concerns about its drinking water supply. The Madera Subbasin, in which the community is located, is categorized as “critically overdrafted.” Many residents have experienced their wells drying up, and drilling deeper wells is cost-prohibitive for most.

In early 2022 CivicWell helped the Madera County Department of Water and Natural Resources obtain a $180,188 California Resilience Challenge grant for the Fairmead Groundwater Resilience Project. The project—a collaborative planning effort led by Madera County in partnership with Sustainable Conservation, Leadership Counsel for Justice and Accountability, and CivicWell—has focused on enhancing groundwater resilience in Fairmead by developing a plan for groundwater recharge and land repurposing to benefit community wells, improve drinking water supply, and stabilize groundwater levels in the surrounding area.

The Fairmead Groundwater Resilience Project was undertaken in direct response to Fairmead residents’ requests to change local land-use practices in order to protect their drinking water supply, provide healthy green spaces, and prevent further climate-induced environmental impacts.

520 Capitol Mall, Suite 440, Sacramento, CA 95814
Tel. 916.448.1198 **Fax.** 916.448.8246 civicwell.org

Why Groundwater Recharge and Land Repurposing?

As California's small communities struggle to adapt to prolonged water shortage periods, planning for groundwater resilience projects that include groundwater recharge and land repurposing components are a sustainable and achievable path forward.

Groundwater recharge can reduce flood risk by allowing floodwater to spread out over the land and away from buildings and costly-to-replace infrastructure. By directing excess waters from storms and snowmelt onto fields and retention areas where it can replenish the aquifer, more water is available for drinking and other uses.

Land repurposing seeks to find new uses for water-intensive agricultural land to reduce groundwater pumping, while also providing benefits to the community such as restoring habitat and floodplains, creating pollinator habitat, converting to rangeland, creating parks or open space, protecting drinking water, and reducing air pollution. By prioritizing local community needs and input, fallowed land can find new life in exciting ways.

Fairmead residents at the community meeting on October 21, 2023

Researching Opportunities and Gathering Community Input

Working directly with Fairmead residents, environmental experts, local agencies, and technical consultants, the Fairmead Groundwater Resilience Project team has evaluated land repurposing opportunities in the Fairmead area, and assessed groundwater recharge potential at specific sites. After investigation and relationship building, the team determined that recharge to benefit the Fairmead community wells was possible, and essential

community partners indicated their willingness to collaborate in finding solutions to Fairmead's groundwater challenges.

The project team conducted outreach, research, hydrogeologic and geospatial analysis, a landowner assessment survey, financial and water supply analyses, and an assessment of potential project benefits.

As part of the relationship building efforts, the team hosted three community meetings between October 2022 and this month. The first meeting focused on how groundwater recharge could potentially be implemented to improve community drinking water access, and the second focused on different aspects of land repurposing and how that could improve water reliability in the community. The third gathered community feedback on the preference between a recharge basin and a number of options for land repurposing.

Important considerations raised by community members included the safety of groundwater for drinking, control of mosquitoes, safety for children, and the cost to residents. There has been strong public interest in open space or natural habitat, and also in solar panels, a recharge basin, and low water-use agriculture.

What's Next for the Fairmead Groundwater Resilience Project

The team is applying for funding for an expanded planning effort, and to move from project concept to on-the-ground implementation while continuing to strengthen community engagement in the design and management of these projects.

The impacts of climate change require holistic projects that improve broad-scale watershed resilience and increase supply reliability. The Fairmead Groundwater Resilience Project integrates private, public, community, environmental justice, and environmental interests into a plan that benefits climate resilience, drinking water protection, public health, and the natural ecosystem.

This process will serve as a model for other groundwater-dependent San Joaquin Valley communities. The project team is creating a case study that other community leaders will be able to reference as they seek to assemble the necessary resources and infrastructure to ensure a reliable drinking water supply.

The team is also in the process of pursuing funding to implement the potential groundwater resiliency projects identified and considered by the Fairmead community.

*Header photo by Terry Chea / **AP**. Madeline Harris of Leadership Counsel for Justice and Accountability stands next to a municipal well that's gone dry in Fairmead on Sept. 14, 2022.*

Potential Funding Sources & Supportive Contacts

Phase 2 Fairmead Implementation

Background:

During the Fall 2022 Sustainable Conservation (SC) Board of Directors tour of Madera County project, several of the attendees (SC Board Members and others) discussed funding opportunities that could potentially be used to fund Fairmead water security projects.

Below is a list of some of these potential opportunities and the individuals who could play strategic roles in soliciting funds.

Please add to or edit the information below with additional programs that could be used to help with implementation.

Over the course of 2023, the project team came together to identify additional funding opportunities to support implementation funding. The potential funding sources and funding opportunities are listed below.

Funding Opportunities

State Water Resources Control Board (SWRCB):

- SAFER program for feasibility studies needed for the possibility of consolidation with the City of Chowchilla.

USDA Rural Development (RD):

- Maria Herrera is the RD State Director and is very supportive of community projects.
    - Community Facilities Program
    - Water & Environmental Programs, etc.

Department of Water Resources (DWR):

- Land Flex grant: Guidelines still under development but $25M in funds for land fallowing incentives, etc.
    - Kamyar Guivetchi could play a strategic role
    - https://water.ca.gov/Work-With-Us/Grants-And-Loans/Landflex
- Underrepresented Communities Technical Assistance - https://water.ca.gov/urctaprogram
    - Well Assessment Technical Assistance through Dudek
- SGMA Implementation Grants (when reopened):
    - MID or the County would have to be the lead grantee.

CA Water Action Collaborative (CWAC) and other potential corporate funders:

- https://cawateraction.org/

Valley CERF: Community Economic Resilience Fund

- https://www.valleycerf.org/

CA Department of Conservation Mulitbenefit Land Repurposing Program (when reopened)

- https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Multibenefit-Land-Repurposing-Program.aspx

US Environmental Protection Agency

- Financial Technical Assistance and Tools for Water Infrastructure - https://www.epa.gov/waterfinancecenter/financial-technical-assistance-and-tools-water-infrastructure
- Environmental and Climate Justice Community Change Grants Program (EPA-R-OEJECR-OCS-23-04) - https://www.grants.gov/search-results-detail/351071

US Department of the Interior, Bureau of Reclamation

- WaterSMART Planning and Project Design Grants For FY 2023 and FY 2024 - https://www.grants.gov/search-results-detail/349785

Support Organizations and Contacts

Self-Help Enterprise (SHE):

- Eddie Ocampo
- SHE has many years of supporting Fairmead and would provide ongoing support.
- https://www.selfhelpenterprises.org/programs/community-development/safe-drinking-water/

Rural Community Assistance Corporation (RCAC)

- https://www.rcac.org/

BUREAU OF RECLAMATION

Notice of Funding Opportunity No. R23AS00109

WaterSMART Planning and Project Design Grants for Fiscal Year 2023 and Fiscal Year 2024

U.S. Department of the Interior

Revised January 2024

California Resilience Challenge
Fairmead Groundwater Resiliency

Overview

What Is the Fairmeand Groundwater Resilience Project

The Fairmead Groundwater Resilience Project (The Project) is an effort to develop a plan of possible groundwater resilience projects, such as groundwater recharge and/or land repurposing efforts, to buffer this area from the water scarcity impacts of climate-induced drought. The Project was a collaborative planning effort led by Madera County, CivicWell, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Fairmead Community and Friends, and sought to demonstrate how recharge and land repurposing with strong community engagement can be done successfully with the community of Fairmead. The Project was supported by Fairmead Community & Friends, a local organization with a strong interest in drinking water and other issues in the Fairmead area. The Project aligned with existing climate-related water and land-use planning efforts, including coordination with Madera County Groundwater Sustainability Agency, local water districts, and private landowners.

Fairmead is one of many small communities in California anticipated to be the most hard hit by climate change impacts. These communities typically struggle with multiple environmental stressors, including drought, harmful air quality, severe weather, wildfire, flooding, and lack of access to nature. As climate change influences drought conditions to intensify, recur more frequently, and last longer, there will be more pressure on all water users to adapt to these changing conditions. Low-income, unincorporated communities such as Fairmead are particularly vulnerable to drought because they rely entirely on private domestic wells and small community water systems. These wells are going dry at an alarming rate due to excessive groundwater pumping in the surrounding area, drawing down the local water table. For many residents, drilling deeper wells or lowering groundwater pumps is cost-prohibitive.

The Project was a direct response to Fairmead residents' request to change land-use practices surrounding their community in a way that protects their drinking water supply, provides healthy green spaces, and prevents further environmental impacts correlated with climate change, such as poor air quality, flooding, and extreme heat.

The Project evaluated land repurposing opportunities in the Fairmead area, and assessed groundwater recharge potential in the area to help protect Fairmead's drinking water supply and improve groundwater levels. Work on the Project started in mid-2022 and concluded in early 2024. The Fairmead Community and Friends and Madera County are currently working to

secure additional funding to take project options into further planning and design for implementation.

Description of the Fairmead Community

Fairmead is a census-designated place in Madera County, located 11 miles northwest of Madera and six miles south of Chowchilla. In the 2020 census, the population was roughly 1,200. The demographic makeup of Fairmead is 70% Latino and 7% African American, though that has not always been the case.

The history of the first community members of Fairmead was almost forgotten. In 2011, Vickie Ortiz and Barbara Nelson (fearless leaders of the group Fairmead Community and Friends) reached out to Michael Eissinger, a researcher and historian of African-American-majority rural settlements in California's Central Valley, to help memorialize Fairmead's centenary (www.meissinger.com, Fairmead_Recollection_Presentation, Re-Collecting the Past: Fairmead Discovers Her History After 100 Years). From this initiative came the local history book *Fairmead: A Century of Change*. Here's an excerpt of Meissinger's Re-Collecting the Past presentation:

> The initial history of Fairmead reflects part of California's history known as The California Colonization Project. In the 1890s, the Colonization Project was a real estate scheme used to transform the Valley from the large landholdings of Crocker, Stanford, Miller & Lux, and the other so-called Robber Barons into a landscape dotted by small farms serviced by small market centers. Where a town existed, developers divided the surrounding land into five, ten, twenty, and forty-acre plots. If no town existed within a development, they often created one, laying out streets, providing the infrastructure for electricity, phone service, water, and sewage, arranging for railroad stations and post offices, or making other improvements to draw new people to their little section of the Valley.
>
> Farm lots were divided, for marketing purposes, into individual sub-developments called colonies. In Fairmead, Colony 13 was marketed specifically to Mennonite Farmers from Germany and Russia. Adverts for and articles about these lands were printed in European newspapers, in German and Russian.
>
> Initially, colonists hit water at sixty feet. Within a few years, wells to fifteen hundred feet were common. Unlike many colony developers, the Cooperative Land and Title Company, the real estate firm that built Fairmead, left farmers to rely on groundwater rather than participate in the irrigation projects that reshaped the semi-arid Central Valley into one of the most productive regions of the planet. Ultimately, it was the lack of water that halted the town's growth.

Meissinger goes on to note that there were several stores, a creamery, a cheese factory, schools and churches, the real estate office, an insurance agent, and the once famous Fairmead Inn which had a world-renowned chef and other amenities. The Fairmead Inn was also a favorite stop for visitors like politicians, celebrities, and other folks arriving on one of the eighteen trains that passed through daily. However, this growth and development period lasted until 1922.

Fairmead's population was initially made up of the Mennonite Farmers from Germany and Russia. During that same time as Fairmead's initial development, hundreds of thousands of Southern African Americans were recruited to the Central Valley by California farmers to pick cotton and other crops. Some of these recruits settled in Fairmead (www.meissinger.com, Fairmead_Recollection_Presentation, Re-Collecting the Past: Fairmead Discovers Her History After 100 Years).

Again Meissinger shares:

> This second part of the story of Fairmead begins with a Jewish land owner, Jacob Yakel, who not only sold land to African Americans but, personally carried their mortgages at a time when legal, systemic racism prevented banks from lending to blacks. Probably the first such family to buy from Yakelwere the Ameys who, by 1922 were well established in Fairmead. Enoch Amey founded one of the town's earliest black churches: the Ethiopian Coptic Church of Fairmead.
>
> By the mid-sixties, the mechanical cotton picker and chemical defoliant ended the need to pick cotton by hand. New Federal laws banned discrimination in housing, employment, lending, and other practices that had created the need for these rural settlements. By the 1970s and 80s, many of the established families were no longer working in the fields. In some cases, they owned the fields. Access to jobs and higher education created opportunities beyond these rural enclaves, and these communities began the transition into largely Hispanic populations.

By the late 20th and early 21st centuries, Fairmead's prosperity started to wither, and community members started to experience dry wells, air contamination (ozone pollution, PM 2.5, pesticides), and flooding, as well as septic and transportation issues. Far from the glory of its heyday, Fairmead is now designated a disadvantaged unincorporated community in Madera County. According to American Consumer Survey data from 2017, the median household income in Fairmead is $33,472. Fairmead is in the top 9% of most overburdened communities on CalEnviroScreen, and the top 12% most pollution-burdened.

The significant shift in demographics and prosperity does not stop Fairmead Community and Friends from striving to improve the water reliability issues for their community members.

The Issue

Climate Challenge – Drought Resilience, Decrease Flood Risk, Conserve Habitat and Open Space

Millions of Californians rely on groundwater for household water needs, and yet aquifers are dwindling to alarming levels. Under the 2014 Sustainable Groundwater Management Act (SGMA), Groundwater Sustainability Agencies (GSAs) are charged with developing Groundwater Sustainability Plans (GSPs) that outline how to meet sustainability goals.

Like many unincorporated communities in the San Joaquin Valley, Fairmead lacks critical infrastructure including municipal water and wastewater services. The community has a small, County-operated water system consisting of two wells and serving approximately 170 homes. Additional homes in Fairmead rely on private domestic wells. The Fairmead community faces significant drinking water challenges, especially as more water-intensive orchards are planted in the surrounding region, increasing demand on limited groundwater supplies. Many domestic wells went dry during the 2012-2016 drought, and well dewatering continues to be an issue. Until recently, Fairmead's community water system relied on just one 300-foot deep well. The well was only 10 years old when it started drawing up air and sediment in 2020, prompting the county to drill a second well for the community, to 530 feet. Groundwater levels in the area continue to decline, which may also threaten this second well.

Many GSAs and communities are examining appropriate land-use planning and groundwater recharge projects that can improve groundwater resilience by reducing pumping demand and replenishing aquifers via recharge when excess surface water is available. Groundwater recharge has a great potential to reduce flood risk by allowing flood water to spread out over the land surface and infiltrate into the aquifer. This mimics natural processes, where over millennia, rain, snow, and flood water seeped into the ground and filled up aquifers so that they were brimming with water. In Fairmead, the project team's work to assess and understand ways to improve groundwater resources by retaining open space and repurposing agricultural lands for recharge helped to incorporate other climate resilience benefits like reducing local flood risk, enhancing valuable habitat, and improving outdoor spaces for public health.

Impact & Sustainability

A key pillar of the climate resilience work of the Project is to improve access to clean, safe, and affordable drinking water. With the focus on ensuring that groundwater supplies are protected and enhanced for the benefit and health of the Fairmead community, the project examined ways to address multiple issues with an integrated project design approach. As such the project team explored opportunities for groundwater recharge and land repurposing strategies to incorporate into and coordinate with local and regional planning efforts.

Best Available Science & Locally Specific Data

Working with the Fairmead community members, who are the best equipped to identify specific local needs and feasible solutions, the Project team used the best available science and data for the research and analysis and brought in cutting-edge approaches to sustainable groundwater management in California.

Operationalization

Members of the project team who are recognized leaders in California's groundwater sector leveraged their involvement in other workgroups and networks to help champion efforts that address Fairmead's needs and find feasible solutions. These members' significant relationships with agencies and groups, such as the Department of Water Resources and State Water Board, the statewide NGO Groundwater Collaborative, the Groundwater Leadership Forum, California Groundwater Resources Association, San Joaquin Valley Water Collaborative Action Program, Flood-Managed Aquifer Recharge (Flood-MAR) Network, Maven's Notebook, and GroundwaterExchange.org, fostered resource-sharing with other nonprofits addressing groundwater resilience in Madera County and across the San Joaquin Valley.

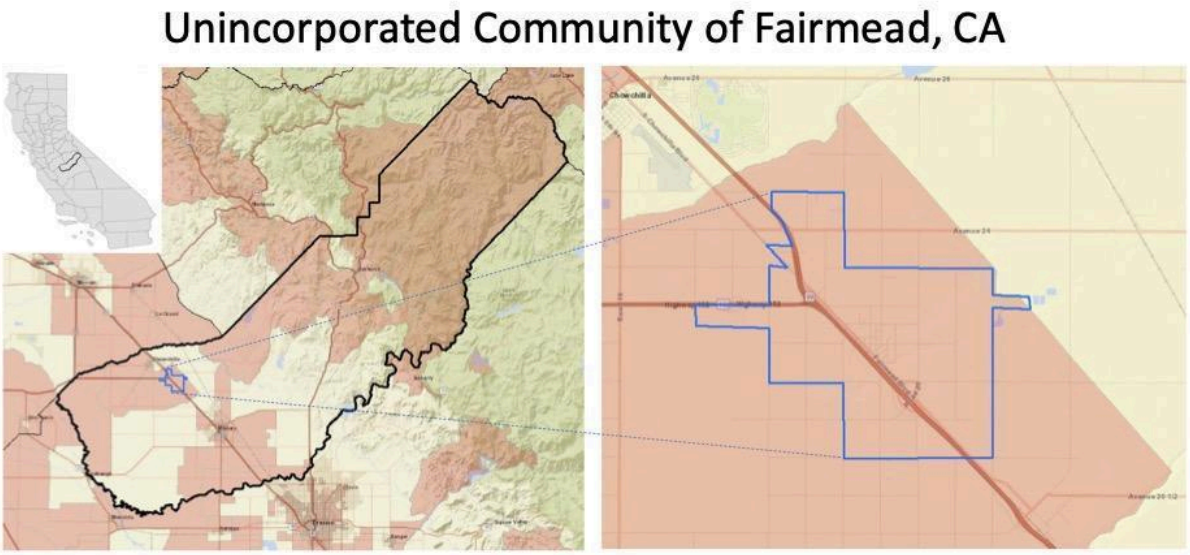
Collaboration

Working directly with Fairmead residents, environmental experts, local agencies, and technical consultants, our team aims to build a suite of projects around the community of Fairmead that helps secure water resources in and around the community, even as climate change results in more variability in wet and dry years. This planning and concept design process leverages existing local and regional planning efforts to integrate groundwater resilience topics into governance documents for Fairmead and its surrounding region.

The Project collaborates across overlapping and neighboring jurisdictions, with multiple partnerships. It fosters coordination between the Groundwater Sustainability Plan, regional water management, local irrigation and water districts, and the broader Fairmead Colony Area Plan Update (under the Madera County General Plan). Collaboration between the Project and the Madera County planning efforts for the Area Plan supported the community's overarching goal for Fairmead to support an inviting and distinctive identity, and to transform the area back into a prospering hub where local businesses can thrive, affordable homes are being built, and parks and sufficient infrastructure are in place. The Area Plan created a framework for strategic development and decision-making that supports the County's goals, policies, and objectives and that implements and improves upon previous planning efforts outlined in the General Plan.

Co-Benefits

Increased groundwater resilience from recharge or land repurposing under the Project incorporated multiple benefits in the analysis of suitable site locations and project design. The Project team explored and focused on recharge suitability, habitat enhancement, flood risk reduction, and community open space. The Project team sought an ideal project design that included all three additional elements. In the end, project sites for the next phase of implementation depend on site availability and landowner preferences, among other variables.

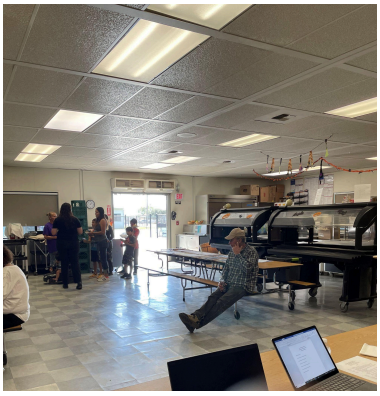


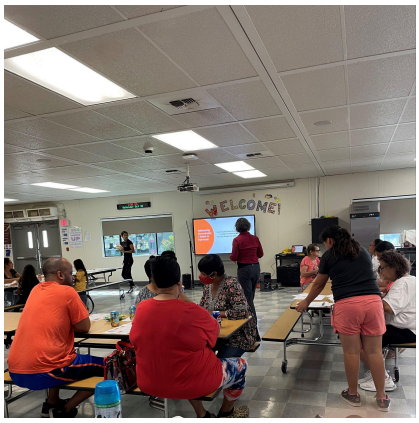
Madera county outlined in black.
Fairmead community outlined in blue.
Rose colored areas indicate disadvantaged communities.

Fairmead community (outlined in blue) is within a severely disadvantaged community.

Source: https://gis.water.ca.gov/app/dacs/. Disadvantaged Communities – Places 2016.

Outcomes - Images





Outcome #1 - Collection of Community Needs, and Preferences

The Project team hosted three workshops (October 2022, April 2023, and October 2023) with Fairmead community members to identify and explore their concerns, needs, and preferences around land repurposing options for groundwater resiliency. Historical planning documents that incorporated community priorities were reviewed as well. Additionally, community members provided insights and input during community tours, County Community Development Action Planning meetings, and Fairmead Community and Friends meetings. The following list of community needs and benefits emerged from these community conversations and past documents.

Community Needs

Improve water supply

- Connect to an existing water supply system.
- Reduce agricultural pumping.
- Implement recharge to raise groundwater levels.
- Install more water tanks.

Protect or improve water quality

- If recharge is implemented, water needs to be potable when it is pumped to the surface again

Improve air quality

- Retirement of orchard land to reduce dust and pesticide drift

Community Benefits

Community gathering space

- Develop a community park
- Construct a community center (this project is currently underway)

Support ecosystems

- Restore a floodplain natural area
- Maintain a natural area to support native animals and vegetation
- **Income-generating land repurposing**
- Utility Scale Solar development (s)
- Low water use agriculture (e.g. agave or pastureland)
- Allow for residential or commercial development

Reduce flooding

- Network of vegetated medians and roadside swales
- Rain gardens and detention basins that receive drainage waters

Outcome #2 - Lessons Learned From Community Engagement

The Project team worked with community members through a series of workshops and outreach events to understand the community's preferences in securing a better and more resilient water future. At the heart of the planning effort was the intent to engage with residents and community members to gather their input and preferences for what groundwater resiliency could look like in their community and what benefits they wanted from potential projects. This meant that the Project team needed to engage directly with community members. Thus, throughout the Project, the team conducted numerous outreach and engagement activities such as surveying community members, conducting door-to-door canvassing, and attending events for Fairmead residents like site visits, Fairmead Community and Friends monthly board meetings, and local community meetings.

A big focus of the Project was devoted to holding three dedicated community workshops, the first on October 22, 2022, the second on April 27, 2023, and the third on October 21, 2023. Of these community workshops, the first focused on how groundwater recharge could potentially be implemented to improve community drinking water access, and the second focused on different aspects of land repurposing and how that could improve water reliability in the community. The third workshop was an opportunity to confirm community preferences and build on input shared at the previous meetings to refine potential groundwater recharge and repurposed land sites. All three events requested and received valuable feedback from community members related to a wide range of water issues, some outside the scope of this work.

Lessons Learned

Lesson 1: RESPECT LOCAL KNOWLEDGE The project team and others learned that community members of Fairmead intimately understand the harm and challenges they face from the depletion of groundwater water and air quality issues. They have a wealth of knowledge based on their experiences and perspectives that are incredibly valuable in understanding the Fairmead context and potential solutions.

Lesson 2: EDUCATION Participants at the workshops and community meetings want to learn more about potential groundwater resiliency projects, as well as that include both short-term and long-term solutions. These could include groundwater recharge and agricultural land repurposing, and how these projects can address their need for reliable drinking water and clean air, while offering benefits like community gathering and open space, supporting ecosystems, improving income generating repurposed land options, and reducing flooding.

NOTE: Both groundwater recharge and land repurposing are rather technical and cutting-edge responses to drought and climate extremes, so it takes time to get people familiar with these concepts. Repeated workshops, along with helpful visuals and site visits to exemplary projects nearby, can help people understand what projects look like and how they function, which will help them clarify their priorities and make informed decisions.

Lesson 3: CONTINUED & CONSISTENT OUTREACH Continued consistent community outreach is essential to being able to achieve community engagement for planning and implementation of on-the-ground projects. Ultimately, meaningful outreach led by the work of Fairmead Community and Friends, with committed partners at Madera County Water and Natural Resources Department and the Community and Economic Development Department, will achieve several positive outcomes. The first is greater empowerment and capacity building for Fairmead Community and Friends group. The group advocates for community needs and interests already. With greater involvement in local groundwater resiliency project planning and implementation, community needs and preferences stay at the forefront. The project team wanted more community members to attend each workshop. When the team frequently and consistently reached out to the residents workshops had greater turnout. Some effective outreach strategies include:

- Door-to-door canvasing at least once a week for several weeks ahead of meetings and workshops, in partnership with Fairmead Community and Friends and other trusted community leaders.
- Create information sheets and event announcement flyers (in English and Spanish)
- Share flyers with school staff and children
- Attend locally organized community meetings, and engage with residents at their meetings and events.

Lesson 4: EFFECTIVE ENGAGEMENT Like lesson 3, meaningful engagement happened after residents and community members heard about the workshops, but what happened when people attended is incredibly important to the success of a potential project. An outcome of meaningful engagement is community buy-in and support for the project. When community members are involved from the start of the planning effort, have frequent opportunities to share their concerns/needs and preferences at workshops and meetings, and have their input meaningfully considered on options to implement their contribution can result in community members having a sense of ownership of what gets implemented. A high degree of community support means the project will be more competitive for a variety of implementation funding opportunities with such community engagement and support.

The project team dedicated time and energy to plan and prepare the workshop to facilitate community members' meaningful participation. Some factors and strategies that improved attendance and participation by the third workshop included:

- Providing food and feeding people
- Scheduling the event during the weekend, during a time when people were most likely to attend
- Offering a raffle
- Coordinating with the Fairmead Community and Friends leaders to tailor the event to community members' comfort levels

Lesson 5: WORKSHOP PARTICIPATION There are many ways to help people feel comfortable to participate in meetings and workshops. Such factors as the meeting space, technology and audio equipment, materials, and event plan or run-of-show all contribute to people sharing during an event. A well-prepared and skilled facilitation team can have a smoother workshop and the flexibility to handle any issues that may arise. Preparations included:

- Roles for each project team member during the workshop.
- Clear and easily understood presentations, with language interpretation
- Testing the presentation and audio equipment (connectivity and functionality of the laptop, screen, projector, microphones, and speakers) to address any technical issues before the start of the event.
- Having interpretation services on hand to overcome language barriers.

Another important consideration of lively workshop participation is helping residents and community members feel comfortable in the space, and able to interact with the information and their table mates. The Project team planned for people to share ideas out loud, or as notes or drawings on handouts/maps. It is worth noting that the ways the room is set up, having comfortable chairs, using microphones and speakers, having good visual aids and examples, and using small group activities and exercises support people being able to share their ideas, offer input, and be willing to join the conversation.

Lesson 6: CONNECT AND EMPOWER Engage with local community groups at the level they are comfortable with, whatever that might be, such as just joining meetings. Show groups that being open and flexible to their comfort level, consistently inviting them into the process and conversations, gives them space to engage on their terms, and builds trust that you welcome their involvement.

This was the case with Fairmead Community and Friends at the start, and now they have come to be an integral member of the project. When initially asked by some of the project team members to join the grant proposal, Fairmeand Community and Friends said they were not ready to take on being a part of the project. As the project moved forward, and the project

team continued to engage with them, their comfort level grew to where they were helping with outreach efforts and ultimately organizing the third community workshop. Fairmead Community and Friends' trust in the project allowed the project team to connect with community members ahead of workshops, local meetings, and site visits by potential funders and policy officials. During the project, the group felt more confident to do things like hosting the Self Help Enterprises' water tour site visit and participating in a field visit from the California Water Action Collaborative (CWAC) that built a bond with potential funders. A result of their engagement in this project, and growing capabilities is their planning and hosting the third community workshop. They are now very willing and interested in future grant opportunities.

Outcome #3 - Potential Groundwater Resiliency Projects

Another outcome of the project was a multi-benefit assessment memo that identified and explored potential groundwater resilience projects. The potential project sites were assessed with metrics informed by community preferences, hydrological assessments, and spatial analysis of SAGBI ratings, groundwater flow paths, and contaminant concentrations and evaluated potentially suitable sites with other factors, such as landowner interest surveys and distance to conveyance. The result was the identification of three suitable parcels where the landowners were interested in recharge. There are also two larger suitable areas where more targeted landowner outreach could be conducted.

Below is the list of metrics used to assess the potential sites, which are the same as the community needs that were identified and explored during the community workshops. There are examples or contexts in each of the sub-bullets of the metric. While these are numbered, there is no order of preference or priority.

Metric 1: Improve water supply for the community.

- Connect to an existing water supply system.
- Reduce agricultural pumping.
- Implement recharge to raise groundwater levels.
- Install more water tanks.

Metric 2: Protect or improve water quality

- If recharge is implemented, water needs to be potable when it is pumped to the
- surface again

Metric 3: Improve air quality

- Retirement of orchard land to reduce dust and pesticide drift

Metric 4: Community gathering space

- Develop a community park
- Construct a community center (this project is currently underway)

Metric 5: Support ecosystems

- Restore a floodplain natural area
- Maintain a natural area to support native animals and vegetation

Metric 6: Income-generating land repurposing

- Utility Scale Solar development (s)
- Low water use agriculture (e.g. agave or pastureland)

Metric 7: Reduce flooding

- Network of vegetated medians and roadside swales
- Rain gardens and detention basins that receive drainage waters

After over a year of technical investigation and relationship building, the Project team determined that recharge to benefit the Fairmead community wells was technically possible, and essential partners indicated their willingness to collaborate in finding recharge and land repurposing solutions to Fairmead's dwindling groundwater resources.

The Project team explored opportunities to repurpose irrigated land like restoring habitat and floodplains, creating pollinator habitat, converting to dryland farming or cover crops, switching from irrigated agriculture to rangeland, and creating parks or community recreation areas.

The technical investigation included hydrogeologic analysis, water supply analysis, land ownership identification, land-use compatibility, real estate market analysis, and multiple benefits analysis. The many impacts of climate change - including drought, fire, flood, and heat - require holistic, integrated projects that improve broad-scale watershed resilience and increase supply reliability. This unique and urgently needed project combines private, public, community, environmental justice, and environmental interests to co-develop projects for climate resilience, drinking water protection, ecosystem benefits, and flood mitigation. The project demonstrated how unincorporated and disadvantaged communities can address these threats at the local level.

The Project team also did additional hydrogeologic and geospatial analysis, a landowner assessment survey, a financial analysis, a summary of local and regional land planning activities, a water supply analysis, and completed an assessment of the multiple benefits associated with potential projects, such as a recharge basin that includes habitat enhancement or flood risk reduction components. The Project developed conceptual designs and associated budgets for potential recharge and land repurposing projects.

Summary of Selected Parcels

A hydrogeologic assessment was conducted to determine the recharge potential of land parcels to benefit Fairmead community wells. The assessment included spatial analysis of SAGBI ratings, groundwater flow paths, and contaminant concentrations, and evaluation of potentially suitable sites with other factors, such as landowner interest surveys and distance to conveyance. The result was the identification of three suitable parcels where the landowners were interested in recharge. Also identified were two larger suitable areas where more targeted landowner outreach could be conducted.

- Parcel 1: 50-acre almond orchard located NW of Fairmead, with a direct connection to a Chowchilla Water District (CWD) canal. Note that the landowner does NOT want to repurpose this parcel to a recharge basin.
- Parcel 2: 30-acre almond orchard located within Fairmead, adjacent to the old community supply well, and 500 feet south of a CWD canal. The landowner is open to any recharge method.
- Parcel 3: 10-acre fallow field located upgradient to the new community supply well, and 2,500 ft north of a Madera Irrigation District (MID) canal. The landowner is open to any recharge method.
- Area A: This large area is adjacent to a CWD canal and would need further engagement with the landowner(s).
- Area B: This large area is adjacent to a MID canal and would need further engagement with multiple landowner(s).

Next, each parcel and area were evaluated and ranked to determine the best suitability for recharge and came up with the final scoring as noted in the table below (higher points indicated a higher ranking).

Outcome #4 Future Funding Opportunities Lessons Learned

What we learned from pursuing funding from a variety of sources showed us that identifying and winning opportunities is opportunistic, but going through the process is helpful to do! Land repurposing efforts can be supported by existing local and state initiatives like the California Department of Water Resources' Land FLEX program and the California Department of Conservation's Multibenefit Land Repurposing program. The Madera County Groundwater Sustainability Agency procured $200,000 in funding from the California Department of Conservation's Sustainable Agricultural Lands Conservation (SALC) Program to create an incentive structure for repurposing land within Madera County to improve groundwater recharge potential and groundwater sustainability in compliance with SGMA regulations. While state or federal funding may be a source of implementation funding, it can be highly competitive, slow, and very specific.

Other funding sources from private groups are another avenue to explore to help the project break ground. Two such funding opportunities provided some great lessons learned:

- Growing a strong relationship with Fairmead Community and Friends, helped them feel empowered and confident to be included in the proposal and be a primary partner.
- Fairmead Community and Friends' participation in the proposal process, gave them the confidence to engage with the funders rather than be represented by third-party groups, gaining admiration and building a bond with potential funders
- After the first funding pursuit, Fairmead Community and Friends are willing to host and meet funders, and willing to travel to funder events.

Additional Information

Resources

- Multi-benefit Assessment Memo
- CEP Document
- Outreach Flyers

About the California Climate Resiliency Challenge

The California Resilience Challenge is a statewide effort, led by businesses, utilities, and a diverse range of partners, to build local and regional climate resilience and to support a shared vision for a resilient California in the face of increasing climate threats. The Challenge is providing grants for diverse, replicable, and innovative climate change adaptation planning projects across California. The projects reflect California's diverse geography and showcase leadership in climate change adaptation. The California Resilience Challenge is an initiative of the Bay Area Council Foundation, a nonprofit corporation, qualified as a tax-exempt organization under section 501(c)(3) of the Internal Revenue Code. The Challenge is administered by the Bay Area Council, a business-sponsored public policy advocacy organization for the nine-county Bay Area that was founded in 1945. Learn more at bayareacouncil.org. The California Resilience Challenge has assembled a Grant Fund of over $1.5 million. The sources of the Grant Fund include businesses, utilities, nongovernmental organizations, and foundations. Donors to the Grant Fund are identified at ResilientCal.org/leadership.

Project Team Contributions

The Fairmead Groundwater Resilience Project was a collaborative planning effort led by Madera County, CivicWell, Leadership Counsel for Justice and Accountability, Sustainable Conservation, and Fairmead Community and Friends. Additional groups that contributed to the project included Self-Help Enterprises and the Union of Concerned Scientists.

Madera County Department of Water and Natural Resources

Madera County Department of Water and Natural Resources as the jurisdiction with authority to make land use and groundwater decisions and in the position to coordinate with local land owners and agricultural operations in the area, worked to connect with neighboring jurisdictions and groundwater agencies. Additionally, they provided landowner consultation and engaged potentially interested local landowners through inquiry forms, community meetings, focus groups, and other efforts. As well as explored potential recharge projects with interested landowners through individual consultations about their property, including financial incentives and transfer of ownership options.

Madera County was responsible for exploring and assessing local land-use and development compatibility. They consulted with local and regional land-use planning authorities to assess potential limitations and/or impacts and coordinated with regional and local land-use planning efforts to integrate groundwater resilience project concepts into upcoming revisions. Another of their responsibilities included water supply analysis to determine the potential source and amount of water available for recharge. In the future when projects are primed for implementation, they will be responsible for securing potential water supply agreements once a project site is confirmed.

Madera County also provided the technical work like hydrogeologic site assessments for recharge and land use change sites, and identifying geographic areas where potential recharge and land use changes would benefit community wells. Additionally, work included evaluating nutrient management concerns and mitigation options, and developing monitoring plan elements for proposed project(s) .

CivicWell

CivicWell coordinated the team's communication and facilitated team meetings, as well as assisted Madera County with engaging and coordinating with participating agencies and departments to ensure integrated planning. CivicWell coordinated information and circulated drafts for feedback among the project team members. To support the implementation of future groundwater resiliency projects, CivicWell regularly reviewed and assessed available funding programs by maintaining a list of potential funding sources or programs for Phase 2 implementation; discussed potential funding sources or programs with the project team during monthly meetings; engaged with potential funders such as private foundations, state or federal agencies, and private industry); shared project communications resources with potential funders; and developed the case study documentation for the project.

Leadership Counsel for Justice and Accountability

Leadership Counsel for Justice and Accountability worked to build community engagement by creating an outreach and engagement plan, to: inform the general community and key stakeholders about the Fairmead Groundwater Resilience Project through the implementation of a community stakeholder engagement plan; educate community members about the groundwater depletion and the need for a community resilience solution to the current and future droughts; solicit feedback and active participation from Fairmead community members

and organizations on alternative solutions, project planning, and project design; and report back to community members how their input shaped project implementation. Additionally, Leadership Counsel for Justice and Accountability hosted and facilitated the community outreach and workshops, and coordinated with the project team to adapt project planning and implementation in response to community and stakeholder input.

Sustainable Conservation
Sustainable Conservation assessed the potential multiple benefits and risks of recharge activities and land use planning, including topics related to water quality, flood risk reduction, habitat enhancement, open space, subsidence protection, and farmland conservation, by evaluating community concerns/requests, local planning goals, and landowner feedback to document issues important to local people and agencies. Additionally, they developed the multi-benefit assessment metric based on community-identified topics/issues and evaluated specific, potential project parcels using the multi-benefit assessment metric. From the metrics, Sustainable Conservation worked with the technical consultants to explore and refine multi-benefit design components.

Fairmead Community and Friends
In 2007 the grassroots community group of Fairmead Community and Friends was established. The 501c3 nonprofit continues to advocate for health justice, safer environments, and community resources for a better quality of life for our residents and their families.

Additional partners that were involved in the project and contributed technical expertise, land repurposing visuals and information, local coordination and engagement strategies, and funding opportunities.

- Environmental Defense Fund
- Alison Hirsch, University of Southern California, School of Architecture
- Self Help Enterprises
- Union of Concerned Scientists