



# EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

## STEERING COMMITTEE MEETING

### AGENDA

Wednesday, June 10, 2020

8:30 a.m. – 10:00 a.m.

**Teleconference Meeting Only**

**Call-In Information Provided**

### NOTICE: Coronavirus COVID-19

See Attached Notice Regarding COVID-19, Closure of Board Chambers to the Public During the Steering Committee Meeting.

- I. Call to Order/Roll Call
- II. Scheduled Items – *Presentation materials to be posted on ESJGroundwater.org and emailed prior to the meeting.*
  - A. Discussion
    1. Approval of the May 13, 2020 Meeting Minutes. (See Attached)
    2. Proposition 68 Scope Review Coordination
    3. WaterSmart 2020 Resiliency Grant
    4. Project Progress Reports
- III. Public Comment (non-agendized items)
- IV. Director's Comments
- V. Future Agenda Items
- VI. Adjournment

### NOTICE: Coronavirus COVID-19

See Attached Notice Regarding COVID 19, Closure of Board Chambers to the Public During the Eastern San Joaquin Groundwater Authority Steering Committee Meeting and Teleconference Information

# EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

## Steering Committee Meeting

### AGENDA

*(Continued)*

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#### **Important Notice Regarding COVID 19 and Closure of Board Chambers to the Public During Eastern San Joaquin Groundwater Authority Steering Committee Meeting**

On March 18, 2020, Governor Gavin Newsom issued Executive Order N-29-20 recognizing that COVID 19 continues to spread throughout our community resulting in serious and ongoing economic harm. Governor Newsom has therefore waived certain requirements of the Ralph M. Brown Act relating to public participation and attendance at public meetings.

Based on guidance from the California Department of Public Health and the California Governor's Officer, *effective immediately* and while social distancing measures are imposed, Board chambers will be closed to the public during the Eastern San Joaquin Groundwater Steering Committee Meetings.

In order to minimize the spread of the COVID 19 virus, the following options are available to members of the public to listen to these meetings and provide comments to the Committee Members before and during the meeting:

1. You are strongly encouraged to listen to the Eastern San Joaquin Groundwater Authority Steering Committee meetings by attending the teleconference:

#### **Join By Webex**

([www.webex.com](http://www.webex.com))

**Meeting number (access code): 126 494 6669**

**Meeting password: Fmp3uPwMp28**

#### **Join By Phone**

**1-866-590-5055 Call-in number (ATT Audio Conference) (ATT Audio Conference)**

**1-816-423-4282 Call-in number (ATT Audio Conference) (ATT Audio Conference)**

**661 530 5 Access Code**

***Once connected, we request you kindly mute your phone.***

# EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

## Steering Committee Meeting

### AGENDA

*(Continued)*

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2. If you wish to make a comment on a specific agenda item, please submit your comment via email by 5:00 p.m. on the Tuesday prior to the meeting. Please submit your comment to the Secretary of the Board at [ksmith@sjgov.org](mailto:ksmith@sjgov.org). Your comment will be shared with the Board members and placed into the record at the meeting. Every effort will be made to read comments received during the meeting into the record but some comments may not be read due to time limitations. Comments received after an agenda item will be made part of the record if received prior to the end of the meeting.

#### **Next Scheduled Meeting**

Wednesday, July 8, 2020

8:30 am to 10:00 am

Location TBD

## ESJGWA Steering Committee Meeting Minutes

Wednesday, May 13, 2020

### **I. Meeting called to order / Roll Call:**

Meeting was called to order at 8:35 am.

The meeting was conducted via teleconference using WebEx.

### **Safety and Meeting Procedures:**

Matt Zidar provided a brief instruction of meeting procedures.

### **Roll Call taken:**

Roll call taken of members only.

In attendance were Chair Winn, Directors Mike Henry; Robert Holmes and Tom Flinn and Alternate Directors Mel Lytle; Walter Ward and Andrew Watkins

Additional folks in attendance introduced themselves accordingly.

### **II. Scheduled Items:**

#### **A. Discussion Items:**

##### **1. Continued Discussion of the FY 20/21 Budget and Cost Allocation**

Matt presented slides on the Draft FY 20/21 Budget to be presented to the Board Members for review with their respective Boards; and provided a review of budget summary and GSA costs, pumping and population class by 60/40 split, cost allocation classes and how they were broken up, and comparison of the cost allocation methods. He asked for any discussion on the presented materials and/or suggestions on how to present to the draft budget plan to the board.

A number of members spoke to support the recommended approach, and stated that the ad-hoc committee did a great job. There was general consensus on the recommendation and no opposition.

##### **2. Grant Funding: General and Specific Discussion**

Matt presented slides on Grant Funding and allowed for discussion on how to proceed and take advantage of state and local funding available. Chair Winn recommended we pursue the opportunities as soon as possible. Staff should gather data and determine if want to take advantage of specific grants. It was noted that there are different categories of grants, some to be pursued by agencies. The formula for cost sharing and/or allocation formula could be different for basin wide grant opportunities.

Funding sources may require different levels of local match, have different preferences and objective, variable eligible entity requirements and/or collaboration between stakeholders. May be beneficial for agencies to apply through GWA if multiple GSA want grant funding. Opportunities should be brought to the SC and possible TAC for review and vetting.

Create awareness of grant opportunities and may consider using reserves. Some resistance to this position and it was noted that reserves need to be kept for 5 year plan and model update. Bring items to SC and ad-hoc as they arise.

- a. USBR Water Smart Drought Response Program Grant: Drought Resiliency Projects for FY 2020 and 2021. GSP Projects and Ideas.

Matt summarized individual grants to be pursued and matched by GSA and GWA grants including WaterSMART Drought Resiliency from the USBR and the Watershed Coordinator from the Dept. of Conservation. Discussion on the current project plan that would be included in this grant. Proposals for planned projects that move GWA towards sustainability. Need to start bringing those projects to the table for review.

- b. 2020 Sustainability Groundwater Management Watershed Coordinator Grant Program

Matt presented grant through state department of conservation to support implementation of GSP. Discussed the eligibility requirements and noted that GWA would be very competitive. The grant would allow for assistance in the GSP implementation process and coordination. Would like to discuss further at the TAC level to see what they come up with. Promising grant option.

### 3. Funding and Finance. General Discussion and Prop 68 Work Plan

Matt presented slides on the Prop 68 financing plan, budget and tasks. Staff will bring staff recommendation to the SC or possibly bring discussion to the Ad-Hoc group to discuss. Asking for direction from the SC. GSAs need to focus on projects to move them to a place where project are eligible for funding. Pending Federal relief may provide funding for projects that provide jobs or preserve economic activity so it is recommended that GSAs do everything they can to prepare for applications so there are not missed opportunities. Need to coordinate as quickly as possible. Please work on this collectively. We will be requesting regular Project Reports to the SC to help one another drive forward with planning and Project Reports will be standing agenda item SC and GWA Board. Some project details will not be shared until individual Boards review and approve project plans.

#### **B. Action Items:**

None

### **III. Public Comment:**

Chelsea Spier with DWR – in regards to Grants, California state library is creating site for grants. Available July 1, 2020.

**IV. Director's Comments:**

None

**V. Future Agenda Items:**

None

**VI. Adjournment:**

Meeting adjourned at 9:41 am by Chairman Winn.







**Component 3: Round 3 Eastern San Joaquin GSP Development**

Develop a financing plan for the funding implementation of the GSP and refine the existing DMS. Expand the monitoring network by installing at least one (1) groundwater monitoring well.

**Category (a): Planning Activities**

Develop a financing plan for funding GSP implementation and make refinements to the current DMS.

**Task 1: Financing Plan**

Develop a financing plan for funding implementation of the GSP to meet SGMA regulations to provide an evaluation of various funding strategies and a final recommendation for the Authority's Board for approval. Provide specific financing strategies to fund GSP implementation activities through the first 5-year GSP update with recommendations for a longer-term funding plan. Inform stakeholders, the general public, and other interested parties about the progress and results of the tasks implemented. Create outreach materials. Identify potential funding sources for the preferred option and analyze all feasible alternatives.

**Deliverables:**

- Outreach materials
- Cost analysis and revenue requirement calculation
- Financing analysis
- Financing plan

**Task 2: DMS Refinements**

Develop a mobile/tablet interface with the DMS for field data collection and to enhance public access to the DMS to ensure data transparency. Provide training to field staff that will be utilizing the mobile interface. Enhance the current desktop portal to improve public access to DMS data.

**Deliverables:**

- DMS mobile and tablet training materials
- Mobile and tablet interface fact sheet
- Desktop portal refinements technical memorandum

**Category (b): Monitoring/Assessment**

Locate, design and construct at least one (1) monitoring well to provide groundwater elevation data relative to boundary flows in the Delta-portion of the Subbasin. Develop criteria for prioritizing location of monitoring wells, looking to developed clustered well locations where possible. Complete environmental documentation, obtain required permits, and obtain any access agreement(s). Use available geologic data in and around the proposed well locations to prepare preliminary well designs. Prepare a field work plan that outlines how the monitoring wells will be drilled, constructed, developed, and tested and includes a site health and safety plan that all team members will adhere. Submit all permits, environmental documentation, access agreements (if needed), field work plan, and health and safety plan to DWR's Project Manager for review and concurrence. Conduct a pre-construction meeting with the technical team, selected drilling contractor, and hydrogeological consultant to ensure effective communication during field activities and required onsite procedures. Conduct final site visits with the hired hydrogeological consultant and DWR's Project Manager. Develop and submit the well completion reports that will include, but are not limited to, maps of the new well locations, well logs, e-logs, well construction diagrams, and summary of the analytical laboratory data. Complete the as-built report. Prepare a component completion report and submit to the DWR Project manager for review when all work has been completed for the component.

Deliverables:

- Description of criteria evaluated for monitoring well selection
- Environmental documentation and required permits
- Access agreement(s), as needed
- Preliminary well designs
- Field work plan and health and safety plan
- Construction bid documents and awarded contract
- Well Completion Report(s)
- As-built report
- Component Completion Report

## EXHIBIT B BUDGET

Project Name: **Eastern San Joaquin Subbasin GSP**  
 Grantee: **Eastern San Joaquin Groundwater Authority**  
 Grant serves a need of a Disadvantaged Area?: **Yes**  
 Local Cost Share Required: **Round 2 – 25%; Round 3 – 10%**

| COMPONENT CATEGORIES                            | Round 2 Grant Amount | Round 2 Local Cost Share | Round 2 % Local Cost Share | Round 3 Grant Amount <sup>1</sup> | Round 3 Local Cost Share | Round 3 % Local Cost Share | Total Cost         |
|---|----------------------|--------------------------|----------------------------|-----------------------------------|--------------------------|----------------------------|--------------------|
| (1) Grant Administration                        | \$0                  | \$0                      |                            | \$0                               | \$50,000                 |                            | <b>\$50,000</b>    |
| (2) Round 2 Eastern San Joaquin GSP Development | \$1,500,500          | \$500,000                |                            | \$0                               | \$0                      |                            | <b>\$2,000,000</b> |
| (3) Round 3 Eastern San Joaquin GSP Development | \$0                  | \$0                      |                            | \$325,000                         | \$5,000                  |                            | <b>\$330,000</b>   |
| <b>TOTAL PROJECT:</b>                           | <b>\$1,500,000</b>   | <b>\$500,000</b>         | <b>25%</b>                 | <b>\$325,000</b>                  | <b>\$55,000</b>          | <b>14%</b>                 | <b>\$2,330,500</b> |

**NOTES:**

<sup>1</sup>Grantee was awarded a total of \$500,000 in grant funds; however, \$175,000 of those funds are contingent upon future appropriation of Proposition 1 funding. The agreement will require an amendment after July 1, 2021 when the funds are reappropriated and readily available to award.

**Table 6-1: List of SGMA Projects**

| Project Name   | Project Type                | Project Proponent | Measurable Objective Expected to Benefit | Current Status                 | Time-table (initiation and completion)            | Estimated Costs |             | Required Permitting and Regulatory Process <sup>1</sup>                                      | Expected Groundwater Demand Reduction (AF/year) |
|--|-----------------------------|-------------------|--|--------------------------------|---|-----------------|-------------|--|---|
|  |                             |                   |  |                                |   | Capital         | Annual O&M  |  |   |
| <b>Planned Projects:</b> Projects in this category are planned to be completed and online prior to 2040. The projected supply of projects in this category will be considered as offsetting the projected 2040 supply imbalance. |                             |                   |  |                                |   |                 |             |  |   |
| Project 1: Lake Grupe In-lieu Recharge   | In-lieu Recharge            | SEWD              | Groundwater levels                       | Can be implemented immediately | 2020-2022   | \$2.3 M         | \$330,000   | Installation for new intake and pipeline requires permits from DFW, CVFPB, RWQCB, and USACE  | 10,000  |
| Project 2: SEWD Surface Water Implementation Expansion   | In-lieu Recharge            | SEWD              | Groundwater levels                       | Design phase                   | 2019-2020   | \$750,000       | \$100,000   | Permit approvals from DFW, RWQCB, CVFPB, and USACE by private landowners                     | 19,000  |
| Project 3: City of Manteca Advanced Metering Infrastructure  | Conservation                | City of Manteca   | Groundwater levels                       | Currently underway             | 2019-2021   | \$650,000       | \$300,000   | None   | 272   |
| Project 4: City of Lodi Surface Water Facility Expansion & Delivery Pipeline   | In-lieu Recharge            | City of Lodi      | Groundwater levels                       | Planning phase                 | 2030-2033   | \$4 M           | \$2,340,000 | SWRCB permitting and CEQA required   | 4,750   |
| Project 5: White Slough Water Pollution Control Facility Expansion   | Recycling/ In-lieu Recharge | City of Lodi      | Groundwater levels                       | Construction complete          | 2019-2020   | \$6 M           | \$4,664     | None (permitting complete)   | 115   |
| Project 6: CSJWCD Capital Improvement Program  | In-lieu Recharge            | CSJWCD            | Groundwater levels                       | Can be implemented immediately | 2020-2027, on-going with 7-year completion cycles | \$50,000        | \$50,000    | Individual applications need CSJWCD Board approval and possible streambed alteration permits | 5,000   |

| Project Name  | Project Type                | Project Proponent | Measurable Objective Expected to Benefit | Current Status  | Time-table (initiation and completion) | Estimated Costs |            | Required Permitting and Regulatory Process <sup>1</sup>  | Expected Groundwater Demand Reduction (AF/year) |
|---|-----------------------------|-------------------|--|---|--|-----------------|------------|--|---|
|   |                             |                   |  |   |  | Capital         | Annual O&M |  |   |
| Project 7: NSJWCD South System Modernization  | In-lieu Recharge            | NSJWCD            | Groundwater levels                       | Environmental review is complete, funding has been sought and a landowner improvement district formed | 2018-2023                              | \$9 M           | \$250,000  | Permits for pump station work have been completed; minor grading and road encroachment permits may be needed | 4,500   |
| Project 8: Long-term Water Transfer to SEWD and CSJWCD  | Transfers/ In-lieu Recharge | SSJ GSA           | Groundwater levels                       | Infrastructure is in place. Environmental Review may need to be implemented                           | 2019-2021                              | N/A             | \$9 M      | Project must comply with CEQA  | 45,000  |
| <b>Total Planned</b>  |                             |                   |  |   |  |                 |            |  | <b>88,637</b>                                   |
| <b>Potential Projects:</b> Projects in this category represent a “menu of options” for the Subbasin to achieve long-term sustainability and offset the remaining imbalance above and beyond implementation of the “planned” projects. |                             |                   |  |   |  |                 |            |  |   |
| Project 9: BNSF Railway Company Intermodal Facility Recharge Pond   | Direct Recharge             | CSJWCD            | Groundwater levels                       | Planning phase  | 2020-2023                              | \$150,000       | \$50,000   | Streambed alteration permit  | 1,000   |
| Project 10: City of Stockton Advanced Metering Infrastructure   | Conservation                | City of Stockton  | Groundwater levels                       | Initial study completed in 2011   | 2020/25-2025/28                        | \$11 M          | \$550,000  | Not determined   | 2,000   |

| Project Name  | Project Type                                 | Project Proponent | Measurable Objective Expected to Benefit | Current Status   | Time-table (initiation and completion) | Estimated Costs |            | Required Permitting and Regulatory Process <sup>1</sup>   | Expected Groundwater Demand Reduction (AF/year) |
|---|--|-------------------|--|--|--|-----------------|------------|---|---|
|   |  |                   |  |  |  | Capital         | Annual O&M |   |   |
| Project 11: South System Groundwater Banking with EBMUD       | In-lieu Recharge                             | NSJWCD            | Groundwater levels                       | Agreement is in place; parties need to finalize design. Environmental review and permitting needed | 2020-2025                              | \$5 M           | \$400,000  | SWCRB change petition for Permit 10478 and San Joaquin County groundwater export permit, and regulatory permits as needed | 4,000   |
| Project 12: NSJWCD North System Modernization/ Lakso Recharge | In-Lieu Recharge/<br>Direct Recharge         | NSJWCD            | Groundwater levels                       | Planning phase   | 2021-2026                              | \$7 M           | \$150,000  | Regulatory permits as needed  | 2,600   |
| Project 13: Manaserro Recharge Project                        | Direct Recharge                              | NSJWCD            | Groundwater levels                       | Planning phase   | 2019-2022*                             | \$300,000       | \$400,000  | CEQA review, possible grading permit, possible water right change petition  | 8,000   |
| Project 14: Tecklenburg Recharge Project                      | Direct Recharge                              | NSJWCD            | Groundwater levels                       | Planning phase   | 2020-2023**                            | \$1 M           | \$400,000  | CEQA review and possible grading permit   | 8,000   |
| Project 15: City of Escalon Wastewater Reuse                  | Recycling/<br>In-lieu Recharge/<br>Transfers | SSJ GSA           | Groundwater levels                       | Planning phase   | 2020-2028                              | \$18 M          | \$400,000  | CEQA review, RWQCB permits, and road encroachment permits   | 672   |

| Project Name   | Project Type                          | Project Proponent  | Measurable Objective Expected to Benefit | Current Status   | Time-table (initiation and completion) | Estimated Costs |                | Required Permitting and Regulatory Process <sup>1</sup>  | Expected Groundwater Demand Reduction (AF/year) |
|--|---------------------------------------|--------------------|--|--|--|-----------------|----------------|--|---|
|  |                                       |                    |  |  |  | Capital         | Annual O&M     |  |   |
| Project 16: City of Ripon Surface Water Supply   | In-lieu Recharge                      | SSJ GSA            | Groundwater levels                       | Design complete; environmental permitting underway                                       | 2020-2024                              | \$8.6 M         | N/A            | NEPA Categorical Exclusion, CEQA Mitigated Negative Declaration, and road encroachment permits | 6,000   |
| Project 17: City of Escalon Connection to Nick DeGroot Water Treatment Plant   | In-lieu Recharge                      | SSJ GSA            | Groundwater levels                       | Conceptual design phase; environmental review complete                                   | 2020-2023                              | \$8,789,000     | \$250,000      | Road encroachment permits  | 2,015   |
| <b>Total Potential</b>   |                                       |                    |  |  |  |                 |                |  | <b>32,287</b>                                   |
| <b>Longer-term or Conceptual Projects:</b> Projects in this category represent potential future projects that could conceptually provide a benefit to the Subbasin in the future, but that would need to be further developed. |                                       |                    |  |  |  |                 |                |  |   |
| Project 18: Farmington Dam Repurpose Project   | Direct Recharge                       | SEWD               | Groundwater levels                       | Preplanning phase with reconnaissance study complete                                     | 2030-2050                              | \$175 M         | \$2 M          | Permits and approvals from SWRCB, USBR, DFW, RWQCB, CVFPB, and USACE                           | 30,000  |
| Project 19: Recycled Water Transfer to Agriculture   | Recycling/Transfers/ In-lieu Recharge | City of Manteca    | Groundwater levels                       | Planning phase with evaluation completed in Draft Reclaimed Water Facilities Master Plan | Not determined                         | \$37,645,000    | \$679,000      | NPDES Permit amendment, CEQA review, and SWRCB approval  | 5,193   |
| Project 20: Mobilizing Recharge Opportunities  | Direct Recharge                       | San Joaquin County | Groundwater levels                       | Early conceptual planning phase  | Not determined                         | Not determined  | Not determined | Not determined   | Not determined                                  |

| Project Name                                   | Project Type   | Project Proponent | Measurable Objective Expected to Benefit | Current Status                     | Time-table (initiation and completion) | Estimated Costs |            | Required Permitting and Regulatory Process <sup>1</sup>                      | Expected Groundwater Demand Reduction (AF/year) |
|--|--|-------------------|--|------------------------------------|--|-----------------|------------|--|---|
|  |  |                   |  |                                    |  | Capital         | Annual O&M |  |   |
| Project 21: NSJWCD Winery Recycled Water       | Recycling/<br>In-Lieu Recharge/<br>Direct Recharge   | NSJWCD            | Groundwater levels                       | Conceptual planning and discussion | 2025-2027                              | \$1.5 M         | \$100,000  | WDR permitting through the RWCQB and minor permits for pipeline construction | 750   |
| Project 22: Pressurization of SSJID Facilities | Conservation   | SSJ GSA           | Groundwater levels                       | Feasibility study complete         | 2019-2030                              | \$328 M         | \$8.5 M    | CEQA review and road encroachment permits                                    | 30,000  |
| Project 23: SSJID Storm Water Reuse            | Storm Water/<br>In-lieu Recharge/<br>Direct Recharge | SSJ GSA           | Groundwater levels                       | Planning phase                     | 2027-2030                              | \$30 M          | \$30,000   | CEQA review and road encroachment permits                                    | 1,100   |
| <b>Total Longer-term or Conceptual</b>         |  |                   |  |                                    |  |                 |            |  | <b>67,043</b>                                   |

<sup>1</sup> Acronyms defined: Stockton East Water District (SEWD), Central San Joaquin Water Conservation District (CSJWCD), North San Joaquin Water Conservation District (NSJWCD), California Department of Fish and Wildlife (DFW), Central Valley Flood Protection Board (CVFPB), Regional Water Quality Control Board (RWQCB), and U.S. Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), California Environmental Quality Act (CEQA), U.S. Bureau of Reclamation (USBR), National Pollutant Discharge Elimination System (NPDES), Waste Discharge Requirements (WDR).

\* Project is anticipated to initiate on a pilot basis in 2019 and on a full-scale basis in 2020.

\*\* Project is anticipated to initiate on a pilot basis in 2020 and on a full-scale basis in 2021.



East San Joaquin Groundwater Sustainability Plan Project  
WaterSMART Drought Response Program: Drought Resiliency Projects for Fiscal Years (FY) 2020 and 2021

**The Problem**

The East San Joaquin Groundwater sub-basin is the primary source of supply for this robust agricultural area with growing municipal demands. The groundwater basin *critical state of overdraft* per California Department of Water Resources criteria, is impacted greatly by drought, and is vulnerable to climate change. Approximately 75 KAFY on average are needed to achieve sustainability. Surface water is conjunctively managed from the Mokulumne, Calaveras and Stanislaus Rivers under a complex mix of pre-1914, appropriative and contractual water rights, and through the operations of multi-purpose reservoirs used to conserve available supplies and provide flood control benefits. There are a wide range of contractual and institutional agreements governing reservoir operations, water rights, water supply sharing, and groundwater banking, storage and exchange. These technical and institutional circumstances constrain the opportunities to respond to drought, achieve sustainability, create a resilient water supply and preserve the local economy.

**The Project**

This project will help achieve sustainability and support drought response in the East San Joaquin Groundwater Basin by applying water management tools and technology to increase drought resiliency; identify water available for recharge and from the Mokulumne, Calaveras and Stanislaus Rivers; distribute available water via existing or new canals, pipelines and/or natural channels to lands available for recharge; develop and implement projects for flood water spreading on producing or fallow agricultural lands, in-lieu and/or direct recharge; define systems and institutional arrangements for banking, groundwater storage, crediting and exchange. Emphasis is on Flood Managed Aquifer Recharge (FloodMAR), but other recharge opportunities are also to be identified. Specifically, we will:

- Conduct a Water Availability Analysis (WFAR) to quantify flood and other water available for recharge during wet, above normal and normal times from the Mokulumne, Calaveras and Stanislaus Rivers, including potential for reservoir reoperations and effects of climate change;
- Evaluate existing and expanded conveyance (pipe, canal) use of natural channels (environmental infrastructure) to move flood and other waters;
- Characterize recharge areas in terms of land use, cropping and physical recharge potential (soils, lithology, storage capacity; depth to water, etc.);
- Establish wet/dry operational criteria;
- Define needed project improvements, including quantifying costs and benefits;
- Document economic returns, conduct economic analysis and identify revenue generation, cost recovery and sharing opportunities;
- Conduct extensive outreach to growers, commodity groups, irrigation districts and land owners in cooperation with the Resource Conservation District, NRCS and Cooperative extension;
- Identify and establish institutional mechanisms for groundwater storage and banking; water marketing, transfer, exchange; and project implementation agreements
- Define groundwater storage beneficial uses and pursue groundwater storage permits, both short and long term.

We will apply state of the art analysis tools to formulate projects, quantify benefits and costs, and prioritize projects to be implemented. The Groundwater Recharge Assessment Tool (GRAT) developed by Sustainable Conservation, will be used to define recharge opportunities and yields, formulate projects and compare alternatives, evaluate project costs, inform growers and the related groundwater sustainability agencies. GRAT is a shared map-based Geographic Information System (GIS) decision support tool that will allow the Turlock Subbasin GSAs to create and run unlimited water availability scenarios and to identify optimal recharge projects given existing conveyance, operational rules, and underlying hydrogeologic conditions in the Subbasin. The overall goal of the GRAT effort is to better inform GSP implementation by helping the GSAs identify, prioritize and implement local projects and management actions that most quickly optimize groundwater recharge across the Subbasin. The GRAT will help the GSAs screen potential recharge projects. The existing East San Joaquin Integrated Water Flow Model to quantify how the volumes of recharge will move into and through the groundwater basin; document the benefits of wet year/dry year operations; evaluate stream/aquifer interactions and effects on groundwater dependent ecosystems, and the effects of extraction regimes used to respond to drought, and quantify the recharge and drought response benefits. The results will be used to further support economic evaluation, refine the local area's approach to drought response, establish basin accounting and crediting, and help to establish project agreements between the partners.

### **Partners and Eligibility**

The East San Joaquin Groundwater Authority (GWA) is a Joint Powers Authority formed to collaborate in the development and implementation of the East San Joaquin Groundwater Sustainability Plan (GSP) developed pursuant to the California Sustainable Groundwater Management Act (SGMA). The GSP covers the entire East San Joaquin Groundwater Subbasin located in the heart of the Sacramento and San Joaquin Delta. The GWA is partnership of 16 distinct Groundwater Sustainability Agencies (GSAs) which represent management subarea; and are based on water districts, city, investor owned utility and other administrative boundaries. Many of the GSAs include disadvantaged communities. San Joaquin County provides staffing, funding and project and program management to the GWA and would lead the grant funded effort.

### **Benefits/Outcomes**

- Plan and projects to recharge 75 KAY of flood water and to support water rights holders use available groundwater storage space
- Demonstration of GRAT and Modeling methods that can be transferred to other regions
- Costs and benefits analysis to be used for local revenue generation pre proposition 218
- Partner agreements for water banking and storage projects; and for water transfers, exchange and marketing in and out of the basin

### **Funding Sources for Local Match**

There is a 50% local match requirement.

- San Joaquin County Flood Control and Water Conservation District Zone 2 (\$100K direct, plus \$75K in-kind. This could be higher if the Department of Conservation Grant is received).
- Department of Conservation Watershed Coordinator Grant (\$200 K over 2 years)
- Proposition 68 Grant Component 3 – Funding and Financing (\$50K- already awarded)
- Local Partners (TBD; in-kind, direct,)
- EBMUD (TBD; direct)