
GWA
EASTERN SAN JOAQUIN
GROUNDWATER AUTHORITY
GWA Advisory Committee
February 13, 2019

Agenda

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

- Approval of January Meeting Minutes
- GSP Roadmap & Deliverables
  - Action Recommendation: Administrative Review Period
- Pathway Toward GSP Preparation
- Financing
- Monitoring Network
- Changes to GSAs
- March Agenda Items

GSP Roadmap & Deliverables

Reminder: State Intervention

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- There are stipulations in the regulation if GSAs cannot come to agreement
- If deadline is missed or if DWR determines a plan is not adequate or progress toward sustainability is not occurring, the State Water Resources Control Board (SWRCB) can designate basins as “probationary” and directly manage groundwater extractions. If this occurs, the State can control extractions through pumping allocations (metering and monthly reporting required)

Potential Fees for Under State Intervention – State Backstop

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Fee Category*	Annual Fee	Applicable Parties
Base Filing Fee	$300 per well	All extractors required to report.
Unmanaged Rate	$25 per acre-foot	Extractors in unmanaged areas. If extractors use a meter to measure extractions the rate is $10 per acre-foot.
Probationary Rate	$40 per acre-foot	Extractors in probationary basins.
Interim Plan Rate	$55 per acre-foot	Extractors in probationary basins where the Board determines an interim plan is required.
De minimis Fee	$100 per well	A well owner that extracts two acre-feet or less per year for domestic purposes in a probationary basin, if the Board decides these extractions are significant.
Late Fee	25% of total fee per month	Extractors that do not file reports by the due date.

*Fees are subject to change. Additional information available at waterboards.ca.gov/gmp.

Potential Fees for Under State Intervention – State Backstop

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Fee Example Scenarios

1. The following table provides examples of how the proposed probationary fee rates for eight hypothetical farms would approximately relate to a fee based on irrigated acreage:

Crop	Irrigated Acreage	Acre Feet of Water Applied Annually Per Acre (DWR[(b)])	Probationary Rate	Cost per Acre	Total Cost
Alfalfa	150	5.05	$40	$202	$30,300
Almonds	150	3.54	$40	$142	$21,240
Corn	150	2.83	$40	$113	$16,980
Cotton	150	3.09	$40	$124	$18,540
Grapes	150	1.86	$40	$74	$11,160
Misc. Fruit Trees	150	3.3	$40	$132	$19,800
Pistachios	150	3.54	$40	$142	$21,240
Rice	150	4.56	$40	$182	$27,360

(b) State-wide averages, Department of Water Resources, Agricultural Land and Water Use Estimates, 2010

2. The following table provides examples of how the proposed probationary fee rates would apply to a municipal water supplier and industrial user:

Purpose of Use	Example Volume	Probationary Rate	Total Cost
Municipal Water Supply	3,600 acre-feet	$40	$144,000
Semiconductor Factory (Industrial)	5,200 acre-feet	$40	$208,000

When Does this Need to be Complete?

Period	Meeting Focus	Major Sections	GWA & GSA Decision Points
Mar	Table of Contents, Plan Sections and Approach Groundwater Dependent Ecosystems Sections Released	• Table of Contents • HCM • Plan Area and Monitoring • Land Use Elements • Data Management System • Current and Historical Conditions	• GSAs determine preferred approaches to meeting water needs (offline) • GWA decides whether to push schedule by two months
Apr	GSA Budgets Implementation and Financing Plan Sustainability Thresholds and Indicators	• Water Budget • Sustainability Indicators	
May	Sustainability Goal GWA Draft GSP	• GWA Admin Draft GSP (4 week review)	• GWA approves regional projects • GWA approves sustainability goal
June	None (GSAs reviewing document)	• None (4 weeks to address comments)	
July	Summary of Changes	• Notice Public Draft (14 days) • Public Draft release	• GWA approves release of public draft
Aug-Sept	None (30 day Public Comment Period)		
Oct	Summary of Comments GSA Adoption Timeline	• Final GSP	• GWA approves publishing final GSP
Oct-Dec	(GSA adoption meetings)		• GSAs adopt GSP
Dec	JPA Adoption		• GWA adopts GSP

GSP Chapter Deliverables – Update

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- There has been a request for an administrative review of the chapters by GSA attorneys/staff two months prior to release to the GWA Board, Advisory Committee, and the public

Pros & Cons of Administrative Review Period

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Pros	Cons
• Legal review completed before drafts are released to public	• Workgroup gets no information before public • Schedule is pushed back; GWA administrative draft review period replaced

GSP Chapter Deliverables – Update

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Action Needed: Recommendation to the GWA Board on whether to approve an administrative review period or move forward with the release of GSP draft sections as originally scheduled.

Pathway Toward GSP Preparation

Pathway to GSP Preparation

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- Prepare GSA-level water budgets
  - Meeting with GSAs Feb/Mar to review
  - Determine preferred approach to meeting needs by GSA (local projects, multiple GSAs working together, regional projects, etc)
- Determine appropriate funding / financing approach
  - GSA-level, multiple GSAs jointly funding, regional funding
- Identify additional regional projects necessary for subbasin-level SGMA requirements

Sharing GSA-Level Water Balances

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- Over the next two months, we will meet with GSAs individually for quality control review of their water balances
- GSA-level water balances will be shared with the Advisory Committee at the April meeting once these discussions have taken place
- Basin benefits (e.g., subsurface flows from rivers) will be treated as a benefit to the entire basin

A Hybrid Solution

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- Basin-wide and GSA-scale projects will be discussed
  - Potential for enhanced flexibility for GSAs
  - Potential for a diversity of funding mechanisms
  - Understanding GSA-level water budgets will help GSAs determine if GSA-level projects are needed or desired

Why Are We Talking About Projects and Funding / Financing?

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- The subbasin is overdrafted at 45,000-50,000 AFY
- GSP Implementation Plan Must Include:
  - Description of projects including those to respond to changing conditions in the basin
  - Description of the public notification process
  - Quantification of methods for mitigation of overdraft
  - Summary of permitting/regulatory process required for each project
  - Status of each project including time-table showing accrual of expected benefits
  - Explanation of benefits that are expected to be realized and methods for evaluation
  - Explanation of how the project will be accomplished including source and reliability.
  - Description of legal authority required for each project, and the basis for that authority within the Agency.
  - Description of estimated cost for each project and a description of how the Agency plans to meet those costs.
  - Description of the management of groundwater extractions and recharge to ensure that chronic lowering of groundwater levels is offset by increases in periods of storage.

Implementation and Financing will be at Multiple Levels

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- Regional Projects – subbasin level needs (monitoring, reporting, etc.) and potentially broadly-supported projects that are most cost-effective at the regional scale
- Local projects – projects at the GSA scale needed / planned for SGMA compliance
- Sub-regional projects – projects that include more than one but not all GSAs to address GSA-level needs

How Will We Figure out What Goes Into the Implementation Plan?

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- Prepare GSA-level water budgets
  - Meeting with GSAs Feb/Mar to review
  - Determine preferred approach to meeting needs by GSA (local projects, multiple GSAs working together, regional projects, etc)
- Determine appropriate funding / financing approach
  - GSA-level, multiple GSAs jointly funding, regional funding
- Identify additional regional projects necessary for subbasin-level SGMA requirements
- Present approach at April meeting
- Board approval in May of any regional projects


Financing

Financing Agenda

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- Funding Sources
  - Capital Funding Sources
    - Federal Funds
    - State Funds
    - Capital Markets (bonding)
    - PayGo (cash financing from revenue)
    - P3 (contractual arrangements)

Financing Agenda (cont.)

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- Financing Strategies
  - Property / Sales Taxes
  - Targeted taxes
  - Usage rates / charges
  - Benefits allocation and billing of GSAs
  - “Blended” approach

- Considerations specific to ESJ
- Examples of other successful multi-party cost sharing


Funding Sources

Funding Sources: Federal

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Funding Program	Description	Terms	Pros	Cons
WIFIA	Federally sponsored lending vehicle to communities and utilities to fund large water infrastructure projects	Minimum loan size = $20M Loans are for 35 years or expected life of the project Interest Rates based upon federal bond rates at time of loan closure	Low interest rate; currently 2.93% Longer life than many other funding sources	Significant up-front application fees Can only fund 49% of the value of any project
Bureau of Reclamation WaterSMART: Title XVI Water Reclamation and Reuse Program	Program to fund the reclamation and reuse of wastewaters and naturally impaired ground or surface waters.	Grants up to $20M, requiring at least a 75% match No minimum grant size >$50 M was available in most recent grant cycle	Grant funding for 25% of capital	Highly competitive
Bureau of Reclamation WaterSMART: Small Scale Water Efficiency Projects Program	Funding for small-scale water efficiency projects which have been prioritized through planning efforts	Maximum grant of $75,000	Grant funding up to 50% of project	Might not be appropriate scale considering the projects GWA is considering
Bureau of Reclamation WaterSMART: Drought Response Program	Funding vehicle to projects which increase the reliability of water supplies, improve water management, and provide benefits for fish, wildlife, and the environment	Grants of $300,000 to $750,000, depending upon project duration	Grant funding up to 50% of project	Highly competitive
MANY OTHER FEDERAL PROGRAMS WHICH MAY BE ABLE TO PROVIDE FUNDING (NOAA, FEMA, HUD, etc)				

Funding Sources: State

Funding Program	Description	Terms	Pros	Cons
SRF (Both DWSRF and CWSRF	State subsidized funding vehicle for water and sewer projects	30 years financing Interest rates = 50% of state GO bonding rates in preceding year	Lots of money available Subsidized interest rates	
CIED (ISRF)	State lending program to help communities fund a wide range of infrastructure projects	Financing for the life of a funded project (up to 30 years)		
WRCB Water Recycling Funding Program	Program to administer grants for both planning and construction projects	Planning grants up to $75,000 Construction grants up 35% of total project cost (<$15M)	Grant funding	
WRCB Stormwater Grant Program – Round 2	Program to administer the Prop 1 Stormwater Funds			
CDFA – Water Efficiency Grant Program	Program that administers the SWEEP to provide an incentive to agricultural interests to reduce on-site water use and GHG emissions	Total funding available = $9.5M Maximum individual grant = $100,000	Match is not required, but strongly encouraged	
CDWR – Integrated Regional Water Management	CDWR program to administer $510M in Prop 1 Funds to	>$0.5B in available funds	Grant Funding Intended to encourage regional collaboration	
CDWR – San Joaquin Riverine Stewardship	Still in comment period – funding to enhance creeks, steams, and rivers in the San Joaquin basin – targeted towards fish habitat.	>$47M in grant funding	Grant Funding	Need to align with Fisheries Recovery Plan

Funding Sources: Bonding

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- General Obligation Bonds - Long-term borrowing used by local governments to raise money for long-lived infrastructure asset projects.

Funding Sources: PayGo

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- Also known as pay as you go – where municipalities pay for capital projects by saving or using free cash.

Funding Sources: P3

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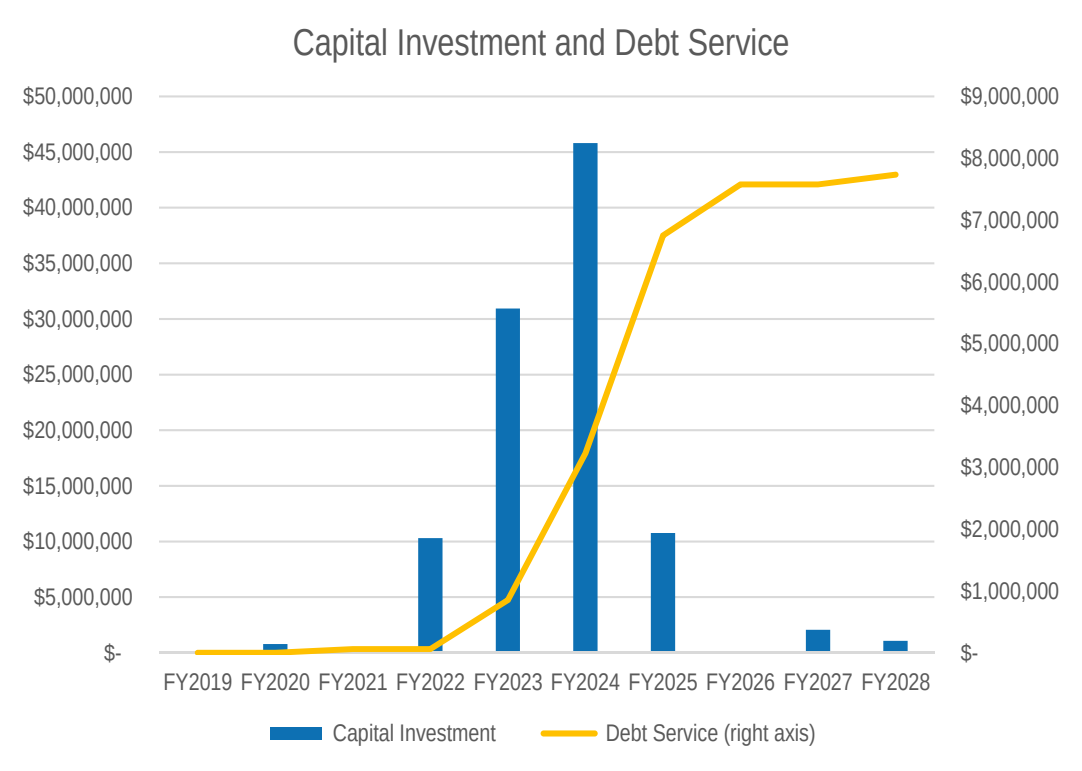
Public Private Partnerships (P3)

- Alternative project delivery system
- Private project financing of public infrastructure
- Allows borrower to pay over time versus making large up-front capital investments

Financing Strategies

How will we determine annual funding requirements?



Cash Flows for Capital Improvements Projects

- Financing for ~$85M in FY2019 CCE
- (~$102M escalated)
- Assumes 4.5%, 20-year financing
- Linked to construction schedule, the annual debt service obligation grows to $7.75M by FY2028

ESJ Specific Considerations

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- Basin-scale, GSA-scale, or hybrid approach
- Which GSAs will have implementation projects?
- Cost allocation for administrative costs
  - Monitoring and reporting
  - Data collection and analysis
  - Project implementation
  - Administrative actions
  - 5-year update
  - DMS updates
  - Public outreach
  - Website maintenance
  - Legal support
  - Grant writing

Financing Strategies

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Four primary ways of raising revenue

1. Usage Rates / Charges
2. Property / Sales Taxes
3. Targeted Taxes
4. Benefits allocation and billing of GSAs

Most multi-party organizations use a “blended” approach

Prop 218 – Example Fee Structure

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1. Flat Assessment by Parcel: All parcels assessed the same fee or tax
2. Flat Assessment by Class and Parcel: All parcels of the same class assessed the same fee or tax.
3. Agricultural Flat Fee, Non-Agricultural by Parcel Size (Gross Area): All agricultural parcels assessed the same fee or tax; all non-agricultural parcels assessed in accordance with size
4. Lot Size (Gross Area): All parcels assessed in accordance with size
5. Parcel Factor: Parcel assessed using a factor that estimates groundwater use of that parcel based on the customer class
6. Account Specific (e.g. actual pumping volume, etc.): Calculation of actual pumping volume, calculations of recharge areas, any calculation of credits based on groundwater conservation activity to create a highly unique assessment by parcel


Cost Sharing Models & Case Studies

Case Studies in Cost Sharing

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Case Study	Corollary to ESJ
Water Conserv II : Largest water recharge and reuse operation in the US	Effective cost-share model developed for complicated, multi-agency project
MWRA : Regional utility with over 50 members which has collaboratively funded >$6 billion in aggregate infrastructure	Successful cost allocation developed between very different agencies
Nurse River	Regional effort similar to single GSAs developing plans
Sonoma County	Local effort melds various revenue streams to fund compliance
Salinas Valley Basin GSA	SGMA compliance fee-based funding: $2.27 non-agricultural; $4.81 per irrigated acre for agricultural users to fund the agency


Monitoring Network

Proposed Monitoring Well Locations

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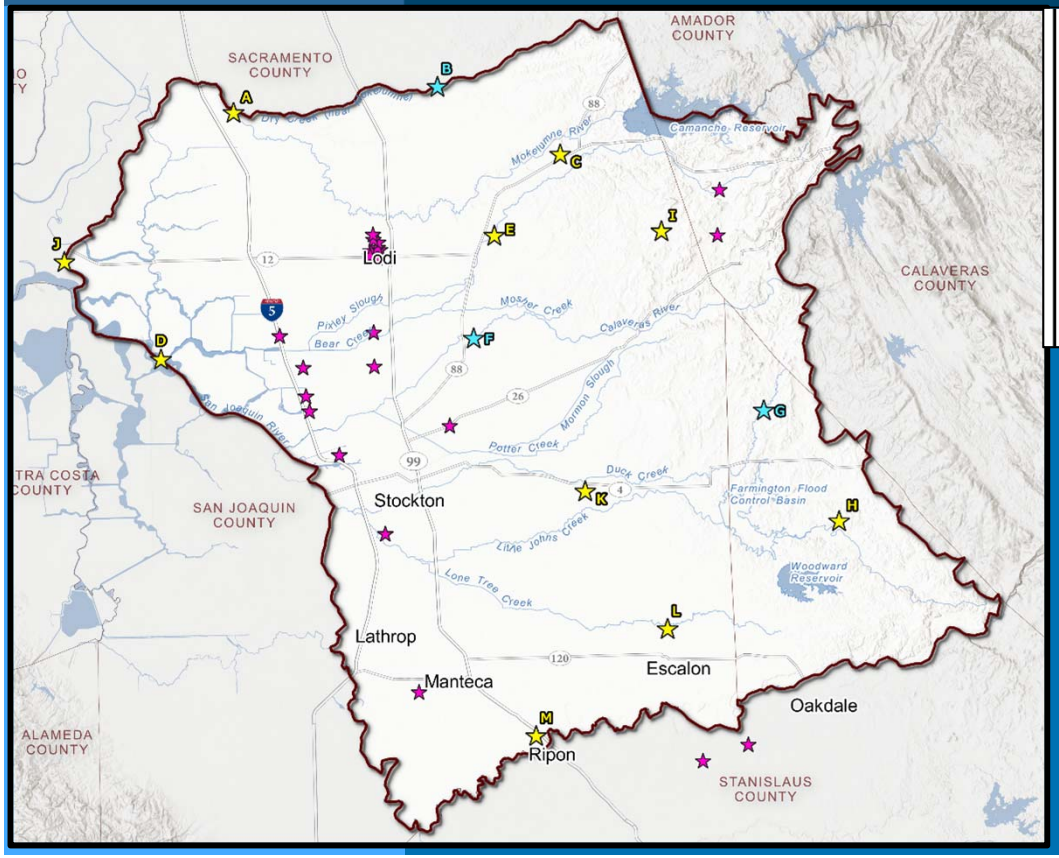

Wells

- TSS Application in Progress
- Other Proposed Monitoring Wells
- Existing Clustered or Nested Wells

- Up to 3 TSS wells
- 10 additional monitoring wells in areas of known data gaps

Changes to GSAs

Changes to GSAs

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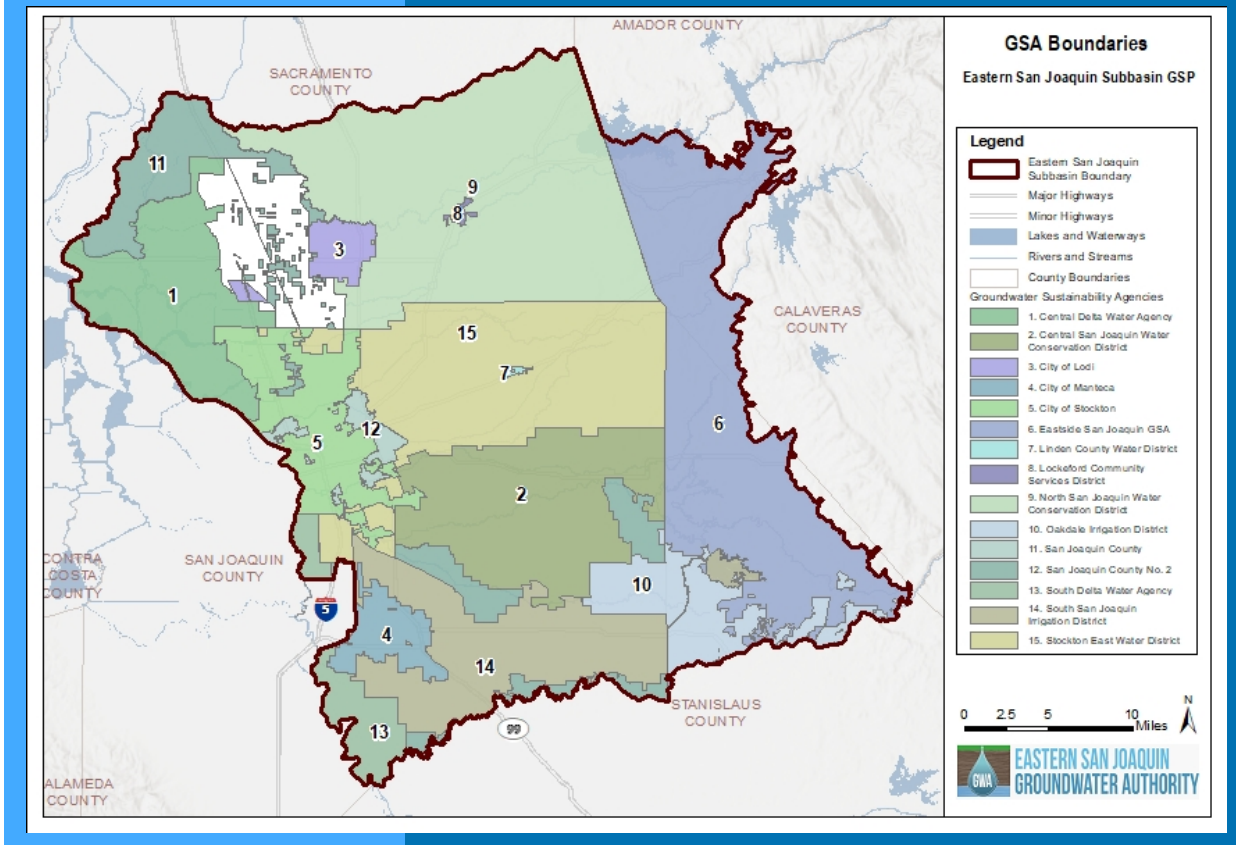

- City of Lathrop Basin Boundary Modification
- Woodbridge Irrigation District GSA withdrawal

March Agenda Items

March Agenda Items

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

- Table of Contents, Plan Sections and Approach
- Financing
- Projects & Management Actions
- GDEs


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