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 EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY	<h1>Agenda</h1>
	<p>Discussion / Action Items:</p> <ol style="list-style-type: none"> 1. Approval of the July 14, 2021 Meeting Minutes (attached) 2. August 5, 2021 TAC Discussion and Model Development 3. DWR GSP Review and Response Plan and Team 4. Tracy Subbasin GSP Status (Richard Shatz) 5. Request for Qualifications for Accounting Framework and Funding/Finance Alternatives Evaluation (Draft Attached) 6. DWR Facilitation Support Services (Draft Attached) 7. American River Water Rights Application 29657 GWA Policy Statement for September 8 Board Consideration <p>Staff Reports</p>

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 EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY	<h2>DWR GSP Review and Response Plan</h2>
	<ul style="list-style-type: none">• Discussed at the June 2, 2021 meeting• Recommended that the Board direct the Steering Committee to coordinate the response with input from TAC• GWA adopt joint response<ul style="list-style-type: none">• May be minority positions• Independent GSA response

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DWR GSP Review and Response Plan (cont.)

- Send to GSAs when received
- GSA bring comment to Steering in September
 - GSAs use their legal and tech people
 - Staff and consultant start drafting responses
- Ad Hoc Team (Sept, Oct, Nov)
 - Integrate GSA, staff, consultant comments for a draft response
 - Discussion with DWR
- GWA Board in December

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DWR GSP Review and Response Policy Questions

- Seek task order from Woodard Curran
 - Anticipated in FY 20-21 Budget
 - Authorize Director to negotiate and sign
- Organization?
 - Form Ad Hoc Response Team to review comments
 - Legal team, Tech team
 - Form a smaller team to dialog with DWR

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Model Update

- Update now to support evaluation of project impacts, benefits, basin accounting framework
- Input data request and model update status
- Model outputs

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2021 Model Update and Calibration Refinement

- Update Historical Model for OID Delivery Data
 - Sources of data:
 - Historical data from OID from historical model data collection (including updated data for 2020 and 2021 Annual Reports)
 - ESJWRM update by Jacobs for Stanislaus River Basin Plan
 - Modesto Subbasin model by W&C for Modesto GSP
- Update Historical Model Features and Data
 - Sources of data:
 - Regional Models: C2VSimFG, Delta Model
 - Local Models: CoSANA (for Cosumnes Subbasin boundary flows), Modesto Model (for Modesto Subbasin boundary flows and supplies/demands)
 - Information from GSAs, DWR, etc.
- Update Model Calibration
- Prepare Technical Memorandum
- Update Projected Conditions Baseline

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Water Budgets

Historical

Uses historical information for hydrology, precipitation, water year type, water supply and demand, and land use going back a minimum of 10 years.

Current Conditions

Conditions seen in a recent year with "normal" data on population, land use, year type, water supply and demand, and hydrologic conditions.

Projected Conditions

Uses the future planning horizon to estimate population growth, land use changes, etc. Requires at least 50 years of historical hydrology.

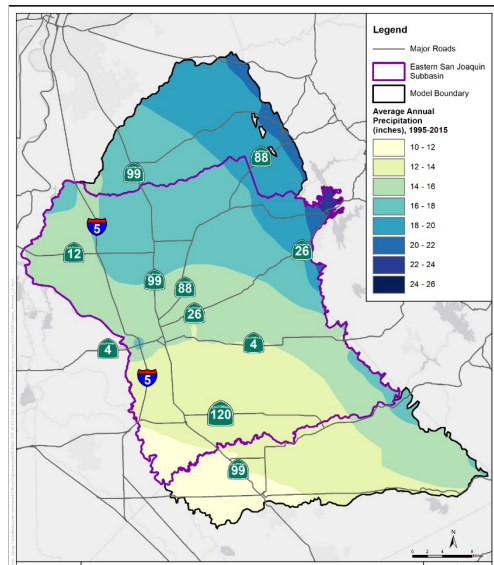
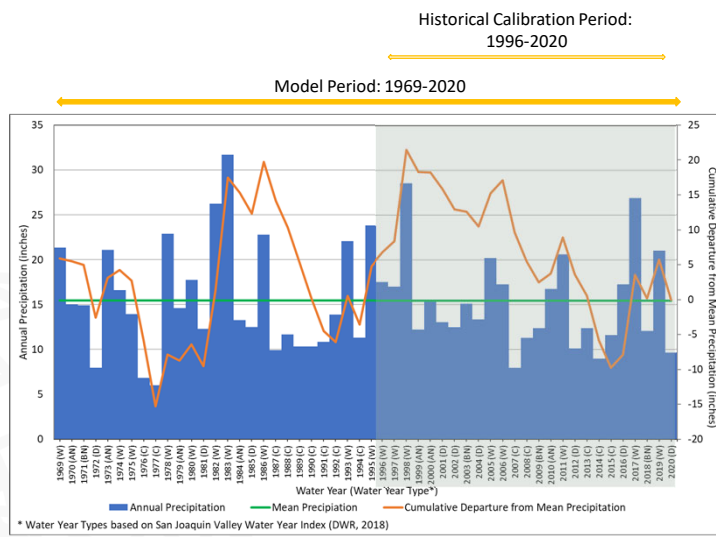
Projected Conditions with Climate Change

Tests impacts to subbasin of changes to hydrology suggested in DWR climate change data (at least one scenario required).



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Projected Hydrology



*Source: PRISM (Parameter elevation Regression on Independent Slopes Model)

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Projected Conditions Baseline

- 50+ years of hydrology (precipitation and stream inflow): WY 1969-2020
- Urban Demand:
 - Population growth based on San Joaquin Council of Governments at 2040 level of development
 - Urban Demand growth based on data from agencies (UWMPs)
 - GPCD calculated based on population and demand
- Other Updates:
 - Boundary conditions
 - Evapotranspiration
 - Agency data (surface water deliveries and groundwater pumping)



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Local Scale Water Budget

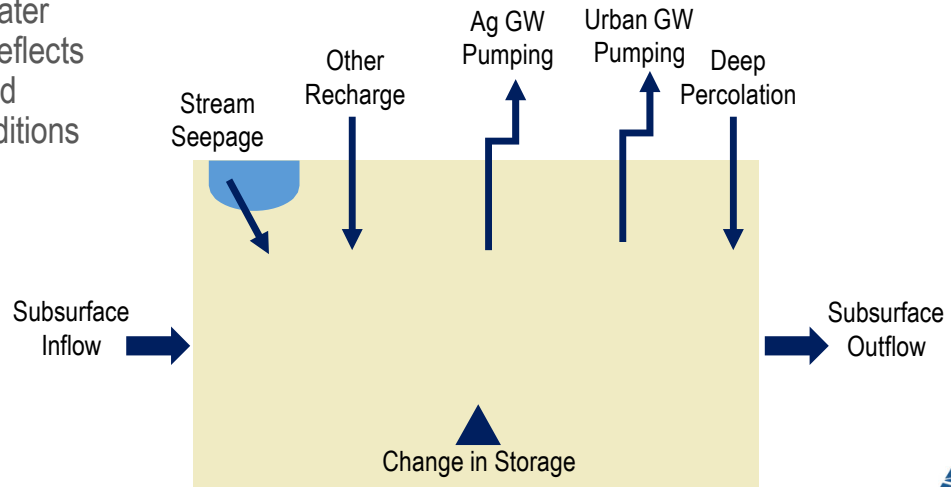
- Model produces “Hydrologic” Water Budgets by various geographic scales (Subregions, Subareas, GSAs, etc.)
- “Hydrologic” Water Budgets are used to analyze and develop sustainable yield conditions at the Subbasin level
- “Operational” Water Budgets are used for accounting of GSA operational activities



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Hydrologic Water Budget Components

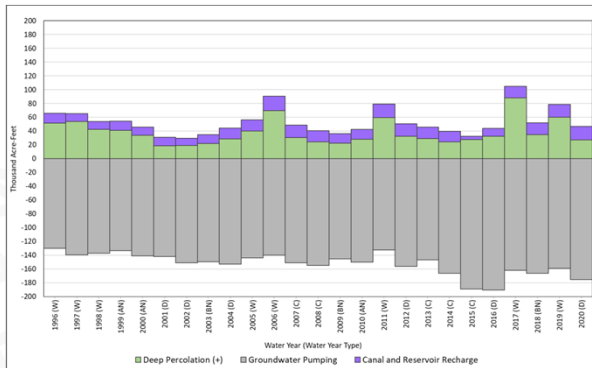
- Definition: Water budget that reflects hydrology and physical conditions



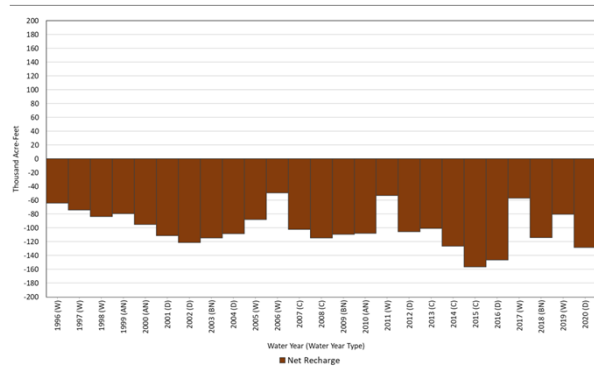
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Annual Recharge and Extraction

Groundwater Recharge and Extraction- Net Extractor



EXAMPLE Net Extractor



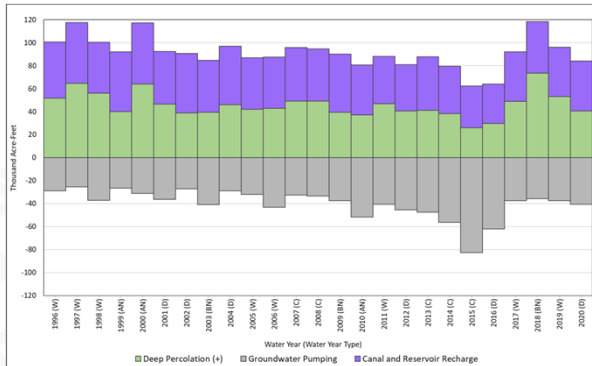
Note: Showing model results for example area from ESJWRM v1.3



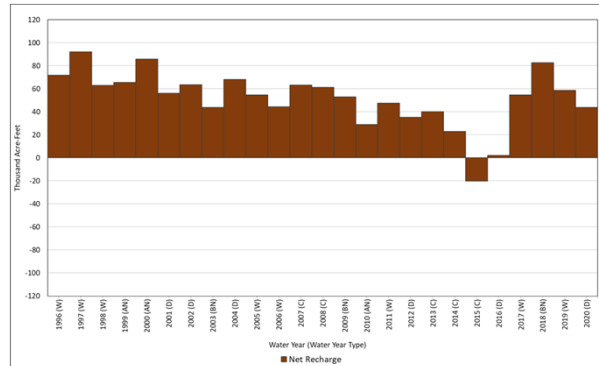
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Annual Recharge and Extraction

Groundwater Recharge and Extraction- Net Contributor



EXAMPLE Net Contributor



Note: Showing model results for example area from ESJWRM v1.3



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Next Steps

- Model calibration update: End of August
- Baseline update: Early September
- GSA scale water budget: Early September
- Water budget workshops: Mid-September




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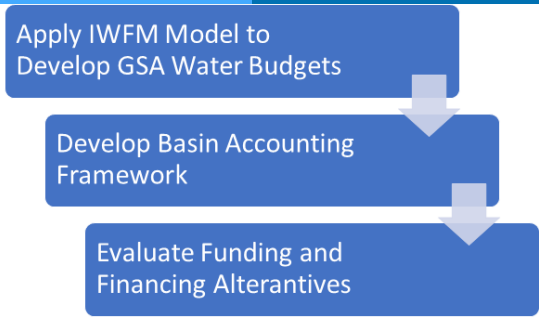


Tracy Sub Basin GSP- Richard Shatz

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RFQ Accounting Framework and Funding/Finance Alternatives Evaluation (Draft)




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graph TD
    A[Apply IWFM Model to Develop GSA Water Budgets] --> B[Develop Basin Accounting Framework]
    B --> C[Evaluate Funding and Financing Alternatives]
  
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- Limited routing
- GWA review and selection panel (Meet 8/13)
- Quals based selection
- Negotiate final scope, schedule and budget
- Integrate w/ DWR FSS
- Recommendation to the SC and Board
- Authorize assignment by Executive Secretary


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RFQ Accounting Framework and Funding/Finance Alternatives Evaluation (cont.)

- Single firm or team
- Skills - engineering, modeling, economics, finance/funding, and policy development
- Identifies requisite experience

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RFQ Accounting Framework and Funding/Finance Alternatives Evaluation (cont.)

Time line

- Release of RFQ August 13, 2021
- Statement of interest August 20, 2021
- Pre-submittal August 26, 2021. 10:00 AM
- Deadline for submittal September 17, 2021 at 5:00 PM
- Start Date November 10, 2021 (SC meeting)

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DWR Facilitation Support Services

- DWR support- **A big thank you!**
- Covers a lot of what we need to do with a limited budget
- Key activities supported
 - Stakeholder surveys
 - Preparation of a stakeholder assessment focused on water accounting methods and principals
 - Case studies of water accounting practices
 - Editorial support for preparation of the ESJGWA Water Accounting Framework Strategy Document

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American River Water Rights Application 29657 GWA Policy Statement for September 8 Board Consideration

- Endorse existing water availability analysis
- Back up watershed of origin claim
- Water needs to be available for recharge to achieve long term goals
- Support further consideration of how water can be beneficially uses

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