EKI TECHNICAL PRESENTATION #23

WHITE WOLF GSA BOARD OF DIRECTORS

6 OCTOBER 2022

eki environment & water

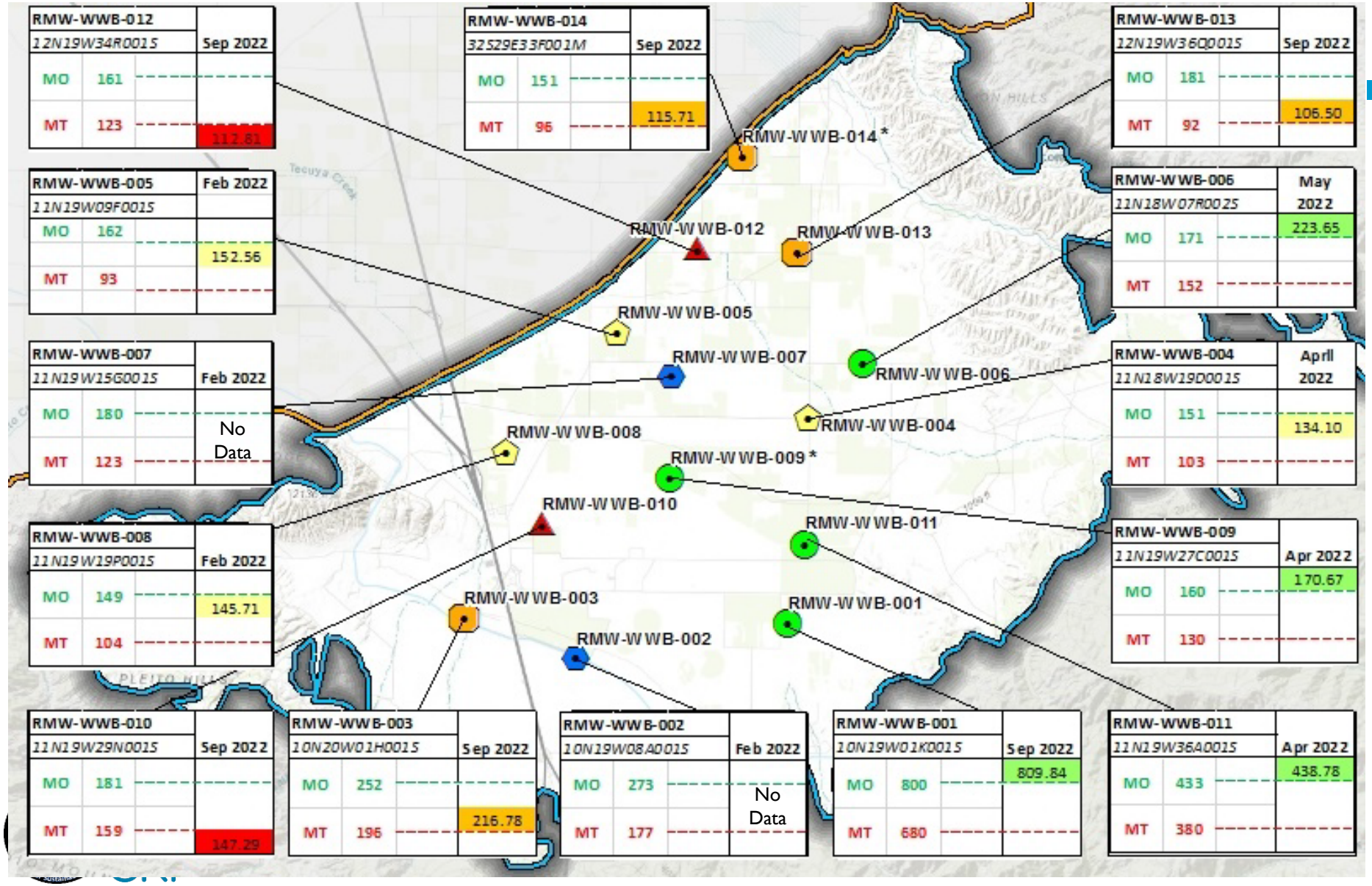
White Wolf Groundwater Sustainability Agency

OUTLINE – AGENDA ITEM #8

- Update on groundwater levels through September 2022
- SGMA Implementation Round 2 Grant Solicitation Update
  - Schedule
  - Potential Projects
  - Letters of Support

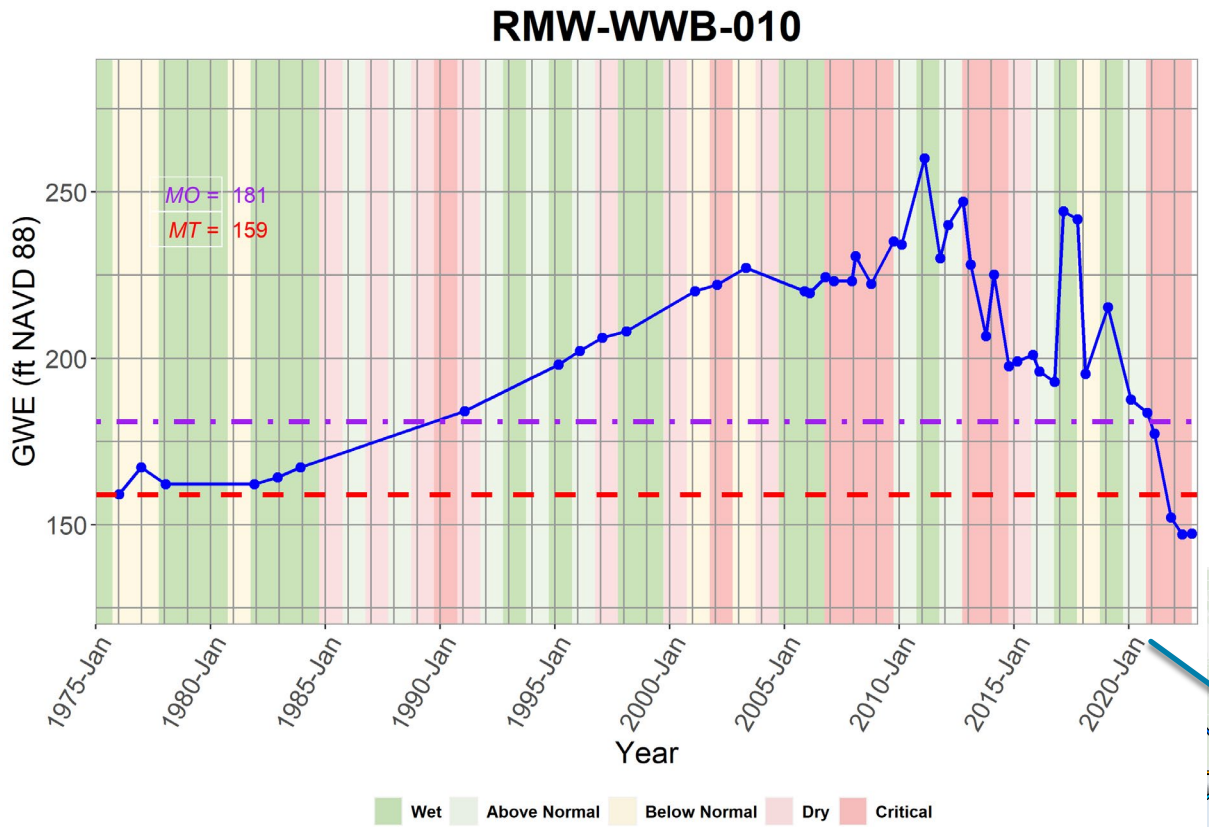
8a. UPDATE ON GROUNDWATER LEVELS THROUGH SEPTEMBER 2022

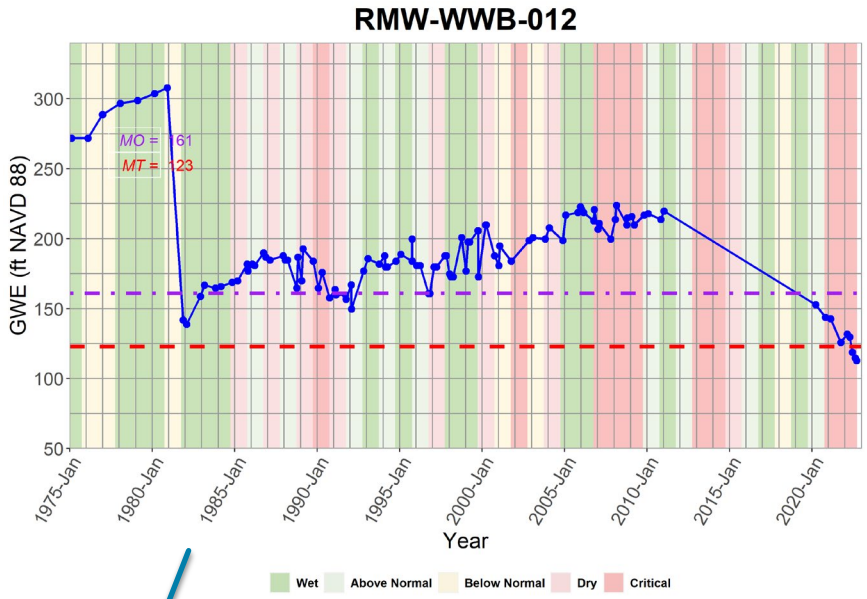
INTERIM WATER LEVEL COMPARISON TO SMCs

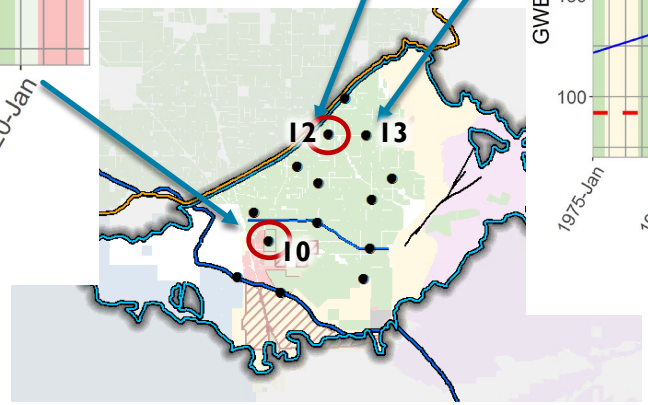


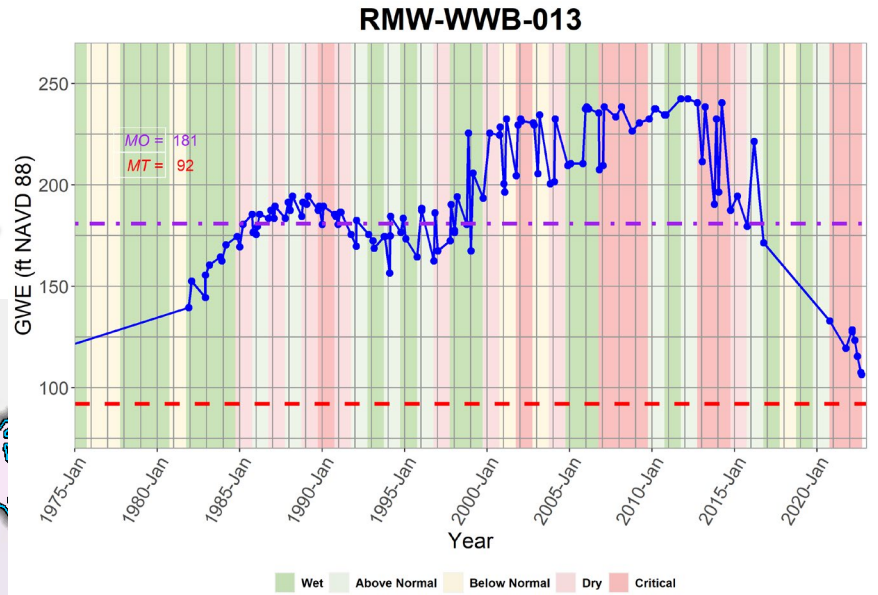
- MT exceedances:
  - RMW-WWB-010: September 2022
  - RMW-WWB-012: June through September 2022

WATER LEVELS APPROACHING OR BELOW MTs









8b. SGMA IMPLEMENTATION ROUND 2 GRANT SOLICITATION UPDATE

GRANT SOLICITATION SCHEDULE

- Solicitation now open
- Applications due by the end of November
- Work must be completed by June 30, 2026

Program Schedule and Key Dates

Milestone or Activity	*Tentative Schedule*
SGMA Implementation Round 2 Grant Solicitation Opens	October 4, 2022
SGMA Implementation Round 2 - Application Workshop	October 20, 2022, 10 a.m.-Noon (PST)
SGMA Implementation Round 2 Grant Solicitation Closes	November 30, 2022, at 5 p.m. (PST)
Draft Award List Posted for Public Review	May 2023
Final Award List Posted	August 2023
Execute Agreements	September-November 2023

APPLICATION COMPONENTS

- Authorizing Documentation
  - WWGSA must adopt a resolution authorizing the WWGSA secretary to file application and execute the grant agreement
- Eligibility Self-Certification documentation
- Work Plan
  - Project Descriptions
    - Justification on why project(s) were chosen over all others identified in the GSP
    - Description of quantifiable benefits
  - Scope of Work
  - Deliverables
  - Budget
  - Schedule

WHICH PROJECTS AND HOW MUCH MONEY SHOULD WE INCLUDE IN THE APPLICATION?

- Grant application can range between $1 to $20 million per basin
- Approximately $230 million available for 94 eligible basins (including 20 COD basins)
  - $2.45 million per basin if split equally, or
  - $3.1 million per basin if exclude COD basins who received Round 1 funding
- To show commitment to the projects, recommend including a 5% cost share to receive full points
  - If GSA requests $20 million, 5% cost share = $1 million

SOME PROJECT CONSIDERATIONS

- Projects must be included in the GSP or consistent with the GSP
- Recommended language:
  - Pilot Project/Program,
  - Feasibility Study, or
  - Demonstration Study
- Examples of ineligible projects:
  - Water markets and trading programs
  - Purchases of water supplies
  - Rebate programs
  - Operations & Maintenance (O&M) costs – responsibility of applicant to maintain Project

PROJECTS WE THINK WILL SCORE HIGHEST OR SHOULD BE CONSIDERED FOR INCLUSION

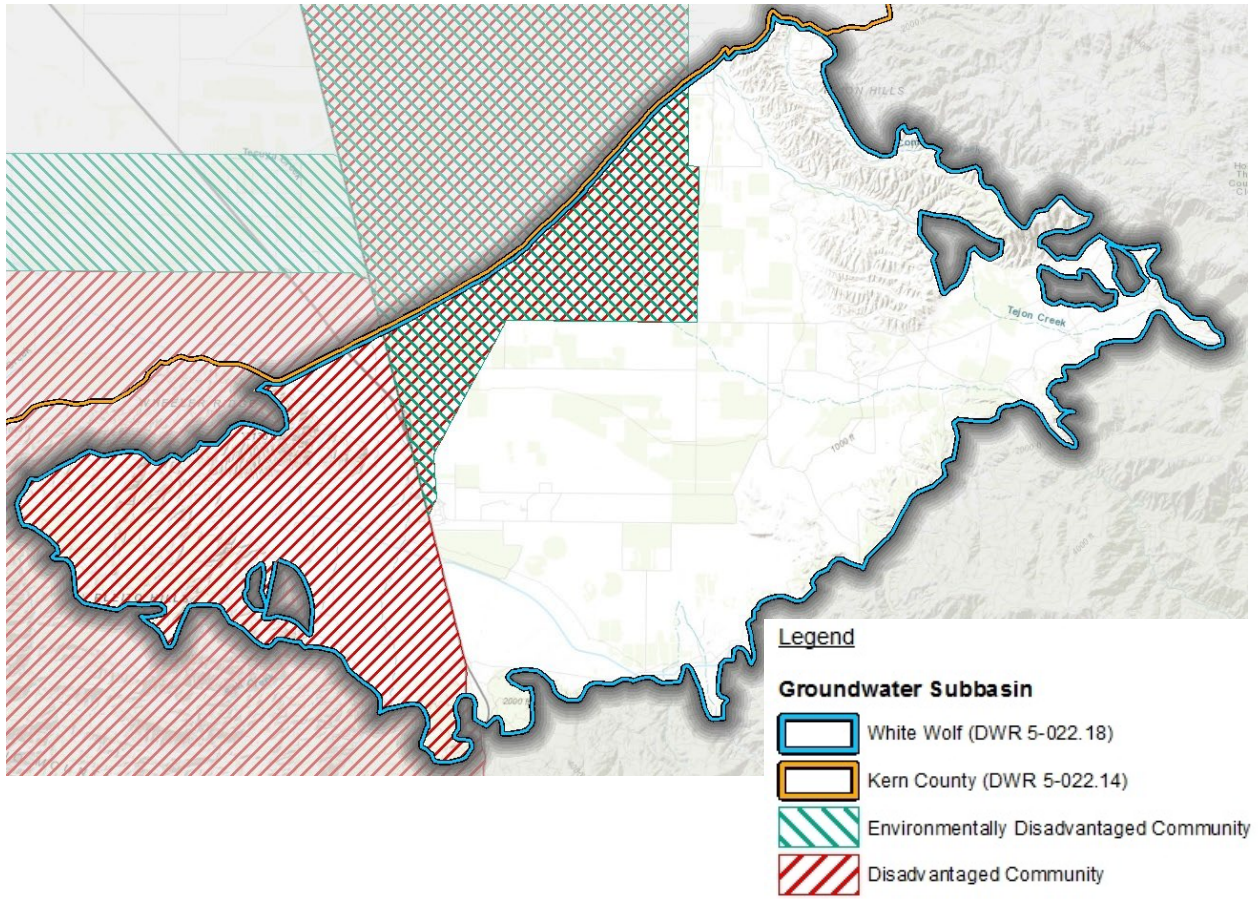
- Groundwater extraction quantification (ITRC/LandIQ)
- Oilfield Reclaimed Water from Tejon Oil Field – Constant source of water irrespective of WY type, completed pilot study, and discussions with Regional Board ongoing
- Land Conversion Pilot Program – Multibenefit, demand reduction will provide most immediate impact to Basin water level conditions
- Tejon Recharge Facility – Feasibility study and cost evaluation underway
- In-Lieu Banking Program – Proven to work, straight-forward CEQA, however need to determine acreage available for inclusion
- El Paso Creek Recharge Project – Multibenefit, near interim MT exceedance
- South Canal/850 Canal Intertie – provide ability for additional water during wet years
- Data gap filling – potential activities could include: well census and inventory, video logging, representative monitoring well replacement(s)
- GSP revisions & annual reporting

POTENTIAL PROJECT COSTS

P/MA #	P/MA Proponent	P/MA Name	One Time Cost	Ongoing Cost
23	AEWSD	AEWSD Groundwater Extraction Quantification Method	$25k – 10M	$25k
14	AEWSD	AEWSD Groundwater Subsidies for Land Conversion	$15k – 30k	$10k – 1M
15	WRMWSD	WRMWSD Land Retirement and/or Conversion	$500/acre	$250/yr/acre
2	TCWD	Oilfield Reclaimed Water from the Tejon Oil Field	TBD	TBD
	TRC	Tejon Recharge Facility	TBD	TBD
9	WRMWSD	WRMWSD El Paso Creek Recharge Project	TBD	TBD
10	AEWSD	AEWSD In-Lieu Banking Program	$1 – 10M	$5k
12	AEWSD	AEWSD South Canal WRMWSD 850 Canal Intertie	$15M	$40k
	WWGSA	Data gap filling, annual reporting, GSP revisions, etc.	--	$250k/yr

COMMENT LETTERS OF SUPPORT

- Three comment letters from Underrepresented Communities are required to receive full points:
  - Disadvantaged community (DAC),
  - Severely disadvantaged community (SDAC),
  - Tribes,
  - Environmentally disadvantaged communities (EnvDAC), or
  - Fringe communities
- Potential landowner(s) and non-profit(s) to consider for outreach:
  - Tut Brothers
  - Self-Help Enterprises
  - Landowners / farm managers
  - Farm Bureau representative
  - The Nature Conservancy
  - Wind Wolves Preserve
  - Others?

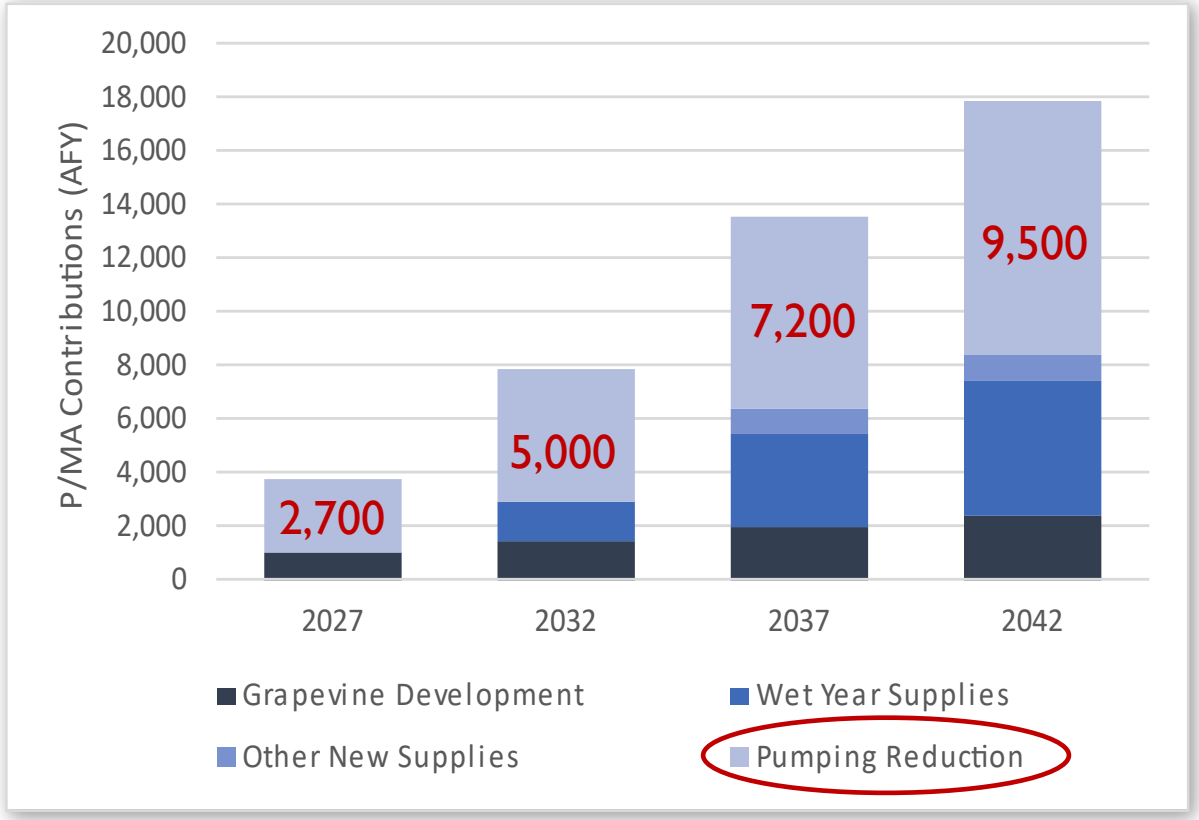


OUTLINE – AGENDA ITEM #10

- Projects and/or Management Actions (P/MAs) identified in the Groundwater Sustainability Plan (GSP)
- Case Studies
- Consider Establishment of a Committee for P/MAs Planning

P/MAS IDENTIFIED IN THE GSP – SEE *TABLE PMA-1*

- 13 Water Supply Augmentation **Projects**
- 8 Water Demand Reduction **Management Actions**
- 3 "Other" P/MAs
- Demand reduction identified as the first 5-year implementation action
- Pumping reduction must occur to meet sustainability goal



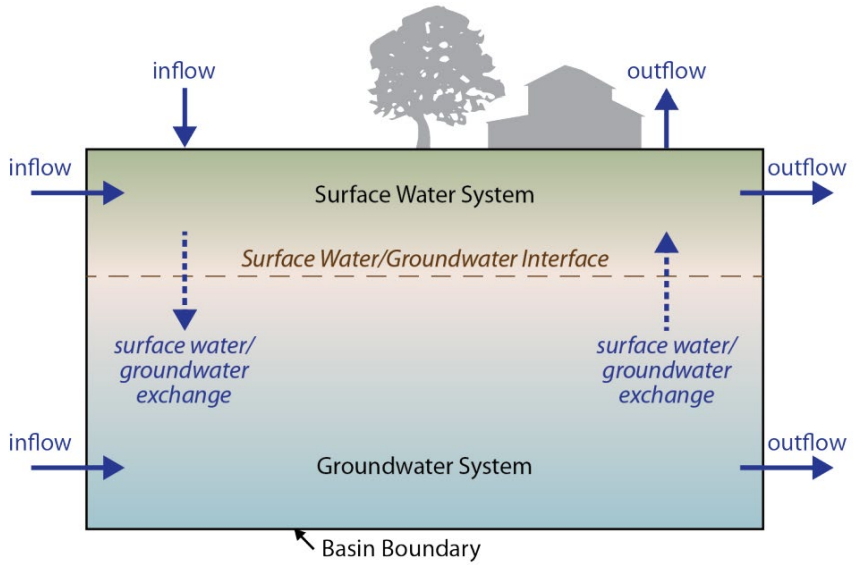
EXAMPLE DEMAND MANAGEMENT APPROACHES

- Water budgets
- Pumping allocations
- Land repurposing
- Financial incentives
- Water markets
- Well metering / reporting programs
- On-farm efficiency

https://farm-energy.extension.org/introduction-to-energy-efficient-irrigation/

CASE STUDY: PUMPING ALLOCATIONS IN SEMITROPIC WATER STORAGE DISTRICT

- SWSD accounts for 50%of the overdraft estimated for the Kern County Subbasin
- Adopted policy in 2022 that allocates a water budget to irrigated agricultural parcels
  - Native yield
  - Precipitation
  - Surface water
  - Transitional allocation which reduces over time to 0 AFY
- Penalty for exceeding allocation $1,600/AF



DWR Water Budget BMP

CASE STUDY: LAND REPURPOSING IN MERCED COUNTY GSA

- Target to save 15,000 AFY by 2025 through voluntary program
- Passed prop 218 in 2022 to fund incentive program
- Extensive outreach efforts since 2021
- Landowners can compete to receive incentive payments for reductions in consumptive groundwater use
- If savings are not realized, then move towards an allocation program

https://www.solarfeeds.com/mag/solar-farms-in-the-usa/

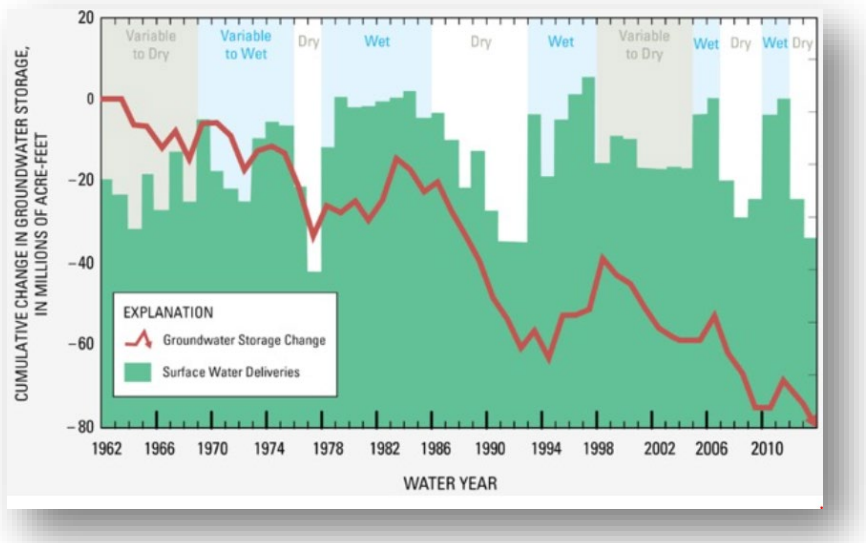
CASE STUDY: PUMPING FEES FOR TRANSITIONAL PUMPING IN THE TULE SUBBASIN

- Target to raise $200MM to repair FKC where subsidence has decreased capacity by ~60%
- Prop 218 that would have funded one-time payment did NOT pass in 2022
- Transitional pumping program now in place where fess assessed on pumping volumes in excess of native yield allocation
- Fine line – enough pumping to generate revenues; not so much pumping that subsidence rates continue in excess of planning

https://www.usbr.gov/mp/fkc-fr.html

CASE STUDY: GW MARKET IN MADERA COUNTY

- Secured a USBR grant to explore water market opportunities
- 2020 and 2021 - stakeholder outreach process and market simulation efforts
- Safe Yield allocation is what can be "bought" and "sold"
- Market rules to mitigate impacts to sensitive beneficial users (e.g., DACs)



https://waterinthewest.stanford.edu/news-events/news-insights/why-we-cant-just-suck-it-challenges-groundwater-recharge-california

CASE STUDY: PENALTIES/ENFORCEMENT IN MADERA COUNTY

- Madera County September 27th Board of Supervisors voted to instate penalties for growers who pump more than their allocation:
  - $100 per acre foot
  - Increase by $100 each year starting in 2023 to maximum of $500 per acre foot
  - Some Supervisors thought penalty was not harsh enough

SJV WATER DONATE HOME

SGMA

Over pumping will sting Madera growers, just not as much

SEPTEMBER 27, 2022 · by Jesse Vad, SJV Water

The Sun CITIES TOPICS CALIF. & BEYOND VIEW NEWSLETTERS

Agriculture · Madera

Madera Co. approves penalties for excess groundwater extraction

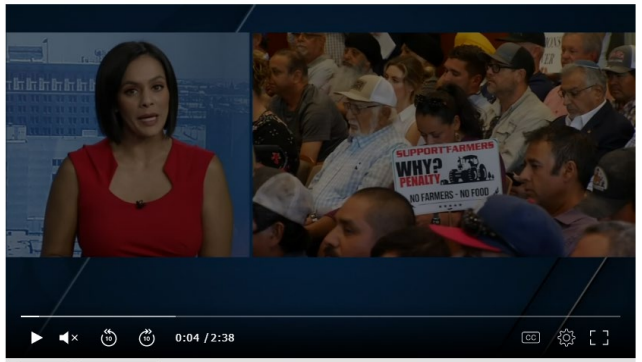
DANIEL GLIGICH

Facebook Twitter Print

Madera County farmers must now decrease water use or pay penalty

This is an amended amount to the original $500 per acre-foot penalty that was proposed.

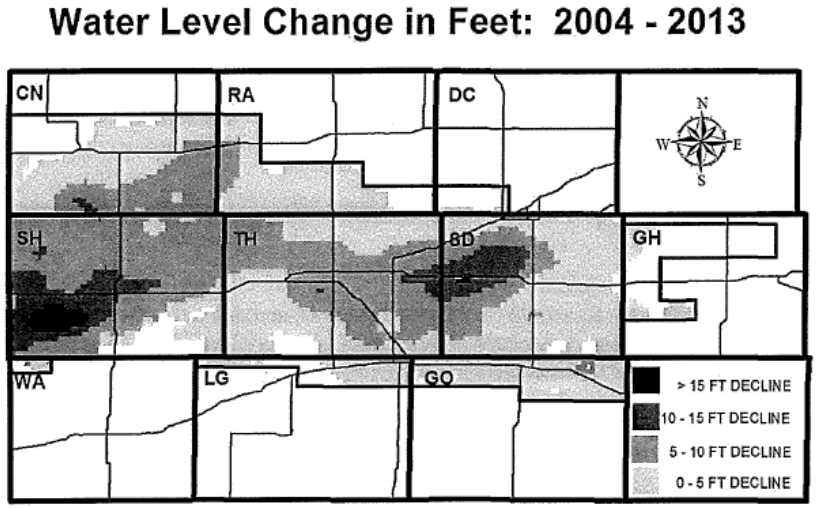
By Brittany Jacob via
Tuesday, September 27, 2022 7:15PM



Many farmers in Madera County are now being told to slash their water use or pay a penalty.

CASE STUDY: PENALTIES/ENFORCEMENT IN KANSAS (OGALLALA AQUIFER)

- Northwest Kansas Groundwater Management District No. 4 penalties for exceeding total allocation within allocation period:
  - <4 AF: $1,000 for every day excess pumping was occurring
  - **>4 AF: 2-year suspension of water right**



Northwest Kansas Groundwater Management District No. 4 Revised Management Program (2016)

HOW TO INITIATE P/MAS IN THE WWB?

- Establishing a "**P/MA Committee**" to support the Board in reviewing policy and other considerations related to P/MA implementation
- Example committee structures include:
  - **Single committee** that is a mix of GSA Board members, District staff, and volunteer landowners and/or non-profit representatives);
  - **Tiered Committee** that includes an Ad-hoc Board Committee (e.g., with one Director from each member District), supported by an ad-hoc Technical Advisory Committee (e.g., District staff and volunteer landowners and/or non-profit representatives); or
  - **Another option** as directed by the Board

Does the GSA support landowner-developed recharge projects?

Leave behind for recharge projects?

Who, what, and how for enrolling, tracking, and crediting recharge projects?

How will member-district P/MAs be established and enforced in the GSA structure?

CLOSING THOUGHTS

- Successful implementation is going to require a broad toolbox of supply and demand management measures (and lots of $$$$)
- Most successful if GSA and landowners can cooperate and innovate
- Initiate policies as pilot programs, voluntary, and/or incentive-based
- Will require a trusted monitoring and reporting system
- Participation has to be incentivized and enforced

https://www.institutionalinvestor.com/article/b1nxmbpj34yxy2/californias-complex-water-market-faces-new-challenges