# UPDATE ON SUBBASINS AND CALENDAR: CHOWCHILLA

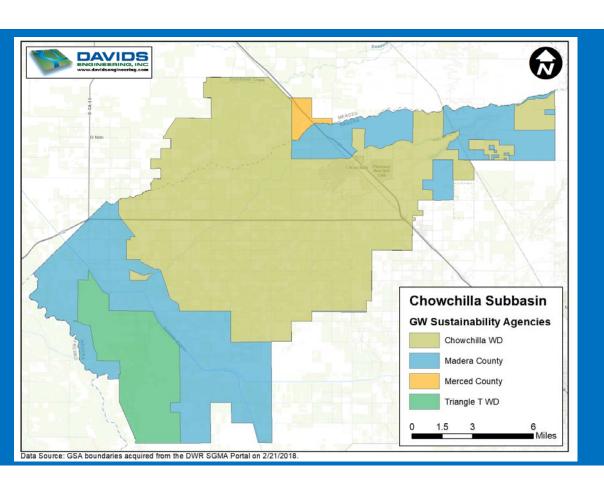
**Greg Young** 

October 3, 2019



### Chowchilla Subbasin: 4 GSAs preparing 1 GSP

See Chapter 1 for Agency Descriptions



#### **Total Subbasin**

~ 146,000 ac

~ 123,000 ac irrigated

#### Madera County GSA

~45,000 ac

~37,000 ac irrigated

Divided into:
'East' 11,400 ac/7,500 ac
'West' 31,200 ac/27,400 ac

# Chowchilla Subbasin subregions relate to proposed projects and actions

GSA	Subregion	Acres
Chowchilla Water District GSA	Chowchilla Water District GSA	85,200
	Madera County GSA – East	11,400
Madera County GSA	Madera County GSA – West	31,200
Merced County GSA	Sierra Vista Mutual Water Company	3,800
Triangle T WD GSA	Triangle T Water District GSA	14,700
	Total	146,300

## Chowchilla subbasin "consumptive use" [a.K.A. Evapotranspiration of applied water (ETAW)]

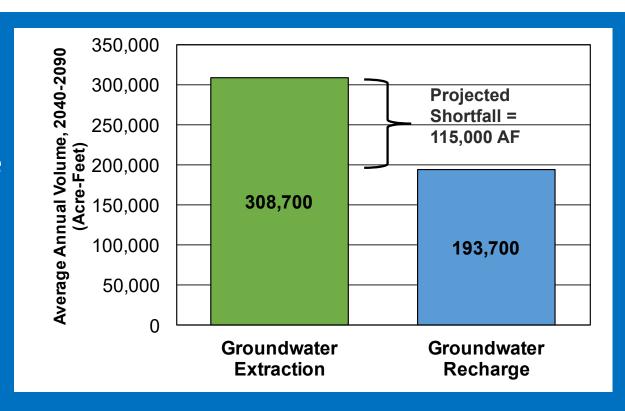
See Chapter 2 for more on land use

- Irrigated ag dominates
- Significant shift in crop types
- Average ETAW has increased
  - 1989 = 1.97 af/ac
  - 2015 = 2.66 af/ac
- Urban use is minor
  - City of Chowchilla ~ 2,500 af/yr
  - Rural residential ~ 7,200 af/yr

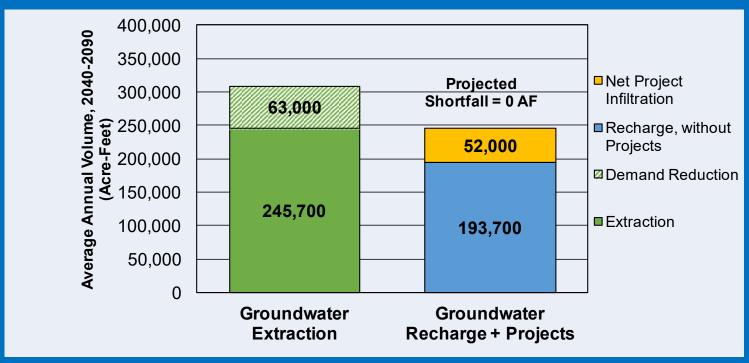
Land Use	Crop Area (acres)		
Laliu Ose	1989	2015	
Citrus and Subtropical	59	130	
Corn	10,439	18,117	
Grain and Hay Crops	4,590	5,805	
Grapes	8,023	10,934	
Idle	19,511	1,085	
Miscellaneous Field, Truck, Deciduous	26,964	5,358	
Almonds	12,337	53,489	
Pistachios	1,970	9,041	
Walnuts	229	955	
Pasture and Alfalfa	35,012	19,435	
Total	119,134	124,350	

# Chowchilla Subbasin GSP Projected shortage without SGMA

- Prepared by 4 GSAs representing the entire basin
- Solving a projected 165,900
   af/year overdraft in the future
- Available for public comment until November 11, 2019
- https://www.maderacountyw ater.com/chowchillasubbasin/



# GSP details solutions to solve the projected overdraft



Crop Water Use Reduction Program: Madera County East 11,300 af, Madera County West 16,250 af, TTWD 1,700 af. Remaining crop water use reduction due to permanent recharge basins replacing irrigated area and increased use of surface water in lieu of groundwater.

#### Madera County GSA: Actions detailed in the GSP

See Chapter 4 for projects

Туре	Max Rate and frequency	Estimated Avg. Annual Benefit (AF)
	(Values in acre-feet)	
Recharge along Bypass	70,000 - 80,000 35% of years	20,000 to 25,000
Recharge in east area	8,000 15%-30% of years	1,000 to 2,000
Irrigate with surface water in east area	1,500 – 4,000 60%-70% of years	1,000 to 2,000
Demand reduction	Steady-annual decrease in consumption to 2040	Increase ~1,400/yr (additive) to ~28,000/yr

#### Sustainability is based on:

- Significant reduction in demand
- Recharge where feasible (likely with only localized benefits)
- High cost and likely impact to County economy

#### See Chapter 4 for County GSA Demand Reduction

#### **Demand Reduction**

- Madera County plans to gradually phase-in demand management between now and 2040.
- Starting in 2020 and continuing through 2025, average annual groundwater pumping will be reduced by 2% (of the total demand reduction amount) per year, for a total cumulative reduction of 10% by 2025.
- Groundwater pumping will be reduced by 6% per year starting in 2026 and continuing through 2040.
- However, if Madera County GSA project yields are lower than initially estimated, Madera County GSA will increase the level of demand management.

#### Things to consider

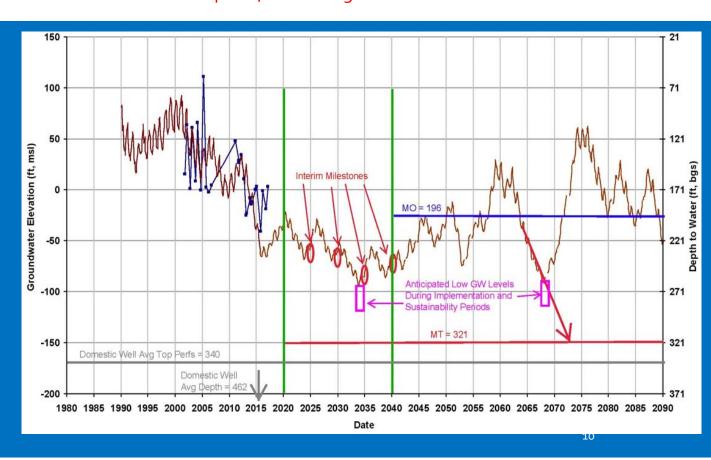
See Appendix 3C for Economic Analysis of Immediate Demand

- Administrative/regulatory burden for grower
- Administrative burden for County GSA
- Individual economics
- County GSA economics
- County economics
- Flexibility and adaptability of approach to modify to assure GSA reduction targets are met

#### Potential near-term groundwater impacts

See Chapter 4 for Setting of MTs and MOs

- GSAs need time to transition and complete projects and actions – which will lower groundwater levels during implementation
- Planned mitigation for impacts can address concerns of lowered groundwater levels during implementation



# Groundwater impacts would be much greater without the GSP actions

#### • Without the GSP:

- Groundwater levels would drop another 150 to 200 feet by 2090
- ~ 100+ ft would occur during 2020 to 2040

#### • With the GSP:

- Groundwater levels may temporarily drop between 2020 and 2040, but would recover and stabilize at current levels or even better by 2040 and into the future
- For each subbasin, 2020 to 2040 levels could be:
  - Chowchilla ~ 50 ft lower than current (or ~ 15 ft lower than recent lows)
  - Madera ~ 30 ft lower than current (or ~ 20 ft lower than recent lows)

## GSAs are considering a mitigation program for impacted drinking water wells

See Appendix 3D for Economic Analysis of Immediate Demand Reduction

- 2020/2021: Details developed with stakeholder input
- Possible mitigation actions
  - Replace/lower existing well
  - Connect to community water system
- Possible types of support
  - Low interest loans
  - Grants
- Likely will require well owners to sign up for program

#### Madera County GSA Layers of Costs

See Chapter 5 for County GSA Admin Costs

- Flood Control Agency serves two subbasins
- County GSA Fee Admin and Planning
- County GSA Project Fee Permitting, Water Purchases and Infrastructure

#### Madera County GSA current activities

- Water supplies
  - Reclamation contract
  - DWR FloodMAR investigation
- Monitoring, Recording and Reporting
  - Satellite-based analysis for ET baseline
  - Database RFP
  - GSA management and administration funding
- Implementation efforts
  - WaterSmart grant investigating groundwater trading
  - GSA implementation funding

## 5-year plan

Chowchills Subbasin and Delta Mendota Subbasins Hold meetings/workshops for input  Mendota Subbasins, Hold meetings/workshops for input  1) Prop 218 Flood Agency funding proceeding (Fall 2019) 2) Prop 218 proceeding for goor by April 1, 2020 2) Prop 218 proceeding for 2 (2) Sa Administrative fee (Fall 2019) 3) Apply for grants (SALC, Prop 68)  1) Waters/MART water market strategy exploration 2) Explore demand reduction charge or parcel fee, allocations, analysis and greparation of State Report (ongoing)  1) Recharge project feasibility to experiment fines related to parcel-based water use water trading, innovation)  3) Design domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation program 4) Acquire CVP 215 suster or equilated, and education and advisable and education and e	Draft Madera	County GSAs "First 5" Implementa	ation Summary for Madera Subb	asin and Chowchilla Subbasin				
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### Discussion

## **UPDATE ON FUNDING**

Stephanie Anagnoson and Mike Linden

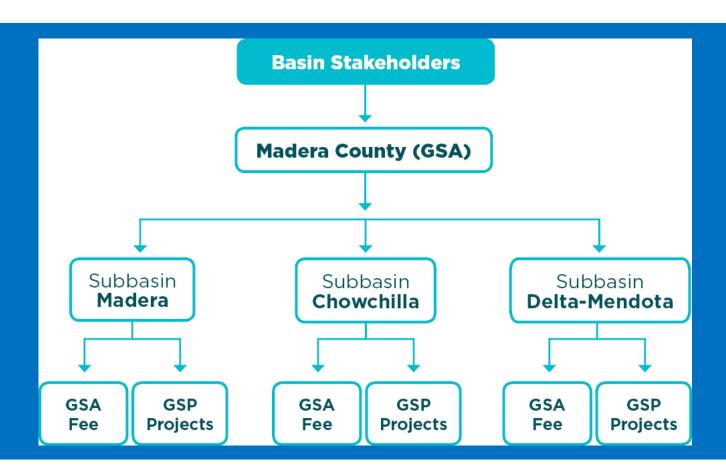
October 3, 2019



## Agenda

- Organizational Structure
- Public Outreach
- Schedule Update
- Policy Review
- Budget for County GSAs
- Fee Options
  - Differentiated Fee
  - Uniform Fee
- Next Steps

### **GSAs Organizational Structure**



### **Public Outreach**

Item	Deliverables/Meetings	Date
Policy Objectives	Board Meeting	September 3, 2019
Clayton Water District	Board Meeting	September 4, 2019
County GSAs	County GSA Meeting	September 3, 2019 October 8, 2019
	Advisory Committee Meeting	September 5, 2019 October 3, 2019
		0000001 3, 2013
Chowchilla Water District	GSA Meeting	September 11, 2019
Madera/Chowchilla Resource Conservation District	Meeting	September 11, 2019
Gravelly Ford Water District	GSA Meeting	September 16, 2019

## Study Schedule

Item	Deliverables/Meetings	Date
Policy Objectives	Board Meeting	September 3, 2019
Fee Selection	Board Meeting	October 8, 2019
Fee Study Report	Study Report	October 21, 2019
First Public Notice		October 23, 2019
Second Public Notice		October 30, 2019
Third Public Notice		November 6, 2019
Proposed Fee Adoption	Board Meeting	November 12, 2019
GSP Adoption	Board Meeting	December 2019
Fees Implemented		2020

#### **Funding Authority**

- Prop 26 exempt regulatory fees
  - Defensible with SGMA and Water Code
  - Least costly, least time consuming, and most efficient option
  - Does not require periodic re-adoption

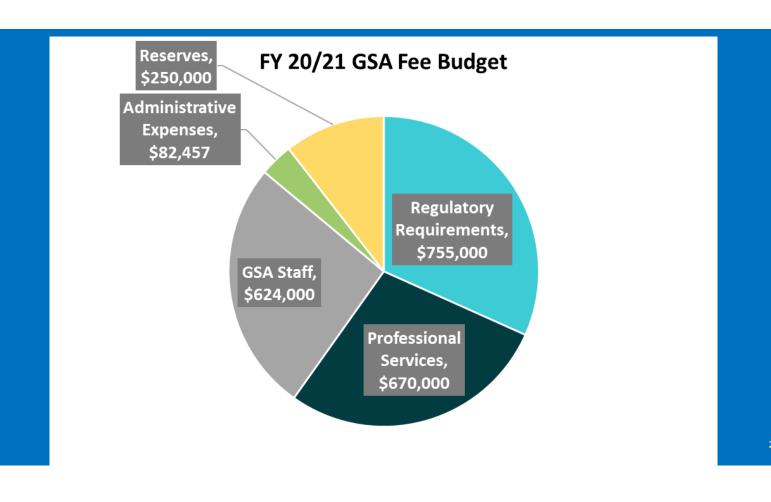
### Fee Structure Evaluation

Policy Objective	All Parcels	Non-de minimis Parcels	Total Acreage	Irrigated Acreage	Est. Gross Pumping	Est. Net Pumping
Administration	***	**	***	**	☆	☆
Equity	**	☆	**	***	***	***
Financial Stability	***	***	***	***	***	***
Affordability	**	*	***	***	?	?
	<u> </u>					

### **Budget Items**

- Five major categories:
  - Regulatory Requirements
  - Professional Services
  - County GSAs Staff
  - Administrative Costs
  - Contingency & Reserves

#### GSA Budget FY 20/21: \$2.4 million



## Fee Option 1: Differentiated

User Class	Irrigated Acres*	Fee (\$/Irrigated Acre)**
Irrigated Agriculture	83,959	\$23.00
Irrigated land within Grazing/Rangeland	3,271	\$23.00
Other	19,416	\$17.00
Residential	N/A	N/A
Total	106,647	

<sup>\*10%</sup> allowance for irrigated acreage estimate
\*\*Fee rounded down to the nearest whole dollar

## Fee Option 2: Uniform

User Class	Irrigated Acres*	Fee (\$/Irrigated Acre)**
Irrigated Agriculture	83,959	\$22.00
Irrigated land within Grazing/Rangeland	3,271	\$22.00
Other	19,416	\$22.00
Residential	N/A	N/A
Total	106,647	

<sup>\*10%</sup> allowance for irrigated acreage estimate

<sup>\*\*</sup>Fee rounded down to the nearest whole dollar

#### **Next Steps**

- Document fee derivation (Study Report)
- Published online (October 21)
- Public Noticing (October 28-November 11)
- Fees considered for adoption November 12

#### DIRECTOR'S REPORT

Stephanie Anagnoson
Director of Water & Natural Resources
October 8, 2019



## Ad Hoc Reports

**Domestic Well Ad Hoc** 

**Live Stock Ad Hoc** 

#### **Ongoing Projects**

#### **GSP Duties**

- Plan Manager Coordination
- Grant Administration
- Data Management Systems (DMS) Contract
- GSP Annual Report Contract
- Prop 68 Application
- Groundwater Monitoring Well Installation

#### **County GSA Duties**

- GSA Fee Analysis/Rate Study
- Advisory Committee + Livestock Ad Hoc + Domestic Well Mitigation Ad Hoc
- Water Market Strategy grant
- Water Supply Augmentation
- Demand Reduction Strategies

#### **Communication Duties**

- Regional Water Management Group
- Other GSA Meetings
- Farm Bureau/MAWA
- County Development Services
- GSA Meetings in Madera, Chowchilla, Delta-Mendota
- Website Updates and Meeting Calendar Updates for GSAs

#### Flood Control Agency

- Flood Control 218 Working Group
- Grant Administration
- And 24 other projects

#### **Bill Stuffers**

## Have You Heard of SGMA?

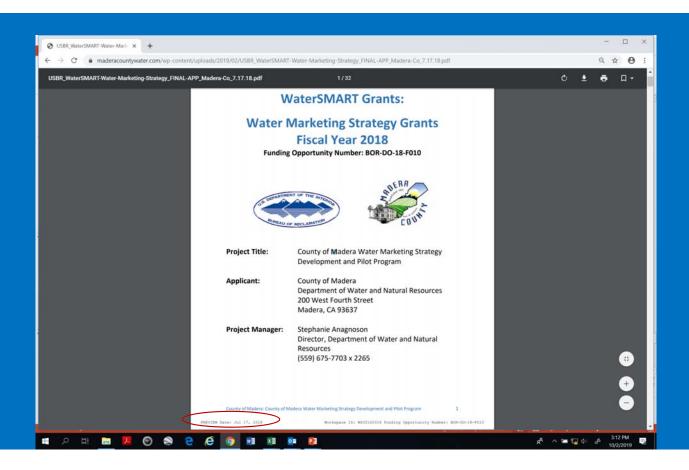
Groundwater is an essential resource for our homes, farms, and businesses. The State of California requires that we submit Groundwater Sustainability Plans (GSPs) by January 31, 2020. The GSPs must bring us to sustainability by 2040.

## Sustainable Groundwater Management Act Get Involved!

To join the interested party list, find out which Groundwater Sustainability Agency (GSA) represents you, or to learn more and participate in the plan: maderacountywater.com

Madera County Water & Natural Resources-559-675-7703

#### Bureau of Reclamation Grant



## Ellis Basin

