

UPDATE ON SUBBASINS AND CALENDAR: CHOWCHILLA

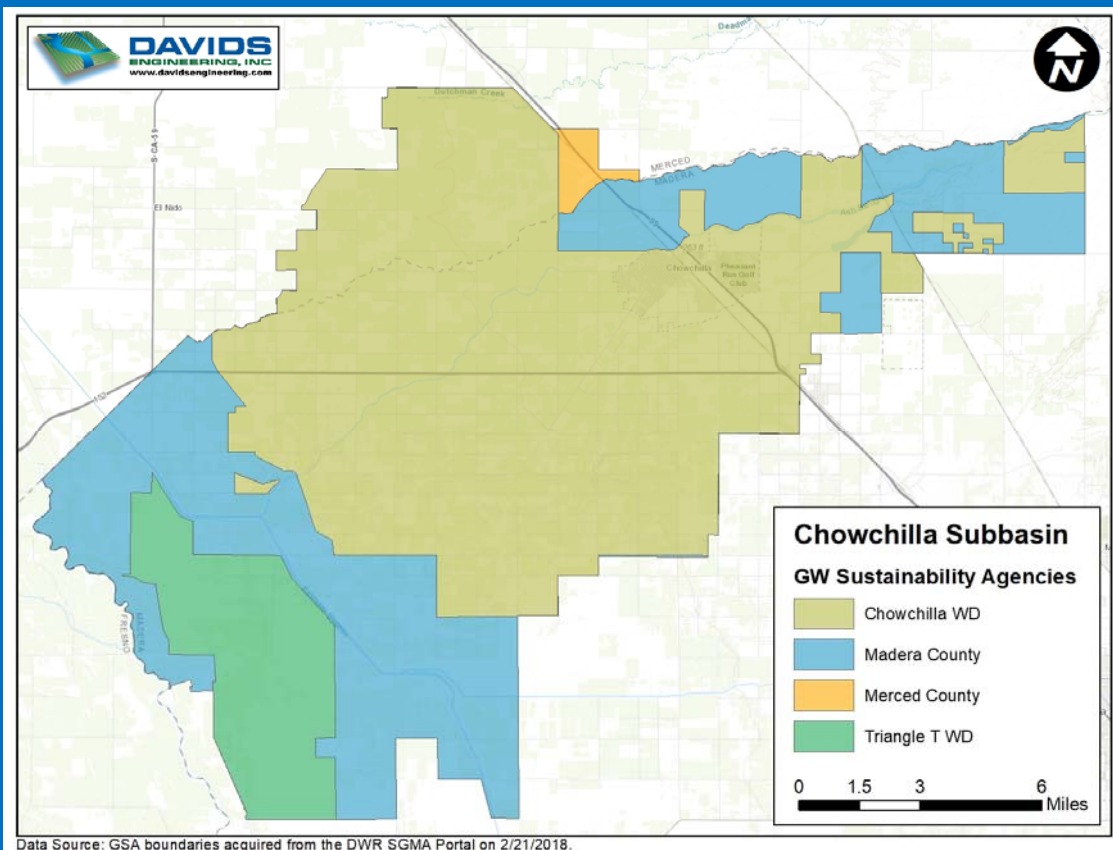
Greg Young

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	Madera County GSA – East	11,400
	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

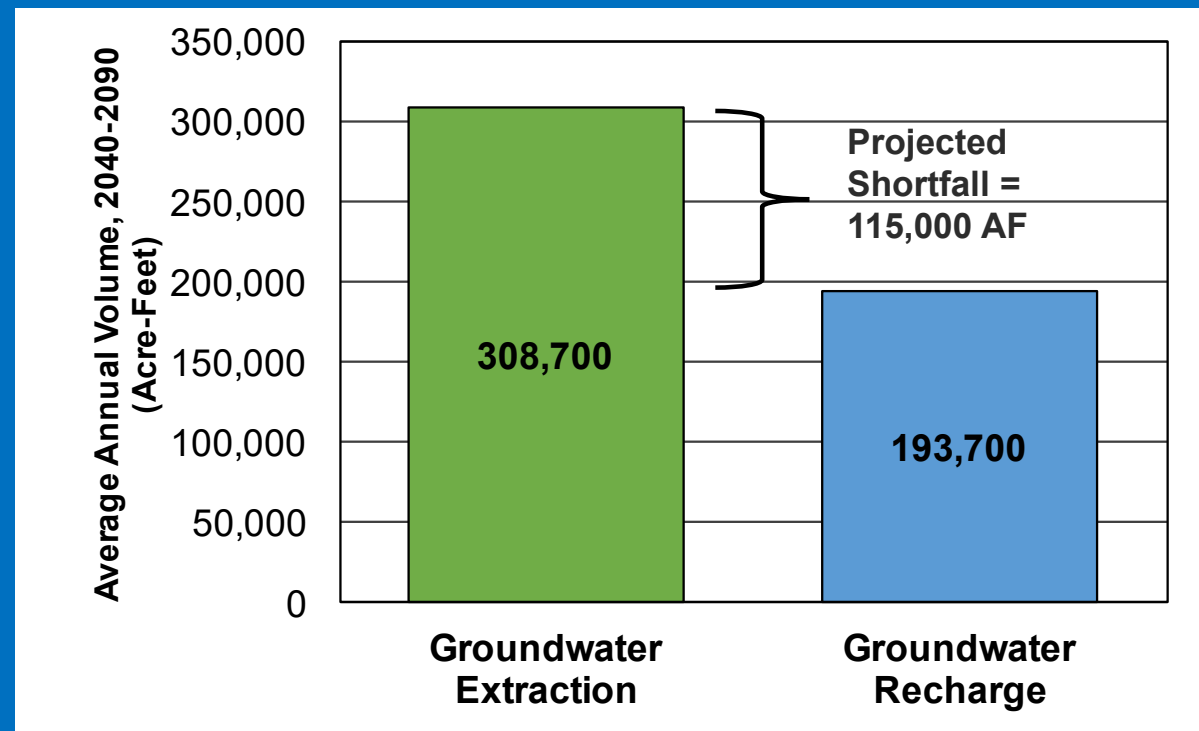
- Irrigated ag dominates
- Significant shift in crop types
- Average ETAW has increased
 - 1989 = 1.97 af/ac
 - 2015 = 2.66 af/ac
- Urban use is minor
 - City of Chowchilla ~ 2,500 af/yr
 - Rural residential ~ 7,200 af/yr

Land Use	Crop Area (acres)	
	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

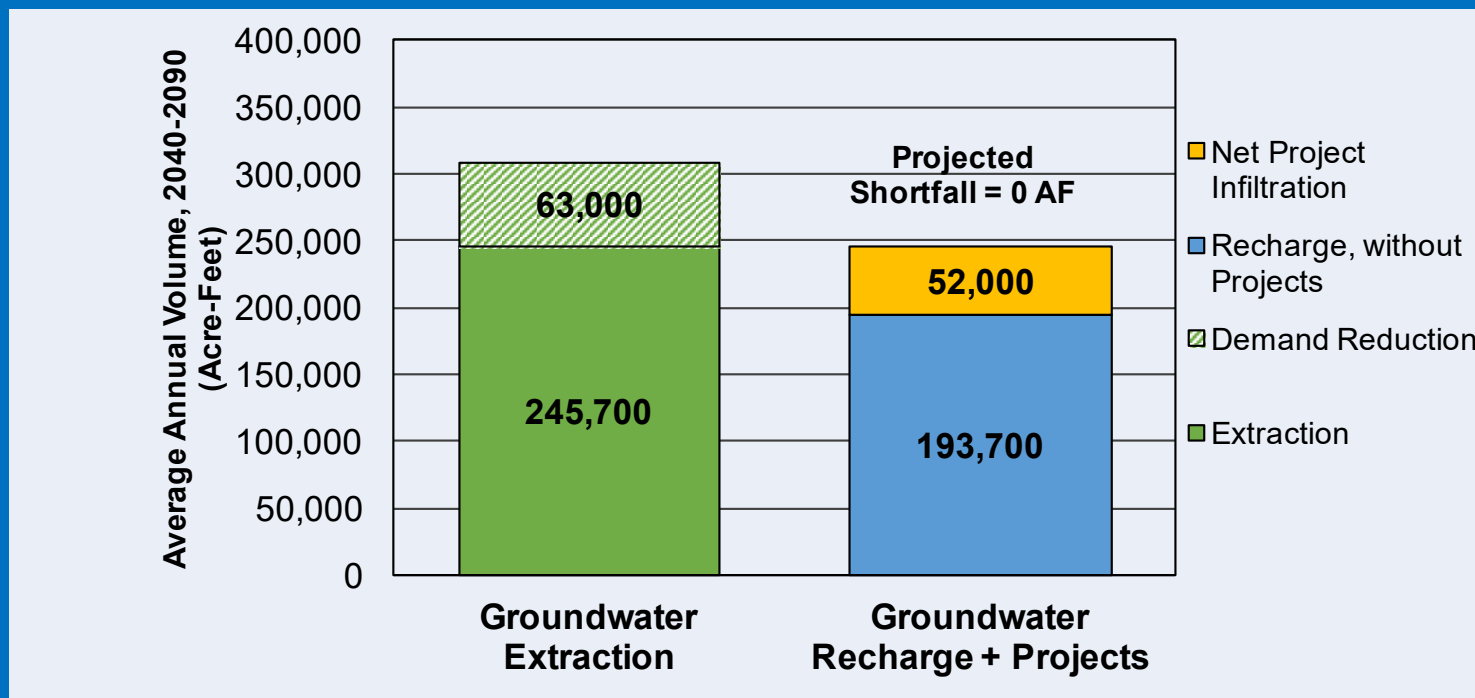
Chowchilla Subbasin GSP

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.maderacountywater.com/chowchilla-subbasin/>



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

Type	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

Demand Reduction

See Chapter 4 for County GSA 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)

GSA's 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

Draft Madera County GSAs "First 5" Implementation Summary for Madera Subbasin and Chowchilla Subbasin							
Category	2019	2020	2021	2022	2023	2024	2025
GSP	Write GSPs for Madera Subbasin, Chowchilla Subbasin and Delta Mendota Subbasins; Hold meetings/workshops for input	Submit GSPs by Jan 31, 2020 for three subbasins; Annual monitoring, data collection, analysis and preparation of State Report by April 1, 2020	Annual monitoring, data collection, analysis and preparation of State Report (on-going)	Annual monitoring, data collection, analysis and preparation of State Report (on-going)	Annual monitoring, data collection, analysis and preparation of State Report (on-going)	Annual monitoring, data collection, analysis and preparation of State Report (on-going)	Prepare 5-year GSP Update; Annual monitoring, data collection, analysis and preparation of State Report (on-going)
Financing & Revenue	1) Prop 218 Flood Agency funding proceeding (Fall 2019) 2) GSA administrative fee (Fall 2019) 3) Apply for grants (SALC, Prop 68)	1) Apply for grants 2) Prop 218 proceeding for domestic well mitigation	1) Apply for grants 2) Prop 218 proceeding for project and demand reduction financing 3) Establish enforcement fines related to parcel-based water use program	1) Apply for grants (on-going) 2) Adjust fees/fines as necessary (on-going)			
Studies	1) WaterSMART water market strategy exploration 2) Explore demand reduction approaches (gw extraction charge or parcel fee, allocations, water trading, innovation) 3) Design domestic well mitigation program 4) Assess funding opportunities for domestic well mitigation funding	1) Recharge project feasibility analysis 2) Land easement program development 3) Prepare parcel-based water use history (2020 use) 4) Initiate selected water assessment method 5) Complete WaterSMART water market strategy study 6) Prepare CVP 215 compliance documents	1) Complete recharge feasibility studies 2) Complete land easement program structure	1) Initiate and complete other studies as necessary (on-going)			
Projects	1) Work with DWR for recharge pilot program for dairies 2) Pursue CVP contract amendment	1) Work with DWR for recharge pilot program for dairies 2) CVP contract amendment 3) Acquire CVP 215 water or equivalent, as available	1) Work with DWR for recharge pilot program for dairies 2) CVP contract amendment 3) Acquire CVP 215 water or equivalent, as available	1) Pursue additional recharge projects per study findings (on-going) 2) Pursue CVP water (215, contract water, in-basin transfers, etc.) after contract amendment (on-going) 3) Acquire additional out-of-subbasin non-CVP supplies (on-going)			
	1) Demand reduction outreach and education	1) Continue design of domestic well mitigation program 2) Demand reduction outreach and education	1) Initiate domestic well mitigation program 2) Demand reduction outreach and education 3) Initiate land easement	1) Domestic well mitigation program (on-going) 2) Demand reduction outreach and education (on-going) 3) Land easement program (on-going) 4) Expand water market (on-going) 5) Parcel-based water use accounting (on-going)			

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Discussion

UPDATE ON FUNDING

Stephanie Anagnoson and Mike Linden

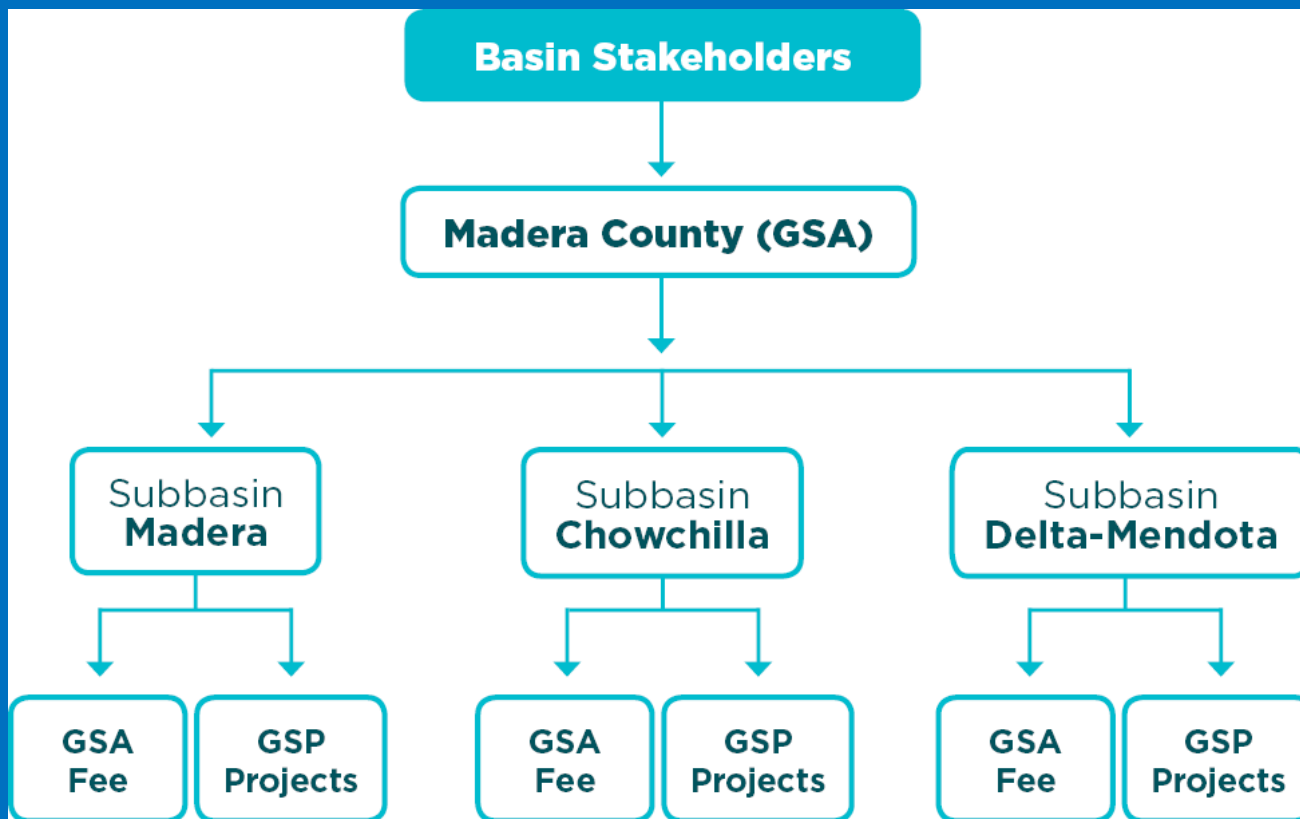
October 3, 2019



Agenda

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

GSA's 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
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

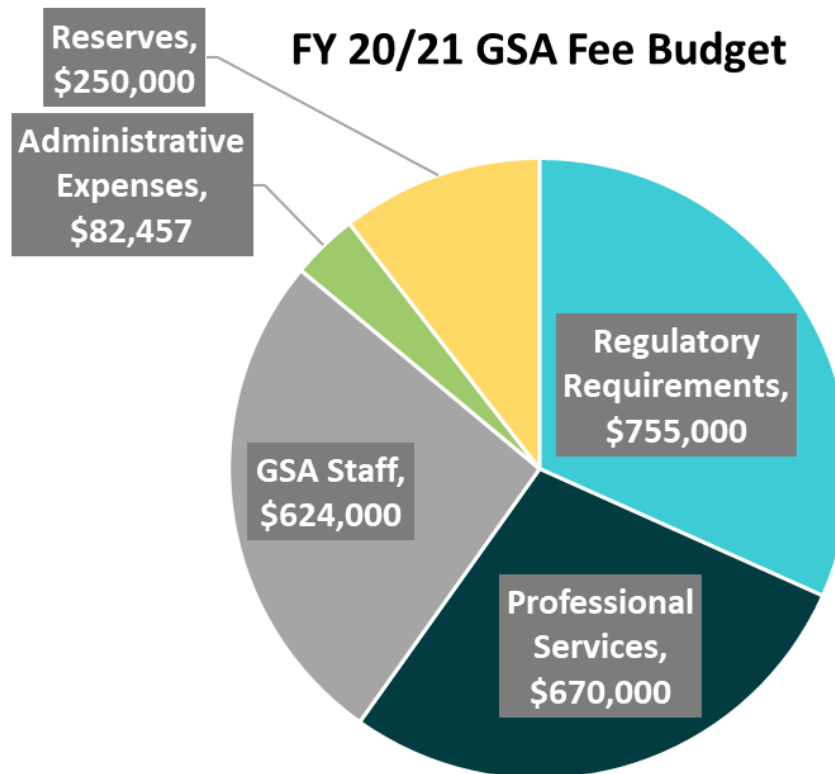
Fee Structure Evaluation

Policy Objective	All Parcels	Non-de minimis Parcels	Total Acreage	Irrigated Acreage	Est. Gross Pumping	Est. Net Pumping
Administration	★★★★★	★★	★★★★	★★	★	★
Equity	★★	★	★★	★★★★	★★★★★	★★★★★
Financial Stability	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★
Affordability	★★	★	★★★★	★★★★	?	?

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	

**10% 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	

**10% allowance for irrigated acreage estimate*

***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

The screenshot shows a PDF document titled "WaterSMART Grants: Water Marketing Strategy Grants Fiscal Year 2018" with the funding opportunity number BOR-DO-18-F010. It features logos for the U.S. Department of the Interior Bureau of Reclamation and Madera County. The project title is "County of Madera Water Marketing Strategy Development and Pilot Program". The applicant is the County of Madera, Department of Water and Natural Resources, located at 200 West Fourth Street, Madera, CA 93637. The project manager is Stephanie Anagnoson, Director of the Department of Water and Natural Resources, with contact information (559) 675-7703 x 2265. A red circle highlights the "PREPARED Date: Jul 17, 2018" at the bottom of the page. The document is viewed in a browser window with the URL maderacountywater.com/wp-content/uploads/2019/02/USBR_WaterSMART-Water-Marketing-Strategy_FINAL-APP_Madera-Co_7.17.18.pdf.

WaterSMART Grants:
Water Marketing Strategy Grants
Fiscal Year 2018
Funding Opportunity Number: BOR-DO-18-F010

Project Title: County of Madera Water Marketing Strategy Development and Pilot Program

Applicant: County of Madera
Department of Water and Natural Resources
200 West Fourth Street
Madera, CA 93637

Project Manager: Stephanie Anagnoson
Director, Department of Water and Natural Resources
(559) 675-7703 x 2265

County of Madera: County of Madera Water Marketing Strategy Development and Pilot Program 1
PREPARED Date: Jul 17, 2018
Workpage ID: W00140316 Funding Opportunity Number: BOR-DO-18-F010

Ellis Basin

