



## Update on Madera County Groundwater Sustainability Agencies

- Outline for County GSAs Update
  - Outreach
  - Conceptual Options for Recharge
  - Strategic Agricultural Land Conservation (SALC) Options
  - Allocation Approach Questions



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## Update on Madera County Groundwater Sustainability Agencies January Outreach Updates

- County GSA Meeting
  - January 12, 2021 at 10:30 a.m.
- Water Market Simulation Launch Webinar
  - January 13 at 3 p.m.
- SALC (Land Repurposing) grant Webinar
  - January 14 at 10 a.m.
- Satellite Technology and ET Webinar
  - January 20 at 10 a.m.



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## Update on Madera County Groundwater Sustainability Agencies February Outreach Updates

- Recharge Study Webinar
  - February 4 at 10 a.m.
- Collaboration across IRWM and SGMA Webinar
  - February 8, 2021 at noon
- County GSA Meeting
  - February 9, 2021 at 10:30 a.m.
- Madera Subbasin Work Group
  - February 11, 2021
- Water Market, Year #1 Webinar
  - February 24, 2021



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## Update on Madera County Groundwater Sustainability Agencies March Outreach Updates

- County GSA Meeting
  - March 9, 2021 at 10:30 a.m.
- Chowchilla Subbasin Advisory Committee
  - March 17, 2021 at 10 a.m.
- County GSAs Workshop on land repurposing and recharge costs
  - March 23, 2021 at 2 p.m.



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## Update on Madera County Groundwater Sustainability Agencies Upcoming Meetings

- County GSAs
  - April 13, 2021 at 10:30
- County GSAs Workshop Allocations and Farm Units
  - April 19, 2021
- Feedback on Allocations from Workshop to GSA
  - May 11, 2021



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# Conceptual Options for Recharge

## Private

- Landowner develops and self-funds a recharge project

## Public

- GSA develops a recharge project funded through grants or landowner charges

## Mixed

- A private entity contributes to the project and the GSA funds remaining components



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# Project Costs and Benefits

- Define how to share costs and benefits for recharge projects
  - What entities contributed to the development and operation of the project?
  - What costs were incurred, and by which parties?
  - When were costs incurred?
  - How are benefits allocated?
  - What is a leave behind percentage?
- These factors are being evaluated as part of recharge project planning
  - Framework will be consistently applied to support the phased recharge project development in the Madera County GSAs



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# Types of Recharge Projects

## Private

Landowner makes an investment decision and covers all costs

Leave behind percentage applied

Benefits are allocated to landowner

## Public

GSA makes an investment on behalf of all landowners

Leave behind percentage applied

Benefits are equally shared in proportion to agreed GSA guidelines

## Mixed

Landowner and GSA invest in a project

Leave behind percentage applied

Benefits are shared in proportion to costs incurred



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# Benefit Cost Sharing Approach

Establish lifecycle costs of the project

Identify who will pay for the different costs

Establish benefits of the project

Proportionally allocate benefits



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## SALC: Currently Irrigated Lands

Currently irrigated lands

Can receive Sustainable Yield and opt-in for Sustainable Yield

SALC would acquire Transitional Water and Sustainable Yield

Scale of the SALC program for irrigated lands

Depends on the number of currently irrigated acres that enroll in the SALC program

The quantity of Transitional Water will decrease over time and SALC incentive payments would be proportionally adjusted



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## SALC: Non-Irrigated Lands

Currently non-irrigated lands

Can opt-in for Sustainable Yield

SALC would acquire Sustainable Yield water

Scale of the SALC program for non-irrigated lands

Are non-irrigated lands able to participate in SALC?

Lands that opt-in for Sustainable Yield

Lands that do not opt-in for Sustainable Yield

Additional considerations for non-irrigated lands

Ecosystem services



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# Option 1: 25 Percent Demand Management

- These are examples to illustrate the range of costs if only currently irrigated lands pay for the program or if all lands pay for the program
- This example would achieve the following demand management targets:
  - Madera: 22,500 AFY
  - Chowchilla: 6,900 AFY
  - Delta Mendota: 450 AFY

Madera County GSA	Annual cost range (\$/ac)	Total annual cost (\$M)
Madera	\$35 – \$75	\$5,000,000
Chowchilla	\$30 – \$45	\$1,460,000
Delta Mendota	\$20 – \$60	\$560,000

# Option 2: 50 Percent Demand Management

- These are examples to illustrate the range of costs if only currently irrigated lands pay for the program or if all lands pay for the program
- This example would achieve the following demand management targets:
  - Madera: 45,000 AFY
  - Chowchilla: 13,900 AFY
  - Delta Mendota: 1,000 AFY

Madera County GSA	Annual cost range (\$/ac)	Total annual cost (\$M)
Madera	\$80 - \$230	\$13,260,00
Chowchilla	\$70 – \$110	\$3,130,000
Delta Mendota	\$105 – \$460	\$300,000

# Option 3: Full Demand Management

- These are examples to illustrate the range of costs if only currently irrigated lands pay for the program or if all lands pay for the program
- This example would achieve the following demand management targets:
  - Madera: 90,000 AFY
  - Chowchilla: 27,755 AFY
  - Delta Mendota: 2,000 AFY

Madera County GSA	Annual cost range (\$/ac)	Total annual cost (\$M)
Madera	\$190 - \$755	\$31,280,000
Chowchilla	\$150 - \$265	\$6,450,000
Delta Mendota	\$120 - \$550	\$350,000



## Allocation Questions

If irrigated and unirrigated land is grouped together in a farm unit, how much unirrigated land can be included?

Are there size limits on the farm units (within the farm unit zones)?

What date should be used when allowing transitional water to be opted in?



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