



Recharge Costs in Rate Study

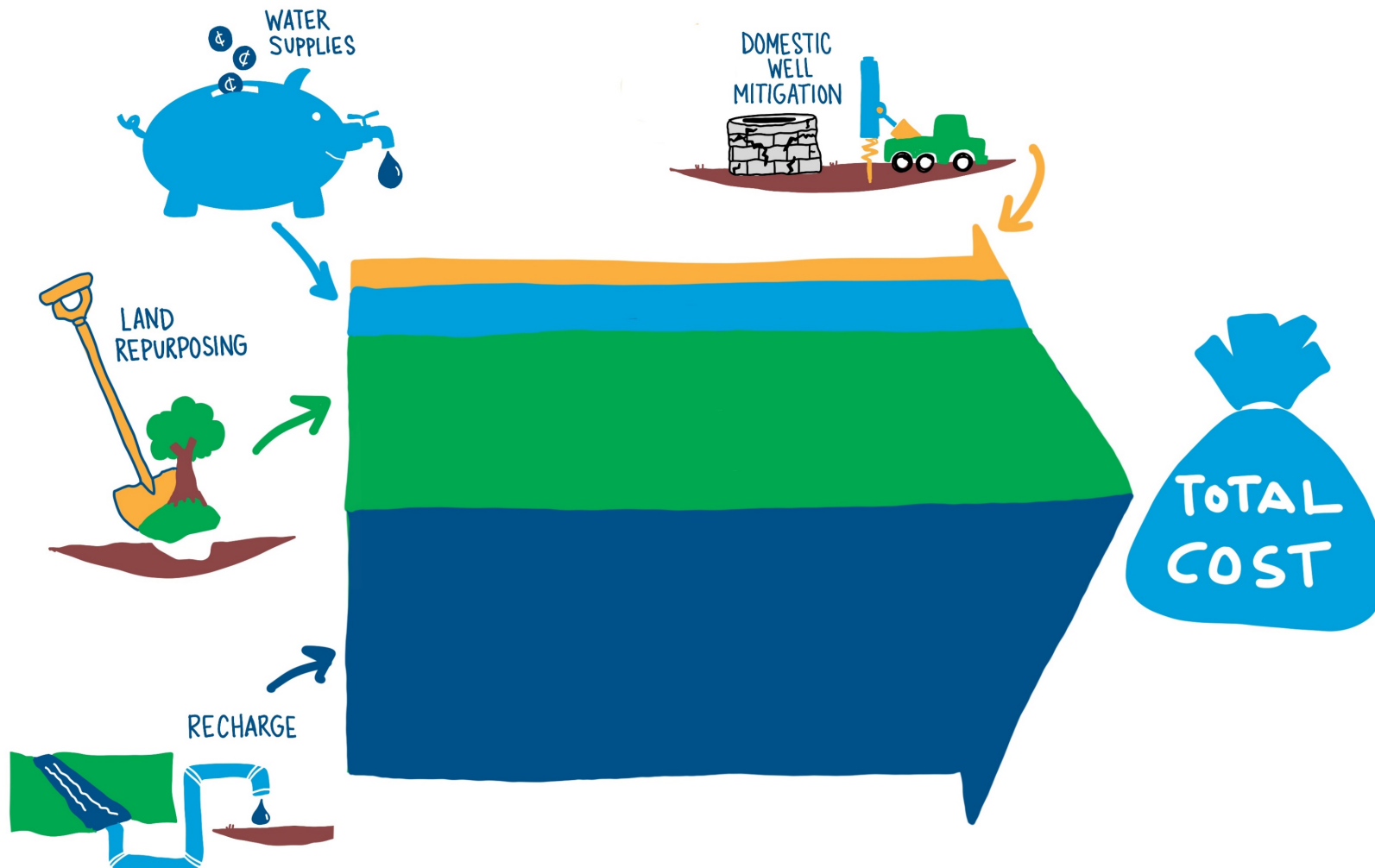
- Overview of GSP Projects and Management Actions
- Rate Study Costs Components
- Debt Financing
- What We Know
- What We Decided
- What We Are Accomplishing
- Where We Are Headed
- What is the Cost of Recharge



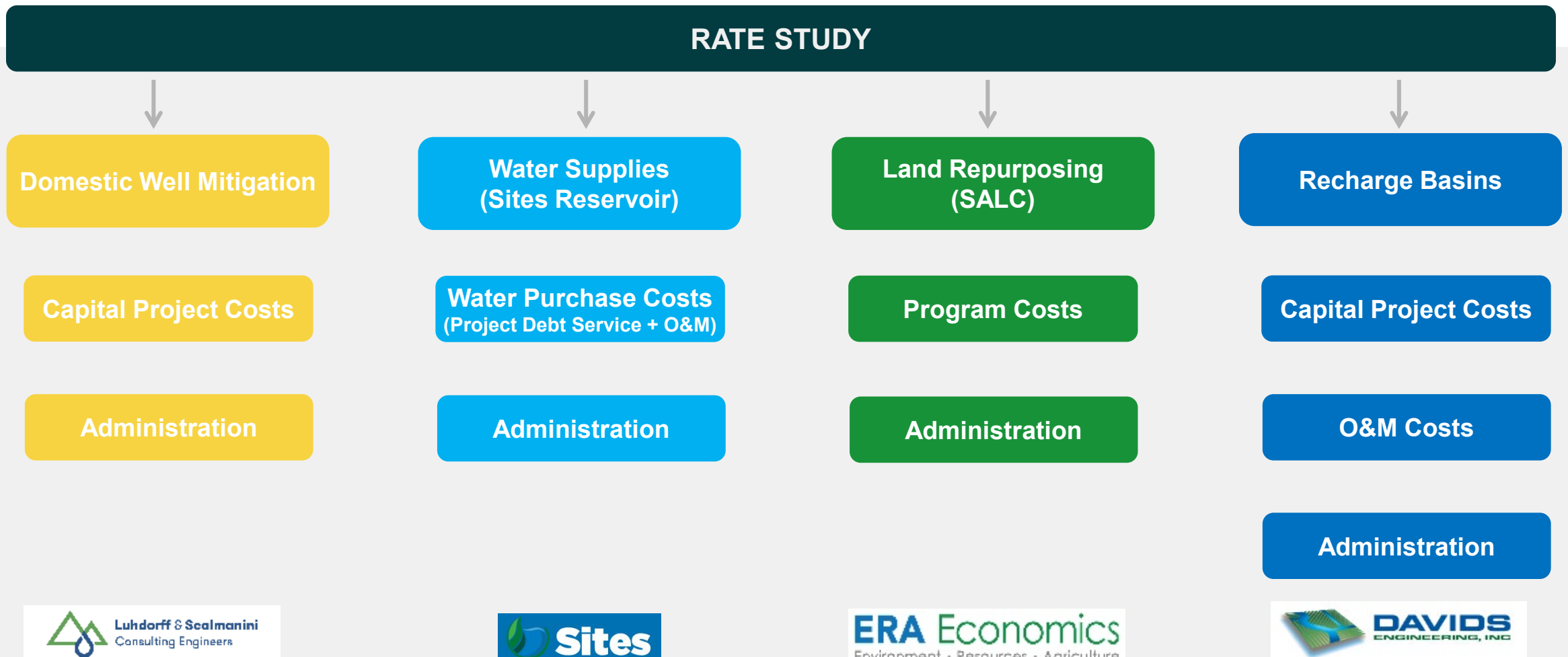
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GSP Projects and Management Actions



Rate Study Cost Components





Debt Financing Recharge Facilities

- Domestic Well Mitigation Program, Water Purchases, and SALC have relatively steady annualized cash needs lending themselves to cash funding
- Raftelis recommends debt financing Recharge facilities
 - Significant short term capital costs for long-term benefits
 - Favorable borrowing environment
 - Reduce very large upfront payments to lower annual costs
- Working in conjunction with County Municipal Advisors and Bond Counsel on the terms, timing, and structuring of debt
 - GSAs are new territory for the bond market
 - Will be conservative in borrowing estimates



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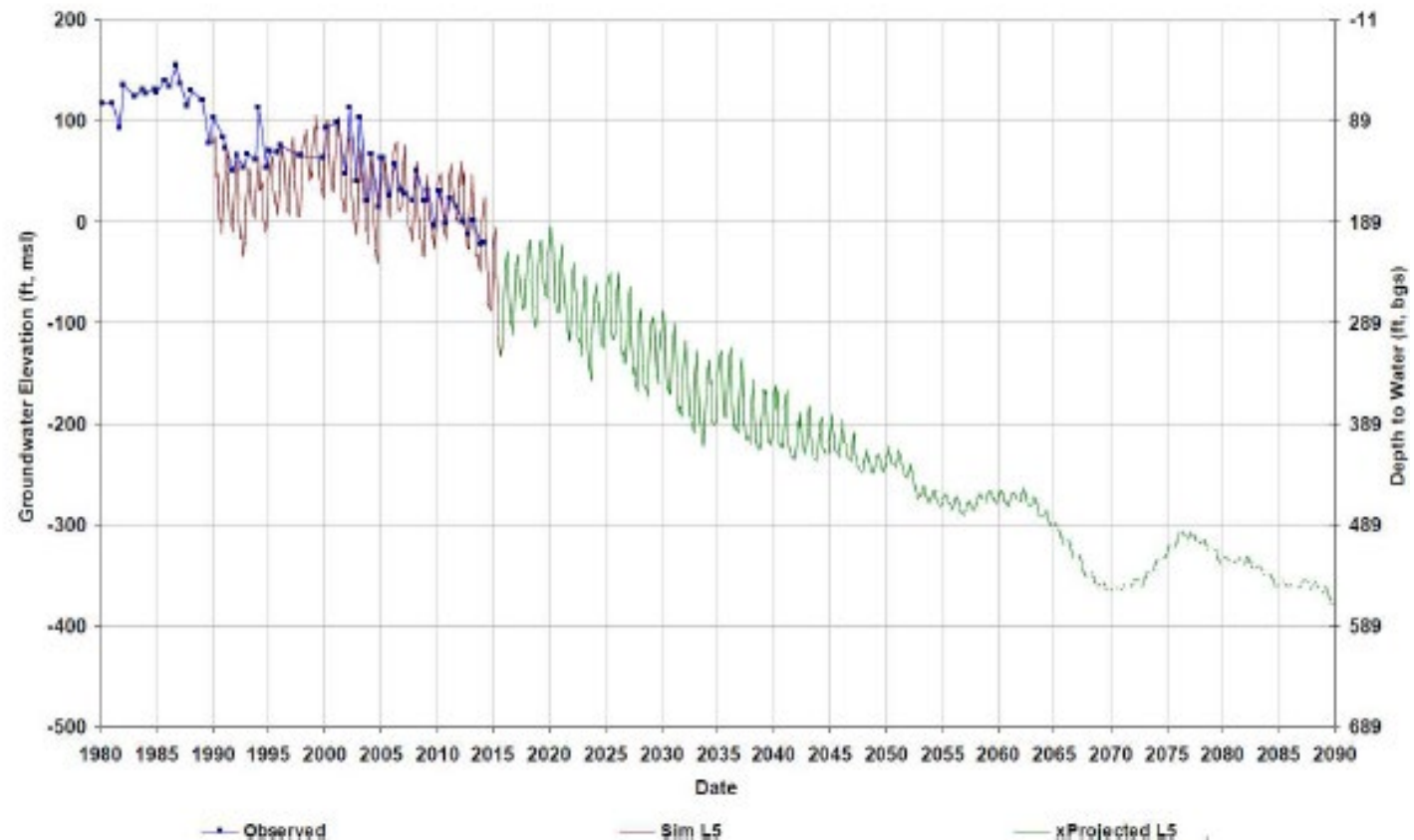


What We Know

MCSim - Projected

Appendix E.3.

SAMPLE WELL

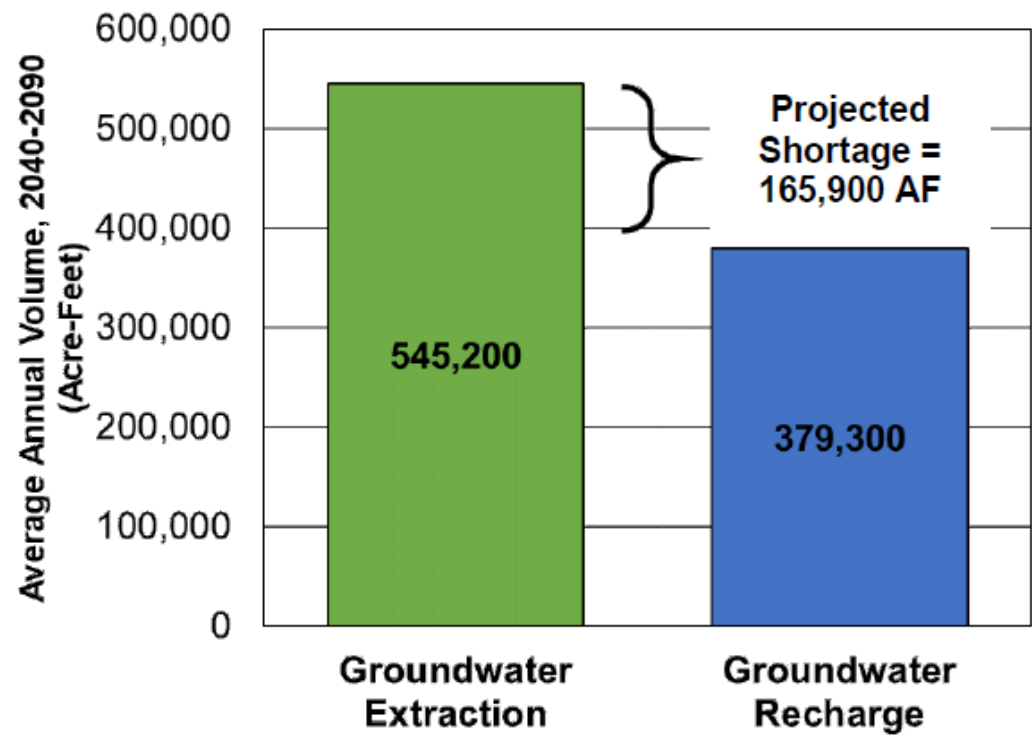


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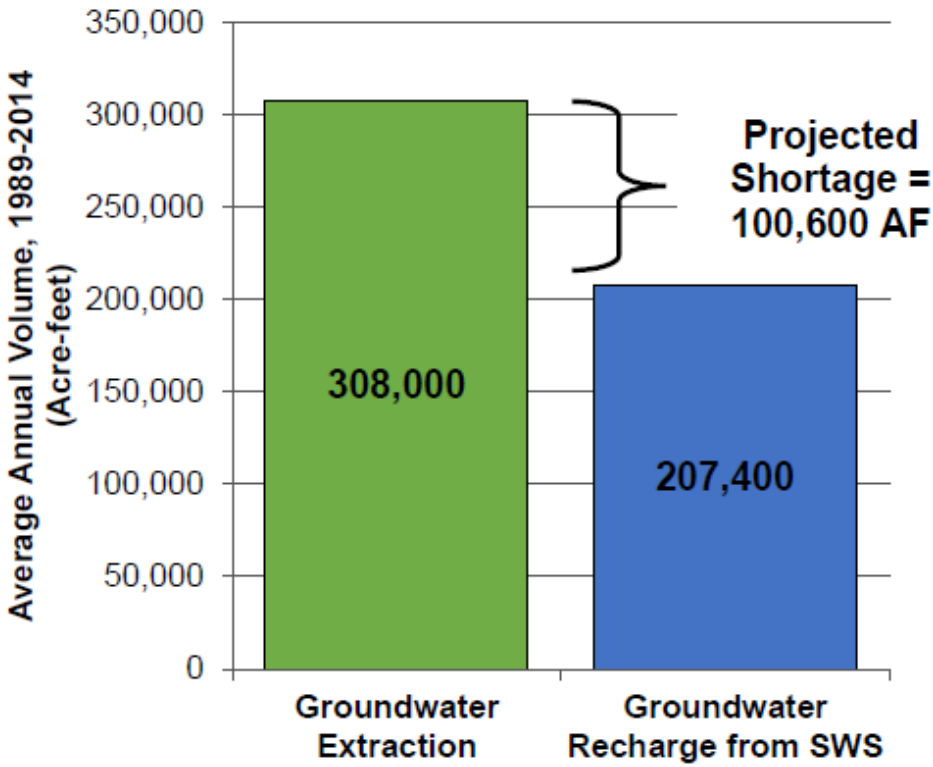




What We Know



Madera Subbasin



Chowchilla Subbasin

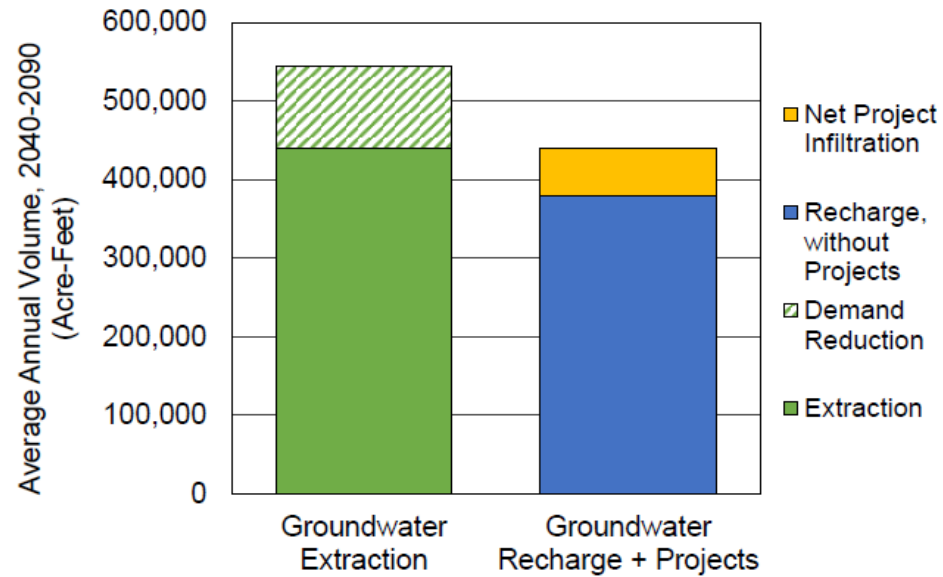


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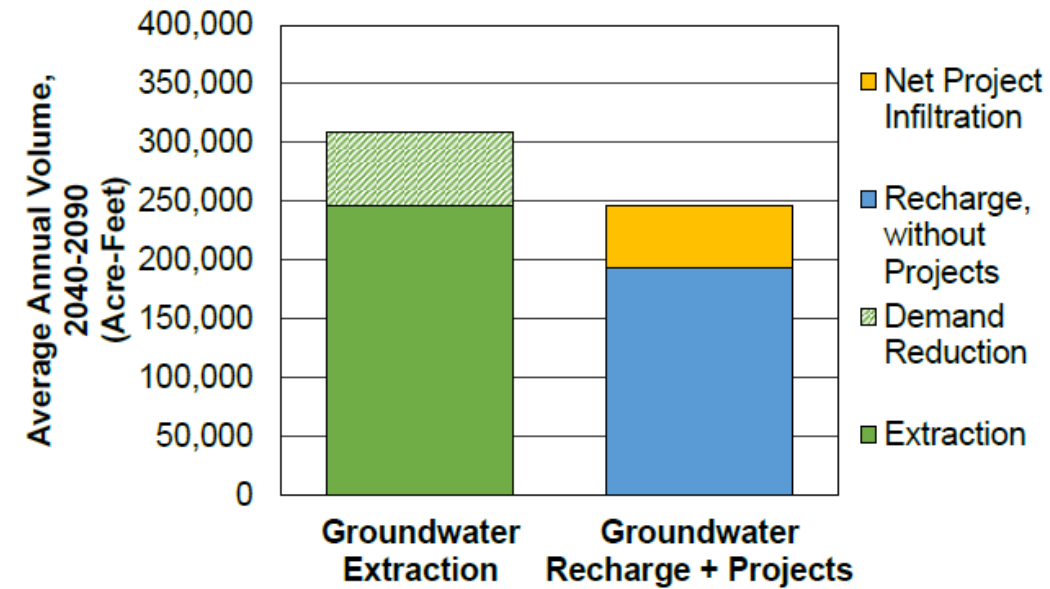




What We Decided



Madera Subbasin



Chowchilla Subbasin



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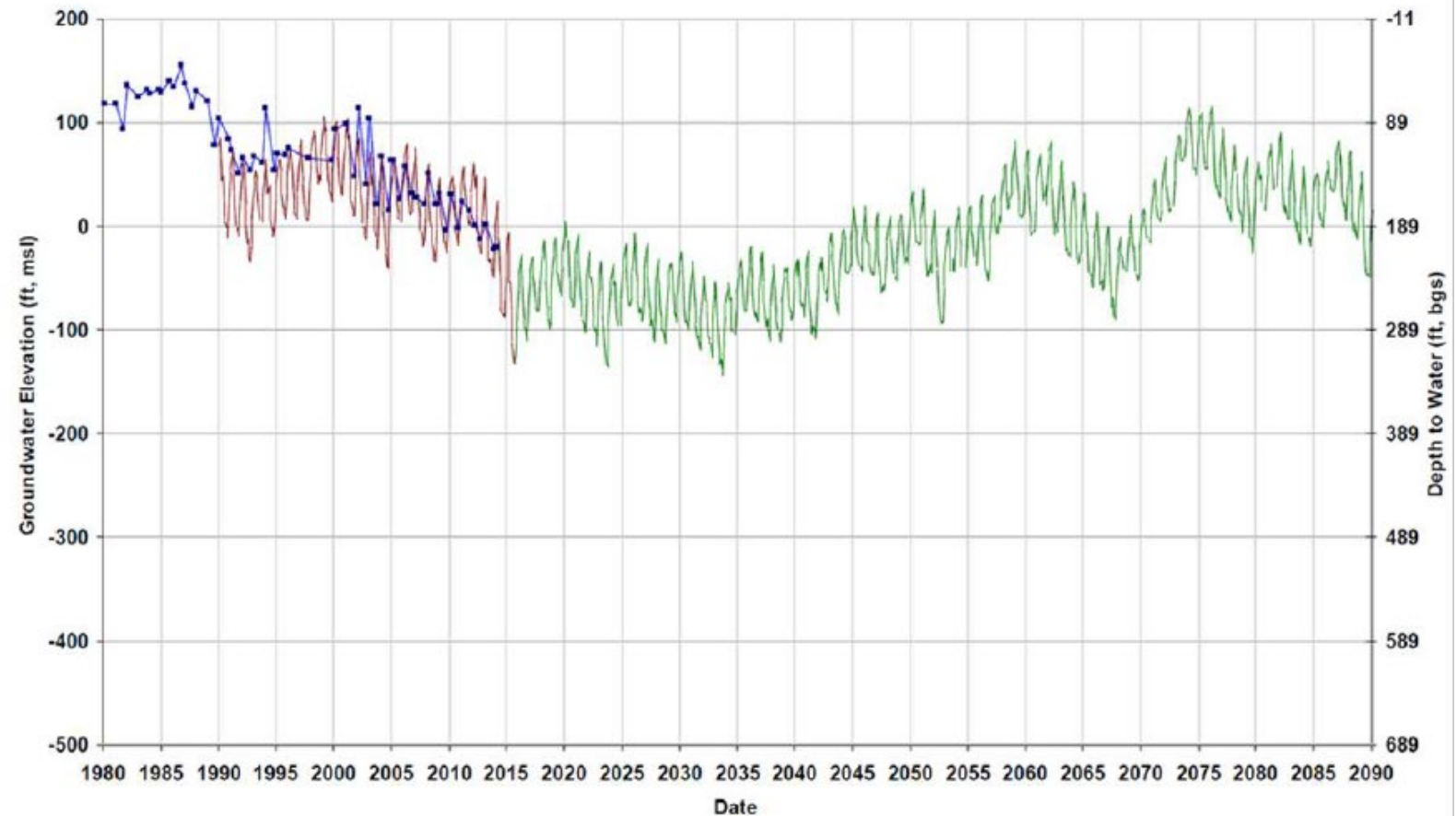


What We Decided

MCSim - Projected with Projects

Appendix E.1.

SAMPLE WELL



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What We Are Accomplishing

Madera County GSA only

Engaged in a comprehensive Recharge Study

- Successfully secured two recharge grants from the Department of Water Resources (DWR)
- Madera Subbasin
- Chowchilla Subbasin
- Engaged in design of both projects
- Engaged in an Emergency Recharge Plan
- Implement allocation
- Continue discussions on water market
- Continued stakeholder collaboration and outreach
- Engaged in a rate study



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Where We Are Headed

Complete current phase of Recharge Study

Complete design of two DWR grant projects (Madera and Chowchilla)

Complete Emergency Recharge Plan

Initiate preliminary design of projects 2-5 (Madera and Chowchilla)

Complete Rate Study

- Recharge
- Land repurposing (SALC)
- Domestic well mitigation
- Other water supplies and transfers
- Implement allocation
- Continue discussions on water market
- Continued stakeholder collaboration and outreach



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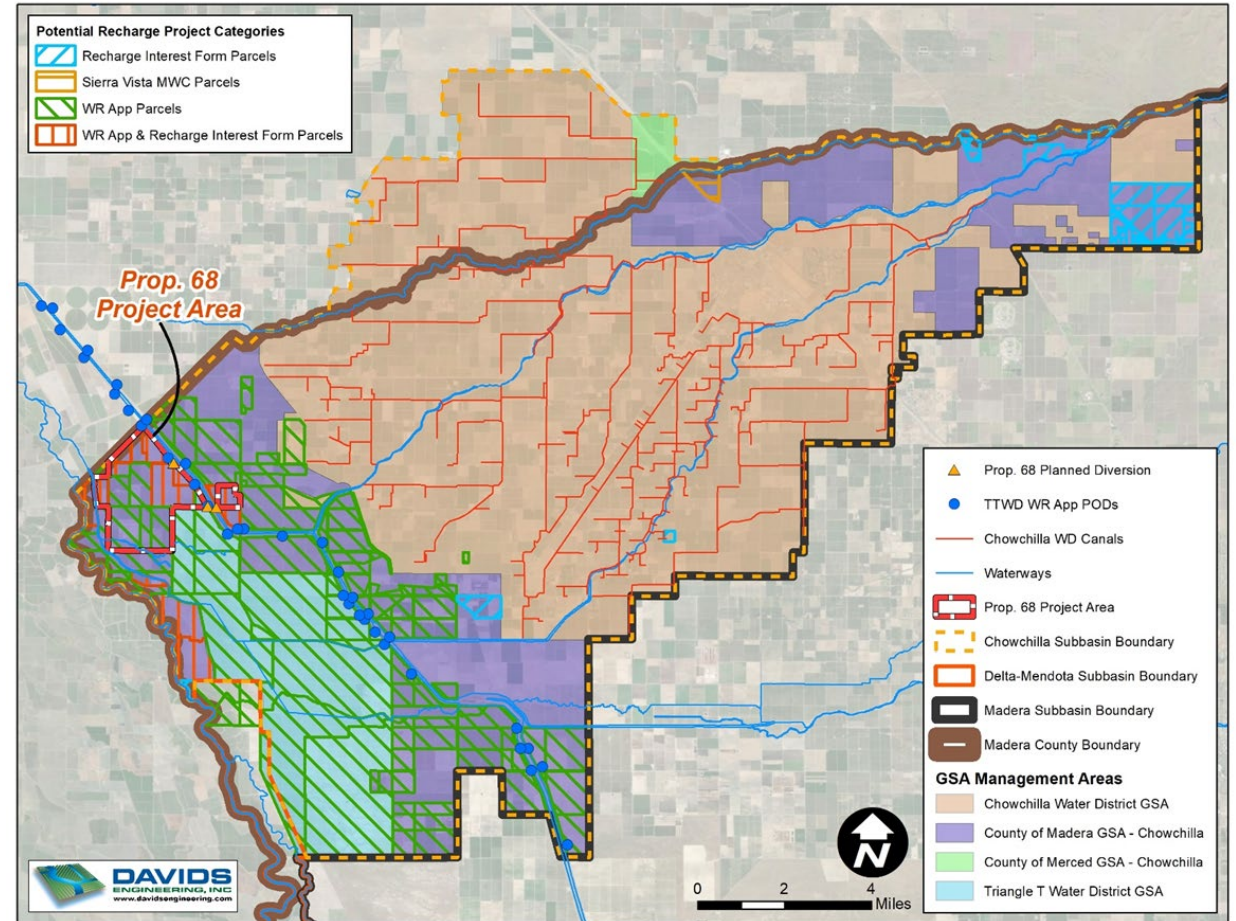


What is the cost of recharge?

Geographic scope
More water = more land
Permanent infrastructure
Planning
Design
Environmental review
Permitting
Construction
Water rights
Governance
One party vs. many parties



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Document Path: C:\DE\OneDrive - Davids Engineering\DE_Projects\1165.11 - Madera County Recharge Study\GIS\Maps\Chowchilla_Pot_Recharge_APN_Map 210319.mxd

What is the cost of recharge (Cont).....

Preliminary Infrastructure Counts				Estimated Project Cost by Potential Funding Source				
Project	PODs	Dedicated Basins	Pipeline (linear feet)	Estimated Project Cost (4)	Grants	Madera County	Private (5)	Estimated Annual O&M
1	4	1	6,000	\$ 6,564,042	\$ 4,197,600	\$ 700,842	\$ 1,665,600	\$ 73,000
2	11	2	46,040	\$ 27,955,000	\$ -	\$ 25,815,211	\$ 2,139,789	\$ 387,000
3	11	2	46,040	\$ 28,660,000	\$ -	\$ 26,520,211	\$ 2,139,789	\$ 398,000
4	11	2	46,040	\$ 29,345,000	\$ -	\$ 27,205,211	\$ 2,139,789	\$ 408,000
5	12	1	50,225	\$ 28,853,000	\$ -	\$ -	\$ -	\$ -
TOTALS	49	8	194,344	\$ 121,377,042	\$ -	\$ -	\$ -	\$ -

Madera Subbasin

- Project costs range from \$5M → \$30M
- Total Recharge Costs = Approx. \$190M

Preliminary Infrastructure Counts				Estimated Project Cost by Potential Funding Source				
Project	PODs	Dedicated Basins	Pipeline (linear feet)	Estimated Total Project Cost	Grants	Madera County GSA	Private	Estimated Annual O&M
1	4	2	18,800	\$ 6,904,197	\$ 4,197,600	\$ 794,016	\$ 1,912,581	\$ 104,000
2	7	2	29,469	\$ 17,800,000	\$ -	\$ 17,080,000	\$ 720,000	\$ 267,000
3	8	1	19,411	\$ 14,362,000	\$ -	\$ 14,002,000	\$ 360,000	\$ 215,000
4	11	1	38,990	\$ 22,780,000	\$ -	\$ 22,420,000	\$ 360,000	\$ 342,000
5	1	1	16,704	\$ 4,851,000	\$ -	\$ 4,251,000	\$ 600,000	\$ 73,000
TOTALS	31	7	123,374	\$ 66,697,197	\$ 4,197,600	\$ 58,547,016	\$ 3,952,581	\$ 1,001,000

Chowchilla Subbasin

*Costs subject to change pending further design



What does your \$190M investment get you?

- Approximately 2.5M AF of recharge over the life of the projects
- Over 300,000 linear feet of new 27" PVC pipe
- Over 350 new turnouts to growers
- 71 new pump stations with fish screens
- 15 new dedicated recharge basins
- Part of achieving sustainability



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Next Steps in Rate Study

- Scenario analyses with GSA staff and consulting teams
- Annual cash needs by subbasin (financial plan)
- Rate modeling with GSA staff
- Preliminary and revised rates and charges by subbasin
- Rate Study report
- Rate notice authorization
- Public Hearing for rate adoption
- Implemented for CY 2022 and collected FY 2022-23



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