Wyandotte Creek Advisory Committee (WAC)

November 3, 2022, 9:00 am-11:00 am

Meeting Locations:

In-Person

Butte County HR Training Room-East
3 County Center Drive, Oroville 95965

Join Zoom Meeting :
https://us06web.zoom.us/j/82933777075?pwd=YjVubW9LVlEva0NTdG0zYkg1MnlVUT09

Meeting ID: 829 3377 7075
Passcode: 877863
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WAC MEETING AGENDA

1. **Roll Call**

2. **Business from the Floor**
   The public and WAC members will have an opportunity to comment on items not on the agenda and that are relevant to the WAC. Committee members and Management Committee staff are not required to respond to any issues raised during the public comment period. Commenters are asked to respect differing perspectives and to keep remarks within three minutes.

3. ***Approval of Meeting Summary for the 9/1/2022 WAC Meeting**

4. ***Discussion and Possible Recommendation on Projects and Project Prioritization for Inclusion in a SGM Grant Program Application** (Christina Buck, Butte County, Water and Resource Conservation and Eddy Teasdale, Luhdorff & Scalmanini Consulting Engineers)

5. **Management Committee Update**

6. **Committee Members Wishing to Address Items not Listed on the Agenda** (The WAC is prohibited by state law from taking action on any item presented if it is not listed on the agenda.)

7. **Adjournment**
   The Committee will adjourn to their next meeting, likely to be scheduled for early 2023.

Wyandotte Creek
GROUNDWATER SUSTAINABILITY AGENCY

Wyandotte Creek Advisory Committee (WAC)

September 1, 2022, 9:00am-11:00am

In-Person Meeting Location:
Thermalito Water and Sewer District
410 Grand Avenue, Oroville, CA 95965

WAC MEETING SUMMARY

1. **ROLL CALL**

   Present in person: Darin Williams and Kristen McKillop

   Member Agency Staff Present: Chris Heindell, Thermalito Water and Sewer District and Christina Buck and Kamie Loeser, Butte County

2. **BUSINESS FROM THE FLOOR**
   None

3. **Approval of Meeting Summary for the 4/7/22 WAC Meeting**

   Darin Williams indicated that he attended the 4/7/22 meeting. Meeting summary to be updated to reflect the correction.

4. **Discussion and possible recommendation regarding Projects and Management Actions and the Sustainable Groundwater Management Implementation Grant**

   Staff reviewed the SGMA Implementation Grant guidelines as well as the anticipated timeline for submittal of grant applications. Staff presented and discussed the proposed implementation projects to WAC members and received their input for each project. WAC member considerations and input will be compiled and presented to the Board at the next board meeting.

5. **Management Committee Update** (Informational)
   a. Funding by Board of Supervisors

      Discussion and update regarding the County's funding of the GSA through FY 22/23

   b. Amend Agreement

      County staff reviewed the roles and responsibilities regarding utilization of funding and engagement of consultants. GSA legal counsel has been asked to draft an agreement amendment outlining those roles and responsibilities.

c. Long-term Financing

Staff is preparing to release a Request for Proposals to retain a consultant to conduct a fee study and support the effort to identify and select long-term financing options for the GSA.

6. **Committee Members Wishing to Address Items not Listed on the Agenda**
None

7. **Adjournment**
The Committee adjourned until their next meeting, likely to be scheduled for November.

Wyandotte Creek
GROUNDWATER SUSTAINABILITY AGENCY

MEMORANDUM

DATE: October 27, 2022

TO: Wyandotte Creek Advisory Committee (WAC)

FROM: Christina Buck, Asst. Director, Butte County Water and Resource Conservation

RE: Projects and Project Prioritization for Development of SGM Grant Program Application

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Background

The Department of Water Resources (DWR) is administering the Sustainable Groundwater Management (SGM) Grant Program which will provide Groundwater Sustainability Agencies (GSAs) funding to help implement projects and implementation activities identified in their Groundwater Sustainability Plans (GSPs). The Final Guidelines and Proposal Solicitation Package (PSP) describing project eligibility and the application process were released in December 2021. The solicitation officially opened on October 4, 2022 and the application submission deadline is **November 30, 2022**.

The Wyandotte Creek Subbasin is categorized as a "medium priority subbasin" and is eligible for Round 2 of this funding opportunity. Grant awards will be a minimum of $1 million per subbasin and up to $20 million per subbasin. There must be one application submitted for the subbasin, but it can include multiple projects, referred to as "Components," that could be implemented by multiple agencies. The Wyandotte Creek GSA will submit the application on behalf of the subbasin and is anticipated to be the implementing agency for most of the projects.

In September, the GSA Board gave direction on a list of projects that would be further developed with more detailed work plans, budgets, and schedules. Davids Engineering, Luhdorff & Scalmanini Consulting Engineers, and Montgomery and Associates have been contracted to help with project development and application preparation. Each of the consultants have a handful of projects they are leading on to scope work plans, budgets, and schedules. In addition, there are several projects on the list being brought forward by other agencies, such as Thermalito Water and Sewer District. The following projects will be considered and discussed for possible inclusion in the grant application:

	Project	Estimated Cost
A.	**Grant Administration**	300,000
1	**GSP Implementation, Outreach, and Compliance Activities**	955,000
2	**Monitoring Network Enhancements to Address Data Gaps**	1,433,750
3	**Inter-basin Coordination Activities**	260,000
4	**Agricultural Surface Water Supplies**	242,000
5	**TWSD Water Treatment Plant Capacity Upgrade**	2,603,784
	For Further Development and Discussion:	
1	**Agricultural Irrigation Efficiency**	150,000
2	**Groundwater Recharge Feasibility Analysis and Site Evaluation**	1,840,000
	TOTAL	**7,784,534**

Project Development and Prioritization

Projects under consideration benefited from the expertise of the consultant teams and resulted in projects that are more defined and, importantly, now have cost estimates. Project descriptions with project background, tasks, budgets and schedules for each project are outlined in the attached presentation (**Attachment A**). A summary table is included (**Attachment B**) with the project names, tasks, and cost estimates included.

WAC Discussion and Recommendations

The grant application will include a table that requires the projects be ranked in order of priority which will guide DWR's grant award decision-making if partial funding of the application is necessary. Therefore a discussion of project priorities will be important. The task before the WAC is three fold:

1) Discuss and provide input on the project tasks or budgets, especially the two projects identified for further development and discussion. Receive input from the public.
2) Provide a recommendation on the list of projects to include in the grant application
3) Provide a recommendation on the ranking of the projects that will be included in the application

The WAC's recommendations will be brought to the GSA Board when they meet on November 10, 2022. The GSA will give direction on what projects to include in the SGM grant application, and their corresponding ranking. Then staff and consultants will prepare the final content for inclusion in the grant application and submission by the November 30, 2022 deadline.

Requested Action

Recommendation to the GSA Board on the list of projects to include in the SGM grant program application and their corresponding ranking of priority.

Attachments

A. Presentation: Project Descriptions, Tasks, and Budgets
B. Summary Table of Potential Projects

Wyandotte Creek Subbasin Project Workshop: Proposed PMAs

Luhdorff & Scalmanini Engineering (LSCE)
Chico, CA

Eddy Teasdale, P.G. C.HG

November 3, 2022

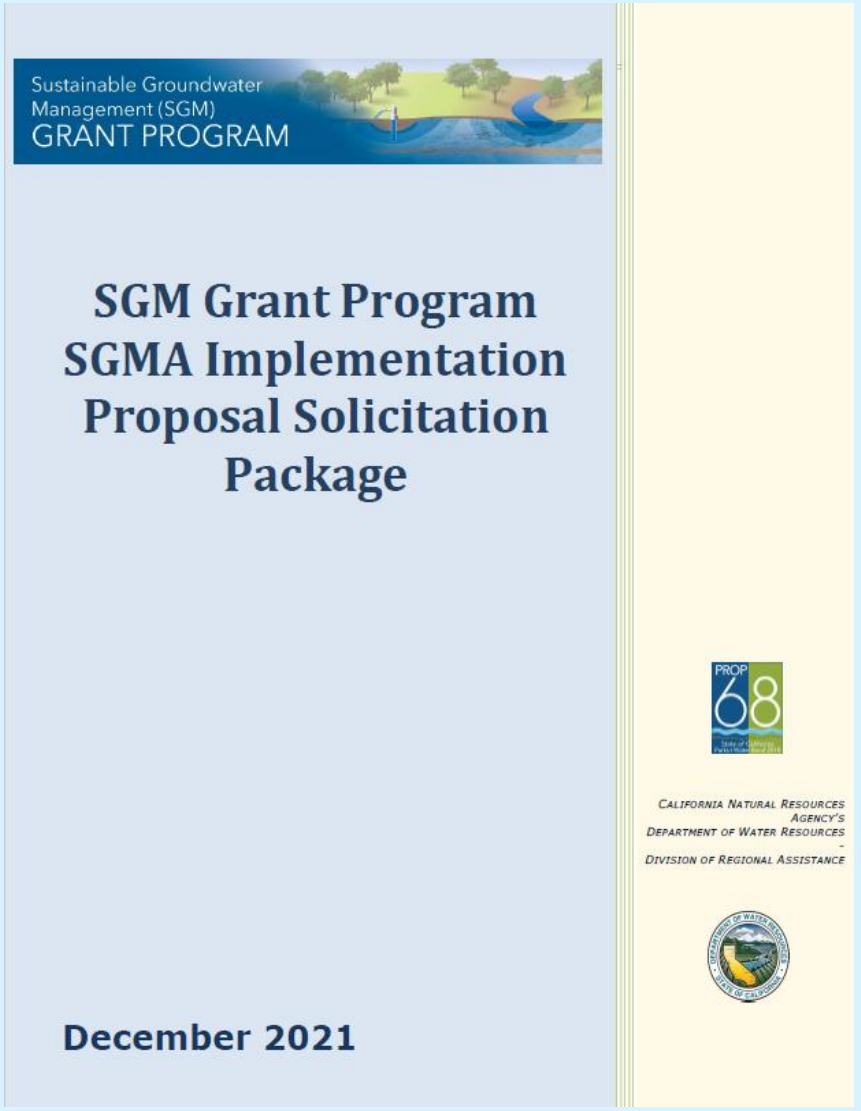
Wyandotte Creek
GROUNDWATER SUSTAINABILITY AGENCY

Example Eligible Project Activities

Examples of eligible project activities, tasks, and/or components can include, but are not limited to, the following:

- Filling data gaps in a GSP(s) or Alternative to a GSP
- Project development activities (e.g., feasibility studies, design, permits, environmental documents)
- Long-term planning studies
- Technical and planning assistance for Underrepresented Communities
- Interested party outreach and engagement
- Vulnerability or risk assessments
- Technical assistance for Underrepresented Communities
- Engagement and outreach to Underrepresented Communities
- Evaluation of groundwater management needs

- Impact studies on domestic and de minimis groundwater well users
- Annual reporting for GSPs and Alternative to a GSP
- Identifying and proper destruction of abandoned wells
- Identifying of recharge location(s)
- Soil carbon enhancement and Healthy Soil Initiative activities
- Native Yield studies
- Coordination activities with adjacent GSA(s)
- Instrumentation for monitoring wells (e.g., pressure transducers)
- Pilot or demonstration projects meeting the purpose of SB-170 and Proposition 68
- Installation of meters on groundwater production and agricultural wells
- Installation of monitoring well(s)
- Connection of communities to a municipal water supply (except laterals on private land)
- Groundwater recharge projects with surface water, stormwater, recycled water, and other conjunctive use projects
- Groundwater contaminant remediation or prevention projects for groundwater that serves as a source of drinking water
- Construction, rehabilitation, or expansion of conveyance facilities for groundwater recharge projects
- Wastewater treatment and water recycling facility upgrades for groundwater recharge project sources
- Stormwater and runoff capture projects that support groundwater recharge
- Groundwater recharge facility expansion
- Seawater barrier injection wells
- Groundwater recharge projects that address groundwater dependent ecosystems (GDEs)
- Projects and programs that support water supply reliability, water conservation, water use efficiency and water banking, exchange, and reclamation
- Planning, design, and environmental documentation only as a task of a Project or Component of an overall project (not a standalone task).



Components to be Discussed

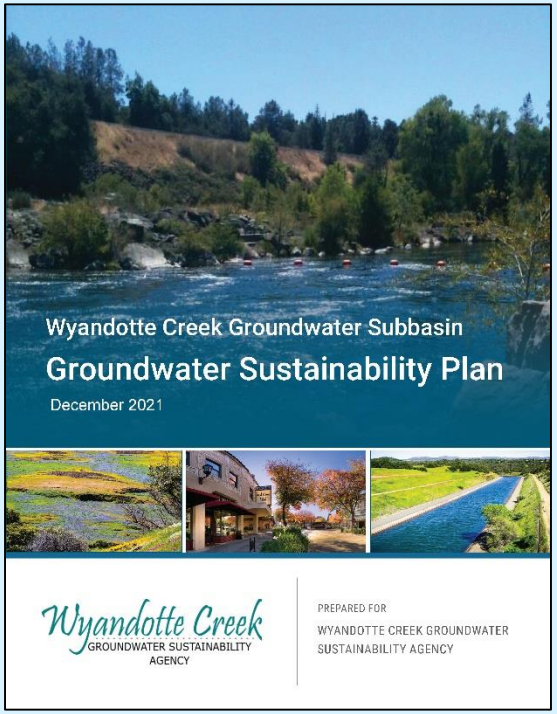
Proposed

1. GSP Implementation, Outreach, and Compliance Activities
2. Monitoring Network Enhancements to Address Data Gaps
3. Inter-basin Coordination Activities
4. Agricultural Surface Water Supplies/Intra-basin Water Transfer
5. TWSD Treatment Plant Capacity Upgrade

For Further Development

1.Agricultural Irrigation Efficiency

2. Groundwater Recharge Feasibility Analysis and Site Evaluation (Flood MAR/Streamflow Augmentation)



Component 1: GSP Implementation, Outreach, and Compliance Activities – Key Tasks

Annual Report	GSP Updates/ Responses to DWR Comments	5-year GSP Evaluation Report	Outreach and Education Program
Collect and analyze data for previous water year	Review DWR evaluation letter and identify areas that need to be revised	Review any new information	Identify a reasonable stakeholder outreach schedule that can be implemented on an annual basis
Develop maps and calculations	GSA meetings to review and discuss DWR comments	Summarize current groundwater conditions	Identify and implement potential smaller group check ins with specific stakeholder groups
Write report	Identify revisions to be incorporated into the 5-year evaluation report	Evaluation of updated water budgets and overdraft conditions to include changes in water use	Develop educational materials on GSP implementation progress
GSA Meeting	*IF* GSP deemed incomplete: • DWR consultations • GSP revisions and modifications during 180-day resubmittal period • Board adoption of revised GSP	Relevant actions taken by the GSAs, including a summary of regulations, ordinances, legal enforcement or action related to the implementation of the GSP	GSP website updates
Upload data and submit to DWR	Upload revised GSP and submit to DWR	Outreach activities and GSA meetings	

Component 1: GSP Implementation, Outreach, and Compliance Activities – Budget/Timeline

Approximate Budget:

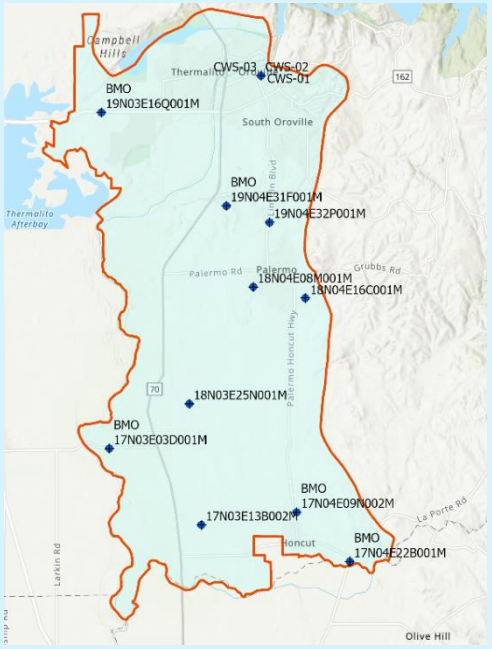
- Annual Report Development, for WY 2022, 2023, 2024, 2025: ~$38,000 per Annual Report; total of $155,000 for 4 reports.
- Fee Study for Long Term Financing of the Wyandotte Creek GSA: $100,000
- BBGM Update and Re-Calibration: $50,000
- GSP Updates and Responses to DWR Comments: $75,000
- Develop and Implement an Approach to Set ISW SMC: $250,000
- 5-year GSP Evaluation Report: $150,000
- Outreach and Education Program: $50,000
- Development of Data Management System: $125,000

Total: $955,000

Anticipated Timeline:

- Annual Report Development, for WY 2022, 2023, 2024, 2025:
  Each Report would be submitted April 1st of the following year.
- Fee Study for Long Term Financing of the Wyandotte Creek GSA: Completed August 2023
- BBGM Update and Re-Calibration: Completed December 2025
- GSP Updates and Responses to DWR Comments: Completed July 2024
- Develop and Implement an Approach to Set ISW SMC: January 2025
- 5-year GSP Evaluation Report: Completed January 2027
- Outreach and Education Program: Completed June 2027
- Development of Data Management System: Completed June 2026

Component 2: Enhancements to Monitoring Networks to Fill Data Gaps



Summary:

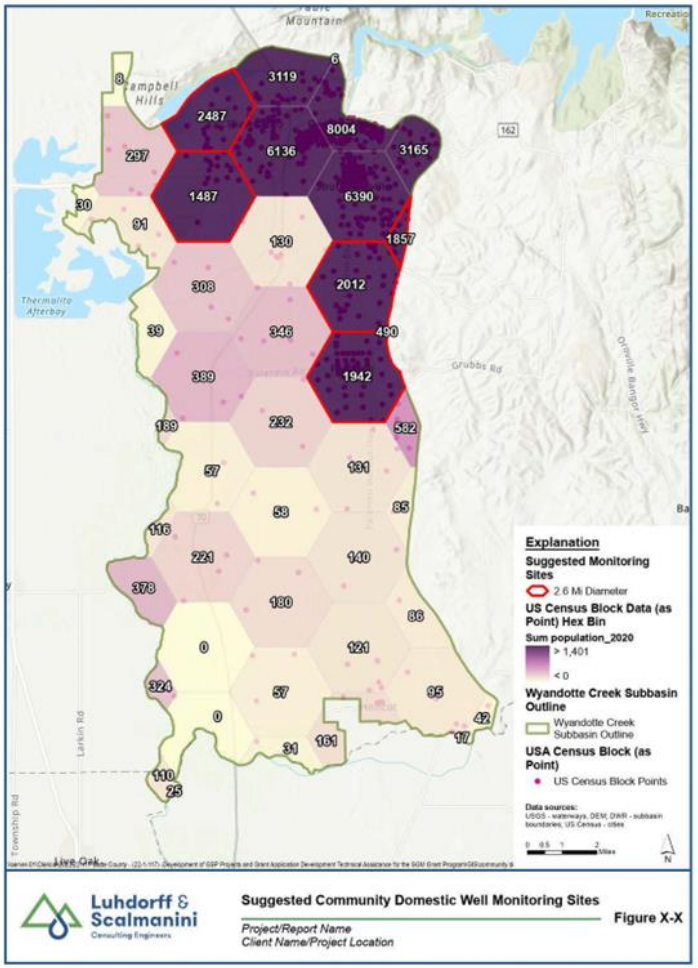
1. Develop community domestic well monitoring program
2. Install new multi-completion monitoring wells
3. Expand SW/GW and GDE monitoring:
   - Install shallow (<30') monitoring wells and stream gauges
   - Mapping project of groundwater dependent ecosystems

Component 2: Community Domestic Well Monitoring Program

Key Tasks:

The Domestic Well Program seeks to:

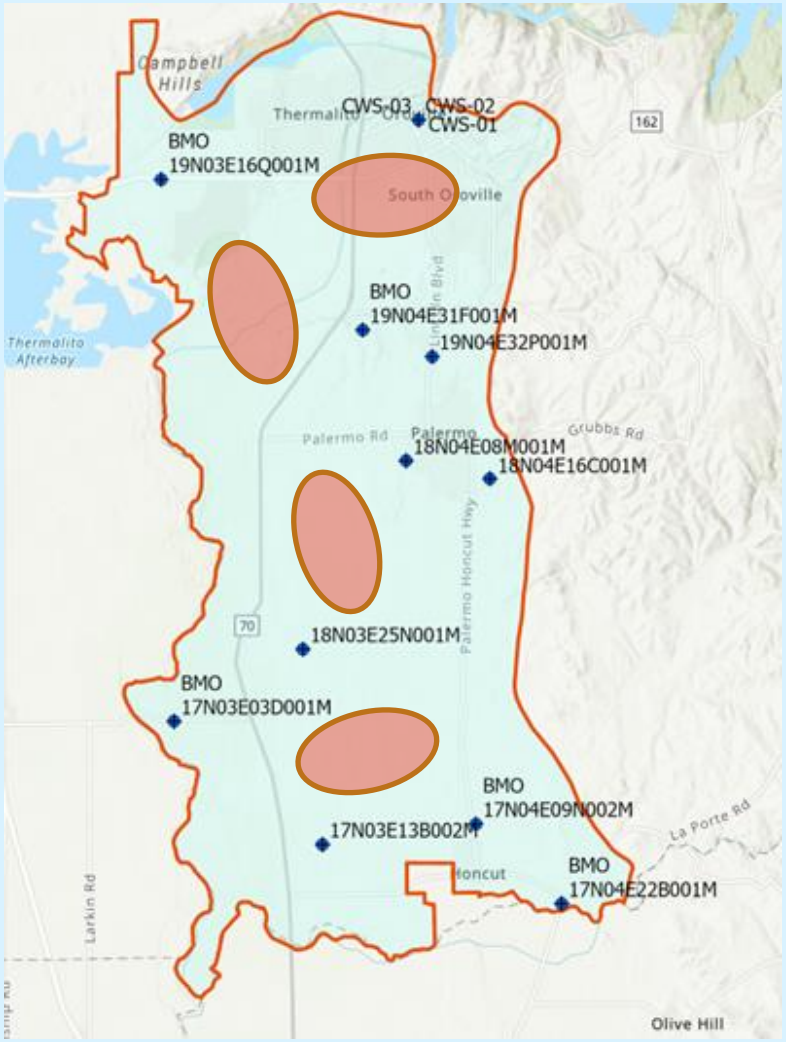
- Outline domestic well-identification needs (i.e., to build a well inventory, and conduct water sampling)
- Establish an inventory of domestic well materials and resources that can be used as part of education, outreach, and engagement efforts
- Begin planning, scheduling, and budgeting for a focused domestic well program
- Identify ways to strengthen and facilitate coordination between county and state agencies for dry well reporting, ordinances, and permitting



Component 2: Install New Multi Completion Monitoring Wells

Key Tasks:

- Add 3-5 multi-completion monitoring wells
  - would help to further refine both the horizontal and vertical understanding of groundwater flow and water quality
- Wells would be incorporated into the current monitoring well network



Component 2: Expand SW/GW and GDE Monitoring

- SW/GW Monitoring
  - Add up to 10 Shallow wells
  - Add Stream Gages
  - would help to further refine both the horizontal and vertical understanding of surface water/groundwater connectivity
- Perform a biological Study on potential GDE

Component 2: Monitoring Network Enhancements to Address Data Gaps

Approximate Budget:

- Task 1 – Community Domestic Well Monitoring: $53,750
- Task 2 – Installation of Multi-Completion Monitoring Wells: $810,000
- Task 3 – Installation of Shallow Groundwater Monitoring Devices: $335,000
- Task 4 – Installation of Surface Water Stream Gages: $125,000
- Task 5 – Mapping the GDE (in space and changes over time) Utilizing CSU Chico Staff: $50,000
- Task 6 – Integrate Data into GSP Monitoring Database: $15,000
- Task 7 – Interbasin Coordination: $15,000
- Task 8 – Engagement/Outreach: $30,000

Total: $1,433,750

Anticipated Timeline:

- Task 1 – Community Domestic Well Monitoring: Completed by January 2025
- Task 2 – Installation of Multi-Completion Monitoring Wells: Completed by July 2024
- Task 3 – Installation of Shallow Groundwater Monitoring Devices: Completed July 2025
- Task 4 – Installation of Surface Water Stream Gages: Completed by July 2025
- Task 5 – Mapping the GDE (in space and changes over time) Utilizing CSU Chico Staff: Completed by January 2026
- Task 6 – Integrate Data into GSP Monitoring Database: Completed by January 2026
- Task 7 – Interbasin Coordination: Ongoing throughout project
- Task 8 – Engagement/Outreach: Ongoing throughout project

Component 3: Inter-basin Coordination Activities

Background and Summary:

- In the Sacramento Valley inter-basin coordination is critical due to the interconnectedness of groundwater, as each Subbasin implements its GSP.
- During development of the Groundwater Sustainability Plan, the Wyandotte Creek Subbasin participated with the surrounding 10 subbasins (Antelope, Bowman, Butte, Vina, Colusa, Corning, Los Molinos, Red Bluff, Sutter, and Yolo) in the Northern Sacramento Valley in inter-basin coordination efforts focused on establishing a foundation and guidelines by identifying priorities and resources.
- Future coordination will focus on the Feather River Corridor subbasins which include Butte, Sutter, North Yuba and Wyandotte Creek.
- The main objective of the coordination efforts is to identify any significant discrepancies in the GSPs, understand why those differences exist, and evaluate to the extent they need to be reconciled.

Component 3: Inter-basin Coordination Activities

Key Tasks:

- Conducting joint analysis and evaluation of GSPs
- County contour mapping to help identify inter-basin flow patterns and influences on surface water flows and replenishment locations
- Coordinated communication and outreach

Component 3: Inter-basin Coordination Activities

Total: $260,000

Approximate Budget:

Task 1 – Project Administration and management: $20,000

Task 2 - Joint analysis and evaluation of GSPs: $200,000

Task 3 - Coordinated communication and outreach: $40,000

Anticipated Timeline:

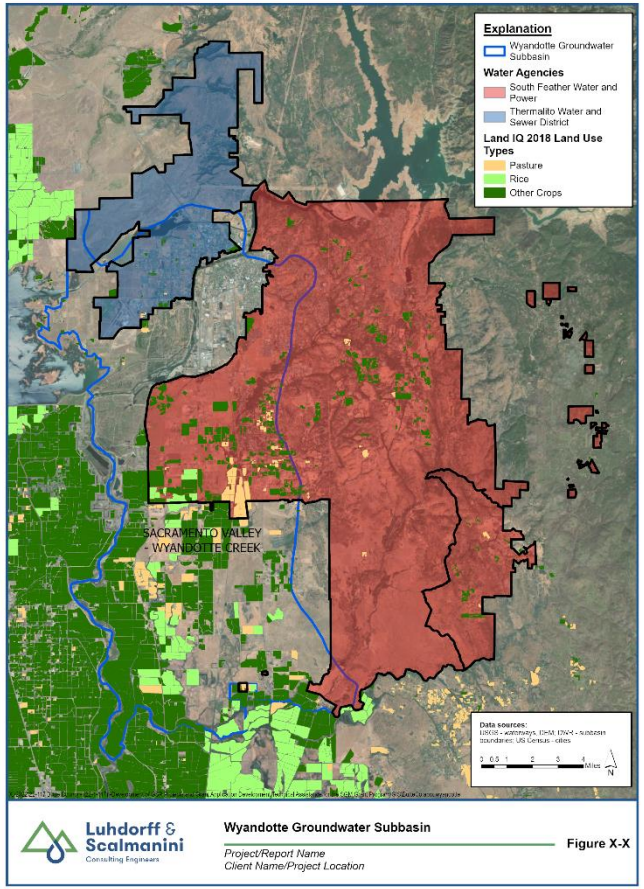
Task 2 - Joint analysis and evaluation of GSPs: Completed by April 2026

Task 3 - Coordinated communication and outreach: Completed by April 2026

Component 4: Agricultural Surface Water Supplies/Intra-Basin Water Exchange

Background and Summary:

1. Many Agricultural users are solely dependent on groundwater
2. Using surface water instead of groundwater would allow groundwater levels to recover (in-lieu recharge)
3. A dual source water supply could be beneficial as in-lieu recharge projects (5,000-8,000 AFY)
4. 2018 “Evaluation of Restoration and Recharge Within Butte County Basins” identified surface water sources for diversion
5. Goal: Diversify agricultural water supplies to include surface water supplies from within and outside the subbasin including the Feather River Watershed and entities including TWSD, Butte County, or SFWPA.



Component 4: Agricultural Surface Water Supplies/Intra-Basin Water Exchange

Approximate Budget:

Total: $242K

- Task 1 - Administrative Tasks: $62K
- Task 2 – Identify surface water sources/Availability in Subbasin: $10K
- Task 3 – Conduct Surface Water Supply Reliability Assessment: $20K
- Task 4 – Identify Potential Intra-basin Allocation/Transfer Needs: $10K
- Task 5 – Develop Intra-basin Transfer Feasibility Study: $50K
- Task 6 – Prepare Draft Implementation Plan-With Review: $45K
- Task 7 – Prepare Final Implementation Plan: $25K
- Task 8 – Engagement/Outreach: $20K

Anticipated Timeline:

- Task 1 – Administrative Tasks: Completed by March 2026
- Task 2 – Identify surface water sources/Availability in Subbasin: Completed by April 2024
- Task 3 – Conduct Surface Water Supply Reliability Assessment: Completed by April 2024
- Task 4 – Identify Potential Intra-basin Allocation/Transfer Needs: Completed by April 2024
- Task 5 – Develop Intra-basin Transfer Feasibility Study: Completed by October 2024
- Task 6 – Prepare Draft Implementation Plan-With Review: Completed by July 2025
- Task 7 – Prepare Final Implementation Plan: Completed by January 2026
- Task 8 – Engagement/Outreach: Ongoing Throughout Process

Component 5: TWSD Water Treatment Plant Capacity Upgrade

Background and Summary:

Total: $242K

- The goal of this project is to increase Thermalito Water and Sewer District's (TWSD) ability to provide additional surface water capacity and offset the district's groundwater pumping, which is approximately 600 AF per year.
- The proposed project would double the treatment plant capacity to 8 MGD with the installation of two (2) filter racks and associated equipment.
- The project is currently underway and expected to take 13.5 months

Component 5: TWSD Water Treatment Plant Capacity Upgrade

Total: $2,603,784

Approximate Budget:

- Task 1 - Administrative Tasks: $5,000
- Task 2 – Design Plans and Specifications: $280,250
- Task 3 – Construction: $2,318,534

Anticipated Timeline:

- Task 1 - Administrative Tasks: Completed by March 2024
- Task 2 – Design Plans and Specifications
- Task 3 – Construction: Completed by December 2023

** Need clarification on the project schedule

Components to Be Discussed

Proposed

1.GSP Implementation, Outreach, and Compliance Activities

2. Monitoring Network Enhancements to Address Data Gaps

3. Inter-basin Coordination Activities

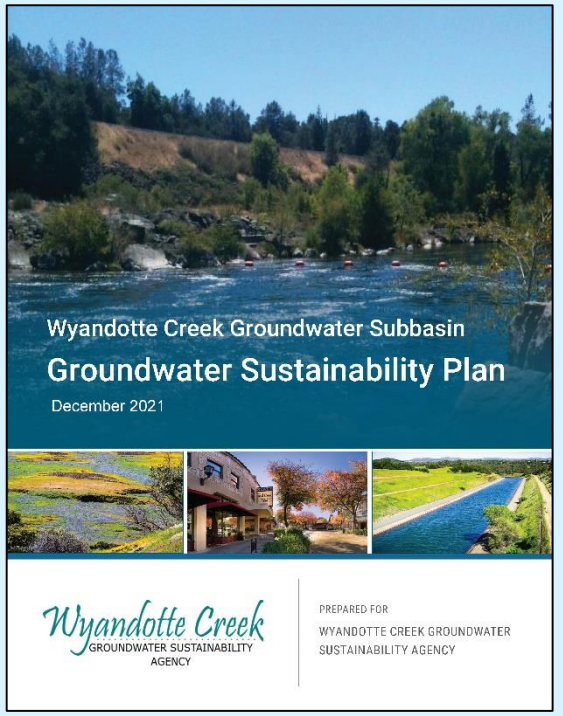
4. Agricultural Surface Water Supplies/Intra-basin Water Exchange

5. TWSD Water Treatment Plant Capacity Upgrade

For Further Development

1. Agricultural Irrigation Efficiency

2. Groundwater Recharge Feasibility Analysis and Site Evaluation (Flood MAR/Streamflow Augmentation)



Further Development 1: Agricultural Irrigation Efficiency

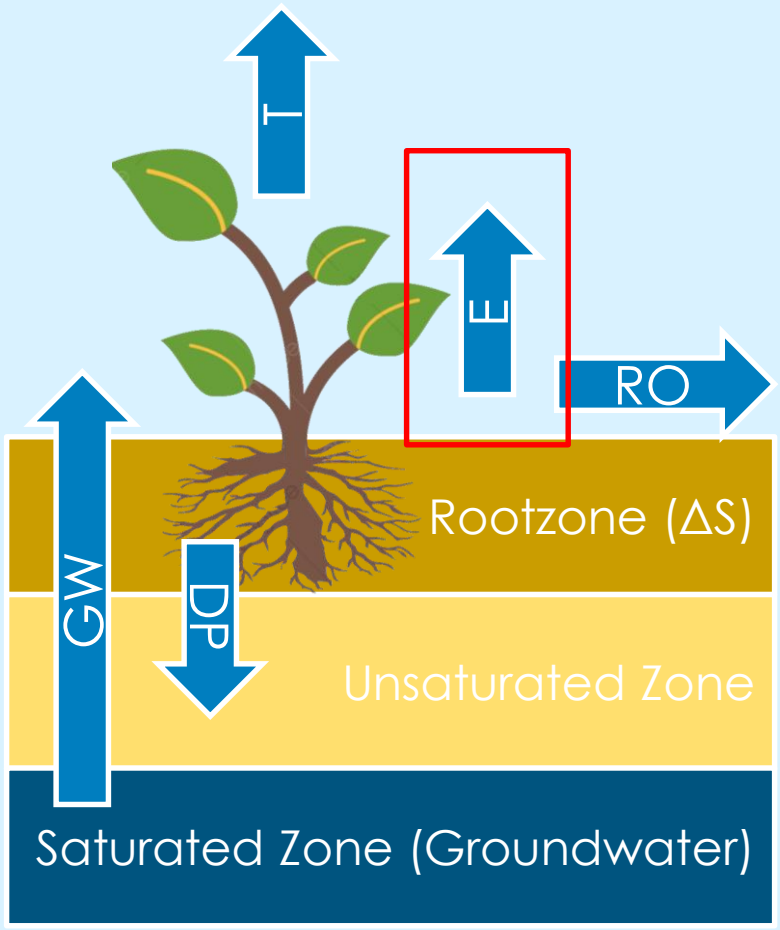
Background:

1. Increased irrigation efficiency (IE) can have positive impacts on energy use and water quality.
2. However, increased IE does not always translate to improvements in (sub)basin sustainability.
3. In many cases, large-scale improvements (investments) to IE have complicated groundwater sustainability.
4. Often wise to leave legacy irrigation infrastructure in place.
5. (Sub)basin sustainability requires understanding and management of ET.

Further Development 1: Agricultural Irrigation Efficiency

Background

- Primary opportunities for subbasin scale benefits from IE improvements are related to:
  - Reducing non-beneficial Evaporation (E)
    - Evaporative losses from sprinklers
    - Evaporative losses from wet soils
  - Reducing (non-beneficial) Transpiration (T)
    - Transpiration from weeds
    - Regulated deficit irrigation
- Simply reducing deep percolation (DP) will not move the subbasin towards sustainability



Further Development 1: Agricultural Irrigation Efficiency

Key Tasks:

Task 1: Component administration and management

Task 2: Develop Precision Irrigation Piloting Program

- Perform IE-related stakeholder outreach and education
- Develop field-scale inventory of irrigation methods
- Quantify and disseminate field-scale ET data
- Incentivize and pilot precision irrigation techniques
- Monitor and quantify opportunities for real reductions in ET
- Develop phase II IE implementation plan

Task 3: Outreach and Education Program

Further Development 1: Agricultural Irrigation Efficiency

Total: $150,000

Approximate Budget:

- Task 1 – Component Administration and Management: $10,000
- Task 2 – Develop Precision Irrigation Piloting Program: $100,000
- Task 3 – Outreach and Education Program: $40,000

Anticipated Timeline:

- Task 1 – Component Administration and Management: Completed by June 2026
- Task 2 – Develop Precision Irrigation Piloting Program: Completed by March 2026
- Task 3 – Outreach and Education Program: Completed by March 2026

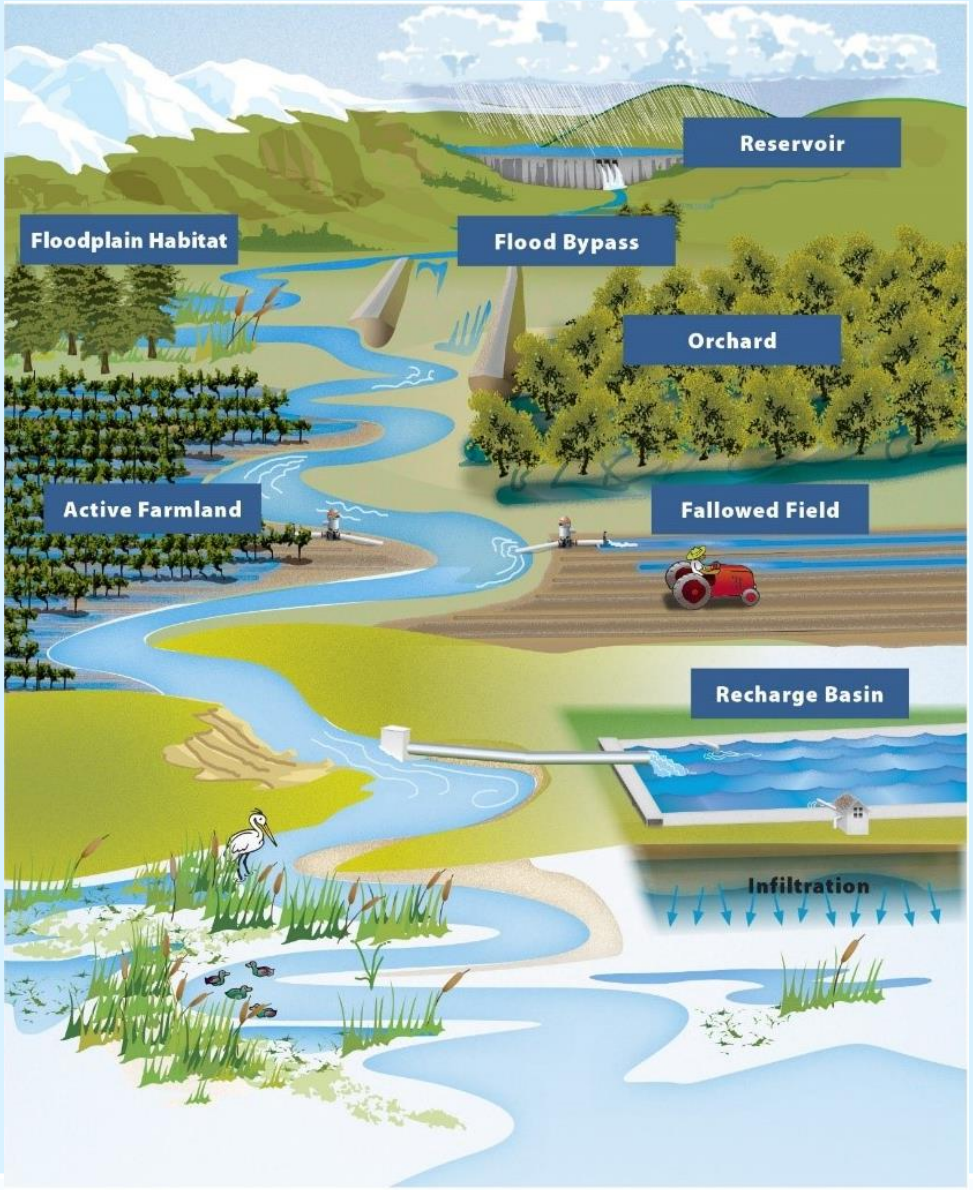
Further Development 2: Groundwater Recharge Feasibility Analysis and Site Evaluation

- This project is based on the Flood MAR/Streamflow Augmentation projects described in the GSP
- The Flood MAR initiative, originally developed by DWR to promote recharge programs that use fields, recharge basins, and/or recharge ponds to divert high flows from creeks and streams.
- Project to focus on initial scoping and identification of specific recharge opportunities.
- Focus on areas with the greatest need for recharge and identify areas with promising recharge potential.
- Interested landowners would be identified and participation in the program would be voluntary.

Further Development 2: Groundwater Recharge Feasibility Analysis and Site Evaluation

What is Flood-Managed Aquifer Recharge?

"Flood-MAR" is an integrated and voluntary resource management strategy that uses flood water resulting from, or in anticipation of, rainfall or snow melt for managed aquifer recharge (MAR) on agricultural lands and working landscapes, including but not limited to refuges, floodplains, and flood bypasses. Flood-MAR can be implemented at multiple scales, from individual landowners diverting flood water with existing infrastructure, to using extensive detention/recharge areas and modernizing flood management infrastructure/operations.



Further Development 2: Groundwater Recharge Feasibility Analysis and Site Evaluation

Recharge Projects to Be Evaluated

1. Flooding of agricultural lands:
   - Winter flooding of orchards or idle/fallowed fields
2. Construct Recharge Ponds
   - Divert flood waters to constructed recharge ponds
3. Recharge through Canals and Creeks (stream augmentation)
   - Divert flood waters to ephemeral creeks and available unused canals

Further Development 2: Groundwater Recharge Feasibility Analysis and Site Evaluation

Approximate Budget:

Total: $1,840,000

- Task 1 – Grant Administration: $90,000
- Task 2 – Feasibility Analysis and Project Identification: $100,000
- Task 3 – Groundwater Recharge Investigation and Preliminary Design: $300,000
- Task 4 – CEQA/Permitting: $100,000
- Task 5 – Final Design: $150,000
- Task 6 – Bid Documents: $50,000
- Task 7 – Construction/Implementation Activities: $1,00,000
- Task 8 – Public Outreach and Education Program: $50,000

Anticipated Timeline:

- Task 1 – Grant Administration: Completed by June 2026
- Task 2 – Feasibility Analysis and Project Identification: Completed by September 2024
- Task 3 – Groundwater Recharge Investigation and Preliminary Design: Completed by March 2025
- Task 4 – CEQA/Permitting: Completed by September 2025
- Task 5 – Final Design: Completed by September 2025
- Task 6 – Bid Documents: Completed by January 2026
- Task 7 – Construction/Implementation Activities: Completed by March 2026
- Task 8 – Public Outreach and Education Program: Completed by June 2026

- *Note these tasks are possible and open for discussion. This would be potential tasks ending in implementation

Projects Identified for Further Development with Details Provided by the Implementing Agency

1. TWSD Water Treatment Plant Capacity Upgrade (Section 5.2.4.6)
2. Water Loss Monitoring (Section 5.2.4.7)

The following projects are pursuing other funding opportunities and/or are not strong candidates for the SGM Grant Program:

1. Oroville Wildlife Area Robinson's Riffle Project (Section 5.2.4.4)
2. Palermo Clean Water Consolidation Project (Section 5.2.4.8)

Summary of Potential Projects for SGM Grant Application

#	Tasks	Project Name	Estimated Cost	Start Date	End Date	Implementing Agency
A.	A.	**Grant Agreement Administration**	**300,000**	**Dec-23**	**Jun-26**	**Wyd Creek GSA**
1		**GSP Implementation, Outreach, and Compliance Activities**				**Wyd Creek GSA**
	1	*Annual Report Development, for WY 2022, 2023, 2024, 2025*	*155,000*	*Nov-22*	Jun-26	
	2	*Fee Study for Long term Financing of the Wyandotte Creek GSA*	*100,000*	*Oct-22*	*Aug-23*	
	3	*BBGM Update and Re-Calibration*	*50,000*	*Jun-24*	*Dec-25*	
	4	*GSP Updates and Response to DWR Comments*	*75,000*	*Jan-24*	Jul-24	
	5	*Develop and Implement an Approach to Set ISW SMC*	*250,000*		Jan-25	
	6	*5-year Evaluation Report*	*150,000*	*Jan-24*	Jan-27	
	7	*Outreach and Education Program*	*50,000*	*Jan-22*	Jun-27	
	8	*Development of Data Management System*	*125,000*		Jun-26	
		TOTAL	**955,000**			
2		**Monitoring Network Enhancements to Address Data Gaps**		**Jan-24**	**Mar-26**	**Wyd Creek GSA**
	1	*Community Domestic Well Monitoring*	*53,750*	*Jan-24*	*Jan-25*	
	2	*Installation of Multi-completion Monitoring Wells*	*810,000*	*Jan-24*	*Jul-24*	
	3	*Installation of Shallow Groundwater Monitoring Devices*	*335,000*	*Apr-24*	*Jul-25*	
	4	*Installation of Surface Water Stream Gauges*	*125,000*	*Apr-24*	*Jul-25*	
	5	*Mapping the GDE (in space and changes over time) utilizing CSU Chico Staff*	*50,000*	*Jul-24*	*Jan-26*	
	6	*Integrate Data Into GSP Monitoring Database*	*15,000*	*Jul-24*	*Jan-26*	
	7	*Interbasin Coordination*	*15,000*		*Mar-26*	
	8	*Engagement/Outreach*	*30,000*	*Apr-24*	*Mar-26*	
		TOTAL	**1,433,750**			
3		**Inter-basin Coordination Activities**		**Sep-23**	**Apr-26**	**Wyd Creek GSA**
	1	*Component administration and management*	*20,000*			
	2	*Conducting Joint Analysis and Evaluation of GSPs*	*200,000*			
	3	*Coordinated Communication and Outreach*	*40,000*			
		TOTAL	**260,000**			
4		**Agricultural Surface Water Supplies**			**Mar-26**	**Wyd Creek GSA**
	1	*Administrative Tasks*	*62,000*		*Mar-26*	
	2	*Identify surface water sources/Availability in Subbasin*	*10,000*		*Apr-24*	
	3	*Conduct Surface Water Supply Reliability Assessment*	*20,000*		*Apr-24*	
	4	*Identify Potential Intra-basin Allocation/Transfer Needs*	*10,000*		*Apr-24*	
	5	*Develop Intra-basin Transfer Feasibility Study*	*50,000*		*Oct-24*	
	6	*Prepare Draft Implementation Plan-With Review*	*45,000*		*Jul-25*	
	7	*Prepare Final Implementation Plan*	*25,000*		*Jan-26*	
	8	*Engagement/Outreach*	*20,000*		*Jan-26*	
		TOTAL	**242,000**			
5		**TWSD Water Treatment Plant Capacity Upgrade**		**May-22**	**Mar-24**	**TWSD**
	1	*Component administration and management*	*5,000*	*May-22*	*Mar-24*	
	2	*Design Plans and Specifications*	*280,250*			
	3	*Construction*	*2,318,534*	*May-23*	*Dec-23*	
		TOTAL	**2,603,784**			
		For Further Development and Discussion				
1		**Agricultural Irrigation Efficiency**		**Jul-23**	**Jun-26**	**Wyd Creek GSA**
	1	*Component administration and management*	*10,000*	*Jul-23*	*Jun-26*	
	2	*Develop precision irrigation piloting program*	*100,000*	*Sep-23*	*Mar-26*	
	3	*Outreach and Education Program*	*40,000*	*Jul-23*	*Mar-26*	
		TOTAL	**150,000**			
2		**Groundwater Recharge Feasibility Analysis and Site Evaluation**		**Jan-24**	**Jun-26**	**Wyd Creek GSA**
	1	*Grant Administration*	*90,000*	*Jan-24*	*Jun-26*	
	2	*Feasibility Analysis and Project Identification*	*100,000*	*Jan-24*	*Sep-24*	
	3	*Groundwater Recharge Investigation and Preliminary Design*	*300,000*	*Sep-24*	*Mar-25*	
	4	*CEQA/Permitting*	*100,000*	*Mar-25*	*Sep-25*	
	5	*Final Design*	*150,000*	*Mar-25*	*Sep-25*	
	6	*Bid Documents*	*50,000*	*Sep-25*	*Jan-26*	
	7	*Construction/Implementation Activities*	*1,000,000*	*Sep-25*	*Mar-26*	
	8	*Public Outreach and Education Program*	*50,000*	*Jan-24*	*Jun-26*	
		TOTAL	**1,840,000**			
		GRAND TOTAL	**7,784,534**			

Acronymns
WY- Water Year
GSA- Groundwater Sustainability Agency
BBGM- Butte Basin Groundwater Model
GSP- Groundwater Sustainability Plan
ISW SMC- Interconnected Surface Water Sustainable Management Critiera
DWR- Department of Water Resources