

Long-term Water Supply Sustainability Study YCWA-09

I. Project Sponsor Contact Information

Lead Agency/Organization	Yuba County Water Agency
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II. General Project Information

Project Title	Long-Term Water Supply Sustainability Study
Project Total Budget	TBD
Project Funding Match	TBD
Project Funding Request	\$500,000
Can a detailed cost estimate be provided upon request?	No
Project Location:	regionwide
Could you provide a map of the project location including boundaries upon request?	Yes
County	Yuba
Watershed/subwatershed	Yuba
Groundwater Basin	Yuba Groundwater Basin (valley floor) and Granitic Fractured Hard Rock (foothills)
Project Type	Planning Study/Assessment

III. Project Description

This project would evaluate the long-term (e.g., a planning horizon past 2030) water demands and available water supplies within Yuba County. This planning study would evaluate the potential water demand of conceivable urban development in the valley floor and foothills from several alternatives. The sources of surface water and groundwater supplies, in addition to required capital costs to develop delivery, treatment, and monitoring programs, will be considered. The water demand from the alternatives will be compared with the 2030 water supplies. The difference of the post-2030 water demand and the 2030 water supplies will be used to size the water supply projects.

IV. Project Rationale/Issues Statement

This project would support the implementation of the Water Purchase Agreement and the Conjunctive Use Agreement of the Lower Yuba River Accord to support the water supply reliability and groundwater management/conjunctive use strategies of the Plan Area. The project study would consider the following regionally identified issues:

Water Storage

Develop new water storage or identify alternatives to new storage that would increase water supply as a result of projected future uncertainties;

Infrastructure

Develop new infrastructure as well as repair, replace and retrofit aging infrastructure to ensure adequate and reliable water supply;

Groundwater

Promote integrated management of groundwater and surface water;

Environmental Flows

At minimum, maintain quantity, timing, and quality of stream-flows required to restore and protect freshwater ecosystems;

Land-use and Management

Address the connection between land-use planning and water

Water-use Efficiency/Water Conservation

Promote and implement policies and practices to increase water use efficiency *and* water conservation in municipal and agricultural sectors

V. Goals/Objectives/Performance Metrics

Goals Addressed by the Project	<p>Goal 1: Ensure adequate and reliable water supply that meets the diverse needs of the region;</p> <p>Goal 6: Address climate vulnerabilities and reduce greenhouse gas emissions.</p>
Objectives Addressed by Project	<p>1.1 Improve water supply system capacity, flexibility and efficiency, including, but not limited to, optimizing existing water storage; upgrading and retrofitting aging infrastructure; and, developing new infrastructure, where necessary;</p> <p>1.2 Promote water conservation and water use efficiency by instituting various techniques including, but not limited to, groundwater</p>

	<p>recharge, conjunctive management, irrigation efficiencies, municipal water conservation, water recycling and reuse;</p> <p>1.7 Support regulatory compliance with current and future state and federal water supply standards</p> <p>1.8 Promote regional education and outreach regarding water supply issues and needs;</p> <p>6.2 Improve data, modeling and technical analyses to better understand the impacts of climate change on regional and inter-regional water supply and watershed health;</p> <p>6.3 Increase system flexibility and resiliency to adapt to climate variability;</p> <p>6.5 Promote education about climate change/variability and its impacts on water management and watershed health throughout the region.</p>
<p>What performance metrics will be used to demonstrate that objectives are being met? Wherever possible, provide a quantitative measurement reflecting successful project outcomes.</p>	

VI. Resource Management Strategies

Reduce Water Demand	
Agricultural Water Use Efficiency	The study will evaluate the long term water demands in the region
Urban Water Use Efficiency	Same as above
Improve Operational Efficiency and Transfers	
Conveyance-- Delta	Various project alternatives will be explored in this long term comparison study to determine water demands and water supply project needs to 2030
Conveyance—Regional/Local	Various project alternatives will be explored in this long term comparison study to determine water demands and water supply project needs to 2030
System Reoperation	Various project alternatives will be explored in this long term comparison study to determine water demands and water supply project needs to 2030
Water Transfers	Various project alternatives will be explored in this long term comparison study to determine water demands and water supply project needs to 2030
Increase Water Supply	
Conjunctive Management and Groundwater	The sources of groundwater supply will be assessed and evaluated
Recycled Municipal Water	The potential water supplies will be assessed and

	evaluated
Surface Storage-- CALFED/State	The surface water supplies will be assessed and evaluated
Surface Storage-- Regional/Local	The surface water supplies will be assessed and evaluated

VII. Statewide Priorities

Drought Preparedness

- Promote water conservation, conjunctive use, reuse and recycling
- Improve landscape and agricultural irrigation efficiencies
- Achieve long term reduction of water use
- Efficient groundwater basin management
- System inerties

Climate Change Response Actions

- Adaptation to Climate Change: Advance and expand conjunctive management of multiple water supply sources
- Adaptation to Climate Change: Use and reuse water more efficiently
- Adaptation to Climate Change: Water management system modifications that address anticipated climate
- Reduction of Greenhouse Gas (GHG) Emissions: Reduce energy consumption of water systems and uses
- Reduce Energy Consumption: Water use efficiency
- Reduce Energy Consumption: Water system energy efficiency

Climate Change Adaptation

This planning study establishes a time horizon that considers all water supply climate change vulnerabilities and establishes a framework to determine future water supply needs based on various scenarios. A range of operational alternatives will be explored that consider future uncertainties.

GHG Emissions Reduction

The study will incorporate a range of operational and project alternatives incorporating GHG mitigation and emissions reduction strategies.

VIII. Project Status and Schedule

For Conceptual Projects Only: The Project is currently in the Conceptual Stage: **YES**

IX. Project Technical Feasibility

a. List the water planning documents	
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that specifically identify this project.	
b. List the adopted planning documents the proposed project is consistent with (e.g., General Plans, UWMPs, GWMPs, Water Master Plans, Habitat Conservation Plans, etc.)	Lower Yuba River Accord YCWA Groundwater Management Plan
c. List technical reports and studies supporting the feasibility of this project.	
If you are an Urban Water Supplier:	
1. Have you completed an Urban Water Management Plan and submitted to DWR?	Yuba County Water Agency (YCWA) does not supply water for direct urban use and is not subject to the Urban Water Management Plan Act (UWMPA).
2. Are you in compliance with AB1420?	See above.
3. Do you comply with the water meter requirements (CWC Section 525)?	See above.
If you are an Agricultural Water Supplier:	
1. Have you completed and submitted an AWMP?	Yes
If the project is related to groundwater:	
1. Has GWMP been completed and submitted for the subject basin?	Yes