

Regional Feather River Diversion Feasibility Study

YCWA-13

I. Project Sponsor Contact Information

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

Project Title	Regional Feather River Diversion Feasibility 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:	Approximate location- confluence of Yuba and Feather Rivers (actual project downstream of confluence)
Latitude	39.138611° N
Longitude	121.605833° W
Could you provide a map of the project location including boundaries upon request?	Yes
County	Yuba
City/Community	regional
Watershed/subwatershed	Yuba and Feather
Groundwater Basin	Yuba Groundwater Basin
Project Type	Study/Assessment

III. Project Description

The study will assess the feasibility of diverting Yuba River Development Project (FERC No. 2246) water downstream of the confluence with the Feather River, below sensitive fish habitat. A water treatment plant would be constructed to treat water for urban use. This new supply will reduce overdraft pressure on the limited groundwater resource and further the region's conjunctive use goals.

Approach

The Regional Feather River Diversion Feasibility Study may include the following components:

- Establish project objectives
- List project constraints
- Formulate alternatives
- Evaluate alternatives
- Determine impacts of alternatives
- Determine performance of alternatives
- Estimate alternative costs
- Establish alternative ranking criteria
- Recommend a preferred alternative, based on ranking and cost
- Determine cost of preferred alternative
- Recommend project funding sources

Select elements of the urban water supply diversion and auxiliary facilities that may be included are:

- Intake facility and pumping plant on the Feather River south of the Yuba River confluence
- Fish screens at intake
- Settling basins or other system for managing sediment
- Reservoir and water treatment plant for urban water supply
- Distribution system infrastructure, including canals, pipes, laterals and turnouts
- Facilities, as necessary, to link to or bypass existing infrastructure (e.g. pumps, siphons)
- Operation and maintenance plan
- Water rights or allocations and/or relationship with SWP project water

Any potentially significant environmental impacts must be identified and mitigated, as necessary. An evaluation of project impacts in the following areas will be conducted:

- Hydrology, water supply and power
- Water quality
- Fish
- Recreation
- Vegetation and wetland resources
- Wildlife
- Groundwater, geology, soils, and seismicity
- Land use
- Growth-related effects
- And, to a lesser extent, air quality, noise, public health and safety, visual resources, cultural resources.

IV. Project Rationale/Issues Statement

Recent urban development in the Yuba-Feather River region has resulted in increased demand for a high-quality water supply. Currently, after local irrigation diversion requirements are met, a portion of Yuba River Project water passes by a diversion located upstream of Daguerre Point Dam to satisfy minimum instream fish flow requirements in the lower Yuba River. This Yuba River Project water is not diverted for consumptive use and eventually leaves the region and flows to the ocean. This project will study the feasibility of diverting that water at a point below sensitive fish habitat, downstream of the confluence with the Feather River. The feasibility study will consider the following identified regional 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

Land-use and water

Address the connection between land-use planning and water;

Climate Change

Respond to projected climate change impacts on water supply reliability, water quality, public safety and watershed health and develop regional and inter-regional adaptive management strategies.

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>6.3 Increase system flexibility and resiliency to adapt to climate variability.</p>
What performance metrics will be used to demonstrate that objectives are being met? Wherever possible, provide a quantitative measurement	

reflecting successful project outcomes.	
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VI. Resource Management Strategies

Improve Operational Efficiency and Transfers	
Conveyance—Regional/Local	The feasibility study aims to enhance local and regional conveyance for increased water supply reliability
Increase Water Supply	
Conjunctive Management and Groundwater	The study aims to reduce overdraft pressure on the limited groundwater resource and further the region's conjunctive use goals
Surface Storage-- Regional/Local	The study will consider possible new regional/local surface storage facilities

VII. Statewide Priorities

Drought Preparedness

- Promote water conservation, conjunctive use, reuse and recycling
- Efficient groundwater basin management
- System inerties

Climate Change Response Actions

- Adaptation to Climate Change: Water management system modifications that address anticipated climate

Climate Change Adaptation

The feasibility study is in response to water supply reliability uncertainties and vulnerabilities under climate change projections. The study aims to determine the feasibility of developing new infrastructure that would modify the water supply delivery system to compensate for climate variability.

GHG Emissions Reduction

The feasibility study would explore a range of project alternatives that consider 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.)	YCWA Groundwater Management Plan Agricultural Water Management Plan Yuba County General Plan Feather River Regional Flood 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