

# Delta Sub-basin

## Sub-basin-level Review of Proposed Projects

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### Sub-basin Water Requirements and Sources

The Delta Sub-basin (see Figure 1 in the Introduction and Figure 1 at the end of this sub-basin review) encompasses approximately 300,000 acres and is located within the legal definition of the Delta and, more specifically, within the North Delta Water Agency (NDWA). A contract between the State of California and the NDWA assures the quality and quantity of the water. The State Water Resources Control Board recognized this agreement in its decisions relative to the 1995 Water Quality Control by assigning responsibility for any obligation within NDWA to the Department of Water Resources.

Agricultural land uses dominate the sub-basin. The predominant crops throughout the sub-basin are miscellaneous field and row crops. Small communities rely on groundwater, and very little groundwater is currently used throughout the sub-basin. Historically, some groundwater was used in the eastern part of this sub-basin, but NDWA and the Solano Project have recently provided reliable surface water supplies as an alternative.

Reclamation District No. 2068 (RD 2068) is the only project proponent within this sub-basin. Therefore, this sub-basin level review will focus on RD 2068's proposed project (Conjunctive Use Proposal [Project 21A]), recognizing that similar projects could be developed within the sub-basin by others in the future. RD2068 provides approximately 50,000 acre-feet of water to approximately 13,000 acres each year.

### Water Requirements/Shortages

Water availability in the sub-basin exceeds current requirements in all years. Historically, some individuals used groundwater prior to the securing of surface water supplies. Therefore, individual groundwater wells exist but have not been used since at least the early 1980s. Water users within this sub-basin, including RD 2068, are members of the NDWA, which holds a contract with the Department of Water Resources for the assurance of water supply quantity and quality. In addition to the Delta water supply, RD 2068 receives a quantity of water draining to the Delta from the Solano Project area.

### Proposed Project

RD 2068 is proposing to develop a single groundwater production well and to evaluate the conjunctive use potential within its service area. It is estimated the well would generate up to 2,000 acre-feet per year for use on agricultural lands within its district. This use of groundwater would offset an equal amount of surface diversions from the Delta channels.

## Current Status of Project

RD 2068 currently has a groundwater management plan that would facilitate the immediate development of a groundwater well. The project is a recent proposal stemming from the Phase 8 Settlement Agreement. Therefore, no other actions have been taken regarding this project.

## Interrelationship of Projects

No other projects for this sub-basin are under the Phase 8 Settlement Agreement. However, it is clearly understood that the key issue is the interaction between surface water and groundwater relative to greater conjunctive use and its relative geographical area in the Delta. Therefore, a major portion of the project is the data gathering and analysis of this interrelationship to understand potential impacts to the surface water system and surface water users.

## Benefits

This project would allow for up to 2,000 acre-feet of groundwater to be pumped in the 2002 or 2003 irrigation season to offset surface diversions. Clearly, this would provide a direct benefit to the Delta by decreasing surface water diversions. The exact benefit, all or a major portion of the total groundwater pumped, would be analyzed through the process. This capability would provide a benefit to the environment or water users from the Delta depending on how the allocation of this benefit is shared. This project may provide insight to the sustainable yield of the aquifer, which could be substantial.

## Implementation Challenges

The most significant challenge would be the coordination by RD 2068 with other local groundwater users and county representatives to facilitate the smooth implementation of this project. The analysis and evaluation of data is a technical challenge, but one that must be overcome in order for RD 2068 to optimize the available water supplies for the benefit of statewide water supply.

