

NEW WATER MANAGEMENT STRATEGY INFORMATION
(Additional information can be attached separately if needed)

ENTITY: City of Winters
NAME OF STRATEGY: Alternative Water Source / Conjunctive Use
DATE: November 11, 2013

Please provide a brief description of the water management strategy and why this strategy is needed at this time.

The sole water source for the City of Winters (City) is Elm Creek Reservoir. As drought conditions continue to persist, the City is evaluating viable strategies to complement its surface water source and develop a "conjunctive use" approach to extend current supplies as long as possible. A prior well project funded by the City along with documentation of production for irrigation purposes indicate a shallow water source just west and south of the City's reservoir. It is recognized that the shallow alluvial formation will most likely not be a consistent supply during extended periods of sustained drought, but has the potential to supplement approximately 10% to 15% of the City's demand. It is understood that the sustainability of the proposed alternative water source is highly dependent upon surface recharge, which is unreliable during periods of little or no rainfall; unfortunately, there are no other economically feasible options for securing additional water supplies at this time for the City.

Source of water (include aquifer name and general location if groundwater):

The source of groundwater appears to be an undefined shallow strata of alluvial deposits, generally occurring from 40'-100' below ground surface. The source appears to recharge by low lying drainage ways / creek bottoms running north to south and lying west and south of Elm Creek Reservoir.

Is the proposed source of water identified in the current regional water plan for the proposed use?:
No, the proposed groundwater source is not identified in the current regional water plan.

Total amount of new water supply (acre-feet): Approximately 75 acre-feet annually.

If purchased water, provide the name of the seller: N/A

List of users and potential users of water from this water management strategy:

City of Winters and contracted wholesale water customers.

Please provide the following information as required for regional water planning:

1. Capital Cost: Costs will depend upon actual property purchased or leased, which dictates transmission piping and other related infrastructure improvements. The City has received a funding offer from the TWDB in the amount of \$595,000 for Planning, Acquisition & Design (PAD) of the proposed improvements. A follow up application / offering is expected for construction of the project.

2. Reliability: The proposed groundwater source is intended to supplement the City's current surface water source and is not anticipated to be a reliable sole source of supply or a solution to extended periods of drought.
3. Quality: Water quality samples indicate no concerns for primary and secondary water standards. The proposed groundwater is intended to be blended with surface water and go through the full treatment process at the City's WTP.
4. Environmental impacts: As required for funding, a full Environmental Information Document (EID) will be prepared for the project, and is budgeted under the proposed TWDB project.
5. Impacts to rural and agricultural areas: None identified at this time.
6. Impacts to natural resources: None identified at this time.
7. Impacts to other water management strategies: None Identified time.

Please provide any other information pertinent to this strategy: _____
