

GENERIC DESCRIPTION OF THE BARRIERS ALTERNATIVES

Implement actions to improve water supply and water quality for ensure availability of water of adequate quantity and quality to agricultural diverters within the south Delta, and improving the to contribute to restoring ecological health of aquatic resources in the lower San Joaquin River and south Delta. Actions may include channel dredging, extension and screening of agricultural intakes, construction and operation of operable barriers, ~~and~~ levee setbacks and levee improvements (such as levee reinforcement or seepage control), and pumping water from Clifton Court Forebay to irrigate south Delta farmland. Actions will be staged, with appropriate monitoring and testing to guide the implementation process.

DETAILED DESCRIPTION OF THE BARRIERS ALTERNATIVES

Evaluate installation of various permanent barrier configurations:

- ~~One barrier configuration would evaluate.~~ The first alternative would include installation of a permanent barrier at the Head of Old River and extensive sediment dredging of the south Delta channels and a maintenance dredging program. This configuration would also include extending and screening agricultural diversions to meet project purposes throughout the south Delta region and ~~regulating~~ throttling flows, through the permanent barrier at the Head of Old River, as needed, to maintain south Delta water quality. If needed to address flow/circulation issues, ~~Possible~~ installation of additional barriers on Middle River upstream of Victoria Canal and Old River at Tracy would be ~~phased~~ staggered over the implementation period, ~~if needed to address flow/circulation issues.~~ Construction of either the Middle River or Old River at Tracy barriers would be evaluated by the Barrier Operations Coordination Team and would only be undertaken if the actions included in the Stage 1 South Delta Improvements, including detailed field studies and analyses, fail to provide an appropriate balance of fisheries, water quality, and water supply availability benefits (yr 1-7+).
- ~~Another barrier configuration would consider expedited.~~ The second alternative would expedite construction of three permanent operable barriers ~~at~~ of the Head of Old River, Old River at Tracy, and Middle River upstream of Victoria Canal; phasing out all temporary barriers installations as soon as feasible; and would retain the potential future option of constructing a Grant Line Canal Barrier. This ~~configuration~~ alternative would also include: dredging segments of south Delta channels and extending and screening agricultural diversions to meet project purposes throughout the south Delta region. An alternative to dredging and extending diversions in south Delta channels would be to pump water from Clifton Court Forebay to irrigate south Delta farmland not benefiting from either the Middle River or Old River at Tracy barrier installations. Construction of a Grant Line Canal Barrier would be evaluated by the Barrier Operations Coordination Team and would only be undertaken if the actions included in the Stage 1 South Delta Improvements, including detailed field studies and analyses, fail to provide an appropriate balance of fisheries, water quality, and water supply availability benefits (yr 1-7+).
- ~~One final barrier configuration would consider expedited.~~ The final alternative would expedite construction of four permanent operable barriers ~~at~~ of the Head of Old River, Old

River at Tracy, Middle River upstream of Victoria Canal, and Grant Line Canal; and phasing out all temporary barriers installations as soon as feasible. This ~~configuration~~ alternative would also include: dredging segments of south Delta channels and extending and screening agricultural diversions to meet project purposes throughout the south Delta region (yr 1-7+).