Red Bluff Technical Report Abstract

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The Red Bluff Research Pumping Plant was constructed to allow evaluation of up to four different types of pumps for their ability to provide pumped irrigation and/or bypass flows without adversely impacting Sacramento River fish populations. Archimedes pumps and a centrifugal pump with a helical screw-shaped impeller are currently being evaluated. Major plant construction was completed in 1995. Subsequent to that date, engineering and biological evaluations have been ongoing. Over the course of the study, the general goals of the engineering evaluation have remained constant; however, specific objectives have changed and evolved due to the dynamic nature of operating the pumping plant.

This report summarizes engineering activities from 1995-1998 related to Red Bluff Research Pumping Plant operations and performance. Included are not only the pump specific studies but evaluation of many of the appurtenant structures which interface the pumping plant with the river. The pumps have operated rather sporadically during the evaluation period for a variety of reasons. Problems have bow identified and corrected. Some of the initial perceived problems have not materialized and some of the site-specific evaluations concerning construction of a much larger pumping facility have taken on less importance. Unlike the typical research report format, this summary report will report on background, past studies, and present studies in several key areas -which have been identified for evaluations.