

Impacts of Seasonal Wetland Delayed Drawdown under Real-time Salinity Management on Algal Biomass and Other Water Quality Contaminants of Concern for the San Joaquin River

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Executive Summary

This project will complement current Salinity Drainage and Proposition 204 projects that deal with real-time wetland drainage management in the Grasslands Ecological Area. These projects concentrate on monitoring and modeling wetland salt balances and on making observations of the more obvious impacts of delayed wetland drawdown – namely the impacts on wetland soil salinity and on the moist-soil vegetation that is supported by these wetland soils. This project proposal examines the biological consequences of wetland delayed drawdown as implemented in the current real-time drainage management project in the Los Banos Wildlife Management Area. We will monitor delayed drawdown impacts on algal species composition, on algal biomass, and on the concentrations of organic carbon and nutrients such as nitrate, which all affect San Joaquin River water quality and downstream dissolved oxygen in the Deep Water Ship Channel. Regulatory and water agencies, such as the Metropolitan Water District, which have advocated management of wetland drainage need to be aware of the full array of consequences of this proposed action. This proposal suggests a means by which some of this essential data might be attained.