

CHAPTER 4.0

Environmental Setting, Impacts, and Mitigation Measures

Introduction

This chapter provides background information; establishes the regulatory framework applicable to the project; explains the methodology and approach to impact analysis; discloses environmental impacts associated with the project; and identifies mitigation measures to reduce or avoid impacts, when feasible. The impact analyses define criteria and thresholds for determining level of significance. The level of significance is provided for each impact as applicable under the California Environmental Quality Act (CEQA). In case of any potentially significant impact, mitigation measures are identified that would minimize the impact to less-than-significant level, when feasible.

Sections 4.1 through 4.14 discuss the following resource categories: geology and soils, hydrology and flooding, water quality, biological resources, fisheries, land use and agriculture, recreation, cultural resources, noise, air quality, transportation and traffic, hazards and hazardous materials, public services and utilities and public safety, as well as aesthetics.

CEQA Requirements

In accordance with CEQA Guidelines Section 15125, for the purposes of this analysis, the environmental setting described in **Chapter 3.0, Project Background and Environmental Setting**, constitutes the physical baseline conditions within the Estuary Study Area, and by which the Water Agency determine will whether an impact is significant. Additional setting information is provided in the following subsections. The analysis reviews project impacts relative to “change from existing conditions.” The change from existing conditions refers to the ways that the proposed project will alter current or historic management actions, and how those modified practices affect natural resources.

Estuaries are complex, dynamic ecosystems, normally experiencing changes between seasons, between years, and between different places in the same estuary. This condition makes estuaries difficult to study. Moreover, an evaluation of the effects of changes due to Estuary management must bear in mind that, when anticipating future conditions, determination of significance is judged relative to the baseline required by CEQA (i.e. current conditions). Under the current Estuary management practices, water depth and salinity, as well as other water quality

parameters, fluctuate at varying degrees and continuously across a wide range. Therefore, for many of the impacts discussed below, particularly with regards to the lagoon adaptive management element, the effects of the proposed Estuary management practices may not be sufficient to reach a determination of “significant”.

As stated in CEQA Guidelines Section 15151, *“an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have looked not for perfection, but for adequacy, completeness and a good faith effort at full disclosure.”* For the proposed Estuary Management Project, this is particularly relevant for two reasons: 1) as discussed in **Section 3.0, Project Background and Environmental Setting**, the Estuary is a very complex environment subject to changing environmental conditions on daily, seasonal, and yearly timeframes. Therefore, it may not be possible to precisely predict the effects of the proposed Estuary Management Project to the degree typically provided for under CEQA; and 2) the Estuary Management Project proposes implementation of an Adaptive Management Plan that would, by definition, monitor and react to conditions that are observed in the Estuary during the course of its implementation.

Within this context, the Water Agency recognizes that the precise response of the Estuary cannot be predicted with certainty. However, it is anticipated that conditions will remain within the range of those experienced within the Estuary over the past 15 years, although the duration of those conditions will likely be extended. With respect to listed fish species, this increase in duration of freshwater lagoon conditions is the primary objective of the project, and is anticipated to provide benefit to juvenile salmonids, particularly steelhead. This duration may also result in secondary effects related to maintaining higher water surface elevations within the Estuary over a longer period of time during summer months. Several technical issues will require additional monitoring, with subsequent alteration of the Adaptive Management Plan using the best information available. Therefore, in the absence of technical certainty, the EIR identifies potential impacts that could be associated with the implementation of the Estuary Management Project as potentially significant and unavoidable, for the purpose of CEQA.