

4.0 Other Required Analyses

This chapter presents the analysis of other topics required to be analyzed under both NEPA and CEQA including:

- Cumulative impacts;
- Significant and Unavoidable impacts
- Irreversible and irretrievable commitments of resources; and
- Relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity.

4.1 Cumulative Impacts

Requirements for and Approach to Analysis

Both NEPA (as defined by 40 CFR 1580.25) and CEQA (as defined by State CEQA Guidelines Section 15130) require the evaluation of significant cumulative impacts associated with a proposed project. Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts can result when several closely related projects cause: “...(a) change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines, Section 15355[b]). “The cumulative impact analysis may be less detailed than the analysis of the project’s individual effects” (State CEQA Guidelines Section 15130[b]).

The Proposed Action was evaluated in conjunction with other known proposed or foreseeable developments within the immediate vicinity of the restoration area to determine whether a significant cumulative impact would occur. Specifically, the cumulative impact analysis evaluates the Proposed Action’s contribution within the context of regional habitat restoration plans and programs as described earlier in this EIS. Additionally, the following closely related projects were also reviewed as part of the cumulative impact analysis: Napa River Salt Marsh Restoration Project (U.S. Army Corps of Engineers and California Coastal Conservancy); All American Canal Levee Breaching Project (California Coastal Conservancy); and the State Highway 37 Improvements Project (Caltrans).

Implementation of the Proposed Action would result in a contiguous wildlife habitat area within the existing San Pablo Bay National Wildlife Refuge. Generally, the Proposed Action would result in beneficial effects to the biological environment and preclude development of the restoration site for other intensive land uses.

Hydrology and Water Quality

Under implementation of the No-Action Alternative the Cullinan Ranch site would not be opened up to tidal inundation. Existing water quality conditions would remain. However, the lead agencies would need to continue to monitor the water quality conditions to ensure water quality contamination does not exist on the Cullinan Ranch site. These monitoring activities are already on-going and would fall under the lead agencies' existing water quality permits for the site.

Biological Resources

The Proposed Action would ultimately increase the acreages of tidal marsh habitat available for sensitive wildlife species in the San Francisco Bay ecosystem. The adjacent NSRP would also increase tidal marsh habitat. Although existing wetland and upland habitats would be lost due to construction and/or fill activities at these sites, the cumulative effect of restoration is expected to result in a net overall increase in habitat value, particularly for tidal-marsh-dependent species in this portion of San Pablo Bay. Therefore, the Proposed Action is expected to result in a cumulative beneficial impact for biological resources.

Hazardous Waste

The Proposed Action would not likely cumulatively contribute to hazardous waste impacts. If necessary, prior to commencement of construction activities, the lead agencies would conduct appropriate cleanup activities of potential hazardous substances and/or waste on the Cullinan Ranch site in accordance with local, state, and federal regulations. Similarly, the lead agencies implementing the adjacent future projects would conduct necessary remediation activities prior to commencement of construction activities at their respective sites. Furthermore, the importing of fill material onto the restoration site would be in compliance with all local, state, and federal regulations. As a result, there would not be any significant cumulative impacts in relation to hazardous waste.

Land Use, Recreation, and Public Health

The Proposed Action is compatible with applicable local and regional plans, policies, and programs as described in *3.4 Land Use, Recreation, and Public Health*. The Proposed Action in combination with other future proposed projects is not expected to result in cumulative land use impacts.

The Proposed Action would establish a new recreational component to the Cullinan Ranch site. Currently, safe public access to and enjoyment of the site is not available. With implementation of the Proposed Action's public access components the public will be able to safely access and enjoy the site's recreational values. Implementation of the new public access to the site in combination with other future proposed projects is not expected to result in cumulative recreation impacts.

Implementation of the Proposed Action with the NSRP and other regional large-scale tidal wetland restoration projects would not likely contribute to a significant cumulative impact because mosquito abatement practices would be implemented during and after construction activities were completed as deemed necessary at each respective project site.

Visual Quality and Utilities

Short-term changes in the existing view shed during construction activities as a result of the Proposed Action would not result in a significant cumulative change in the visual quality of the restoration site. In combination with construction activities undertaken by other proposed projects, it is not expected that there would be significant cumulative visual quality impacts because of the temporary nature of construction activities.

As described in *3.9 Utilities and Service Systems*, implementation of the Proposed Action would not result in significant impacts to utilities found on the restoration site. There are no utilities proposed, nor would existing utilities be disrupted as a result of the Proposed Action. Therefore, there would not be any cumulative impacts related to utilities as a result of the Proposed Action.

Traffic, Noise, and Air Quality

Construction traffic associated with the Proposed Action would represent a short-term minor increase in traffic that could contribute to traffic congestion on HWY 37 and other local roadways in Vallejo. If construction at the restoration site and the adjacent project sites occurred at the same time, the cumulative effect on local traffic could be significant. However, preparing and implementing a traffic control plan, as described in *3.6 Transportation*, would ensure that construction traffic can be routed through available non-congested routes.

Construction activity associated with the Proposed Action is expected to result in annual emissions that are below BAAQMD de minimis thresholds levels for ozone precursors, with implementation of mitigation measures for PM10, as discussed in *3.8 Air Quality*. The BAAQMD thresholds are designed to evaluate individual projects in light of the cumulative environment of Bay Area air quality, and thus a project that does not result in emissions above the thresholds does not result in a considerable contribution to a cumulative impact on air quality. Therefore, the Proposed Action would not cause or contribute to any new ambient-air-quality standard violation, increase the severity or frequency of any existing standard violation, or delay timely attainment of any standard.

The Proposed Action is not expected to contribute to significant long-term cumulative noise impacts. Any short-term increase in noise-levels due to construction could be reduced through implementation of noise-reducing mitigation measures as described in *3.7 Noise*. With this implementation, there would not be any cumulative impacts related to noise under the Proposed Action.

Cultural Resources

Implementation of the Proposed Action could contribute to a cumulative loss of cultural resources if appropriate mitigation measures are not implemented. However, as described in *3.11 Cultural Resources*, measures would be implemented to address the potentially adverse impacts on cultural resources to a less-than-significant level; consequently the Proposed Action is not expected to result in any significant cumulative impacts on cultural resources.

4.2 Significant and Unavoidable Impacts

The Proposed Action would result in significant and unavoidable impacts that cannot be mitigation to a less-than-significant level. Specifically, restoring the site to tidal wetland habitat would result in the following significant and unavoidable impacts: permanent loss of seasonal wetland habitat; permanent filling of jurisdictional wetlands and waters of the United States; loss of foraging habitat for raptors and special status bats; and loss of habitat for wintering waterfowl. These impacts are discussed in detail in *3.2 Biological Resources*.

4.3 Irreversible and Irretrievable Commitments of Resources

Section 15126(f) of the CEQA Guidelines requires an EIR to discuss significant irreversible changes that would result from implementation of the project analyzed therein. Implementation of the Proposed Action would result in the irreversible commitment of nonrenewable energy sources (e.g., petroleum products, natural gas, and electricity) needed to construct the restoration components. Restoration of Cullinan Ranch would not however, result in an irreversible commitment of resources (such as conversion to an urban developed use) since the site could conceivably be converted to other land uses in the future.

4.4 Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Under the implementation of the Proposed Action, short-term uses of the environment that would occur include the impacts on existing wetland and upland habitat. As described in *3.2 Biological Resources*, construction would result in the loss of wetland and upland habitat that presently exists and provide foraging and breeding habitat for a variety of fish and wildlife species. Conversely, in the long term, the site is expected to be substantially more productive for special status species and the associated habitat values, through the restoration of tidal wetlands habitats on the site.

5.0 List of Preparers

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