

3.8 LAND USE

This section assesses the effects of the proposed action on land uses at the treatment areas and in the project vicinity. The compatibility of the proposed action with regional land use policies and goals is evaluated. The Region of Influence is the intertidal areas where non-native cordgrass occurs and may infest, and adjacent areas within one-half mile in the nine Bay Area counties and Sacramento County.

3.8.1 Environmental Setting

The project area includes the San Francisco Estuary and, in particular, the tidelands located between developed areas and water. The project area is within Alameda, Contra Costa, Solano, Napa, Sonoma, Marin, San Francisco, San Mateo, Santa Clara, and Sacramento Counties. The land uses surrounding areas where invasive non-native cordgrass grows within the San Francisco Estuary vary and include residential, open space, agricultural, and industrial areas. Non-native cordgrass in the North Bay grows adjacent to residential and open space areas in Corte Madera and at the head of Richardson Bay, and San Pablo Bay. Non-native cordgrass is more widespread in the Central and South Bay subregions (see **Figure 1-1**) and grows adjacent to a variety of land uses. It is found along the East Bay near the heavily industrialized Port of Oakland and Alameda Island. Further south, it is primarily located adjacent to salt evaporator ponds, which are open space areas with minimal development. A large portion of this area also falls within the San Francisco Bay National Wildlife Refuge. On the western shore of the Bay, non-native cordgrass is found adjacent to industrialized areas, including the Port of Redwood City and San Francisco Airport. Residential areas, including the neighborhood north of 3Com Park (Candlestick Point), are also located along the Bay shoreline where non-native cordgrass is found. Some of the areas around San Francisco Bay provide sensitive habitats that are subject to Habitat Conservation Plans.

Ranging from urban to rural, land uses within the project area vary. Contra Costa and San Mateo Counties remain relatively undeveloped with agriculture, recreation and general open space areas. Santa Clara County's northwestern areas contain nearly 18,000 acres of diked baylands, which consist mostly of salt evaporation ponds with areas of remnant salt marsh and wetlands. Solano County contains a number of significant marsh and wetland habitat areas including the Suisun and Napa Marshes. The Suisun Marsh is an 85,000-acre tidal marsh containing wildlife habitat of national importance.

Land uses surrounding the Bay are governed by a variety of Federal, State, and local laws, policies, and regulations. For the purpose of this analysis, land uses that are governed by regional plans and policies are the focus since regional plans and policies often are more protective of the environment, and reflect the content of a variety of other Federal and State laws, policies, and requirements. Local laws and policies will be applicable for each treatment location, and compliance with these laws will be addressed in subsequent environmental analyses. Provided below are summaries of applicable regional plan policies that would apply to the proposed project.

Regional plans and policies are discussed in Chapter 5.0, *Environmental Compliance*. These include the San Francisco Bay Plan, Baylands Ecosystem Habitat Goals, and Comprehensive Conservation and Management Plan. The San Francisco Bay Plan was prepared following development of the McAtteer-Petris Act of 1965, which established the Bay Conservation and Development

1 Commission (BCDC) as the agency to prepare an enforceable plan to guide protection and use of
2 the San Francisco Bay and its shoreline. The San Francisco Bay Area Wetlands Ecosystem Goals
3 Project began in 1995. It was a cooperative effort among nine State and Federal agencies, and
4 nearly 100 scientists. The principal objective of the Baylands Ecosystem Habitat Goals Project was
5 to develop a concept for the types, quantities/acres, distribution of wetlands and related habitats
6 needed to restore and sustain a healthy baylands ecosystem (Goals Project 1999). The
7 Comprehensive Conservation and Management Plan was prepared as part of the San Francisco
8 Estuary Project and presented strategies to protect and restore the health of the San Francisco
9 Estuary.

10 3.8.2 Analysis of Potential Effects

11 Significance Criteria

12 In accordance with the California Environmental Quality Act (CEQA) Guidelines, the impacts
13 described below for each of the alternatives will be considered significant if they:

- 14 • Fundamentally conflict with established residential, recreational, educational, or scientific
15 uses of an area;
- 16 • Disrupt or divide established land use configurations;
- 17 • Result in substantial alteration of present or planned land uses; and/or
- 18 • Substantially conflict with adopted environmental plans, policies or regulations established
19 by an agency with jurisdiction over the project.

20 **ALTERNATIVE 1: Proposed Action/Proposed Project - Regional Eradication Using All** 21 **Available Control Methods**

22 The project would be conducted in close coordination with relevant Federal, State, and local
23 agencies. The nature of the proposed action is such that the particular method for non-native
24 cordgrass removal (i.e., mechanical, manual, spraying, etc.) in a given area would be selected or
25 rejected based on particular restrictions presented by relevant regional or local plans, policies, or
26 regulations. Although there may be short-term impacts on habitats and beneficial uses along the
27 Bay shoreline, the proposed project would be largely consistent with the long-term goals of the
28 principal habitat protection and wildlife recovery policies in key regional plans.

29 It is not anticipated that the proposed project would conflict with any applicable habitat
30 conservation plan or natural community conservation plan because the proposed project is
31 intended to implement goals presented in habitat conservation and natural community
32 conservation plans developed by several agencies with jurisdiction in the region.

33 No permanent land use changes would occur from the proposed project although effects from
34 various methods could conflict with land use policies protecting the Bay Area. The manual and
35 mechanical treatment methods including digging, pruning, mowing, prescribed burns, temporary
36 diking, and covering would not lead to land use changes. Due to the nature of the proposed
37 project, no agricultural land would be converted to urban uses, and no existing or planned
38 residential, commercial, or industrial structures would be moved or relocated. Indirect effects such
39 as soil erosion, compaction, and non-target plant and animal mortality could conflict with policies
40 designed to enhance and preserve the Bay. However, these potential impacts are expected to be
41 temporary and affect only the treatment site and the immediate vicinity.

IMPACT LU-1: Land Use Conflicts Between Herbicides and Sensitive Receptors

Aerial application of herbicide could result in chemical drift to populated areas and thus conflict with established residential, recreational, institutional, or scientific uses. Refer to Section 3.6, *Human Health and Safety*. Glyphosate applied by helicopter has been monitored 2,600 feet from a treatment area. Short-term chemical drift to areas of sensitive receptors within approximately one-half mile of applications would be a potentially significant and mitigable impact.

The use of herbicides would potentially affect sensitive receptors and could affect sensitive species and research areas in treated habitats. Refer to Section 3.3, *Biological Resources*, Section 3.4, *Air Quality*, and Section 3.6, *Human Health and Safety*.

Mitigation Measures

Air quality mitigation measures in Section 3.4, *Air Quality* would reduce Impact LU-1 to less than significant. Air quality mitigation measure AQ-3, requires preparation of an herbicide drift management plan, which includes elements such as coordination with the County Agricultural Commissioner, application by certified or licensed applicators, notification of the public, proper equipment use, spraying with ideal meteorological conditions, and buffer zones. Residual impacts of aerial spraying would be less than significant within areas surrounded by residential, recreational, or educational facilities. In addition, mitigation measures in Section 3.6, *Human Health and Safety* would reduce Impact LU-1 to less than significant.

IMPACT LU-2: Land Use Conflicts from Mechanical and Burning Treatment Methods

The use of mechanical or burn treatment methods would lead to dust and smoke emissions, and potentially conflict with residential, recreational, educational, or scientific land uses. Because most of the treatment activities would occur in wetlands, dust generation would be limited to access roads, resulting in a less than significant impact. See Impact AQ-1. The land use conflict would be a potentially significant and mitigable impact.

Mitigation Measures

Implementation of Air Quality mitigation measures would reduce impacts associated with dust and smoke emissions. Refer to Section 3.4, *Air Quality*, for a detailed description of each mitigation measure. Residual impacts would be less than significant.

ALTERNATIVE 2: Regional Eradication Using Only Non-Chemical Control Methods

Impacts on land use associated with Alternative 2 would be less than impacts for Alternative 1 because land use conflicts associated with aerial application of herbicide would not occur. However, potential land use conflicts associated with increased/repeated use of alternative methods without chemicals would increase. The increased use of manual and mechanical treatment methods including digging and mowing would lead to increased dust to nearby sensitive receptors. In addition, smoke from prescribed burns could affect sensitive land uses, although these impacts are expected to be of short duration, and, with mitigation identified in Section 3.4, *Air Quality*, would be less than significant.

1 **ALTERNATIVE 3: No Action – Continued Limited, Regionally Uncoordinated Treatment**

2 *Impacts*

3 Potential short-term impacts on existing land uses within the project site or surrounding land uses
4 would be less than under Alternative 1. The potential for short-term chemical drift from aerial
5 applications to areas of sensitive receptors within one-half mile of applications could be significant.
6 Manual, mechanical, or burn treatment methods would lead to dust and smoke emissions, and
7 could conflict with residential, recreational, educational, or scientific land uses. More frequent
8 treatments could be required under this alternative compared to Alternative 1. Therefore, long-
9 term land use conflicts could be greater under this alternative. In addition, the gradual loss of
10 existing mudflats and native cordgrass habitats likely would continue to occur, and the long-term
11 goal of restoring habitats and improving wildlife recovery in the Bay would not likely be achieved.

12 *Mitigation Measures*

13 Mitigation measures in Section 3.4, *Air Quality* would reduce the potential land use impact of
14 herbicides on sensitive receptors and dust and smoke emissions to less than significant. Residual
15 impacts would remain less than significant, however, the gradual loss of existing mudflats and
16 native cordgrass habitats likely would continue to occur, and the long-term goal of restoring
17 habitats and improving wildlife recovery in the Bay would not likely be achieved.

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Table 3.8-1: Summary of Potential Land Use Effects

<i>Impact</i>	<i>Manual Removal (Hand pulling and manual excavation)</i>	<i>Mechanical Removal (Excavation, dredging, and shredding)</i>	<i>Pruning, Hand-mowing, and Smothering</i>	<i>Flooding (Diking, drowning, salinity variation)</i>	<i>Burning</i>	<i>Herbicide Application</i>	<i>Beneficial Effects</i>
LU-1: Land Use Conflicts Between Herbicide Use and Sensitive Receptors	All Alternatives: No impact.	All Alternatives: No impact.	All Alternatives: No impact.	All Alternatives: No impact.	All Alternatives: No impact.	Alternatives 1 & 3: Potentially significant impacts to sensitive receptors. These would be mitigated to less than significant by Air Quality and Human Health and Safety mitigations. Alternative 2: No impact.	N/A
LU-2: Land Use Conflicts from Mechanical and Burning Treatment Methods	All Alternatives: No impact.	All Alternatives: Minor dust impact on access roads.	All Alternatives: No impact.	All Alternatives: Minor impact.	All Alternatives: Possible smoke impacts to nearby residents. Mitigated by Air Quality mitigations.	Same as impact LU-1, above.	N/A

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