

1 **5.0 ENVIRONMENTAL COMPLIANCE**

2 The following environmental laws and regulations are applicable to implementation of the
3 proposed action.

4 **5.1 APPLICABLE FEDERAL LAWS, REGULATIONS, EXECUTIVE**
5 **ORDERS, AND APPROVALS**

6 **5.1.1 National Environmental Policy Act (42 U.S.C. 4321 *et seq.*)**

7 This programmatic Environmental Impact Statement/Report (EIS/R) was prepared pursuant to
8 regulations implementing the National Environmental Policy Act (NEPA). NEPA affects federally
9 authorized projects. It was established to ensure that Federal projects or decisions incorporate
10 considerations of environmental consequences into the decision-making process. NEPA
11 establishes a process for input by affected parties through public noticing and scoping. This input
12 is considered when analyzing a reasonable range of alternatives in an Environmental Assessment
13 (EA) or EIS. The Notice of Intent (NOI) is included in **Appendix A**. When all key permits are
14 obtained and the final EIS/R is released, a Record of Decision (ROD) will be filed.

15 **5.1.2 Clean Water Act (33 U.S.C. 1252 *et seq.*)**

16 The Clean Water Act (CWA) was enacted to restore and maintain the chemical, physical, and
17 biological integrity of U.S. waters through the elimination of discharges of pollutants. Among other
18 things, the CWA provided that continuing (point-source) pollutant discharges could not occur
19 unless specifically authorized by permit, and it established permit programs for various forms of
20 discharges, including the discharge of dredged materials. The main sections of the CWA that apply
21 to dredging and dredged material disposal are Sections 401 and 404.

22 **CWA Section 401**

23 The Act requires Section 401 Certification that the permitted discharges of dredged or fill material
24 comply with State water quality standards for actions within State waters or Federal water quality
25 criteria for offshore waters. The State is required to establish water quality standards for all State
26 waters including the territorial sea under Section 301 of the CWA. Compliance with Section 401 is
27 provided by approval of a Water Quality Certification or waiver from the State Water Resources
28 Control Board (SWRCB) or Regional Water Quality Control Board (RWQCB), and is a condition
29 for issuance of a Section 404 permit, discussed below.

30 **CWA Section 402**

31 This section of the Act requires that the permitted project comply with National Pollutant
32 Elimination Discharge System (NPDES) requirements. The State is required to establish waste
33 discharge standards for all State waters, including the territorial sea under Section 301 of the CWA.
34 Compliance with Section 402 is provided by approval of a NPDES permit from the SWRCB and
35 RWQCB.

1 **CWA Section 404**

2 Section 404 of the Clean Water Act (33 U.S.C. §1344) generally requires a Corps of Engineers
3 permit for the discharge of dredged or fill material into waters of the United States, including
4 adjacent wetlands. The Corps' decision whether to issue a CWA Section 404 permit is based on an
5 evaluation of the probable impacts on the public interest as stated below for Section 10 of the
6 Rivers and Harbors Act as well as on application of the guidelines promulgated by EPA, otherwise
7 referred to as the Section 404(b)(1) guidelines (40 CFR, Part 230). These guidelines require that the
8 following four conditions be met before a Section 404 permit may be issued:

9 (1) There is no other practicable alternative that would have less adverse impact on the aquatic
10 environment;

11 (2) The disposal, after consideration of dispersion and dilution, will not cause or contribute to
12 violations of applicable water quality standards; will not violate any applicable toxic effluent
13 standards; nor will it jeopardize the continued existence of threatened or endangered species; nor
14 will it violate any requirement to protect marine sanctuaries;

15 (3) The disposal will not cause or contribute to significant degradation of waters of the United
16 States; and

17 (4) All appropriate and practicable steps have been taken to minimize potential adverse impacts of
18 the discharge on the aquatic environment (Reference 40 CFR 230.10).

19 The Corps can authorize regulated activities in its jurisdiction by individual or general permits.
20 Individual (standard) Corps permits are specific to particular projects; general Corps permits apply
21 to classes of activities. Regional permits and Nationwide permits are types of general permits, and
22 have the same basic restrictions. General permits can apply only to actions that have minimal
23 cumulative and individual environmental impacts, as determined by the Corps. Once a Regional
24 permit is issued, actions that fully comply with all of its conditions are authorized for up to 5 years.
25 The Corps retains discretion to override general permits and require standard individual permits
26 for some regionally authorized activities on a case-by-case basis. This usually occurs only if there is
27 a reasonable indication that a particular regionally permitted action may have impacts that are
28 substantially greater than minimal.

29 General permits require full environmental evaluation and public notice for the permit itself, but
30 not for individual actions within its scope. Some Regional and Nationwide permits have “reporting
31 requirements”, which involve some pre-project notification and review by the Corps (and/or
32 natural resource agencies) to allow fine-tuning of conditions to ensure reduction of overall impacts
33 to a minimum. To avoid “piecemealing” of regulated activities in permit review, the Corps
34 normally requires that portions of an overall project that are reasonably related be included in the
35 same permit application. Some Nationwide permits that have “independent utility” can be
36 combined with other permits, but full environmental review of the whole scope of a regional
37 permit program is required prior to authorization.

38 The ISP treatment methods include many actions that would be regulated by the Corps under the
39 Clean Water Act, Section 404 (mechanical removal techniques that involve excavation and backfill
40 of sediment in tidal areas) and Rivers and Harbors Act, Section 10 (impounding tidal waters locally,
41 placing stakes in tidal areas below Mean High Water). Even activities that may not be regulated by
42 the Corps (such as crushing vegetation by driving tracked amphibious vehicles over it, mowing,
43 herbicide treatment, or covering with fabric) would be considered by the Corps in its evaluation of
44 overall cumulative impacts of the project

1 The ISP will apply to the Corps for a Regional Permit to cover all categories of Corps regulated
2 Spartina treatment activities documented in the EIS/R to have minimal impacts in a complete,
3 programmatic way. Developing and finalizing such a permit may take several months to greater
4 than a year. For control projects initiated prior to issuance of a regional permit, the ISP will
5 provide site-specific plans to the Corps for these projects, and request that they be authorized
6 under appropriate Nationwide permits (e.g., NWP 27 “Stream and Wetland Restoration
7 Activities,” 5 “Scientific Measurement Devices,” 33 “Temporary Construction, Access and
8 Dewatering,” 31 “Maintenance of Existing Flood Control Facilities,” and 6 “Survey Activities”) or
9 other mechanism.

10 **5.1.3 Rivers and Harbors Act (33 U.S.C. 403, Section 10)**

11 Section 10 of the Rivers and Harbors Act of 1899, authorizes the USACE to regulate virtually all
12 structures or work within navigable waters of the United States (see 33 CFR Part 328.3 for
13 definition of navigable waters). Virtually all projects in navigable waters must comply with Section
14 10, however the USACE does not issue Section 10 permits to itself for federally authorized
15 projects. This programmatic EIS/R describes potential effects of the proposed action on wetlands
16 and other waters.

17 **5.1.4 Endangered Species Act (16 U.S.C. 1531 *et seq.*)**

18 The Endangered Species Act of 1973, as amended (ESA) establishes a national program for the
19 conservation of threatened and endangered species and the preservation of the ecosystems upon
20 which they depend. Consultation with and an opinion statement from the United States Fish and
21 Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are required under
22 Section 7 of this Act. Section 7(a) of the ESA further prohibits Federal agencies from jeopardizing
23 the continued existence of listed and proposed species, and it requires Federal agencies to
24 implement conservation programs for listed species. Section 9 of the Act prohibits the taking of
25 listed species without authorization from the USFWS or NMFS. This EIS/R describes the
26 potential programmatic effects of the proposed action on special status species. Consultation with
27 the USFWS will evaluate measures to bring adverse effects to a level of “not likely to adversely
28 affect.” The USFWS will forward a concurrence determination on applicable special status species
29 to NMFS.

30 **5.1.5 Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*) and Executive Order** 31 **13186**

32 The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation, and
33 importation of migratory birds, their eggs, parts and nests. The take of all migratory birds is
34 governed by the MBTA's regulation of taking migratory birds for educational, scientific, and
35 recreational purposes and requiring harvest to be limited to levels that prevent overutilization.
36 Further, the MBTA prohibits the take, possession, import, export, transport, selling, purchase,
37 barter, or offering for sale, purchase or barter, any migratory bird, their eggs, parts, and nests,
38 except as authorized under a valid permit (50 CFR 21.11). Certain exceptions apply to employees
39 of the Department of the Interior to enforce the MBTA and to employees of Federal agencies,
40 State game departments, municipal game farms or parks, public museums, public zoological parks,
41 accredited institutional members of the American Association of Zoological Parks and Aquariums

1 (now called the American Zoo and Aquarium Association) and public scientific or educational
2 institutions.

3 Executive Order (EO) 13186 (effective January 10, 2001), outlines the responsibilities of Federal
4 agencies to protect migratory birds, in furtherance of the MBTA, the Bald and Golden Eagle
5 Protection Acts, the Fish and Wildlife Coordination Act, ESA, and NEPA. This EO specifies the
6 following:

- 7 • The USFWS as the lead for coordinating and implementing EO 13186;
- 8 • Requires Federal agencies to incorporate migratory bird protection measures into their
9 activities;
- 10 • Requires Federal agencies to obtain permits from the USFWS before any “take” occurs,
11 even when the agency intent is not to kill or injure migratory birds;
- 12 • Requires a Memorandum of Understanding (MOU) between the Federal agencies within
13 two years from the inception of EO 13186 (January 10, 2003);
- 14 • Outlines migratory bird protection specifications that are to be included in MOUs;
- 15 • Encourages Federal agencies to immediately begin implementation of the elements
16 required by the USFWS to be included in MOUs;
- 17 • Requires the USFWS to develop a schedule for completion of the MOUs within 180 days
18 from the signing of EO 13186; and
- 19 • Requires Federal agencies to notify the public of the availability of its MOU in the *Federal*
20 *Register*.

21 **5.1.6 Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*)**

22 This Act prohibits taking or harassment of any marine mammals except incidental take during
23 commercial fishing, capture under scientific research and public display permits, harvest by Native
24 Americans for subsistence purposes, and any other take authorized on a case-by-case basis as set
25 forth in the Act. The Department of the Interior, USFWS, is responsible for the polar bear, sea
26 otter, marine otter, walrus, manatees, and dugong, while the Department of Commerce, NMFS, is
27 responsible for all other marine mammals.

28 **5.1.7 Federal Clean Air Act (42 U.S.C. Section 7401 *et seq.*, as amended)**

29 The Clean Air Act (CAA) is intended to protect air quality by regulating emissions of air pollutants.
30 The CAA requires compliance with State and local requirements and prohibits Federal agencies
31 from engaging in non-conforming activities.

32 **5.1.8 Coastal Zone Management Act (16 U.S.C. 1456 *et seq.*, as amended)**

33 The Coastal Zone Management Act (CZMA) provides for the development and implementation of
34 coastal management programs by the states. The Bay Conservation and Development
35 Commission’s (BCDC) coastal management program for the Bay, which was approved in 1977, is
36 based on the provisions and policies of the McAteer-Petris Act, the Suisun Marsh Preservation Act
37 of 1977, the San Francisco Bay Plan, the Suisun Marsh Protection Plan, and its administrative
38 regulations. Under the CZMA, Federal agencies are required to carry out their activities and

1 programs in a manner consistent with BCDC's coastal management program. To implement this
2 provision, Federal agencies make *consistency determinations* regarding proposed Federal activities while
3 applicants for Federal permits or licenses, or Federal financial assistance make *consistency certifications*.
4 BCDC reviews these determinations and certifications, and concurs or objects based on a
5 proposal's consistency with its laws and policies.

6 **5.1.9 Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*)**

7 The Fish and Wildlife Coordination Act (FWCA) provides a procedural framework for the
8 consideration of fish and wildlife conservation measure in Federal and federally permitted or
9 licensed water development projects. When a water body is proposed to be controlled or modified
10 by a Federal agency or by any public or private entity under Federal permit or license, the Federal
11 lead agency must consult with and consider the recommendations of the USFWS, the California
12 Department of Fish and Game (CDFG) (in California) and, for projects affecting marine fisheries,
13 NMFS. The FWCA is applicable to ACOE and EPA evaluation of CWA Section 404 and the
14 Marine Protection, Research, and Sanctuaries Act (MPRSA) Section 103 permits. However,
15 because the USFWS is the Federal lead agency for this EIS/R, they will coordinate pursuant to this
16 Act.

17 **5.1.10 Magnuson-Stevenson Fishery Conservation and Management Act**

18 Prior to completion of the project, the USFWS has a statutory requirement under Section
19 305(b)(4)(B) of the Magnuson-Stevenson Fishery Conservation and Management Act (MSFCMA)
20 to consult with NMFS with respect to any action authorized, funded, or undertaken, or proposed
21 to be authorized, funded, or undertaken that may adversely affect essential fish habitat (EFH).

22 **5.1.11 National Historic Preservation Act (16 U.S.C. 470 *et seq.*)**

23 The National Historic Preservation Act (NHPA) protects historic and prehistoric resources from
24 impacts by Federal projects and requires consultation (under Section 106) with the State Historic
25 Preservation Officer (SHPO). Compliance with the NHPA would be necessary for any
26 undertaking. The USFWS, the Advisory Council on Historic Preservation, and SHPO, pursuant to
27 Section 800.13 of the regulations (36 CFR 800.13) implementing Section 106 of the NHPA,
28 entered into a Programmatic Agreement (PA) to streamline the cultural resource compliance
29 process for low-impact projects. Applicability of this PA to project activities would be determined
30 depending on project specifics, and the PA would apply only to activities for which the USFWS is
31 the federal lead agency. For the proposed action, a request for cultural resource compliance will be
32 submitted to the Regional Archaeologist, Region 1, in Portland, Oregon.

33 **5.1.12 The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (US Code: 34 Title 7, Chapter 6, Subchapter II),**

35 The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) defines the requirements for
36 Federal registration and use of pesticides nationwide. The heart of FIFRA is the regulation of
37 pesticide registration. The role of regulating use falls to individual states when they have developed
38 an EPA Administrator authorized program. FIFRA requires that all applicators follow pesticide
39 label instructions when applying pesticides within the United States.

1 **5.1.13 Executive Order 11990 – Protection of Wetlands**

2 EO 11990 requires Federal agencies to follow avoidance, mitigation, and preservation procedures
3 with public input before proposing new construction in wetlands. This EO directs Federal agencies
4 to avoid to the extent possible long and short-term effects associated with the destruction or
5 modification of wetlands and to avoid direct or indirect support of new construction in wetlands
6 wherever there is a practicable alternative. Specifically, Federal agencies are directed to:

- 7 • Provide leadership and take action to minimize the destruction, loss, or degradation of
8 wetlands, and to preserve and enhance the natural and beneficial values of wetlands in
9 carrying out the agency's responsibilities when acquiring, managing, and disposing of
10 Federal lands and facilities; and providing federally sponsored, financed, or assisted
11 construction and improvements, or conducting Federal activities and programs affecting
12 land use.

13 This EO does not apply to the issuance of permits (by Federal agencies), licenses, or allocations to
14 private parties for activities involving wetlands on non- Federal property.

15 **5.1.14 Executive Order 11988 – Floodplain Management**

16 This EO directs Federal agencies to avoid to the extent possible the long and short-term adverse
17 impacts associated with the occupancy and modification of floodplains and to avoid direct or
18 indirect support of floodplain development wherever there is a practicable alternative. Specifically,
19 Federal agencies are directed to:

- 20 • Provide leadership and take action to reduce the risk of flood loss, to minimize the impact
21 of floods on human safety, health and welfare, and to restore and preserve the natural and
22 beneficial values served by floodplains in carrying out its responsibilities for acquiring,
23 managing, and disposing of Federal lands and facilities, providing federally sponsored,
24 financed, or assisted construction and improvements and conducting Federal activities and
25 programs affecting land use.

26 This EIS/R describes the potential effects of the proposed actions on floodplains.

27 **5.1.15 Executive Order 13112 – Invasive Species**

28 The National Invasive Species Management Plan was developed in response to EO 13112 in 1997.
29 This EO established the National Invasive Species Council (Council) as the leaders in development
30 of the plan. It directs the Council to provide leadership and oversight on invasive species issues to
31 ensure that Federal activities are coordinated and effective. In addition, the Council has specific
32 responsibilities including: promoting action at local, State, tribal, and ecosystem levels; identifying
33 recommendations for international cooperation; facilitating a coordinated network to document,
34 evaluate, and monitor invasive species' effects; developing a web-based information network on
35 invasive species; and developing guidance on invasive species for Federal agencies to use in
36 implementing NEPA. The Council is comprised of the Secretaries of Agriculture, Commerce,
37 Interior, Treasury, Defense, Transportation, State, and the Administrator of the EPA, and they
38 have developed nine plan priorities, that provide direction for Federal agencies. The plan priorities
39 are as follows:

- 40 • Leadership, coordination, and development of State and Federal partnerships

- 1 • Prevention (a risk-based approach)
- 2 • Early detection and rapid response
- 3 • Control and Management
- 4 • Restoration
- 5 • International Cooperation
- 6 • Research
- 7 • Information Management
- 8 • Education and Public Awareness

9 The proposed project would implement the San Francisco Estuary Invasive *Spartina* Project (ISP),
10 which is a regionally coordinated approach to controlling, or eradicating, populations of non-native
11 *Spartina* in San Francisco Bay. Although there is no formal international cooperation taking place
12 on this issue, the Federal and State lead agencies have shown that the proposed project is
13 consistent with the plan by:

- 14 • Providing effective leadership in development of the ISP,
- 15 • Determining prevention measures to curtail further spread,
- 16 • Coordinating with researchers at the San Francisco Estuary Institute, UC Davis, and
17 Bodega Marine Lab, to develop early detection methods and rapid response techniques,
- 18 • Conducting experiments to determine effective control and management techniques,
- 19 • Developing a preliminary approach to restoration following control,
- 20 • Establishing working relationships with researchers to further understand the biology and
21 ecology of the target species,
- 22 • Creating an archive of data and reports, and serving as a clearinghouse for information
23 regarding *Spartina* biology and ecology and the efficacy of control efforts in California and
24 elsewhere, and
- 25 • Developing and implementing a public education and public awareness program.

26 Additional details regarding this plan can be found at the following Internet address:
27 <http://www.invasivespecies.gov/council/>.

28 **5.1.16 Executive Order 12898 – Environmental Justice in Minority and Low** 29 **Income Populations**

30 The objectives of EO 12898 include identification of disproportionately high and adverse health
31 and environmental effects on minority and low-income populations that could be caused by a
32 proposed Federal action. Accompanying EO 12898 was a Presidential Transmittal Memorandum
33 that referenced existing Federal statutes and regulations, including NEPA, to be used in
34 conjunction with the EO. The EIS/R analyzes the environmental, social, and economic impacts on
35 minority and low-income populations and complies with this EO.

1 **5.1.17 Indian Trust Assets, Indian Sacred Sites on Federal Land – Executive**
2 **Order 13007, and American Indian Religious Freedom Act of 1978**

3 These laws protect Indian Trust Assets; accommodate access and ceremonial use of Indian sacred
4 sites by Indian religious practitioners, and avoid adversely affecting the physical integrity of such
5 sacred sites; and protect and preserve the observance of traditional Native American religions,
6 respectively. Compliance with these laws, regulations, and Executive Orders is the responsibility of
7 the federal land manager. The USFWS’ Regional Cultural Resources Office would be available to
8 provide assistance in the review the proposed action for potential effects on cultural resources of
9 Native Americans.

10 **5.2 APPLICABLE STATE LAWS, REGULATIONS, AND POLICIES**

11 **5.2.1 California Environmental Quality Act (P.R.C. 21000-21177)**

12 The California Environmental Quality Act (CEQA) contains requirements similar to NEPA and
13 requires the preparation of an EIR prior to implementation of applicable projects. CEQA requires
14 significant impacts to be mitigated to a level of insignificance or to the maximum extent feasible,
15 and that less damaging alternatives be considered. The State or local lead agency is responsible for
16 CEQA compliance.

17 **5.2.2 Porter-Cologne Water Quality Control Act (C.W.C. Section 13000 *et seq.*;**
18 **C.C.R. Title 23, Chapter 3, Chapter 15)**

19 This Act is the primary State regulation addressing water quality and waste discharges (including
20 dredged material) on land. The Act’s requirements are implemented by the SWRCB at the State
21 level, by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) in the Bay
22 Area, and by the Central Valley Regional Water Quality Control Board (CVRWQCB) in the Delta.
23 The dividing line between the SFBRWQCB and the CVRWQCB is in the vicinity of Chipps Island
24 in Suisun Bay. Additionally, the SWRCB requires a Permit to Appropriate Water for actions
25 including diversion of surface waters to non-riparian land or for seasonal storage of
26 unappropriated surface waters.

27 **5.2.3 California Endangered Species Act (Fish and Game Code Section 2050**
28 ***et seq.*)**

29 This Act provides for recognition and protection of rare, threatened, and endangered plants and
30 animal species. The Act requires State agencies to coordinate with the CDFG to ensure that State
31 authorized/funded projects do not jeopardize a listed species. The Act prohibits the taking of a
32 listed species without authorization from the CDFG.

33 **5.2.4 McAteer-Petris Act**

34 The McAteer-Petris Act, first enacted in 1965, created BCDC to prepare a plan to protect the Bay
35 and shoreline and provide for appropriate development and public access. The McAteer-Petris Act
36 directs BCDC to issue or deny permit applications for placing fill and extracting materials, or

1 changing the use of any land, water, or structure within its jurisdiction, which includes the Bay,
2 shoreline band, saltponds, managed wetlands, and certain waterways. Such permits are issued or
3 denied in accordance with the provisions of the McAteer-Petris Act and Suisun Marsh
4 Preservation Act, and the policies of the San Francisco Bay Plan (Bay Plan) and the Suisun Marsh
5 Protection Plan. The shoreline development aspect of the McAteer-Petris Act ensures that prime
6 shoreline sites are reserved for priority uses, such as ports, water-related industry, airports, wildlife
7 refuges, and water-related recreation. The Act also ensures that public access to the Bay is
8 provided to the maximum extent feasible for each development project, and that shoreline
9 development projects are designed in an attractive and safe manner. Under the CZMA, Federal
10 agencies are required to carry out their activities and programs in a manner consistent with
11 BCDC's coastal management program.

12 The Bay Plan was adopted in 1968, signed by the California Legislature in 1969, and has been
13 implemented with several amendments by BCDC. The Bay Plan established the framework for a
14 permit program that provides for protection of the Bay and its natural resources, as well as
15 development of the Bay and shoreline while minimizing the amount of fill. Several relevant Bay
16 Plan policies are summarized below.

17 **Dredging Policies of the Bay Plan**

18 Dredging and dredged material disposal should be conducted in an environmentally and
19 economically sound manner. Dredging should be authorized when the Commission can find that
20 the dredging is needed to serve a water-oriented use or other important public purpose; the
21 materials meet the water quality requirements of the San Francisco Bay Regional Water Quality
22 Control Board; natural resources would be protected; the project will result in the minimum
23 dredging volume necessary; and dredged materials are disposed of properly. Dredging projects
24 should be carefully designed so as not to undermine the stability of any adjacent dikes, fills or fish
25 and wildlife habitats.

26 **Fish and Wildlife Policies of the Bay Plan**

27 The benefits of fish and wildlife in the Bay should be insured for present and future generations of
28 Californians. To this end, remaining marshes and mudflats around the Bay, including water
29 volume, surface area, and freshwater inputs of the Bay should be maintained.

30 Specific habitats that would prevent the extinction of species, or maintain or increase species
31 populations that would provide substantial public benefits should be protected, whether in the Bay
32 or on the shoreline behind dikes.

33 **Water Quality Policies of the Bay Plan**

34 Bay marshes, mudflats, water surface area, and volume should be maintained and increased
35 wherever possible. Freshwater inputs should also be maintained at a level sufficient to protect Bay
36 resources and beneficial uses. Water pollution should be avoided.

37 Water quality in the Bay should be maintained at a level that will support and promote beneficial
38 uses of the Bay, as identified in SFBRWQCB's Basin Plan.

39 **Tidal Marshes and Tidal Flats Policies of the Bay Plan**

40 Marshes and mudflats should be maintained to the fullest extent possible, to conserve fish and
41 wildlife, and abate air and water pollution. Activities that eliminate marshes and mudflats should be
42 allowed only for purposes providing substantial public benefits and only if there is no reasonable
43 alternative. These areas should be protected in the same manner as open water areas.

1 Proposed activities (fills, dikes, piers) should be thoroughly evaluated to determine their effects on
2 marshes and mudflats so as to minimize harmful effects.

3 Former marshes should be restored, existing marshes should be augmented, new marshes created
4 where appropriate (by selective placement of dredged material), and the quality of existing marshes
5 should be improved whenever possible.

6 The proposed project would take place in salt marsh and mudflat habitats that are subject to
7 policies of the Bay Plan. Although the proposed project does not involve the import or discharge
8 of fill, some control methods, such as mechanical ripping/shredding would result in a redeposition
9 of sediment due to the ground disturbances associated with equipment. The primary goal of the
10 proposed project is to restore infested marshes to a more natural [native] condition for the benefit
11 of marsh and mudflat-dependent species that prefer or require native marsh habitat. To the extent
12 that the project would restore these habitats over the long-term, the project is consistent with Bay
13 Plan policies.

14 Findings and Policies 5, 6, and 7 concerning tidal marshes and tidal flats around the Bay were
15 amended in April 2002:

16 • 5. Any tidal restoration project should include clear and specific long-term and short-term
17 biological and physical goals, and success criteria and a monitoring program to assess the
18 sustainability of the project. Design and evaluation of the project should include an analysis
19 of: (a) the effects of relative sea level rise; (b) the impact of the project on the Bay's
20 sediment budget; (c) localized sediment erosion and accretion; (d) the role of tidal flows; (e)
21 potential invasive species introduction, spread, and their control; (f) rates of colonization
22 by vegetation; (g) the expected use of the site by fish, other aquatic organisms and wildlife;
23 and (h) site characterization. If success criteria are not met, appropriate corrective measures
24 should be taken.

25 • 6. Non-native species should not be used in habitat restoration projects. Any habitat
26 restoration project approved by BCDC should include a program for the periodic
27 monitoring of the site for non-native species and a program for control and, if appropriate
28 and feasible, eradication should an introduction occur. The use of non-native plant species
29 in public access landscape improvements should be avoided where a potential exists for
30 non-native plants to spread into the Bay, other waterways, or transition zones between tidal
31 and upland habitats.

32 • 7. BCDC should continue to support and encourage the expansion of scientific
33 information on the arrival and spread of invasive plants and animals, and when feasible,
34 support the establishment of a regional effort for Bay-wide eradication of specific invasive
35 species, such as non-native cordgrasses.

36 **5.2.5 California Pesticide Regulations**

37 The California Department of Pesticide Regulation (CDPR) regulates pesticides through the
38 California Food & Agriculture Code (CFAC), Divisions 6,7 & 13 (Pest Control Operations;
39 Agricultural Chemicals, Livestock Remedies and Commercial Feeds; and Bee Management and
40 Honey Production, respectively). These regulations are at least commensurate with, and generally
41 more stringent than, those described in FIFRA. The California Code of Regulations (CCR) Title 3,
42 Division 6, Chapters 1-4 (Pesticide Regulatory Program, Pesticides, Pest Control Operations &
43 Environmental Protection, respectively), define the specific requirements of pesticide application
44 within the State of California. The State Water Quality Management Agency Agreement (MAA) is

1 an agreement between the State Water Resources Control Board and the State Department of
2 Pesticide Regulation to coordinate the two agencies' efforts to monitor and control herbicide use.

3 **5.2.6 Executive Order W-59-93 - California Wetlands Conservation Policy**

4 In August 1993, the Governor announced the California Wetlands Conservation Policy. The goals
5 of the policy are to establish a framework and strategy that:

- 6 • Ensures no overall net loss and achieve a long-term net gain in the quantity, quality, and
7 permanence of wetlands acreage and values in California in a manner that fosters creativity,
8 stewardship, and respect for private property.
- 9 • Reduces procedural complexity in the administration of State and Federal wetlands
10 conservation programs.
- 11 • Encourages partnerships to make landowner incentive programs and cooperative planning
12 efforts the primary focus of wetlands conservation and restoration.

13 The EO also directed the California Resources Agency to establish an Interagency Task Force to
14 direct and coordinate administration and implementation of the policy.

15 The Resources Agency and the departments within that agency generally do not authorize or
16 approve projects that fill or harm wetlands. Exceptions may be granted for projects meeting all the
17 following conditions: the project is water-dependent; there is no other feasible alternative; the
18 public trust is not adversely affected; and the project adequately compensates the loss.

19 **5.2.7 State Lands Commission Policies**

20 California became a State on September 9, 1850, and thereby acquired nearly 4 million acres of land
21 underlying the State's navigable and tidal waterways. Known as "sovereign lands," these lands
22 included the beds of rivers, streams, and sloughs; non-tidal lakes; tidal navigable bays and lagoons; and
23 tidal and submerged lands adjacent to the entire coast and offshore islands of the State from mean
24 high tide line to 3 nautical miles offshore. These lands are managed by the California State Lands
25 Commission (SLC). The State's interest in these lands consists of sovereign fee ownership, or a
26 Public Trust easement implicitly retained by the State over sovereign lands sold into private
27 ownership. They can only be used for public purposes consistent with the provisions of the Public
28 Trust, such as fishing, water-dependent commerce and navigation, ecological preservation, and
29 scientific study. Use of these lands for dredging and dredged material disposal activities, may
30 require written authorization from the SLC. Some of the alternative project components under
31 consideration in this EIS/R may be subject to the jurisdiction of the SLC. Therefore, coordination
32 with the SLC will be fulfilled when required for a specific project. Public and private entities may
33 apply to the SLC for leases or permits on State lands for many purposes. Therefore, coordination
34 with the SLC would be necessary.

35 **5.2.8 California Clean Air Act**

36 The California Air Resources Board (CARB) and local air districts are responsible for developing
37 clean air plans to demonstrate how and when California will attain air quality standards established
38 under both the Federal and California Clean Air Acts. For the areas within California that have not
39 attained air quality standards, CARB works with local air districts to develop and implement State
40 and local attainment plans. The local air quality districts in the Bay Area will review the EIS/R and

1 coordinate with the California Coastal Conservancy or the USFWS as the proposed project and
2 specific treatment methods are implemented.

3 **5.3 REGIONAL PLANS AND POLICIES**

4 **5.3.1 Baylands Ecosystem Habitat Goals**

5 The San Francisco Bay Area Wetlands Ecosystem Goals Project began in 1995. It was a
6 cooperative effort among nine State and Federal agencies, the EPA, USFWS, NMFS, California
7 Resources Agency, California Coastal Conservancy, CDFG, SFBRWQCB, SWRCB, and BCDC,
8 and nearly 100 scientists. The Project's vision was presented to the public in the Goals Project's
9 final report, the Baylands Ecosystem Habitat Goals Project (Goals Project 1999). The Baylands
10 Ecosystem Habitat Goals were adopted into the Bay Plan. SFBRWQCB uses the goals to evaluate
11 projects that are proposed for permitting and some cities adopted the goals into their local plans.
12 The goals are implemented through cooperative efforts of the agencies and stakeholders.

13 The principal objective of the Goals Project was to develop a concept for the types,
14 quantities/acres, distribution of wetlands and related habitats needed to restore and sustain a
15 healthy baylands ecosystem. The timeframe for achieving these goals is several decades, and it
16 provides a habitat approach, rather than a species-based approach, although the authors recognize
17 the importance of monitoring individual species that are indicators of ecosystem health. Regional
18 and subregional goals are described in the Goals Project. The regional (Bay-wide) goals are
19 summarized below because the proposed project is expected to occur Bay-wide. Regionally, the
20 goals for restoration are as follows:

- 21 • Develop a diverse mosaic of habitats. The mosaic should include large patches of tidal
22 marsh connected by corridors to enable movement of wildlife and birds; complexes of salt
23 ponds managed for resident and migratory shorebirds and waterfowl; extensive areas of
24 managed seasonal ponds, large expanses of managed marsh; continuous corridors of
25 riparian vegetation along tributary streams and rivers; restored beaches, natural salt ponds
26 and other unique habitats; and undisturbed patches of transitional habitats including
27 grasslands, seasonal wetlands, and forested areas (Goals Project 1999).

28 More specifically, the goals include:

- 29 • Restoration of large areas (1,000± acres) of tidal marsh or connected patches centered
30 around existing populations of special status species such as California clapper rail or salt
31 marsh harvest mouse. These areas would encompass salinity gradients that permit
32 movement to alternate areas in response to freshwater flows. Priority sites for this type of
33 restoration would include the Bay margin and specifically, areas adjacent to tributaries
34 where freshwater enters the Bay that provides a diversity of microhabitats such as pans and
35 large channels.
- 36 • Re-establish natural transitions from mudflat to marsh, and marsh to uplands, and establish
37 buffers from developed areas to transitional zones.
- 38 • Manage former salt ponds (as well as diked agricultural lands no longer in production) for
39 waterfowl and shorebirds. Managed ponds adjacent to important shorebird foraging areas
40 would provide the most benefit to a large number and diversity of species.

1 The primary goal of the proposed project is to restore infested marshes to a more natural (native)
2 condition for the benefit of marsh- and mudflat-dependent species that prefer or require native
3 marsh habitat. While it is recognized that the proposed project would impact habitats and species
4 within the Bay, large areas of mudflat and intertidal marsh habitat are substantially degraded by the
5 presence of non-native cordgrass, and the decline of these habitats may contribute to the regional
6 decline of several special status and mudflat/marsh-dependent species over time. To the extent
7 that the project would restore these habitats over the long-term, the project is consistent with the
8 Habitat Goals as described in the Goals Project.

9 **5.3.2 Comprehensive Conservation and Management Plan**

10 The Comprehensive Conservation and Management Plan (CCMP) plan was prepared in 1993 as
11 part of the San Francisco Estuary Project. The plan establishes wetland ecosystem goals, a regional
12 wetlands management plan, and geographically focused cooperative efforts to protect wetlands.
13 The CCMP presented strategies to protect and restore the health of the San Francisco Estuary.
14 The plan found that the region's wetlands were subject to uneven protection efforts and called for
15 a coordinated intergovernmental system to ensure maximum protection, restoration, and
16 management of wetlands. BCDC is the lead agency to assist in developing and implementing local
17 wetland protection programs to minimize impacts of urbanization on wetland and agricultural
18 resources. The CCMP presents a blueprint of 145 specific actions to restore and maintain the
19 chemical, physical, and biological integrity of the Bay and Delta.

20 **CCMP Priorities**

21 In August 2001, the priorities of the CCMP were reorganized and refined. The #2 priority is:
22 “Reduce the impact of invasive species on the San Francisco Estuary through prevention, control,
23 eradication and education.”

24 **5.3.3 Bay Area Air Quality Management District**

25 Air quality permits are required by State law in the San Francisco Bay Area: Alameda, Contra
26 Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara and the southern portion of Solano
27 and Sonoma counties. Air quality permits are issued by the Bay Area Air Quality Management
28 District (BAAQMD), a regional government agency responsible for controlling air pollution.
29 Situations for which a permit application must be submitted include:

- 30 • Construction or installation of new equipment that may cause air pollution;
- 31 • Existing equipment operations without a valid Permit to Operate;
- 32 • Modification of existing permitted equipment;
- 33 • When equipment is transferred from one location to another;
- 34 • Installation of abatement equipment used to control emissions.

35 By granting a permit, BAAQMD indicates that a project or the proposed equipment would meet
36 air quality standards. Both large and small businesses and their activities are covered by BAAQMD
37 rules and regulations. Typical large businesses requiring permits include bulk petroleum operations,
38 refineries, and power plants. Typical small businesses include dry cleaners, gasoline service stations,
39 auto body shops, coating operations and printers. Permits for new or modified facilities must be
40 obtained before construction or use of equipment is initiated.

1 **5.4 LOCAL LAWS, REGULATIONS, AND PERMITS**

2 The lead agencies recognize that counties and cities around the Bay have local policies, ordinances,
 3 zoning designations and restrictions, permit requirements, and special districts (i.e., East Bay
 4 Regional Park District, mosquito abatement districts, flood control districts, etc.) within their
 5 jurisdictional boundaries. While the analyses contained herein are intended to provide sufficient
 6 information for most Federal and State permits and approvals, additional information or details
 7 regarding the application of treatment methods may be needed by cities, counties, or special
 8 districts before *Spartina* control efforts may be implemented at a particular site.

9 **5.5 AGENCY JURISDICTION AND PROJECT APPROVALS**

10 **Table 5.5-1** summarizes the agencies with jurisdiction over the proposed project, applicable laws
 11 and authorizations or permit approvals needed to implement the proposed project.

12 **Table 5.5-1 Agency Jurisdiction and Project Approvals.**

13
 14

Agency	Applicable Law or Regulation	Authority or Permit Action
<i>FEDERAL</i>		
U.S. Environmental Protection Agency	NEPA Clean Water Act (CWA) Clean Air Act (CAA)	NEPA compliance CWA Section 404(b)(1) guidelines compliance CAA Section 309 compliance
U.S. Army Corps of Engineers	Clean Water Act (CWA) Rivers and Harbors Act (RHA)	CWA Section 404 permit and Section 404(b)(1) guidelines compliance RHA Section 10 permit
U.S. Fish and Wildlife Service	Endangered Species Act (ESA) Fish and Wildlife Coordination Act	ESA Section 7 Biological Opinion and Incidental Take Statement
National Oceanic and Atmospheric Administration Fisheries (formerly National Marine Fisheries Service)	ESA Marine Mammal Protection Act (MMPA) Magnuson-Stevenson Fishery Conservation and Management Act	ESA and MMPA Section 7 Biological Opinion and Incidental Take Statement
<i>STATE</i>		
California Coastal Conservancy	California Environmental Quality Act (CEQA)	CEQA compliance and funding approvals
Department of Fish and Game	California Endangered Species Act (CESA) California Public Resources Code (CPRC)	CESA Section 2081 permit CPRC Section 1601 Streambed Alteration Agreement

<i>Agency</i>	<i>Applicable Law or Regulation</i>	<i>Authority or Permit Action</i>
State Lands Commission	California Public Resources Code (CPRC)	Permits for work on State lands
Air Resources Board	California Clean Air Act	Review EIS/R for compliance with local attainment plans
<i>REGIONAL</i>		
San Francisco Regional Water Quality Control Board	CWA San Francisco Bay Area Basin Plan	CWA Section 401 certification or waiver CWA Section 402 National Pollutant Discharge Elimination System (NPDES) Permit
San Francisco Bay Conservation and Development Commission	(Federal) Coastal Zone Management Act McAteer-Petris Act	Coastal Development Permit(s)
California Department of Pesticide Regulation (CDPR)	<i>California Food & Agriculture Code, Divisions 6,7 & 13</i> <i>California Code of Regulations (CCR) Title 3, Division 6, Chapters 1-4</i>	<i>Controls use of pesticides</i>
<i>LOCAL</i>		
Air Pollution Control or Mosquito Abatement Districts	Local policies	Permits to use chemical methods or conduct controlled burns
Agricultural Commissioners	Local policies <i>and CDPR regulations (see above)</i>	Authorization or permits for conducting prescribed burns <i>Implement Calif. Department of Pesticide Regulations requirements within their respective counties</i>

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