



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



IN REPLY REFER TO:
81420-2008-F-1546-2

MAY 20 2009

Mr. Mendel Stewart
Project Leader
U.S. Fish and Wildlife Service
San Francisco Bay National Wildlife Refuge Complex
9500 Thornton Avenue
Newark, California 94560

Subject: Amendment to the Biological Opinion for the Intra-Service Formal Consultation on Implementation of the San Francisco Estuary Invasive *Spartina* Project: *Spartina* Control Program, as detailed in the 2008-2010 Invasive *Spartina* Control Plans; Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties, California

Dear Mr. Stewart:

This letter is in response to your request that the U.S. Fish and Wildlife Service (Service) amend the biological opinion for the Invasive *Spartina* Control Plans for the San Francisco Estuary: 2008 - 2010 Control Seasons (proposed action) in Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties, California. We received an electronic mail message containing this request on January 30, 2009. At issue are the effects of this proposed action on federally threatened delta smelt (*Hypomesus transpacificus*) and its critical habitat, endangered California clapper rail (*Rallus longirostris obsoletus*) (clapper rail), and endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) (harvest mouse). This response is provided in accordance with section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*) (Act).

The original biological opinion addresses the potential adverse effects of the proposed action to implement Invasive *Spartina* Control Plans for the San Francisco Estuary: 2008-2010 Control Seasons on the delta smelt and its critical habitat, clapper rail, and harvest mouse. Impacts to listed species associated with planting and seeding activities during marsh restoration activities were previously analyzed and authorized in the original biological opinion. The San Francisco Bay National Wildlife Refuge (Refuge) proposes to modify the original proposed action to include revegetation maintenance, native plant seed collection, and vegetation monitoring activities during the remainder of the 2008-2010 control seasons. These new activities will occur only in upland-marsh transition zones and in sparsely vegetated marsh areas where recent invasive *Spartina*

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control has occurred, but not within marsh areas that are potential clapper rail breeding habitat. Revegetation maintenance activities will be conducted from March through September each year and will include hand removal of invasive weed species, seasonal mowing, solarization, and mulching. Native seed collection and site monitoring to evaluate restoration progress and success will also occur in this upland-marsh transition zone. These new activities will be conducted in active restoration areas that have been planted or seeded to accelerate native vegetation re-colonization in areas where invasive *Spartina* control has been conducted.

Upon review of this proposal, the Service has determined that the modification to the project is consistent with our analysis in the original biological opinion for the proposed action and is not likely to result in any additional adverse effects to delta smelt or its critical habitat or harvest mice.

However, effects to clapper rails due to the additional revegetation maintenance, native seed collection, and vegetation monitoring were not previously considered in the original biological opinion. Specifically, disturbance-related effects to breeding clapper rails may occur within the breeding season due to the necessary timing of these activities during the spring and summer. Revegetation maintenance, native seed collection, and monitoring activities will occur only in upland-marsh transition zones and in sparsely vegetated marsh areas where recent invasive *Spartina* control has occurred, but not in marsh areas that are potential rail breeding habitat. As a result, temporary harassment of clapper rails may result if clapper rails are foraging or dispersing near the re-vegetation maintenance activity areas. No other additional take of clapper rails or nests is anticipated as a result of the re-vegetation maintenance activities with implementation of the revised and additional Conservation Measures outlined below.

BIOLOGICAL OPINION

The Service issued a biological opinion on July 17, 2008 (Service file number 81420-2008-F-1546). The biological opinion addressed adverse effects to the delta smelt and its critical habitat, the clapper rail, and the harvest mouse. The Action Area, Status of the Species/Environmental Baseline, Effects of the Proposed Action, Cumulative Effects, Amount or Extent of Incidental Take, Effect of the Take, Reasonable and Prudent Measures, and Conservation Recommendations sections as contained in the July 17, 2008, biological opinion are incorporated herein by reference.

The Service has determined that it is appropriate to amend the proposed project modification to the July 17, 2008, biological opinion. This letter is an agreement by the Service to amend the currently-proposed modification to the biological opinion and represents the Service's biological opinion on the effects of the proposed action. The proposed action must adhere to the terms and conditions of the biological opinion and this amendment.

Modifications to the Biological Opinion

The following changes to the July 17, 2008, biological opinion (Service file 81420-2008-F-1546) are now effective:

Page 9 of the biological opinion; add the following section immediately after the end of the Revegetation Activities section:

Revegetation Maintenance, Seed Collection, and Vegetation Monitoring Activities

Revegetation maintenance activities and related activities will be conducted from March through September each year in sites previously revegetated as described above in the “Revegetation Activities” section. The purpose of revegetation maintenance is to ensure the success of revegetation activities by preventing out-competition by invasive species and to increase habitat for the endangered clapper rail and salt marsh harvest mouse. Maintenance will be conducted continuously throughout the weed season (March-September), subsequent to plantings/broadcast seeding at a site. Weeding activities will be focused during flowering times for targeted invasive plants and within the most advantageous plant removal windows, to ensure native plantings are not out-competed by aggressive non-natives. Native seed collection will occur when seeds of particular plant species are viable and ready for harvest. Vegetation monitoring will be conducted twice per year, in March and September.

During the 2008-2010 seasons, revegetation maintenance and related activities will occur at four main restoration sites in the San Francisco Bay Area (Whale’s Tail Marsh Complex –Site 13, Alameda/San Leandro Bay Complex – Site 17, Bair/Greco Island – Site 2, and the Palo Alto Baylands- Site 8).

Multiple revegetation maintenance techniques will be used, including:

- Manual hand removal: Pulling, cutting/lopping, digging, sawing
- Seasonal mowing larger weed patches with a gas-powered hand mower
- Solarization: Installing a black plastic tarp over the weedy area
- Mulching: Placing cardboard or newspaper over the weedy area, then covering with 5 or more inches of mulch

In addition, the following related activities will be conducted on the restoration sites:

- Site-specific native plant seed collection for propagation
- Vegetation monitoring to evaluate restoration progress and success: vegetation mapping, transect monitoring, tracking planted seedlings, photo-monitoring

Page 11 of the biological opinion; revise title of heading from “Conservation Measures Specific to Revegetation Activities” to read “Conservation Measures Specific to Revegetation, Revegetation Management, Seed Collection, and Vegetation Monitoring Activities”

Pages 11-12 of the biological opinion; replace Conservation Measures 1 and 7 in the Description

of the Proposed Action sections as follows:

1. A trained biologist will supervise all planting, seeding, restoration maintenance, seed collection, vegetation monitoring activities, and access into the marsh.
7. When digging holes for planting or removing non-native vegetation, effects to existing native vegetation should be minimized.

Pages 11-12 of the biological opinion; add the following 5 (five) Conservation Measures:

- No revegetation maintenance, native seed collection, or vegetation monitoring activities will occur in potential clapper rail breeding habitat during the clapper rail breeding season. All of these activities will be restricted to the upland-marsh ecotone, above mean high water elevation.
- For revegetation maintenance, native seed collection, and vegetation monitoring activities, at least one biologist will supervise crews, and will direct crews to remain in the upland-marsh ecotone areas and not to wander into tidal marshes.
- For revegetation maintenance during periods when weeds are prevalent, crews of up to 20 members supervised by a biologist will conduct work during a three to four hour time period within upland-marsh ecotones one day per week. When weeds are not prevalent, one to two trained biologists will conduct native seed collection for up to three hours one day per week. Vegetation monitoring will be conducted by one to two trained biologists twice per year, in March and September.
- If breeding clapper rails are determined to be present in the marsh, crews conducting revegetation maintenance, seed collection, or vegetation monitoring in the upland-marsh ecotone will be required to minimize the amount of time spent within 700 feet of an identified rail calling center.
- If clapper rail adults, young, or nests are encountered during any activities, biologists and crews will carefully move away from the birds or nests.

INCIDENTAL TAKE STATEMENT

Amount or Extent of Take

Page 25 of the biological opinion; replace Incidental Take Statement number 5 with the following:

5. Up to 1088 clapper rails inhabiting the 108 sub-areas (21,042 acres of marsh) will be harassed each year for three years due to ground-based control, inventory and treatment monitoring, revegetation, revegetation maintenance, seed collection, and

vegetation monitoring; and all rails inhabiting the *Spartina* control action area will be subject to harassment due to aerial application of herbicide and aerial treatment monitoring.

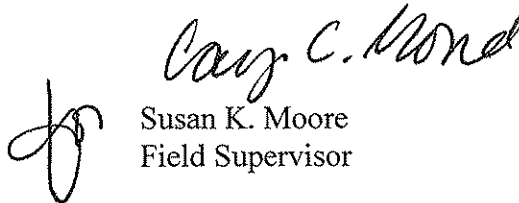
REINITIATION STATEMENT

With the exception of the changes described above, the remainder of the Service's July 18, 2008, biological opinion (Service file number 81420-2008-F-1546) is unchanged.

This concludes the reinitiation of formal consultation on the proposed project modification to the biological opinion (Service file number 81420-2008-F-1546) for the San Francisco Estuary Invasive *Spartina* Project: *Spartina* Control Program, as detailed in the 2008-2010 Invasive *Spartina* Control Plans. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or, (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Unless new information reveals effects of the proposed action that may affect listed or proposed species in a manner or to an extent not considered, or a new species or critical habitat is designated or proposed that may be affected by the proposed action, no further action pursuant to the Act is necessary. If you have any questions regarding our response, please contact Melisa Helton (melisa_helton@fws.gov) at (510) 792-0717 (ext. 228) or Ryan Olah (ryan_olah@fws.gov) at (916) 414-6625.

Sincerely,


Susan K. Moore
Field Supervisor

cc:

Scott Wilson, California Department of Fish and Game, Yountville, CA