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1-1-01-F-0031

United States Department of the Interior

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

March 5, 2001

Mr. Kevin Roukey
Acting Chief, Sacramento Valley Office
Department of the Army
U.S. Army Engineer District,
Sacramento, Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

Subject: Amendment to Formal Endangered Species Consultation on the SAFCA
North Area Local Project, Sacramento County, California (PN #
199200719)

Dear Mr. Roukey:

This document transmits the U.S. Fish and Wildlife Service's (Service) amendment to the Biological Opinion (file 1-1-99-F-0109) on the issuance of a U.S. Army Corps of Engineers (Corps) permit to Sacramento Flood Control Agency (SAFCA) for the North Area Local Project (NALP) (#199200719) and its effects on the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (beetle), the vernal pool fairy shrimp (*Branchinecta lynchi*), the vernal pool tadpole shrimp (*Lepidurus packardii*), and the giant garter snake (*Thamnophis gigas*) (GGS). The Service provides this opinion amendment in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). Your December 22, 1999, letter requesting revision of the Biological Opinion was received in this office on December 28, 1999.

The Corps reinitiated consultation because further clarification was needed regarding some of the Terms and Conditions from the December 8, 1998, Biological Opinion, and because new information was provided to the Service regarding the need for compatible land use within the approximately 250-acre Hansen Ranch conservation easement, including flood control, limited passive recreation, and grazing. This Biological Opinion amendment is based on information from (1) the request for reinitiation of formal section 7 consultation; (2) Draft Conservation, Monitoring, and Management Plan for the Hansen Ranch, Sacramento County, California, dated June 30, 2000, prepared by Sycamore Associates LLC.; and (3) multiple electronic mail messages

Mr. Roukey

from Fran Layton, representing SAFCA, to Ellen Berryman of the Service. A complete administrative record of this consultation is on file at the Service's SFWO.

Consultation History

A previous Biological Opinion dated March 11, 1994 (1-1-94-F-13), addressed the subject project and its effects on the giant garter snake. Also, project-related effects to the vernal pool fairy shrimp and the vernal pool tadpole shrimp were addressed in a letter from the Service dated June 28, 1995 (1-1-95-F-25), appending the NALP to the Corps' programmatic Biological Opinion for vernal pool crustaceans. The applicant subsequently determined that the project would also affect the beetle.

The Corps re-initiated formal consultation for the NALP in a letter dated May 11, 1998, to address project-related effects to the beetle. The reinitiation letter also transmitted information on SAFCA's plans to meet the requirements of the Biological Opinion for effects to the listed vernal pool crustaceans. Because the entire project was covered under a single Corps permit, the Service addressed project-related effects to federally listed species in a single Biological Opinion, dated December 8, 1998, incorporating the previous opinions by reference.

The December 8, 1998, Biological Opinion gave SAFCA the option of either (1) preserving and creating habitat on Hansen Ranch or (2) acquiring preservation and creation credits for vernal pool and the beetle habitat at one or more Service-approved conservation bank(s). The 1998 opinion includes a list of activities to be prohibited within the area protected by the Hansen Ranch conservation easement, for the purpose of conserving existing and created vernal pool and the beetle habitat on-site. These prohibitions were developed by the Service in coordination with SAFCA's biological consultant. After the Biological Opinion was finalized, SAFCA informed the Service that some of the activities prohibited under the Biological Opinion would need to occur within the conservation easement area, on a limited and controlled basis. The Service provided a letter to the Corps, dated December 9, 1999, expressing a willingness to amend the Biological Opinion to allow activities compatible with the conservation of vernal pool and the beetle habitat on-site. In response, the Corps provided a letter dated December 22, 1999, requesting that the Biological Opinion be amended. SAFCA subsequently decided to meet vernal pool preservation needs by preserving habitat on Hansen Ranch, while meeting the vernal pool and the beetle habitat creation needs through purchase of credits at one or more Service-approved conservation bank(s).

Further detail regarding the consultation history for this project is provided in the December 8, 1998 Biological Opinion.

Mr. Roukey

BIOLOGICAL OPINION

Description of the Proposed Action

The project description from the December 8, 1998, Biological Opinion (1998 Biological Opinion) remains unchanged, except for modifications related to conservation measures on Hansen Ranch and purchase of conservation credits at one or more Service-approved bank(s). The currently proposed conservation measures for the beetle and vernal pool crustaceans are described below. These proposed measures were provided to the Service by SAFCA on January 25, 2000, with modifications documented in electronic mail messages, dated November 11, 2000, from Fran Layton.

The 250-acre Hansen Ranch site is currently owned by the City of Sacramento. The Service agreed with SAFCA, as documented in the Service's July 23, 1999, letter to the Corps, that acquisition of a conservation easement over the Hansen Ranch site, rather than acquisition of fee title, would be sufficient to fulfill the conservation requirements of the 1998 Biological Opinion.

The 1998 Biological Opinion states that SAFCA would set up a trust account, according to an agreement to be approved by the Service, for acquisition and preservation of the 250-acre Hansen Ranch property in the vicinity of the Dry/Robla Creek portion of the North Area Local Project. The 1998 Biological Opinion provided that the agreement for the trust account was to state that this money would be used for the purchase of mitigation credits for the beetle and for vernal pool crustaceans at a conservation bank approved by the Service if the Hansen Ranch site was not secured to the Service's satisfaction by November 15, 1999. A trust fund in the amount of \$600,000 was established by the County on July 19, 1999, as indicated in the Trust Agreement by and between Sacramento Area Flood Control Agency and Director of Finance of the County of Sacramento. The Service confirmed in a letter to the Corps dated July 23, 1999, that the trust account had been established to the Service's satisfaction.

SAFCA will use \$364,500 from the trust fund to purchase conservation credits for the creation of the beetle habitat and the creation of vernal pools, as described more fully in Paragraphs B and C below. SAFCA will use a portion of the trust funds as the initial payment to the City of Sacramento for acquisition of the conservation easement for Hansen Ranch. The remaining funds will be transferred to a permanent, non-wasting endowment fund that will generate the capital needed for monitoring and perpetual management and maintenance of the preserved vernal pools at Hansen Ranch, as described more fully in Paragraph A2 below.

If SAFCA acquires a conservation easement for Hansen Ranch, it shall implement the conservation measures described under paragraph A below.

- A. The conservation easement will be held by a third party approved by the Service, and SAFCA will develop and secure Service approval for a Conservation, Monitoring and

Mr. Roukey

Management Plan (CMMP) describing the monitoring and perpetual management and maintenance of preserved vernal pool habitat on Hansen Ranch. SAFCA will, in consultation with the City of Sacramento, develop and secure Service approval for a Range Management Plan providing for specific limitations on and management practices applicable to grazing on Hansen Ranch. The City of Sacramento will develop and secure Service approval for a Recreation Plan providing for permissible recreational amenities on and public access to Hansen Ranch. Finally, SAFCA will negotiate and enter into a Memorandum of Understanding (MOU) with the City of Sacramento, the Service, and the Service-approved party holding the conservation easement for Hansen Ranch to ensure the compatible use of Hansen Ranch for flood control, for the preservation and maintenance of habitat, for recreation, and for grazing. The MOU will satisfy the description provided in Paragraph A.4, below.

1. Conservation Easement. By June 30, 2001, or such later date as to which the Service and SAFCA agree in writing, SAFCA will acquire a Service-approved conservation easement for Hansen Ranch for the perpetual protection of conservation values on the Property. The easement will be held by a third party approved by the Service and will include provisions governing any future transfer of that easement and/or the fee interest in Hansen Ranch. The conservation easement will include the entire Hansen Ranch site except for the North and South Dry/Robla Creek Levees and recreation corridors on the Property, as specifically designated in the conservation easement and approved by the Service ("Conservation Area"). The conservation easement will specify that reasonable access to the Property will be allowed upon 24-hour notice by representatives of the Service, the Corps and/or other appropriate agencies. The Service will receive a true copy of the recorded conservation easement within thirty (30) days of its recordation.

The conservation easement will prohibit and/or restrict those activities that would be inconsistent with the protection of preserved vernal pool habitat on the Property, taking into consideration the rights granted to the American River Flood Control District for flood control purposes, the rights described in the Perpetual Flood Control Easement on Hansen Ranch that the City of Sacramento will grant to SAFCA, and the rights relating to minerals, oil, gas, and other hydrocarbon substances that may be situated in and under the Property. The prior owners of Hansen Ranch reserved these rights in the deeds of gift by which they granted their interest in the Property to the City of Sacramento. Before SAFCA or the American River Flood Control District exercise their rights to maintain the flood conveyance capacity of the Property, or before any individual or entity holding the mineral rights exercises any such mineral rights, in a manner that could result in take of federally listed species on Hansen Ranch, they will first need authorization from the Service for incidental take, through either section 7 or section 10 of the

Mr. Roukey

Act. The City, SAFCA, the entity holding the conservation easement, and the Service, will be notified prior to any such activities, and the City will send a letter to the entity exercising such rights, advising that they must comply with all State and Federal law, including the Act. However, the likelihood that future flood control activities would significantly diminish the quality of the preserved vernal pools maybe very low because (1) the site has been used as a floodway for many years, and the vernal pools have persisted; (2) the existing vernal pools that will be preserved on Hansen Ranch are not unlike the vernal pools that were impacted by the NALP project and were subject to the same flood control occurrences; and (3) the majority of the 3.74 acres of vernal pools to be preserved are located north of the north levee and thus are not in the floodway. SAFCA contracted with Petroleum Properties Corp. ("PPC") to do a mineral and surface ownership report on Hansen Ranch. As part of its report, PPC indicated that its search did not reveal any evidence of historical surface development of sand and gravel or like substances, but that it is the firm's understanding that sand and gravel are attached to the surface estate, not to the mineral estate. In addition, PPC's research resulted in no evidence of any geologic structure that would support hydrocarbon production underlying the property. ~~The Hansen Family has never evidenced an interest in exercising its mineral rights.~~ Furthermore, the vernal pools to be preserved occupy a relatively small portion of the site and if, despite the research to date, the Hansens decided to exercise their mineral rights, it is likely that they would be able to design the mineral extraction to avoid vernal pool impacts.

On the Hansen Ranch property, 3.74 acres of vernal pools will be preserved to compensate for impacts resulting from the NALP, as described more fully in Paragraph C. below. There are approximately 1.33 acres of vernal pools on the Hansen Ranch site in addition to the 3.74 acres preserved for this project. Purchase of a conservation easement on Hansen Ranch shall not preclude SAFCA from obtaining any required approvals to use the site for future additional mitigation. The Service has not evaluated Hansen Ranch in terms of its additional mitigation potential, and thus there is no guarantee that the Service will grant approval for such mitigation in the future.

Prohibitions in the conservation easement will include, but not be limited to, the following restrictions on activities undertaken in areas included within the conservation easement:

- (a) Leveling, grading, landscaping, cultivating or otherwise altering the Property's existing topography for any purpose, including the exploration for, or development of, mineral resources, except that the existing topography of the Property may be altered:

Mr. Roukey

- (i) as required for the creation, restoration, and/or maintenance of habitat, provided such activities do not directly or indirectly impact the preserved vernal pools and are consistent with a Service-approved document describing plans for such activities;
 - (ii) as required for the creation and maintenance of interpretive trails, provided such activities do not directly or indirectly impact the preserved vernal pools and are consistent with the Service-approved Recreation Plan;
 - (iii) as required for grazing consistent with the Service-approved Range Management Plan;
 - (iv) as required to clear and remove natural or artificial obstructions, improvements, trees and vegetation found to be detrimental to the flood conveyance capacity of the Property, provided that the preserved vernal pools are not directly or indirectly impacted and the person or entity undertaking such activities complies with mandatory procedures set forth in the MOU; and
 - (v) activities associated with the mineral rights described above, provided the Service has been notified and these actions are in compliance with the Act;
- (b) Placement of new structures on the Property, including buildings and billboards, except that the following structures are permitted:
- (i) structures including, but not limited to, interpretive signs, directional signs, and viewing structures that are placed on the Property, provided they are placed at least 250 feet from the edge of any preserved vernal pool and consistent with the Service-approved Recreation Plan; and
 - (ii) signs that indicate the presence of protected habitat to minimize the possibility that such habitat will be disturbed inadvertently, provided such signs are consistent with the terms of the CMMP and any other applicable Service-approved document;
- (c) Discharging, dumping, burning or storing of rubbish, garbage, grass clippings, dredge material, household chemicals, or any other wastes or fill material on the Property, except that noncontaminating material may be deposited:
- (i) as required for the construction and maintenance of interpretive trails, provided such activities do not directly or indirectly impact preserved vernal pools and are consistent with the Service-approved Recreation Plan; or
 - (ii) as required for the creation, restoration, and/or maintenance of habitat, provided such activities do not directly or indirectly impact the preserved vernal pools and are consistent with a Service-approved document describing plans for such activities;

Mr. Roukey

- (d) Constructing any new road on the Property;
- (e) Constructing any new trail on the Property, except in a manner consistent with the Service-approved Recreation Plan and where such construction does not directly or indirectly impact preserved vernal pools on the Property;
- (f) Operating motor vehicles on the Property, except:
 - (i) as required to create, restore, monitor, and/or maintain habitat consistent with a Service-approved document describing plans for such activities, and provided such activities do not directly or indirectly impact preserved vernal pools;
 - (ii) as required to create and maintain interpretive trails consistent with the Service-approved Recreation Plan; or
 - (iii) as required to clear and remove natural or artificial obstructions, improvements, trees and vegetation found to be detrimental to the flood conveyance capacity of the Property, provided that the person or entity undertaking such activities complies with mandatory procedures set forth in the MOU;
- (g) Killing, removing, altering, or replacing existing native vegetation, except:
 - (i) as required to maintain habitat consistent with the CMMP, the MOU, and any other applicable Service-approved document;
 - (ii) as required to create and maintain interpretive trails consistent with the Service-approved Recreation Plan;
 - (iii) as required for grazing consistent with the Service-approved Range Management Plan; or
 - (iv) as required to clear and remove natural or artificial obstructions, improvements, trees and vegetation found to be detrimental to the flood conveyance capacity of the Property, provided that the person or entity undertaking such activities complies with mandatory procedures set forth in the MOU;
- (h) Engaging in activities that may alter the hydrology of the Property and the associated watersheds, including but not limited to excessive pumping of groundwater, manipulation or blockage of natural drainages, and inappropriate water application or placement of stormwater drains, except that activities that may alter the hydrology of the Property and the associated watersheds are permitted:
 - (i) as required for the maintenance (including irrigation) of habitat consistent with the CMMP, the MOU, and any other applicable Service-approved document, or
 - (ii) as required to clear and remove natural or artificial obstructions, improvements, trees and vegetation found to be detrimental to the flood conveyance capacity of the Property, provided that the person

Mr. Roukey

- or entity undertaking such activities complies with mandatory procedures set forth in the MOU;
- (i) Conducting fire protection activities, including the creation of fire breaks, that may adversely impact protected habitat on the Property, unless the following criteria are satisfied:
 - (i) the location of any fire break is approved by the Service, the Service-approved party holding the conservation easement for Hansen Ranch, SAFCA, and the fire department;
 - (ii) the fire break does not exceed the minimum required width; and
 - (iii) mowing (not discing) is used for fire break creation whenever possible;
 - (j) Grazing of livestock, except in a manner consistent with the Service-approved Range Management Plan;
 - (k) Using pesticides, herbicides, or rodenticides except with prior Service approval and in a manner consistent with the CMMP, the MOU, and any other Service-approved document; and
 - (l) Introducing exotic species, including plant and aquatic species, except that livestock may be grazed on the Property in a manner consistent with the Service-approved Range Management Plan.

2. Endowment Fund. SAFCA will establish a permanent, nonwasting endowment fund for the monitoring and perpetual management and maintenance of preserved vernal pools on Hansen Ranch. The principal in this endowment fund must generate sufficient revenue to cover the costs of SAFCA's responsibilities in implementing the CMMP. This endowment will be used by SAFCA to retain a Service-approved Preserve Manager, who will be responsible for implementation of the CMMP. The Preserve Manager will work with SAFCA to determine the amount of money necessary for the endowment fund to generate capital adequate for the monitoring and perpetual management and maintenance of the preserved vernal pools on the Property, as specified in the Service-approved CMMP.

SAFCA will provide the Service and the Corps documentation that: (1) funds for the monitoring and perpetual management and maintenance of the preserved vernal pools have been transferred to the Preserve Manager; (2) the Preserve Manager has accepted the funds and considers them adequate; and (3) the funds have been deposited in a permanent, nonwasting endowment fund that will generate sufficient capital for the monitoring and perpetual management and maintenance of the preserved vernal pools on the Property.

3. Conservation, Monitoring and Management Plan. A draft CMMP for Hansen Ranch was submitted to the Service for review and approval prior to

Mr. Roukey

December 31, 1999, consistent with the 1998 Biological Opinion. The Service provided comments, and a revised draft CCMP was submitted to the Service on August 9, 2000. The final CMMP will be submitted to the Service for approval by June 30, 2001, unless the Service and SAFCA agree in writing to extend this deadline. The final CMMP will include, but not be limited to:

- (a) provisions for the perpetual management and maintenance of preserved vernal pool habitat on the Property;
- (b) provisions for runoff control;
- (c) provisions for management and maintenance of Hansen Ranch in perpetuity to ensure the protection of preserved vernal pool habitat, including discussion of grazing strategies, alien species control, sedimentation, erosion, and controlled burning;
- (d) a description of the responsibilities of the Preserve Manager who will implement the CMMP;
- (e) a monitoring program to be set up and implemented by the Preserve Manager. The monitoring program will include provisions for the preparation of periodic monitoring reports assessing whether and to what extent the preserved vernal pool habitat on the Property satisfies the performance goals specified in the CMMP. These periodic monitoring reports will be prepared based on the observations and findings of a Service-approved biologist, who may be an employee of the Preserve Manager. Copies of the periodic monitoring reports will be sent to the Service and to the Corps. The periodic monitoring reports will recommend maintenance practices, repairs, and other actions necessary to protect vernal pool habitat on the Property. These recommendations will be subject to review and approval by the Service. In the event that the Service-approved biologist described above is replaced, the outgoing and incoming biologists will tour the Property together, and the former will advise the latter of trends, problem areas, and administrative difficulties thereon prior to such replacement;
- (f) a description of fencing and signs to be placed and maintained around Hansen Ranch for vernal pool protection; and
- (g) provisions for the removal of trash and debris from the Property by SAFCA and/or its agents as needed to protect the preserved vernal pool habitat at Hansen Ranch.

4. Memorandum of Understanding. SAFCA will negotiate and enter into an MOU with the City of Sacramento, the Service, and the Service-approved party holding the conservation easement for Hansen Ranch. The MOU will identify the responsibilities of SAFCA, the Service-approved party holding the conservation easement for Hansen Ranch, and the City of Sacramento to ensure compatible use

Mr. Roukey

of Hansen Ranch for flood control, for habitat preservation, for recreation, and for grazing. The MOU will create a cooperative framework for the exercise of rights granted under the conservation easement and the flowage easement. This framework will include procedures for avoiding potential conflicts between the protection of conservation values on the Property and activities undertaken to maintain the flood conveyance capacity of the Property. So long as SAFCA fully complies with the procedures set forth in the MOU and avoids effects to federally listed species, SAFCA may undertake such flood control activities without first obtaining an Incidental Take Permit under Section 7 of the Act. In addition, the MOU will ensure that, in the event that protected vernal pool habitat is removed, destroyed, or otherwise damaged as the result of activities undertaken by SAFCA to maintain the capacity of the Property to convey floodwaters, the Service will first be consulted and SAFCA will be responsible for mitigating such damage to vernal pool habitat. The MOU will also identify and describe in general terms the Range Management Plan, the Recreation Plan, and the CMMP for Hansen Ranch, including the parties responsible for implementing each of these plans. The MOU will describe the procedures necessary for informing the Service if any activities associated with mineral rights currently existing on the property are planned for Hansen Ranch, and to inform the entity holding the mineral rights as to legal requirements under the Act. The MOU will reflect the intent of the Service and SAFCA to pursue the possibility of entering into a Conservation Banking Agreement for Hansen Ranch following evaluation of the Property's potential to provide habitat as conservation for future projects.

- B. By agreement between SAFCA and the Service, the 113 elderberry stems measuring one (1.0) inch or greater in diameter at ground level that have or will become unsuitable habitat for the beetle as a result of the construction of the NALP will be compensated for at an 8:1 ratio. Specifically, SAFCA will purchase, from a Service-approved conservation bank, conservation credits equivalent to planting of 1,184 elderberry cuttings/seedlings and 1,184 native plant cuttings/seedlings.
- C. For listed vernal pool crustaceans, a total of 3.74 acres of vernal pool habitat will be preserved at Hansen Ranch to compensate for the direct impacts on vernal pools from the construction of the NALP. In addition, SAFCA will purchase, from a Service-approved conservation bank, conservation credits equivalent to the creation of 1.87 acres of vernal pools. The indirect impacts of the construction of the NALP on 2.88 acres of vernal pool habitat has already been mitigated at the 2L Borrow Site with the construction of 5.76 acres of seasonal wetlands.
- D. If, by June 30, 2001, or such later date as to which the Service and SAFCA agree in writing, SAFCA does not acquire from the City of Sacramento, a conservation easement in perpetuity for Hansen Ranch, SAFCA will purchase, at a Service-approved

Mr. Roukey

conservation bank, conservation credits equivalent to preservation of 3.74 acres of vernal pools. The purchase of conservation credits will be completed by July 31, 2001, or such later date as to which the Service and SAFCA agree in writing.

The 1998 Biological Opinion included in its Terms and Conditions a stipulation that the Corps shall not reimburse SAFCA for any project costs until the Service has received and approved the formal monitoring report for the 5.76 acres of constructed seasonal wetlands on the 2L Borrow Site, as required under the Corps permit. The Service has received and reviewed a monitoring report dated April 15, 1999, for the 2L Borrow Site, and this report has met the Service's approval. The Service therefore confirmed in a letter to the Corps dated July 23, 1999, that this condition had been met.

Species Accounts

Species accounts from the December 8, 1998, Biological Opinion remain unchanged.

Effects of the Proposed Action

Effects of the action as described in the December 8, 1998, Biological Opinion remain unchanged.

Cumulative Effects

Cumulative effects for this project are the same as for the December 8, 1998, Biological Opinion.

Conclusion

After reviewing the current status of the beetle, the vernal pool crustaceans, and the giant garter snake, the environmental baseline for the action area, the effects of the NALP and the cumulative effects, it is the Service's Biological Opinion that the issuance of a Corps permit for the NALP is not likely to jeopardize the continued existence of these species. This action does not affect an area that supports critical habitat for the beetle, and no destruction or adverse modification of that critical habitat is anticipated. No critical habitat has been designated for the vernal pool crustaceans or the giant garter snake and, therefore, none will be affected.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act, and Federal regulations pursuant to section 4(d) of the Act, prohibit take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. The Service defines "harass" as an intentional or negligent act or omission that creates the likelihood of injury to listed species by annoying it to such an extent as to significantly

Mr. Roukey

disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. The Service defines harm to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), take that is incidental to and not intended as part of the agency action is not considered a prohibited take provided such take complies with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be implemented by the Corps so that they become binding conditions of Permit No. 199200719 issued by the Corps to SAFCA in order for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this Incidental Take Statement. If the Corps (1) fails to require SAFCA to adhere to the terms and conditions of this Incidental Take Statement through enforceable terms added to Permit No. 199200719, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

The March 11, 1994 Biological Opinion (#1-1-94-F-13) authorized an unquantified amount of giant garter snake take during construction by SAFCA of the NALP. Most of the NALP has already been constructed and the Service has determined that the reasonable and prudent measures described in the March 11, 1994 Biological Opinion minimizing effects to giant garter snakes have been implemented. The construction of the NALP has thus far resulted in take of two (2) giant garter snakes through harassment. Specifically, the snakes were moved alive to habitat adjacent to a NALP construction site in order to protect them from injury. No additional take of garter snakes is expected to result during the NALP construction activities remaining to be completed. Reasonable and prudent measures related to the giant garter snake are therefore not included in this Incidental Take Statement. If it is determined in the future that any activities on Hansen Ranch could result in take of GGS, the entity undertaking such activities would need to obtain authorization for take pursuant to section 7 or section 10 of the Act.

The Service expects that incidental take of the beetle and listed vernal pool crustaceans would be difficult to detect or quantify. Specimens of vernal pool crustaceans are not easily seen because of their small body size. The beetle is a wood borer, and its presence in an elderberry shrub is rarely apparent. Frequently, the only exterior evidence of the beetle using a shrub is an exit hole created by the larva just prior to the pupal stage. However, there is no exterior evidence of the beetle when the larva is too young to construct an exit hole. Also, losses of any the beetle or vernal pool crustaceans may be masked by seasonal and annual fluctuations in numbers. Due to the difficulty in quantifying the number of individuals that will be taken as a result of the proposed action, the Service is quantifying take incidental to the NALP as the amount of habitat that has become or will become unsuitable for the species as a result of the action.

Mr. Roukey

The Service estimates that 113 elderberry stems measuring one (1.0) inch or greater in diameter at ground level, which are potential habitat for the beetle, will have become unsuitable as a result of the construction of the NALP. Of these 113 stems, 105 were associated with thirty-five (35) elderberry shrubs removed from along the Natomas East Main Drainage Canal ("NEMDC"). Eight (8) of the 113 stems were associated with two (2) elderberry shrubs removed from along the Garden Highway.

An estimated 1.87 acres of vernal pools, which are potential habitat for the vernal pool crustaceans, will have become unsuitable as a result of the construction of the NALP through direct habitat loss (1.41 acres from Dry/Robla Creek, 0.14 acre from the NEMDC, and 0.32 acre from Sankey Road). An additional 2.88 acres of vernal pool habitat will have become less suitable for listed vernal pool species as a result of indirect impacts related to NALP construction. The indirect project-related impacts on 2.88 acres of vernal pool habitat have already been completely compensated at the 2L Borrow Site with the construction of 5.76 acres of seasonal wetlands.

The Service has developed this Incidental Take Statement based on the premise that the reasonable and prudent measures will be implemented. Upon implementation of the following reasonable and prudent measures, incidental take associated with the direct impacts of NALP construction on 113 elderberry stems and 1.87 acres of vernal pool habitat and the indirect impacts of management activities on the beetle and vernal pool habitat will become exempt from the prohibitions described under section 9 of the Act.

Effect of the Take

In the December 8, 1998 Biological Opinion (#1-1-98-F-0109), the Service determined that the identified level of anticipated take is not likely to result in jeopardy to the species addressed in the Biological Opinion, or destruction or adverse modification of their critical habitat.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measure is necessary and appropriate to minimize the impact of taking of listed vernal pool crustaceans and the beetle:

The loss of vernal pool and the beetle habitat will be offset to minimize impacts to federally listed species, and vernal pool habitat will be managed and protected from adverse effects in perpetuity.

The reasonable and prudent measures specified in the December 8, 1998 Biological Opinion (Reference No. 1-1-98-F-0109) to minimize the impact of taking giant garter snakes have been implemented, and the take has already occurred. No additional measures are necessary to minimize impacts to this species, provided no additional take occurs.

Mr. Roukey

Terms and Conditions

In order for Corps Permit No. 199200719, for the NALP, to be exempt from the prohibitions of section 9 of the Act, SAFCA must comply with either measures A, B, and C or measures B, C, and D, described in the Project Description of this Biological Opinion, above. These measures are considered Terms and Conditions which implement the reasonable and prudent measure described above for the protection of listed vernal pool crustaceans and the beetle. These terms and conditions are nondiscretionary.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the construction of the NALP. With implementation of these measures, the Service anticipates that no take of the beetle will occur other than that resulting from the loss of 113 elderberry stems measuring one (1.0) inch or greater in diameter at ground level. No take of listed vernal pool crustaceans will occur other than that resulting from the direct loss of 1.87 acres vernal pool habitat and the indirect impacts to 2.88 acres of vernal pool habitat during the construction of the NALP. If this minimized level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Corps must immediately provide an explanation of the causes of the take and review with the Service the need for possible modification of the reasonable and prudent measures.

Reporting Requirements

See reporting requirements for this project in the December 8, 1998, Biological Opinion.

The Sacramento Fish and Wildlife Service Office is to be notified within three working days of the finding of any dead listed species or any unanticipated harm to the species addressed in this Biological Opinion. The Service contact person for this is the Chief, Endangered Species Division at (916) 414-6600.

CONSERVATION RECOMMENDATIONS

Conservation recommendations from the December 8, 1998, Biological Opinion remain unchanged.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on action outlined in your reinitiation request which the Service received December 22, 1999, as provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the

Mr. Roukey

action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveal effects of the proposed action 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 listed species or critical habitat that was not considered in this opinion; or (4) a new species or critical habitat is designated that may be affected by the proposed action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion amendment, please contact Ellen Berryman at (916) 414-6600.

Sincerely,

Cay C. Goude

Cay C. Goude
Acting Field Supervisor

