

## 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:  
81420-2010-F-0814-R001

7 June 2011

Ms. Alicia Kirchner  
Chief, Planning Division  
U.S. Army Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, California 95814

Subject: Re-initiation of Section 7 Programmatic Formal Consultation on the Upper Yuba River Levee Improvement Project, Yuba County, California

Dear Ms. Kirchner:

This is in response to your April 13, 2011, request to re-initiate formal consultation with the U.S. Fish and Wildlife Service (Service) on the Upper Yuba River Levee Improvement Project (proposed project) in Yuba County, California. Your request was received in our office on April 14, 2011. The following changes to the biological opinion are due to modifications in the proposed project schedule and changes to timing of elderberry shrub (*Sambucus sp.*) transplantation, habitat for the federally-listed as threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). This amended biological opinion is issued under the authority of section 7(a)(2) the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

This amendment is based on: (1) your April 13, 2011, letter requesting re-initiation under section 7; (2) an e-mail with further refinements on the project description sent on April 22, 2011; (3) the information prepared by HDR dated April 2011; and (4) other information available to the Service.

The biological opinion (Service # 81420-2010-F-0814-1) is now amended as follows:

Page 5, Change the 2<sup>nd</sup> paragraph from:

Eighteen elderberry shrubs with 344 stems greater than one inch in diameter at ground level will be transplanted due to the construction of waterside levee slope erosion protection.

To:

Eighteen elderberry shrubs with 342 stems greater than one inch in diameter at ground level will be transplanted due to the construction of waterside levee slope erosion protection.

Page 8, Change the 2<sup>nd</sup> paragraph under Operations and Maintenance Corridors from:

Nine elderberry shrubs with 115 stems greater than one inch in diameter at ground level will be transplanted to create the 15-foot vegetation free zone.

To:

A local landowner has removed four elderberry shrubs since the original stem count was completed. Three of these shrubs would have been transplanted by TRLIA due to project activities. Therefore, six elderberry shrubs with 107 stems greater than one inch in diameter at ground level will be transplanted to create the 15-foot vegetation free zone.

Page 8, Change Construction Scheduling from:

#### Construction Scheduling

A construction period of up to four months is planned for the project, beginning in the summer of 2010 with contractor mobilization, and ending in November 2010 with clean-up and contractor demobilization. The proposed project could be constructed using two different scenarios: construction over a four month timeframe working 15 hours per day, or construction over a three month timeframe working 24 hours per day. It is likely that under the second scenario construction will not need to occur continuously for 24 hours per day for the entire three month period and will likely include a combination of 15 hour per day activities and 24 hour per day activities.

In addition to the elderberry shrubs which will be transplanted due to the proposed construction twenty-six elderberry shrubs are located within 100 feet of cutoff wall construction, levee reshaping, Operation and Maintenance corridor creation, waterside levee slope protection, and berm construction. These twenty-six elderberry shrubs will not be transplanted because the conservation measures listed below are sufficient to avoid adversely affecting them. Conservation measures to avoid and minimize effects to valley elderberry longhorn beetle habitat are described below.

To:

#### Construction Scheduling

A construction period of up to four months is planned for the project, beginning in mid-April 2011 with contractor mobilization, and ending the end of August 2011 with clean-up and contractor demobilization. The proposed project could be constructed using two different scenarios: construction over a four month timeframe working 15 hours per day, or construction

over a three month timeframe working 24 hours per day. It is likely that under the second scenario construction will not need to occur continuously for 24 hours per day for the entire four month period and will likely include a combination of 15 hour per day activities and 24 hour per day activities.

TRLIA transplanted 28 elderberry shrubs during the first 2 weeks of February 2011. Because TRLIA does not have access to the entire project footprint, three elderberry shrubs will be transplanted after June 15, 2011. In addition to the elderberry shrubs which will be transplanted due to the proposed construction twenty-five elderberry shrubs are located within 100 feet of cutoff wall construction, levee reshaping, Operation and Maintenance corridor creation, waterside levee slope protection, and berm construction. These twenty-five elderberry shrubs will not be transplanted because the conservation measures listed below are sufficient to avoid adversely affecting them. Conservation measures to avoid and minimize effects to valley elderberry longhorn beetle habitat are described below.

Page 10, change the 1<sup>st</sup> bullet and Table 1. from:

- Transplant 34 elderberry shrubs with 311 stems between 1 and 3 inches, 109 stems between 3 and 5 inches and 66 stems greater than 5 inches at ground level, and provide additional plantings as described in Service's 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Conservation Guidelines). Elderberry shrubs that require removal will be transplanted. Because all 34 elderberry shrubs will be transplanted between August and October 2010 (outside of the elderberry dormant season) TRLIA has proposed to compensate an additional 2.5 times the Conservation Guidelines ratios. Shrubs will be planted either at the Anderson Road Compensation Site or at a Service-approved conservation bank. Elderberry and associated native seedlings at Anderson Road were established in 1996 for the Sacramento River Flood Control Project, Phase II compensation, and the site has been monitored for 10 years. Transplanting will occur outside of the transplantation window (approximately November through the first two weeks of February) identified in the Conservation Guidelines. TRLIA will work with the Service on determining the transplant and additional planting location (Table 1).

**Table 1:** Proposed minimization ratios based on location (riparian vs. non-riparian), stem diameter of affected elderberry shrubs at ground level, and presence or absence of exit holes when transplanted in August or September 2010.

| Location | Stems (maximum diameter at ground level) | Exit Hole on Shrub (Yes or No) | Elderberry Seedling Ratio | Out of Season Multiplier | Associated Native Plant Ratio | Number of Stems Observed | Required Elderberry Plantings | Required Associated Native Plant Plantings |
|----------|--|--------------------------------|---------------------------|--------------------------|-------------------------------|--------------------------|-------------------------------|--|
| Riparian | stems ≥1" & ≤3"                          | No                             | 2:1                       | 2.5                      | 1:1                           | 97                       | 485                           | 485  |
| Riparian | stems > 3" & <5"                         | No                             | 3:1                       | 2.5                      | 1:1                           | 24                       | 180                           | 180  |

|  |                                  |    |     |     |     |     |       |       |
|--|----------------------------------|----|-----|-----|-----|-----|-------|-------|
| Riparian   | stems $\geq 5''$                 | No | 4:1 | 2.5 | 1:1 | 16  | 160   | 160   |
| Non-riparian   | stems $\geq 1''$<br>& $\leq 3''$ | No | 1:1 | 2.5 | 1:1 | 214 | 535   | 535   |
| Non-riparian   | stems $> 3''$<br>& $< 5''$       | No | 2:1 | 2.5 | 1:1 | 85  | 425   | 425   |
| Non-riparian   | stems $\geq 5''$                 | No | 3:1 | 2.5 | 1:1 | 50  | 375   | 375   |
| Total replacement plantings                                    |                                  |    |     |     |     |     | 2,160 | 2,160 |
| Total Elderberry shrubs to be transplanted                     |                                  |    |     |     |     |     |       | 34    |
| 4,320/10 = 432 valley elderberry longhorn units or 17.85 acres |                                  |    |     |     |     |     |       |       |

To:

- Transplant 31 elderberry shrubs with 301 stems between 1 and 3 inches, 109 stems between 3 and 5 inches, and 66 stems greater than 5 inches at ground level, and provide additional plantings as described in Service's 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Conservation Guidelines). Shrubs will be planted at the Anderson Road Compensation Site. Elderberry and associated native seedlings at Anderson Road were established in 1996 for the Sacramento River Flood Control Project, Phase II compensation, and the site has been monitored for 10 years. Transplanting for 28 shrubs will occur during the dormant season (November 1 to February 15) identified in the Conservation Guidelines. Transplanting for three shrubs will occur after June 15 and TRLIA will compensate and additional 2.5 times the Conservation Guidelines. TRLIA and the Central Valley Flood Protection Board have agreed that TRLIA will use 22.68 acres of the 74.69 acre Anderson Road Compensation Site as compensation for effects to the valley elderberry longhorn beetle and its habitat. These 22.63 acres were needed as compensation for the Phase II project effects. Included in these 22.63 acres is a 100-foot wide buffer (6.87 acres) adjacent to the patrol road that is required as part of the long-term operations and maintenance of the site. Any elderberries which were documented in this buffer were excluded as part of the compensation. There are 455 elderberry shrubs and 6,243 associated native within the 15.76 acres (buffer removed) that were planted over 10 years ago. According to Table 1, TRLIA is responsible for planting 1,007 elderberry seedlings and 1,007 associated natives. The compensation site supports more than the 1,007 associated native species, however if only 60 percent of the 1,007 elderberry seedlings survived, at the end of 10 years of monitoring there would be at least 605 elderberries present at the site. Because the site is short 150 elderberry shrubs at the compensation site, TRLIA will plant an additional 250 elderberry seedlings at the northern portion of the site near the placement of the transplants. These seedlings will be monitored for survivorship and valley elderberry longhorn beetles for either 10 or 15 years as described in the Conservation Guidelines.

**Table 1:** Proposed minimization ratios based on location (riparian vs. non-riparian), stem diameter of affected elderberry shrubs at ground level, and presence or absence of exit holes when transplanted in.

| Location  | Stems (maximum diameter at ground level) | Exit Hole on Shrub (Yes or No) | Elderberry Seedling Ratio | Associated Native Plant Ratio | Number of Stems Observed | Required Elderberry Plantings | Required Associated Native Plant Plantings |
|---|--|--------------------------------|---------------------------|-------------------------------|--------------------------|-------------------------------|--|
| Riparian  | stems $\geq 1"$ & $\leq 3"$              | No                             | 2:1                       | 1:1                           | 95                       | 190                           | 190  |
| Riparian  | stems $> 3"$ & $< 5"$                    | No                             | 3:1                       | 1:1                           | 24                       | 72                            | 72   |
| Riparian  | stems $\geq 5"$                          | No                             | 4:1                       | 1:1                           | 16                       | 64                            | 64   |
| Non-riparian  | stems $\geq 1"$ & $\leq 3"$              | No                             | 1:1                       | 1:1                           | 154                      | 154                           | 154  |
| Non-riparian  | stems $\geq 1"$ & $\leq 3"$              | No                             | 2.5:1                     | 1:1                           | 52                       | 130                           | 130  |
| Non-riparian  | stems $> 3"$ & $< 5"$                    | No                             | 2:1                       | 1:1                           | 70                       | 140                           | 140  |
| Non-riparian  | stems $> 3"$ & $< 5"$                    | No                             | 5:1                       | 1:1                           | 15                       | 75                            | 75   |
| Non-riparian  | stems $\geq 5"$                          | No                             | 3:1                       | 1:1                           | 43                       | 129                           | 129  |
| Non-riparian  | stems $\geq 5"$                          | No                             | 7.5:1                     | 1:1                           | 7                        | 53                            | 53   |
| Total replacement plantings                                     |  |                                |                           |                               |                          | 1,007                         | 1,007                                      |
| Total Elderberry shrubs to be transplanted                      |  |                                |                           |                               |                          |                               | 31   |
| 2,014/10 = 201.4 valley elderberry longhorn units or 8.32 acres |  |                                |                           |                               |                          |                               |  |

Page 19, Change the 1<sup>st</sup> two paragraphs of the Effects of the Proposed Action from:

The proposed project will result in the transplantation, outside of the action area, of the 34 elderberry shrubs within the action area with stems greater than 1.0 inch in diameter. The 34 shrubs affected shrubs have 311 stems between 1 and 3 inches, 109 stems between 3 and 5 inches and 66 stems greater than 5 inches at ground level.

Loss of an elderberry shrub or even a stem can affect valley elderberry longhorn beetle breeding and feeding because adult beetles rely solely on elderberry foliage and flowers for food and must lay their eggs on elderberry stems to successfully reproduce. Due to the schedule of the project elderberry shrubs will be transplanted outside of the elderberry shrubs dormant season (November 1 to February 15). Additional stress occurs to elderberry shrubs when transplanted outside of their dormant season particularly when temperatures are high. This stress increases the likelihood of shrub mortality and consequently an additional temporal loss of habitat for the

beetle. Beetles that inhabit those shrubs would die as a result of the shrubs dying. To offset the temporal loss of habitat by transplanting elderberry shrubs outside if the dormant season, the Corps and TRLIA have proposed to increase compensation by 2.5 times the recommended ratios in the Conservation Guidelines. Increasing the compensation will provide additional available habitat for the valley elderberry longhorn beetle.

To:

The proposed project will result in the transplantation, outside of the action area, of 31 elderberry shrubs within the action area with stems greater than 1.0 inch in diameter. The 31 shrubs affected shrubs have 301 stems between 1 and 3 inches, 109 stems between 3 and 5 inches and 66 stems greater than 5 inches at ground level.

Loss of an elderberry shrub or even a stem can affect valley elderberry longhorn beetle breeding and feeding because adult beetles rely solely on elderberry foliage and flowers for food and must lay their eggs on elderberry stems to successfully reproduce. Due to the schedule of the project three elderberry shrubs will be transplanted outside of the elderberry shrubs dormant season (November 1 to February 15). Additional stress occurs to elderberry shrubs when transplanted outside of their dormant season particularly when temperatures are high. This stress increases the likelihood of shrub mortality and consequently an additional temporal loss of habitat for the beetle. Beetles that inhabit those shrubs would die as a result of the shrubs dying. To offset the temporal loss of habitat by transplanting these three elderberry shrubs outside if the dormant season, the Corps and TRLIA have proposed to increase compensation by 2.5 times the recommended ratios in the Conservation Guidelines. Increasing the compensation will provide additional available habitat for the valley elderberry longhorn beetle.

Page 21, Change Amount or Extent of Take from:

The Service anticipates incidental take of the valley elderberry longhorn beetle will be difficult to detect or quantify. The cryptic nature of these species and their relatively small body size make the finding of a dead specimen unlikely. The species occur in habitats that make them difficult to detect. Due to the difficulty in quantifying the number of beetles that will be taken as a result of the proposed action, the Service is quantifying take incidental to the project as the number of elderberry stems one inch or greater in diameter at ground level (beetle habitat) that will become unsuitable for beetles due to direct or indirect effects as a result of the action. Therefore, the Service estimates that all beetles inhabiting 34 elderberry shrubs containing stems 1 inch or greater at ground level (311 stems between 1-3 inches, 109 stems between 3 and 5 inches and 66 stems  $\geq 5$  inches; see Table 1 in the text) will be harmed or killed as a result of the proposed action.

To:

The Service anticipates incidental take of the valley elderberry longhorn beetle will be difficult to detect or quantify. The cryptic nature of these species and their relatively small body size make the finding of a dead specimen unlikely. The species occur in habitats that make them difficult to detect. Due to the difficulty in quantifying the number of beetles that will be taken as

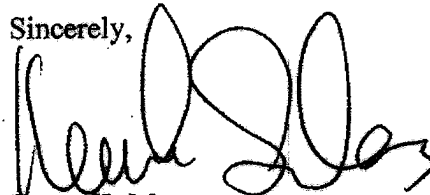
a result of the proposed action, the Service is quantifying take incidental to the project as the number of elderberry stems one inch or greater in diameter at ground level (beetle habitat) that will become unsuitable for beetles due to direct or indirect effects as a result of the action. Therefore, the Service estimates that all beetles inhabiting 31 elderberry shrubs containing stems 1 inch or greater at ground level (301 stems between 1-3 inches, 109 stems between 3 and 5 inches and 66 stems  $\geq 5$  inches; see Table 1 in the text) will be harmed or killed as a result of the proposed action.

#### RE-INITIATION - CLOSING STATEMENT

This concludes our re-initiation with the Corps on the Upper Yuba Levee Improvement Project. As provided in 50 CFR 402.16, re-initiation 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 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.

If you have any questions regarding this biological opinion on the Upper Yuba River Levee Improvement Project, please contact Jennifer Hobbs at (916) 414-6541 or Kellie Berry, Chief, Sacramento Valley Branch at (916) 414-6645.

Sincerely,

A handwritten signature in black ink, appearing to read 'Susan K. Moore', with a stylized flourish at the end.

Susan K. Moore  
Field Supervisor

cc:

John Suazo, Corps, Sacramento, CA

Paul Brunner, TRLIA, Rancho Cordova, CA