

DOCKETED

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Sutter Energy Center

Petition to Amend #6

97-AFC-2C

Response to Informal Data Requests 10–26

Submitted to
California Energy Commission

Submitted by
CCFC Sutter Energy, LLC

With Technical Assistance by

CH2MHILL®

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Introduction

Attached are CCFC Sutter Energy, LLC's (CCFC or the Applicant) responses to California Energy Commission (CEC) Informal Data Requests 10 through 26 regarding the Sutter Energy Center (SEC) (97-AFC-2C) Petition to Amend (PTA) #6. The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as the CEC presented them and are keyed to the Informal Data Request numbers (10 through 26).

New or revised graphics or tables are numbered in reference to the Informal Data Request number. For example, the first table used in response to informal Data Request 2 would be numbered Table IDR10-1. The first figure used in response to Informal Data Request 10 would be Figure IDR10-1, and so on. Figures or tables from the SEC PTA that have been revised have "R1" following the original number, indicating revision 1.

Additional tables, figures, or documents submitted in response to a data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

Land Use (10)

Possible Impacts to Conservation Plan Properties

Staff needs information on the presence of any land included in a habitat or natural community conservation plan.

10. *Is the project located on any land included in a habitat or natural community conservation plan? If so, please provide a copy of the plan, including a map showing the boundaries of the area covered by the plan and the SEC project components that are located in the covered area.*

Response: The project is not located on any land included in a habitat or natural community conservation plan. There is a proposed Yuba Sutter Regional Conservation Plan (YSRCP), which will be both a federal Habitat Conservation Plan (HCP) and a state Natural Community Conservation Plan (NCCP). The project is located within the proposed plan boundaries as shown with the Joint Study Session Presentation 2/12/13 found at <http://www.yubasutterrcp.com/documents/>. Per Sutter County planning staff, the plan has not yet been written, and the earliest draft may be prepared in 2014. In the meantime, only preliminary proposed information is available currently on the Sutter County website.

Transmission Systems Engineering (11–16)

Transmission Systems Engineering Informal Requests 11–16 were issued to the Project Owner as formal data requests on July 24, 2013. Responses will be provided under separate cover.

Traffic and Transportation (17)

Clarification of Workforce and Trip Data

In the Petition to Amend, on page 3-81, under section 3.9.1.1, the last sentence of the first paragraph states, "Construction of the generator tie-line and substation may or may not take place simultaneously. It is shown here [Table 3.9-1 Construction Workforce by Month] as taking place at the same time in order to estimate the worst case for construction traffic."

During the Energy Commission staff site visit to the SEC on May 2, staff understood from a discussion with the project owner's team that the schedule and workforce numbers in the petition represented only the Calpine-proposed modifications and did not include data for PG&E activities. This conflicts with the quoted description in the petition, which implies that the construction schedule and workforce numbers include the PG&E-modifications (substation construction).

17. *Please clarify whose activities the numbers in Table 3.9-1 represent. Also, if trip generation has been increased to include the construction trips for PG&E construction activities, please explain your methodology, and how many trips were added to account for the PG&E trips.*

Response: The numbers presented in Table 3.9-1 represent construction staffing for the project site and transmission line. PG&E construction activities at the substation are not included in Table 3.9-1 of the Petition to Amend, as construction trips, scheduling, and staffing by PG&E will not be known until PG&E designs the substation.

The PG&E portion of the substation includes everything within and associated with the substation except the 230-500kV step-up transformers. The generator tie-line and step-up transformers will be constructed by Calpine and construction manpower for that effort is provided in Table 3.9-1. The step-up transformers represent the first point of interconnection for the project with the grid and so mark the limit of CEC's licensing jurisdiction for facilities associated with the SEC.

Biological Resources (18–26)

Section 404 Wetland Impacts and Permitting

18. *Please provide an electronic copy of the U.S. Fish and Wildlife Service's (USFWS) Biological Opinion for the Sutter Grimes Pipeline amendment, revised after May 2011.*

Response: A copy of the USFWS Biological Opinion for the Sutter Grimes Pipeline amendment is provided as Attachment IDR-18.

19. *Please provide an estimate of when a formal wetland delineation of the proposed work areas covered under the amendment will be performed and submitted to the U.S. Army Corps of Engineers (Corps) and Energy Commission for review. If wetland data points were collected for delineated features, please provide copies.*

Response: Preparation of a formal wetland delineation is underway, and will be submitted to the U.S. Army Corps of Engineers and California Energy Commission staff for review in the fall of 2013.

20. *Please provide a table summarizing the acreage of delineated waters individually for the transmission line, power plant site, and proposed substation for all potential waters of the United States (WOUS) identified in figures 3.2-2 and 3.2-3a–c. Include acreages for all delineated features including wetlands and other waters.*

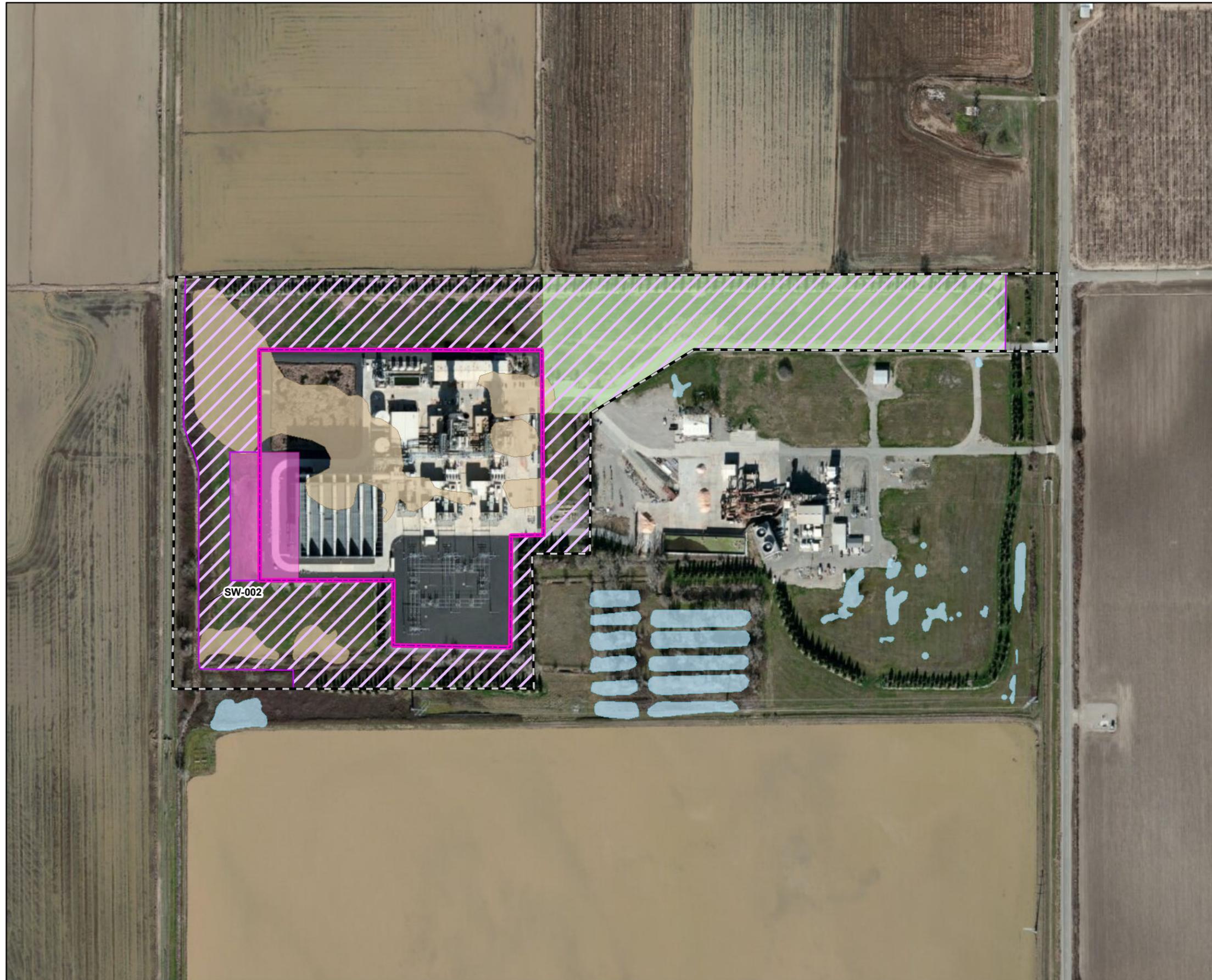
Response: A table summarizing the acreage for delineated features will be provided in the formal wetland delineation as described in the response to IDR-19.

21. *Please provide a figure that shows SW-003, the approximate location of the 5.83-acre wetland area that was previously authorized for fill, the 2.84 acres of wetlands that have been avoided and monitored, the facility's perimeter road and fence line, and the 80-foot wide air-cooled condenser (ACC) expansion area. On this figure, please show which areas outside of the perimeter road and fence line were re-graded after construction of SEC, as indicated on page 3.35 of the Petition to Amend. Please also show any proposed temporary construction staging areas.*

Response: Figure IDR-21 shows SW-003 (label corrected to SW-002), locations of the on-site, pre-construction wetlands, the perimeter and fenceline, the ACC expansion area, the areas re-graded after SEC construction, and the construction staging area for the ACC expansion.

22. *Please provide staff a timeline estimate of when an application for the temporary impacts associated with construction of the transmission line and power plant site would be submitted to the Corps for authorization. Also, please identify the Section 404 Nationwide Permit(s) under which this work would be covered.*

Response: The Section 404 permit application will be submitted to the Corps of Engineers for authorization in fall of 2013 along with the Wetland Delineation Report. The project owner anticipates submitting a section 404 permit application for both the generator tie-line and the substation simultaneously. Because the wetland disturbance of construction for the substation would be greater than 0.5 acres, this portion of the project would require an individual permit. If impacts of the generator tie-line would be less than 0.5 acres, then it is possible that Nationwide Permit #12, Utility Line Activities, would apply to the generator tie-line and its largely temporary impacts, at the discretion of the U.S. Army Corps of Engineers (USACE). The Wetland Delineation Report is currently under preparation. When finalized, it will be submitted to the USACE along with an application for the Section 404 permit.



- LEGEND**
- Sutter Energy Center Boundary
 - SEC Perimeter Road and Fenceline
 - ACC Expansion Area
 - Proposed Construction Laydown and Staging
 - Seasonal Wetland
 - Jurisdictional Wetlands Filled During original SEC Construction
 - Jurisdictional Wetlands Before SEC Construction, Avoided and Monitored
 - Areas Re-Graded as Part of Original Power Plant Construction

- Notes:**
1. Assessment of wetlands and potential habitat for listed seasonal crustaceans within potential ACC annex areas and construction laydown areas was conducted on January 18 and February 21, 2013 by CH2MHILL wetland scientist, Steve Long and biologist Rick Crowe.
 2. Areas of investigation had been recently mowed. Vegetation control in these areas (along windbreaks) is also managed by herbicide applications that were observed during the January 18, 2013 site visit.
 3. Foster Wheel Environmental (Jurisdictional Wetlands before SEC Construction)

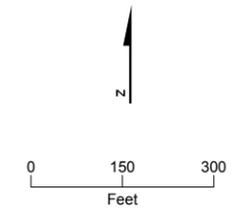


FIGURE IDR-21
SEC Wetland and Biological Resources
Sutter Energy Center

23. *Staff is assuming, due to the permanent fill of farmed wetland, that the construction of the substation would require a Section 404 Individual Permit. Please provide a discussion of the Clean Water Act Section 404 permitting timeline for the proposed substation. Please include a discussion of whether an application would be initiated to permit the permanent impacts associated with the proposed substation at the same time as an application would be submitted for a 404 permit for the temporary impacts associated with the transmission line route and the ACC expansion area. Also, please include a discussion of the Corps initiation of formal Section 7 consultation with the USFWS, and whether consultation would be initiated concurrently for impacts to potential WOUS for the transmission line route and for the proposed substation. Please provide a preliminary mitigation plan for impacts to potential WOUS for the substation site.*

Response: See the response to IDR 22. The Section 404 permit application will be filed in the fall of 2013 after completion of the Wetland Delineation Report for the SEC site. A single application will be submitted for the generator tie-line and substation. The USACE will initiate consultation with the US Fish and Wildlife Service in accordance with their responsibilities under the Endangered Species Act simultaneously for the substation and generator tie-line as well. The preliminary mitigation plan will be submitted at a future date after the wetland delineation is verified.

Fish and Game Code Section 1600, State Jurisdictional Waters

24. *Please provide a timeline for submittal of a Notification for a Lake or Streambed Alteration Agreement application for review by the Energy Commission and the California Department of Fish and Wildlife.*

Response: The Notification for a Lake or Streambed Alteration Agreement application for the transmission line and SEC project site will be prepared and submitted in the fall of 2013, following completion of the Wetland Delineation Report.

Habitat Impacts

25. *Please provide a summary table of impacts (permanent vs. temporary) to habitat types for all components of the amendment, i.e., transmission line, substation, and power plant site improvements.*

Response: A summary table of impacts will be submitted once the Wetland Delineation Report is complete.

Biological Resources Survey Results

26. *Please provide a discussion of the survey methods and results of the three days of biological resources field surveys (noted in section 3.2.1.2 of the Petition to Amend). Indicate if any sign or suitable habitat was observed for burrowing owl, valley elderberry longhorn beetle, and special-status plant species. Please provide updated nest survey results for Swainson's hawk, including any known nest territories within a 10-mile radius of the project's boundaries.*

Response: A reconnaissance-level wildlife survey was conducted on January 15, 2013 by CH2M HILL biologist Rick Crowe, of the proposed SEC generator tie-line route and substation site. This survey consisted of meandering transects on foot and by vehicle, using direct observation and binoculars. The purpose of the survey was to identify existing conditions of site habitat and vegetation, evaluate the site's potential to support special-status species, and assess potential impacts from the proposed project modifications. The area surveyed included the area within 1 mile of the new PG&E substation and within 1,000 feet of the proposed generator tie-line. Emphasis of the survey was on potential sensitive species habitat; in particular, nesting Swainson's hawk, giant garter snake, burrowing owl and valley elderberry longhorn beetle (VELB). General wildlife observations were also recorded.

The proposed SEC generator tie-line and substation route are entirely within rice fields, irrigation canals and farm access roads. Rice fields and irrigation canals provide habitat for giant garter snake. Several small willow trees (*Salix* sp.) and cottonwood (*Populus* species.) were observed along the irrigation canals. Most of these trees were too small to support nesting Swainson's hawk; however, each willow and cottonwood tree was thoroughly inspected for sign of nesting raptors and none were observed. Several small mammal burrows (ground squirrel burrows and meadow vole burrows) were also observed along the route. Each was closely inspected for sign of burrowing owl (scat, feathers, or pellets) with negative results. Other than the few small willows and

cottonwoods, no other tree or shrubby form of vegetation was observed. Specifically, there were no observations of elderberry bushes or shrubs (*Sambucus* sp.) which could host VELB. A complete list of wildlife observed is included as Table 3.2-1 within the Petition to Amend.

Additional field visits were conducted on January 18 and February 21, 2013, by CH2M HILL biologist Rick Crowe and CH2M HILL soils and wetland scientist Steve Long to conduct a wetland delineation of the SEC site.

One additional survey was conducted on June 28, 2013 by CH2M HILL biologist Rick Crowe and CH2M HILL soils and wetland scientist Steve Long to survey for rare plants. Only one sensitive plant species, the wooly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*), was identified in Table 3.2-2 *Special-status Plants and Rare Communities*, as having the potential to occur in the project's area of potential effects. Wooly rose-mallow is a California Native Plant Society 1B plant, (CNPS 1B; rare or endangered in California and elsewhere). Based on CNDDDB data, the nearest known wooly rose-mallow occurrence to the project site consisted of three occurrences in the Sutter Bypass area within the Sutter National Wildlife Refuge just west of the SEC site and generator tie-line and substation route, approximately 2 miles from the SEC site and 0.75 miles northwest of the substation location. The survey was conducted during mallow blooming period of June through September, and consisted of physically searching one of the known locations within the Sutter National Wildlife Refuge for the mallow with negative results. The surveyors then surveyed the SEC site and generator tie-line and substation route for the mallow, also with negative results.

**Attachment IDR-18
USFWS Biological Opinion for the
Sutter Grimes Pipeline Amendment**



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:
81420-2011-F-0298-1

MAY 9 2011

Ms. Nancy Haley
Chief, California North Branch
U.S. Army Corps of Engineers
650 Capitol Mall, Suite 5-200
Sacramento, California 95814

Subject: Programmatic Formal Section 7 Consultation on the Proposed Grimes Pipeline Project (Corps File # SPK-2010-01485), Sutter County, California

Dear Ms. Haley:

This letter is in response to your request for formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Grimes Pipeline Project (proposed project), Sutter County, California, dated and received February 8, 2011. The Service has reviewed the biological information you submitted describing the effects of the proposed project on the federally listed as threatened giant garter snake (*Thamnophis gigas*) (snake) and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (beetle). The Service concurs with your determination that the proposed project is likely to adversely affect the snake and is not likely to adversely affect the beetle. Because there are 20 occurrence records in the California Natural Diversity Database (CNDDB) with 10 miles of the project site, the Service believes that all suitable habitat within the project area, including irrigation canals and fields in active rice production, may be occupied by the snake. You have requested that the Service append the proposed project to the Service's *Programmatic Formal Consultation for the U.S. Army Corps of Engineers 404 Permitted Projects with Relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, and Yolo Counties, California* (Service File # 1-1-97-F-149, Programmatic Biological Opinion [BO]). No critical habitat has been designated for the snake; therefore, none will be affected. This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

There is one elderberry shrub (*Sambucus spp.*), the sole host plant for the beetle, located within 100 feet of the project area. This shrub is located within riparian vegetation along an irrigation canal approximately 75 feet from the pipeline alignment. The riparian area will not be impacted, and project work will be confined to the adjacent agricultural field currently used to grow row crops. High visibility fencing will be installed along the riparian corridor, and the proposed project is not expected to affect this shrub.

TAKE PRIDE
IN AMERICA

The findings and recommendations in this consultation are based on: (1) the February 8, 2011 letter from the U.S. Army Corps of Engineers (Corps) requesting initiation of formal consultation; (2) the December 2010 *Biological Assessment for the Grimes Pipeline Project, Sutter County*, prepared by ICF International for Calpine (applicant); (3) the April 4, 2011 site visit including representatives from the Service, the California Energy Commission, and the applicant; (4) electronic mail correspondence between the Service, the Corps, and the applicant; and (5) additional information available to the Service.

BIOLOGICAL OPINION

Project Description

The applicant has proposed to construct a natural gas pipeline to connect gas wells owned and operated by several gas producers within the Grimes underground natural gas field and the applicant's existing Sutter Energy Center natural gas pipeline system. The proposed project consists of a 2.8-mile gas pipeline, two meters at existing meter stations, a 450-foot pipe connection to and tap into the existing Sutter Energy Center pipeline, and a 0.22-acre gas metering facility (Grimes Station). The project area is linear, and is located between Moroni and Girdner Roads, northeast of the town of Grimes. Once constructed, the proposed project will allow the transfer of approximately 10 million cubic feet of gas per day from existing producers to the Sutter Energy Center. The proposed project will not increase existing gas deliveries to the Sutter Energy Center. Figure 1 below identifies the location of major project components.

The 2.8-mile gas pipeline will be located primarily in active rice fields. It will also cross 11 irrigation canals/ditches and two public roads. Open trenching will be used to install the pipeline in rice fields and may be used at two irrigation ditch crossings. Crossings at roads and all other irrigation canals and ditches will be underground and will be accomplished using auger boring or horizontal directional drilling (HDD). Trenching entails excavating an approximately 36-inch wide by 84-inch deep trench, stockpiling excavated soil, installing the pipe, backfilling with stockpiled soil, and recontouring to original grade and level. Auguring and HDD each require the excavation of an entry and exit hole on either side of the crossing, and the pipe is then placed without further surface disturbance. The installation of this gas pipeline will result in 14.27 acres of temporary impacts to snake habitat. An additional 1.90 acres of snake habitat will be temporarily impacted for use as a staging and storage area, for a total of 16.17 acres of temporary impacts.

The 450-foot pipe connection and tap will be located in an active row crop field, and will be installed using an open trench. Grimes Station will be located in the same row crop field. Grimes Station, the 450-foot pipe connection and tap, and the installation of two new meters at existing meter locations are not expected to affect the snake or its habitat.

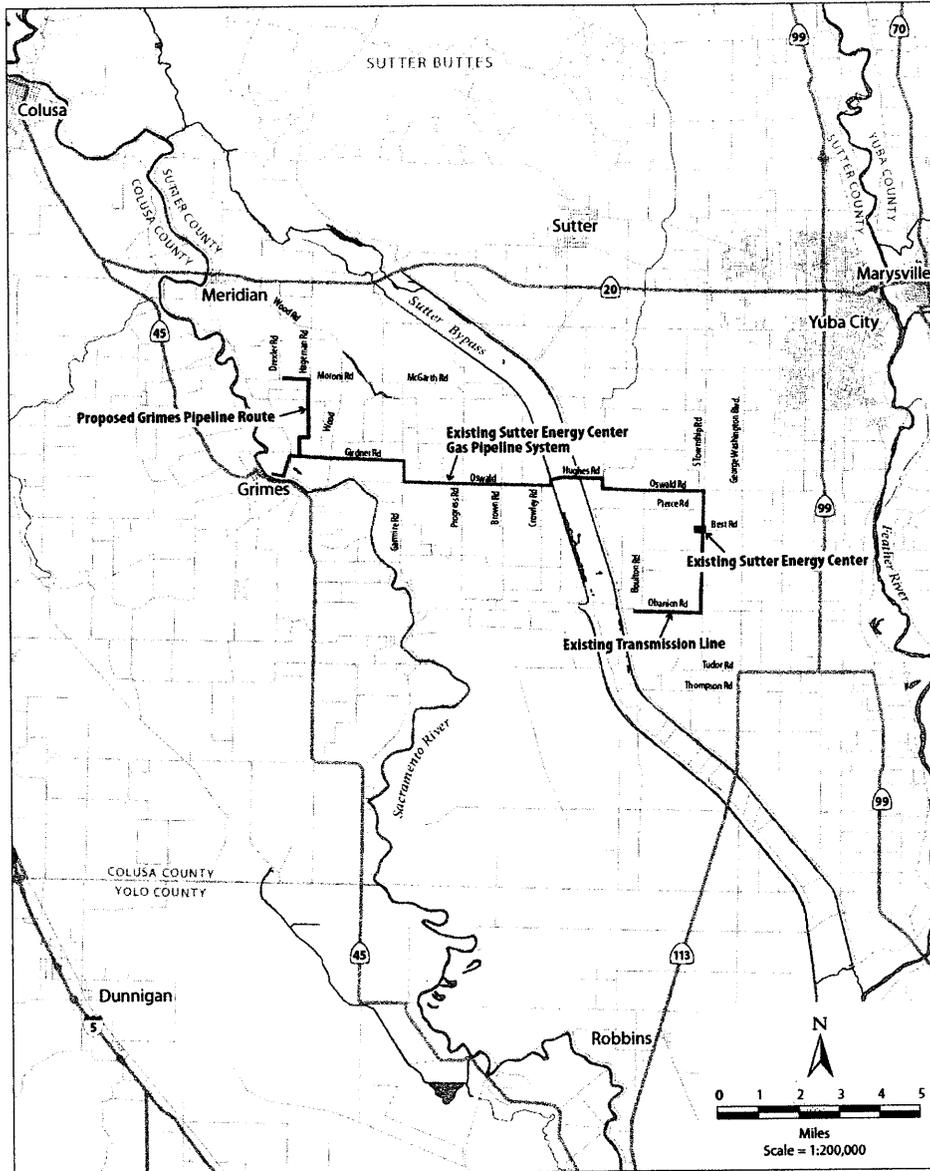


Figure 1. Project Location

Conservation Measures

Conservation measures included in the project description are considered in our evaluation and conclusions regarding proposed actions that may affect federally listed species. The following is a summary of the conservation measures, as outlined in the biological assessment and the Programmatic BO, to avoid effects on the beetle and to minimize effects on the snake:

Valley Elderberry Longhorn Beetle

High visibility construction fencing will be installed at least 20 feet from the dripline of one elderberry shrub located approximately 75-feet from the pipeline alignment. This

shrub is located in riparian vegetation which will not be disturbed. Project work will be confined to an adjacent agricultural field.

Giant Garter Snake

- Upon project completion, all temporarily disturbed snake habitat will be restored to pre-project conditions (primarily active rice). The applicant will monitor all restored habitat for one year from the date construction is completed and provide a monitoring report to the Service, including pre- and post-project photographs.
 - After April 15th, all aquatic habitat for the snake must remain dry for at least 15 consecutive days before any construction occurs. Snakes are expected to leave the project area if no aquatic habitat is present.
 - Construction activity within 200 feet of giant garter snake aquatic habitat will be minimized to the maximum extent practicable. Avoided giant garter snake habitat shall be designated as Environmentally Sensitive Areas and will be flagged by a Service-approved biologist and avoided by construction personnel and equipment.
 - No more than 24-hours prior to construction, a Service-approved biologist will conduct a pre-construction survey for the snake. This survey will be repeated if a lapse in construction activity of 14 days or greater occurs. If a snake is encountered during construction, activities will cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed. All sightings of the snake will be reported to the Service immediately by telephone at (916) 414-6600. All snake sightings will also be reported to the California Department of Fish and Game for inclusion in the CNDDDB.
 - A Service-approved biologist will be onsite during all construction within 200 feet of aquatic habitat for the snake. The biologist will ensure that all Conservation Measures are followed, and will have authority to stop construction if they are not. Any open trenches within 200 feet of aquatic snake habitat will be inspected daily for trapped snakes.
 - All construction personnel will receive environmental awareness training from a Service-approved biologist. This training will inform workers on how to identify the giant garter snakes and their habitat, the need to report all sightings of giant garter snakes, and the consequences of not complying with these conservation measures.
 - To minimize the effects of increased traffic in the construction area, a construction speed limit of 15 miles-per-hour will be established, and speed limit signs will be posted on all project-controlled roads leading to construction areas.
-

Action Area

The action area is defined in 50 CFR §402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the proposed action, the Service considers the action area to be the footprint of the proposed project, including a 2.8-mile gas pipeline, two meters at existing meter stations, a 450-foot pipe connection and tap on the existing Sutter Energy Center pipeline, and a 0.22-acre gas metering facility. The action area also includes all areas temporarily impacted by construction access and noise.

Evaluation under Programmatic Biological Opinion

This letter is an agreement by the Service to append the proposed project to the Service’s November 13, 1997, *Programmatic Formal Consultation for U.S. Army Corps of Engineers 404 Permitted Projects with relatively Small Effects on the Giant Garter Snake within Butte, Colusa, Glenn, Fresno, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, and Yolo Counties, California* (1-1-97-F-0149), and represents the Service’s biological opinion on the effects of the proposed project.

Effects of the Action

The proposed project will affect a total of 16.17 acres of snake habitat that will be temporarily disturbed for one season and restored. Temporary disturbance is due to trenching for pipelines and project staging and access areas.

Construction activities associated with the proposed project occurring in snake habitat may harass snakes. The project will temporarily remove vegetative cover and basking sites, fill or crush burrows or crevices, and obstruct snake movement; and may result in the disturbance or displacement of snakes. Although there is potential for snakes to be crushed by construction equipment, it is unlikely because these machines will be confined to the linear project area which will be surveyed for snakes by a Service-approved biologist. Because there is other suitable aquatic and upland habitat nearby, the Service expects snakes to avoid the project area during construction. The applicant has proposed a number of avoidance and minimization measures that will greatly reduce the effects, including restoring disturbed areas to pre-project conditions.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including 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), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

Amount or Extent of Take

The Service anticipates that incidental take of the snake will be difficult to detect or quantify. The cryptic nature of the species and its highly aquatic nature make the finding of an injured or dead specimen unlikely. The species occurs in habitats that make it difficult to detect. Due to the difficulty in quantifying the number of snakes that will be taken as a result of the proposed action, the Service is quantifying take incidental to the project as harassment of all snakes inhabiting or otherwise utilizing the 16.17 acres of snake habitat that will be temporarily lost due to the proposed project.

Effect of the Take

The proposed project, as described, fits within the parameters of the level of take anticipated in the Programmatic BO and is not likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the snake in the wild.

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the proposed Grimes Pipeline Project. 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.

If you have any questions regarding this project, please contact Ben Watson, Staff Biologist, or Kellie Berry, Chief, Sacramento Valley Branch at (916) 414-6645.

Sincerely,



Kenneth D. Sanchez
Assistant Field Supervisor

cc:

Mr. Chris Delaney, CPN Pipeline Company, Rio Vista, California
Ms. Sue Bushnell, ICF International, Sacramento, California