DOCKETED

Docket Number:	97-AFC-02C
Project Title:	Sutter Power Plant Application for Certification
TN #:	201868
Document Title:	Calpine's Responses to CEC Staff Formal Data Requests 37 through 40
Description:	N/A
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Submission Date:	3/12/2014 4:07:03 PM
Docketed Date:	3/12/2014

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March 12, 2014

Ms. Beverly Bastian
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Subject: Sutter Energy Center (97-AFC-2C), Responses to Formal Data Requests 37 through 40

Dear Ms. Bastian:

Attached please find Calpine Construction Finance Company, L.P. (Calpine) Responses to CEC Staff Formal Data Requests 37 through 40 in the areas of Soil & Water Resources and Biological Resources for the Sutter Energy Center (97-AFC-2C).

Please do not hesitate to contact me at (916) 286-0278 if you have any questions regarding the information we have submitted.

Sincerely,

CH2M HILL

Douglas M. Davy, Ph.D.
Program Manager

Attachment

cc: M. Weinberg, Calpine
B. McBride, Calpine

Data Request Response

Sutter Energy Center

Petition to Amend #6

Response to Informal Data Requests 37–40

Submitted to

California Energy Commission

Submitted by

CCFC Sutter Energy, LLC

5029 South Township Road

Yuba City, California 95993

With Technical Assistance by:

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March 12, 2014

Contents

Introduction

On January 7, 2014, CCFC Sutter Energy, LLC (CCFC or the Applicant) notified the Energy Commission that the gen-tie transmission line, the new transformer bank, and the new substation have been eliminated from the equipment modifications at Sutter Energy Center (SEC) requested in CCFC's March 2013 amendment petition.

Consequently, several Energy Commission environmental and technical specialists have requested that petition data be updated to reflect these changes in the project description. In addition, this document contains responses to questions that Staff posed to CCFC regarding the project description during a site visit that took place on January 16, 2014.

Attached are CCFC's responses to California Energy Commission (CEC) Informal Data Requests 37 through 40 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 (37 through 40).

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.

Soils & Water Resources (37–38)

Auxiliary Boiler Water Requirements

37. Please describe the additional volume of water, if any, that would be required for operational use after installation of the auxiliary boiler.

Response: The auxiliary boiler will operate only during periods of startup and/or shutdown when the plant's main steam cycle is not in operation. The auxiliary boiler will require approximately 33 gpm of demineralized water to maintain the main power block in standby, approximately 185 gpm of demineralized water to perform a main power block cold start, and approximately 145 gpm of demineralized water to perform a main power block warm start. It is anticipated that the auxiliary boiler will not be used during a hot start. During operation the main power block consumes approximately 410 gpm of demineralized water during peak operation, approximately 94 gpm of demineralized water during average annual operation. The license for the SEC also only allows for an annual average of 140 gpm for the facility's wells. Water consumption associated with auxiliary boiler operation will occur in place of, rather than in addition to, current plant demineralized water consumption. In practice the addition of the auxiliary boiler provides greater steam cycle chemistry stability and lower production of corrosion products. The auxiliary boiler will actually lower total annual demineralized water usage by the plant by decreasing the time required to start the plant, decreasing the volume of water required to start the plant, and minimizing main steam cycle blowdown during plant startup.

38. How would the additional water use for the auxiliary boiler plus existing water use requirements vary from the plant operational average water use of 225 AF/y and range of 41.5 gpm to 221 gpm, as discussed in the Commission Decision?

Response: Please refer to Data Response #37.

Biological Resources (39–40)

Laydown and Park Area

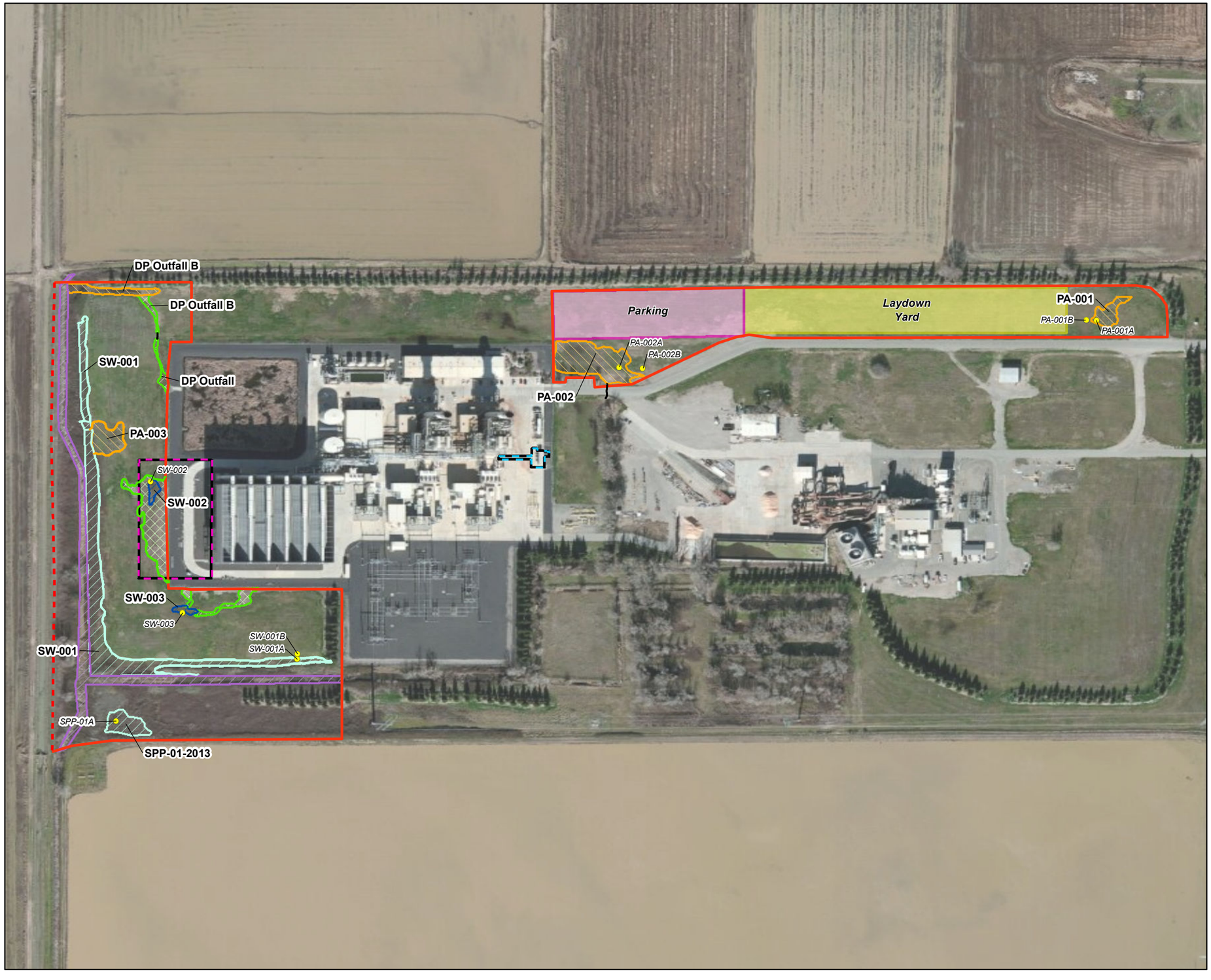
39. During our January 16, 2014 site visit, it was unclear where the laydown and parking area for the proposed expanded project would be. Please identify the laydown/parking area that will be used.

Response: Figure 3-R provided as a response to Data Request 40 identifies the location of the laydown and parking areas to be used during these modifications. These areas were also used for this purpose during construction of the SEC.

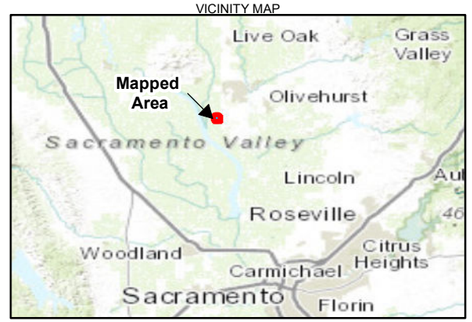
Wetland Disturbance Area

40. None of the figures provided with the SEC's "Preliminary Delineation of Wetlands and Other Water Bodies, Sutter Energy Center, Sutter County, California" or in the SEC petition section entitled, "Environmental Analysis of Proposed Project Modifications," delineates the exact area that will be disturbed/lost due to construction of the expanded ACC. The SEC site is shown with wetland resources mapped, but no indication on the map of the exact area disturbed/lost for the proposed project overlain on the wetland resources map. Please provide a revised Figure 3 from the Wetlands Delineation report showing the area to be disturbed/lost due to the proposed project modifications. Please include a table of the acres of potential wetland that will be disturbed/lost if the proposed project is built.

Response: A revised figure from the Wetlands Delineation Report is provided as Figure 3-R, and identifies the location of the expanded ACC modifications, and includes the area that will be lost/disturbed due to the proposed project modifications. Approximately 0.025 acres of potential wetland (SW-002) would be lost.



VICINITY MAP



LEGEND

- Wetland Data Point
- Limit of Investigation (Dashed Where Approximate)
- Additional ACC Streets
- Auxiliary Boiler
- Laydown Yard
- Parking
- Culvert
- Seasonal Ponding
- PEMC (palustrine, emergent, seasonally flooded) Wetland
- PEMA (palustrine, emergent, temporarily flooded) Wetland
- PEMF (palustrine, emergent, semipermanently flooded) Wetland
- Overland Flow/ Upland Swale Area

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, February 21 and June 28, 2013 by CH2MHILL wetland scientist, Steve Long and biologist Rick Crowe.

2. Areas of investigation are regularly mowed. Vegetation control in these areas (along windbreaks) is also managed by herbicide applications that were observed during the January 18, 2013 site visit.

N

0 150 300
Feet

FIGURE 3-R
Wetland Features in the SEC Project Area
Sutter Energy Center

CH2MHILL