

DOCKETED

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Project Title:	Marsh Landing Generating Station Compliance
TN #:	234322
Document Title:	Marsh Landing Petition to Amend
Description:	Marsh Landing Petition to Amend Conditions of Certification
Filer:	Scott Seipel
Organization:	NRG, Inc.
Submitter Role:	Applicant
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Marsh Landing LLC
Marsh Landing Generating Station
3201-C Wilbur Avenue
P.O. Box 1687
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August 12, 2020

Mr. Keith Winstead
Compliance Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

**Subject: Petition For Post-Certification Project Modification, Title V Permit Modification, Marsh Landing Generating Station
Docket No. 08-AFC-3C**

Dear Mr. Winstead,

Marsh Landing LLC (Marsh Landing) submits the attached petition to amend air quality (AQ) conditions of certification (COCs) for the Marsh Landing Generating Station Commission Decision dated August 31, 2010. Specifically Marsh Landing proposes to amend COC AQ-19 related to combustion turbine tuning events, and AQ-27, -28, and -32 for reduced source testing frequency. Marsh Landing has submitted an application to the Bay Area Air Quality Management District (BAAQMD) also requesting identical modifications to the corresponding conditions in the Major Facility Review Permit and Permit to Operate B9169 issued by the BAAQMD.

If you have any questions contact Scott Seipel (909) 648-5008 or George Piantka (760) 707-6833.

Sincerely,

A handwritten signature in blue ink that reads "Joseph Moura".

Joseph Moura
Plant Manager
Marsh Landing Generating Station

**Attachments: Petition For Post-Certification Project Modification, Title V Permit Modification
Project Description, Marsh Landing Generation Station, (08-AFC-3C)**

**Cc: George Piantka, NRG
Scott Seipel, NRG**

MLGS Env File

w/attachments

**PETITION FOR POST-
CERTIFICATION PROJECT
MODIFICATION**

**TITLE V PERMIT MODIFICATION
PROJECT DESCRIPTION**

**MARSH LANDING GENERATING
STATION
(08-AFC-3C)**

Submitted to:

The California Energy Commission

Submitted by:

Marsh Landing LLC

August 2020

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Figure 1 Marsh Landing Generating Station Location Map

APPENDICES

Appendix A List of Property Owners

ACRONYMS

AFC	Application for Certification
ADA	Americans with Disabilities Act
afy	acre-feet per year
ATC	Authority to Construct
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
CCR	California Code of Regulations
CCGS	Contra Costa Generating Station
CCCFFPD	Contra Costa County Fire Protection Department
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CI	compression injection
cfm	cubic feet per minute
CO	carbon monoxide
CO ₂	carbon dioxide
CPM	Compliance Project Manager
CTG	combustion turbine generator
°F	degrees Fahrenheit
GHG	greenhouse gas
gpm	gallons per minute
gr/100 scf	grain of sulfur per 100 cubic feet
g/HP-hr	grams per horsepower-hour
g/KW-hr	grams per kilowatt-hour
HP	horsepower
ICE	internal combustion engine
KW	kilowatt
MLGS	Marsh Landing Generating Station
MW	megawatt
µg/m ³	micrograms per cubic meter
ppm	parts per million
ppmv	parts per million by volume
PTC	Permit to Construct
PTO	Permit to Operate
RSA	Revised Staff Assessment
tpy	tons per year
U.S. EPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

1.0 INTRODUCTION

Marsh Landing LLC (Marsh Landing) proposes post-certification modifications to the Air Quality Conditions of Certifications for Marsh Landing Generating Station project (MLGS or project) as licensed in the August 2010, the California Energy Commission (CEC) Commission Decision (Docket 08-AFC-3C). This Petition to Modify proposes modifications to Air Quality (AQ) conditions 19, 27, 28, and 32. AQ-19 provides turbine tuning limits for oxides of nitrogen (NO_x), carbon monoxide (CO), and precursor organic compounds (POCs). Marsh Landing is requesting modification to AQ-19 to eliminate the 8-hour limitation on tuning events. AQ-27, -28, and -32 include conditions for annual source testing of the four gas turbine units for ammonia, NO_x, CO, precursor organic compounds (POCs), sulfur dioxide (SO₂), ten micron particulate matter (PM₁₀), total PM, and sulfuric acid mist (SAM). Marsh Landing is requesting a change to the change the frequency of source testing on S-1 through S-4 for from the current annual testing to once every 1,752 hours of operation of each turbine or every three years. The requested change to AQ-19 will facilitate turbine tuning, which can occur intermittently during a 24-hour day, with no impact to hourly, daily, or annual emissions. The requested changes to AQ-27, AQ-28, and AQ-32 is based on the low annual hourly operating limit for this peaking power facility (i.e., the turbines have not operated near the average annual operating limit of 1,752 hours/turbine or 7,008 hours total for the four turbines in any 3-year period, let alone in any single year).

Marsh Landing submits the following information in accordance with Title 20 California Code of Regulations Section 1769 (Section 1769) for post-certification changes to CEC licensed facilities.

This submittal describes the project modification and analyzes whether it could result in any environmental consequences not previously analyzed. As set forth below, the project modification does not materially change the environmental settings of the MLGS; nor will not result in significant impacts or impacts that could not otherwise be mitigated to less than significant by the existing license Conditions of Certification (COCs). The proposed changes will require modification to the COCs language; however, the changes will not modify the intent of the COCs or Commission Decision.

1.1 INFORMATION REQUIREMENTS FOR POST-CERTIFICATION AMENDMENTS

The following information is provided to address the requirements of the California Code of Regulations Section 1769. Section 1769 specifies that post-certification requests to modify a project must contain the following information:

- (A) *A complete description of the proposed modifications, including new language for any conditions that will be affected.*

Section 2.0 below provides a complete description of the proposed changes to the AQ conditions of certification. The proposed changes have no impact on any other conditions of certification and no modifications are proposed.

- (B) *A discussion of the necessity for the proposed modifications.*

The request to modify the language in AQ-19 is made based on experience gained over the 8 years of operation that shows that turbine tuning events may require more than 8 operational hours in a day to fully complete. Consequently Marsh Landing LLC has ended the tuning events when 8 hours has lapsed since the start of the tuning event per turbine to ensure compliance with AQ-19's time constraint, irrespective of the amount of emissions of the tuning event (i.e., despite being considerably below any of the emissions limits). The tuning events usually entail fine tuning adjustments with emissions within normal operational compliance limits and therefore, mass emissions do not typically accumulate significantly in proximity to the NO_x, CO or POC emissions limits in AQ-19. The

suggested changes to the language in AQ-19 does not change permit limits associated with NOx, CO, or POCs and only allows for tuning to extend over a time period greater than 8 hours in a 24-hour day and typically include several hours of normal operation. The requested change has no impact on daily or annual emissions limitations for NOx, CO, or POCs.

With respect to AQ-27, -28, and -32, Marsh Landing is requesting a reduction in the frequency that source testing is required for ammonia, NOx, CO, POCs, SO2, PM10, total PM, and SAM from annual to once every 1,752 hours of operation at each turbine or every three years, whichever comes first. The MLGS is permitted for a total of 7,008 combined operational hours per year. MLGS is a peaking power facility, which, based on the operational history since 2013, operates a very low percentage of its annual hourly operating limits. The request to extend the source testing period may reduce actual annual emissions by omitting annual operations but-for annual source testing only. This permit modification will not impact compliance nor result in an increase to any air emissions limits.

- (C) *If the modification is based on information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time.*

The project modification is based on project needs identified after the Commission Decision was issued and subsequent operations over several years.

- (D) *If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted.*

The project modification does not materially change or undermine the assumptions, rationale, findings, or other bases of the Commission Decision.

- (E) *An analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts.*

The project modifications will not have any adverse impacts on the environment, and no measures beyond those already included in the existing Conditions of Certification are required. Attachment A provides the application filed with the BAAQMD, and Attachment B provides the Engineering Analysis performed by the BAAQMD to evaluate potential impact from these changes.

- (F) *A discussion of the impact of the modifications on the facility's ability to comply with applicable laws, ordinances, regulations, and standards.*

The project modification will not affect the project's ability to comply with applicable laws, ordinances, regulations, and standards.

- (G) *A discussion of how the modification affects the public.*

The suggested changes to the AQ conditions will have no visible impact on the existing MLGS facility. The reduction in frequency of source testing could result in a decrease in emissions over time by reducing unit operations but-for annual source testing. The project modifications will not have any material adverse effect on the public either by installation or operation.

(H) *A list of property owners potentially affected by the modification.*

The list of property owners within 1,000 feet of the project is provided in Appendix A.

(I) *A discussion of the potential effect on nearby property owners, the public and the parties in the application proceedings.*

The project modifications will not have a material adverse effect on nearby property owners, the public or the parties to the application proceeding.

Based on the information and analysis provided herein, we believe that CEC staff can determine that: (1) there is no possibility that the project modifications may have a significant effect on the environment; (2) the project modifications will not necessitate a material change or deletion of a condition imposed by the CEC in the Commission Decision; and (3) the project modifications will not make changes that would cause the project not to comply with any applicable laws, ordinances, regulations, or standards. Therefore, pursuant to Section 1769, Commission approval would not be required for this project modification.

2.0 PROJECT DESCRIPTION

The MLGS is a peaking power facility with a nominal generating capacity of 760 MW. The plant uses four natural-gas-fired Siemens SGT6-5000F combustion turbine generators that burn natural gas to generate electrical power. The plant also includes two natural-gas-fired preheaters (5 MMBtu/hour each), a 779 hp standby diesel generator, and a 300 hp diesel fire pump engine. Construction of peaking power facility was completed in 2013 and has been in operation since that time. MLGS is operated as a peaking facility providing electricity into the power grid based on demand. MLGS is only dispatched by the system operator as needed to support grid stability as demand changes during the day. MLGS was permitted in response to increased renewable sources such as wind and solar which create a need for quick response to maintain power grid stability. There are no foreseeable changes in operating characteristics of Marsh Landing.

2.1 NECESSITY OF CHANGE

Marsh Landing is requesting a small change to the timing of combustor tuning during the scheduled tuning event to ensure flexibility for Marsh Landing to complete the tuning during the 24-hour day and not necessarily within an 8-hour period as the permit condition is currently written. This small change will not affect the permitted emissions limits. The changes to the source testing schedule are requested to reduce testing frequency in-line with actual annual plant operation as a peaking facility. The requested changes to AQ-19, -27, -28, and -32 could not have been foreseen at the onsite of project planning and permitting and are based on experience gained from the operation of the facility since 2013.

3.0 ANALYSIS OF PROJECT MODIFICATION

The sections discuss each resource area and potential impacts from construction and operation of the paving modification. Table 1 provides a summary of the environmental analysis of resource areas considered for this modification.

TABLE 1
Environmental Analysis Summary

Resource Area	Analysis
Air Quality	<i>The proposed changes to AQ-19, -27, -28 and -32 do not change emission limits on an hourly, daily or annual basis per unit or for the facility. No Impact.</i>
Biological Resources	<i>No physical construction or new equipment. No change in operation. No Impact.</i>
Cultural Resources	<i>No ground disturbance is required and no change to land use onsite. No Impact.</i>
Geology and Paleontology	<i>No physical construction, ground disturbance, or new equipment is required. No Impact.</i>
Hazardous Materials	<i>No change to operations and/or new materials needed for the requested change. No Impact.</i>
Land Use	<i>No change to land use. No Impact.</i>
Noise and Vibration	<i>No change in operation and no new equipment is required. No Impact.</i>
Public Health	<i>Potential decrease in actual annual emissions due to the potential change to triennial source testing from annual source testing, No change to permitted emissions limits or potential to emit. No Impact.</i>
Socioeconomic Resources	<i>No construction and no change to operations. No Impact.</i>
Soil and Water Resources	<i>No change to operations and no construction. No Impact.</i>
Traffic and Transportation	<i>No offsite work planned. No change to operations. No Impact.</i>
Visual Resources	<i>No construction and no new equipment will be installed. No Impact.</i>
Waste Management	<i>No hazardous waste material will be generated from this activity. No Impact.</i>
Worker Safety and Fire Projection	<i>No construction and no change to operations of the facility. No Impact.</i>

As explained further below, the proposed modification does not result in any changes to the environmental consequences of the MLGS. Furthermore, all impacts are expected to remain less than significant with

implementation of Conditions of Certification set forth in the Commission Decision and subsequent amendments.

3.1 AIR QUALITY

Marsh Landing LLC (Marsh Landing) is request changes to language in AQ-19, -27, -28, and -32 which will not result in change to emissions concentration or hourly, daily, and/or annual permitted mass emissions limits. Marsh Landing is requesting modification to AQ-19 to clarify that combustor tuning emissions should only include emissions that are in excess of normal compliant operating minutes during a 24-hour period during which a turbine tuning event has been scheduled. This request is made to facilitate tuning that may occur over longer durations (i.e., longer than 8 consecutive hours as tuning is typically an iterative/intermittent process conducted over periods of an entire calendar day); nonetheless, these operating minutes during tuning are mostly compliant with emissions limits during normal operations. This request is made based on operational experience that shows most of the tuning activities are performed in compliance with normal emission limits and are fine tuning adjustments to improve operational performance; however, these tuning efforts may occur over longer durations to capture extreme ambient conditions and different load conditions. This requested change does not change the pounds per hour emissions limitations, and/or would not be a change to the potential to emit in a given day.

The requested change to eliminate the 8-hour limitation on tune events in permit condition 19 is shown as red line strike text (~~line strike~~) in the following:

19. The owner/operator shall not perform combustor tuning on each Gas Turbine (S-1, S-2, S-3, or S-4) more than twice every consecutive 12 month period. ~~Each tuning event shall not exceed 8 hours.~~ Combustor tuning shall only be performed on one gas turbine per day. The owner/operator shall notify the District no later than 7 days prior to combustor tuning activity. The emissions during combustor tuning from each gas turbine shall not exceed the limits established below. (Basis: Offsets, Cumulative Increase)

Pollutant lb/hour	Combustor Tuning
NOx (as NO2)	80
CO	450
POC (as CH4)	30

Marsh Landing also requests a change to the frequency of source testing on S-1 through S-4 for ammonia, NOx, CO, precursor organic compounds (POCs), sulfur dioxide (SO2), ten micron particulate matter (PM10), total PM, and sulfuric acid mist (SAM) from the current annual testing to any calendar year in which any single source (S-1 through S-4) exceeds 1,752 operating hours since the last source test or every three years, whichever comes first. This requested change is shown in the following text as underlined red lettering and line strike track changes to condition 27 (ammonia), condition 28 (NOx, CO, POC, SO2, PM10, and PM), and condition 32 (SAM). The source testing includes the verification of the emissions rates in pounds per hour and pounds per million Btu's (MMBtu's) for NOx, CO, POC, SO2, PM10, PM, SAM, and concentration in parts per million (ppm) for NOx and CO. This request for change is based on the low annual operational hours due to the facility's function as a peaking power plant. This requested change does not impact either the emissions rate or concentration limits associated with any of the mentioned constituents.

27. ~~Within 90 days of start-up of each of the MLGS SGT6-5000F units,~~ The owner/operator shall conduct a District-approved source test on each corresponding exhaust point P-1, P-2, P-3, or P-4 to determine the corrected ammonia (NH3) emission concentration to determine compliance with Part 17(e). The source test shall determine the correlation between the heat input rates of the gas turbine, A-

2, A-4, A-6, or A-8 SCR System ammonia injection rate, and the corresponding NH₃ emission concentration at emission point P-1, P-2, P-3, or P-4. The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and full load modes) to establish the range of ammonia injection rates necessary to achieve NO_x emission reductions while maintaining ammonia slip levels. ~~The owner/operator shall repeat the source testing on an annual basis thereafter.~~ A source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. Ongoing compliance with Part 17(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.
(Basis: Regulation 2, Rule 5)

28. ~~Within 90 days of start-up of each of the MLGS SGT6-5000F units and on an annual basis thereafter,~~ ~~†~~The owner/operator shall conduct a District-approved source test on each corresponding exhaust point P-1, P-2, P-3 and P-4 while each Gas Turbine is operating at maximum load to determine compliance with Parts 17(a), 17(b), 17(c), 17(d), 17(f), 17(g), 17(h), 17(i) and while each Gas Turbine is operating at minimum load to determine compliance with Parts 17(c), and 17(d) and to verify the accuracy of the continuous emission monitors required in Part 24. The owner/operator shall perform a relative accuracy test audit (RATA) on the CEMS in accordance with 40 CFR Part 60 Appendix B Performance Specifications at least once per year. A source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO₂), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and total particulate matter emissions including condensable particulate matter. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.
(Basis: BACT, Offsets)

32. ~~Within 90 days of start-up of each of the first two MLGS SGT6-5000F gas turbines and on an annual basis thereafter,~~ ~~†~~The owner/operator shall conduct a District-approved source test on two of the four exhaust points P-1, P-2, P-3 or P-4 while each gas turbine is operating at maximum heat input rates to demonstrate compliance with the SAM emission rates specified in Part 33. A source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. The owner/operator shall test for (as a minimum) SO₂, SO₃, and H₂SO₄. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.
(Basis: Regulation 2, Rule 2, Section 306, and Regulation 2, Rule 2, Section 419)

3.2 BIOLOGICAL RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no ground disturbance will be required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to biological resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to biological resources expected from the implementation of the requested changes to the AQ COCs.

3.3 CULTURAL RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no ground excavation is require for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to cultural resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to cultural resources expected from the implementation of the requested changes to the AQ COCs.

3.4 LAND USE

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no changes to land use onsite or offsite required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to land use as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to land use expected from the implementation of the requested changes to the AQ COCs.

3.5 NOISE

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no operational changes are required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to noise resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to noise expected from the implementation of the requested changes to the AQ COCs.

3.6 PUBLIC HEALTH

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no significant changes to operations, and no change to air emissions or materials handling are required or anticipated for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts on public health as described in 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to public health expected from the implementation of the requested changes to the AQ COCs. .

3.7 WORKER SAFETY AND FIRE PROTECTION

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no operational changes are required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to worker safety and/or fire protection systems as described in the 2008 AFC, the 2009 AFC amendment, and as set forth in the 2010 Commission Decision. There are no impacts to worker safety and fire protection expected from the implementation of the requested changes to the AQ COCs.

3.8 SOCIOECONOMICS

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. The project modifications are entirely associated with the management of existing equipment and the implementation air quality COCs and would not alter the analysis of potential socioeconomic impacts presented in the 2008 AFC, the 2009 AFC Amendment, and

as set forth in the 2010 Commission Decision. The analysis concluded the proposed project would not induce substantial growth or concentration of population; induce substantial increases in demand for public service and utilities; displace a large number of people; disrupt or divide an established community; or result in disproportionate adverse effects on minority or low-income populations. There are no impacts to socioeconomics expected from the implementation of the requested changes to the AQ COCs.

3.9 SOILS

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no soil excavation or changes to ground cover are required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to soils resources as described in 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to soil resources expected from the implementation of the requested changes to the AQ COCs.

3.10 TRAFFIC AND TRANSPORTATION

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and although less frequent source testing is expected, there will be no change to the frequency to which subcontractors will be required to be onsite for annual testing. Therefore, these modifications would not change the analysis of impacts to traffic and transportation resources as described in 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to traffic and transportation resources expected from the implementation of the requested changes to the AQ COCs.

3.11 VISUAL RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no change is required to the facility for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to visual resources as described in 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to visual resources expected from the implementation of the requested changes to the AQ COCs.

3.12 HAZARDOUS MATERIALS

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no change to material handling is expected for the proposed project modifications. Therefore, these modifications would not change the analysis of hazardous materials as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts expected to hazardous materials management from the implementation of the requested changes to the AQ COCs.

3.13 WASTE MANAGEMENT

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no change is required to the waste management for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts waste management as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to waste management resources expected from the implementation of the requested changes to the AQ COCs.

3.14 WATER RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no change is required to the water use or water discharge for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to water resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in 2010 Commission Decision. There are no impacts to water resources expected from the implementation of the requested changes to the AQ COCs.

3.15 GEOLOGIC HAZARDS AND RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no ground excavation is required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts from geological hazards or geological resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to geological resources expected from the implementation of the requested changes to the AQ COCs.

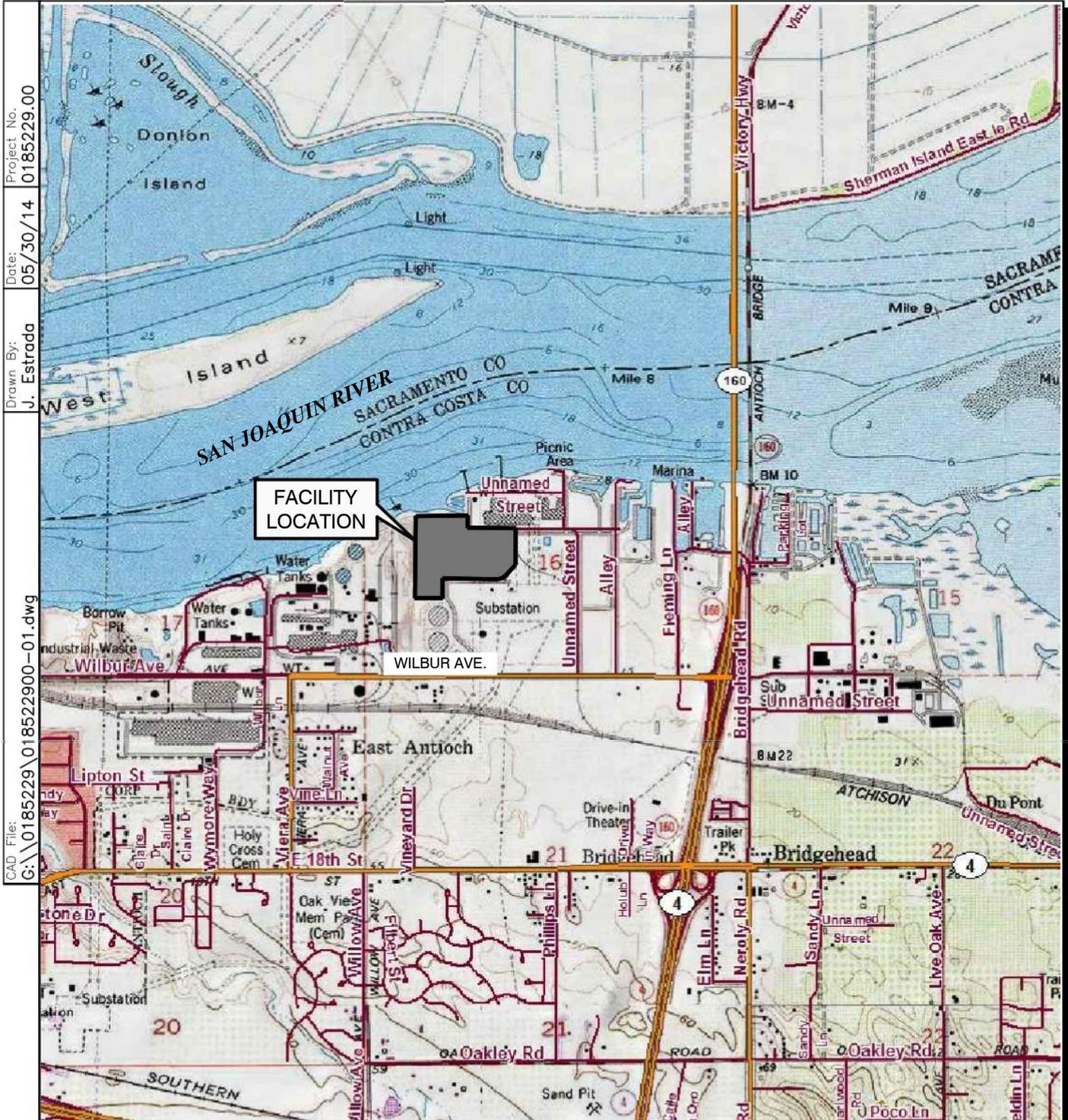
3.16 PALEONTOLOGICAL RESOURCES

The project modifications are primarily administrative changes to AQ COCs with no change to existing equipment nor to the facility and its operations. No new equipment will be installed and no ground excavation is required for the proposed project modifications. Therefore, these modifications would not change the analysis of impacts to paleontological resources as described in the 2008 AFC, the 2009 AFC Amendment, and as set forth in the 2010 Commission Decision. There are no impacts to paleontological resources expected from the implementation of the requested changes to the AQ COCs.

4.0 REFERENCES

- BAAQMD (Bay Area Air Quality Management District), 2019a. Major Facility Review Title Permit to Operate, Marsh Landing LLC Marsh Landing Generating Sta), PO Box 1687, Antioch, CA 94509, September.
- BAAQMD (Bay Area Air Quality Management District), 2020a. Permit to Operate, Marsh Landing LLC (Marsh Landing Generating Sta), PO Box 1687, Antioch, CA 94509, January.
- CEC (California Energy Commission), 2010a. Revised Staff Assessment, Marsh Landing Generating Station. June.
- CEC (California Energy Commission), 2010b. Commission Decision, Marsh Landing Generating Station. August.
- CEC (California Energy Commission), 2012a. Marsh Landing Generating Station, Staff Analysis of Proposed Modifications for Project Design Refinements. Docket Number 64111. March.
- CEC (California Energy Commission), 2012b. Notice of Decision, Marsh Landing Generating Station. Docket Number 65074. May 1.
- CEC (California Energy Commission), 2012c. Order Approving a Petition to Incorporate Design Refinements Docket Number 65221. May 15.
- CEC (California Energy Commission), 2012d. Order Approving a Petition to Modify Condition of Certification BIO-8 Docket Number 68754. December 3.
- CEC (California Energy Commission), 2014. Order No. 14-1117-8 - Approving Modifications to Air Quality and Biological Resources Conditions of Certification. Docket Number 203440. November 17.
- URS (URS Corporation), 2008. Application for Certification. Marsh Landing Generating Station. May.
- URS (URS Corporation), 2009. Application for Certification Amendment. Marsh Landing Generating Station. September.
- URS (URS Corporation), 2012. Petition for Approval of Project Design Refinements. Docket Number TN 63551. January.

FIGURES



Project No. 0185229.00
 Date: 05/30/14
 Drawn By: J. Estrada
 CAD File: C:\0185229\018522900-01.dwg

SCALE 1: 24,000

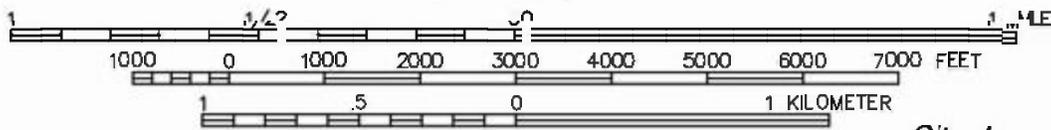


Figure 1
Site Location Map
Marsh Landing Generating Station
NRG Marsh Landing, LLC
3201-C Wilbur Avenue
Antioch, California

References:
 TOPO!® Software
 U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,
 Antioch, California
 Dated 1997

APPENDIX A
LIST OF PROPERTY OWNERS

051 031 015
PACIFIC GAS & ELECTRIC CO
PO BOX 770000
SAN FRANCISCO CA 94177-0001

051 031 016
PACIFIC GAS & ELECTRIC CO
5555 FLORIN PERKINS RD
SACRAMENTO, CA 95826

051 031 020
SOUTHERN ENERGY DELTA LLC
804 CARNEGIE CENTER
PRINCETON, NJ 08540

051 031 021
PACIFIC GAS & ELECTRIC CO
PO BOX 770000
SAN FRANCISCO CA 94177-0001

051 031 005
2101-2603 WILBUR LLC
1515 DES PERES RD #300
SAINT LOUIS MO 63131-1846