

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 16, 2017

Advice Letter 5042-E

Erik Jacobson
Director, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

**SUBJECT: Encroachment Agreement with Sacramento Regional Transit District
Request for Approval Under Section 851 and General Order 173**

Dear Mr. Jacobson:

Advice Letter 5042-E is effective as of August 10, 2017, per Resolution E-4856
Ordering Paragraph.

Sincerely,

A handwritten signature in dark ink, appearing to read "Edward Randolph".

Edward Randolph
Director, Energy Division

March 30, 2017

Advice 5042-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Encroachment Agreement with Sacramento Regional Transit District
– Request for Approval Under Section 851 and General Order 173**

Purpose

Pacific Gas and Electric Company (PG&E) requests approval under Public Utilities Code Section 851 (Section 851) and General Order 173 to grant an encroachment agreement (Agreement) to the Sacramento Regional Transit District, a Public Corporation (RT). The Agreement permits the encroachment of a light rail system and passenger station platform (Improvements) within PG&E's Easement Area (PG&E Easement).

A copy of the Agreement is attached hereto as Attachment 1. PG&E has inspected the encroachment agreement and has determined that granting the encroachment will not interfere with PG&E's operations or its ability to provide utility services to its customers. In addition, PG&E believes that granting this encroachment will not be adverse to the public interest.

Background

PG&E owns land, buildings, and other facilities in connection with the provision of electric and natural gas services to its customers throughout northern and central California. In the provision of these services, PG&E relies on a portfolio of fee properties, rights-of-way, and facilities to support its electric and gas activities. Relevant to this advice letter, PG&E owns an Easement for electric transmission facilities located in the City of Sacramento (APN 117-0140-044 - previously 117-0140-040 & 006).

RT is the legal owner of a certain easement for public transit purposes, as set forth in the Easement Grant Deed recorded in Book 20120404 of Official Records at page 0188, Sacramento County Records, (RT Easement) legally described in Exhibit A of Attachment 1. The RT Easement occupies a portion of the PG&E Easement and is

subject to the PG&E Easement (Area of Common Use) and is legally described in Exhibit B of Attachment 1. A portion of the Improvements encroach within the Area of Common Use, but do not interfere with the present full use of the Area of Common Use by PG&E. PG&E is therefore willing to agree to allow such encroachments within the Area of Common Use on the terms and subject to the conditions set forth in the Agreement.

RT's Improvements were constructed as part of the South Sacramento Corridor Light Rail Phase 2 Project (LRT Project) and is located within one of the fastest growing areas of Sacramento County. The LRT Project is intended to fulfill the need for additional peak-period transportation capacity and to help the region meet its air quality goals as part of the SACOG Air Quality Conformity Model.

PG&E and RT have been negotiating an encroachment agreement since 2010, which was finalized and signed by RT in September 2015. During negotiations, PG&E communicated to RT that construction of the light rail system and passenger station platform could not begin until a maintenance agreement was in place to address maintenance and operations of PG&E's facilities. As part of the negotiations it was decided to incorporate the maintenance agreement into the encroachment agreement resulting in the Encroachment Agreement attached as Attachment 1. Construction of the light rail system has since been completed and is in operation with the public.

Though RT constructed the Improvements against the direction of PG&E, PG&E has inspected the area and determined that the Improvements, pursuant to the plans and specifications approved by PG&E as shown in the Agreement (Attachment 1), do not interfere with the present full use of the Area of Common Use by PG&E. Among the terms and conditions of the Agreement, PG&E reserves the right to use the Encroachment Area at any time and for any purposes it deems necessary or appropriate when in the interest of its service to its patrons or consumers or the public. *Id.*, Section 9. Further, the Agreement prohibits RT from altering, adding or improving any additional buildings or structures on the Area of Common Use that encroaches upon or over the Easement Area. RT shall be responsible for keeping the Improvements in good condition and repair. *Id.*, Sections 5, 8.

For the above reasons, PG&E respectfully requests the Commission approve this Section 851 request to grant RT the encroachment of the Improvements over this Area of Common Use, and find that doing so is not adverse to the public interest¹ because it will not impair PG&E's provision of safe and reliable utility service to customers.

¹ "The Commission has long recognized that the public interest is served when utility property is used for other productive purposes without interfering with the utility's operations or the provision of utility services to the public." (D.06-07-023, p. 1.)

In accordance with General Order 173, Rule 4, PG&E provides the following information related to the proposed transaction:

(a) Identity and Addresses of All Parties to the Proposed Transaction:

Pacific Gas and Electric Company	Sacramento Regional Transit District	Sacramento Regional Transit District
Darren P. Roach	Darryl J. Abansado	Bruce Behrens
Law Department	P.O. Box 2110	Chief Counsel
P.O. Box 7442	Sacramento, CA 95812-2110	Telephone: (916) 321-2973
San Francisco, CA 94120	Telephone: (916) 321-3876	Facsimile: (916) 444-2156
Telephone: (415) 973-6345	Facsimile: (916) 454-6016	Email: bbehrens@sacrt.com
Facsimile: (415) 973-5520	Email: dabansado@sacrt.com	
Email: DPRC@pge.com		

(b) Complete Description of the Property Including Present Location, Condition and Use:

The PG&E Easement is located in the City of Sacramento, State of California, more specifically the Legal Description and Drawing of the encroachment area is attached hereto in Exhibits A, B, C, and D of the Attachment 1. It is identified as Assessor's Parcel Numbers APN 117-0140-044 - previously 117-0140-040 & 006. The real property is owned by Los Rios Community College District with PG&E owner of that certain easement and right-of-way for electric transmission facilities as set forth in the Grant of Easement dated March 2, 1967 (see Attachment 2).

(c) Intended Use of the Property:

RT has constructed a light rail system and passenger station platform, which includes: a removable shelter, tracks, drainage structures, overhead contact system wires, poles and hardware, signal system including grade crossing gates and warning devices; fencing, concrete station platform, passenger amenities such as ramps, display cases, signage, benches, light poles, overhead message signs, and other improvements associated therewith, a portion of which are within the Area of Common Use

(d) Complete Description of Financial Terms of the Proposed Transaction:

PG&E is not collecting any use fees associated with granting the Agreement. The light rail system and passenger station platform within the Easement does not rise to the level of a right that has any realizable economic value to PG&E.

(e) Description of How Financial Proceeds of the Transaction Will Be Distributed:

Not Applicable.

(f) Statement on the Impact of the Transaction on Ratebase and Any Effect on the Ability of the Utility to Serve Customers and the Public:

The transaction will not impact PG&E's provision of safe and reliable utility service to customers.

(g) The Original Cost, Present Book Value, and Present Fair Market Value for Sales of Real Property and Depreciable Assets, and a Detailed Description of How the Fair Market Value Was Determined (e.g., Appraisal):

Not Applicable.

(h) The Fair Market Rental Value for Leases of Real Property, and a Detailed Description of How the Fair Market Rental Value Was Determined:

Not Applicable.

(i) The Fair Market Value of the Easement or Right-of-Way, and a Detailed Description of How the Fair Market Value Was Determined:

Not Applicable

(j) A Complete Description of any Recent Past (Within the Prior Two Years) or Anticipated Future Transactions that May Appear To Be Related to the Present Transaction:

There are no recent, past or anticipated future transactions that appear related to the present transaction.

(k) Sufficient Information and Documentation (Including Environmental Information) to Show that All of Eligibility Criteria Set Forth in Rule 3 of General Order 173 are Satisfied:

PG&E has provided information in this Advice Letter to satisfy the eligibility criteria under General Order 173 in that:

- The activity proposed in the transaction does not require environmental review by the CPUC as a Lead Agency;

- The transaction will not have an adverse effect on the public interest or on the ability of PG&E to provide safe and reliable service to its customers;
- The transaction will not impact the rate base of PG&E; and
- The transaction does not warrant a more comprehensive review that would be provided through a formal Section 851 application.

(l) Additional Information to Assist in the Review of the Advice Letter:

No information is readily available other than what has already been included within this advice letter filing.

(m) Environmental Information

Pursuant to General Order 173, the Advice Letter program applies to proposed transactions that will not require environmental review by the CPUC as a lead agency under the California Environmental Quality Act ("CEQA") either because: (a) a statutory or categorical exemption applies (the applicant must provide a Notice of Exemption from the Lead Agency or explain why an exemption applies), or (b) because the transaction is not a project under CEQA (the applicant must explain the reasons why it believes that the transaction is not a project), or (c) because another public agency, acting as the Lead Agency under CEQA, has completed environmental review of the project, and the Commission is required to perform environmental review of the project only as a Responsible Agency under CEQA.

For this advice letter, RT has completed environmental review as a Lead Agency, and the Commission can serve as a Responsible Agency.

c. CPUC as a Responsible Agency under CEQA

If another public agency, acting as the Lead Agency under CEQA, has completed an environmental review of the project and has approved the final CEQA documents, and the Commission is a Responsible Agency under CEQA, the applicant shall provide the following.

- a. The name, address, and phone number of the Lead Agency, the type of CEQA document that was prepared (Environmental Impact Report, Negative Declaration, Mitigated Negative Declaration), the date on which the Lead Agency approved the CEQA document, the date on which a Notice of Determination was filed.

Lead Agency	Sacramento Regional Transit 1225 R Street Sacramento, CA 95811
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	Attention: Diane Nakano Phone: (916) 321-3853
Type of CEQA Document Prepared	Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report
Date Certified SEIR Approved	October 27, 2008
Date Notice of Determination Filed	October 27, 2008

- b. A copy of all CEQA documents prepared by or for the Lead Agency regarding the project and the Lead Agency's resolution or other document approving the CEQA documents.

See Attachment 3.

- c. A list of section and page numbers for the environmental impacts, mitigation measures, and findings in the prior CEQA documents that relate to the approval sought from the Commission.

See Attachment 3.

- d. An explanation of any aspect of the project or its environmental setting which has changed since the issuance of the prior CEQA document.

An Addendum was prepared by Sacramento Regional Transit District in November 2015 and is included as Attachment 7. The Addendum identified additional modifications to specific sections of the larger LRT Project. The section of the encroachment area relevant to this transaction was not an element of the Addendum.

- e. A statement of whether the project will require approval by additional public agencies other than the Commission and the Lead Agency, and, if so, the name and address of each agency and the type of approval required.

PG&E is not aware of other public agency approval requirements aside from Sacramento Regional Transit and the Commission.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than April 19, 2017, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-1448
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

Pursuant to the review process outlined in General Order 173, PG&E requests that this Tier 3 advice filing become effective upon disposition by a Commission resolution.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Erik Jacobson
Director, Regulatory Relations

Attachments

- Attachment 1 – Encroachment Agreement
- Attachment 2 – PG&E Grant of Easement
- Attachment 3 – Relevant Sections of Supplemental Environmental Impact Report
(Supplemental EIR available upon request)
- Attachment 4 – Record of Decision
- Attachment 5 – Notice of Determination
- Attachment 6 – Sacramento Regional Transit District's issued Resolution
- Attachment 7 – Addendum

******* SERVICE LIST Advice 5042-E *******
APPENDIX A

Jonathan Reiger
Legal Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 355-5596
jzr@cpuc.ca.gov

Mary Jo Borak
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703-1333
bor@cpuc.ca.gov

Robert (Mark) Pocta
Office of Ratepayer Advocates
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703- 2871
rmp@cpuc.ca.gov

Andrew Barnsdale
Energy Division
505 Van Ness Avenue
San Francisco, CA 94102
(415) 703-3221
bca@cpuc.ca.gov

Sacramento Regional Transit District
Darryl J. Abansado
P.O. Box 2110
Sacramento, CA 95812-2110
Telephone: (916) 321-3876
Facsimile: (916) 454-6016
Email: dabansado@sacrt.com

Sacramento Regional Transit District
Bruce Behrens
Chief Counsel
Telephone: (916) 321-2973
Facsimile: (916) 444-2156
Email: bbehrens@sacrt.com

Sacramento County Clerk/Recorder
P.O. Box 839
Sacramento, CA 95812-0839
Telephone: (916) 874-6334

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 E)**

Utility type:

☒ ELC

☐ GAS

☐ PLC

☐ HEAT

☐ WATER

Contact Person: Kingsley Cheng

Phone #: (415) 973-5265

E-mail: k2c0@pge.com and PGETariffs@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric

GAS = Gas

PLC = Pipeline

HEAT = Heat

WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **5042-E**

Tier: 3

Subject of AL: **Encroachment Agreement with Sacramento Regional Transit District – Request for Approval Under Section 851 and General Order 173**

Keywords (choose from CPUC listing): Compliance, Agreements

AL filing type: ☐ Monthly ☐ Quarterly ☐ Annual ☒ One-Time ☐ Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: N/A

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: No

Confidential information will be made available to those who have executed a nondisclosure agreement: N/A

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: _____

Resolution Required? ☒ Yes ☐ No

Requested effective date: **Upon Commission Approval**

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed: N/A

Pending advice letters that revise the same tariff sheets: N/A

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

California Public Utilities Commission

Energy Division

EDTariffUnit

505 Van Ness Ave., 4th Flr.

San Francisco, CA 94102

E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Erik Jacobson

Director, Regulatory Relations

c/o Megan Lawson

77 Beale Street, Mail Code B10C

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Advice 5042-E
March 30, 2017

Attachment 1

Encroachment Agreement

RECORDING REQUESTED BY AND RETURN TO:

PACIFIC GAS AND ELECTRIC COMPANY

Land Services Office

Attn: Dawn Plisé

2730 Gateway Oaks, Suite 220

Sacramento, CA 95833

Location: City/Uninc _____

Recording Fee \$ _____

Document Transfer Tax \$ _____

☐ This is a conveyance where the consideration and Value is less than \$100.00 (R&T 11911).

☐ Computed on Full Value of Property Conveyed, or

☐ Computed on Full Value Less Liens & Encumbrances Remaining at Time of Sale

Signature of declarant or agent determining tax

(APN 117-0140-044 – previously 117-0140-040 & 006)

ENCROACHMENT AGREEMENT

This Encroachment Agreement (this “**Agreement**”) is made and entered into this ____ day of _____, 20__ by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called “**PG&E**”, and SACRAMENTO REGIONAL TRANSIT DISTRICT, a public corporation, hereinafter called “**RT**.”

RECITALS

A. PG&E is the owner of those certain easements and right-of-ways for its electric transmission facilities and for all other purposes connected therewith, as set forth in the Grant of Easement dated March 2, 1967 and recorded in Book 670329 of Official Records at page 470, and in the Grant of Easement dated March 2, 1967 and recorded in Book 670329 of Official Records at page 454, Sacramento County Records (collectively, the “**PG&E Easement**”). The PG&E Easement encumbers the real property owned by Los Rios Community College District, a California Community College District, within the City of Sacramento, State of California, Assessor’s Parcel Number 117-0140-044 (previously 117-0140-040 & 006). Among other things, the PG&E Easement expressly restricts the construction or erection of any building or other structure within the PG&E Easement.

B. RT is the owner of a certain easement for public transit purposes, as set forth in the Easement Grant Deed recorded in Book 20120404 of Official Records at page 0188, Sacramento County Records, (hereinafter, the "**RT Easement**") legally described in **Exhibit "A"** attached hereto and made a part hereof. The RT Easement occupies a portion of the PG&E Easement and is subject to the PG&E Easement, which portion is hereinafter referred to as "**Area of Common Use**" and is legally described in **Exhibit "B"** attached hereto, and the Area of Common Use is cross hatched and shown on the drawing labeled **Exhibit "C"** attached hereto, which exhibits are made a part hereof.

C. RT is in the process of constructing a light rail system and passenger station platform, which includes: a removable shelter, tracks, drainage structures, overhead contact system wires, poles and hardware, signal system including grade crossing gates and warning devices; fencing, concrete station platform, passenger amenities such as ramps, display cases, signage, benches, light poles, overhead message signs, and other improvements associated therewith (the "**Improvements**") a portion of which are within the Area of Common Use. RT has requested that PG&E grant permission for the presence of the Improvements within the Area of Common Use. PG&E has determined that the Improvements, being constructed pursuant to plans and specifications approved by PG&E as shown on the drawing labeled Exhibit "D" attached hereto and made a part hereof, do not interfere with the present full use of the Area of Common Use by PG&E, and PG&E is therefore willing to agree to allow such encroachments within the Area of Common Use on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, RT and PG&E hereby agree as follows:

1. Consent to Encroachment. Notwithstanding the prohibition in the PG&E Easement, PG&E hereby consents to the encroachment of the **Improvements** in the manner and location as more specifically set forth in **Exhibit "B" and "C"** subject to the PG&E Easement and right to use said Area of Common Use for all of the purposes for which the PG&E Easement was acquired and to the terms and conditions set forth herein. PG&E does not by this Agreement and shall not be deemed to subordinate its rights in the Area of Common Use to and use which RT shall make of said area.

2. Governmental Approvals. This Agreement shall not become effective, notwithstanding that it may have been executed and delivered by the parties, unless the California Public Utilities Commission (the "**CPUC**") approves this Agreement as required by Section 851 of the Public Utilities Code and the terms and conditions of such CPUC approval are satisfactory to PG&E in its sole and absolute discretion. This Agreement is made subject to all the provisions of such approval in like manner as though such provisions were set forth in full herein. PG&E must notify RT at the time of filing the application, notify RT promptly of approval of the Agreement, and inform RT promptly if the CPUC has not approved the Agreement within 120 days after the filing.

3. Indemnification; Release.

(a) Indemnification. RT shall, to the maximum extent permitted by law, indemnify, protect, defend and hold harmless PG&E, its parent corporation, subsidiaries and affiliates, and their respective officers, managers, directors, representatives, agents, employees, transferees, successors and assigns (each, an "**Indemnitee**" and collectively, "**Indemnitees**") from and against all claims, losses (including, but not limited to, diminution in value), actions, demands, damages, costs, expenses (including, but not limited to, experts fees and reasonable attorneys' fees and costs) and liabilities of whatever kind or nature (collectively, "**Claims**"), that arise from or are in any way connected with the occupancy or use of the Area of Common Use by RT or RT's contractors, agents, or invitees, or the exercise by RT of its rights hereunder, or the performance of, or failure to perform, RT's duties under this Agreement, including, but not limited to, Claims arising out of: (1) injury to or death of persons, including but not limited to employees of PG&E; (2) injury to property or other interest of PG&E, RT or any third party; (3) violation of any applicable federal, state, or local laws, statutes, regulations, or ordinances, including all legal requirements relating to human health or the environment, and including any liability which may be imposed by law or regulation without regard to fault; excepting only, with respect to any Indemnitee, any Claim arising from the active negligence or willful misconduct of such Indemnitee. If any action or proceeding is brought against any Indemnitee for any Claim against which RT is obligated to indemnify or provide a defense hereunder, RT, upon written notice from PG&E, must defend such action or proceeding at RT's sole expense by counsel approved by PG&E, which approval shall not be unreasonably withheld, conditioned or delayed.

(b) Release. RT accepts all risk relating to its occupancy and use of the Area of Common Use. PG&E shall not be liable to RT for, and RT hereby waives, releases, exonerates, discharges and covenants not to sue PG&E and the other Indemnitees from, any and all liability, whether in contract, tort or on any other basis, for any injury, damage, or loss resulting from or attributable to any occurrence on or about the Area of Common Use, the condition of the Area of Common Use, the use or occupancy of the Area of Common Use by RT, or PG&E's operation and maintenance of PG&E's facilities in the vicinity of the Area of Common Use, except, in the case of any Indemnitee, any injury, damage, or loss arising from the active negligence or willful misconduct of such Indemnitee.

4. Compliance with Laws. RT shall, at its sole cost and expense, promptly comply with all laws, statutes, ordinances, rules, regulations, requirements or orders of municipal, state, and federal authorities now in force or that may later be in force, with the conditions of any permit, relating to RT's use or occupancy of the Area of Common Use.

5. Alterations. Except for the Improvements authorized to be constructed pursuant to this Agreement, RT shall not construct any additional buildings or structures on the Area of Common Use or make any alteration, addition or improvement to the Area of Common Use that would increase the area occupied by the Improvements, either horizontally or vertically. RT shall not drill, bore or excavate on the Area of Common Use, except in connection with construction of the Improvements pursuant to plans and specifications approved by PG&E.

6. Damage or Destruction. If any Improvements that encroach onto the Area of Common Use are damaged, destroyed, demolished or otherwise require replacement, RT may rebuild the same Improvements as previously approved by PG&E.

7. Condition of the Area of Common Use. RT accepts the Area of Common Use in its existing physical condition, without warranty by PG&E or any duty or obligation on the part of PG&E to maintain the Area of Common Use for the Improvements. RT understands that numerous hazards, environmental or otherwise, may be located in, on, or underlying the Area of Common Use, and that hazardous materials may be used in connection with PG&E facilities that may be operated in the Area of Common Use, and agrees that entry onto the Area of Common Use is at RT's sole risk and expense.

8. Maintenance. RT is responsible for the maintenance of the Improvements in good condition and repair, and RT must coordinate all activities regarding the maintenance of the Improvements to reasonably minimize any interference with the use by PG&E of the Area of Common Use, and RT must conduct its activities in such a manner so as not to endanger the PG&E Easement, the environment and human health and safety. Due to the proximity of RT's facilities near PG&E's electric transmission line, RT is responsible for studying and protecting its facilities and the safety of the public (within and outside the Area of Common Use) in the event there is a fault on PG&E's facilities. RT is responsible for remediation of any hazardous materials release caused by RT and for cleaning and removing debris and/or promptly repairing any damages to the Area of Common Use caused by any entry or activity by RT.

9. Reserved Rights. Except as expressly set forth herein, this Agreement shall not in any way alter, modify or terminate any provision of the PG&E Easement or the priority thereof over the title of RT in said Area of Common Use. PG&E reserves the right to use the Area of Common Use for such purposes as it may deem necessary or appropriate if, and whenever, in the interest of its service to its patrons or consumers or the public, it shall appear necessary or desirable to do so. Furthermore, PG&E reserves the right to restrict access to the Area of Common Use if emergency repairs or maintenance are required to PG&E facilities in the vicinity of the Area of Common Use.

If PG&E later determines that RT's use under this Encroachment Agreement unreasonably interferes or is fundamentally incompatible with PG&E's or its successor's use of the Area of Common Use under the PG&E Easement, PG&E must provide notice to RT. PG&E and RT will work in good faith to negotiate an agreement for the relocation, operation and maintenance of the Improvements, or the relocation of PG&E's facilities to a new location with satisfactory rights to PG&E, to eliminate any conflict, at the expense of RT.

If RT and PG&E are unable to reach an agreement to avoid a conflict, RT will remove the conflicting Improvements.

10. Work Coordination. Both RT and PG&E must use the Area of Common Use in such manner as not to interfere unreasonably with the rights of the other. Nothing herein contained shall be construed as a release or waiver of any claim for compensation or damages that PG&E or RT may now have or may hereafter acquire resulting from the construction of additional facilities or the alteration of existing facilities by either RT or PG&E in such a manner as to cause an

unreasonable interference with the use of said Area of Common Use by the other party. Both parties acknowledge that the operation of RT's light rail system in the Area of Common Use may be in constant or frequent use during the progress of any work by PG&E to its facilities. RT must cooperate with PG&E to ensure that PG&E will have access for any construction, reconstruction, replacement, removal, maintenance or repair of its facilities within the Area of Common Use, which access shall not be unreasonably conditioned, withheld or delayed. RT shall cooperate with PG&E if any Improvements require temporary removal to accommodate PG&E's work. RT must remove such Improvements requested by PG&E within 30 days' advance notice; however, for any removal of Improvements that will prevent RT from operating its light rail, PG&E must provide more than 30 days' notice whenever possible. If an emergency arises, requiring immediate attention, PG&E must provide as much notice as reasonably practical to RT before commencing any work. In all other circumstances, PG&E must notify RT at least seventy-two (72) hours in advance of commencement of any work within the Area of Common Use and obtain a Track Warrant from RT prior to commencing any work. A Red Tag Permit may also be required, if the work requires a shutdown of RT's traction power system. Any such Track Warrant or Red Tag Permit shall not be unreasonably withheld, conditioned or delayed by RT and issued within 72 hours of PG&E's advance notice. RT will determine and inform PG&E whether any flagman need be present and whether there will be a need to implement any special protective or safety measures to ensure the safe operation of RT's light rail system during the time of any such construction, reconstruction, replacement, removal, maintenance or repair of PG&E's facilities. If any flagman or other special protective or safety measures are performed by RT, such services will be performed at RT's sole expense.

To promote the safe and reliable maintenance and operation of PG&E's utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between PG&E's utility facilities and surrounding objects or construction activities. RT shall not perform any excavation work within twenty-five (25) feet of PG&E's footing(s) for its lattice structures and tubular steel pole(s). RT's Improvements within the Area of Common Use must provide for utility access and prevent encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

11. Insurance. Prior to the Effective Date of this Agreement, RT must procure, and thereafter RT shall carry and maintain in effect at all times the following insurance: Worker's Compensation in compliance with applicable labor codes, acts, laws or statutes, state or federal, where RT performs work and Employer's Liability insurance with limits not be less than \$1,000,000 for injury or death, each accident; Commercial General Liability for bodily injury and property damage with limits of not less than \$3,000,000 each occurrence/\$2,000,000 aggregate; Business Auto, code 1 "any auto" combined single limit no less than \$1,000,000 each accident. RT must ensure that its agents, contractors and subcontractors to comply with the insurance requirements of this Agreement at all relevant times with the following modifications: the limits for agents, contractors and subcontractors are reduced to \$1,000,000 aggregate for Commercial General Liability and the Business Auto limit is reduced to \$500,000. PG&E reserves the right to review and modify from time to time the coverage and limits of coverage required herein, as well as the deductibles and/or self-insurance retentions in effect from time to time. RT may elect to self-insure for any or all of the required coverage.

12. Notice. Any notices or communications hereunder shall be in writing and shall be personally delivered or sent by first class mail, certified or registered, postage prepaid, or sent by national overnight courier, with charges prepaid for next business day delivery, addressed to the addressee party at its address or addresses listed below, or to such other address or addresses for a party as such party may from time to time designate by notice given to the other party. Notices shall be deemed received, if sent by personal delivery upon actual receipt by the party being sent the notice, or on the expiration of three (3) business days after the date of mailing, or on the following business day if sent by overnight courier

If to PG&E by standard U.S. mail or by registered or certified mail, return receipt requested:

Pacific Gas and Electric Company
Attention: Land Rights Supervisor
343 Sacramento Street
Auburn, CA 95603

With a copy to:

Law Department
Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, California 94120
Attention: Director & Counsel, Contracts Section (Real Estate)

If to PG&E by personal delivery or overnight courier:

Pacific Gas and Electric Company
Attn: Land Rights Supervisor
343 Sacramento Street
Auburn, CA 95603

With a copy to:

Law Department
Pacific Gas and Electric Company
77 Beale Street, Mail Code B30A
San Francisco, CA 94105
Attn: Director & Counsel, Contracts Section (Real Estate)

If to RT:

Sacramento Regional Transit District
Attn: Real Estate Administrator
P.O. Box 2110
Sacramento, CA 95812-2110

13. Governing Law. This Agreement shall in all respects be interpreted, enforced, and governed by and under the laws of the State of California.

14. Entire Agreement. This Agreement supersedes all previous oral and written agreements between and representations by or on behalf of the parties and constitutes the entire agreement of the parties with respect to the subject matter hereof. This Agreement may not be amended except by a written agreement executed by the parties.

15. Binding Effect. This Agreement and the covenants and agreements contained herein shall be binding upon, and shall inure to the benefit of, the parties hereto and their respective heirs, successors and assigns (subject to the provisions of Section 16 below). No assignment or delegation by RT, whether by operation of law or otherwise, shall relieve RT of any of its duties, obligations or liabilities hereunder, in whole or in part.

16. Assignment. This Agreement and the rights of RT hereunder may not be separately assigned, transferred, conveyed or encumbered. Any purported assignment, transfer, conveyance or encumbrance violating the foregoing condition shall be void and of no effect.

17. Attorneys' Fees. If either party brings an action against the other party, by reason of or alleging the failure of the other party with respect to any or all of its obligations hereunder, whether for declaratory or other relief, then the party which prevails in such action shall be entitled to its reasonable attorneys' fees (of both in-house and outside counsel) and expenses related to such action, in addition to all other recovery or relief. A party shall be deemed to have prevailed in any such action (without limiting the generality of the foregoing) if such action is dismissed upon the payment by the other party of the sums allegedly due or the performance of obligations allegedly not complied with, or if such party obtains substantially the relief sought by it in the action, irrespective of whether such action is prosecuted to judgment.

18. No Waiver. No waiver with respect to any provision of this Agreement shall be effective unless in writing and signed by the party against whom it is asserted. No waiver of any provision of this Agreement by a party shall be construed as a waiver of any subsequent breach or failure of the same term or condition, or as a waiver of any other provision of this Agreement.

19. Captions. The captions in this Agreement are for reference only and shall in no way define or interpret any provision hereof.

20. Counterparts. This Agreement may be executed in identical counterpart copies, each of which shall be an original, but all of which taken together shall constitute one and the same agreement.

21. Recording. RT hereby consents and agrees to the recording by PG&E of this Agreement, and agrees to sign any additional documents reasonably required to complete such recording.

22. Ratification of PG&E Easement. Except as modified by this Agreement in regard to the PG&E Easement, all of the terms, conditions and provisions of the PG&E Easement remain in full force and effect and are hereby ratified and confirmed. To the extent the terms of the PG&E Easement are inconsistent with this Agreement, the terms of this Agreement control.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first set forth above.

"PG&E"

"RT"

PACIFIC GAS AND ELECTRIC COMPANY,
a California corporation

SACRAMENTO REGIONAL TRANSIT
DISTRICT, a public corporation

By: _____
Robert L. Jones

By:  _____
MICHAEL R. WILEY
General Manager/CEO

Its: Manager, Land Rights and Encroachment
Management

State of California

County of _____)

On _____, before me, _____,

Here insert name and title of the officer

personally appeared _____

_____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

(Seal)

CAPACITY CLAIMED BY SIGNER

- ☐ Individual(s) signing for oneself/themselves
- ☐ Corporate Officer(s) of the above named corporation(s)
- ☐ Trustee(s) of the above named Trust(s)
- ☐ Partner(s) of the above named Partnership(s)
- ☐ Attorney(s)-in-Fact of the above named Principal(s)
- ☐ Other _____

October 20, 2010

APN 117-0140-040

A non exclusive easement for the purpose of constructing, operating and maintaining a Transit System, including utilities and all necessary appurtenances on, over, under and across the following described property.

A portion of the tract of land described in Partnership Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties, State of California, in Book 670329, Page 474, Official Records of Sacramento County, located in Section 15, Township 7 North, Range 5 East, Mount Diablo Meridian, City of Sacramento, Sacramento County, California being more particularly described as follows:

Beginning at a point on the southerly line of said tract and from said point the Southeast corner of said tract bears North 89°14'18" East along said southerly line for a distance of 38.82 feet; thence from the point of beginning the following twenty-three (23) consecutive courses and distances;

1. along said southerly line South 89°14'18" West for a distance of 74.96 feet;
2. leaving said southerly line North 00°13'54" West for a distance of 49.79 feet;
3. North 89°56'15" East for a distance of 16.29 feet;
4. North 00°07'13" East for a distance of 133.57 feet;
5. North 89°58'19" West for a distance of 107.63 feet;
6. North 00°00'00" West for a distance of 449.21 feet;
7. North 32°01'43" West for a distance of 24.77 feet;
8. South 90°00'00" West for a distance of 41.49 feet;
9. North 00°00'00" West for a distance of 8.50 feet;
10. South 90°00'00" West for a distance of 28.00 feet;
11. North 00°00'00" West for a distance of 23.00 feet;
12. North 90°00'00" East for a distance of 155.00 feet;
13. North 45°03'36" East for a distance of 40.06 feet;
14. North 00°07'13" East for a distance of 792.93 feet;
15. along a tangent curve to the left, concave westerly, having a radius of 504.00 feet, a central angle of 18°43'29", an arc length of 164.71 feet, and a chord bearing North 09°14'32" West for a distance of 163.98 feet;
16. North 18°36'17" West for a distance of 34.49 feet;
17. along a non-tangent curve to the left, concave westerly, having a radius of 88.41 feet, a central angle of 34°43'32", an arc length of 53.58 feet, and a chord bearing North 36°00'23" West for a distance of 52.77 feet;
18. North 60°39'26" West for a distance of 54.71 feet to the northerly line of said tract;

19. along said northerly line North $84^{\circ}57'30''$ East for a distance of 156.59 feet to the northeast corner of said tract;
20. along the easterly line of said tract South $04^{\circ}49'18''$ East for a distance of 274.61 feet;
21. leaving said easterly line South $00^{\circ}07'13''$ West for a distance of 862.20 feet;
22. South $89^{\circ}52'47''$ East for a distance of 3.97 feet;
23. South $00^{\circ}07'13''$ West for a distance of 647.32 feet to the Point of Beginning.

Containing an area of 3.944 acres, more or less.

All bearings shown herein are grid, California State Plane Coordinate System, Zone 2, North American Datum of 1983. All distances herein are grid distances in U.S. Survey Feet. To compute ground distance, divide grid distances by 0.99997515477.

The above described tract of land is shown on Exhibit 'B' attached hereto and made a part hereof.



October 19, 2010

APN 117-0140-006 and APN 117-0140-040

A non exclusive easement for the purpose of constructing, operating and maintaining a Transit System, including utilities and all necessary appurtenances on, over, under and across the following described property.

A portion of the tract of land described in Corporation Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 457, Official Records of Sacramento County, located in Section 22, Township 7 North, Range 5 East, Mount Diablo Meridian, and a portion of the tract of land described in Partnership Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 474, Official Records of Sacramento County, located in Section 15, Township 7 North, Range 5 East, Mount Diablo Meridian, City of Sacramento, Sacramento County, California being more particularly described as follows:

Beginning at a point on the Northerly line of the Northwest Quarter of said Section 22 from which the Northeast corner of said Northwest Quarter bears North $89^{\circ}14'18''$ East along said Northerly line for a distance of 198.38 feet; thence from the point of beginning the following five (5) consecutive courses and distances;

1. South $00^{\circ}00'00''$ East for a distance of 21.45 feet;
2. South $90^{\circ}00'00''$ West for a distance of 14.00 feet;
3. North $00^{\circ}00'00''$ West for a distance of 205.60 feet;
4. South $89^{\circ}58'19''$ East for a distance of 14.00 feet;
5. South $00^{\circ}00'00''$ East for a distance of 184.14 feet to the Point of Beginning.

Containing an area of 2,878 square feet, more or less.

All bearings shown herein are grid, California State Plane Coordinate System, Zone 2, North American Datum of 1983. All distances herein are grid distances in U.S. Survey Feet. To compute ground distance, divide grid distances by 0.99997515477.

The above described tract of land is shown on Exhibit 'B' attached hereto and made a part hereof.



October 20, 2010

APN 117-0140-006 and APN 117-0140-040

A portion of the tract of land described in Corporation Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 457, Official Records of Sacramento County, located in Section 22, Township 7 North, Range 5 East, Mount Diablo Meridian, and a portion of the tract of land described in Partnership Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 474, Official Records of Sacramento County, located in Section 15, Township 7 North, Range 5 East, Mount Diablo Meridian, City of Sacramento, Sacramento County, California being more particularly described as follows:

Beginning at a point on the Northerly line of the Northwest Quarter of said Section 22 from which the Northeast corner of said Northwest Quarter bears North 89°14'18" East along said Northerly line for a distance of 594.49 feet; thence from the point of beginning the following forty-five (45) consecutive courses and distances:

1. South 00°00'00" East for a distance of 312.36 feet;
2. North 90°00'00" East for a distance of 26.23 feet;
3. South 45°00'00" East for a distance of 22.39 feet;
4. North 45°00'00" East for a distance of 10.62 feet;
5. North 90°00'00" East for a distance of 382.16 feet;
6. North 00°00'00" East for a distance of 77.30 feet;
7. North 90°00'00" East for a distance of 41.41 feet;
8. South 00°07'13" West for a distance of 199.10 feet;
9. North 89°52'47" West for a distance of 38.00 feet to a point hereinafter called Point A;
10. North 00°07'13" East for a distance of 79.02 feet;
11. North 90°00'00" West for a distance of 425.47 feet;
12. South 00°19'02" West for a distance of 200.79 feet;
13. North 90°00'00" East for a distance of 8.00 feet;
14. South 00°00'00" East for a distance of 399.22 feet to the northerly line of the right of way and easement described in the Grant Deed filed in Book 69-03-11, Page 150 Official Records Sacramento County;
15. along said northerly line South 89°34'20" West for a distance of 85.15 feet;
16. leaving said northerly line North 00°00'00" East for a distance of 399.85 feet;
17. South 90°00'00" West for a distance of 780.05 feet;
18. South 00°00'00" East for a distance of 405.68 feet to said northerly line;

19. along said northerly line South 89°34'20" West for a distance of 163.44 feet;
20. leaving said northerly line North 00°00'00" West for a distance of 439.46 feet;
21. North 90°00'00" East for a distance of 978.55 feet;
22. North 00°14'14" East for a distance of 168.23 feet;
23. North 00°00'53" East for a distance of 324.33 feet;
24. along a non-tangent curve to the left, concave southwesterly, having a radius of 20.69 feet, a central angle of 50°00'16", an arc length of 18.05 feet, and a chord bearing North 26°51'32" West for a distance of 17.49 feet;
25. along a non-tangent curve to the right, concave northeasterly, having a radius of 37.88 feet, a central angle of 45°44'07", an arc length of 30.24 feet, and a chord bearing North 20°55'26" West for a distance of 29.44 feet;
26. North 00°04'09" West for a distance of 233.00 feet;
27. along a non-tangent curve to the right, concave southeasterly, having a radius of 28.80 feet, a central angle of 46°43'45", an arc length of 23.49 feet, and a chord bearing North 21°52'44" East for a distance of 22.84 feet;
28. along a non-tangent curve to the left, concave northwesterly, having a radius of 26.43 feet, a central angle of 51°35'53", an arc length of 23.81 feet, and a chord bearing North 26°29'48" East for a distance of 23.01 feet;
29. North 00°00'53" East for a distance of 412.29 feet;
30. North 90°00'00" East for a distance of 309.60 feet;
31. South 00°00'00" East for a distance of 23.00 feet;
32. North 90°00'00" East for a distance of 28.00 feet;
33. South 00°00'00" East for a distance of 8.50 feet;
34. North 90°00'00" East for a distance of 41.49 feet;
35. South 32°01'43" East for a distance of 10.62 feet;
36. South 90°00'00" West for a distance of 323.49 feet;
37. South 45°00'00" West for a distance of 28.28 feet;
38. South 00°00'00" West for a distance of 356.45 feet;
39. South 09°25'39" East for a distance of 85.75 feet;
40. South 89°58'19" East for a distance of 444.58 feet;
41. South 00°07'13" West for a distance of 133.57 feet;
42. South 89°56'15" West for a distance of 16.29 feet;
43. North 89°57'08" West for a distance of 438.07 feet;
44. South 43°24'51" West for a distance of 18.05 feet;
45. South 00°00'00" East for a distance of 43.03 feet to the Point of Beginning.

Containing an area of 6.577 acres, more or less.

Together with the following described tract of land;

Commencing at Point A thence South 00°07'13" West for a distance of 60.00 feet to the Point of Beginning; thence from the point of beginning the following four (4) consecutive courses and distances;

1. South 89°52'47" East for a distance of 38.00 feet;
2. South 00°07'13" West for a distance of 447.51 feet to the northerly line of the right of way and easement described in the Grant Deed filed in Book 69-03-11, Page 150 Official Records Sacramento County;;
3. along said northerly line South 89°34'20" West for a distance of 38.00 feet;
4. leaving said northerly line North 00°07'13" East for a distance of 447.87 feet to the Point of Beginning.

Containing an area of 0.391 acres, more or less.

All bearings shown herein are grid, California State Plane Coordinate System, Zone 2, North American Datum of 1983. All distances herein are grid distances in U.S. Survey Feet. To compute ground distance, divide grid distances by 0.99997515477.

The above described tract of land is shown on Exhibit 'B' attached hereto and made a part hereof.



August 26, 2013

Shared Easement

A portion of the tract of land described in Corporation Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 457, Official Records of Sacramento County, located in Section 22, Township 7 North, Range 5 East, Mount Diablo Meridian, and a portion of the tract of land described in Partnership Grant Deed to Los Rios Junior College District of Sacramento, El Dorado, Placer, Solano and Yolo Counties in Book 670329, Page 474, Official Records of Sacramento County, located in Section 15, Township 7 North, Range 5 East, Mount Diablo Meridian, hereinafter referred to as "Section 15 Tract," City of Sacramento, Sacramento County, California, being more particularly described as follows:

Beginning at a point on the southerly line of said "Section 15 Tract," and from said point the Southeast corner of said tract bears North $89^{\circ}14'18''$ East along said southerly line for a distance of 38.82 feet; thence from the **Point of Beginning**, along said southerly line, South $89^{\circ}14'18''$ West for a distance of 8.97 feet; thence leaving said southerly line, South $00^{\circ}07'13''$ West for a distance of 955.88 feet to the northerly line of that property conveyed to the City of Sacramento in the Grant deed recorded in Book 690311, at Page 150, Official Records of Sacramento County; thence along said northerly line, along a non-tangent curve to the left, concave northwesterly, having a radius of 25.00 feet, a central angle of $13^{\circ}08'59''$, an arc length of 5.74 feet, and a chord bearing South $82^{\circ}59'53''$ West for a distance of 5.73 feet; thence continuing along said northerly line, South $89^{\circ}34'20''$ West for a distance of 15.12 feet to a point on the westerly line of the electric and communication easement granted to Pacific Gas and Electric Company recorded in Book 670329, at Page 454, Official Records of Sacramento County; thence leaving said northerly line along said westerly line the following two (2) consecutive courses and distances:

1. North $00^{\circ}25'40''$ West for a distance of 399.98 feet, and
2. North $00^{\circ}22'11''$ East for a distance of 556.44 feet to the southerly line of said "Section 15 Tract" and the southwest corner of the electric and communication easement granted to Pacific Gas and Electric Company recorded in Book 670329, at Page 470, Official Records of Sacramento County;

thence leaving said southerly line of said "Section 15 Tract," along the westerly line of the Pacific Gas and Electric easement recorded in Book 670329, Page 470, along the following two (2) consecutive courses and distances:

1. North $00^{\circ}25'40''$ West for a distance of 982.12 feet, and

Page 1 of 2

2. North 34°29'12" East for a distance of 64.83 feet;
thence leaving said Pacific Gas and Electric easement along for following three
consecutive courses and distances:

1. South 00°07'13" West for a distance of 387.78 feet,
2. South 89°52'47" East for a distance of 3.97 feet, and
3. South 00°07'13" west for a distance of 647.32 feet to the southerly line of said
"Section 15 Tract" and the **Point of Beginning**.

Containing an area of 56,981 square feet (1.308 acres), more or less.

All bearings shown herein are grid, California State Plane
Coordinate System, Zone 2, North American Datum of 1983. All
distances herein are grid distances in U.S. Survey Feet. To
compute ground distance, divide grid distances by
0.99997515477.



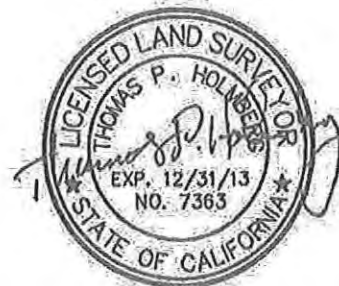
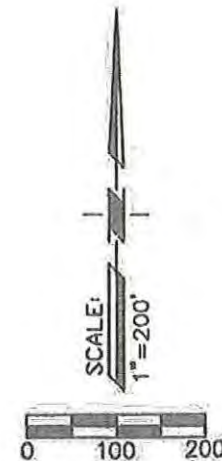
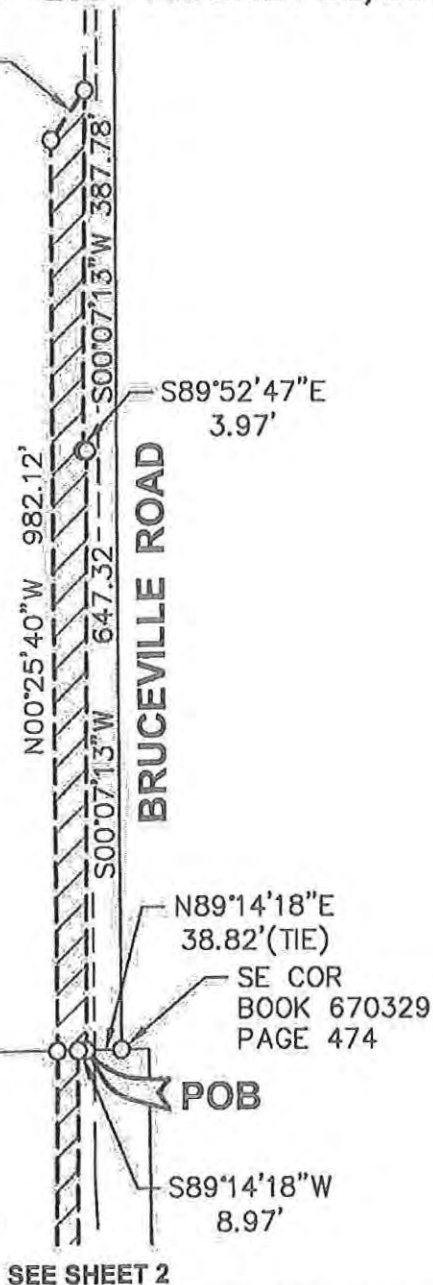
The above described tract of land is shown on Exhibit 'B'
attached hereto and made a part hereof.

LOS RIOS COMMUNITY COLLEGE DISTRICT
BOOK 670329, PAGE 474, ORSC
A PORTION OF SECTIONS 15 & 22, T 7 N, R 5 E, MDM
CITY OF SACRAMENTO, SACRAMENTO COUNTY, CALIFORNIA
SCALE: 1"=200' AUGUST 26, 2013 SHEET 1 OF 2

APN
117-0140-044
LOS RIOS
COMMUNITY
COLLEGE
DISTRICT

DOC NO.
670329-474

SECTION 15
 SECTION 22



 **SHARED EASEMENT**
AREA: 56,981±SF
(1.308±AC)

SEE SHEET 2

ANDREGG
GEOMATICS
 www.andregg.com
 800-400-7072

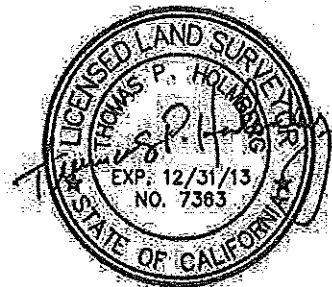
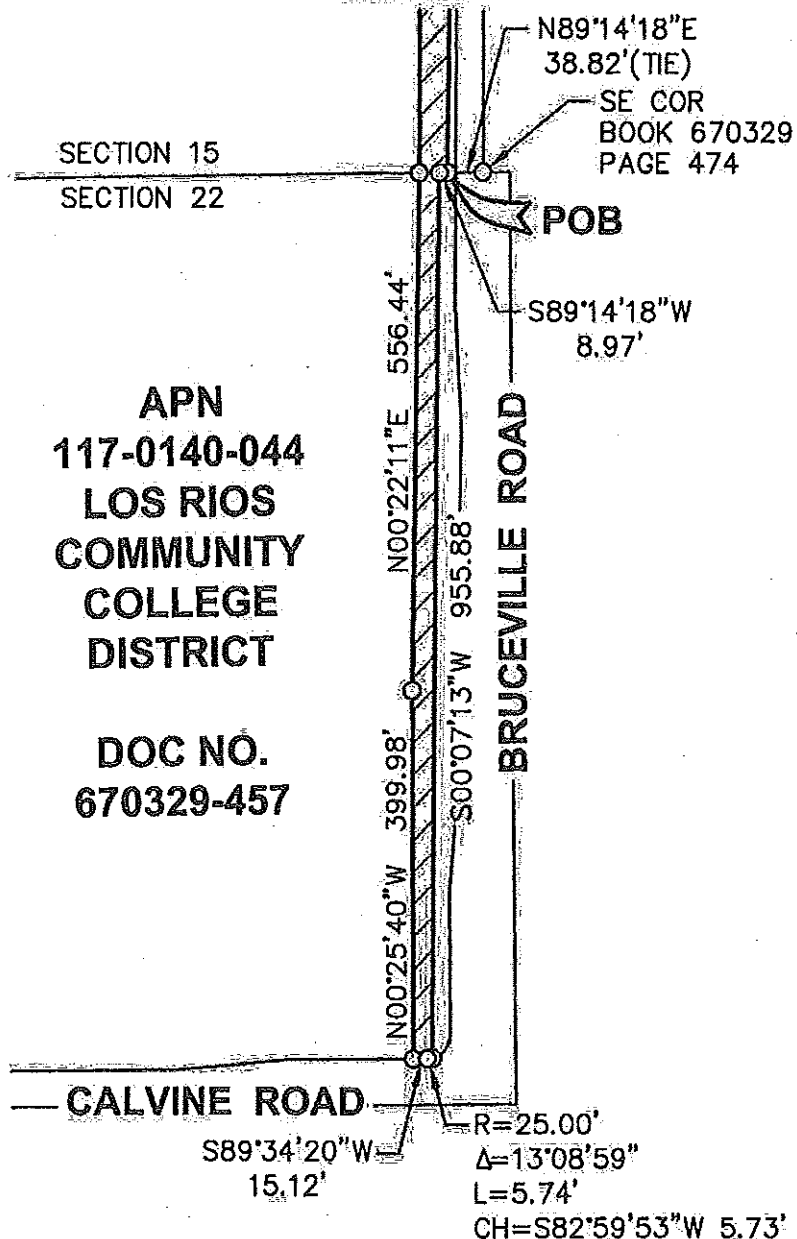


Regional
Transit

ANDREGG GEOMATICS
 11661 BLOCKER DRIVE, SUITE 200, AUBURN, CA 95603
SOUTH SACRAMENTO CORRIDOR PROJECT - PHASE 2
APN 117-0140-040
SRTD PARCEL S62.02

LOS RIOS COMMUNITY COLLEGE DISTRICT
BOOK 670329, PAGE 474, ORSC
A PORTION OF SECTION 15, T 7 N, R 5 E, MDM
CITY OF SACRAMENTO, SACRAMENTO COUNTY, CALIFORNIA
SCALE: 1"=100' AUGUST 26, 2013 SHEET 2 OF 2

SEE SHEET 1



SHARED EASEMENT
 AREA: 56,981±SF
 (1.308±AC)

**ANDREGG
 GEOMATICS**
 www.andregg.com
 800-400-7072

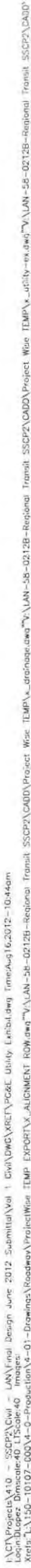


Regional
 Transit

ANDREGG GEOMATICS
 11661 BLOCKER DRIVE, SUITE 200, AUBURN, CA 95603

SOUTH SACRAMENTO CORRIDOR PROJECT - PHASE 2

APN 117-0140-040
 SRD PARCEL S62.02

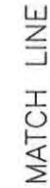


 PG&E EASEMENT
 RT EASEMENT
 LIGHT RAIL STATION PLATFORM



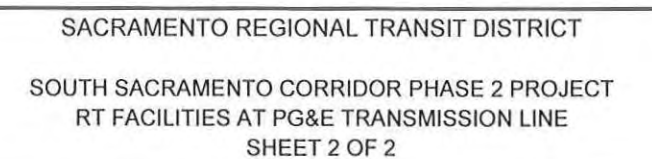
Regione
Toscana

SACRAMENTO REGIONAL TRANSIT DISTRICT
SOUTH SACRAMENTO CORRIDOR PHASE 2 PROJECT
RT FACILITIES AT PG&E TRANSMISSION LINE
SHEET 1 OF 2



 PG&E EASEMENT
 RT EASEMENT
 LIGHT RAIL STATION PLATFORM

FILE:



Advice 5042-E
March 30, 2017

Attachment 2

PG&E Grant of Easement

220468

2107-05-0138

AFTER RECORDING, RETURN TO:

FOR RECORDER'S USE ONLY

Pacific Gas and Electric Company
245 Market Street, San Francisco, Calif.
Attn: L. E. Grasse 94106

WESTERN TITLE GUARANTY CO.

OFFICIAL RECORDS
SACRAMENTO COUNTY, CALIF.

MAR 29 12 23 PM 1967

BOOK 67-03-29 PAGE 470

\$4.40

20130

Samuel J. Hooper
COUNTY RECORDER

COPY SENT
TO DIVISION

VALLEY-HI VENTURE, a partnership composed of WESTERN ENTERPRISES, a partnership, and NORTHERN CALIFORNIA DEVELOPERS, INC., a corporation, hereinafter called first party, in consideration of value adequate therefor paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called second party, the receipt whereof is hereby acknowledged, hereby grants to second party the right to erect, construct, reconstruct, replace, remove, maintain and use a line of towers, with such wires and cables as second party shall from time to time suspend therefrom for the transmission of electric energy, and for communication purposes, and all necessary and proper foundations, footings, crossarms and other appliances and fixtures for use in connection with said towers, wires and cables, together with a right of way, on, along and in all of the hereinafter described lands which are situate in the City of Sacramento, County of Sacramento, State of California, and are described as follows:

All that portion of that certain "Western Enterprises" tract of land as shown on the Record of Survey entitled "Portion of Sections 10 and 15, T. 7 N., R. 5 E., M.D.B. & M.", filed in the office of the Recorder of Sacramento County in Book 14 of Surveys, Map No. 24, more particularly described as follows:

Beginning at a point on the south line of said Section 15, from which point a $1\frac{1}{2}$ inch iron pipe monument tagged "LS 2651" marking the southeast corner of said "Western Enterprises" tract of land bears North $89^{\circ} 10' 10''$ East 20.00 feet; thence from said point of beginning and along said south line of Section 15, South $89^{\circ} 10' 10''$ West 50.00 feet; thence parallel with the easterly boundary line of said "Western Enterprises" tract of land, North $00^{\circ} 29' 48''$ West 982.14 feet; thence North $34^{\circ} 25' 04''$ East 122.32 feet to said east boundary line; thence South $00^{\circ} 29' 48''$ East 155.64 feet along said east boundary line; thence South $34^{\circ} 25' 04''$ West 34.94 feet; thence parallel with said east boundary line, South $00^{\circ} 29' 48''$ East 897.85 feet to the point of beginning; containing 1.240 acres, more or less.

First party shall have the right to use said lands for purposes not inconsistent with second party's full enjoyment of the rights hereby granted, provided that first party shall not erect or construct any building or other structure, or

20130 MAR 29 1967

BOOK 67-03-29 PAGE 471

20130

Second party shall also have the right from time to time to trim and to cut down and clear away any and all trees and brush now or hereafter on said lands and shall have the further right from time to time to trim and to cut down and clear away any trees on premises of first party adjacent to said lands which now or hereafter in the opinion of second party may be a hazard to said towers, wires or cables, by reason of the danger of falling thereon, provided, however, that all trees which second party is hereby authorized to cut and remove, if valuable for timber or wood, shall continue to be the property of first party, but all tops, lops, brush and refuse wood shall be burned or removed by second party.

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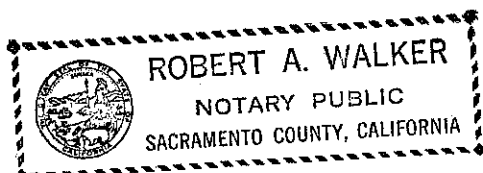
STATE OF CALIFORNIA)
) ss.
County of Sacramento)

BOOK 67-03-29 PAGE 472

On this 2nd day of March in the year 19 67
before me Robert A. Walker a notary public in and for
said County, residing therein, duly commissioned and sworn, personally appeared
Weldon B. Mansfield and Sheldon W. Parker
known to me to be partners of Western Enterprises, a partnership, known to me to be
one of the partners of the partnership called Valley Hi Venture that executed the
within instrument and they acknowledged to me on behalf of said Western Enterprises
that said Hi Valley Venture, a partnership, executed the same.

IN WITNESS WHEREOF, I have hereunto set
my hand and affixed my official seal in the
said County of Sacramento,
the day and year in this certificate first above
written.

20130



Robert A. Walker
Notary Public in and for the
County of Sacramento,
State of California

My Commission Expires July 31, 1968

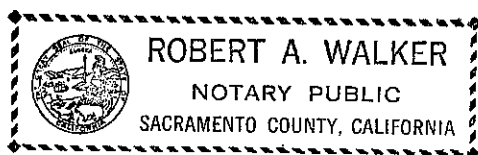
STATE OF CALIFORNIA)
) ss.
County of Sacramento)

BOOK 67-03-29 PAGE 473

On this 2nd day of March in the year 19 67
before me Robert A. Walker a notary public in and for
said County, residing therein, duly commissioned and sworn, personally appeared
A. J. Murphy and John W. Shelby
known to me to be President and Secretary
of Northern California Developers, Inc., known to me to be one of the
partners of the partnership that executed the within instrument and they acknowl-
edged to me on behalf of said corporation that such partnership executed the same.

IN WITNESS WHEREOF, I have hereunto set
my hand and affixed my official seal in the
said County of Sacramento,
the day and year in this certificate first above
written.

20130



Robert A. Walker
Notary Public in and for the
County of Sacramento,
State of California

My Commission Expires July 31, 1968

220467

AFTER RECORDING, RETURN TO:

Pacific Gas & Electric Co.
245 Market Street
San Francisco, California 94106
Attn: L. E. Grasse

WESTERN TITLE GUARANTY CO.

BOOK 67-03-29 PAGE 454

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FOR RECORDER'S USE ONLY
2107-05-0139
SACRAMENTO COUNTY, CALIF.
MAR 29 12 21 PM 1967

Reginald J. Hoffmann
COUNTY RECORDER

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20126

C. L. BOWMAN & ASSOCIATES, INC., a corporation, hereinafter called first party, in consideration of value adequate therefor paid by PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called second party, the receipt whereof is hereby acknowledged, hereby grants to second party the right to erect, construct, reconstruct, replace, remove, maintain, and use a line of towers with such wires and cables as second party shall from time to time suspend therefrom for the transmission of electric energy, and for communication purposes, and all necessary and proper foundations, footings, crossarms, and other appliances and fixtures for use in connection with said towers, wires and cables, together with a right of way, on, along and in all of the hereinafter described lands which are situate in the City of Sacramento, County of Sacramento, State of California, and are described as follows:

All that portion of the Northwest one-quarter of Section 22, Township 7 North, Range 5 East, M.D.B. & M., more particularly described as follows:

Beginning at a point on the north line of said Section 22, said point also being a point on the south line of that certain "Western Enterprises" tract of land as shown on the Record of Survey entitled "Portion of Sections 10 and 15, T. 7 N., R. 5 E., M.D.B. & M.", filed in the office of the Recorder of Sacramento County in Book 14 of Surveys, Map No. 24, from which point a 1½ inch iron pipe monument tagged "IS 2651" marking the southeast corner of said "Western Enterprises" tract of land bears North 89° 10' 10" East 20.00 feet; thence from said point of beginning and in a southerly direction curving to the right on an arc of 9960.00 foot radius, said arc being subtended by a chord which bears South 00° 18' 03" West 277.26 feet; thence curving to the left on an arc of 10,040.00 foot radius, said arc being subtended by a chord which bears South 00° 18' 03" West 279.48 feet; thence South 00° 29' 48" East 769.93 feet to a point located South 00° 29' 48" East 320.00 feet from the center line of Calvine Road, a public road 80.00 feet in width; thence along a line parallel with and at a uniform distance of 320.00 feet from said center line of Calvine Road South 89° 30' 12" West 1520.50 feet to the easterly line of that certain 100 foot Electrical Easement granted

20126 MAR 29 1967

BOOK 67-03-29 PAGE 455

to Great Western Power Company and recorded in said Recorder's office in Book 270 of Deeds at Page 344; thence North 34° 25' 04" East 97.56 feet along said easterly line to a point which lies South 00° 29' 48" East 240.00 feet from said center line of Calvine Road; thence along a line parallel with and at a uniform distance of 240.00 feet from said center line of Calvine Road North 89° 30' 12" East 1414.66 feet; thence North 00° 29' 48" West 689.93 feet; thence North 00° 18' 03" East 556.45 feet to the north line of said Section 22 and the south line of said "Western Enterprises" tract of land; thence along said last described line North 89° 10' 10" East 50.00 feet to the point of beginning; containing 4.172 acres, more or less.

First party shall have the right to use said lands for purposes not inconsistent with second party's full enjoyment of the rights hereby granted, provided that first party shall not erect or construct any building or other structure, or drill or operate any well, within said lands.

Second party shall have the further right to install, maintain and use gates in all fences which now cross or shall hereafter cross said lands.

Second party shall also have the right from time to time to trim and to cut down and clear away any and all trees and brush now or hereafter on said lands and shall have the further right from time to time to trim and to cut down and clear away any trees on premises of first party adjacent to said lands which now or hereafter in the opinion of second party may be a hazard to said towers, wires or cables, by reason of the danger of falling thereon, provided, however, that all trees which second party is hereby authorized to cut and remove, if valuable for timber or wood, shall continue to be the property of first party, but all tops, lops, brush and refuse wood shall be burned or removed by second party.

Second party shall also have the right to mark the location of said lands by suitable markers set in the ground or on said towers, but said markers when set in the ground shall be placed in fences or other locations which will not interfere with any reasonable use first party shall make of said lands.

The provisions hereof shall inure to the benefit of and bind the successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF first party has executed these presents this 2nd day of March, 19 67.

Sacramento
T.7S.,R.5E.,
M.D.B.& M.
Section 22
NW¹/₄ mp

Prepared MAH
Checked [Signature]

NOV 14 '66

C. L. BOWMAN & ASSOCIATES, INC.

By Charles L. Bowman
Its

And By Leah C. McGinnis
Its

Secretary-Treasurer

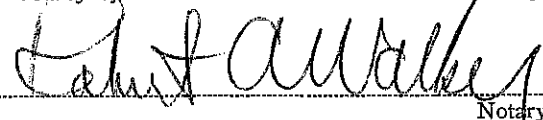
BOOK 67-03-29 PAGE 456

STATE OF CALIFORNIA,
County of Sacramento } ss.
On this 2nd day of March in the year one thousand nine
hundred and sixty-seven, before me, the undersigned,
a Notary Public, State of California, duly commissioned and sworn, personally appeared
Charles L. Bowman and Pearl C. McGirk
known to me to be the President and Secretary-Treasurer
of the corporation described in and that executed the within instrument, and also known to me to be
the person who executed the within instrument on behalf of the corporation therein named, and
acknowledged to me that such corporation executed the same.

20126

 **ROBERT A. WALKER**
NOTARY PUBLIC
SACRAMENTO COUNTY, CALIFORNIA

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the
County of Sacramento the day and year in this certificate
first above written.



Notary Public, State of California.

Attachment 3

Relevant Sections of Supplemental Environmental Impact Report

(Supplemental EIR available upon request)

SOUTH SACRAMENTO CORRIDOR PHASE 2
in the City and County of Sacramento, California

**SUPPLEMENTAL FINAL ENVIRONMENTAL IMPACT STATEMENT/
SUBSEQUENT FINAL ENVIRONMENTAL IMPACT REPORT/**

Pursuant to

Pursuant to the National Environmental Policy Act (NEPA) of 1969 as amended, 42 United States Code (USC) §4332(2); the regulations of the Council of Environmental Quality (CEQ), 40 Code of Federal Regulations (CFR) 1500-1508; the Federal Transit Laws, 49 USC Chapter 53; Section 4(f) of the Department of Transportation Act of 1966, as amended, 49 USC §303; Section 6(f)(3) of the Land and Water Conservation Fund Act, 16 USC §4601-U; the National Historic Preservation Act of 1966, 16 USC §470(f), Environmental Impact and Related Procedures-Federal Highway Administration/Federal Transit Administration, 23 CFR Part 771; The Clean Air Act as amended, 42 USC §7401-7671; the Endangered Species Act of 1973, 16 USC §1531; Section 402 of the Clean Water Act, 33 USC §1342; Executive Order 12898; Executive Order 11990, Protection of Wetlands; Executive Order 11988, Floodplain Management; and California Environmental Quality Act, PRC 21000 *et seq.*; and the State of California CEQA Guidelines, California Administrative Code, 15000 *et seq.*

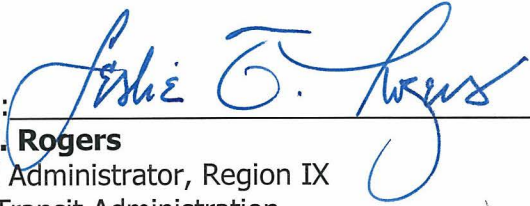
by the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

and the

SACRAMENTO REGIONAL TRANSIT DISTRICT

For FTA:


Leslie T. Rogers

Regional Administrator, Region IX
Federal Transit Administration

SEP 23 2008

Date of Approval

For RT:


Michael R. Wiley

General Manager/Chief Executive Officer
Sacramento Regional Transit District

September 16, 2008
Date of Approval

ABSTRACT

Sacramento Regional Transit District (RT) proposes to extend light rail transit (LRT) service 4.3 miles from the South Sacramento Corridor Phase 1 terminus at Meadowview Road southward along the UPRR right-of-way, turning east crossing the UPRR and Union House Creek, continuing east to the north of the proposed extension of Cosumnes River Boulevard (CRB), crossing Franklin Boulevard, traveling along the northern side of CRB, turning south along the western side of Bruceville Road and terminating at Cosumnes River College (CRC). This Project, called the Locally Preferred Alternative Phase 2 (LPAP2), includes four new stations at: (a) Morrison Creek, (b) Franklin, (c) Center Parkway, and (d) CRC. Three new park-and-ride lots would provide over 2,700 spaces: (a) Morrison Creek with 50 spaces, (b) Franklin with 650 spaces, and (c) CRC with 2000 spaces.

In addition to the LPAP2, a No-Action Alternative and a Transportation Systems Management (TSM) Alternative are evaluated in this Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR). Impacts include noise and vibration, impacts to wetlands and habitat for special status species, floodplain impacts, traffic impacts, and impacts during construction. Proposed mitigation measures include replacement of or compensation for wetlands, habitat and floodplain areas; noise barriers and techniques to reduce noise and vibration at the source; refining signal timing and adding turn lanes at intersections; coordination with utility providers, and advance notice to customers; a Worker Health and Safety Plan and management practices during construction.

FOR ADDITIONAL INFORMATION CONCERNING THIS DOCUMENT, CONTACT:

Mr. Jerome Wiggins
Program Specialist, Office of Planning and
Development
U.S. Department of Transportation
Federal Transit Administration, Region IX
201 Mission Street, Suite 1650
San Francisco, CA 94105
(415) 744-3115

Ms. Diane Nakano, P.E.
Assistant General Manager for Engineering
and Construction
Sacramento Regional Transit District
1400 29th Street P.O. Box 2110
Sacramento, CA 95812-2110
(916) 321-3853

A Notice of Intent to Prepare an EIS was published in the Federal Register on March 8, 2002, and a Notice of Preparation was distributed in early March of that year. Public scoping meetings were held on March 25 and April 11 of 2002.

A public hearing was held on the SDEIS/SDEIR during the RT Board meeting on March 12, 2007 at 6:00 pm at the Pannell Meadowview Community Center, 2450 Meadowview Road, Sacramento, CA.

Consistent with this planning to date, this [SFEIS/SFEIR](#) focuses on the environmental impacts of the second phase of the LPA adopted by the RT Board of Directors in 1995 and supplements the environmental evaluation contained in the 1994 AA/DEIS/DEIR. Specifically, it describes the current environmental setting, it recognizes current and recent planning activities and plans, and evaluates impacts from a more precisely defined Phase 2 project, including a description and evaluation of changes between that portion of the 1995 LPA that is now defined as LPAP2. This phase extends from Meadowview Road in South Sacramento along the previously designated alignment down the UPRR right-of-way and along Cosumnes River Boulevard to Cosumnes River College in the City of Sacramento. A new LRT station at Morrison Creek has been added to the previously defined LPA.

The proposed second phase – the Locally Preferred Alternative Phase 2 (LPAP2) – would include an extension of LRT 4.3 miles, with four stations at Morrison Creek (50 parking spaces), Franklin (650 parking spaces), Center Parkway (walk-on station), and Cosumnes River College (2,000 parking spaces). Light rail will operate at 15 minute intervals in the weekday off-peak hours, an effective 10 minutes during weekday peak hours, and 30 minutes evenings / weekends. Light rail vehicles have been acquired for the LPAP2 and will be maintained at the expanded RT central LRT maintenance facility at Academy Way.

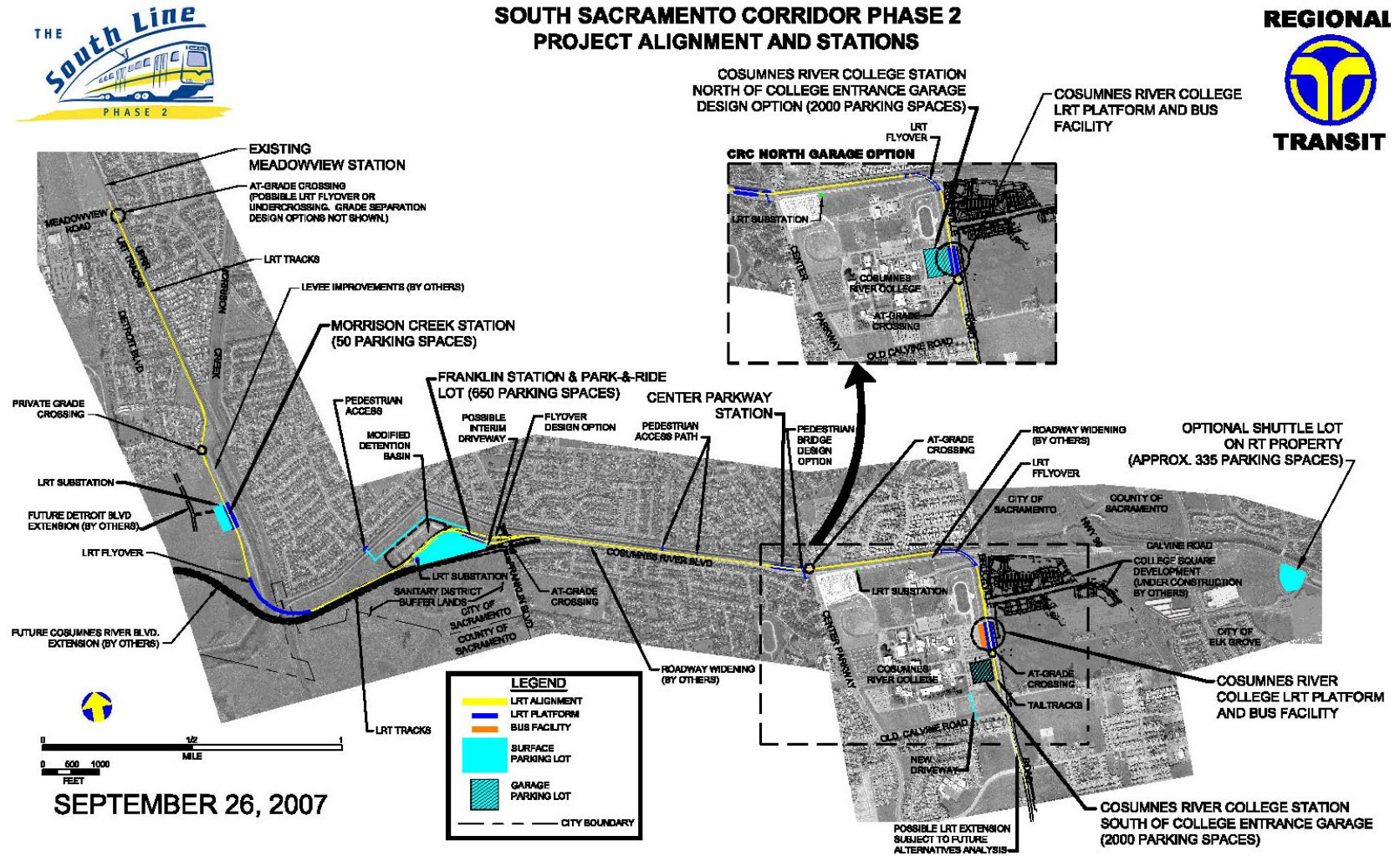
Given its anticipated transportation system user benefits and its logical terminus at Cosumnes River College – an expanding community college located near a developing retail and housing center and near a major north-south commuter highway route (State Route 99) – the LPAP2 Project has independent utility within these limits. Various alignment options are still in consideration to extend light rail to Elk Grove as a third phase of the project. The LPAP2 Project does not preclude any of the alternative alignments under consideration for the Phase 3 project. The Phase 3 project will be evaluated in a separate alternatives analysis and is not included in this current environmental evaluation.

This [SFEIS/SFEIR](#) is prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). There are a few differences between these regulations that affect reporting in this document. CEQA requires identification of and mitigation for significant adverse impacts in an EIR, while NEPA provides for an EIS to identify and provide mitigation for all of the adverse effects of a project where it is practicable to do so. This combined NEPA/CEQA document identifies the impacts of the alternatives regardless of whether they would be considered significant under CEQA and proposes mitigation wherever practicable to reduce adverse effects. Specific discussion of impact significance and mitigation in accordance with CEQA is provided in Chapter 6.

Technical studies were prepared in support of this environmental document for the proposed project. These studies analyzed existing conditions and identified impacts under each of the build alternatives in detail. The technical reports listed below are available for review at RT's offices, 1400 29th Street, Sacramento. Complete citations for these reports are provided in Appendix A.

- Historic Properties Survey Report
- Preliminary Wetlands Delineation Report
- Ridership Forecasting Technical Memorandum
- Travel Demand Forecasting Methodology and Results Report
- [Biological Opinion \(USFWS #81420-2008-F-0285\)](#)

Figure S-2: Locally Preferred Alternative Phase 2
Proposed Light Rail Transit (LRT) Alignment and Station Locations



A LRT station would be built at Center Parkway at MP 3.2. The Center Parkway Station would have side platforms located north of the CRB roadway immediately west of the Center Parkway intersection. Immediately east of the station, the alignment would cross Center Parkway at grade and continue east along the north side of CRB. The at-grade crossing would be protected with warning signals and gates in compliance with California PUC regulations.

The LRT tracks continue eastward at-grade on the north side of the existing CRB. As the tracks approach Bruceville Road, they would ascend on a flyover bridge structure that curves south to cross over CRB, and descend to the west side of Bruceville Road in a landscaped strip of land between the stadium berm and Bruceville Road. See Chapter 4, Section 4.1.4.2, Figure 4.1-9 for a visual simulation of this flyover. There would be retaining walls forming the abutments at each end of the flyover

The maximum allowable train speed between the Center Parkway station and Bruceville Road varies from 55 mph on tangent track and 27 mph on the *flyover* curve.

A. The maximum allowable train speed between Center Parkway station and Bruceville Road would vary between 55 mph on tangent track and 30 mph on the sharpest curve.

2.4.4.4 BRUCEVILLE ROAD

The LRT alignment on this 0.4 mile-long segment of the proposed project would lie just to the west of Bruceville Road along the easterly edge of the CRC campus. This segment would include an LRT station located near the entrance to CRC at MP 4.0. South of the station, the tracks would cross the college entrance at grade to provide a final short length of tracks before terminating. The at-grade crossing would be protected with warning signals and gates in compliance with California PUC regulations. The layout plans in Figures 2.4-14 to 2.4-15 and the typical sections on Figure 2.4-22 illustrate this segment.

The City of Sacramento has widened Bruceville Road which will ultimately be three lanes in each direction for a total of six lanes with additional turning lanes at intersections. A major development project called College Square is under construction on the Southeast corner of CRB and Bruceville Road, across Bruceville Road from the proposed LRT alignment. According to current plans for that project, West Stockton Boulevard will be widened to a divided roadway

As described in the prior section, the LRT tracks would enter this segment descending from the flyover and would be located in the landscaped strip between the college stadium and Bruceville Road. The alignment would continue south in the landscaped strip between the toe of the CRC stadium's embankment and the western edge of Bruceville Road. The tracks would pass to the east of an existing PG&E high voltage tower. This tower *would* be replaced with a pole structure and repositioned to provide adequate maintenance access to the utility.

The tracks would continue to a station at MP 4.1, located just north of the College entrance road adjacent to the existing College parking lot. The station would serve CRC and the College Square development project located south of West Stockton Boulevard and north of Cotton Road. South of this station, the tracks would cross the college entrance roadway at grade to provide a final short length of tail tracks. These two tail tracks would be long enough to store one train set on each, improving the operating efficiency of the LRT service.

2.4.5 LPAP2 Stations

Four new LRT stations are proposed to be constructed along the LPAP2 alignment. Proceeding from Meadowview Road along the corridor they are: Morrison Creek, Franklin Boulevard, Center Parkway, and CRC. All stations would have low platforms with a special high platform to facilitate wheel chair access.

Station platforms would be approximately 400 feet long to accommodate a four-car light rail train. Platform widths would vary from 18 to 25 feet, depending upon location and configuration.

Park-and-ride lots would be built at the Morrison Creek and Franklin Boulevard with a parking structure at the CRC stations; the Center Parkway station is a walk-on station. The project's parking demand was estimated using travel demand modeling (see Section 3.4). The proposed parking may be constructed in stages based on monitoring of actual use.

Stations have been located and planned to minimize acquisition of private property, encourage transit oriented development, and minimize impacts on adjacent neighborhoods and businesses. Criteria for the design of station layouts and access pathways included:

- Achieve the best balance between station frequency and average train speed;
- Provide opportunity for associated transit oriented development;
- Minimize residential and commercial displacements/disruption;
- Minimize potential for conflict among different access modes;
- Ensure pathways of access for the disabled;
- Create a pedestrian-supporting environment;
- Provide pedestrian and vehicular safety; and
- Minimize major environmental issues.

Typical passenger amenities at stations would include:

- Covered shelter with comfortable seating;
- Telephones for outgoing calls only;
- Landscaping;
- Lighting;
- Drinking fountains;
- Bicycle racks and lockers;
- Information displays; and
- Easy access for elderly and disabled passengers.

Design details and landscaping plans would be refined during the Project's final design phase. The public will have the opportunity to review and comment upon station design and landscaping plans during this phase. RT will work closely with the public to identify critical station design issues early in the planning process and incorporate public input into station design.

2.4.5.1 MORRISON CREEK STATION

Location and Layout - The Morrison Creek Station would be constructed approximately one-mile south of the existing Meadowview Road Station. It would be located just to the west of Morrison Creek and north of the planned extension of CRB. The station would have side platforms, as shown in Figure 2.4-6. The platforms would be 400 feet long and about 18 feet wide. The station is designed to serve a proposed transit oriented development planned for the area to the west of the station.

Pedestrian Access - The station would be designed to connect with the future westerly development's pedestrian network in a manner that encourages future residents to walk and bike to the LRT station.

Bus Access – Buses would use the same access as automobiles coming from the future westerly development's yet to be designed street network.

Automobile Access – Automobiles would gain access to the station via a driveway that would connect to the yet to be designed adjacent development street network. It is assumed the future street network would connect to both CRB and Detroit Boulevard which would provide maximum vehicular access opportunities to the station.

Park-and-Ride Facilities – This station is designed primarily for “walk on” traffic, and therefore limited park-and-ride capacity is provided. Fifty parking spaces would be provided, including the handicapped spaces.

Kiss-and-Ride Facilities – Kiss-and-ride facilities would be provided adjacent to the platforms. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines.

2.4.5.2 FRANKLIN STATION

Location and Layout - The Franklin Station would be located in the SCRSD bufferlands area north of the planned CRB extension and just to the west of Franklin Boulevard as shown in Figure 2.4-9. As the LRT alignment approaches from the west, it would turn northeast away from CRB and run along the south edge of a reconfigured City flood control detention basin, then turn southeast on a diagonal path to cross at grade the north leg of the intersection of Franklin Boulevard with CRB. The station would have side platforms that would be located on the southeasterly diagonal segment about 300 feet from Franklin Boulevard. The LRT alignment makes this diversion away from CRB so vehicles can enter the station's park-and-ride lot without crossing the LRT tracks.

Under the flyover option wherein the LRT alignment would cross over Franklin Blvd., the platforms would be located approximately 1,200 feet from Franklin Boulevard. This option would have side platforms on an embankment that would run along the southern edge of the City's detention basin. This platform would be about two feet higher than the adjacent park-and-ride lot. In either location, the platforms would be 400 feet long and about 18 feet wide.

The station's park-and-ride lot would be constructed on engineered fill to conform to the expected elevation of the CRB extension and to be above the elevation of the 100-year floodplain.

Pedestrian Access - Pedestrian access to the platforms would be provided from both Franklin Boulevard and the future CRB Extension. The station also includes a pedestrian access path from the end of Deer Lake Drive in the subdivision to the north. This path would start at the Deer Lake Drive cul-de-sac, cross over Union House Creek on a pedestrian bridge, pass through the northerly bufferlands area, and end at the station platforms. The exact route of this path through the bufferlands would be determined working with the SCRSD during the project's final design process.

Bus Access - Buses would use the same access as cars initially entering the station from an entrance driveway that would make up the western leg of the Franklin Boulevard/CRB intersection. Upon future completion of the CRB extension this entrance would be closed and a new permanent driveway access would be opened approximately 800 feet west of the Franklin Blvd/CRB intersection.

Automobile Access – Vehicular access to the station would initially be via an entrance driveway that would make up the western leg of the Franklin Boulevard/CRB intersection. Upon future completion of the CRB extension, this entrance would be closed and a new permanent driveway access would be opened approximately 800 feet west of the Franklin Blvd/CRB intersection.

Park-and-ride Facilities – The station would contain space for approximately 650 vehicles to include the required number of handicapped spaces.

Kiss-and-ride Facilities – The station would include kiss-and-ride facilities adjacent to the platforms. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines.

2.4.5.3 CENTER PARKWAY STATION

Location and Layout – The Center Parkway Station would be a walk-on station with no park-and-ride facilities. As shown in Figure 2.4-12, the station would be located north of CRB directly west of Center Parkway. The station would have a side platform configuration. The southerly platform would be 25 feet wide and 400 feet long. The northerly platform would be 18 feet wide and 400 feet long.

Pedestrian Access - Pedestrian access to the platforms Access to the station would be via sidewalks along both CRB and Center Parkway. A pedestrian access bridge/path would be provided from the south end of Valley Green Drive in the subdivision to the north. This path would start at the Valley Green Drive cul-de-sac, cross over Union House Creek on a pedestrian bridge, and continue along the southern edge of Union House Creek to end at the station platforms and Center Parkway. The path along the southern edge of Union House Creek would also extend west to Franklin Blvd. thus also providing access to the Franklin Station.

The Center Parkway Station also includes an optional pedestrian bridge over CRB that would provide grade separated access to the station from areas south of CRB. The optional pedestrian bridge would start on the Southwest corner of CRB and Center Parkway (it would require acquisition of an existing property at this location), pass over CRB, and end at the station platforms. Each end of the bridge would include an elevator and stairways. The location of the north tower would require coordination with the SAFCA Union House Creek widening project.

Bus Access - Bus access would be provided to the station by providing bus stops along Center Parkway. Bus stops would be provided on Center Parkway just north of the intersection with CRB for northbound and southbound Center Parkway traffic. The existing bridge would be widened to mitigate traffic impacts. This widening would require acquisition of a small strip of property north of the bridge.

Automobile Access – Automobile access to this station is via the existing street network. As this is primarily a walk on station only kiss-and-ride facilities will be provided along westbound CRB.

Park-and-ride Facilities – No park-and-ride facilities are proposed for this station.

Kiss-and-ride Facilities – The station would include kiss-and-ride pull outs immediately adjacent to the southern platform along westbound CRB and at the southeast corner of the intersection. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines.

2.4.5.4 COSUMNES RIVER COLLEGE STATION

Location and Layout - The CRC Station would be located just north of the College entrance along the west side of Bruceville Road as shown in Figure 2.4-15. Tail tracks would extend south of the station and south of the College entrance. The station would have side platforms 18 feet wide and 400 feet long.

Parking on the campus would be open to both students and commuters. A 2,000 space parking garage would be constructed *south of the main College Entrance road off of Bruceville Road*, as shown in Figure 2.4-16, and would be open to both students and commuters. It is anticipated that the structure could be

constructed by the Los Rios Community College District and CRC, with future financial participation from RT.

Bus terminal, kiss-and-ride and handicapped parking would be provided immediately adjacent to and west of the platforms. The station would be the terminus station for the LPAP2 Project, and would be designed so as not to constrain options for future extensions as part of a Phase 3 extension.

Pedestrian Access - Pedestrians access the station via walkways within the college campus.

Bus Access - Bus circulation would be provided west of the platforms and with access from Bruceville Road and the College entrance.

Automobile Access – Automobile access for kiss-and-ride and handicapped parking would be via the main College Entrance and Bruceville Road. Access to the parking structure would be via a new campus driveway off of Old Calvine Road as well as the main college entrance off of Bruceville Road.

Park-and-ride Facilities – An optional parking structure is under review just to the west of the platforms.

Kiss-and-ride Facilities – The station would include kiss-and-ride facilities west of the platforms and bus circulation in conformance with RT's Station Guidelines. Figure 2.4.27 provides a visual simulation of LRT platform area and transit facility for the CRC Station.

2.4.6 Traction Power

The traction power system provides electricity necessary to operate the light rail vehicles. It consists of contact wire, support structures (i.e. poles that support the contact wire), and substations.

Four traction power substations (TPSS) will be required along the corridor to feed electricity from the SMUD power system to the LRT overhead contact system. The proposed traction power substations are labeled TPSS on figures included in this document. The TPSSs have been located away from sensitive environmental areas and residential land uses. In particular, the TPSSs are located on street or utility rights-of-way, station/park-and-ride lot areas, and on a college campus away from the student and administrative buildings.

TPSSs are proposed in the following locations:

- On the north boundary of the Morrison Creek Station (see Figure 2.4-6).
- In the southwest corner of the Franklin Station park-and-ride lot (see Figure 2.4-9).
- On the southeast corner of CRB and Center Parkway or a site 600 feet east (see Figure 2.4-12).
- In the vicinity of the tail tracks at CRC (see Figure 2.4-15).

The overhead contact system would consist of steel poles supporting copper wires in a catenary configuration. Generally, the poles would be located between the LRT tracks. However, the catenary poles will be located at the edges of the trackway in the UPRR corridor segment where the LRT tracks straddle SMUD high voltage poles.

LRT service to Cosumnes River College would operate on directional headways averaging 10 minutes during weekday peak periods, 15 minutes weekday midday and early evening, and 30 minutes weekday evenings after 7:00 PM. Total peak hours service frequency would be six trains per hour, yielding an average 10 minute headway. Actual headways would vary somewhat for each station. Train consists would include a maximum of four cars. Under the LPAP2, year 2030

Figure 2.4-27: Visual Simulation of Cosumnes River College Light Rail Station



Part of the work effort to identify suitable locations for the traction power substations was to perform a provisional traction power simulation. The simulation used the existing Siemens cars as models and ran the system at 7 ½ minute headways with each of the proposed substations taken out of service in turn. The program was run using the cars loaded to AW2 level and maximum simultaneous acceleration of two trains. The program measured the voltage drop and rail potential rise at all points of the route. The results showed that the power system would operate satisfactorily and safely under all contingency conditions.

2.4.7 Right-of-Way Requirements

Figures 2.4-3 to 2.4-19 show the proposed right-of-way lines for the South Sacramento Corridor Phase 2 LRT Extension and facilities. Property within those lines would be acquired for the LRT facilities. Additional right-of-way would also be required for station park-and-ride lots, and there would be need for added strips of right-of-way or property easements in limited areas. Displacements are discussed in Section 4.13.3, Property Acquisition and Relocation. Right-of-way requirements will be further defined during the preliminary engineering and final design phases of the project.

Advice 5042-E
March 30, 2017

Attachment 4
Record of Decision



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION IX
Arizona California
Hawaii, Nevada, Guam
American Samoa,
Northern Mariana Islands

201 Mission Street
Suite 1650
San Francisco CA 94105-1839
415-744-3133
415-744-2726 (fax)

DEC 18 2008

Mr. Michael R. Wiley
General Manager/CEO
Sacramento Regional Transit District
1400 29th Street
Sacramento, CA 95812-2110

Re: Record of Decision
South Sacramento Corridor
Phase 2 Extension Project

Mike
Dear Mr. Wiley:

This is to advise you that the Federal Transit Administration (FTA) has issued a Record of Decision (ROD) for the South Sacramento Corridor Phase 2 Extension Project. The availability period for the Final Environmental Impact Statement closed November 17, 2008. The Federal Transit Administration's Record of Decision is enclosed.

Please make the ROD and supporting documentation available to affected government agencies and the public. Availability of the ROD should be published in local newspapers and should be provided directly to affected government agencies, including the State Inter-governmental Review contact established under Executive Order 12372.

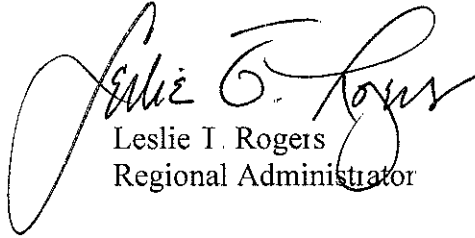
Upon FTA's approval of the Real Estate Acquisition Management Plan (RAMP), RT is authorized to acquire any real property identified in the FEIS as needed for the Build Alternative, without prejudice to FTA's future financial assistance for the acquisition and for the relocation of persons and businesses thereon. This pre-award authorization is not a real or implied commitment by FTA to provide any funding for the SSCP2 project or any element of the project. To maintain the project's eligibility for FTA assistance, all real property acquisitions, and the relocation of persons and businesses thereon, must be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act and its implementing regulation (49 CFR Part 24) and any other applicable Federal law or regulation."

This pre-award authority does not constitute a commitment that future Federal funds will be approved for the project or any element of the project. As with all pre-award authority, relevant Federal requirements must be met prior to incurring costs in order to preserve the eligibility of the costs for future FTA grant assistance. For further information regarding Pre-Award Authority, please refer to Federal Register Notice dated December 18, 2008, Section V, FTA Policy & Procedure for FY2009 Grants Requirements.

Please note that if a grant is made for this project, the terms and conditions of the grant contract will require Sacramento RT to undertake the mitigation measures identified in the ROD.

Thank for your cooperation in meeting the National Environmental Policy Act requirements.
If you have questions about our review, please call Jerome Wiggins at (415) 744-2819

Sincerely,



Leslie T. Rogers
Regional Administrator

Enclosure

RECORD OF DECISION
SOUTH SACRAMENTO CORRIDOR PHASE 2 PROJECT
Sacramento, California
By the
Sacramento Regional Transit District

Decision

The U.S. Department of Transportation (DOT), Federal Transit Administration (FTA) has determined that the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied for the South Sacramento Corridor Phase 2 Project (Project) in metropolitan Sacramento, California. This Record of Decision (ROD) covers the design and construction of a light rail transit (LRT) extension of the existing Sacramento Regional Transit LRT system 4.3 miles from the current terminus of the South Line at Meadowview Road south and east to Cosumnes River College (CRC). The Project was adopted by the Sacramento Regional Transit Board on October 27, 2008 and was evaluated as the Build Alternative in the Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR) of September 2008. That document supplements the 1994 Alternatives Analysis/Draft Environmental Impact Statement. Sacramento Regional Transit (RT) is the agency with the authority and responsibility under State law for the design and construction of the Project.

Project Overview

The Project includes the 4.3-mile LRT extension with four stations at Morrison Creek (50 parking spaces), Franklin (650 parking spaces), Center Parkway (walk-on station), and CRC (2,000 parking spaces). LRT will operate at 15-minute intervals in the weekday off-peak hours, an effective 10-minute headway during weekday peak hours, and 30-minute headways in the evenings and on weekends. A sufficient number of LRT vehicles are available to operate the Project and the acquisition of additional LRT vehicles is not part of the Project. The LRT vehicles to be used by the Project are being stored and maintained at the central LRT maintenance facility at Academy Way, which was expanded as part of a separate project.

Background

Planning for the South Sacramento Corridor Project began over 25 years ago. In early 1981, segments of the corridor were identified for future a LRT extension, when, in response to a Sacramento City Council request, the RT Board conditionally adopted a resolution designating SR 148 (Cosumnes River Boulevard to Calvine Road) for future LRT extension. This resolution requested City staff to acquire additional right-of-way along Cosumnes River Boulevard (CRB) for LRT construction and to reserve and hold sites for park-and-ride lots at CRB/Calvine Road, CRB/Center Parkway, and CRB/Franklin Boulevard. In 1984, the Sacramento Area Council of Governments (SACOG) completed the *Sacramento LRT Extension Study Expanded LRT System Analysis*, which developed a list of prioritized projects to guide future LRT expansion efforts. This study identified the Meadowview, Laguna, Route

148, and Elk Grove extensions, portions of which generally follow the alignments of the South Sacramento Corridor Phase 1 (opened for service in September 2003), Phase 2 (the subject of this Record of Decision), and Phase 3, identified for future extension of the transit corridor.

On March 29, 1995, the RT Board of Directors adopted a Locally Preferred Alternative (LPA) for long-term development of LRT improvements in the South Sacramento Corridor. The Board's selection was based on a review of seven investment alternatives described in the 1994 *South Sacramento Corridor Alternatives Analysis/Draft Environmental Impact Statement/Draft Environmental Impact Report* (AA/DEIS/DEIR). As part of this process, an extensive, multi-lingual public information process was conducted to provide the broader community with information regarding the project. The Citizens' Advisory Committee (CAC) voted unanimously in favor of supporting the light rail alternative in the UPRR alignment. Based on the technical analysis and environmental impact data developed during the AA/DEIR/DEIR phase, the recommendation of the CAC, and the results of the community outreach process, comments received on the circulated AA/DEIS/DEIR, the RT Board of Directors selected the 11.3-mile Locally Preferred Alternative on March 29, 1995 by resolution. The Sacramento City Council and the Sacramento County Board of Supervisors passed resolutions of support. The "LRT-Low/UPRR Alignment" was identified as the preferred alignment for extension of LRT from downtown Sacramento southward to Calvine Road/Auberry Drive and thence to Elk Grove. Also in 2000, in its *Multi-Corridor Study*, RT confirmed the South Sacramento and Downtown/Natomas Airport Corridors as the top ranking high priority corridors for LRT extension.

In response to capital and operations funding constraints, the RT Board stated its intention to implement the South Corridor project in phases. On August 28, 1995, the RT Board adopted the Interim Operable Segment, or first implementation phase of the South Corridor project. The Phase 1 project was advanced to preliminary engineering and a project-specific supplemental draft EIS and a final EIS were prepared for the first phase of the project. Final design was completed in 2000, and the South Sacramento Corridor Phase 1 project, as completed in September 2003, extends from the 16th Street LRT station in downtown Sacramento along the UPRR corridor to Meadowview Road in South Sacramento.

Consistent with this planning, the SFEIS/SFEIR focuses on the environmental impacts of the second phase of the LPA adopted by the RT Board of Directors in 1995 and supplements the environmental evaluation contained in the 1994 AA/DEIS/DEIR. Specifically, it describes the current environmental setting, it recognizes current and recent planning activities and plans, and evaluates impacts from a more precisely defined Phase 2 project, including a description and evaluation of changes between that portion of the 1995 LPA that is now defined as the Project. This phase extends from Meadowview Road in South Sacramento along the previously designated alignment down the UPRR right-of-way and along CRB to CRC in the City of Sacramento. A new LRT station at Morrison Creek was added to the previously defined LPA.

Various alignments are under consideration to extend LRT to the City of Elk Grove. The SFEIS/SFEIR does not evaluate these alignments, but engineering refinements of the Project were considered to not preclude any viable alternatives that would be considered for the Phase 3 transit corridor. If RT seeks FTA funding for Phase 3, this project will be evaluated in a subsequent NEPA alternatives analysis and environmental evaluation.

Public Opportunity to Comment

The Notice of Intent (NOI) to prepare an SEIS was published in the Federal Register on March 8, 2002. Public participation and agency coordination in developing the Project has continued over several phases. Scoping and public involvement were conducted during the preparation of the 1994 AA/DEIS/DEIR that identified the Locally Preferred Alternative mode and alignment for the South Corridor project. RT and FTA responded to public and agency comments on the AA/DEIS/DEIR in the FEIS for the South Corridor Phase 1 project. As part of this process, an extensive, multi-lingual public information process was conducted to provide the broader community with information regarding the project.

RT also carried out an extensive public participation program during the current NEPA review of the Project. The primary components of the public participation program included:

- Identification of stakeholders/conduct of stakeholder interviews
- Elected official/government staff and interest group briefings
- Agency staff and neighborhood bus tour and workshop
- Project information line
- Development and maintenance of project mailing lists
- Web page development
- Media Relations
- Fact Sheets/newsletters/brochures
- Small group meetings and presentations
- Public open houses/workshops, and
- Public participation during environmental review: scoping, issues identification, comment period, public hearing.

Chapter 8 of the SFEIS/SFEIR summarizes the public outreach that occurred during preparation of the NEPA documents. Volume II of the SFEIS/SFEIR provides responses by RT and FTA to the comments received on the SDEIS/SDEIR. The SFEIS/SFEIR was distributed in early October 2008 to appropriate federal, state, regional and local agencies, to commentors on the SDEIS/SDEIR, and to those requesting a copy.

Alternatives Considered

The SFEIS/SFEIR considered the following alternatives:

No-Action Alternative - The No-Action Alternative represents the transportation condition consisting of existing and committed elements of the region's transportation plan for the study corridor. The No-Action Alternative includes all highway and transit projects and operations that the region and MTP expect to be in place by the year 2030.

Transportation Systems Management Alternative - The Transportation Systems Management (TSM) Alternative addressed the same transportation needs and deficiencies as identified for the Project, but attempted to address these needs using lower-cost actions. TSM improvements included the following:

- Direct express bus service via SR-99 HOV lanes, connecting from the CRC transit center to Downtown Sacramento. A new park-and-ride lot (approximately 1,400 spaces at CRC) is also added, to enhance drive-access transit opportunities in the South Sacramento Corridor.
- Direct express bus service via Interstate 5 HOV lanes, connecting from the Laguna West community to Downtown Sacramento. The existing park-and-ride lot in Laguna West was sized to accommodate parking demand for this service.
- A high-frequency, trunkline bus route connecting the Elk Grove/Lent Ranch area to CRC and the Meadowview LRT Station via Bruceville Road, CRB and Franklin Boulevard.
- An improved transit center at CRC to enhance bus-to-bus and park-and-ride lot access at this transit center. Other improvements to bus-to-LRT transfers at the Meadowview LRT station were added.
- Transit priority treatment along Stockton Boulevard in the corridor, affecting Route 50E. RT is also implement transit priority along Watt Avenue and Sunrise Avenue in addition to downtown Sacramento as part of a system-wide approach to transit priority, so transit priority would be part of the No-Action Alternative as well.
- Rail transit operations would be the same as for the No-Action Alternative.
- Highway improvements would be the same as for the No-Action Alternative.
- A new transit center would be built at CRC and would include a 1,400-space park-and-ride lot. This lot would include landscaping.

Project – The Project was the Build Alternative considered in the SFEIS/SFEIR. The other build alternatives that were considered and withdrawn from further consideration include:

Meadowview Road to Union House Creek Options

- The first option followed the selected alignment to Morrison Creek but then continued directly south across the creek to the UPRR flyover. It was rejected in order to add the Morrison Creek Station.
- The second option would have required relocating high voltage power poles, a 20-inch high-pressure gas line, and the UPRR tracks. It was rejected due to the high cost of utility relocation and because it had greater noise, vibration, and visual impacts on neighboring residences than the other alternatives.
- The third option would have been the same as the selected option to the north of Morrison Creek, but then it would have crossed Morrison Creek three times. This option was intended to allow higher speed operation over the UPRR flyover since the flyover would follow a gentler curve. It was rejected because it required three bridges over Morrison Creek, required breaching the Morrison Creek levees at each bridge, and required significant acquisition of right-of-way.
- The fourth option would have been similar to the selected option up to Morrison Creek, but the alignment would have crossed the bend in the creek levee on a bridge and run south, closer to the toe of the levee. This option was eliminated in response to comments from flood control agencies.

Bufferlands Corridor (UPRR Corridor to Franklin Boulevard)

- The first alignment withdrawn from consideration would have been similar to the selected alignment but it would have run along the northern berm of the SCRSD detention basin. This option was rejected because it would have had greater noise and vibration impacts on the residences north of the detention basin in the Deer Creek subdivision.
- The second design option would have followed the selected option but the LRT alignment would have followed CRB rather than swinging around the Franklin Station parking lot. This option

was rejected because it would have required vehicles to cross the LRT tracks at-grade to enter the parking lot.

- The third design option would have required locating the Franklin Station platforms in the median of CRB, raising issues of transit patron safety in crossing CRB to the platform. Providing a pedestrian overpass to serve the station platforms in the CRB median was considered to address the safety concern, but rejected because of its excessive cost.
- The fourth design option would have followed the selected option but the LRT alignment would have gone through the middle of the area between the City of Sacramento's detention basin and Union House Creek. It was rejected because it would have encroached into the area reserved for the future SCRSD sewer interceptor.

Franklin Boulevard to Bruceville Road

- Under the CRB South option, the LRT alignment would have crossed the Franklin Boulevard/CRB intersection on a flyover to land on the south side of CRB and continue eastward crossing Center Parkway at grade and thence along the northern edge of the CRC campus to the west side of Bruceville Road. The CRB South design option was withdrawn from further consideration due to unacceptable noise, vibration, and visual impacts to residences between Franklin Boulevard and Center Parkway, concerns regarding access to the 90-inch sewer interceptor, and the need for a costly retaining structure at the CRC detention pond. Under the CRB Median option, the alignment would have crossed Franklin Boulevard to the north of CRB and then crossed westbound CRB lanes while moving into the median of CRB (via either a flyover or an at-grade crossing). The CRB Median option was rejected because it would conflict with the major sewer interceptor in this area.
- An additional option between Center Parkway and Bruceville Road was developed to cross CRB at-grade mid-block between Center Parkway and Bruceville Road, run along the northern edge of the CRC campus with an at-grade crossing of a college service driveway and turn south around the stadium berm onto the landscaped strip on the west side of Bruceville Road. This option was eliminated in favor of the reduced traffic impacts of the flyover.

Bruceville Road Segment

- The first withdrawn option would have followed the same basic alignment from CRB south on Bruceville Road, but about 1,000 feet south of CRB; it would turn east, cross into the median of Bruceville Road and include a station in the median. This option would have required a diagonal at grade LRT crossing of the intersection of Bruceville with West Stockton (the entrance to the new College Square development project). It was rejected due to the traffic impacts on this intersection and because CRC agreed to allow construction of a station on its property on the west side of Bruceville.
- The second rejected option would have been the similar to the first, but the alignment would have completely crossed Bruceville Road and constructed a station on the east side of Bruceville Road. It was rejected for the same reasons, traffic impacts and the ability to construct a station on the CRC property.
- The third option would have crossed the West Stockton Boulevard intersection at grade and continued southeasterly (diagonally) across the College Square development area and located the College Station platforms in the middle of the mixed-use development. It was eliminated from further consideration because of the distance of the station platform from the college and the resultant disadvantage to college student riders, the adverse impacts of the diagonal crossing alignment on pedestrian and vehicular circulation within the development, and the impact of this alignment on the development potential of the College Square itself.

LRT Segment from the CRC to Calvine/Auberry

- On April 12, 2004, the RT Board determined that the Project should terminate at CRC, thus withdrawing the LRT segment from CRC to Calvine/Auberry from further consideration as part of the Project. The RT Board noted the following reasons for elimination of this LRT segment from the current Project:
- The adopted Elk Grove General Plan identifies Bruceville/ Big Horn as the preferred LRT or Bus Rapid Transit (BRT) alignment. The Segment from CRC to Calvine/Auberry would be inconsistent with this Plan.
- Withdrawal of this LRT segment from the Project would reduce costs by ~\$28 million, making the project more cost effective and competitive for federal funding.
- While costs are reduced by ~\$28 million, the projected ridership would be reduced by only 200-400 riders.
- Sufficient land exists in the CRC Station area to meet the estimated parking demand at this Station for 2000 spaces. The previously proposed 11-acre parking area for the Calvine/Auberry Station was developed in 2004 into residential units, and acquisition of these residences would have been required under the previously proposed plan for the Calvine/Auberry Station
- FTA reviewed this decision by the RT Board and determined that the CRC terminus is a logical terminus, that the Phase 2 Project terminating at CRC has independent utility, and that the Project can be designed so that consideration of alternatives for a future Phase 3 extension are not precluded.

Description of the Project

The detailed description of the Project that is the subject of this ROD is presented in the SFEIS/SFEIR. The following is a brief summary of that description.

The Project would extend LRT service 4.3-miles from the South Sacramento Corridor Phase 1 terminus at Meadowview Road southward along the UPRR right-of-way, turning east crossing the UPRR and Union House Creek, continuing east to the north of the proposed extension of CRB, crossing Franklin Boulevard, traveling along the northern side of CRB, turning south along the western side of Bruceville Road and terminating at CRC.

Traction power substations will be located: (1) just north of the Morrison Creek Station, (2) in the southwest corner of the Franklin Station park-and-ride lot, (3) on the northern portion of CRC east of Center Parkway, and (4) in the vicinity of the tail tracks at CRC.

RT already has a sufficient number of LRT vehicles to operate the Project and additional vehicles are not required. Maintenance facility expansion is not necessary for the Project.

The bus service plan for the Project includes re-routing and re-orientation of existing fixed route bus service in the South Sacramento Corridor to avoid duplicate service and to provide feeder service to LRT stations. Also, new fixed route bus service feeding the light rail line primarily in the areas south of Meadowview Road and west of State Route 99 (SR 99) will be provided.

The Project would have the following four stations, with each station being fully accessible to disabled people in accordance with the Americans with Disabilities Act (ADA)

Morrison Creek Station

- *Location and Layout* - The Morrison Creek Station would be constructed approximately one-mile south of the existing Meadowview Road Station. It would be located just to the west of Morrison Creek and north of the planned extension of CRB. The station would have side platforms. The platforms would be 400 feet long and about 18 feet wide. The station is designed to serve a proposed transit oriented development planned for the area to the west of the station.
- *Pedestrian Access* - The station would be designed to connect with the future westerly development's pedestrian network in a manner that encourages future residents to walk and bike to the LRT station.
- *Bus Access* - Buses would use the same access as automobiles coming from the future westerly development's yet to be designed street network.
- *Automobile Access* - Automobiles would gain access to the station via a driveway that would connect to the yet to be designed adjacent development street network. It is assumed the future street network would connect to both CRB and Detroit Boulevard that would provide maximum vehicular access opportunities to the station.
- *Park-and-Ride Facilities* - This station is designed primarily for "walk on" traffic, and therefore limited park-and-ride capacity is provided. Fifty parking spaces would be provided, including the handicapped spaces.
- *Kiss-and-Ride Facilities* - Kiss-and-ride facilities would be provided adjacent to the platforms. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines.

Franklin Boulevard Station

- *Location and Layout* - The Franklin Station would be located in the SCRSD bufferlands area north of the planned CRB extension and just to the west of Franklin Boulevard. As the LRT alignment approaches from the west, it would turn northeast away from CRB and run along the south edge of a reconfigured City flood control detention basin, then turn southeast on a diagonal path to cross at grade the north leg of the intersection of Franklin Boulevard with CRB. The station would have side platforms that would be located on the southeasterly diagonal segment about 300 feet from Franklin Boulevard. The LRT alignment makes this diversion away from CRB so vehicles can enter the station's park-and-ride lot without crossing the LRT tracks.
- *Pedestrian Access* - Pedestrian access to the platforms would be provided from both Franklin Boulevard and the future CRB Extension. The station also includes a pedestrian access path from the end of Deer Lake Drive in the subdivision to the north. This path would start at the Deer Lake Drive cul-de-sac, cross over Union House Creek on a pedestrian bridge, pass through the northerly bufferlands area, and end at the station platforms. The exact route of this path through the bufferlands would be determined working with the SCRSD during the project's final design process.
- *Bus Access* - Buses would use the same access as cars initially entering the station from an entrance driveway that would make up the western leg of the Franklin Boulevard/CRB intersection. Upon future completion of the CRB extension, this entrance would be closed and a new permanent driveway access would be opened approximately 800 feet west of the Franklin Blvd/CRB intersection.
- *Automobile Access* - Vehicular access to the station would initially be via an entrance driveway that would make up the western leg of the Franklin Boulevard/CRB intersection. Upon future completion of the CRB extension, this entrance would be closed and a new permanent driveway access would be opened approximately 800 feet west of the Franklin Blvd/CRB intersection.
- *Park-and-ride Facilities* - The station would contain space for approximately 650 vehicles to include the required number of handicapped spaces. The station's park-and-ride lot would be

constructed on engineered fill to conform to the expected elevation of the CRB extension and to be above the elevation of the 100-year floodplain

- *Kiss-and-ride Facilities* – The station would include kiss-and-ride facilities adjacent to the platforms. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines

Center Parkway Station

- *Location and Layout* – The Center Parkway Station would be a walk-on station with no park-and-ride facilities. The station would be located north of CRB directly west of Center Parkway. The station would have a side platform configuration. The southerly platform would be 25 feet wide and 400 feet long. The northerly platform would be 18 feet wide and 400 feet long.
- *Pedestrian Access* - Pedestrian access to the platforms would be via sidewalks along both CRB and Center Parkway. A pedestrian access bridge/path would be provided from the south end of Valley Green Drive in the subdivision to the north. This path would start at the Valley Green Drive cul-de-sac, cross over Union House Creek on a pedestrian bridge, and continue along the southern edge of Union House Creek to end at the station platforms and Center Parkway. The path along the southern edge of Union House Creek would also extend west to Franklin Blvd. thus also providing access to the Franklin Station.
- *Bus Access* - Bus access would be provided to the station by providing bus stops along Center Parkway. Bus stops would be provided on Center Parkway just north of the intersection with CRB for northbound and southbound Center Parkway traffic. The existing bridge would be widened to mitigate traffic impacts. This widening would require acquisition of a small strip of property north of the bridge.
- *Automobile Access* – Automobile access to this station is via the existing street network. As this is primarily a walk on station, only kiss-and-ride facilities will be provided along westbound CRB.
- *Park-and-ride Facilities* – No park-and-ride facilities are proposed for this station.
- *Kiss-and-ride Facilities* – The station would include kiss-and-ride pullouts immediately adjacent to the southern platform along westbound CRB and at the southeast corner of the intersection. The appropriate number of kiss-and-ride spaces would be provided in conformance with RT's Station Guidelines.

Cosumnes River College Station

- *Location and Layout* - The CRC Station would be located just north of the College entrance along the west side of Bruceville Road. Tail tracks would extend south of the station and south of the College entrance. The station would have side platforms 18 feet wide and 400 feet long.
- *Parking on the campus* would be open to both students and commuters. A 2,000 space-parking garage would be constructed south of the main College Entrance road off of Bruceville Road and would be open to both students and commuters. It is anticipated that the structure could be constructed by the Los Rios Community College District and CRC, with future financial participation from RT.
- *Bus terminal, kiss-and-ride and handicapped parking* would be provided immediately adjacent to and west of the platforms. The station would be the terminus station for the Project, and would be designed so as not to constrain options for future extensions as part of a Phase 3 extension.
- *Pedestrian Access* - Pedestrians access the station via walkways within the college campus.
- *Bus Access* - Bus circulation would be provided west of the platforms and with access from Bruceville Road and the College entrance.
- *Automobile Access* – Automobile access for kiss-and-ride and handicapped parking would be via the main College Entrance and Bruceville Road. Access to the parking structure would be via a

new campus driveway off of Old Calvine Road as well as the main college entrance off of Bruceville Road.

- *Park-and-ride Facilities* – An optional parking structure is under review just to the west of the platforms.
- *Kiss-and-ride Facilities* – The station would include kiss-and-ride facilities west of the platforms and bus circulation in conformance with RT's Station Guidelines.

Basis for Decision

FTA has determined, in accordance with 40 CFR 1505.2(a), that the Build Alternative (Project) is the environmentally preferred alternative for the following reasons:

It is responsive to goals and objectives. The Purpose and Need statement summarized below and detailed in Chapter 1 of the SFEIS/SFEIR identifies and describes the transportation problems that the proposed action is intended to address and specifies the underlying purposes of and need for the proposed action.

The South Sacramento Corridor is one of the fastest growing areas of metropolitan Sacramento. Improving public transit services to provide faster, more convenient access between the South Corridor and downtown Sacramento as well as to major activity centers is the primary purpose of the Project. Meeting this primary project purpose would also address the following related needs:

- Enhance regional connectivity through expanded, interconnected LRT services along the primary travel corridors in Sacramento County, by connecting the project area with Interstate 80 (I-80) east (existing Northeast LRT Line), US 50 (existing Folsom LRT Line with extensions), and State Route 99 (SR 99)/I-5
- Accommodate future travel demand in the corridor by increasing transit capacity and expanding modal options.
- Reduce the growth in traffic congestion on SR 99 and I-5 between downtown Sacramento and the communities of Elk Grove, Laguna Creek, and Laguna West, and on the major north-south arterials in South Sacramento, such as Franklin Boulevard and Bruceville Road.
- Improve regional air quality by reducing auto emissions
- Improve mobility options to employment, education, medical, and retail centers for corridor residents, in particular low-income and ethnic minority populations and provide a mobility option to the use of congested highways.
- Support local economic and land development goals by increasing transit service to current and future corridor activity centers.

In addition, the Project offers the following transportation improvements and related benefits:

- *Increased Transit Patronage* - The Project will result in more daily person trips by transit than would the No-Build Alternative.
- *Improved Transit Travel Time* - The Project will result in travel time savings when compared with the No-Build Alternative.
- *Consistency with Local Plans* - The Project more supportive of local land use, revitalization, and redevelopment plans as compared to the No-Build Alternative

- *Transit Opportunities to the Transit Dependent and Special Needs Groups* – The Project will provide better connections, more regional access, and better travel times than would the No-Build Alternative.
- *Maintenance of Air Quality* - The Project will provide reductions in the criteria pollutants and help the metropolitan area to improve its air quality.
- *Environmental Impacts* - The Project will result in greater impacts than would the No-Build or TSM alternatives. It will also have temporary construction impacts. However, mitigation has been identified and is being implemented as part of the Mitigation Plan for the Project to reduce the impacts as much as reasonable

Measures to Minimize Harm

All practicable means to avoid or minimize environmental harm from the Project have been adopted. The mitigation commitments are fully identified in the SFEIS/SFEIR and are summarized in the Mitigation Plan (Attachment A).

FTA will require as a condition of any grant or grant agreement with RT that all committed mitigation measures in the SFEIS be implemented, unless FTA approves of a change in writing, after an appropriate NEPA review. FTA will also require that RT submit written reports on the progress in implementing the mitigation commitments. FTA will monitor this progress through review of the design and construction of the Project.

Comments Received on the SFEIS within the 30-day Availability Period

In response to the public notice of availability published in the Federal Register on October 17, 2008, FTA received one response letter, from the United States Environmental Protection Agency (EPA), Region IX office (see Attachment B). The letter noted EPA's review of the project's SDEIS and provided comments to the FTA previously. The letter also noted EPA's rating of the project's SDEIS under the category Lack of Objections (LO) and encouraged the Sacramento Regional Transit District (RT) to implement parking garage options and include additional information on air quality, water quality, and cumulative impacts in the SFEIS. The 2,000-space parking garage at CRC is included in the adopted Project, and additional information regarding air quality, water quality, and cumulative impacts was added to the SFEIS per EPA's request. EPA notes that prior to the completion of the SFEIS, the project has been altered by moving the proposed alignment off the Morrison Creek levee and addition of a grade separation over Cosumnes River Boulevard.

Furthermore, the EPA has reviewed the Final Environmental Impact Statement (FEIS) for the Interstate 5/Cosumnes River Boulevard Extension proposed by the Federal Highway Administration (FHWA). As the project is located within proximity of the SSCP2 Project, EPA encourages the FTA and RT to coordinate with FHWA on planning and construction of these projects. EPA encourages coordination efforts be directed towards the following areas:

- Minimizing and mitigating the cumulative construction impacts of the two projects on air quality, traffic, and the local community;
- Avoiding design conflicts between the two projects; and,

- Providing sufficient pedestrian improvements, as part of the Boulevard Extension, to ensure a safe environment for pedestrians who may use the road to access nearby light rail stations.

RT has been coordinating efforts with the City of Sacramento (Interstate 5/Cosumnes River Boulevard Project Agency) on the two projects. RT's Civil, Track and Structure Design Consultants undertaking RT's work on SSCP2 project are also involved in the City's Boulevard Extension Project thus ensuring that design conflicts and other impacts are avoided or reduced, to the extent feasible, to lessen impacts on both projects.

Determinations and Findings

The environmental record for the Project consists of the previously referenced AA/DEIS, the SDEIS, and the SFEIS. Cumulatively, these documents represent the detailed statement required by both NEPA and the Federal Transit Laws, 49 USC Section and 5324(b), regarding the environmental impacts of the proposed Project, any adverse environmental effects which cannot be avoided should the proposed project be implemented, alternatives to the proposed project, and any irreversible and irretrievable impacts on the environment which may be involved in the proposed Project should it be implemented.

On the basis of the evaluation of social, economic, and environmental impacts presented in the environmental record for the Project, FTA has determined, in accordance with 49 USC 5324(b), that:

1. An adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest in the Project and fair consideration has been given to the preservation and enhancement of the environment and to the interest of the community in which the proposed Project is to be located; and
2. All reasonable steps have been taken to minimize the adverse environmental effects of the proposed Project and where adverse environmental effects remain, no feasible and prudent alternative to avoid or further mitigate such effect exists.

Historical and Archaeological Resources

FTA has determined, and the California State Historic Preservation Officer (SHPO) has concurred, that there are no properties within the Project's area of potential effects that are eligible for the National Register of Historic Places. RT has committed to certain historic preservation mitigation measures as shown in the Mitigation Plan (Attachment A).

Surveys conducted within the Areas of Potential Effects (APE) for archaeological and architectural resources have identified no resources that are eligible for the National Register of Historic Places. A Historic Properties Survey Report was prepared and submitted to the State Historic Preservation Officer (SHPO) on August 5, 2003. The SHPO concurred in the determination that no eligible properties would be affected by the Project on June 21, 2006. The Native American Heritage Commission (NAHC) was contacted to perform a Sacred Lands file search and contacts provided by NAHC were requested to share information, express concerns, and make recommendations regarding the project. This coordination identified no Sacred Lands in the Project's vicinity. One Native American contact requested additional

information; this information has been provided and coordination is ongoing. SHPO concurrence concludes consultations under Section 106 unless unanticipated cultural materials are discovered during construction. In that case, RT would notify FTA to provide for additional consultation with SHPO and other consulting parties as appropriate.

Conformity with Air Quality Plans

The Federal Clean Air Act (CAA), as amended, requires that transportation projects conform to the State Implementation Plan's (SIP) purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and of achieving expeditious attainment of such standards. The EPA regulation implementing this provision of the CAA (40 CFR Part 93) establishes criteria for demonstrating that a transportation project conforms to applicable air quality plans.

In order to demonstrate conformity with the federally approved SIP, as required by EPA conformity regulations, a project must satisfy a number of regulatory conditions established in the regulations. The Project satisfies the EPA conformity requirements, as documented in the SFEIS in Section 4.3.1. Also, this project arises from the conforming and financially constrained SACOG 2008 Metropolitan Transportation Plan (MTP) for 2025.

Section 4(f) Finding

Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303) affords special protection to public parks, recreation areas, wildlife refuges, and historic sites. The use of such land regulated by Section 4(f) includes: (1) permanent taking or acquisition of lands as identified above and (2) "constructive use" which is a substantial impairment of the activities, features, or attributes of the Section 4(f) land due to the proximity of a transportation project. Section 4.18 of the SFEIS addresses this topic. The FTA has determined, in consultation with the U.S. Department of Interior and the SHPO, that there are no Section 4(f) properties in the Project area.

Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), dated February 11, 1994, calls on Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of Federal activities on minority populations and low-income populations.

The introduction of LRT tracks and stations along the alignment would not cause disproportionately high and adverse impacts on minority or low-income populations. The northern segment of the corridor already contains freight railroad tracks, where well established communities have developed with this physical feature in place. The Project would cause the displacement of two residences and no business displacement. All potential impacts on area residents, including minority or low-income populations, would be minimized through mitigation measures included in the Project.

Floodplain Impact

Executive Order 11988 links the need to protect lives and property with the need to restore and preserve natural and beneficial floodplain values. Specifically, Federal agencies are directed to avoid conducting, allowing, or supporting actions on the base floodplain unless the agency finds that the base floodplain is the only practicable location. Similarly, Department of Transportation (DOT) Order 5650.2, which implements Executive Order 11988 prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of adverse floodplain impacts in Federal agency actions. As documented in Section 4.9.1.3 of the SFEIS, almost three miles of the Project is located within the 100-year (base) floodplain and constitutes a significant encroachment on the floodplain. From Morrison Creek to Union House Creek, and from Franklin Boulevard to Center Parkway, a recently completed flood control project (by others) will eliminate 100-year flood hazards. From Union House Creek to Franklin Boulevard, the Project would be constructed on a fill embankment above the 100-year flood elevation. Culverts through the embankment would convey stormwater runoff and flood flows. The Franklin park-and-ride lot would be constructed above the 100-year flood elevation. The south berm of a large detention basin at Franklin Station would be modified. Flood storage reduction would be avoided. Coordination with the appropriate State and local flood control agencies is identified and the appropriate mitigation is detailed in the SFEIS and summarized in Attachment A.

Wetland Impact

DOT Order 5660.1.A requires DOT to “assure the protection, preservation, and enhancement of the nation’s wetlands to the fullest extent practicable during the planning, construction and operation of transportation facilities and projects.” In accordance with Executive Order 11990, “new construction located in wetlands shall be avoided unless there is no practicable alternative to the construction and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such construction.”

Consultation with the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the U.S. Army Corps of Engineers (USACE) in accordance with the Western States Memorandum of Understanding (MOU) for Integrated Processing of NEPA and Section 404 of the Clean Water Act would apply if the Project were to require an individual permit under Section 404 or affect special aquatic sites. Impacts to wetlands and waters of the U.S. that would occur under the Project, as described in Section 4.4.4.3 of the SFEIS, are below the thresholds requiring an individual Section 404 permit. Therefore, the MOU does not apply to the Project. It is anticipated that the Project will qualify for a nationwide permit 14 for linear transportation crossings.

Endangered Species Impact

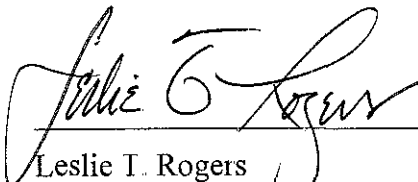
The Executive Order pertaining to endangered species requires Federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to insure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. As discussed in Section 4.4 of the SFEIS, the Project would affect up to 0.14 acres of seasonal wetlands that provide suitable

habitat for vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella; 0.04 acres of suitable habitat for western pond turtle and giant garter snake; and up to 63 acres of nesting and foraging habitat for 13 special-status bird species. The project would also result in the loss of Valley oaks (*Quercus lobata*), interior live oak (*Quercus wislizenii*), and blue oak (*Quercus douglasii*) from SRCS bufferlands.

Consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the federal Endangered Species Act and with the California Department of Fish and Game (CDFG) under the California Endangered Species Act has been conducted regarding potential impacts to vernal pool crustaceans, giant garter snake and foraging and nesting habitat for various special-status bird species. Details regarding these species are provided in Section 4.4.3.2, Special-Status Species. FTA submitted the Preliminary Biological Assessment and proposed mitigation measures to USFWS in October 2006. The USFWS issued a Biological Opinion (BO) (81420-2008-F-0285) for the project on April 18, 2008 (please see Attachment C) which provides the basis for mitigating biological impacts related to the Project and are incorporated into this ROD in its entirety. It is anticipated that CDFG will review the impact areas with RT in the field and will return its determination that the BA and USFWS biological opinion are consistent with the California Endangered Species Act.

Finding

On the basis of the determinations made in compliance with relevant provisions of federal law, FTA finds the South Sacramento Corridor Phase 2 Project has satisfied the requirements of the National Environmental Policy Act of 1969, the Clean Air Act of 1970 and the U.S. Department of Transportation Act of 1966, all as amended.



Leslie T. Rogers
Regional Administrator, Region IX

DEC 18 2008

Date

Attachments

ATTACHMENT A

ATTACHMENT A: MITIGATION PLAN

The mitigation measures and other Project features that reduce adverse impacts, to which FTA and RT committed in the SFEIS/SFEIR, are summarized in the following table. This summary table is provided in the Record of Decision (ROD) to facilitate the monitoring of the implementation of the mitigation measures. However, the SFEIS/SFEIR provides the full description of all mitigation measures that are included in the Project. RT will establish a program for monitoring the implementation of the mitigation measures as part of its Project Management Plan.

RT is prohibited from eliminating or altering any of the mitigation commitments identified in the SFEIS/SFEIR for the Project without express written approval by FTA. In addition, any change to the Project that may involve new or changed environmental or community impacts not considered in the SFEIS/SFEIR must be reviewed in accordance with FTA environmental procedures (23 CFR Part 771.130). RT will immediately notify FTA of any change to the Project that differs in any way from what the SFEIS/SFEIR states. If a change is needed, the FTA will determine the appropriate level of environmental review (i.e., a written re-evaluation of the SFEIS/SFEIR, an environmental assessment of the change, or another supplemental environmental impact statement), and the NEPA process for this supplemental environmental review will conclude with a separate NEPA determination, or, if necessary, an amendment of this ROD.

ATTACHMENT A

SOUTH SACRAMENTO CORRIDOR PHASE 2

MITIGATION MEASURES SUMMARY LIST

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
Traffic. Transportation & Delays at Grade Crossings	• T-1 - Provide second southbound left turn lane & overlap for right turn phases at Center Pkwy & Cosumnes River Blvd (CRB). Widen bridge over Union House Creek.	3-46	Sacramento Regional Transit District (RT)	Construction	
	• T-2 - Provide overlap for right turn phases at Franklin Blvd & CRB.				
	• T-3 - Provide second eastbound left turn lane at Bruceville Rd & Cosumnes River College (CRC). Add a shared through-right turn lane.				
	• T-4 - Provide overlap signal phasing on right turn at Bruceville Rd & Old Calvine Rd.				
	• T-5 - Signalize CRC new South Access & Old Calvine Rd intersection.				
	• T-6 - Provide protected phasing for northbound & southbound approaches at Auberry Dr & Calvine Rd.				
	• T-7 - Implement crossing signal control measures at grade crossings near stations.	3-47			
	• T-8 - Implement "near side" crossing signal controls at Center Pkwy/CRB, Franklin Blvd/CRB, & Bruceville Rd/CRC.				
	• T-10 - Add second southbound left turn lane at Center Pkwy & CRB. Overlap right turn phases & restripe eastbound approach.	3-53			
	• T-11 - Provide overlap for right turn phases at Bruceville Rd & CRB.				
	• T-12 - Provide overlap for right turn phases at Bruceville Rd & Sheldon Rd.				

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	T-9 - Provide equipment on express trains to bypass timed delay.	3-47	RT	Pre-Construction	
Parking	P-1 - Provide parking at Morrison Creek Station (30 spaces), Franklin Station/Bus P&R (520 spaces), & CRC Station/Transit Center (1,830 spaces).	3-56	RT, CRC	Construction	Include CRC parking in cooperative agreement between RT & CRC
	P-2 - Monitor on-street parking near Center Pkwy station. Work with Sacramento City to implement parking permit program, as needed.	3-56	RT; City of Sacramento	Post-Construction	
Visual & Aesthetics	V&A-1 – RT will invite public participation regarding station & noise wall design during final design phase.	4-9	RT	Pre-Construction	
	V&A-2 – RT will incorporate landscaping into design of project facilities to soften views at LRT stations, P&R lots, parking structure and substations.				
	V&A-3 – RT will control potential light and glare by directing lighting from LRT facilities onto the LRT properties.	4-9	RT	Construction	
Biological Resources	- B-1 – With USFWS approval, RT will purchase 2.26 acres of preservation credits & 0.14 acres of creation/restoration credits for impacts to vernal pool crustacean habitat. - B-2 - If required, and with USFWS approval, RT will, following completion of the related I-5/CRB Interchange Project, transplant directly affected elderberry shrubs & purchase beetle habitat credits. - B-3 – With USFWS co-operation, RT will	4-53	RT	Pre-Construction	Level of credits for Western

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	purchase 9.823 acres of giant garter snake habitat credits. • B-4 - Explore use of SRCSD Bufferlands for habitat compensation for special-status birds. • B-5 – If necessary, RT will consult with CDFG on the purchase credits for impacts to western burrowing owl habitat. • B-6 – With the approval of CDFG, RT will purchase credits for impacts to Swainson's hawk habitat. • B-7 - Avoid to the extent practicable the removal of native oaks, mature native riparian trees, & other protected trees. Provide an arborist to record location, species, size, & canopy diameter. Develop & implement a mitigation plan & compensate for loss of protected trees. Submit the plan to the City of Sacramento Tree Services Department for review. • B-8 - Obtain all necessary permits for affected waters of the U.S. – Section 404 permit, Streambed Alteration Agreement, Section 401 certification, Section 402 permit, & preparation of Storm Water Pollution Prevention Plan. • B-9 - Purchase mitigation credits in an US ACOE-approved wetland mitigation bank or an in lieu fee.	4-54			burrowing owl & Swainson's hawk to be determined in consultation with CDFG. Level of wetland credits to be purchased to be determined in consultation with US ACOE
Cultural Resources	• H&C-1 - Assure monitoring by archaeologist and if possible, a member of local Native American community. The monitors will have the ability to temporarily stop work in an area where archaeological material or	4-60 4-61	RT	Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	human remains are uncovered. • H&C-2 - Address unanticipated archaeological resources in consultation with the (OHP).				
EMF	• EMF-1 - Install specialized components, such as filters, capacitors & inductors that can also reduce EMI susceptibility of certain systems, as appropriate.	4-64	RT	Construction	Include in contracts
	• EMF-2 - Ensure electronic equipment is operated with a good electrical ground & proper shielding for electronic system cords, cables, & peripherals.	4-64	RT	Post-Construction	
Hazardous Wastes & Materials	• HW-1 - Test for lead in exposed soil in median or shoulder of primary traffic corridors older than 20 years. • HW-2 – In the three residential buildings scheduled for demolition, inspect & test for asbestos containing materials & lead based paints. • HW-3 – RT will develop a construction management plan describing how contractors will monitor for subsurface contamination. Collect & analyze suspected contamination by Cal-EPA's Environmental Laboratory Accreditation Program. • HW-5 - Collect site-specific information regarding hazardous materials use &	4-70	RT	Pre-Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	inaccessible properties. • HW-6 - Perform Phase 2 site investigations where indicated by documented groundwater contamination. Interview operators/owners to develop history of possible hazardous materials use at site. The information collected will be used to develop safe and environmentally sound practices and procedures for the project's Construction Management Plan.	4-71			
	• HW-4 - Prepare & implement a contingency plan for handling/disposing of contaminated soil & groundwater. • HW-7 - Evaluate any contaminated materials encountered in the context of applicable local state, & federal regulations &/or guidelines governing hazardous wastes. • HW-8 - Remediate &/or dispose of hazardous materials following applicable regulations &/or guidelines.	4-70 4-71	RT	Construction	Include in contracts
Hydrology, Floodplain & Water Quality	• WQ-1 - Continue to consult with ACOE, Central Valley Flood Protection Board, & SAFCA regarding progress of related SSCS Phase 1B Project to ensure that a Final Floodplain Protection Plan is in place as planned prior to entry into New Starts Final Design. • WQ-2 - If SSCS project delayed, & floodplain protection plan not in place, incorporate mitigation measures into the Project design to minimize impacts due to potential flooding.	4-80	RT	Pre-Construction	

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	WQ-3 - Excavate compensating floodplain storage equal to the amount removed, or pay a mitigation fee to SAFCA for fill in 100-year floodplain for Union House Creek area. Conduct modifications to detention basin south berm in the vicinity of Franklin Station, or if net loss is unavoidable, create flood storage in coordination with SAFCA & ACOE.	4-80	RT	Construction	
	WQ-4 - Regularly clean parking lot pavements, catch basins, & storm drains. Collect solid waste from facilities on a regular basis. Where feasible, detention basins & bioswales may be used & increase the size of or construct detention basins. Consider use of oil-water separator drainage facilities. At the Franklin Station, it is proposed to increase the size of the existing City detention basin for storm water run-off. At the CRC Station, additional storage capacity is to be provided by construction of a new on-site detention basin or a large underground pipe. Use of oil-water separator drainage facilities will be considered at all parking facilities.	4-81	RT	Construction & Post-Construction	
Noise & Vibration	N&V-2 - Consider sound insulation as an alternative to SSCP2 sound walls for residences near the Meadowview Rd crossing & as an alternative to the first 2,000' of sound walls (SW6) at N. Laguna Dr, south of CRB.	4-135 4-136	RT	Pre-Construction	

- N&V-3 - Should CRB project move forward into preliminary design stages prior to LRT,

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	coordinate mitigation with SAFCA, ACOE, & City of Sacramento to address noise barrier needs of SSCP2 Project, flood control, & CRB Widening & Extension projects.				
	• N&V-1 - Construct noise barriers at the following locations to mitigate noise impacts in compliance with FTA & RT criteria: ○ East & west sides of UPRR/LRT ROW between Meadowview Rd & Morrison Creek. ○ Northeast side of UPRR/Union House Creek LRT flyover. ○ North & south sides of CRB between Franklin Blvd & Center Pkwy. ○ North of CRB between Center Pkwy & CRB flyover. ○ North side of CRB flyover.	4-131 4-137	RT	Construction	Include in contracts

Height of noise walls will be between 6 feet (from top of rail) to 12 feet depending on location. Project noise walls will total 39,100 linear feet. Consult p. 4-132 of FEIS for precise locations.

Page 8

- N&V-5 - Calibrate at-grade crossing bell

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	approval to use shrouds on the audible warning devices at Meadowview Rd. Should CPUC not approve use of shrouds, apply other forms of mitigation, i.e., sound insulation or additional sound walls. Place shrouds on audible warning devices at Center Pkwy that direct sound towards Center Pkwy. • N&V-6 - Use ballast mats to reduce vibration levels in sensitive areas: station 347+00 to 375+50 and 384+00 to 390+50.				
	• N&V-4 - Minimize wheel squeal impacts at crossovers & various approaches by implementing an ongoing rail grinding program along with the recommended wheel profile.	4-136	RT	Post-Construction	
Safety & Security	• S-1 - Continue to coordinate during final design with security representatives from RT's internal security & Sacramento Fire Dept. to review appropriate security & emergency access provisions at the LRT stations. • S-4 - During final design, invite public participation regarding station design details to identify & address safety & security concerns.	4-167	RT	Pre-Construction	
	• S-2 - Provide safety & security services by increasing contract security services & assigned law enforcement personnel. • S-3 - Expand fire safety & emergency response training to include fire districts in SSCP2 corridor.	4-167	RT	Post-Construction	
Construction-	• CA-1 - Maintain construction sites in an		RT	Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
Phase Impact on Aesthetics	orderly manner, remove trash & waste, & secure equipment & vehicles at the close of each day's operation. • CA-2 - Direct lighting onto the immediate construction area & away from residences & traffic lanes. Nighttime construction would possibly occur only for those activities involving street closures for mitigating impacts to the traveling such as grading and installation of tracks across roadway, installation of grade crossing safety devices and utility relocations. • CA-3 - Use water trucks during grading to keep the ground moist.	5-7			
Construction-Phase Impact on Air Quality	• CAQ-1 - Sweep & water construction areas and vicinity (500 foot radius) at least twice daily while maintaining 10 percent surface soil moisture throughout earth-moving activities. • CAQ-2 - Water unpaved roads, parking & staging areas once every two hours of active operations. • CAQ-3- Sweep/wash site access points within 30 minutes of visible dirt deposition.	5-9 5-10	RT	Construction	Include in contracts

- CAQ-4 - Enclose & cover or water on-site stockpiles of debris or dirt at least twice daily.
- CAQ-5 - Cover all haul trucks hauling materials & maintain at least two feet of

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	• CAQ-7 - Water on a daily basis when there is evidence of wind-driven fugitive dust on at least 80 percent of inactive disturbed surface areas. • CAQ-8 - Suspend operations on unpaved surfaces when winds exceed 25 mph. • CAQ-9 - Limit traffic speeds on unpaved roads to 15 miles per hour. • CAQ-10 - Suspend operations on any unpaved surfaces during first & second stage smog alerts. • CAQ-11 - Maintain truck loading zones in the construction area. • CAQ-12 - Provide temporary traffic control during all phases of construction. • CAQ-13 - Apply best efforts to limit truck idling to no more than two minutes. • CAQ-14 - Apply non-toxic soil stabilizers (according to manufacturers' specifications) to all inactive construction areas.				
	• CAQ-15 - Submit a plan to SMAQMD for approval to achieve a project-wide off-road vehicle fleet-average reduction of roughly 20% for NO_x & approximately 45% for PM₁₀ (compared to the most recent CARB fleet average at time of construction). • CAQ-16 - Submit inventory monthly (except for any 30-day period in which there is no construction activity) to SMAQMD of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used 40 or more hours during any part of	5-10	RT & SMAQMD	Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	construction phase. Provide SMAQMD with anticipated construction timeline at least 48 hours prior to the use of subject heavy-duty off-road equipment. • CAQ-17 - Off-road diesel-powered equipment emissions shall not exceed 40% opacity for more than three minutes in any one hour. Immediately repair & notify SMAQMD of any equipment found to exceed 40% opacity within 48 hours of identification of non-compliant equipment. Survey visually all in-operation equipment at least twice weekly & prepare monthly summary of results.				
Construction-Phase Impacts on Biological Resources	• CB-1 - Include copy of Biological Opinion (BO) within solicitations for design & construction & make contractor responsible for implementing requirements in the BO and to educate and inform all other contractors involved in the project of the requirements of the BO. <i>Valley Elderberry Longhorn Beetle</i> • CB-18 - Conduct a survey to assess the status of existing elderberry shrubs within the project site. If discovered, reinitiate consultation with USFWS.	5-12	RT, CDFG, USFWS, &/or USCOE	Pre-Construction	
	<i>Giant Garter Snake (GSS)</i> • CB-33 – RT will compensate for project-related temporary impacts to Giant Garter Snake habitat by purchasing the equivalent of	5-15			
		5-16			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	8.44 acres of GGS habitat credits. All temporary effects will be compensated for at a 1:1 ratio. <i>Nesting Migratory & Special-Status Birds</i> • CB-34 - Conduct pre-construction surveys for migratory bird, raptor, or special-status active bird's nests within 0.25 miles of the project area if construction or tree removal will occur between February & August. • CB-35 - Conduct surveys for migratory bird, raptor, or special-status birds no more than 30 days prior to the initiation of construction activities. • CB-36 - Avoid direct disturbance during breeding season & establish no-disturbance buffers around active nests to the extent feasible. The project proponent will contact CDFG to determine the need to monitor the nest and/or the size and configuration of the buffers on a case-by-case basis. • CB-37 – If necessary, raptor or migratory bird nest trees shall be removed outside of the nesting season (February through August), or after a qualified biologist determines that the nest is empty & adult & young birds leave the tree. If active nests are found, consult with USFWS & CDFG to develop avoidance/ minimization measures. <i>Swainson's Hawk</i> • CB-39 – A qualified biologist will conduct	5-17			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	an annual survey for Swainson's hawk nests within 0.5 miles of the project area. Annual surveys are to take place between March-August 15. If nests are discovered, consult with CDFG to determine avoidance measures. <i>Western Burrowing Owl</i> • CB-40 - Consider the following as impacts to burrowing owls: disturbance within 160 ft of an occupied burrow, destruction of occupied natural & artificial burrows, & destruction &/or degradation of foraging habitat adjacent (within 330 ft) of to an occupied burrow(s). • CB-41 – To avoid impacts on western burrowing owls, a qualified biologist shall conduct a pre-construction survey for owls & burrows within 330 feet of the alignment no more than two weeks before construction. • CB-43 – Passively relocate occupied owl burrows using techniques approved by CDFG if adverse effects are unavoidable. Occupied burrows are not to be disturbed during nesting season unless a qualified biologist verifies that birds have not begun egg-laying and incubation, or that juveniles from occupied burrows are capable of independent survival. Occupied burrows are not to be disturbed during nesting season unless a qualified biologist verifies that birds have not begun egg-laying and incubation, or that juveniles from occupied burrows are capable of	5-17 5-18			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	independent survival. To offset the loss of foraging and burrow habitat on the project site, a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird, should be acquired and permanently protected. The amount of habitat to be acquired will be determined through coordination with CDFG. The habitat should be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFG.				
	• CB-2 - Implement measures consistent with Best Management Practices (BMPs), including Storm Water Pollution Prevention Plan (SWPPP) & Water Pollution Control Program (WPCP) to minimize effects to giant garter snake & prevent pollution of streams, waterways, & other bodies of water during construction, to prevent sedimentation from entering Environmentally Sensitive Areas (ESAs), & to reduce erosion, dust, noise, & other deleterious aspects of construction related activities. BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning equipment in or near ESAs, installation of vegetative strips, & temporary sediment disposal. Runoff from dust control & hazardous materials will be	5-12	RT	Construction	Include in Contract

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	• CB-4 - Use excavation techniques that ensure stability of subsurface materials as well as retention of excavated materials within the construction areas.				
	• CB-5 - Avoid construction within wetlands during the rainy season. • CB-6 - Place materials & fluids generated by construction activities at least 100 feet from wetland areas or drainages. • CB-7 – After construction activities are complete, remove all temporary fill/debris & restore disturbed areas to pre-project conditions, using native grass seed mixes. • CB-8 – In all natural communities and wetland areas located outside the construction zone that could be affected by construction activities, install & maintain high visibility fencing around habitats of	5-13	RT, CDFG, USFWS, &/or USCOE	Construction	Include in contracts

federally listed species & designate them as Environmentally Sensitive Area(s) (ESAs). Page 16

- CB-9 – Prior to the commencement of construction activities, high visibility fencing will be erected around habitats of federally listed species. Install high visibility fencing

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	approved biological monitor is present during construction within suitable habitat. If a snake is encountered, all construction activities in the immediate area shall be halted until appropriate corrective measures are implemented. At least 30 days prior to initiating construction activities, the RT shall submit the names and resumes of the biological monitors for the project to the USFWS for approval. • CB-11 – Prior to the commencement of construction activities, implement a Worker Environmental Awareness Training Program for all construction personnel and contractors to be conducted by the USFWS-approved biologist. Written documentation of the training must be submitted to the USFWS within 30 days of completion of the training. As needed, training shall be conducted in Spanish for Spanish language speakers. • CB-12 - Restrict number & size of access roads & staging areas to minimum necessary. Clearly demarcate routes & boundaries. Confine construction materials, portable equipment, vehicles, etc to staging areas. Observe a 20 MPH speed limit within construction areas except on public roadways. • CB-13 - Dispose of food-related trash items in closed containers & remove at the end of each work day from the entire project site. <i>Preventing Noxious Weeds</i>	5-13 5-14			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	• CB-16 – The contractor will be responsible for avoiding the introduction of new noxious weeds & the spread of weeds previously documented at the project area using the following measures: ○ Minimize surface disturbance to the greatest extent possible, ○ Seed all disturbed areas as provided in the revegetation plan developed in cooperation with CDFG, Mulch with certified weed-free mulch. Rice straw may be used to mulch upland areas. ○ Clean equipment upon exiting or entering the project area, ○ Stabilize site conditions with the use of native, non-invasive species or nonpersistent hybrids in erosion control plantings, ○ Provide all seed mixes to SRCSD Bufferlands staff for review and approval prior to use. <i>Special Status Wildlife</i> • CB-17 - Where possible, protect habitat for vernal pool fairy shrimp, Midvalley fairy shrimp, vernal pool tadpole shrimp, & California linderiella by a 50-foot buffer zone with exclusionary fencing. Maintain & inspect fencing on a regular basis until construction is completed. <i>Valley Elderberry Longhorn Beetle</i>	5-14 5-15			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	• CB-19 - Prohibit construction within 100 ft. of elderberry plants during beetle emergence & mating period (March 15 – June 30). • CB-20 - Prohibit application of herbicides, insecticides, &/or other chemical agents within 100 feet of elderberry plants or where they might drift or wash into the area of elderberry plants. • CB-21 – Construct protective fencing at a minimum of 20 feet around each elderberry shrubs within 100 feet of the project perimeter that are not removed prior to initiating construction activities on the site. Maintain & inspect fencing on a regular basis until construction is completed. Post warning signs for the protected habitat at 50 foot intervals. <i>Western Pond Turtle</i> • CB-23 – A qualified biologist shall conduct a pre-construction survey of all project affected aquatic habitats no more than 24 hours prior to instream construction or disturbance of riparian vegetation. If western pond turtles are found, on-site monitoring & possible relocation shall be implemented. Submit plans for on-site monitoring and/or relocation to appropriate agencies for approval prior to implementation. <i>Giant Garter Snake</i> • CB-24 - Construction in Giant Garter Snake (GGS) habitat shall be conducted May 1 to	5-15			
		5-16			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	October 1. If construction goes beyond October 1, contact the USFWS, but not later than September 15 of the year in question to determine if additional measures are necessary to minimize take. Avoid construction within 200 feet from GGS habitat between October 2 & April 30. • CB-25 - Protect GGS habitat with a 200-ft. buffer zone, where possible. • CB-26 - Implement best management practices for water quality. • CB-27 – Aquatic habitat will be dewatered 15 days prior to the initiation of construction activities.. If dewatering is not possible, remove potential prey items to the extent possible. • CB-28 – A USFWS-approved biologist will survey for GGS 24 hours prior to the commencement of construction activities. • CB-29 – Tightly woven fiber netting or similar material for erosion control & other purposes to ensure that the GGS does not get trapped or become entangled. This limitation shall be communicated to the contractor through the use of special provisions included in the bid solicitation package. • CB-30 - Assure that a USFWS-approved biological monitor is present during construction within suitable GSS habitat. If a snake is encountered during construction, the biological monitor will have the authority to stop construction activities in the immediate area until appropriate corrective measures	5-16 5-16			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	have been completed or it has been determined that the snake will not be harmed. The biological monitor will control site access and activities until the danger to the snake has passed. Report sightings, via telephone and written letter, to USFWS within one working day. • CB-31 - Confine clearing to the minimal area necessary to facilitate construction activities. <i>Nesting Migratory & Special-Status Birds</i> • CB-38 - Temporarily fence off (using high visibility fencing) & designate as ESAs, all natural communities & wetland areas outside the construction zone that could be affected. Maintain & inspect fencing on a regular basis until construction is completed. <i>Western Burrowing Owl</i> • CB-42 - Require the contractor to establish a no-disturbance buffer around active burrows in the immediate or adjacent project area. The buffer zone should 160 feet during the non-breeding season (September – January) and 250 feet during the breeding season (February – August). Avoidance also requires that a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird, should be acquired and permanently protected contiguous to the occupied burrow sites for each pair of breeding burrowing owls or single unpaired resident bird. The configuration of the	5-17			
		5-18			

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	protected habitat should be approved by CDFG.	5-18			
	• CB-14 – Conduct a post-construction walkthrough to assess whether any damage occurred to vegetation within buffer areas. If damage is observed, contractor shall restore vegetation within the buffer areas with appropriate native plant species. • CB-15 - Maintain & monitor the project site for one year following the completion of construction & restoration activities. Submit monitoring reports to the USFWS upon completion & one year after the restoration implementation. <i>Special Status Wildlife</i> • CB-22 - Conduct a post-construction walkthrough to assess whether any damage occurred to vegetation within the buffer areas. If unanticipated damage occurs, vegetation within the buffer areas will be restored with appropriate native plant	5-14	RT, CDFG, USFWS, &/or USCOE.	Post-Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	species. If unanticipated damage occurs to elderberry shrubs, USFWS shall be notified & appropriate compensation will be implemented. CB-32 – Post construction, require the contractor to remove all temporary fill & construction debris from the project & disturbed areas will be restored to pre-project conditions. Commercially available seed mixes containing native grasses and herbs will be used during this process.	5-15 5-16			
Construction-Phase Cultural Resource Effects	• CC-1 - If cultural materials are unearthed, halt work in the vicinity until a qualified archaeologist can assess their significance. If human remains are unearthed, no further disturbance shall occur until the County Coroner is notified & has made the necessary findings. In either instance RT shall be immediately notified. • CC-2 - If unanticipated archaeological resources are encountered, address these resources in consultation with OHP & in accordance with an archaeological treatment plan to be developed in consultation with OHP.	5-18	RT	Construction	Include in contracts
Construction-Phase Geological & Soils & Seismicity Impacts	• CG&S-1 - Implement geological & seismic design requirements including such actions as excavation & replacement (or treatment) of soil, use of synthetic material to reinforce weak soils & deep foundations, modification or re-grading of slopes, increased set-backs & clearance from slopes, vegetation of slopes, & lining of channels.	5-21	RT	Pre-Construction	

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
Construction-Phase Effects due to Hazardous Wastes		5-21			
	• CHW-1 - Conduct a walk-through site reconnaissance for each site area to identify any additional evidence of contamination. • CHW-2 - Conduct review of the remediation status of SMUD PCB Substation Site #15. If remediation activities are completed before construction, no further mitigation will be necessary. If remediation will not be completed prior to construction, an alternate mitigation plan will be prepared & implemented. • CHW-3 - Conduct a Phase 2 site specific evaluation of any known & suspected contaminated sites that would be distributed by construction before any soil is removed from affected areas for construction using the following procedure: 1.) Implementation of a Worker Health and Safety plan; 2.) preparation of a site-specific work plan specifying the proposed location for surface samples or soil borings or trenches; 3.) soil boring or trenching and sample collection; 4.)	5-21	RT	Pre-Construction	

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	health and safety plan. Produce a site-specific worker health and safety plan defining potential contaminants and where appropriate, proper personnel protective equipment should be employed. Proper decontamination procedures should be followed.				
	• CHW-5 - Notify the State Department of Toxic Substances Control, Sacramento County Environmental Health Department & the local fire department of any contaminants encountered during construction.	5-22	RT	Construction	
Construction-Phase Impact on Hydrology, Floodplain & Water Quality	• CHF&Q-2 – RT will coordinate with SRCSD & the City of Sacramento regarding impacts to the detention basin & to maintain flood storage.	5-22	RT	Pre-Construction	
	• CHF&Q-1 – The contractor will prepare a SWPPP identifying Best Management Practices to reduce water quality impacts. The SWPPP will be submitted to the Regional Water Quality Control Board.	5-22	RT	Construction	Include in contracts
	• CHF&Q-3 - If groundwater is encountered, require contractor to dewater & dispose of contaminated effluent per applicable regulations.	5-23			
Noise & Vibration during Construction	• CN&V-1 - Include specific residential property line noise limits in the construction specifications.	5-25	RT	Pre-Construction	

- CN&V-3 - Assure that a compliant resolution procedure is in place to rapidly address any noise or vibration problems that may

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	develop.				
	• CN&V-2 - Perform noise monitoring during construction to verify compliance with the limits. • CN&V-4 - Include numeric vibration limits in the construction specifications, monitor vibration, & require the contractor to follow the specified limits.	5-25	RT	Construction	Include in contracts
Construction Impacts on Public Services & Facilities	• CPS-1 – RT will coordinate with local emergency providers in developing detour plans during final design.	5-26	RT	Pre-Construction	
	• CPS-2 - Provide emergency service providers advance notice of road closures & detour routes.	5-26	RT	Construction	
Safety & Security during Construction	• CS-1 – RT will require the contractor to submit a safety plan in advance of construction to ensure procedures for the safety of construction workers, local residents and employees during construction.	5-26	RT	Pre-Construction	Include in contracts
	• CS-2 - Provide fencing & lighting of construction & staging areas, & recognized safety practice requirements for the utilization of heavy equipment & the movement of construction materials to contain construction activities & avoid accidents.	5-27	RT	Construction	Include in contracts
Traffic & Transportation	• CT-1 - Coordinate construction with other major construction work within a five mile		RT	Pre-Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
during Construction	radius. • CT-2 - Schedule grade-crossing construction that requires street closure so that only one crossing in an area is affected at one time. • CT-3 – RT will provide the public & transit users advance notice of proposed changes in service. • CT-5 – RT will notify local residents & businesses in advance of proposed construction activity. • CT-6 – RT will communicate & coordinate with CRC & Los Rios Community College District regarding the time of any street closures during construction with particular attention to peak student travel periods.. • CT-8 – RT will coordinate with the City of Sacramento, the City of Elk Grove and Sacramento County to provide the public advance notice of proposed traffic detours and their duration.	5-28 5-30 5-31		& Construction	
	• CT-4 - Construct at-grade crossings during non-peak periods whenever possible. In residential areas, limit activity to normal work hours whenever practicable. • CT-7 - Require the contractor to prepare & implement traffic handling plans approved by the cities of Sacramento, the City of Elk Grove or Sacramento County.. • CT-9 – Provisions will be incorporated into the construction contracts to avoid parking impacts to residential areas or businesses requiring on-street parking.	5-30 5-31	RT	Construction	Include in contracts

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
Construction-Phase Effects on Utilities	• CU-2 - Submit detailed plans to utility providers for their review & comment prior to any relocation work.	5-32	RT	Pre-Construction	
	• CU-1 – RT will continue to coordinate with utility providers to identify potential conflicts & formulate strategies to overcome potential problems. • CU-3 – Any short-term, limited service interruptions would be scheduled well in advance & ensure appropriate notification to users.	5-32	RT	Pre-Construction & Construction	Include in contracts
Cumulative Construction-Phase Impacts	• CCP1 - Develop traffic handling plans. • CCP2 - Develop traffic handling plans & detour routes in coordination with emergency service providers.	5-33	RT	Pre-Construction	

ATTACHMENT A

Chapter/ Section	Measure/Description	SFEIS Location (Page #)	Responsible Party	Timing	Comments/Program Requirements Special Provision References
	• CCP3 - Coordinate with other project proponents, as necessary, in the development of public information messages regarding the timing & location of construction activities, temporary detours, & specific measures to be undertaken to reduce construction impacts. • CCP4 - Continue to coordinate with utility providers to identify potential conflicts & formulate strategies to overcome potential problems. • CCP5 - Submit detailed plans to utility providers for their review & comment prior to any relocation work. • CCP6 - Schedule any short-term interruptions well in advance with provision of appropriate notification to users. • CCP7 - Apply mitigation measures for fugitive dust & PM₁₀, (CAQ – 1 through 17). • CCP8 - Apply mitigation measures for construction noise & vibration (CN&V - 1 through 4).		RT	Pre-Construction & Construction	Include in contracts

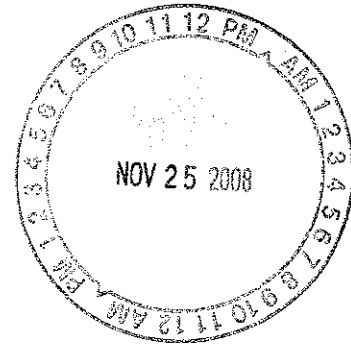
Attachment B: EPA letter dated November 14, 2008



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901



November 14, 2008

Mr. Jerome Wiggins
Federal Transit Administration, Region IX
201 Mission Street, Suite 1650
San Francisco, CA 94105

Subject: Supplemental Final Environmental Impact Statement for the South Sacramento
Corridor Phase 2 Project, Sacramento County, California (CEQ #20080410)

Dear Mr. Wiggins:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) and Section 309 of the Clean Air Act. EPA reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) and provided comments to the Federal Transit Administration (FTA) on March 28, 2007. We rated the SDEIS as Lack of Objections (LO) and encouraged FTA and the Sacramento Regional Transit District (RT) to implement one of the parking garage options and include additional information on air quality, water quality, and cumulative impacts in the Supplemental Final Environmental Impact Statement (SFEIS). We appreciate RT's decision to construct a parking garage, and inclusion of the requested information in the SFEIS.

EPA notes that, since publication of the SDEIS, the project has been altered by movement of the proposed alignment off of the Morrison Creek Levee and addition of a grade separation over Cosumnes River Boulevard.

Since reviewing the SDEIS, EPA received and reviewed an FEIS for the Interstate-5/Cosumnes River Boulevard Extension proposed by the Federal Highway Administration (FHWA). As this project is located in the vicinity of the South Sacramento Corridor Phase 2 Project, and as stated in our November 26, 2007 comment letter to FHWA, EPA encourages FTA and RT to coordinate with FHWA on planning and construction of these projects. In particular, such coordination should be directed toward the following:

- Minimizing and mitigating the cumulative construction impacts of the two projects on air quality, traffic, and the local community;
- Avoiding design conflicts between the two projects; and

- Providing sufficient pedestrian improvements as part of the Boulevard Extension to ensure a safe environment for pedestrians who may use the road to access nearby light rail stations.

We appreciate the opportunity to review this SFEIS and look forward to successful implementation of the project. When the ROD is signed, please send one copy to the address above (mail code: CED-2). If you have any questions, please contact Carolyn Mulvihill of my staff at 415-947-3554 or mulvihill.carolyn@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen M. Goforth", followed by a horizontal line.

Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)

cc: Diane Nakano, Sacramento Regional Transit District
Cesar Perez, Federal Highway Administration
Jennifer Hageman, City of Sacramento

Attachment C: U.S. Fish & Wildlife Service letter dated April 18, 2008



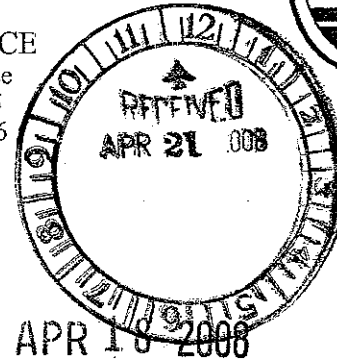
United States Department of the Interior

FISH AND WILDLIFE SERVICE

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



In reply refer to:
81420-2008-F-0285



Leslie T. Rogers
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, California 94105-1839

Subject Section 7 Consultation for the Proposed South Sacramento Corridor Phase
2 Project, Sacramento County, California.

Dear Ms. Rogers:

This is in response to your request for formal consultation dated 25 January, 2007, and received by this office on 31 January, 2007, for the U. S. Fish and Wildlife's (Service) biological opinion (Bio Op) regarding the Federal Transit Administration (FTA) and the Sacramento Regional Transit District's (RT) proposed extension of the light rail transit (LRT) service from the existing Meadowview Station to Cosumnes River College, a total of approximately 4.3 miles (mi), and including four LRT stations and associated facilities (Project). This document represents the Service's biological opinion regarding the effects of this project on the Federally endangered vernal pool tadpole shrimp (*Lepidurus packardii*) and the threatened vernal pool fairy shrimp (*Branchinecta lynchi*) (collectively vernal pool crustaceans), the giant garter snake (*Thamnophis gigas*) (GGS), and the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act).

The Service has reviewed the biological information submitted by your office, by the permit applicant and by their consultant describing the effects of the proposed project. Information analyzed to develop this biological opinion included the following: (1) *South Sacramento Corridor Phase 2 Project Biological Assessment* dated October 2006; (2) *South Sacramento Corridor Phase 2 Project Revised Biological Assessment* dated November 2007; (3) *South Sacramento Corridor Phase 2 Project Preliminary Wetland Delineation* dated July 2005; (4) *South Sacramento Corridor Phase 2 Project Revised Wetland Delineation* dated May 2006; (5) *South Sacramento Corridor Phase 2 Project Special-Status Plant Survey* dated April 2007; (6) *South Sacramento Corridor Phase 2 Project-Supplemental Information in Support of Section 7*



Consultation dated May 2007; (7) *South Sacramento Corridor Phase 2 Project-Additional Information in Support of Section 7 Consultation*; and (8) other information available to the Service.

Thirty-three elderberry shrubs occur adjacent to Franklin Blvd within the SRCSD Bufferlands property. The interim driveway to the proposed Franklin Station would directly impact approximately 20 of these shrubs. However, according to the City of Sacramento, the Interstate-5/Cosumnes River Blvd Interchange Project is anticipated to initiate construction ahead of the proposed South Sacramento Corridor Phase 2 Project at the location where the elderberry shrubs are currently. The 20 shrubs that the South Sacramento Corridor Phase 2 Project would affect are a subset of the 26 elderberry shrubs that the Interstate-5/Cosumnes River Blvd Interchange Project will affect, for that reason the FTA has made the determination of *Not Likely to Adversely Affect* for the proposed South Sacramento Corridor Phase 2 Project regarding the VELB. Based on this, the Service concurs with the FTA determination of *Not Likely to Adversely Affect* for the proposed South Sacramento Corridor Phase 2 Project. No further discussion of VELB will appear in this Bio Op. However, in the event that the project timing is modified such that project-related activities associated with the South Sacramento Corridor Phase 2 Project occur prior to the Interstate-5/Cosumnes River Blvd Interchange Project, then it will be necessary for the FTA to reinitiate and address the impacts on VELB by the proposed South Sacramento Corridor Phase 2 Project.

Consultation History

- January 31, 2007* The Service received a request to initiate formal consultation under section 7 of the Act from the FTA for the Project with a copy of the BA prepared by Parsons Corp.
- February 8, 2007* The Service received an electronic copy of the *Supplemental Draft Environmental Impact Statement (SDEIS)/ Subsequent Draft Environmental Impact Report (SDEIR)* on a compact disk format (CD).
- March 30, 2007* A letter was sent by Justin Cutler (Service) requesting additional information (1-1-07-I-0576) regarding the Project to Leslie Rogers (FTA).
- April 2, 2007* Adam Ballard (ECORP) sent an electronic mail to Justin Cutler (Service) clarifying what additional information was needed by the Service.
- April 3, 2007* Justin Cutler (Service) confirmed additional information required to Adam Ballard (ECORP) via electronic mail.
- May 9, 2007* Service received *Supplemental Information in Support of Section 7 Consultation* Packet from ECORP which included:
- Current plan set overlaid on the wetland delineation;
 - Preliminary engineering drawings for proposed bridges;

- Copy of the 2006 *Special Status Plant Survey*, dated 4/26/2007;
- Copy of Parsons preliminary wetland delineation report;
- Copy of the verified wetland map set;
- Copy of CADD/GIS files to support the wetland delineation;
- Copy of the biological opinion (1-1-04-F-0363), for the *Proposed Interstate-5 Cosumnes River Boulevard Interchange Project*, Sacramento County, California;
- Copy of the biological opinion (1-1-01-F-0043), for the *South Sacramento County Streams Project*, Sacramento County, California.

July 31, 2007 Service received *Additional Information in Support of Section 7 Consultation* Packet from ECORP which included:

- Giant garter snake upland habitat assessment;
- Copy of FOIA request for copies of wetland delineations reports that have been prepared in the vicinity of the project, dated May 7, 2007;
- Copy of the response to the FOIA request from Carl Korman, USACE, dated June 14, 2007;
- Copy of relevant portions of the wetland delineation for the Freeport Regional Water Project, Freeport Regional Water Authority Alignment, prepared by Jones and Stokes, dated February 15, 2006.

August 24, 2007 Justin Cutler (Service) received electronic mail request for a meeting regarding the project from Adam Ballard (ECORP).

September 19, 2007 Justin Cutler (Service) sent an electronic mail to Adam Ballard (ECORP) that he, Justin, had taken a new position within the Service and would no longer be assigned to the project; in addition Mr. Cutler requested that the biological assessment be revised to include the following:

- GGS- Clear description of impact; quantify direct, indirect, and permanent vs. temporary impacts; a detailed compensation proposal for the loss of habitat; address the interrelated or interdependent actions such as compensatory mitigations;
- VP Crustaceans- Assess and quantify the indirect effects (within 250 feet) of construction activities;
- Provide GIS/CAD data requested in a projected format, preferably in a shapefile format with projection information.

November 6, 2007 Service received the revised *Biological Assessment* for the project from ECORP.

March 5, 2008 The project was assigned to Richard Montgomery (Service).

BIOLOGICAL OPINION

Description of the Proposed Action

The FIA and the RT, propose to extend LRT service from the existing Meadowview Station for approximately 4.3 mi to Cosumnes River College in Sacramento County, California. The proposed project will begin at Meadowview Road at the Union Pacific Railroad (UPRR) grade crossing and will extend southward along the existing UPRR right-of-way (ROW) to Morrison Creek, where it will turn to the west following the creek along its westerly bank to the confluence with Union House Creek (Beacon Creek). At the confluence of Morrison Creek and Union House Creek, the alignment turns eastward onto the Sacramento Regional County Sanitation District (SRCSD) Bufferlands, and then parallels Union House Creek to Bruceville Road at Cosumnes River College (CRC). From the intersection of Bruceville Road and Cosumnes River Boulevard (CRB), the project footprint will turn south to a terminus on the CRC campus. The proposed project will additionally include the construction of four LRT stations and associated facilities. A large part of the track alignments will be supported on new raised earth embankments. The Morrison Creek and Franklin station areas, including associated platforms and parking lots, will be constructed on raised embankments. Station facilities will include concrete platforms with modest passenger amenities, parking lots, and landscaping. During earth moving activities the conventional equipment used will include scrapers, dump trucks, bulldozers, compactors, water trucks, and graders. In addition, the following equipment will be used in construction of the stations to be built: asphalt paver, concrete trucks, concrete pumper, and small crane or boom truck.

The proposed project alignment crosses several streets within the City of Sacramento requiring roadway improvements. These are Meadowview Road (Rd), Franklin Boulevard (Blvd), Center Parkway (Pkwy) and College Entrance Rd. These improvements will include profile adjustments, drainage improvements, roadway widening, traffic signal modification, and the installation of crossing arm gates and signals, and grade crossing panels.

A new entrance will be constructed at the Franklin Station off of the CRB following the extension of CRB. If the CRB extension project is delayed, an interim entrance road will be constructed at intersection of Franklin Blvd and CRB.

At Center Pkwy it is assumed that CRB will not be widened prior to construction of this project. An interim bus turnout area and "kiss-and-ride" drop-off area is proposed for this project on the north side of CRB, immediately west of Center Pkwy for the Center parkway Station. A 12-foot wide multi-use path is to be constructed on the north side of the LRT, and will be used by maintenance vehicles, bicyclists, and pedestrians. The bridge structure on Center pkwy over Union House Creek is to be widened on both sides to accommodate bus turnouts.

A number of key utilities exist along the alignment including high voltage overhead transmission lines, gas lines, and several fiber optic telephone facilities. Based on the utility information gathered, various utility modifications and relocations have been identified as a result of the proposed project.

The proposed project will include two concrete LRT bridges. One will span Morrison Creek and the UORR freight tracks. The other is a grade separation flyover spanning CRB. In addition, there will be two pedestrian bridge structures over Union House Creek; one at the Franklin Station and the other between Franklin Blvd and Center Pkwy. There are two optional LRT grade separation bridges proposed at Meadowview Rd. and at Franklin Blvd. Foundations for the pedestrian bridges are expected to be concrete filled, drilled-hole piles. The superstructures for the larger bridges are to be reinforced post-tensioned concrete. The larger equipment needed for construction will include a pile auger drill rig, concrete trucks, concrete pumpers, dump trucks, excavator, back hoe, and small and large cranes.

A number of short retaining walls will be required to retain the earth embankments at limited locations along the project. Additionally, sound walls will be constructed along selected locations of the alignment. Equipment necessary to construct these features will include delivery trucks, forklifts or small cranes, cement trucks, and concrete pumpers.

The overhead catenary system will consist of spaced steel poles with electrical wiring suspended between the poles in order to provide electrical power to the rail vehicles. The poles are typically supported in concrete pier foundations. The traction power system is comprised of prefabricated buildings that will be positioned adjacent to the tracks and contain equipment that provides power to the catenary system. The power is transmitted to the overhead catenary system by means of underground cables. The substation buildings will be mounted on slab foundations at the same level as the surrounding ground. The equipment that will be needed for these features will include an auger drill rig, small crane, concrete trucks, concrete pumpers, rail mounted delivery trucks, and power winches.

The train control and communication systems will comprise a network of cables connected to track circuits and points of communication, such as substations and passenger stations. The cables will run along the length of the route, supported by the catenary poles and connected to equipment by way of underground conduits. Cables and equipment will be installed using rail mounted and road vehicles with bucket attachments and power winches.

Proposed Conservation Measures.

The FTA and RT propose to minimize and avoid construction impacts through the use of Best Management Practices (BMP) and procedures that have been established for the construction of large-scale public works projects. The following are proposed *Minimization and Avoidance Procedures* for the project:

1. Precautions to prevent pollution of streams, waterways, and other bodies of water during construction;
2. Dust control through watering of appropriate surfaces;
3. Clearing and grubbing procedures that specify that only trees and plants designated for removal shall be removed;

4. Excavation techniques to ensure the stability of subsurface materials as well as retention of excavated materials within the construction areas;
5. Construction within wetlands will be avoided during the rainy season to prevent excess siltation and sedimentation;
6. Materials and fluids generated by construction activities will be placed at least 100 feet (ft) from wetland areas or drainages until they can be disposed of at a permitted site;
7. After construction activities are complete, any temporary fill or construction debris shall be removed from disturbed areas will be restored to their pre-project conditions;
8. All natural communities, wetland areas, and potential habitat for listed species located outside the construction zone that could be affected by construction activities will be temporarily fenced off using high visibility fencing and designated as Environmentally Sensitive Areas (ESAs) to prevent accidental intrusion by workers and/or construction equipment. The fencing will be inspected and maintained on a regular basis throughout the construction process and will only be removed when construction of the project is completed;
9. A Service-approved biological monitor will inspect construction-related activities daily at the project site, where threatened and endangered species may occur, to ensure that there is no unauthorized take of federally listed species or destruction of their habitat. The monitor will have the authority to stop construction activities that may result in unauthorized take of federally listed species or destruction of their habitat until appropriate corrective measures have been implemented. The monitor will be responsible for immediately reporting any sightings of federally listed species within the project area or unauthorized impacts to the Service;
10. An environmental awareness program will be developed and implemented for construction personnel, including contractors. The training will include information on special-status species that may occur within or adjacent to work areas, the required avoidance and minimization measures to avoid take of these species and their habitats, and potential penalties for not complying with the requirements; and
11. The number and size of access roads and staging areas, and the total area of project activities will be restricted to the minimum necessary for the duration of the project construction activities. Stockpiling of construction materials, portable equipment, vehicles, etc. will be confined to the construction staging areas. Movement of heavy equipment to and from the project area will be restricted to established roadways to minimize disturbance. Project-related vehicles shall observe a 20-mile per hour speed limit within construction areas, except on City and County roads and on County, State, and Federal highways. All heavy equipment, vehicles, and supplies will be stored at the designated staging area at the end of each work period.

Giant garter snake

A total of approximately 0.001 ac (44 square feet) of aquatic habitat will be permanently affected by the project due to construction of the UPRR flyover at the confluence of Morrison Creek and Union House Creek. In addition, approximately 0.05 acre of aquatic habitat will be temporarily affected during construction activities associated with the UPRR flyover at that same location. Project related permanent and temporary impacts to potential upland habitat are 0.46 ac for permanent, and 8.39 ac temporary impacts. Project-related impacts to upland habitat will occur at various locations along the project including the UPRR flyover, the pedestrian access bridge at Deer Lake Drive, and in the vicinity of the modified detention basin.

Project-Related Impacts to Potential Giant Garter Snake Habitat (acres)			
Aquatic Habitat		Upland Habitat	
Permanent Impact	Temporary Impact	Permanent Impact	Temporary Impact
0.001	0.05	0.46	8.39

Pursuant to the *Programmatic Formal Consultation* (1-1-97-F-0149) for GGS, the following compensation measures will be implemented:

1. GGS habitat permanently impacted by the project will be compensated for at a 3:1 ratio.
2. All compensation habitats must include both upland and aquatic habitat components. Upland and aquatic habitat components will be compensated at a 2:1 ratio of upland acres to aquatic acres of habitat (2 upland acres for every 1 acre of aquatic).
3. Temporarily impacted GGS habitat will be restored and compensated for at a 1:1 ratio.

Giant Garter Snake Habitat; Impacted and Compensation (acres)			
Permanent Impacts			Compensation Acreage (3:1)
Aquatic Habitat	Upland Habitat	Total	
0.001	0.46	0.461	1.383
Temporary Impacts			(1:1)
0.05	8.39	8.44	8.44

Avoidance and minimization measures:

1. Avoid construction activities within 200 ft from the banks of GGS aquatic habitat. Confine movement of heavy equipment to existing roadways to minimize habitat disturbance.
2. Construction activity within habitat should be conducted between May 1 and October 1 (the active period for this species). Construction activities within 200 ft from the banks of aquatic habitat should be avoided during GGS inactive season.

3. Construction personnel will receive Service-approved worker environmental awareness training.
4. The project area will be surveyed by a Service-approved biologist for GGS 24-hours prior to construction activities. The survey will be repeated if a lapse in construction activity of two weeks or greater occurs. If a GGS is encountered during construction, activities will cease until appropriate corrective measures have been completed or it has been determined that GGS will not be harmed. Only Service-permitted individuals may handle GGS. Report any sightings and any incidental take to the Service immediately by telephone.
5. Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to any excavating or filling of the dewatered habitat.
6. Confine clearing to the minimal area necessary to facilitate construction activities.
7. Flag and designate avoided GGS habitat within and adjacent to the project areas as ESAs. The ESAs should be avoided by all construction personnel.
8. After completion of construction activities, remove any temporary fill and construction debris and, wherever feasible, restore disturbed areas to pre-project conditions.

Vernal Pool Branchiopods

The project is located within the recognized range of the listed vernal pool branchiopods, vernal pool fairy shrimp and vernal pool tadpole shrimp, and potential habitat is present on-site and in the immediate vicinity of the project. In the Bio Op for the Interstate 5/ Cosumnes River Blvd Interchange Project (1-1-04-F-0363) (Service 2005), the Service determined that vernal pool fairy shrimp and vernal pool tadpole shrimp are reasonably certain to inhabit the proposed project's action area (which overlaps portions of the South Sacramento Corridor Phase 2 project site), based on the known occurrences of these two species in wetlands throughout the SRCSD Bufferlands and the occurrence of potential habitat for these species on-site. Therefore, the presence of vernal pool fairy shrimp and vernal pool tadpole shrimp is assumed within the South Sacramento Corridor Phase 2 project site within features on-site that represent potential habitat and potential project-related effects are mitigated accordingly.

Project-Related Affects to Potential Vernal Pool Branchiopod Habitat (acres)		
Potential Vernal Pool Branchiopod Habitat	Directly Affected	Indirectly Affected
	0.14	0.99

Direct impacts to vernal pool branchiopod habitat by the project will be compensated for through the combination of preservation and creation/restoration components as follows:

- Preservation Component: for every acre of directly and indirectly impacted habitat, two acres (2:1 ratio) will be preserved at a Service-approved conservation bank, or, based on

Service evaluation and approval of site specific conservation values, three acres (3:1 ratio) of vernal pool habitat may be preserved on the project site or on another non-bank site as approved by the Service.

- **Creation/Restoration Component:** For every acre of habitat directly impacted, at least one acre (1:1 ratio) of vernal pool creation credit will be dedicated within a Service-approved conservation bank, or, based on a Service evaluation of site-specific conservation values, two acres of vernal pool habitat will be created and monitored on the project site or on another non-bank site as approved by the Service.

Indirect impacts to habitat by the project will be compensated for as follows: For every acre of indirectly impacted habitat, two acres (2:1 ratio) will be preserved at a Service-approved conservation bank, or, based on Service evaluation of site-specific conservation values, three acres (3:1 ratio) of vernal pool habitat may be preserved and monitored on the project site or on another non-bank site as approved by the Service.

Affected, Preservation, and Creation Acreages for Impacts to Potential Vernal Pool Branchiopod Habitat				
Directly Impacted			Indirectly Impacted	
Impacted Acreage	Preservation Component (2:1)	Creation/Restoration Component (1:1)	Impacted Acreage	Preservation Component (2:1)
0.14	0.28	0.14	0.99	1.98

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 existing and proposed new roadway and right-of-way (ROW). The proposed project is located in southern Sacramento County, California, within the southwestern portion of the Sacramento Valley, within the Lower Sacramento Watershed. The proposed project will span a length of 4.3 mi beginning at the Meadowview Rd UPRR grade crossing and terminating at the Cosumnes River College campus. The land use for the area is dominated by suburban development, the Sacramento Regional County Sanitation District (SRCSD) Bufferlands, and right-of-ways. The proposed project is within the U.S. Geological Survey (USGS) Quadrangle (quad) of Florin (496B); T 7N, R 5E, Sections 7, 8, 14, 15, 16, 17, 22, and 23; UTM 634054E, 4259196N.

Status of the Species

Giant garter snake

Listing. The Service published a proposal to list the giant garter snake as an endangered species on December 27, 1991 (56 FR 67046). The Service reevaluated the status of the snake before adopting the final rule, which listed as a threatened species on October 20, 1993 (58 FR 54053).

Description. The giant garter snake is one of the largest garter snakes species reaching a total length of approximately 64 inches (162 centimeters). Females tend to be slightly longer and proportionately heavier than males. Generally, the snakes have a dark dorsal background color with pale dorsal and lateral stripes, although coloration and pattern prominence are geographically and individually variable (Hansen 1980; Rossman *et al.* 1996).

Historical and Current Range. Giant garter snakes formerly occurred throughout the wetlands that were extensive and widely distributed in the Sacramento and San Joaquin Valley floors of California (Fitch 1940; Hansen and Brode 1980; Rossman and Stewart 1987). The historical range of the snake is thought to have extended from the vicinity of Chico, Butte County, southward to Buena Vista Lake, near Bakersfield, in Kern County (Fitch 1940; Fox 1948; Hansen and Brode 1980; Rossman and Stewart 1987). Early collecting localities of the giant garter snake coincide with the distribution of large flood basins, particularly riparian marsh or slough habitats and associated tributary streams (Hansen and Brode 1980). Loss of habitat due to agricultural activities and flood control have extirpated the snake from the southern one third of its range in former wetlands associated with the historic Buena Vista, Tulare, and Kern lake beds (Hansen 1980; Hansen and Brode 1980).

Upon federal listing in 1993, the Service identified 13 separate populations of giant garter snakes, with each population representing a cluster of discrete locality records (Service 1993). The 13 populations largely coincide with historical flood basins and tributary streams throughout the Central Valley: (1) Butte Basin, (2) Colusa Basin, (3) Sutter Basin, (4) American Basin, (5) Yolo Basin/Willow Slough, (6) Yolo Basin/Liberty Farms, (7) Sacramento Basin, (8) Badger Creek/Willow Creek, (9) Caldoni Marsh/White Slough, (10) East Stockton--Diverting Canal & Duck Creek, (11) North and South Grasslands, (12) Mendota, and (13) Burrell/Lanare.

The known range of the giant garter snake has changed little since the time of listing. In 2005, giant garter snakes were observed at the City of Chico's wastewater treatment facility, approximately ten miles north of what was previously believed to be the northernmost extent of the species' range (D. Kelly pers. comm. 2006; E. Hansen pers. comm. 2006). The southernmost known occurrence is at the Mendota Wildlife Area in Fresno County. No sightings of giant garter snakes south of Mendota Wildlife Area within the historic range of the species have been made since the time of listing (Hansen 2002).

Essential Habitat Components. Endemic to wetlands in the Sacramento and San Joaquin valleys, the giant garter snake inhabits marshes, sloughs, ponds, small lakes, low gradient streams, and other waterways and agricultural wetlands, such as irrigation and drainage canals, rice fields and

the adjacent uplands (Service 1999). Essential habitat components consist of: (1) wetlands with adequate water during the snake's active season (early-spring through mid-fall) to provide food and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat during the active season; (3) upland habitat with grassy banks and openings in waterside vegetation for basking; and (4) higher elevation uplands for over-wintering habitat with escape cover (vegetation, burrows) and underground refugia (crevices and small mammal burrows) (Hansen 1988). Snakes are typically absent from larger rivers and other bodies of water that support introduced populations of large, predatory fish, and from wetlands with sand, gravel, or rock substrates (Hansen 1988; Hansen and Brode 1980; Rossman and Stewart 1987). Riparian woodlands do not provide suitable habitat because of excessive shade, lack of basking sites, and absence of prey populations (Hansen 1988).

Foraging Ecology. Giant garter snakes are the most aquatic garter snake species and are active foragers, feeding primarily on aquatic prey such as fish and amphibians (Fitch 1941). Because the giant garter snake's historic prey species are either declining, extirpated, or extinct, the predominant food items are now introduced species such as carp (*Cyprinus carpio*), mosquito-fish (*Gambusia affinis*), larval and sub-adult bullfrogs (*Rana catesbiana*), and Pacific chorus frogs (*Pseudacris regilla*) (Fitch 1941; Hansen 1988; Hansen and Brode 1980, 1993; Rossman *et al.* 1996).

Reproductive Ecology. The giant garter snake breeding season extends through March and April, and females give birth to live young from late July through early September (Hansen and Hansen 1990). Although growth rates are variable, young typically more than double in size by one year of age, and sexual maturity averages three years in males and five years for females (Service 1993).

Movements and Habitat Use. The giant garter snake is highly aquatic but also occupies a terrestrial niche (Service 1999; Wylie *et al.* 2004a). The snake typically inhabits small mammal burrows and other soil and/or rock crevices during the colder months of winter (*i.e.*, October to April) (Hansen and Brode 1993; Wylie *et al.* 1995; Wylie *et al.* 2003a), and also uses burrows as refuge from extreme heat during its active period (Wylie *et al.* 1997; Wylie *et al.* 2004a). While individuals usually remain in close proximity to wetland habitats, the Biological Resource Division of the U.S. Geological Survey (BRD) has documented snakes using burrows as much as 165 feet (50 meters) away from the marsh edge to escape extreme heat, and as far as 820 feet (250 meters) from the edge of marsh habitat for over-wintering habitat (Wylie *et al.* 1997).

In studies of marked snakes in the Natomas Basin, snakes moved about 0.25 to 0.5 miles (0.4 to 0.8 kilometers) per day (Hansen and Brode 1993). Total activity, however, varies widely between individuals; individual snakes have been documented to move up to 5 miles (8 kilometers) over a few days in response to dewatering of habitat (Wylie *et al.* 1997) and to use up to more than 8 miles (12.9 kilometers) of linear aquatic habitat over the course of a few months. Home range (area of daily activity) averages about 0.1 mile² (25 hectares) in both the Natomas Basin and the Colusa National Wildlife Refuge (NWR) (Wylie 1998a; Wylie *et al.* 2002), yet can be as large as 14.5 miles² (3744 hectares) (Wylie and Martin 2004).

Rice fields have become important habitat for giant garter snakes, particularly associated canals and their banks for both spring and summer active behavior and winter hibernation (Hansen 2004; Wylie 1998b). While within the rice fields, snakes forage in the shallow water for prey, utilizing rice plants and vegetated berms dividing rice checks for shelter and basking sites (Hansen and Brode 1993). In the Natomas Basin, habitat used consisted almost entirely of irrigation ditches and established rice fields (Wylie 1998a; Wylie *et al* 2004a), while in the Colusa NWR, snakes were regularly found on or near edges of wetlands and ditches with vegetative cover (Wylie *et al.* 2003a). Telemetry studies also indicate that active snakes use uplands extensively, particularly where vegetative cover exceeds 50 percent in the area (Wylie 1998b).

Predators. Giant garter snakes are killed and/or eaten by a variety of predators, including raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), opossums (*Didelphis virginiana*), bull frogs (*Rana catesbiana*), hawks (*Buteo* sp.), egrets (*Casmerodius albus*, *Egretta thula*), river otters (*Ludra canadensis*), and great blue herons (*Ardea herodias*) (Dickert 2003; Wylie *et al.* 2003c; G. Wylie pers. comm. 2006). Many areas supporting snakes have been documented to have abundant predators; however, predation does not seem to be a limiting factor in areas that provide abundant cover, high concentrations of prey items, and connectivity to a permanent water source (Hansen and Brode 1993; Wylie *et al.* 1995).

Reasons for Decline and Threats to Survival. The current distribution and abundance of the giant garter snake is much reduced from former times (Service 1999). Prior to reclamation activities beginning in the mid- to late-1800s, about 60 percent of the Sacramento Valley was subject to seasonal overflow flooding providing expansive areas of snake habitat (Hinds 1952). Now, less than 10 percent, or approximately 319,000 acres (129,000 hectares), of the historic 4.5 million acres (1.8 million hectares) of Central Valley wetlands remain (U.S. Department of Interior 1994), of which very little provides habitat suitable for the giant garter snake. Loss of habitat due to agricultural activities and flood control have extirpated the snake from the southern one-third of its range in former wetlands associated with the historic Buena Vista, Tulare, and Kern lakebeds (Hansen 1980; Hansen and Brode 1980).

Valley flood wetlands are now subject to cumulative effects of upstream watershed modifications, water storage and diversion projects, as well as urban and agricultural development. The Central Valley Project (CVP), the largest water management system in California, created an ecosystem altered to such an extent that remaining wetlands depend on highly managed water regimes (U.S. Department of Interior 1994). Further, the implementation of CVP has resulted in conversion of native habitats to agriculture, and has facilitated urban development through the Central Valley (Service 1999). For instance, residential and commercial growth with the Central Valley is consuming an estimated 15,000 acres of Central Valley farmland each year (American Farmland Trust 1999), with a project loss of more than one million acres by the year 2040 (USGS 2003). Environmental impacts associated with urbanization include loss of biodiversity and habitat, alternation of natural fire regimes, fragmentation of habitat from road construction, and degradation due to pollutants. Further,

encroaching urbanization can inhibit rice cultivation (J. Roberts pers. comm. 2006). Rapidly expanding cities within the snake's range include Chico, Yuba City, the Sacramento area, Galt, Stockton, Gustine, and Los Banos.

Ongoing maintenance of aquatic habitats for flood control and agricultural purposes eliminates or prevents the establishment of habitat characteristics required by snakes (Hansen 1988). Such practices can fragment and isolate available habitat, prevent dispersal of snakes among habitat units, and adversely affect the availability of the snake's food items (Hansen 1988; Brode and Hansen 1992). For example, tilling, grading, harvesting and mowing may kill or injure giant garter snakes (Wylie *et al.* 1997). Biocides applied to control aquatic vegetation reduce cover for the snake and may harm prey species (Wylie *et al.* 1995). Rodent control threatens the snake's upland estivation habitat (Wylie *et al.* 1995; Wylie *et al.* 2004a). Restriction of suitable habitat to water canals bordered by roadways and levee tops renders snakes vulnerable to vehicular mortality (Wylie *et al.* 1997). Rolled erosion control products, which are frequently used as temporary berms to control and collect soil eroding from construction sites, can entangle and kill snakes (Stuart *et al.* 2001; Barton and Kinkead 2005). Livestock grazing along the edges of water sources degrades water quality and can contribute to the elimination and reduction of available quality snake habitat (Hansen 1988; E. Hansen, pers. comm. 2006), and giant garter snakes have been observed to avoid areas that are grazed (Hansen 2003). Fluctuation in rice and agricultural production affects stability and availability of habitat (Paquine *et al.* 2006; Wylie and Casazza 2001; Wylie *et al.* 2003b, 2004b).

Other land use practices also currently threaten the survival of the snake. Recreational activities, such as fishing, may disturb snakes and disrupt thermoregulation and foraging activities (E. Hansen pers. comm. 2006). While large areas of seemingly suitable snake habitat exist in the form of duck clubs and waterfowl management areas, water management of these areas typically does not provide the summer water needed by the species (Beam and Menges 1997; Dickert 2005; Paquin *et al.* 2006).

Nonnative predators, including introduced predatory game fish, bullfrogs, and domestic cats, can threaten snake populations (Dickert 2003; Hansen 1986; Service 1993; Wylie *et al.* 1995; Wylie *et al.* 2003c). Nonnative competitors, such as the introduced water snake (*Nerodia fasciata*) in the American River and associated tributaries near Folsom, may also threaten the giant garter snake (Stitt *et al.* 2005).

The disappearance of giant garter snakes from much of the west side of the San Joaquin Valley was approximately contemporaneous with the expansion of subsurface drainage systems in this area, providing circumstantial evidence that the resulting contamination of ditches and sloughs with drainwater constituents (principally selenium) may have contributed to the demise of giant garter snake populations. Dietary uptake is the principle route of toxic exposure to selenium in wildlife, including giant garter snakes (Beckon *et al.* 2003). Many open ditches in the northern San Joaquin Valley carry subsurface drainwater with elevated concentrations of selenium, and green sunfish (*Lepomis cyanellus*) have been found to have concentrations of selenium within the range of concentrations associated with adverse effects on predator aquatic reptiles (Hopkins *et al.* 2002; Saiki 1998). Studies on the effects of selenium on snakes suggest that snakes with high

selenium loads in their internal organs can transfer potentially toxic quantities of selenium to their eggs (Hopkins *et al.* 2004) and also demonstrate higher rates of metabolic activity than uncontaminated snakes (Hopkins *et al.* 1999).

Status with Respect to Recovery. The draft recovery plan for the giant garter snake subdivides its range into three proposed recovery units (Service 1999): (1) Sacramento Valley Recovery Unit; (2) Mid-Valley Recovery Unit; (3) San Joaquin Valley Recovery Unit; and (4) South Valley Recovery Unit.

The Sacramento Valley Unit at the northern end of the species' range contains sub-populations in the Butte Basin, Colusa Basin, and Sutter Basin (Service 1999; Service 2006). Protected snake habitat is located on State refuges and refuges of the Sacramento National Wildlife Refuge (NWR) Complex in the Colusa and Sutter Basins. Suitable snake habitat is also found in low gradient streams and along waterways associated with rice farming. This northernmost recovery unit is known to support relatively large, stable sub-populations of giant garter snakes (Wylie *et al.* 1995; Wylie *et al.* 1997; Wylie *et al.* 2002; Wylie *et al.* 2003a; Wylie *et al.* 2004a). Habitat corridors connecting subpopulations, however, are either not present or not protected, and are threatened by urban encroachment.

The Mid-Valley Unit includes sub-populations in the American, Yolo, and Delta Basins (Service 1999; Service 2006). The status of Mid-Valley sub-populations is very uncertain; each is small, highly fragmented, and located on isolated patches of limited quality habitat that is increasingly threatened by urbanization (E. Hansen 2002, 2004; Service 1993; Wylie 2003; Wylie and Martin 2004; Wylie *et al.* 2004b; Wylie *et al.* 2005; G. Wylie pers. comm. 2006).

The American Basin sub-population, although threatened by urban development, receives protection from the Metro Air Park and Natomas Basin Habitat Conservation Plans, which share a regional strategy to maintain a viable snake sub-population in the basin.

The San Joaquin Valley Unit, which includes sub-populations in the San Joaquin Basin, formerly supported large snake populations, but numbers have severely declined, and recent survey efforts indicate numbers are extremely low compared to Sacramento Valley sub-populations (Dickert 2002, 2003; Hansen 1988; Williams and Wunderlich 2003; Wylie 1998a). Giant garter snakes currently occur in the northern and central San Joaquin Basin within the Grassland Wetlands of Merced County and the Mendota Wildlife Area of Fresno County; however, these sub-populations remain small, fragmented, and unstable, and are probably decreasing (Dickert 2003, 2005; G. Wylie pers. comm., 2006).

The South Valley Unit included sub-populations in the Tulare Basin, however, agricultural and flood control activities are presumed to have extirpated the snake from the Tulare Basin (Hansen 1995). Comprehensive surveys for this area are lacking and where habitat remains, the giant garter snake may be present.

Since 1995, BRD has studied snake sub-populations at the Sacramento, Delevan, and Colusa NWRs and in the Colusa Basin Drain within the Colusa Basin, at Gilsizer Slough within the

Sutter Basin, at the Badger Creek area of the Cosumnes River Preserve within the Badger Creek/Willow Creek area of the Delta Basin, and in the Natomas Basin within the American Basin (Hansen 2003, 2004; Wylie 1998a, 1998b, 2003; Wylie *et al.* 1995; Wylie *et al.* 2002; Wylie *et al.* 2003a, 2004a; Wylie *et al.* 2003b, 2004b). These areas contain the largest extant giant garter snake sub-populations. Outside of protected areas, however, snakes are still subject to all threats identified in the final rule. The other sub-populations are distributed discontinuously in small, isolated patches, and are vulnerable to extirpation by stochastic environmental, demographic, and genetic processes (Goodman 1987).

The draft recovery criteria require multiple, stable sub-populations within each of the three recovery units, with sub-populations well-connected by corridors of suitable habitat. This entails that corridors of suitable habitat between existing snake sub-populations be maintained or created to enhance sub-population interchange to offset threats to the species (Service 1999). Currently, only the Sacramento Valley Recovery Unit is known to support relatively large, stable giant garter snake populations. Habitat corridors connecting sub-populations, even in the Sacramento Valley Recovery Unit, are either not present or not protected. Overall, the future availability of habitat in the form of canals, ditches, and flooded fields are subject to market-driven crop choices, agricultural practices, and urban development, and are, thus, uncertain and unpredictable.

Vernal Pool Branchiopods

The vernal pool tadpole shrimp and vernal pool fairy shrimp were listed as endangered and threatened, respectively, on September 19, 1994. Complete descriptions of these species are found in 59 FR 48136, the final rule listing these species under the Act. These branchiopods are restricted to vernal pools and swales and other seasonal aquatic habitats. The vernal pool fairy shrimp is found in California and southern Oregon, and the vernal pool tadpole shrimp is found in California. Eng *et al.* (1990) and Simovich *et al.* (1992) provide further details about their life history and ecology. The Service did not designate any critical habitat for the vernal pool crustaceans in Sacramento County. Although the Service designated critical habitat for the vernal pool fairy shrimp in San Joaquin County, none will be affected by the proposed project.

Life history of vernal pool tadpole shrimp - The vernal pool tadpole shrimp has dorsal compound eyes, a large shield-like carapace that covers most of its body, and a pair of long cercopods at the end of its last abdominal segment (Linder 1952; Longhurst 1955; Pennak 1989). It is primarily a benthic animal that swims with its legs down. Vernal pool tadpole shrimp climb or scramble over objects, and plow along bottom sediments as they forage for food. Its diet consists of organic detritus and living organisms, such as fairy shrimp and other invertebrates (Pennak 1989; Fryer 1987). The females deposit their eggs on vegetation and other objects on the pool bottom. Tadpole shrimp eggs are known as cysts, and during the dry months of the year, they lie dormant in the dry pool sediments (Lanaway 1974; Ahl 1991).

The life history of the vernal pool tadpole shrimp is linked to the environmental characteristics of its vernal pool habitat. After winter rains fill the pools, dormant vernal pool tadpole shrimp cysts may hatch in as little as four days (Ahl 1991, Rogers *in litt.* 2001), and tadpole shrimp may

become sexually mature within three to four weeks after hatching (Ahl 1991; Helm 1998; King 1996). A portion of the cysts hatch immediately and the rest remain dormant in the soil to hatch during later rainy seasons (Ahl 1991). The vernal pool tadpole shrimp is a relatively long-lived species (Ahl 1991), and will generally survive for as long as their habitats remain inundated, sometimes for six months or more (Ahl 1991, Gallagher 1996, Helm 1998). Adults are often present and reproductive until the pools dry up in the spring (Ahl 1991; Simovich *et al.* 1992). Mature adults may be present in pools until the habitats dry up in the spring (Ahl 1991, Gallagher 1996; Simovich *et al.* 1992).

Life history of vernal pool fairy shrimp - Vernal pool fairy shrimp have delicate elongate bodies, large stalked compound eyes, no carapace, and 11 pairs of phyllopods, or gill-like structures that also serve as legs. The swim or glide gracefully upside-down by means of complex, wavelike beating movements. Fairy shrimp feed on algae, bacteria, protozoa, rotifers, and detritus. The second pair of antennae in fairy shrimp adult males are greatly enlarged and specialized for clasping the females during copulation. The females carry eggs in an oval or elongate ventral brood sac. The eggs are either dropped to the pool bottom or remain in the brood sac until the female dies and sinks. The dormant cysts are capable of withstanding heat, cold, and prolonged desiccation, and they can remain viable in the soil for decades after deposition. When the pools refill in the same or subsequent seasons, some, but not all, of the cysts may hatch. The cyst bank in the soil may therefore be comprised of cysts from several years of breeding (Donald 1983). The early stages of the fairy shrimp develop rapidly into adults. The vernal pool fairy shrimp can mature quickly, allowing populations to persist in short-lived shallow pools (Simovich *et al.* 1992). In pools that persist for several weeks to a few months, fairy shrimp may have multiple hatches during a single season (Helm 1998; Gallagher 1996).

Vernal Pool Ecology and Species Adaptations - The hydrology that maintains the pattern of inundation and drying characteristic of vernal pool habitats is complex. Vernal pool habitats form in depressions above an impervious soil layer (duripan) or rock substrate. After winter rains begin, this impervious layer prevents the downward percolation of water and creates a perched water table causing the depression (or pool) to fill. Due to local topography and geology, the depressions are generally part of an undulating landscape, where soil mounds are interspersed with basins, swales, and drainages (Nikiforoff 1941, Holland and Jain 1978). These features form an interconnected hydrological unit known as a vernal pool complex. Although vernal pool hydrology is driven by the input of precipitation, water input to vernal pool basins also occurs from surface and subsurface flow from the swale and upland portions of the complex (Zedler 1987, Hanes *et al.* 1990, Hanes and Stromberg 1998). Surface flow through the swale portion of the complex allows vernal pool species to move directly from one vernal pool to another. Upland areas are a critical component of vernal pool hydrology because they directly influence the rate of vernal pool filling, the length of the inundation period, and the rate of vernal pool drying (Zedler 1987, Hanes and Stromberg 1998). Upland areas associated with vernal pools are also an important source of nutrients to vernal pool organisms (Wetzel 1975). Vernal pool habitats derive most of their nutrients from detritus that is washed into the pool from adjacent uplands, and these nutrients provide the foundation for the vernal pool aquatic community food chain.

Both of the vernal pool crustaceans addressed in this biological opinion have evolved unique physical adaptations to survive in vernal pools. Vernal pool environments are characterized by a short inundation phase during the winter, a drying phase during the spring, and a dry phase during the summer (Holland and Jain 1978). The timing and duration of these phases can vary significantly from year to year, and in some years vernal pools may not inundate at all. In order to take advantage of the short inundation phase, vernal pool crustaceans have evolved short reproduction times and high reproductive rates. The listed crustaceans generally hatch within a few days after their habitats fill with water, and can start reproducing within a few weeks (Eng *et al.* 1990, Helm 1998, Eriksen and Belk 1999). Vernal pool crustaceans can complete their entire life cycle in a single season, and some species may complete several life cycles. Vernal pool crustaceans can also produce numerous offspring when environmental conditions are favorable. Some species may produce thousands of cysts during their life spans.

To survive the prolonged heat and desiccation of the vernal pool dry phase, vernal pool crustaceans have developed a dormant stage. The dormant egg, or cyst, can withstand temperatures near boiling (Carlisle 1968), fire (Wells *et al.* 1997), freezing, and anoxic conditions without damage to the embryo. The cyst wall cannot be affected by digestive enzymes, and can be transported in the digestive tracts of animals without harm (Horne 1967). Most fairy shrimp cysts can remain viable in the soil for a decade or longer (Belk 1998). Because the cyst contains a well developed embryo, the animal can quickly develop into a fully mature adult. This allows vernal pool crustaceans to reproduce before the vernal pool enters the dry phase, sometimes within only a few weeks (Helm 1998, Eriksen and Belk 1999). In some species, cysts may hatch immediately without going through a dormant stage, if they are deposited while the vernal pool still contains water. These cysts are referred to as quiescent, and allow the vernal pool crustacean to produce multiple generations in a single wet season as long as their habitat remains inundated.

Distribution of vernal pool tadpole shrimp - Vernal pool tadpole shrimp are found only in ephemeral freshwater habitats in California. The vernal pool tadpole shrimp is known from 168 occurrences in the Central Valley (CNDDB 2004), ranging from east of Redding in Shasta County south to Fresno County, and from a single vernal pool complex located in the San Francisco Bay National Wildlife Refuge in Alameda County. It inhabits vernal pools containing clear to highly turbid water, ranging in size from 5 square meters (54 square feet) in the Mather Air Force Base area of Sacramento County, to the 36-hectare (89-acre) Olcott Lake at Jepson Prairie in Solano County. Although vernal pool tadpole shrimp are found on a variety of geologic formations and soil types, Helm (1998) found that over 50 percent of vernal pool tadpole shrimp occurrences were on High Terrace landforms and Redding and Corning soils.

Based on genetic differences, King (1996) separated vernal pool tadpole shrimp populations into two distinct groups. One group was comprised of animals inhabiting the floor of the Central Valley, near the Sacramento and San Joaquin Rivers. The other group contained vernal pool tadpole shrimp from sites along the eastern margin of the valley. King (1996) concluded that these two groups may have diverged because cyst dispersal by overland flooding historically connected populations on the valley floor, while populations on the eastern margin of the valley were not periodically connected by large scale flooding, and were therefore historically more

isolated. When dispersal of these foothill populations occurred, it was probably through different mechanisms such as migratory birds. King (1996) also found that populations in eastern Merced County, in the vicinity of the Flying M Ranch and the proposed University of California Merced campus, were very different from all other populations studied. She concluded, particularly because it is found on very ancient soils, that this group may have been isolated from other populations very early.

Distribution of vernal pool fairy shrimp - Vernal pool fairy shrimp are found only in ephemeral freshwater habitats in California and Southern Oregon. The vernal pool fairy shrimp is known from 342 occurrences extending from the Stillwater Plain in Shasta County through most of the length of the Central Valley to Pinnacles in San Benito County (Eng *et al.* 1990; Fugate 1992; Sugnet and Associates 1993; CNDDDB 2004). Five additional, disjunct populations exist: one near Soda Lake in San Luis Obispo County; one in the mountain grasslands of northern Santa Barbara County; one on the Santa Rosa Plateau in Riverside County; one near Rancho California in Riverside County; and one on the Agate Desert near Medford, Oregon. Three of these isolated populations each contain only a single pool known to be occupied by the vernal pool fairy shrimp. The vernal pool fairy shrimp inhabits vernal pools with clear to tea-colored water, most commonly in grass- or mud-bottomed swales, basalt flow depression pools in unplowed grasslands, or even sandstone rock outcrops or alkaline vernal pools.

Although the vernal pool crustaceans addressed in this biological opinion are not often found in the same vernal pool at the same time, when coexistence does occur, it is generally in deeper, longer lived pools (Eng *et al.* 1990; Thiery 1991; Gallagher 1996; Simovich 1998). In larger pools, vernal pool crustacean species may be able to coexist by utilizing different physical portions of the vernal pool or by eating different food sources (Daborn 1978; Mura 1991; Hamr and Appleton 1991; Thiery 1991), or by hatching at different temperatures or developing at different rates (Thiery 1991; Hathaway and Simovich 1996).

Dispersal - The primary historic dispersal method for the vernal pool tadpole shrimp and vernal pool fairy shrimp likely was large scale flooding resulting from winter and spring rains which allowed the animals to colonize different individual vernal pools and other vernal pool complexes (J. King, pers. comm., 1995). This dispersal is currently non-functional due to the construction of dams, levees, and other flood control measures, and widespread urbanization within significant portions of the range of this species. Waterfowl and shorebirds may now be the primary dispersal agents for vernal pool tadpole shrimp and vernal pool fairy shrimp. The eggs of these branchiopods are either ingested (Krapu 1974; Swanson *et al.* 1974; Driver 1981; Ahl 1991) and/or adhere to the legs and feathers where they are transported to new habitats. Cysts may also be dispersed by a number of other species, such as salamanders, toads, cattle, and humans (Eriksen and Belk 1999).

Vernal pool crustaceans are often dispersed from one pool to another through surface swales that connect one vernal pool to another. These dispersal events allow for genetic exchange between pools and create a population of animals that extends beyond the boundaries of a single pool. Instead, populations of vernal pool crustaceans are defined by the entire vernal pool complex in which they occur (Simovich *et al.* 1992, King 1996). These dispersal events also allow vernal

pool crustaceans to move into pools with a range of sizes and depths. In dry years, animals may only emerge in the largest and deepest pools. In wet years, animals may be present in all pools, or in only the smallest pools. The movement of vernal pool crustaceans into vernal pools of different sizes and depths allows these species to survive the environmental variability that is characteristic of their habitats.

Reasons for Decline and Threats to Survival - The genetic characteristics of these species, as well as ecological conditions, such as watershed continuity, indicate that populations of vernal pool crustaceans are defined by pool complexes rather than by individual vernal pools (Fugate 1992). Therefore, the most accurate indication of the distribution and abundance of these species is the number of inhabited vernal pool complexes. The pools and, in some cases, pool complexes supporting these species may be small. Human-caused and unforeseen natural catastrophic events such as long-term drought, non-native predators, off-road vehicles, pollution, berming, and urban development, threaten their extirpation at some sites. Vernal pool fairy shrimp and vernal pool tadpole shrimp continue to be threatened by all of the factors which led to the original listing of this species, primarily habitat loss through agricultural conversion and urbanization (CNDDDB 2004).

Environmental Baseline

Giant Garter Snake

Delta Basin. The proposed project is located within the Delta Basin snake population, in the Mid Valley Recovery Unit (Service 1999). Twenty-five CNDDDB (2007) records are known from the Delta Basin. These records include Laguna Creek, Morrison Creek, Snodgrass Slough, Beach Lake, the creeks of the City of Elk Grove, Badger and Willow Creeks, Cosumnes River Preserve, Caldoni Marsh, White Slough, Duck Creek and other locations within the Basin.

During a field reconnaissance in April 2002, a giant garter snake was observed on the southwestern levee of Webb Tract. Since then, habitat evaluations and snake surveys have been conducted on Webb Tract and Beacon Island (Patterson 2004; Patterson and Hansen 2003).

Potential snake habitat in the area exists in the form of contiguous linear irrigation canals and ditches. However, although both islands possess the essential snake habitat components, two years of surveys resulted in no further sightings capture of GGS.

Recent genetic work on giant garter snake population structure indicates three genetic entities within the species which follow the pattern of subdivision revealed by the snake's mitochondrial DNA and color pattern variants: north, central, and south (Paquin 2001; Paquin *et al.* 2006). Interestingly, evidence of historical gene flow between northern and southern populations exists; however, mitochondrial DNA data reveal that the central population, analogous to the Delta Basin, is genetically isolated from both northern and southern populations. High frequencies of unique mitochondrial DNA haplotypes in the central population increase the conservation value for the Delta Basin, particularly as a source for GGS genetic diversity.

Laguna and Morrison Creek, Duck Creek, the Elk Grove creeks, as well as Beach Lake, Snodgrass Slough, Caldoni Marsh, White Slough and associated tributaries, are important GGS habitat and movement corridors for the animal. Such waterways and associated wetlands provide vital permanent aquatic and upland habitat for GGS in areas with otherwise limited habitat. The recovery strategy for the GGS includes maintenance and/or creation of habitat corridors between existing sub-populations to enhance population interchange and offset threats to the species (USFWS 2003).

According to the CNDDDB (2007), the nearest snake record to the proposed project site is within 1 mile (1.6 kilometer), and there are an additional five CNDDDB records within 5 mi (8 km) from the proposed project footprint. GGS have been documented to move up to 5 mi (8 km) over a few days in response to dewatering of habitat (Wylie *et al.* 1997) and to us up to more than 8 mi (12.9 km) of linear aquatic habitat over the course of a few months (Wylie and Martin 2004). The action area contains habitat components that can be used by the snake for feeding, resting, mating, and other essential behaviors, as well as for a movement corridor. These occurrences are hydrologically connected with the proposed project site through Laguna and Morrison Creeks. Because of the biology and ecology of the snake, the presence of suitable habitat within the proposed project, and observations of the species, the Service has determined that the snake is reasonably certain to occur within the action area.

Factors Affecting GGS within the Action Area

The overall status of the giant garter snake has not improved since its listing. Based on scarcity of suitable habitat and limited population size, at listing, threats to the Delta Basin population were considered imminent (Service 1993). The status of the Delta Basin sub-population has been, and continues to be, impacted by past and present Federal, state, private, and other human activities.

A number of State, local, private, and unrelated Federal actions have occurred within the action area and adjacent regions affecting the environmental baseline of the species. Some of these projects have been subject to prior section 7 consultation. These actions have resulted in both direct and indirect effects to snake habitat within the region. Projects affecting the environment in and around the action area include the improvement of the Northgate Boulevard/Arden-Garden Connector Intersection, the widening of Bond Road, construction of the Interstate 5/Consumnes River Boulevard Interchange, the Freeport Regional Water Diversion project, the Rivermont Drive Bridge project, the Rio Vista Northwest Wastewater Treatment project, the widening of Calvine Road, and the Kramer Ranch North project. In the past ten years, the Service has authorized take resulting in the permanent loss of more than 21 acres (9 hectares) of aquatic and 53 acres (22 hectare) of upland snake habitat, as well as temporary alteration of over 1,700 acres (688 hectares) of aquatic and 650 acres (263 hectares) of upland snake habitat in the Delta Basin.

Numerous recent development projects have been constructed in or near snake habitat in the rapidly developing areas in and around the cities of Sacramento, Elk Grove, Galt, and Stockton. Urban and commercial development results in direct habitat loss and also may expose snakes to secondary effects including water pollution from urban run-off and increased vehicular mortality,

both of which act in concert with rapid habitat loss and degradation to further threaten the snake in the Delta Basin. Also, development promotes road widening and bridge replacements, such as those authorized under section 7, which result in direct alteration of snake habitat. Most documented snake localities and/or movement corridors have been adversely impacted by development, including freeway construction, flood control projects, and commercial development. Further, several former localities are known to have been lost and/or depleted to that extent that continued viability is in question (Brode and Hansen 1992). The scarcity of remaining suitable habitat, flooding, stochastic processes, and continued threats of habitat loss pose a severe imminent threat to giant garter snakes in the Delta Basin.

Ongoing agricultural and flood control activities in the Delta Basin may decrease and degrade the remaining snake habitat affecting the environmental baseline for the snake. Such activities are largely not subject to section 7 consultation. Although rice fields and agricultural waterways can provide valuable seasonal foraging and upland habitat for the snake, agricultural activities such as waterway maintenance, weed abatement, rodent control, and discharge of contaminants into wetlands and waterways can degrade snake habitat and increase the risk of snake mortality (Service 2003). On-going maintenance of agricultural waterways can also eliminate or prevent establishment of snake habitat, eliminate food resources for the snake, and fragment existing habitat and prevent dispersal of snakes (Service 2003).

Flood control and maintenance activities which can result in snake mortality and degradation of habitat include levee construction, stream channelization, and rip-rapping of streams and canals (Service 2003). Flood control programs are administered by the U.S. Army Corps of Engineers (Corps), and the Corps has typically consulted on previous projects and is expected to continue to do so for future projects. The ongoing nature of these activities and the administration under various programs, however, makes it difficult to determine the continuing and accumulative effects of these activities.

In addition to projects already discussed, projects affecting the environment in and around the action area include transportation projects with Federal, county, or local involvement. The Federal Highway Administration and/or the Corps have consulted with the Service on the issuance of wetland fill permits for several transportation-related projects within the Delta Basin that affected snake habitat. The direct effect of these projects is often small and localized, but the effects of transportation projects, which improve access and therefore indirectly affect snakes by facilitating further development of habitat in the area and by increasing snake mortality via vehicles, are not quantifiable.

Vernal Pool Branchiopods

Historically, vernal pools and vernal pool complexes occurred extensively throughout the Sacramento Valley of California. Conversion of vernal pools and vernal pool complexes, however, has resulted in a 91 percent loss of vernal pool resources in California (State of California 2003d). By 1973, between 60 and 85 percent of the area within the Central Valley that once supported vernal pools had been destroyed (Holland 1978). In subsequent years, threats to this habitat type have continued and resulted in a substantial amount of vernal pool habitat being

converted for human uses in spite of Federal regulations implemented to protect wetlands. For example, between 1987 and 1992, 467 acres of wetlands within the Sacramento area were filled pursuant to Nationwide Permit 26 (Service 1992). A majority of those wetlands losses involved vernal pools, the endemic habitat of the vernal pool tadpole shrimp, the vernal pool fairy shrimp and slender and Sacramento Orcutt grasses. It was estimated in 1988 that within 20 years human activities would destroy 60 to 70 percent of the remaining vernal pools (Coe 1988). Holland (1998) estimated that almost three-quarters of vernal pool habitats in the Central Valley of California had been lost by 1997. Along the Central California coast, at least 90% of historic vernal pools have been destroyed, and most remaining vernal pools have been degraded (Farren and Pritchett 1988). In southern California, estimated loss of vernal pool habitat ranges from 95 to 100% (Bauder 1987, Oberbauer 1990, Zedler 1990, Bauder and McMillan 1998).

In addition to direct habitat loss, the two shrimp populations have been and continue to be highly fragmented throughout their ranges due to conversion of natural habitat for urban and agricultural uses. Fragmentation results in small isolated shrimp populations. Ecological theory predicts that such populations will be highly susceptible to extirpation due to chance events, inbreeding depression, or additional environmental disturbance (Gilpin and Soulé 1988; Goodman 1987a, b). If an extirpation event occurs in a population that has been fragmented, the opportunities for re-colonization would be greatly reduced due to physical (geographic) isolation from other (source) populations.

Human population growth in Sacramento County has steadily increased. On the average, Sacramento County has experienced an annual population increase of 1.38 percent for the period between 1991 and 1999 (Service 2000). For the period between 1990 and 2000, population growth in Sacramento County increased 17.5 percent (State of California 2002). This annual growth appears to be increasing, as demonstrated by the 2.63 percent and 2.2 percent increases in population growth in 2001 and 2002, respectively (State of California 2003a, 2003b). Increased housing demand and urban development accompany the population growth in Sacramento County. Between 1990 and 2000, housing units in Sacramento County increased by 1.37 percent annually (State of California 2000, 2003c). Population growth and concomitant housing demand and subsequent vernal pool resource development are projected to continue. Population projections for Sacramento County are expected to increase above 2000 levels by 19.7 percent in 2010, by 28 percent in 2015, and by 37.5 percent in 2020 (State of California 2001).

Sacramento County represents important, high quality habitat for the two shrimp populations by providing large, nearly contiguous areas of relatively undisturbed vernal pool habitat. Sacramento County contains the greatest number of occurrences of vernal pool tadpole shrimp within the range of the species, and also is one of the two counties with the greatest number of occurrences of vernal pool fairy shrimp within the range of the species. Sacramento County contains 58 (17 percent) out of the total of 342 reported occurrences of vernal pool fairy shrimp, and 58 (34 percent) out of the total of 173 reported occurrences of vernal pool tadpole shrimp (CNDDB 2004). Further, Sugnet and Associates (1993) reported that of 3,092 "discrete populations" checked, only 345 locations, or about 11 percent of all locations checked, were found to support the vernal pool tadpole shrimp. Of these 345 locations supporting the vernal pool tadpole shrimp, 219 (63 percent) were in Sacramento County. Further, of the

3,092 locations checked, 178 locations (6 percent) were found to support the vernal pool fairy shrimp. Of this total, 63 locations (35 percent) were within Sacramento County.

The vernal pool tadpole shrimp and vernal pool fairy shrimp are imperiled by a variety of human-caused activities. Their habitats have been lost through direct destruction and modification due to filling, grading, disking, leveling, and other activities. In addition, vernal pools have been imperiled by a variety of anthropogenic modifications to upland habitats and watersheds. These activities, primarily urban development, water supply/flood control projects, land conversion for agriculture, off-road vehicle use, certain mosquito abatement measures, and pesticide/herbicide use can lead to disturbance of natural flood regimes, changes in water table depth, alterations of the timing and duration of vernal pool inundation, introduction of non-native plants and animals, and water pollution. These indirect effects can result in adverse effects to vernal pool species

A number of State, local, private, and unrelated Federal actions have occurred within the project area and adjacent region affecting the environmental baseline of these species. Some of these projects have been subject to prior section 7 consultation. Based on an informal review, the Service has issued approximately 157 biological opinions to Federal agencies on proposed projects in Sacramento County that have adversely affected the shrimp species since the two species were proposed to be listed in 1994. This total does not reflect the formal consultations that were withdrawn, those that are suspended, and those that have insufficient information to conclude an effects analysis, those that were amended, or ones that the Service issued a conference opinion. No State of California actions that have taken place within Sacramento County have adversely affected the species in the action area. Although these proposed projects in Sacramento County have eliminated vernal pools and vernal pool complexes, the offsetting compensating measures are designed to minimize the effects of take of these species resulting in both negative and positive effects to the species. Thus, the trend for the two vernal pool species within the county is most likely static.

The actions listed above have resulted in both direct and indirect impacts to vernal pools within the region, and have contributed to the loss of vernal pool tadpole shrimp and vernal pool fairy shrimp populations. Although a reduction of the two shrimp populations has not been quantified, the acreage of lost habitat continues to grow.

In south Sacramento County, the Urban Services Boundary (USB) is a planning boundary that coincides with the areas north of the Cosumnes River/Deer Creek drainage system. Between 1993 and 2000, an estimated 14,950 acres were converted to urban development within the USB (pers. comm., D. Gifford, 2004), based on an analysis of the California Department of Water Resources mapping data. An independent analysis of urban growth in Sacramento County estimated that an estimated 22,000 acres were converted between 1990 and 2000, averaging 2,200 acres per year (pers. comm., Richard Radmacher, Sacramento County, 2004). As of 1998 (the most recent year for which vernal pool mapping from aerial photographs is available), there remained an estimated 23,533 acres of vernal pool grasslands within the USB, supporting approximately 946 acres of wetted vernal pool acreage (pers. comm., Lora Konde, California Department of Fish and Game, 2003).

Vernal pool complexes, occurring north of the Cosumnes River/Deer Creek drainage and within the USB, contain a high density of occupied pool of both vernal pool tadpole shrimp and vernal pool fairy shrimp. There are 31 known occurrences of vernal pool tadpole shrimp inside the USB, compared to 17 occurrences outside the USB (CNDDDB 2003). There are 25 known occurrences of vernal pool fairy shrimp inside the USB, compared to 18 occurrences outside the USB (CNDDDB 2003). The data from the CNDDDB do not reflect additional reported records in the Sunrise-Douglas area, where 137 occurrences of vernal pool tadpole shrimp and 46 occurrences of vernal pool fairy shrimp, and 2 occurrences of Orcutt grasses (2 slender Orcutt grass and 4 Sacramento Orcutt grass) are reported (pers. comm., Arnold Roessler, Service, 2004).

The vernal pools in Sacramento County are classified as young-terrace, old-terrace, and mudflow types (Jones & Stokes 1990). The vernal pools on the proposed project site are classified as the old-terrace type and are located on soils associated with Laguna geologic formation. Old-terrace is a rapidly disappearing habitat type in Sacramento County that consists of ancient river channel deposits that were laid down from 600,000 to more than one million years ago by the American River. By comparison, young-terrace formation dates from 100,000 to 200,000 years ago. Old-terrace formation generally has a higher density of vernal pools, deeper pools, and a greater number of special status plants and crustaceans than young-terrace formations. Some special status species found in old-terrace pools may have evolved from species inhabiting shores of ancient lakes in the Central Valley. Old-terrace pools may have served as refugia for these species as the lakes disappeared (Jones & Stokes, 1990). Sacramento County contains an estimated 764 wetted acres of vernal pools on low terrace, 1,390 wetted acres of vernal pools on high terrace, and 189 wetted acres of vernal pools on volcanic mudflow vernal pools.

There are two predominant soil types found within south Sacramento County. The Valley Springs soil type typifies Gill Ranch. Vernal pools found within the Valley Springs soil type are the young-terrace formation. Young-terrace formations, because they have a higher slope gradient, tend to have fewer vernal pools that are typically smaller and shallower. These vernal pools also are inundated for shorter durations. These factors typically result in lower species diversity. Generally, the larger the vernal pool on this soil type, the higher its biotic diversity. Vernal pool fairy shrimp, vernal pool tadpole shrimp, and Sacramento Orcutt grass are less likely to occur in young-terrace formation vernal pools found on Valley Springs soils (Holland, pers. comm. 2004).

The Laguna geologic formation and its associated soils entirely characterize the Sunrise Douglas Community Plan Area. Vernal pools found within this soil type are old-terrace types. Old-terrace types, because they have a lower slope gradient, tend to have pools that are larger, deeper, and clearer. These pools are inundated for longer periods, but dry and refill less often than the Valley Springs soil type. Generally, the smaller the vernal pool on this soil type, the higher its invertebrate diversity. Although vernal pool fairy shrimp occur in pools on both soil types, but more frequently in pools on Laguna soils. Vernal pool tadpole shrimp are found almost exclusively in old-terrace formation vernal pools found on Laguna soils.

Several areas containing old-terrace formation have been protected for their high quality vernal pool habitat and high concentration of special status species populations by the Sacramento

Valley Conservancy (SVC). This potential preserve area, the SVC's Vernal Pool Prairie Preserve, would cover 2,000 to 3,000 acres and supports a variety of special status plants and animals on relatively undisturbed grasslands containing young and old terrace formations and northern hardpan vernal pools. Within the proposed Prairie Preserve, areas already protected include the Arroyo Seco Mitigation Bank, the Excelsior 184 parcel, and the Sacramento County-owned Multi Cultural Park; outside of the proposed Prairie Preserve, the Sunrise Douglas Preservation Bank, and a portion of Howard Ranch are protected.

There are 342 records of vernal pool fairy shrimp and 173 records of vernal pool tadpole shrimp recorded in the CNDDDB for the entire state of California (CNDDDB 2004). Of these records, 58 vernal pool fairy shrimp records and 58 vernal pool tadpole shrimp records are from Sacramento County (CNDDDB 2004). Vernal pool fairy shrimp and vernal pool tadpole shrimp have both been observed in wetlands throughout the Sunrise Douglas area.

Species Presence in the Bufferlands - Vernal pool fairy shrimp and vernal pool tadpole shrimp have both been observed in wetlands throughout the SRCSD's Bufferlands (Jones & Stokes 2002a), within which a portion of the proposed project is located. In the rapidly developing county of Sacramento, the Bufferlands provide a large area of open space and phenomenal wildlife habitat. Over 375 ac of wetlands, including 247 ac of managed seasonal wetlands, can be found on the 2,650 ac Bufferlands complex. Over 20 ac of delineated vernal pools, which harbor federally listed vernal pool branchiopods, are also found in this complex. Based on this information as well as the fact that vernal pool habitat for listed vernal pool branchiopods occurs in the immediate area of the proposed project, the Service has determined that there is a high likelihood that the vernal pool tadpole shrimp and vernal pool fairy shrimp inhabit the proposed project's action area.

Effects of the Proposed Action

Giant Garter Snake

The proposed project will result in temporary effects to approximately 0.05 acre of aquatic and 8.39 acres of upland GGS habitat. The proposed project will permanently affect approximately 0.001 acre of aquatic and 0.46 acre of upland GGS habitat. Construction activities associated with the proposed project occurring in GGS upland and aquatic habitat may harm, harass, injure, or result in the mortality of GGS. These effects may be aggravated by the initiation of construction activities in the midst of GGS reproductive season. If any dewatering of portions of Morrison Creek is required, this could directly affect GGS through the loss of reproductive, basking, and foraging habitat. Further construction activities, including excavation and movement of large equipment, will remove vegetation cover and basking sites, fill or crush burrows or crevices, and decrease the prey base, and may result in the direct disturbance, displacement, injury, and/or mortality of GGS. Earthwork activities, earth surface modifications, and the staging of equipment and vehicles will temporarily disturb upland habitats and/or obstruct GGS movement. GGS may be killed or injured by construction equipment or other vehicles accessing the project site. Restoration and re-vegetation of the project site would minimize adverse effects resulting from the temporary loss of vegetative cover. The proponents

have proposed a number of conservation measures, such as timing restrictions and worker education programs, which would minimize the effects of the proposed project on GGS.

Indirect effects are caused by or are a result of the proposed action, are later in time, and are reasonably certain to occur. Indirect effects may occur outside the area directly affected by the action. Indirect effects to GGS relative to the proposed project include the temporary displacement and reduction of aquatic prey due to construction activities as well as from increased sedimentation, oils, and other hazardous materials from access roads and staging areas which could wash into drainages. Disturbance from construction activities may also cause GGS to move into and across areas of unsuitable habitat where they may be prone to higher rates of mortality from vehicles and predation.

Vernal Pool Crustaceans

The proposed project will indirectly affect 0.99 acre, and will directly affect 0.14 acre of vernal pool crustacean habitat. Potential direct effects include temporary and permanent construction related impacts to potential habitat and potential take of individuals if the species occurs within the habitat. As currently defined, the proposed project will not impact the vernal pool on the SRCSD Bufferlands, or the seasonal wetlands at Cosumnes River College. However, the proposed project will directly and permanently impact a seasonal wetland (0.14 acre) located southeast of the confluence of Morrison Creek and Union House Creek. If any part of an aquatic feature that represents potential vernal pool crustacean habitat is proposed for impact, the entire feature is considered directly affected. Temporary construction-related impacts to the remaining potential vernal pool crustacean habitat will be avoided.

Habitat indirectly affected includes all habitat supported by destroyed upland areas and swales, and all habitat otherwise damaged by loss of watershed, human intrusion, introduced species, and pollution caused by the proposed project. Pursuant to this, potential vernal pool crustacean habitat that occurs within 250 ft (76 m) of construction activities may be considered indirectly affected.

Project-related activities will occur within 250 ft (76 m) of the remaining seasonal wetland features located southeast of the confluence of Morrison Creek and Union House Creek and the vernal pool within the SRCSD Bufferlands. Although project-related activities will occur within 250 ft (76 m) of the seasonal wetlands at Cosumnes River College, no impacts were assessed for these features. At this location, the proposed project alignment occurs along the north side of Cosumnes River Blvd, until the point where it passes over Cosumnes River Blvd and touches down southeast of the seasonal wetlands along Bruceville Rd.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Several large projects are occurring or proposed to occur in the Bufferlands (SRCSD 2000, 2003; Jones & Stokes 2003). These include: 1) SRCSD's Lower Northwest Interceptor Project; 2) SRCSD's Sacramento Force Main, which is a portion of the lower Northwest Interceptor Project; 3) SRCSD's Laguna Interceptor Extension Project; 4) the Interstate-5 / Cosumnes River Blvd Interchange Project, which is in the alignment of the South Sacramento Corridor Phase 2 Project; 5) Freeport's Regional Water Project; 6) Sacramento Municipal Utility District's 24-Inch Natural Gas Pipeline Project; 7) the Delta Sores Project; and 8) the Stone Family Trust Project. These various projects will contribute to cumulative losses of habitat for federally-listed species such as the GGS, VELB, and vernal pool crustaceans across their range, particularly in south Sacramento County. While these activities may alter the habitats of the GGS, VELB, and vernal pool crustaceans and can potentially harass, harm, injure, or kill these species, because they have a federal nexus, they will be subject to section 7 consultations, and, therefore, will be conducted in accordance with standard avoidance and minimization measures for listed species.

Giant Garter Snake

Additionally, an undetermined number of future land use conversions and routine agricultural practices are not subject to Federal permitting processes and may alter the habitat or increase incidental take of GGS, and are, therefore cumulative to the proposed project. These additional cumulative effects include: 1) unpredictable fluctuations in aquatic habitat due to water management; 2) dredging and clearing of vegetation from irrigation canals; 3) discing or mowing upland habitat; 4) increased vehicular traffic on access roads adjacent to aquatic habitat; 5) use of burrow fumigants on levees and other potential upland refugia; 6) human intrusion into habitat; 7) diversion of water; 8) rip-rapping or lining of canals and stream banks; and 9) use of plastic erosion control netting (Stuart *et al.* 2001). Specific cumulative effects related to the proposed project include maintenance activities and/or increased potential for vandalism during, and after construction, which may degrade or destroy habitat or cause unpredictable fluctuations in habitat. Furthermore, the valley floor wetlands, which are preferred habitat of the GGS, are subject to the cumulative effects of upstream watershed modifications, water storage and diversion projects, as well as urban and agricultural development. The majority of all natural habitats have been lost and an unquantifiable small percentage of semi-natural wetlands remain extant. Only a small percentage of extant wetlands currently provides habitat suitable for the GGS.

Vernal Pool Crustaceans

Because the vernal pool tadpole shrimp and the vernal pool fairy shrimp are endemic to vernal pools in the Central Valley, coastal ranges, and a limited number of sites in the Transverse Range and Santa Rosa Plateau of California, the Service anticipates that a wide range of activities will affect these species. Such activities include, but are not limited to: 1) urban development; 2) water projects; 3) flood control projects; 4) highway projects; 5) utility projects; 6) chemical contaminants; and 7) conversion of vernal pools to agricultural use. Many of these activities will be reviewed under section 7 of the Act as a result of the Federal nexus provided by section 404 of the Federal Water Pollution Control Act, as amended (Clean Water Act).

The proposed project is located in a region where future destruction of vernal pool crustacean habitat is anticipated. Sacramento County will continue to develop within the county's sphere of influence. This development will result in increased direct loss of vernal pool habitat. Development in the vicinity of the proposed project is expected to result in further destruction of habitat for the listed vernal pool crustaceans. Continued loss of vernal pool habitat throughout the region could conceivably affect the genetic diversity of the local populations of listed vernal pool crustaceans. Any loss of genetic diversity can have significant effects on a population's ability to respond to environmental change over time (Frankel and Soule' 1981).

Conclusion

Analytical Framework for the Jeopardy/No Jeopardy Determination

The following analysis relies on four components to support the jeopardy/no jeopardy determination for the species that may be affected by the proposed project: 1) the *Status of the Species*, which evaluates the species' range-wide condition, the factors responsible for that condition, and its survival and recovery needs; 2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the role of the action area in the species' survival and recovery; 3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and 4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species. In accordance with the implementing regulations for section 7 and Service policy, the jeopardy/no jeopardy determination is made in the following manner: the effects of the proposed Federal action are evaluated with the aggregate effects of everything that has led to the species' current status and, for non-Federal activities in the action area, those actions likely to affect the species in the future, to determine if, given the aggregate of all of these effects, implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.

The following analysis places an emphasis on using the range-wide survival and recovery needs of the species and the role of the action area in meeting those needs as the context for evaluating the effects of the proposed Federal action combined with other relevant effects. In short, a non-jeopardy determination is warranted if the proposed action is consistent with maintaining the role of habitat and the species population in the action area for the survival and recovery of the species.

After reviewing the current status of the giant garter snake, the valley elderberry longhorn beetle, the vernal pool tadpole shrimp, and the vernal pool fairy shrimp, the environmental baselines for the action area covered by this biological opinion, the effects of the proposed project, and the cumulative effects, it is the Service's biological opinion that the proposed South Sacramento Corridor Project, as proposed, is not likely to jeopardize the continued existence of these four species. Because no critical habitat has been designated for GGS, none will be affected by the proposed project. The proposed project is not likely to destroy or adversely modify designated critical habitat for the VELB because no critical habitat for this species has been designated or

proposed within the action area of the proposed project. The proposed project is not likely to destroy or adversely modify designated critical habitat for either the vernal pool tadpole shrimp or the vernal pool fairy shrimp because no critical habitat for these species has been designated or proposed within the action area of the proposed project.

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.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The Sacramento Regional Transit District, acting on the behalf of the Federal Transit Administration, has a continuing duty to regulate the activity covered by this incidental take statement. If the RT (1) fails to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

Giant Garter Snake

The Service anticipates incidental take of GGS will be difficult to detect or quantify for the following reasons:

- GGS are cryptically colored, secretive, and known to be sensitive to human activities.
- GGS avoid detection by retreating to burrows, soil crevices, vegetation, and other cover.
- Individual GGS are difficult to detect unless they are observed, undisturbed, at a distance.

- Most close-range observations represent chance encounters that are difficult to predict.

It is not possible to make an accurate estimate of the number of GGS that would be harassed, harmed, or killed during construction activities, including in staging areas, canal banks, soil borrow areas, and roads carrying vehicular traffic to and from borrow areas. In instances when take is difficult to detect, the Service may estimate take in numbers of species per acre of habitat lost or degraded as a result of the action. Therefore, the Service anticipates that all GGS inhabiting the 0.51 acre of aquatic habitat and 8.85 acres of upland habitat on the proposed project site may be harassed or harmed by loss and destruction of habitat as a result of the project.

Vernal Pool Crustaceans

Construction activities associated with the proposed project will indirectly affect 0.99 acre, and directly affect 0.14 acre of seasonal wetland and result in the take of the vernal pool tadpole shrimp and the vernal pool fairy shrimp. The Service anticipates incidental take of these two listed vernal pool crustaceans will be difficult to detect or quantify for the following reasons:

- The aquatic nature of the organisms and their relatively small body size makes the finding of a dead specimen unlikely.
- Losses may be masked by seasonal fluctuations in numbers and other causes.
- The species occurs in habitat that makes them difficult to detect.

Due to the difficulty in quantifying the number of vernal pool fairy shrimp and vernal pool tadpole shrimp that will be killed as a result of the proposed action, the Service is quantifying take incidental to the project as the number of acres of vernal pool crustacean habitat that will become unsuitable for the listed species due to indirect affects as a result of the proposed project. Therefore, the Service estimates that all vernal pool fairy shrimp and vernal pool tadpole shrimp inhabiting 1.13 acres of vernal pool crustacean habitat will become harassed, harmed, injured, or killed as a result of the proposed project.

Upon implementation of the following reasonable and prudent measures, incidental take associated with the proposed project on the two vernal pool crustaceans in the form of harm, harassment, or death from habitat loss, injury, or direct mortality, and incidental take associated with the proposed project on GGS in the form of harm or harassment from habitat loss, will become exempt from the prohibitions described under section 9 of the Act for direct and indirect effects. The incidental take associated with the proposed project is hereby exempted from prohibitions of take under section 9 of the Act.

Effect of the Take

In the accompanying biological opinion, the Service has determined that this level of anticipated take is not likely to result in jeopardy to the GGS, VELB, the vernal pool tadpole shrimp, and/or

the vernal pool fairy shrimp. No critical habitat has been designated for the GGS; therefore none will be affected. The proposed project is not likely to destroy or adversely modify designated critical habitat for the VELB because no critical habitat for this species has been designated or proposed within the action area of the proposed project. The proposed project is not likely to destroy or adversely modify designated critical habitat for either the vernal pool tadpole shrimp or the vernal pool fairy shrimp because no critical habitat for these species has been designated or proposed within the action area of the proposed project.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the effects of take on the listed species that may be affected by the proposed project:

1. Take in the form of harassment and/or harm of the GGS, VELB, and vernal pool crustaceans during construction activities and associated with implementing the project shall be minimized.
2. The permanent and temporary loss and degradation of habitats of the GGS, VELB, and vernal pool crustaceans shall be confined to the proposed project site, and minimized and restored to the greatest extent practicable.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the FTA must ensure compliance with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are nondiscretionary.

1. The following terms and conditions implement reasonable and prudent measure number one (1):
 - a. The project proponents shall minimize the potential for harm, harassment, and direct mortality of GGS, VELB, and vernal pool crustaceans resulting from project-related activities by implementation of the project, including the conservation measures as described in the original (September 2006) and the revised (November 2007) Biological Assessments (Parsons) and as appearing in the project description of this biological opinion.
 - b. The applicants shall include a copy of this biological opinion within its solicitations for design and construction of the proposed project making the primary contractor responsible for implementing all requirements and obligations included within the Bio Op, and to educate and inform all other contractors involved in the project as to the requirements of the Bio Op. A copy of the solicitations containing the Bio Op also will be provided to the Division Chief,

Endangered Species Program, Valley Branches, at the Sacramento Fish and Wildlife Field Office

- c. At least 30 days prior to initiating construction activities, the project proponents shall submit the names and resumes of the biological monitor(s) for the proposed project for Service approval.
- d. A Worker Environmental Awareness Training Program for construction personnel shall be conducted by the Service-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities. The program shall provide workers with information on their responsibilities with regard to GGS, VELB, and vernal pool crustaceans, an overview of the life-history of these species, information on take prohibitions, protections afforded these animals under the Act, and an explanation of the relevant terms and conditions of this Bio Op. Written documentation of the training must be submitted to the Service within thirty (30) days of the completion of the training. As needed, training shall be conducted in Spanish for Spanish language speakers.
- e. Construction activity within GGS habitat shall be conducted between May 1 and October 1. This is the active period for GGS and direct mortality is lessened, because snakes are expected to actively move and avoid danger. If it appears that construction activity may go beyond October 1, the project proponents shall contact the Service as soon as possible, but not later than September 15 of the year in question, to determine if additional measures are necessary to minimize take. Construction within 200 ft from the banks of GGS aquatic habitat will be avoided during the snake's inactive season (October 2 through April 30).
- f. Project construction within 100 ft of elderberry shrubs shall be prohibited during the VELB emergence and mating period (March 15 through June 15) to eliminate any indirect effects of construction on VELB or its eggs. If at the time that construction activities commence for the project, it is found that any elderberry shrubs will be impacted by the proposed project (*i.e.*, a construction schedule change), then the project proponents will be required to reinitiate, and address those impacts.
- g. If aquatic habitat for GGS is required to be dewatered then it must be dewatered 15 days prior to the initiation of construction activities. If complete dewatering is not possible, potential GGS prey (*i.e.*, fish, frogs, and tadpoles) will be removed so that snakes and other wildlife are not attracted to the construction area.
- h. At most 24-hours prior to the commencement of construction activities, the project site shall be surveyed for GGS by a Service-approved biologist. The biologist will provide the Service with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction.

activities. The project area shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred.

- i. A Service-approved biologist shall inspect construction-related activities at the proposed project site to ensure that no unauthorized take of federally-listed species or destruction of their habitat occurs. The biologist shall be available for monitoring throughout all phases of construction that may result in adverse affects to GGS, VELB, and vernal pool crustaceans. Furthermore, the biologist shall have the authority through communication with the resident engineer to stop construction activities in the immediate area if a GGS is encountered during construction until appropriate corrective measures have been completed or until the snake is determined to be unharmed. GGS encountered during construction activities shall be allowed to move away from the area on their own volition. The biologist will notify the Service immediately if any listed species are found on-site, and will submit a report, including date(s), location(s), habitat description, and any corrective measures taken to protect the species found. The biologist will be required to report any take of listed species to the Service immediately by telephone at (916) 414-6600 and by electronic mail or written letter addressed to the Division Chief, Endangered Species Program, Valley Branches, within three (3) working days of the incident.
- j. Measures consistent with Best Management Practices (BMPs), including Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP), will be implemented to minimize effects to GGS during construction. Best management practices will be implemented to prevent sedimentation from entering ESAs and to reduce erosion, dust, noise, and other deleterious aspects of construction related activities. These BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning equipment in or near ESAs, installation of vegetative strips, and temporary sediment disposal. Runoff from dust control and hazardous materials will be retained on the construction site and prevented from flowing into the ESAs.
- k. Tightly woven fiber netting or similar material will be used for erosion control and other purposes at the project site to ensure that the GGS does not get trapped or become entangled. This limitation shall be communicated to the contractor through the use of special provisions included in the bid solicitation package.
- l. During construction operations, the number of access routes, number and size of staging areas, and the total area of the proposed project activity will be limited to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways to minimize habitat disturbance. Project-related vehicles shall observe a 20-mile-per-hour speed limit within construction areas, except on County roads and on State and Federal highways. This is particularly important during periods when GGS may be sunning or moving on roadways. All heavy

equipment, vehicles, and supplies will be stored at the designated staging area at the end of each work period.

- m. During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and exclusive of the ESAs. The applicant will ensure contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and appropriate measures to take should a spill occur.
 - n. To eliminate an attraction to predators of GGS, all food-related trash items, such as wrappers, cans, bottles, and food scraps, must be disposed of in closed containers and removed at the end of each work day from the entire project site.
 - o. No application of herbicides, insecticides, and/or other chemical agents shall occur within 100-feet of elderberry plants or where they might drift or wash into the area of any elderberry plants.
 - p. The FTA will ensure that activities that are inconsistent with the maintenance of the suitability of vernal pool crustacean habitat and the associated on-site watershed are prohibited. These include, but are not limited to: 1) the alteration of existing topography that may alter hydrology into habitat for Federally-listed vernal pool species; 2) the placement of any new structures within suitable habitat; 3) dumping, burning, and/or burying of rubbish, garbage, or any other wastes and fill materials; 4) the placement of stormwater drains; 5) fire protection activities not required to protect existing structures at the proposed project site; and 6) use of pesticides or other toxic chemicals.
 - q. The project proponent shall require documentation from the contractor that aggregate, fill, or borrow material provided for the proposed project was obtained in compliance with the Act. Evidence of compliance with the Act shall be demonstrated by providing the resident engineer with one of the following: 1) a letter from the Service stating that the use of the borrow pit will not result in the incidental take of listed-species; 2) an incidental take permit for contractor-related activities issued by the Service pursuant to section 10(a)(1)(B) of the Act; 3) a biological opinion or letter concurring with a *Not likely to Adversely Affect* determination issued by the Service to the Federal agency having jurisdiction over contractor-related services; 4) a letter from the Service concurring with the *No Effect* determination for contractor-related activities; or 5) contractor submittal of information to the resident engineer indicating compliance with the State Mining and Reclamation Act (SMARA) and provision of County land use permits and California Environmental Quality Act (CEQA) clearance.
2. The following terms and conditions implement reasonable and prudent measures number two (2):

- a. The project proponents shall minimize the potential for harm, harassment, and direct mortality of GGS, VELB, and vernal pool crustaceans resulting from project-related activities by implementation of the project, including the conservation measures as described in the original (September 2006) and the revised (November 2007) Biological Assessments (Parsons) and as appearing in the project description of this biological opinion.
- b. Prior to the initiation of construction activities, the project proponent shall conduct a survey to assess the status of existing elderberry shrubs within the project site, if any. If elderberry shrubs are discovered within the project site, then the project proponents shall reinitiate consultation with the Service in order to analyze and assess any possible impacts to VELB regarding the proposed project.
- c. The project proponents shall ensure that temporary loss of GGS, VELB, and vernal pool crustacean habitat is confined to the proposed project site.
- d. Prior to the commencement of construction activities, high visibility fencing will be erected around the habitats of these federally-listed species to identify and protect these designated ESAs from encroachment of personnel and equipment. These areas will be avoided by all construction personnel. The fencing will be inspected before the start of each work day and maintained by the project proponents until completion of the project. The fencing may be removed only when the construction of the project is completed.
 - i. Fencing will be established at least 200 feet from the edge of aquatic GGS habitat.
 - ii. Fencing will be established at a minimum setback of 20 feet from the dripline of each elderberry shrub within 100 feet of the proposed project alignment that are not to be removed and transplanted. There will be no physical alterations of any type within the area enclosed by the fencing.
 - iii. Fencing will be established at a minimum distance of 50 feet from the edge of the "seasonal wetlands" that are potential habitat for vernal pool crustaceans.
- e. Signs will be posted every 50 feet along the edge of the ESAs, with the following information: "This area is habitat of federally-threatened and/or endangered species, and must not be disturbed. These species are protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

- f. A post-construction walkthrough will be conducted to assess whether any damage occurred to vegetation within the buffer areas. Damage may include accidental cutting of vegetation or visible physical damage to roots, stems, and leaves. If damage is observed, vegetation within the buffer areas will be restored with appropriate native plant species. Erosion control measures and exotic weed abatement measures shall be implemented. If unanticipated damage is done to elderberry shrubs, the Service will be notified and appropriate compensation will be implemented.
- g. After construction activities are complete, any temporary fill or construction debris will be removed and disturbed area restored to their pre-project conditions. An area subject to "temporary" disturbance includes any area that is disturbed during the project, but that, after project completion, will not be subject to further disturbance and has the potential to be re-vegetated.
 - i. As described in the revised BA and the project description of this Bio Op, the project proponents will restore all GGS habitats subject to temporary ground disturbances, including storage and staging areas and temporary roads. This includes 8.39 acres of GGS upland habitat and 0.05 acre of GGS aquatic habitat. These areas shall be re-contoured, if appropriate, and re-vegetated with appropriate locally-collected native plant species to promote restoration of the area to pre-project conditions. Appropriate methods and plant species used to re-vegetate such areas will be determined on a site-specific basis in consultation with the Service and the CDFG. Restoration work may include replanting emergent vegetation. Refer to the Service's *Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat* (USFWS 1997). A written report shall be submitted to the Service within ten (10) working days of the completion of construction at the project site.
- h. The project proponents will maintain and monitor the project site for one (1) year following the completion of construction and restoration activities. Monitoring reports documenting the restoration effort should be submitted to the Service upon the completion of the restoration implantation and one (1) year after the restoration implementation. Monitoring reports should include photo-documentation, when restoration was completed, what materials were used, specified plantings, and justifications of any substitutions to the Service-recommended guidelines.
- i. The FTA shall ensure compliance with the reporting requirements.
- j. As described in the revised BA (Parsons 2007) and appearing in the project description of this Bio Op, prior to the commencement of construction activities

the project proponent shall compensate for the temporary and permanent loss of habitat of GGS and vernal pool crustaceans, as follows:

- i. Prior to the initiation of construction activities, the project proponent will purchase the equivalent of 9.823 acres of GGS habitat credits from a Service-approved conservation bank servicing the area where the proposed project effects occur. This purchase shall compensate for 8.44 acres of temporarily affected GGS habitat and 1.383 acres of permanently affected GGS habitat. All temporary effects will be compensated at a 1:1 ratio, and all permanent effects will be compensated at a 3:1 ratio.
- ii. Prior to the initiation of construction activities, the project proponents will compensate for impacts to vernal pool crustacean habitat by the proposed project through the purchase of the equivalent of 2.26 acres of preservation credits, and 0.14 acre of creation/restoration credits from a Service-approved conservation bank, or combination of banks, servicing the area where the proposed project effects occur. If a conservation bank can not be found that offers creation/restoration credits servicing the area that includes the proposed project, then, with Service approval, the project proponents may be allowed to purchase the creation/restoration credits from a conservation bank that's service area does not include the proposed project. In the choice of conservation bank from which the project proponents purchase credits, priority should be given to the closest banks to the proposed project.

Reporting Requirements

Any contractor or employee who, during routine operations and maintenance activities, inadvertently kills or injures a listed species of wildlife must immediately report the incident to their representative. The Service is to be notified within one (1) working day of the finding of any dead or injured listed wildlife species or any unanticipated take of the species addressed in this biological opinion. Injured giant garter snakes shall be treated and cared for by a licensed veterinarian or other qualified person. The Service contact persons are the Division Chief, Valley Branches, Endangered Species Program at (916) 414-6620 and the Resident Agent-in-charge at (916) 414-6660. Any killed snakes that have been taken shall be properly preserved in accordance with the Natural History Museum of Los Angeles County policy of accessioning (i.e., 10% formalin in a quart jar or freezing). Preserved specimens shall be delivered to the Service's Law Enforcement Office at 2800 Cottage Way, W-2605, Sacramento, California, 95825-1846.

The Service-approved biologist shall notify the Service within one (1) working day if any listed species are found on site, and shall submit a report including the date(s), location(s), habitat description, and any corrective measures taken to protect the species found. The Service-approved biologist shall submit locality information to the CDFG, using completed California Native Species Field Survey Forms, no more than 30 calendar days after completing the last field visit of the project site. Each form shall have an accompanying scale map of the site, such as a

photocopy of a portion of the appropriate 7.5-minute U.S. Geological Survey map and shall provide at least the following information: township, range, and quarter section; name of the 7.5-minute quadrangle; dates (day, month, year) of field work; number of individuals and life stage, where appropriate, encountered; and a description of the habitat by community-vegetation type. The Service-approved biologist shall also provide a high quality copy of this information to the California Fish and Game, 1807 13th Street, Sacramento, California, 95814, phone (916) 445-0045.

The Sacramento Fish and Wildlife Field Office is to be notified within one (1) working day of the finding of any dead or injured listed wildlife species or any unanticipated take of the species addressed in this biological opinion. Any other federally listed or candidate species found on or adjacent to the project area must be reported within three (3) working days of its finding. The Service contact person for this is the Division Chief, Valley Branches, Endangered Species Program at (916) 414-6620. Any dead or severely injured VELB found (adult, pupae, or larvae) shall be deposited in the Entomology Department of the California Academy of Sciences. The Academy's contact is the Senior Curator of Coleoptera at (415) 750-7239. All observations of VELB, live, injured, or dead, or fresh beetle exit holes shall be recorded on California Natural Diversity Data Base (CNDDB) field sheets and sent to CDFG, Wildlife Habitat Data Analysis Branch, 1416 Ninth Street, Sacramento, CA 95814.

The project proponents shall submit a post-construction compliance report prepared by the monitoring biologists to the Sacramento Fish and Wildlife Field Office within thirty (30) calendar days of the completion of construction activity. This report shall detail the following: 1) dates that construction occurred; 2) pertinent information concerning the success of the project in meeting conservation measures; 3) an explanation of failure to meet such measures, if any, and recommendations for remedial actions and request for approval from the Service, if necessary; 4) known project effects on any of the species addressed in this biological opinion, if any; 5) occurrence of incidental take of any of the species addressed in this biological opinion, if any; and 6) other pertinent information.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purpose of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases.

1. The FTA should work with the Service to address significant, unavoidable environmental effects resulting from projects proposed by non-Federal parties.
2. The FTA should assist the Service in implementing the draft, and, when completed, the final Recovery Plan for the giant garter snake.
3. The FTA should assist the Service in the implementation of recovery efforts for the valley elderberry longhorn beetle.

4. The FTA should assist the Service in the implementation of the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*.
5. The FTA, in partnership with the Service, should develop maintenance guidelines for FTA projects that will reduce adverse effects of routine maintenance on listed species and their habitats. Such action may contribute to the recovery and delisting of these species by preventing degradation of existing habitat and increasing the amount and stability of suitable habitat.

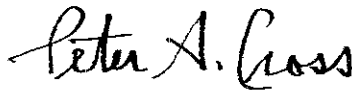
In order for the Service to be kept informed of actions minimizing or avoiding effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION-CLOSING STATEMENT

This concludes formal consultation on the proposed South Sacramento Corridor Phase 2 Project in Sacramento County, California. 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. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion on the proposed South Sacramento Corridor Phase 2 Project, please contact Richard Montgomery or the Chief, Sacramento Valley Branch, at the letterhead address or at telephone 916/414-6630.

Sincerely,



Kenneth D. Sanchez
Acting Field Supervisor

cc:

Elizabeth Hughes, Parsons Corporation
Diane Nakano, Sacramento Regional Transit District
Adam Ballard, ECORP Consulting, Inc.

Enclosures:

Selected Review criteria for Conservation Banks and Section 7 Offsite Compensation.

GIS Metadata Form

LITERATURE CITED

Giant Garter Snake

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Addresses:

Elizabeth Hughes
Environmental Manager
Parsons Corporation
50 Fremont Street, Suite 1500
San Francisco, CA 94105

Diane Nakano
Assistant General Manager - Engineering & Construction
Sacramento Regional Transit District
2811 O St
Sacramento CA 95816

Adam Ballard
ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

**Selected Review Criteria for
Conservation Banks and Section 7 Off Site Compensation**

Rev. April 11, 2006

This list is not a comprehensive list, but gives a substantial number of the basic considerations and requirements necessary to establish protection for properties designated as compensation for project impacts.

In many instances, 'Service-approval,' as stated below, may be replaced with 'Agency-approval,' where other government agencies are involved, such as in Conservation Banking (eg. USACE, CDFG, EPA).

Property Assurances and Conservation Easement

Title Report (Preliminary at proposal, and Final Title Insurance at recordation)

1. Who holds fee title to property? Should be Bank Owner/Project Applicant. If not, there may be liability and contracting issues.
2. Are there any liens or encumbrances (existing debts or easements) on the property?
 - a. Review necessary supporting instruments to evaluate liens and encumbrances. Property owner should submit a "Property Assessment and Warranty" which discusses each and every exception listed on the Preliminary and Final Title Insurance Policies, evaluating any potential impacts to the conservation values that could result from the exceptions (see below).
3. Could any of these liens or encumbrances potentially interfere with either biological/habitat values or ownership? If existing easements can potentially interfere with the conservation values/habitat of the property, those portions of the land should be removed from the Conservation Easement (CE), and deducted from the total number of credits or acres attributed to the site.
4. A Subordination Agreement is necessary if there is any outstanding debt on the property. Review Subordination Agreement for adequacy – the lending bank or other lien holder must agree to fully subordinate to each lien or encumbrance.

Legal Description and Parcel Map

1. Ensure accuracy of map, location and acreage protected under CE.
2. Both the map and the legal description should explain the boundaries of the Bank and/or boundaries of each individual Bank phase or individual project compensation sites. Individual project compensation sites should *not* have "leftover" areas for later use.

Conservation Easement

1. Should use current USFWS CE template;
2. Who will hold the easement?
 - a. Must have third-party oversight by a qualified non-profit or government agency. Qualifications include:
 - i. Organized under IRC 501(c)(3),

- ii. Qualified under CA Civil Code § 815
 - iii. Bylaws, Articles of Incorporation, and biographies of Board of Directors on file at, and approved by, USFWS
 - 1. Must meet requirements of USFWS, including 51% disinterested parties on the Board of Directors
- 3. If not using the USFWS template, applicant should specify objections they have to the template as provided, and may substantially delay processing as they will require Solicitor review. Alternate CE's must be approved by the USFWS prior to recording.
- 4. Other (non-template) CE's should include, at a minimum, language to:
 - a. **USFWS must be third-party beneficiary** or add language throughout the document in all appropriate places that will assure USFWS the right to enforce, inspect, and approve any and all uses and/or changes under the CE prior to occurrence (including land use, biological management or ownership). The alternative of adding language is difficult because we are not signatories to the CE, so you should make sure it is done through the Solicitor's Office.
 - b. Reserve all mineral, air and water rights under CE as necessary to maintain and operate the Bank in perpetuity [USFWS § 2(D)]
 - c. Ensure all future development rights are forfeited.
 - d. Ensure all prohibited uses contained in USFWS CE template are addressed.
 - e. Link the CE, the Management Plan, and the Endowment Trust fund within the document (e.g. note that each exists to support the others, and where each of the documents can be located if a copy is required).
- 5. There are probably many more specific concerns – should compare the content of each of the sections of the current USFWS CE to see where discrepancies lie, and to insert necessary language, particularly, but not exclusively, per:
 - a. Rights of Grantee
 - b. Remedies
 - c. Injunctive Relief
 - d. Enforcement Discretion
 - e. Costs and Liabilities
 - f. Taxes
 - g. Hold Harmless
 - h. No Hazardous Materials Liability
 - i. Assignment and Transfer
 - j. Amendment
 - k. Funding
 - l. Warranty
 - m. Additional Interests

Property Assessment and Warranty

- 1. A summary and full explanation of all exceptions remaining on the title must be included, with a statement that the owner/Grantor accepts responsibility for all lands being placed under this CE as available for the primary purposes of

the easement, as stated in the easement, and assures that these lands have a free and clear title and are available to be placed under the CE.

Environmental Site Assessment – Phase I

1. Check for clear report
2. If there are issues – a proposal to address the issues should be included; remediation may be necessary

Service Area

1. Service Area for a Conservation Bank is based upon biological criteria, and must be approved by USFWS.
2. Documents should then include a map designating the proposed/approved Service Area, and a text description of the same area.

Restoration or Development Plan

1. Full plans for any habitat construction *must* be USFWS-*approved*, and all permits in place, *prior* to the start of construction of the habitat

Management Plan

1. Must be reviewed and approved by the USFWS for each individual Bank, or individual mitigation project, for target species baseline, adequacy of management and monitoring, and reporting requirements and schedules in perpetuity, etc.
2. Management Plan should also describe funding mechanisms, schedule, and reporting for the long term funding of the property
3. Appendices should include biological surveys, wetland delineation and USACE verification letter, and any required permitting information
4. A copy of the final Management Plan must be either recorded with the CE, or the CE must state in its body that the current management plan can be obtained upon request from any signatory wildlife agency.

Economic Analysis

1. Must be based upon the *final, approved* management plan.
2. Must include provision to adjust for CPI annually.
3. Must be based on appropriate, attainable, long-term interest rate.
4. Must address/account for all of the required funds (as below).

Performance Security, Contingency Security and Endowment Fund

All funds must be held, managed, accessed, expended and released according to agency-approved methods and procedures. There are a variety of requirements for each fund. Following is a general overview:

1. All funds must be held by qualified, Service-approved, non-profit organization or government agency [see requirements under CE, §2(a), above]
2. A full description of the trust account and investment methods must be agency-approved. All funds must be held according to minimum standards for assuring

- maximum success in earning potential, and with assurances for no loss of principal
3. Disbursements or releases from each of the funds must be for documented expenditures, as they occur
 4. A full economic analysis must be included to demonstrate how each of the required funding amounts was determined. This analysis must be approved by the agencies as being full, complete and adequate
 5. A schedule and plan (including target date and full amount on that date) for funding each of the accounts must be submitted for approval

Agreement Contract

This would include a "Conservation Bank Agreement," "Bank Enabling Instrument," or other consolidating agreement that ties all of the associated documents together. Some general, basic (certainly not all-inclusive) concerns to include are:

1. Conservation Easement must be approved by any agencies involved prior to recording, and a recorded copy must be submitted to the agencies prior to the compensation taking effect in any way.
2. For an individual site, each of the primary documents – the CE, management plan and endowment trust – must reference the other two documents to link them together to fully address the compensation.
3. If not a Conservation Bank, individual project compensation should be addressed fully (within or by each document) as individual projects.
4. Responsible party (property owner) must be identified (and a valid party to the contract) as responsible for all funding, management, monitoring, and reporting of Bank or Compensation Site, in perpetuity.
5. Transfer and Assignment of property should be according to §9.0 of USFWS Bank Agreement template, or approved by USFWS
6. Any agreement must include remedies for any disputes per §10.0 of the USFWS Conservation Bank Agreement.
7. Applications for individual compensation sites must not include any "leftover" pre-approved acreages for future projects. Any future projects must be addressed individually.

**Sacramento Fish and Wildlife Office
Metadata Form**

USFWS File Number 81420-2008-F-_____

Reference Number from Letter _____

Project Title: _____
Descriptive title with project name (Ninth Hole Project boundary)

Information Originator: _____
Who is creating the data (Contractor's name, company name, address, phone number, email address).

Purpose: _____
For whom or what project is the data being created (i.e. applicant).

Information Creation Date: _____ Date or dates.

Data Status: _____ Complete / To be updated.

Process Step: _____
How was the data created or collected? What is the estimated positional accuracy and what is accuracy based on? (GPS, Aerial photo resolution, etc.)

File Format: _____ Shape file, IFW, etc.

Projection and Datum: _____ UTM Zone 10 or 11, NAD83

Attribute Information: _____
Information (If applicable): Data dictionary for any attribute definitions.

Data Provided In: _____ Email, CD, DVD

Metadata guidelines may be accessed at www.fgdc.gov

Advice 5042-E
March 30, 2017

Attachment 5
Notice of Determination

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research
For U.S. Mail: Street Address:
P.O. Box 3044 1400 Tenth St.
Sacramento, CA 95812-3044 Sacramento, CA 95814

☒ County Clerk

County of: Sacramento
Address: 600 Eighth Street
Sacramento, CA 95814

From:

Public Agency: Sacramento Regional Transit
Address: 1225 R Street
Sacramento, CA 95811
Contact: Diane Nakano
Phone: (916) 321-3853

Lead Agency (if different from above):

Address: _____
Contact: _____
Phone: _____

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 1996052075

Project Title: South Sacramento Corridor Phase 2 Project

Project Location (include county): Sacramento County

Project Description:

An extension of light rail transit service 4.3 miles from the South Sacramento Corridor Phase 1 terminus at Meadowview Road, south to Cosumnes River College.

This is to advise that the Sacramento Regional Transit has approved the above described project on October 27, 2008 and has made the following determinations regarding the above described project:
(Date)

1. The project [☒ will ☐ will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☐ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☒ was ☐ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at: http://www.slp2.org/ and at 1400 29th Street, Sacramento CA 95816

Signature (Public Agency) _____ Title _____

Date October 27, 2008 Date Received for filing at OPR _____

Advice 5042-E
March 30, 2017

Attachment 6

**Sacramento Regional Transit District's issued
Resolution**

Memorandum

To: CHAIR AND COMMISSIONERS

Date: April 27, 2009

From: BIMLA RHINEHART
Executive Director

File: Book Item 2.2c (2)
Action

Ref: **Final Environmental Impact Report – South Sacramento Corridor Phase 2 Light Rail Extension Project (Resolution E-09-27)**

ISSUE: Should the Commission, as a Responsible Agency, accept the Supplemental Final Environmental Impact Report (SFEIR), Findings of Fact and Statement of Overriding Considerations to allow the South Sacramento Corridor Phase 2 Light Rail Extension Project to be considered for funding?

RECOMMENDATION: Staff recommends that the Commission accept the SFEIR, Findings of Fact and Statement of Overriding Considerations for the South Sacramento Corridor Phase 2 Light Rail Extension Project (project) and approve the project to allow for consideration of funding.

BACKGROUND: On March 29, 1995, the Sacramento Regional Transit (RT) Board of Directors adopted a Locally Preferred Alternative (LPA) for long term development of light rail transit (LRT) improvements in the South Sacramento Corridor based on a Final EIR/EIS certified by the RT Board on May 8, 1995. At this time, in response to capital and operations funding constraints, the RT Board stated its intention to implement the South Corridor project in two phases. The Sacramento Corridor Phase 1 project, extending from the 16th street LRT station in downtown Sacramento to Meadowview Road in South Sacramento, was completed in September 2003.

This SFEIR/Supplemental Environmental Impact Statement (SFEIS) focuses on the environmental impacts of the second phase of the LPA adopted by the RT Board of Directors in 1995 and supplements the environmental evaluation contained in the 1994 Final EIR/EIS. The project will extend light rail transit service 4.3 miles from the South Sacramento Corridor Phase 1 terminus at Meadowview Road southward along the Union Pacific Railroad (UPRR) right of way, turning east crossing the UPRR and Union House Creek, continuing east of the proposed extension of Cosumnes River Blvd to Bruceville Road where it turns south to the terminus at Cosumnes River College. The project includes four new stations and three new park and ride lots. The project will improve public transit services in the South Sacramento Corridor to provide faster, more convenient access between South Sacramento and downtown Sacramento as well as to other corridor activity centers.

RT was the Lead Agency for CEQA compliance of the SFEIR for the project. On October 27, 2008, the Sacramento RT Board certified the SFEIR and approved CEQA Findings of Fact and a Statement of Overriding Considerations for the project. RT also adopted a mitigation monitoring and reporting program regarding changes in the project or mitigation measures imposed to mitigate or avoid significant effects on the environment.

The project's one significant and unavoidable impact relates to the impact on the intersection of Franklin Boulevard and Cosumnes River Boulevard in 2012. It is projected that during the AM and PM peak hours, the intersection operating condition deteriorates by more than 5 seconds of delay. RT determined that there are no feasible mitigation measures available to reduce this impact to a less than significant level due to the physical constraints of the location. RT balanced the individual benefits of the project to travel and mobility, land use, financial, environmental, and community against the one remaining unavoidable environmental impact and concluded the benefits of the project outweigh the environmental impacts.

The project is estimated to cost \$270,000,000 and is funded with STIP (\$4,307,000), TCRP (\$66,000,000), Proposition 1B Public Transportation Modernization, Improvement and Service Enhancement Account (\$17,928,000), STA (\$157,000), Federal (\$142,100,000) and Local (\$39,508,000). Construction is estimated to begin in fiscal year 2009/2010.

Attachments

- Resolution No. 09-27
- Project Location
- Board Resolution – Overriding Considerations

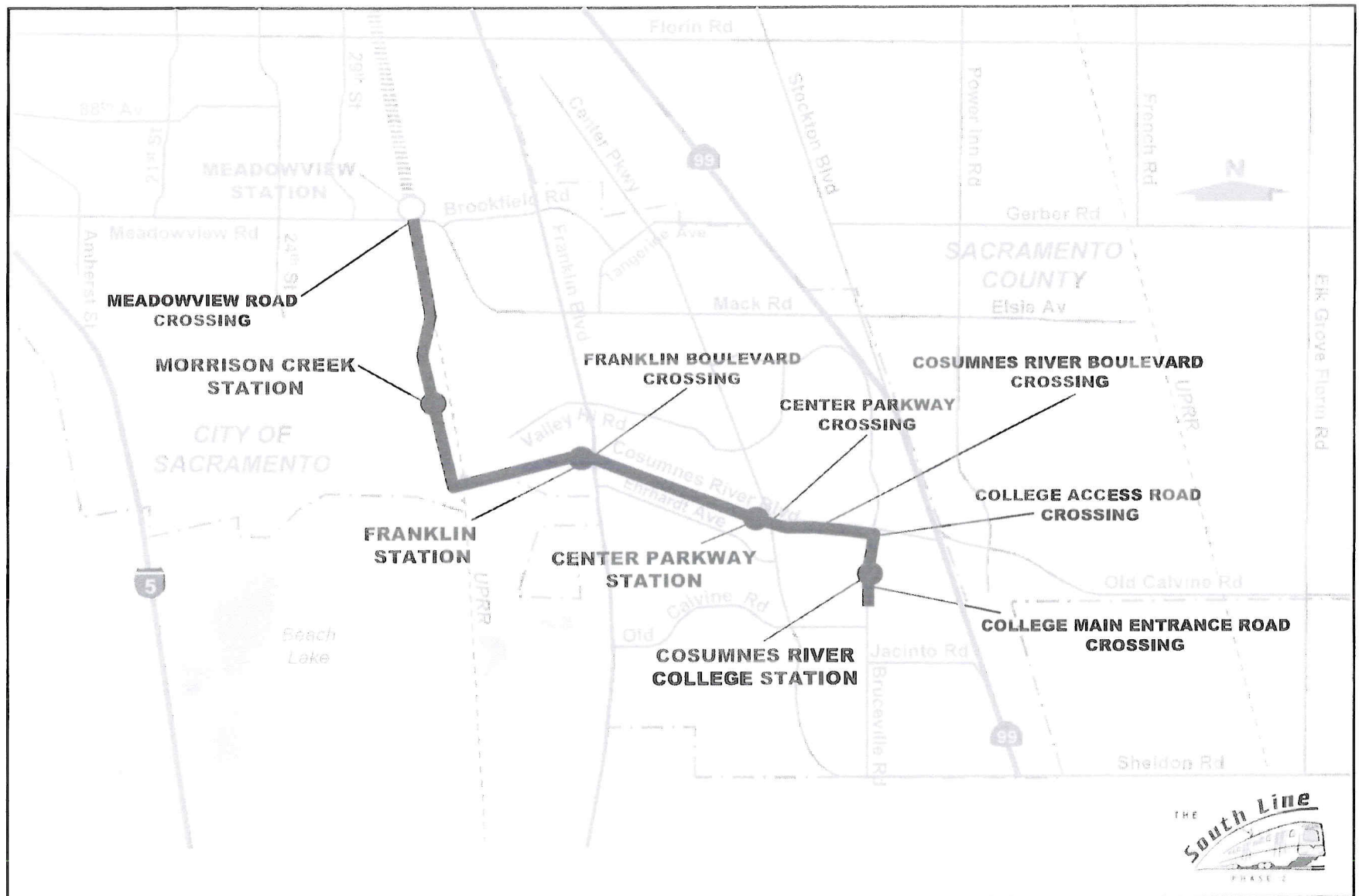
CALIFORNIA TRANSPORTATION COMMISSION

Resolution for Consideration of Funding

03-SAC

Resolution E-09-27

- 1.1 WHEREAS**, the Sacramento Regional Transit District has completed a Supplemental Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines for the following project:
- South Sacramento Corridor Phase 2
- 1.2 WHEREAS**, the Sacramento Regional Transit District has certified that the Supplemental Final Environmental Impact Report has been completed pursuant to CEQA and the State CEQA Guidelines for its implementation; and
- 1.3 WHEREAS**, the project will improve public transit services to provide faster, more convenient access between the South Corridor and downtown Sacramento; and
- 1.4 WHEREAS**, the California Transportation Commission, as a Responsible Agency, has considered the information contained in the Supplemental Final Environmental Impact Report; and
- 1.5 WHEREAS**, written findings indicate that a specific unavoidable significant impact related to transportation make it infeasible to avoid or fully mitigate to a level less than significant the effects associated as a result of the project; and
- 1.6 WHEREAS**, a statement of overriding considerations was adopted and findings were made pursuant to CEQA guidelines; and
- 1.7 WHEREAS**, a mitigation, monitoring and reporting program was adopted for this project; and
- 1.8 WHEREAS**, the above significant effects are acceptable when balanced against the facts as set forth in the statement of overriding considerations.
- 2.1 NOW, THEREFORE, BE IT RESOLVED** that the California Transportation Commission does hereby accept the findings and statement of overriding considerations and approve the above referenced project to allow for consideration of funding.



SOUTH SACRAMENTO CORRIDOR PHASE 2 PROJECT

RESOLUTION NO. 08-10 - _____

Adopted by the Board of Directors of the Sacramento Regional Transit District on the date of:

October 27, 2008

**CERTIFYING THE SUBSEQUENT FINAL ENVIRONMENTAL IMPACT REPORT,
MAKING FINDINGS OF OVERRIDING CONSIDERATIONS,
APPROVING THE PROJECT, AND DIRECTING FILING OF
THE NOTICE OF DETERMINATION FOR
THE SOUTH SACRAMENTO CORRIDOR PHASE 2 PROJECT**

The Board of Directors of the Sacramento Regional Transit District does resolve as follows:

Section 1. Procedures. The Board of Directors of the Sacramento Regional Transit District finds as follows:

A. A Draft and Final Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report ("SDEIS/R" and "SFEIS/R") were prepared by and for the Sacramento Regional Transit District ("Regional Transit") for the South Sacramento Corridor Project (the "Project") pursuant to the California Environmental Quality Act ("CEQA") (Public Resources Code §21000 et seq.); the Guidelines for Implementation of the California Environmental Quality Act (14 Cal. Code Regs. §15000 et seq.) ("Guidelines"); and the local procedures adopted by Regional Transit pursuant thereto.

B. The Notice of Preparation for the SDEIS/R was sent to each Responsible Agency, Trustee Agency, and federal agency in compliance with Section 15082 of the Guidelines.

C. The Notice of Completion for the SDEIS/R was forwarded to the Office of Planning and Research pursuant to Section 15085 of the Guidelines.

D. Regional Transit consulted with and requested comments on the SDEIS/R from Responsible Agencies, Trustee Agencies, and other federal, state and local agencies in compliance with Section 15086 of the Guidelines.

E. A Notice of Availability of the SDEIS/R was published in a newspaper of general circulation in the area affected by the Project. Copies of the SDEIS/R were furnished to federal, state, regional and local agencies and to all libraries in the affected area. A public hearing was properly noticed and held on March 12, 2007 to solicit comments on the SDEIS/R during a 45 day review period in compliance with Section 15087 of the Guidelines.

F. The SDEIS/R was thereafter revised, responses to comments received on the SDEIS/R were addressed, and a list of persons, organizations and public agencies

commenting on the SDEIS/R was prepared pursuant to Sections 15088 and 15089 of the Guidelines.

G. The SDEIS/R, the revisions to the SDEIS/R, the comments on the SDEIS/R, the list of persons, organizations and public agencies commenting on the SDEIS/R, and the responses to comments on the SDEIS/R together comprise the SFEIS/R pursuant to Section 15132 of the Guidelines.

Section 2. Administrative Record. The Regional Transit Board of Directors finds as follows:

A. On March 12, 2007, the Regional Transit Board of Directors conducted a noticed public hearing on the SFEIS/R in conjunction with its hearing on the Project. The record of this hearing includes only the following as submitted to and considered by the Board of Directors:

(1) The SFEIS/R, which includes the addendum/errata to the SFEIS/R, changes to the SDEIS/R, the SDEIS/R and written comments received during the public comment period and responses thereto;

(2) All staff reports, memoranda, maps, letters, minutes of meetings, and other documents prepared by Regional Transit staff relating to the Project and presented to the Board of Directors at its hearing on the SDEIS/R;

(3) The proceedings before the Regional Transit Board of Directors relating to the Project and SDEIS/R and SFEIS/R, including testimony and documentary evidence introduced at the public hearings, the transcript of all hearings of the Regional Transit Board of Directors related to this matter, and the official minutes of such meetings;

(4) This Regional Transit Resolution.

(5) The Mitigation Monitoring Program for the Project.

B. The SFEIS/R reflects the independent judgment of the Regional Transit Board of Directors.

Section 3. Certification of the Final EIR. Pursuant to Section 15090 of the Guidelines, the Regional Transit Board of Directors hereby certifies that the SFEIS/R for the Project has been completed in compliance with CEQA, the Guidelines, and local procedures adopted by the Regional Transit pursuant thereto, and that the Board of Directors has reviewed and considered the information contained in the SFEIS/R prior to making a determination on the Project.

Section 4. Mitigation of Significant or Potentially Significant Impacts. The significant and potentially significant environmental impacts, including cumulative impacts, and the

mitigation measures for the Project which will mitigate the impacts to a less than significant level are set out in Exhibit A, attached hereto and by this reference incorporated herein. These impacts are identified in the SFEIS/R or have otherwise been identified by the Regional Transit Board of Directors. Pursuant to Section 21081(a) of CEQA and Section 15091 of the Guidelines, as to each such impact, the Regional Transit Board of Directors, based on the evidence in the record before it, finds that changes or alterations incorporated into the Project mitigate, avoid or substantially lessen to a level of insignificance these significant or potentially significant environmental impacts of the Project. The basis for the finding for each identified impact is set out in Exhibit A.

Section 5. Mitigation Measures Found to Be Infeasible. Certain other significant and potentially significant environmental impacts, including cumulative impacts, which may be mitigated, avoided or substantially lessened by proposed mitigation measures are set out in Exhibit A. Pursuant to Section 21081(c) of CEQA and Section 15091(a)(3) of the Guidelines, as to each such impact and mitigation measure, the Regional Transit Board of Directors, based on the evidence in the record before it, specifically finds that the mitigation measures are infeasible. Each impact and mitigation measure and the facts supporting the finding of infeasibility of each mitigation measure are set out in Exhibit A. Notwithstanding these impacts and the finding of infeasibility, the Regional Transit Board of Directors elects to approve the Project due to the overriding considerations set forth in the Statement of Overriding Considerations attached as Exhibit B and by this reference incorporated herein, and referenced below in Section 8.

Section 6. Significant and Unavoidable Impacts. Certain other significant and potentially significant environmental impacts, including cumulative impacts, of the Project are unavoidable, and cannot be mitigated in a manner that would substantially lessen the significant impact. These impacts are set out in Exhibit A. Notwithstanding these impacts, the Regional Transit Board of Directors elects to approve the Project due to overriding considerations as set forth in the Statement of Overriding Considerations attached as Exhibit B, and referenced below in Section 8.

Section 7. Project Alternatives. The Regional Transit Board of Directors has considered the Project alternatives discussed in the SFEIS/R and presented during the comment period and public hearing process. Some of these alternatives have the potential to avoid or reduce certain significant or potentially significant environmental impacts, as set out in Exhibit A. The Regional Transit Board of Directors specifically finds these alternatives to be infeasible. Each alternative and the facts supporting the finding of infeasibility of each alternative, are set out in Exhibit A.

Section 8. Statement of Overriding Considerations. The Regional Transit Board of Directors, pursuant to Guidelines Section 15092, finds that in approving the Project it has eliminated or substantially lessened all significant and potentially significant effects of the Project on the environment where feasible, as shown in Sections 4 through 7 of this Resolution. The Regional Transit Board of Directors further finds that the remaining unavoidable significant and potentially significant impacts are acceptable, and makes this Statement of Overriding Considerations in accordance with Section 15093 of the

Guidelines. For the reasons set out in Exhibit B, the Regional Transit Board of Directors finds that the benefits of the Project outweigh the unavoidable adverse impacts which may result from the Project, and the overriding considerations set out in Exhibit B support approval of the Project.

Section 9. Mitigation Monitoring Program. The Mitigation Monitoring Program for this Project as set out in Exhibit C, attached hereto and incorporated herein by this reference, is hereby approved and adopted. Staff is hereby authorized and directed to implement the Mitigation Monitoring Program pursuant to its provisions.

Section 10. Project Approval. The Project is hereby approved and staff is hereby directed to file a Notice of Determination with the County Clerk of Sacramento County and, if the Project requires a discretionary approval from any state agency, with the State Office of Planning and Research, pursuant to the provisions of Section 21152 of the Public Resources Code and the Guidelines.

Section 11. Custodian of Records. The documents and other materials that constitute the record of proceedings upon which the Board of Directors has based its decision are located in the office of the Clerk to the Board, 1400 29th Street, Sacramento, California 95816. The custodian of these documents and other materials is the Regional Transit Clerk of the Board.

Robert MacGlashan
ROBERTA MACGLASHAN, Chair

ATTEST:

MICHAEL R. WILEY, Secretary

By: Cindy Brooks
Cindy Brooks, Assistant Secretary

Attachment 7

Addendum

Addendum

South Sacramento Corridor Phase 2 Extension

69 kV Transmission Line Realignment and Multi-Use Bridge & Pathway Lighting

Prepared for:

Sacramento Regional Transit District



November 2015

Addendum

South Sacramento Corridor Phase 2 Extension

69 kV Transmission Line Realignment and Multi-Use Bridge & Pathway Lighting

Prepared for:

Sacramento Regional Transit District
2811 O Street
Sacramento, CA 95812

Contact:

Ed Scofield
Director, Project Management
(916) 321-3854

Prepared by:

AECOM
300 California Street, Suite 500
San Francisco, CA 94104

Contact:

Rod Jeung
Principal
(415) 955-2894

AECOM

November 2015

TABLE OF CONTENTS

Section	Page
1 INTRODUCTION.....	1-1
1.1 South Sacramento Corridor Phase 2 Light Rail Project Overview.....	1-1
1.2 Previous Environmental Review for the South Sacramento Corridor Phase 2 Project	1-1
1.3 Purpose of this Addendum	1-3
1.4 Proposed Project Objectives.....	1-4
1.5 Proposed Project.....	1-4
2 EVALUATION OF ENVIRONMENTAL IMPACTS.....	2-1
2.1 Aesthetics	2-1
2.2 Agricultural and Forestry Resources	2-2
2.3 Air Quality	2-2
2.4 Biological Resources.....	2-3
2.5 Cultural Resources	2-4
2.6 Geology and Soils	2-4
2.7 Greenhouse Gas Emissions	2-7
2.8 Hazards and Hazardous Materials	2-7
2.9 Hydrology and Water Quality	2-7
2.10 Land Use and Planning.....	2-8
2.11 Mineral Resources.....	2-8
2.12 Noise.....	2-8
2.13 Population and Housing	2-9
2.14 Public Services	2-9
2.15 Recreation.....	2-9
2.16 Transportation and Traffic.....	2-9
2.17 Utilities and Service Systems	2-10
2.18 CEQA Mandatory Findings of Significance	2-10
3 CONCLUSION	3-1

Appendices

- A Wetland Assessment
- B Habitat Assessment
- C SHPO Concurrence

Figures

Figure 1-1. Overview of South Sacramento Corridor Phase 2 Project.....	1-2
Figure 1-2. Comparison of Approved SMUD Alignment and Proposed Realignment.....	1-5
Figure 1-3a. 69kV Transmission Line Relocation – Northern Portion	1-7
Figure 1-3b. 69kV Transmission Line Relocation – Southern Portion	1-8
Figure 1-4. Pathway Lighting Overview Map.....	1-11
Figure 2-1. Wetland Delineation	2-5

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ADOPTION AND APPROVAL OF ADDENDUM

Certification by Those Responsible for Preparation of This Document. The Sacramento Regional Transit District (RT) has been responsible for the preparation of this Addendum to the South Sacramento Corridor Phase 2 Extension (SSCP2) Initial Study/Proposed Mitigated Negative Declaration (IS/MND). I believe this document meets the requirements of the California Environmental Quality Act (CEQA) Guidelines Section 15164 concerning the adoption of addenda to certified EIRs or Negative Declarations. None of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR or Mitigated Negative Declaration apply. I recommend adoption of the Addendum and approval of the proposed project.

RoseMary Covington
Assistant General Manager
Planning and Transit System Development
Sacramento Regional Transit District

Date

Approval of the Project by the Lead Agency. Pursuant to Section 15164 of the CEQA Guidelines, the Sacramento Regional Transit District has independently reviewed and analyzed the Addendum and has determined that the Addendum reflects the independent judgment of the Sacramento Regional Transit District. The RT Board finds, on the basis of the whole record before it, that there is no substantial evidence showing that the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR or Mitigated Negative Declaration will occur.

This Addendum was adopted by the RT Board on:

Date

Clerk of the Board

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ADDENDUM TO THE SSCP2 PROJECT – 69KV TRANSMISSION LINE REALIGNMENT AND MULTI-USE BRIDGE & PATHWAY LIGHTING

1 INTRODUCTION

1.1 SOUTH SACRAMENTO CORRIDOR PHASE 2 LIGHT RAIL PROJECT OVERVIEW

The Sacramento Regional Transit District (RT) completed in August 2015 the extension of Light Rail Transit (LRT) service approximately 4.3 miles south from its existing LRT station at Meadowview Road to Cosumnes River College (CRC), known as the South Sacramento Corridor Phase 2 (SSCP2) extension project. The SSCP2 travels south from the Meadowview Station along the Union Pacific Railroad (UPRR) right-of-way (ROW); turning east and crossing over the UPRR and Morrison Creek; continuing east within an alignment along the north side of Cosumnes River Boulevard, crossing Franklin Boulevard and Center Parkway at grade; crossing over Cosumnes River Boulevard and turning south along the western side of Bruceville Road; and terminating at CRC (Figure 1-1). The light rail extension includes three new stations at Franklin Boulevard, Center Parkway, and CRC. A fourth station is planned at Morrison Creek, but that station will be constructed as part of a later phase of the SSCP2 project.

1.2 PREVIOUS ENVIRONMENTAL REVIEW FOR THE SOUTH SACRAMENTO CORRIDOR PHASE 2 PROJECT

The SSCP2 project was evaluated by the Federal Transit Administration (FTA) and RT in a Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR¹). The SFEIS/SFEIR evaluated three alternatives for the project and selected the SSCP2 extension alternative, described above, as the Preferred Alternative. The SFEIS/SFEIR was approved in December 2008 through the issuance of a Record of Decision by FTA and the filing of a Notice of Determination (NOD) by RT.

In 2011, an Initial Study/Environmental Assessment (IS/EA²) was prepared to consider a number of modifications to the SSCP2 project. The modifications included:

- ▶ The realignment of approximately 4,700 feet of the northernmost portion of the SSCP2 extension. This modification included a total of 31 partial residential property acquisitions necessary to accommodate the revised alignment.
- ▶ Adjustments to the proposed RT ROW to allow for greater separation from the Morrison Creek levee. This modification included two partial acquisitions of residential properties to accommodate the revised alignment.

¹ Sacramento Regional Transit District. *South Sacramento Corridor Phase 2 Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report*. Sacramento, CA. September 2008.

² Sacramento Regional Transit District. *South Sacramento Corridor Light Rail Project Phase 2 Extension Project Modifications Final Initial Study/Environmental Assessment*. Sacramento, CA. September 2011.

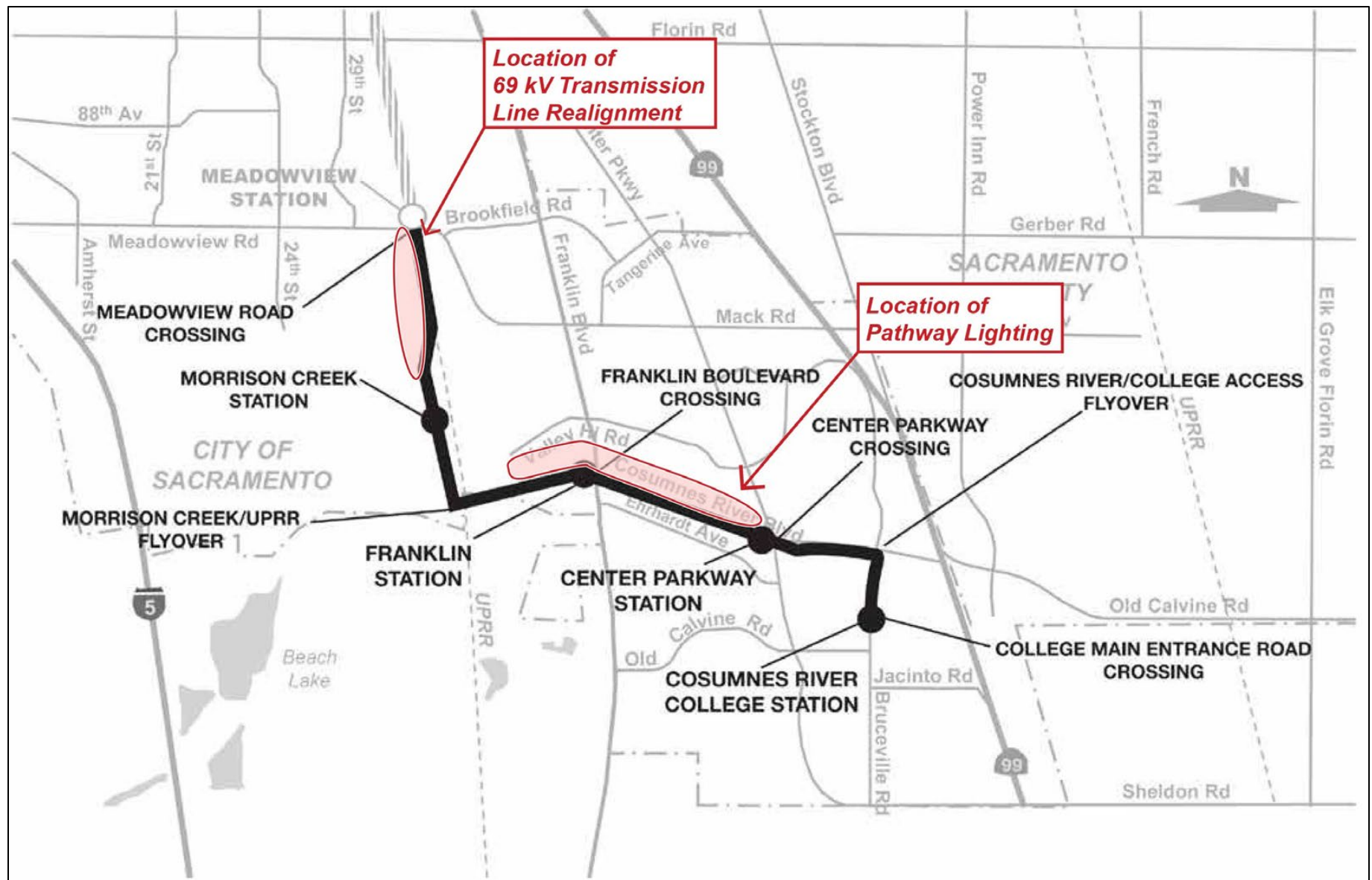


Figure 1-1. Overview of South Sacramento Corridor Phase 2 Project

- ▶ Relocation of Traction Power Substation #10 from the original proposed location in the Franklin Station parking lot to a new location across Franklin Boulevard. This modification required the full acquisition of one vacant property at the intersection of Franklin Boulevard and Cosumnes River Boulevard.
- ▶ The addition of 400 feet of tailtrack at the CRC campus at the southern end of the SSCP2 alignment to facilitate more efficient LRT operations.

The IS/EA was approved in October 2011 through the issuance of a Finding of No Significant Impact (FONSI) by FTA and adoption of a Mitigated Negative Declaration (MND) by RT.

In 2013, a second Initial Study/Mitigated Negative Declaration (IS/MND³) was prepared to consider the relocation of a 69 kV electrical transmission line and joint pole facilities to accommodate the SSCP2 project. RT adopted an MND for the relocation project and FTA issued its concurrence that the proposed relocation would not cause significant environmental effects that had not been previously evaluated in the 2008 SFEIS/SFEIR and 2011 IS/EA described above.

1.3 PURPOSE OF THIS ADDENDUM

Since approval of the SSCP2 environmental documents described above, RT has identified additional modifications to the SSCP2 project designs (see Figure 1-1):

- (1) A change in the proposed 69 kV relocation alignment evaluated in the 2013 IS/MND, including:
 - a. Alignment Modification of poles 9 through 12 toward the western boundary of the California Department of Food and Agriculture (CDFA) (approximately 150 feet west); and
 - b. Alignment Modification of poles 16 through 21 approximately 300 to 450 feet east of the approved alignment within the US Department of Labor (DOL) property.
- (2) Installation of lighting along the multi-use pedestrian/bike pathway (pathway) including the two bridges along the pathway.

The proposed new pole alignment and pathway lighting installation were not evaluated as part of the previous environmental review documents. RT has assessed the impacts of the proposed modifications as required by the California Environmental Quality Act (CEQA) and has determined that environmental review of the proposed modifications can be accomplished with an Addendum to the 2013 IS/MND, which is incorporated herein by reference.

Addenda are intended for minor design changes to a previously approved project, as specified in CEQA Guidelines Section 15164. Because RT is the local lead agency for the overall SSCP2 project and is ultimately responsible for its implementation, it is also the local lead agency for any proposed modifications to the SSCP2

³ Sacramento Regional Transit District, *South Sacramento Corridor Phase 2 Extension 69 kV Transmission Line and Joint Pole Facilities Relocation Project*. Sacramento, CA. October 2013. AECOM.

project. RT has environmental review responsibilities that it must fulfill before committing to undertaking any modifications. This Addendum is intended to serve that purpose.

The SSCP2 project is receiving a portion of its funding from the FTA, which is a federal agency. Federal actions and approvals require environmental review under the National Environmental Policy Act (NEPA). Although this document is not being prepared as a joint NEPA/CEQA document, information contained in it may be used to inform the FTA as it considers whether to approve the proposed modifications to the SSCP2 project.

1.4 PROPOSED PROJECT OBJECTIVES

1.4.1 69 kV Utility Pole Realignment

The approved 69 kV utility pole realignment (as evaluated in the 2013 IS/MND) would travel south from Meadowview Station, crossing through the CDFA property and the DOL property before heading east just south of the terminus of Burlington Way and continuing east to the south of Deerhaven Way before rejoining the existing alignment (Figure 1-2). RT worked closely with SMUD and the Sacramento Job Corps, reviewing the engineering designs and protocols that were necessary for relocation. Following approval of the pole realignment, RT and DOL determined that the realignment would interfere with future potential land uses by the DOL.

Furthermore, RT learned in June 2015 that CDFA was proposing a solar photovoltaic (solar PV) installation on its property to serve the CDFA site. The approved 69 kV pole realignment through the CDFA site would conflict and render infeasible CDFA's proposed solar PV development.

The proposed realignment would enable both property owners in this section of the 69 kV corridor to achieve their land use plans for their properties.

1.4.2 Lighting Installation along Pedestrian/Bike Pathway and Bridges

RT has been working with the Sacramento pedestrian and bicycling community to respond to requests and desires to incorporate design amenities that could further promote the pathway's use for recreation and transportation. RT is supportive of this input. The installation of lighting along the pathway would increase pedestrian and cyclist use and enhance safety throughout the project corridor.

1.5 PROPOSED PROJECT

1.5.1 69 kV Utility Pole Realignment

RT has discussed and reviewed the 69 kV realignment with SMUD, CDFA, DOL, and the Sacramento Job Corps, to ensure that all stakeholders agree the proposed realignment is feasible and would serve the objectives of each agency. The proposed modifications to the 69 kV utility alignment would involve the relocation of poles 9, 10, and 11 on the CDFA property, as well as the relocation of poles 16-21 on the DOL property. Figure 1-3a and Figure 1-3b illustrate the proposed realignment. Realignment modifications are outlined below; no other poles would be affected.

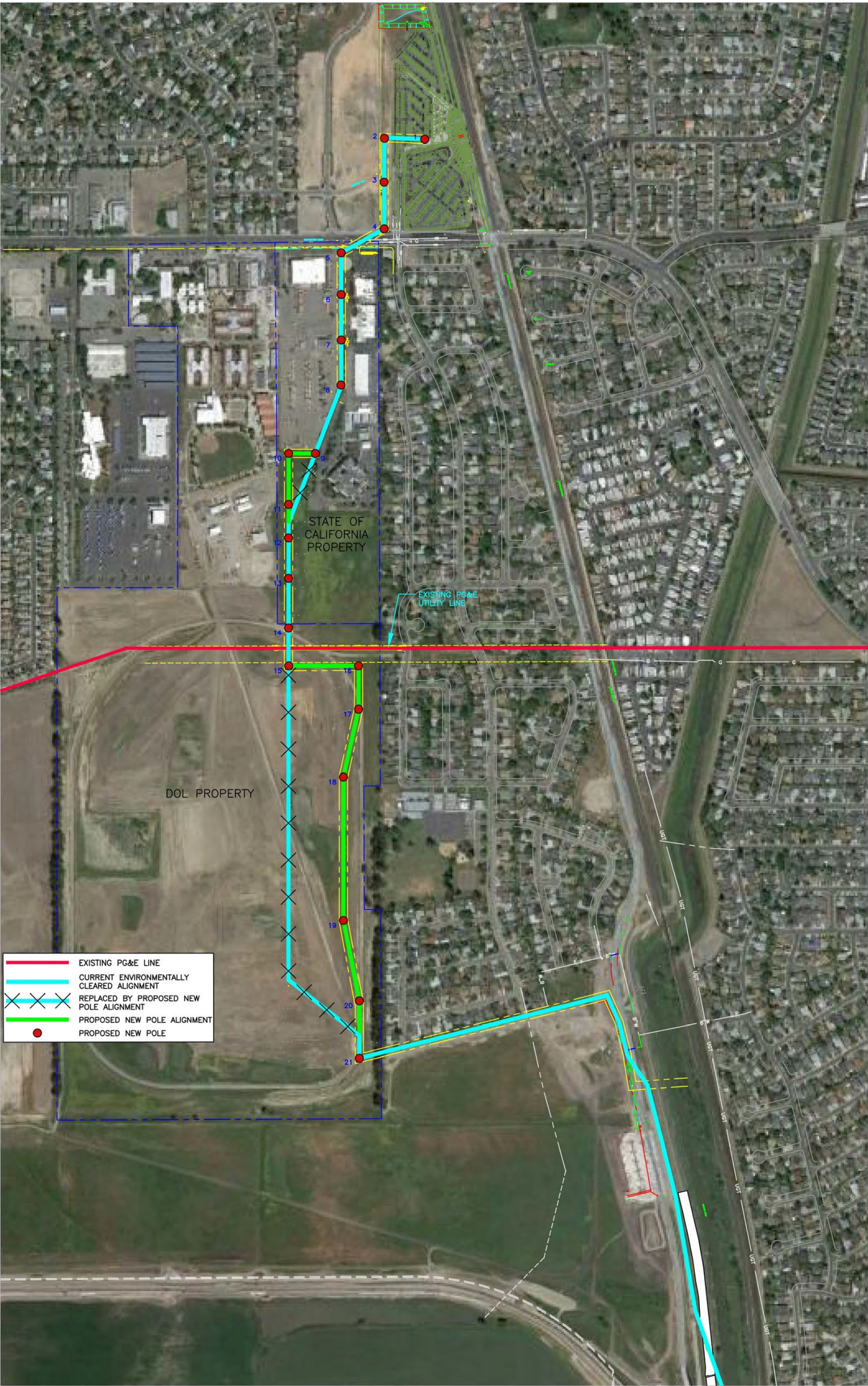


Figure 1-2. Comparison of Approved SMUD Alignment and Proposed Realignment

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Figure 1-3a. 69kV Transmission Line Relocation – Northern Portion



Figure 1-3b. 69KV Transmission Line Relocation – Southern Portion

- ▶ Pole 9 would be relocated approximately 150 feet southwest of the previously approved alignment easement, and poles 10 and 11 would be rerouted approximately 150 to 200 feet to the west of the approved alignment, so that the utility easement coincides with the CDFA property line. Pole 12 would be relocated to accommodate the realignment.
- ▶ Poles 16 through 21 would be rerouted approximately 300 to 450 feet east of the approved alignment, while maintaining a minimum of 100 feet west of properties in the Detroit Boulevard neighborhood, within the DOL property boundary.
- ▶ An approximately 860-foot swing span would occur from pole 18 to pole 19, in order to avoid sensitive vernal pool wetland resources. This would replace the 740-foot segment swing span alignment from tubular steel poles (TSPs) 16 to 17 described in the 2013 IS/MND.
- ▶ Pole 21 would be relocated approximately 130 feet south, adjacent to the oval track on the DOL property.

69 kV Utility Poles and Conductors

The poles would be TSPs as described in the 2013 IS/MND. The TSPs would be freestanding and would not require the use of guy anchors. Poles would be embedded in the ground to a depth of between 11 and 17 feet, depending on pole length and specific location requirements. Poles where the transmission alignment would angle more than 9 degrees would be of heavier construction to account for the unbalanced loading of the overhead conductors. Three to six 69 kV conductor cables and a fiber optic cable would be hung from insulators attached to each pole, and would span from pole to pole. Poles of heavier construction would be required for poles 18 and 19, to avoid vernal pool sensitive resources. Except at this location, poles would typically be spaced approximately 300 – 500 feet from one another. The longer span between pole 18 and 19 would be approximately 860 feet in length.

Access Roadway

One additional segment of the alignment would be constructed without an access road, to avoid sensitive environmental resources at those locations. This location is:

- ▶ An approximately 860-foot segment between poles 18 and 19, which spans a vernal pool (permanent turnaround points would be provided at both poles)

The poles associated with this segment would be accessed via roads approaching from the north or south. Thus, all pole locations would remain accessible for purposes of construction and future SMUD operations and maintenance requirements, without disturbing sensitive resources.

Utility Easement

As described in the 2013 IS/MND, a utility easement would be provided to SMUD as part of the 69 kV realignment, to accommodate both the horizontal sway of conductors from side to side during windy conditions and to accommodate the access road. A standard easement extending 25 feet to either side of the centerline of the 69 kV alignment (50 feet total) would be provided along the bulk of the alignment. A 90-foot-wide easement would be provided between poles 18 and 19 to account for the longer span (Figure 1-2).

Construction and Maintenance

Construction materials, timeline, and equipment would not change from what was previously approved and described in the 2013 IS/MND. No additional grading or vegetation removal beyond what was previously approved and environmentally cleared would occur. All work would occur in accordance with the City of Sacramento Noise Ordinance (Sacramento City Code 8.68.080). Once the above improvements are completed, maintenance would consist of occasional visits by SMUD personnel along the utility easement and access routes on an as-needed basis, which would tend to be infrequent.

1.5.2 Lighting Installation along Multi-Use Pathway and Bridges

RT proposes to install and operate lighting along the multi-use pathway and bridges (pathway lighting) at the following locations along the existing multi-use pathway that runs north of and adjacent to the LRT (Figure 1-4):

- ▶ West of the Franklin Station to and across the Deer Lake Pedestrian Bridge; and
- ▶ East of Franklin Station to Center Parkway Station adjacent to Union House Creek and across the Valley Green Pedestrian Bridge.

The pathway lighting installation would occur over approximately 1.65 miles and include approximately 67 street lamps and associated pull boxes and conduit.

The pathway lighting street lamps would be installed along the north side of the multi-use pathway between Center Parkway and Franklin Boulevard, and on the south side of the multi-use pathway west of the Franklin light rail station. The pathway lighting would project illumination downward onto the pathway. The lighting would use a motion response type luminaire, or fixture, such as the EcoForm lighting by Philips. When no motion is detected, the illumination dims to 10 percent of the desired level to conserve energy. When motion is detected, the illumination would return to the desired level of 2 foot-candles for pathway lighting. The street lamps would consist of three types – 14-foot-tall freestanding lamp posts installed at the edge of the pedestrian/bike pathway, 14-foot-tall freestanding lamp posts installed adjacent to the fence line at the edge of the pedestrian/bike pathway, and 14-foot-tall and 16-foot-tall lamp posts mounted to existing structures along the edge of the pedestrian/bike pathway. Access to the lighting for installation and maintenance would occur from within the RT ROW.

Figure 1-4 summarizes the illumination that would occur with the proposed light fixtures. As shown, the greatest intensity of lighting occurs in the immediate vicinity of the fixture where lighting would average 2 foot-candles; the highest illumination of 5 to 6 foot-candles would occur directly beneath the light fixtures, which is typical for sidewalks. Based on the proposed pole heights and fixture design (including proposed “cut off characteristics”) light spillover would be limited, with illumination reaching near zero foot-candles within 15 feet of the fixtures in a north-south direction (within the RT right-of-way) and within 22.5 feet of the fixtures in an east-west direction (along the pathway). The extent of the illumination, before reaching zero foot-candles, would be slightly greater at the bridges where lighting may extend about 30 to 40 feet from the fixtures.

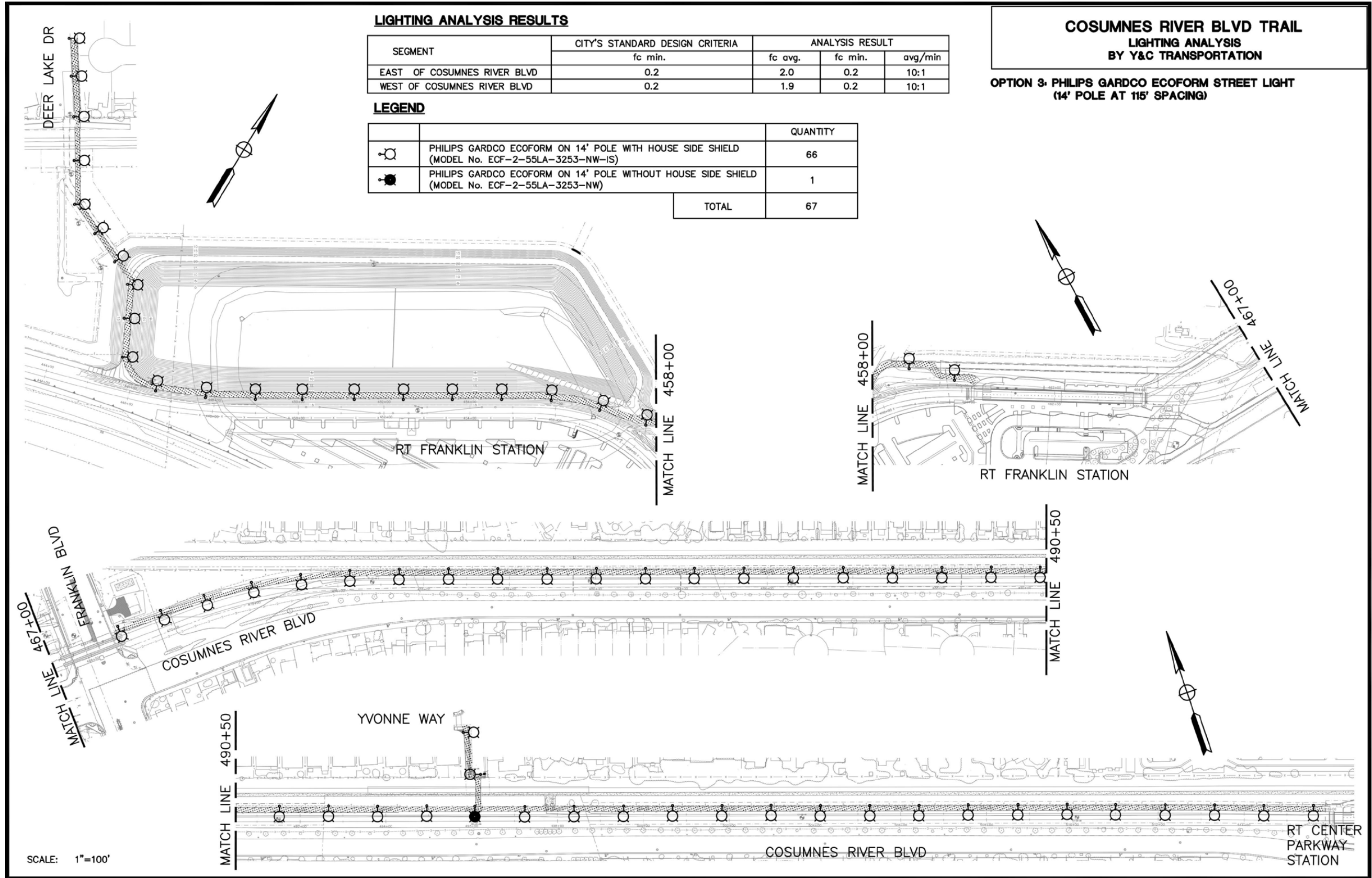


Figure 1-4. Pathway Lighting Overview Map

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CONSTRUCTION AND MAINTENANCE

Installation of the pathway and bridge lighting would take approximately eight weeks to complete. To install the lighting, RT's contractor would install light poles anchored to helical foundations. Unlike concrete foundations which require soil excavation and concrete pouring, the helical foundation is a pre-made steel anchor that is installed by screwing the pole and foundation into the ground, leaving no spoils. No rebar cages, forms, or concrete would be needed for installation, which, instead, would be performed using a digger derrick truck. Two bolts would secure the driving tool assembly into the base plate. Cable way openings exist at the base for electrical wiring. On the bridges, the contractor would anchor the light poles directly to the Deer Lake Pedestrian Bents and directly to the Valley Green Pedestrian Abutment and Retaining Wall. No additional grading or vegetation removal beyond what was previously approved and environmentally cleared would occur. All work would occur in accordance with the City of Sacramento Noise Ordinance (Sacramento City Code 8.68.080). Once the above improvements are completed, maintenance would consist of occasional visits by RT personnel on an as-needed basis, which would tend to be infrequent.

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2 EVALUATION OF ENVIRONMENTAL IMPACTS

Based on a review of the proposed changes to the SSCP2 project, environmental clearance pursuant to CEQA can be achieved through an Addendum to the Supplemental Final Environmental Impact Statement/Supplemental Final Environmental Impact Report (SFEIS/SFEIR) that was certified in September 2008. Subsequent SSCP2 environmental documents are also relevant to the evaluation: the 2011 Initial Study/Environmental Assessment (IS/EA) and the 2013 Initial Study (IS), both of which have been summarized earlier in Section 1.2.

As described below, the modifications to the SSCP2 project would not change the impacts discussed in the above documents because these modifications would occur within the same study areas, and the proposed physical changes would occur immediately adjacent to the already approved 69 kV transmission line or along the SSCP2 alignment that was previously assessed. Long-term operational effects on aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems would remain essentially the same as described previously in the 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND. Short-term construction effects would also remain essentially the same.

The analysis below identifies the impacts of the proposed modifications and also compares the analysis to that contained in the documents listed above, where applicable. The list of issues analyzed follows those contained in Appendix G of the CEQA Guidelines environmental checklist and also corresponds with the issues evaluated in the above referenced environmental documents. Where the impact analysis varies between the 69 kV realignment project modification and the pathway lighting project modification, the evaluation relevant to each project component is addressed separately. However, in most cases, the impact analysis is similar, and there is no need to distinguish the impacts of one project component versus the other project component.

2.1 AESTHETICS

69 kV Realignment Corridor. As described in the SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND, there are no designated scenic highways or other scenic resources in the project vicinity, including the area through which the 69kV transmission line and the pathway lighting would be constructed. The proposed modifications would reroute the 69kV alignment from pole 9 to pole 12 approximately 150 feet to the west and poles 16 through 21 approximately 300 to 450 feet east of the approved relocation alignment. The visual conditions with the proposed modifications would minimally alter the visual conditions approved in the 2013 IS/MND because the same low visual impact materials would be used. The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND each determined that all visual changes resulting from the SSCP2 project would be consistent with the existing environment and visual character of the area, and therefore determined that there would be no conflict with applicable laws and policies relating to visual quality. Furthermore, as mentioned in the 2013 IS/MND, the most visually dominant feature in this section of the project area is an existing PG&E 115 kV transmission line. Although the proposed modifications would shift the 69kV transmission line closer to residences, the line would still be a minimum of 100 feet from the nearest residential property. Also, the components are consistent with the existing visual character of the area and more than half of the length between poles 18 and 21 would be obstructed by tall eucalyptus trees, furthering reducing any substantial change to views or the visual setting.

Pathway Lighting. To prevent the addition of a substantial source of light or glare, the proposed pathway lighting would include down-shields to minimize light spill outside of the pathway. These shields would reduce the

amount of light that could “spillover” onto areas other than the pathway. All light fixtures, except the one at the Valley Green Pedestrian Bridge, would be fitted with this equipment to lessen light impacts. Figure 1-4 shows the location of the light fixtures and summarizes information about the extent of illumination. In particular, contours around the fixtures show that the greatest intensity is directly below the fixtures, as expected, and that within 15 feet in a north-south direction (towards the residences) and within 22.5 feet in an east-south direction (along the pathway), the illumination would have dimmed to existing ambient conditions. The extent of illumination would be slightly greater at the bridges; however, this would be desirable for safety and the intensity would be typical for suburban settings. Additionally, the lights would use motion response controls to automatically dim during periods of low use. Although approximately 67 light fixtures would be introduced to the project area, the light would be less intense than typical street lights in the neighborhood, and would be designed to focus lighting down onto the pathway. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to aesthetics.

2.2 AGRICULTURAL AND FORESTRY RESOURCES

As described in the SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND, there are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the area of the proposed modifications, and there are no lands zoned for agricultural use or under Williamson Act contract. No agricultural or forest lands would be converted to a different use as part of the proposed modifications.

The 2008 SFEIS/SFEIR found that approximately 5.6 acres of designated farmlands would be converted as part of the larger SSCP2 project, but determined that the impact would not be significant based upon existing non-agricultural use of those lands and the planned future use of those lands for nonagricultural purposes. The proposed modifications would not move project components out of the area assessed in the SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND; therefore, the modifications would not change the findings in these prior documents. As a result, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to agriculture and forestry resources.

2.3 AIR QUALITY

The proposed modifications would not introduce additional project components that would significantly increase air emissions during the construction or operation phases. The only proposed modifications not previously evaluated would be the pathway lighting fixtures, which would neither increase air emissions nor conflict with adopted air quality management plans. Therefore, no additional impacts to air quality would result due to the proposed modifications. The 2008 SFEIS/SFEIR prescribed specific mitigation measures to limit air quality impacts during construction. The measures included the implementation of Sacramento Metropolitan Air Quality Management District (SMAQMD) Basic Construction Emission Control Practices, Rule 403 dust abatement requirements, and Enhanced Exhaust Control Practices. These same measures would apply to the proposed project modifications. The SFEIS/SFEIR concluded that with implementation of these measures, construction and operation phase emissions would not exceed applicable SMAQMD thresholds and air quality impacts would be less than significant. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to air quality.

2.4 BIOLOGICAL RESOURCES

Habitat assessments were performed for the 69 kV relocation corridor and the proposed pathway lighting corridor as part of this environmental review. As described in further detail below, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to biological resources.

69 kV Realignment Corridor. A wetlands assessment was conducted throughout the 69 kV relocation corridor and surrounding area to determine whether previously delineated vernal pool wetlands were present within 250 feet of the proposed realignment. The wetlands assessment memorandum is attached to this Addendum as Appendix A. The wetland delineation field survey was conducted by AECOM staff in accordance with U.S. Army Corps of Engineers (USACE) wetland delineation methods. There are four potentially jurisdictional wetlands located within the study area that meet the USACE three parameter criteria of having a hydrophytic vegetation assemblage, hydric soil, and evidence of wetland hydrology (see Figure 2-1). Three of the potentially jurisdictional wetlands were previously identified and addressed in the 2013 IS/MND. All four wetland features lack a surface connection to other waters of the United States. The wetlands present within the study area are small, physically separated from Morrison Creek, and a small percentage of the 10,378-acre watershed. Therefore, because there is a lack of “similarly situated wetlands,” it is unlikely that the wetlands within the study area contribute significantly to the chemical, physical, and biological integrity character of Morrison Creek, or the Sacramento River. These wetland features are not likely to be regulated as jurisdictional waters of the United States by the Sacramento District USACE because a significant nexus is absent. Field survey work was performed to ensure that relocation of poles would not encroach within wetland boundaries and a signification nexus between these features and Morrison Creek and/or the Sacramento River is not present.

One of the previously characterized wetland features addressed in the 2013 IS/MND was determined to be larger than mapped in 2013 (see Figure 2-1). Based on the 2015 delineation, this wetland feature is located approximately 200 feet from pole 21. Although within the 250-foot buffer, the proposed location of pole 21 is hydrologically separated from the vernal pool by an existing paved roadway that would also serve as the access road. Therefore, this wetland feature would not be directly affected.

One new wetland feature was identified within the study area for the proposed realignment (see Figure 2-1). The project realignment was designed to maintain a distance greater than 250 feet to this vernal pool feature. To accommodate this separation, an approximately 860-foot swing span would occur between pole 18 and pole 19 that would avoid sensitive vernal pool wetland resources. This new swing span would replace the 740-foot segment swing span alignment between tubular steel poles (TSPs) 16 and 17 described in the 2013 IS/MND. Best Management Practices associated with the Storm Water Pollution Prevention Plan, as adopted in the 2013 IS/MND would protect this feature from indirect impacts that could be caused by siltation or inadvertent incursion into the vernal pool area. In addition, all work in the area would be conducted during the dry season, per the U.S. Fish and Wildlife Service (USFWS) conditions stipulated during previous SSCP2 consultations and SMUD technical assistance direction.

Pathway Lighting. A habitat analysis for the installation of the multi-use pathway and bridge lighting was conducted and is attached to this addendum as Appendix B. The analysis concluded that the addition of proposed lighting on the pedestrian path and bridges would result in no additional effect to federally listed species, and this project modification would not alter the effects analysis in the SSCP2 biological opinion and amendment.

Therefore, the amount of incidental take, authorized in the biological opinion and amendment, would not be exceeded and the lighting installation and operation would be conducted in a manner that would avoid new effects to listed species. Because the conditions for re-initiation of formal consultation have not been met, re-initiation of formal Section 7 consultation with USFWS is not warranted.

Nesting Birds Protected Under the MBTA. Habitat for nesting birds protected under the Federal Migratory Bird Treaty Act (MBTA) is present in the project area. The 2008 SFEIS/SFEIR prescribed mitigation to protect against inadvertent impacts to nesting birds, including raptors. The measures included conducting construction work outside of the nesting season, when possible, and implementation of monitoring and avoidance measures if construction could not be accommodated outside of the nesting season. The SFEIS/SFEIR concluded that with implementation of these measures, there would be no adverse effect to nesting birds or raptors. These same measures would apply to the proposed project modifications, and would effectively minimize unanticipated impacts to these resources.

2.5 CULTURAL RESOURCES

The proposed modifications are located within the modified Area of Potential Effect (APE) that was delineated for the 2011 IS/EA and 2013 IS/MND. The evaluation conducted for this area in 2013 determined that no historic properties were present in the modified APE. Therefore, no impacts would occur to cultural resources as a result of implementation of the proposed modifications. The State Office of Historic Preservation concurred with a finding that no historic properties would be affected by SSCP2 activities within the APE. The letter of concurrence dated December 20, 2013 is attached to this Addendum as Appendix C.

To protect against inadvertent impacts to previously-unknown cultural resources during implementation of the SSCP2 project, the 2008 SFEIS/SFEIR prescribed mitigation measures to be implemented if previously unknown cultural resources are discovered during construction activities. This mitigation measure would also apply to the 69kV transmission line realignment and the pathway lighting. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to cultural resources.

2.6 GEOLOGY AND SOILS

The 2008 SFEIS/SFEIR and the 2011 IS/EA found that there are no known earthquake faults in the project area, and the area is not prone to liquefaction, landslides, or expansive soils. Soil erosion would be controlled with implementation of a Storm Water Pollution Prevention Plan, and construction activities would be required to comply with applicable local and State requirements. The project area evaluated in the 2008 SFEIS/SFEIR and the 2011 IS/EA included the area through which the 69kV transmission line and the pathway lighting would be constructed. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to geology and soils.



Figure 2-1. Wetland Delineation

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2.7 GREENHOUSE GAS EMISSIONS

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that implementation of the overall SSCP2 project would provide a substantial benefit with respect to the reduction of greenhouse gas emissions. While some emissions would occur during construction of the project, the net reduction in emissions resulting from the reduction of vehicle miles traveled during operation of the SSCP2 project would substantially outweigh the emissions created during construction. Since the proposed modifications would facilitate the construction and operation of the SSCP2 project, the modifications could also be seen as contributing to the overall benefit of the SSCP2 project. Moreover, the realignment aspect of the proposed modification contains the same components and activities that have already been approved and determined to have minimal impact on the area's greenhouse gas emissions. The potential greenhouse gas emission associated with the construction and operation of the pathway lighting would be considered negligible when compared to the net reduction of greenhouse gas emissions of the SSCP2 project. Further, the proposed lights would use low energy LED technology along with motion response controls to save energy during times of low use. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to greenhouse gas emissions.

2.8 HAZARDS AND HAZARDOUS MATERIALS

A database search was conducted as part of the 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND to determine the presence or absence of recognized environmental conditions (REC) in the vicinity of the project area for the proposed modifications. No open or active RECs that would require remediation or cleanup were identified within the project area. The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that implementation of SSCP2 project would not result in a significant impact with respect to hazardous materials or the other hazards. These same findings apply to the proposed modifications, which are within the same geographic area evaluated in the previous environmental documents. The SFEIS/SFEIR identified a number of mitigation measures to be implemented if previously unrecorded hazardous wastes were to be discovered during project construction, as well as measures directed towards the safe handling of any hazardous materials that might be used during construction. Those same measures, as well as compliance with state and local hazardous materials regulations, would also be required for the proposed modifications. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to hazards and hazardous materials.

2.9 HYDROLOGY AND WATER QUALITY

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that impacts to water quality and floodplains could be effectively mitigated. These same findings apply to the proposed modifications. The proposed modifications are limited to the relocation of the 69 kV utility alignment from poles 9 to 12 and poles 16 to 21, as well as the installation of multi-use bridge and pathway lighting, and would not result in significant construction or long-term water quality or flood hazard impacts; these minimal effects associated with the proposed modifications would be substantially less than the approved project that has already been addressed in the SFEIS/SFEIR, the IS/EA, and the IS/MND. Like the approved project, the proposed modifications would be governed by applicable state and local regulations, including those of the Regional Water Quality Control Board. Furthermore, there would be no disturbance or interruption of existing flood control structures in the project area. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the

conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to hydrology and water quality.

2.10 LAND USE AND PLANNING

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that construction and operation of the SSCP2 project would not divide established communities, because the project would be constructed largely along or within existing transportation corridors and other features that already delineate community and neighborhood boundaries. These same findings apply to the proposed modifications since the pathway lighting installation would be located along an existing pathway and the 69 kV realignment would be located along or west of an established community. The SFEIS/SFEIR, the IS/EA, and the IS/MND also found that implementation of the SSCP2 project would not conflict with an established land use plan, policy, or regulation. These same findings apply to the proposed modifications, because neither the rerouting of the transmission line nor the proposed pathway lighting would impede or thwart implementation of the City's land use plan or policies, or conflict with a land use regulation. In addition, there are no Habitat Conservation Plans or Natural Community Conservation Plan in the area. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to land use and planning.

2.11 MINERAL RESOURCES

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that construction and operation of the SSCP2 project would have no effect with respect to mineral resources, since no such resources are present within the project area. These same findings apply to the proposed modifications, which occur within the same geographic area evaluated in the previous environmental documents. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to mineral resources.

2.12 NOISE

The proposed modifications would not introduce additional permanent noise or vibration and would not introduce new residents or workers that could be exposed to nearby noise/vibration sources, because the only new construction would be associated with the pathway lighting. Also, the realignment of the 69 kV transmission line would not generate additional noise since their construction was part of the approved project evaluated in the IS/EA and the IS/MND. The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that implementation of the SSCP2 project would not result in a significant noise and vibration impact during construction. Since the proposed realignment would move poles 16 through 21 closer to nearby residents, there would be a minor increase in the noise and vibration impacts experienced by those residents during construction. However, this impact would be temporary in nature and would not exceed noise levels established by local, state, or federal standards. The SFEIS/SFEIR and the IS/EA identified a number of mitigation measures to be implemented during construction to reduce noise and vibration impacts. Where applicable, these same measures and compliance with City of Sacramento construction best management practices (i.e., construction activities would be restricted to specified daylight hours) would also be required for the proposed modifications. Implementation of these measures would effectively mitigate anticipated construction-related noise and vibration impacts to less than significant. Therefore, the proposed modifications evaluated in this Addendum would not

result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to noise.

2.13 POPULATION AND HOUSING

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that the SSCP2 project would not induce unplanned population growth in the region. The proposed project modifications also would not induce additional growth since the modifications would not increase infrastructure capacity that could accommodate more development, would not propose additional housing or business development, or propose or support increased development intensity.

The 2013 IS/MND found that no residences or businesses would need to be acquired or relocated to facilitate the construction and operation of the 69 kV-only line in the western and southern portions of the project area and the proposed realignment would not affect or traverse existing developed areas. Further, the addition of pathway lighting would not necessitate residences or businesses to be acquired or relocated. Finally, no replacement housing would be necessary since the proposed modifications would not displace any people.

Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to population and housing.

2.14 PUBLIC SERVICES

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that the SSCP2 project would result in less-than-significant impacts on public services and other facilities. The proposed modifications would reroute a transmission line and add lighting fixtures to a pathway, two components which would not increase the number of residences, businesses, or other facilities that would require public services. Thus, there would be no increased demand for fire, police, school, or park services as a result of the proposed modifications. The addition of lights along the existing pathway may increase the amount of travelers along this corridor, but the increased traffic would not require additional public services. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to public services.

2.15 RECREATION

The 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all found that the SSCP2 project would not result in a significant impact with respect to recreational facilities. Neither of the proposed modifications would result in a significant increase in the demand for recreational facilities, nor would the modifications physically encroach upon or disturb any existing recreational facilities. The pathway may receive more traffic as a result of the new lighting and make recreational facilities in the vicinity more accessible, but this increased usage would not change the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to recreation.

2.16 TRANSPORTATION AND TRAFFIC

The 2008 SFEIS/SFEIR found that the SSCP2 project would result in increased transit use, decreased roadway congestion, and decreased parking demand in the downtown Sacramento area. For impacts to intersections, the

SFEIS/SFEIR found that the SSCP2 project would reduce traffic volumes on some roadways in the study area and increase volumes on others, but only marginally. The SFEIS/SFEIR identified five intersections in the City of Sacramento and one intersection in the County of Sacramento that would exceed Level of Service (LOS) thresholds. The SFEIS/SFEIR also identified potential impacts associated with delay at grade crossings. Mitigation measures were proposed in the SFEIS/SFEIR to reduce impacts to these intersections and at grade crossings.

The proposed modifications involve the realignment of an already approved transmission line and addition of lighting to an existing multi-use pathway constructed as part of the project, neither of which would have an impact on transit use or traffic demand. Therefore, there would be no new changes that would cause new significant environmental impacts, and there would not be a substantial increase in the severity of a previously identified significant impact. Since no new significant impacts have been identified, no new mitigation measures would be required. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to transportation and traffic.

2.17 UTILITIES AND SERVICE SYSTEMS

A small amount of water would be used during construction for dust abatement purposes, and this water would be obtained from existing and entitled sources within the City of Sacramento. No wastewater would be produced as part of the construction or operation of the 69 kV realignment or the pathway lighting since neither components require the use of a significant amount of water during the construction or operations phases. Similarly, no stormwater facilities would be required to construct or operate the modifications, since no new impermeable surfaces would be created that could cause a substantial increase in runoff. Any solid waste produced during construction would be recycled or disposed of at approved facilities in compliance with applicable state and federal requirements.

The 2008 SFEIS/SFEIR and the 2011 IS/EA identified potential short-term impacts to utility services during construction of the SSCP2 project. Mitigation was prescribed to lessen these effects, and included requirements for coordination with all utility service providers within the project area. These same mitigation requirements apply to the proposed modifications. RT and SMUD have both been working closely with all utility providers with facilities within and around the SSCP2 alignment. Any service outages would be of short duration, and service users would be provided with notice concerning any planned outages during the implementation of the modifications. Therefore, the proposed modifications evaluated in this Addendum would not result in a change to the conclusions contained in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND with respect to utilities and service systems.

2.18 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

As noted above in the discussion on biological resources, the proposed modifications would not adversely affect fish or wildlife habitat, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of an endangered, rare, or threatened species. For historic resources, no adverse effects would occur to these resources as a result of implementation of the proposed modifications, since no known historic resources are known to occur within the APE for the undertaking. To protect against inadvertent impacts to biological and historic resources during implementation of the SSCP2 project, the 2008 SFEIS/SFEIR, the 2011 IS/EA, and the 2013 IS/MND all

prescribed mitigation measures. These measures would also apply to the proposed project modifications, and would effectively minimize impacts to these resources. Based upon each of these considerations, there would be no significant impact to biological or historic resources as a result of project implementation.

With respect to cumulative effects, the proposed changes to the previously-approved project would include a change in the proposed 69 kV relocation alignment evaluated in the 2013 IS/MND and the installation of lighting to an existing multi-use pathway constructed as part of the project. The project would not involve additional services or increased capacity. The project would have no operation-related cumulative effect when considered in combination with past, current, or reasonably foreseeable projects.

During construction, the proposed project could potentially contribute to cumulative air quality effects related to dust and particulate matter. However, through compliance with applicable regulatory requirements and air quality mitigation measures already prescribed in the SFEIS/SFEIR, the IS/EA, and the IS/MND, the proposed modifications would not contribute considerably to cumulative air quality impacts.

The potential for the proposed modifications to impact human beings is addressed in the various issue topics presented above, including those that affect resources used or enjoyed by the public, residents, and others in the project area (such as aesthetics, public services, and recreation); those that are protective of public safety and well-being (such as air quality, geology and soils, greenhouse gas emissions, hydrology and water quality, and noise); and those that address community character and essential infrastructure (such as land use and planning, population and housing, transportation, and utilities). None of these evaluations identified a potentially significant impact on human beings that could not be minimized through project design features, compliance with standard regulatory requirements, or mitigation. As such, there would be no adverse effects to human beings from implementation of the modifications.

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3 CONCLUSION

Based on the above analysis, the proposed modifications meet the criteria specified in CEQA Guidelines Section 15162 concerning minor design changes to a previously approved project. No new information or changes have been introduced that would cause new significant environmental impacts to which the modified project would contribute considerably, nor would there be a substantial increase in the severity of any previously identified impact. Since no new significant impacts have been identified, no new mitigation measures would be required. No new impacts not already identified in the 2008 SFEIS/SFEIR, the 2011 IS/EA, or the 2013 IS/MND would occur.

In summary, the analysis concludes that none of the conditions described in Section 15162 of the CEQA Guidelines calling for preparation of a subsequent EIR or Negative Declaration are present, and thus an Addendum to the SSCP2 SFEIS/SFEIR is appropriate to satisfy CEQA requirements for the proposed modifications.

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APPENDIX A

Wetland Assessment

Memorandum

To: Ed Scofield, Director of Project Management, Sacramento Regional Transit District
From: Sarah Bennett, Wetland Ecologist/Regulatory Specialist, AECOM Kristin Tremain, Biologist
CC: Michael Kay, Senior Project Manager, AECOM
Date: October 15, 2015
Subject: Wetlands Assessment for Proposed SMUD 69-kV Relocation

INTRODUCTION

This memorandum presents a summary of observations regarding potentially jurisdictional wetland features on-site for the Sacramento Municipal Utilities District (SMUD) 69-kilovolt (kV) relocation effort required as part of the Sacramento Regional Transit (RT) South Sacramento Corridor Phase 2 (SSCP2) Light Rail Extension Project. A site visit was conducted on May 14, 2015, by AECOM Wetland Ecologist Sarah A. N. Bennett and AECOM Biologist Kristin Tremain. A map of the study area and identified features is attached as Exhibit 1.

STUDY AREA

The study area for the project consists of the alignment for the proposed relocation of the 69-kV transmission line and a 275-foot buffer of the alignment. The study area evaluated during the field survey is an approximately 3,000-foot long section of the 1.64 miles long alignment located in south Sacramento County. The 3,000-foot-long section of alignment is located entirely lands operated by the Sacramento Job Corps center training facility.

METHODS

The wetland delineation field survey was conducted by AECOM staff in accordance with U.S. Army Corps of Engineers (USACE) wetland delineation methods. The *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (Environmental Laboratory 2008) were used as guidance to delineate wetlands that are potentially subject to USACE jurisdiction under CWA Section 404. The 1987 Manual and 2008 Supplement provide technical guidelines and methods for a three-parameter approach for determining the location and boundaries of jurisdictional wetlands. This approach requires that an area support positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a jurisdictional wetland. Routine wetland determination data forms were completed for four sample points at the time of the May 2015 field survey. Potentially jurisdictional areas were identified and mapped in the field, and were later digitized overlaying an aerial photograph as shown in Exhibit 1. Sample point locations were also recorded digitally, using a global positioning system (GPS) data logger (Trimble XH). GPS data were recorded in

North American Datum 83 (NAD 83). Botanical nomenclature follows *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and plant indicator status was obtained from the current *National Wetland Plant List* (Lichvar et al. 2014). Information included in this memo will support RT in their environmental review of the light rail extension project.

RESULTS

There are four potentially jurisdictional wetlands located within the study area, three of which were previously identified during the 2013 wetland delineation field survey (Exhibit 1). Natural hydrology on the site is primarily driven by direct precipitation and associated runoff. Soils mapped on the Sacramento Job Corps property within the study area are San Joaquin silt loam, 0 to 3 percent slopes, and Galt Clay, 0 to 2 percent slopes (NRCS 2013). The Galt soil is listed as hydric and the San Joaquin silt loam soil contains inclusions of Galt soils, located in depressions, which are hydric (NRCS 2014). All wetlands identified at the time of the field survey were colonized by wetland plants.

One new wetland feature was identified within the revised study area alignment. This wetland was characterized by the following species: hyssop loosestrife (*Lythrum hyssopifolia*) (OBL), Great Valley popcorn flower (*Plagiobothrys stipitatus*) (FACW), coyote thistle (*Eryngium vaseyi*) (FACW), and fleshy owl's clover (*Castilleja campestris*) (FACW).

CONCLUSIONS

All four wetland features within the study area meet the USACE three parameter criteria of wetlands having a hydrophytic vegetation assemblage, hydric soil, and evidence of wetland hydrology. Wetlands that are adjacent to relatively permanent waters, such as Morrison Creek, are subject to a significant nexus test under Rapanos Guidelines (Grumbles and Woodley 2011). The significant nexus test assesses the functions performed by all wetlands adjacent to a tributary to determine if the wetlands significantly affect the chemical, physical, and biological integrity of the downstream traditional navigable water (TNW) (i.e., the Sacramento River).

Morrison Creek is the nearest Relatively Permanent Waters (RPW) to the study area. The wetland at the southern end of the site is located approximately 2,850 linear feet north of Morrison Creek. These wetland features are separated from Morrison Creek by the Morrison Creek North Levee. The wetland features within the study area lack a direct surface connection to other waters of the United States. The Lower Morrison Creek Hydrologic Unit (HUC 180201630404) is highly urbanized and many of the wetlands historically present within the watershed have been eliminated from the landscape. The wetlands present within the study area are small, physically separated from Morrison Creek, and represent a small percentage of the acreage of the 10,378-acre watershed. Therefore, because there is a lack of "similarly situated wetlands," it is unlikely that the wetlands within the study area contribute significantly to the chemical, physical, and biological integrity character of Morrison Creek, or the Sacramento River. These wetland features are not likely to be regulated as jurisdictional waters of the United States by the Sacramento District USACE because a significant nexus is absent.

Field survey work was performed to ensure that relocation of poles would not encroach within wetland boundaries and a significant nexus between these features and Morrison Creek and/or the Sacramento River is not present; therefore, there is no trigger under Section 404 of the Clean Water Act to obtain a permit from the USACE. Thus, there is no basis upon which FTA would need to consult with USACE regarding a permit under Section 404 of the Clean Water Act for the proposed project.

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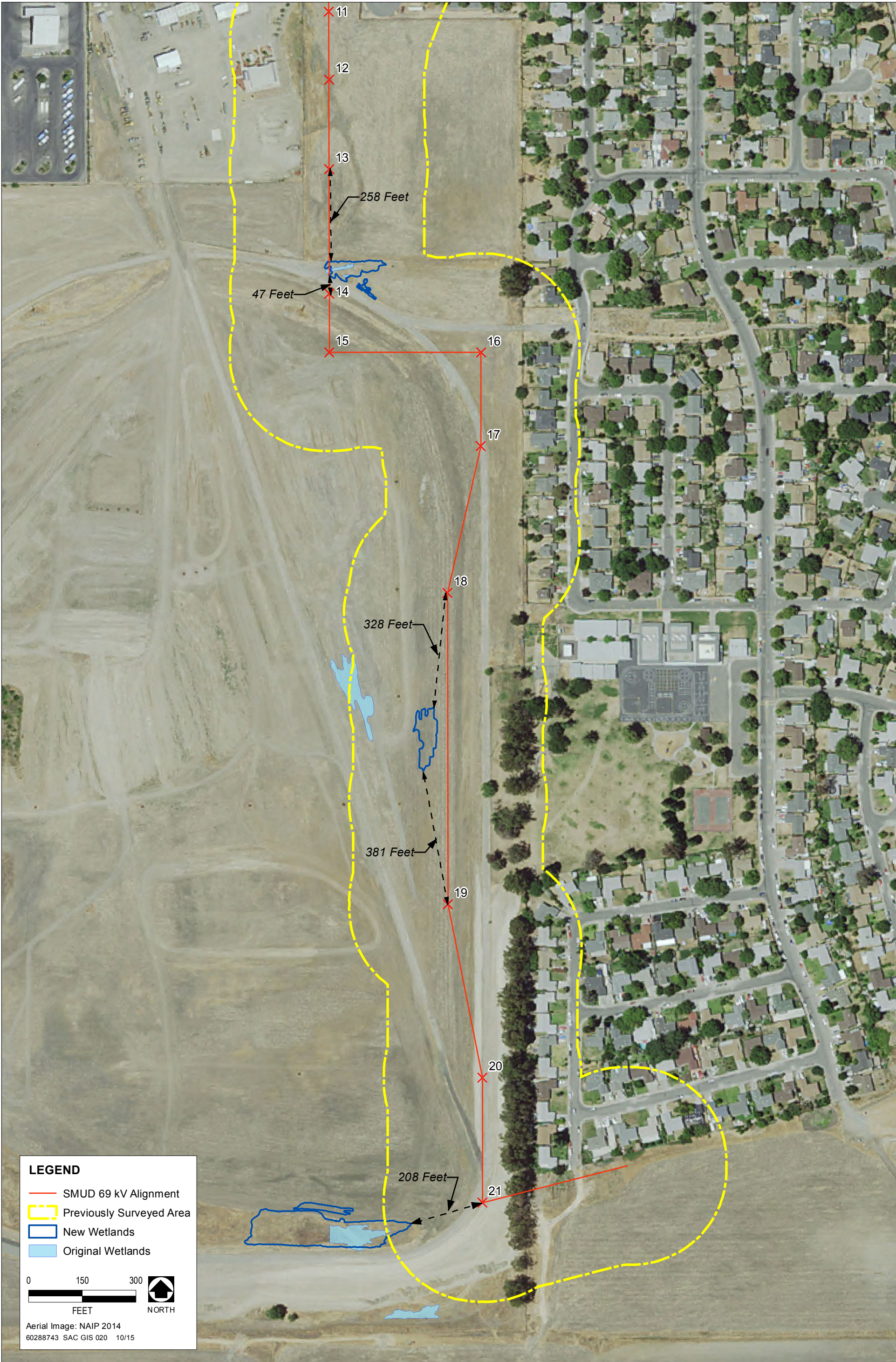
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NRCS. See Natural Resources Conservation Service.



Source: AECOM 2015

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sacramento RT 69KV Realignment City/County: Sacramento/Sac. Co. Sampling Date: 5/14/2015
 Applicant/Owner: Sacramento RT/US Dept. of Labor State: CA Sampling Point: 5
 Investigator(s): S. Bennett / K. Tremaine Section, Township, Range: Flarin: T7N, R9E, Sect 7
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-1
 Subregion (LRR): C-17 Sac. Sl Valley Lat: 38.47506 Long: -121.47067 Datum: NAD83
 Soil Map Unit Name: San Joaquin silt loam, 0-3% (214) NWI classification: PEM2
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.) below av. H2O yr.
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: <u>Vernal pool has been filled in past to create fire break around perimeter.</u> <u>Basin edge not well defined to North as a result diskings.</u> p. 6731-6740		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
1. <u>/</u>				
2. <u>/</u>				
3. <u>/</u>				
4. <u>/</u>				
= Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>/</u>				
2. <u>/</u>				
3. <u>/</u>				
= Total Cover				Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5x5</u>)				
1. <u>Polygonum aviculare</u>	<u>5</u>	<u>y</u>	<u>FACW</u>	
2. <u>Lasthenia glaberima</u>	<u>4</u>	<u>y</u>	<u>OBL</u>	
3. <u>Zythron hispidifolium</u>	<u>6</u>	<u>y</u>	<u>OBL</u>	
4. <u>Eryngium yveseyi</u>	<u>1</u>	<u>n</u>	<u>OBL</u>	
5. <u>Castilleja campestris</u>	<u>3</u>	<u>n</u>	<u>FACW</u>	
6. <u>Brodiaea elegans</u>	<u>2</u>	<u>n</u>	<u>FACU</u>	
7. <u>Convolvulus arvensis</u>	<u>5</u>	<u>y</u>	<u>NL</u>	
8. <u>Psilocarphus oregonus</u>	<u>4</u>	<u>y</u>	<u>OBL</u>	
<u>35</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. <u>/</u>				
2. <u>/</u>				
= Total Cover				
% Bare Ground in Herb Stratum <u>65</u> % Cover of Biotic Crust _____				
Remarks: <u>Plagiobothrys stipitatus, Lasthenia glaberima, Polygonum monspeliensis, Junius buffonis, Festuca perennis, Downingia bicornuta also present in pool outside of sample plot.</u>				

Sampling Point: 5

HYDROLOGY

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☒ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sacramento RT City/County: Sacramento Sampling Date: 5/14/2015
 Applicant/Owner: Sac RT/US Dept. of Labor State: CA Sampling Point: 6
 Investigator(s): S. Bennett : K. Tremblin Section, Township, Range: Florin: T7N, R5E, Sect. 7
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): undulating Slope (%): 0-2
 Subregion (LRR): C-17 Lat: 38.47500 Long: -121.47047 Datum: NAD 83
 Soil Map Unit Name: San Joaquin silt loam 0-3% (214) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) below av. water yr.
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Nonnative annual grassland paired to SP5.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Indicators: ____ Dominance Test is >50% ____ Prevalence Index is ≤3.0 ¹ ____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
Herb Stratum (Plot size: <u>10x10</u>)				
1. <u>Avena fatua</u>	<u>40</u>	<u>Y</u>	<u>NL</u>	Remarks:
2. <u>Bromus hordeaceus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
3. <u>Bromus diandrus</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
4. <u>Lactuca serriola</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Melilotus indicus</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
6. <u>Medicago polymorpha</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
7. <u>Epilobium ciliatum</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Remarks:
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust _____				

Sampling Point: 6

HYDROLOGY

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sacramento RT City/County: Sacramento Sampling Date: 5/14/2015
 Applicant/Owner: Sac. RT / U.S. Dept. of Labor State: CA Sampling Point: 7
 Investigator(s): S. Bennett K. Tremblay Section, Township, Range: Florin T7N, R6E, Sect. 7
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-2
 Subregion (LRR): C-11 Lat: 38.47151 Long: -121.46990 Datum: NAD83
 Soil Map Unit Name: Galt clay 0-21. (152) NWI classification: DEM2

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.) below av. water yr.
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: <u>Vernal pool - area formerly diked</u> <u>P. 6763-64</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>/</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>/</u>				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. <u>/</u>				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. <u>/</u>				
				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____
1. <u>/</u>				OBL species _____ x 1 = _____
2. <u>/</u>				FACW species _____ x 2 = _____
3. <u>/</u>				FAC species _____ x 3 = _____
4. <u>/</u>				FACU species _____ x 4 = _____
5. <u>/</u>				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>10x10</u>)				Prevalence Index = B/A = _____
1. <u>Lytium hyssopifolia</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0' ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Plantago bothrioides stipitatis</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
3. <u>Castilleja californica</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Eryngium yuccifolium</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
5. <u>Polypogon monspeliensis</u>	<u>3</u>	<u>Y</u>	<u>FACW</u>	
6. <u>Phalaris pectinacea</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
7. <u>Astragalus glaberrimus</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
8. <u>Hemizonia fitchii</u>	<u>10</u>	<u>Y</u>	<u>NL</u>	
<u>60</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. <u>/</u>				
2. <u>/</u>				
% Bare Ground in Herb Stratum <u>40</u> % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes ☒ No ☐
Remarks:				

SOIL

Sampling Point:

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
☐	Surface Water (A1)	☐	Salt Crust (B11)	☐	Water Marks (B1) (Riverine)	
☐	High Water Table (A2)	☐	Biotic Crust (B12)	☐	Sediment Deposits (B2) (Riverine)	
☐	Saturation (A3)	☐	Aquatic Invertebrates (B13)	☐	Drift Deposits (B3) (Riverine)	
☐	Water Marks (B1) (Nonriverine)	☐	Hydrogen Sulfide Odor (C1)	☐	Drainage Patterns (B10)	
☐	Sediment Deposits (B2) (Nonriverine)	☐	Oxidized Rhizospheres along Living Roots (C3)	☐	Dry-Season Water Table (C2)	
☐	Drift Deposits (B3) (Nonriverine)	☐	Presence of Reduced Iron (C4)	☐	Crayfish Burrows (C8)	
☒	Surface Soil Cracks (B6)	☐	Recent Iron Reduction in Tilled Soils (C6)	☐	Saturation Visible on Aerial Imagery (C9)	
☐	Inundation Visible on Aerial Imagery (B7)	☐	Thin Muck Surface (C7)	☐	Shallow Aquitard (D3)	
☐	Water-Stained Leaves (B9)	☐	Other (Explain in Remarks)	☐	FAC-Neutral Test (D5)	
Field Observations:						
Surface Water Present?	Yes ☐ No ☒	Depth (inches):				
Water Table Present?	Yes ☐ No ☒	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒	Depth (inches):				
			Wetland Hydrology Present? Yes ☒ No ☐			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						
Remarks:						

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Sacramento RT City/County: Sacramento Sampling Date: 5/14/2015
 Applicant/Owner: Sac RT / US Dept. of Labr State: CA Sampling Point: 8
 Investigator(s): S. Bennett & K. Tranter Section, Township, Range: Florin: T7N, R5E, Sect. 7
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): undulating Slope (%): 0-2
 Subregion (LRR): C-17 Lat: 38.47149 Long: -121.46999 Datum: NAD83
 Soil Map Unit Name: Galt clay 0-21. (152) NWI classification: NA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.) below av. water-yr.
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: <u>Nonnative annual grassland.</u> <u>paired to SP7</u> <u>P. 6762</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species <u>2</u> x 2 = <u>4</u>
4. _____	_____	_____	_____	FAC species <u>65</u> x 3 = <u>195</u>
5. _____	_____	_____	_____	FACU species <u>13</u> x 4 = <u>52</u>
= Total Cover				UPL species <u>5</u> x 5 = <u>25</u>
				Column Totals: <u>85</u> (A) <u>276</u> (B)
				Prevalence Index = B/A = <u>3.24</u>
Herb Stratum (Plot size: <u>10x10</u>)				Hydrophytic Vegetation Indicators:
1. <u>Phalaris paradoxa</u>	<u>35</u>	<u>y</u>	<u>FAC</u>	☐ Dominance Test is >50%
2. <u>Festuca perennis</u>	<u>30</u>	<u>y</u>	<u>FAC</u>	☐ Prevalence Index is ≤3.0 ¹
3. <u>Convolvulus arvensis</u>	<u>5</u>	<u>n</u>	<u>NL</u>	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Lactuca serriola</u>	<u>2</u>	<u>1</u>	<u>FACU</u>	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Epilobium ciliatum</u>	<u>2</u>	<u>1</u>	<u>FACW</u>	
6. <u>Medicago polymorpha</u>	<u>10</u>	<u>1</u>	<u>FACU</u>	
7. <u>Mollisella lepidota</u>	<u>1</u>	<u>1</u>	<u>FACU</u>	
8. <u>Avena fatua</u>	<u>5</u>	<u>1</u>	<u>NL</u>	
<u>90</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes ☐ No ☒
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>10</u> % Cover of Biotic Crust <u>0</u>				
Remarks: <u>No FACW or OBL species observed.</u>				

Sampling Point:

8

[illegible]

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

Map Unit is hydric (NRCS List of Hydric Soils)

Wetland Hydrology Indicators:

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Surface Water Present? Yes _____ No ~~_____~~ Depth (inches): _____
 Water Table Present? Yes _____ No ~~_____~~ Depth (inches): _____
 Saturation Present? Yes _____ No ~~_____~~ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX B

Habitat Assessment

Memorandum

To	Lucinda Eagle – Federal Transit Administration Ed Scofield, PMP – Sacramento Regional Transit District	Page	1
CC	Michael Kay – Project Manager, AECOM		
Subject	Consistency Analysis of Proposed Additional Lighting on Pedestrian Bridges with the USFWS's Biological Opinions for the RT's South Sacramento Corridor Phase 2 Project		
From	Kelly Fitzgerald-Holland – Senior Wildlife Biologist, AECOM		
Date	October 9, 2015		

Sacramento Regional Transit District (RT) has proposed installing lights along a pedestrian path and two pedestrian bridges in Sacramento, California. The first section of the pathway is located adjacent to Union House Creek between Center Parkway and Franklin Boulevard, and includes the Valley Green Pedestrian Bridge. The second section of the pathway continues west of the Franklin Station to and across the Deer Lake Pedestrian Bridge. These bridges are associated with the South Sacramento Corridor Phase 2 (SSCP2) Project, for which the U.S. Fish and Wildlife Service (USFWS) issued a biological opinion on April 18, 2008 (USFWS File No. 81420-2008-F-0285-1) and an amendment on December 16, 2011 (USFWS File No. 81420-2008-F-0285-2), in accordance with section 7 of the Endangered Species Act of 1973, as amended. The biological opinion and amendment addressed the effects of the SSCP2 Project on the federally endangered vernal pool tadpole shrimp (*Lepidurus packardii*), threatened vernal pool fairy shrimp (*Branchinecta lynchi*), threatened giant garter snake (*Thamnophis gigas*), and threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).

The proposed installation of lighting on the pedestrian path and bridges was not a component of the project description when the biological opinion and amendment were issued. Therefore, this memorandum examines the consistency of this addition to the project description with the effects analysis in the biological opinion and amendment, in order to determine whether re-initiation of formal section 7 consultation with USFWS is warranted. The April 18, 2008, biological opinion states that re-initiation of formal consultation is required where: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species of critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner than 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.

CONSISTENCY OF THE ADDITION OF PROPOSED LIGHTING ON PEDESTRIAN BRIDGES WITH THE BIOLOGICAL OPINION

The biological opinion and amendment considered effects to four federally listed species that could result from construction of the SSCP2 Project.

Valley Elderberry Longhorn Beetle. The biological opinion determined that effects to valley elderberry longhorn beetle were already addressed in another biological opinion for a project with an overlapping footprint (i.e., the Interstate 5 – Cosumnes River Boulevard Interchange Project – USFWS File No. 1-1-04-F-0363). Therefore, the addition of proposed lighting on the pedestrian path and bridge would result in no additional effect to this species and this project addition is consistent with the effects analysis in the SSCP2 biological opinion and amendment.

Vernal Pool Tadpole Shrimp and Vernal Pool Fairy Shrimp. The biological opinion determined that construction of the SSCP2 Project would result in direct effects to 0.14 acre and indirect effects to 0.99 acre of suitable habitat for federally listed vernal pool crustaceans. These impacts were related to ground disturbance associated with construction activities. The installation of the light poles would occur at the edge of pavement along the pedestrian path and from the deck of each bridge; therefore, no additional ground disturbance is associated with this proposed project activity. Therefore, the addition of proposed lighting on the pedestrian path and bridge would result in no additional effect to these species and this project addition is consistent with the effects analysis in the SSCP2 biological opinion and amendment.

Giant Garter Snake. The biological opinion determined that construction of the SSCP2 Project would result in permanent effects to 0.461 acre and temporary effects to 8.44 acres of suitable habitat for the federally listed giant garter snake. It should be noted that the habitat within the project area is of low quality for giant garter snake, given the high density of residential development around Union House Creek. Hansen (1982) examined the distribution of this species in the vicinity of the SSCP2 Project area and found that animals occurred at very low densities, concluding that any remnant animals were likely isolated. Given the significant changes in habitat conditions since that study was conducted, it is likely that the species no longer occurs in this area or only occurs at very small densities. Nonetheless, because the biological opinion and amendment considered the SSCP2 Project area to be potentially suitable habitat this species, this evaluation considers the effects of additional project design features on that species and its habitat.

The temporary and permanent impacts identified in the biological opinion were related to ground disturbance associated with construction activities. The installation of the light poles would occur at the edge of pavement along the pedestrian path and from the deck of each bridge; therefore, no additional ground disturbance is associated with this proposed project activity and no additional effects to direct disturbance of giant garter snake habitat would result from installation of the lighting.

Although impacts associated with use, operations, and maintenance were not considered in the biological opinion or amendment, the use of lighting along the pedestrian path and bridge, which either are adjacent to or cross potentially suitable giant garter snake habitat, should be considered. According to Fitch (1940), the giant garter snake is a “strictly nocturnal snake.” However, as described by Hansen (1980), periods of activity for this species vary by season, with the species displaying more diurnal activity tendencies in the spring (i.e., March – early June) and more nocturnal activity tendencies in the late summer (i.e., late August – September). The decrease in diurnal activity is likely associated with the arrival of hot summer weather (Hansen 1980) when they become more nocturnal in their hunting habits (Sacramento Zoological Society 2015). However, the lighting on the pedestrian path and bridge will be positioned so that light illuminates only the path and bridge, and shines away from the creek bed and banks. The lights themselves would have a sharp cut-off design to reduce spillover light, further minimizing the amount of light illuminating areas off the path and bridge. Finally, the lights would be equipped with motion sensors so that the lights will dim if there's no activity in the area.

Because the giant garter snake is primarily diurnal, most effects related to path and bridge illumination (e.g., exposure to nocturnal predators), would be avoided. However, as this species may sometimes exhibit nocturnal activity patterns, there is a potential for lighting that illuminates its foraging habitat (i.e., aquatic habitat – Union House Creek) to increase the risk of predation on this listed species. However, given the design considerations for the lighting, potentially suitable giant garter snake habitat would not be illuminated during the evening/night (e.g., spillover would be minimized). Therefore, if this animal occurs in the SSCP2 Project area, any giant garter snake that may nocturnally forage would not be exposed to increased risk of predation. Therefore, the addition of proposed lighting on the pedestrian path and bridge would result in no additional effect to this species and this project addition is consistent with the effects analysis in the SSCP2 biological opinion and amendment.

CONCLUSION

The proposed installation of lighting on the pedestrian path and bridges was not a component of the project description when the biological opinion and amendment were issued. The potential for effects of the installation and operation of the lighting of federally listed species were not(?) evaluated. This analysis concludes that the addition of proposed lighting on the pedestrian path and bridges would result in no additional effect to federally listed species and this project addition is consistent with the effects analysis in the SSCP2 biological opinion and amendment. Therefore, the amount of extent of incidental take, as authorized in the biological opinion and amendment, would not be exceeded and the lighting installation and operation would be conducted in a manner to avoid new effects to listed species. Thus, because the conditions for re-initiation of formal consultation have not been met, re-initiation of formal section 7 consultation with USFWS is not warranted.

REFERENCES

- Fitch, H. S. 1940. A biogeographical study of the *ordinoides* Artenkreis of garter snakes (genus *Thamnophis*). *University of California Publications in Zoology* 44:1-150.
- Hansen, G. E. 1982. Status of the giant garter snake (*Thamnophis couchi gigas*) along portions of Laguna and Elk Grove Creeks, Sacramento County, California. Unpublished report. 14 pp.
- Hansen, R. W. 1980. Western aquatic garter snakes in central California: an ecological and evolutionary perspective. Unpublished masters thesis, Department of Biology, California State University, Fresno. 78 pp.
- Sacramento Zoological Society. 2015. *Fact Sheet: Giant Garter Snake*. Available: <http://www.saczoo.org/document.doc?id=865>. Accessed: October 5, 2015. 2 pages.

APPENDIX C

SHPO Concurrence

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov



December 20, 2013

Reply To: FTA030811A

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105-1839

Re: Section 106 Consultation for the Revised Area of Potential Effect and Determination of Effect for the South Sacramento Corridor Light Rail Project Phase 2 (SSCP2), Sacramento, Sacramento County, CA

Dear Mr. Rogers:

Thank you for your letter of December 6, 2013 continuing consultation for the above referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulation at 36 CFR Part 800. The Federal Transit Administration (FTA) is requesting that I concur with the revised Area of Potential Effect (APE) for the project, as well as the finding of no historic properties affected.

The undertaking proposes to extend light rail transit (LRT) service approximately 4.3 miles south from the South Sacramento Corridor Phase 1 terminus at Meadowview Road. FTA initiated consultation on the project in a letter dated August 5, 2003. My office concurred with the original finding of no historic properties affected on June 21, 2006. Subsequent consultation on project modifications took place between April and July of 2011, again concurring with a determination of no historic properties affected.

As stated in your letter, the Sacramento Regional Transit District (RT) has determined that additional modifications are required to implement the project. Several of the proposed modifications fall outside of the original APE. The proposed modifications concern the relocation of electric and related utilities adjacent to the SSCP2 right of way, specifically the Sacramento Municipal Utility District's (SMUD) 69kV and 12kV/joint pole facilities lines. These must be relocated to provide 50 feet of separation between the Union Pacific Railroad (UPRR) track centerline and the proposed RT LRT track centerline, as well as to accommodate constraints associated with an underground Pacific Gas & Electric (PG&E) natural gas line and a SMUD 230kV transmission line. While this was addressed in the 2011 Environmental Assessment, it has since been determined that the current placement of the existing SMUD 69kV and 12kV/joint pole facilities line in this area does not provide adequate space for all of the SSCP2 project components.

FTA and RT have revised the APE for the undertaking, as shown in Enclosure 1 of your letter. RT proposes to relocate the 69kV line to run along the western side of the Detroit Avenue Neighborhood. Beginning at the existing Meadowview Station, the relocated line would cross Meadowview Road and pass southwards along the western side of a State of California facility and then through an area of open space towards the southwestern corner of the Detroit Avenue Neighborhood. From that point, the powerline would turn eastwards and run along the southern boundary of the Detroit Avenue Neighborhood towards Morrison Creek, where the powerline would turn south and then tie in with the existing 69kV utility alignment and continue southward.

The revised APE includes all of the areas affected by the 69kV line's relocation. The 12kV line would be shifted six to nine feet westward from its current location, within the boundaries of the original APE. I do not object to this revised APE.

The revised APE was surveyed for additional architectural and archaeological resources. The architectural APE was expanded to include 13 additional parcels containing residences that were not previously studied. These residences were constructed between 1970 and 1971 and are not 50 years old or older. The revised APE also includes two additional commercial properties. One parcel contains the former California Highway Patrol Academy (053-0010-058-0000) with 11 buildings and a former car test track, constructed in 1953 and 1968. The remaining buildings were constructed between 1975 and 2006, after the Academy moved from the premises. The second parcel contains the California National Guard Armory (053-0010-056-0000), constructed in 1965, and a cluster of buildings constructed in 1964. The remaining buildings on this parcel are not 50 years old and do not meet the criteria for exceptional properties. Three linear features were also identified within the revised APE: a portion of the channelized Beacon (Union House) and Morrison Creeks Levee (P-34-1363) and segments of a PG&E transmission line (APN 053-0010-058-0000) and SMUD transmission line (3100 Meadowview Dr., Sacramento). The levee was determined to be not eligible for the National Register of Historic Places (NRHP) by my office in 2003. Based on the evaluations included in Enclosure 1 of your letter, FTA has determined that none of these resources are eligible for listing on the NRHP. I concur with this determination.

An updated records search was conducted on August 27, 2013, which did not identify any previously recorded resources within the revised APE. The Native American Heritage Commission (NAHC) was contacted regarding a search of their sacred lands database and updated list of Native American representatives. Their response was included with your letter. A pedestrian archaeological survey was also conducted of the revised APE where access was permitted. The inaccessible portions of the APE consisted mostly of paved parking lots and newer buildings. No new resources were identified.

As a result of the above information, FTA has determined that the proposed modifications to the undertaking will result in no historic properties affected. I concur with this determination.

Please note that the City of Sacramento is a Certified Local Government, providing a role for them in the Section 106 consultation process, per 36 CFR Part 800.2(c)(3). I recommend that you contact Roberta Deering, Preservation Director, at 916-808-8259 or rdeering@cityofsacramento.org, regarding this undertaking if you have not already done so.

Thank you for considering historic properties in your planning process, and I look forward to continuing consultation on this project with the FTA. If you have any questions, please contact Kathleen Forrest of my staff at (916) 445-7022 or e-mail at kathleen.forrest@parks.ca.gov.

Sincerely,



Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

Cc: Roberta Deering (via email)

**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

AT&T	Division of Ratepayer Advocates	Office of Ratepayer Advocates, Electricity Planning and Policy B
Albion Power Company	Don Pickett & Associates, Inc.	OnGrid Solar
Alcantar & Kahl LLP	Douglass & Liddell	Pacific Gas and Electric Company
Anderson & Poole	Downey & Brand	Praxair
Atlas ReFuel	Ellison Schneider & Harris LLP	Regulatory & Cogeneration Service, Inc.
BART	Evaluation + Strategy for Social Innovation	SCD Energy Solutions
Barkovich & Yap, Inc.	G. A. Krause & Assoc.	SCE
Bartle Wells Associates	GenOn Energy Inc.	SDG&E and SoCalGas
Braun Blaising McLaughlin & Smith, P.C.	GenOn Energy, Inc.	SPURR
Braun Blaising McLaughlin, P.C.	Goodin, MacBride, Squeri, Schlotz & Ritchie	San Francisco Water Power and Sewer
CENERGY POWER	Green Charge Networks	Seattle City Light
CPUC	Green Power Institute	Sempra Energy (Socal Gas)
CalCom Solar	Hanna & Morton	Sempra Utilities
California Cotton Ginners & Growers Assn	ICF	SoCalGas
California Energy Commission	International Power Technology	Southern California Edison Company
California Public Utilities Commission	Intestate Gas Services, Inc.	Southern California Gas Company (SoCalGas)
California State Association of Counties	Kelly Group	Spark Energy
Calpine	Ken Bohn Consulting	Sun Light & Power
Casner, Steve	Leviton Manufacturing Co., Inc.	Sunshine Design
Center for Biological Diversity	Linde	Tecogen, Inc.
City of Palo Alto	Los Angeles County Integrated Waste Management Task Force	TerraVerde Renewable Partners
City of San Jose	Los Angeles Dept of Water & Power	TerraVerde Renewable Partners, LLC
Clean Power	MRW & Associates	Tiger Natural Gas, Inc.
Clean Power Research	Manatt Phelps Phillips	TransCanada
Coast Economic Consulting	Marin Energy Authority	Troutman Sanders LLP
Commercial Energy	McKenna Long & Aldridge LLP	Utility Cost Management
Cool Earth Solar, Inc.	McKenzie & Associates	Utility Power Solutions
County of Tehama - Department of Public Works	Modesto Irrigation District	Utility Specialists
Crossborder Energy	Morgan Stanley	Verizon
Crown Road Energy, LLC	NLine Energy, Inc.	Water and Energy Consulting
Davis Wright Tremaine LLP	NRG Solar	Wellhead Electric Company
Day Carter Murphy	Nexant, Inc.	Western Manufactured Housing Communities Association (WMA)
Defense Energy Support Center	ORA	YEP Energy
Dept of General Services	Office of Ratepayer Advocates	Yelp Energy