



Sunrise Powerlink Project

Project Modification Report

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California Public Utilities Commission

Bureau of Land Management
U.S. Department of Interior

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CONTENTS

Attachments.....	vi
Charts and Illustrations	vi
Tables	vi
Figures.....	viii
Abbreviations and Acronyms.....	ix
Summary.....	S-1
1. Purpose, Methodology, and Organization	1-1
1.1 Purpose.....	1-1
1.2 Methodology	1-2
1.2.1 Modification Process.....	1-2
1.2.2 PMR Units.....	1-3
1.2.3 Impact Calculations	1-8
1.2.4 Impact Evaluations and Comparisons	1-8
1.3 Organization	1-9
2. Structure, Yard, and Telecom Update	2-1
2.1 Structures	2-1
2.2 Construction Yards.....	2-15
2.3 Telecommunication Sites and Equipment.....	2-16
3. Project-Level Impact Evaluation and Comparison	3-1
3.1 Approach, Terminology, and Criteria	3-1
3.2 Summary of Results	3-2
3.3 Impact Evaluation and Comparison.....	3-3
3.3.1 Changes in Project Components and Total Ground Disturbance.....	3-3
3.3.2 Impacts to Air Resources.....	3-6
3.3.3 Impacts to Biological Resources.....	3-6
3.3.3.1 Sensitive Vegetation Communities	3-7
3.3.3.2 Desert pavement.....	3-11
3.3.3.3 Special Status Plants	3-11

3.3.3.4 Special Status Wildlife 3-14

 Quino Checkerspot Butterfly 3-14

 Arroyo Toad 3-19

 Barefoot Banded Gecko 3-21

 Flat Tailed Horned Lizard 3-21

 Coastal California Gnatcatcher 3-22

 Golden Eagle 3-23

 Least Bell’s Vireo 3-24

 Southwestern Willow Flycatcher 3-24

 Peninsular Bighorn Sheep (PBS)..... 3-25

 Stephens’ Kangaroo Rat 3-25

3.3.3.5 Potential Effects of Structure Lighting on Special Status Wildlife 3-25

 Potential Effects on Birds 3-26

 Potential Effects on Bats 3-26

3.3.3.6 Riparian Conservation Areas 3-26

3.3.4 Impacts to Cultural Resources 3-30

3.3.5 Impacts To Geological and Mineral Resources 3-38

3.3.6 Impacts to Land Use 3-39

 3.3.6.1 Private Lands 3-39

 3.3.6.2 Cleveland National Forest 3-40

 Total Impacts 3-40

 Back County Non-Motorized Zones 3-46

 3.3.6.3 Sensitive Receptors 3-47

 3.3.6.4 Regional Habitat Conservation Programs 3-51

3.3.7 Public Safety/Fire Hazards 3-52

3.3.8 Impacts to Traffic/Transportation 3-52

3.3.9 Impacts to Visual Resources 3-53

3.3.10 Impacts to Water Resources 3-54

 3.3.10.1 Federal and State Jurisdictional Waters 3-54

 Basis for the Estimates 3-54

 Waters of the US 3-56

 State Waters 3-58

3.3.10.2 Water Use 3-59

 Related Air Quality Considerations 3-61

 Related Traffic Impact Considerations 3-61

 Related Noise Impact Considerations 3-62

 Water Use Summary 3-62

3.4 Literature Cited 3-62

4. Unit-Level Impact Evaluation and Comparison 4-1

 PMR1. Imperial Valley Substation 4-5

 TABLE PMR1 4-7

 PMR2. EP363-1 to EP333 (Dunaway Road) 4-8

 TABLE PMR2 4-10

 PMR3. EP333 to EP324 (Plaster City) 4-12

 TABLE PMR3 4-14

 PMR4. EP324 to EP301 (Pyramid Mining) 4-15

 TABLE PMR4 4-17

 PMR5. EP301 to EP276-1 (Sugarloaf) 4-19

 TABLE PMR5 4-22

 PMR6. EP276-1 to EP255-1 (Desert View Tower) 4-24

 TABLE PMR6 4-27

 PMR7. EP255-1 to EP252-1 (Jade Mountain) 4-29

 TABLE PMR7 4-31

 PMR8. EP252-1 to EP239-1 (Jacumba) 4-32

 PMR9. EP239-1 to EP229-1 (Quino) 4-36

 TABLE PMR9 4-38

 PMR10. EP229-1 to EP221A (Bankhead Springs) 4-40

 PMR11. EP221A to EP219-1 (Jackson-Gatlin) 4-44

 PMR12. EP219-1 to EP206-1 (State Corrections) 4-46

 PMR13. EP206-1 to EP196-1 (Rough Acres) 4-51

 PMR14. EP196-1 to EP170 (McCain Valley) 4-56

 PMR15. EP170 to EP141 (JAM) 4-60

 TABLE PMR15 4-62

 PMR16. EP141 to EP122 (Thing Valley) 4-63

 PMR17. EP122 to EP108-2 (La Posta) 4-68

PMR18. EP108-2 to EP99-2 (Lenac) 4-72

PMR19. EP105-2 (Rees)..... 4-75

PMR20. EP99-2 to EP79 (Bartlett)..... 4-77

PMR21. EP79 to EP67 (Pacific Crest Trail)..... 4-81

PMR22. EP67 to EP62A-1 (Long Potrero)..... 4-85

PMR23. EP62A-1 to EP47-2 (Potrero) 4-89

TABLE PMR23 4-91

PMR24. EP47-2 to EP39-1 (Barrett Lake) 4-93

PMR25. EP39-1 to EP22-1 (Hermes) 4-96

PMR26. EP22-1 to EP12-3 (Gaskill Peak North) 4-101

PMR27. EP12-3 to EP9-1 (Cedar Ranch) 4-104

PMR28. EP9-1 to EP1-3 (Just)..... 4-107

TABLE PMR28 4-109

PMR29. Suncrest Substation and Access Road (Suncrest Substation) 4-111

PMR30. CP109-1 to CP106-1 (Bell Bluff) 4-115

PMR31. CP106-1 to CP98-1 (Jerney) 4-117

PMR32. CP98-1 to CP95-1 (230kV UG Including Loritz Driveway)..... 4-120

TABLE PMR32 4-122

PMR33. 230-kV Underground from Alpine Blvd/Loritz Driveway to CP88-1/CP87-1 (230kV UG) 4-123

TABLE PMR33 4-125

PMR34. CP88-1/CP87-1 to CP64-2 (Chocolate Canyon) 4-126

TABLE PMR34 4-129

PMR35. CP64-2 to CP53-1 (Morgan)..... 4-131

TABLE PMR35 4-133

PMR36. CP53-1 to CP44-1 (High Meadow Ranch) 4-135

TABLE PMR36 4-138

PMR37. CP44-1 to CP37-2 (County Aqueduct) 4-139

TABLE PMR37 4-141

PMR38. CP37-2 to CP31-2 (Schmidt) 4-142

TABLE PMR38 4-144

PMR39. CP31-2 to CP12-1 (Sycamore Preserve) 4-145

TABLE PMR39 4-147

PMR40. CP12-1 to CP3 (Stonebridge)4-148
TABLE PMR404-150
PMR41. CP3 to CP1A (Sycamore Substation).....4-151
TABLE PMR414-153
PMR42. Sycamore Canyon to Pomerado Substation (TL6915/6924) Reconductoring
(Pomerado)4-154
TABLE PMR424-157
PMR43. Sycamore Canyon to Elliott Substation (TL639) Reconductoring (Elliott).....4-158
TABLE PMR434-160
PMR44. Sycamore Canyon to Scripps Substation (TL 6916) Reconductoring (Scripps).....4-161
TABLE PMR444-163

Attachments

- Attachment A. GIS Methodology for Impact Determination
- Attachment B. Cultural Resource Inventory Summary Table
- Attachment C. Powered Haulage Estimated Acoustical Impact Report
- Attachment D. Air Quality Impacts Method

Charts and Illustrations

- Illustration 1-1. PMR Units in Relation to Project Links and Mileposts 1-6
- Illustration 2-1. Microwave Telecommunication Equipment as Mounted on Structures 2-16
- Chart 3-1. Permanent and Temporary Ground Disturbance for the Modified Project and FESSR..... 3-6

Tables

- TABLE S-1. COMPONENTS AND IMPACTS OF THE FESSR AND MODIFIED PROJECTS-3
- TABLE S-2. SUMMARY OF UNIT-LEVEL IMPACT EVALUATION AND COMPARISON BASED ON PMR DATABASES-8
- TABLE 1-1. MMCRP MEASURES PROMPTING MODIFICATIONS..... 1-4
- TABLE 1-2. SURVEYS AND STUDIES PRODUCING DATA USED IN THE PMR..... 1-5
- TABLE 1-3. PMR UNITS BY LOCATION ALONG THE FESSR 1-7
- TABLE 1-4. PROJECT COMPONENT CATEGORIES IN THE GIS IMPACT CALCULATIONS 1-9
- TABLE 2-1. LIST OF STRUCTURES IN THE MODIFIED PROJECT..... 2-2
- TABLE 2-2. SPANS IDENTIFIED FOR MARKER BALLS 2-12
- TABLE 2-3. CONSTRUCTION YARDS FOR THE MODIFIED PROJECT..... 2-15
- TABLE 3-1. SUMMARY OF FESSR AND MODIFIED PROJECT COMPONENTS AND ASSOCIATED FEATURES 3-4
- TABLE 3-2. SUMMARY OF FESSR AND MODIFIED PROJECT COMPONENTS AND ESTIMATE GROUND DISTURBANCE BY LINK BASED ON PMR DATABASE 3-4
- TABLE 3-3. FESSR AND MODIFIED PROJECT IMPACTS TO SENSITIVE VEGETATION COMMUNITIES BASED ON EIR/EIS AND PMR DATABASES..... 3-8
- TABLE 3-4. FESSR AND MODIFIED PROJECT IMPACTS TO SENSITIVE VEGETATION SUBTYPES BASED ON THE PMR DATABASE..... 3-9
- TABLE 3-5. OFFSITE AND ONSITE MITIGATION RATIOS FOR PERMANENT AND TEMPORARY IMPACTS TO SENSITIVE VEGETATION COMMUNITIES..... 3-10
- TABLE 3-6. SPECIAL STATUS PLANTS POTENTIALLY AFFECTED BY THE FESSR OR MODIFIED PROJECT BASED ON THE PMR DATABASE 3-12

TABLE 3-7. ESTIMATED IMPACTS OF THE FESSR AND MODIFIED PROJECT TO SPECIAL STATUS SPECIES BASED ON THE EIR/EIS AND PMR DATABASES 3-15

TABLE 3-8. MITIGATION RATIOS FOR HABITAT IMPACTS TO SPECIAL STATUS WILDLIFE SPECIES 3-18

TABLE 3-9. FESSR FEATURES AND ACTIVITIES IN RIPARIAN CONSERVATION AREAS BASED ON APPENDIX 8Q..... 3-27

TABLE 3-10. FEATURES AND ACTIVITIES OF THE MODIFIED PROJECT IN RIPARIAN CONSERVATION AREAS BASED ON RCA 2010 DATABASE AND UPDATED RCA ANALYSIS 3-28

TABLE 3-11. POTENTIAL FESSR AND MODIFIED PROJECT IMPACTS IN RIPARIAN CONSERVATION AREAS BY PMR UNIT BASED ON PMR DATABASE 3-29

TABLE 3-12. CULTURAL RESOURCES POTENTIALLY AFFECTED BY THE FESSR OR MODIFIED PROJECT BASED ON RESULTS OF THE CLASS III CULTURAL RESOURCE INVENTORY 3-31

TABLE 3-13. NUMBER OF CULTURAL RESOURCES PER PMR UNIT POTENTIALLY AFFECTED BY FESSR OR MODIFIED PROJECT OR NOT AFFECTED BY EITHER BASED ON THE CLASS III CULTURAL RESOURCE INVENTORY..... 3-37

TABLE 3-14. IMPACTS TO PRIVATE LANDS UNDER FESSR AND THE MODIFIED PROJECT BASED ON THE PMR DATABASE 3-39

TABLE 3-15. IMPACTS TO CLEVELAND NATIONAL FOREST UNDER THE FESSR AND MODIFIED PROJECT BASED ON THE PMR DATABASE 3-41

TABLE 3-16. SENSITIVE RECEPTORS (NOISE) WITHIN PMR6 THROUGH PMR40 3-48

TABLE 3-17. IMPACTS TO REGIONAL CONSERVATION PROGRAMS UNDER THE FESSR AND MODIFIED PROJECT BASED ON EIR/EIS AND PMR DATABASES 3-51

TABLE 3-18. ESTIMATED IMPACTS TO WATERS OF THE US BASED ON THE PMR DATABASE 3-57

TABLE 3-19. ESTIMATED IMPACTS TO STATE WATERS BASED ON THE PMR DATABASE 3-59

TABLE 4-1. SUMMARY OF UNIT-LEVEL IMPACT EVALUATION AND COMPARISON..... 4-2

FIGURES

All figures are placed after Attachment D

FIGURE 1. Imperial Valley Substation

FIGURE 2. Structures EP363-1 to EP333

FIGURE 3. Structures EP333 to EP324

FIGURE 4. Structures EP324 to EP301

FIGURE 5. Structures EP301 to EP276-1

FIGURE 6. Structures EP276-1 to EP255-2

FIGURE 7. Structures EP255-2 to EP252A-1

FIGURE 8. Structures EP252A-1 to EP239-1

FIGURE 9. Structures EP239-1 to EP229-1

FIGURE 10. Structures EP229-1 to EP221A

FIGURE 11. Structures EP221A to EP219-1

FIGURE 12. Structures EP219-1 to EP206-1

FIGURE 13. Structures EP206-1 to EP196-1

FIGURE 14. Structures EP196-1 to EP170

FIGURE 15. Structures EP170 to EP141

FIGURE 16. Structures EP141 to EP122

FIGURE 17. Structures EP122 to EP108-2

FIGURE 18. Structures EP108-2 to EP99-2

FIGURE 19. Structures EP105-2 (Rees)

FIGURE 20. Structures EP99-2 to EP79

FIGURE 21. Structures EP79 to EP67

FIGURE 22. Structures EP67 to EP62A-1

FIGURE 23. Structures EP62A-1 to EP47-2

FIGURE 24. Structures EP47-2 to EP39-1

FIGURE 25. Structures EP39-1 to EP22-1

FIGURE 26. Structures EP22-1 to EP12-3

FIGURE 27. Structures EP12-3 to EP9-1

FIGURE 28. Structures EP9-1 to EP1-3

FIGURE 29. Suncrest Substation

FIGURE 30. Structures CP109-1 to CP106-1

FIGURE 31. Structures CP106-1 to CP98-1

FIGURE 32. Structures CP98-1 to CP95-1

FIGURE 33. Structures CP95-1 to CP87-1

FIGURE 34. Structures CP87-1 to CP64-2

FIGURE 35. Structures CP64-2 to CP53-1

FIGURE 36. Structures CP53-1 to CP44-1

FIGURE 37. Structures CP44-1 to CP37-2

FIGURE 38. Structures CP37-2 to CP31-2

FIGURE 39. Structures CP31-2 to CP12-1

FIGURE 40. Structures CP12-1 to CP3

FIGURE 41. Structures CP3 to SSDE-1

FIGURE 42. Sycamore – Pomerado

FIGURE 43. Sycamore – Elliott

FIGURE 44. Sycamore – Scripps

Abbreviations and Acronyms

BLM	Bureau of Land Management, U.S. Department of Interior
BMP	Best Management Practice(s)
BO	Biological Opinion
CDFG	California Department of Fish and Game
CNDDDB	California Natural Diversity Database
CPUC	California Public Utilities Commission
FEIR/EIS	Final Environmental Impact Report & Environmental Impact Statement
FESSR	Final Environmentally Superior Southern Route
Gnatcatcher	Coastal California gnatcatcher
LBV	Least Bell's Vireo
MMCRP	Mitigation Monitoring Compliance, and Reporting Plan
MP	Mile Post
MS	Map (Book) Sheet
PBS	Peninsular Bighorn Sheep
Quino	Quino checkerspot butterfly
RCA	Riparian Conservation Area
ROW	Right-of-Way
SDG&E	San Diego Gas and Electric Company
SKR	Stephens' Kangaroo Rat
SRPL	Sunrise Powerlink
SWF	Southwestern Willow Flycatcher
SWPL	Southwest Powerlink
USFS	United States Forest Service, U.S. Department of Agriculture
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
Water(s) of the US	Jurisdictional Waters of the United States

SUMMARY

This Project Modification Report (PMR) was prepared by San Diego Gas and Electric Company (SDG&E) to comply with Section 4.2.1 of the Mitigation Monitoring Compliance and Reporting Plan (MMCRP) for the Sunrise Powerlink Project (SRPL, Project). The PMR presents the final engineering and design of the Project and identifies the modifications that have been made since adoption of the Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS) and approval of the Project by the California Public Utilities Commission (CPUC) and the U.S. Department of Interior Bureau of Land Management (BLM).

The modifications described in this PMR are the result of SDG&E's implementation of measures in the MMCRP to avoid and minimize impacts to sensitive resources, reduce or eliminate engineering constraints, and accommodate landowner location preferences where possible. They include changes in the alignment, placement of towers and poles, size and location of temporary work areas, number and size of temporary construction yards, number and length of new access roads, and construction methods (conventional or helicopter). As required by MMCRP Section 4.2.1, the changes are presented in relation to the Final Environmentally Superior Southern Route (FESSR) identified in the Final EIR/EIS for the Project. Hereafter, "FESSR" is used when referring to the routing and components of the Project as described in the Final EIR/EIS; "modified Project" is used when referring to the FESSR as modified by the changes in this PMR. The PMR Mapbook shows the entire alignment and components of the FESSR and modified Project at a 1"=4' scale. The PMR text describes the differences between the FESSR and the modified Project in terms of changes made at specific locations and in terms of changes in the environmental effects identified in the Final EIR/EIS. FESSR impacts are identified based on information in the Final EIR/EIS, including the databases used in the EIR/EIS analyses. This information is cited in the PMR as the "EIR/EIS database." Since issuance of the Final EIR/EIS, additional field surveys and data collection have taken place, pursuant to agency requests and required mitigation measures. As a result, additional information is now available regarding sensitive resources along both the FESSR and the modified Project alignment. This additional information has been combined with the EIR/EIS database and comprises the "PMR database." The PMR database is used for the impact estimates for the modified Project. Where appropriate, it also has been applied to the FESSR to provide an additional context for comparing impacts.

Table S-1 summarizes the components and impacts of the FESSR and the modified Project in their entirety (*i.e.*, looking at the Project as a whole). Table S-2 summarizes the evaluation and comparison of impacts at different locations along the alignment. In the second analysis, the Project was divided into 44 units that include the ROW, structures, and associated components for the FESSR and modified Project in that geographic area. The units vary in size and typically reflect a portion of the line affected by interrelated changes.

As indicated in the "components" section of Table S-1, the modified Project and FESSR mainly have the same constituent parts and differ in terms of the number of structures and associated features and

number of structures designated for helicopter construction. The one minor exception is that the modified Project includes a pre-engineered storage facility on already disturbed land within the existing Imperial Valley Substation that which was not included in the FESSR (see Section 4, PMR1). Overall, the modified Project has fewer structures, fewer new access roads, fewer wire stringing areas, and fewer construction yards; a smaller Suncrest Substation; and more structures designated for helicopter construction than the FESSR. As summarized in the “environmental impact” section of Table S-1, these differences equate to a 46% reduction in permanent and temporary ground disturbance compared with the FESSR. The “environmental impact” section of Table S-1 presents FESSR impacts as estimated in the Final EIR/EIS (modeled after and using information from Table 8P of the Final EIR/EIS), FESSR impacts based on the PMR database, and modified Project impacts based on the PMR database.

Table S-1 illustrates that the modified Project would reduce overall on-the-ground impacts, thereby reducing impacts to biological, cultural, land use, and wetland/stream resources when compared to the FESSR. Impacts of the modified Project to other resources are similar in nature to the FESSR’s and, with few exceptions, also reduced. No new significant impacts would result.

Table S-2 illustrates that there are many locations along the alignment where modifications would reduce FESSR impacts identified in the Final EIR/EIS and only a few locations where modifications would increase impacts. There are also are many locations where the modified Project would have substantially the same impact as the FESSR. No new significant impacts would result from any of the modifications.

In summary, through the implementation of mitigation measures included in the Final EIR/EIS, the modified Project would reduce but not eliminate significant impacts associated with the FESSR and would not result in any new significant impacts. Because the modified Project would result in less impact to the environment and would better protect natural and cultural resources, it is environmentally preferred to the components and initial routing of the FESSR.

TABLE S-1. COMPONENTS AND IMPACTS OF THE FESSR AND MODIFIED PROJECT

PROJECT COMPONENTS				
Variable	FESSR	Modified Project	Change Resulting from Modification	
			Number	%
Length (miles)	119	117	(2)	1.6% decrease
Structures (number)	481	443	(38)	7.9% decrease
Wire Stringing Sites (number)	129	78	(51)	39.5% decrease
New Access Roads (miles)	125.23	51.12	(74.11)	59.2% decrease
Tower Staging Access Pads (number)	108	162	58	53.8% increase
Construction Yards (number)	43	19	(24)	55.8% decrease
Suncrest Substation (acres)	128.18	75.66	(52.52)	41.0% decrease
Reconductoring Replacement Poles (69kV)	11	17	6	54.4% increase
ENVIRONMENTAL IMPACTS				
Alignment		December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source		EIR/EIS Database	PMR Database	PMR Database
SENSITIVE VEGETATION COMMUNITIES		Acres	Acres	Acres
Permanent Impacts				
Desert Scrub and Dune Habitats		93.08	91.88	36.37
Coastal and Montane Scrub Habitats		54.52	53.56	27.47
Grasslands and Meadows		14.37	13.74	4.15
Chaparrals		320.17	294.36	181.19
Woodlands and Forests		6.54	17.89	4.24
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)		0.13	3.17	1.10
Riparian Scrubs		0.57	0.38	0.00
Riparian Forests and Woodlands		0.58	0.88	0.25
Total Permanent Impacts to Sensitive Communities		489.96	475.86	254.77
Temporary Impacts				
Desert Scrub and Dune Habitats		269.47	282.13	142.27
Coastal and Montane Scrub Habitats		118.39	114.56	66.94
Grasslands and Meadows		172.89	161.49	48.40
Chaparrals		271.20	321.44	223.96
Woodlands and Forests		12.78	30.57	3.93
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)		3.03	10.73	2.37
Riparian Scrubs		1.08	0.69	0.00
Riparian Forests and Woodlands		<0.01	2.96	0.10
Total Temporary Impacts to Sensitive Communities		848.85	924.57	487.97
TOTAL IMPACTS TO SENSITIVE VEGETATION COMMUNITIES		1338.81	1400.43	742.74
Other Ground Disturbance				
Non-native Vegetation, Developed Areas, and Disturbed Habitat				
Permanent		--	79.15	43.65
Temporary		--	335.75	197.16
TOTAL GROUND DISTURBANCE		--	1815.34	983.53

ENVIRONMENTAL IMPACTS			
Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
SPECIAL STATUS SPECIES ¹	(acres or number)	(acres or number)	(acres or number)
QUINO CHECKERSPOT BUTTERFLY			
<i>USFWS Critical Habitat (2002 or 2009)²</i>			
Permanent Impacts	19.20	11.46	4.45
Temporary Impacts	55.72	16.93	1.59
<i>USFWS Occupied Habitat (USFWS Data)³</i>			
Permanent Impacts	--	36.16	15.16
Temporary Impacts	--	84.76	17.49
ARROYO TOAD			
<i>USFWS Proposed Critical Habitat⁴</i>			
Permanent Impacts	--	7.13	2.46
Temporary Impacts	--	100.67	44.23
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			
Permanent Impacts	32.45	33.09	11.92
Temporary Impacts	150.69	154.97	63.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	3.83	3.49
Temporary Impacts	--	20.53	0.01
BAREFOOT BANDED GECKO (SUITABLE HABITAT)			
<i>Permanent Impacts</i>	--	20.63	10.84
<i>Temporary Impacts</i>	--	17.16	4.53
FLAT-TAILED HORNED LIZARD			
<i>Permanent Impacts</i>			
Management Areas	22.62	22.26	9.54
Habitat Outside of Management Areas	52.95	71.16	26.35
Total Permanent Impacts	75.57	93.42	35.89
<i>Temporary Impacts</i>			
Management Areas	91.31	103.25	36.87
Habitat Outside of Management Areas	141.53	170.67	94.88
Total Temporary Impacts	232.84	273.92	131.75

ENVIRONMENTAL IMPACTS			
Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
COASTAL CALIFORNIA GNATCATCHER			
Number of Pairs Affected	--	--	2
Number of Unpaired Individuals Affected	--	--	1
<i>USFWS Critical Habitat</i>			
Permanent Impacts	2.22	10.06	3.88
Temporary Impacts	32.97	17.84	21.58
<i>USFWS Occupied Habitat (USFWS Data)</i>			
Permanent Impacts	0 ⁵	1.46	0.16
Temporary Impacts	0 ⁵	1.83	8.11
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			
Permanent Impacts	25.52	25.03	11.97
Temporary Impacts	52.69	48.50	15.67
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	2.65	1.12
Temporary Impacts	--	7.07	0.60
GOLDEN EAGLE⁶			
Nest Sites Potentially Affected	4	--	9 ⁵
LEAST BELL'S VIREO⁷			
<i>USFWS Occupied Habitat [USFWS Data]</i>			
Permanent Impacts	0.94	0.89	0.00
Temporary Impacts	0.00	0.32	0.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	--	1.32	0.19
Temporary Impacts	--	0.00	0.00
SOUTHWESTERN WILLOW FLYCATCHER⁷			
<i>USFS Suitable Habitat in CNF (USFS Modeled Habitat)</i>			
Permanent Impacts	--	5,14	3,98
Temporary Impacts	--	14.39	0.74
PENINSULAR BIGHORN SHEEP			
<i>2001 Designated Critical Habitat/Occupied Habitat⁸</i>			
Permanent Impacts	60.42	30.41	10.36
Temporary Impacts	111.81	34.64	20.24
<i>2009 Designated Critical Habitat</i>			
Permanent Impacts	N/A	16.04	5.41
Temporary Impacts	N/A	17.16	1.41

ENVIRONMENTAL IMPACTS			
Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
STEPHENS' KANGAROO RAT⁷			
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	0	0.71	0.18
Temporary Impacts	0	0.03	0.00
OTHER RESOURCES⁹			
Cultural Resources			
Number of Sites Potentially Affected	--	206	147
Impacts to Waters of the US (acres)			
Permanent	--	14.49	3.86
Temporary	--	80.21	7.25
Impacts to State Waters (acres)			
Permanent	--	15.39	4.14
Temporary	--	82.81	7.87
SUMMARY OF OTHER CHANGES IN THE EFFECTS OF THE FESSR			
Air Resources	Some reductions in emissions from reduced ground disturbance. No significant change in net emissions of trucks, helicopters, and equipment.		
Geology/Minerals	Some reductions in erosion, slope stability, and mineral resource impacts from reduced ground disturbance. Impact minimization measures built into FESSR and carried over to the modified Project.		
Land Uses/Noise	Reduced impacts to private property and federal lands; reduced inconsistency with plans, policies, and habitat conservation programs; some reductions in potential noise impacts on sensitive receptors.		
Public Safety/Fire Hazards	Reroutes and new construction yards within same fire hazard areas as FESSR; impact minimization measures and safety requirements carried over to the modified Project.		
Traffic/Transportation	Some reductions in traffic impacts with reduced use of trucks for construction. Increased helicopter use and truck transport of water.		
Visual	Some reductions in skylining and long-term land scarring; impact minimization measures built into FESSR carried over to the modified Project.		
Water Sources/Uses	Similar potential for use of non-groundwater sources, including reclaimed water. Potential for reduced water use because of reduction in ground disturbance.		

Notes

- 1 In this summary of impacts to special status species, the focus is on the following habitat categories: USFWS critical habitat (designated or proposed), USFWS occupied habitat (areas that USFWS considers occupied by the species based on available information and/or assumptions); mapped habitat and management areas for flat-tailed horned lizard; mapped suitable habitat for barefoot banded gecko; and suitable habitat as identified by habitat models used by USFS (USFS Suitable Habitat). Where the information in the Final EIR/EIS is not broken into a category used in the PMR database or is assessed qualitatively rather than quantified, the entry is "--."
- 2 The estimate of critical habitat for the FESSR in the Final EIR/EIS is based on the 2002 designation; the estimate for the FESSR in column two is based on the current designation, which also applies to the modified Project.

- 3 USFWS Occupied Habitat includes areas of known Quino populations and sightings and a buffer that typically encompasses all host plants in the vicinity. Some of the USFWS occupied habitat areas also are part of designated critical habitat (e.g., the Jacumba population).
- 4 Critical habitat for arroyo toad was proposed after completion of the Final EIR/EIS.
- 5 Appendix 8P of the Final EIR/EIS does not include the specific category of “USFWS Occupied” but shows “0” as the amount of “occupied” habitat. In the USFWS BO for the Project, the estimate is that the FESSR would result in permanent impacts to 8.30 acres and temporary impacts to 12.70 acres of USFWS Occupied habitat.
- 6 SDG&E is currently conducting a golden eagle nest area study. Surveys are being conducted following USFWS’ *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (February 2010). The purpose of the surveys is to record and report occupancy (Phase 1) and productivity (Phase 2) of resident golden eagle individual activities, nests, and territories within a 4-mile radius of the Project. Preliminary results of Phase 1 indicate there are 9 nests (active territories) within a 4-mile radius of the modified Project’s activity areas.
- 7 Focused surveys conducted subsequent to the Final EIR/EIS have determined that this species would not occur in the FESSR or modified Project impact areas. The USFS habitat model results have been retained for lands in the CNF.
- 8 USFWS considers areas formerly designated as critical habitat for Peninsular bighorn sheep to be occupied habitat.
- 9 The impact estimates in this subsection are based on the results of surveys required under the MMCRP and conducted following approval of the Final EIR/EIS.

TABLE S-2. SUMMARY OF UNIT-LEVEL IMPACT EVALUATION AND COMPARISON BASED ON PMR DATABASE

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification					Summary Conclusion/Notes
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds	
PMR1 Imperial Valley Substation	--	--	NSC	NSC	NSC	NSC	NSC	Adds storage facility within existing substation.
PMR2 EP363-1 to EP333 IV Sub Yard, Dunaway Road Yard	240.82	58.03	R	R	R	NSC	R	Reduces impacts
PMR3 EP333 to EP324 Plaster City Yard	55.92	32.92	R/I	R	R	NSC	R	Avoids sensitive resources with the exception of a slight temporary increase in impacts to desert scrub.
PMR4 EP324 to EP301	100.21	29.71	R	R	R	NSC	R	Coordination with quarry activities initiated for FESSR would continue.
PMR5 EP301 to EP276-1 (BLM) S2 Yard	69.89	49.04	R/NSC	R	R/NSC	NSC	R	Coordination with quarry activities initiated for FESSR would continue.
PMR6 EP276-1 to EP255-1 AER Yard	56.35	20.48	R	R	R	NSC/R	R	Reduces size of construction yard and associated impacts
PMR7 EP255-1 to EP252-1	10.42	16.36	R/I	R/I	R	NSC	NSC/I	Temporary impacts to dry washes, PBS habitat, and waters increase slightly.
PMR8 EP252-1 to EP239-1 Jacumba Airport Yard Jacumba Valley Ranch Yard	36.67	55.90	R/I	I/R	R	I/NSC	E	The yard responsible for the impact increases replaces one in PMR9 eliminated to avoid Quino impacts.
PMR9 EP239-1 to EP229-1	59.09	7.59	R	R	R	NSC/R	E	Avoids impacts to rare plants. Avoids conflict with Nature Conservancy lands.
PMR10 EP229-1 to EP221A	19.84	4.49	R/NSC	R	NSC/R	NSC	I	Slight reduction in impacts
PMR11 EP221A to EP219-1	48.17	5.49	R	NSC	E	NSC	R	Reduction in waters of US impacts.
PMR12 EP219-1 to EP206-1	44.12	18.74	R	NSC	NSC/R	NSC	R	Reductions in impacts
PMR13 EP206-1 to EP196-1 Rough Acres Yard	52.11	106.60	I	R	NSC/R	NSC	R	Increase in temporary impacts to Jacumba milk-vetch
PMR14 EP196-1 to EP170 McCain Valley Yard	62.10	68.59	I/NSC	NSC/I	NSC	NSC	I	No substantial change

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification					
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds	Summary Conclusion/Notes
PMR15 EP170 to EP141	31.26	10.97	R	R	E	R/NSC	NSC	RCA impacts reduced. Inconsistency with BCNM Zone.
PMR16 EP141 to EP122 Thing Valley Yard	28.09	49.39	I	I	NSC/R	I/NSC	R	Avoids impacts to rare plants. RCA impacts increase.
PMR17 EP122 to EP108-2	75.52	11.67	R	R	R	R/NSC	R	RCA impacts reduced.
PMR18 EP108-2 to EP99-2	70.78	15.62	R	I/R	NSC	NSC	E	RCA impacts reduced.
PMR19 EP105-2	0.44	2.36	I	I/NSC	NSC	NSC	I/NSC	No substantial change.
PMR20 EP99-2 to EP79 Bartlett/Hauser Creek Yard	103.77	66.43	R	NSC	NSC	NSC	NSC/I	RCA impacts avoided.
PMR21 EP79 to EP67	19.87	6.79	R	R	NSC/R	I/NSC	R	RCA impacts avoided.
PMR22 EP67 to EP62A-1	10.62	6.72	R	R	NSC	NSC	E	RCA impacts avoided.
PMR23 EP62A-1 to EP47-2 Kreutzkamp Yard	67.79	41.41	R	R	R	R/NSC	R	RCA impacts increase.
PMR24 EP47-2 to EP39-1 Barrett Canyon Yard	17.28	7.04	R	NSC	NSC	R/NSC	E	Size and impacts of construction yard reduced
PMR25 EP39-1 to EP22-1 SWAT Training Facility Yard	51.86	35.01	R/I	R	E	NSC	R	Reduction in impacts to rare plants. RCA impacts mixed.
PMR26 EP22-1 to EP12-3	18.11	4.58	R	E/NSC	NSC	NSC	E/NSC	Impacts to rare plants avoided. RCA impacts reduced.
PMR27 EP12-3 to P9-1	17.02	4.58	R	R	NSC	NSC	NSC	RCA impacts avoided.
PMR28 EP9-1 to EP1-3	17.47	6.50	R	R	NSC	NSC	E	RCA impacts increase
PMR29 Suncrest Substation Wilson Yard	181.63	86.47	R	NSC	R/NSC	NSC	R	Reduction in impacts to rare plants. RCA impacts avoided.
PMR30 CP109-1 to CP106-1	4.79	0.87	R	NSC	E/NSC	NSC	NSC	Impacts to rare plants avoided
PMR31 CP106-1 to CP98-1	14.30	4.74	R	E/NSC	E	NSC/R	NSC	RCA impacts avoided

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification					
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds	Summary Conclusion/Notes
PMR32 CP98-1 to CP95-1	4.58	6.20	I/NSC	I/NSC	NSC	NSC	I/NSC	No substantial change
PMR33 CP95-1 to CP88-1/CP87-1 Alpine HQ, Alpine Yards	0.00	38.94	I	NSC	NSC	I	I/NSC	No substantial change
PMR34 CP88-1/CP87-1 to CP64-2 Hartung Yard	77.38	31.55	R	R	R	NSC	R	Reduction in impacts to rare plants. RCA impacts reduced.
PMR35 CP64-2 to CP53-1	28.51	6.51	R	R	E	NSC	R	Impacts to rare plants avoided
PMR36 CP53-1 to CP44-1 Helix Yard	28.91	29.25	I/R	I	NSC	I	R	Slight increase in temporary effects
PMR37 CP44-1 to CP37-2	22.05	3.54	R	R	NSC	NSC	E	Hansen Aggregate has access for mining operations.
PMR38 CP37-2 to CP31-2	40.30	2.83	R	NSC	NSC	NSC/I	E	Modest reduction in impacts
PMR39 CP31-2 to CP12-1	12.01	9.56	R	R	NSC/R	NSC	NSC	No substantial change
PMR40 CP12-1 to CP3 Stowe/Kirkham Yard	4.24	23.56	I	I	NSC	I	NSC	Increase in impacts
PMR41 CP3 to CP1A	11.03	0.30	R	NSC	NSC	NSC	NSC	No substantial change
PMR42 Sycamore – Pomerado	0.00	2.91	I/NSC	NSC	NSC	NSC/I	NSC	No significant change
PMR43 Sycamore – Elliott	0.00	1.70	I/NSC	NSC	NSC	NSC/I	NSC	No substantial change
PMR44 Sycamore – Scripps	0.00	1.59	I/NSC	NSC	NSC	NSC	NSC	No substantial change

Codes

E = All impacts to a resource category eliminated

I = Increase in Impacts

NSC = No substantial change in impacts; also applies to no change in quantified impacts.

R = Reduction in Impacts

1. PURPOSE, METHODOLOGY, AND ORGANIZATION

1.1 PURPOSE

This Project Modification Report (PMR) was prepared by San Diego Gas & Electric Company (SDG&E) to comply with section 4.2.1 of the Mitigation, Monitoring, and Compliance Reporting Program (MMCRP) for the Sunrise Powerlink Project (SRPL, Project). The MMCRP was approved by the California Public Utilities Commission (CPUC) and U.S. Department of Interior Bureau of Land Management (BLM) following the CPUC's certification of and BLM's record of decision for the Final Environmental Impact Report and Environmental Impact Statement (Final EIR/EIS) for the SRPL. Section 4.2.1 of the MMCRP concerns changes to the Project resulting from final project design and engineering and reads as follows:

4.2.1 Transition from Preliminary Design to Final Engineering

The EIR/EIS analysis of the Sunrise Powerlink Project is based on preliminary design, as described in Section B.1 of the Final EIR/EIS, which states that:

[The Project Description] section includes maps of the Proposed Project area that illustrate land-ownership and general routing. Appendix 11 of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) includes detailed maps that illustrate the approximate proposed locations of each transmission structure and associated facilities based upon the status of SDG&E's preliminary engineering studies to date.

Because the project has now been approved by CPUC, BLM, and other jurisdictional agencies, SDG&E is in the process of completing final project design and engineering. Some project component locations are being modified as engineering is completed and to comply with mitigation measures requiring resource avoidance to minimize or avoid environmental impacts and reduce or eliminate feasibility constraints. In addition, some project components will be moved to accommodate landowner location preferences where possible, in compliance with Mitigation Measure L-2b (Revise project elements to minimize land use conflicts).

SDG&E will submit to the Lead Agencies a construction plan that illustrates the location of project components at the time of the Final EIR/EIS, and any changes that have been made since that time. All changes will be reviewed by the CPUC and BLM, to ensure that there are no changes that require additional CEQA or NEPA compliance review (i.e., that no new or more severe impacts are created by the changes). A memorandum will be prepared to document the changes and the impacts of the final plan. This memorandum will be approved by the CPUC and BLM. Detailed maps will be presented on the project website.¹

¹ Sunrise Powerlink Transmission Project: Mitigation, Monitoring, and Compliance Reporting Program. Final. California Public Utilities Commission and U.S. Department of Interior Bureau of Land Management. April 1, 2010. Pages 38-39.

This PMR identifies the changes that SDG&E has made in connection with final project design and engineering, compliance with impact avoidance and reduction measures, and accommodation of landowner location preferences. The PMR provides maps and text that identify changes in the location and impacts of SRPL components in relation to the Final Environmentally Superior Southern Route (FESSR) identified in the Final EIR/EIS. Hereafter, the term “FESSR” is used when referring to the routing and components of the FESSR as described in the Final EIR/EIS. The term “modified Project” is used when referring to the FESSR as modified by the changes in this PMR.

This PMR has been submitted to the CPUC and BLM to fulfill SDG&E’s requirements under MMCRP section 4.2.1. The PMR also has been distributed to the U.S. Department of Agriculture Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and California Environmental Protection Agency State Water Resources Control Board (SWRCB).

In addition to compliance with MMCRP section 4.2.1, the PMR will be used to:

- Update and clarify the description of the SRPL for purposes of the permits, field work, and other reports/plans that SDG&E must complete prior to construction;
- Update the estimated impacts and corresponding mitigation requirements for the Project; and
- Support SDG&E’s requests for Notices to Proceed with work on components of the Project.

1.2 METHODOLOGY

The PMR was developed in cooperation with the CPUC, BLM, USFS, USFWS, CDFG, ACOE, SWB, and the consultant team who prepared the Final EIR/EIS.

1.2.1 MODIFICATION PROCESS

The modifications identified in this PMR were initiated in response to:

1. Additional field review of the FESSR, which is identified in the Final EIR/EIS as the Interstate 8 Alternative, except where it is changed by: 1) SWPL Archaeological Site Revision and Jacumba Breakaway Revision; BCD Alternative Revision and BCD South Option Revision; 2) Modified Route D Alternative, including the Modified Route D Alternative Substation, the Cameron Revision, PCT Reroute Option A, Western Modified Route D Alternative Revisions; 3) Chocolate Canyon Option Revision, High Meadows Reroute and Highway 67 Hansen Quarry Reroute; and 4) The Environmentally Superior Northern Route Alternative (as defined in [Final EIR/EIS] Section 7.1.7) from where it joins the Interstate 8 Alternative.²
2. Further project design and engineering; and

² Final Environmental Impact Report and Environmental Impact Statement for the Sunrise Powerlink Transmission Project. California Public Utilities Commission and U.S. Department of Interior Bureau of Land Management. October 2008. Page ES-69.

3. The results of additional traffic, noise, and water use studies and additional surveys for biological, cultural, and wetland resources, performed to comply with MMCRP requirements.

MMCRP requirements prompting modifications include but are not limited to the measures listed in Table 1-1. All mitigation measures associated with the Project are identified and described in greater detail in the MMCRP. Measure L-2b in particular prompted an extensive consideration of construction modifications and reroutes. In compliance with L-2b, SDG&E notified affected land owners within 1,000 feet of any project facility through a combination of direct mail, published notices, website postings, and community meetings. Those land owners were provided the opportunity to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the land owner, but that would not create adverse impacts to resources greater than those that would occur from the original alignment. Additionally, a number of measures requiring avoidance or minimization of impacts to sensitive resources resulted in project modifications that have reduced the estimated impacts associated with the FESSR alignment.

The additional studies and surveys performed in response to MMCRP requirements that produced information used to identify and evaluate modifications are identified in Table 1-2.

Modifications were proposed on a site-specific basis and typically entailed multiple iterations in which different combinations of changes were evaluated. All changes in the location and size of Project components were mapped by the SRPL technical team, entered into the Project GIS database, and shown in relation to the initial FESSR routing as described in the Final EIR/EIS.

1.2.2 PMR UNITS

To reflect the site-specific nature of the modifications and provide a basis for examining changes in different locations along the alignment, the PMR divides the Project into 44 units. Each unit includes a portion of the alignment and associated components (structures, access roads, yards, work areas, etc). The units are numbered PMR1 through PMR44, and structure numbers and mileposts (MP) are used to indicate the start and end point of each unit. As in the Final EIR/EIS, mileposts run from east to west in ascending order, with MP0 located at the existing Imperial Valley Substation. Structure numbers run from east to west in descending order. To differentiate between the 500kV and 230kV portions of the line, 500kV structure numbers have an “EP” prefix and 230kV structures have a “CP” prefix.

Illustration 1-1 shows the PMR units in relation to the five links of the Project. Table 1-3 identifies the units by PMR number, MPs, name, the structures, and construction yards (if any) in each unit. Only construction yards proposed as part of the modified Project are included in Table 1-3.

TABLE 1-1. MMCRP MEASURES PROMPTING MODIFICATIONS

MMCRP No.	MMCRP Requirement
AG-1a	Avoid interference with agricultural operations
AQ-4a	Offset construction phase greenhouse gas emissions with carbon credits
B-1a	Provide restoration/compensation for impacted sensitive vegetation communities
B-1L	Work with USFS to minimize impacts to the riparian conservation area between structures 184 and 187
B-2a	Avoid impacts to any jurisdictional areas to the extent feasible
B-7i	Conduct Quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies
B-7j	Conduct arroyo toad surveys and implement appropriate avoidance/minimization/compensation strategies
BIO-APM-18	Avoid/minimize impacts to environmentally sensitive areas, including but not limited to high-value wildlife habitats, sensitive vegetation communities, and high-value plant habitats
C-1b	Avoid and protect potentially significant cultural and paleontological resources
C-6f	Reduce adverse visual intrusions to the Desert View Tower viewshed
CR-APM-2	Avoid/minimize impacts to archeological sites
F-2b	Install existing conductors on steel poles
GEO-APM-4	Place structures on geologically stable areas
GEO-APM-5	Design and implement project construction to avoid or minimize ground disturbing activities
L-2b	Revise project elements to minimize land use conflicts
S-2b	Protect underground utilities
V-1a	Reduce visibility of construction activities and equipment
V-2a	Reduce in line view of land scars
V-2d	Consider construction by helicopter to avoid land scarring in sensitive viewsheds or where construction would occur on slopes over 15 percent
V-68a	Eliminate skylining of ridgeline towers and conductors
WQ-APM-1	Conduct construction and maintenance activities to minimize impacts to riparian/wetland vegetation, drainage channels, and intermittent and perennial banks
WQ-APM-2	Design right of way (ROW) features to avoid impacts to sensitive features, such as watercourses
WQ-APM-4	Design construction elements to minimize impacts to sensitive waters, including surface waters, riparian areas, and floodplains
WR-1a	Coordinate schedules and activities with recreation areas (including open space preserves) and locate construction equipment to avoid temporary preclusion of recreation areas
WR-2a	Develop a reroute for the BCD Alternative Revision along the southern boundary of the JAM properties to shorten the route and minimize effects on BLM lands, USFS land, and private property
WR-2b	Evaluate and implement Pacific Crest Trail Route Revision

TABLE 1-2. SURVEYS AND STUDIES PRODUCING DATA USED IN THE PMR

Type	Date Submitted/Status	Conducted By
Biological		
2009 Arroyo toad habitat assessment and surveys	Oct 2009 1 st submittal; Jan 2010 2 nd submittal	RECON Environmental, Inc.
2009 Barefoot banded gecko habitat assessment and surveys	Habitat surveyed Oct 2009; Mar 2010	Eric Dugan
2009 Bat surveys	Feb 2010	San Diego Natural History Museum
2009 Coastal California gnatcatcher habitat assessment and surveys	Sept 2009 1 st submittal; Jan 2010 2 nd submittal	Chambers Group, Inc.
2009 Golden eagle nest area survey and analysis	Mar 2010 1 st phase	Wildlife Research Institute
2009 Peninsular bighorn sheep monitoring	Jan-Dec 2009 results	Art Davenport
2009 Quino checkerspot butterfly habitat assessment and surveys	Oct 2009 1 st submittal; Jan 2010 2 nd submittal	Chambers Group, Inc.
2009 Stephens' Kangaroo Rat survey	Feb 2010	Steve Montgomery
2009 Rare plant surveys	Nov 2009	RECON Environmental, Inc.
2009 Riparian bird habitat assessment and surveys	Oct 2009 1 st submittal; Jan 2010 2 nd submittal	RECON Environmental, Inc.
2009 Weed (exotic invasive plant) inventory	Apr 2009 to Sept 2009 results included in Weed Control Plan	RECON Environmental, Inc.
Cultural		
Class III surveys	Feb 2010 Under Agency Team Review	ASM Affiliates
Geological		
Geotechnical and Geological Hazards Investigation and Geotechnical Design Information for the Overhead Transmission Line	Mar 2010	URS
Geotechnical Evaluation Access Roads and Structure Pads		URS
Geotechnical Investigation for 230 kV Underground, Alpine, CA	Mar 2010	Geosyntec
Scour Analysis for the Underground Transmission Line	Feb 2010	Black & Veatch
Suncrest Substation Geotechnical Evaluation	Dec 2009	URS
Noise		
Powered Haulage Estimated Acoustical Impact Potential	Apr 2010 (See Attachment B)	Investigative Science and Engineering, Inc.
Sensitive Receptors Inventory	Analysis and Report being Finalized	Investigative Science and Engineering, Inc.
Traffic		

Type	Date Submitted/Status	Conducted By
Construction Transportation Management Plan		KOA Corporation
Traffic Impact Study	Apr 2010	KOA Corporation
Water Use		
Water Resource Availability Study – Non-Groundwater Sources		GeoSyntec
Wetlands and Streams		
Preliminary Jurisdictional Delineation	Apr 2010	WRA
Riparian Conservation Area Analysis	Apr 2010	WRA
Streambed Alteration Agreement Application Update	Contained in this PMR--Chapter 3	ICF, WRA
Air		
Air Quality Impacts from the Final Water Use Plan	Mar 2010	Bluescape

ILLUSTRATION 1-1. PMR UNITS IN RELATION TO PROJECT LINKS AND MILEPOSTS

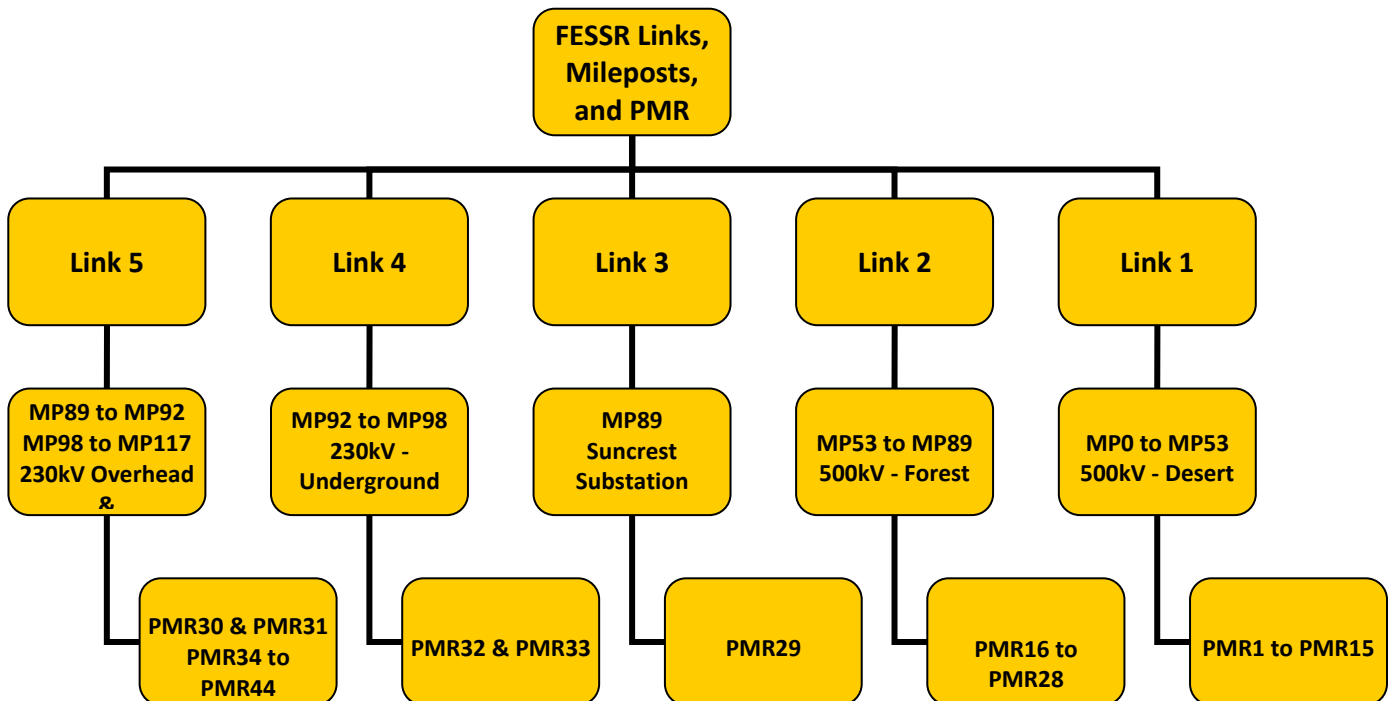


TABLE 1-3. PMR UNITS BY LOCATION ALONG THE FESSR

PMR Unit	Mileposts	Name	Structures and Yards included in the PMR Unit	
			Structures	Construction Yard(s)
PMR1	MP0	IV Substation	Imperial Valley Substation	
PMR2	MP0-MP9.7	Dunaway Road	EP363-1 to EP333	IV Sub, Dunaway Road
PMR3	MP9.7-MP12.7	Plaster City	EP333 to EP324	Plaster City
PMR4	MP12.7-MP19.1	Pyramid Mining	EP324 to EP301	
PMR5	MP19.1-MP24.2	Sugarloaf	EP301 to EP276-1	(BLM) S2
PMR6	MP24.2-MP30.3	Desert View Tower	EP276-1 to EP255-1	AER
PMR7	MP30.3-MP30.9	Jade Mountain	EP255-1 to EP252-1	
PMR8	MP30.9-MP34.2	Jacumba	EP252-1 to EP239-1	Jacumba Airport, Jacumba Valley Ranch
PMR9	MP34.2-MP36.6	Quino	EP239-1 to EP229-1	
PMR10	MP36.6-MP38.3	Bankhead Springs	EP229-1 to EP221A	
PMR11	MP38.3-MP39.2	Jackson-Gatlin	EP221A to EP219-1	
PMR12	MP39.2-MP41.6	State Corrections	EP219-1 to EP206-1	
PMR13	MP41.6-MP44.1	Rough Acres	EP206-1 to EP196-1	Rough Acres
PMR14	MP44.1-MP50.4	McCain Valley	EP196-1 to EP170	McCain Valley
PMR15	MP50.4-MP53.4	JAM	EP170 to EP141	
PMR16	MP53.4-MP57.9	Thing Valley	EP141 to EP122	Thing Valley
PMR17	MP57.9-MP61	La Posta	EP122 to EP108-2	
PMR18	MP61-MP63	Lenac	EP108-2 to EP99-2 [minus EP105-2]	
PMR19	MP61.2	Rees	EP105-2	
PMR20	MP63-MP67.4	Bartlett	EP99-2 to EP79	Bartlett/Hauser Creek
PMR21	MP67.4-MP70.6	Pacific Crest Trail	EP79 to EP67	
PMR22	MP70.6-MP72.2	Long Potrero	EP67 to EP62A-1	
PMR23	MP72.2-MP75.3	Roung Potrero	EP62A-1 to EP47-2	Kreutzkamp
PMR24	MP75.3-MP78.1	Barrett Lake	EP47-2 to EP39-1	Barrett Canyon
PMR25	MP78.1-MP82.7	Hermes	EP39-1 to EP22-1	SWAT Training Facility
PMR26	MP82.7-MP85.2	Gaskill Peak North	EP22-1 to EP12-3	
PMR27	MP85.2-MP86	Cedar Ranch	EP12-3 to P9-1	
PMR28	MP86-MP89	Just	EP9-1 to EP1-3	
PMR29	MP89	Suncrest Substation	Suncrest Substation	Wilson
PMR30	MP89-MP89.4	Bell Bluff	CP109-1 to CP106-1	
PMR31	MP89.4-MP91.5	Jerney/Loritz	CP106-1 to CP98-1	
PMR32	MP91.5-MP91.8	230kVUG	CP98-1 to CP95-1	
PMR33	MP91.8-MP98	230kVUG	CP95-1 to CP88-1/CP87-1	Alpine HQ, Alpine Yards
PMR34	MP98-MP103.1	Chocolate Canyon	CP88-1/CP87-1 to CP64-2	Hartung
PMR35	MP103.1-MP106	Morgan	CP64-2 to CP53-1	

PMR Unit	Mileposts	Name	Structures and Yards included in the PMR Unit	
			Structures	Construction Yard(s)
PMR36	MP106-MP108.3	High Meadow Ranch	CP53-1 to CP44-1	Helix
PMR37	MP108.3-MP110	County Aqueduct	CP44-1 to CP37-2	
PMR38	MP110-MP111.7	Schmidt	CP37-2 to CP31-2	
PMR39	MP111.7-MP115.3	Sycamore Preserve	CP31-2 to CP12-1	
PMR40	MP115.3-MP116.8	Stonebridge	CP12-1 to CP3	Stowe/Kirkham
PMR41	MP116.8-MP117	Sycamore Substation	CP3 to CP1A	
PMR42	NA	Pomerado	Sycamore – Pomerado	
PMR43	NA	Elliott	Sycamore – Elliott	
PMR44	NA	Scripps	Sycamore – Scripps	

1.2.3 IMPACT CALCULATIONS

Permanent and temporary ground disturbance for the modified Project as a whole and within each PMR unit were calculated based on the same assumptions in the Final EIR/EIS regarding the shape and size of components. Table 1-4 identifies the Project components included in the calculations, the assumptions applied regarding impact areas, and whether the impact is categorized as permanent (the impact area will not be restored to pre-construction conditions) or temporary (the impact area can and will be restored to pre-construction conditions).

As discussed in additional detail in Section 3 of this PMR, the analysis of impacts to sensitive resources (*e.g.*, biological, cultural, land use, etc.) in the Final EIR/EIS used information from a variety of sources available at that time, including habitat assessments, field surveys, and existing databases. This information is cited in the PMR as the “EIR/EIS database.” Since issuance of the Final EIR/EIS, additional field surveys and data collection have taken place, pursuant to agency requests and required mitigation measures. As a result, additional data are now available regarding sensitive resources along both the FESSR and the modified Project alignment. This additional information has been combined with the EIR/EIS database and is cited herein as the “PMR database.” In this PMR, FESSR impacts are presented as stated in the Final EIR/EIS (modeled after and using information from tables in the Final EIR/EIS). The PMR database is used for the impact estimates for the modified Project. Where appropriate, the PMR database also has been applied to the FESSR to provide an additional context for comparing impacts.

1.2.4 IMPACT EVALUATIONS AND COMPARISONS

The modified Project as a whole and the changes within each PMR unit are evaluated in terms of their potential for resulting in impacts that are less than, greater than, or substantially the same in type and scale as those identified for the FESSR in the Final EIR/EIS. The terminology and criteria used in the evaluations and comparisons are the same as in the Final EIR/EIS (see section 3.1 for details).

Attachment A provides a detailed description of the GIS methodology used in the impact analysis.

TABLE 1-4. PROJECT COMPONENT CATEGORIES IN THE GIS IMPACT CALCULATIONS

Project Component	Impact Type		Description
	Perm ¹	Temp ²	
Structure Footings	X		Concrete foundations (ground-anchors) for structures
Structure Pad Area	X		100 ft x 100 ft area at each structure
Work Area		X	200 ft x 200 ft or 200 ft x 400 ft areas encompassing a structure pad area
Maintenance Area	X		75 ft x 35 ft area established for maintenance after construction
Stringing Area		X	Work area for the equipment and activities required for stringing power lines; size varies by site.
Tower Staging Area Pad (TSAP)	X		100-ft diameter equipment loading/work staging area
Guard Structure		X	Structures to protect roads crossed by conductors during construction
New Access Road	X	X	Roads constructed as part of Project; site specific mapping.
Existing Road – Improvements	X		Existing roads improved as part of the Project; counted as ground disturbance.
Construction Yard		X	Areas for equipment storage, helicopter access and operations, field offices, and other facilities; site specific mapping.
Other Grading	X		Grading not encompassed by other components
Suncrest Substation Area	X		As mapped.

Notes

¹ An impact is categorized as “permanent” if the affected area will not be restored to pre-construction conditions.

² An impact is categorized “temporary” if the area can and will be restored to pre-construction conditions.

1.3 ORGANIZATION

The PMR is organized as follows:

- **Section 1** (this section) states the purpose of the PMR and summarizes the methodology used to determine and evaluate modifications to the FESSR.
- **Section 2** (Structure, Yard, and Telecom Update) provides updated information on:
 1. The number, type, and height of structures, as well as construction method and lighting;
 2. Spans of the line that require marker balls;
 3. The number, size, function, location, and duration of work at construction yards; and
 4. Telecommunication equipment at sites and on structures.

- **Section 3** (Project-level Impact Evaluation and Comparison) examines the potential environmental effects of the modified Project as a whole in relation to the analysis of the FESSR in the Final EIR/EIS.
- **Section 4** (Unit-level Impact Evaluation and Comparison) describes the modifications within each PMR unit and examines the resulting change in FESSR impacts at those locations.
- **Attachment A** describes the GIS methodology used in the impact analysis and presents the metadata for the GIS files on the disk included with this PMR.
- **Attachment B** is a summary table developed from data in the Cultural Resources Inventory. It indicates the results of the inventory in relation to the ROWs and impacts of the modified Project and FESSR. It also indicates cultural resources in PMR units that would not be affected.
- **Attachment C** contains the report “Powered Haulage Estimated Acoustical Impact Potential,” Investigative Science and Engineering, Inc., April 15, 2010.
- **Attachment D** contains the memo “Air Quality Impacts from the Final Water Use Plan,” Bluescape Environmental, March 17, 2010.
- **PMR Figures** consists of 44 maps that show the alignment and components of the modified Project and FESSR within each PMR unit.
- **PMR Map Book** (bound separately) consists of detailed maps that show the modified Project and FESSR at a scale of 1 inch = 400 feet, beginning at MPO.

2. STRUCTURE, YARD, AND TELECOM UPDATE

This section provides updated information regarding the structures, construction yards, and telecommunication sites and equipment for the modified Project.

2.1 STRUCTURES

The modified Project includes 443 structures (lattice towers, poles, substation deadends, and risers):

- 337 structures for the 500 kV line,
- 99 structures for the overhead 230kV line, and
- 7 structures within substations (1 at Imperial Valley, 3 at Suncrest, and 3 at Sycamore Canyon).

In addition to constructing the 443 structures, the modified Project entails replacing 17 existing poles as part of the reconductoring of 69kV lines from the Sycamore Canyon Substation (see PMR42, PMR43, and PMR44). Table 2-1 lists the structures and identifies the type, height, and construction methods for each; it also identifies structures where infrared lighting or telecom equipment will be installed. Table 2-2 indicates the transmission-line spans that require marker balls.

The use of lighting and marker balls is a standard part of transmission line design and operation and was anticipated as part of the FESSR in the Final EIR/EIS. SDG&E is currently working with several agencies (Federal Aviation Administration (FAA), Border Patrol (BP), Navy, Marine Corps Air Station (MCAS) Miramar, California Highway Patrol (CHP), and others) to determine aircraft safety lighting for the overhead structures.

Table 2-1 below shows the current lighting scheme for overhead towers which are subject to final evaluation by SDG&E and the appropriate agencies. Most of these towers evaluated will be equipped with infrared lights visible by night vision instruments/equipment. Under the current modified Project, infrared (IR) emitter lights will be installed on approximately 323 of the total 453 Project structures. The fixtures proposed for SRPL structures (Carmanah Model A702 IR) are approximately 13 inches tall and 6 inches wide, and contain 24 IR light emitting diodes (LEDs) that emit at a wavelength of 870 nanometers (nm), which is well outside the detectable visible light spectrum (approximately 400 to 700 nm) and within the near IR spectrum. SDG&E will install two IR units on each of the designated 500kV structures and one IR unit on each of the designated 230 kV structures (although it is currently being determined whether two may need to be installed for reliability). Where applicable and required by regulation, visible red lights approved by FAA will be utilized.

Structure color as it relates to reducing visual impacts is being addressed in the Scenery Conservation Plan that is currently being prepared in cooperation with USFS.

TABLE 2-1. LIST OF STRUCTURES IN THE MODIFIED PROJECT

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
SSDE5	SSDE	Substation 500kv Rack	130	Conventional		
EP363-1	EXLD	Lattice	151	Conventional	Infrared	
EP362-1	EXLA	Lattice	149	Conventional	Infrared	
EP361	EXLA	Lattice	152	Conventional		
EP360	EXMT	Lattice	155	Conventional		
EP359	EXMT	Lattice	161	Conventional		
EP358	EXMT	Lattice	158	Conventional		
EP357	EXMT	Lattice	164	Conventional		
EP356	EXMT	Lattice	164	Conventional		
EP355	EXMT	Lattice	140	Conventional		
EP354	EXMT	Lattice	164	Conventional		
EP353	EXMT	Lattice	167	Conventional		
EP352	EXMT	Lattice	167	Conventional		
EP351	EXMT	Lattice	167	Conventional		
EP350	EXMT	Lattice	143	Conventional		
EP349	EXMT	Lattice	158	Conventional		
EP348	EXMT	Lattice	152	Conventional		
EP347	EXMT	Lattice	152	Conventional		
EP346	EXMT	Lattice	164	Conventional		
EP345	EXMT	Lattice	158	Conventional		
EP344	EXMT	Lattice	164	Conventional		
EP343	EXMT	Lattice	161	Conventional		
EP342	EXLD	Lattice	154	Conventional	Infrared	
EP341	EXLD	Lattice	148	Conventional	Infrared	
EP340	EXMT	Lattice	134	Conventional		
EP339	EXMT	Lattice	155	Conventional		
EP338	EXMT	Lattice	164	Conventional		
EP337	EXMT	Lattice	155	Conventional		
EP336	EXMT	Lattice	161	Conventional		
EP335	EXMT	Lattice	164	Conventional		
EP334	EXMT	Lattice	158	Conventional		
EP333	EXLA	Lattice	146	Conventional		
EP332	EXMT	Lattice	143	Conventional		
EP331	EXMT	Lattice	155	Conventional	Infrared	
EP330-1	EXLD	Lattice	160	Conventional	Infrared	
EP329-1	EXMA	Lattice	161	Conventional		
EP328-1	EXLA	Lattice	155	Conventional		
EP327	EXMT	Lattice	164	Conventional		
EP326	EXMT	Lattice	164	Conventional		
EP325-2	EXMT	Lattice	164	Conventional		
EP324	EXMA	Lattice	135	Helicopter		
EP323-1	EXMT	Lattice	128	Helicopter		
EP322-1	EXMT	Lattice	155	Conventional		
EP321-1	EXMT	Lattice	155	Conventional		
EP320-1	EXMT	Lattice	164	Conventional		
EP319	EXMA	Lattice	143	Conventional		
EP318-1	EXMT	Lattice	143	Conventional		

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP317	EXMT	Lattice	143	Helicopter	Infrared	
EP316-2	EXMT	Lattice	164	Conventional	Infrared	
EP315-1	EXMT	Lattice	146	Helicopter		
EP314	EXMT	Lattice	158	Helicopter		
EP313	EXMT	Lattice	158	Conventional		
EP312	EXMT	Lattice	131	Helicopter		
EP311-1	EXMT	Lattice	143	Helicopter		
EP310	EXMT	Lattice	167	Helicopter		
EP309	EXMT	Lattice	167	Conventional		
EP308	EXMT	Lattice	161	Conventional		
EP307-1	EXTT	Lattice	170	Conventional		
EP306-1	EXTT	Lattice	170	Conventional		
EP305-3	EXMT	Lattice	179	Helicopter		
EP304-2	EXLD	Lattice	169	Conventional	Infrared	
EP303-2	EXLD	Lattice	169	Conventional	Infrared	
EP302-1	EXMT	Lattice	155	Conventional	Infrared	
EP301	EXMD	Lattice	160	Conventional	Infrared	
EP300-1	EXMT	Lattice	170	Conventional	Infrared	
EP299	EXMT	Lattice	140	Conventional	Infrared	
EP298	EXMT	Lattice	155	Conventional		
EP297	EXMT	Lattice	158	Conventional		
EP296	EXMT	Lattice	134	Conventional	Infrared	
EP295	EXMT	Lattice	158	Conventional	Infrared	
EP294	EXMT	Lattice	155	Conventional		
EP293	EXMT	Lattice	131	Conventional		
EP292-1	EXMT	Lattice	140	Conventional		
EP291-1	EXMT	Lattice	167	Conventional	Infrared	
EP290	EXHD	Lattice	136	Conventional	Infrared	
EP281	EXLD	Lattice	157	Helicopter		
EP280-1	EXMT	Lattice	170	Helicopter		
EP279-1	EXMT	Lattice	176	Helicopter		
EP278-1	EXMT	Lattice	143	Helicopter		
EP277-1	EXLA	Lattice	158	Helicopter		
EP276-1	EXLA	Lattice	116	Helicopter		
EP275-1	EXLA	Lattice	110	Helicopter		
EP274-1	EXMT	Lattice	146	Helicopter		
EP273-1	EXMT	Lattice	149	Helicopter		
EP272-3	EXMT	Lattice	179	Helicopter		
EP271-2	EXHD	Lattice	145	Helicopter		
EP270-2	EXHD	Lattice	157	Helicopter		
EP269-1	EXHD	Lattice	142	Helicopter	Infrared	
EP267-2	EXLD	Lattice	130	Helicopter	Infrared	
EP266-2	EXMA	Lattice	170	Helicopter		
EP265-2	EXLD	Lattice	163	Helicopter		
EP264-4	EXHD	Lattice	148	Helicopter		
EP263B-2	EXHD	Lattice	157	Helicopter	Infrared	
EP263A-2	EXMD	Lattice	169	Helicopter	Infrared	
EP262-4	EXLD	Lattice	172	Helicopter	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP261A	EXMT	Lattice	149	Helicopter	Infrared	
EP261-2	EXLD	Lattice	163	Helicopter	Infrared	
EP259B	EXMT	Lattice	122	Helicopter		
EP259-3	EXMT	Lattice	170	Helicopter	Infrared	
EP258-3	EXMT	Lattice	164	Conventional	Infrared	
EP257	EXMA	Lattice	164	Conventional		
EP256	EXMT	Lattice	149	Conventional	Infrared	
EP255-2	EXHD	Lattice	163	Conventional	Infrared	
EP254-3	EXHD	Lattice	136	Helicopter	Infrared	
EP253-2	EXMT	Lattice	122	Helicopter		
EP252A-1	EXMA	Lattice	137	Helicopter	Infrared	
EP252-1	EXMA	Lattice	170	Conventional	Infrared	
EP251	EXMT	Lattice	167	Conventional	Infrared	
EP250	EXMT	Lattice	167	Conventional	Infrared	
EP249	EXMT	Lattice	170	Conventional	Infrared	
EP248	EXMT	Lattice	167	Conventional	Infrared	
EP247	EXMT	Lattice	170	Conventional	Infrared	
EP246	EXMT	Lattice	152	Conventional	Infrared	
EP245-1	EXMT	Lattice	170	Conventional	Infrared	
EP244	EXMT	Lattice	170	Conventional	Infrared	
EP243	EXMT	Lattice	170	Conventional	Infrared	
EP242	EXLA	Lattice	170	Conventional		
EP240	EXMT	Lattice	170	Conventional	Infrared	
EP239-1	EXHA	Lattice	170	Conventional	Infrared	
EP238-1	EXMT	Lattice	146	Helicopter	Infrared	
EP237-1	EXMT	Lattice	152	Helicopter	Infrared	
EP236-1	EXLA	Lattice	155	Helicopter	Infrared	
EP235-1	EXMT	Lattice	155	Helicopter		
EP234-1	EXMT	Lattice	146	Helicopter	Infrared	
EP233-1	EXMT	Lattice	152	Helicopter	Infrared	
EP232-1	EXMT	Lattice	110	Helicopter	Infrared	
EP231A	EXMT	Lattice	107	Helicopter		
EP231-1	EXMT	Lattice	101	Helicopter		
EP230-1	EXMT	Lattice	155	Helicopter	Infrared	
EP229-1	EXLD	Lattice	139	Helicopter	Infrared	
EP228	EXMT	Lattice	155	Helicopter	Infrared	
EP227	EXMT	Lattice	140	Helicopter		
EP226-1	EXMT	Lattice	143	Helicopter	Infrared	
EP225-1	EXLA	Lattice	176	Helicopter	Infrared	
EP224-1	EXHD	Lattice	163	Helicopter	Infrared	
EP223-1	EXHD	Lattice	166	Helicopter	Infrared	
EP221A	EXLD	Lattice	163	Helicopter	Infrared	
EP221-2	EXMT	Lattice	164	Helicopter	Infrared	
EP220-1	EXMD	Lattice	160	Conventional	Infrared	
EP219-1	EXMD	Lattice	142	Conventional	Infrared	
EP218-1	EXMT	Lattice	146	Conventional		
EP217-1	EXMT	Lattice	143	Conventional	Infrared	
EP215	EXHD	Lattice	142	Conventional	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP214	EXMT	Lattice	152	Conventional	Infrared	
EP213	EXMA	Lattice	155	Conventional		
EP211	EXMD	Lattice	133	Conventional	Infrared	
EP210	EXMD	Lattice	118	Conventional	Infrared	
EP209-1	EXMT	Lattice	155	Conventional	Infrared	
EP208	EXMT	Lattice	152	Conventional		
EP207	EXMT	Lattice	158	Conventional		
EP206-1	EXLA	Lattice	149	Conventional	Infrared	
EP205-2	EXLA	Lattice	158	Conventional	Infrared	
EP204-3	EXMT	Lattice	167	Conventional		
EP203-3	EXMT	Lattice	167	Conventional	Infrared	
EP202-3	EXMT	Lattice	167	Conventional		
EP201-3	EXMT	Lattice	152	Conventional		
EP200A-1	EXMT	Lattice	122	Conventional		
EP200-3	EXMD	Lattice	124	Conventional	Infrared	
EP199-3	EXMT	Lattice	122	Conventional		
EP198-3	EXMD	Lattice	112	Conventional	Infrared	
EP197-2	EXMT	Lattice	146	Conventional		
EP196-1	EXMD	Lattice	136	Conventional	Infrared	
EP195-1	EXMT	Lattice	137	Helicopter		
EP194-2	EXMT	Lattice	170	Helicopter	Infrared	
EP193-1	EXTT	Lattice	170	Conventional		
EP192-1	EXTT	Lattice	167	Conventional		
EP191-1	EXMT	Lattice	161	Conventional		
EP190-2	EXLA	Lattice	152	Conventional	Infrared	
EP189-3	EXMA	Lattice	158	Helicopter		
EP188-1	EXLA	Lattice	164	Helicopter		
EP187-2	EXMD	Lattice	157	Conventional	Infrared	
EP186-1	EXMT	Lattice	170	Conventional	Infrared	
EP185-1	EXMT	Lattice	170	Conventional		
EP184-1	EXMT	Lattice	146	Conventional		
EP183	EXMT	Lattice	146	Helicopter	Infrared	
EP182	EXMT	Lattice	146	Conventional		
EP181	EXMT	Lattice	152	Conventional	Infrared	
EP180	EXMT	Lattice	152	Conventional		
EP179	EXMT	Lattice	137	Conventional		
EP178	EXMT	Lattice	149	Conventional		
EP177	EXMT	Lattice	152	Conventional	Infrared	
EP176	EXMT	Lattice	152	Conventional		
EP175	EXMT	Lattice	152	Conventional	Infrared	
EP174	EXMT	Lattice	152	Conventional	Infrared	
EP173-1	EXMT	Lattice	152	Conventional		
EP172	EXMT	Lattice	158	Conventional	Infrared	
EP171	EXMT	Lattice	155	Conventional		
EP170	EXLD	Lattice	136	Conventional	Infrared	
EP152-2	EXMT	Lattice	152	Helicopter	Infrared	
EP151	EXMT	Lattice	170	Helicopter		
EP150	EXMT	Lattice	170	Helicopter	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP149-1	EXLD	Lattice	172	Helicopter	Infrared	
EP148-1	EXMT	Lattice	164	Helicopter	Infrared	
EP147	EXMT	Lattice	137	Helicopter	Infrared	
EP146	EXHD	Lattice	112	Helicopter	Infrared	Telecom
EP145	EXMT	Lattice	122	Helicopter	Infrared	
EP144	EXHD	Lattice	157	Helicopter	Infrared	
EP143-1	EXLD	Lattice	166	Helicopter	Infrared	
EP142-1	EXMT	Lattice	164	Helicopter	Infrared	
EP141	EXHD	Lattice	163	Conventional	Infrared	
EP140	EXMA	Lattice	155	Helicopter	Infrared	
EP139-1	EXHA	Lattice	167	Helicopter	Infrared	
EP138-2	EXMA	Lattice	176	Helicopter	Infrared	
EP137	EXMT	Lattice	143	Helicopter	Infrared	
EP136	EXMT	Lattice	179	Helicopter	Infrared	
EP135	EXHA	Lattice	161	Helicopter	Infrared	
EP134-1	EXMT	Lattice	161	Helicopter	Infrared	
EP132-2	EXLD	Lattice	169	Helicopter	Infrared	
EP131	EXLA	Lattice	170	Conventional	Infrared	
EP130-1	EXLD	Lattice	166	Conventional	Infrared	
EP129	EXLD	Lattice	160	Helicopter	Infrared	
EP128	EXMT	Lattice	164	Helicopter		
EP127	EXHA	Lattice	164	Conventional	Infrared	
EP126-1	EXMT	Lattice	116	Conventional		
EP125	EXMT	Lattice	131	Conventional		
EP124	EXMT	Lattice	122	Helicopter		
EP123-1	EXMT	Lattice	122	Helicopter	Infrared	
EP122-1	EXMD	Lattice	109	Helicopter	Infrared	
EP121A-1	EXMT	Lattice	101	Helicopter	Infrared	
EP121-3	EXLD	Lattice	121	Helicopter	Infrared	
EP120A	EXMT	Lattice	131	Helicopter	Infrared	
EP120-4	EXLD	Lattice	157	Helicopter	Infrared	
EP119-2	EXLD	Lattice	148	Helicopter	Infrared	
EP118-2	EXLD	Lattice	157	Helicopter	Infrared	
EP117-2	EXMT	Lattice	155	Helicopter	Infrared	
EP116-1	EXMA	Lattice	158	Helicopter	Infrared	
EP115-1	EXHA	Lattice	179	Helicopter	Infrared	
EP114-2	EXHA	Lattice	179	Helicopter	Infrared	
EP113-4	EXHD	Lattice	124	Conventional	Infrared	
EP112A	EXMT	Lattice	113	Conventional	Infrared	
EP112-3	EXMD	Lattice	163	Conventional	Infrared	
EP111-4	EXMT	Lattice	158	Helicopter	Infrared	
EP110-2	EXMT	Lattice	137	Helicopter	Infrared	
EP109-1	EXLA	Lattice	149	Helicopter	Infrared	
EP108-2	EXMD	Lattice	139	Helicopter	Infrared	
EP107-3	EXMT	Lattice	128	Helicopter	Infrared	
EP106-3	EXMD	Lattice	169	Helicopter	Infrared	
EP105-2	EXMT	Lattice	170	Conventional	Infrared	
EP104-2	EXMA	Lattice	128	Conventional	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP103A	EXLD	Lattice	109	Conventional	Infrared	
EP103-2	EXMD	Lattice	91	Helicopter	Infrared	
EP102A-1	EXMA	Lattice	110	Helicopter	Infrared	
EP102-3	EXLA	Lattice	113	Helicopter	Infrared	
EP101-2	EXMT	Lattice	134	Helicopter	Infrared	
EP99-2	EXHD	Lattice	160	Conventional	Infrared	
EP98-1	EXMT	Lattice	167	Conventional		
EP97	EXMT	Lattice	167	Conventional	Infrared	
EP96	EXMT	Lattice	167	Conventional		
EP95	EXLA	Lattice	101	Conventional	Infrared	
EP94	EXMT	Lattice	161	Conventional		
EP93	EXMA	Lattice	143	Conventional	Infrared	
EP92	EXMT	Lattice	125	Conventional		
EP91	EXMD	Lattice	157	Conventional	Infrared	
EP90-1	EXMT	Lattice	164	Conventional	Infrared	
EP89-1	EXMD	Lattice	154	Conventional	Infrared	
EP88-2	EXLD	Lattice	157	Helicopter	Infrared	
EP87-1	EXHT	Lattice	158	Helicopter	Infrared	Telecom
EP86-1	EXMD	Lattice	166	Helicopter	Infrared	
EP85-2	EXLD	Lattice	166	Conventional	Infrared	
EP84	EXMD	Lattice	157	Conventional	Infrared	
EP83	EXMD	Lattice	145	Helicopter	Infrared	
EP82	EXMT	Lattice	161	Helicopter	Infrared	
EP81	EXMT	Lattice	164	Helicopter	Infrared	
EP80	EXMD	Lattice	133	Helicopter	Infrared	
EP79	EXMD	Lattice	163	Helicopter	Infrared	
EP78A	EXMT	Lattice	170	Helicopter	Infrared	
EP78	EXMT	Lattice	170	Helicopter	Infrared	
EP77	EXMT	Lattice	170	Helicopter	Infrared	
EP76-2	EXHD	Lattice	151	Helicopter	Infrared	
EP75-2	EXLD	Lattice	178	Helicopter	Infrared	
EP74-1	EXHT	Lattice	173	Helicopter	Infrared	
EP73	EXMT	Lattice	143	Helicopter	Infrared	
EP72	EXMT	Lattice	134	Helicopter		
EP71	EXMT	Lattice	152	Helicopter	Infrared	
EP70	EXMT	Lattice	140	Helicopter	Infrared	
EP69	EXMD	Lattice	136	Helicopter	Infrared	
EP68	EXMT	Lattice	131	Conventional	Infrared	
EP67	EXMD	Lattice	133	Conventional	Infrared	
EP66	EXMT	Lattice	170	Conventional	Infrared	
EP65-1	EXMT	Lattice	158	Conventional	Infrared	
EP64	EXHT	Lattice	155	Helicopter	Infrared	
EP63	EXHT	Lattice	149	Helicopter	Infrared	
EP62A-1	EXMD	Lattice	160	Helicopter	Infrared	
EP58-2	EXMD	Lattice	163	Helicopter	Infrared	
EP57-1	EXMT	Lattice	128	Helicopter	Infrared	
EP56-3	EXMT	Lattice	170	Helicopter	Infrared	
EP54	EXMA	Lattice	137	Conventional	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP53-2	EXHT	Lattice	167	Helicopter	Infrared	
EP52-1	EXLD	Lattice	130	Conventional		
EP51-1	EXTT	Lattice	179	Conventional	Infrared	
EP50	EXTT	Lattice	161	Helicopter	Infrared	
EP49	EXMT	Lattice	167	Conventional	Infrared	
EP48	EXHT	Lattice	161	Helicopter	Infrared	
EP47-2	EXLD	Lattice	160	Helicopter	Infrared	
EP45-1	EXLD	Lattice	157	Helicopter	Infrared	
EP44	EXHD	Lattice	130	Helicopter	Infrared	
EP43-1	EXHD	Lattice	160	Helicopter	Infrared	
EP42	EXHD	Lattice	127	Conventional	Infrared	
EP41	EXMT	Lattice	161	Helicopter	Infrared	
EP40-1	EXMT	Lattice	92	Helicopter	Infrared	
EP39-1	EXHD	Lattice	154	Conventional	Infrared	
EP37-2	EXHT	Lattice	167	Helicopter	Infrared	
EP36-1	EXHD	Lattice	166	Conventional	Infrared	
EP35-1	EXLD	Lattice	121	Helicopter	Infrared	
EP34-1	EXHT	Lattice	116	Helicopter	Infrared	Telecom
EP33-1	EXHD	Lattice	130	Helicopter	Infrared	
EP32-1	EXHD	Lattice	166	Conventional	Infrared	
EP31-1	EXHT	Lattice	167	Helicopter	Infrared	
EP30-2	EXMT	Lattice	158	Conventional		
EP29-2	EXMT	Lattice	164	Helicopter	Infrared	
EP28-3	EXHT	Lattice	122	Helicopter	Infrared	
EP27-1	EXMT	Lattice	170	Conventional		
EP26-1	EXMT	Lattice	158	Conventional		
EP25-2	EXMT	Lattice	146	Helicopter	Infrared	
EP24-1	EXLD	Lattice	166	Conventional	Infrared	
EP23-2	EXLD	Lattice	166	Helicopter	Infrared	
EP22-1	EXLD	Lattice	115	Helicopter	Infrared	
EP21-1	EXLD	Lattice	178	Helicopter	Infrared	
EP20-2	EXHD	Lattice	175	Helicopter	Infrared	
EP19-1	EXHD	Lattice	160	Helicopter	Infrared	
EP18	EXLD	Lattice	91	Helicopter	Infrared	
EP17	EXMD	Lattice	151	Helicopter	Infrared	
EP16-1	EXMT	Lattice	170	Helicopter	Infrared	
EP15	EXMT	Lattice	167	Helicopter	Infrared	
EP14-1	EXHD	Lattice	151	Helicopter	Infrared	
EP13-3	EXHT	Lattice	143	Helicopter	Infrared	
EP12-3	EXMD	Lattice	118	Conventional	Infrared	
EP11-3	EXHT	Lattice	137	Conventional		
EP10-2	EXMD	Lattice	157	Helicopter	Infrared	
EP9-1	EXHD	Lattice	121	Conventional	Infrared	
EP8-2	EXHD	Lattice	157	Helicopter	Infrared	
EP7-1	EXHD	Lattice	109	Helicopter	Infrared	
EP6-1	EXHT	Lattice	158	Helicopter	Infrared	
EP5-2	EXHD	Lattice	109	Helicopter	Infrared	
EP4-3	EXMT	Lattice	113	Helicopter	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
EP3-3	EXLD	Lattice	163	Helicopter	Infrared	
EP2-3	EXHD	Lattice	169	Helicopter	Infrared	
EP1-3	EXHD	Lattice	169	Conventional		
SSDE4	SSDE	Substation 500kv Rack	130	Conventional		
SSDE3	SSDE	Substation 230kv Rack	80	Conventional		
SSDE2	SSDE	Substation 230kv Rack	80	Conventional		
CP109-1	CXSD	Lattice	143	Helicopter	Infrared	
CP108	CXTA	Lattice	124	Helicopter	Infrared	Telecom
CP107	CXPT	Lattice	166	Helicopter	Infrared	
CP106-1	CXSD	Lattice	173	Helicopter	Infrared	
CP105-1	CXPT	Lattice	166	Helicopter	Infrared	
CP104-1	CXPT	Lattice	163	Helicopter		
CP103-2	CXTL	Lattice	166	Helicopter	Infrared	
CP101-1	CXSD	Lattice	164	Helicopter	Infrared	
CP100-1	CXSD	Lattice	137	Conventional	Infrared	
CP99-2	Steel Pole Strain	Tubular Pole	142	Conventional	Infrared	
CP98-1	Steel Pole Deadend	Tubular Pole	126	Conventional		
CP96-1	Riser Pole	Tubular Pole	159	Conventional	Infrared	
CP95-1	Riser Pole	Tubular Pole	159	Conventional	Infrared	
CP88-1	Riser Pole	Tubular Pole	159	Conventional	Infrared	
CP87-1	Riser Pole	Tubular Pole	159	Conventional	Infrared	
CP86	CXSD	Lattice	116	Helicopter	Infrared	
CP85-1	CXTA	Lattice	127	Helicopter	Infrared	
CP84	CXPT	Lattice	151	Helicopter	Infrared	
CP83	CXRS	Lattice	173	Helicopter	Infrared	
CP82-1	CXPT	Lattice	148	Helicopter	Infrared	Telecom
CP81-1	CXRS	Lattice	173	Helicopter	Infrared	
CP80-1	CXTA	Lattice	151	Helicopter	Infrared	
CP79-1	CXPT	Lattice	115	Helicopter	Infrared	
CP78-2	CXPT	Lattice	130	Helicopter		
CP77	CXTA	Lattice	166	Helicopter	Infrared	
CP76-1	CXPT	Lattice	136	Helicopter	Infrared	
CP75-1	CXSD	Lattice	119	Helicopter	Infrared	
CP74-2	CXRS	Lattice	173	Helicopter	Infrared	
CP73-2	CXTA	Lattice	124	Helicopter	Infrared	
CP72-2	CXPT	Lattice	139	Helicopter	Infrared	
CP71	CXRS	Lattice	131	Helicopter	Infrared	
CP70-3	CXSD	Lattice	173	Conventional	Infrared	
CP69-2	CXSD	Lattice	185	Conventional	Infrared	
CP68-1	CXSD	Lattice	131	Helicopter	Infrared	
CP67-3	CXSD	Lattice	119	Helicopter	Infrared	
CP66-2	CXSD	Lattice	149	Helicopter	Infrared	
CP65-1	CXTL	Lattice	160	Helicopter		
CP64-2	CXRS	Lattice	146	Helicopter	Infrared	
CP63-3	CXTL	Lattice	134	Helicopter	Infrared	
CP62-2	CXPT	Lattice	121	Helicopter	Infrared	
CP62A	CXRS	Lattice	167	Helicopter	Infrared	
CP61-1	CXPT	Lattice	166	Helicopter	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
CP60	CXSD	Lattice	146	Helicopter	Infrared	Telecom
CP59	CXSD	Lattice	173	Helicopter	Infrared	
CP58-1	CXPT	Lattice	124	Helicopter	Infrared	
CP57	CXPT	Lattice	130	Helicopter	Infrared	
CP56-1	CXTL	Lattice	163	Helicopter	Infrared	
CP55	CXPT	Lattice	130	Helicopter	Infrared	
CP54-1	CXTA	Lattice	154	Helicopter	Infrared	
CP53-1	CXPT	Lattice	139	Helicopter	Infrared	
CP52	CXTA	Lattice	130	Helicopter	Infrared	
CP51-2	CXTA	Lattice	136	Helicopter	Infrared	
CP50-1	CXRS	Lattice	167	Helicopter	Infrared	
CP49-1	CXSD	Lattice	149	Helicopter	Infrared	
CP48-2	CXRS	Lattice	146	Helicopter	Infrared	
CP47A-1	CXRS	Lattice	182	Helicopter	Infrared	
CP47-2	CXSD	Lattice	173	Helicopter	Infrared	
CP46-2	CXSD	Lattice	128	Helicopter	Infrared	
CP45-1	CXSD	Lattice	152	Helicopter	Infrared	
CP44-1	CXSD	Lattice	143	Helicopter	Infrared	
CP43-1	CXSD	Lattice	164	Helicopter	Infrared	
CP42-1	CXSD	Lattice	164	Helicopter	Infrared	
CP41-2	CXSD	Lattice	134	Conventional		
CP40-2	CXPT	Lattice	154	Conventional	Infrared	
CP39	CXTA	Lattice	121	Helicopter	Infrared	
CP37-2	CXTL	Lattice	136	Helicopter	Infrared	
CP36-1	CXTL	Lattice	166	Helicopter	Infrared	
CP35-2	CXTA	Lattice	136	Helicopter	Infrared	
CP34-2	CXPT	Lattice	148	Helicopter	Infrared	
CP33A	CXPT	Lattice	145	Helicopter	Infrared	
CP33-2	CXPT	Lattice	145	Helicopter	Infrared	
CP32-2	CXPT	Lattice	163	Helicopter		
CP31-2	CXSD	Lattice	164	Conventional	Infrared	
CP29-1	CXTL	Lattice	145	Conventional	Infrared	
CP28-1	CXPT	Lattice	118	Helicopter	Infrared	
CP27	CXRS	Lattice	122	Helicopter	Infrared	
CP26	CXPT	Lattice	121	Conventional	Infrared	
CP25-2	CXPT	Lattice	130	Conventional	Infrared	
CP24-1	CXPT	Lattice	124	Conventional	Infrared	
CP23	CXSD	Lattice	155	Helicopter	Infrared	
CP22-1	CXPT	Lattice	124	Conventional	Infrared	
CP21	CXPT	Lattice	139	Conventional		
CP20	CXRS	Lattice	113	Helicopter	Infrared	
CP19-1	CXPT	Lattice	124	Conventional	Infrared	
CP18-1	CXTL	Lattice	118	Conventional	Infrared	
CP17-1	CXPT	Lattice	109	Conventional	Infrared	
CP16-1	CXPT	Lattice	109	Conventional	Infrared	
CP15-1	CXSD	Lattice	140	Conventional	Infrared	
CP14	CXRS	Lattice	146	Helicopter	Infrared	
CP13-2	CXRS	Lattice	125	Helicopter	Infrared	

Structure Number ¹	Structure Type ²		Height (ft)	Construction Method	Lighting	Telecom ³
CP12-1	Tan DC Pole	Tubular Pole	170	Conventional	Infrared	
CP11-1	Strain DC Pole	Tubular Pole	125	Conventional	Infrared	
CP10	Strain DC Pole	Tubular Pole	120	Conventional	Infrared	
CP9-1	Tan DC Pole	Tubular Pole	115	Conventional	Infrared	
CP8-2	Tan DC Pole	Tubular Pole	115	Conventional	Infrared	
CP7	Tan DC Pole	Tubular Pole	135	Conventional	Infrared	
CP6-1	Strain DC Pole	Tubular Pole	125	Conventional	Infrared	
CP3	DE DC Pole	Tubular Pole	105	Conventional	Infrared	
CP2	DE DC Pole	Tubular Pole	150	Conventional		
CP1B	DE DC Pole	Tubular Pole	150	Conventional		
CP1A	Tan DC Pole	Tubular	135	Conventional		
SSDE1	SSDE	Substation 230kv Rack	65			

Notes

1 Structure Number Codes

SSDE = Substation Structure

EP = 500kV

CP = 230kV

2 Structure Type Codes

Tower

Type	Nomenclature
CXPT	Tangent (0-3 degree line angle)
CXRS	Strain (0-45 degree line angle)
CXSD	Deadend (0-90 line angle)
CXTA	Angle (3-20 line angle)
CXTL	Long Span Tangent (0-3 angle)
EXHA	Heavy Angle (15-20 line angle)
EXHD	Heavy Deadend (60-90 line angle)
EXHT	Heavy Tangent (0-2 line angle)
EXLA	Light Angle (2-6 line angle)
EXLD	Light Deadend (0-30 line angle)
EXMA	Medium Angle (6-15 line angle)
EXMD	Medium Deadend (30-60 line angle)
EXMT	Medium Tangent (0-2 line angle)
EXTT	Transposition (0-2 line angle)

3 Telecommunication equipment will be permanently installed on the designated structures (see section 2.3 for details).

TABLE 2-2. SPANS IDENTIFIED FOR MARKER BALLS

Link	Span ID	From Structure	To Structure	# of Marker Balls
1	24	EP342	EP341	11
1	34	EP331	EP330-1	11
1	48	EP317	EP316-2	11
1	61	EP304-2	EP303-2	11
1	65	EP300-1	EP299	11
1	69	EP296	EP295	11
1	74	EP291-1	EP290	13
1	75	EP290	EP281	13
1	77	EP280-1	EP279-1	13
1	78	EP279-1	EP278-1	11
1	79	EP278-1	EP277-1	9
1	80	EP277-1	EP276-1	13
1	81	EP276-1	EP275-1	11
1	82	EP275-1	EP274-1	9
1	85	EP272-3	EP271-2	13
1	86	EP271-2	EP270-2	15
1	87	EP270-2	EP269-1	11
1	88	EP269-1	EP267-2	15
1	90	EP266-2	EP265-2	11
1	91	EP265-2	EP264-4	9
1	93	EP263B-2	EP263A-2	13
1	94	EP263A-2	EP262-4	13
1	99	EP259-3	EP258-3	11
1	107	EP252-1	EP251	9
1	115	EP244	EP243	9
1	119	EP239-1	EP238-1	10
1	133	EP226-1	EP225-1	11
1	135	EP224-1	EP223-1	13
1	139	EP220-1	EP219-1	11
1	151	EP206-1	EP205-2	9
1	192	EP149-1	EP148-1	9
1	193	EP148-1	EP147	7
1	194	EP147	EP146	11
1	195	EP146	EP145	11
1	197	EP144	EP143-1	11
1	198	EP143-1	EP142-1	13
2	202	EP139-1	EP138-2	9
2	204	EP137	EP136	9
2	205	EP136	EP135	7
2	206	EP135	EP134-1	11
2	222	EP120-4	EP119-2	11
2	225	EP117-2	EP116-1	9
2	233	EP110-2	EP109-1	9
2	254	EP90-1	EP89-1	7
2	259	EP85-2	EP84	9

Link	Span ID	From Structure	To Structure	# of Marker Balls
2	264	EP80	EP79	9
2	268	EP77	EP76-2	13
2	269	EP76-2	EP75-2	13
2	271	EP74-1	EP73	13
2	279	EP66	EP65-1	9
2	281	EP64	EP63	15
2	285	EP57-1	EP56-3	11
2	286	EP56-3	EP54	13
2	287	EP54	EP53-2	11
2	290	EP51-1	EP50	11
2	291	EP50	EP49	11
2	294	EP47-2	EP45-1	13
2	295	EP45-1	EP44	9
2	296	EP44	EP43-1	17
2	297	EP43-1	EP42	31
2	299	EP41	EP40-1	11
2	301	EP39-1	EP37-2	17
2	304	EP35-1	EP34-1	9
2	306	EP33-1	EP32-1	15
2	310	EP29-2	EP28-3	9
2	314	EP25-2	EP24-1	11
2	316	EP23-2	EP22-1	7
2	317	EP22-1	EP21-1	11
2	318	EP21-1	EP20-2	5
2	319	EP20-2	EP19-1	5
2	320	EP19-1	EP18	11
2	322	EP17	EP16-1	11
2	326	EP13-3	EP12-3	17
2	329	EP10-2	EP9-1	9
2	331	EP8-2	EP7-1	21
2	332	EP7-1	EP6-1	9
2	333	EP6-1	EP5-2	13
2	334	EP5-2	EP4-3	13
2	336	EP3-3	EP2-3	17
2	337	EP2-3	EP1-3	9
5	343	CP107	CP106-1	10
5	347	CP103-2	CP101-1	17
5	353	CP88-1	CP86	3
5	354	CP87-1	CP86	3
5	355	CP86	CP85-1	5
5	357	CP84	CP83	5
5	358	CP83	CP82-1	7
5	359	CP82-1	CP81-1	5
5	360	CP81-1	CP80-1	5
5	366	CP75-1	CP74-2	9
5	367	CP74-2	CP73-2	7

Link	Span ID	From Structure	To Structure	# of Marker Balls
5	368	CP73-2	CP72-2	5
5	370	CP71	CP70-3	13
5	372	CP69-2	CP68-1	13
5	373	CP68-1	CP67-3	11
5	374	CP67-3	CP66-2	7
5	377	CP64-2	CP63-3	7
5	378	CP63-3	CP62-2	9
5	379	CP62-2	CP62A	7
5	380	CP62A	CP61-1	9
5	382	CP60	CP59	5
5	383	CP59	CP58-1	7
5	384	CP58-1	CP57	7
5	385	CP57	CP56-1	7
5	386	CP56-1	CP55	11
5	388	CP54-1	CP53-1	11
5	390	CP52	CP51-2	5
5	391	CP51-2	CP50-1	9
5	392	CP50-1	CP49-1	5
5	394	CP48-2	CP47A-1	3
5	396	CP47-2	CP46-2	15
5	398	CP45-1	CP44-1	13
5	399	CP44-1	CP43-1	13
5	400	CP43-1	CP42-1	13
5	403	CP40-2	CP39	9
5	405	CP37-2	CP36-1	16
5	407	CP35-2	CP34-2	7
5	413	CP29-1	CP28-1	7
5	414	CP28-1	CP27	7
5	415	CP27	CP26	5
5	417	CP25-2	CP24-1	9
5	418	CP24-1	CP23	5
5	419	CP23	CP22-1	5
5	422	CP20	CP19-1	9
5	423	CP19-1	CP18-1	7
5	424	CP18-1	CP17-1	9
5	425	CP17-1	CP16-1	5
5	426	CP16-1	CP15-1	5
5	428	CP14	CP13-2	7
5	429	CP13-2	CP12-1	7
5	430	CP12-1	CP11-1	11
5	433	CP9-1	CP8-2	9
5	434	CP8-2	CP7	5
5	436	CP6-1	CP3	7

2.2 CONSTRUCTION YARDS

The modified Project includes 19 construction yards. Table 2-3 identifies the yards by name, PMR unit, size, and estimated duration (i.e., estimated number of months in use).

TABLE 2-3. CONSTRUCTION YARDS FOR THE MODIFIED PROJECT

Yard Name	PMR Unit	Acres	Number of Months in Use ¹
IV Sub	PMR2	4.96	6
Dunaway Rd	PMR2	9.93	4
Plaster City	PMR3	20.27	18
(BLM) S2	PMR5	30.01	18
AER	PMR6	5.00	18
Jacumba Airport	PMR8	4.00	6
Jacumba Valley Ranch	PMR8	39.03	12
Rough Acres	PMR13	100.34	30
McCain Valley	PMR14	32.94	12
Thing Valley	PMR16	21.64	8
Bartlett	PMR20	28.57	12
Kreutzkamp	PMR23	30.62	18
Barrett Canyon	PMR24	1.59	5
SWAT Training Facility	PMR25	15.88	12
Wilson	PMR29	10.78	18
Alpine HQ	PMR33	10.58	30
Alpine Yard	PMR33	28.36	30
Hartung	PMR34	16.53	12
Helix	PMR36	20.97	12
Stowe/Kirkham	PMR40	20.87	12

Note

1 Duration of use is the total number of months of actual construction activity. These months may or may not be consecutive, and the fencing may remain in place from project start to project end.

2.3 TELECOMMUNICATION SITES AND EQUIPMENT

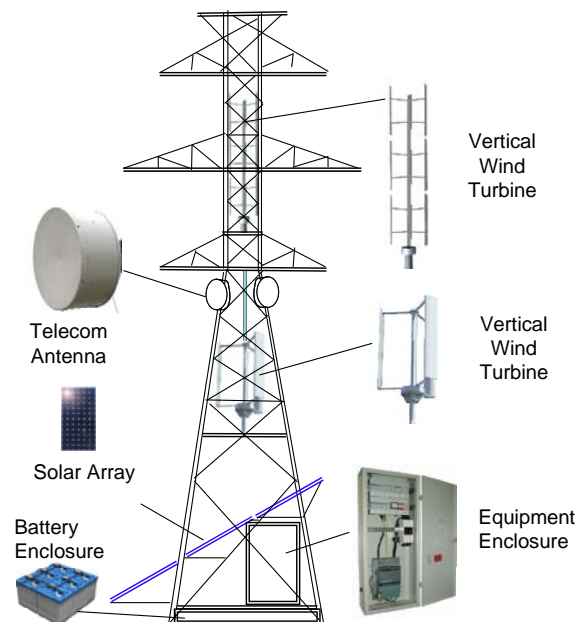
To establish a reliable communication system for coordinating daily activities and responding to worker and public safety issues, the modified Project includes provisions for microwave telecommunication equipment at seven locations.

Tierra del Sol Communication Facility. The Tierra del Sol facility is owned and operated by SDG&E and is located in an easement adjacent to the existing White Star communication facility (owned by San Diego County). At the Tierra del Sol facility, two existing 75-foot wood poles will be removed and replaced with one new 75-foot steel monopole. Three new microwave antennae will then be mounted on the new steel pole. The existing shelter at the site will remain, and the interior will be modified to house the microwave communications equipment. The existing propane tank at the site will be replaced. The existing back-up generator will be retained. This facility is located south of the FESSR in the Jacumba area on a ridge where the equipment can intercept microwave signals from multiple locations. Installation of this new communications equipment at the Tierra del Sol facility was analyzed in Section 2 of the October 2008 Recirculated Draft EIR/Supplemental Draft EIS for the Project and referred to as both the SDG&E Communication Facility and the White Star Communication Facility.

Structures EP146, EP34-1, EP87-1, CP60, and CP108. Mobile telecommunication equipment will be placed on flat beds in the work areas designated for these five structures. After construction, the equipment will be permanently installed on the structures. Illustration 2-1 provides an example of the mounted equipment.

Alpine HQ and Yard/CP82-1. Mobile telecommunication equipment will be placed at the Alpine HQ/Yard and mounted on structure CP82-1 once it is constructed.

ILLUSTRATION 2-1. MICROWAVE TELECOMMUNICATION EQUIPMENT AS MOUNTED ON STRUCTURES



3. PROJECT-LEVEL IMPACT EVALUATION AND COMPARISON

This section of the PMR evaluates the modified Project in terms of its potential to result in impacts that are lesser than, greater than, or substantially the same in type and scale as those of the FESSR as analyzed in the Final EIR/EIS. Impacts of the modified Project as a whole are considered. See Section 4 for an evaluation and comparison of impacts within each PMR unit.

3.1 APPROACH, TERMINOLOGY, AND CRITERIA

The information in this section about the components and alignment of the modified Project is based on the final engineering and design plans prepared by SDG&E and presented by the descriptions in this PMR and the maps in the PMR Mapbook. The environmental impacts of the modified Project were quantified where possible by overlaying the footprint of the modified Project (i.e., the location of structures, new roads, yards, wire stringing sites, etc.) on the layers of the PMR databases. Where impacts could not be quantified, a qualitative assessment was conducted. The results then were compared with the components, alignment, and environmental effects of the FESSR.

The Information in this section about the components and alignment of the FESSR is from the Final EIR/EIS, including the data that were used for the analysis and maps in the EIR/EIS. The data used in the EIR/EIS include survey results, habitat assessments, available databases, and other relevant information as of 2008, with most of the data collected in 2007. Hereafter, these data are cited as the “EIR/EIS database.” The environmental impacts of the FESSR are presented in two ways. First, quantified estimates and qualitative assessments were taken from the Final EIR/EIS, including but not limited to the following parts of the document:

1. Analysis of impacts to resources (biological, cultural, land use, visual, etc.) in Sections D and E;
2. Consolidated biological impact matrix in Appendix 8P;
3. Riparian Conservation Area analysis in Appendix 8Q;
4. Comparison of alternatives in Section H;
5. Analysis of consistency with adopted policies and plans in Section D.16 and Appendix 2; and
6. Analysis of consistency with existing and draft regional conservation plans in Appendix 8O.

Also, to provide additional context for comparing impacts, FESSR impacts are presented in terms of the PMR database – i.e., the footprint of the FESSR as identified in the Final EIR/EIS was overlaid on the updated data layers, and the impacts were calculated. This step was taken to provide a comparison of impacts based on current information and indicate where new information has become available since issuance of the Final EIR/EIS.

As part of the evaluation of the modified Project, the degree to which the modifications would change the type and scale of FESSR impacts was considered. In this evaluation, the following criteria were applied:

- An increase in impacts is considered significant if it would change a Class II or Class III impact in the Final EIR/EIS to a Class I impact or cause the Project to result in a Class I or II impact not addressed in the Final EIR/EIS.
- A reduction in impacts is considered significant if it would eliminate a Class I or II impact identified in the Final EIR/EIS or reduce a Class I to a Class II or lower impact.
- A modification is considered environmentally preferred to the FESSR in the Final EIR/EIS if it would result in less damage to the environment and would better protect natural and cultural resources.

Impact classes are the same as in the Final EIR/EIS (see Section D.1.4.3 of the Final EIR/EIS):

- *Class I* is used to identify significant and unavoidable impacts; Class I impacts are significant impacts that cannot be mitigated to a less-than-significant level.
- *Class II* is used to identify significant impacts that can be mitigated to a less-than-significant level.
- *Class III* is used to identify adverse but less than significant impacts.

3.2 SUMMARY OF RESULTS

The components of the modified Project are primarily the same as the FESSR, with differences in the number of structures and associated features and number of structures designated for helicopter construction. The one minor exception is that the modified Project includes the addition of a pre-engineered storage facility on already disturbed land within the existing Imperial Valley Substation, which was not included in the FESSR (see Section 4, PMR1). Overall, the modified Project has fewer structures, fewer new access roads, fewer wire stringing areas, and fewer construction yards; a smaller Suncrest Substation; and more structures designated for helicopter construction than the FESSR. These differences equate to an approximate 46% reduction in permanent and temporary ground disturbance compared with the FESSR.

Consistent with the reduction in overall on-the-ground impacts, the modified Project would result in reduced impacts to biological, cultural, land use, and water resources when compared to the FESSR. Impacts of the modified Project to other resources are similar in nature to the FESSR's and, with few exceptions, significantly reduced. There are many locations where the modified Project eliminates impacts to one or more sensitive resources, and only a few locations where impacts increase to resources already evaluated in the Final EIR/EIS. There are no new significant impacts associated with the modified Project.

In summary, through the implementation of mitigation measures included in the Final EIR/EIS, the modified Project would reduce but not eliminate significant impacts associated with the FESSR and would not result in any new significant impacts. Because the modified Project would result in less impact to the environment and would better protect natural and cultural resources, it is environmentally preferred to the components and initial routing of the FESSR.

3.3 IMPACT EVALUATION AND COMPARISON

3.3.1 CHANGES IN PROJECT COMPONENTS AND TOTAL GROUND DISTURBANCE

Table 3-1 summarizes the primary components and related features of the FESSR and modified Project and indicates the differences. Table 3-2 indicates components and resulting ground disturbance overall and by SRPL Link. The impact estimates for the FESSR in Table 3-2 were generated using the PMR database. Total ground disturbance was estimated for both the FESSR and modified Project because it is a key indicator of potential impacts to biological, cultural, land use, water, and other resources; it also demonstrates that the modified Project is designed to reduce ground disturbance overall (not just impacts to vegetated lands).

With one minor exception, the modified Project and FESSR have the same components. The exception is that the modified Project includes the addition of a pre-engineered steel storage facility on already disturbed land within the existing Imperial Valley Substation (PMR1). There are no new significant impacts associated with PMR1 (see Section 4).

As indicated in Tables 3-1 and 3-2, the modified Project includes fewer structures, fewer new access roads, fewer wire stringing areas, and fewer construction yards; a smaller Suncrest Substation; more TSAPs due to a reduction in new access roads to minimize and reduce visible land scarring and replacement poles as part of reconductoring; and less ground disturbance than the FESSR as described in the Final EIR/EIS. Within Links along the alignment, the differences between the modified Project and FESSR vary. The greatest reductions in ground disturbance under the modified Project are in Link 1 and Link 2. In Link 1, permanent ground disturbance drops by approximately 100 acres and temporary disturbance drops by approximately 300 acres. In Link 2, temporary ground disturbance is reduced by approximately 200 acres, permanent ground disturbance by approximately 40 acres. Reductions in both Links reflect the designation of more structures for helicopter construction and a corresponding reduction in new access roads under the modified Project. There is more temporary ground disturbance in Link 4 in connection with reconductoring than estimated for the FESSR; however, the increase in ground disturbance in these locations would not result in new significant impacts (see PMR33 and PMR42-44 in Section 4). The modified Project as a whole would result in an approximate 46% reduction in permanent and temporary ground disturbance compared with the FESSR. Chart 3-1 displays the differences in ground disturbance per Links under the modified Project and FESSR (reconductoring is included in Link 5 in the chart).

TABLE 3-1. SUMMARY OF FESSR AND MODIFIED PROJECT COMPONENTS AND ASSOCIATED FEATURES

Component/Feature	FESSR	Modified Project	Change Resulting from Modification	
			Number	%
Length (miles)	119	117	(2)	1.6% decrease
Structures (number)	481	443	(38)	7.9% decrease
Wire Stringing Sites (number)	129	78	(51)	39.5% decrease
New Access Roads (miles)	125.23	51.12	(74.11)	59.2% decrease
Tower Staging Access Pads (number)	108	162	58	53.8% increase
Construction Yards (number)	43	19	(24)	55.8% decrease
Suncrest Substation (acres)	128.18	75.66	(52.52)	41.0% decrease
Reconductoring Replacement Poles (69kV)	11	17	6	54.4% increase

TABLE 3-2. SUMMARY OF FESSR AND MODIFIED PROJECT COMPONENTS AND ESTIMATE GROUND DISTURBANCE BY LINK BASED ON PMR DATABASE

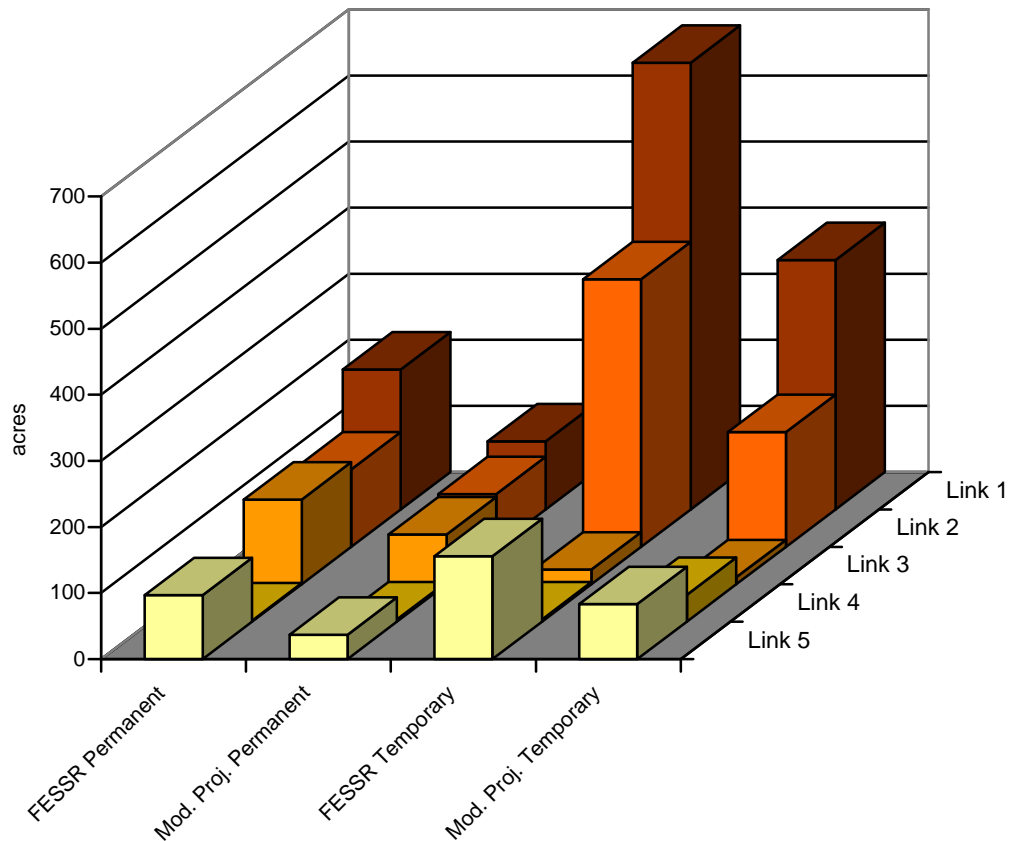
Link and Milepost	Feature Type	FESSR			Modified Project		
		Number or Miles	Permanent Ground Disturbance (acres)	Temporary Ground Disturbance (acres)	Number or Miles	Permanent Ground Disturbance (acres)	Temporary Ground Disturbance (acres)
ALL	Structures ¹	481	133.79	238.51	441	106.10	119.98
	Access Roads ²	125.23	282.40	9.40	51.12	75.53	6.98
	TSAPs ³	108	1.55	0.00	162	29.16	0.00
	String Area Sites	129	9.08	190.36	78	0.00	128.42
	Construction Yards	43	0.00	801.25	19	0.00	428.96
	Suncrest Substation ⁴	--	128.18	22.07	--	75.66	0.00
	Replacement Poles ⁵	11	--	--	17	--	--
	Total		555.20	1261.59		298.41	685.12
Link 1 500 kV Desert Portion MP 0.0-MP 53.5	Structures ¹	200	57.42	178.40	200	50.52	80.77
	Access Roads ²	65.88	153.96	0.00	22.71	37.65	2.24
	TSAPs ³	18	0.26	0.00	57	10.26	0.00
	Construction Yards	20	0.00	440.41	9	0.00	226.53
	String Site Areas	41	0.00	56.85	36	0.00	67.34
	Guard Areas		0.00	0.00		0.00	0.29
	Cut/Fill/Grading		0.00	0.00		4.37	0.00
	Total		211.64	675.66		102.80	377.18
Link 2 500 kV Forest Portion ⁶ MP 53.5-MP 88.8	Structures ¹	153	42.75	53.94	138	32.79	30.48
	Access Roads ²	31.37	64.11	9.40	21.39	30.19	0.86
	TSAPs ³	76	1.09	0.00	64	11.52	0.00
	Construction Yards	14	0.00	247.46	5	0.00	94.34
	String Site Areas	52	9.08	93.87	26	0.00	47.49

Link and Milepost	Feature Type	FESSR			Modified Project		
		Number or Miles	Permanent Ground Disturbance (acres)	Temporary Ground Disturbance (acres)	Number or Miles	Permanent Ground Disturbance (acres)	Temporary Ground Disturbance (acres)
	Guard Areas		0.00	0.00		0.00	0.28
	Cut/Fill/Grading		0.00	0.00		5.09	0.00
	Total		117.03	404.67		79.58	173.45
Link 3 MP 88.8-MP 89.3	Suncrest Pad Plus ⁴	-- ⁴	128.18	22.07	-- ⁴	75.66	0.00
	Access Roads				0.01	0.00	0.03
	Construction Yards				1	0.00	10.78
	Total		128.18	22.07		75.66	10.81
Link 4 230 kV Underground MP 92.0-MP 98.2	Structures ¹	2	0.14	0.75	0	0.00	0.32
	Access Roads ²	0.66	1.57	0.00	0.97	2.39	0.02
	TSAPs ³	0	0.00	0.00	0	0.00	0.00
	Construction Yards	0	0.00	0.00	1	0.00	38.94
	String Site Areas	2	0.00	2.80	2	0.00	1.35
	Guard Areas		0.00	0.00		0.00	0.00
	Cut/Fill/Grading		0.00	0.00		1.18	0.00
Total		1.71	3.55		3.58	40.62	
Link 5 230kV Overhead MP 89.3-MP 92.0 MP 98.2-MP 117.2	Structures ¹	123	33.48	5.42	100	22.79	4.84
	Access Roads ²	27.32	62.76	0.00	6.04	5.30	3.84
	TSAPs ³	14	0.20	0.00	41	7.38	0.00
	Construction Yards	9	0.00	113.38	3	0.00	58.37
	String Site Areas	30	0.00	35.57	14	0.00	9.61
	Guard Areas		0.00	0.00		0.00	0.21
	Cut/Fill/Grading		0.00	0.00		1.31	0.00
	Total		96.44	154.37		36.79	76.87
Reconductoring	Replacement Poles	11	--	--	17	--	--
	String Site Areas		0.0	1.27		0.00	2.63
	Work Areas		0.0	0.0		0.00	3.56
	Other		0.20	0.00		0.00	0.00
	Total		0.20	1.27		0.00	6.19

Notes

- Structures include lattice towers, poles, substation deadends, and risers (see Table 2-1).
- Access Roads = new access roads to be constructed and existing roads that require improvement.
- TSAP = tower staging access pads to support helicopter construction.
- The Suncrest Substation Pad includes 3 structures.
- Replacement poles are for the 69kV reconductor projects associated with the system upgrades
- This portion includes privately owned lands as well as Forest Service owned and operated lands

CHART 3-1. PERMANENT AND TEMPORARY GROUND DISTURBANCE FOR THE MODIFIED PROJECT AND FESSR



3.3.2 IMPACTS TO AIR RESOURCES

The modified Project would not introduce a new source of air emissions or result in a new significant impact to air quality compared with the FESSR. Some reductions in emissions from ground disturbance would result under the modified Project, but there would not be a significant reduction in net emissions from the use of trucks, helicopters, and equipment. The modified Project and FESSR would result in similar air quality impacts.

3.3.3 IMPACTS TO BIOLOGICAL RESOURCES

With regard to biological impacts, this section focuses on effects to: 1) sensitive vegetation communities; 2) desert pavement 3) special status plants (federally and/or state-listed as well as non-listed); 4) special status wildlife; 5) effects of infrared lighting on special status species; and 5) riparian conservation areas (RCAs) in the Cleveland National Forest (CNF).

Overall, the modified Project would result in a net reduction in impacts to sensitive vegetation communities and habitat for special status species. Based on rare plant surveys conducted to date (PMR database), the modified Project potentially would affect fewer species of special status plants than the FESSR (13 versus 26) but would potentially affect more individuals of three plant species. Neither the FESSR nor the modified Project would affect listed plant species. Based on an updated analysis conducted for this PMR, the modified Project would not further reduce the permanent impacts of the FESSR on RCAs in CNF but would substantially reduce the temporary impacts. The modified Project would not result in any new significant impacts to biological resources.

3.3.3.1 SENSITIVE VEGETATION COMMUNITIES

Table 3-3 indicates the estimated impacts of the modified Project and FESSR to sensitive vegetation communities. Column one in Table 3-3 presents the FESSR impacts as identified in Appendix 8P of the Final EIR/EIS; column two presents the FESSR impacts based on the PMR database. As indicated in Table 3-3, the two impact estimates for the FESSR are very similar. The differences reflect updated mapping for non-vegetated channels and chaparral in connection with preliminary delineations of wetlands and riparian areas and site specific habitat assessments. The differences do not indicate any substantial change in information about the vegetation communities affected by the FESSR or modified Project.

Based on the FESSR estimates in the Final EIR/EIS, the modified Project would reduce FESSR permanent impacts to all sensitive vegetation communities except non-vegetated channel and would reduce temporary impacts to all communities except riparian forests and woodlands (one-tenth acre increase). Based on the FESSR estimates from the PMR database, impacts to all sensitive communities would be reduced.

Table 3-4 indicates the estimated impacts of the FESSR and modified Project to the different subtypes of sensitive vegetation communities. The PMR database is used for the FESSR impacts in this table. Impacts to five vegetation subtypes (disturbed semi-desert chaparral, big sagebush scrub, flat-topped buckwheat, disturbed Sonoran creosote bush scrub, and disturbed coast live oak woodland) would be greater under the modified Project than the FESSR. Impacts to other subtypes would be similar to or less than those of the FESSR. Also, there are variations in the amount of permanent and temporary impacts to some subtypes under the modified Project. However, no new significant impacts to any sensitive vegetation community would result from the modifications.

Impacts of the modified Project would be minimized and mitigated through the same MMCRP measures that apply to the FESSR, including offsite mitigation for permanent impacts and a combination of onsite restoration and offsite mitigation for temporary impacts. Table 3-5 identifies the mitigation ratios that will apply. The MMCRP also requires that SDG&E prepare a Habitat Acquisition Plan (HAP), a Habitat Management Plan (HMP), and a Restoration Plan (RP) that provide mitigation for impacts to these sensitive vegetation communities. The HAP has been submitted; and the HMP and RP are being prepared and must be accepted by the reviewing agencies prior to the construction of the Project.

TABLE 3-3. FESSR AND MODIFIED PROJECT IMPACTS TO SENSITIVE VEGETATION COMMUNITIES BASED ON EIR/EIS AND PMR DATABASES

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Information Source	EIR/EIS Database	PMR Database	PMR Database
SENSITIVE VEGETATION COMMUNITIES	Acres	Acres	Acres
Permanent Impacts			
Desert Scrub and Dune Habitats	93.08	91.88	36.37
Coastal and Montane Scrub Habitats	54.52	53.56	27.47
Grasslands and Meadows	14.37	13.74	4.15
Chaparrals	320.17	294.36	181.19
Woodlands and Forests	6.54	17.89	4.24
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	0.13	3.17	1.10
Riparian Scrubs	0.57	0.38	0.00
Riparian Forests and Woodlands	0.58	0.88	0.25
Total Permanent Impacts to Sensitive Communities	489.96	475.86	254.77
Temporary Impacts			
Desert Scrub and Dune Habitats	269.47	282.13	142.27
Coastal and Montane Scrub Habitats	118.39	114.56	66.94
Grasslands and Meadows	172.89	161.49	48.40
Chaparrals	271.20	321.44	223.96
Woodlands and Forests	12.78	30.57	3.93
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	3.03	10.73	2.37
Riparian Scrubs	1.08	0.69	0.00
Riparian Forests and Woodlands	<0.01	2.96	0.10
Total Temporary Impacts to Sensitive Communities	848.85	924.57	487.97
TOTAL IMPACTS TO SENSITIVE VEGETATION COMMUNITIES	1338.81	1400.43	742.74

TABLE 3-4. FESSR AND MODIFIED PROJECT IMPACTS TO SENSITIVE VEGETATION SUBTYPES BASED ON THE PMR DATABASE

Vegetation Category	Vegetation Subtype	FESSR			Modified Project		
		Perm	Temp	Total	Perm	Temp	Total
Chaparrals	Chamise Chaparral	55.66	54.43	110.09	33.54	29.89	63.43
	Chamise Chaparral – Burned	2.25	2.83	5.08	2.14	3.82	5.97
	Chamise Chaparral – Disturbed	0.45	0.05	0.50	0.00	0.00	0.00
	Northern Mixed Chaparral	101.25	79.04	180.30	66.43	51.40	117.83
	Northern Mixed Chaparral – Disturbed	11.56	1.84	13.39	11.19	0.00	11.19
	Redshank Chaparral	6.16	7.54	13.70	1.76	2.56	4.32
	Scrub Oak Chaparral	4.22	6.07	10.29	0.29	0.00	0.29
	Scrub Oak Chaparral – Disturbed	0.00	0.02	0.02	1.41	1.16	2.58
	Semi-desert Chaparral	31.32	82.45	113.78	21.21	62.62	83.83
	Semi-desert Chaparral – Disturbed	1.17	7.86	9.03	2.10	56.16	58.27
	Southern Mixed Chaparral	56.44	67.09	123.53	28.60	9.35	37.95
	Southern Mixed Chaparral – Burned	19.76	12.21	31.97	9.84	7.00	16.84
Southern Mixed Chaparral – Disturbed	4.13	0.00	4.13	2.68	0.00	2.68	
Chaparrals Total		294.36	321.44	615.80	181.20	223.97	405.17
Coastal and Montane Scrubs	Big Sagebrush Scrub	1.26	8.97	10.23	0.74	8.43	9.17
	Big Sagebrush Scrub – Disturbed	0.05	0.00	0.05	0.00	0.00	0.00
	Coastal Sage-Chaparral Scrub	9.72	16.55	26.26	6.25	1.76	8.01
	Coastal Sage-Chaparral Scrub – Disturbed	0.27	0.00	0.27	0.00	0.00	0.00
	Diegan Coastal Sage Scrub	20.31	36.68	56.99	11.52	16.39	27.91
	Diegan Coastal Sage Scrub – Burned	3.66	3.20	6.86	0.00	0.00	0.00
	Diegan Coastal Sage Scrub – Disturbed	7.65	2.37	10.02	2.84	3.77	6.60
	Diegan Coastal Sage Scrub, Inland Form	9.41	44.21	53.62	5.09	6.47	11.56
	Diegan Coastal Sage Scrub, Inland Disturbed	0.49	0.22	0.70	0.39	0.50	0.89
	Flat-topped Buckwheat Scrub	0.74	2.37	3.11	0.63	28.45	29.09
Flat-topped Buckwheat Scrub, Disturbed	0.00	0.00	0.00	0.00	1.17	1.17	
Coastal and Montane Scrubs Total		53.56	114.56	168.13	27.46	66.94	94.39
Desert Scrubs	Desert Saltbush Scrub	0.72	1.05	1.76	0.00	0.00	0.00
	Sonoran Creosote Bush Scrub	41.61	171.17	212.78	14.88	89.28	104.16
	Sonoran Creosote Bush Scrub – Disturbed	4.50	17.31	21.81	3.86	28.12	31.98
	Sonoran Desert Mixed Scrub	19.32	35.79	55.11	5.91	2.48	8.39
	Sonoran Desert Scrub	1.80	2.21	4.01	0.94	3.47	4.41
	Sonoran Desert Wash Scrub	1.76	7.01	8.77	0.45	0.58	1.03
	Sonoran Mixed Woody and Succulent Scrub	11.89	30.23	42.12	5.15	6.75	11.91
	Sonoran Mixed Woody Scrub	8.23	13.28	21.52	5.03	11.44	16.46
	Sonoran Mixed Woody Scrub – Disturbed	0.91	4.05	4.96	0.15	0.15	0.29
Sonoran Wash Scrub	1.14	0.02	1.16	0.00	0.00	0.00	
Desert Scrubs Total		91.88	282.13	374.01	36.36	142.26	178.62
Grasslands and Meadows	Meadow	2.93	41.43	44.37	0.00	0.00	0.00
	Non-native Grassland	10.03	106.45	116.47	3.95	48.31	52.26
	Non-native Grassland – Disturbed	0.08	13.61	13.70	0.00	0.09	0.09
	Valley Needlegrass Grassland	0.51	0.00	0.51	0.20	0.00	0.20
	Valley Needlegrass Grassland – Disturbed	0.19	0.00	0.19	0.00	0.00	0.00
Grasslands and Meadows Total		13.74	161.49	175.23	4.14	48.41	52.55

Vegetation Category	Vegetation Subtype	FESSR			Modified Project		
		Perm	Temp	Total	Perm	Temp	Total
HWFS	Non-vegetated Channel	3.17	10.73	13.91	1.10	2.37	3.47
Herbaceous Wetlands, Freshwater, and Streams Total		3.17	10.73	13.91	1.10	2.37	3.47
Riparian Forests and Woodlands	Riparian Woodland	0.14	0.00	0.14	0.00	0.00	0.00
	Southern Coast Live Oak Riparian Forest	0.63	2.96	3.59	0.25	0.08	0.33
	Southern Riparian Forest	0.11	0.00	0.11	0.00	0.00	0.00
	Southern Cottonwood-Willow Riparian For	0.00	0.00	0.00	0.00	0.00	0.00
Riparian Forests and Woodlands Total*		0.88	2.96	3.84	0.25	0.09	0.34
Riparian Scrubs	Mesquite Bosque	0.28	0.61	0.90	0.00	0.00	0.00
	Southern Willow Scrub	0.09	0.07	0.17	0.00	0.00	0.00
Riparian Scrubs Total		0.38	0.69	1.07	0.00	0.00	0.00
Woodlands and Forests	Coast Live Oak Woodland	4.09	9.64	13.73	1.60	2.42	4.02
	Coast Live Oak Woodland – Burned	0.05	0.00	0.05	0.00	0.00	0.00
	Coast Live Oak Woodland – Disturbed	0.00	0.05	0.05	0.00	1.18	1.18
	Engelmann Oak Woodland	11.23	0.00	11.23	1.27	0.00	1.27
	Mixed Oak Woodland	1.27	18.04	19.31	0.99	0.00	0.99
	Peninsular Juniper Woodland Scrub	1.26	2.84	4.10	0.38	0.32	0.70
Woodlands and Forests Total		17.89	30.57	48.46	4.24	3.92	8.16
TOTAL		475.86	924.58	1400.44	254.75	487.97	742.71

Note

* Total for the modified Project reflects amounts less than 0.01 acre in other categories that cause subtotals to round up by 0.01 acre.

TABLE 3-5. OFFSITE AND ONSITE MITIGATION RATIOS FOR PERMANENT AND TEMPORARY IMPACTS TO SENSITIVE VEGETATION COMMUNITIES

Vegetation Community	Permanent Impacts	Temporary Impacts
	Ratio for Offsite Mitigation	Ratio for Onsite and Offsite Mitigation
Desert Scrub and Dune Habitats	2:1	1:1 + 1:1
Coastal and Montane Scrub Habitats	1.5:1 2:1 for flat topped buckwheat 2:1 for CNF impacts	1:1 + 0.5:1 1:1 + 1:1 for flat topped buckwheat 1:1 + 1:1 for CNF impacts
Grasslands and Meadows	1:1 2:1 for CNF impacts	1:1 1:1 + 1:1 for CNF Impacts
Chaparrals	1:1 2:1 for CNF Impacts	1:1 1:1 + 1:1 for CNF Impacts
Woodlands and Forests	3:1	1:1 + 2:1 1:1 + 1:1 for juniper woodland
Herbaceous Wetlands, Freshwater, and Streams	3:1	1:1 + 1:1
Riparian Forests and Woodlands	3:1	1:1 + 1:1

3.3.3.2 DESERT PAVEMENT

Desert pavement is an exposure of bedrock or pebbles, closely packed after the removal of finer rock material, polished or smoothed by blown sand so that, eventually, the upper surfaces of the bedrock or pebbles are ground flat. The pebbles are often bonded together by salts, drawn to the surface in solution and precipitated by evaporation, which act as a cement (Final EIR/EIS, page D2-285). West of the Dunaway turn-off the Final EIR/EIS estimated that the FESSR would have impacted approximately 2.52 acres of desert pavement permanently and 3.3 acres temporarily (Final EIR/EIS, page D2-287). These impacts were considered adverse but less than significant (Class III), and no mitigation is required.

Subsequently, SDG&E surveyed the areas from tower EP333 to EP324 (PMR3) identified as having desert pavement. Also, SDG&E surveyed the area proposed for the Plaster City construction yard (PMR3). The findings were:

- The area around EP 328-1 is 70% disturbed by off-road vehicle traffic with a small area of pavement.
- The area around EP 327-1 is less than 10% disturbed by off-road vehicle traffic and has pavement cover of 85%.
- The area around EP 326-1 is less than 10% disturbed by off-road vehicle traffic and has pavement cover of 85%.
- The area around EP 325-1 has pavement cover of 85%.
- The area around EP 324-1 has pavement cover of 0%.

Moreover, towers EP325 through EP328 fall within a designated OHV use area and are likely to be further degraded over time. Since the modified Project is very similar to the FESSR alignment there is no change to the conclusion in the Final EIR/EIS that impacts to desert pavement will not be significant.

3.3.3.3 SPECIAL STATUS PLANTS

As indicated in Section D and Appendix 8P of the Final EIR/EIS, the impacts of the FESSR on special status plants were assessed based on available information from the California Natural Diversity Database (CNDDDB), USFWS and CDFG databases, USFS habitat models, and available data from focused surveys for specific plants. The numbers of each special status plant potentially affected by the FESSR are totaled in Appendix 8P. If current survey information was not available the plant was assumed to be present in appropriate habitat. As required by MMCRP measure B-5a, SDG&E subsequently completed additional focused surveys for rare plants in the areas affected by the Project. These surveys were initiated in 2008, with most surveys conducted in 2009. Table 3-6 indicates the results of the surveys to date. The plant species identified in the table include those included in Appendix 8P of the Final EIR/EIS and additional special status plants included in the rare plant surveys.

TABLE 3-6. SPECIAL STATUS PLANTS POTENTIALLY AFFECTED BY THE FESSR OR MODIFIED PROJECT BASED ON THE PMR DATABASE

AP8P or RPS ¹	Plant Species (Sensitivity Code) ²	Number of Individuals Potentially Affected					
		FESSR			Modified Project		
		Perm	Temp	Total	Perm	Temp	Total
Listed Species							
AP8P	Borrego bedstraw (SR)	Not within Range ³			Not within Range ³		
AP8P, RPS	Del Mar manzanita (FE)	0	0	0	0	0	0
AP8P, RPS	San Bernardino bluegrass (FE, FSS)	0	0	0 ⁴	0	0	0
AP8P, RPS	San Diego thorn-mint (FT, SE)	0	0	0 ⁵	0	0	0 ⁵
AP8P ⁶ , RPS	Willow monardella (FE, SE)	0	0	0	0	0	0
Non-Listed Species							
AP8P	California adolphia (L2)	Not within Range ³			Not within Range ³		
RPS	Campo pea (L4)	1	0	1	0	0	0
RPS	Caraway-leaved Gilia (L4)	0	28	28	0	0	0
RPS	Cleveland's bush monkey flower (L4)	2	133	135	0	0	0
AP8P	Coves' cassia (L2)	Not within Range ³			Not within Range ³		
RPS	Dean's milk-vetch (L1B)	0	8	8	0	0	0
AP8P	Del Mar sand aster (L1B)	Not within Range ³			Not within Range ³		
AP8P, RPS	Delicate clarkia (L1B)	554	0	554	1	0	1
AP8P, RPS	Desert beauty (L2)	7	3	10	4	1	5
RPS	Dunn's mariposa lily (L1B)	20	0	20	0	0	0
RPS	Engelmann oak (L4)	341	28	369	216	2	218
AP8P, RPS	Felt-leaved monardella (L1B) ⁷	657	537	1194	106	0	106
RPS	Fish's milkwort (L4)	0	6	6	0	0	0
RPS	Gander's ragwort (L1B)	188	2455	2643	0	0	0
AP8P, RPS	Jacumba milk-vetch (BLMS, FSS, L1B)	73	520	593	29	958	987
RPS	Lakeside ceanothus (L1B)	6	0	6	5	0	5
AP8P, RPS	Nuttall's scrub oak (L1B)	10	0	10	17	0	17
RPS	Palmer's grappling hook (L4)	0	2	2	0	0	0
RPS	Peninsular spineflower (L4)	270	0	270	0	0	0
AP8P, RPS	Ramona horkelia (L1B)	0	0	0	0	0	0
RPS	Robinson pepper-grass (L1B)	7	0	7	0	0	0
RPS	Rush-like bristleweed (L4)	154	17	171	59	5	64
AP8P, RPS	San Diego barrel cactus (L2)	0	0	0	0	0	0
AP8P, RPS	San Diego gumplant (L1B)	0	0	0	0	0	0
AP8P, RPS	San Diego sand aster (L1B)	0	0	0	0	0	0
AP8P, RPS	San Diego sunflower (L4)	29	23	52	21	16	37
AP8P	San Felipe monardella (L1B)	Not within Range ³			Not within Range ³		
RPS	Southern mountain misery (L4)	15	15	30	0	0	0
AP8P, RPS	Sticky geraea (L2)	254	2158	2412	88	160	248
AP8P, RPS	Summer holly (L1B)	0	0	0	0	0	0
AP8P, RPS	Tecate tarplant (BLMS, FSS, L1B)	10	26	36	4	43	47
RPS	Tufted pine-grass (NC)	0	7	7	0	0	0
RPS	Wolf's cholla (L4)	51	0	51	6	0	6
RPS	Yellowflower tarweed (L4)	488	0	488	363	0	363

Notes and Codes

- 1 Ap8P = species identified in consolidated matrix in Appendix 8P of the Final EIR/EIS; RPS = species included in the focused surveys for rare plants conducted in compliance with the MMCRP in 2008, 2009, and to date in 2010.
- 2 Sensitivity Codes
FE=federally endangered, FT=federally threatened, SR=state rare, L1B = CNPS List 1B, L2=CNPS List 2, L4= CNPS List 4, FSS=Forest Service Sensitive, BLMS=Bureau of Land Management Sensitive, NC=no listing or CNPS code.
- 3 Not within Range = This species was included in Appendix 8P in connection with other alternatives that included lands within the species' range. The impact areas of the FESSR and modified Project are outside the range of the species.
- 4 At the time of the Final EIR/EIS, San Bernardino bluegrass was assumed to be present between Structures 159 and 161 of the BCD South Option Revision based on the presence of USFS modeled habitat for the species. Focused surveys have determined that the plant species is not present in the impact areas of the FESSR or modified Project.
- 5 At the time of the Final EIR/EIS, San Diego thorn-mint was assumed to be present between mileposts MRD-13.7 and 16.1 based on the presence of USFS modeled habitat for the species (USDA, 2007; see Impact B-5 in Section E.4.2.2 of the Draft EIR/EIS). Focused surveys to date indicate that this plant species is not present in or adjacent to the impact areas of the FESSR or modified Project. The CNDDDB indicates 0.34 acre of habitat for this species within the impact areas of the modified Project (0.18 acre in the FESSR). Focused surveys of the area that included the CNDDDB habitat indicate that the plant is not present in the FESSR or modified Project impact areas.
- 6 Willowy monardella is not included in the list in Appendix 8P but is addressed in the analysis of biological impacts in Section D of the Final EIR/EIS.
- 7 Focused surveys in a limited area were conducted for felt-leaved monardella for the Final EIR/EIS. Those surveys detected 70 willowy monardella plants within FESSR impact areas.

As indicated in Table 3-6, neither the FESSR nor the modified Project would have direct impacts on federally or state listed plant species. The FESSR potentially would affect 26 non-listed special status plant species; the modified Project potentially would affect 13 species. With three exceptions, the modified Project would likely affect fewer or a similar number of individual plants. The exceptions are Jacumba milk-vetch, Nuttall's scrub oak, and Tecate tarplant. The modified Project would have lower permanent but higher temporary impacts to Jacumba milk-vetch and Tecate tarplant and higher permanent impacts to Nuttall's scrub oak. Although the impacts to these three plant species would be greater than under the FESSR, the impacts would not be a new type of effect or be at a scale that would jeopardize local and regional populations of these species. Impacts to all the rare plant species would be minimized and mitigated under the FESSR and the modified Project in the same way -- through avoidance, minimization, salvage, and relocation, as specified in MMCRP measure B-5a.

3.3.3.4 SPECIAL STATUS WILDLIFE

Table 3-7 indicates the estimated impacts of the modified Project and FESSR to special status wildlife species. The species are those identified in Appendix 8P of the Final EIR/EIS, excluding species not affected by the FESSR (Appendix 8P considered other alternatives, not just the FESSR). As in Table 3-3, the estimated impacts of the FESSR are presented as calculated in the Final EIR/EIS (column one) and based on the PMR database. Habitat impacts are quantified for USFWS critical habitat (designated and proposed), USFWS occupied habitat (as per USFWS's database), the mapped distribution of habitat for flat tailed horned lizard (a species now proposed for federal listing) in and outside the BLM management area for this species, the mapped distribution of habitat for the barefoot banded gecko (a state-listed species), and distribution of habitat for various species based on USFS habitat models (with a focus on habitats in CNF).

Overall, the modified Project would reduce FESSR impacts to the habitat of special status species. There are some instances where the modified Project potentially would affect more acres of a habitat category than would the FESSR (see species discussions below). The effects of the modified Project on the special status species would be minimized and mitigated through the same measures that apply to the FESSR, including the mitigation ratios for permanent and temporary impacts identified in Table 3-8. No new significant impacts would result from the modified Project.

Quino Checkerspot Butterfly

In the Final EIR/EIS, FESSR impacts to the Quino checkerspot butterfly (Quino) were assessed but not quantified except for impacts to designated critical habitat at that time. Additional habitat assessments and protocol surveys for Quino subsequently have been conducted within suitable habitat along the alignment. USFWS also has updated its database to identify areas of occupied habitat. Results to date of the assessments and surveys and USFWS's Quino occupied habitat have been added to the PMR database (see Table 3-7).

TABLE 3-7. ESTIMATED IMPACTS OF THE FESSR AND MODIFIED PROJECT TO SPECIAL STATUS SPECIES BASED ON THE EIR/EIS AND PMR DATABASES

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
SPECIAL STATUS SPECIES ¹	(acres or number)	(acres or number)	(acres or number)
QUINO CHECKERSPOT BUTTERFLY			
<i>USFWS Critical Habitat (2002 or 2009)</i> ²			
Permanent Impacts	19.20	11.46	4.45
Temporary Impacts	55.72	16.93	1.59
<i>USFWS Occupied Habitat (USFWS Data)</i> ³			
Permanent Impacts	--	36.16	15.16
Temporary Impacts	--	84.76	17.49
ARROYO TOAD			
<i>USFWS Proposed Critical Habitat</i> ⁴			
Permanent Impacts	--	7.13	2.46
Temporary Impacts	--	100.67	44.23
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			
Permanent Impacts	32.45	33.09	11.92
Temporary Impacts	150.69	154.97	63.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	3.83	3.49
Temporary Impacts	--	20.53	0.01
BAREFOOT BANDED GECKO (SUITABLE HABITAT)			
<i>Permanent Impacts</i>	--	20.63	10.84
<i>Temporary Impacts</i>	--	17.16	4.53
FLAT-TAILED HORNED LIZARD			
<i>Permanent Impacts</i>			
Management Areas	22.62	22.26	9.54
Habitat Outside of Management Areas	52.95	71.16	26.35
Total Permanent Impacts	75.57	93.42	35.89
<i>Temporary Impacts</i>			
Management Areas	91.31	103.25	36.87
Habitat Outside of Management Areas	141.53	170.67	94.88
Total Temporary Impacts	232.84	273.92	131.75
COASTAL CALIFORNIA GNATCATCHER			
Number of Pairs Affected	--	--	2
Number of Unpaired Individuals Affected	--	--	1

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
SPECIAL STATUS SPECIES ¹	(acres or number)	(acres or number)	(acres or number)
<i>USFWS Critical Habitat</i>			
Permanent Impacts	2.22	10.06	3.88
Temporary Impacts	32.97	17.84	21.58
<i>USFWS Occupied Habitat (USFWS Data)</i>			
Permanent Impacts	0 ⁵	1.46	0.16
Temporary Impacts	0 ⁵	1.83	8.11
<i>USFS Suitable Habitat [USFS Habitat Model]</i>			
Permanent Impacts	25.52	25.03	11.97
Temporary Impacts	52.69	48.50	15.67
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]</i>			
Permanent Impacts	--	2.65	1.12
Temporary Impacts	--	7.07	0.60
GOLDEN EAGLE⁶			
Nest Sites Potentially Affected	4	--	9 ⁵
LEAST BELL'S VIREO⁷			
<i>USFWS Occupied Habitat [USFWS Data]</i>			
Permanent Impacts	0.94	0.89	0.00
Temporary Impacts	0.00	0.32	0.00
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	--	1.32	0.19
Temporary Impacts	--	0.00	0.00
SOUTHWESTERN WILLOW FLYCATCHER⁷			
<i>USFS Suitable Habitat in CNF (USFS Modeled Habitat)</i>			
Permanent Impacts	--	5.14	3.98
Temporary Impacts	--	14.39	0.74
PENINSULAR BIGHORN SHEEP			
<i>2001 Designated Critical Habitat/Occupied Habitat⁸</i>			
Permanent Impacts	60.42	30.41	10.36
Temporary Impacts	111.81	34.64	20.24
<i>2009 Designated Critical Habitat</i>			
Permanent Impacts	N/A	16.04	5.41
Temporary Impacts	N/A	17.16	1.41

Alignment	December 2008 FESSR	December 2008 FESSR	May 2010 Modified Project
Data Source	EIR/EIS Database	PMR Database	PMR Database
SPECIAL STATUS SPECIES ¹	(acres or number)	(acres or number)	(acres or number)
STEPHENS' KANGAROO RAT ⁷			
<i>USFS Suitable Habitat in CNF [USFS Habitat Model]⁷</i>			
Permanent Impacts	0	0.71	0.18
Temporary Impacts	0	0.03	0.00

Notes

- 1 In this summary of impacts to special status species, the focus is on the following habitat categories: USFWS critical habitat (designated or proposed), USFWS occupied habitat (areas that USFWS considers occupied by the species based on available information and/or assumptions); mapped habitat and management areas for flat-tailed horned lizard; mapped suitable habitat for barefoot banded gecko; and suitable habitat as identified by habitat models used by USFS (USFS Suitable Habitat). Where the information in the Final EIR/EIS is not broken into a category used in the PMR database or is assessed qualitatively rather than quantified, the entry is "--."
- 2 The estimate of critical habitat for the FESSR in the Final EIR/EIS is based on the 2002 designation; the estimate for the FESSR in column two is based on the current designation, which also applies to the modified Project.
- 3 USFWS Occupied Habitat includes areas of known Quino populations and sightings and a buffer that typically encompasses all host plants in the vicinity. Some of the USFWS occupied habitat areas also are part of designated critical habitat (e.g., the Jacumba population).
- 4 Critical habitat for arroyo toad was proposed after completion of the Final EIR/EIS.
- 5 Appendix 8P of the Final EIR/EIS does not include the specific category of "USFWS Occupied" but shows "0" as the amount of "occupied" habitat. In the USFWS BO for the Project, the estimate is that the FESSR would result in permanent impacts to 8.30 acres and temporary impacts to 12.70 acres of USFWS Occupied habitat.
- 6 SDG&E is currently conducting a golden eagle nest area study. Surveys are being conducted following USFWS' *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (February 2010). The purpose of the surveys is to record and report occupancy (Phase 1) and productivity (Phase 2) of resident golden eagle individual activities, nests, and territories within a 4-mile radius of the Project. Preliminary results of Phase 1 indicate there are 9 nests (active territories) within a 4-mile radius of the modified Project's activity areas.
- 7 Focused surveys conducted subsequent to the Final EIR/EIS have determined that this species would not occur in the FESSR or modified Project impact areas. The USFS habitat model results have been retained for lands in the CNF.
- 8 USFWS considers areas formerly designated as critical habitat for Peninsular bighorn sheep to be occupied habitat.

TABLE 3-8. MITIGATION RATIOS FOR HABITAT IMPACTS TO SPECIAL STATUS WILDLIFE SPECIES

Species	Habitat Category	Permanent Impacts	Temporary Impacts
		Ratio for Offsite Mitigation	Ratio for Onsite and Offsite Mitigation
Quino Checkerspot	Occupied Habitat	3:1	1:1 + 1:1
	Critical Habitat	3:1	1:1 + 1:1
Arroyo Toad	Occupied Breeding Habitat	3:1	1:1 + 2:1
	Occupied Upland Habitat	2:1	1:1 + 1:1
	Critical Habitat ¹	3:1	1:1 + 1:1
Barefoot Banded Gecko	Suitable Habitat	TBD ²	TBD ²
Flat Tailed Horned Lizard	In FTHL Management Area	5.5:1 (4.5:1) ³ or in lieu fee	3.5 (2.5:1) ³ or in lieu fee
	Outside FTHL Management Area	1:1 or in lieu Fee	1:1 or in lieu fee
California Gnatcatcher	Occupied Habitat	2:1	1:1 + 1:1
	Critical Habitat	2:1	1:1 + 1:1
Least Bell's Vireo	Occupied Habitat	3:1	1:1 + 2:1
Southwestern Willow Flycatcher	Occupied Habitat	3:1	1:1 + 2:1
Peninsular Bighorn Sheep	Occupied Habitat	5:1	1:1 + 2:1
	Critical Habitat	5:1	1:1 + 2:1
Stephens' Kangaroo Rat	Occupied Habitat	2:1	1:1 + 1:1

Note

- 1 The Final EIR/EIS does not specify a mitigation ratio for impacts to arroyo toad critical habitat (designated or proposed) because the FWS did not propose to revise arroyo toad critical habitat to include the project until October 2009. For planning purposes, SDG&E has assumed that impacts to arroyo toad critical habitat would require 3:1 mitigation for permanent impacts and 2:1 mitigation for temporary impacts. Actual mitigation requirements would be specified in a USFWS conference determination.
- 2 CDFG has not specified a mitigation ratio for impacts to barefoot banded gecko; mitigation will be determined by CDFG in connection with SDG&E's application for a Section 2081 incidental take permit. The application was submitted in April 2010.
- 3 Ratios in parentheses apply to agriculture and disturbed habitat.

Based on PMR database, the FESSR and modified Project entail impacts to Quino habitat in the same PMR units (PMR9, PMR10, PMR18, PMR21-PMR25, PMR37, and PMR39-PMR40). Under the FESSR, most impacts to Quino are associated with construction yards (approximately 33 acres), roads (32 acres), and wire stringing areas (30 acres). FESSR permanent impacts to Quino habitat (all categories) are estimated at approximately 48 acres; temporary impacts are estimated at approximately 102 acres. Under the modified Project, yard and stringing area impacts are eliminated and road impacts are reduced to 4.6 acres. Permanent impacts to Quino habitat (all categories) under the modified Project would be reduced to approximately 19.6 acres, temporary impacts to approximately 19.1 acres. Under the FESSR and modified Project, most impacts are to areas that USFWS identifies as occupied Quino habitat. The modified Project would reduce permanent impacts to occupied habitat from 37.83 acres to 15.16 acres and temporary impacts from 86.59 acres to 17.49 acres. As anticipated in the Final EIR/EIS, critical habitat for Quino was revised in 2009. Under both the initial and revised critical habitat designations (see Table 3-7), the modified Project would have fewer impacts to critical habitat than the FESSR.

Impacts of the modified Project on Quino would be minimized and mitigated through the same measures that apply to the FESSR. As specified in the MMCRP and BO, these measures include impact site avoidance and minimization as well as onsite and offsite mitigation. The MMCRP also requires that the HAP identify mitigation lands within Quino habitat, that the HMP cover management of Quino habitat and populations, and that the RP provide for onsite restoration of Quino habitat.

Arroyo Toad

In the Final EIR/EIS, FESSR impacts on arroyo toad were calculated in terms of suitable breeding and suitable upland habitat. These two categories were mapped based on the information from the USFWS and CDFG databases, the USFS model for arroyo toad habitat, and additional information provided from habitat assessments conducted by Helix Environmental in 2007. In Table 3-7, the two categories are combined.

Based on the Final EIR/EIS, the FESSR would result in 32.65 acres of permanent impacts and 150.69 acres of temporary impacts to arroyo toad upland habitat. The estimate under the PMR database is very similar: 33.09 acres of permanent, and 154.97 acres of temporary impacts in areas modeled as suitable habitat. Of these amounts, 3.83 acres of the permanent impacts and 20.53 acres of the temporary impacts would be in CNF. Most FESSR impacts would result from proposed construction yards and would occur in seven PMR units (PMR15-PMR18, PMR22, PMR28, and PMR34). Based on the PMR database, the modified Project would result in 11.92 acres of permanent impacts and 63.00 acres of temporary impacts to the modeled suitable habitat for arroyo toad. Of these amounts, 3.49 acres of permanent impacts and 0.01 acre of temporary impacts would be CNF. The modified Project would result in 11.92 acres of permanent and 63.00 acres of temporary impacts in areas modeled as suitable habitat. Of these amounts, 3.49 acres of permanent impacts and 0.01 acre of temporary impacts would occur in CNF. As with the FESSR, the impacts are in multiple PMR units (PMR15-PMR17, PMR22, PMR28, and PMR34). The reduction in impacts under the modified Project is substantial and is due to the elimination of several construction yards.

In 2009, the Project database on arroyo toad habitat and occurrence was expanded. RECON conducted focused protocol surveys to determine if suitable habitat and arroyo toads were present between the existing Imperial Valley Substation (MP0) and Sycamore Substation (MP117). The surveys were conducted from April 14 through June 26, 2009 in accordance with the USFWS protocol. Each drainage and any areas modeled as suitable or known to be occupied were visually evaluated by RECON biologists during this protocol survey. Based on this initial evaluation, 31 sites were assessed in greater detail for habitat suitability. The habitat assessments focused on determining the suitability of the sites to support breeding arroyo toads based on the elements of modeled suitable habitat outlined by USFWS as well as core habitat features: presence of flowing water, sandy substrates, and presence of sandy terraces adjacent to or within each drainage. The assessments consisted of visually assessing each drainage crossing the proposed Project alignment. Using GIS data combined with global positioning system (GPS) units, previously mapped drainages and areas modeled as suitable habitat or occupied habitat were evaluated. Habitat and drainages near the proposed alignment that provided suitable connectivity also were considered and evaluated.

Of the 31 sites that were evaluated, 13 were determined to provide potentially suitable habitat for arroyo toad. These 13 sites were subsequently surveyed using the USFWS protocol and the results provided to the USFWS per the protocol requirements. The results of the surveys were negative - no arroyo toads (adult, juvenile, larvae, or egg masses) were observed within the Project ROW and associated components. No arroyo toads were observed within USFS modeled suitable habitat. Two adult arroyo toads were incidentally observed less than 1 km from the Project ROW on an existing dirt road. However, because there is an approximate 1,000-foot elevation difference over steep and rocky terrain between the arroyo toad observations and Project ROW, the project is not expected to have adverse impacts to these individuals.

At the time of the Final EIR/EIS, no designated critical habitat for arroyo toad occurred in the Project area. Subsequently USFWS proposed a revised critical habitat rule that would designate critical habitat in the San Diego, Sweetwater River, and Cottonwood Creek basins. If the proposed rule is adopted as is, the modified Project would result in 2.46 acres of permanent impacts and 44.23 acres of temporary impacts to arroyo toad critical habitat. The impacts would occur in seven PMR units: PMR17, PMR 19, PMR21-22, PMR24, PMR 32, PMR34, and PMR36. Most of the impacts are in PMR34 and PMR36 in connection with two construction yards. The two yards (Hartung in PMR34 and Helix in PMR36) occur on non-federal lands. Hartung is located in an open, shallow, sandy wash with sparse vegetation cover. Helix is located within cleared land probably used for agriculture and is dominated by high cover, non-native grassland. Both areas were included in the 2009 habitat assessments and were determined to have moderate potential for breeding and foraging habitat. No water was present in 2009. Protocol surveys were recommended and are being conducted in 2010. Results of the 2010 arroyo toad surveys will be submitted to USFWS and will be used to further refine the impact estimates for these areas.

If the proposed critical habitat rule is adopted, an additional category of habitat impacts would require mitigation (similar to what applies for Quino). However, the additional category of habitat impacts would not constitute a new significant impact to arroyo toad. Impacts to critical habitat under the

modified Project would be similar in type and scale as the FESSR impacts to suitable and occupied habitat considered in the Final EIR/EIS.

Impacts of the modified Project to arroyo toad would be minimized and mitigated through the same measures identified for the FESSR in the MMCRP and BO. The MMCRP and BO currently require pre-construction surveys in suitable habitat, impact site avoidance and minimization measures, and onsite and offsite mitigation. The HAP, HMP, and RP each must address arroyo toad mitigation requirements. Additional measures for impacts to critical habitat may be required if the proposed rule is adopted and would be determined by USFWS.

Barefoot Banded Gecko

In the Final EIR/EIS, it was assumed that all suitable habitat between mileposts 23 and 39 was occupied by barefoot banded gecko; no calculation was made of habitat acreage, which was assessed qualitatively. Subsequently, habitat suitability assessments of this area were performed in 2009 and 2010, and habitat occupancy is being assessed in May-July 2010, in more detail.

Based on the PMR database, FESSR impacts to barefoot banded gecko would occur in PMR5 and PMR6; approximately 20.63 acres of permanent and 17.16 acres of temporary habitat disturbance would occur. A construction yard and new access road in PMR6 account for most of the FESSR impacts. Under the modified Project, impacts would occur in PMR8 as well as PMR5 and PMR6. Impacts from the FESSR yard in PMR6 would be eliminated, and impacts from an access road in PMR8 would be added. Overall, the modified Project would reduce both the permanent and temporary impacts of the FESSR on barefoot banded gecko. Permanent impacts would be reduced to 10.84 acres, temporary impacts to 4.53 acres.

Mitigation requirements for the Project are being determined in connection with the Project's CESA 2081 Incidental Take Permit Application, which was submitted to CDFG in April 2010. The HAP includes mitigation lands suitable for and occupied by barefoot banded gecko, and those lands are also identified in the 2081 application as potential compensatory mitigation. The HMP will address management of gecko habitat and populations and will incorporate measures specified by CDFG in the 2081 permit. The RP also will include the relevant measures from the 2081 permit.

Flat Tailed Horned Lizard

In the Final EIR/EIS, impacts to flat tailed horned lizard were estimated in terms of two habitat categories: habitat within BLM's Flat Tailed Horned Lizard (FTHL) Management Area and habitat outside the Management Area. As indicated in Table 3-7, permanent impacts were estimated at 22.62 acres in the Management Area and 52.95 acres outside the Management Areas; temporary impacts were estimated at 91.31 acres in and 141.53 acres outside. There are some differences in the split of permanent and temporary FESSR impacts when measured by the PMR 2010 databases (see Table 3-7), but total FESSR impacts are substantially the same under both calculations. The PMR 2010 calculation is used in the comparisons below.

As indicated in Table 3-7, the FESSR would result in an estimated 93.42 acres of permanent impacts and 273.92 acres of temporary impacts to FTHL habitat. Most of these impacts are attributable to proposed construction yards (151.6 acres), temporary work pads (105.9 acres) and roads (71.7). Under the modified Project, permanent impacts are estimated at 35.89 acres, temporary impacts at 131.75 acres. Yard impacts would be reduced to 62.4 acres, temporary work pad impacts would be eliminated, and road impacts would be reduced to 15.4 acres. Permanent and temporary impacts in and outside the FTHL Management Area would be reduced.

SDG&E has provided advance mitigation for impacts to flat tailed horned lizard through payment of the in lieu fee identified in MMCRP measure B-7b. Payment of \$348,450 was made to BLM based on the estimated permanent and temporary impacts of the FESSR in Appendix 8P of the Final EIR/EIS. In addition, the MMCRP requires pre-construction surveys and impact site avoidance and minimization measures. The HAP, HMP, and RP also will include provisions for FTHL.

Since publication of the Final EIR/EIS, USFWS has reinstated the proposed rule to list flat tailed horned lizard as a threatened species and reopened the public comment period in March 2010. SDG&E will seek authorization for incidental take through a pre-listing conference determination from the USFWS.

Coastal California Gnatcatcher

FESSR impacts on the California gnatcatcher were calculated in the Final EIR/EIS based on USFWS and CDFG databases, USFS habitat suitability modeling, and field surveys. Modeled suitable habitat and designated critical habitat were the primary category in the calculations. Three categories of habitat are considered here: suitable habitat based on the USFS habitat model, USFWS occupied habitat, and critical habitat.

As indicated in Table 3-7, the Final EIR/EIS estimated that the FESSR would result in 25.52 acres of permanent impacts and 52.69 acres of temporary impacts to modeled suitable habitat. The estimated impacts to suitable habitat are very similar to those calculated using the PMR database (25.03 acres of permanent and 48.50 acres of temporary impacts). Of the modeled suitable habitat, 2.65 acres of permanent impacts and 7.07 acres of temporary impacts would occur in CNF. The FESSR impacts would occur in PMR25-PMR28, PMR 31, PMR34-PMR37, and PMR39. Construction yards account for most of the FESSR temporary impacts, primarily a proposed yard in PMR35. The modified Project would reduce FESSR impacts to 11.97 acres of permanent and 15.67 acres of temporary impacts (1.12 acres of permanent and 0.01 acre of temporary impacts in CNF). The impacts under the modified Project would occur in PMR25, PMR27, PMR28, PMR34-PMR37, PMR39, and PMR40. The modified Project would eliminate FESSR gnatcatcher impacts in PMR26 and PMR31 and add habitat impacts in PMR36 and PMR40. Most of the modified Project's temporary impacts would occur in PMR36 as the result of a construction yard (Helix).

Focused surveys were conducted in 2009 to assess gnatcatcher habitat and identify occupied areas in all suitable habitat potentially affected by the Project. The surveys included habitat in Links 2, 3, 4, and 5, including along the reconductoring routes. Link 1 was excluded because it is well east of historic and currently known ranges for the species and does not contain suitable habitat. The habitat assessment

focused on the FESSR ROW and approximately 500 feet on either side. USFS modeled habitat and historic gnatcatcher locations were included. Protocol surveys were conducted on approximately 900 acres and detected 11 gnatcatcher pairs, a single adult male, and dispersing juveniles in the survey area. No gnatcatchers were detected in the USFS modeled suitable habitat affected by the FESSR.

Appendix 8P of the Final EIR/EIS does not include “USFWS Occupied Habitat” as a specific category but estimates impacts to occupied habitat at 0. However, in the USFWS BO for the Project, the FESSR was estimated to result in 8.30 acres of permanent and 12.70 acres of temporary impacts to USFWS occupied habitat. This is higher than the estimate under the PMR database, which indicates that the FESSR would result in 1.46 acres of permanent and 1.83 acres of temporary impacts to USFWS occupied habitat. The modified Project also would result in 0.16 acre of permanent impacts and 8.11 acres of temporary impacts to USFWS occupied habitat.

The critical habitat impact estimate for the FESSR in the Final EIR/EIS is identified in Table 8P as 2.22 permanent acres and 32.97 temporary acres. The FESSR estimate under the PMR database as indicated in Table 3-7 would result in 10.06 acres of permanent impacts and 17.84 acres of temporary impacts to designated critical habitat. The modified Project would reduce permanent impacts to 3.88 and increase temporary impacts to 21.58. As identified in the Final EIR/EIS much of the temporary impacts to designated critical habitat is to non occupied, agricultural lands. Overall, the modified Project would likely have lower combined permanent impacts and similar temporary impacts as the FESSR. No new significant impacts would result.

Impacts of the modified Project would be minimized and mitigated through the same measures in the MMCRP and BO that apply to the FESSR, including pre-construction surveys, impact site avoidance and minimization, and onsite and offsite mitigation. The HAP, HMP, and RP would include provisions for mitigating impacts to this species.

Golden Eagle

The Final EIR/EIS disclosed that there were four golden eagle nest areas that potentially would be affected by activities within the Project area. The four nest areas were identified based on USFS’s database and other information available at that time. In March 2010, SDG&E initiated a golden eagle nest area study. Surveys are being conducted following USFWS’ *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (February 2010). The purpose of the surveys is to record and report occupancy (Phase 1) and productivity (Phase 2) of resident golden eagle individual activities, nests, and territories within a 4-mile radius of the Project. Phase 1 surveys began late March and were completed by mid-April. Phase 2 surveys will be conducted in May. Preliminary results of the 2010 survey indicate that there are 9 active nest areas within a 4-mile radius of the modified Project’s impact areas. Results of the survey will be used to adjust construction activities, including helicopter flights, to avoid and reduce the potential for inadvertent impacts on golden eagles during the nesting season. All project activities will be subject to a number of mitigation measures that are consistent with and more conservative than USFWS’ existing protocols for avoiding take of golden eagles under the Bald and Golden Eagle Protection Act, currently found in the *Utah Field Office Guidelines for Raptor*

Protection from Human and Land Disturbances (2002). Among these measures is MMCRP measure B-7h, which prohibits construction or maintenance activities from taking place within 4,000 feet of an eagle nest during the eagle breeding season (December through June). By contrast USFWS Guidelines only identify a spatial buffer of 2,640 feet during the nesting season, which can be reduced even further to 1,320 feet for industrial activities such as transmission line construction during the latter stages of the nesting period. Additional generalized mitigation measures to protect avian species will also assist in avoiding and minimizing impacts to this species.

Least Bell's Vireo

In the Final EIR/EIS, FESSR impacts to least Bell's vireo (LBV) were calculated based on USFS modeled habitat and areas identified as USFWS Occupied habitat. The FESSR was estimated to result in 8.58 acres of permanent impacts and 13.53 acres of temporary impacts to LBV habitat. Subsequently, habitat assessments and surveys for LBV and other riparian birds have been conducted in all areas that have potentially suitable habitat and would be affected by the Project. The assessments and surveys have determined that LBV would not be directly affected by the FESSR or modified Project. The results of the habitat modeling have been retained as an indicator of LBV potential habitat in CNF. Based on the PMR database, the FESSR would affect 1.32 acres of suitable habitat in CNF; the modified Project would affect 0.19 acres. The 0.19 acre occurs in two locations within CNF (PMR25 and PMR28). The two locations were included in the 2009 riparian bird surveys and were not occupied by LBV.

Habitat impacts would be minimized and mitigated as per the MMCRP and any conditions included in the wetland and streambed permits for the Project. Pre-construction surveys for nesting birds would be conducted ten days prior to construction to further ensure that LBV would not be affected.

Southwestern Willow Flycatcher

As with LBV, FESSR impacts to southwestern willow flycatcher were calculated in the Final EIR/EIS based primarily on USFS modeled habitat. As indicated in Table 3-7, the FESSR was estimated to have 22.75 acres of permanent impacts and 33.14 acres of temporary impacts in areas modeled as suitable habitat.

Subsequently, riparian bird surveys and habitat assessments have determined that neither the FESSR nor the modified Project would have direct impacts to this species. The results of the habitat modeling have been retained as an indicator of potential habitat for southwestern willow flycatcher in CNF. Based on the PMR database, the FESSR would have 5.14 acres of permanent and 14.39 acres of temporary impacts on suitable habitat in CNF; the modified Project would have 3.98 acres of permanent and 0.74 acres of temporary impacts.

Habitat impacts would be minimized and mitigated as per the MMCRP and any conditions included in the wetland and streambed permits for the Project.

Peninsular Bighorn Sheep (PBS)

In the Final EIR/EIS, FESSR impacts to Peninsular bighorn sheep (PBS) were calculated in terms of impacts to designated critical habitat at that time. As indicated in Table 3-7, the FESSR was estimated to result in 60.42 acres of permanent impacts and 111.81 acres of temporary impacts.

Since approval of the Final EIR/EIS, PBS critical habitat was revised (as anticipated). The databases were revised to reflect the new, smaller critical habitat boundaries and, at USFWS's direction, to treat areas that were formerly designated as critical habitat as occupied PBS habitat.

Based on the updated database, the FESSR impacts to PBS habitat would be lower than estimated in the Final EIR/EIS, with 46.45 acres of permanent impacts and 51.78 acres of temporary impacts. Most of these impacts would occur as a result of construction yards in PMR6 and PMR13 and impacts from structures, roads, and other features in five other units. Under the modified Project, the construction yard in PMR13 would be eliminated and the yard in PMR6 would be reduced from 16 to 5 acres. Total impacts to PBS habitat under the modified Project would be reduced to approximately 15.77 of permanent and 21.65 acres of temporary impacts.

Habitat impacts under the modified Project would be mitigated through the same measures identified for the FESSR in the MMCRP and BO, including seasonal restriction on activities, population monitoring, and on and offsite mitigation. The HAP, HMP, and RP will include provisions for PBS.

Stephens' Kangaroo Rat

Appendix 8P in the Final EIR/EIS did not identify any impacts to USFS modeled habitat for Stephens' kangaroo rat under the FESSR, and the BO determined there would be no impacts to SKR because the Project impact areas were not within the species' range. USFS modeled habitat indicates the FESSR would affect approximately 0.74 acre of potential SKR habitat in CNF and that the modified Project would affect 0.19 acre. The areas have been surveyed for Stephens' kangaroo rat, and none were detected. It is not anticipated that either the FESSR or the modified Project would result in impacts to actual habitat for Stephens' kangaroo rat.

3.3.3.5 POTENTIAL EFFECTS OF STRUCTURE LIGHTING ON SPECIAL STATUS WILDLIFE

As indicated in section 2.1, IR emitter lights would be installed on approximately 323 of 453 structures under the modified Project. The fixtures proposed for SRPL structures (Carmanah Model A702 IR) are approximately 13 inches tall and 6 inches wide, and contain 24 IR light emitting diodes (LEDs) that emit at a wavelength of 870 nanometers (nm), which is well outside the detectable visible light spectrum (approximately 400 to 700 nm) and within the near IR spectrum. SDG&E would install two IR units on 500kV structures and one IR unit on 230 kV structures (although it is currently being determined whether two may be installed for reliability). The following assessment of potential impacts of structure lighting on special status wildlife is based on available scientific information. Full citations for the literature referenced are in section 3.4.

Potential Effects on Birds

Avian mortality from collision with visual lighted towers during seasonal bird migrations under low-ceiling cloud effects is a well-documented risk to migrating birds (Gehring 2009, Drewitt 2008, Horn 2006, and CEC 2007). Therefore, Section D.2 of the Final EIR/EIS identifies Impact B-10, the potential for migrating birds to collide with transmission towers or lines. The proposed structure lights associated with the modified Project emit near IR radiation from dusk to dawn at 870 nm, well outside the 400 – 700 nm visible light range of birds (Zeigler 1993). Therefore, the infrared lighting proposed where lighting is required for safety purposes would not directly attract birds or increase the potential for collisions.

Infrared lights may attract insects that are capable of detecting IR. Documented insect groups with species that may be capable of IR detection include beetles and butterflies (Briscoe 2001). The likelihood that concentrations of these insects would occur in the vicinity of towers with infrared lights and the potential that foraging birds (or bats) would collide with towers in such circumstances is not known. Nocturnal insectivores would be the avian species potentially affected. In the Project vicinity in San Diego and western Imperial counties they would likely be limited to western screech owl (*Megascops kennicottii*) and common poorwill (*Phalaenoptilus nuttalli*) which are permanent residents, and lesser nighthawk (*Chordeiles acutipennis*) which is a frequent summer visitor. Flammulated owl (*Otus flammeolus*) is rare and sporadic in San Diego County mountains (Unitt, 2006), and this species is not likely to occur in the vicinity of the Project due to a lack of suitable pine forest habitat in and/or adjacent to the ROW. Although the potential for indirect impacts from IR lights are unknown, any effects would likely be limited to individuals of the three avian species throughout the Project ROW. The Final EIR/EIS found that collision impacts to migrating birds (at night) was significant and not mitigable (Class I Impact) and that it was difficult to determine the extent of the impact. Similarly, little is known about the potential effect of attracting insects and avian insectivores. Thus, the proposed tower IR lighting associated with the modified Project does not significantly alter the conclusions of the Final EIR/EIS.

Potential Effects on Bats

Project structures with IR emitters installed are not anticipated to result in impacts to bats. Bats have well-studied echo location abilities and can avoid stationary towers with or without lighting in nocturnal situations. Bat mortality has been shown in several recent studies to be unaffected by the presence of aviation lighting (on wind turbines) (Horn 2006). Although insect frequency in these areas increased on lighted turbines, the bats are expected to be echo locating during pursuit of insects near tower lights and would therefore sense the tower structure and avoid collision (Stokes 2010).

3.3.3.6 RIPARIAN CONSERVATION AREAS

In response to a USFS request included in the agency's comments to the Draft EIR/EIS, Helix Environmental conducted an analysis for the Final EIR/EIS of Project impacts to RCAs within CNF. A 5-step RCA analysis was completed for all of the individual alternative routing segments that would occur on the CNF (both segments across CNF that were selected for the FESSR and alternative segments that were not selected) as well as for the FESSR as a whole. USFS provided a GIS shapefile of buffers

associated with each RCA. Helix also made use of recent aerial photographs; soils records; vegetation mapping and results of the focused surveys that were completed in 2007 for the Draft EIR/EIS; USFS modeled habitat for arroyo toad; USFS location data for arroyo toad, least Bell's vireo, and southwestern willow flycatcher; CNDDDB records; and USFWS Recovery Plans for arroyo toad, least Bell's vireo, and southwestern willow flycatcher. These same databases were provided to SDG&E for use in further refinement of the FESSR.

Results of the Helix RCA analysis are presented in Table Ap. 8Q-1 of Appendix 8Q of the Final EIR/EIS. For each alternative and the FESSR, project features that would result in impacts to RCAs are identified by type, number if applicable, and milepost; effects and options for avoiding or reducing impacts are also described. Table 3-9 indicates the FESSR features and activities identified in Appendix 8Q and the estimated acres associated with each. The acreage calculation is based on the EIR/EIS database.

TABLE 3-9. FESSR FEATURES AND ACTIVITIES IN RIPARIAN CONSERVATION AREAS BASED ON APPENDIX 8Q IN THE FINAL EIR/EIS

Project Features In Appendix 8Q	Permanent Impacts							Temporary Impacts			
	Access Road	Footings	TSAP	Pad 100x100	Pad 35x75	Pullsite	TOTAL	Access Road	Pad Temp	Pullsite	TOTAL
MD2028 and USFS1111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.09
Structure 162	0.16	0.00	0.00	0.23	0.04	0.00	0.44	0.00	1.09	0.00	1.09
Structures 168 and 169	0.00	0.00	0.02	0.03	0.00	0.00	0.05	0.00	0.00	0.00	0.00
Structures 173 and 174	0.41	0.00	0.00	0.25	0.06	0.00	0.72	0.00	0.00	0.00	0.00
Structures 184 and 187	1.51	0.01	0.00	1.14	0.30	2.40	5.36	0.00	1.21	0.08	1.29
Structure 193	0.08	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.02	0.43	0.45
Structure 238	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.66
Structure 276	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	1.67
Structure 283	0.12	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
Structure 290	0.00	0.00	0.01	0.05	0.00	0.00	0.07	0.00	0.00	0.00	0.00
USFS 1108 and 1109	0.60	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
TOTAL	2.87	0.01	0.04	1.70	0.40	2.40	7.43	0.09	2.32	2.84	5.25

In connection with preparation of the Preliminary Jurisdictional Delineation (PJD) report and evaluation of potential reroutes on CNF lands, USFS recommended that the RCA database be updated and used to assess potential impacts of the FESSR and proposed modifications.

The RCA update was prepared by WRA. WRA delineated all streams and wetlands that are protected as RCAs by the USFS and may be impacted by the SRPL alignment. Streams were categorized as perennial, intermittent, and ephemeral (the categories used in the CNF Forest Plan). Various buffer widths were applied to these streams and aquatic features as per USFS guidelines to determine the limits of the RCA areas. WRA updated the RCA database with this information and it is referred to hereinafter as the "RCA 2010 database." The RCA 2010 database was used to identify the Project features and activities that would occur within RCAs, with an emphasis on roads and ground disturbance. Tables 3-10 and 3-11

presents the results of the analysis. To provide the basis for a comparison, the RCA 2010 database also was applied to the FESSR. Table 3-12 presents the results. Approximately 50% of the total acreage impacts are associated with improvements to existing roads (including those currently used for other non-project related purposes) within the existing roadbed, or associated with improving turns for the existing roadbed. No existing roads are proposed to be widened.

TABLE 3-10. FEATURES AND ACTIVITIES OF THE MODIFIED PROJECT IN RIPARIAN CONSERVATION AREAS BASED ON RCA 2010 DATABASE AND UPDATED RCA ANALYSIS

Roads Measured in Miles			
	Project Impact Areas		
	Permanent	Temporary	
Existing Roads (miles)			
Minor Improvement	1.925	0	
Major Improvement	3.913	0	
TOTAL Improvements to Existing Roads	5.838	0	5.838
Roads Measured in Acres			
	Project Impact Areas		
	Permanent	Temporary	Total
New Roads (acres)	0.52	0.09	0.61
Existing Roads (acres)			
Minor Improvement	1.16	0	1.16
Major Improvement	7.86	0	7.86
Total Improvements to Existing Roads	9.01	0	9.62
Stream Crossings by Road			
New Road Stream Crossings			2
Existing Road Stream Crossings			39
Total Road Stream Crossings			41
Other Project Features Measured in Acres			
	Project Impact Areas		
	Permanent	Temporary	Total
Footings	0.02		0.02
Grading	0.56		0.56
Guard_Areas		0.04	0.04
TSAP	0.85		0.85
Structure Impact Area	2.63		2.63
Maintenance Pad	0.38		0.38
Work Area		2.33	2.33
String Site Area		2.29	2.29
Total Other Project Impacts	4.44	4.66	9.10
Total Project Features in Acres			
	Project Impact Areas		
	Permanent	Temporary	Total
Total	13.97	4.75	18.72

TABLE 3-11. POTENTIAL FESSR AND MODIFIED PROJECT IMPACTS IN RIPARIAN CONSERVATION AREAS BY PMR UNIT BASED ON PMR DATABASE

PMR Unit	FESSR (acres)			FESSR (acres)		
	Temporary	Permanent	Total	Permanent	Temporary	Total
15	0.44	1.09	1.53	0.27	0.00	0.27
16	1.29	0.00	1.29	9.06	0.17	9.23
17	7.18	15.90	23.08	2.02	1.00	3.03
18	0.14	14.82	14.97	0.00	0.12	0.12
20	0.00	0.09	0.09	0.00	0.00	0.00
21	0.73	0.52	1.25	0.00	0.00	0.00
22	0.00	0.66	0.66	0.00	0.00	0.00
23	0.00	0.00	0.00	0.09	0.00	0.09
25	1.32	8.41	9.73	1.58	2.40	3.99
26	0.52	1.08	1.60	0.57	0.18	0.76
27	0.00	0.00	0.01	0.00	0.00	0.00
28	0.49	2.83	3.32	0.28	0.87	1.16
29	0.00	6.39	6.39	0.00	0.00	0.00
31	0.05	0.00	0.05	0.00	0.00	0.00
34	0.80	0.32	1.12	0.08	0.00	0.08
Total	12.96	52.13	65.10	13.97	4.75	18.72

As indicated in Table 3-9, the FESSR structures and features identified in Appendix 8Q would occur on approximately 12.68 acres of RCAs, potentially resulting in 7.43 acres of permanent impacts and 5.25 acres of temporary impacts to RCAs within CNF. This estimate is based on the EIR/EIS database, not the updated RCA 2010 database. If the RCA 2010 database is applied to the FESSR, structures and other features would occur on approximately 65.10 acres of RCAs, potentially resulting in 12.96 acres of permanent impacts and 52.13 acres of temporary impacts.

As indicated in Table 3-10, structures and features of the modified Project would occur on approximately 18.72 acres within RCAs, potentially resulting in 13.97 acres of permanent and 4.75 acres of temporary impacts within RCAs. Approximately 50% of the total acreage impacts are associated with improvements to existing roads (including those currently used for other non-project related purposes) within the existing roadbed, or associated with improving turns for the existing roadbed. No existing roads are proposed to be widened.

Measured by the RCA 2010 database (prepared by WRA), both the FESSR and modified Project would have similar permanent impacts (12.96 acres and 13.97 acres respectively). Temporary impacts would be greatly reduced in the modified Project. Measured against the EIR/EIS 2008 databases (provided by the USFS), the modified Project would affect approximately 6 more acres of RCAs than the FESSR, much of which is associated with already existing roads. These results are consistent with the fact that the portions of the FESSR on USFS lands are part of routes that were designed and revised in consultation with USFS staff to minimize impacts to other resources on CNF. The primary example is the improvements requested by the USFS to Thing Valley Road (La Posta Road north of I-8) where most of its length falls within an RCA.

In summary, no new or significantly greater impacts to RCAs would result because of changes identified in the modified Project.

For a comprehensive summary of Project impacts to CNF under the FESSR and modified Project see Table 3-15.

3.3.4 IMPACTS TO CULTURAL RESOURCES

Since completion of the Final EIR/EIS, Class III cultural resource surveys have been completed for the entire alignment, as required by MMCRP measure C-1a. Measure C-1a requires SDG&E to conduct and submit for CPUC and BLM approval an inventory of cultural resources within the project's final Areas of Potential Effect (APE). (The APE is the horizontal and vertical extent of anticipated impacts that could affect historic properties. This includes direct impacts (physical disturbance from any project activity during or after construction) and indirect impacts, such as noise, vibration, visual intrusion, or erosion.) This Class III inventory supplements inventories conducted for the Final EIR/EIS and is required pursuant to the National Historic Preservation Act Section 106 programmatic agreement. The survey was conducted in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61).

The inventory has been completed and encompasses the APEs for both the FESSR and the modified Project. The project alternatives presented in the Final EIR/EIS that combine to create the FESSR are the Interstate 8 Alternative from MP 0 to MP 40, the BCD Alternative, the BCD South Option Alternative, the Modified Route D Alternative, the Modified Route D Star Valley Option, the I-8 Alternative MP 71 to MP 79.5, the Interstate 8 Mitigation Reroute Peutz Valley/Chocolate Canyon, and the I-8 Alternative MP 82.5 to 92.7. The impacts to cultural resources in these segments are defined in the Final EIR/EIS as Class I or Class II and are analyzed in Section E of the Final EIR/EIS.

Results of the Class III inventory have been submitted in a separate report to CPUC and BLM and will be reviewed by the appropriate Native American Tribal representatives. Based on all of the accumulated cultural resource data, the FESSR has the potential to directly impact 206 of the identified resources; the modified Project has the potential to directly impact 147. Table 3-12 summarizes the potentially affected resources based on data from the Final EIR/EIS survey and the Class III Inventory. The resources are categorized by site type labels. Table 3-13 indicates the distribution of all identified cultural resources by PMR unit and location relative to the direct impact areas of the FESSR and modified Project. Details regarding the type of resources in each PMR unit and the difference in impacts under the FESSR and modified Project are provided in Section 4. A comprehensive summary table of the inventory results is Attachment B.

The project modification process and the completed Class III inventory has allowed for a careful review of the correspondence between identified cultural resource sites and features and proposed on-the-ground project impacts. As a general rule each proposed modification to the FESSR was reviewed for potential effects on cultural resources, and adjustments were made to avoid or minimize the potential impacts during the design process. All of the cultural resource sites that have been identified are assumed to be eligible for nomination to the National Register of Historic Places. Only a small number of

resources have been subjected to eligibility evaluation. Sites that can't be avoided will be evaluated for eligibility prior to any ground disturbance.

As a result of these planning actions, there would be a reduction or no net change in the overall potential for impacts on cultural resources within 33 of the PMR units. The modified Project will avoid all direct impacts to cultural resources on the Cleveland National Forest. In the other 10 units, there would be increased potential for impacts to cultural resource sites, however, impacts will be avoided or minimized by establishing Environmentally Sensitive Areas (ESAs), which will protect most of these resource areas by excluding them from activities and protecting them from ground disturbance during construction. With the installation of ESAs, impacts to most cultural resources within the footprint of the modified Project will be avoided.

TABLE 3-12. CULTURAL RESOURCES POTENTIALLY AFFECTED BY THE FESSR OR MODIFIED PROJECT BASED ON RESULTS OF THE CLASS III CULTURAL RESOURCE INVENTORY

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
Bedrock Milling	SDI-19036	1	1
	SDI-19037	1	1
	SPMD-S-2	1	1
Habitation Site	IMP-269	1	1
Historic Military	37-014261	2	2
Historic Mining	BC-24/SPNB-S-4		1
	SPED-S-7		1
Historic Refuse	SDI-18063		1
	SDI-6893/16823		1
	SPED-S-18	1	1
	SPED-S-22		1
	SPPA-S-1	1	1
Historic Refuse Scatter	BW-150		1
Historic Road	37-019275		1
	IMP-7886	1	1
	SPAP-S-5	1	1
Historic Trail	SDI-12821	1	1
Lithic Scatter	IMP-2085	1	1
	IMP-8740	1	1
	IMP-8744	1	1
	IMP-8810	1	1
	IMP-8824	1	1
	SDI-7051	1	1
	SDI-7052	1	1
SPED-S-13		1	
Lithic Scatter/Ceramic Scatter	IMP-8665	1	1
	SDI-19035	1	1
Lithic Scatter/Mining	IMP-8741	1	1
Lithic Scatter/Rock Carin	IMP-8739	1	1

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
No info	AGH-5	1	1
	BB-S-1	1	1
	SPED-S-17		1
Not a Site	SPAP-S-14	1	1
Old Highway 80	37-024023	1	1
Prehistoric Artifact Scatter	9C-3	1	1
	BC-12	1	1
	BC-37		1
	BC-57		1
	BC-61		1
	BW-128		1
	BW-149		1
	BW-154		1
	BW-158		1
	BW-84		1
	IMP-1015/4348	1	1
	IMP-3784/3785/4340/4341/4344	1	1
	IMP-4706	1	1
	LMP-S-61/SPBB-S-7	1	1
	SDI-11686	1	1
	SDI-19039		1
	SDI-19293	1	1
	SDI-7059	1	1
	SDI-7060	1	1
SDI-7073/7083/8306	1	1	
Prehistoric Artifact Scatter/Historic Refuse	BW-28	1	1
	SDI-19276		1
Prehistoric Bedrock Milling	BC-13		1
	BC-19		1
	BC-33		1
	BC-50	1	1
	BW-116		1
	BW-129		1
	BW-145		1
	BW-59	1	1
	SDI-10040	1	1
	SDI-11670		1
	SDI-14041		1
	SDI-17987		1
	SDI-18436		1
	SDI-19036/19037	1	1
	SDI-19279	1	1
	SDI-19301	1	1
	SDI-19303	1	1
SDI-4724	1	1	

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
	SDI-4788	2	2
	SDI-6902		1
	SDI-7030/7951/9153/19268	1	1
	SDI-8440	1	1
	SDI-9188	1	1
	SPED-S-15		1
	SPED-S-5	1	1
	SPMD-S-3		1
	SPNB-S-2/SPMD-S-1	1	1
	SPNB-S-7		1
Prehistoric Bedrock Milling/Historic Mining	SDI-8251	1	1
Prehistoric Ceramic Scatter	BC-21		1
	BW-S-09	1	1
Prehistoric Ceramic Scatter/Historic Refuse	SPED-S-2	1	1
Prehistoric Ceramic Scatter; Historic Refuse	SPED-S-3	1	1
Prehistoric Habitation	BW-25		1
	IMP-4228	1	1
	SDI-13651	1	1
	SDI-19001	2	2
	SDI-19018	1	1
	SDI-7074/7075/7076/15879	2	2
Prehistoric Habitation, Trail	IMP-103/3710	1	1
Prehistoric Isolate (Debitage/Ceramic)	SPNB-S-1	1	1
Prehistoric Lithic Scatter	10B-8	1	1
	8C-3		1
	9C-15		1
	AGH-1		1
	BC-2/SPED-S-5	1	1
	BC-5	1	1
	BC-53		1
	BC-60		1
	BC-8	1	1
	BC-9		1
	BW-130		1
	BW-156		1
	BW-157		1
	BW-27		1
	BW-35	1	1
	BW-78		1
	BW-85		1
	IMP-2304	1	1
	IMP-4237	1	1
	IMP-8737	1	1
IMP-8766	1	1	
IMP-8793	1	1	

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
	SDI-13826		1
	SDI-18346	1	1
	SDI-19281/SPED-S-12	1	1
	SDI-19304		1
	SDI-7044/7046/7087/8432	1	1
	SDI-8442	1	1
	SPBB-S-1	1	1
	SPED-S-11	1	1
Prehistoric Lithic Scatter, Trail	IMP-3708	1	1
Prehistoric Lithic Scatter/Historic Refuse	BC-6	1	1
	IMP-3773	1	1
	SDI-7077		1
Prehistoric Lithic Scatter/Trail	IMP-3762	1	1
Prehistoric Lithic/Shell Scatter	BW-60	1	1
Prehistoric Projectile Point; Historic Refuse	SPED-S-1		1
Prehistoric Rock Feature	BW-50	1	1
	IMP-4744		1
Rock Shelter	SDM-C-553	1	1
Temporary Camp	SDI-7086	1	1
	SDI-7087	1	1
Unknown	LD-S-2		1
	SDI-19298	1	1
No info	IMP-3710	1	1
	SPSB-S-5	1	1
Potentially Affected only by FESSR			
Historic Quarry	SDI-18999	1	
Historic Refuse Scatter	SDI-9160H	1	
Historic Road	IMP-7886	1	
Historic Structure Remains	37-028924	1	
Historic Trail	Fages-De Anza Trail	1	
Prehistoric Artifact Scatter	BW-22	1	
	IMP-3766	1	
	IMP-8666	1	
	IMP-8669	1	
	IMP-8767	1	
Prehistoric Bedrock Milling	BW-29	1	
	SDI-19292	1	
	SDI-6904	1	
Prehistoric Ceramic Scatter	SDI-19033	1	
Prehistoric Habitation	IMP-2623	1	
	IMP-4716	1	
	IMP-4718	1	
	IMP-4724	1	
	IMP-8697	1	
	SDI-11687	1	

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
Prehistoric Hearth, Ceramic and Lithic Scatter	SDI-6116A	1	
Prehistoric Isolate (Debitage)	IMP-3767	1	
Prehistoric Lithic Scatter	BW-41	1	
	IMP-2086	1	
	IMP-2303	1	
	IMP-2372	1	
	IMP-3731	1	
	IMP-3736	1	
	IMP-3749	1	
	IMP-3755	1	
	IMP-3756/3757	1	
	IMP-3768	1	
	IMP-8731	1	
	IMP-8743	1	
	IMP-8812	1	
	IMP-8844	1	
IMP-8868	1		
Prehistoric Lithic Scatter, Trail	IMP-2074A	1	
	IMP-2074B	1	
Prehistoric Rock Feature	IMP-4711	1	
Prehistoric Rock Feature and Artifact Scatter	IMP-8813	1	
Prehistoric Trail	IMP-4717	1	
Roasting Pit/Lithic Scatter/Ceramic Scatter	SDI-6116B	1	
Temporary Camp	IMP-4349	1	
Bedrock Milling	SDI-19307	1	
Duplicate	SDI-8432	1	
Historic Mine/Structure	BC-7	1	
Historic Mining	9C-14	1	
	9C-9	1	
	SDI-19267	1	
	SPED-S-21	1	
Historic Refuse	SDI-9167	1	
Historic Rock Feature	SPBB-S-8	1	
Historic Trail	IMP-3396	1	
Lithic Scatter	SDI-11684	1	
	SDI-17999	1	
	SDI-19280	1	
No info	IMP-334	1	
Prehistoric Artifact Scatter	9C-20	1	
	BC-18	1	
	BC-30/SPNB-I-4	1	
Prehistoric Bedrock Milling	9C-13	1	
	BC-51	1	
	BW-113	1	
	BW-52	1	

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
	BW-72	1	
	SDI-6776	1	
	SDI-7873/19250	1	
Prehistoric Habitation	SDI-13652	1	
	SDI-9189	1	
	SDI-9522	1	
Prehistoric Isolate (Debitage)	IMP-8838	1	
Prehistoric Isolate (Ground Stone)	IMP-4745	1	
Prehistoric Lithic Scatter	9C-10	1	
	BC-1	1	
	BW-36	1	
	IMP-3728	1	
	IMP-3734	1	
	IMP-3735	1	
	IMP-8705	1	
	SDI-19302	1	
SPED-S-10	1		
Prehistoric Lithic Scatter/Historic Refuse	SDI-7053/9166	1	
Prehistoric Rock Feature	IMP-4733	1	
	SDI-6120	1	
Rock Shelter	SDI-4913	1	
Temporary Camp	SDI-13605	1	
No info	BS-S-40	1	
	BW-161	1	
	IMP-3720H	1	
	IMP-3774	1	
	IMP-3775	1	
	IMP-8706	1	
	IMP-8742	1	
	LD-S-1	1	
	SPAP-S-12	1	
	SPAP-S-15	1	
	SPAP-S-16	1	
	SPBB-S-4	1	
	SPED-S-9	1	
	SPSB-S-2	1	
	SPSB-S-6	1	
SU-29	1		
W-671	1		
Historic Homestead	SDI-19116	1	
Ceramic Sherds	SDI-19291	1	
	SDI-680	1	
Artifact Scatter	SDI-7044	1	
Quarry, Quartz	SDI-7046	1	
Bedrock Milling with Artifacts	SDI-17998	1	

Resource Category	ID in Cultural Resource Inventory	Number Potentially Affected	
		FESSR	Modified Project
Quarry, Andesite	SDI-8430	1	
Isolate, Core	SDI-9170	1	
TOTAL		206	147

TABLE 3-13. NUMBER OF CULTURAL RESOURCES PER PMR UNIT POTENTIALLY AFFECTED BY FESSR OR MODIFIED PROJECT OR NOT AFFECTED BY EITHER BASED ON THE CLASS III CULTURAL RESOURCE INVENTORY

PMR Unit	# of Cultural Resources Affected by Project*		No Impacts
	FESSR	Modified Project	
1	0	0	0
2	41	18	21
3	7	1	1
4	12	2	6
5	11	7	5
6	18	11	11
7	5	2	0
8	25	25	7
9	11	5	2
10	2	1	1
11	2	6	3
12	3	2	0
13	6	8	2
14	12	16	0
15	3	3	4
16	2	3	5
17	6	4	1
18	0	1	0
19	0	0	0
20	0	0	0
21	3	4	2
22	2	4	1
23	2	4	0
24	0	0	1
25	2	0	3
26	0	0	1
27	0	0	0

PMR Unit	# of Cultural Resources Affected by Project*		No Impacts
	FESSR	Modified Project	
28	0	0	0
29	5	5	0
30	1	0	0
31	1	0	1
32	0	0	0
33	0	0	4
34	8	7	4
35	2	1	1
36	0	0	3
37	1	1	5
38	1	2	4
39	5	3	1
40	1	1	0
41	0	0	0
42	0	0	0
43	0	0	0
44	0	1	0

Note

* Totals are not given because a given cultural resource may be affected by activities at more than one PMR unit depending on the location and size of the cultural resource.

3.3.5 IMPACTS TO GEOLOGICAL AND MINERAL RESOURCES

The modified Project would result in less ground disturbance than the FESSR and consequently would have reduced potential for erosion and slope stability impacts than the FESSR. Impact avoidance and minimization measures identified for the FESSR also would apply to the modified Project. No new significant impacts would result from the modified Project.

Both the FESSR and modified Project would be subject to requirements for ensuring and minimizing constraints on access to mineral resources on federal lands, especially where transmission lines cross existing mining operations on BLM lands. MMCRP measure G-9a applies equally to both. SDG&E initiated coordination with quarry operations during preparation of the EIR/EIS and continued the coordination through the project modification process. No new significant impacts would result from the modified Project.

3.3.6 IMPACTS TO LAND USE

Since approval of the Final EIR/EIS, SDG&E has addressed the following land use issues in connection with proposed modifications to the FESSR: impacts to private lands, impacts to CNF, impacts to sensitive receptors (noise), and impacts to areas covered by regional habitat conservation programs.

3.3.6.1 PRIVATE LANDS

MMCRP measure L-2b required SDG&E to notify landowners of parcels within 1,000 feet of the centerline of the alignment regarding the specific location of the ROW, individual towers, staging areas, pull sites, access roads, and other facilities associated with the project. Notified landowners were then provided the option of identifying conflicts with any existing structures or planned development and requesting modifications of the alignment, if reasonable and feasible. In response to these landowner requests and as a result of changes in design and engineering, the modified Project reduces impacts to private lands from a combined total (permanent and temporary) of 834.34 acres to 492.52 acres. Table 3-14 provides a comparison of impacts to private lands by PMR unit. With five exceptions, impacts are reduced in each PMR. The exceptions are PMR8, PMR13, PMR25, PMR32, and PMR33.

TABLE 3-14. IMPACTS TO PRIVATE LANDS UNDER FESSR AND THE MODIFIED PROJECT BASED ON THE PMR DATABASE

	FESSR (acres)			Modified Project (acres)		
	Perm.	Temp.	Total	Perm.	Temp.	Total
1	0.00	0.00	0.00	0.00	0.00	0.00
2	4.57	39.19	43.76	2.13	5.26	7.38
3	0.10	0.00	0.10	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	4.89	1.52	6.41	0.45	0.64	1.09
6	8.09	28.49	36.58	3.70	9.56	13.26
7	4.74	5.66	10.40	1.43	4.93	6.36
8	7.17	9.99	17.15	4.30	39.48	43.77
9	11.86	47.23	59.09	4.17	3.41	7.59
10	8.35	11.45	19.80	2.76	1.73	4.49
11	2.47	45.19	47.66	2.17	3.24	5.41
12	8.18	33.63	41.81	5.31	12.14	17.46
13	0.00	17.90	17.90	0.30	93.02	93.32
14	2.76	0.00	2.76	2.91	1.22	4.13
15	3.13	17.53	20.65	0.00	0.00	0.00
16	0.00	15.70	15.70	0.00	0.00	0.00
17	4.15	15.22	19.37	0.73	0.01	0.74
18	6.37	33.42	39.79	1.91	2.88	4.79
19	0.44	0.00	0.44	2.28	0.07	2.36
20	10.99	84.64	95.63	7.81	49.02	56.83
21	2.65	7.74	10.40	1.18	1.56	2.74
22	2.43	6.59	9.02	1.13	5.21	6.34

	FESSR (acres)			Modified Project (acres)		
	Perm.	Temp.	Total	Perm.	Temp.	Total
23	7.12	39.46	46.58	1.81	34.17	35.98
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.34	0.00	0.34
26	0.94	3.38	4.32	0.00	0.00	0.00
27	1.36	7.23	8.59	1.14	0.96	2.10
28	1.67	0.00	1.67	0.00	0.76	0.76
29	120.33	22.07	142.40	72.95	10.81	83.76
30	1.87	2.92	4.79	0.87	0.00	0.87
31	1.23	4.97	6.20	0.80	0.14	0.94
32	1.52	3.05	4.58	4.00	2.12	6.12
33	0.00	0.00	0.00	0.00	38.91	38.91
34	5.24	41.78	47.02	3.07	20.66	23.72
35	16.25	3.49	19.74	2.94	1.75	4.69
36	13.55	2.96	16.51	4.18	3.19	7.38
37	2.56	0.61	3.17	0.53	0.01	0.53
38	6.19	0.26	6.44	2.57	0.02	2.59
39	5.83	1.89	7.72	3.09	2.67	5.76
40	0.19	0.00	0.19	0.01	0.00	0.01
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	279.19	555.16	834.34	142.97	349.55	492.52

3.3.6.2 CLEVELAND NATIONAL FOREST

Total Impacts

As described in the Final EIR/EIS, the FESSR included reroutes and features to avoid impacts to CNF resources where possible. Subsequently, SDG&E has initiated changes and responded to USFS requests to further reduce impacts on USFS lands. Based on the EIR/EIS database, SDG&E estimates that the FESSR would have permanent impacts on 49.01 acres and temporary impacts on 125.56 acres in CNF. The modified Project would have slightly lower total permanent impacts (43.96 acres) and would substantially reduce temporary impacts to 48.28 acres based upon the PMR database. Table 3-15 provides a summary of impacts to the CNF by Project component, affected resource, and PMR unit under the FESSR and modified Project. The estimates are from the PMR database.

TABLE 3-15. IMPACTS TO CLEVELAND NATIONAL FOREST UNDER THE FESSR AND MODIFIED PROJECT BASED ON THE PMR DATABASE

PROJECT COMPONENTS IN CNF				
Variable	FESSR		Modified Project	
	Number	Acres	Number	Acres
Length of ROW (miles)	18.99	N/A	19.01	N/A
Structures ^{1,2}	77	44.42	76	28.30
Wire Stringing Sites	32	50.52	13	18.36
New Access Roads ^{3,4}	9.96	22.78	2.10	3.90
Tower Staging Access Pads	70	0.99	52	8.70
Construction Yards	6	55.86	1	19.28
Suncrest Substation Impacts	0	0	0	0
ENVIRONMENTAL IMPACTS TO RESOURCES IN CNF				
SENSITIVE VEGETATION COMMUNITIES	FESSR (acres)		Modified Project (acres)	
Permanent Impacts				
Desert Scrub and Dune Habitats		0.00		0.00
Coastal and Montane Scrub Habitats		4.58		2.65
Grasslands and Meadows		2.75		0.25
Chaparrals		39.66		28.99
Woodlands and Forests		0.20		0.00
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)		0.09		0.06
Riparian Scrubs		0.00		0.00
Riparian Forests and Woodlands		0.23		0.03
Total Permanent Impacts to Sensitive Communities		47.52		32.42
Temporary Impacts				
Desert Scrub and Dune Habitats		0.00		0.00
Coastal and Montane Scrub Habitats		9.99		0.85
Grasslands and Meadows		16.12		1.20
Chaparrals		81.89		44.93
Woodlands and Forests		8.41		0.00
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)		0.43		0.00
Riparian Scrubs		0.00		0.00
Riparian Forests and Woodlands		0.11		0.00
Total Temporary Impacts to Sensitive Communities		116.96		48.07
TOTAL IMPACTS TO SENSITIVE VEGETATION COMMUNITIES		164.48		80.49
Other Ground Disturbance				
Non-native Vegetation, Developed Areas, and Disturbed Habitat				
Permanent		1.48		11.54
Temporary		8.61		0.21
TOTAL GROUND DISTURBANCE		174.57		92.24

ENVIRONMENTAL IMPACTS TO RESOURCES IN CNF		
SPECIAL STATUS SPECIES⁵	FESSR (acres or number)	Modified Project (acres or number)
QUINO CHECKERSPOT BUTTERFLY		
<i>USFWS Critical Habitat (2002 or 2009)</i>		
Permanent Impacts	0.00	0.00
Temporary Impacts	0.00	0.00
<i>USFWS Occupied Habitat (USFWS Data)⁶</i>		
Permanent Impacts	3.42	2.77
Temporary Impacts	15.98	3.37
Total	19.40	6.14
ARROYO TOAD		
<i>USFWS Proposed Critical Habitat</i>		
Permanent Impacts	0.00	0.00
Temporary Impacts	0.00	0.00
<i>USFS Occupied Habitat [USFS Habitat Model]</i>		
Permanent Impacts	2.53	0.66
Temporary Impacts	19.43	0.00
<i>USFS Suitable Habitat [USFS Habitat Model]</i>		
Permanent Impacts	1.30	2.83
Temporary Impacts	1.10	0.01
Total	24.36	3.50
COASTAL CALIFORNIA GNATCATCHER		
Number of Pairs Affected	0	0
Number of Unpaired Individuals Affected	0	0
<i>USFWS Critical Habitat</i>		
Permanent Impacts	1.88	0.54
Temporary Impacts	1.39	0.00
<i>USFWS Occupied Habitat (USFWS Data)</i>		
Permanent Impacts	0.00	0.00
Temporary Impacts	0.00	0.00
<i>USFS Suitable Habitat [USFS Habitat Model]</i>		
Permanent Impacts	2.65	1.12
Temporary Impacts	7.07	0.60
Total	12.99	2.26
LEAST BELL'S VIREO		
<i>USFWS Occupied Habitat [USFWS Data]</i>		
Permanent Impacts	0.19	0.00
Temporary Impacts	0.00	0.00
<i>USFS Suitable Habitat [USFS Habitat Model]</i>		
Permanent Impacts	0.65	0.19
Temporary Impacts	0.32	0.00

ENVIRONMENTAL IMPACTS TO RESOURCES IN CNF		
<i>USFS Occupied Habitat [USFS Habitat Model]</i>		
Permanent Impacts	0.24	0.00
Temporary Impacts	0.00	0.00
Total	1.40	0.19
SOUTHWESTERN WILLOW FLYCATCHER		
<i>USFS Suitable Habitat (USFS Modeled Habitat)</i>		
Permanent Impacts	5.14	3.98
Temporary Impacts	14.39	0.74
Total	19.53	4.72
STEPHENS' KANGAROO RAT		
<i>USFS Suitable Habita (USFS Modeled Habitat)</i>		
Permanent Impacts	0.71	0.18
Temporary Impacts	0.03	0.00
Total	0.74	0.18
JURISDICTIONAL WATERS AND RCA'S	FESSR (acres)	Modified Project (acres)
IMPACTS TO WATERS OF THE US (WOUS) ⁷		
Permanent	0.24	0.06
Temporary	0.31	0.00
Total	0.55	0.06
IMPACTS TO WATERS OF THE STATE (WOS) ⁷		
Permanent	0.26	0.09
Temporary	0.53	0.00
Total	0.80	0.09
IMPACTS TO USFS RCAs BY LAND COVER TYPE ⁸		
Permanent Impacts		
Desert Scrub and Dune Habitats	0.00	0.00
Coastal and Montane Scrub Habitats	2.26	0.48
Grasslands and Meadows	2.39	0.23
Chaparrals	2.44	4.66
Woodlands and Forests	0.20	0.00
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	0.01	0.06
Riparian Scrubs	0.00	0.00
Riparian Forests and Woodlands	0.23	0.03
Non-Native Vegetation, Developed Areas, and Disturbed Habitat	0.64	8.51
Total Permanent Impacts inside RCAs	8.17	13.97
Temporary Impacts		
Desert Scrub and Dune Habitats	0.00	0.00
Coastal and Montane Scrub Habitats	3.24	0.66
Grasslands and Meadows	9.90	0.08
Chaparrals	11.58	3.93
Woodlands and Forests	7.47	0.00
Herbaceous Wetlands, Freshwater, and Streams (Non-vegetated Channel)	0.02	0.00
Riparian Scrubs	0.00	0.00
Riparian Forests and Woodlands	0.09	0.00
Non-Native Vegetation, Developed Areas, and Disturbed Habitat	0.30	0.07
Total Temporary Impacts inside RCAs	32.61	4.75
TOTAL RCA IMPACTS	40.78	18.72

ENVIRONMENTAL IMPACTS TO RESOURCES IN CNF						
SPECIAL STATUS PLANT SPECIES ⁹	FESSR		Modified Project			
	Perm.	Temp.	Perm.	Temp.		
Dean’s milk-vetch (BLMS, FSS, L1B)	0	0	0	0		
Jacumba milk-vetch (BLMS, FSS, L1B)	0	0	0	0		
Descanso milk-vetch (BLMS, FSS, L1B)	0	0	0	0		
Orcutt’s brodiaea (BLMS, FSS, L1B)	0	0	0	0		
Dunn’s mariposa lily (SR, FSS, L1B)	20	0	0	0		
Tufted pine-grass	0	7	0	0		
Payson’s Jewelflower (FSS)	0	0	0	1,350		
Lakeside ceanothus (BLMS, FSS, L1B)	0	0	0	0		
Southern mountain misery	15	15	0	0		
Long-spined spineflower (FSS, L1B)	0	0	0	0		
Delicate clarkia (FSS, L1B)	0	0	0	0		
Tecate tarplant (BLMS, FSS, L1B)	0	0	0	8		
Vanishing buckwheat (L1B)	0	0	0	0		
Sticky geraea (L2)	5	1,839	0	0		
Mission Canyon bluecup (FSS)	0	0	0	0		
Ramona horkelia (FSS, L1B)	0	0	0	0		
Heart-leaved pitcher sage (FSS, L1B)	0	0	0	0		
Robinson pepper-grass	4	0	0	0		
Laguna linanthus (BLMS, FSS, L1B)	0	0	0	0		
Cleveland’s bush monkeyflower	2	133	0	0		
Felt-leaved monardella (FSS, L1B)	0	537	0	0		
Chaparral beargrass (FSS, L1B)	0	0	0	0		
Gander’s ragwort (SR, FSS, L1B)	188	2,455	0	0		
Moreno currant (BLMS, FSS, L1B)	0	0	0	0		
Fish’s milkwort	0	6	0	0		
Caraway-leaved gilia	0	28	0	0		
San Miguel savory (FSS, L1B)	0	0	0	0		
Hammitt’s clay-cress (FSS, L1B)	0	0	0	0		
Southern jewelflower (FSS, L1B)	0	0	0	0		
Parry’s tetracoccus (BLMS, FSS, L1B)	0	0	0	0		
Rush-like bristleweed	0	11	7	5		
GROUND DISTURBANCE BY PMR UNIT						
MR Unit	FESSR (acres)			Modified Project (acres)		
	Permanent	Temporary	Total	Permanent	Temporary	Total
15	1.09	1.09	2.19	0.82	0	0.82
16	8.82	3.56	12.38	18.61	30.78	49.39
17	15.51	39.09	54.60	5.86	5.00	10.85
18	1.10	19.48	20.58	0.37	3.78	4.16
20	0	1.52	1.52	0	0	0
21	0.75	1.44	2.20	0.04	0	0.04
22	0.04	0.66	0.70	0.00	0	0.00
23	0	0	0	0.71	0.00	0.71
25	4.84	17.72	22.56	5.02	4.13	9.15

ENVIRONMENTAL IMPACTS TO RESOURCES IN CNF						
26	5.06	8.73	13.78	3.92	0.65	4.58
27	1.80	6.36	8.16	1.64	0.85	2.48
28	4.79	11.01	15.80	3.65	2.07	5.71
29	0	7.75	7.75	0	0	0
31	3.30	4.81	8.10	2.78	1.02	3.80
34	1.91	2.34	4.25	0.54	0.00	0.54
Total	49.01	125.56	174.57	43.95	48.28	92.23

Notes

- EIR estimate includes 20.13 acres of permanent impacts (tower footings, 100 x 100 foot pads, and 35 by 75 foot pads) and 24.29 acres of temporary impacts (temporary pads).
- PMR estimate includes 18.09 acres of permanent impacts (tower footings, 100 x 100 foot pads, and 35 by 75 foot pads) and 10.21 acres of temporary impacts (temporary pads).
- EIR estimate includes 20.98 acres of permanent impacts and 1.80 acre of temporary impacts.
- PMR estimate includes 3.54 acres of permanent impacts and 0.36 acre of temporary impacts.
- In this summary of impacts to special status species, the focus is on the following habitat categories: USFWS critical habitat (designated or proposed), USFWS occupied habitat (areas that USFWS considers occupied by the species based on available information and/or assumptions); mapped habitat and management areas for flat-tailed horned lizard; mapped suitable habitat for barefoot banded gecko; and suitable habitat in the Cleveland National Forest (CNF) as identified by habitat models used by USFS. For arroyo toad and coastal California gnatcatcher, suitable habitat identified by the USFS models on USFS lands also is identified.
- USFWS Occupied Habitat includes areas of known Quino populations and sightings and a buffer that typically encompasses all host plants in the vicinity. Some of the USFWS occupied habitat areas also are part of designated critical habitat (e.g., the Jacumba reference population).
- FEIR/EIS impacts to WOUS/WOS are calculated based on the vegetation proxy for jurisdictional waters utilized in 2008. PMR impacts to WOUS/WOS are calculated based on the 2009/2010 PMR database which includes project-specific jurisdictional resources mapping prepared by WRA.
- FEIR/EIS RCA impacts are based on USFS RCA mapping. PMR RCA impacts are based on the updated 2009/2010 PMR database which includes the RCA mapping update prepared by WRA.
- Status of special status plant species is provided in parentheses for each species. Codes are: FE=federally endangered, FT=federally threatened, SR=state rare, L1B or L2=CNPS List 1B or CNPS List 2, FSS=Forest Service Sensitive, BLMS=Bureau of Land Management Sensitive.

Back County Non-Motorized Zones

MMCRP measure WR-2a requires SDG&E to fine-tune the location of the BCD Alternative Revision component of the FESSR in order to shorten the route and minimize effects on BLM land, Forest land, and private property. Specifically, portions of the original BCD Alternative alignment crossed areas within CNF designated within the Back Country Non-Motorized (BCNM) land use zone. As the EIR/EIS (Section D.17) explains, “major utility corridors and roads are not suitable within BCNM,” and “plan amendments would be required for those alternatives crossing the BCNM land use zone.” The Final EIR/EIS also noted that within the BCNM zone “except for trails, facility construction is generally not allowed, but may occur in remote locations where road access is not needed for maintenance.”

Accordingly, prior to issuance of the Final EIR/EIS, SDG&E planned a routing change to the BCD Alternative that would enter CNF north of the modified Project location of Structure EP142 across a private in-holding owned by JAM Investments Inc. (JAM). The route traversed the JAM property from the northeast to the southwest before reentering CNF. This route avoided BCNM land and minimized disturbance to CNF land, and it was analyzed in the Recirculated Draft EIR/Supplemental Draft EIS issued in July 2008. In response, however, the private landowner opposed the reroute and sent written comments to the CPUC. In October 2008, the CPUC issued a response to comments from the affected landowner, which was published as “Response to Comments Set G0017” in the Final EIR/EIS. The response from the CPUC acknowledged that the BCD Alternative Revision was designed by SDG&E in response to a request from the USFS that BCNM land uses be avoided and impacts to USFS land be minimized. The response also acknowledged the impacts to the JAM property and identified mitigation measure WR-2a, which states as follows:

WR-2a: Develop a reroute for the BCD Alternative Revision to reduce effects on recreation. SDG&E shall relocate the overhead 500 kV transmission line along the southern boundary of JAM properties as shown in Figure E.2.1-b to shorten the route and minimize effects on BLM land, Forest land, and private property. This reroute and its ground-disturbing components shall avoid Back Country Non-Motorized land use zones of the Cleveland National Forest, while also minimizing towers and disturbance on private property. SDG&E shall submit a memo to the CPUC for review and approval that documents its attempts to fine-tune the location of the BCD Alternative Revision, as well as the submittal of final construction plans for review and approval at least 120 days prior to the start of construction.

The following discussion is meant to meet the requirement of submitting a memo as discussed in the measure above.

While WR-2a calls for avoiding BCNM areas, it also calls for minimizing impacts to private landowners. “Minimization” also is the term used in the effectiveness criteria cited in the MMCRP for WR-2a. The effectiveness criterion for WR-2a is that the reroute “minimizes impacts to [BCNM] zones and towers/disturbance on private lands.”

In order to comply with WR-2a, SDG&E had several meetings and telephone conferences with the CPUC and USFS to discuss alternatives to the BCD route that would avoid the JAM property. On November 6, 2008, a meeting was held with the USFS to discuss three alternatives. Two of the alternatives were

eliminated because of impacts to sensitive resources and riparian areas, leaving one alternative that shifted the route south of the JAM property, spanning the BCNM land use zone completely. However, in November 2008, the site was surveyed and due to span lengths and structure types, SDG&E was unable to span the BCNM because of the topography of the area. Therefore, it was concluded that in order to avoid the JAM property and other sensitive resources, one structure, currently known as EP142, would be located in the BCNM land use zone. The impact would occur at the northern edge of a narrow strip of land designated as BCNM. CNF land use designations on either side of the area allow for some motorized use, within specific limitation. To minimize disturbance on the BCNM area, SDG&E eliminated access roads and designated EP142 for helicopter construction and maintenance. See PMR15 for details.

On December 10, 2008 and then again on January 8, 2009, the current JAM re-route shown on PMR Figure 15 was reviewed with representatives from the USFS, and it was agreed that the route minimized impacts to private lands and BCNM land, in compliance with the effectiveness criteria of MMRCP measure WR-2a, because BCNM could not be avoided altogether by any suitable solution. As the Final EIR/EIS disclosed, an amendment to the CNF Forest Plan would be required to allow for the proposed use. The impact in PMR15 is the only Project impact to a BCNM area.

3.3.6.3 SENSITIVE RECEPTORS

The Final EIR/EIS included an analysis of residential structures within 1000 feet of the ROW and associated features of the various routes comprising the FESSR and other alternatives. To address MMRCP measure N-1a, which requires implementation of best management practices for noise and the implementation of various noise-suppression techniques, and to examine changes in noise impacts under the modified Project, Investigative Science and Engineering, Inc. (ISE) prepared a draft Estimated Acoustic Impact Potential study [ISE 2010].

The initial phase of the study considered baseline acoustic conditions and identified areas where the Project could increase the ambient background noise level above the Community Noise Equivalence Level (CNEL) to the point of being discernable or creating adverse conditions to sensitive receptor areas. Forty areas were identified (see ISE 2010).

As part of the study, ISE identified sensitive receptors within one-quarter mile of all Project impact areas (including access roads) in PMR5 through PMR40. This inventory supplements information already available on sensitive receptors within PMR1 through PMR5 and PMR41 through PMR44. The ISE analysis focused on residential, commercial, and industrial sites as identified using aerial imagery and parcel information. Table 3-16 indicates the number of these sensitive receptor types per PMR unit, together with the Project features within one-quarter mile of the receptors.

Based on the updated inventory and information from the Final EIR/EIS, the modified Project and FESSR are similar in their potential for impacts to sensitive receptors and would be subject to the same impact avoidance and minimization measures. There are locations where the modified Project is closer or farther away from individual receptors, but there are no new significant impacts associated with the modified Project.

TABLE 3-16. SENSITIVE RECEPTORS (NOISE) WITHIN PMR6 THROUGH PMR40

PMR Unit	Receptor Type	Noise Source	Number
6	SF RESIDENTIAL	SPL TSAP	1
7	None	None	0
8	INDUSTRIAL	SPL PP SAAR	1
	SF RESIDENTIAL	CY	2
9	None	None	0
10	COMMERCIAL	SPL TSAP PP EAR	1
	SF RESIDENTIAL	EAR	2
		SPL	3
		SPL PP	1
11	COMMERCIAL	SPL TSAP PP	1
	SF RESIDENTIAL	EAR	3
		SPL EAR SAAR PP	1
		TAR SAAR	5
12	None	None	0
13	SF RESIDENTIAL	SPL PP SAAR	1
14	None	None	0
15	None	None	0
16	None	None	0
17	SF RESIDENTIAL	SPL	1
		SPL TSAP PP	1
		SPL TSAP PP EAR	3
18	SF RESIDENTIAL	PP TAR SAAR	1
19	None	None	0
20	SF RESIDENTIAL	CY	1
		SPL	2
		SPL PP SAAR	10
		SPL PP TAR SAAR	4
		SPL PP TSAP	1
		SPL TSAP PP	3
		SPL TSAP PP SAAR	5
		TAR SAAR	1
		TSAP PP SAAR	1
21	SF RESIDENTIAL	SPL	1
		SPL PP	1
		SPL PP EAR PP	1
		SPL TSAP PP	2
		SPL TSAP PP EAR	2
22	SF RESIDENTIAL	PP	1
23	None	None	0
24	None	None	0
25	COMMERCIAL	EAR SAAR	1
	SF RESIDENTIAL	EAR SAAR	2
		PP TAR SAAR	1
		SPL PP	1
		SPL TSAP PP	1
26	SF RESIDENTIAL	TSAP PP	4
27	COMMERCIAL	PP TAR SAAR	1
		SPL PP TAR SAAR	1
	SF RESIDENTIAL	PP SAAR	1

PMR Unit	Receptor Type	Noise Source	Number
		PP TAR SAAR	1
28	COMMERCIAL	SPL	1
	SF RESIDENTIAL	SPL TSAP PP SAAR	1
		TSAP PP SAAR	1
29	None	None	0
30	None	None	0
31	None	None	0
32	SF RESIDENTIAL	SPL	11
		SPL PP SAAR	1
		SPL PP TAR SAAR	8
		SPL SAAR	1
		SPL TAR SAAR	4
33	COMMERCIAL	SPL	114
		SPL CY	1
	INDUSTRIAL	SPL	1
	MF RESIDENTIAL	SPL	110
	SF RESIDENTIAL	CY	258
		SAAR SPL	1
		SPL	756
		SPL CY	3
SPL SAAR		2	
34	COMMERCIAL	SPL	3
	SF RESIDENTIAL	CY PP	1
		SPL	35
		SPL EAR SAAR TAR	1
		SPL PP SAAR	1
		SPL PP TAR SAAR	2
		SPL SAAR	1
		SPL TSAP PP	4
		TSAP CY	1
TSAP PP	1		
35	COMMERCIAL	CY TAR SAAR	2
	SF RESIDENTIAL	CY	1
		CY TAR SAAR	4
		EAR SAAR TAR	1
		PP TAR EAR	1
		SPL	1
		SPL PP TAR EAR	1
		SPL TSAP	1
		SPL TSAP PP	7
		TAR SAAR	5
TSAP PP	1		
36	SF RESIDENTIAL	EAR	2
		SPL	1
		SPL EAR	3
		SPL PP TAR EAR	1
		SPL TSAP	1
		SPL TSAP PP	3
		TSAP PP	2
37	SF RESIDENTIAL	SPL	2

PMR Unit	Receptor Type	Noise Source	Number
38	COMMERCIAL	SPL TSAP PP	1
	SF RESIDENTIAL	SPL	1
		SPL TSAP PP	1
39	COMMERCIAL	SPL	1
	SF RESIDENTIAL	SPL	2
		SPL PP	1
		SPL PP SAAR	4
		SPL PP TAR SAAR	5
		TAR	1
		TAR SAAR	3
40	SF RESIDENTIAL	SPL	32
		SPL PP SAAR	28
Total			1522

Codes

SF = Single Family

MF = Multi Family

TSAP = Tower Staging Access Pads

CY = construction yards

PP = permanent pads

TAR = temp access roads

EAR = existing access roads to be improved

AAR = Sunrise alignment access roads

SPL = Sunrise power link alignment itself

3.3.6.4 REGIONAL HABITAT CONSERVATION PROGRAMS

Appendix 80 in the Final EIR/EIS addressed comments regarding the effects of the FESSR and other alternatives on the approved and draft regional habitat conservation programs in San Diego County and adjacent areas. The appendix provided an estimation of the FESSR's (and other alternatives') impacts to the different components of approved and draft regional programs, including impacts to already preserved lands. Table 3-17 indicates the impact estimates for the FESSR from Appendix 80 and the corresponding estimates under the modified Project. Estimated impacts of the modified Project within the East San Diego County MSCP planning area also are included for informational purposes. The East County MSCP is still in early planning stages; however, the County has developed a map identifying focus planning areas and a list of potentially covered species.

The Project is not covered by or subject to the City and County Multiple Species Conservation Plans (MSCPs), which apply to land uses under City and County jurisdiction. As with water districts and several private entities in the San Diego region, SDG&E has its own MSCP for its existing facilities and proposes to develop a comparable plan for SRPL operations and maintenance. SDG&E is mitigating for the impacts to the MSCP areas via the mitigation requirements and ratios applied to sensitive communities and special status species. In identifying potential mitigation lands for the Project's species and habitat impacts, SDG&E has identified lands that would augment existing preserves and build out the preserve systems of the regional programs.

As shown in Table 3-17, impacts to existing regional conservation programs under either the FESSR or the modified Project are extremely minor and not significant. The modified Project further reduces these impacts by 55 percent from 115.1 acres to 63.89 acres.

TABLE 3-17. IMPACTS TO REGIONAL CONSERVATION PROGRAMS UNDER THE FESSR AND MODIFIED PROJECT BASED ON EIR/EIS AND PMR DATABASES

Regional Conservation Program	Estimated Impacts (acres)					
	FESSR			Modified Project		
	Perm.	Temp.	Total	Perm.	Temp.	Total
City of San Diego MHPA	4.1	2.6	6.7	3.67	2.13	5.80
City of San Diego San Vicente Cornerstone Lands	5.5	1.8	7.3	1.38	1.66	3.04
City of Poway San Vicente Cornerstone Lands	0	0	0	--	--	--
South San Diego County Hardline Preserve	3.6	0.6	4.2	0.35	0.02	0.37
South San Diego County Pre-approved Mitigation Area	52.7	33.8	86.5	16.65	28.84	45.49
North San Diego County Draft Preserve (Draft)	0	0	0	0	0	0
North San Diego County Pre-approved Mitigation Area	0	0	0	0	0	0
MCAS Miramar (Integrated Resources Management Plan)	5.2	5.2	10.4	3.50	5.69	9.19
Other (not in Appendix 80)						
Poway Subarea (All)	--	--	--	0.78	0	0.78
Helix Water District Subarea (All)	--	--	--	0	0.24	0.24
East County MSCP Planning Area	--	--	--	177.77	306.61	484.38

3.3.7 PUBLIC SAFETY/FIRE HAZARDS

In the Final EIR/EIS, the public safety and fire risks of the FESSR were evaluated using GIS modeling to identify fire hazard areas and estimate the number of homes at risk and the miles of fire containment conflict. As part of the modification process, SDG&E reviewed the modified Project against the FESSR. The review determined that modifications in 38 of the PMR units resulted in no change to fire impacts. For the modifications involving tower alignment, 31 had an adjustment to the route centerline of less than .25 miles and 6 had adjustments between .25 and .85 miles. The modifications with less than .25 miles show no substantial change in fire impacts, particularly with the number of homes at risk and the miles of fire containment conflict. Two of the six modifications of greater than .25 miles move the route further away from homes resulting in a reduced fire impact. The modified Project would be subject to the same public safety requirements as the FESSR. The modified Project would not result in any new significant public safety or fire hazard impacts.

3.3.8 IMPACTS TO TRAFFIC/TRANSPORTATION

The modified Project would entail a different mix of vehicles and use of some local roads than the FESSR but would have traffic impacts similar to those of the FESSR. Based on a Traffic Study prepared by KOA, there are three locations, all in Link 5, where traffic impacts would require mitigation via preparation and implementation of traffic control plans and related measures. The intersection analysis for locations along Link 5 indicates that these three locations would operate with poor levels of service and vehicular delay exceeding the significance standards to cause a potentially significant traffic impact. All of these locations are located along SR-67.

The first location is the signalized intersection of SR-67 and Scripps Poway Parkway. Scripps Poway Parkway currently carries heavy eastbound traffic volumes during the PM peak hour (between 4:00 p.m. to 6:00 p.m.). The vast majority of this eastbound traffic either turns left towards Ramona or right towards Lakeside at the intersection with SR-67. In addition, SR-67 also carries significant northbound and southbound traffic volumes at this location. Under existing conditions, the intersection provides dual left-turn lanes on the SR-67 northbound approach and one-and-one-half left-turn lanes (an exclusive left-turn lane and a shared left-turn/through travel lane) on the Scripps Poway Parkway eastbound approach. These two movements experience the heaviest left-turn traffic volumes. Measures that will be employed to lessen the degree of impact include shifting some of the traffic demand associated with the project from peak to non-peak hours, encouraging the use of carpools or multiple-occupant vehicles to transport employees, or taking alternative routes so that peak-hour trips can avoid this intersection.

The second location is the signalized intersection of SR-67 and Willow Road which is an existing T intersection with SR-67 carrying substantial northbound and southbound traffic volumes. Under the existing condition the intersection provides a single northbound and southbound through lane, an exclusive northbound right-turn lane, one southbound left-turn lane and a shared left through right lane on Willow Road. The temporary project related construction traffic will be added to the northbound and southbound through movements currently experiencing long delays in the peak hours. By limiting the

amount of delivery trips during peak hours or by rerouting project trips that would use this intersection, project impacts would be avoided.

The third location is the signalized intersection of Willow Road and Wildcat Canyon which is an existing all-way stop controlled intersection. Under the existing condition the intersection provides a single lane on each approach. The temporary project related construction traffic will be added to the northbound, southbound, eastbound and westbound approaches currently experiencing delays in the peak hours. By limiting the amount of delivery trips during peak hours or by rerouting project trips that would use this intersection, project impacts would be avoided.

As noted, the impacts at these locations would be mitigated through measures identified in the MMCRP. The modified Project would not result in new significant traffic impacts.

3.3.9 IMPACTS TO VISUAL RESOURCES

This subsection addresses the overall visual effects of the modified Project in relation to the FESSR, including the potential effects of structure lighting on sensitive resources such as the Palomar Mountain Astronomical Observatory.

The modified Project would reduce skylining of the FESSR in several locations including 10 towers near the Desert Tower in Link 1, several towers in El Monte Valley and at the I-8 crossing near La Posta Road. Additionally, the modified Project substantially increases construction by helicopter thereby reducing access road construction land scarring compared with the FESSR. There are some locations where the modified Project would have greater visual impacts than the FESSR (See Section 4). However, the visual impacts in these locations do not differ in type or scale from those considered in the Final EIR/EIS.

The visual impacts of infrared lighting on structures are inconsequential because the lighting is not visible to humans without night vision equipment. The additional requirement for marker balls on spans between structures will result in increased visual impacts; however, the additional lighting and marker balls are required for safety reasons based on structure height and line location. In sum, while some degree of visual impact is reduced by the modified Project, visual resources will continue to be significant and not mitigable as discussed in the Final EIS/EIR.

IR lighting installed on the Project structures also would not produce any sky glow and therefore should not negatively impact the astronomical research being conducted at Palomar Mountain with visible light telescopes (200-inch Hale Telescope, 48-inch Samuel Oschin Telescope, 60-inch Telescope, Palomar Testbed Interferometer, Planet Search Telescope, 18-inch Schmidt Telescope, and the 24-inch Telescope). The lattice towers of the Project are located over 35 miles south of the observatory, and both of the IR cameras developed for the 200-inch Hale telescope (the Wide-field Infrared Camera which produces panoramic surveys and the Palomar High Angular Resolution Observer (PHARO) Camera) would be focusing on visible areas of sky above the horizon. The highest SRPL Project tower, at approximately 5,628 feet above mean sea level (AMSL) would appear barely at the horizon line from the observatory platform at 5,700 feet AMSL and would not interfere with IR astronomical observations on Palomar Mountain. Most of the lighted structures are well below this elevation. Note that the Earth's

atmosphere is also known to both emit and absorb IR, which is why high elevation peaks in dry areas are selected for IR astronomical research (Rieke 2009).

Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan.

3.3.10 IMPACTS TO WATER RESOURCES

The modified Project would result in fewer impacts to federal and state jurisdictional waters than the FESSR. The modified Project also potentially would result in less use of surface water than the FESSR and, because of the reduction in total ground disturbance, less overall water use.

3.3.10.1 FEDERAL AND STATE JURISDICTIONAL WATERS

No impacts to federal or state wetlands or any perennial stream would result from the modified Project. Estimated impacts to ephemeral streams, dry washes, and streambeds are discussed below.

Basis for the Estimates

The Final EIR/EIS concluded that direct and/or indirect impacts to jurisdictional waters and possibly wetlands (i.e., areas regulated by the ACOE and Regional Water Quality Control Board (RWQCB) and/or CDFG) could occur from construction of the FESSR, and that those impacts would likely be Class II, given the required mitigation measures (See Final EIR/EIS Sections E.1.2, E.2.2, and E.4.2 describing Impact B-2 and the associated mitigation measures). This conclusion was based on vegetation mapping conducted for the FESSR, which identified the following often jurisdictional vegetation communities: Sonoran wash scrub, mesquite bosque, mule fat scrub, southern willow scrub, southern cottonwood willow riparian forest, southern riparian forest, and southern coast live oak riparian woodland. The Final EIR/EIS explained that specific impacts to jurisdictional areas would be defined when a final route was selected that included project-specific features and final engineering. Based on that route, a formal jurisdictional delineation would be conducted to define the precise presence and extent of waters and wetlands and thereby determine the exact impacts so that SDG&E could apply for appropriate permits from the ACOE, RWQCB, and CDFG prior to construction (See Final EIR/EIS Sections E.1.2, E.2.2, and E.4.2 describing Impact B-2).

As directed by the Final EIR/EIS, the jurisdictional delineation has been completed, and the total estimated project impacts to all jurisdictional waters, wetlands, and dry washes have been calculated for this PMR with a very high degree of precision. Where the Final EIR/EIS used a model based on existing vegetation mapping as a proxy to determine the potential Project impacts to jurisdictional resources (explained above), the calculations in the PMR are the result of a multi-stage delineation and Project design process that began in January 2009, extended through January 2010, and included:

1. Creation of project specific delineation protocols for waters of the US, waters of the State, wetlands, and USFS RCAs;
2. Completion of a two-day training course for all Project delineators in the protocols including office and field workshops;
3. Completion of field delineations and collection of data per the Project protocols;
4. Review of collected data and redesign of selected Project components to minimize impacts; and
5. Field verification of Project redesigns and jurisdictional feature avoidance.

Beginning in January 2009, WRA identified potential jurisdictional features within and adjacent to the Project ROW utilizing a GIS hydrologic model that was created based on available topographic information for the project area. This model was verified and further enhanced through high-resolution aerial photograph interpretation. The enhanced model of potential waters, wetlands, and/or dry wash locations was then overlaid with the proposed project designs (February 2009). Any modeled jurisdictional feature within 100 feet of a permanent or temporary impact area for the Project was included in a survey list. From March through May 2009, field delineations of all potential jurisdictional impact areas on the list utilizing the Project specific delineation protocols for waters of the US, waters of the State, wetlands, and RCAs were conducted by trained delineators from ICF International, Inc. and Merkel Associates, Inc.

The efficacy of the WRA hydrologic model was verified during the field delineation work, and due to limits of the model associated with the desert portion of the project where topographic contours were less pronounced, a 100 percent coverage delineation of the desert portion of the project ROW (approximately mileposts 0 through 23) was completed. The model was confirmed to be highly accurate in the inland valleys, mountains, and coastal slope portions of the Project ROW so additional delineation work was not required outside of impact areas from mileposts 23 through 117. At each stream or dry wash, both OHWM data for determining the limits of ACOE jurisdiction and top of bank (TOB) data for determining the limits of SWRCB and CDFG jurisdiction were collected. If riparian vegetation was present, the limits of the riparian canopy were delineated to determine the extents of CDFG jurisdiction. If wetlands were present, the boundaries were recorded and ACOE Arid West data forms were completed. USFS RCA limits were calculated with GIS by WRA after field data collection was completed utilizing the stream and riparian vegetation data. Note that only the ACOE jurisdictional streams, dry washes, and wetland data were presented in the Final Preliminary JD Report referenced above.

After the initial data collection process for the Project ROW was completed, the digital data were compiled by WRA in June 2009 and overlaid with the Project engineering design data. This data review facilitated an analysis of impacts to jurisdictional resources and dictated a redesign of selected portions of the Project ROW to minimize overall impacts to (ephemeral and intermittent) stream channels and desert dry washes, and avoid impacts to wetlands and perennial streams. The Project redesign during

the summer of 2009 included several general and specific measures implemented by SDG&E design engineers that were intended to minimize overall impacts to jurisdictional resources including:

1. Reducing the area of temporary construction and maintenance pads for structures by half; the pads for most structures were reduced from 200 by 400 feet to 200 by 200 feet to minimize temporary impacts.
2. Eliminating new access roads and utilizing existing roads and short “spur” roads to structures whenever possible to minimize permanent impacts.
3. Relocating and/or reshaping construction yards and pull sites to avoid streams and dry washes whenever possible to minimize temporary impacts. In addition, several proposed construction yards were abandoned as they were determined to occur entirely or partially within wetlands.
4. Designing conventional structures to be helicopter constructed and serviced when conventional access would require crossing RCAs, wetlands, or streams to minimize permanent and/or temporary impacts.
5. Relocating structures laterally within the ROW to avoid permanent impacts to streams, dry washes, and riparian vegetation whenever possible.

The resulting modified project alignment was field verified with SDG&E engineering, survey, and delineation crews from August through November 2009. In addition, supplemental delineation data were collected during this period in areas where the Project ROW had been rerouted to maintain avoidance of other sensitive biological resources (State- and Federally-listed species, rare plants) that were identified during the 2009 survey season or to comply with MMCRP measure L-2b. The same field data collection and Project redesign process were completed for the reroute portions of the Project ROW and minor Project design refinements that have been made through April 2010 to reduce Project impacts to jurisdictional resources. The result in 2010 is a modified Project design that avoids impacts to wetlands and perennial streams, and significantly minimizes impacts to ephemeral streams, dry washes, and RCAs.

Waters of the US

Two calculations of impacts to waters of the US are provided in this section. One from the PJD, based on the configuration of the modified Project in February 2010; and one calculated based on the modified Project as presented in this PMR. The latter was generated using the database compiled for the PJD and the shapefiles for the current configuration of the modified Project.

As presented in the PJD, total impacts to jurisdictional waters of the US are estimated at 12.52 acres, consisting of 3.56 acres of permanent and 8.96 acres of temporary impacts. As calculated for the modified Project as described in this PMR, total impacts to jurisdictional waters of the US are estimated at 11.02 acres, consisting of 3.77 acres of permanent and 7.25 acres of temporary impacts. The PMR estimate includes 0.24 acre of permanent impacts that will result from major and minor access road improvements that were not included in the PJD report, and 0.03 acre of permanent impact reductions

that occurred due to engineering design changes since the PJD was submitted. The PMR estimate also includes Project engineering changes completed since the PJD was submitted that further reduced temporary impacts to federal jurisdiction within dry washes by 1.71 acres. These changes are being coordinated with the ACOE for purposes of the final JD for the project.

All impacts are based upon the limits of Federal jurisdiction, or Ordinary High Water Mark (OHWM) within streams and dry washes. Note that there are no permanent or temporary impacts to federal wetlands resulting from the Project.

Table 3-18 provides the estimated federal wetland and stream impacts of the FESSR and modified Project as calculated by SDG&E based on the PMR database (including the PJD). Due to the low level of impacts for each jurisdictional area crossing as shown in the PJD, it is anticipated that Nationwide Permit 12 could be utilized for project authorization under Section 404 of the Clean Water Act.

TABLE 3-18. ESTIMATED IMPACTS TO WATERS OF THE US BASED ON THE PMR DATABASE

PMR Unit	FESSR (acres)			Modified Project (acres)		
	Permanent	Temporary	Total	Permanent	Temporary	Total
1	0	0	0	0	0	0
2	3.0466	6.6001	9.6467	0.7830	2.2872	3.0701
3	1.5536	9.3658	10.9194	0.8152	1.1209	1.9361
4	7.3335	7.9760	15.3095	1.1404	2.0651	3.2055
5	1.5578	5.1948	6.7527	0.5087	1.2403	1.7490
6	0.0137	0.0560	0.0697	0.0006	0.0603	0.0609
7	0.0088	0.0070	0.0159	0.0027	0.1179	0.1205
8	0.1747	0.4370	0.6116	0.0790	0.2011	0.2801
9	0.0070	0.0001	0.0070	0	0	0
10	0	0	0	0	0.0163	0.0163
11	0.0834	24.2729	24.3563	0.0010	0.0075	0.0086
12	0.0143	0.1321	0.1463	0.0019	0.0065	0.0084
13	0	0.1339	0.1339	0	0.0365	0.0365
14	0.0168	0.0356	0.0523	0.1215	0.0199	0.1414
15	0	0	0	0	0	0
16	0.0038	0.0772	0.0810	0.0392	0.0002	0.394
17	0.0383	0.0080	0.0463	0.0133	0.0015	0.0148
18	0	22.8146	22.8146	0	0	0
19	0	0	0	0.0231	0	0.0231
20	0.0062	0.0030	0.0091	0.0097	0.0068	0.0165
21	0.1941	0.0807	0.2748	0.0002	0.0152	0.0155
22	0	0	0	0.0001	0	0.0001
23	0.0296	0	0.0296	0.0080	0.0030	0.0110
24	0.0009	0	0.0009	0.0013	0	0.0013

PMR Unit	FESSR (acres)			Modified Project (acres)		
	Permanent	Temporary	Total	Permanent	Temporary	Total
25	0.0098	0.1065	0.1163	0.0032	0	0.0032
26	0.0012	0.0042	0.0054	0.0002	0	0.0002
27	0	0	0	0	0	0
28	0.0012	0.0110	0.0122	0	0.0001	0.0001
29	0.2923	0.7190	1.0113	0.1815	0	0.1815
30	0	0	0	0	0	0
31	0	0	0	0	0	0
32	0.0080	0.0311	0.0392	0.0158	0.0246	0.405
33	0	0	0	0	0	0
34	0.0263	0.8764	0.9027	0.0118	0.0013	0.0130
35	0.0364	0.0135	0.0499	0.0089	0.0004	0.0092
36	0.0299	0.0059	0.0358	0.0013	0.0135	0.0148
37	0	1.2414	1.2414	0	0.0008	0.0008
38	0.0017	0.0036	0.0053	0	0	0
39	0.0009	0	0.0009	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
TOTAL	14.4906	80.2074	94.6980	3.7717	7.2469	11.0186

State Waters

Two calculations of impacts to State waters are provided in this subsection. One from the Section 1602 Streambed Alternation Agreement (SAA) submitted to CDFG in January 2010; and one calculated based on the modified Project as presented in this PMR. The latter was generated using the database compiled for the SAA and the shapefiles for the current configuration of the modified Project.

As stated in the 1602 SAA permit, project impacts to waters of the State are estimated at 13.47 acres, consisting of 3.96 acres of permanent and 9.51 acres of temporary impacts. As summarized in this report, impacts to jurisdictional waters of the State are estimated at 12.01 acres, consisting of 4.14 acres of permanent and 7.87 acres of temporary impacts. The PMR includes 0.24 acre of permanent impacts that will result from major and minor access road improvements that were not included in the 1602 SAA, and 0.06 acre of permanent impact reductions that occurred due to engineering design changes since the 1602 SAA application was submitted. The PMR also includes Project engineering changes completed since the 1602 SAA application was submitted that reduced temporary impacts to state jurisdiction within dry washes by 1.64 acres. Note that there are no permanent or temporary impacts to

state wetlands resulting from the Project. Table 3-19 presents the estimate impacts of both the FESSR and modified Project on State waters.

3.3.10.2 WATER USE

Geosyntec performed a Water Resources Availability Study of Non-Groundwater Sources (Water Study) to identify feasible water sources for the construction of the Project [Geosyntec, 2010]. The Water Study concluded that sufficient supplies of surface water, reclaimed water, and potable water are available to construct the Project.

The conclusions from the Water Study are based on an approximate average daily demand of 300,000 gallons per day for construction water for a period of approximately 18 to 24 months and total water usage of approximately 575 acre-feet. Several sources were identified as each being feasible contributors of more than 300,000 gallons per day; no single source would be utilized for the entire project demands for construction water thereby further reducing individual source-specific water demands. Water use will be greatly reduced in those areas identified for helicopter-only construction, as opposed to conventional construction, such as on USFS lands where approximately 75% of the structures will be installed by helicopter.

The Water Study determined that sufficient supplies of surface water, reclaimed water, and potable water would be available to meet Project demand. The following non-groundwater sources could each provide greater than 300,000 gallons of water per day for construction needs: City of San Diego reclaimed, potable, and raw surface water; Padre Dam Municipal Water District reclaimed and potable water; Lakeside Water District potable water; Imperial Irrigation District (IID) raw surface water; and Seeley County Water District (SCWD) potable water.

TABLE 3-19. ESTIMATED IMPACTS TO STATE WATERS BASED ON THE PMR DATABASE

PMR Unit	FESSR as in Final EIR/EIS			Modified Project		
	Perm.	Temp.	Total	Perm.	Temp.	Total
1	0	0	0	0	0	0
2	3.0753	6.6780	9.7533	0.8064	2.3413	3.1477
3	1.5575	9.3661	10.9236	0.8152	1.1209	1.9362
4	7.7611	8.8666	16.6277	1.1998	2.2470	3.4468
5	1.5655	5.2294	6.7949	0.5225	1.3077	1.8302
6	0.0222	0.0788	0.1010	0.0041	0.0669	0.0709
7	0.0156	0.0118	0.0274	0.0027	0.1210	0.1237
8	0.2951	0.6992	0.9942	0.0999	0.3243	0.4241
9	0.0173	0.0004	0.0177	0	0	0
10	0	0	0	0	0.0807	0.0807
11	0.0856	24.2733	24.3589	0.0020	0.0225	0.0245
12	0.0267	0.2195	0.2462	0.0040	0.0115	0.0155
13	0	0.4878	0.4878	0	0.0853	0.0853
14	0.0315	0.0548	0.0863	0.2392	0.0302	0.2694
15	0	0	0	0	0	0

PMR Unit	FESSR as in Final EIR/EIS			Modified Project		
	Perm.	Temp.	Total	Perm.	Temp.	Total
16	0.0038	0.2866	0.2904	0.0693	0.0004	0.0697
17	0.0559	0.0107	0.0666	0.0179	0.0020	0.0199
18	0	22.8431	22.8431	0	0	0
19	0	0	0	0.0231	0	0.0231
20	0.0139	0.0056	0.0195	0.0215	0.0086	0.0302
21	0.1960	0.0873	0.2834	0.0004	0.0224	0.0228
22	0	0	0	0.0003	0	0.0003
23	0.0338	0	0.0338	0.0112	0.0078	0.0191
24	0.0018	0	0.0018	0.0027	0	0.0027
25	0.0140	0.1546	0.1686	0.0051	0	0.0051
26	0.0036	0.0069	0.0105	0.0002	0	0.0002
27	0	0	0	0	0	0
28	0.0016	0.0298	0.0314	0	0.0005	0.0005
29	0.3766	0.8500	1.2266	0.2280	0	0.2280
30	0	0	0	0	0	0
31	0	0	0	0	0	0
32	0.0095	0.0384	0.0479	0.0245	0.0304	0.0549
33	0	0	0	0	0	0
34	0.0499	1.2621	1.3120	0.0265	0.0014	0.0279
35	0.0799	0.0135	0.0934	0.0092	0.0007	0.0099
36	0.0882	0.0059	0.0941	0.0010	0.0375	0.0384
37	0	1.2414	1.2414	0	0.0008	0.0008
38	0.0017	0.0036	0.0053	0	0	0
39	0.0018	0	0.0018	0	0	0
40	0	0	0	0	0	0
41	0	0	0	0	0	0
42	0	0	0	0	0	0
43	0	0	0	0	0	0
44	0	0	0	0	0	0
TOTAL	15.3855	82.8051	98.1906	4.1368	7.8718	12.0086

As noted, no single water source would be used for the entire project. Instead, a spatial balance of various water sources would be used to prevent depletion of any one source. SDG&E will work closely with the appropriate underlying land management agencies, such as USFS, to ensure the proposed construction water source(s) is appropriate.

Based on the Water Study, the majority of the water for construction of the Sunrise Powerlink can be supplied by reclaimed water purveyors in San Diego County, which would minimize impacts to local potable water supply. Using reclaimed water is consistent with MMCRP Measure S-3B directing SDG&E to use reclaimed water where possible: *“To the extent feasible, SDG&E shall coordinate with local water districts in advance in order to efficiently obtain reclaimed or potable water for delivery to the construction sites and to meet any restrictions imposed by them.”*

As detailed in Section 2.1 of the Water Study (*Regulatory Compliance for Use of Reclaimed Water*), SDG&E's use of reclaimed water would be conducted in full compliance with state law.

SDG&E has initiated the application process for obtaining reclaimed water from the City of San Diego and the Padre Dam Municipal Water District (PDMWD). SDG&E's current plan for water use in San Diego County is to utilize the reclaimed water from the City of San Diego as the primary source with a backup reclaimed water source being PDMWD reclaimed water, and a backup surface water source being the City of San Diego raw reservoir water. The current plan for water use in Imperial County is Imperial Irrigation District (IID) raw canal water.

Additional transport of reclaimed water would be required to distribute the water to construction sites across San Diego County from the reclaimed water sources located in the western portion of San Diego County. Therefore, supplemental evaluations, summaries of which are provided below, have been conducted to assess potential impacts to air quality, traffic, and noise related to the trucking of reclaimed water.

Related Air Quality Considerations

To address Sunrise Mitigation Measures AQ-1a, AQ-1h, and AQ-4a, Bluescape Environmental prepared a draft memorandum entitled *Air Quality Impacts from the Water Use Plan for the Final Environmentally Superior Southern Route* [Bluescape, 2010] (See Attachment C). The memorandum conservatively assumed the "worst case scenario" transport of reclaimed water in heavy-duty diesel combustion trucks from the most distant reclaimed water source from the construction areas, the City of San Diego's North City Treatment Plant. The memorandum concludes that project air emissions from on-road truck fuel combustion associated with the trucking of reclaimed water is not expected to result in new impacts, nor the need to revise previous air quality impact analyses. Because the total heavy-duty truck trips were conservatively overestimated for the CPUC-approved June 2009 Construction Emissions Monitoring Plan for the project, the transportation of reclaimed water does not cause the need to update the project air quality impact analysis, and does not create an additional significant environmental impact.

Related Traffic Impact Considerations

To address Sunrise Mitigation Measure T-9a, KOA Corporation prepared the *Traffic Impact Study* performed as part of the Construction Transportation Management Plan [KOA, 2010]. The Traffic Impact Study considered construction worker commuter trips, equipment deliveries, material hauling, and reclaimed water deliveries from the "worst case scenario" source location. The Traffic Impact Study indicated that construction of the Sunrise Powerlink will result in a temporary increase in traffic volumes on regional and local roadways that provide access to individual construction sites. Six areas were identified with potential to create traffic impacts. Recommendations for mitigation were provided, including submittal of additional traffic control plans for approval by local agencies prior to commencing construction activities, employee shuttling, and the restriction of peak-time deliveries. The executive summary for this report concludes that the presented mitigation measures will adequately address

identified impacts to traffic associated with the water transportation required for construction of the Sunrise Powerlink, and no additional significant environmental impacts are created.

Related Noise Impact Considerations

To address Sunrise Mitigation Measure N-1a, Investigative Science and Engineering, Inc. (ISE) prepared a Power Haulage Estimated Acoustic Impact Potential study [ISE, 2010] (See Attachment B). The study utilized a two-tiered approach using data provided by the KOA Traffic Impact Study [KOA 2010]. The initial phase of the study considered baseline acoustic conditions along roadways anticipated for “worst case scenario” transportation use during construction, compared to acoustic conditions associated with the sum of existing and predicted project traffic conditions. The comparison identified 40 potential candidate areas where the proposed project action could increase the ambient background noise level above the Community Noise Equivalence Level (CNEL) to the point of being discernable or creating adverse conditions to sensitive receptor areas. However, the second phase of the assessment utilized Geographic Information System (GIS) methods to ascertain whether or not the identified candidate areas would impact sensitive receptor areas. The study concluded that examination of each of the identified candidate areas did not identify any sensitive receptors likely to be exposed to increased noise associated with transportation of reclaimed water for the construction of the Sunrise Powerlink. Therefore, mitigation of increased noise will not be necessary for the transportation of reclaimed water during the construction of the Sunrise Powerlink, and no significant environmental impacts were identified.

Water Use Summary

In compliance with MMCRP measure S-3b, SDG&E proposes to utilize reclaimed water for the majority of the construction along the project alignment. The Water Study has identified ample sources of reclaimed water, and SDG&E will abide by all procedural and regulatory requirements for this use. Finally, the proposed transportation of reclaimed water for the construction of Sunrise Powerlink will not create additional significant impacts to air quality, traffic, noise, or water use.

3.4 LITERATURE CITED

Avian Power line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. Edison Electric Institute, APLIC, and California Energy Commission. Washington, D.C. And Sacramento, California.

Bluescape Environmental, 2010. *Memorandum – Air Quality Impacts from the Final Water use Plan, Sunrise Powerlink, Southern California*, prepared for San Diego Gas & Electric Company, March 17, 2010 (See Attachment C).

Briscoe, A.D. and L. Chittka. 2001. *The Evolution of Color Vision in Insects*. Annual Review of Entomology. 46:471-510.

California Energy Commission. 2007. *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development*. Final Committee Report. CEC -700-2007-008-CTF.

California Institute of Technology (Caltech). October 15, 2002. Press Release. Accessed at http://media.caltech.edu/press_releases/12301.

Drewitt, A.L. and Langston, R.H.W., 2008. *Collision Effects of Wind-power Generators and Other Obstacles on Birds*. Annals of the New York Academy of Sciences, 1134(1 The Year in Ecology and Conservation Biology 2008), pp. 233-266.

Gehring J., P. Kerlinger, and A.M. Manville II. 2009. *Communication Towers, Lights, and Birds: Successful Methods of Reducing the Frequency of Avian Collisions*. Ecological Applications: 19(2), 2009, pp 505-514.

Geosyntec, 2010. Water Resources Availability Study, Non-Groundwater Sources, Sunrise Powerlink, Southern California, prepared for San Diego Gas & Electric Company, April 23, 2010.

Horn, J.W., E.B. Arnett and T.H. Kunz. 2006. *Behavioral Response of Bats to Operating Wind Turbines*. Journal of Wildlife Management, 72(1), pp. 123 -132.

ISE, 2010. *Sunrise Powerlink Powered Haulage Estimated Acoustical Impact Potential, Southern California*, prepared for San Diego Gas & Electric Company, April 15, 2010 (See Attachment C).

KOA Corporation, 2010. Traffic Impact Study Report, Sunrise Powerlink, Southern California, prepared for San Diego Gas & Electric Company, April 23, 2010.

Stokes, Drew. 2010. *Personal Communication with Karen Wilson at SDG&E*. San Diego Museum of Natural History.

Zeigler H.P. and H.J. Bischof Eds. 1993. *Vision, Brain, and Behavior in Birds*. Cambridge, MA: MIT Press. 439 pp.

4. UNIT-LEVEL IMPACT EVALUATION AND COMPARISON

This section describes the modifications made to the FESSR within each of the 44 PMR units and evaluates and compares the environmental effects of the modified Project with those of the FESSR as analyzed in the Final EIR/EIS. In the evaluation and comparison of effects, the primary focus is on impacts to biological, cultural, visual, and water resources. Other effects also are addressed, with varying levels of details depending on the issues within the PMR unit. Where the effects of the modified Project would be substantially the same as those of the FESSR, that point is noted.

For each PMR unit, the evaluation and comparison of impacts is presented on a form and table. The form identifies the location of the PMR unit, describes the details and purpose of the modification, and provides an assessment of the impacts associated with the modification in relation to the effects of the FESSR in that same area. The table includes the quantified impact estimates for the FESSR and modified Project for the PMR unit. Estimates on the forms and tables are based on the PMR database and the EIR/EIS database where available at the PMR unit level. The purpose of evaluating and comparing impacts in each PMR unit is to identify the changes made to the FESSR in greater detail and examine whether impacts would decrease, increase, or remain substantially the same along that portion of the alignment. The unit-level analysis augments the Project-level assessment in Section 3 with information about changes in specific locations.

Table 4-1 summarizes the unit-level analysis in terms of total ground disturbance in each PMR unit under the FESSR and modified Project and the changes in environmental effects that would result from the modifications. Changes in effects are identified as eliminated (E), reduced (R), increased (I), no substantial change (NSC), or a combination of these categories. "NSC" also is used when the quantified impacts would be the same for the FESSR and modified Project. "E" is reserved for instances where a modification avoids all impacts to a resource that would have been affected by the FESSR in that location. For example, the modification avoids all impacts to cultural resources or all impacts to special status species. Combinations indicate where there is a mix of R, I, and NSC effects described on the PMR form. For example, there may be a decrease in permanent impacts and increase in temporary impacts to sensitive vegetation communities. The entry on Table 4-1 would be R/I or I/R, depending on whether the decrease or increase is the more notable change.

As indicated in Table 4-1, there are 16 PMR units where impacts have been eliminated to at least one resource category, mainly instances where changes were made to avoid waters of the US and State waters. There are 28 PMR units where impacts to at least two resource categories (i.e., sensitive vegetation, cultural resources, visual, etc.) are reduced (R); there are four PMR units where impacts increase to at least two resource categories. These counts exclude combination impacts that include a reduction or increase. None of the modifications would result in new significant impacts within a PMR unit.

TABLE 4-1. SUMMARY OF UNIT-LEVEL IMPACT EVALUATION AND COMPARISON

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification					Summary Conclusion/Notes
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds	
PMR1 Imperial Valley Substation	-	-	NSC	NSC	NSC	NSC	NSC	Adds storage facility within existing substation.
PMR2 EP363-1 to EP333 IV Sub Yard, Dunaway Road Yard	240.82	58.03	R	R	R	NSC	R	Reduces impacts
PMR3 EP333 to EP324 Plaster City Yard	55.92	32.92	R/I	R	R	NSC	R	Avoids sensitive resources with the exception of a slight temporary increase in impacts to desert scrub.
PMR4 EP324 to EP301	100.21	29.71	R	R	R	NSC	R	Coordination with quarry activities initiated for FESSR would continue.
PMR5 EP301 to EP276-1 (BLM) S2 Yard	69.89	49.04	R/NSC	R	R/NSC	NSC	R	Coordination with quarry activities initiated for FESSR would continue.
PMR6 EP276-1 to EP255-1 AER Yard	56.35	20.48	R	R	R	NSC/R	R	Reduces size of construction yard and associated impacts
PMR7 EP255-1 to EP252-1	10.42	16.36	R/I	R/I	R	NSC	NSC/I	Temporary impacts to dry washes, PBS habitat, and waters increase slightly.
PMR8 EP252-1 to EP239-1 Jacumba Airport Yard Jacumba Valley Ranch Yard	36.67	55.90	R/I	I/R	R	I/NSC	E	The yard responsible for the impact increases replaces one in PMR9 eliminated to avoid Quino impacts.
PMR9 EP239-1 to EP229-1	59.09	7.59	R	R	R	NSC/R	E	Avoids impacts to rare plants. Avoids conflict with Nature Conservancy lands.
PMR10 EP229-1 to EP221A	19.84	4.49	R/NSC	R	NSC/R	NSC	I	Slight reduction in impacts
PMR11 EP221A to EP219-1	48.17	5.49	R	NSC	E	NSC	R	Reduction in waters of US impacts.
PMR12 EP219-1 to EP206-1	44.12	18.74	R	NSC	NSC/R	NSC	R	Reductions in impacts
PMR13 EP206-1 to EP196-1 Rough Acres Yard	52.11	106.60	I	R	NSC/R	NSC	R	Increase in temporary impacts to Jacumba milk-vetch
PMR14 EP196-1 to EP170 McCain Valley Yard	62.10	68.59	I/NSC	NSC/I	NSC	NSC	I	No substantial change

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification					
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds	Summary Conclusion/Notes
PMR15 EP170 to EP141	31.26	10.97	R	R	E	R/NSC	NSC	RCA impacts reduced. Inconsistency with BCNM Zone.
PMR16 EP141 to EP122 Thing Valley Yard	28.09	49.39	I	I	NSC/R	I/NSC	R	Avoids impacts to rare plants. RCA impacts increase.
PMR17 EP122 to EP108-2	75.52	11.67	R	R	R	R/NSC	R	RCA impacts reduced.
PMR18 EP108-2 to EP99-2	70.78	15.62	R	I/R	NSC	NSC	E	RCA impacts reduced.
PMR19 EP105-2	0.44	2.36	I	I/NSC	NSC	NSC	I/NSC	No substantial change.
PMR20 EP99-2 to EP79 Bartlett/Hauser Creek Yard	103.77	66.43	R	NSC	NSC	NSC	NSC/I	RCA impacts avoided.
PMR21 EP79 to EP67	19.87	6.79	R	R	NSC/R	I/NSC	R	RCA impacts avoided.
PMR22 EP67 to EP62A-1	10.62	6.72	R	R	NSC	NSC	E	RCA impacts avoided.
PMR23 EP62A-1 to EP47-2 Kreutzkamp Yard	67.79	41.41	R	R	R	R/NSC	R	RCA impacts increase.
PMR24 EP47-2 to EP39-1 Barrett Canyon Yard	17.28	7.04	R	NSC	NSC	R/NSC	E	Size and impacts of construction yard reduced
PMR25 EP39-1 to EP22-1 SWAT Training Facility Yard	51.86	35.01	R/I	R	E	NSC	R	Reduction in impacts to rare plants. RCA impacts mixed.
PMR26 EP22-1 to EP12-3	18.11	4.58	R	E/NSC	NSC	NSC	E/NSC	Impacts to rare plants avoided. RCA impacts reduced.
PMR27 EP12-3 to P9-1	17.02	4.58	R	R	NSC	NSC	NSC	RCA impacts avoided.
PMR28 EP9-1 to EP1-3	17.47	6.50	R	R	NSC	NSC	E	RCA impacts increase
PMR29 Suncrest Substation Wilson Yard	181.63	86.47	R	NSC	R/NSC	NSC	R	Reduction in impacts to rare plants. RCA impacts avoided.
PMR30 CP109-1 to CP106-1	4.79	0.87	R	NSC	E/NSC	NSC	NSC	Impacts to rare plants avoided
PMR31 CP106-1 to CP98-1	14.30	4.74	R	E/NSC	E	NSC/R	NSC	RCA impacts avoided

PMR Unit Structures/Yards	Total Ground Disturbance		Changes to the Effects of the FESSR Resulting from the Modification						Summary Conclusion/Notes
	FESSR	Modified Project	Sensitive Vegetation	Special Status Species	Cultural Resources	Visual Resources	Waters of US & Streambeds		
PMR32 CP98-1 to CP95-1	4.58	6.20	I/NSC	I/NSC	NSC	NSC	I/NSC	No substantial change	
PMR33 CP95-1 to CP88-1/CP87-1 Alpine HQ, Alpine Yards	0.00	38.94	I	NSC	NSC	I	I/NSC	No substantial change	
PMR34 CP88-1/CP87-1 to CP64-2 Hartung Yard	77.38	31.55	R	R	R	NSC	R	Reduction in impacts to rare plants. RCA impacts reduced.	
PMR35 CP64-2 to CP53-1	28.51	6.51	R	R	E	NSC	R	Impacts to rare plants avoided	
PMR36 CP53-1 to CP44-1 Helix Yard	28.91	29.25	I/R	I	NSC	I	R	Slight increase in temporary effects	
PMR37 CP44-1 to CP37-2	22.05	3.54	R	R	NSC	NSC	E	Hansen Aggregate has access for mining operations.	
PMR38 CP37-2 to CP31-2	40.30	2.83	R	NSC	NSC	NSC/I	E	Modest reduction in impacts	
PMR39 CP31-2 to CP12-1	12.01	9.56	R	R	NSC/R	NSC	NSC	No substantial change	
PMR40 CP12-1 to CP3 Stowe/Kirkham Yard	4.24	23.56	I	I	NSC	I	NSC	Increase in impacts	
PMR41 CP3 to CP1A	11.03	0.30	R	NSC	NSC	NSC	NSC	No substantial change	
PMR42 Sycamore – Pomerado	0.00	2.91	I/NSC	NSC	NSC	NSC/I	NSC	No significant change	
PMR43 Sycamore – Elliott	0.00	1.70	I/NSC	NSC	NSC	NSC/I	NSC	No substantial change	
PMR44 Sycamore – Scripps	0.00	1.59	I/NSC	NSC	NSC	NSC	NSC	No substantial change	

Codes

E = All impacts to a resource category eliminated

I = Increase in Impacts

NSC = No substantial change in impacts; also applies to no change in quantified impacts.

R = Reduction in Impacts

PMR1. Imperial Valley Substation				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MPO	1	None	1	MS01 to MS02
Summary and Conclusion				
The modification would add a steel storage structure in the existing substation. Minor ground disturbance and associated effects would occur on already disturbed lands. No new significant impacts would result from the modified Project.				
Details and Purpose				
Modification	Construct a pre-engineered steel building, approximately 60 feet wide by 120 feet long by 30 feet high in the southeastern portion of the substation, adjacent to the 500kV south bus.			
Primary Reason	Increase and improve onsite storage capacity for parts, equipment, and emergency supplies for use during and after construction.			
Other Considerations	Reduce the vehicle miles and greenhouse gas emissions associated with travel to and from the closest existing storage facility (Miguel Substation in Bonita, California).			
MMCRP Measures	AQ-4a and 4b.			
Environmental Impact Discussion				
Air Quality	Vehicle miles and greenhouse gas emissions from trips made by maintenance crews potentially would be reduced. Emissions from use of construction equipment would increase marginally at the substation. The increase would not exceed the emissions identified for the FESSR in Imperial County as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010.			
Biological Resources				
<i>Rare Plants</i>	No rare plants are known to occur in the substation yard.			
<i>Vegetation Impacts</i>	No sensitive vegetation occurs in the substation yard.			
<i>Species Impacts</i>	No special status species are known to occur in the substation yard.			
<i>RCA's</i>	Not applicable to the FESSR or modified Project in this unit.			
Cultural Resources	Records indicate two cultural sites and three isolated finds occur within the substation area. However, the comprehensive inventory of cultural resources potentially affected by the Project found no evidence of these resources in the impact area. No impacts to cultural resources are expected, subject to final confirmation during pre-construction review.			
Geology/Minerals	The modification entails minor ground disturbance in an already disturbed area. There are no slope stability, erosion control, or mineral resource issues associated with the activity.			
Land Use	No change in landownership or existing land uses is required or would occur under the modification. There are no sensitive receptors in the vicinity of the substation.			

PMR1. Imperial Valley Substation	
Noise	Installation of the building and truck traffic to and from the facility would not result in increased noise levels that would exceed the levels identified in connection with Project construction.
Public Safety/Hazards	Storage of equipment and materials would be subject to the same public safety and hazard control measures that would apply to the FESSR. The FESSR and PMR1 are in close enough proximity that there would be no change to fire/fuels analysis or modeling results.
Traffic	The modification would result in a slight increase in truck traffic to this location than would have occurred without the storage facility, and there would be a corresponding decrease in truck traffic to other storage sites. This provides an overall reduction on transportation and traffic impacts.
Visual	The proposed modification would not noticeably change overall impacts on visual resources along this route segment.
Water Resource	
<i>Waters of US</i>	No impacts.
<i>State Waters</i>	No impacts.
<i>Water Use</i>	The modification would not increase the need for or use of water for construction or operations and maintenance at this location.

TABLE PMR1
Impacts to Rare Plants (number of individuals detected in impact areas)
No impacts from FESSR or modified Project in this unit.
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)
No impacts from FESSR or modified Project in this unit.
Impacts to Special Status Species (acres)
No impacts from FESSR or modified Project in this unit.
Impacts to RCAs in CNF (acres)
Not applicable to modified Project or FESSR in this unit.
Impacts to Cultural Resources (number of sites potentially affected)
No impacts from FESSR or modified Project in this unit.
Impacts to Waters of the US (acres)
No impacts from FESSR or modified Project in this unit.
Impacts to State Waters (acres)
No impacts from FESSR or modified Project in this unit.

PMR2. EP363-1 to EP333 (Dunaway Road)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP0 to MP9.7	1	IV Sub Dunaway Road	2	MS01 to MS11
Summary and Conclusion				
<p>The modification would shift the ROW to the southwest to avoid sensitive resources and accommodate the Tessera Solar (Stirling Energy) transmission line crossing, relocate and reduce the size of two construction yards, and eliminate a yard near MP5. The modification would reduce FESSR impacts to sensitive vegetation communities, flat tailed horned lizard, cultural resources, waters of the US, and State waters in the PRM unit. Other effects of the modification would be substantially the same as those of the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted to accommodate the Stirling Energy transmission line crossing with the SWPL and SRPL transmissions lines. • Two structures moved out of dry washes. • Work areas shifted and access changed to avoid cultural resources. • New access road eliminated. • Number and size of wire stringing sites reduced. • Guard structures added at road crossings. <p><u>IV Sub Construction Yard</u></p> <ul style="list-style-type: none"> • Yard relocated northwest of Imperial Valley Substation to accommodate flight path. • Size of yard reduced from 26.36 acres to 4.96 acres. <p><u>Dunaway Road Construction Yard</u></p> <ul style="list-style-type: none"> • Size of construction yard reduced from 30.69 to 9.93 acres. <p><u>Other</u></p> <ul style="list-style-type: none"> • Eliminate construction yard near MP5. 			
Primary Reason	<ul style="list-style-type: none"> • Accommodate Stirling Energy transmission line crossing. • Accommodate flight path (cannot fly steel over the 500-kV line). • Reduce impacts to sensitive vegetation and species, cultural resources, and dry washes • Reduce ground disturbance 			
Other Considerations	Adjust for improved engineering design and constructability.			
MMCRP Measures	B-1a, C-1a and 1b, GEO-APM-5, PU-APM-1, and WQ-APM-2			

PMR2. EP363-1 to EP333 (Dunaway Road)	
Environmental Impact Discussion	
Air Quality	No substantial changes to the effects of the FESSR.
Biological Resources	See Table PMR2 below.
<i>Rare Plants</i>	No rare plants would be affected by the modified Project or FESSR.
<i>Vegetation Impacts</i>	The modification would reduce FESSR impacts to desert scrub and non-vegetated channels and would eliminate impacts to riparian scrub in this location.
<i>Species Impacts</i>	The modification would reduce FESSR impacts to flat tailed horned lizard habitat in this location.
<i>RCA's</i>	Not applicable to the FESSR or modified Project in this unit.
Cultural Resources	There are 62 cultural sites and 35 isolated finds in this PMR unit, most of which were identified in the surveys for the EIR/EIS. Of these resources, 19 would be affected by the FESSR and modified Project and an additional 23 would be affected by the FESSR. The modified Project shifted work areas at two structures and access roads to five structures to avoid cultural resources. Impacts under the modified Project would be reduced. See Table PMR2 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The proposed modification and FESSR would occur on BLM lands. The modification would reduce the total area of federal land affected by the Project in this location. There are no sensitive receptors in the vicinity of the FESSR or modified Project. The construction yard is in close proximity to the Dunaway OHV Staging Area and appropriate coordination with the Recreation Officer is in process in an effort to reduce impacts to recreationists utilizing this area.
Noise	No substantial changes to the effects of the FESSR.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	No substantial changes to the effects of the FESSR.
Visual	The modification would not noticeably change the overall impacts of the FESSR on visual resources, although the reduction in ground disturbance would reduce long-term visible land scarring. Because it would still be prominently visible to OHV recreationists accessing the Yuha Desert south of I-8, the Dunaway Yard would have similar temporary visual effects as the FESSR yard.
Water Resources	See Table PMR2 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduction because of the reduced ground disturbance.

TABLE PMR2					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Desert Scrub and Dune Habitats	21.85	101.50	123.35	
	Herbaceous Wetlands, Freshwater, and Streams	0.44	1.03	1.47	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	8.49	106.54	115.03	
	Riparian Scrubs	0.36	0.61	0.97	
FESSR Total		31.14	209.68	240.82	
		Permanent	Temporary	Total	
Modified Project	Desert Scrub and Dune Habitats	8.33	33.58	41.91	
	Herbaceous Wetlands, Freshwater, and Streams	0.26	0.60	0.86	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	5.18	10.08	15.26	
Mod Proj Total		13.77	44.25	58.03	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Flat Tailed Horned Lizard	BLM Management Area	22.26	103.25	125.51
		Distribution Area	8.88	12.96	21.84
Modified Project	Flat Tailed Horned Lizard	BLM Management Area	9.54	36.87	46.41
		Distribution Area	4.23	7.38	11.61
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural resource Inventory	FESSR	Modified Project		
Habitation Site	IMP-269	1	1		
Lithic Scatter	IMP-2085	1	1		
	IMP-8740	1	1		
	IMP-8744	1	1		
	IMP-8824	1	1		
Lithic Scatter/Ceramic Scatter	IMP-8665	1	1		
Lithic Scatter/Mining	IMP-8741	1	1		
Lithic Scatter/Rock Carin	IMP-8739	1	1		
Pending id	AGH-5	1	1		
Prehistoric Artifact Scatter	IMP-1015/4348	1	1		
	IMP-3784/3785/4340/4341/4344	1	1		
Prehistoric Lithic Scatter	10B-8	1	1		
	IMP-2304	1	1		
	IMP-8737	1	1		
	IMP-8766	1	1		
	IMP-8793	1	1		
Prehistoric Lithic Scatter/Historic Refuse	IMP-3773	1	1		

TABLE PMR2			
Prehistoric Lithic Scatter/Trail	IMP-3762	1	1
Prehistoric Rock Feature	BW-50	1	1
Prehistoric Artifact Scatter	IMP-3766	1	
	IMP-8666	1	
	IMP-8669	1	
	IMP-8767	1	
Prehistoric Habitation	IMP-8697	1	
Prehistoric Isolate (Debitage)	IMP-3767	1	
Prehistoric Lithic Scatter	IMP-2086	1	
	IMP-2303	1	
	IMP-2372	1	
	IMP-3749	1	
	IMP-3755	1	
	IMP-3756/3757	1	
	IMP-3768	1	
	IMP-8731	1	
	IMP-8743	1	
Prehistoric Lithic Scatter, Trail	IMP-2074A	1	
	IMP-2074B	1	
Temporary Camp	IMP-4349	1	
Pending Id	BS-S-40	1	
	IMP-3774	1	
	IMP-3775	1	
	IMP-8742	1	
Total		23	19
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	3.05	6.60	9.66
Modified Project	0.78	2.29	3.07
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	3.08	6.68	9.75
Modified Project	0.81	2.34	3.15

PMR3. EP333 to EP324 (Plaster City)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP9.7 to MP12.7	1	Plaster City	3	MS11 to MS14
Summary and Conclusion				
<p>The modification would shift the alignment to the northeast to avoid sensitive resources and relocate and reduce the size of the Plaster City construction yard. The modification would reduce FESSR impacts to dry washes, flat tailed horned lizard habitat, cultural resources, waters of the US, and State waters in this PRM unit. There would be an increase in temporary impacts to desert scrub habitat. Other effects of the modification would be substantially the same as those of the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted to avoid cultural resources, a wetland, and a dry wash. • Size of temporary work areas reduced at all structures. • Number of wire stringing sites reduced. • New access road parallel to SWPL eliminated • Guard structures added at road crossings. <p><u>Plaster City Construction Yard</u></p> <ul style="list-style-type: none"> • Construction yard moved from near EP329-1 to north of Evan Hewes Highway 80 and EP330-1 • Yard size reduced from 30.13 acres to 20.27 acres. 			
Primary Reason	Reduce impacts to sensitive vegetation, cultural resources, and dry washes.			
Other Considerations	Protect desert pavement.			
MMCRP Measures	B-1a, B-7b, Bio-APM-1, C1-a and -b, G-2a, GEO-APM-5, WQ-APM-1, and WQ-APM-2			
Environmental Impact Discussion				
Air Quality	No substantial change to the effects of the FESSR.			
Biological Resources	See Table PMR3 below.			
<i>Rare Plants</i>	No rare plants would be affected by the modified Project or FESSR.			
<i>Vegetation Impacts</i>	The modified Project would have more temporary impacts to desert scrub than the FESSR but would reduce permanent and temporary impacts to dry washes.			
<i>Species Impacts</i>	Neither the FESSR nor the modified Project affect the FTHL Management Area; the modified Project would reduce impacts to flat tailed horned lizard outside the Management Area.			
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.			

PMR3. EP333 to EP324 (Plaster City)	
Cultural Resources	There are 6 cultural sites and 5 isolated finds in this PMR unit. The FESSR would affect 7 resources, and the modified Project would affect 1 resource. Under the modified Project, EP333 through SP324 were shifted and spur roads were designed to avoid cultural resources. Both the FESSR and modified Project potentially would affect a prehistoric lithic scatter. If possible, an Environmentally Sensitive Area would be established around this site and as many sites as possible in close proximity to construction activities. If a site could not be avoided by direct ground impacts, eligibility evaluations would be completed. Sites that are found to be eligible for nomination to the National Register would require additional mitigation prior to the initiation of ground disturbance. See Table PMR3 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modified Project reduces total impacts to BLM lands and eliminates impacts to private lands in this location. There are no sensitive receptors in the vicinity of the FESSR or modified Project impact areas in PMR3. The construction yard is in proximity of the Plaster City West OHV Staging Area and appropriate coordination with the Recreation Officer is in process in an effort to reduce impacts to recreationists utilizing this area.
Noise	No substantial changes to the effects of the FESSR.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	No substantial changes to the effects of the FESSR.
Visual	The modification would not noticeably change the overall visual impacts of the FESSR in this PMR unit. There would be some reduction in long-term visible land scarring because of the reduced ground disturbance. The modification to the Plaster City Construction Yard would reduce temporary view blockage of the Coyote and Fish Creek Mountains to the northwest but cause temporary view blockage of the Fish Creek Mountains to the north and from of the Plaster City West OHV Staging Area.
Water Resources	See Table PMR3 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduction because of the reduced ground disturbance.

TABLE PMR3					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Desert Scrub and Dune Habitats	4.25	16.58	20.83	
	Herbaceous Wetlands, Freshwater, and Streams	0.06	0.05	0.11	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	7.59	27.40	34.98	
FESSR Total		11.89	44.03	55.92	
Modified Project	Desert Scrub and Dune Habitats	2.59	24.05	26.64	
	Herbaceous Wetlands, Freshwater, and Streams	0.03	0.03	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	3.15	3.07	6.22	
Mod Proj Total		5.77	27.15	32.92	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Flat Tailed Horned Lizard	Distribution Area	11.89	44.03	55.92
Modified Project	Flat Tailed Horned Lizard	Distribution Area	5.77	27.15	32.92
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Prehistoric Lithic Scatter	IMP-4237	1	1		
Historic Road	IMP-7886	1			
Historic Trail	Fages-De Anza Trail	1			
Historic Trail	IMP-3396	1			
Prehistoric Lithic Scatter	IMP-8705	1			
Pending Id	IMP-8706	1			
	SU-29	1			
Total		7	1		
Impacts to Waters of the US (acres)					
		Permanent	Temporary	Total	
FESSR		1.55	9.37	10.92	
Modified Project		0.82	1.12	1.94	
Impacts to State Waters (acres)					
		Permanent	Temporary	Total	
FESSR		1.56	9.37	10.92	
Modified Project		0.82	1.12	1.94	

PMR4. EP324 to EP301 (Pyramid Mining)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP12.7 to MP19.1	1	None	4	MS14 to MS20
Summary and Conclusion				
<p>The modification would make minor shifts in the alignment to the south to improve construction and engineering design, reduce the size of work areas, add TSAPs to support helicopter construction, and eliminate a yard south of the ROW. FESSR impacts to desert scrubs, dry washes, flat tailed horned lizard, Peninsular bighorn sheep, cultural resources, waters of the US, and State waters would be reduced. Coordination with quarry activities would continue to ensure access to mineral resources. Other effects of the modification would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<ul style="list-style-type: none"> • ROW shifted south between EP318-1 and EP314 and between EP303-2 and EP301. • Work areas and access shifted to avoid cultural resources. • Access roads to EP323-1 and EP324 eliminated to avoid impacts to dry washes. • Two TSAPs added to support helicopter construction. • Guard structures added at road crossings. • Yard south of ROW, between EP304-2 and EP303-2, eliminated. 			
Primary Reason	Reduce impacts to sensitive vegetation, cultural resources, and dry washes			
Other Considerations	Improve construction and engineering design.			
MMCRP Measures	B-1a, C-1a and 1b, G-9a, GEO-APM-4, WQ-APM-1, and WQ-APM-2			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change to the effects of the FESSR			
Biological Resources	See Table PMR4 below.			
<i>Rare Plants</i>	Neither the modified Project nor the FESSR would affect rare plants in these locations.			
<i>Vegetation Impacts</i>	The modification reduces FESSR impacts to desert scrub and dry washes in this unit.			
<i>Species Impacts</i>	Both the modification and FESSR would affect flat tailed horned lizard outside of the FTHL Management Area and Peninsular bighorn sheep habitat; the modification reduces the habitat impacts.			
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.			
Cultural Resources	<p>There are 14 cultural sites in PMR4, most of which were identified in the FESSR surveys. The FESSR potentially would affect 12 sites; the modified Project potentially would affect 2. The reduced impacts under the modification are from changes in the size and location of work areas at three structures and the design of access to two structures. Environmentally Sensitive exclusion areas would be established around as many resources as possible prior to the initiation of ground disturbance. Sites that could not be avoided of direct impacts would be evaluated for eligibility. Sites that are determined eligible would require the completion of additional mitigation measures prior to the initiation of ground disturbance. See Table PMR4 below.</p>			

PMR4. EP324 to EP301 (Pyramid Mining)	
Geology/Mineral Resources	The modification reduces ground disturbance and the associated slope stability and erosion effects in this PMR unit. From structure EP302 to EP301, both the FESSR and the modification would impinge on Pyramid Mining’s quarry operations on BLM lands. SDG&E has met and coordinated with BLM and the Pyramid mining operators regarding operations in and near the SRPL alignment since 2007. During an onsite meeting in December 2008, SDG&E reviewed the current alignment with both parties and discussed how the ongoing mining operations, their access, and/or their long-range plans might be affected. The shared information resulted in SDG&E siting its access roads, structures, wire stringing sites, and maintenance pads at locations that would minimize impacts to the mining operations and the operators’ ability to access and extract material. BLM played a critical role in these discussions, as the operators are mining on BLM lands under mining contracts. SDG&E subsequently provided the revised layout and grading plan to BLM in February 2009 for use in guiding the mining operations. This coordination is a continuation of efforts initiated for the FESSR and is the mitigation measure G-9a identified in the MMRCP for this circumstance. As identified in MMCRP measure G-9a, SDG&E will continue to coordinate with BLM and the appropriate mining operators to reach an agreement which would ensure the safe operating rights of the Project and limit loss of mining rights to aggregate resources. The modification reduces but does not eliminate effects on mineral resources and would not result in a new significant impact.
Land Use	The modification reduces impacts to BLM lands from 100 to approximately 30 acres. The modified Project is slightly closer to the nearest sensitive receptor which is approximately 1225 feet from the alignment yielding no substantial changes to the effects of the FESSR.
Noise	No substantial change to the effects of the FESSR.
Public Safety/Hazards	No substantial change to effects of the FESSR. However, accommodation of mining operations would entail additional safety and hazard considerations.
Traffic	No substantial change to the effects of the FESSR.
Visual	The proposed modification would not noticeably change overall visual impacts but would reduce long-term visible land scarring.
Water Resources	See Table PMR4 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US in this unit.
<i>State Waters</i>	The modification would reduce impacts to State waters in this unit.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduction because of the reduced ground disturbance.

TABLE PMR4					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
			Permanent	Temporary	Total
FESSR	Desert Scrub and Dune Habitats		8.74	42.19	50.93
	Herbaceous Wetlands, Freshwater, and Streams		1.59	2.16	3.76
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		20.69	24.83	45.52
FESSR Total			31.03	69.18	100.21
Modified Project	Desert Scrub and Dune Habitats		3.50	7.42	10.92
	Herbaceous Wetlands, Freshwater, and Streams		0.18	0.62	0.80
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		7.13	10.86	17.99
Mod Proj Total			10.81	18.90	29.71
Impacts to Special Status Species (acres)					
			Permanent	Temporary	Total
FESSR	Flat Tailed Horned Lizard	Distribution Area	31.02	69.18	100.21
	Peninsular Bighorn Sheep	USFWS Occupied Habitat	8.64	12.15	20.79
Modified Project	Flat Tailed Horned Lizard	Distribution Area	10.81	18.90	29.71
	Peninsular Bighorn Sheep	USFWS Habitat	3.48	6.22	9.71
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type		ID in Cultural Resource Inventory	FESSR	Modified Project	
Lithic Scatter		IMP-8810	1	1	
Prehistoric Ceramic Scatter		BW-S-09	1	1	
Prehistoric Lithic Scatter		BW-41	1		
		IMP-3731	1		
		IMP-3736	1		
		IMP-8812	1		
		IMP-8844	1		
Prehistoric Rock Feature and Artifact Sc		IMP-8813	1		
Prehistoric Isolate (Debitage)		IMP-8838	1		
Prehistoric Lithic Scatter		IMP-3728	1		
		IMP-3734	1		
		IMP-3735	1		
Total			12	2	

TABLE PMR4			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	7.33	7.98	15.31
Modified Project	1.14	2.07	3.21
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	1.57	5.23	6.78
Modified Project	0.52	1.31	1.83

PMR5. EP301 to EP276-1 (Sugarloaf)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheets
MP19.1 to MP24.2	1	(BLM) S2	5	MS20 to MS27
Summary and Conclusion				
<p>The modification would shift the location of structures within the FESSR ROW, eliminate a new access road, relocate a yard, and designate more structures for helicopter construction. FESSR permanent impacts to desert scrubs, temporary impacts to dry washes, and permanent impacts to barefoot banded gecko, flat tailed horned lizard, and Peninsular bighorn sheep would be reduced as well as impacts to cultural resources, waters of the US, and streambeds. Other impacts would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Structures shifted within the FESSR ROW. • Three structures added • Seven structures changed from conventional to helicopter construction. • New access road eliminated <p><u>(BLM) S2 Construction Yard</u></p> <ul style="list-style-type: none"> • Construction yard relocated from adjacent to ROW to north of County Road S2 • Construction yard size increased from approximately 22 to 30 acres. 			
Primary Reason	Reduce impacts to cultural resources.			
Other Considerations	Reduce ground disturbance and impacts to sensitive vegetation and dry washes. Reduce visual resource and recreation area impacts.			
MMCRP Measures	B-1a, C-1a, C-1b and WQ-APM-2			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change in the effects of the FESSR.			
Biological Resources	See Table PMR5 below.			
<i>Rare Plants</i>	Neither the modified Project nor FESSR affect rare plants in these locations,			
<i>Vegetation Impacts</i>	The modification would reduce permanent impacts to desert scrub and temporary impacts to dry washes; temporary impacts to desert scrub and permanent impacts to dry washes would be similar to the FESSR.			

PMR5. EP301 to EP276-1 (Sugarloaf)	
<i>Species Impacts</i>	The modification reduces or has impacts similar to the FESSR on barefoot banded gecko, flat tailed horned lizard outside of FTHL Management Area, and Peninsular bighorn sheep.
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.
Cultural Resources	There are 12 cultural sites and 4 isolated finds in this location, which were identified in the FESSR surveys. The FESSR potentially would affect 11 resources; the modified Project potentially would affect 7. The modification reduces impacts by relocating structures, and changing the construction methods near MP22 to helicopter to avoid highly sensitive resources. There are seven sites with the potential for direct ground impacts. Two are not identified as to type and there is one each identified as prehistoric artifact scatter, prehistoric habitation, prehistoric habitation with trail, prehistoric lithic scatter, and prehistoric lithic scatter with a trail. See Table PMR5 below.
Geology/Minerals	The FESSR route would have a pull site for the 500 kV transmission line in an existing Amex sand and gravel pit at Ocotillo, thereby causing potential impacts to aggregate extraction and mining operations. The PMR5 modification would cross both the Amex and Calgrade aggregate pits, however, the line would span above the two pits in a straight line. If the mining operators are able to maintain safety parameters and mine under the transmission line then substantially more aggregate would be available with the PMR5 modification. As part of ensuring access, the minimum clearance to ground between structures EP291 and EP302 would be 48.61 ft. The modification would reduce but not eliminate the impacts associated with the FESSR. As required by MMCRP measure G-9a coordination with quarry activities that was initiated for the FESSR would continue. The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit. No new significant impacts would result from the modification.
Land Use	The FESSR and modified Project are located on public BLM lands and cross through a portion of one private property parcel. The modification reduces permanent impacts to BLM lands; temporary impacts remain essentially the same. There are no sensitive receptors within one-quarter mile of the modified Project or FESSR in this PMR unit.
Noise	The modification would have increased noise from helicopters and decreased noise from truck traffic.
Public Safety/Hazards	No substantial change to effects of the FESSR. As in PMR4, accommodation of mining operations would entail additional safety and hazard considerations.
Traffic	No substantial change to the effects of the FESSR.
Visual	The modification would have similar visual impacts as the FESSR, with a reduction in long-term visible land scarring because of reduced ground disturbance. The concentration of yard activities in a larger construction yard in close proximity to Imperial Highway (County Road S2) would slightly increase the temporary visual impact on County Road S2.
Water Resources	The modification would reduce impacts to waters of the US. Water use impacts would be similar to or less than the FESSR. See Table PMR5 below.

PMR5. EP301 to EP276-1 (Sugarloaf)	
<i>Waters of US</i>	The modification would reduce permanent and temporary impacts to waters of the US, mainly as a result of moving the yard.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduction because of the reduced ground disturbance.

TABLE PMR5				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Desert Scrub and Dune Habitats	22.32	38.81	61.13
	Herbaceous Wetlands, Freshwater, and Streams	0.04	1.23	1.27
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	3.03	4.45	7.48
FESSR Total		25.40	44.49	69.89
Modified Project	Desert Scrub and Dune Habitats	6.82	40.07	46.90
	Herbaceous Wetlands, Freshwater, and Streams	0.05	0.43	0.48
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.72	0.94	1.66
Mod Proj Total		7.59	41.45	49.04
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Barefoot Banded Gecko	Suitable Habitat	6.06	6.06
	Flat Tailed Horned Lizard	Distribution Area	19.37	44.49
	Peninsular Bighorn Sheep	USFWS Critical Habitat	0.12	0.12
USFWS Occupied Habitat		9.24	9.24	
Modified Project	Barefoot Banded Gecko	Suitable Habitat	2.05	2.05
	Flat Tailed Horned Lizard	Distribution Area	5.54	41.45
	Peninsular Bighorn Sheep	USFWS Critical Habitat	0.25	0.25
USFWS Occupied Habitat		1.62	1.62	
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project	
Prehistoric Artifact Scatter	LMP-S-61/SPBB-S-7	1	1	
Prehistoric Habitation	IMP-4228	1	1	
Prehistoric Habitation, Trail	IMP-103/3710	1	1	
Prehistoric Lithic Scatter	BW-35	1	1	
Prehistoric Lithic Scatter, Trail	IMP-3708	1	1	
Prehistoric Habitation, Trial	IMP-3710	1	1	
	SPSB-S-5	1	1	
Pending Id	IMP-334	1		
Prehistoric Lithic Scatter	BW-36	1		
Historic	IMP-3720H	1		
	SPSB-S-6	1		
Total		11	7	

TABLE PMR5			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	1.56	5.19	6.75
Modified Project	0.51	1.24	1.75
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	1.57	5.23	6.79
Modified Project	0.52	1.31	1.83

PMR6. EP276-1 to EP255-1 (Desert View Tower)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP24.2 to MP30.3	1	AER	6	MS27 to MS35
Summary and Conclusion				
<p>The modification would shift the alignment west, closer to Interstate 8 but at lower elevation to reduce visual impacts from Desert View Tower. This is made possible by adding 3 towers to the modification. One construction yard would be eliminated and another (AER) reduced in size. The modification would reduce impacts to a rare plant, four sensitive vegetation communities, two listed species, cultural resources, waters of the US, and streambeds. Other effects would be substantially the same as the FESSR. The modification would not result in any new significant impacts.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted on improved engineering design. • EP264-4 through EP258-2 moved west and lower in elevation to reduce direct visual impacts. • Construction accomplished via helicopter access for 18 structures. • Temporary construction pad added for 3 conventional construction structures. • One wire pull site eliminated. • New access road eliminated, replaced with spur roads from existing roads. • Guard structures added at road crossings. <p><u>AER Construction Yard</u></p> <ul style="list-style-type: none"> • Size of construction yard reduced from 9.91 acres to 5 acres. • Construction yard remains in the same location. <p><u>Other</u></p> <ul style="list-style-type: none"> • Yard at I-8 split and Old Highway 80 eliminated. 			
Primary Reason	Reduce visual impacts of project as viewed from Desert View Tower, Old Highway 80, and Interstate 8.			
Other Considerations	<p>Reduce impacts to listed species and sensitive vegetation types.</p> <p>Reduce impacts to cultural resources.</p> <p>Move structures to more level, stable terrain.</p>			
MMCRP Measures	C-1a and -1b, C-6a, C-6e, C-6f, GEO-APM-4, V-2a and VR-APM-6			
Environmental Impact Discussion				
Air Quality	<p>The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial changes to the effects of the FESSR.</p>			

PMR6. EP276-1 to EP255-1 (Desert View Tower)	
Biological Resources	
<i>Rare Plants</i>	The modification would reduce impacts to Wolf's cholla.
<i>Vegetation Impacts</i>	The modification would reduce impacts to desert scrubs and dry washes and eliminate impacts to chaparral and riparian scrub.
<i>Species Impacts</i>	The modification would reduce impacts to two listed species: barefoot banded gecko (state-listed) and Peninsular bighorn sheep (federally-listed).
<i>RCA's</i>	Not applicable to the FESSR or modified Project in this unit.
Cultural Resources	There are 31 cultural sites and 10 isolated finds in this unit. The FESSR would affect 18 sites; the modification would affect 5. Most of the modification is designed to reduce impacts to two known cultural resources: Old Highway 80 and Desert View Tower. Environmentally Sensitive Areas would be established around as many sites as possible. At sites that cannot be avoided by direct impacts, eligibility evaluations would be completed. Those sites that are found to be eligible for nomination to the National Register would require additional mitigation prior to the initiation of ground disturbance. See Table PMR6 below.
Geology/Minerals	The modification reduces ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification reduces impacts to both federal (BLM) and private lands. The modification would place a structure and TSAP closer to a single family residence (sensitive receptor) than the FESSR. This is the only sensitive receptor in the PMR unit.
Noise	Noise from helicopter operations would increase, and noise from truck traffic would decrease. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. Otherwise substantially the same as the FESSR.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	No substantial changes to the effects of the FESSR. However, there would be a reduction in truck traffic.
Visual	The reroute from EP265 to EP258-1 moves the ROW closer to Interstate 8 and adds three structures in this location. One portion of eastbound Interstate 8 will have direct in-line view of the structures. Lattice structures would be closer to both Desert View Tower and Interstate 8 but would be treated with a light- to medium-gray color to blend in with the landscape. The proposed modification would generally be less visually impacting to views from Desert Tower and Interstate 8 (I-8). The FESSR would be situated higher on the ridge, with more occurrences of skylining. The modification would tend to cause less skylining and be more frequently backdropped by the high-contrast boulder slopes. The exception is the direct view from the short stretch of eastbound I-8. The construction yard in this location was considered for an alternate site south of Jade Mountain, however a suitable site could not be determined that would avoid flight paths that cross over the top of the existing and adjacent 500kV transmission line. Some visual impacts would be reduced but the effects of the FESSR would not substantially change.

PMR6. EP276-1 to EP255-1 (Desert View Tower)	
Water Resources	See Table PMR 6 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduction because of the reduced ground disturbance.

TABLE PMR6					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Wolf's cholla	51		51	
Modified Project	Wolf's cholla	6		6	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	1.94		1.94	
	Desert Scrub and Dune Habitats	22.60	29.62	52.22	
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.05	0.07	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.40	0.63	2.03	
	Riparian Scrubs	0.02	0.07	0.09	
	FESSR Total	25.97	30.38	56.35	
Modified Project	Desert Scrub and Dune Habitats	8.57	10.33	18.90	
	Herbaceous Wetlands, Freshwater, and Streams		0.06	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.94	0.58	1.52	
	Mod Proj Total	9.51	10.97	20.48	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Barefoot Banded Gecko	Suitable Habitat	14.57	17.16	31.73
	Peninsular Bighorn Sheep	USFWS Critical Habitat	15.91	17.16	33.08
		USFWS Occupied Habitat	10.06	13.21	23.27
Modified Project	Barefoot Banded Gecko	Occupied Habitat	0.39	0.00	0.39
		Suitable Habitat	5.18	1.41	6.59
	Peninsular Bighorn Sheep	USFWS Critical Habitat	5.16	1.41	6.57
		USFWS Occupied Habitat	4.35	9.56	13.91
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Historic Road	IMP-7886	1	1		
Prehistoric Artifact Scatter	IMP-4706	1	1		
Prehistoric Artifact Scatter/Historic Refuse	BW-28	1	1		
Prehistoric Bedrock Milling	BC-50	1	1		
	SDI-9188	1	1		
Prehistoric Artifact Scatter	BW-22	1			
Prehistoric Bedrock Milling	BW-29	1			
Prehistoric Habitation	IMP-2623	1			
	IMP-4716	1			

TABLE PMR6			
	IMP-4718	1	
	IMP-4724	1	
Prehistoric Rock Feature	IMP-4711	1	
Prehistoric Trail	IMP-4717	1	
Prehistoric Bedrock Milling	BC-51	1	
Prehistoric Habitation	SDI-9189	1	
Prehistoric Isolate (Ground Stone)	IMP-4745	1	
Prehistoric Rock Feature	IMP-4733	1	
	SDI-6120	1	
Total		18	5
Impacts to Waters of the US (acres)			
		Permanent	Temporary
			Total
FESSR		0.01	0.06
Modified Project		0.00	0.06
			0.07
Impacts to State Waters (acres)			
		Permanent	Temporary
			Total
FESSR		0.02	0.08
Modified Project		0.00	0.07
			0.10

PMR7. EP255-1 to EP252-1 (Jade Mountain)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP30.2 to MP30.9	1	None	7	MS35
Summary and Conclusion				
<p>The modification relocates structures lower on the slopes of Jade Mountain and eliminates an access road. There would be a reduction in impacts to desert scrubs and a slight increase in impacts to dry washes, Peninsular bighorn sheep habitat, waters of the US, and streambeds. Effects on cultural resources would be reduced, and those on visual and other resources would be substantially the same as for the FESSR. The modification would not result in any new significant impacts.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> Lowered structures on the slopes of Jade Mountain and eliminated the access road to structures. Added one structure to accommodate reroute. 			
Primary Reason	Reduce visual impacts of structures on Jade Mountain.			
Other Considerations	<p>Reduce impacts to sensitive vegetation and dry washes. Reduce ground disturbance.</p>			
MMCRP Measures	GEO-APM-5, B-1a, and C-1b.			
Environmental Impact Discussion				
Air Quality	No substantial changes in the effects of the FESSR.			
Biological Resources	See Table PMR7 below.			
<i>Rare Plants</i>	No rare plants would be affected.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to desert scrub but result in a slight increase in impacts to non-vegetated channels. The increase would not be a new significant impact.			
<i>Species Impacts</i>	The modification would reduce permanent impacts and increase temporary impacts to Peninsular bighorn sheep habitat. The increase would not be a new significant impact.			
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.			
Cultural Resources	<p>There are 4 cultural sites and one isolated find in this location; all of which are previously recorded sites. The FESSR would affect all five; the modification would affect two sites. Environmentally Sensitive Areas would be established to protect as many sites as possible from direct impacts. Sites that cannot be avoided by impacts will be evaluated for eligibility. Sites that are determined to be eligible for the National Register will require additional mitigation prior to any ground disturbance. The modification would reduce impacts to cultural resources but the impacts would remain significant. See Table PMR7 below.</p>			
Geology/Minerals	No substantial changes in the effects of the FESSR.			

PMR7. EP255-1 to EP252-1 (Jade Mountain)	
Land Use	The modification reduces impacts to private lands by eliminating the access road. There are no sensitive receptors within one-quarter mile of the FESSR or modified Project in this unit.
Noise	No substantial changes in the effects of the FESSR.
Public Safety/Hazards	No substantial changes in the effects of the FESSR.
Traffic	No substantial changes in the effects of the FESSR.
Visual	The Jade Mountain modification would slightly reduce the impact on views from Interstate 8 because the down-slope shift in alignment would eliminate the structure skylining that would occur at the eastern-most structure on Jade Mountain. However, the modification would not measurably change the impact on views from Old Highway 80 because the reduction in structure skylining would be offset by the visibility of additional structures. No new significant effects would result from the modification, and the effects of the FESSR in this area would not be substantially changed.
Water Resources	See Table PMR7 below.
<i>Waters of US</i>	The modification would increase temporary impacts to waters of the US by approximately 0.10 acre. The increase would not be a new significant impact.
<i>State Waters</i>	The modification would increase temporary impacts to State waters by approximately 0.10 acre. The increase would not be a new significant impact.
<i>Water Use</i>	No substantial changes in the effects of the FESSR.

TABLE PMR7					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Desert Scrub and Dune Habitats	4.13	5.52	9.65	
	Herbaceous Wetlands, Freshwater, and Streams	0.02	0.01	0.03	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.61	0.13	0.74	
	FESSR Total	4.76	5.66	10.42	
Modified Project	Desert Scrub and Dune Habitats	1.39	4.38	5.77	
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.12	0.12	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.04	0.42	0.46	
	Mod Proj Total	1.43	4.93	6.36	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Peninsular Bighorn Sheep	USFWS Occupied Habitat	2.15	2.68	4.83
Modified Project	Peninsular Bighorn Sheep	USFWS Occupied Habitat	0.71	4.25	4.96
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Prehistoric Artifact Scatter	SDI-7073/7083/8306	1	1		
Prehistoric Habitation	SDI-7074/7075/7076/15879	1	1		
Prehistoric Hearth, Ceramic and Lithic Scatter	SDI-6116A	1			
Roasting Pit/Lithic Scatter/Ceramic Scatter	SDI-6116B	1			
Isolate, Core	SDI-9170	1			
	Total	5	2		
Impacts to Waters of the US (acres)					
		Permanent	Temporary	Total	
FESSR		0.01	0.01	0.02	
Modified Project		0.00	0.12	0.12	
Impacts to State Waters (acres)					
		Permanent	Temporary	Total	
FESSR		0.02	0.01	0.03	
Modified Project		0.00	0.12	0.12	

PMR8. EP252-1 to EP239-1 (Jacumba)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP30.9 to MP34.2	1	Jacumba Airport Jacumba Valley Ranch	8	MS35 to MS39
Summary and Conclusion				
<p>The modification would adjust engineering design and constructability, and add a 34.51-acre construction yard to replace a construction yard moved out of Quino habitat in PMR9. Permanent impacts to sensitive vegetation would be reduced and temporary impacts would increase. Barefoot banded gecko would be affected along the alignment. Impacts to cultural resources would be reduced, and impacts to visual resources would increase or remain substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • One wire pull site eliminated. • Temporary construction pads reduced at all structures. • Guard structures added at road crossings. <p><u>Jacumba Valley Ranch Construction Yard</u></p> <ul style="list-style-type: none"> • New 34.51-acre yard located south of Interstate 8, adjacent to EP242. Replaces yard in PMR9 eliminated to avoid Quino. 			
Primary Reason	Improve engineering design and constructability and replace yard in PMR9			
Other Considerations	Reduce impacts to sensitive vegetation and dry washes Reduce impacts to cultural resources			
MMCRP Measures	B-1, C-1a and 1b, Ag-1a, CR-APM-2, and GEO-APM-5.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial changes in the effects of the FESSR.			
Biological Resources	See Table PMR8 below.			
<i>Rare Plants</i>	No impacts to rare plants would occur under the FESSR or modification.			
<i>Vegetation Impacts</i>	The modification would reduce permanent impacts to sensitive vegetation types but would increase temporary impacts to chaparral and desert scrub. The increase is associated with the Jacumba Valley Ranch Yard, which replaces a 30-acre yard in desert scrub in PMR9.			
<i>Species Impacts</i>	The modification would result in impacts to one state listed species – barefoot banded gecko. The FESSR would not affect gecko at this location, but impacts of the FESSR on this gecko were considered in the Final EIR/EIS. SDG&E has submitted a 2081 Incidental Take Permit Application to CDFG and is seeking authorization for take. The modification reduces impacts to Quino occupied habitat by providing a feasible location for a large construction yard along this portion of the route.			

PMR8. EP252-1 to EP239-1 (Jacumba)	
<i>RCA</i> s	Not applicable to the FESSR or modified Project in this unit.
Cultural Resources	There are 30 cultural sites and 18 isolated finds in this location, most of which were included in the Final EIR/EIS surveys. The FESSR would affect 25 sites; the modification would affect 14. Under the FESSR and modification, Environmentally Sensitive Areas would be established to the degree possible at sites to avoid direct ground disturbance. At sites where avoidance could not be achieved, site eligibility evaluations would be completed. Sites that are determined eligible for nomination to the National Register would require additional mitigation prior to ground disturbance. The modification would reduce but not eliminate the FESSR impacts. See Table PMR8 below.
Geology/Minerals	The modification would reduce permanent ground disturbance but increase temporary disturbance by approximately 24 acres. The effects of the increase, and of all ground disturbance under the modification, would be addressed through the same erosion control and slope stability measures that would apply to the FESSR. The modification would not result in a new significant impact.
Land Use	The modification would reduce use of BLM lands and increase use private lands for the Project in this unit. There are two residential sensitive receptors within a quarter mile of the construction yard and one industrial site sensitive receptor near an access road and structure pad. The impacts to sensitive receptors would be minimized and mitigated in the same ways that would apply to the FESSR. The modification would not result in any new significant impacts.
Noise	The modification would introduce traffic and equipment noise at and along the access road to the airport and construction yard. The impacts would be minimized and mitigated through the applicable MMCRP measures. The modification would not result in a new significant impact.
Public Safety/Hazards	The Jacumba Valley Ranch site is within the area modeled for fire risks.
Traffic	The modification would increase traffic on Old Highway 80 but would not cause significant traffic impacts as determined in the Traffic Impact Study. Impacts would be minimized through applicable MMCRP measures.
Visual	The visual impacts of the reroute and airport construction yard would be the same as the FESSR. The Jacumba Valley Ranch Construction Yard would introduce industrial character into a landscape that lacks such characteristics and would be prominently visible from Interstate 8. However, the visual impacts would be temporary. The increase in visual impacts would not be a new significant impact.
Water Resources	See Table PMR8 below.
<i>Waters of US</i>	The modification eliminates impacts to waters of the US in this unit.
<i>State Waters</i>	The modification eliminated impacts to State waters in the unit.
<i>Water Use</i>	The modification would increase water use in this unit because of the addition of the yard, but would not increase the Project's overall water use (the yard replaces one in PMR9).

TABLE PMR8					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	1.62	3.53	5.15	
	Desert Scrub and Dune Habitats	5.20	13.68	18.88	
	Herbaceous Wetlands, Freshwater, and Streams	0.23	0.64	0.87	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	5.34	4.51	9.85	
	Woodlands and Forests	0.68	1.24	1.92	
	FESSR Total	13.08	23.59	36.67	
Modified Project	Chaparrals	1.43	19.21	20.64	
	Desert Scrub and Dune Habitats	5.16	22.00	27.16	
	Herbaceous Wetlands, Freshwater, and Streams	0.06	0.19	0.25	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.20	5.96	7.16	
	Woodlands and Forests	0.38	0.30	0.69	
	Mod Proj Total	8.23	47.67	55.90	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	None	0	0	0	
Modified Project	Barefoot Banded Gecko	Suitable Habitat	3.22	3.12	6.34
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Lithic Scatter	SDI-7051	1	1		
	SDI-7052	1	1		
Lithic Scatter/Ceramic Scatter	SDI-19035	1	1		
Prehistoric Artifact Scatter	9C-3	1	1		
	SDI-11686	1	1		
	SDI-7059	1	1		
	SDI-7060	1	1		
Prehistoric Habitation	SDI-7074/7075/7076/15879	1	1		
Prehistoric Lithic Scatter	SDI-19281/SPED-S-12	1	1		
	SDI-7044/7046/7087/8432	1	1		
	SPED-S-11	1	1		
Rock Shelter	SDM-C-553	1	1		
Temporary Camp	SDI-7086	1	1		
	SDI-7087	1	1		
Historic Refuse Scatter	SDI-9160H	1			

TABLE PMR8			
Prehistoric Ceramic Scatter	SDI-19033	1	
Prehistoric Habitation	SDI-11687	1	
Duplicate	SDI-8432	1	
Historic Refuse	SDI-9167	1	
Lithic Scatter	SDI-11684	1	
Prehistoric Bedrock Milling	SDI-6776	1	
Prehistoric Lithic Scatter/Historic Refuse	SDI-7053/9166	1	
Artifact Scatter	SDI-7044	1	
Quarry, Quartz	SDI-7046	1	
Quarry, Andesite	SDI-8430	1	
Total		25	14
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.00	0.01
Modified Project	0.00	0.00	0.00
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.02	0.00	0.02
Modified Project	0.00	0.00	0.00

PMR9. EP239-1 to EP229-1 (Quino)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP34.2 to MP36.6	1	None	9	MS-39 to MS-43
Summary and Conclusion				
<p>The modification would shift the alignment to the north and eliminate a construction yard to avoid Quino checkerspot butterfly (Quino) habitat. It also would eliminate a new access road and designate additional structures for helicopter construction. The modification would reduce ground disturbance by approximately 50 acres and would reduce FESSR impacts to rare plants, sensitive vegetation communities, Quino, and cultural resources. It also would eliminate impacts to waters of the US and State waters in this unit. Other effects of the modification would be substantially the same as those of the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted north to avoid Quino occupied habitat and designated critical habitat. • Length of spans on two private properties (Recht William Living Trust and Jacumba LLC) reduced by approximately 500 feet each. • One wire pull site eliminated and one relocated within ROW. • Construction changed to helicopter access for 9 structures. • New access road eliminated; replaced with tower staging/access pads for accessing structures and utilization of existing roads. • Size of temporary construction pads reduced at all structures. • Guard structures added at road crossing. • Construction yard eliminated (replaced with yard in PMR8). 			
Primary Reason	Avoid impacts to the Jacumba Quino population.			
Other Considerations	Minimize impacts to ephemeral streams. Avoid agricultural underground irrigation system on private property.			
MMCRP Measures	AG-1a, B-7i, C-1a and 1b, C-6e, GEO-APM-5, L2-b, CR-APM-2, and S-2a.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial changes to the effects of the FESSR.			
Biological Resources	See Table PMR9 below.			
<i>Rare Plants</i>	The modification avoids impacts to a few individuals of two rare plants. This is not a substantial change to FESSR effects on rare plants.			

PMR9. EP239-1 to EP229-1 (Quino)	
<i>Vegetation Impacts</i>	The modification would reduce impacts chaparrals, desert scrubs, and non-vegetated channels.
<i>Species Impacts</i>	The modification would reduce impacts to Quino occupied and designated critical habitat.
<i>RCA</i> s	Not applicable to the FESSR or modified Project in this unit.
Cultural Resources	There are 18 cultural resource sites in this unit. The FESSR would affect 11; the modified Project would affect 2. The modification results in direct avoidance of 8 archaeological sites. See Table PMR9 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification would reduce impacts to private lands, including conserved lands owned by the Nature Conservancy, primarily through elimination of the construction yard and access road and incorporation of helicopter construction. Although reduced, impacts to conserved lands would still occur. The modification also reduces impacts to Jacumba Valley Ranch crop land and avoids impacts to an underground irrigation system.
Noise	No substantial changes to the effects of the FESSR.
Public Safety/Hazards	The ROW has been moved further away from homes in Jacumba and the SWPL, reducing risk to homes and reducing containment conflict. Fire risk would remain the same. No substantial change in effects to the FESSR.
Traffic	No substantial changes to the effects of the FESSR, with some reduction in truck traffic because of the increase in helicopter construction and relocation of construction yard.
Visual	The modification would reduce the impact on views from the community of Jacumba and Old Highway 80 because the shift in alignment to the north would reduce (though not eliminate) structure skylining at four structure locations visible from Jacumba and the road. However, there would not be substantial change in overall visual impacts.
Water Resources	See Table PMR9 below.
<i>Waters of US</i>	The modification would eliminate 0.01 acre of impacts to waters of the US.
<i>State Waters</i>	The modification would eliminate 0.02 acre of impacts to State Waters.
<i>Water Use</i>	No substantial change in effects, with some potential for a reduction in water use because of the reduced ground disturbance.

TABLE PMR9					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Palmer's grappling hook		2	2	
	Sticky geraea	5	2	7	
Modified Project	None				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	6.54	10.49	17.03	
	Desert Scrub and Dune Habitats	2.77	34.23	37.01	
	Herbaceous Wetlands, Freshwater, and Streams	0.02	0.00	0.02	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	2.29	1.59	3.88	
	Woodlands and Forests	0.24	0.92	1.16	
	FESSR Total	11.86	47.23	59.09	
Modified Project	Chaparrals	3.69	2.33	6.03	
	Desert Scrub and Dune Habitats		0.42	0.42	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.48	0.65	1.14	
	Mod Proj Total	4.17	3.41	7.59	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Quino Checkerspot Butterfly	USFWS Critical Habitat	8.20	10.80	19.01
		USFWS Occupied Habitat	11.05	44.29	55.33
Modified Project	Quino Checkerspot Butterfly	USFWS Critical Habitat	1.68	0.01	1.69
		USFWS Occupied Habitat	3.44	2.75	6.19
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Prehistoric Bedrock Milling	SDI-19303	1	1		
	SDI-7030/7951/9153/19268	1	1		
Historic Mining	9C-14	1			
	9C-9	1			
	SDI-19267	1			
Prehistoric Bedrock Milling	9C-13	1			
Prehistoric Lithic Scatter	9C-10	1			
	SDI-19302	1			
	SPED-S-10	1			
Pending Id	SPED-S-9	1			
	SPSB-S-2	1			

TABLE PMR9			
	Total	11	2
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.00	0.01
Modified Project	0.00	0.00	0.00
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.02	0.00	0.02
Modified Project	0.00	0.00	0.00

PMR10. EP229-1 to EP221A (Bankhead Springs)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP36.6 to MP38.3	1	None	10	MS43 to MS46
Summary and Conclusion				
<p>This modification would shift the alignment to the north and change construction from conventional to helicopter to avoid steep mountainsides containing large boulders and rocky outcrops. The modification would reduce ground disturbance and impacts to chaparrals, woodlands, and Quino habitat. There would be increases in temporary impacts to non-vegetated channels, waters of the US, and State waters. Other effects of the modification would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted north. • Two wire pull sites eliminated. • Construction accomplished via helicopter access for 5 structures. • New access road eliminated; replaced with tower staging/access pads for accessing structures and utilization of existing roads. • Number and size of temporary construction pads reduced. • Guard structures added at road crossings. 			
Primary Reason	Avoid steep mountainsides containing large boulders and rocky outcrops.			
Other Considerations	Reduce impacts to sensitive vegetation.			
MMCRP Measures	B-1a, GEO-APM-4, GEO-APM-5, C-1a, C1-b, V-2d, CR-APM-2, and WQ-APM-2.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR10 below.			
<i>Rare Plants</i>	The modification would have temporary impacts on sticky gerardia; the FESSR would not.			
<i>Vegetation Impacts</i>	Impacts to chaparrals and woodlands would be reduced. There would be a small increase in impacts to non-vegetated channels.			
<i>Species Impacts</i>	Impacts to Quino occupied and critical habitat would be reduced.			
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.			
Cultural Resources	Three sites in this unit were identified in the cultural resource inventory; one subsequently has been determined to not be a site. The modified Project would avoid a historic mining site affected by the FESSR. See Table PMR10 below.			

PMR10. EP229-1 to EP221A (Bankhead Springs)	
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification would reduce impacts to private lands in this location. There are seven sensitive receptors (one commercial and six residential) within one-quarter mile of impact areas.
Noise	No substantial change in effects of the FESSR, with an increase in noise from helicopters and a decrease in noise from truck traffic. Any impacts would be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR, with a reduction in traffic.
Visual	No substantial change in effects of the FESSR
Water Resources	See Table PMR10 below.
<i>Waters of US</i>	The modification would result in minimal impacts to waters of the US; the FESSR would not.
<i>State Waters</i>	The modification would result in minimal impacts to State waters; the FESSR would not.
<i>Water Use</i>	No substantial change in effects of the FESSR, with the potential for reduced use in this unit because of the reduction in ground disturbance.

TABLE PMR10					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	None	0	0	0	
Modified Project	Sticky geraea		25	25	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	8.03	10.69	18.72	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.04	0.07	0.10	
	Woodlands and Forests	0.33	0.69	1.02	
FESSR Total		8.40	11.45	19.84	
Modified Project	Chaparrals	2.48	1.49	3.97	
	Herbaceous Wetlands, Freshwater, and Streams		0.08	0.08	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.28	0.14	0.43	
	Woodlands and Forests		0.01	0.01	
Mod Proj Total		2.76	1.73	4.49	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Quino Checkerspot Butterfly	USFWS Critical Habitat	2.75	5.13	7.88
		USFWS Occupied Habitat	0.57	1.37	1.94
Modified Project	Quino Checkerspot Butterfly	USFWS Critical Habitat	0.85	0.02	0.87
		USFWS Occupied Habitat	0.39		0.39
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Not a Site	SPAP-S-14	1	1		
Historic Mining	SPED-S-21	1			
Total		2	1		

TABLE PMR10			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.00	0.00
Modified Project	0.00	0.02	0.02
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.00	0.00
Modified Project	0.00	0.08	0.08

PMR11. EP221A to EP219-1 (Jackson-Gatlin)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP38.3 to MP39.2	1	None	11	MS46 to MS48
Summary and Conclusion				
<p>The modification would shift the alignment to the south to avoid coast live oak trees, existing structures on private property, and non-vegetated channels. It also would eliminate the construction yard on Lansing Industry properties, replacing it and one in PMR12 with a new yard in PMR13 (Rough Acres). Impacts to grasslands, waters of the US, and State waters would be reduced; impacts to cultural resources would be avoided. Other effects of the modification would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted south on the Jackson-Gatlin property to avoid spans over existing buildings. • ROW extended to the east on the Wuest property, closer to the parcel boundary. • EP220-1 shifted west to avoid impacts to coast live oak trees from wire sagging after construction. • One wire pull site eliminated, one relocated off wetland north of EP220-1. • Access roads modified slightly. • Guard structures added at road crossing. • Construction yard eliminated (replaced with new yard in PMR13). 			
Primary Reason	Accommodate request from landowners (Jackson and Gatlin)			
Other Considerations	Avoid coast live oak trees and non-vegetated channels.			
MMCRP Measures	B-1a, BIO-APM 16, BIO-APM-18, CR-APM-2, C-1a and 1b, and L-2b.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR11 below.			
<i>Rare Plants</i>	The modification would have slightly more permanent impacts on sticky geranium than the FESSR.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to grasslands by approximately 14 acres; impacts to chaparral, non-vegetated channels, and woodlands also would be reduced by small amounts.			
<i>Species Impacts</i>	Neither the FESSR nor modified Project would affect special status species in this unit.			
<i>RCAs</i>	Not applicable to the FESSR or modified Project in this unit.			

PMR11. EP221A to EP219-1 (Jackson-Gatlin)	
Cultural Resources	There are 11 cultural sites and 1 isolated find in this unit, which was not included in the surveys for the Final EIR/EIS. The FESSR would affect 2 of the sites; the modified Project would not affect any. See Table PMR11 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification reduces land use conflicts on the Jackson-Gatlin property. There are 10 sensitive receptors within one-quarter mile of impact areas: 1 commercial and 9 residential.
Noise	No substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	No substantial change in the effects of the FESSR.
Water Resources	See Table PMR11 below.
<i>Waters of US</i>	The modification would avoid permanent impacts and reduce temporary impacts to 0.01 acre.
<i>State Waters</i>	The modification would avoid permanent impacts and reduce temporary impacts to 0.02 acre.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR11				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Desert beauty	5		5
	Sticky geraea	16		16
Modified Project	Desert beauty	2		2
	Sticky geraea	30		30
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	2.00	4.09	6.09
	Coastal and Montane Scrub Habitats	0.27	0.91	1.18
	Grasslands and Meadows	0.08	14.14	14.23
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.12	0.13
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.14	25.63	25.76
	Woodlands and Forests		0.77	0.77
FESSR Total		2.51	45.66	48.17
Modified Project	Chaparrals	1.79	2.95	4.74
	Coastal and Montane Scrub Habitats		0.14	0.14
	Grasslands and Meadows		0.09	0.09
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.02	0.02
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.44	0.05	0.49
Mod Proj Total		2.24	3.25	5.49
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project	
Prehistoric Bedrock Milling	SDI-6904	1		
Prehistoric Artifact Scatter	9C-20	1		
Total		2	0	
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.08	24.27	24.36
Modified Project		0.00	0.01	0.01
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.09	24.27	24.36
Modified Project		0.00	0.02	0.02

PMR12. EP219-1 to EP206-1 (State Corrections)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)

PMR12. EP219-1 to EP206-1 (State Corrections)				
MP39.2 to MP41.6	1	None	12	MS48 to MS50
Summary and Conclusion				
<p>The modification would shift the alignment to the north where it parallels I-8 and to the east to improve engineering design. It also would eliminate a construction yard west of EP215, replacing it and the construction yard from PMR11 with a new construction yard in PMR13 (Rough Acres). The modification would reduce ground disturbance and impacts to chaparrals, coastal and montane scrubs, non-vegetated channels, waters of the US, and State waters. Other effects would be substantially the same as the FESSR. No new significant effects would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • One structure eliminated. • New access road eliminated, replaced with smaller spur access roads and use of existing roads. • Size of the temporary construction pads reduced. • Guard structures added at road crossings. • Eliminate yard west of EP215 			
Primary Reason	Improve engineering design			
Other Considerations	Reduce ground disturbance and impacts to US and State waters.			
MMCRP Measures	B-1a, GEO-APM-5, T-1a, C-1a, C-1b, CR-APM-2, and WQ-APM-2.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR12 below.			
<i>Rare Plants</i>	The modification would affect more Jacumba milk-vetch and sticky geranium than the FESSR.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals, coastal and montane scrubs, and non-vegetated channels. There would be a half-acre increase in temporary impacts to non-vegetated channels.			
<i>Species Impacts</i>	Neither the FESSR nor the modification would affect special status wildlife.			
<i>RCA's</i>	Not applicable to the FESSR or modified Project in this unit.			
Cultural Resources	There are 4 cultural sites and 5 isolated finds in this PMR unit. The FESSR would affect 3; the modification would affect 2. See Table PMR12 below.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.			
Land Use	The modification would reduce impacts to private lands in this unit; there also would be a small reduction in impacts to State lands. There are no sensitive receptors within one-quarter mile of impact areas.			

PMR12. EP219-1 to EP206-1 (State Corrections)	
Noise	No substantial change to the effects of the FESSR.
Public Safety/Hazards	No substantial change to the effects of the FESSR.
Traffic	No substantial change to the effects of the FESSR.
Visual	No substantial change to the effects of the FESSR.
Water Resources	See Table PMR12 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR12				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Campo pea	1		1
	Jacumba milk-vetch	25	3	28
	Sticky geraea	33	46	79
Modified Project	Jacumba milk-vetch	14	16	30
	Sticky geraea	11	77	88
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	4.24	15.92	20.17
	Coastal and Montane Scrub Habitats	3.60	16.74	20.34
	Grasslands and Meadows	0.40		0.40
	Herbaceous Wetlands, Freshwater, and Streams	0.03	0.22	0.25
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.67	1.42	2.09
	Woodlands and Forests		0.87	0.87
FESSR Total		8.94	35.18	44.12
Modified Project	Chaparrals	1.77	6.79	8.55
	Coastal and Montane Scrub Habitats	2.50	5.04	7.54
	Grasslands and Meadows	0.34	0.65	0.99
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.00	0.01
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.16	0.49	1.65
Mod Proj Total		5.76	12.97	18.74
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project	
Prehistoric Bedrock Milling	SDI-4788	1	1	
Prehistoric Lithic Scatter	BC-8	1	1	
Historic Mine/Structure	BC-7	1		
Total		3	2	

TABLE PMR12			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.13	0.15
Modified Project	0.01	0.01	0.02
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.03	0.22	0.25
Modified Project	0.00	0.01	0.02

PMR13. EP206-1 to EP196-1 (Rough Acres)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP41.6 to MP44.1	1	Rough Acres	13	MS50 to MS53
Summary and Conclusion				
<p>The modification would shift the alignment west of McCain Valley Road, eliminate two structures to accommodate a request from a property owner, eliminate a construction yard below MP44, and add a new construction yard (Rough Acres) west of EP205-6. The new construction yard would be a main staging area for construction of the 500kV line and would consolidate the functions of eliminated yards in PMR11, PMR12, and PMR13. The modification would increase ground disturbance by approximately 50 acres and would increase temporary impacts to Jacumba milk-vetch, chaparrals, coastal and montane scrubs, and visual resources. It would reduce impacts to non-vegetated channels, riparian and woodland habitats, Peninsular bighorn sheep habitat, and US and State waters. Other effects would be substantially the same as the FESSR. Although the modification would increase certain effects, it would not result in new significant impacts.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted west to make tangent, shorter access roads from existing roads. • Two structures eliminated. • One wire pull site eliminated. • Guard structures added at road crossings. <p><u>Rough Acres Yard</u></p> <ul style="list-style-type: none"> • New 92.46-acre yard located west of McCain Valley Road. 			
Primary Reason	<p>Accommodate landowner request. Consolidate construction yard functions.</p>			
Other Considerations	<p>Accommodate increased helicopter use</p>			
MMCRP Measures	<p>B-1a, C-1a, C-1b, CR-APM-2, BIO-APM-18, L-2b, and WQ-APM-2.</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial change in effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR13 below.</p>			
<i>Rare Plants</i>	<p>The modification would reduce impacts to sticky geraea and increase impacts to Jacumba milk-vetch. Approximately 400 more individual Jacumba milk-vetch plants have been detected in the modification impact areas than in the FESSR's.</p>			
<i>Vegetation Impacts</i>	<p>Temporary impacts to chaparrals and coastal and montane scrubs would increase. Impacts to all other sensitive vegetation types would be reduced or eliminated.</p>			
<i>Species Impacts</i>	<p>Impacts to Peninsular bighorn sheep habitat would be reduced.</p>			
<i>RCAs</i>	<p>Not applicable to the FESSR or modification in this unit.</p>			

PMR13. EP206-1 to EP196-1 (Rough Acres)	
Cultural Resources	There are 11 cultural resource sites and 15 isolated finds in this unit. The FESSR would affect 6, and the modification would affect 5. The impacts of the modification would be substantially the same as the FESSR. See Table PMR13 below.
Geology/Minerals	The modification would increase ground disturbance in this unit. Slope stability and erosion control issues would be addressed through the same measures that apply to the FESSR. Although ground disturbance would increase, the type and severity of impacts would not be greater than that associated with construction yards in other PMR units. There also would be a concomitant reduction in ground disturbance in PMR11 and PMR12 where yards were eliminated.
Land Use	The modification would reduce impacts to federal (BLM) lands and eliminates impacts to Tribal lands in this unit. The amount of private land used for the Project substantially increases with the addition of the Rough Acres Yard. There is one sensitive receptor (residential) within one-quarter mile of the impacts areas. Although the modified construction yard is proposed in a new location, the land owner was notified about the project during the EIR/EIS process regarding other project impacts including the eliminated construction yards. The land owner has confirmed that the landing strip is not in operation at this time and will not be adversely impacted by the project use.
Noise	The modification would result in increased noise in the vicinity of the Rough Acres Yards. The type and severity of the effects would not be greater than that associated with the yards proposed for the FESSR in other PMR units. Any impacts would be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	Although there are safety and hazard risks associated with the Rough Acres Yard, the yard is located in a remote area and would not pose significant risks to adjacent residences or businesses. Safety and hazard issues would be addressed in the same way that applies to other yards under the FESSR or modified Project.
Traffic	Because the Rough Acres Construction Yard would be a main staging area for the 500kV line and would be larger than the eliminated yard, it would generate more traffic than the FESSR construction yard(s). Effects of the increase would be minimized and mitigated through traffic management measures as coordinated with the appropriate jurisdictions.
Visual	Although the proposed modification would result in an increase in ground disturbance (which would increase long-term visible land scarring), the consolidation of construction yards from three to one would reduce the overall prominence of construction yards along this route segment. The reroute would cause a greater degree of view blockage of McCain Valley and ridges to the southwest and west when viewed from southbound McCain Valley Road, but the modification and the FESSR route would generally exhibit similar structure visibility and prominence. The effects of the modification would be substantially the same as the FESSR.

PMR13. EP206-1 to EP196-1 (Rough Acres)	
Water Resources	See Table PMR13 below.
<i>Waters of US</i>	Impacts to waters of the US would be reduced.
<i>State Waters</i>	Impacts to State waters would be reduced.
<i>Water Use</i>	Water use in the unit potentially would increase because of the increase in ground disturbance. However, there would be a concomitant reduction in uses in the units where construction yards were eliminated.

TABLE PMR13					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Desert beauty		2	2	
	Jacumba milk-vetch	33	509	542	
	Sticky geraea	26	211	237	
Modified Project	Desert beauty	1		1	
	Jacumba milk-vetch	13	928	941	
	Sticky geraea		15	15	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	4.21	22.40	26.62	
	Coastal and Montane Scrub Habitats	0.05	17.83	17.88	
	Grasslands and Meadows		1.38	1.38	
	Herbaceous Wetlands, Freshwater, and Streams		0.49	0.49	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.10	0.79	0.88	
	Riparian Forests and Woodlands		2.52	2.52	
	Woodlands and Forests		2.34	2.34	
FESSR Total		4.36	47.75	52.11	
Modified Project	Chaparrals	4.30	49.54	53.83	
	Coastal and Montane Scrub Habitats	0.47	28.42	28.89	
	Herbaceous Wetlands, Freshwater, and Streams		0.05	0.05	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.06	22.59	22.65	
	Woodlands and Forests		1.18	1.18	
Mod Proj Total		4.82	101.78	106.60	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Peninsular Bighorn Sheep	USFWS Occupied Habitat	0.32	6.58	6.90
Modified Project	Peninsular Bighorn Sheep	USFWS Occupied Habitat	0.17	0.10	0.27
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Prehistoric Bedrock Milling	SDI-19301	1	1		
	SDI-4788	1	1		
	SPED-S-5	1	1		
Prehistoric Habitation	SDI-19001	1	1		
Prehistoric Lithic Scatter	BC-2/SPED-S-5	1	1		
Prehistoric Lithic Scatter	BC-1	1			

TABLE PMR13			
	Total	6	5
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.13	0.15
Modified Project	0.00	0.04	0.04
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.49	0.49
Modified Project	0.00	0.09	0.09

PMR14. EP196-1 to EP170 (McCain Valley)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP44.1 to MP50.4	1	McCain Valley	14	MS53 to MS60
Summary and Conclusion				
<p>The modification would shift the alignment to the east slightly and add temporary work areas to facilitate construction. It also would slightly expand the McCain Valley construction yard identified in the FESSR. The modification would reduce permanent impacts and increase temporary impacts to chaparrals. Impacts to US and State waters also would increase. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Temporary work areas (200 feet by 200 feet) added to facilitate construction. • Structures shifted lower on the slopes and/or away from rock outcrops. • Two wire pull sites relocated within the ROW. • Construction accomplished via helicopter access for 3 structures. • New access road eliminated and/or modified, some replaced with tower staging/access pads, smaller spur access roads and use of existing roads. • Guard structures added at road crossings. 			
	<p><u>McCain Valley Construction Yard</u></p> <ul style="list-style-type: none"> • Construction yard resized to 32.93 acres. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce visual impacts.			
MMCRP Measures	GEO-APM-4, GEO-APM-5, V-2a, V-2d, V-3a, V-6a, C-1a, C-1b, and CR-APM-2.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change to effects of the FESSR.			
Biological Resources	See Table PMR14 below.			
<i>Rare Plants</i>	The FESSR and modification would affect the same rare plants; differences in impacts are relatively small.			
<i>Vegetation Impacts</i>	The modification would result in increased temporary impacts and reduced permanent impacts to chaparrals. Impacts to other sensitive vegetation types would be similar to the FESSR.			
<i>Species Impacts</i>	The modification would affect 0.14 acre of Peninsular bighorn sheep habitat; the FESSR would not.			

PMR14. EP196-1 to EP170 (McCain Valley)	
<i>RCAs</i>	Not applicable to the FESSR or modification in this unit.
Cultural Resources	There are 17 cultural sites and 8 isolated finds in this unit. The FESSR would affect 12; the modification would affect 11. See Table PMR14 below.
Geology/Minerals	No substantial change to the effects of the FESSR.
Land Use	The construction yard would be moved slightly to the east, but would still remain on BLM lands. Although this modification moves closer to one sensitive receptor their would still be greater than one quarter mile separation. No substantial change to the effects of the FESSR.
Noise	Noise from helicopter operations would increase, and noise from truck traffic would decrease. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. No substantial change to the effects of the FESSR.
Public Safety/Hazards	No substantial change to the effects of the FESSR.
Traffic	No substantial change to the effects of the FESSR.
Visual	No substantial change to the effects of the FESSR.
Water Resources	See Table PMR14 below.
<i>Waters of US</i>	The modification would slightly increase impacts to waters of the US.
<i>State Waters</i>	The modification would slightly increase impacts to State waters.
<i>Water Use</i>	No substantial change in the effects of the FESSR.

TABLE PMR14					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Desert beauty	2	1	3	
	Jacumba milk-vetch	15	8	23	
	Sticky geraea	64	3	67	
Modified Project	Desert beauty	1	1	2	
	Jacumba milk-vetch	2	14	16	
	Sticky geraea	40	12	52	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	21.61	37.48	59.09	
	Coastal and Montane Scrub Habitats	1.16	1.71	2.86	
	Herbaceous Wetlands, Freshwater, and Streams	0.03	0.05	0.09	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.02	0.03	0.06	
FESSR Total		22.82	39.28	62.10	
Modified Project	Chaparrals	16.62	49.03	65.65	
	Coastal and Montane Scrub Habitats	0.91	0.64	1.55	
	Herbaceous Wetlands, Freshwater, and Streams	0.12	0.03	0.15	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.22	0.02	1.24	
Mod Proj Total		18.87	49.72	68.59	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	None				
Modified Project	Peninsular Bighorn Sheep	USFWS Habitat	0.03	0.11	0.14
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modified Project in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Historic Refuse	SPED-S-18	1	1		
Prehistoric Artifact Scatter	BC-12	1	1		
	SDI-19293	1	1		
Prehistoric Ceramic Scatter/Historic Refuse	SPED-S-2	1	1		
Prehistoric Ceramic Scatter/Historic Refuse	SPED-S-3	1	1		
Prehistoric Habitation	SDI-19001	1	1		
	SDI-19018	1	1		
Prehistoric Lithic Scatter	BC-5	1	1		
	SPBB-S-1	1	1		

TABLE PMR14			
Prehistoric Lithic Scatter/Historic Refuse	BC-6	1	1
Unknown	SDI-19298	1	1
Prehistoric Bedrock Milling	SDI-19292	1	
Total		12	11
Impacts to Waters of the US (acres)			
		Permanent	Temporary
FESSR		0.02	0.04
Modified Project		0.12	0.02
Impacts to State Waters (acres)			
		Permanent	Temporary
FESSR		0.03	0.05
Modified Project		0.24	0.03

PMR15. EP170 to EP141 (JAM)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP50.4 to MP53.4	1	None	15	MS60 to MS63
Summary and Conclusion				
<p>The modification is a result of the implementation of MMCRP measure WR-2a and would shift the alignment to the south to avoid the JAM Investments private property, reduce the length of the ROW by 3,600 feet, eliminate five structures, and designate 11 structures for helicopter construction (See Section 3.3.6 for more detail). A construction yard north of EP142-1 would be eliminated. The modification would reduce ground disturbance, eliminate impacts to grasslands and woodlands, avoid or reduce impacts to USFS suitable habitat for three listed species, reduce impacts to RCAs in CNF, avoid impacts to cultural resources, and reduce some visual impacts. There would be a small increase in impacts to chaparral. Shifting the alignment south would place one helicopter-constructed structure in a CNF Back Country Non-Motorized Zone, and as disclosed in the Final EIR/EIS, the use in that area would be inconsistent with the CNF Land Management Plan and would require a plan amendment. No new significant effects would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted south to avoid private properties, and sensitive vegetation and species. • Construction accomplished via helicopter access for 11 structures. • 5 structures eliminated; Length of ROW reduced by 3,600 feet. • Wire pull sites relocated due to alignment shift. • Construction yard on JAM property north of EP142-1 eliminated. 			
Primary Reason	<p>Comply with MMCRP measure WR-2a. Avoid the JAM Investments, Inc. property.</p>			
Other Considerations	<p>Avoid coast live oak woodland on USFS land. Reduce impacts to suitable habitat for special status species. Address inconsistency with allowed uses in CNF Back County Non-Motorized Zone.</p>			
MMCRP Measures	<p>B-1a, BIO-APM-18, L-2b, WR-2a, C1-a, C-1b, CR-APM-2, B-7 and GEO-APM-5.</p>			
Environmental Impact Discussion				
Air Quality	<p>The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change in effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR15 below.</p>			
<i>Rare Plants</i>	<p>Neither the FESSR nor the modification would affect rare plants in this unit.</p>			
<i>Vegetation Impacts</i>	<p>The modification would eliminate impacts to grasslands and woodlands and would result in a small increase in temporary impacts to chaparrals.</p>			

PMR15. EP170 to EP141 (JAM)	
<i>Species Impacts</i>	The modification would avoid USFS modeled habitat for Laguna Mountains skipper and San Bernardino bluegrass and reduce impacts to USFS modeled habitat for arroyo toad.
<i>RCAs</i>	The modification would eliminate temporary impacts and reduce permanent impacts to RCAs in CNF.
Cultural Resources	There are 12 cultural sites and 1 isolated find in this unit. The FESSR would affect 3, and the modification would not affect any. See Table PMR15 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification would eliminate impacts to private lands and increase impacts to BLM lands. The modification would place a helicopter-constructed structure in a CNF Back County Non-Motorized Zone. As indicated in the Final EIR/EIS, that use would be inconsistent with the CNF Land Management Plan, and an amendment to the Land Management Plan would be required to allow the use. See section 3.3.6 for additional details.
Noise	No substantial change to the effects of the FESSR. Any impacts would be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	The ROW has been moved further away from the JAM ranch and reducing risk to homes.
Traffic	No substantial change in the effects of the FESSR.
Visual	The proposed modification would reduce the visual impact along this route segment. By diverging from McCain Valley Road sooner, views from the road would be somewhat less impacted at the northern extent of this segment. Also, by turning the line sooner, the route would be kept further to the south from Cottonwood Campground. However, structures would still be prominently visible from the campground as the route ascends and crosses Tecate Divide. There would not be a substantial change in the overall visual effects of the FESSR in this unit. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR15 below.
<i>Waters of US</i>	Neither the FESSR nor the modification would affect waters of the US.
<i>State Waters</i>	Neither the FESSR nor the modification would affect State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR15					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
			Permanent	Temporary	Total
FESSR	Chaparrals		5.74	3.57	9.31
	Grasslands and Meadows		2.93	18.28	21.21
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		0.00	0.25	0.25
	Woodlands and Forests		0.49		0.49
FESSR Total			9.17	27.09	31.26
Modified Project	Chaparrals		5.25	5.72	10.97
Impacts to Special Status Species (acres)					
			Permanent	Temporary	Total
FESSR	Arroyo Toad	USFS Suitable Habitat in CNF	0.44	1.09	1.53
	Laguna Mountains Skipper	USFS Suitable Habitat in CNF		0.01	0.01
	San Bernardino Bluegrass	USFS Suitable Habitat in CNF		0.01	0.01
Modified Project	Arroyo Toad	USFS Suitable Habitat in CNF	0.27	0.00	0.27
Impacts to RCAs in CNF (acres)					
			Permanent	Temporary	Total
FESSR (2008 RCA data)			0.44	1.09	1.53
FESSR (2010 RCA data)			0.44	1.09	1.53
Modified Project (2010 RCA data)			0.27		0.27
Impacts to Cultural Resources (number of sites potentially affected)					
	Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project	
	Pending Id	SPAP-S-12	1		
	Historic Homestead	SDI-19116	1		
	Ceramic Sherds	SDI-19291	1		
	Total		3		0
Impacts to Waters of the US (acres)					
No impacts from FESSR or modified Project in this unit.					
Impacts to State Waters (acres)					
No impacts from FESSR or modified Project in this unit.					

PMR16. EP141 to EP122 (Thing Valley)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP53.4 to MP57.9	2	Thing Valley	16	MS63 to MS68
Summary and Conclusion				
<p>The modification would shift the alignment to the west, eliminate a new access road, make improvements to an existing road in CNF, add two structures, and add a 21.64-acre construction yard (Thing Valley) to replace eliminated construction yards in this unit, PMR15, and PMR17. The modification would result in greater impacts to sensitive vegetation types, USFS modeled habitat for two listed species, RCAs, permanent impacts to US and State waters, and visual resources in CNF. However, the impacts would be similar in type and severity to those analyzed in the Final EIR/EIS for the FESSR. There also would be concomitant reductions in impacts in PMR16. The modification would not result in new significant impacts.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • ROW shifted to the west to avoid a cultural site and part of an RCA. • Two structures added. • 9 structures designated for helicopter construction • New access road eliminated; replaced with tower staging/access pads, smaller spur access roads, or use of existing roads. • Existing road to be improved. • One new wire pull site added and one wire pull site relocated within the ROW. • Temporary work areas increased in size at 3 structures. • Guard structures added at road crossings. 			
	<u>Thing Valley Construction Yard</u> <ul style="list-style-type: none"> • New 21.64-acre construction yard located south of EP131. 			
Primary Reason	Avoid a steep hillside.			
Other Considerations	Reduce impacts to USFS lands without roads. Accommodate landowner and USFS requests. Avoid cultural resource site. Reduce impacts to RCAs.			
MMCRP Measures	B-1a, BIO-APM-18, L-2b, GEO-APM-4, GEO-APM-5, C-1a and 1b, CR-APM-2, and WQ-APM-1.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change in effects of			

PMR16. EP141 to EP122 (Thing Valley)	
	the FESSR.
Biological Resources	See Table PMR16 below.
<i>Rare Plants</i>	The modification avoids impacts to the sticky geraea affected by the FESSR in this unit.
<i>Vegetation Impacts</i>	The modification would increase temporary impacts to chaparrals, mainly in connection with the new construction yard. There would be relatively small increases in impacts to woodlands and non-vegetated channels and a new impact (0.03 acre) to riparian forests and woodlands.
<i>Species Impacts</i>	The modification would increase impacts to USFS modeled habitat for arroyo toad and southwestern willow flycatcher in CNF.
<i>RCAs</i>	The modification would result in increased impacts to RCAs in CNF, at a total of 9.23 acres. Approximately 7.8 acres of those impacts would result from improvements to an existing road that currently is and would continue to be used for other purposes.
Cultural Resources	There are 6 cultural sites and 4 isolated finds in this unit. The FESSR would affect 2 sites; the modification would affect 1. See Table PMR16 below.
Geology/Minerals	The modification would increase ground disturbance. Slope stability and erosion control would be addressed through the same measures that would apply to the FESSR.
Land Use	The modification would affect more acres in CNF than would the FESSR. No private lands would be affected by the modification (including the Thing Valley Construction Yard). As a result of this modification there are two residential sensitive receptors within a quarter mile, however they are located at the interface boundary between this PMR unit and the next, PMR17. Therefore, these sensitive receptors are addressed in more detail as part of PMR17 and included as such in Table 3-16 of Section 3.
Noise	No substantial change to the effects of the FESSR.
Public Safety/Hazards	No substantial change to the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	The addition of Thing Valley Construction Yard would result in an increase in visual impacts by introducing a large construction yard with industrial character into a landscape presently lacking such character. The Thing Valley Construction Yard would be more prominently visible (intersection of Thing Valley Road and Thing Rich Road) than the eliminated construction yard on JAM property north of EP142-1 or the eliminated construction yard in the unit. However, the elimination of the construction yard on the JAM property avoids significant biological resource impacts, and the visual impacts would be temporary and similar in type and scale as the visual impacts analyzed in the Final EIR/EIS. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.

PMR16. EP141 to EP122 (Thing Valley)	
Water Resources	See Table PMR16 below.
<i>Waters of US</i>	The modification eliminates temporary and adds minor permanent impacts to US waters.
<i>State Waters</i>	The modification eliminates temporary and adds minor permanent impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for increased water use because of the increase in ground disturbance.

TABLE PMR16					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Sticky geraea	0	26	26	
Modified Project	None	0	0	0	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	8.67	14.80	23.47	
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.29	0.29	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.11	3.62	3.72	
	Woodlands and Forests	0.03	0.57	0.60	
FESSR Total		8.82	19.27	28.09	
Modified Project	Chaparrals	8.28	29.55	37.83	
	Herbaceous Wetlands, Freshwater, and Streams	0.06	0.00	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	9.81	0.13	9.94	
	Riparian Forests and Woodlands	0.03		0.03	
	Woodlands and Forests	0.44	1.09	1.53	
Mod Proj Total		18.61	30.78	49.39	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Arroyo Toad	USFS Suitable Habitat in CNF	0.72		0.72
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	0.13		0.13
Modified Project	Arroyo Toad	USFS Occupied Habitat in CNF	0.23		0.23
		USFS Suitable Habitat in CNF	2.55	0.01	2.56
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	3.05	0.01	3.05
Impacts to RCAs in CNF (acres)					
		Permanent	Temporary	Total	
FESSR (2008 RCA data)		0.77		0.77	
FESSR (2010 RCA data)		1.29		1.29	
Modified Project (2010 RCA data)		9.06	0.17	9.23	
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Historic Road	SPAP-S-5	1	1		
Prehistoric Artifact Scatter	BC-18	1			
Total		2	1		

TABLE PMR16			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.08	0.08
Modified Project	0.05	0.00	0.05
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.29	0.29
Modified Project	0.07	0.00	0.07

PMR17. EP122 to EP108-2 (La Posta)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP57.9 to MP61	2	None	17	MS68 to MS71
Summary and Conclusion				
<p>The modification would shift the alignment to the east until the I-8 crossing and then northwesterly to reduce visual impacts and would eliminate a construction yard north of EP115-1. Impacts to sensitive vegetation, potential habitat for two listed species, RCAs, cultural resources, visual resources, and US and State waters would be reduced. The modification in this unit would reduce impacts to the types of resources affected by increased impacts in PMR16. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • EP114-2, EP115-1, and EP116-1 moved to side slopes and EP120-4 and EP120A moved immediately north of Interstate 8 to minimize visual impacts. • EP109-1 and EP110-2 relocated north to avoid cultural resource sites. • Long access road eliminated; replaced with spurs off La Posta Truck Trail. • Two wire pull sites eliminated. • Guard structures added at road crossings. • Construction yard north of EP115 eliminated. 			
Primary Reason	<p>Reduce visual impacts. Reduce impacts to CNF .</p>			
Other Considerations	<p>Accommodate landowner requests. Reduce ground disturbance. Offset increased impacts in PMR16.</p>			
MMCRP Measures	<p>B-1a, B-1l, C-1a and 1b, L-2b, V-1a, V-2d, CR-APM-2, V-68a, and WQ-APM-1.</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial change to the effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR17 below.</p>			
<i>Rare Plants</i>	<p>Neither the FESSR nor the modification would affect rare plants in this unit.</p>			
<i>Vegetation Impacts</i>	<p>The modification would reduce or eliminate impacts to sensitive vegetation types affected by the FESSR.</p>			
<i>Species Impacts</i>	<p>The modifications would reduce impacts to USFS-identified habitat in CNF for arroyo toad and southwestern willow flycatcher; there would be an 0.16-acre impact to proposed critical habitat for arroyo toad.</p>			
<i>RCAs</i>	<p>The modification would substantially reduce but not eliminate impacts to RCAs on USFS-owned land.</p>			

PMR17. EP122 to EP108-2 (La Posta)	
Cultural Resources	There are 11 cultural sites and 3 isolated finds in this unit. The FESSR would affect 6 sites; the modification would affect 2. See Table PMR17 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification would eliminate impacts on BLM land, reduce impacts to CNF, and limit impacts to private lands to under one acre. There are six sensitive residential receptors within one-quarter mile of impact areas.
Noise	No substantial changes to the effects of the FESSR. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	No substantial changes to the effects of the FESSR.
Visual	The modification would reduce structure prominence, view blockage and skylining. However, the reduction would not substantially change the overall visual effects of the FESSR in this unit. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR17 below.
<i>Waters of US</i>	The modification would reduce impacts to US waters.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR17					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	14.74	25.60	40.34	
	Coastal and Montane Scrub Habitats	2.62	17.93	20.55	
	Grasslands and Meadows	3.44	10.33	13.76	
	Herbaceous Wetlands, Freshwater, and Streams	0.06	0.01	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.26	0.47	0.73	
	Woodlands and Forests	0.08		0.08	
FESSR Total		21.19	54.33	75.52	
Modified Project	Chaparrals	4.66	2.96	7.62	
	Coastal and Montane Scrub Habitats	1.18	0.85	2.03	
	Grasslands and Meadows	0.25	1.24	1.49	
	Herbaceous Wetlands, Freshwater, and Streams	0.00		0.00	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.46	0.01	0.48	
	Riparian Forests and Woodlands		0.00	0.00	
	Woodlands and Forests	0.05	0.00	0.05	
Mod Proj Total		6.60	5.07	11.67	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Arroyo Toad	USFS Occupied Habitat in CNF	1.99	5.37	7.37
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	4.51	14.19	18.70
Modified Project	Arroyo Toad	USFS Occupied Habitat in CNF	0.44		0.44
		USFWS Proposed Critical Habitat	0.16		0.16
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	0.58	0.73	1.31
Impacts to RCAs in CNF (acres)					
		Permanent	Temporary	Total	
FESSR (2008 RCA data)		5.36	15.23	20.59	
FESSR (2010 RCA data)		7.18	15.90	23.08	
Modified Project (2010 RCA data)		2.02	1.00	3.03	
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project		
Old Highway 80	37-024023	1	1		
Prehistoric Bedrock Milling	SPNB-S-2/SPMD-S-1	1	1		
Historic Rock Feature	SPBB-S-8	1			
Prehistoric Artifact Scatter	BC-30/SPNB-I-4	1			
Prehistoric Bedrock Milling	BW-72	1			
Prehistoric Habitation	SDI-9522	1			

TABLE PMR17			
	Total	6	2
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.04	0.01	0.05
Modified Project	0.01	0.00	0.01
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.06	0.01	0.07
Modified Project	0.02	0.00	0.02

PMR18. EP108-2 to EP99-2 (Lenac)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP61 to MP63	2	None	18 See MS 72 and MS72A for eliminated yards.	MS71 to MS75
Summary and Conclusion				
<p>The area covered by this modification excludes EP105-2, which is in PMR19. The PMR18 modification would shift the alignment to the east at the request of a landowner (Lenac), eliminate an access road through the McQuaide property, reduce structure height as requested by the Department of Defense, and eliminate two yards on USFS and Tulloch properties. The modification would reduce ground disturbance and impacts to sensitive vegetation, USFS-identified habitat for arroyo toad and Quino. There would be a 2-acre increase in impacts to critical habitat for Quino. Impacts to US and State waters would be eliminated, and impacts to RCAs in CNF would be reduced to 0.12 acre. Cameron Truck Trail will be utilized for access to the structures in this PMR unit. Drivability and accessibility of the road will be maintained throughout construction. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Structure height reduced to avoid skylining and impacts to helicopter operations per the request by the Department of Defense. • Eliminated one wire pull site outside of the ROW. • Access road through the McQuaide property eliminated. • Access spur roads from Cameron Truck Trail shifted (see PMR unit 19). • Guard structures added at road crossings. • Construction yards on USFS and Tulloch properties eliminated (see MS72 and MS72A for location of eliminated yards). 			
Primary Reason	<p>Accommodate landowner and DOD requests. Reduce ground disturbance.</p>			
Other Considerations	<p>Consolidate construction yard functions.</p>			
MMCRP Measures	<p>B-1a, V-68a, C-1a, C-1b, and L-2b.</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial changes to the effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR18 below.</p>			
<i>Rare Plants</i>	<p>Neither the FESSR nor the modification would affect rare plants in this unit.</p>			
<i>Vegetation Impacts</i>	<p>Impacts to all sensitive vegetation types affected by the FESSR would be reduced or eliminated.</p>			

PMR18. EP108-2 to EP99-2 (Lenac)	
<i>Species Impacts</i>	Impacts to USFS-identified arroyo toad habitat in CNF would be eliminated. Impacts to Quino critical habitat would increase to approximately 3.5 acres.
<i>RCAs</i>	Impacts to RCAs in CNF would be reduced to 0.12-acre.
Cultural Resources	Neither the FESSR nor the modification would affect the one cultural resource site in this unit.
Geology/Minerals	Ground disturbance and the associated slope stability and erosion issues would be reduced.
Land Use	The modification reduces conflicts with private lands and reduces acres of impacts to CNF. The reroute was determined in coordination with Department of Defense and would be slightly further east, closer to the LaPosta Mountain Warfare Training Facility. However, structure height was reduced to avoid impacts to helicopter operations as requested by the Department of Defense. There is one residential sensitive receptor within one-quarter mile of impact areas.
Noise	No substantial changes in the effects of the FESSR. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	All existing roads will be maintained in a drivable condition throughout construction. Appropriate traffic management plans will be implemented in coordination with the governing jurisdiction and/or land managing agency. No substantial change in the effects of the FESSR, with local reductions in traffic because of the elimination of yards.
Visual	The alignment modification would move several structures further to the east, away from residences and Cameron Truck Trail (beneficial visual change). However, several of the structures would still partially skyline (extend above the horizon). Long term land scarring and temporary visual impacts would be reduced by the decrease in ground disturbance and elimination of the two yards. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR18 below.
<i>Waters of US</i>	Impacts to US waters would be eliminated
<i>State Waters</i>	Impacts to State waters would be eliminated
<i>Water Use</i>	No substantial change to the effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR18				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	9.56	17.09	26.65
	Coastal and Montane Scrub Habitats	0.17		0.17
	Grasslands and Meadows	1.03	32.12	33.14
	Herbaceous Wetlands, Freshwater, and Streams		0.04	0.04
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.57		1.57
	Woodlands and Forests		9.21	9.21
FESSR Total		12.32	58.46	70.78
Modified Project	Chaparrals	5.07	10.36	15.42
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.13	0.07	0.20
	Mod Proj Total	5.19	10.43	15.62
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Arroyo Toad	0.08	13.07	13.15
	Quino Checkerspot Butterfly	0.51	1.00	1.51
Modified Project	Quino Checkerspot Butterfly	1.91	1.56	3.47
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)		0.08	13.52	13.60
FESSR (2010 RCA data)		0.14	14.82	14.97
Modified Project (2010 RCA data)			0.12	0.12
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.00	22.81	22.81
Modified Project		0.00	0.00	0.00
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.00	22.84	22.82
Modified Project		0.00	0.00	0.00

PMR19. EP105-2 (Rees)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP61.2	2	None	19	MS73
Summary and Conclusion				
<p>The modification would relocate the access road to EP105-2 at the request of the landowner (Rees) to spur off of Cameron Truck Trail, west of the structure and south of the originally proposed road. The modification would increase the impacts of the access road to chaparrals and add small impacts to non-vegetated channels, proposed critical habitat for arroyo toad, and US and State waters. All impacts would occur on the Rees property. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	Access road to EP105-2 shifted south.			
Primary Reason	Accommodate landowner request.			
Other Considerations	None			
MMCRP Measures	B-1a, L-2b, C-1a, and WQ-APM-2.			
Environmental Impact Discussion				
Air Quality	No substantial change to the effects of the FESSR.			
Biological Resources	See Table PMR19 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants.			
<i>Vegetation Impacts</i>	The modification increase impacts to chaparrals and adds a small impact (0.02 acre) to non-vegetated channels.			
<i>Species Impacts</i>	The modification adds a small impact (0.23 acre) to Quino critical habitat.			
<i>RCA's</i>	Not applicable to the FESSR or modification in this unit.			
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources (no resources in either ROW).			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.			
Land Use	All impacts would occur on private property with the concurrence of the owner.			
Noise	No substantial changes to the effects of the FESSR.			
Public Safety/Hazards	No substantial changes to the effects of the FESSR.			
Traffic	No substantial changes to the effects of the FESSR.			
Visual	No substantial changes to the effects of the FESSR.			
Water Resources	See Table PMR19 below.			
<i>Waters of US</i>	The modification would add a small impact to waters of the US.			
<i>State Waters</i>	The modification would add a small impact to State waters.			
<i>Water Use</i>	No substantial change in effects of the FESSR.			

TABLE PMR19				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from the FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	0.44		0.44
Modified Project	Chaparrals	2.26	0.07	2.33
	Herbaceous Wetlands, Freshwater, and Streams	0.02		0.02
Mod Proj Total		2.28	0.07	2.36
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	None			
Modified Project	Arroyo Toad	USFWS Proposed Critical Habitat		0.23
		0.23		0.23
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from the FESSR or modification (no resources in either ROW).				
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.00	0.00
Modified Project		0.02	0.00	0.02
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.00	0.00
Modified Project		0.02	0.00	0.02

PMR20. EP99-2 to EP79 (Bartlett)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP63-MP67.4	2	Bartlett/Hauser Creek	20	MS75 to MS80
Summary and Conclusion				
<p>The modification would shift the alignment to the east and add temporary work areas to improve engineering design and facilitate construction. It also would reduce the Bartlett/Hauser Creek yard. The modification would reduce impacts to sticky gerraea, chaparrals, grasslands, and woodlands and eliminate impacts to riparian forest and RCAs. The modification would result in slightly higher temporary impacts to coastal and montane scrubs and would add relatively small (0.02 and 0.03 acre) impacts to US and State waters. Other effects would be substantially the same as the FESSR. No new significant effects would result.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • Temporary construction pads added for 6 of the structures. • Three wire pulling sites were eliminated. • Over one mile of access roads have been eliminated. • Construction accomplished via helicopter access for 5 structures. • Over one mile of new access road eliminated, replaced with tower staging/access pads, smaller spur access roads, or use of existing roads. • One wood pole between EP90 and EP91, evaluated for replacement to steel poles because of proximity to the ROW. • Guard structures added at road crossings. 			
	<u>Bartlett/Hauser Creek</u> <ul style="list-style-type: none"> • Size of yard reduced to 28.57 acres. • Yard remains in the same location. 			
Primary Reason	Improve engineering design and constructability (increase structure stability).			
Other Considerations	Reduce number and length of access roads. Reduce ground disturbance and impacts to RCAs			
MMCRP Measures	F-2b, C-1a, V-2d, and GEO-APM-5			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial changes in the effects of the FESSR.			

PMR20. EP99-2 to EP79 (Bartlett)	
Biological Resources	See Table PMR20 below.
<i>Rare Plants</i>	Impacts to sticky geraea would be reduced.
<i>Vegetation Impacts</i>	Impacts to sensitive vegetation communities would be reduced or eliminated, except for a minor increase in temporary Impacts to coastal and montane scrubs.
<i>Species Impacts</i>	Neither the FESSR nor the modification would affect special status wildlife.
<i>RCA's</i>	Impacts to RCA's would be eliminated.
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources (no resources in either ROW).
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification eliminates access road and wire pull site impacts to USFS lands and increases total acres of impacts on BLM lands. Impacts to private lands are reduced. There are 28 residential sensitive receptors within one-quarter mile of impact areas.
Noise	Noise from helicopter operations would increase, and noise from truck traffic would decrease. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. No substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	No substantial change in the effects of the FESSR.
Water Resources	See Table PMR20 below.
<i>Waters of US</i>	The modification would slightly increase impacts to waters of the US by 0.01 acre.
<i>State Waters</i>	The modification would slightly increase impacts to State waters by 0.01 acre.
<i>Water Use</i>	No substantial change in the effects of the FESSR.

TABLE PMR20				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Sticky geraea	105	31	136
Modified Project	Sticky geraea	4	31	35
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	15.09	19.77	34.86
	Coastal and Montane Scrub Habitats	0.74	7.81	8.55
	Grasslands and Meadows	1.10	16.00	17.10
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.01	0.02
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.08	42.69	42.77
	Riparian Forests and Woodlands		0.11	0.11
	Woodlands and Forests		0.37	0.37
FESSR Total		17.02	86.75	103.77
Modified Project	Chaparrals	12.00	11.99	23.98
	Coastal and Montane Scrub Habitats	0.74	8.30	9.03
	Grasslands and Meadows	1.09	2.62	3.71
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.01	0.02
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.53	29.02	29.55
	Woodlands and Forests		0.14	0.14
	Mod Proj Total		14.37	52.07
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)			0.09	0.09
FESSR (2010 RCA data)			0.09	0.09
Modified Project (2010 RCA data)		0.00	0.00	0.00
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modified Project in this unit.				

TABLE PMR20			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.00	0.01
Modified Project	0.01	0.01	0.02
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.00	0.01
Modified Project	0.02	0.01	0.03

PMR21. EP79 to EP67 (Pacific Crest Trail)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP67.4 to MP70.6	2	None	21	MS80 to MS83
Summary and Conclusion				
<p>The modification would move the ROW south to be off of CNF generally following Option A as identified in the Final EIR/EIS and approved by the BLM in their Record of Decision (Section I, page 4) and would adjust structure locations, eliminate four wire string areas, and identify road improvements within the adjusted ROW. The modification would reduce impacts to chaparrals, non-vegetated channels, riparian and woodland vegetation, and US and State waters. There would be a small increase in temporary impacts to coastal and montane scrub. The modification would reduce impacts to Quino occupied habitat and entail small impacts (0.15 acre) to proposed critical habitat for arroyo toad. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Shifted ROW south, off of CNF. • Adjusted location of structures and work areas within the ROW. • Identified improvements to existing roads. • Eliminated 4 wire string areas. 			
Primary Reason	Further reduce impacts of PCT Option A on sensitive resources and CNF.			
Other Considerations	Integrate improved engineering design.			
MMCRP Measures	B-1a, C-1a, C-1a and 1b, F-2b, CR-APM-2, and WR-2b			
Environmental Impact Discussion				
Air Quality	No substantial changes to the effects of the FESSR.			
Biological Resources	See Table PMR21 below.			
<i>Rare Plants</i>	The modification would affect three sticky geraea; the FESSR would not.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals, non-vegetated channels, riparian forest, and woodlands. There would be a small increase in temporary impacts to coastal and montane scrubs.			
<i>Species Impacts</i>	The modification would eliminate impacts to least Bell’s vireo and southwestern willow flycatcher habitat and reduce impacts to Quino occupied habitat. The modification would add an impact (0.15 acre) to proposed critical habitat for arroyo toad.			
<i>RCAs</i>	The modification would avoid impacts to RCAs in this unit.			
Cultural Resources	There are 3 cultural resource sites and 3 isolated finds in this unit. The FESSR would affect the 3 sites; the modification would affect 2 sites. See Table PMR21 below.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.			

PMR21. EP79 to EP67 (Pacific Crest Trail)	
Land Use and Recreation	No substantial changes to the effects of the FESSR. In compliance with MMCRP measure WR-2b, consultations are occurring with the USFS, BLM and Pacific Crest Trail Association to determine possible mitigation reroutes to reduce the number of times the alignment crosses the Pacific Crest Trail. There are 6 sensitive residential receptors within 1000 feet of the impact areas (7 within one-quarter mile).
Noise	Noise impacts will be minimized and mitigated with consideration of the sensitive receptors through the applicable MMCRP measures as may be required. No substantial changes to the effects of the FESSR.
Public Safety/Hazards	No substantial changes to the effects of the FESSR.
Traffic	No substantial changes to the effects of the FESSR.
Visual	The modification would have the same visual effects as the FESSR.
Water Resources	See Table PMR21 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial changes in the effects of the FESSR.

TABLE PMR21					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	None				
Modified Project	Sticky geraea	3		3	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	5.75	11.34	17.09	
	Coastal and Montane Scrub Habitats	0.21	0.35	0.56	
	Herbaceous Wetlands, Freshwater, and Streams	0.02	0.03	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.49	0.76	1.25	
	Riparian Forests and Woodlands	0.16	0.33	0.49	
	Woodlands and Forests	0.28	0.15	0.43	
FESSR Total		6.92	12.95	19.87	
Modified Project	Chaparrals	3.07	1.59	4.66	
	Coastal and Montane Scrub Habitats	0.12	1.41	1.53	
	Herbaceous Wetlands, Freshwater, and Streams		0.02	0.02	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.44	0.08	0.52	
	Riparian Forests and Woodlands	0.03	0.01	0.04	
	Woodlands and Forests		0.02	0.02	
Mod Proj Total		3.66	3.13	6.79	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Least Bell's Vireo	USFS Occupied Habitat in CNF	0.24		0.24
		USFS Suitable Habitat in CNF	0.19		0.19
		USFWS Occupied Habitat	0.21		0.21
	Quino Checkerspot Butterfly	1.33	3.87	5.19	
	Southwestern Willow Flycatcher	0.43		0.43	
Modified Project	Arroyo Toad	0.15		0.15	
	Least Bell's Vireo		0.01	0.01	
	Quino Checkerspot Butterfly	0.83	1.56	2.38	
Impacts to RCAs in CNF (acres)					
		Permanent	Temporary	Total	
FESSR (2008 RCA data)		0.60		0.60	
FESSR (2010 RCA data)		0.73	0.52	1.25	
Modified Project (2010 RCA data)		0	0	0	

TABLE PMR21				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	Cultural Resource Inventory ID	FESSR	Modified Project	
Prehistoric Bedrock Milling	SDI-10040	1	1	
	SDI-4724	1	1	
Prehistoric Isolate (Debitage/Ceramic)	SPNB-S-1	1	1	
Total		3	2	
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.19	0.08	0.27
Modified Project		0.00	0.02	0.02
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.20	0.09	0.28
Modified Project		0.00	0.02	0.02

PMR22. EP67 to EP62A-1 (Long Potrero)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP70.6 to MP72.2	2	None	22	MS82 to MS85
Summary and Conclusion				
<p>The modification would shift the structures east within the FESSR alignment and remove some structures and access roads to improve engineering design and constructability. The modification would reduce impacts to chaparrals and occupied Quino habitat, avoid impacts to RCAs, increase temporary impacts to Tecate tarplant and grasslands, and entail impacts to proposed critical habitat for arroyo toad. Other effects would be substantially the same as for the FESSR. No new significant effects would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Three structures eliminated. • Access to structures will be via existing roads. • Guard structures added at road crossings. 			
Primary Reason	Improved engineering design and constructability.			
Other Considerations	<p>Minimize creation of new roads and maximize use of existing roads. Avoid impacts to oak trees.</p>			
MMCRP Measures	GEO-APM-4, GEO-APM-5, CR-APM-2, F-2b, V-2d, C-1a and C-1b.			
Environmental Impact Discussion				
Air Quality	No substantial change to the effects of the FESSR.			
Biological Resources	See Table PMR22 below.			
<i>Rare Plants</i>	The modification would affect more Tecate tarplant than the FESSR.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals, eliminate impacts to woodlands, and increase temporary impacts to grasslands.			
<i>Species Impacts</i>	The modification would reduce impacts to occupied Quino habitat, eliminate impacts to USFS modeled occupied habitat for arroyo toad, and entail impacts to proposed critical habitat for arroyo toad.			
<i>RCAs</i>	The modification would avoid impacts to RCAs.			
Cultural Resources	The modification would have the same effects as the FESSR. See Table PMR22 below.			
Geology/Minerals	No substantial change to the effects of the FESSR.			
Land Use	The modification avoids impacts to CNF and reduces impacts to BLM and private lands. There is one residential sensitive receptor within 1000 feet of impacts areas.			
Noise	Noise impacts will be minimized and mitigated with consideration of the sensitive receptors through the applicable MMCRP measures as may be required. No substantial change to the effects of the FESSR.			
Public Safety/Hazards	No substantial change to the effects of the FESSR.			

PMR22. EP67 to EP62A-1 (Long Potrero)	
Traffic	No substantial change to the effects of the FESSR.
Visual	No substantial change to the effects of the FESSR.
Water Resources	See Table PMR22 below.
<i>Waters of US</i>	Neither the modification nor the FESSR would affect US waters.
<i>State Waters</i>	Neither the modification nor the FESSR would affect State waters.
<i>Water Use</i>	No substantial change to the effects of the FESSR.

TABLE PMR22				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Tecate tarplant		26	26
Modified Project	Tecate tarplant		43	43
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	2.46	6.71	9.17
	Coastal and Montane Scrub Habitats	0.00	0.09	0.09
	Grasslands and Meadows	0.25	0.43	0.68
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.11	0.24	0.35
	Woodlands and Forests	0.32		0.32
FESSR Total		3.15	7.47	10.62
Modified Project	Chaparrals	1.18	4.46	5.64
	Coastal and Montane Scrub Habitats		0.06	0.06
	Grasslands and Meadows	0.08	0.84	0.92
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.10	0.00	0.10
	Mod Proj Total		1.36	5.36
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Arroyo Toad	USFS Occupied Habitat in CNF		0.66
	Quino Checkerspot Butterfly	USFWS Occupied Habitat		9.58
Modified Project	Arroyo Toad	USFS Occupied Habitat in CNF		0.00
		USFWS Proposed Critical Habitat		5.99
	Quino Checkerspot Butterfly	USFWS Occupied Habitat		6.27
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)			0.66	0.66
FESSR (2010 RCA data)			0.66	0.66
Modified Project (2010 RCA data)		0.00		0.00
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	Cultural Resource Inventory Number	FESSR	Modified Project	
Bedrock Milling	SPMD-S-2	1	1	
Prehistoric Bedrock Milling	SDI-19279	1	1	
Total		2	2	

TABLE PMR22
Impacts to Waters of the US (acres)
No impacts from FESSR or modified Project in this unit.
Impacts to State Waters (acres)
No impacts from FESSR or modified Project in this unit.

PMR23. EP62A-1 to EP47-2 (Potrero)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP72.2 to MP75.3	2	Kreutzkamp	23	MS85 to MS88
Summary and Conclusion				
<p>The modification would shift the alignment approximately 2,000 to 4,000 feet north, shorten the alignment by approximately 0.34 acre, reduce road impacts, and eliminate four wire stringing sites. No change would be made to the Kreutzkamp Construction Yard. The modification would reduce total ground disturbance, reduce impacts to chaparrals, eliminate impacts to other sensitive vegetation types, and reduce impacts to occupied Quino habitat, cultural resources, and US and State waters. There would a 0.09-acre impact to a RCA in CNF. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • ROW moved north, shifting a portion of the ROW off of Back Country Land Trust property and eliminating a wire pull site on the property. • Span across the Kreutzkamp property reduced by approximately 4700 feet. • Road improvements minimized. • 4 wire pull sites eliminated, and 2 wire pull sites relocated within the ROW. • Guard structures added at road crossings. 			
	<u>Kreutzkamp Construction Yard</u> <ul style="list-style-type: none"> • No change (same location and same size -- 30.62 acres) 			
Primary Reason	Improve engineering design and constructability			
Other Considerations	Reduce impacts to Back Country Trust property Reduce road-related impacts			
MMCRP Measures	B-1a,F-2b, C-1a, C-1b, V-2d, GEO-APM-4, GEO-APM-5, L-2b, WQ-APM-1, and WQ-APM-2			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR23 below.			
<i>Rare Plants</i>	The modification would affect fewer Tecate tarplants than the FESSR.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals and eliminate impacts to other sensitive vegetation types.			
<i>Species Impacts</i>	The modification would reduce impacts to occupied Quino habitat.			
<i>RCAs</i>	The modification would entail impacts to 0.09 acre of an RCA.			

PMR23. EP62A-1 to EP47-2 (Potrero)	
Cultural Resources	As a result of the Class III survey effort, cultural resources have been identified that are in addition to those identified in the Final EIR/EIS. The FESSR route has more resources in the survey corridor (ten archaeological resources), and seven of those would be in areas of direct impact. The modified ROW has six archaeological resources in the survey corridor, four of which would be in areas of direct impact. See Table PMR23 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts. Geotechnical studies for this area have been conducted and have been considered in the design of the project foundations and access roads.
Land Use	The modification would reduce impacts to BLM, USFS, and Back Country Trust lands and would shorten the length of the span over the Kreuzkamp property. There are no sensitive receptors within one-quarter mile of impact areas.
Noise	No substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	The modification would reduce the visual impact along this route segment by reducing the extent of visible ground disturbance between EP62A-1 and EP47-2 and reducing temporary visual impacts by eliminating four wire stringing sites. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR23 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in the effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR23					
Impacts to Rare Plants (number of individuals detected in impact areas)					
			Permanent	Temporary	Total
FESSR	Tecate tarplant		10		10
Modified Project	Tecate tarplant		4		4
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
FESSR	Chaparrals		11.78	18.17	29.95
	Coastal and Montane Scrub Habitats			0.42	0.42
	Grasslands and Meadows		0.52	1.85	2.38
	Herbaceous Wetlands, Freshwater, and Streams		0.01		0.01
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		4.12	30.91	35.02
	Woodlands and Forests		0.00		0.00
		FESSR Total	16.43	51.35	67.79
Modified Project	Chaparrals		3.77	2.10	5.87
	Herbaceous Wetlands, Freshwater, and Streams		0.00	0.00	0.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		1.37	34.16	35.53
			Mod Proj Total	5.14	36.27
Impacts to Special Status Species (acres)					
			Permanent	Temporary	Total
FESSR	Quino Checkerspot Butterfly	USFWS Occupied Habitat	8.49	10.41	18.90
Modified Project	Quino Checkerspot Butterfly	USFWS Occupied Habitat	2.50	0.02	2.52
Impacts to RCAs in CNF (acres)					
			Permanent	Temporary	Total
	FESSR (2008 RCA data)				
	FESSR (2010 RCA data)				
	Modified Project (2010 RCA data)		0.09		0.09
Impacts to Cultural Resources (number of sites potentially affected)					
			FESSR	Modified Project	
	Prehistoric Habitation with Bedrock Milling	SDI-8440	1	1	
	Prehistoric Lithic Scatter	SDI-8442	1	1	
	Prehistoric Lithic Scatter	SDI-17999	1		
		SDI-19280	1		
	Prehistoric Bedrock Milling	BW-113	1		
	Pending Id	LD-S-1	1		
	Bedrock Milling with Artifacts	SDI-17998	1		
		Total	7	2	

TABLE PMR23			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.03		0.03
Modified Project	0.01	0.00	0.01
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.03		0.03
Modified Project	0.01	0.01	0.02

PMR24. EP47-2 to EP39-1 (Barrett Lake)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP75.3 to MP78.1	2	Barrett Canyon	24	MS88 to MS91
Summary and Conclusion				
The modification would eliminate eight structures by increasing the span length between structures. Access would be removed and replaced with tower staging/access pads and two temporary work areas would increase in size. The Barrett Canyon construction yard would be expanded to 1.59 acres. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • Eight structures eliminated. • Two wire pull sites eliminated. • TSAPs added at EP45-1 and EP44. • Temporary work areas around two structures increased in size. • Guard structures added at road crossings. 			
	<u>Barrett Canyon Construction Yard</u> <ul style="list-style-type: none"> • Construction yard expanded to 1.59 acres within ROW in the same location. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce visual impacts.			
MMCRP Measures	B-1a, GEO-APM-4, GEO-APM-5, V-1a , V-2d, C-1a, C-1b and WQ-APM-1			
Environmental Impact Discussion				
Air Quality	No substantial change in the effects of the FESSR.			
Biological Resources	See Table PMR24 below.			
<i>Rare Plants</i>	The modification would avoid impacts to Dean's milk-vetch, slightly increase permanent and reduce temporary impacts to San Diego sunflower.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals.			
<i>Species Impacts</i>	Neither the modification nor the FESSR would affect special status wildlife in this unit.			
<i>RCA's</i>	Not applicable to the modification or the FESSR in this unit.			
Cultural Resources	There is one cultural resource site and one isolated find in this unit. Neither the modification nor the FESSR would affect the site.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.			
Land Use	The modification reduces impacts to BLM and City of San Diego lands. There are no residential sensitive receptors within one-quarter mile of impact areas.			
Noise	No substantial change in the effects of the FESSR.			

PMR24. EP47-2 to EP39-1 (Barrett Lake)	
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	The modification would reduce visual impacts along this route segment by eliminating eight towers and reducing long-term visible land scarring through the reduction of access roads and pads. However, the reduced impact would not change the overall impact assessment or significance conclusion for this route segment.
Water Resources	
<i>Waters of US</i>	Neither the modification nor the FESSR would affect waters of the US.
<i>State Waters</i>	Neither the modification nor the FESSR would affect State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR24				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Dean's milk-vetch		8	8
	San Diego sunflower	11	23	34
Modified Project	San Diego sunflower	13	15	28
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	6.98	10.30	17.28
Modified Project	Chaparrals	4.61	2.42	7.04
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Waters of the US (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to State Waters (acres)				
No impacts from FESSR or modified Project in this unit.				

PMR25. EP39-1 to EP22-1 (Hermes)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP78.1 to MP82.7	2	SWAT Training Facility	25	MS91 to MS98
Summary and Conclusion				
<p>The modification would shift the alignment east to a straight northerly route, reduce the number and size of wire stringing sites, and reduce the size the SWAT Training Facility Yard. The modification would avoid impacts to the rare plants and sensitive vegetation types affected by the FESSR and entail impacts to one rare plant and one vegetation type not affected by the FESSR. Impacts to the Hermes copper butterfly habitat and occupied Quino checkerspot butterfly habitat and USFS modeled habitat for coastal California gnatcatcher would decrease; impacts to USFS modeled habitat for least Bell’s vireo and southwestern willow flycatcher would increase. Impacts to US and State waters would decrease. Both the modification and FESSR would result in permanent and temporary impacts to RCAs in CNF. Other effects of the modification would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW shifted up to 4,300 feet east to a straight northerly route. • Length of ROW reduced to 4.6 miles from 5.22 miles. • One wire pull site eliminated; the others relocated within ROW and reduced in size. • Access road to EP36-1 redesigned • Guard structures added at road crossings. <p><u>SWAT Training Facility Construction Yard</u></p> <ul style="list-style-type: none"> • Size of construction yard reduced to 15.88 acres. • No change in construction yard location. 			
Primary Reason	Request from USFS to move structures and change to helicopter construction to avoid Hermes copper butterfly habitat and to relocate access road to avoid impacts to occupied Quino habitat.			
Other Considerations	Reduce visual impacts from Lyons Valley Road.			
MMCRP Measures	B-1a, BIO-APM-18, V-2d, C-1a, C-1a and 1b, GEO-APM-4, L2B, and WQ-APM-1			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010.No substantial change in the effects of the FESSR.			
Biological Resources	See Table PMR25 below.			

PMR25. EP39-1 to EP22-1 (Hermes)	
<i>Rare Plants</i>	The modification would avoid impacts to 10 rare plants affected by the FESSR, including large numbers of felt-leaved monardella, Gander’s ragwort, and sticky geraea. The modification would affect one rare plant – rush-like bristleweed – not affected by the FESSR.
<i>Vegetation Impacts</i>	The modification would reduce the total impacts to each sensitive vegetation type affected by the FESSR, with higher permanent impacts to grasslands and woodlands. The modification would affect one vegetation type – coastal and montane scrub – not affected by the FESSR.
<i>Species Impacts</i>	The modification would reduce impacts to Quino occupied habitat and USFS modeled habitat for coastal California gnatcatcher and avoid impacts to Hermes copper butterfly habitat. The modification would affect more areas identified by USFS models as suitable habitat for least Bell’s vireo and southwestern willow flycatcher than would the FESSR. However, surveys have determined that the areas are not occupied by the species.
<i>RCAs</i>	Both the FESSR and modification would affect RCAs in CNF.
Cultural Resources	There are three cultural resource sites and no isolated finds in this unit. The FESSR would potentially affect 2 sites; the modification would affect none. See Table PMR25 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion effects in this PMR unit.
Land Use	The modification reduces total impacts on USFS and City of San Diego lands and accommodates USFS’ request. There are five residential sensitive receptors and 1 commercial sensitive receptor within one-quarter mile of the impact areas.
Noise	Noise from helicopter operations would increase, and noise from truck traffic would decrease. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. Otherwise, no substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in effects of the FESSR.
Visual	The proposed Hermes modification would not noticeably change overall impacts on visual resources along this route segment. Although the route would be moved further to the east, and would not parallel Lyons Valley Road directly over the road as proposed in the FESSR (beneficial effect), the new route would now pass through the center of Lyons Valley (primary visual draw along this route segment) immediately to the east of Lyons Valley Road. As a result, views from Lyons Valley Road would still be substantially affected and the overall impact assessment and significance conclusions would not change for this route segment. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.

PMR25. EP39-1 to EP22-1 (Hermes)	
Water Resources	See Table PMR25 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in the effects of the FESSR, with some potential for reduced water use because of the reduction in ground disturbance.

TABLE PMR25					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Caraway-leaved Gilia		28	28	
	Cleveland's bush monkey flower	2	133	135	
	Dunn's mariposa lily	20		20	
	Felt-leaved monardella		537	537	
	Fish's milkwort		6	6	
	Gander's ragwort	188	2455	2643	
	Robinson pepper-grass	7		7	
	Southern mountain misery	15	15	30	
	Sticky geraea	5	1839	1844	
	Tufted pine-grass		7	7	
Modified Project	Rush-like bristleweed	7	5	12	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	7.50	16.65	24.15	
	Grasslands and Meadows	0.66	25.22	25.88	
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.15	0.17	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.19	0.37	0.56	
	Riparian Forests and Woodlands	0.09		0.09	
	Woodlands and Forests		1.00	1.00	
	FESSR Total	8.46	43.40	51.86	
Modified Project	Chaparrals	5.17	7.19	12.37	
	Coastal and Montane Scrub Habitats	1.13	0.90	2.03	
	Grasslands and Meadows	0.88	17.67	18.54	
	Herbaceous Wetlands, Freshwater, and Streams	0.00		0.00	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.99	0.07	2.06	
	Woodlands and Forests	0.01		0.01	
	Mod Proj	9.18	25.83	35.01	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.48	0.63	1.12
	Quino Checkerspot Butterfly	USFWS Occupied Habitat	4.10	15.40	19.50
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	0.07	0.20	0.27
Modified Project	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.10	0.01	0.11
	Least Bell's Vireo	USFS Suitable Habitat in CNF	0.07	0.00	0.07
	Quino Checkerspot Butterfly	USFWS Occupied Habitat	3.65	4.59	8.24
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	0.24	0.00	0.24

TABLE PMR25			
Impacts to RCAs in CNF (acres)			
	Permanent	Temporary	Total
FESSR (2008 RCA data)	0.19	1.67	1.86
FESSR (2010 RCA data)	1.32	8.41	9.73
Modified Project (2010 RCA data)	1.58	2.40	3.99
Impacts to Cultural Resources (number of sites potentially affected)			
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project
Pending Id	SPAP-S-16	1	
	SPBB-S-4	1	
Total		2	0
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.11	0.12
Modified Project	0.00		0.00
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.01	0.15	0.17
Modified Project	0.01		0.01

PMR26. EP22-1 to EP12-3 (Gaskill Peak North)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP82.7 to MP85.2	2	None	26	MS98 to MS101
Summary and Conclusion				
The modification would shift the alignment to the east and eliminate two structures and most access roads. Impacts to chaparral, non-vegetated channels, and US and State waters would be reduced. The modification would affect RCAs in the CNF, as would the FESSR based on the 2010 RCA database. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> Two structures eliminated. ROW redesigned to reduce the length and limit the number of angles; shifted east up to 800 feet. All structures except EP12-3 designated for helicopter construction, and all associated access roads eliminated. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce ground disturbance.			
MMCRP Measures	B-1a, GEO-APM-4, V-1a, V-2d, C-1a, C-2a and WQ-APM-1.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR26 below.			
<i>Rare Plants</i>	The modification would avoid impacts to rush-like bristleweed.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals and non-vegetated channels.			
<i>Species Impacts</i>	The modification would not affect areas in CNF identified as suitable habitat for California gnatcatcher and Stephens' kangaroo rat.			
<i>RCAs</i>	The modification would affect RCAs in the CNF. Based on the 2010 RCA database, the FESSR also would affect RCAs.			
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources in this unit.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.			
Land Use	The modification would eliminate direct impacts to private lands and reduce impacts to CNF. Residences located east of the modification, along Lost Trail, would be closer to impact areas than with the FESSR. There are four residential sensitive receptors within one-quarter mile of the impact areas.			

PMR26. EP22-1 to EP12-3 (Gaskill Peak North)	
Noise	No substantial change in effects of the FESSR, with an increase in helicopter-related noise and decrease in truck-related noise. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR, with some reduction in local traffic effects because of the increased use of helicopter construction.
Visual	No substantial change in effects of the FESSR, with a slight reduction in visual impacts from the elimination of two structures and from the decrease in long-term land scarring. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR26 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduction in water use because of the reduced ground disturbance.

TABLE PMR26				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Rush-like bristleweed		11	11
Modified Project	None			
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	5.67	12.08	17.75
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.01	0.01
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.32	0.02	0.34
FESSR Total		6.00	12.11	18.11
Modified Project	Chaparrals	3.91	0.64	4.55
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.01	0.01	0.02
Mod Proj Total		3.92	0.65	4.58
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.10	0.10
	Stephens' Kangaroo Rat	USFS Suitable Habitat in CNF	0.10	0.10
Modified Project	None			
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)				
FESSR (2010 RCA data)		0.52	1.08	1.60
Modified Project (2010 RCA data)		0.57	0.18	0.76
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.00	0.01
Modified Project		0.00		0.00
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.01	0.01
Modified Project		0.00		0.00

PMR27. EP12-3 to EP9-1 (Cedar Ranch)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP85.2 to MP86	2	None	27	MS101 to MS103
Summary and Conclusion				
The modification would shift the alignment to the southeast, eliminate one structure, and eliminate a yard. The modification would reduce impacts to chaparrals and USFS suitable habitat for Gnatcatcher in CNF. Other effects would be the same as for the FESSR. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • One structure eliminated. • ROW shifted away from Japatul Road. • Wire pull sites relocated within the ROW. • Guard structures added at road crossings. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce number and length of new access roads. Maximize use of existing roads.			
MMCRP Measures	B1-a, GEO-APM-4, V-2d, C-1a, and GEO-APM-5.			
Environmental Impact Discussion				
Air Quality	No substantial change to effects of the FESSR.			
Biological Resources	See Table PMR27 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals and would entail a small permanent impact to grasslands.			
<i>Species Impacts</i>	The modification would reduce impacts to areas identified as USFS suitable habitat for Gnatcatcher in CNF.			
<i>RCAs</i>	The modification would not affect RCAs. The RCA 2010 database indicates a minimal impact (0.01 acre) to RCAs from the FESSR.			
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.			
Land Use	The modification reduces impacts to private lands and CNF. There are four sensitive receptors (two residential and two commercial) within one-quarter mile of the impact areas.			
Noise	No substantial change to effects of the FESSR.			
Public Safety/Hazards	No substantial change to effects of the FESSR.			
Traffic	No substantial change to effects of the FESSR.			

PMR27. EP12-3 to EP9-1 (Cedar Ranch)	
Visual	No substantial change to effects of the FESSR. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	
<i>Waters of US</i>	Neither the FESSR nor the modification would affect waters of the US.
<i>State Waters</i>	Neither the FESSR nor the modification would affect State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduced ground disturbance.

TABLE PMR27					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	3.05	9.04	12.09	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.12	4.80	4.93	
FESSR Total		3.18	13.84	17.02	
Modified Project	Chaparrals	2.64	1.80	4.45	
	Grasslands and Meadows	0.13		0.13	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.01		0.01	
Mod Proj Total		2.78	1.80	4.58	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.37	2.39	2.75
Modified Project	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.02		0.02
Impacts to RCAs in CNF (acres)					
		Permanent	Temporary	Total	
FESSR (2008 RCA data)					
FESSR (2010 RCA data)		0.00	0.00	0.01	
Modified Project (2010 RCA data)					
Impacts to Cultural Resources (number of sites potentially affected)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Waters of the US (acres)					
No impacts from FESSR or modified Project in this unit.					
Impacts to State Waters (acres)					
No impacts from FESSR or modified Project in this unit.					

PMR28. EP9-1 to EP1-3 (Just)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP86 to MP89	2	None	28	MS102 to MS107
Summary and Conclusion				
The modification would eliminate three wire stringing sites and reduce the number and length of new access roads. Impacts to sensitive vegetation types and US and State waters would be reduced; and impacts to suitable habitat for listed species would increase and decrease slightly. Both the modification and FESSR would result in impacts to RCAs in CNF. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • Three wire pull sites removed. • Access roads reduced in length or eliminated. 			
Primary Reason	Accommodate landowner request (Just/Nowak).			
Other Considerations	Reduce ground disturbance.			
MMCRP Measures	B-1a, C-1a and 1b, L-2b, V-2d and V-1b.			
Environmental Impact Discussion				
Air Quality	The increased use of helicopters would not exceed the fuel-use cap or emissions identified for the FESSR or as calculated and approved in the Sunrise Construction Emissions Monitoring Plan (CEMP) January 2010. No substantial changes in effects of the FESSR.			
Biological Resources	See Table PMR28 below.			
<i>Rare Plants</i>	Neither the modification nor the FESSR would affect rare plants.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals, coastal and montane scrubs, grasslands, and non-vegetated channels.			
<i>Species Impacts</i>	The modification would reduce impacts to suitable habitat for arroyo toad and Gnatcatcher. There would be small impacts in areas identified as suitable for least Bell's vireo and southwestern willow flycatcher (surveys have determined that the areas are not occupied by these species).			
<i>RCAs</i>	Both the FESSR and the modification would affect RCAs in CNF.			
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.			
Land Use	The modification would reduce impacts to private property and the CNF. There is two residential and one commercial sensitive receptors within one-quarter mile of the impacts areas.			
Noise	Noise from helicopter operations would increase, and noise from truck traffic would decrease. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. No substantial changes in effects of the FESSR.			

PMR28. EP9-1 to EP1-3 (Just)	
Public Safety/Hazards	No substantial changes in effects of the FESSR.
Traffic	No substantial changes in effects of the FESSR.
Visual	No substantial changes in effects of the FESSR.
Water Resources	See Table PMR28 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial changes in effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR28					
Impacts to Rare Plants (number of individuals detected in impact areas)					
No impacts from FESSR or modified Project in this unit.					
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	3.12	7.35	10.47	
	Coastal and Montane Scrub Habitats	2.62	3.64	6.25	
	Grasslands and Meadows	0.06		0.06	
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.03	0.03	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.66		0.66	
FESSR Total		6.46	11.01	17.47	
Modified Project	Chaparrals	2.69	2.83	5.52	
	Coastal and Montane Scrub Habitats	0.85		0.85	
	Herbaceous Wetlands, Freshwater, and Streams		0.00	0.00	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.13	0.00	0.13	
Mod Proj Total		3.67	2.83	6.50	
Impacts to Special Status Species (acres)					
FESSR	Arroyo Toad	USFS Suitable Habitat in CNF	0.14	0.01	0.15
	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.79	3.10	3.89
	Stephens' Kangaroo Rat	USFS Suitable Habitat in CNF	0.02	0.02	0.05
Modified Project	Arroyo Toad	USFS Suitable Habitat in CNF	0.00		0.00
	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.61	0.59	1.21
	Least Bell's Vireo	USFS Suitable Habitat in CNF	0.12		0.12
	Southwestern Willow Flycatcher	USFS Suitable Habitat in CNF	0.12		0.12
Impacts to RCAs in CNF (acres)					
		Permanent	Temporary	Total	
FESSR (2008 RCA data)		0.14	0.01	0.15	
FESSR (2010 RCA data)		0.49	2.83	3.32	
Modified Project (2010 RCA data)		0.28	0.87	1.16	
Impacts to Cultural Resources (number of sites potentially affected)					
No impacts from FESSR or modified Project in this unit.					

TABLE PMR28			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.01	0.01
Modified Project		0.00	0.00
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.00	0.03	0.03
Modified Project		0.00	0.00

PMR29. Suncrest Substation and Access Road (Suncrest Substation)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP89	3	Wilson	29	MS107
Summary and Conclusion				
<p>The modification would reduce grading around the Suncrest Substation (formerly called the Modified Route D Substation in the Final EIR/EIS), move the Bell Bluff Truck Trail access road to accommodate landowner requests, and reduce the size of the Wilson Construction Yard. FESSR impacts to rare plants, sensitive vegetation, cultural resources, and US and State waters would be reduced. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • Bell Bluff Truck Trail moved slightly uphill in portions to accommodate requests by landowners Wilson and Slaughter and to avoid/reduce impacts to oak trees. • Grading reduced around Suncrest Substation. • Portions of the existing access road (Bell Bluff Truck Trail) moved south near Slaughter/Wilson property line per property owner requests. 			
	<u>Wilson Construction Yard</u> <ul style="list-style-type: none"> • Construction yard reduced in size to 10.78 acres to avoid resource impacts. • No change in location. 			
Primary Reason	Accommodate two landowner requests (Slaughter and Wilson). Reduce impact footprint for substation.			
Other Considerations	Reduce impacts to coast live oak and Engelmann oak trees.			
MMCRP Measures	B-1a, GEO-APM-4, GEO-APM-5, C-1a, C-1b and L-2b			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR, with some reduction in construction related emissions because of the reduced footprint of the substation.			
Biological Resources	See Table PMR29 below.			
<i>Rare Plants</i>	The modification would reduce impacts to Engelmann oak, felt-leaved monardella, Peninsular spineflower, and rush-like brittleweed.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to all sensitive vegetation types affected by the FESSR.			
<i>Species Impacts</i>	Neither the FESSR nor the modification would affect special status wildlife species.			
<i>RCAs</i>	Not applicable to the modification in this unit.			
Cultural Resources	Five cultural sites have been identified in this unit. The FESSR potentially would affect all five; the modification potentially would affect four. See Table PMR29 below.			

PMR29. Suncrest Substation and Access Road (Suncrest Substation)	
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.
Land Use	The modification accommodates landowner requests and eliminated impacts to CNF. There are no sensitive receptors within one-quarter mile of impact areas.
Noise	No substantial change in effects of the FESSR.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR.
Visual	No substantial change in effects of the FESSR.
Water Resources	See Table PMR29 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR29				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Engelmann oak	341	28	369
	Felt-leaved monardella	657		657
	Milk-vetch	1		1
	Peninsular spineflower	270		270
	Rush-like bristleweed	151		151
Modified Project	Engelmann oak	216	2	218
	Felt-leaved monardella	106		106
	Rush-like bristleweed	52		52
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	102.55	14.79	117.34
	Coastal and Montane Scrub Habitats	4.60	14.39	18.99
	Grasslands and Meadows	2.23	6.52	8.75
	Herbaceous Wetlands, Freshwater, and Streams	0.35	0.20	0.55
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	3.62	7.75	11.37
	Woodlands and Forests	14.84	9.78	24.62
	FESSR Total		128.18	53.44
Modified Project	Chaparrals	68.06		68.06
	Coastal and Montane Scrub Habitats	1.28	9.82	11.10
	Grasslands and Meadows	1.18	0.99	2.17
	Herbaceous Wetlands, Freshwater, and Streams	0.23		0.23
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.73		1.73
	Woodlands and Forests	3.19		3.19
Mod Proj Total		75.66	10.81	86.47
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)				
FESSR (2010 RCA data)			6.39	6.39
Modified Project (2010 RCA data)				

TABLE PMR29			
Impacts to Cultural Resources (number of sites potentially affected)			
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project
Bedrock Milling	SDI-19036	1	1
	SDI-19037	1	1
Historic Refuse	SPPA-S-1	1	1
Pending Id	BB-S-1	1	1
Prehistoric Bedrock Milling	BW-52	1	
Total	7	5	4
Impacts to Waters of the US (acres)			
		Permanent	Temporary
FESSR		0.29	0.72
Modified Project		0.18	
			Total
			1.01
			0.18
Impacts to State Waters (acres)			
		Permanent	Temporary
FESSR		0.38	0.85
Modified Project		0.23	
			Total
			1.23
			0.23

PMR30. CP109-1 to CP106-1 (Bell Bluff)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP89-MP89.4	5	None.	30	MS107
Summary and Conclusion				
The modification would eliminate five wire stringing sites and design CP109-1 to avoid a large cultural resource site. In addition to avoiding the cultural site, the modification would reduce impacts to chaparrals. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • Temporary construction pads removed at 2 structures. • Five wire pull sites eliminated. • CP109-1 designed to avoid large cultural resource site complex. 			
Primary Reason	Improve engineering design.			
Other Considerations	Avoid large cultural resource site complex.			
MMCRP Measures	V-2d, C-1a, C-1a and 1b, GEO-APM-4 and GEO-APM-5			
Environmental Impact Discussion				
Air Quality	No substantial changes in effects of the FESSR.			
Biological Resources	See Table PMR30 below.			
<i>Rare Plants</i>	The modification avoids impacts to rush-like brittleweed.			
<i>Vegetation Impacts</i>	The modification reduces impacts to chaparrals.			
<i>Species Impacts</i>	Neither the FESSR nor the modification would affect special status wildlife species.			
<i>RCAs</i>	Not applicable to the FESSR or modification in this unit.			
Cultural Resources	The modification would avoid impacts to the bedrock milling complex in this unit. See Table PMR30 below.			
Geology/Minerals	No substantial change in effects of the FESSR.			
Land Use	The modification reduces impacts to private lands. There are no sensitive receptors within 1000 feet (or one-quarter mile) of the impacts areas.			
Noise	No substantial change in effects of the FESSR.			
Public Safety/Hazards	No substantial change in effects of the FESSR.			
Traffic	No substantial change in effects of the FESSR.			
Visual	No substantial change in effects of the FESSR.			
Water Resources	See Table PMR30 below.			
<i>Waters of US</i>	Neither the FESSR nor the modification would affect waters of the US.			
<i>State Waters</i>	Neither the FESSR nor the modification would affect State Waters.			
<i>Water Use</i>	No substantial change in effects of the FESSR.			

TABLE PMR30				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Rush-like bristleweed	3	6	9
Modified Project	None			
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	1.85	2.91	4.76
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.02	0.01	0.03
	FESSR Total	1.87	2.92	4.79
Modified Project	Chaparrals	0.87		0.87
Impacts to Special Status Species (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Type	ID in Cultural Resource Inventory	FESSR	Modified Project	
Bedrock Milling	BW-161	1		
Impacts to Waters of the US (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to State Waters (acres)				
No impacts from FESSR or modified Project in this unit.				

PMR31. CP106-1 to CP98-1 (Jerney)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP89.4 to MP91.5	5	None	31	MS107 to MS109
Summary and Conclusion				
<p>The modification would shift the alignment to the south at the western end, eliminate three structures on USFS land, and change two structures from lattice to steel poles at a landowner's request. The modification would reduce impacts to chaparrals. The steel poles would be more prominent visually than the FESSR lattice structures, but the visual impacts of the modification would remain substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • ROW shifted south, avoiding the Jerney property. • CP99-2 and CP98-1 changed from steel lattice towers to steel poles per owner's request. • Three structures eliminated. • Three wire pull sites removed. 			
	Primary Reason	Accommodate landowner request (Loritz and Jerney).		
Other Considerations	Reduce temporary ground disturbance.			
MMCRP Measures	B-1a, C-1a, C-1a and 1b, L-2b, and V-1a.			
Environmental Impact Discussion				
Air Quality	No substantial change to effects of FESSR.			
Biological Resources	See Table PMR31 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparrals.			
<i>Species Impacts</i>	The modification would not affect any special status wildlife species.			
<i>RCAs</i>	The modification would not affect RCAs in CNF.			
Cultural Resources	There are three cultural sites identified in this unit. The FESSR potentially would affect one; the modification would affect none. See Table PMR31 below.			
Geology/Minerals	No substantial change in effects of the FESSR.			
Land Use	The modification would reduce impacts to private lands and CNF. There are no residential sensitive receptors within one-quarter mile of the impact areas.			
Noise	No substantial change in effects of the FESSR.			
Public Safety/Hazards	No substantial change in effects of the FESSR.			
Traffic	No substantial change in effects of the FESSR.			

PMR31. CP106-1 to CP98-1 (Jerney)	
Visual	<p>No substantial change in the effects of the FESSR. The property owners have requested that a steel mono pole structure be installed at CP100-1 instead of a lattice tower. Consultation with the appropriate visual experts for the USFS and CPUC is being conducted regarding the appropriateness of the mono pole. The light gray color for the structure has been agreed upon. The installation of the mono pole would require that an access road be extended to CP100-1 in order to accommodate the associated installation requirements for steel mono poles instead of a lattice tower. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.</p>
Water Resources	
<i>Waters of US</i>	Neither the FESSR nor the modification would affect waters of the US.
<i>State Waters</i>	Neither the FESSR nor the modification would affect State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR31				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	4.53	9.77	14.30
Modified Project	Chaparrals	3.43	1.16	4.59
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.15		0.15
	Mod Proj Total	3.58	1.16	4.74
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.08	0.08
Modified Project	None			
Impacts to RCAs in CNF (acres)				
		Permanent	Temporary	Total
FESSR (2008 RCA data)				
FESSR (2010 RCA data)		0.05		0.05
Modified Project (2010 RCA data)				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project	
Bedrock Milling	SPAP-S-15	1	0	
Impacts to Waters of the US (acres)				
No impacts from FESSR or modified Project in this unit.				
Impacts to State Waters (acres)				
No impacts from FESSR or modified Project in this unit.				

PMR32. CP98-1 to CP95-1 (230kV UG Including Loritz Driveway)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP91.5-PM91.8	4	None	32	MS109
Summary and Conclusion				
<p>The modification would shift the alignment slightly to the west, relocate an access road through a driveway on the Loritz property, and revise the 230 kV overhead-to-underground transition location to accommodate a landowner’s request. The modification would entail greater ground disturbance and more impacts to chaparrals, riparian forest, and US and State waters than the FESSR. The modification also would entail a small impact (0.57 acre) to proposed critical habitat for arroyo toad. The increased impacts and impacts to proposed critical habitat would not be different in type or scale than the impacts to these resources analyzed in the Final EIR/EIS. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Cable poles relocated to an east/west position rather than a north/south position midline to the original structure positions. • Access road originally approved to run through Star Valley road and the Jerney property, relocated entirely through a driveway on the Loritz property. 			
Primary Reason	Accommodate landowner request (Loritz and Jerney).			
Other Considerations	Reduce impacts to oak trees.			
MMCRP Measures	B-1a, L-2b, V-1b, C-1a, C-1a and 1b, and WQ-APM-1.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR32 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants in this unit.			
<i>Vegetation Impacts</i>	The modification both increases and decreases impacts to sensitive vegetation types affected by the FESSR and entails impacts to riparian forest/woodland that would not occur under the FESSR. The increases and decreases would be small.			
<i>Species Impacts</i>	The FESSR would not affect special status wildlife species. The modification would affect 0.57 acre of proposed critical habitat for arroyo toad.			
<i>RCAs</i>	Not applicable to the FESSR or modification in this unit.			
Cultural Resources	Neither the FESSR nor the modification would affect cultural resources in this unit.			
Geology/Minerals	No substantial change in the effects of the FESSR; the increase in ground disturbance and its associated impacts would be addressed through the same measures that would apply to the FESSR.			
Land Use	The modification would remove the ROW entirely from the Jerney property and relocate it entirely on the Loritz property. As such, the modification would reduce the impact to one landowner and slightly increase the impact to a different landowner with their consent. There are 25 residential sensitive receptors within one-quarter mile of the impacts areas.			

PMR32. CP98-1 to CP95-1 (230kV UG Including Loritz Driveway)	
Noise	Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. No substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	The modification would result in more long-term visible land scarring than the FESSR, but visual impacts overall would be substantially the same as for the FESSR.
Water Resources	See Table PMR32 below.
<i>Waters of US</i>	The modification would have greater impacts on waters of the US than would the FESSR.
<i>State Waters</i>	The modification would have substantially the same impacts on State waters as would the FESSR.
<i>Water Use</i>	No substantial change in effects of the FESSR.

TABLE PMR32				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	1.47	2.09	3.56
	Coastal and Montane Scrub Habitats		0.22	0.22
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.04	0.04
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.05	0.70	0.74
	Riparian Forests and Woodlands		0.00	0.00
FESSR Total		1.52	3.05	4.58
Modified Project	Chaparrals	2.64	1.69	4.33
	Coastal and Montane Scrub Habitats	0.18	0.16	0.34
	Herbaceous Wetlands, Freshwater, and Streams	0.02	0.03	0.06
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.04	0.18	1.22
	Riparian Forests and Woodlands	0.19	0.06	0.25
Mod Proj Total		4.08	2.12	6.20
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	None			
Modified Project	Arroyo Toad	USFWS Proposed Critical Habitat	0.57	0.57
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modified Project in this unit.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modified Project in this unit.				
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.01	0.03	0.04
Modified Project		0.09	0.02	0.11
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.01	0.04	0.05
Modified Project		0.02	0.03	0.05

PMR33. 230-kV Underground from Alpine Blvd/Loritz Driveway to CP88-1/CP87-1 (230kV UG)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP91.8 to MP98	4	Alpine HQ Alpine Yard	33	MS109 to MS110
Summary and Conclusion				
<p>The modification would add an access road on the Bauer property, adjust the ROW to avoid a Caltrans drainage easement, add a 10.58-acre field office headquarters, and add a 28.36-acre construction yard. The addition of the field office and construction yard would increase ground disturbance and associated noise, traffic, and visual impacts. These impacts would be reduced and mitigated through the same MMCRP measures that would apply to construction yards proposed in Links 4 and 5 as part of the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> Added access road on Bauer property to access cable pole. ROW shifted from drainage installed by Caltrans near EP88-1. Underground ROW essentially same as in Final EIR/EIS. <p><u>Alpine Regional Field Offices</u></p> <ul style="list-style-type: none"> Add 10.58-acre field office site (Project headquarters), south of Tavern Road. <p><u>Alpine Construction Yard</u></p> <ul style="list-style-type: none"> Add 28.36-acre construction yard, north of Tavern Road. 			
Primary Reason	<p>Accommodate private landowner and Caltrans request.</p> <p>Establish field office headquarters for Project and provide additional yard capacity.</p>			
Other Considerations	<p>Avoid all identified utilities and provide adequate operational and safety buffering.</p>			
MMCRP Measures	<p>L-2b, C-1a, S-2b and C-1a and 1b, V-66a</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial change in the effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR33 below.</p>			
<i>Rare Plants</i>	<p>Neither the FESSR nor the modification would affect rare plants.</p>			
<i>Vegetation Impacts</i>	<p>The modification would have temporary impacts to chaparrals and coastal montane scrubs; the FESSR would not. The office and yard areas in the modification were configured to exclude vegetation except where required for fuel modification zones to maintain appropriate fire safety at the field office site.</p>			
<i>Species Impacts</i>	<p>The modification would not have direct impacts on any special status wildlife species. The office and yard areas in the modification were configured to exclude potential habitat and would be subject to the same site monitoring and impact avoidance measures that apply to other components of the Project.</p>			

PMR33. 230-kV Underground from Alpine Blvd/Loritz Driveway to CP88-1/CP87-1 (230kV UG)	
<i>RCA</i> s	Not applicable.
Cultural Resources	The area affected by the modification was included in the cultural resources inventory. There are four cultural sites and one isolated find in this PMR unit, which was not included in the surveys for the Final EIR/EIS. None of these resources are within an area of proposed direct ground impact, but are in the ROW for the Project. Neither the FESSR nor the modification would directly affect the resources.
Geology/Minerals	No substantial change in the effects of the FESSR.
Land Use	The modification would be located adjacent to residential and commercial development. There would be 115 commercial structures, 1 industrial structure, 110 multifamily residences, and 1020 single family residences within one-quarter mile of the modification's impact areas. The residential development to the north east of the construction yard was notified of the project during the EIR/EIS process through the multiple newspaper circular and public venue notice postings in the Alpine area.
Noise	The modification would result in increased noise impacts during establishment of the field offices and yard and during operation of the yard. Impacts would be reduced and mitigated in accordance with the MMCRP and applicable local regulations. The modification would not result in new significant noise impacts.
Public Safety/Hazards	Operation of the yard in the modification would increase public safety impacts and hazard risks compared with the FESSR in this location. The impacts of the modification would be reduced and mitigated through the MMCRP public health and safety measures and applicable regulations. The modification would not result in new significant public safety/hazard impacts.
Traffic	The construction yard in the modification, and to a lesser degree the field offices, would result in increased local traffic impacts. Temporary lane closures and/or congestion could result during the delivery of construction materials and equipment along Victoria Park Terrace and Tavern Road. Impacts would be reduced and mitigated through the traffic planning and control measures in the MMCRP and applicable local regulations. The modification would not result in new significant traffic impacts.
Visual	The modification would result in increased visual impacts along this route segment because of the addition of the yard in close proximity to or within the viewshed of several residential developments. Measures to reduce and mitigate visual impacts would be specified in the site plans for the yard and would include the applicable MMCRP measures regarding lighting, fencing, hours of operation, etc. The construction yard impacts would be temporary and would not be different in type or scale than those considered in the Final EIR/EIS. The modification would not result in new significant visual impacts.
Water Resources	
<i>Waters of US</i>	No impacts would occur under the FESSR or modification.
<i>State Waters</i>	No impacts would occur under the FESSR or modification.
<i>Water Use</i>	No substantial change in the effects of the FESSR.

TABLE PMR33			
Impacts to Rare Plants (number of individuals detected in impact areas)			
No impacts from FESSR or modification in this unit.			
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)			
		Permanent	Temporary
FESSR	None		
Modified Project	Chaparrals		1.27
	Coastal and Montane Scrub Habitats		1.89
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		35.77
	Mod Proj Total		38.94
Impacts to Special Status Species (acres)			
No impacts from FESSR or modification in this unit.			
Impacts to RCAs in CNF (acres)			
Not applicable to FESSR or modification in this unit.			
Impacts to Cultural Resources (number of sites potentially affected)			
No impacts from FESSR or modification in this unit.			
Impacts to Waters of the US (acres)			
No impacts from FESSR or modification in this unit.			
Impacts to State Waters (acres)			
No impacts from FESSR or modification in this unit.			

PMR34. CP88-1/CP87-1 to CP64-2 (Chocolate Canyon)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP98 to MP103.1	5	Hartung	34	MS117 to MS122
Summary and Conclusion				
<p>The modification would shift the alignment west, eliminate six structures, reduce the ROW by nearly 0.5 mile, modify the access roads to improve engineering design, eliminate the FESSR construction yard at Chocolate Mountain Ranch, and reduce the size of the Hartung Construction Yard. The modification would reduce impacts to rare plants, sensitive vegetation types, Gnatcatcher critical habitat, RCAs, cultural resources, and US and State waters. The modification would entail impacts to proposed critical habitat for arroyo toad and increase the visibility of some structures. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • Structures and access roads relocated or removed to avoid cultural resources and limit the number of angle structures and wire pull sites. • Six structures eliminated. • 14 structures changed from conventional to helicopter construction. • ROW length reduced by approximately 0.5 mile. • Wire pull site and access roads modified. • One mile of access roads eliminated. • Guard structures added at road crossings. <p><u>Hartung Construction Yard</u></p> <ul style="list-style-type: none"> • Yard reduced in size to 16.53 acres (same location as for FESSR). <p><u>Other</u></p> <ul style="list-style-type: none"> • Chocolate Mountain Ranch Construction Yard eliminated. 			
Primary Reason	<p>Improve engineering design. Implement mitigation measure V-2d. Minimize impacts to oak trees and San Diego River.</p>			
Other Considerations	<p>Avoid direct impacts to cultural resources. Reduce impacts to jurisdictional waters. Reduce impacts to CNF.</p>			
MMCRP Measures	<p>B-1a, C-1a, C-1a and 1b, F-2b, V-2d, GEO-APM-4, GEO-APM-5, and WQ-APM-1.</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial change in effects of the FESSR.</p>			

PMR34. CP88-1/CP87-1 to CP64-2 (Chocolate Canyon)	
Biological Resources	See Table PMR34 below.
<i>Rare Plants</i>	The modification would reduce impacts to delicate clarkia and San Diego sunflower.
<i>Vegetation Impacts</i>	The modification would reduce impacts to all sensitive vegetation types affected by the FESSR.
<i>Species Impacts</i>	The modification would reduce impacts to critical habitat for Gnatcatcher and impacts to USFS suitable habitat in CNF for arroyo toad, Gnatcatcher, least Bell's vireo, and SKR. The modification also would entail impacts to proposed critical habitat for arroyo toad. The impact would occur at the Hartung construction yard, which is located in an open, shallow, sandy wash with sparse vegetation cover. The yard area was included in the 2009 arroyo toad habitat assessments and was determined to have moderate potential for breeding and foraging habitat. No water was present in 2009. Protocol surveys were recommended and are being conducted now. Results of the 2010 arroyo toad surveys will be submitted to USFWS and will be used to further refine the impact estimate for this modification. Impacts of the modified Project to arroyo toad would be minimized and mitigated through the same measures identified for the FESSR in the MMCRP and BO. The MMCRP and BO currently require pre-construction surveys in suitable habitat, impact site avoidance and minimization measures, and onsite and offsite mitigation. Additional measures for impacts to critical habitat may be required if the proposed rule is adopted and would be determined by USFWS. The impact to proposed critical habitat was not addressed in the Final EIR/EIS (the proposed designation was issued in 2009 after the issuance of the Final EIR/EIS) but entails the same type and scale of effects that were considered (i.e., the potential for take and for loss of breeding and foraging habitat). No new significant impact to arroyo toad or other wildlife species would result from the modification.
<i>RCAs</i>	The modification would reduce impacts to RCAs in the CNF.
Cultural Resources	<p>There are 12 cultural resource sites and two isolated finds in this unit, which was not included in the Final EIR/EIS surveys. The FESSR potentially would affect eight sites; the modification potentially would affect three. See Table PMR34 below.</p> <p>The modification includes the following impact avoidance and reduction measures:</p> <ul style="list-style-type: none"> • Relocation of CP80-1 and elimination of access road reduces impact to a sensitive archaeological site (SDI-7873/19250/SPNB-S-7), Bedrock milling site). • Relocation of CP68-1 and the access road and the pull site at that structure will avoid impact to a large archaeological site (SDI-18999, Prehistoric Quarry). • Relocation of access road to CP65-1 avoids impacts to a large archeological site (SDI-8251, Bedrock milling and historic mining). • Two newly recorded sites correspond with the Hartung Construction Yard and can be avoided through staking of ESAs.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.
Land Use	The modification reduces impacts to private, City of San Diego, and USFS lands. There are 47 residential and 3 commercial structures within one-quarter mile of the modification's impact areas.

PMR34. CP88-1/CP87-1 to CP64-2 (Chocolate Canyon)	
Noise	No substantial change in effects of the FESSR.
Public Safety/Hazards	No substantial changes in effects of the FESSR.
Traffic	No substantial changes in effects of the FESSR
Visual	The modification would eliminate six structures and decrease ground disturbance, which would reduce the visual impacts of structures and long-term land scarring. However, the modification would also result in the higher elevation placement of several structures, which would increase their visibility. Overall, the modification would not substantially change the visual impacts of the FESSR in this unit. Specific actions have been and will continue to be taken to minimize the visible disturbance of the Sunrise Powerlink on the naturally established scenery of the Forest. The end result of these actions including the appropriate coloration of structures will be presented in the Scenery Conservation Plan which will present the final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
Water Resources	See Table PMR34 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR34					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Delicate clarkia	154		154	
	San Diego sunflower	16		16	
Modified Project	Delicate clarkia	1		1	
	San Diego sunflower	8		8	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	10.96	7.75	18.70	
	Coastal and Montane Scrub Habitats	10.03	21.09	31.12	
	Grasslands and Meadows		1.69	1.69	
	Herbaceous Wetlands, Freshwater, and Streams	0.05	1.30	1.35	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	5.12	15.92	21.04	
	Riparian Forests and Woodlands	0.24		0.24	
	Woodlands and Forests	0.58	2.66	3.24	
FESSR Total		26.97	50.41	77.38	
Modified Project	Chaparrals	4.05	1.29	5.34	
	Coastal and Montane Scrub Habitats	5.45	2.61	8.07	
	Grasslands and Meadows		0.89	0.89	
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.03	0.03	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.70	15.62	16.32	
	Riparian Forests and Woodlands		0.01	0.01	
	Woodlands and Forests	0.16	0.73	0.89	
Mod Proj Total		10.38	21.18	31.55	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Arroyo Toad	USFS Occupied Habitat in CNF	0.46	0.32	0.78
	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.83	0.95	1.77
		USFWS Critical Habitat	9.07	5.67	14.74
	Least Bell's Vireo	USFS Suitable Habitat in CNF	0.46	0.32	0.78
Stephens' Kangaroo Rat	USFS Suitable Habitat in CNF	0.59	0.00	0.59	
Modified Project	Arroyo Toad	USFS Occupied Habitat in CNF		0.00	0.00
		USFWS Proposed Critical Habitat	0.69	17.16	17.85
	Coastal California Gnatcatcher	USFS Suitable Habitat in CNF	0.39		0.39
		USFWS Critical Habitat	3.63	0.48	4.11
Stephens' Kangaroo Rat	USFS Suitable Habitat in CNF	0.18	0.00	0.19	

TABLE PMR34			
Impacts to RCAs in CNF (acres)			
	Permanent	Temporary	Total
FESSR (2008 RCA data)	0.60	0.32	0.91
FESSR (2010 RCA data)	0.80	0.32	1.12
Modified Project (2010 RCA data)	0.08	0.00	0.08
Impacts to Cultural Resources (number of sites potentially affected)			
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project
Prehistoric Bedrock Milling	BW-59	1	1
Prehistoric Bedrock Milling/Historic Mining	SDI-8251	1	1
Prehistoric Lithic/Shell Scatter	BW-60	1	1
Historic Quarry	SDI-18999	1	
Prehistoric Bedrock Milling	SDI-7873/19250	1	
Prehistoric Temporary Camp	SDI-13605	1	
Not categorized	W-671	1	
Ceramic Sherds	SDI-680	1	
Total		8	3
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.03	0.88	0.90
Modified Project	0.02	0.00	0.03
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.05	1.26	1.31
Modified Project	0.03	0.00	0.03

PMR35. CP64-2 to CP53-1 (Morgan)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP103.1 to MP106	5	None	35	MS122 to MS128
Summary and Conclusion				
The modification would shift the ROW upslope locally, increase helicopter construction, eliminate two pull sites, reduce work area size, and remove approximately 2,000 feet of access road. The modification would reduce impacts to sensitive vegetation (except for a small increase in temporary impacts to chaparrals), Gnatcatcher occupied habitat and critical habitat, cultural resources, and US and State waters. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u>			
	<ul style="list-style-type: none"> • ROW shifted between structures CP64-2 and CP60 per property owner request. • Three wire pull sites were eliminated. • Work areas reduced in size. • New access roads eliminated; existing roads used instead. • Guard structures added at road crossings. 			
Primary Reason	Accommodate land owner request.			
Other Considerations	Improve engineering design. Reduce visual impact.			
MMCRP Measures	L-2b, B-1a, V-2d, C-1a, C-1a and 1b, GEO-APM-4, GEO-APM-5, and WQ-APM-1.			
Environmental Impact Discussion				
Air Quality	No substantial change in the effects of the FESSR.			
Biological Resources	See Table PMR35 below.			
<i>Rare Plants</i>	The modification would avoid impacts to delicate clarkia.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to all sensitive vegetation types, except for a small increase in temporary impacts to chaparrals.			
<i>Species Impacts</i>	The modification would reduce impacts to USFWS occupied and critical habitat for Gnatcatcher.			
<i>RCAs</i>	Not applicable to the FESSR or modification.			
Cultural Resources	There are two cultural site and no isolated finds in this unit. The FESSR would affect all three sites; the modification avoids the sites. See Table PMR35 below.			
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts.			
Land Use	The modification reduces impacts to private property and lands managed by the County of San Diego. There are 23 residential structures and 2 commercial structures within one-quarter mile of the modification's impact areas.			

PMR35. CP64-2 to CP53-1 (Morgan)	
Noise	No substantial change in the effects of the FESSR.
Public Safety/Hazards	No substantial change in the effects of the FESSR.
Traffic	No substantial change in the effects of the FESSR.
Visual	The modification would decrease ground disturbance, which would reduce visible long-term land scarring. The modification would also result in the higher elevation placement of several structures, which would increase their visibility. Overall, the modification would not substantially change the visual impacts of the FESSR in this location.
Water Resources	See Table PMR35 below.
<i>Waters of US</i>	The modification would reduce impacts to waters of the US.
<i>State Waters</i>	The modification would reduce impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduction in ground disturbance.

TABLE PMR35					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Delicate clarkia	400		400	
Modified Project	None				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	4.85	1.55	6.40	
	Coastal and Montane Scrub Habitats	9.38	5.13	14.51	
	Herbaceous Wetlands, Freshwater, and Streams	0.08	0.01	0.09	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	7.17	0.00	7.18	
	Riparian Forests and Woodlands	0.35		0.35	
FESSR Total		21.84	6.69	28.54	
Modified Project	Chaparrals	1.70	1.73	3.44	
	Coastal and Montane Scrub Habitats	2.42	0.00	2.42	
	Herbaceous Wetlands, Freshwater, and Streams	0.01	0.00	0.01	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.63		0.63	
	Riparian Forests and Woodlands		0.01	0.01	
	Woodlands and Forests		0.00	0.00	
Mod Proj Total		4.77	1.75	6.51	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Coastal California Gnatcatcher	USFWS Critical Habitat	0.99	12.17	13.17
		USFWS Occupied Habitat		1.22	1.22
Modified Project	Coastal California Gnatcatcher	USFWS Critical Habitat	0.24		0.24
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modification in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project		
Prehistoric Habitation	SDI-13652	1			
Rock Shelter	SDI-4913	1			
Total		2	0		

TABLE PMR35			
Impacts to Waters of the US (acres)			
	Permanent	Temporary	Total
FESSR	0.04	0.01	0.05
Modified Project	0.01	0.00	0.01
Impacts to State Waters (acres)			
	Permanent	Temporary	Total
FESSR	0.08	0.01	0.09
Modified Project	0.01	0.00	0.01

PMR36. CP53-1 to CP44-1 (High Meadow Ranch)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP106 to MP108.3	5	Helix	36	MS126 to MS130
Summary and Conclusion				
<p>The modification would straighten the FESSR ROW, replace the access road with small/shorter spur roads off of existing roads, eliminate one structure, and relocate and increase the size of the Helix Construction Yard. The modification would both reduce and increase impacts to sensitive vegetation, Gnatcatcher, and jurisdictional waters and would increase visual impacts due to the construction yard but reduce impacts due to the new structure locations. The modification also would entail impacts to proposed critical habitat for arroyo toad. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • CP49-1 and CP47-2 relocated off of ridgelines. • CP51-1 through CP47-2 relocated to higher elevations along the south end of the hills, north of Wildcat Canyon Road and the intersection with Willow Road. • Structures relocated to higher elevation on the High Meadow Ranch property. • 10 structures changed to helicopter access; new permanent access roads, including through Lambron Lakeside Ranch LLC, eliminated. • One structure eliminated. • Guard structures added at road crossings. 			
	<u>Helix Construction Yard</u> <ul style="list-style-type: none"> • 20.97-acre construction yard replaces 11.69-acre yard on Helix Water District property. 			
Primary Reason	<p>Improve engineering design. Accommodate landowner requests. Reduce visual impacts of structures to High Meadow Ranch.</p>			
Other Considerations	<p>Avoid wetland and San Diego thornmint impacts. Avoid capped cultural resource area.</p>			
MMCRP Measures	B-1a, L-2b, V-2d, V-68a, C-1a, C-1a and 1b, GEO-APM-4, GEO-APM-5, and WQ-APM-1.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR36 below.			
<i>Rare Plants</i>	The modification would avoid impacts to San Diego sunflower and would have substantially the same impacts as the FESSR on Lakeside ceanothus.			

PMR36. CP53-1 to CP44-1 (High Meadow Ranch)	
<i>Vegetation Impacts</i>	<p>The modification would both reduce and increase impacts to sensitive vegetation types. There would be reduced permanent impacts to chaparrals, coastal and montane scrub, non-vegetated channels, and riparian forests. There would be increased temporary impacts to coastal and montane scrub, grasslands, and non-vegetated channels. The primary increase would be in temporary impacts to grasslands in connection with the yard. The area is cleared land probably used for agriculture and is dominated by high cover, non-native grassland. The impact would not be different in type or scale than the vegetation impacts considered in the Final EIR/EIS.</p>
<i>Species Impacts</i>	<p>The modification would reduce impacts to USFWS occupied Gnatcatcher habitat. It also would affect designated critical habitat for Gnatcatcher and proposed critical habitat for arroyo toad, which the FESSR would not.</p> <p>Focused surveys were conducted in 2009 to assess gnatcatcher habitat and identify occupied areas in all suitable habitat potentially affected by the Project. No gnatcatchers were detected in the originally proposed or the currently proposed yard. The BO for the Project covers impacts to occupied habitat and critical habitat.</p> <p>The yard in the modification also was included in the 2009 arroyo toad habitat assessments and was determined to have moderate potential for breeding and foraging habitat. No water was present in 2009. Protocol surveys were recommended and are being conducted in 2010. Results of the 2010 arroyo toad surveys will be submitted to USFWS and will be used to further refine the impact estimates for these areas.</p> <p>Results of the 2010 arroyo toad surveys will be submitted to USFWS and will be used to further refine the impact estimate for this modification. Impacts of the modified Project to arroyo toad would be minimized and mitigated through the same measures identified for the FESSR in the MMCRP and BO. The MMCRP and BO currently require pre-construction surveys in suitable habitat, impact site avoidance and minimization measures, and onsite and offsite mitigation. Additional measures for impacts to critical habitat may be required if the proposed rule is adopted and would be determined by USFWS. The impact to proposed critical habitat was not addressed in the Final EIR/EIS (the proposed designation was issued in 2009 after the issuance of the Final EIR/EIS) but entails the same type and scale of effects that were considered (i.e., the potential for take and for loss of breeding and foraging habitat).</p> <p>No new significant impact to Gnatcatcher, arroyo toad, or other wildlife species would result from the modification.</p>
<i>RCAs</i>	Not applicable to the FESSR or modification.
Cultural Resources	There are three cultural sites and no isolated finds in this unit. Two of these sites are identified as historic cisterns and one is a historic road segment. Neither the FESSR nor the modification would affect the sites.
Geology/Minerals	The modification would reduce permanent and increase temporary ground disturbance. Total ground disturbance would be substantially the same as the FESSR.

PMR36. CP53-1 to CP44-1 (High Meadow Ranch)	
Land Use	The modification would increase impacts on Helix Water District lands. There are thirteen residential structures within one-quarter mile of the modification’s impact areas.
Noise	No substantial change in effects of the FESSR.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR.
Visual	<p>The reroute by itself would result in a slight decrease in ground disturbance, which would reduce visible long-term land scarring. However, the modification would still result in the considerable structure skylining along the ridgeline, which exacerbates structure visibility and prominence.</p> <p>The modification also would increase visual impacts by introducing a larger construction yard than originally proposed and shifting the location to the south side of the San Diego River, into the center of the valley. This new location would place the facility in a more spatially prominent location within the primary cone of vision of travelers on El Monte Road. Given the high visibility of the site from El Monte Road, it has been recommended that some form of temporary screening be required along the west, south and east perimeters of the site. The size and locational prominence of the yard would exacerbate visual contrast. However, the impacts would have a relatively short-term duration (approximately 12 months).</p> <p>The increased visual impacts would not be different in type or scale than those considered in the Final EIR/EIS. The new significant visual impacts would result from the modification.</p> <p>The modification would, however, reduce visual impacts due to structures being relocated from the FESSR locations. The visual impacts to High Meadows Ranch were reduced by moving the structure locations down slope.</p>
Water Resources	See Table PMR36 below.
<i>Waters of US</i>	The modification would reduce permanent impacts to jurisdictional waters.
<i>State Waters</i>	The modification would reduce permanent and increase temporary impact to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR.

TABLE PMR36					
Impacts to Rare Plants (number of individuals detected in impact areas)					
		Permanent	Temporary	Total	
FESSR	Lakeside ceanothus	6		6	
	San Diego sunflower	2		2	
Modified Project	Lakeside ceanothus	5		5	
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)					
		Permanent	Temporary	Total	
FESSR	Chaparrals	8.71	2.29	11.00	
	Coastal and Montane Scrub Habitats	3.58	1.12	4.70	
	Herbaceous Wetlands, Freshwater, and Streams	0.08	0.01	0.09	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.41	11.69	13.09	
	Riparian Forests and Woodlands	0.03		0.03	
FESSR Total		13.82	15.10	28.91	
Modified Project	Chaparrals	1.75	0.04	1.79	
	Coastal and Montane Scrub Habitats	2.15	2.79	4.93	
	Grasslands and Meadows	0.00	21.58	21.58	
	Herbaceous Wetlands, Freshwater, and Streams	0.02	0.04	0.06	
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.43	0.46	0.89	
Mod Proj Total		4.35	24.91	29.25	
Impacts to Special Status Species (acres)					
		Permanent	Temporary	Total	
FESSR	Coastal California Gnatcatcher	USFWS Occupied Habitat	1.02	0.61	1.62
Modified Project	Arroyo Toad	USFWS Proposed Critical Habitat	0.03	21.71	21.75
	Coastal California Gnatcatcher	USFWS Critical Habitat		21.09	21.09
		USFWS Occupied Habitat	0.03	0.00	0.03
Impacts to RCAs in CNF (acres)					
Not applicable to FESSR or modification in this unit.					
Impacts to Cultural Resources (number of sites potentially affected)					
No impacts from FESSR or modification in this unit.					
Impacts to Waters of the US (acres)					
		Permanent	Temporary	Total	
FESSR		0.03	0.01	0.04	
Modified Project		0.00	0.01	0.01	
Impacts to State Waters (acres)					
		Permanent	Temporary	Total	
FESSR		0.09	0.01	0.09	
Modified Project		0.00	0.04	0.04	

PMR37. CP44-1 to CP37-2 (County Aqueduct)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP108.3 to MP110	5	None See MS129A for eliminated yard	37	MS129A to MS132
Summary and Conclusion				
The modification would straighten the FESSR ROW, reduce the length and number of access roads, and eliminate a construction yard. The modification would reduce impacts to chaparrals, occupied Quino and Gnatcatcher habitat, and jurisdictional waters. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • ROW straightened, limiting the number of angle structures. • Number of angle structures and wire pull sites reduced. • One structure changed from conventional construction to helicopter construction. • Two structures eliminated. • New access road eliminated; replaced with tower staging/access pads for accessing structures and utilization of existing roads. • Guard structures added at road crossings. 			
	<u>Other</u> <ul style="list-style-type: none"> • Eliminated construction yard (see MS129A). 			
Primary Reason	Avoid encroachment into San Diego County aqueduct ROW.			
Other Considerations	Reduce ground disturbance.			
MMCRP Measures	L-2b, C-1a, C-1a and 1b, V-2d, and S-2b.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR37 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to chaparral, grassland, and non-vegetated channels.			
<i>Species Impacts</i>	The modification would reduce impacts to Gnatcatcher and Quino occupied habitat.			
<i>RCAs</i>	Not applicable to the FESSR or modification.			
Cultural Resources	There is one cultural site in this unit, a prehistoric habitation that would be affected by the FESSR and modification. See Table PMR37 below.			

PMR37. CP44-1 to CP37-2 (County Aqueduct)	
Geology/Minerals	The modification would move the ROW closer to the Hanson Quarry. Hanson Aggregates Pacific Southwest, Inc. has been provided mapping information, an easement document and offer of compensation for the alignment now under consideration. The offer is contingent upon CPUC approval of the re-route. Excavation for mining operations within the easement corridor would be allowed, with the exception of excavation near tower footings and TSAPs. Hanson Aggregates has not expressed opposition to the modification and has not requested a return to the original alignment.
Land Use	The modification would avoid encroachment in the San Diego County Aqueduct ROW. There are 2 residential structures within one-quarter mile of the modification’s impact areas.
Noise	No substantial change in effects of the FESSR.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR.
Visual	No substantial change in effects of the FESSR.
Water Resources	See Table PMR37 below.
<i>Waters of US</i>	The modification would avoid impacts to waters of the US.
<i>State Waters</i>	The modification would avoid impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR.

TABLE PMR37				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or the modification in this unit.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	6.65	3.21	9.86
	Coastal and Montane Scrub Habitats	0.35		0.35
	Grasslands and Meadows		1.19	1.19
	Herbaceous Wetlands, Freshwater, and Streams		2.54	2.54
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	1.37	6.74	8.11
FESSR Total		8.37	13.68	22.05
Modified Project	Chaparrals	1.19	1.54	2.73
	Coastal and Montane Scrub Habitats	0.41	0.01	0.42
	Herbaceous Wetlands, Freshwater, and Streams		0.00	0.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.26	0.13	0.39
	Mod Proj Total		1.86	1.68
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Coastal California Gnatcatcher	USFWS Occupied Habitat	0.25	0.25
	Quino Checkerspot Butterfly	USFWS Occupied Habitat	5.83	5.83
Modified Project	Coastal California Gnatcatcher	USFWS Occupied Habitat	0.06	0.06
	Quino Checkerspot Butterfly	USFWS Occupied Habitat	1.27	1.67
			2.95	
Impacts to RCAs in CNF (acres)				
Not applicable.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project	
Prehistoric Habitation	SDI-13651	1	1	
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR			1.24	1.24
Modified Project			0.00	0.00
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR			1.24	1.24
Modified Project			0.00	0.00

PMR38. CP37-2 to CP31-2 (Schmidt)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP110 to MP111.7	5	None See MS124A for eliminated yard	38	MS132 to MS134, also MS124A
Summary and Conclusion				
<p>The modification would move the FESSR ROW west, add two structures to accommodate the relocated spans, reduce the number and length of access roads, and eliminate a construction yard. The modification would reduce ground disturbance and impacts to sensitive vegetation and jurisdictional waters and would increase certain visual impacts. Other effects would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> • ROW moved west on the Arnold Schmidt parcel to provide the owner greater development opportunities, per the landowner request. • ROW shifted, moving CP34-2 onto Hanson Aggregates Pacific Southwest Inc. property. • Two structures eliminated. • Corner structure wire pull sites outside ROW at P31-2 moved closer to ROW and reduced to 1/3 typical size. • Length and number of access roads reduced. • Guard structures added at road crossings. <p><u>Other</u></p> <ul style="list-style-type: none"> • Construction yard eliminated (see MS124A). [Note: The eliminated yard is not in close proximity to the ROW in this or other PMR unit. It is included in this PMR unit for purposes of accounting for eliminated FESSR yards.] 			
Primary Reason	Accommodate landowner request.			
Other Considerations	Reduce visual impacts. Reduce ground disturbance.			
MMCRP Measures	L-2b, C-1a, C-1a and 1b, V-1a, and V-2d.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR38 below.			
<i>Rare Plants</i>	Neither the FESSR nor the modification would affect rare plants.			
<i>Vegetation Impacts</i>	The modification would reduce impacts to sensitive vegetation types.			
<i>Species Impacts</i>	Neither the FESSR nor the modification would affect special status wildlife.			

PMR38. CP37-2 to CP31-2 (Schmidt)	
<i>RCA</i> s	Not applicable to the FESSR or modification.
Cultural Resources	There are six cultural sites in this unit. The FESSR and modification each would potentially affect the same site, a prehistoric lithic scatter. See Table PMR38 below.
Geology/Minerals	The modification would reduce ground disturbance and the associated slope stability and erosion impacts. The modification moves a structure on to Hanson Aggregate property but not in a location that would affect quarry operations.
Land Use	No substantial change in effects of the FESSR. There are 2 residential structures and 1 commercial structure within one-quarter mile of the modification's impacts areas.
Noise	No substantial change in effects of the FESSR.
Public Safety/Hazards	No substantial change in effects of the FESSR.
Traffic	No substantial change in effects of the FESSR.
Visual	The modification would decrease ground disturbance, which would reduce visible long-term land scarring. It would also result in a higher-elevation shift of structures west of SR 67. The relocation of these structures to higher elevations on the ridges would noticeably increase visible structure skylining and prominence (from SR 67). This increase in impacts would not be different in type or scale than the effects identified in the Final EIR/EIS.
Water Resources	See Table PMR38 below.
<i>Waters of US</i>	The modification would avoid impacts to waters of the US.
<i>State Waters</i>	The modification would avoid impacts to State waters.
<i>Water Use</i>	No substantial change in effects of the FESSR, with some potential for reduced use because of the reduced ground disturbance.

TABLE PMR38				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Chaparrals	2.05		2.05
	Coastal and Montane Scrub Habitats	3.63	0.53	4.16
	Grasslands and Meadows	1.03	32.34	33.37
	Herbaceous Wetlands, Freshwater, and Streams	0.00	0.00	0.01
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.71		0.71
	Woodlands and Forests	0.01		0.01
FESSR Total		7.42	32.87	40.30
Modified Project	Chaparrals	0.88	0.01	0.89
	Coastal and Montane Scrub Habitats	1.45	0.01	1.46
	Grasslands and Meadows	0.20		0.20
	Herbaceous Wetlands, Freshwater, and Streams		0.00	0.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.28		0.28
Mod Proj Total		2.81	0.02	2.83
Impacts to Special Status Species (acres)				
No impacts from FESSR or modification.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project	
Prehistoric Lithic Scatter	SDI-18346	1	1	
Impacts to Waters of the US (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.00	0.01
Modified Project				
Impacts to State Waters (acres)				
		Permanent	Temporary	Total
FESSR		0.00	0.00	0.01
Modified Project				

PMR39. CP31-2 to CP12-1 (Sycamore Preserve)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP111.7 to MP115.3	5	None	39	MS134 to MS137
Summary and Conclusion				
This modification would move structures within the ROW slightly, change access road locations, and reduce the length and number of access roads.				
Details and Purpose				
Modification	<u>Reroute</u> <ul style="list-style-type: none"> • New access road eliminated; replaced with utilization of existing roads and spurs off of existing roads. • Length and number of access roads reduced. • Wire pull sites relocated adjacent to/on existing roads. • Guard structures added at road crossings. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce impacts to sensitive receptors.			
MMCRP Measures	C-1a, C-1a and 1b, V-2d, GEO-APM-4, and GEO-APM-5.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR39 below.			
<i>Rare Plants</i>	The modification would reduce impacts to yellowflower tarweed.			
<i>Vegetation Impacts</i>	The modification reduces impacts to coastal and montane scrub and entails impacts to grasslands and woodlands.			
<i>Species Impacts</i>	The modification would reduce impacts to Quino and Gnatcatcher USFWS occupied habitat.			
<i>RCAs</i>	Not applicable to the FESSR or modification.			
Cultural Resources	There are four cultural sites and four isolated finds in this location. One is the remains of an historic structure, one is identified as an historic military site, one is an historic trail and one is a prehistoric bedrock milling site. The FESSR would potentially affect all three sites; the modification potentially would affect two. See Table PMR39 below.			
Geology/Minerals	No substantial change in effects of the FESSR.			
Land Use	No substantial change in effects of the FESSR. There are 16 residential structures and 1 commercial structure within one-quarter mile of the modification's impact areas.			
Noise	No substantial change in effects of the FESSR.			
Public Safety/Hazards	No substantial change in effects of the FESSR.			
Traffic	No substantial change in effects of the FESSR.			
Visual	No substantial change in effects of the FESSR.			

PMR39. CP31-2 to CP12-1 (Sycamore Preserve)	
Water Resources	
<i>Waters of US</i>	No impacts from the FESSR or modification.
<i>State Waters</i>	No impacts from the FESSR or modification.
<i>Water Use</i>	No substantial change in effects of the FESSR.

TABLE PMR39				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Yellowflower tarweed	488		488
Modified Project	Yellowflower tarweed	363		363
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Coastal and Montane Scrub Habitats	7.24	3.74	10.98
	Herbaceous Wetlands, Freshwater, and Streams	0.00		0.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.97	0.07	1.04
FESSR Total		8.21	3.81	12.01
Modified Project	Coastal and Montane Scrub Habitats	3.82	3.53	7.35
	Grasslands and Meadows		0.27	0.27
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.95	0.55	1.50
	Woodlands and Forests		0.44	0.44
Mod Proj Total		4.76	4.79	9.56
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Coastal California Gnatcatcher	0.19		0.19
	Quino Checkerspot Butterfly	1.97	1.95	3.93
Modified Project	Coastal California Gnatcatcher	0.07		0.07
	Quino Checkerspot Butterfly	1.18	1.54	2.72
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project	
Historic Military	37-014261	1	1	
Historic Trail	SDI-12821	1	1	
Historic Structure Remains	37-028924	1		
Total		3	2	
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				

PMR40. CP12-1 to CP3 (Stonebridge)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP115.3 to MP116.8	5	Stowe/Kirkham	40	MS137 to MS140
Summary and Conclusion				
<p>The modification would shift structures slightly within the FESSR ROW, eliminate two structures, eliminate a new access road, and add the Stowe/Kirkham construction yard. The modification would increase ground disturbance, impacts to Nuttall’s scrub oaks and Gnatcatcher USFWS occupied habitat, and visual impacts from the yard and some structures. The increases would not be different in type or scale than those analyzed in the Final EIR/EIS. Other effects of the modification would be substantially the same as the FESSR. No new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p><u>Reroute</u></p> <ul style="list-style-type: none"> Two structures and the associated work areas, access roads, and wire pull sites eliminated, avoiding additional property owner impacts. New access road eliminated; replaced with utilization of existing roads and spurs off of existing roads. One wire pull site eliminated. Lattice towers replaced with steel poles per landowner requests. Guard structures added at road crossings. <p><u>Stowe/Kirkham Construction Yard</u></p> <ul style="list-style-type: none"> New 20.87- acre construction yard added south of Kirkham Road. 			
	<p>Accommodate landowner request Support assembly of structures and reconductoring activities.</p>			
Other Considerations	<p>Avoid the San Diego County Water Authority parcel. Avoid conflicts with other utilities.</p>			
MMCRP Measures	<p>L-2b, C-1a, C-1a and 1b, PSU-APM-1, and GEO-APM-5.</p>			
Environmental Impact Discussion				
Air Quality	<p>No substantial change in effects of the FESSR.</p>			
Biological Resources	<p>See Table PMR40 below.</p>			
<i>Rare Plants</i>	<p>The modification would increase impacts to Nuttall’s scrub oak.</p>			
<i>Vegetation Impacts</i>	<p>The modification would reduce permanent impacts to coastal and montane scrub.</p>			
<i>Species Impacts</i>	<p>The modification would have similar impacts to Quino and greater impacts to Gnatcatcher than the FESSR.</p>			
<i>RCAs</i>	<p>Not applicable to the FESSR or modification.</p>			

PMR40. CP12-1 to CP3 (Stonebridge)	
Cultural Resources	There is a historic military site in this unit that would potentially be affected by the FESSR and the modification. For both, the impacts would be avoidable. See Table PMR40 below.
Geology/Minerals	The modification would increase ground disturbance. The resulting slope stability and erosion impacts would be reduced and mitigated through the same MMCRP measures that would apply to FESSR construction yards in other locations. No new significant impact would result.
Land Use	The modification increases impacts to private lands. There are 60 residential structures within one-quarter mile of the modification's impact areas. Property owners were notified about the project through newspaper circulars and public venue postings throughout the EIR/EIS process. Property owners will continue to be notified of construction activities regarding the use of the Stowe/Kirkham Construction Yard.
Noise	No substantial change in the effects of the FESSR, with a local increase in the vicinity of the proposed new yard. The increased impacts would be reduced and mitigated in accordance with the MMCRP and applicable regulations.
Public Safety/Hazards	No substantial change in the effects of the FESSR, with a local increase in risks in the vicinity of the proposed new yard. The increased impacts would be reduced and mitigated in accordance with the MMCRP and applicable regulations.
Traffic	No substantial change in the effects of the FESSR, with a local increase in the vicinity of the proposed new yard. The increased impacts would be reduced and mitigated in accordance with the MMCRP and applicable regulations.
Visual	The proposed modification would increase visual impacts along this route segment by introducing a construction yard in a visibly prominent location relative to the new residential developments along the hilltops immediately south of the site. The industrial character of the facility would cause visual contrast. However, the impacts would have a relatively short duration (approximately 12 months). The change from lattice to steel-pole structures along this route segment also would increase visual impacts by increasing structure prominence when viewed from the Stonebridge residential development. The increased impacts would not be different in type or scale than those analyzed in the Final EIR/EIS and would be reduced and mitigated in accordance with the MMCRP. No new significant impacts would result.
Water Resources	
<i>Waters of US</i>	No impacts from the FESSR or modification.
<i>State Waters</i>	No impacts from the FESSR or modification.
<i>Water Use</i>	No substantial change in the effects of the FESSR, with some potential for increased use because of the increase in ground disturbance.

TABLE PMR40				
Impacts to Rare Plants (number of individuals detected in impact areas)				
		Permanent	Temporary	Total
FESSR	Nuttall's scrub oak	10		10
Modified Project	Nuttall's scrub oak	17		17
	San Diego sunflower		1	1
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Coastal and Montane Scrub Habitats	3.07	0.93	4.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.24		0.24
	FESSR Total	3.31	0.93	4.24
Modified Project	Coastal and Montane Scrub Habitats	2.23	0.01	2.24
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.46	20.87	21.32
	Mod Proj Total	2.69	20.87	23.56
Impacts to Special Status Species (acres)				
		Permanent	Temporary	Total
FESSR	Quino Checkerspot Butterfly	0.71		0.71
Modified Project	Coastal California Gnatcatcher		8.11	8.11
	Quino Checkerspot Butterfly	1.00		1.00
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
Resource Category	ID in Cultural Resource Inventory	FESSR	Modified Project	
Historic Military	37-014261	1	1	
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				

PMR41. CP3 to CP1A (Sycamore Substation)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
MP116.8 to MP117	5	None See MS141 for eliminated yards.	41	MS139 to MS141
Summary and Conclusion				
This modification would add a temporary work area around one structure, add wire stringing sites omitted from the FESSR mapping, add three structures within existing substation, and eliminate a construction yard. The structure changes would have impacts substantially the same as the FESSR. The eliminated yards would reduce total ground disturbance.				
Details and Purpose				
Modification	<u>Reroute</u>			
	<ul style="list-style-type: none"> • Temporary work area added around CP3. • CP2, CP1B, and CP1A added within the footprint of the substation. • Wire pull sites added. 			
	<u>Other</u>			
	<ul style="list-style-type: none"> • Eliminate small construction yards. 			
Primary Reason	Improve engineering design.			
Other Considerations	Reduce impacts to nearby residences.			
MMCRP Measures	B-1a, C-1a, C-1a and 1b, GEO-APM-4, and GEO-APM-5.			
Environmental Impact Discussion				
Air Quality	No substantial change in effects of the FESSR.			
Biological Resources	See Table PMR41 below.			
<i>Rare Plants</i>	No impacts from the FESSR or modification.			
<i>Vegetation Impacts</i>	No substantial change in effects of the FESSR.			
<i>Species Impacts</i>	No impacts from the FESSR or modification.			
<i>RCAs</i>	Not applicable to the FESSR or modification.			
Cultural Resources	No impacts from the FESSR or modification,			
Geology/Minerals	The modification would reduce ground disturbance where the yard had been proposed.			
Land Use	The relocation of structures to the south moves the ROW farther from businesses and residential areas. The nearest receptors are located approximately 350 feet to the north and are addressed in PMR40.			
Noise	No substantial change in effects of FESSR.			
Public Safety/Hazards	No substantial change in effects of FESSR.			

PMR41. CP3 to CP1A (Sycamore Substation)	
Traffic	No substantial change in effects of FESSR.
Visual	No substantial change in effects of FESSR.
Water Resources	
<i>Waters of US</i>	No impacts from FESSR or modification.
<i>State Waters</i>	No impacts from FESSR or modification.
<i>Water Use</i>	No substantial change in effects of FESSR.

TABLE PMR41				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
		Permanent	Temporary	Total
FESSR	Coastal and Montane Scrub Habitats	0.24		0.24
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.05	10.74	10.79
	FESSR Total	0.29	10.74	11.03
Modified Project	Coastal and Montane Scrub Habitats	0.19	0.01	0.20
	Non-native Vegetation, Developed Areas, and Disturbed Habitat	0.04	0.06	0.10
	Mod Proj Total	0.23	0.07	0.30
Impacts to Special Status Species (acres)				
No impacts from FESSR or modification.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modification.				
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				

PMR42. Sycamore Canyon to Pomerado Substation (TL6915/6924) Reconductoring (Pomerado)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
--	5	None	42	MS139, RC01 to RC02
Summary and Conclusion				
<p>The modification would replace an existing conductor with a higher capacity conductor; replace insulators, circuit breakers, and related equipment at the Pomerado Substation; replace four existing transmission poles; and replace hardware and insulators on 15 existing poles for two 69kV circuits (TL’s 6915 and 6924) both supported on either side of a double circuit structure alignment between the Sycamore Canyon and Pomerado substations. No substantial changes to the effects of the FESSR and no new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<p>The modification would replace an existing conductor with a higher capacity conductor, replace insulators, replace four existing transmission poles, requiring two new wire pull sites, and removal of existing poles and foundations. The remainder transmission poles will not be replaced. Only the pole top hardware and insulators will be replaced on the remaining structures. No new access roads or widening of existing roads is required; minor grading of existing roads may be required.</p> <p>Upgrade work within the Pomerado Substation also would be conducted to accommodate the increased circuit flows resulting from the 69kV reconductoring upgrades proposed for the Sycamore Canyon to Pomerado transmission lines (TL6915 and TL6923). This work includes the replacement of four 69-kV circuit breakers, ten 69-kV disconnects, and other associated equipment. All work associated with this Substation upgrade would take place within the existing fence-line of the Substation. There would be no increase in the total acreage of the Substation and no additional buildings will be constructed.</p>			
Primary Reason	Increase power delivery/export capacity at the Sycamore Canyon Substation.			
Other Considerations	<p>Elimination of the proposed Coastal Link in the Final EIR/EIS necessitated additional system upgrades to improve overall reliability of the system because the two new Sunrise 230kV transmission lines both terminate into the Sycamore Canyon Substation. The power flowing from Sunrise into Sycamore Canyon Substation will be dispersed to adjoining substations via the existing 69kV, 138kV and 230kV transmission lines connecting Sycamore Canyon Substation to other substations in the SDG&E grid. The amount of power flowing on each of these lines is determined by each lines electrical resistance characteristics (or impedance), and not by its voltage or the size of the conductors themselves. A study of the operating conditions after the addition of the Sunrise 230kV lines demonstrated that in addition to TL639 (PMR43 – Elliott), which was already identified as experiencing an overload even with the Coastal Link, three additional 69kV lines at Sycamore Canyon Substation experienced overloads (TL’s 6915, 6924 (PMR42 – Pomerado), and 6916 (PMR44 – Scripps)). The power flowing in these lines exceeded the rating of the conductors. Therefore, the lines are being reconducted to relieve these overloaded conditions.</p>			
MMCRP Measures	AQ-4a, c-1a, BIO-APM-18, GEO-APM-4, and GEO-APM-5.			

PMR42. Sycamore Canyon to Pomerado Substation (TL6915/6924) Reconductoring (Pomerado)	
Environmental Impact Discussion	
Air Quality	Short-term use of heavy equipment such as cranes, loaders, compressors, generators, and various trucks will produce air emissions; and minor grading of existing access roads and vehicle traffic on existing roads and within the transmission line ROW will produce fugitive dust emissions. Impacts would be reduced and mitigated through the applicable MMCRP measures. No new significant impacts would result from the modification.
Biological Resources	See Table PMR42 below.
<i>Rare Plants</i>	No impacts from the modification.
<i>Vegetation Impacts</i>	The modification would have small temporary impacts on coastal scrub and grasslands, mainly resulting from the wire stringing sites.
<i>Species Impacts</i>	No impacts from the modification.
<i>RCA's</i>	Not applicable to the modification or the FESSR in this unit.
Cultural Resources	No impacts from the modification.
Geology/Minerals	The modification would entail minimal ground disturbance.
Land Use	The modification would not alter and otherwise impact land uses along the ROW.
Noise	The modification would result in local, temporary increases in noise levels. The increase would not substantially change the effects of the FESSR.
Public Safety/Hazards	No substantial change in effects associated with the FESSR.
Traffic	Temporary lane closures may occur along Stowe Road, Blaisdell Place, Scripps Poway Parkway, Kirkham Way, Beeler Canyon Road, and Stonebridge Parkway. Lane closures would be limited to off-peak traffic periods. Traffic speeds along arterial/collector roadways such as Stowe Road, Scripps Poway Parkway, Kirkham Way, and Stonebridge Parkway may need to be reduced and some traffic may experience brief delays during the reconductoring process. Bike routes and pedestrian access along these local roads would be temporarily disrupted and would need to be detoured to safely keep users away from the construction site. Damage to local roadways caused by construction vehicles and/or equipment would be repaired by the contractor upon completion of the installation. These measures would be included within a traffic management plan and coordinated with the appropriate jurisdictions as required by MMCRP measures. These effects would not substantially change the effects of the FESSR as analyzed in the Final EIR/EIS. The modification would not result in new significant impacts.
Visual	The proposed modification would result in an increase in structure height (by six feet) at four locations, which would increase the adverse visual impacts along this route segment. The increase would not be different in type or scale to the visual impacts of other structures considered in the Final EIR/EIS. No new significant impacts would result from the modification.

PMR42. Sycamore Canyon to Pomerado Substation (TL6915/6924) Reconductoring (Pomerado)	
Water Resources	
<i>Waters of US</i>	No impacts from the modification.
<i>State Waters</i>	No impacts from the modification.
<i>Water Use</i>	No substantial change in effects of the FESSR.

TABLE PMR42				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
FESSR	None	Permanent	Temporary	Total
Modified Project	Coastal and Montane Scrub Habitats		0.09	0.09
	Grasslands and Meadows		1.56	1.56
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		1.26	1.26
	Mod Proj Total		2.91	2.91
Impacts to Special Status Species (acres)				
No impacts from FESSR or modification.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modification.				
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				

PMR43. Sycamore Canyon to Elliott Substation (TL639) Reconductoring (Elliott)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
--	5	None	43	MS139, RC03 to RC11
Summary and Conclusion				
<p>This modification would include replacing transmission conductors on 84 poles in an 8.2-mile ROW, replacing 16 wooden poles with 17 wooden poles, adding and using 8 wire pulls along the ROW, and replacing an existing underground cable. No new access roads or widening of existing roads would be required; minor grading of existing access roads would be required. No substantial changes in the effects of the FESSR and no new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<ul style="list-style-type: none"> • Transmission conductors will be replaced on 84 poles in an 8.2-mile ROW. Minor changes would be made in the span lengths between support poles and their average heights. • Sixteen (16) wood poles would be replaced with seventeen (17) wood poles of approximately similar or slightly increased height. Three (3) poles would be decreased in height by moving the insulators down the pole and cutting off the top five (5) feet of the pole. • Eight wire pull sites (50 feet by 100 feet) would be added along the ROW. • Bucket trucks would be used to hold up the conductor across roadways along the ROW while removing the existing conductor or stringing new conductor. • A guard structure would be installed at State Route 52 to prevent the conductors from sagging onto the roadway during the operation. • The existing underground cable at Sycamore Canyon Substation would be replaced; it would be pulled through existing duct banks; no trenching is required. • Minor grading of existing access roads would be required. 			
Primary Reason	<p>Meet all clearance requirements for the upgraded circuit. Increase power capacity at the Sycamore Canyon Substation.</p>			
Other Considerations	<p>Prevent span from sagging over Highway 52 during reconductoring.</p>			
MMCRP Measures	<p>AQ-4a, c-1a, BIO-APM-18, GEO-APM-4, and GEO-APM-5.</p>			
Environmental Impact Discussion				
Air Quality	<p>Short-term use of heavy equipment such as cranes, loaders, compressors, generators, and various trucks will produce air emissions; and minor grading of existing access roads and vehicle traffic on existing roads and within the transmission line ROW will produce fugitive dust emissions. Impacts would be reduced and mitigated through the applicable MMCRP measures. No new significant impacts would result from the modification.</p>			

PMR43. Sycamore Canyon to Elliott Substation (TL639) Reconductoring (Elliott)	
Biological Resources	See Table PMR43 below.
<i>Rare Plants</i>	No impacts from the modification.
<i>Vegetation Impacts</i>	The modification would result in temporary impacts to 0.18 acre of vegetation.
<i>Species Impacts</i>	No impacts from the modification.
<i>RCA's</i>	Not applicable to the FESSR or modification.
Cultural Resources	There are seven cultural sites in this unit. None would be affected by the modification.
Geology/Minerals	The modification would entail minimal ground disturbance.
Land Use	The modification would not alter and otherwise impact land uses along the ROW. Sensitive receptors include residences, a university, and businesses.
Noise	The modification would result in local, temporary increases in noise levels. The increase would not substantially change the effects of the FESSR.
Public Safety/Hazards	No substantial changes in the risks posed by the FESSR would result from the modification.
Traffic	Temporary lane closures may occur along Scripps Lake Road, Scripps Ranch Boulevard, Ironwood Road, Pomerado Road, and Rue Biarritz. Lane closures would be limited to off-peak traffic period. Traffic speeds along arterial/collector roadways such as Scripps Ranch Boulevard and Pomerado Road may need to be reduced and some traffic may experience brief delays during the reconductoring process. Due to the temporary nature of the lane closures, operation and access by emergency services would not be affected. Bike routes and pedestrian access along these local roads would be temporarily disrupted and would need to be detoured to safely keep users away from the construction site. Damage to local roadways would be repaired by the contractor upon completion of the installation. These measures would be included within a traffic management plan and coordinated with the appropriate jurisdictions as required by MMCRP measures. These effects would not substantially change the effects of the FESSR as analyzed in the Final EIR/EIS. The modification would not result in new significant impacts.
Visual	The modification would result in an increase in structure height at eight locations and the reduction in structure height at three locations. No substantial change in the FESSR's visual impacts and no new significant visual impact would result from the modification.
Water Resources	
<i>Waters of US</i>	No impacts from the modification.
<i>State Waters</i>	No impacts from the modification.
<i>Water Use</i>	No substantial changes in the effects of the FESSR.

TABLE PMR43				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
FESSR	None	Permanent	Temporary	Total
Modified Project	Chaparrals		0.10	0.10
	Coastal and Montane Scrub Habitats		0.08	0.08
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		1.52	1.52
	Mod Proj Total		1.70	1.70
Impacts to Special Status Species (acres)				
No impacts from FESSR or modification.				
Impacts to RCAs in CNF (acres)				
No impacts from FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modification.				
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				

PMR44. Sycamore Canyon to Scripps Substation (TL 6916) Reconductoring (Scripps)				
Mileposts	Link	Yard(s)	PMR Figure	Mapbook Sheet(s)
--	5	None	44	MS139, RC12 to RC15, MS141
Summary and Conclusion				
<p>This modification would include replacing transmission conductors on 48 poles in a 6.4 mile ROW, 8 wire pulls along the ROW, two underground upgrades, one new 900-foot-long double circuit 69 kV duct package and one 7,725 replacement cable within existing underground cable ducts, and circuit breakers, and related equipment at the Scripps Substation. No substantial changes in the effects of the FESSR and no new significant impacts would result from the modification.</p>				
Details and Purpose				
Modification	<ul style="list-style-type: none"> • Transmission conductors would be replaced on 48 poles in a 6.4-mile ROW. • 8 wire pull sites (50 feet by 100 feet) added along the ROW. • No replacement of existing poles or addition of new poles. • Two underground upgrades: 1) new 900-foot-long double circuit 69kV duct package located in the street on Rue Biarritz, and 2) 7,725 feet of replacement cable from Ironwood Road to the Scripps Substation. • Minor grading of existing access roads required. • Upgrade work within the Scripps Substation also would be conducted to accommodate the increased circuit flows resulting from the 69kV reconductoring upgrades proposed for the Sycamore Canyon to Scripps transmission line (TL6916). This work includes the replacement of 69-kV circuit breakers and disconnects, and other associated equipment. All work associated with this Substation upgrade would take place within the existing fence-line of the Substation. There would be no increase in the total acreage of the Substation and no additional buildings will be constructed. 			
Primary Reason	Increase power capacity at the Sycamore Canyon Substation.			
Other Considerations	<p>Install underground upgrades.</p> <p>Elimination of the proposed Coastal Link in the Final EIR/EIS necessitated additional system upgrades to improve overall reliability of the system because the two new Sunrise 230kV transmission lines both terminate into the Sycamore Canyon Substation. The power flowing from Sunrise into Sycamore Canyon Substation will be dispersed to adjoining substations via the existing 69kV, 138kV and 230kV transmission lines connecting Sycamore Canyon Substation to other substations in the SDG&E grid. The amount of power flowing on each of these lines is determined by each lines electrical resistance characteristics (or impedance), and not by its voltage or the size of the conductors themselves. A study of the operating conditions after the addition of the Sunrise 230kV lines demonstrated that in addition to TL639 (PMR43 – Elliott), which was already identified as experiencing an overload even with the Coastal Link, three additional 69kV lines at Sycamore Canyon Substation experienced overloads (TL's 6915, 6924 (PMR42 – Pomerado), and 6916 (PMR44 – Scripps)). The power flowing in these lines exceeded the rating of the conductors. Therefore, this line is being reconducted to relieve the overloaded conditions.</p>			
MMCRP Measures	AQ-4a, c-1a, BIO-APM-18, GEO-APM-4, and GEO-APM-5.			

PMR44. Sycamore Canyon to Scripps Substation (TL 6916) Reconductoring (Scripps)	
Environmental Impact Discussion	
Air Quality	Short-term use of heavy equipment such as cranes, loaders, compressors, generators, and various trucks will produce air emissions; and minor grading of existing access roads and vehicle traffic on existing roads and within the transmission line ROW will produce fugitive dust emissions. Impacts would be reduced and mitigated through the applicable MMCRP measures. No new significant impacts would result from the modification.
Biological Resources	See Table PMR44 below.
<i>Rare Plants</i>	No impacts from the modification.
<i>Vegetation Impacts</i>	The modification would result in temporary impacts to 0.26 acre of vegetation.
<i>Species Impacts</i>	No impacts from the modification,
<i>RCA's</i>	Not applicable to the FESSR or modification.
Cultural Resources	There are four cultural resource sites in this unit. The modification potentially would affect one site. The modification has been designed to avoid the impact.
Geology/Minerals	The modification would entail minimal ground disturbance.
Land Use	The modification would not alter and otherwise impact land uses along the ROW. Sensitive receptors include residences, a university, and businesses.
Noise	The modification would result in local, temporary increases in noise levels. Noise impacts will be minimized and mitigated through the applicable MMCRP measures as may be required. Any increases would not substantially change the effects of the FESSR.
Public Safety/Hazards	No substantial changes in the risks posed by the FESSR would result from the modification.
Traffic	Temporary lane closures may occur along Scripps Lake Road, Scripps Ranch Boulevard, Ironwood Road, Pomerado Road, and Rue Biarritz. Lane closures would be limited to off-peak traffic period. Traffic speeds along arterial/collector roadways such as Scripps Ranch Boulevard and Pomerado Road may need to be reduced and some traffic may experience brief delays during the reconductoring process. Due to the temporary nature of the lane closures, operation and access by emergency services would not be affected. Bike routes and pedestrian access along these local roads would be temporarily disrupted and would need to be detoured to safely keep users away from the construction site. Damage to local roadways would be repaired by the contractor upon completion of the installation. These measures would be included within a traffic management plan and coordinated with the appropriate jurisdictions as required by MMCRP measures. No substantial changes in effects of the FESSR and no new significant impacts would result from the modification.
Visual	No substantial change in the effects of the FESSR.
Water Resources	
<i>Waters of US</i>	No impacts from the modification.
<i>State Waters</i>	No impacts from the modification
<i>Water Use</i>	No substantial change in effects of the FESSR

TABLE PMR44				
Impacts to Rare Plants (number of individuals detected in impact areas)				
No impacts from FESSR or modification.				
Impacts to Sensitive Vegetation Communities and Total Ground Disturbance (acres)				
FESSR	None	Permanent	Temporary	Total
Modified Project	Chaparrals		0.10	0.10
	Coastal and Montane Scrub Habitats		0.16	0.16
	Grasslands and Meadows		0.00	0.00
	Non-native Vegetation, Developed Areas, and Disturbed Habitat		1.33	1.33
Mod Proj Total			1.59	1.59
Impacts to Special Status Species (acres)				
No impacts from FESSR or modification.				
Impacts to RCAs in CNF (acres)				
Not applicable to FESSR or modification.				
Impacts to Cultural Resources (number of sites potentially affected)				
No impacts from FESSR or modification.				
Impacts to Waters of the US (acres)				
No impacts from FESSR or modification.				
Impacts to State Waters (acres)				
No impacts from FESSR or modification.				



ATTACHMENT A

Sunrise Powerlink Project

GIS Methodology for Impact Determination

Section A. Impact Classification and Hierarchy of Proposed Infrastructure Developments

In order to determine impact area, the proposed infrastructure developments for the Sunrise Powerlink Project have been itemized according to their subject matter. The proposed infrastructure developments have a potential if constructed to disturb the existing state of the ground surface there by becoming an impact. Ground impacts are considered either permanent or temporary. Each potential development or ground impact is identified with a GIS Layer to represent the subject matter of concern. There are 17 subject matters listed as GIS Layers of which 5 (not listed below) are considered survey and measurement guidelines and will have no impact. The list below represents the hierarchy in order by necessary impact, starting with “1” as the most necessary. The hierarchy is determined and based on the infrastructure development need or requirement in order to construct and maintain the proposed transmission line. Following the Impact Classification and GIS Definitions Sections A and B, there will be further explanation of GIS data development and the hierarchy model used to calculate potential impacts.

PERMANENT IMPACTS

- 1) Substation
- 2) Footings
- 3) Pad_Area - TSAP
- 4) Road_Area – New Construction AND Improvements
- 5) Pad_Area - Maintenance Pad
- 6) Grading
- 7) Pad_Area - Structure Pad Area

TEMPORARY IMPACTS

- 8) Guard Structure
- 9) Pad_Area - Work Area
- 10) Pad_Area - Stringing Area
- 11) Construction Yard
- 12) Road_Area – New Construction

Section B. GIS Data Layer Names and Definitions

Each subject matter or GIS Layer above in Section A is listed in hierarchical order and defined below. The Sunrise Powerlink Impact Analysis GIS Database currently consists of 12 alignment features classes. Below lists the feature class name and geometry type along with a brief definition and classification if present.

Permanent Impacts:

1. **Substation** (Polygon) – The substation layer is composed of 2 classifications representing the substation gravel pad area and the grading to construct the gravel pad area.
2. **Footing** (Polygon) – These areas are representative of the concrete foundation ground anchors to be poured for each proposed structure of the Sunrise Powerlink project.
3. **Pad Area** (Polygon) – The following 3 classifications have been identified for permanent impacts for this feature class. These 3 areas are listed and defined below.
 - a. **TSAP** – (Tower Staging Access Pad) These areas represent either a helicopter landing zone or equipment loading zone for helicopters. The TSAP layer contains a 100’ diameter area around the center of each pad which is used to calculate the impact of each TSAP.
 - b. **Structure Pad Area** – These areas are representative of a 100’x100’ area at each structure upon which work will be conducted during construction. Each area will remain as a permanent disturbance in-order to provide access to structures for maintenance.
 - c. **Maintenance Area** – These areas will typically be 35’x75’ depending upon engineering design, which will remain as a permanent disturbance in-order to provide access to structures for maintenance.
4. **Road Area** (Polygon) – In several areas along the route and especially within the Cleveland National Forest, the Sunrise Powerlink will primarily be using existing roads for construction and long-term access to transmission towers. Roads have been broken down into the following classifications:
 - a. **Existing Road - Improvements Needed** – Improvements may include grading of existing roads within the road footprint to eliminate ruts and ridges and provide for a uniform and smooth road surface. Other improvements may include widening of roads for turns, culvert development or the development of pullouts for truck traffic safety considerations.
 - b. **New Road - Proposed Road Construction** – This category includes the development of new roads for access to the Sunrise Powerlink transmission route.
5. **Grading** (Polygon) - These areas represent locations where grading may be performed and left permanently in place, these areas have been determined by SDG&E engineering design to facilitate required infrastructure for construction of the Sunrise Powerlink Project.

Temporary Impacts:

6. **GuardArea** (Polygon) – These areas show where structures will be erected to restrict travel by people. Guard structures will need to be placed in specific areas where construction activities are planned for the Sunrise Powerlink Project. The purpose of these areas is to restrict any though fare by people where construction of the Sunrise Powerlink Project is planned or present.
7. **Pad_Area** (Polygon) – The following 2 classifications have been identified as temporary impacts for this feature class. These 2 areas are listed and defined below.
 - a. **Work Area** – These are larger work areas which encompass the smaller 100' x100' structure pad areas and are either 200'x200' or 200' x 400' areas for additional work space.
 - b. **Stringing Area** – These areas are used for the stringing of power lines during construction. These areas include the stringing operations area; associated grading area including road grading, and any required road improvements or new road developments.
8. **Construction_Yard** (Polygon) – These areas will contain equipment storage, helicopter access and operations, as well as field offices and other facilities for the construction of the Sunrise Powerlink Project.
9. **Road_Area** (Polygon) – In several areas along the route and especially within the Cleveland National Forest, the Sunrise Powerlink will primarily be using existing roads for construction and long-term access to transmission towers. Roads have been broken down into the following classifications:
 - a. **New Road - Proposed Road Construction** – This category includes the development of new roads for access to the Sunrise Powerlink transmission route.

No Impacts:

10. **ROW** (Polygon) – These areas show property either owned by SDG&E or property under negotiations for ownership by SDG&E.
11. **Route_CenterLine** (Line) – This is an imaginary line that represents the shortest path between the center points of each transmission tower along the route of the Sunrise Powerlink Project.
12. **Structure** (Point) – These points are representative of the center for each proposed transmission tower structure along the route of the Sunrise Powerlink Project.
13. **Milepost** (Point) – These points represent a measurement in 1 mile units along the route centerline of the Sunrise Powerlink Project. Mile posts start in the east with mile post MP-0 and end in the west with mile post MP-118. The purpose of these point features is to reference a distance (miles) from the beginning (Imperial Valley Substation) of the

Sunrise Powerlink Project alignment to the end. Distance is measured along the route centerline from east to west.

14. **Road_Area** (Polygon) – In several areas along the route and especially within the Cleveland National Forest, the Sunrise Powerlink will primarily be using existing roads for construction and long-term access to transmission towers. Roads have been broken down into the following classifications:
 - a. *Existing Road - No Improvements Needed* – No road improvements required.

15. **Road_CenterLine** (Line) – These lines represent the center lines of either proposed or existing roads that will be used in the construction and future maintenance of the Sunrise Powerlink.
 - a. *Existing Road - No Improvements Needed* – No road improvements required.
 - b. *Existing Road - Improvements Needed* – Improvements may include grading of existing roads within the road footprint to eliminate ruts and ridges and provide for a uniform and smooth road surface. Other improvements may include widening of roads for turns, culvert development or the development of pullouts for truck traffic safety considerations.
 - c. *New Road - Proposed Road Construction* – This category includes the development of new roads for access to the Sunrise Powerlink transmission route.

Figure 1. GIS Impact Analysis Workflow

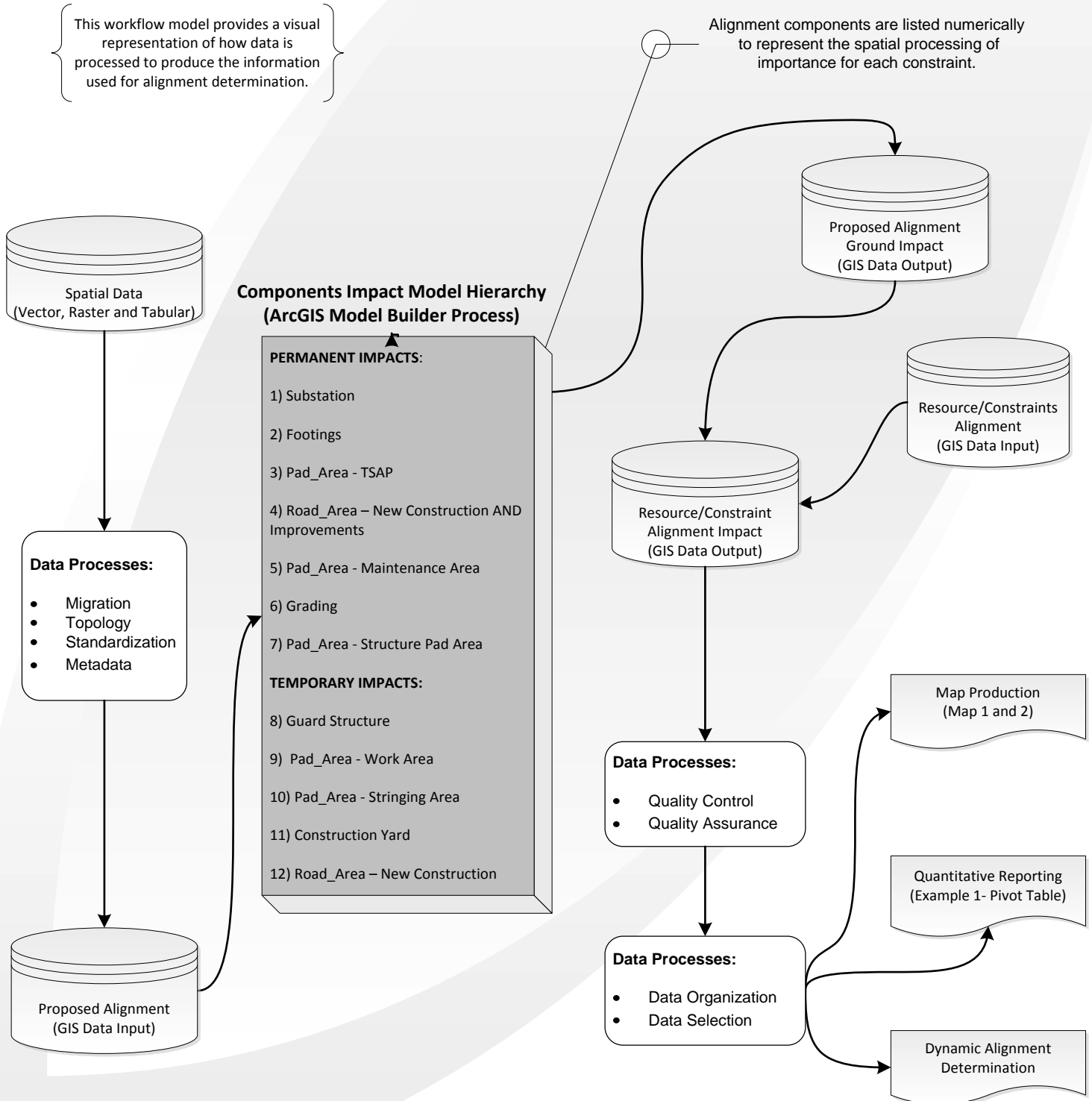
The figure below represents a visual interpretation of the workflow involved in the production of information used to determine the proposed alignment options. Databases, Processes, and Hierarchies are simplified and displayed graphically below.

Sunrise Powerlink Project GIS Methodology for Impact Determination Workflow Model

(Figure 1)

This workflow model provides a visual representation of how data is processed to produce the information used for alignment determination.

Alignment components are listed numerically to represent the spatial processing of importance for each constraint.



Section C. Software Version and Spatial Data Coordinate System

Spatial analysis has been performed using ArcGIS Desktop Version 9.3.1 all data deliverables will reside in this version. All spatial data includes any vector or raster data sets developed from photogrammetric companies, Trimble GPS RTK (Real Time Kinematic) survey, Leica GPS Conventional Survey Methods, CAD data, and GIS data. All spatial data is maintained in ArcSDE and projected in the following Coordinate System:

NAD_1983_StatePlane_California_VI_FIPS_0406_Feet

Horizontal Details:

Projection: Lambert_Conformal_Conic
False_Easting: 6561666.666667
False_Northing: 1640416.666667
Central_Meridian: -116.250000
Standard_Parallel_1: 32.783333
Standard_Parallel_2: 33.883333
Latitude_Of_Origin: 32.166667
Linear Unit: Foot_US (0.304801)

Geographic Coordinate System: GCS_North_American_1983
Angular Unit: Degree (0.017453292519943295)
Prime Meridian: Greenwich (0.000000000000000000)
Datum: D_North_American_1983
Spheroid: GRS_1980
Semimajor Axis: 6378137.000000000000000000
Semiminor Axis: 6356752.314140356100000000
Inverse Flattening: 298.257222101000020000

Section D. Case Studies – Maps of GIS Data Layer Names and Hierarchy Impact Example

This section has been developed for the purposes of describing case studies to demonstrate how various products could be generated. This section also addresses familiarity with the GIS Layers and their definitions, as well as a step by step explanation of the hierarchy model and GIS layer usage within the hierarchy model.

Map 1. Alignment Components and Constraints – Pre Impact Analysis

The figure below displays a visual example of the definitions described in “Section B. GIS Data Layer Names and Definitions”. Although it is not possible to have an example area which shows all of the alignment components with constraints, we have added in the missing GIS Layers for the area of interest below. Note that not all alignment components are actually proposed for the Project Modification Report on the map below and the map below has been developed for demonstration purposes only. Each GIS Layer is depicted for the area surrounding structures EP220-1 and EP221-2 along with one constraint (vegetation). Please notice the legend symbology for identification of the GIS Layers.

Map 2. Alignment Components and Constraints – Post Impact Analysis

This figure shows the potential impacts that may be incurred by construction. The component types can be quantified and represented in pivot tables.

Appendix 1. Impact Hierarchy Example (McCain Valley Construction Yard)

Appendix 1 will demonstrate how the hierarchy model is applied step by step. The McCain Valley Construction Yard has been selected as the area of interest for this example.

116°15'5"W 116°15'0"W 116°14'55"W 116°14'50"W 116°14'45"W 116°14'40"W 116°14'35"W 116°14'30"W 116°14'25"W

32°39'45"N

32°39'40"N

32°39'35"N

32°39'30"N

32°39'25"N

32°39'45"N

32°39'40"N

32°39'35"N

32°39'30"N

32°39'25"N

Legend

- EIR-S Current Sunrise Structure
- TSAP (Tower Staging Access Pad)
- Road - Existing - Improvements Required
- Road - New Construction Permanent
- - - Road - New Construction - Temporary
- ▨ Maintenance Pad
- ▭ Structure Pad Area
- ▭ Work Area
- ▭ Grading
- ▭ Stringing Area
- ▨ Construction Yard in EIR but Not Current
- ▭ Right of Way

Vegetation Communities

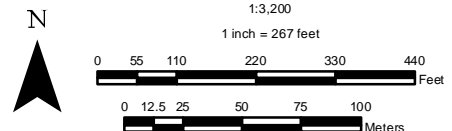
Chaparrals

- ▭ Redshank Chaparral (RSC)
- ▭ Redshank Chaparral - Disturbed (RSC-D)
- ▭ Scrub Oak Chaparral (SOC)
- ▭ Scrub Oak Chaparral - Disturbed (SOC-D)
- ▭ Semi-desert Chaparral (SDC)
- ▭ Semi-desert Chaparral - Disturbed (SDC-D)

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Map 1
 Alignment Components and Constraints
 Pre-Impact Analysis
 Sunrise Powerlink Alignment
 California, USA



116°15'5"W 116°15'0"W 116°14'55"W 116°14'50"W 116°14'45"W 116°14'40"W 116°14'35"W 116°14'30"W 116°14'25"W

32°39'45"N

32°39'40"N

32°39'35"N

32°39'30"N

32°39'25"N

32°39'45"N

32°39'40"N

32°39'35"N

32°39'30"N

32°39'25"N

Legend

- EIR S Current Sunrise Structure
- TSAP (Tower Staging Access Pad)
- Road - Existing - Improvements Required
- Road - New Construction Permanent
- - - Road - New Construction - Temporary
- ▨ Maintenance Pad
- ▭ Structure Pad Area
- ▭ Work Area
- ▭ Grading
- ▭ Stringing Area
- ▭ Construction Yard in EIR but Not Current
- ▭ Right of Way
- Areas of Impacts to Vegetation

Vegetation Communities

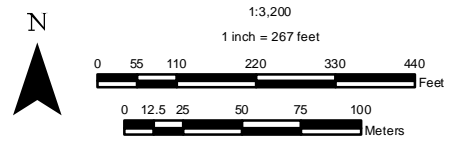
Chaparrals

- ▭ Redshank Chaparral (RSC)
- ▭ Redshank Chaparral - Disturbed (RSC-D)
- ▭ Scrub Oak Chaparral (SOC)
- ▭ Scrub Oak Chaparral - Disturbed (SOC-D)
- ▭ Semi-desert Chaparral (SDC)
- ▭ Semi-desert Chaparral - Disturbed (SDC-D)

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Map 2
Alignment Components and Constraints
Post-Impact Analysis
Sunrise Powerlink Alignment
California, USA



10-019 PMR_GIS_Map 1 11x8 3600 JFC.mxd

GIS Methodology for Impact Determination

Hierarchy Example

(Appendix 1)



Sunrise Powerlink Project Impact Analysis

- In order to determine total ground disturbance impact areas for the Sunrise Powerlink Project, overlapping areas must be identified and attributed properly according to the hierarchal model.
- The hierarchal model has been developed to ensure that overlapping ground disturbance impact areas are not double counted and that accurate assessments of the total area of impact is properly determined.

The McCain Valley Construction Yard

(Case Study)

- The McCain Valley Construction Yard is a good example of where overlapping ground disturbances may occur.
- The McCain Valley Construction Yard has a tower structure located near it's center. There are other potential overlapping ground disturbance impacts as a result of this planned development.
- The next few slides will demonstrate step by step an example of the hierarchy of overlapping impacts how overlapping impacts are accounted for.

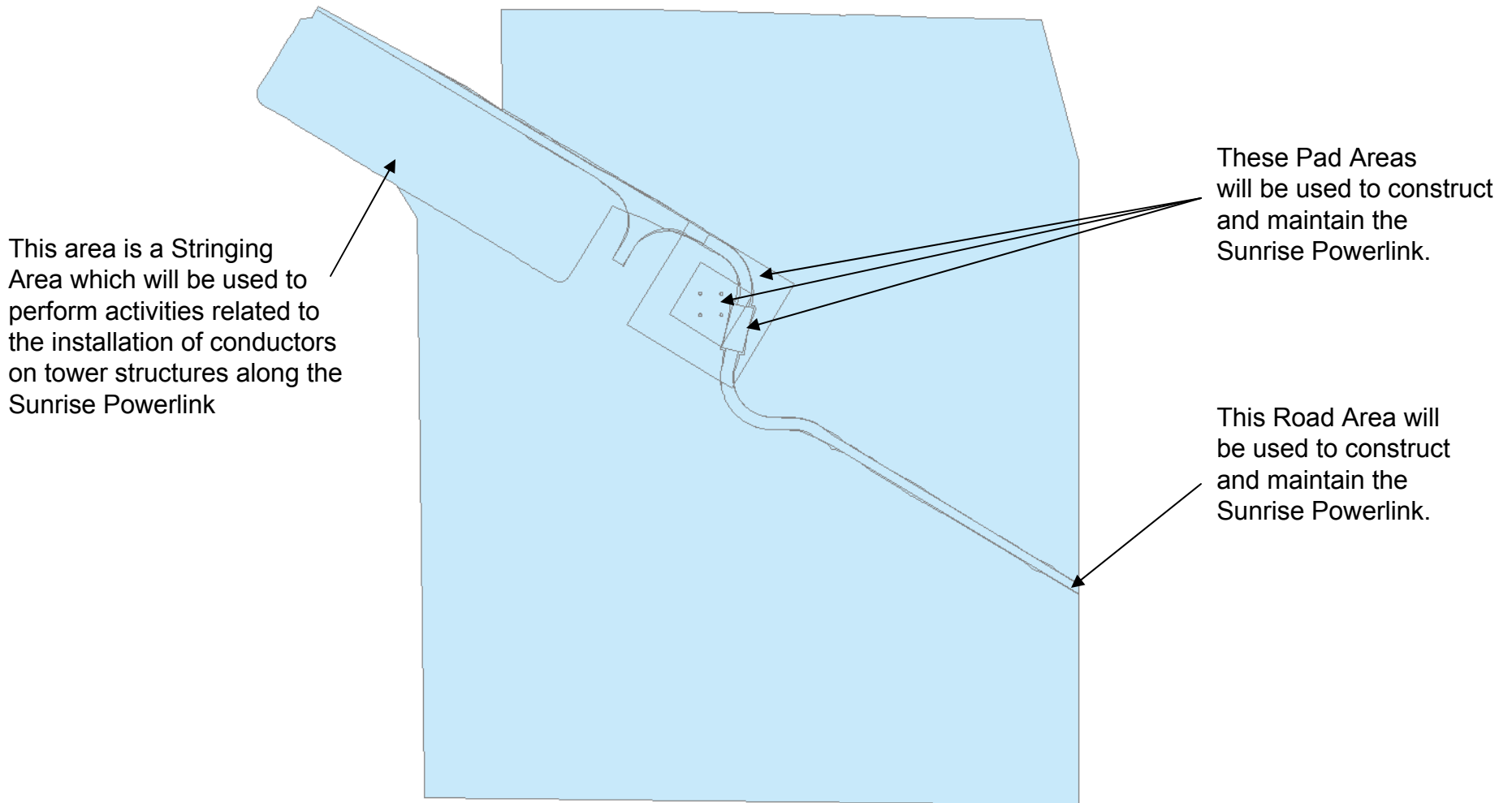
The data displayed below shows an overview map of the McCain Valley Construction Yard and other potential Impacts.



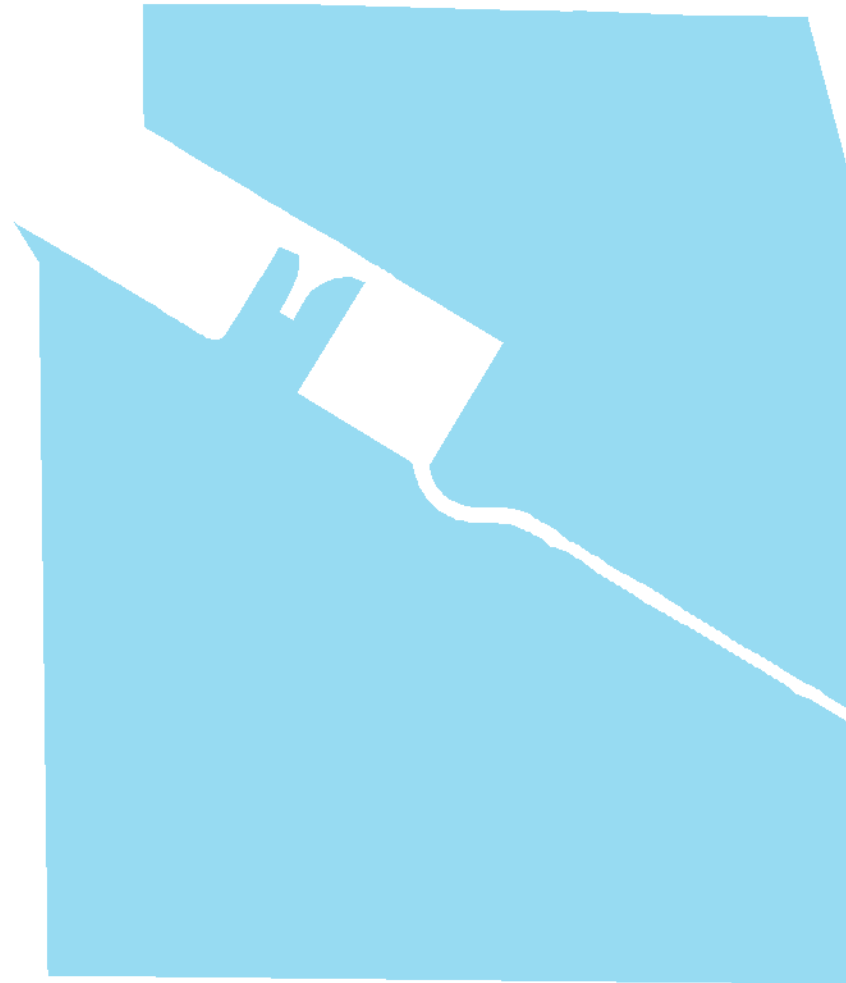
An aerial photograph showing a large, irregularly shaped area outlined in bright blue. The area is filled with dense, low-lying vegetation and appears to be a construction site. The surrounding landscape is also covered in similar vegetation, with some dirt paths or roads visible. The text is centered within the blue-outlined area.

*McCain Valley
Construction Yard
32.93 acres*

The McCain Valley Construction Yard contains additional ground disturbances. Examples of these are shown below:



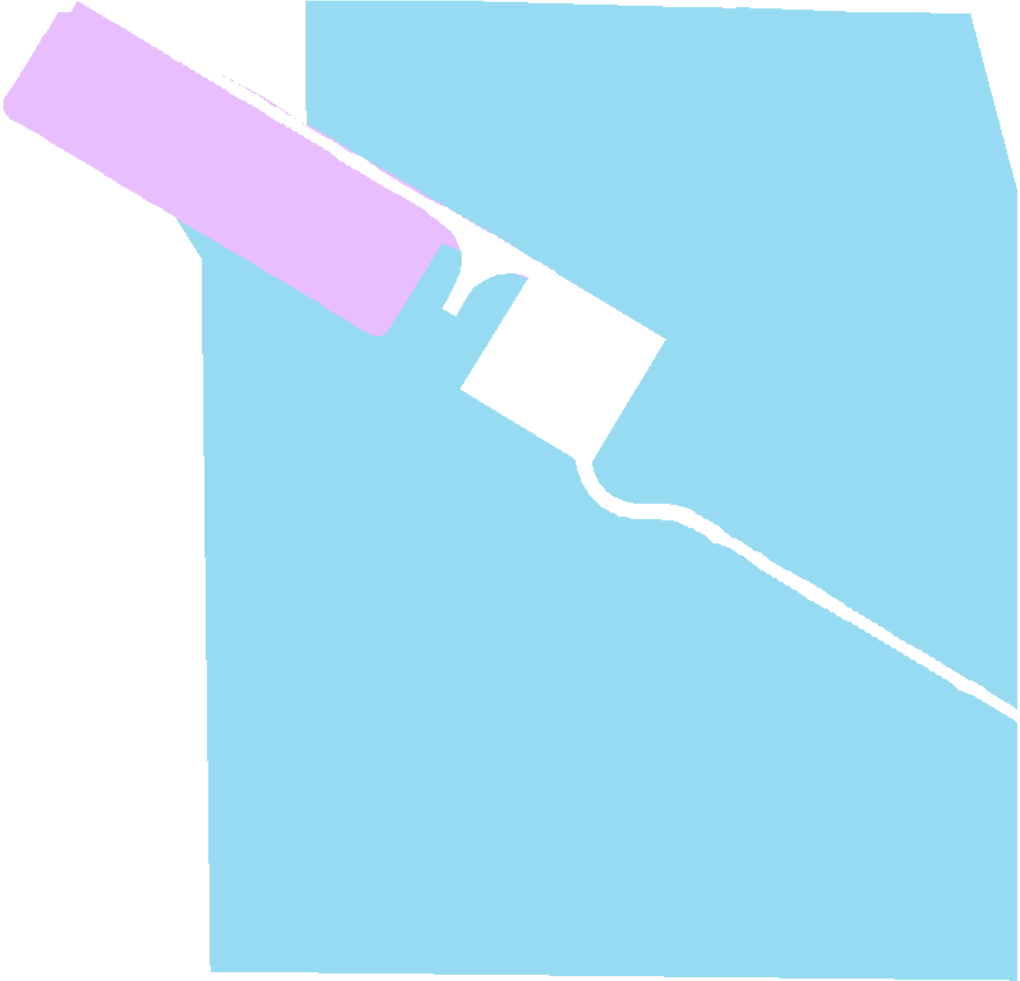
The McCain Valley Construction Yard is a Temporary Impact and ranks lowest on the Impact Hierarchy model. Therefore the area below will be counted towards a construction yard Impact.



Impact	Acres
Construction Yard	28.90*

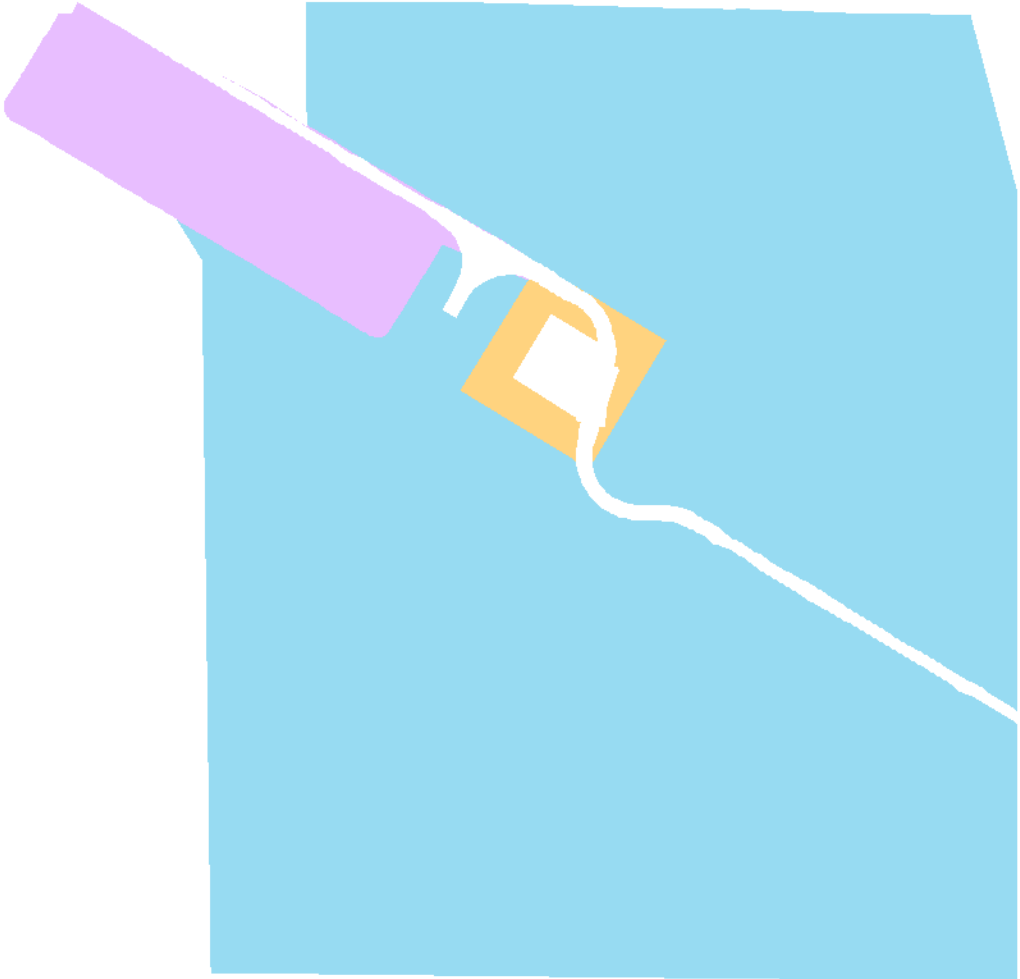
*Notice how the value of the Construction Yard has been reduced from 32.93 acres to 28.90 acres

The area shown in light purple is the Stringing Area. Stringing Areas are also Temporary Impacts, but rank higher on the Impact Hierarchy Model and therefore return Stringing Area impact values as opposed to Construction Yard values.



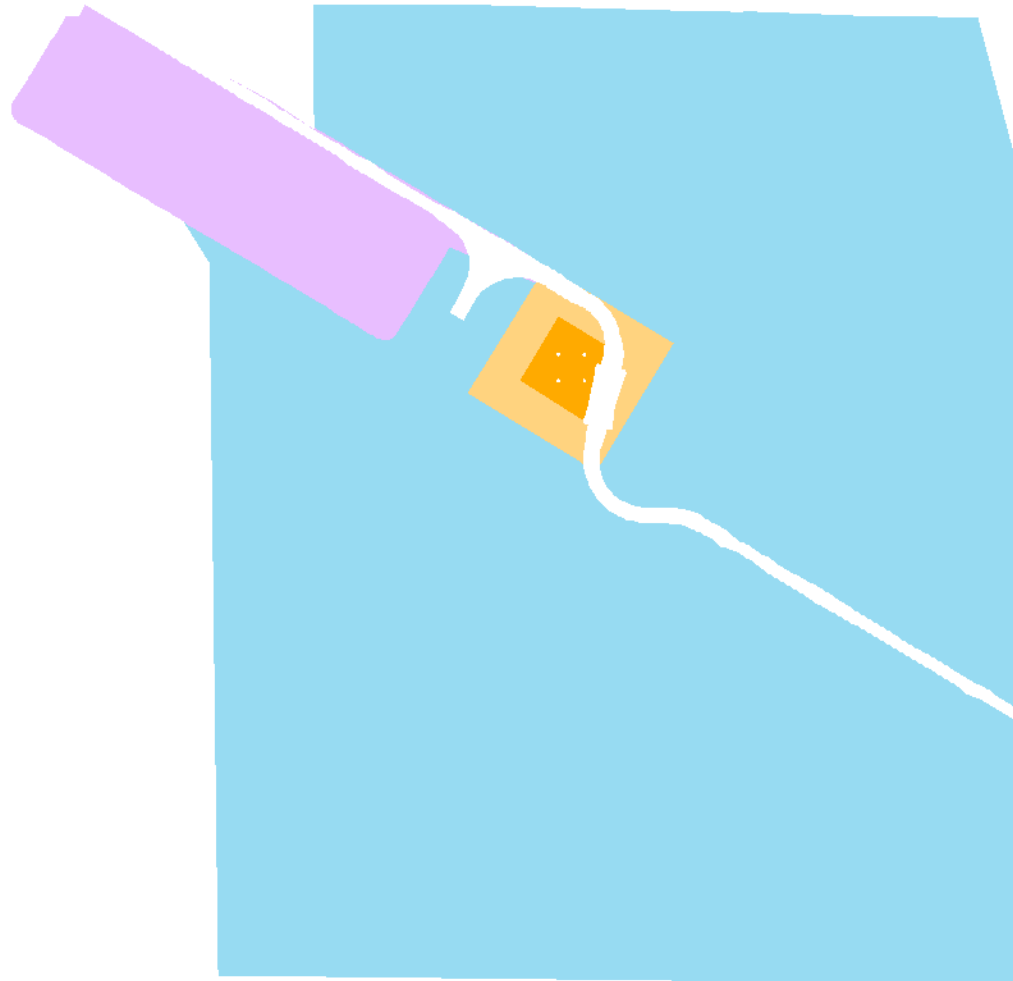
Impact	Acres
Construction Yard	28.90
Stringing Area	2.50

The additional area in light orange is a Pad Area polygon defined as “Temporary” and “Work Area”. In this case, this area will be required to construct tower structure EP178. Not all structures will require temporary work areas. This work area will support tower structures that require crane and other heavy equipment to construct and maintain.



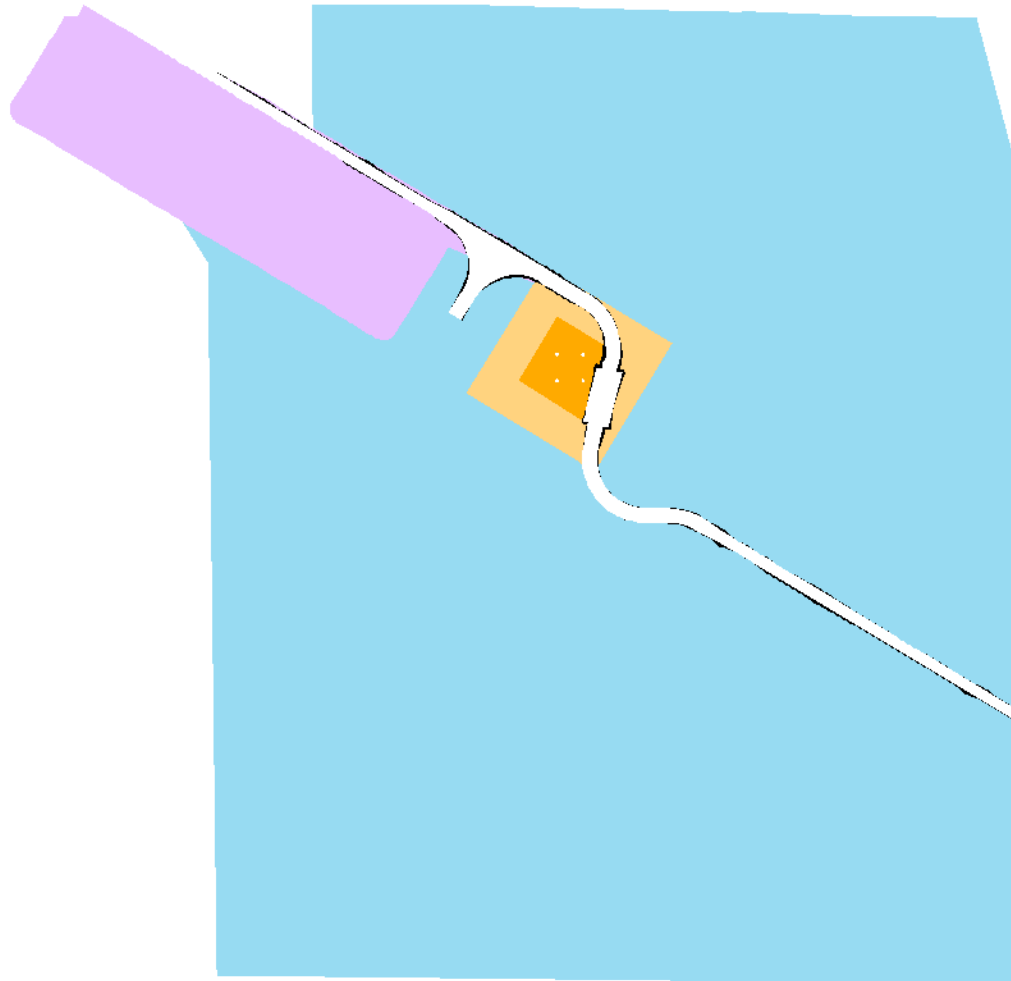
Impact	Acres
Construction Yard	28.90
Stringing Area	2.50
Pad_Area “Temporary Work Area”	0.54

The additional area with the darker orange color is another Pad Area defined as " Structure Pad Area". Each tower structure along the proposed alignment will have an associated area of permanent impact for future maintenance of the tower structures.



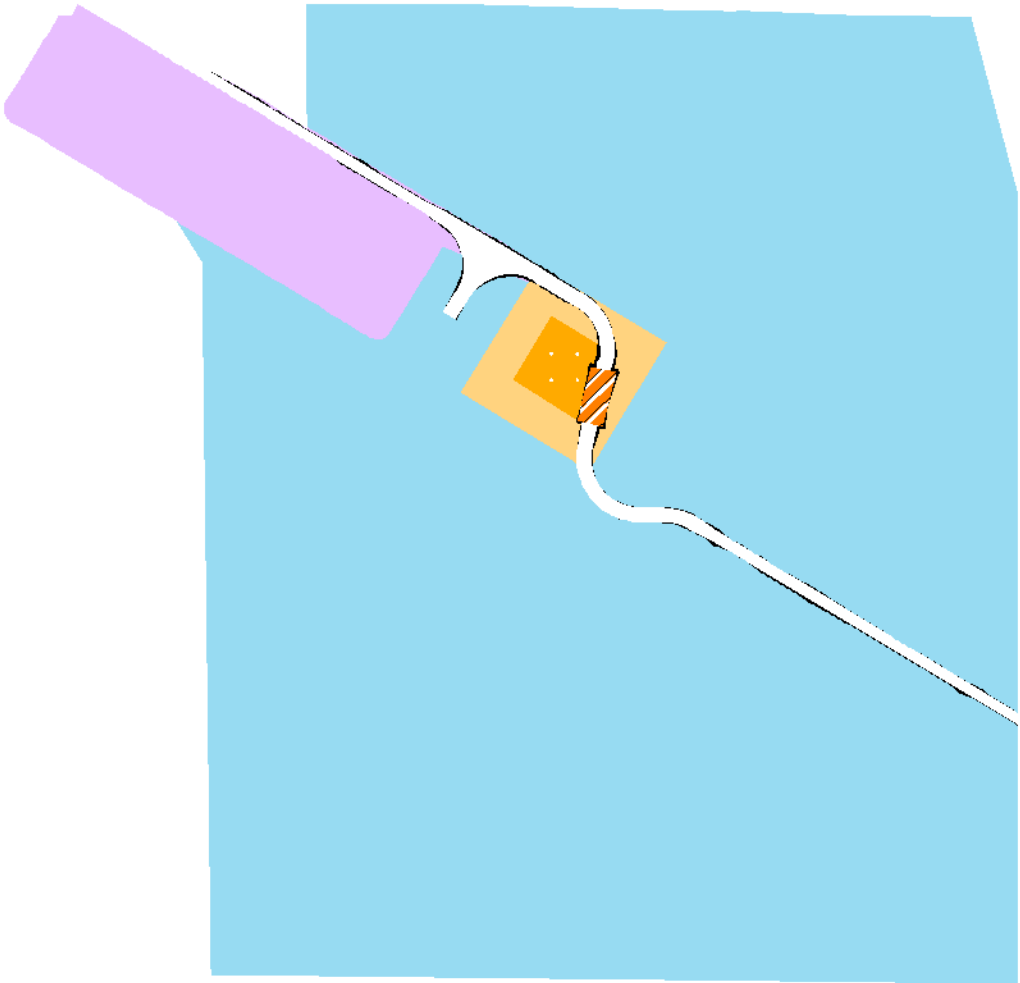
Impact	Acres
Construction Yard	28.90
Stringing Area	2.50
Pad_Area "Temporary Work Area"	0.54
Pad_Area " "Structure Impact Area"	0.19

Below represents an additional area in black which runs along the edge of the proposed road. This area is the Grading required to either improve the existing road or construct a new road. Grading is calculated separately from the surface area of the road. This ensures that all impact types and situations are covered.



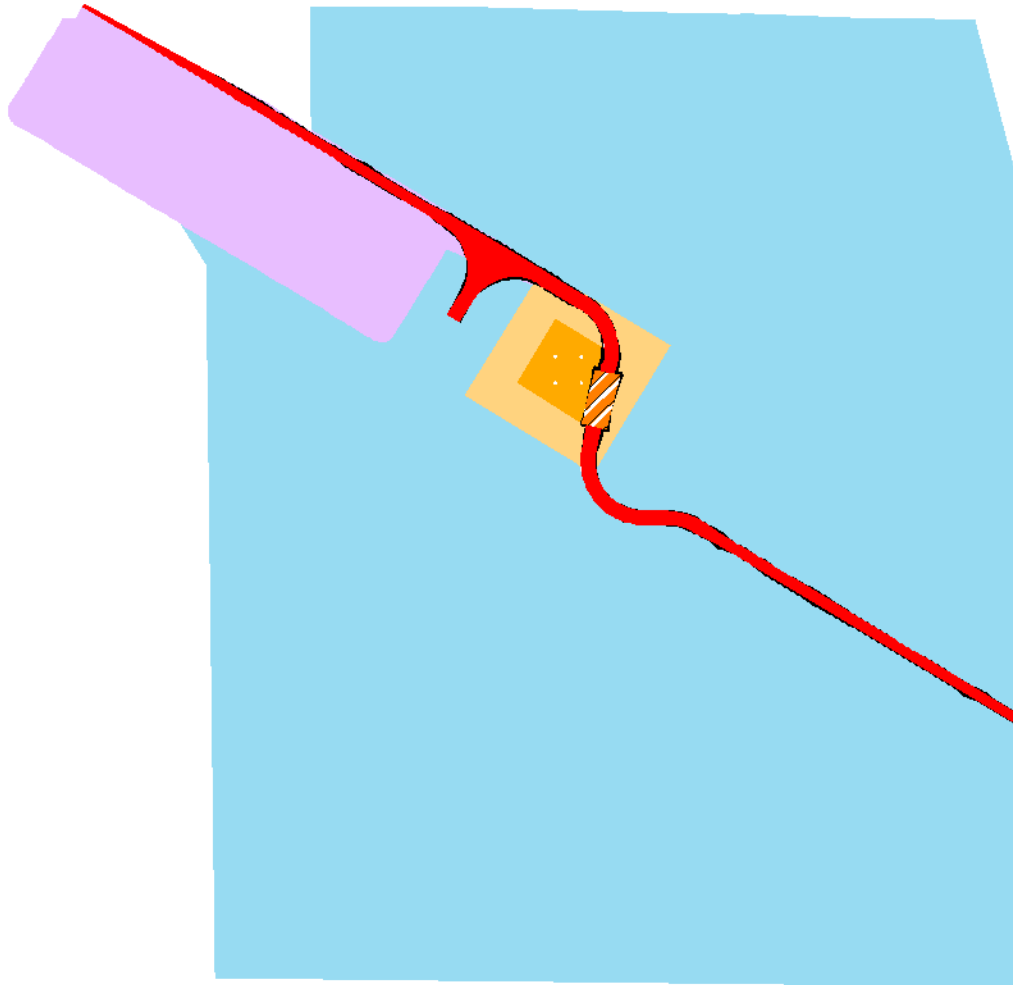
Impact	Acres
Construction Yard	28.90
Stringing Site	2.50
Pad_Area "Temporary Work Area"	0.54
Pad_Area " "Structure Impact Area"	0.19
Grading	0.05

The area represented by dark orange with white hatching is a Pad Area polygon defined as "Maintenance Pad". This area will be used in addition to the structure pad area to perform maintenance on this tower structure.



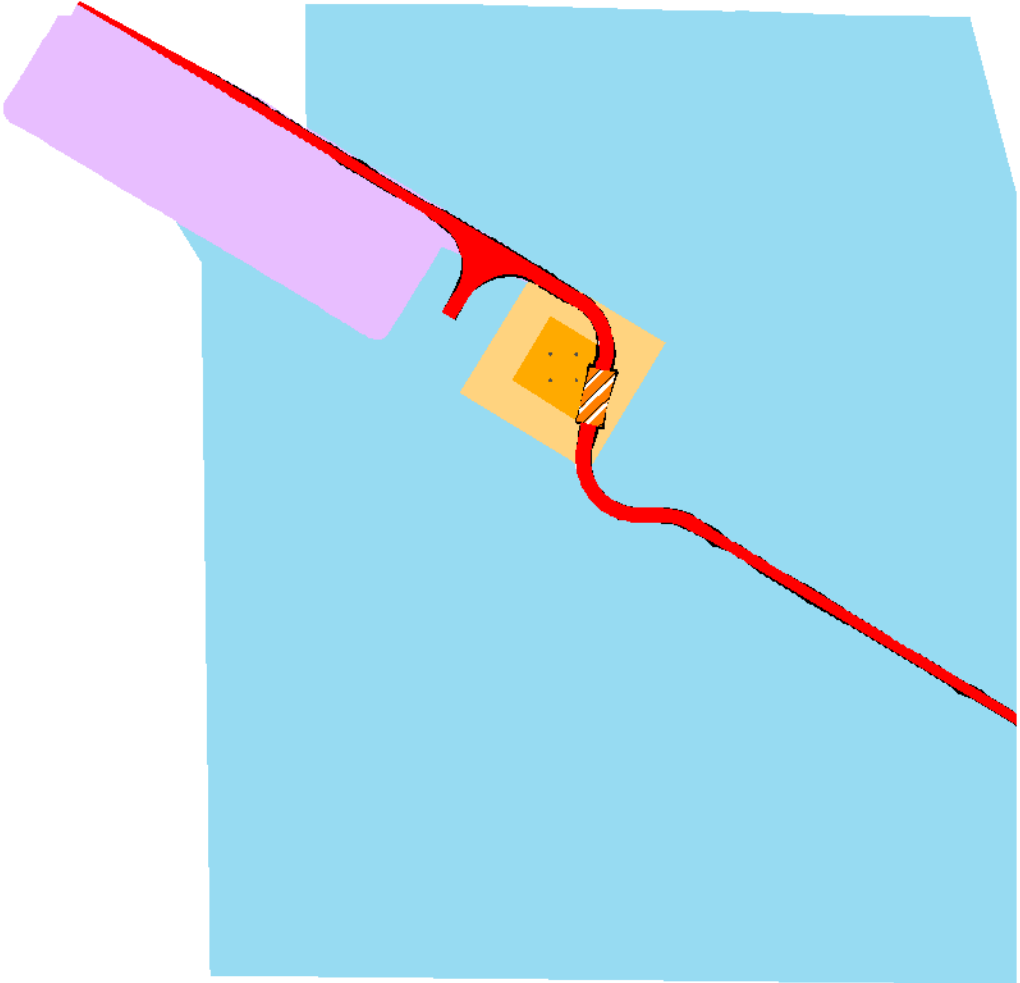
Impact	Acres
Construction Yard	28.90
Stringing Site	2.50
Pad_Area "Temporary Work Area"	0.54
Pad_Area "Structure Impact Area"	0.19
Grading	0.05
Maintenance Pad Area	0.07

This area represented with red depicts the actual width of the New Access Road.



Impact	Acres
Construction Yard	28.90
Stringing Area	2.50
Pad_Area "Temporary Work Area"	0.54
Pad_Area "Structure Impact Area"	0.19
Grading	0.05
Maintenance Pad Area	0.07
New Access Road Area	0.68

Finally, the four small circular areas shown in the middle of the Structure Pad Area represent the locations of the footing impact for the tower structure. In this example the total footing area equates to 78.5 sqft. Which is 0.0018 acres in total impact.



Impact	Acres
Construction Yard	28.90
Stringing Site	2.50
Pad_Area "Temporary Work Area"	0.54
Pad_Area "Structure Impact Area"	0.19
Grading	0.05
Maintenance Pad Area	0.07
New Access Road Area	0.68
Footings	0.0018
Total	32.93



ATTACHMENT B

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT

PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
02	In Modified Project Impact Area	Habitation Site	IMP-269	1			1	
		Lithic Scatter	IMP-2085	1			1	
			IMP-8740	1			1	
			IMP-8744	1			1	
			IMP-8824	1			1	
		Lithic Scatter/Ceramic Scatter	IMP-8665	1			1	
		Lithic Scatter/Mining	IMP-8741	1			1	
		Lithic Scatter/Rock Carin	IMP-8739	1			1	
		No info	AGH-5	1			1	
		Prehistoric Artifact Scatter	IMP-1015/4348	1			1	
			IMP-3784/3785/4340/4341/4344	1			1	
		Prehistoric Lithic Scatter	10B-8	1			1	
			IMP-2304	1			1	
			IMP-8737	1			1	
			IMP-8766	1			1	
			IMP-8793	1			1	
		Prehistoric Lithic Scatter/Historic Refu	IMP-3773	1			1	
		Prehistoric Lithic Scatter/Trail	IMP-3762	1			1	
		Prehistoric Rock Feature	BW-50	1			1	
	In Modified Project Impact Area Total				19			19
	In Modified Project ROW	Historic Marker	10B-6H			1		1
		Historic Refuse	IMP-8699			1		1
		Lithic Scatter	IMP-3757				1	1
		Prehistoric Artifact Scatter	IMP-3766	1				1
			IMP-8666	1				1
			IMP-8669	1				1
			IMP-8698/13-009549			1		1
IMP-8767		1				1		
Prehistoric Habitation		IMP-8697	1				1	
Prehistoric Isolate (Debitage)		IMP-3767	1				1	
Prehistoric Lithic Scatter	10B-7			1		1		
	IMP-2077			1		1		

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
			IMP-2086	1			1
			IMP-2303	1			1
			IMP-2372	1			1
			IMP-3749	1			1
			IMP-3752		1		1
			IMP-3753		1		1
			IMP-3754		1		1
			IMP-3755	1			1
			IMP-3756/3757	1			1
			IMP-3763		1		1
			IMP-3764		1		1
			IMP-3765			1	1
			IMP-3768	1			1
			IMP-3769		1		1
			IMP-4874		1		1
			IMP-8731	1			1
			IMP-8732		1		1
			IMP-8734		1		1
			IMP-8735		1		1
			IMP-8736		1		1
			IMP-8738		1		1
			IMP-8743	1			1
			IMP-8746		1		1
			IMP-8769		1		1
			IMP-8845		1		1
			IMP-8868	1			1
		Prehistoric Lithic Scatter, Trail	IMP-2074A	1			1
			IMP-2074B	1			1
		Temporary Camp	IMP-4349	1			1
		Unknown	D2-S-287		1		1
		(blank)	IMP-3756			1	1
		In Modified Project ROW Total		19	21	3	43
	In FESSR ROW	(blank)	BS-S-40	1			1
			IMP-3774	1			1

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
			IMP-3775	1			1	
			IMP-8720		1		1	
			IMP-8742	1			1	
			In FESSR ROW Total			4	1	
02 Total				42	22	3	67	
03	In Modified Project Impact Area	Prehistoric Lithic Scatter	IMP-4237	1			1	
	In Modified Project Impact Area Total			1			1	
	In Modified Project ROW	Historic Road	IMP-7886	1			1	
		Historic Trail	Fages-De Anza Trail	1			1	
		Prehistoric Isolate (Hammerstone)	IMP-3748			1	1	
		Prehistoric Lithic Scatter	BW-43				1	1
			IMP-8804				1	1
	In Modified Project ROW Total			2	1	2	5	
	In FESSR ROW	Historic Trail	IMP-3396	1			1	
		Prehistoric Lithic Scatter	IMP-8705	1			1	
		Prehistoric Lithic Scatter, Trail	IMP-2074			1	1	
		(blank)	IMP-8706	1			1	
SU-29			1			1		
In FESSR ROW Total			4	1		5		
03 Total				7	2	2	11	
04	In Modified Project Impact Area	Lithic Scatter	IMP-8810	1			1	
		Prehistoric Ceramic Scatter	BW-S-09	1			1	
	In Modified Project Impact Area Total			2			2	
	In Modified Project ROW	Prehistoric Lithic Scatter	BC-47			1		1
			BW-41	1			1	
			IMP-3731	1			1	
			IMP-3733			1		1
			IMP-3736	1			1	
			IMP-3737			1		1
			IMP-8808			1		1
			IMP-8809			1		1
			IMP-8812	1				1
IMP-8844			1				1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
			SPBB-S-9		1		1	
		Prehistoric Rock Feature and Artifact Sc	IMP-8813	1			1	
	In Modified Project ROW Total			6	6		12	
	In FESSR ROW	Prehistoric Isolate (Debitage)		IMP-8838	1			1
		Prehistoric Lithic Scatter		IMP-3728	1			1
				IMP-3734	1			1
				IMP-3735	1			1
	In FESSR ROW Total			4			4	
	04 Total				12	6		18
	05	In Modified Project Impact Area	Prehistoric Artifact Scatter		LMP-S-61/SPBB-S-7	1		1
Prehistoric Habitation			IMP-4228	1		1		
Prehistoric Habitation, Trail			IMP-103/3710	1		1		
Prehistoric Lithic Scatter			BW-35	1		1		
Prehistoric Lithic Scatter, Trail			IMP-3708	1		1		
(blank)			IMP-3710	1		1		
			SPSB-S-5	1		1		
In Modified Project Impact Area Total			7			7		
In Modified Project ROW		Historic Mining		IMP-8806		1		1
		Historic Railroad		IMP-8489		1		1
		Historic Refuse		IMP-4225H		1		1
		(blank)		IMP-4230		1		1
				IMP-8795		1		1
In Modified Project ROW Total				5		5		
In FESSR ROW		No info		IMP-334	1			1
	Prehistoric Lithic Scatter		BW-36	1			1	
	(blank)		IMP-3720H	1			1	
			SPSB-S-6	1			1	
In FESSR ROW Total			4			4		
05 Total				11	5		16	
06	In Modified Project Impact Area	Historic Road		IMP-7886	1		1	
		Prehistoric Artifact Scatter		BC-57		1	1	
				BC-61		1	1	
				IMP-4706	1		1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
		Prehistoric Artifact Scatter/Historic Re	BW-28	1			1
		Prehistoric Bedrock Milling	BC-50	1			1
			SDI-9188	1			1
		Prehistoric Habitation	BW-25		1		1
		Prehistoric Lithic Scatter	BC-60			1	1
			BW-27			1	1
		Prehistoric Rock Feature	IMP-4744		1		1
	In Modified Project Impact Area Total			5	2	4	11
	In Modified Project ROW	Prehistoric Artifact Scatter	BC-59			1	1
			BW-21		1		1
			BW-22	1			1
			BW-23		1		1
		Prehistoric Bedrock Milling	BW-166			1	1
			BW-167			1	1
			BW-29	1			1
			BW-46		1		1
		Prehistoric Habitation	IMP-2623	1			1
			IMP-4701		1		1
			IMP-4716	1			1
			IMP-4718	1			1
			IMP-4724	1			1
		Prehistoric Isolate (Core)	IMP-4697		1		1
		Prehistoric Lithic Scatter	BW-24		1		1
		Prehistoric Rock Feature	IMP-2622		1		1
			IMP-4711	1			1
			IMP-4743		1		1
			SDI-6125		1		1
		Prehistoric Trail	IMP-4717	1			1
	In Modified Project ROW Total			8	9	3	20
	In FESSR ROW	Prehistoric Artifact Scatter	BW-47		1		1
		Prehistoric Bedrock Milling	BC-51	1			1
			BW-45		1		1
	Prehistoric Ceramic Scatter	INK-S-2			1	1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
		Prehistoric Habitation	IMP-2431		1		1	
			SDI-9189	1			1	
		Prehistoric Isolate (Ground Stone)	IMP-4745	1			1	
		Prehistoric Lithic Scatter/Historic Refu	BW-30		1		1	
		Prehistoric Rock Feature	IMP-4733	1			1	
			SDI-6120	1			1	
		In FESSR ROW Total				5	5	
06 Total				18	16	7	41	
07	In Modified Project Impact Area	Prehistoric Artifact Scatter	SDI-7073/7083/8306	1			1	
		Prehistoric Habitation	SDI-7074/7075/7076/15879	1			1	
	In Modified Project Impact Area Total				2			2
	In Modified Project ROW	Duplicate	SDI-7076			1	1	
		Prehistoric Hearth, Ceramic and Lithic S	SDI-6116A	1			1	
		Roasting Pit/Lithic Scatter/Ceramic Scat	SDI-6116B	1			1	
	In Modified Project ROW Total				2		1	3
	In FESSR ROW	Isolate, Core	SDI-9170	1			1	
In FESSR ROW Total				1			1	
07 Total				5		1	6	
08	In Modified Project Impact Area	Historic Refuse	SDI-18063			1	1	
			SPED-S-22		1		1	
		Lithic Scatter	SDI-7051	1			1	
			SDI-7052	1			1	
			SPED-S-13			1	1	
		Lithic Scatter/Ceramic Scatter	SDI-19035	1			1	
		Prehistoric Artifact Scatter	9C-3	1			1	
			BW-154			1	1	
			BW-158			1	1	
			SDI-11686	1			1	
			SDI-7059	1			1	
			SDI-7060	1			1	
		Prehistoric Habitation	SDI-7074/7075/7076/15879	1			1	
		Prehistoric Lithic Scatter	AGH-1			1	1	
			BC-53			1	1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
			BW-156			1	1	
			BW-157			1	1	
			SDI-19281/SPED-S-12	1			1	
			SDI-19304		1		1	
			SDI-7044/7046/7087/8432	1			1	
			SPED-S-11	1			1	
			Prehistoric Lithic Scatter/Historic Refu	SDI-7077		1		1
			Rock Shelter	SDM-C-553	1			1
			Temporary Camp	SDI-7086	1			1
				SDI-7087	1			1
	In Modified Project Impact Area Total				14	5	6	25
	In Modified Project ROW		Historic Refuse Scatter	SDI-9160H	1			1
			Prehistoric Artifact Scatter	9C-5		1		1
			Prehistoric Ceramic Scatter	SDI-19033	1			1
			Prehistoric Habitation	SDI-11687	1			1
			Prehistoric Lithic Scatter	SDI-7042		1		1
	In Modified Project ROW Total				3	2		5
	In FESSR ROW		Duplicate	SDI-8432	1			1
			Historic Refuse	SDI-9167	1			1
			Lithic Scatter	SDI-11684	1			1
			Prehistoric Bedrock Milling	SDI-6776	1			1
			Prehistoric Lithic Scatter/Historic Refu	SDI-7053/9166	1			1
			Artifact Scatter	SDI-7044	1			1
			Quarry, Quartz	SDI-7046	1			1
			Quarry, Andesite	SDI-8430	1			1
In FESSR ROW Total				8			8	
08 Total				25	7	6	38	
09	In Modified Project Impact Area	Prehistoric Bedrock Milling	SDI-19303	1			1	
			SDI-7030/7951/9153/19268	1			1	
		Prehistoric Lithic Scatter	BW-78			1	1	
	In Modified Project Impact Area Total				2		1	3
	In Modified Project ROW		Historic Railroad	37-025680		1		1
Prehistoric Bedrock Milling			SDI-11692			1	1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT									
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total		
		Prehistoric Lithic Scatter	BW-77			1	1		
			BW-79			1	1		
			BW-80			1	1		
	In Modified Project ROW Total					1	4	5	
	In FESSR ROW		Historic Mining	9C-14	1			1	
				9C-9	1			1	
				SDI-19267	1			1	
			Lithic Scatter	SDI-9154			1		1
				Prehistoric Bedrock Milling	9C-13	1			1
				Prehistoric Lithic Scatter	9C-10	1			1
			SDI-19302		1			1	
			SPED-S-10		1			1	
			(blank)	SPED-S-9	1			1	
	SPSB-S-2	1				1			
In FESSR ROW Total				9	1		10		
09 Total				11	2	5	18		
10	In Modified Project Impact Area	Not a Site	SPAP-S-14	1			1		
	In Modified Project Impact Area Total			1			1		
	In FESSR ROW	Historic Mining	SPED-S-21	1			1		
		(blank)	SPAP-S-15			1	1		
In FESSR ROW Total				1	1		2		
10 Total				2	1		3		
11	In Modified Project Impact Area	Historic Mining	SPED-S-7			1	1		
		Historic Refuse	SDI-6893/16823			1	1		
		Historic Refuse Scatter	BW-150			1	1		
		Prehistoric Artifact Scatter/Historic Re	SDI-19276		1		1		
		Prehistoric Bedrock Milling	SDI-6902			1	1		
		Prehistoric Lithic Scatter	9C-15			1	1		
	In Modified Project Impact Area Total					1	5	6	
	In Modified Project ROW	Historic Refuse	SDI-19282			1	1		
		Prehistoric Bedrock Milling	SDI-6904	1			1		
		Prehistoric Ceramic Scatter	9C-17			1	1		
Prehistoric Lithic Scatter		9C-16			1	1			

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
		(blank)	SPED-S-19			1	1
	In Modified Project ROW Total			1	2	2	5
	In FESSR ROW	Prehistoric Artifact Scatter	9C-20	1			1
		Prehistoric Lithic Scatter	9C-18		1		1
	In FESSR ROW Total			1	1		2
11 Total				2	4	7	13
12	In Modified Project Impact Area	Prehistoric Bedrock Milling	SDI-4788	1			1
		Prehistoric Lithic Scatter	BC-8	1			1
	In Modified Project Impact Area Total			2			2
	In Modified Project ROW	Historic Refuse	SDI-19277			1	1
	In Modified Project ROW Total					1	1
	In FESSR ROW	Historic Mine/Structure	BC-7	1			1
	In FESSR ROW Total			1			1
12 Total				3		1	4
13	In Modified Project Impact Area	Prehistoric Artifact Scatter	BW-84			1	1
		Prehistoric Bedrock Milling	SDI-19301	1			1
			SDI-4788	1			1
			SPED-S-5	1			1
		Prehistoric Habitation	SDI-19001	1			1
		Prehistoric Lithic Scatter	BC-2/SPED-S-5	1			1
			BW-130			1	1
	BW-85			1	1		
	In Modified Project Impact Area Total			5		3	8
	In Modified Project ROW	Prehistoric Artifact Scatter	SDI-19045			1	1
		Prehistoric Lithic Scatter	BW-83			1	1
			SDI-17829			1	1
In Modified Project ROW Total				1	2	3	
In FESSR ROW	Prehistoric Lithic Scatter	BC-1	1			1	
	Bedrock Milling with Artifacts	SDI-17822		1		1	
In FESSR ROW Total			1	1		2	
13 Total				6	2	5	13
14	In Modified Project Impact Area	Historic Refuse	SPED-S-18	1			1
		Prehistoric Artifact Scatter	BC-12	1			1

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
			BC-37			1	1	
			BW-128			1	1	
			BW-149			1	1	
			SDI-19293	1			1	
		Prehistoric Ceramic Scatter/Historic Ref	SPED-S-2	1			1	
		Prehistoric Ceramic Scatter; Historic Re	SPED-S-3	1			1	
		Prehistoric Habitation	SDI-19001	1			1	
			SDI-19018	1			1	
		Prehistoric Lithic Scatter	BC-5	1			1	
			BC-9			1	1	
			SPBB-S-1	1			1	
		Prehistoric Lithic Scatter/Historic Refu	BC-6	1			1	
		Prehistoric Projectile Point; Historic R	SPED-S-1			1	1	
		Unknown	SDI-19298	1			1	
In Modified Project Impact Area Total				11		5	16	
In Modified Project ROW	Prehistoric Bedrock Milling	SDI-19292	1			1		
In Modified Project ROW Total				1			1	
14 Total				12		5	17	
15	In Modified Project Impact Area	Historic Mining	BC-24/SPNB-S-4			1	1	
		Prehistoric Bedrock Milling	BC-13		1		1	
		Unknown	LD-S-2			1	1	
	In Modified Project Impact Area Total					1	2	3
	In Modified Project ROW	Historic Dam	BC-16			1	1	
		Historic Mining	BC-23			1	1	
		Prehistoric Artifact Scatter	SPNB-S-5			1	1	
		Prehistoric Bedrock Milling	BC-15			1	1	
			BC-17			1	1	
			BC-25			1	1	
		SDI-10980			1	1		
SDI-10981				1	1			
SDI-8711			1	1				
In Modified Project ROW Total						9	9	
In FESSR ROW	Habitation Site	SDI-19111			1		1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
		(blank)	SPAP-S-11		1		1	
			SPAP-S-12	1			1	
		Historic Homestead	SDI-19116	1			1	
		Ceramic Sherds	SDI-19291	1			1	
		Bedrock Milling with Artifacts	SDI-10975		1		1	
In FESSR ROW Total				3	3		6	
15 Total				3	4	11	18	
16	In Modified Project Impact Area	Historic Road	SPAP-S-5	1			1	
		Prehistoric Bedrock Milling	BC-19		1		1	
			SDI-11670			1	1	
	Prehistoric Ceramic Scatter	BC-21			1	1		
	In Modified Project Impact Area Total				1	1	2	4
	In Modified Project ROW	Prehistoric Bedrock Milling	BC-27			1		1
		Prehistoric Lithic Scatter	BC-28			1		1
	In Modified Project ROW Total					2		2
	In FESSR ROW	Prehistoric Artifact Scatter	BC-18	1				1
		Prehistoric Bedrock Milling	SPAP-S-6		1			1
SPED-S-20					1		1	
In FESSR ROW Total				1	2		3	
16 Total				2	5	2	9	
17	In Modified Project Impact Area	Old Highway 80	37-024023	1			1	
		Prehistoric Bedrock Milling	BW-145			1	1	
			SPED-S-15			1	1	
			SPNB-S-2/SPMD-S-1	1			1	
	In Modified Project Impact Area Total				2		2	4
	In Modified Project ROW	Prehistoric Bedrock Milling	BW-143				1	1
		Prehistoric Lithic Scatter	BW-144				1	1
			BW-146				1	1
	In Modified Project ROW Total						3	3
	In FESSR ROW	Historic Rock Feature	SPBB-S-8	1				1
Prehistoric Artifact Scatter		BC-30/SPNB-I-4	1				1	
Prehistoric Bedrock Milling		BW-72	1				1	
		SPNB-S-3			1		1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
		Prehistoric Habitation	SDI-9522	1			1
	In FESSR ROW Total			4	1		5
17 Total				6	1	5	12
18	In Modified Project ROW	Prehistoric Artifact Scatter	BW-86			1	1
	In Modified Project ROW Total					1	1
18 Total						1	1
21	In Modified Project Impact Area	Prehistoric Artifact Scatter	SDI-19039		1		1
		Prehistoric Bedrock Milling	SDI-10040	1		1	
			SDI-4724	1		1	
		Prehistoric Isolate (Debitage/Ceramic)	SPNB-S-1	1		1	
	In Modified Project Impact Area Total			3	1		4
	In Modified Project ROW	Prehistoric Bedrock Milling	8D-1			1	1
In Modified Project ROW Total					1	1	
21 Total				3	2		5
22	In Modified Project Impact Area	Bedrock Milling	SPMD-S-2	1			1
		Prehistoric Bedrock Milling	BW-116			1	1
			BW-129			1	1
			SDI-19279	1		1	
	In Modified Project Impact Area Total			2		2	4
	In Modified Project ROW	Prehistoric Bedrock Milling	8C-1			1	1
In Modified Project ROW Total					1	1	
22 Total				2	1	2	5
23	In Modified Project Impact Area	Prehistoric Bedrock Milling	SDI-17987			1	1
			SDI-8440	1		1	
		Prehistoric Lithic Scatter	8C-3			1	1
			SDI-8442	1		1	
	In Modified Project Impact Area Total			2		2	4
	In FESSR ROW	Lithic Scatter	SDI-17999	1			1
			SDI-19280	1		1	
		Prehistoric Bedrock Milling	BW-113	1		1	
		Prehistoric Lithic Scatter	SDI-8439		1	1	
(blank)		LD-S-1	1		1		
		SPAP-S-2		1		1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT								
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total	
			SPAP-S-4		1		1	
		Bedrock Milling with Artifacts	SDI-17998	1			1	
		In FESSR ROW Total			5	3		8
23 Total				7	3	2	12	
24	In Modified Project ROW	Historic Flume	SDI-11605		1		1	
	In Modified Project ROW Total				1		1	
24 Total					1		1	
25	In Modified Project ROW	Historic Refuse	BW-76			1	1	
		Prehistoric Habitation	BW-75			1	1	
		Prehistoric Lithic Scatter	SPBB-S-3			1	1	
	In Modified Project ROW Total					3	3	
	In FESSR ROW	Prehistoric Bedrock Milling	8A-2		1		1	
		Prehistoric Isolate (Core)	SPBB-S-5		1		1	
		Prehistoric Lithic Scatter	8A-1		1		1	
		(blank)	SPAP-S-16	1			1	
		SPBB-S-4	1			1		
In FESSR ROW Total				2	3		5	
25 Total				2	3	3	8	
26	In Modified Project ROW	Historic Trail	8A-4		1		1	
	In Modified Project ROW Total				1		1	
26 Total					1		1	
28	In Modified Project ROW	Prehistoric Bedrock Milling	SPAP-S-10			1	1	
	In Modified Project ROW Total					1	1	
28 Total						1	1	
29	In Modified Project Impact Area	Bedrock Milling	SDI-19036	1			1	
			SDI-19037	1			1	
		Historic Refuse	SPPA-S-1	1			1	
		No info	BB-S-1	1			1	
		Prehistoric Bedrock Milling	SDI-19036/19037	1			1	
	In Modified Project Impact Area Total				5			5
	In FESSR ROW	Bedrock Milling	SDI-19307	1			1	
		Prehistoric Bedrock Milling	BW-52	1			1	
In FESSR ROW Total				2			2	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
29 Total				7			7
30	In FESSR ROW	(blank)	BW-161	1			1
	In FESSR ROW Total			1			1
30 Total				1			1
31	In Modified Project ROW	Prehistoric Bedrock Milling	SDI-19038			1	1
	In Modified Project ROW Total					1	1
	In FESSR ROW	Prehistoric Bedrock Milling	SPNB-S-6		1		1
		(blank)	SPAP-S-15	1			1
In FESSR ROW Total			1	1		2	
31 Total				1	1	1	3
33	In Modified Project ROW	Prehistoric Artifact Scatter	SDI-18998		1		1
		Prehistoric Habitation	SDI-4798		1		1
		Prehistoric Lithic Scatter	SDI-19258		1		1
		Unknown	SP-S-02		1		1
In Modified Project ROW Total				4		4	
33 Total					4		4
34	In Modified Project Impact Area	Historic Road	37-019275		1		1
		No info	SPED-S-17			1	1
		Prehistoric Bedrock Milling	BC-33			1	1
			BW-59	1			1
			SPNB-S-7		1		1
		Prehistoric Bedrock Milling/Historic Min	SDI-8251	1			1
	Prehistoric Lithic/Shell Scatter	BW-60	1			1	
	In Modified Project Impact Area Total			3	2	2	7
	In Modified Project ROW	Historic Quarry	SDI-18999	1			1
		Prehistoric Bedrock Milling	SDI-13615			1	1
			SDI-13616			1	1
			SDI-13617			1	1
	SPNB-S-8		1			1	
In Modified Project ROW Total			1	1	3	5	
In FESSR ROW	Bedrock Milling	SDI-13614		1		1	
	Prehistoric Bedrock Milling	SDI-7873/19250	1			1	
	Temporary Camp	SDI-13605	1			1	

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
		(blank)	W-671	1			1
		Ceramic Sherds	SDI-680	1			1
	In FESSR ROW Total			4	1		5
34 Total				8	4	5	17
35	In Modified Project Impact Area	Prehistoric Bedrock Milling	SPMD-S-3		1		1
	In Modified Project Impact Area Total				1		1
	In FESSR ROW	Prehistoric Habitation	SDI-13652	1			1
		Rock Shelter	SDI-4913	1			1
In FESSR ROW Total			2			2	
35 Total				2	1		3
36	In Modified Project ROW	Historic Cistern	BW-63		1		1
			BW-65		1		1
		Historic Road	BW-64		1		1
	In Modified Project ROW Total				3		3
36 Total					3		3
37	In Modified Project Impact Area	Prehistoric Habitation	SDI-13651	1			1
	In Modified Project Impact Area Total			1			1
	In Modified Project ROW	Historic Road	SDI-17656			1	1
		Prehistoric Bedrock Milling	SDI-17652B			1	1
	In Modified Project ROW Total				1	1	2
	In FESSR ROW	Bedrock Milling	SDI-17652A			1	1
		Prehistoric Bedrock Milling	SDI-17286			1	1
			SDI-17651			1	1
Bedrock Milling with Artifacts		SDI-13849			1	1	
In FESSR ROW Total				4		4	
37 Total				1	5	1	7
38	In Modified Project Impact Area	Prehistoric Bedrock Milling	SDI-14041			1	1
		Prehistoric Lithic Scatter	SDI-18346	1			1
	In Modified Project Impact Area Total			1		1	2
	In FESSR ROW	Prehistoric Bedrock Milling	BW-67			1	1
			BW-68			1	1
SDI-18344				1	1		
Bedrock Milling with Artifacts	SDI-14040			1	1		

SUMMARY OF CLASS III CULTURAL RESOURCE INVENTORY FOR THE FESSR AND MODIFIED PROJECT							
PMR Unit	Location of Resource	Resource Category	Inventory ID/Map Label	In FESSR Impact Area	In ROW	Not In EIR/EIS	Total
	In FESSR ROW Total				4		4
38 Total				1	4	1	6
39	In Modified Project Impact Area	Historic Military	37-014261	1			1
		Historic Trail	SDI-12821	1			1
		Prehistoric Bedrock Milling	SDI-18436		1		1
	In Modified Project Impact Area Total			2	1		3
	In Modified Project ROW	Historic Structure Remains	37-028924	1			1
In Modified Project ROW Total			1			1	
39 Total				3	1		4
40	In Modified Project Impact Area	Historic Military	37-014261	1			1
	In Modified Project Impact Area Total			1			1
40 Total				1			1
43	In Modified Project ROW	Not a Site		SDI-13237		1	1
				SDI-13563		1	1
				SDI-13567		1	1
				SDI-14032		1	1
				SDI-14035		1	1
				Prehistoric Bedrock Milling	SDI-4607		1
			Prehistoric Lithic Scatter	SDI-11285		1	1
In Modified Project ROW Total						7	7
43 Total						7	7
44	In Modified Project Impact Area	Prehistoric Lithic Scatter	SDI-13826			1	1
	In Modified Project Impact Area Total					1	1
	In Modified Project ROW	Historic Refuse	BW-69			1	1
		Historic Structure Remains	BW-70			1	1
		Historic Homestead	SDI-12203			1	1
In Modified Project ROW Total						3	3
44 Total						4	4
Grand Total				206	111	88	405



ATTACHMENT C



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VIA ELECTRONIC DELIVERY

DATE: April 15, 2010

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FROM: Rick Tavares, Ph.D. *Rick Tavares*

SUBJECT: SUNRISE POWERLINK POWERED HAULAGE
ESTIMATED ACOUSTICAL IMPACT POTENTIAL
ISE PROJECT #10-007

The following information describes the powered haulage impact potential as it pertains to on-road construction trips associated with the Sunrise Powerlink project, the estimated vehicular trip noise emission levels, the associated impact contour distances, and the potential for impact to any sensitive land use areas.

Background and Need

Powered on-road haulage has been predicted by the project traffic engineer (KOA Engineering, Inc., 4/10/10) for each affected roadway segment within the project's sphere of influence. Segments where excessive daily vehicular trips are anticipated have the potential to increase background noise levels (denoted in California as the Community Noise Equivalence Level, or CNEL) to the point of being discernable or creating adverse conditions to sensitive receptor areas.

Significance

Local significance criteria for the proposed short-term action would fall under General Plan policies established by the County of San Diego pursuant to CEQA.¹ The specific abatement thresholds are identified under Policy 4b of the *County of San Diego's Noise Element of the County's General Plan*.

Under these standards, it can be inferred that a significant impact² would occur, if the following two conditions were met:

¹ As revised July 2006.

² Defined under Section 15382 of CEQA as, "... a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." For general environmental acoustical analysis, this threshold point is taken where the absolute change becomes audible above the existing background noise, namely 3.0 dBA.

1. Project-related traffic produces a net increase to the ambient CNEL level of 3.0 dBA or greater, and,
2. The increase exposes sensitive receptor areas to a sound level of 60 dBA CNEL or greater where it was not exposed to this level before the addition of the proposed project action.

Analysis Protocol

ISE performed a two-tiered screening of the KOA traffic data, first by identifying all roadway segments where the absolute ambient noise level increase was 3.0 dBA CNEL or greater due to the proposed project action. The conversion from daily traffic segment volumes (i.e., ADT's) to reference sound pressure level (i.e., dBA CNEL) was facilitated using the ISE *RoadNoise v2.4* traffic noise prediction model³, using California (CALVENO, FHWA/CA/TL-87/03) noise emission factors. Contour calculations were performed assuming acoustically 'soft' ground conditions and standard acoustical engineering principles.

Upon selecting potentially impacted segments meeting the above criteria, each segment was examined using Geographic Information System (GIS) methods to ascertain whether or not the absolute 60-dBA CNEL contour impacted any sensitive areas, and if this increase was due to the project. Areas found to be impacted, would be subject to engineering controls to reduce levels to below the identified levels of significance.

Findings

Table 1a, starting on the following page, identifies the existing segment traffic conditions along all affected roadways. For each roadway segment examined within this table, the worst case average daily traffic volume (ADT), observed/predicted speeds, and roadway level of service (LOS) are shown, along with the corresponding reference noise level (SPL) at 50-feet (in dBA). Additionally, the line-of-sight distance from the roadway centerline to the 60 through 75 dBA CNEL contours are provided as an indication of the worst-case unobstructed theoretical traffic noise contour placement.

Table 1b, starting on Page 9 of this memorandum, identifies the same roadway segments and data for the existing + project traffic condition (i.e., the existing traffic volumes plus the added increment of construction traffic due to the proposed project action).

The comparison of the previous two tables is provided in Table 2, starting on Page 15 of this memorandum. As can be seen, there are 40 potential candidate segments where the proposed project action would increase the ambient background noise level by 3.0 dBA CNEL or greater. The average contour increase along these potentially affected segments is 21-feet (with a minimum extent of 7-feet and a maximum of 43-feet).

Finally, each segment under GIS screening is provided as Attachment A to this memorandum. Examination of each of the segments did not identify any sensitive receptors exposed to a 60 dBA CNEL contour within any outdoor sensitive use space.

³ Based upon the Federal Highway Administration's RD-77-108 Noise Prediction Model.

TABLE 1a: Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Pomerado Road	Sycamore Test Rd to Spring Canyon	15,969	B	45	71.4	29	62	134	288
	Stonebridge Pkwy to Scripps Poway Pkwy	19,552	B	45	72.3	33	71	153	330
Stonebridge Parkway	East of Pomerado Rd	6,676	A	45	67.6	16	35	75	161
Kirkham Way	Stowe Dr to Yard #21 (105)	2,409	B	45	63.2	8	18	38	82
Scripps Poway Parkway	Stowe Dr to Danielson St	16,304	A	45	71.5	29	63	136	292
Sycamore Canyon Road	West of Calle De Rob	108	A	45	49.7	1	2	5	10
SR-67	Scripps Poway Pkwy to Sycamore Park Dr	21,355	D	45	72.7	35	76	163	351
	Sycamore Park Dr to Tower Access (111)	21,355	D	45	72.7	35	76	163	351
	Tower Access (111) to Tower Access (112)	21,355	D	45	72.7	35	76	163	351
	Tower Access (111) to Tower Access (112)	21,355	B	45	72.7	35	76	163	351
Vigilante Road	SR-67 to Moreno Avenue	2,190	B	45	62.8	8	17	36	77
	South of Moreno Avenue	1,814	A	45	62.0	7	15	32	68
Moreno Avenue	East of Vigilante Road	700	A	45	57.9	4	8	17	36
Willow Road	SR-67 to Wildcat Canyon Road/Ashwood Street	7,091	C	45	67.9	17	36	78	168
	Wildcat Canyon Rd to Tower Access (121)	429	A	45	55.7	3	6	12	26
Mapleview Street	Maine Avenue to Ashwood Street	21,260	B	45	72.7	35	76	163	351
	Ashwood Street to El Monte Road	12,916	A	45	70.5	25	54	116	251
Wildcat Canyon Road	Tower Access (118) to Willow Rd	15,874	E	45	71.4	29	62	134	288
El Monte Road	Lake Jennings Park Rd to Yard #20 (123)	1,671	A	45	61.6	6	14	30	64
	East of Yard #20 (122)	1,671	A	45	61.6	6	14	30	64
	West of Tower Access (124)	1,399	A	45	60.9	6	12	27	57
	Tower Access (124) to Tower Access (125)	1,399	A	45	60.9	6	12	27	57
	Tower Access (125) to Yard #19 (126)	336	A	45	54.7	2	5	10	22
	Yard #19 (126) to Tower Access (127)	336	A	45	54.7	2	5	10	22

TABLE 1a (cont.): Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Alpine Boulevard									
	Arnold Way to Peutz Valley Rd	855	A	45	58.7	4	9	19	41
	East of Tavern Rd	9,942	D	45	69.4	21	46	98	212
	East of E. Victoria Dr/S. Grade Rd	4,270	A	45	65.7	12	26	56	120
	West of Star Valley Rd	885	A	45	58.9	4	9	20	42
	Peutz Valley Road								
	North of Alpine Blvd	595	C+	45	57.1	3	7	15	32
Tavern Road									
	West of Victoria Park Terrace	624	A	45	57.4	3	7	16	34
	Victoria Park Terrace to I-8 Westbound Ramps	7,067	B	45	67.9	17	36	78	168
	I-8 Eastbound Ramps to Alpine Blvd	19,093	B	45	72.2	33	70	151	325
Victoria Park Terrace									
	North of Tavern Rd	4,588	C	45	66.0	13	27	58	126
Japatul Valley Road									
	North of Bell Bluff Truck Trail	1,111	A	45	59.9	5	11	23	49
	South of Bell Bluff Truck Trail	1,111	A	45	59.9	5	11	23	49
	Bell Bluff Truck Trail								
	West of Japatul Valley Rd	32	C+	45	44.5	0	1	2	5
Japatul Road									
	West of Hidden Glen Rd	915	A	45	59.0	4	9	20	43
	East of High Glen Rd	915	A	45	59.0	4	9	20	43
	Lyons Valley Road								
	Japatul Rd to Tower Access (226)	430	A	45	55.7	3	6	12	26
	Tower Access (226) to Yard #16 (227)	430	A	45	55.7	3	6	12	26
	Yard #15 (228) to Tower Access (229)	423	A	45	55.7	3	6	12	26
	Tower Access (229) to Honey Springs Rd	423	A	45	55.7	3	6	12	26
Honey Springs Road									
	Lyons Valley Rd to Deerhorn Valley Rd	958	A	45	59.2	4	10	21	44
Deerhorn Valley Road									
	East of Honey Springs Rd	950	A	45	59.2	4	10	21	44
	West of Cinnamon Dr	259	A	45	53.5	2	4	9	18
	East of Cinnamon Dr	259	C+	45	53.5	2	4	9	18
Manzanita Way									
	Deerhorn Valley Rd to Yard #14 (234)	62	C+	45	47.3	1	2	3	7

TABLE 1a (cont.): Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
SR-94 (Campo Road)	SR-188 (Tecate Rd) to Potrero Valley Rd	1,775	A	45	61.9	7	14	31	67
	East of Potrero Valley Rd	1,196	A	45	60.2	5	11	24	52
Portrero Valley Road	Round Portrero Rd to SR-94 (Campo Rd)	1,421	A	45	60.9	6	12	27	57
	West of Harris Ranch Rd	21	A	45	42.6	0	1	2	3
Lake Morena Drive	Tower Access (309) to Tower Access (310)	607	A	45	57.2	3	7	15	33
	Tower Access (310) to Buckman Springs Rd	607	A	45	57.2	3	7	15	33
Buckman Springs Road	South of Old Hwy 80	3,405	A	45	64.7	10	22	48	103
	Oak Dr to Tower Access (315)	2,375	A	45	63.2	8	18	38	82
	Tower Access (315) to Tower Access (316)	2,375	A	45	63.2	8	18	38	82
	Tower Access (316) to Lake Morena Dr	2,375	A	45	63.2	8	18	38	82
	Lake Morena Dr to SR-94 (Campo Rd)	2,465	A	45	63.3	8	18	39	83
Old Highway 80	Kitchen Creek Rd to Cameron Truck Trail	689	A	45	57.8	4	8	17	36
	Cameron Truck Trail to La Posta Rd	689	A	45	57.8	4	8	17	36
La Posta Road	Tower Access (323) to Cameron Truck Trail (324)	346	A	45	54.8	2	5	10	23
	Cameron Truck Trail (324) to Old Hwy 80	346	A	45	54.8	2	5	10	23
	North of Old Hwy 80	44	A	45	45.8	1	1	3	6
Thing Valley Road	South of Yard #10 (326)	14	C+	45	40.9	0	1	1	3
	North of Yard #10 (326)	14	C+	45	40.9	0	1	1	3
McCain Valley Road	West of Yard #9 (404)	8	C+	45	38.4	0	0	1	2
	East of Yard #9 (404)	8	C+	45	38.4	0	0	1	2
	North of Old Hwy 80	119	A	45	50.2	1	2	5	11
Ribbonwood Road	I-8 Eastbound Ramps to Old Hwy 80	1,229	A	45	60.3	5	11	24	52

TABLE 1a (cont.): Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Highway 80									
	Ribbonwood Rd to McCain Valley Rd	1,080	A	45	59.7	5	10	22	48
	Mc Cain Valley Rd to Tower Access (408)	814	A	45	58.5	4	9	18	40
	Tower Access (408) to Tower Access (409)	814	A	45	58.5	4	9	18	40
	Tower Access (409) to Desert Rose Ranch Rd	814	A	45	58.5	4	9	18	40
	Desert Rose Ranch Rd to Tower Access (411)	907	A	45	59.0	4	9	20	43
	East of Tower Access (411)	907	A	45	59.0	4	9	20	43
	West of Yard #6 (412)	449	A	45	55.9	3	6	12	27
	Yard #6 (412) to Carrizo Gorge Rd	449	A	45	55.9	3	6	12	27
	Carrizo Gorge Rd to Tower Access (501)	272	A	45	53.8	2	4	9	19
	Tower Access (501) to Tower Access (502)	272	A	45	53.8	2	4	9	19
	Tower Access (502) to Carrizo Creek Rd	272	A	45	53.8	2	4	9	19
	Carrizo Creek Rd to Tower Access (504)	272	A	45	53.8	2	4	9	19
	Tower Access (504) to Yard #5 (505)	199	A	45	52.4	2	3	7	16
	Yard #5 (505) to In-Ko-Pah Park Rd	199	A	45	52.4	2	3	7	16
I-8/Carrizo Gorge Road									
	North of Carrizo Gorge Rd	320	C+	45	54.5	2	5	10	21
Carrizo Gorge Road									
	Tower Access (415) to Yard #7 (416)	374	A	45	55.1	2	5	11	24
	Yard #7 (416) to Tower Access (417)	374	A	45	55.1	2	5	11	24
	Tower Access (417) to Tower Access (418)	374	A	45	55.1	2	5	11	24
	Tower Access (418) to Carrizo Creek Rd	407	A	45	55.5	3	5	12	25
	Carrizo Creek Rd to Old Hwy 80	407	A	45	55.5	3	5	12	25
Mountain Springs Road									
	I-8 WB ramps to Tower Access (510)	48	C+	45	46.2	1	1	3	6
	Tower Access (510) to I-8 EB ramps	48	C+	45	46.2	1	1	3	6
	County Highway S2								
	Dos Cabeza to Yard #4 (513)	271	A	45	53.7	2	4	9	19
	Yard #4 (513) to Shell Canyon Rd	271	A	45	53.7	2	4	9	19
	Shell Canyon Rd to I-8 WB ramps	512	A	45	56.5	3	6	14	29
Quarry Road									
	North of Yard #4 (513)	10	C+	45	39.4	0	0	1	2
	Yard #4 (514) to Tower Access (515)	77	A	45	48.3	1	2	4	8
	Tower Access (515) to Tower Access (516)	77	A	45	48.3	1	2	4	8
	Tower Access (516) to Shell Canyon Rd	77	A	45	48.3	1	2	4	8

TABLE 1a (cont.): Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Shell Canyon Road									
	North of County Hwy S2	72	A	45	48.0	1	2	4	8
County Highway S80									
	West of Tower Access (601)	234	A	45	53.1	2	4	8	17
	Tower Access (601) to Yard #3 (602)	234	A	45	53.1	2	4	8	17
	East of Yard #3 (602)	234	A	45	53.1	2	4	8	17
	East of New River Road	2,981	A	45	64.1	9	20	44	94
	East of Brown Road	2,468	A	45	63.3	8	18	39	83
Dunaway Road									
	South of I-8 Eastbound Ramps SR-98 (Yuha Cutoff)	70	C+	45	47.9	1	2	4	8
	West of Yard #1 (606)	1,210	A	45	60.2	5	11	24	52
	East of Yard #1 (606)	1,210	A	45	60.2	5	11	24	52
New River Road									
	North of County Hwy S80	157	A	45	51.4	1	3	6	13
Oak Drive									
	East of Lake Morena Drive	901	A	45	59.0	4	9	20	43
Lake Morena Avenue									
	North of Oak Drive	962	A	45	59.2	4	10	21	44
Prospect Avenue									
	East of Magnolia Avenue	21,127	B	45	72.7	35	76	163	351
	East of Cuyamaca Street	12,100	A	45	70.2	24	52	111	239
	West of Cuyamaca Street	11,048	A	45	69.8	23	48	104	225
Magnolia Avenue									
	North of Prospect Avenue	30,428	B	45	74.2	44	95	205	442
Cuyamaca Street									
	North of Prospect Avenue	19,188	A	45	72.2	33	70	151	325
Mission Gorge Road									
	East of Big Rock Road	13,410	A	45	70.7	26	56	120	258
Big Rock Road									
	South of Mission Gorge Road	6,324	A	45	67.4	16	34	72	156
Scripps Ranch Boulevard									
	South of Meanley Drive	9,522	A	45	69.2	21	44	95	205
Meanley Drive									
	East of Scripps Ranch Boulevard	1,582	A	45	61.4	6	13	29	62

TABLE 1a (cont.): Existing Traffic Noise Conditions (without Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Dairy Mart Road	East of Dairy Mart Road	1,317	A	45	60.6	5	12	25	55
Scripps Poway Parkway	East of Village Ridge / Cypress Canyon Road	33,343	D	45	74.6	47	101	218	470

Notes:

- o ADT = Average Daily Trips – Source: KOA Engineering, Inc., 4/10/10.
- o SPL = Sound Pressure Level in dBA at 50-feet from the road edge. CNEL = Community Noise Equivalent Level.
- o All values given in dBA CNEL. Contours assumed to be line-of-sight perpendicular (⊥) distance.

TABLE 1b: Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Pomerado Road	Sycamore Test Rd to Spring Canyon	16,699	B	45	71.6	30	64	138	297
	Stonebridge Pkwy to Scripps Poway Pkwy	20,166	B	45	72.4	34	72	156	335
Stonebridge Parkway	East of Pomerado Rd	7,040	B	45	67.9	17	36	78	168
Kirkham Way	Stowe Dr to Yard #21 (105)	2,951	B	45	64.1	9	20	44	94
Scripps Poway Parkway	Stowe Dr to Danielson St	16,934	A	45	71.7	30	65	140	301
Sycamore Canyon Road	West of Calle De Rob	214	A	45	52.7	2	4	8	16
SR-67	Scripps Poway Pkwy to Sycamore Park Dr	22,329	D	45	72.9	36	78	168	362
	Sycamore Park Dr to Tower Access (111)	22,332	D	45	72.9	36	78	168	362
	Tower Access (111) to Tower Access (112)	22,335	D	45	72.9	36	78	168	362
	Tower Access (111) to Tower Access (112)	22,338	B	45	72.9	36	78	168	362
Vigilante Road	SR-67 to Moreno Avenue	2,290	B	45	63.0	8	17	37	79
	South of Moreno Avenue	2,104	B	45	62.6	7	16	35	75
Moreno Avenue	East of Vigilante Road	818	A	45	58.5	4	9	18	40
Willow Road	SR-67 to Wildcat Canyon Road/Ashwood Street	7,381	D	45	68.1	17	37	80	173
	Wildcat Canyon Rd to Tower Access (121)	433	A	45	55.8	3	6	12	26
Mapleview Street	Maine Avenue to Ashwood Street	21,910	B	45	72.8	36	77	166	357
	Ashwood Street to El Monte Road	13,806	A	45	70.8	26	57	122	262
Wildcat Canyon Road	Tower Access (118) to Willow Rd	15,886	E	45	71.4	29	62	134	288
El Monte Road	Lake Jennings Park Rd to Yard #20 (123)	2,561	B	45	63.5	9	18	40	86
	East of Yard #20 (122)	2,221	B	45	62.9	8	17	36	78
	West of Tower Access (124)	1,949	B	45	62.3	7	15	33	71
	Tower Access (124) to Tower Access (125)	1,937	B	45	62.3	7	15	33	71
	Tower Access (125) to Yard #19 (126)	874	A	45	58.8	4	9	19	42
	Yard #19 (126) to Tower Access (127)	492	A	45	56.3	3	6	13	28

TABLE 1b (cont.): Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Alpine Boulevard									
	Arnold Way to Peutz Valley Rd	953	A	45	59.2	4	10	21	44
	East of Tavern Rd	9,960	D	45	69.4	21	46	98	212
	East of E. Victoria Dr/S. Grade Rd	4,288	A	45	65.7	12	26	56	120
	West of Star Valley Rd	1,047	A	45	59.6	5	10	22	47
	Peutz Valley Road								
	North of Alpine Blvd	751	C+	45	58.2	4	8	18	38
Tavern Road									
	West of Victoria Park Terrace	1,332	A	45	60.6	5	12	25	55
	Victoria Park Terrace to I-8 Westbound Ramps	7,760	B	45	68.3	18	39	83	179
	I-8 Eastbound Ramps to Alpine Blvd	19,265	B	45	72.3	33	71	153	330
Victoria Park Terrace									
	North of Tavern Rd	4,646	C	45	66.1	13	27	59	128
Japatul Valley Road									
	North of Bell Bluff Truck Trail	2,065	B	45	62.6	7	16	35	75
	South of Bell Bluff Truck Trail	2,009	B	45	62.4	7	16	34	72
	Bell Bluff Truck Trail								
	West of Japatul Valley Rd	930	C+	45	59.1	4	9	20	44
Japatul Road									
	West of Hidden Glen Rd	915	A	45	59.0	4	9	20	43
	East of High Glen Rd	1,155	A	45	60.0	5	11	23	50
	Lyons Valley Road								
	Japatul Rd to Tower Access (226)	1,284	A	45	60.5	5	12	25	54
	Tower Access (226) to Yard #16 (227)	1,336	A	45	60.7	6	12	26	56
	Yard #15 (228) to Tower Access (229)	1,223	A	45	60.3	5	11	24	52
	Tower Access (229) to Honey Springs Rd	849	A	45	58.7	4	9	19	41
Honey Springs Road									
	Lyons Valley Rd to Deerhorn Valley Rd	1,384	A	45	60.8	6	12	26	57
Deerhorn Valley Road									
	East of Honey Springs Rd	1,376	A	45	60.8	6	12	26	57
	West of Cinnamon Dr	685	A	45	57.8	4	8	17	36
	East of Cinnamon Dr	599	C+	45	57.2	3	7	15	33
Manzanita Way									
	Deerhorn Valley Rd to Yard #14 (234)	402	C+	45	55.4	2	5	11	25

TABLE 1b (cont.): Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
SR-94 (Campo Road)	SR-188 (Tecate Rd) to Potrero Valley Rd	1,807	A	45	62.0	7	15	32	68
	East of Potrero Valley Rd	1,806	A	45	62.0	7	15	32	68
Portrero Valley Road	Round Portrero Rd to SR-94 (Campo Rd)	2,041	B	45	62.5	7	16	34	73
	West of Harris Ranch Rd	207	A	45	52.6	2	3	7	16
Lake Morena Drive	Tower Access (309) to Tower Access (310)	1,261	A	45	60.4	5	11	25	53
	Tower Access (310) to Buckman Springs Rd	1,257	A	45	60.4	5	11	25	53
Buckman Springs Road	South of Old Hwy 80	4,259	A	45	65.7	12	26	56	120
	Oak Dr to Tower Access (315)	3,005	A	45	64.2	10	21	44	95
	Tower Access (315) to Tower Access (316)	3,071	A	45	64.3	10	21	45	97
	Tower Access (316) to Lake Morena Dr	3,079	A	45	64.3	10	21	45	97
	Lake Morena Dr to SR-94 (Campo Rd)	3,075	A	45	64.3	10	21	45	97
Old Highway 80	Kitchen Creek Rd to Cameron Truck Trail	1,347	A	45	60.7	6	12	26	56
	Cameron Truck Trail to La Posta Rd	1,311	A	45	60.6	5	12	25	55
La Posta Road	Tower Access (323) to Cameron Truck Trail (324)	510	A	45	56.5	3	6	14	29
	Cameron Truck Trail (324) to Old Hwy 80	526	A	45	56.6	3	6	14	30
	North of Old Hwy 80	626	A	45	57.4	3	7	16	34
Thing Valley Road	South of Yard #10 (326)	596	C+	45	57.2	3	7	15	33
	North of Yard #10 (326)	234	C+	45	53.1	2	4	8	17
McCain Valley Road	West of Yard #9 (404)	274	C+	45	53.8	2	4	9	19
	East of Yard #9 (404)	650	C+	45	57.5	3	7	16	34
	North of Old Hwy 80	1,297	A	45	60.5	5	12	25	54
Ribbonwood Road	I-8 Eastbound Ramps to Old Hwy 80	2,197	B	45	62.8	8	17	36	77

TABLE 1b (cont.): Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Highway 80									
	Ribbonwood Rd to McCain Valley Rd	2,072	A	45	62.6	7	16	35	75
	Mc Cain Valley Rd to Tower Access (408)	1,008	A	45	59.4	5	10	21	46
	Tower Access (408) to Tower Access (409)	992	A	45	59.4	5	10	21	46
	Tower Access (409) to Desert Rose Ranch Rd	980	A	45	59.3	4	10	21	45
	Desert Rose Ranch Rd to Tower Access (411)	1,057	A	45	59.6	5	10	22	47
	East of Tower Access (411)	1,215	A	45	60.2	5	11	24	52
	West of Yard #6 (412)	757	A	45	58.2	4	8	18	38
	Yard #6 (412) to Carrizo Gorge Rd	947	A	45	59.2	4	10	21	44
	Carrizo Gorge Rd to Tower Access (501)	670	A	45	57.7	4	8	16	35
	Tower Access (501) to Tower Access (502)	702	A	45	57.9	4	8	17	36
	Tower Access (502) to Carrizo Creek Rd	696	A	45	57.8	4	8	17	36
	Carrizo Creek Rd to Tower Access (504)	690	A	45	57.8	4	8	17	36
	Tower Access (504) to Yard #5 (505)	629	A	45	57.4	3	7	16	34
	Yard #5 (505) to In-Ko-Pah Park Rd	727	A	45	58.0	4	8	17	37
I-8/Carrizo Gorge Road									
	North of Carrizo Gorge Rd	888	C+	45	58.9	4	9	20	42
Carrizo Gorge Road									
	Tower Access (415) to Yard #7 (416)	942	A	45	59.1	4	9	20	44
	Yard #7 (416) to Tower Access (417)	850	A	45	58.7	4	9	19	41
	Tower Access (417) to Tower Access (418)	836	A	45	58.6	4	9	19	40
	Tower Access (418) to Carrizo Creek Rd	763	A	45	58.2	4	8	18	38
	Carrizo Creek Rd to Old Hwy 80	625	A	45	57.4	3	7	16	34
Mountain Springs Road									
	I-8 WB ramps to Tower Access (510)	52	C+	45	46.6	1	1	3	6
	Tower Access (510) to I-8 EB ramps	52	C+	45	46.6	1	1	3	6
	County Highway S2								
	Dos Cabeza to Yard #4 (513)	461	A	45	56.0	3	6	13	27
	Yard #4 (513) to Shell Canyon Rd	783	A	45	58.3	4	8	18	39
	Shell Canyon Rd to I-8 WB ramps	1,094	A	45	59.8	5	10	23	48
Quarry Road									
	North of Yard #4 (513)	418	C+	45	55.6	3	5	12	25
	Yard #4 (514) to Tower Access (515)	197	A	45	52.3	2	3	7	15
	Tower Access (515) to Tower Access (516)	259	A	45	53.5	2	4	9	18
	Tower Access (516) to Shell Canyon Rd	387	A	45	55.3	2	5	11	24

TABLE 1b (cont.): Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Shell Canyon Road									
County Highway S80	North of County Hwy S2	404	A	45	55.5	3	5	12	25
	West of Tower Access (601)	616	A	45	57.3	3	7	15	33
	Tower Access (601) to Yard #3 (602)	846	A	45	58.7	4	9	19	41
	East of Yard #3 (602)	841	A	45	58.7	4	9	19	41
	East of New River Road	3,013	A	45	64.2	10	21	44	95
	East of Brown Road	2,636	A	45	63.6	9	19	40	87
Dunaway Road									
	South of I-8 Eastbound Ramps SR-98 (Yuha Cutoff)	576	C+	45	57.0	3	7	15	32
	West of Yard #1 (606)	1,426	A	45	60.9	6	12	27	57
	East of Yard #1 (606)	1,482	A	45	61.1	6	13	27	59
New River Road									
	North of County Hwy S80	293	A	45	54.1	2	4	9	20
Oak Drive									
	East of Lake Morena Drive	1,173	A	45	60.1	5	11	24	51
Lake Morena Avenue									
	North of Oak Drive	1,276	A	45	60.5	5	12	25	54
Prospect Avenue									
	East of Magnolia Avenue	21,249	B	45	72.7	35	76	163	351
	East of Cuyamaca Street	12,344	A	45	70.3	24	52	113	243
	West of Cuyamaca Street	11,184	A	45	69.9	23	49	106	229
Magnolia Avenue									
	North of Prospect Avenue	30,564	B	45	74.3	45	97	208	449
Cuyamaca Street									
	North of Prospect Avenue	19,324	A	45	72.3	33	71	153	330
Mission Gorge Road									
	East of Big Rock Road	13,682	A	45	70.8	26	57	122	262
Big Rock Road									
	South of Mission Gorge Road	6,596	A	45	67.6	16	35	75	161
Scripps Ranch Boulevard									
	South of Meanley Drive	9,794	A	45	69.3	21	45	97	208
Meanley Drive									
	East of Scripps Ranch Boulevard	1,854	A	45	62.1	7	15	32	69

TABLE 1b (cont.): Existing Traffic Noise Conditions (with Project)

Roadway	Segment	ADT	LOS	Speed (MPH)	SPL	CNEL Contour Distances (feet)			
						75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Dairy Mart Road	East of Dairy Mart Road	1,589	A	45	61.4	6	13	29	62
Scripps Poway Parkway	East of Village Ridge / Cypress Canyon Road	33,494	E	45	74.7	48	103	222	477

Notes:

- o ADT = Average Daily Trips – Source: KOA Engineering, Inc., 4/10/10.
- o SPL = Sound Pressure Level in dBA at 50-feet from the road edge. CNEL = Community Noise Equivalent Level.
- o All values given in dBA CNEL. Contours assumed to be line-of-sight perpendicular (⊥) distance.

TABLE 2: Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
Pomerado Road	Sycamore Test Rd to Spring Canyon	0.2	NO	1	2	4	9
	Stonebridge Pkwy to Scripps Poway Pkwy	0.1	NO	1	1	3	5
Stonebridge Parkway	East of Pomerado Rd	0.3	NO	1	1	3	7
Kirkham Way	Stowe Dr to Yard #21 (105)	0.9	NO	1	2	6	12
Scripps Poway Parkway	Stowe Dr to Danielson St	0.2	NO	1	2	4	9
Sycamore Canyon Road	West of Calle De Rob	3.0	NO	1	2	3	6
SR-67	Scripps Poway Pkwy to Sycamore Park Dr	0.2	NO	1	2	5	11
	Sycamore Park Dr to Tower Access (111)	0.2	NO	1	2	5	11
	Tower Access (111) to Tower Access (112)	0.2	NO	1	2	5	11
	Tower Access (111) to Tower Access (112)	0.2	NO	1	2	5	11
Vigilante Road	SR-67 to Moreno Avenue	0.2	NO	0	0	1	2
	South of Moreno Avenue	0.6	NO	0	1	3	7
Moreno Avenue	East of Vigilante Road	0.6	NO	0	1	1	4
Willow Road	SR-67 to Wildcat Canyon Road/Ashwood Street	0.2	NO	0	1	2	5
	Wildcat Canyon Rd to Tower Access (121)	0.1	NO	0	0	0	0
Mapleview Street	Maine Avenue to Ashwood Street	0.1	NO	1	1	3	6
	Ashwood Street to El Monte Road	0.3	NO	1	3	6	11
Wildcat Canyon Road	Tower Access (118) to Willow Rd	0.0	NO	0	0	0	0
El Monte Road	Lake Jennings Park Rd to Yard #20 (123)	1.9	NO	3	4	10	22
	East of Yard #20 (122)	1.3	NO	2	3	6	14
	West of Tower Access (124)	1.4	NO	1	3	6	14
	Tower Access (124) to Tower Access (125)	1.4	NO	1	3	6	14
	Tower Access (125) to Yard #19 (126)	4.1	YES	2	4	9	20
	Yard #19 (126) to Tower Access (127)	1.6	NO	1	1	3	6

TABLE 2 (cont.): Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
Alpine Boulevard							
	Arnold Way to Peutz Valley Rd	0.5	NO	0	1	2	3
	East of Tavern Rd	0.0	NO	0	0	0	0
	East of E. Victoria Dr/S. Grade Rd	0.0	NO	0	0	0	0
	West of Star Valley Rd	0.7	NO	1	1	2	5
	Peutz Valley Road	0.0	NO	0	0	0	0
	North of Alpine Blvd	1.1	NO	1	1	3	6
Tavern Road							
	West of Victoria Park Terrace	3.2	YES	2	5	9	21
	Victoria Park Terrace to I-8 Westbound Ramps	0.4	NO	1	3	5	11
	I-8 Eastbound Ramps to Alpine Blvd	0.1	NO	0	1	2	5
Victoria Park Terrace							
	North of Tavern Rd	0.1	NO	0	0	1	2
Japatul Valley Road							
	North of Bell Bluff Truck Trail	2.7	NO	2	5	12	26
	South of Bell Bluff Truck Trail	2.5	NO	2	5	11	23
	Bell Bluff Truck Trail	0.0	NO	0	0	0	0
	West of Japatul Valley Rd	14.6	YES	4	8	18	39
Japatul Road							
	West of Hidden Glen Rd	0.0	NO	0	0	0	0
	East of High Glen Rd	1.0	NO	1	2	3	7
	Lyons Valley Road	0.0	NO	0	0	0	0
	Japatul Rd to Tower Access (226)	4.8	YES	2	6	13	28
	Tower Access (226) to Yard #16 (227)	5.0	YES	3	6	14	30
	Yard #15 (228) to Tower Access (229)	4.6	YES	2	5	12	26
	Tower Access (229) to Honey Springs Rd	3.0	NO	1	3	7	15
Honey Springs Road							
	Lyons Valley Rd to Deerhorn Valley Rd	1.6	NO	2	2	5	13
Deerhorn Valley Road							
	East of Honey Springs Rd	1.6	NO	2	2	5	13
	West of Cinnamon Dr	4.3	YES	2	4	8	18
	East of Cinnamon Dr	3.7	YES	1	3	6	15
Manzanita Way							
	Deerhorn Valley Rd to Yard #14 (234)	8.1	YES	1	3	8	18

TABLE 2 (cont.): Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
SR-94 (Campo Road)		0.0	NO	0	0	0	0
	SR-188 (Tecate Rd) to Potrero Valley Rd	0.1	NO	0	1	1	1
Portrero Valley Road	East of Potrero Valley Rd	1.8	NO	2	4	8	16
	Round Portrero Rd to SR-94 (Campo Rd)	1.6	NO	1	4	7	16
Lake Morena Drive	West of Harris Ranch Rd	10.0	YES	2	2	5	13
	Tower Access (309) to Tower Access (310)	3.2	YES	2	4	10	20
Buckman Springs Road	Tower Access (310) to Buckman Springs Rd	3.2	YES	2	4	10	20
	South of Old Hwy 80	1.0	NO	2	4	8	17
Old Highway 80	Oak Dr to Tower Access (315)	1.0	NO	2	3	6	13
	Tower Access (315) to Tower Access (316)	1.1	NO	2	3	7	15
	Tower Access (316) to Lake Morena Dr	1.1	NO	2	3	7	15
	Lake Morena Dr to SR-94 (Campo Rd)	1.0	NO	2	3	6	14
La Posta Road	Kitchen Creek Rd to Cameron Truck Trail	2.9	NO	2	4	9	20
	Cameron Truck Trail to La Posta Rd	2.8	NO	1	4	8	19
Thing Valley Road	Tower Access (323) to Cameron Truck Trail (324)	1.7	NO	1	1	4	6
	Cameron Truck Trail (324) to Old Hwy 80	1.8	NO	1	1	4	7
	North of Old Hwy 80	11.6	YES	2	6	13	28
McCain Valley Road	South of Yard #10 (326)	16.3	YES	3	6	14	30
	North of Yard #10 (326)	12.2	YES	2	3	7	14
Ribbonwood Road	West of Yard #9 (404)	15.4	YES	2	4	8	17
	East of Yard #9 (404)	19.1	YES	3	7	15	32
	North of Old Hwy 80	10.3	YES	4	10	20	43
Ribbonwood Road	I-8 Eastbound Ramps to Old Hwy 80	2.5	NO	3	6	12	25

TABLE 2 (cont.): Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Highway 80							
	Ribbonwood Rd to McCain Valley Rd	2.9	NO	2	6	13	27
	Mc Cain Valley Rd to Tower Access (408)	0.9	NO	1	1	3	6
	Tower Access (408) to Tower Access (409)	0.9	NO	1	1	3	6
	Tower Access (409) to Desert Rose Ranch Rd	0.8	NO	0	1	3	5
	Desert Rose Ranch Rd to Tower Access (411)	0.6	NO	1	1	2	4
	East of Tower Access (411)	1.2	NO	1	2	4	9
	West of Yard #6 (412)	2.3	NO	1	2	6	11
	Yard #6 (412) to Carrizo Gorge Rd	3.3	YES	1	4	9	17
	Carrizo Gorge Rd to Tower Access (501)	3.9	YES	2	4	7	16
	Tower Access (501) to Tower Access (502)	4.1	YES	2	4	8	17
	Tower Access (502) to Carrizo Creek Rd	4.0	YES	2	4	8	17
	Carrizo Creek Rd to Tower Access (504)	4.0	YES	2	4	8	17
	Tower Access (504) to Yard #5 (505)	5.0	YES	1	4	9	18
	Yard #5 (505) to In-Ko-Pah Park Rd	5.6	YES	2	5	10	21
I-8/Carrizo Gorge Road							
	North of Carrizo Gorge Rd	4.4	YES	2	4	10	21
Carrizo Gorge Road							
	Tower Access (415) to Yard #7 (416)	4.0	YES	2	4	9	20
	Yard #7 (416) to Tower Access (417)	3.6	YES	2	4	8	17
	Tower Access (417) to Tower Access (418)	3.5	YES	2	4	8	16
	Tower Access (418) to Carrizo Creek Rd	2.7	NO	1	3	6	13
	Carrizo Creek Rd to Old Hwy 80	1.9	NO	0	2	4	9
Mountain Springs Road							
	I-8 WB ramps to Tower Access (510)	0.4	NO	0	0	0	0
	Tower Access (510) to I-8 EB ramps	0.4	NO	0	0	0	0
	County Highway S2	0.0	NO	0	0	0	0
	Dos Cabeza to Yard #4 (513)	2.3	NO	1	2	4	8
	Yard #4 (513) to Shell Canyon Rd	4.6	YES	2	4	9	20
	Shell Canyon Rd to I-8 WB ramps	3.3	YES	2	4	9	19
Quarry Road							
	North of Yard #4 (513)	16.2	YES	3	5	11	23
	Yard #4 (514) to Tower Access (515)	4.0	YES	1	1	3	7
	Tower Access (515) to Tower Access (516)	5.2	YES	1	2	5	10
	Tower Access (516) to Shell Canyon Rd	7.0	YES	1	3	7	16

TABLE 2 (cont.): Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
Shell Canyon Road							
	North of County Hwy S2	7.5	YES	2	3	8	17
County Highway S80							
	West of Tower Access (601)	4.2	YES	1	3	7	16
	Tower Access (601) to Yard #3 (602)	5.6	YES	2	5	11	24
	East of Yard #3 (602)	5.6	YES	2	5	11	24
	East of New River Road	0.1	NO	1	1	0	1
	East of Brown Road	0.3	NO	1	1	1	4
Dunaway Road							
	South of I-8 Eastbound Ramps	9.1	YES	2	5	11	24
	SR-98 (Yuha Cutoff)	0.0	NO	0	0	0	0
	West of Yard #1 (606)	0.7	NO	1	1	3	5
	East of Yard #1 (606)	0.9	NO	1	2	3	7
New River Road							
	North of County Hwy S80	2.7	NO	1	1	3	7
Oak Drive							
	East of Lake Morena Drive	1.1	NO	1	2	4	8
Lake Morena Avenue							
	North of Oak Drive	1.3	NO	1	2	4	10
Prospect Avenue							
	East of Magnolia Avenue	0.0	NO	0	0	0	0
	East of Cuyamaca Street	0.1	NO	0	0	2	4
	West of Cuyamaca Street	0.1	NO	0	1	2	4
Magnolia Avenue							
	North of Prospect Avenue	0.1	NO	1	2	3	7
Cuyamaca Street							
	North of Prospect Avenue	0.1	NO	0	1	2	5
Mission Gorge Road							
	East of Big Rock Road	0.1	NO	0	1	2	4
Big Rock Road							
	South of Mission Gorge Road	0.2	NO	0	1	3	5
Scripps Ranch Boulevard							
	South of Meanley Drive	0.1	NO	0	1	2	3
Meanley Drive							
	East of Scripps Ranch Boulevard	0.7	NO	1	2	3	7

TABLE 2 (cont.): Traffic Segment Noise Impact Comparison

Roadway	Segment	Net Increase in SPL	Potential Impact?	Effective Change in CNEL Contour Distances (feet)			
				75 CNEL	70 CNEL	65 CNEL	60 CNEL
Old Dairy Mart Road	East of Dairy Mart Road	0.8	NO	1	1	4	7
Scripps Poway Parkway	East of Village Ridge / Cypress Canyon Road	0.1	NO	1	2	4	7

Notes:

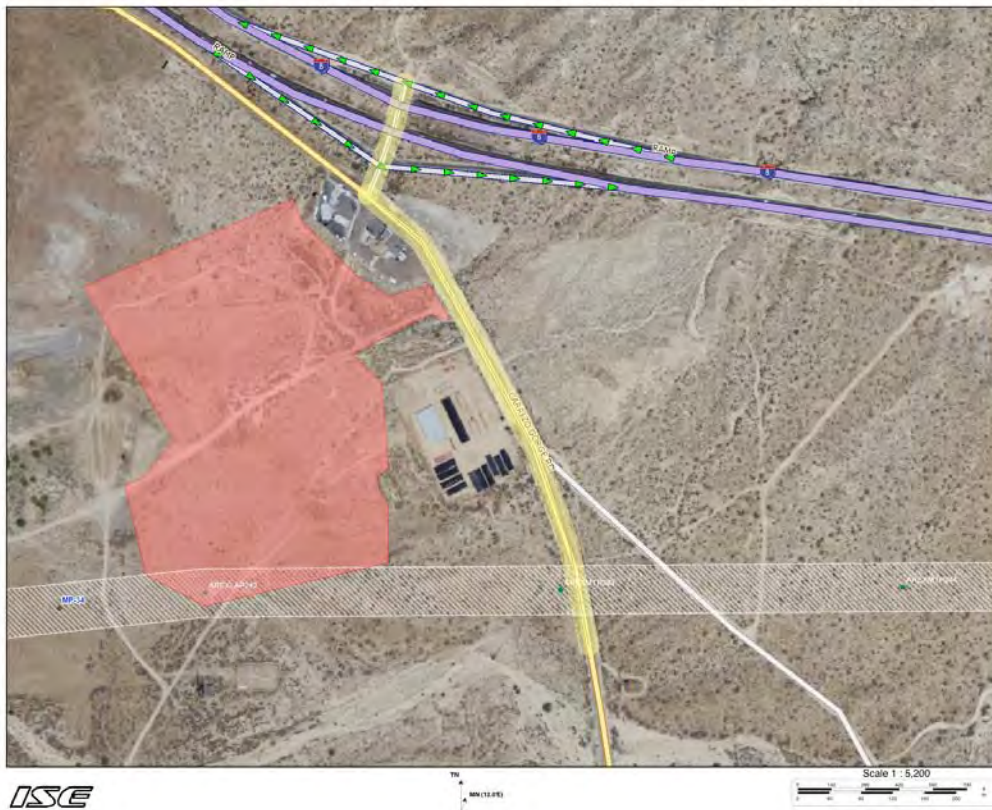
- o ADT = Average Daily Trips – Source: KOA Engineering, Inc., 4/10/10.
- o SPL = Sound Pressure Level in dBA at 50-feet from the road edge. CNEL = Community Noise Equivalent Level.
- o All values given in dBA CNEL. Contours assumed to be line-of-sight perpendicular (⊥) distance.

Conclusion

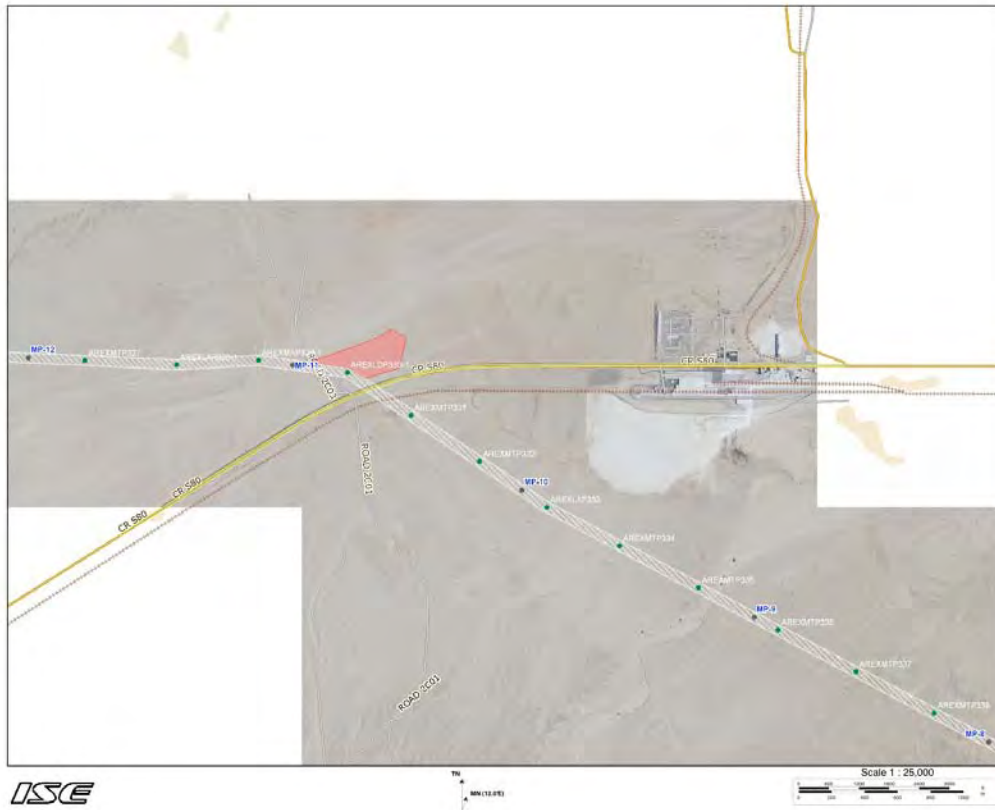
Based upon the analysis, it is ISE's opinion that short-term powered haulage due to the proposed Sunrise Powerlink would not cause a significant acoustical impact to any adjacent sensitive receptors. No mitigation is identified.

Should you have any questions regarding the above findings or conclusions, please do not hesitate to contact me at (760) 787-0016.

Attachment A: GIS Receptor Inspection Panes (in alphabetical order)



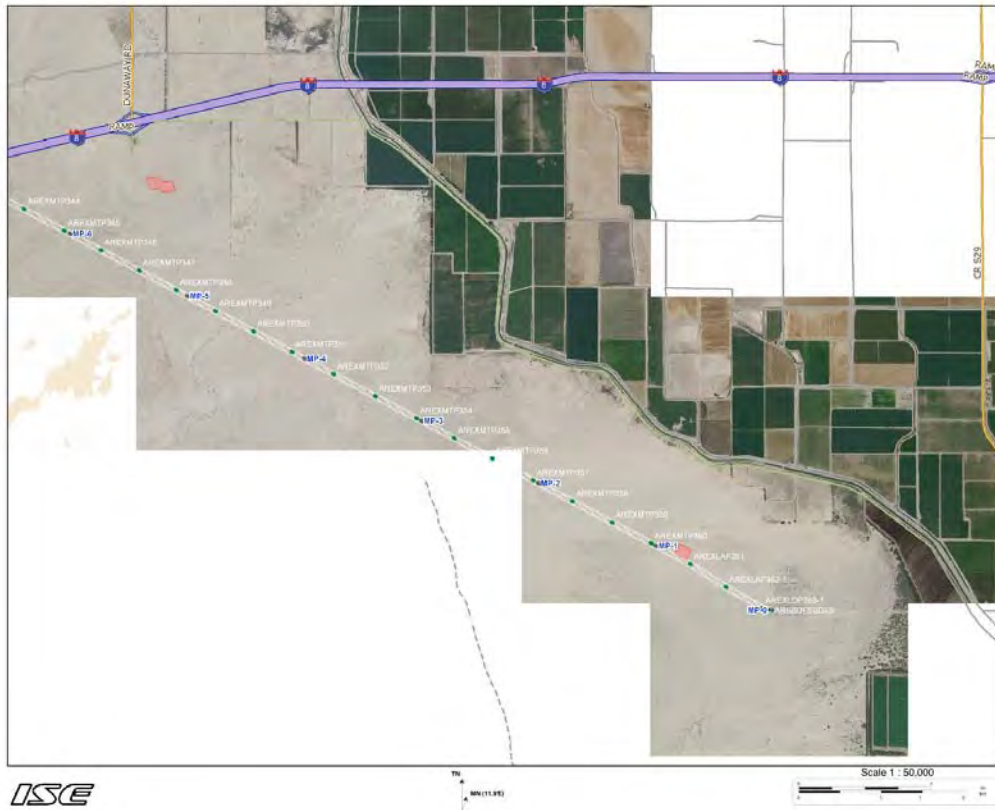
Carrizo Gorge Road



County Highway S80



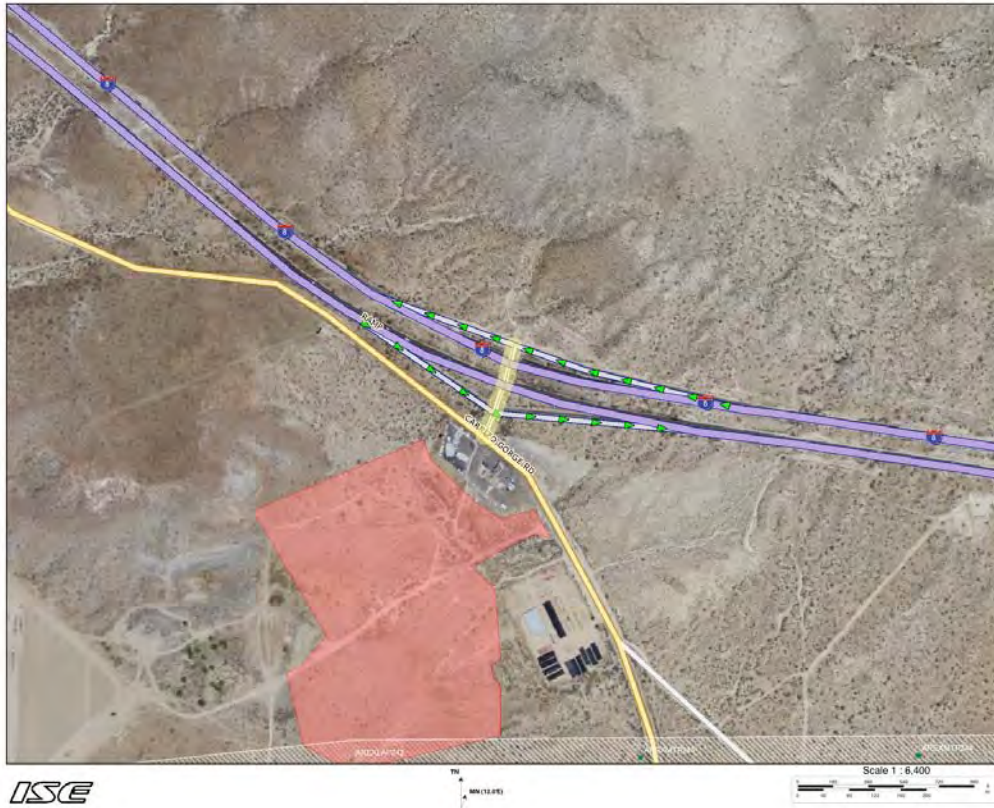
Deerhorn Valley Road



Dunaway Road



El Monte Road



I8-Carrizo Gorge Road Connector



Japatul Road



Japatul Valley Road



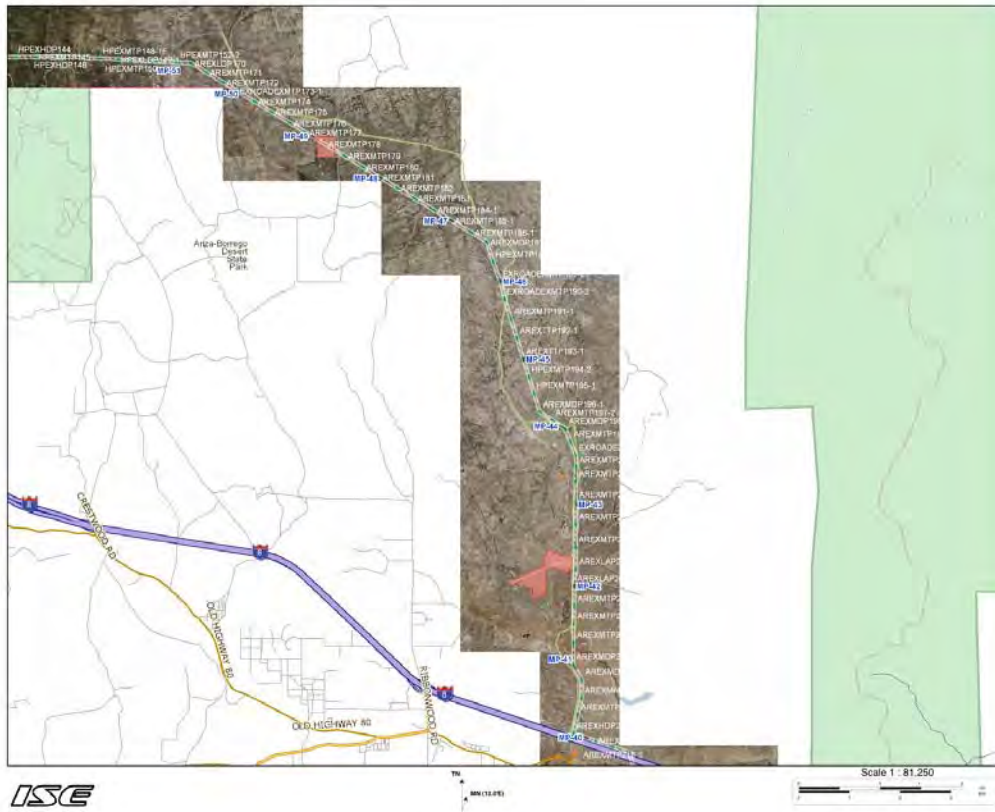
La Posta Road



Lake Morena Drive



Manzanita Way



McCain Valley Road



Mountain Springs Road



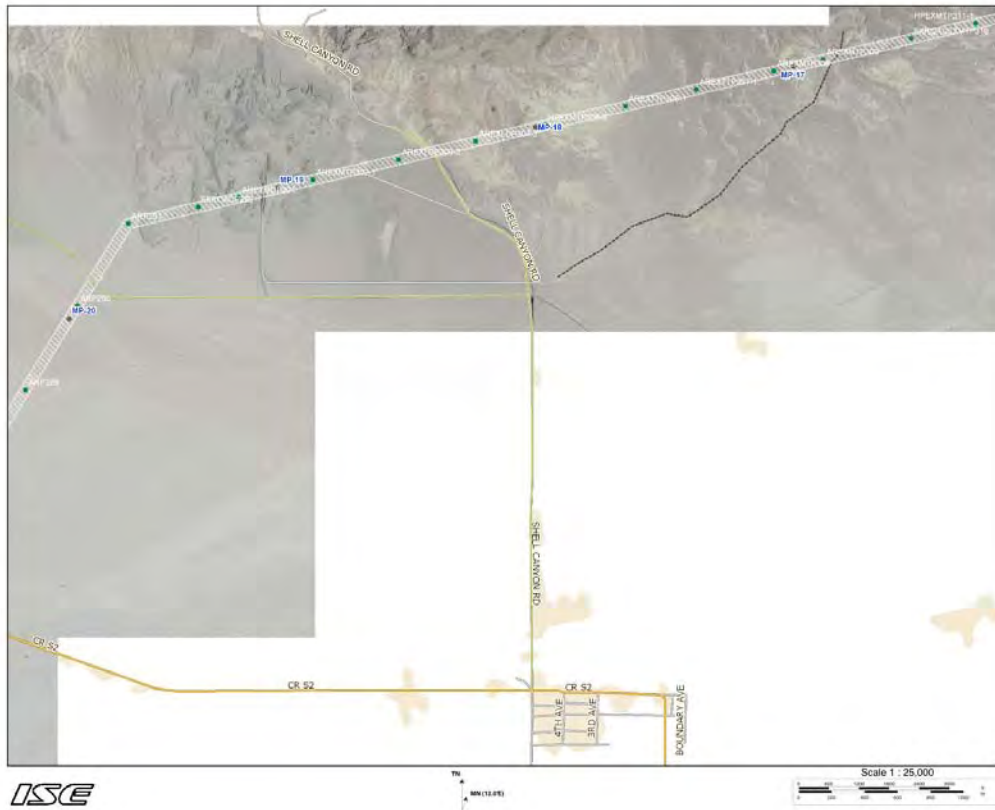
Old Highway 80



Portrero Valley Road



Quarry Road



Shell Canyon Road



Tavern Road



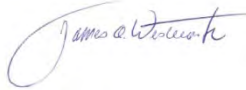
ATTACHMENT D



MEMORANDUM

March 17, 2010

To: Ms. Linda Collins, LLC

From: James A. Westbrook, BlueScape Environmental 

Subject: Air Quality Impacts from the Final Water Use Plan, Final Environmentally Superior Southern Route

At the request of San Diego Gas & Electric, BlueScape Environmental (“BlueScape”) reviewed potential air quality impacts from the final Water Use Plan for the Sunrise Powerlink Transmission Project Final Environmentally Superior Southern Route (FESSR). According to the plan, water for construction purposes and dust mitigation will be trucked in either 9,000 gallon or 3,000 gallon heavy-duty tankers from the San Diego North County Treatment Plant, the Imperial Irrigation District or area reservoirs. The prior Water Use Plan for the FESSR was to utilize groundwater sources nearer the construction areas. For this review, BlueScape considered impacts from diesel combustion in heavy-duty trucks.

Project air emissions from onroad truck fuel combustion associated with the Water Use Plan are not expected to result in new impacts, nor the need to revise previous air quality impact analysis. In the final project EIR/EIS completed for the Northern Route, onroad air emissions from water transportation were based upon about 5.2 million vehicle miles travelled (VMT). This total did not include local water truck deliveries within construction areas. In comparison, the worst-case

Ms. Linda Collins
San Diego Gas & Electric
March 17, 2010
Page 2

total water transportation under the final Water Use Plan for FESSR is considerably less, estimated to be about 1.2 million VMT over a 12-month period.

The CPUC approved the Construction Emissions Monitoring Plan for the project, including water transportation activity, on February 1, 2010. The Monitoring Plan contains a heavy-duty vehicle activity target of 1.9 million VMT, based upon air emission calculations for the FESSR submitted in June 2009. Because total heavy-duty truck trips were conservatively overestimated for the Monitoring Plan, the Sunrise project is expected to continue to meet the total activity target. Therefore, the final Water Use Plan does not cause the need to update the project air quality impact analysis.