

DOCKETED

Docket Number:	15-AFC-02
Project Title:	Mission Rock Energy Center
TN #:	207151-26
Document Title:	Contents
Description:	N/A
Filer:	Sabrina Savala
Organization:	Mission Rock Energy Center, LLC
Submitter Role:	Applicant
Submission Date:	12/30/2015 3:48:08 PM
Docketed Date:	12/30/2015

Contents

Section	Page
Acronyms and Abbreviations	xv
Executive Summary	ES-1
Project Objectives	ES-1
Project Location	ES-1
Project Elements	ES-1
Project Benefits.....	ES-2
Project Ownership	ES-3
Project Schedule	ES-3
Environmental Considerations.....	ES-3
Air Quality	ES-3
Biological Resources	ES-4
Cultural Resources	ES-4
Land Use.....	ES-5
Noise	ES-5
Visual Resources	ES-5
Water Resources.....	ES-5
1. Introduction	1-1
1.1 Project Objectives.....	1-1
1.2 Project Location	1-1
1.3 Project Elements	1-2
1.4 Project Benefits.....	1-9
1.5 Project Operation	1-9
1.6 Project Ownership	1-10
1.7 Project Schedule	1-10
1.8 Persons Who Prepared the AFC.....	1-10
2. Project Description	2-1
2.1 Generating Facility Description, Design, and Operation	2-1
2.1.1 General Site Arrangement and Layout	2-1
2.1.2 Process Description.....	2-1
2.1.3 Integrated Energy Storage	2-2
2.1.4 Generating Facility Cycle.....	2-2
2.1.5 Combustion Turbine Generators	2-2
2.1.6 Major Electrical Equipment and Systems	2-9
2.1.7 Fuel System	2-10
2.1.8 Inlet Air Chiller System.....	2-11
2.1.9 Water Supply and Use	2-11
2.1.10 Waste Management	2-17
2.1.11 Management of Hazardous Materials	2-18
2.1.12 Emission Control and Monitoring.....	2-18
2.1.13 Fire Protection	2-19
2.1.14 Plant Auxiliaries	2-20
2.1.15 Interconnect to Electrical Grid.....	2-22
2.1.16 Project Construction	2-22
2.1.17 Generating Facility Operation.....	2-23

2.2	Engineering	2-23
2.2.1	Facility Design	2-24
2.2.2	Facility Reliability	2-24
2.2.3	Thermal Efficiency.....	2-27
2.3	Facility Closure	2-27
2.3.1	Temporary Closure	2-27
2.3.2	Permanent Closure	2-28
2.4	References	2-28
3.	Electric Transmission.....	3-1
3.1	Introduction	3-1
3.2	Transmission Lines Description, Design, and Operation	3-1
3.2.1	Overhead Transmission Line Characteristics	3-1
3.2.2	230-kV Santa Clara Substation Characteristics	3-2
3.2.3	MREC Switchyard Characteristics	3-2
3.3	Transmission Interconnection Studies.....	3-2
3.4	Transmission Line Safety and Nuisances	3-5
3.4.1	Electrical Clearances	3-5
3.4.2	Electrical Effects.....	3-6
3.4.3	Aviation Safety	3-8
3.4.4	Fire Hazards	3-8
3.5	Laws, Ordinances, Regulations, and Standards	3-8
3.5.1	Design and Construction.....	3-8
3.5.2	Electric and Magnetic Fields	3-9
3.5.3	Hazardous Shock.....	3-9
3.5.4	Communications Interference	3-10
3.5.5	Aviation Safety	3-10
3.5.6	Fire Hazards	3-10
3.5.7	Jurisdiction.....	3-11
3.6	References	3-11
4.	Natural Gas Supply	4-1
4.1	Construction.....	4-1
4.2	Metering Station	4-2
4.3	Pipeline Operations	4-2
4.4	References	4-2
5.	Environmental Analysis.....	5-1
5.1	Air Quality	5.1-1
5.1.1	Introduction	5.1-1
5.1.2	Project Description	5.1-3
5.1.3	Emissions Evaluation.....	5.1-6
5.1.4	Best Available Control Technology Evaluation	5.1-15
5.1.5	Air Quality Impact Analysis	5.1-16
5.1.6	Meteorological Data Selection	5.1-19
5.1.7	Laws, Ordinances, Regulations, and Statutes.....	5.1-37
5.1.8	References	5.1-47
5.2	Biological Resources	5.2-1
5.2.1	Affected Environment.....	5.2-1
5.2.2	Environmental Analysis.....	5.2-13
5.2.3	Cumulative Effects	5.2-21

5.2.4	Avoidance and Minimization Measures	5.2-21
5.2.5	Laws, Ordinances, Regulations, and Standards	5.2-25
5.2.6	Permits and Permit Schedule.....	5.2-29
5.2.7	Agency Contacts.....	5.2-29
5.2.8	References	5.2-29
5.3	Cultural Resources	5.3-1
5.3.1	Affected Environment.....	5.3-2
5.3.2	Research Design for the Cultural Resources Inventory	5.3-11
5.3.3	Environmental Analysis.....	5.3-26
5.3.4	Cumulative Effects	5.3-32
5.3.5	Mitigation Measures.....	5.3-37
5.3.6	Laws, Ordinances, Regulations, and Standards	5.3-39
5.3.7	Agencies and Agency Contacts	5.3-42
5.3.8	Permits and Permit Schedule.....	5.3-43
5.3.9	References	5.3-43
5.4	Geological Hazards and Resources	5.4-1
5.4.1	Affected Environment.....	5.4-1
5.4.2	Environmental Analysis.....	5.4-8
5.4.3	Cumulative Effects	5.4-13
5.4.4	Mitigation Measures.....	5.4-14
5.4.5	Laws, Ordinances, Regulations, and Standards	5.4-14
5.4.6	Agencies and Agency Contacts	5.4-14
5.4.7	Permits and Permit Schedule.....	5.4-15
5.4.8	References	5.4-15
5.5	Hazardous Materials Handling.....	5.5-1
5.5.1	Affected Environment.....	5.5-1
5.5.2	Land Use.....	5.5-1
5.5.3	Environmental Analysis.....	5.5-2
5.5.4	Cumulative Effects	5.5-10
5.5.5	Mitigation Measures.....	5.5-11
5.5.6	Laws, Ordinances, Regulations, and Standards	5.5-15
5.5.7	Agencies and Agency Contacts	5.5-20
5.5.8	Permits and Permit Schedule.....	5.5-21
5.5.9	References	5.5-21
5.6	Land Use.....	5.6-1
5.6.1	Affected Environment.....	5.6-1
5.6.2	Environmental Analysis.....	5.6-19
5.6.3	Cumulative Effects	5.6-26
5.6.4	Mitigation Measures.....	5.6-27
5.6.5	Laws, Ordinances, Regulations and Standards	5.6-27
5.6.6	Agencies and Agency Contacts	5.6-28
5.6.7	Permits and Permit Schedule.....	5.6-28
5.6.8	References	5.6-29
5.7	Noise	5.7-1
5.7.1	Fundamentals of Acoustics	5.7-1
5.7.2	Affected Environment.....	5.7-3
5.7.3	Environmental Analysis.....	5.7-9
5.7.4	Cumulative Effects	5.7-14

5.7.5 Mitigation Measures..... 5.7-14

5.7.6 Laws, Ordinances, Regulations, and Standards 5.7-15

5.7.7 Agencies and Agency Contacts 5.7-17

5.7.8 Permits and Permit Schedule..... 5.7-17

5.7.9 References 5.7-17

5.8 Paleontological Resources 5.8-1

5.8.1 Affected Environment..... 5.8-1

5.8.2 Environmental Analysis..... 5.8-8

5.8.3 Cumulative Effects 5.8-10

5.8.4 Mitigation Measures..... 5.8-10

5.8.5 Laws, Ordinances, Regulations, and Standards 5.8-11

5.8.6 Agencies and Agency Contacts 5.8-14

5.8.7 Permits and Permit Schedule..... 5.8-14

5.8.8 References 5.8-14

5.9 Public Health 5.9-1

5.9.1 Affected Environment..... 5.9-1

5.9.2 Environmental Analysis..... 5.9-3

5.9.3 Cumulative Effects 5.9-12

5.9.4 Mitigation Measures..... 5.9-12

5.9.5 Laws, Ordinances, Regulations, and Standards 5.9-13

5.9.6 References 5.9-16

5.10 Socioeconomics 5.10-1

5.10.1 Affected Environment..... 5.10-1

5.10.2 Environmental Analysis..... 5.10-10

5.10.3 Cumulative Effects 5.10-18

5.10.4 Mitigation Measures..... 5.10-19

5.10.5 Laws, Ordinances, Regulations, and Standards 5.10-19

5.10.6 Agencies and Agency Contacts 5.10-21

5.10.7 Permits and Permit Schedule..... 5.10-22

5.10.8 References 5.10-22

5.11 Soils 5.11-1

5.11.1 Affected Environment..... 5.11-1

5.11.2 Environmental Analysis..... 5.11-11

5.11.3 Cumulative Effects 5.11-15

5.11.4 Mitigation Measures..... 5.11-16

5.11.5 Laws, Ordinances, Regulations, and Standards 5.11-17

5.11.6 Agencies and Agency Contacts 5.11-19

5.11.7 Permits and Permit Schedule..... 5.11-19

5.11.7 References 5.11-19

5.12 Traffic and Transportation 5.12-1

5.12.1 Affected Environment..... 5.12-1

5.12.2 Environmental Analysis..... 5.12-12

5.12.3 Cumulative Effects 5.12-17

5.12.4 Mitigation Measures..... 5.12-18

5.12.5 Laws, Ordinances, Regulations, and Standards 5.12-18

5.12.6 Agencies and Agency Contacts 5.12-22

5.12.7 Permits and Permit Schedule..... 5.12-23

5.12.8 References 5.12-23

5.13	Visual Resources	5.13-1
5.13.1	Affected Environment.....	5.13-1
5.13.2	Environmental Analysis.....	5.13-7
5.13.3	Cumulative Effects	5.13-15
5.13.4	Mitigation Measures.....	5.13-16
5.13.5	Laws, Ordinances, Regulations, and Standards	5.13-16
5.13.6	Agencies and Agency Contacts	5.13-19
5.13.7	Permits and Permit Schedule.....	5.13-19
5.13.8	References	5.13-20
5.14	Waste Management	5.14-1
5.14.1	Affected Environment.....	5.14-1
5.14.2	Environmental Analysis.....	5.14-5
5.14.3	Cumulative Effects	5.14-8
5.14.4	Mitigation and Waste Management Methods	5.14-9
5.14.5	Laws, Ordinances, Regulations, and Standards	5.14-11
5.14.6	Agencies and Agency Contacts	5.14-14
5.14.7	Permits and Permit Schedule.....	5.14-14
5.14.8	References Cited or Consulted	5.14-14
5.15	Water Resources.....	5.15-1
5.15.1	Affected Environment.....	5.15-1
5.15.2	Environmental Analysis.....	5.15-13
5.15.3	Cumulative Effects	5.15-14
5.15.4	Mitigation Measures.....	5.15-14
5.15.5	Laws, Ordinances, Regulations, and Standards	5.15-14
5.15.6	Agency Contacts, Permits, and Permit Schedule	5.15-16
5.15.7	References	5.15-16
5.16	Worker Health and Safety.....	5.16-1
5.16.1	Setting.....	5.16-1
5.16.2	Health and Safety Programs	5.16-1
5.16.3	Laws, Ordinances, Regulations, and Standards	5.16-15
5.16.4	Agencies and Agency Contacts	5.16-21
5.16.5	Permits and Permit Schedule.....	5.16-21
6.	Alternatives	6-1
6.1	Project Objectives.....	6-1
6.2	The “No Project” Alternative	6-2
6.3	Power Plant Site Alternatives	6-2
6.3.1	Proposed Project Site.....	6-5
6.3.2	Alternative 1: Chase Site	6-5
6.3.3	Alternative 2: Vulcan Site.....	6-6
6.3.4	Alternative 3: Camino Real	6-6
6.3.5	Alternative 4: Petrochem Refinery	6-7
6.4	Comparative Evaluation of Alternative Sites	6-7
6.4.1	Project Development Constraints.....	6-8
6.4.2	Air Quality	6-8
6.4.3	Biological Resources	6-9
6.4.4	Cultural Resources	6-9
6.4.5	Geological Resources and Hazards	6-9
6.4.6	Hazardous Materials Handling.....	6-9
6.4.7	Land Use and Agriculture.....	6-10

6.4.8	Noise	6-11
6.4.9	Paleontology	6-12
6.4.10	Public Health	6-12
6.4.11	Socioeconomics	6-12
6.4.12	Soils	6-12
6.4.13	Traffic and Transportation	6-12
6.4.14	Visual Resources	6-12
6.4.15	Water Resources.....	6-13
6.4.16	Waste Management	6-14
6.4.17	Summary and Comparison.....	6-14
6.5	Alternative Project Design Features	6-15
6.5.1	Alternative Linear Facility Routing.....	6-15
6.5.2	Interconnection Alternatives	6-16
6.5.3	Water Supply Source Alternatives	6-16
6.6	Technology Alternatives	6-17
6.6.1	Generation Technology Alternatives	6-17
6.6.2	Fuel Technology Alternatives.....	6-18
6.6.3	Cooling Alternatives.....	6-18
6.6.4	Inlet Cooling Alternatives.....	6-18
6.7	References	6-19

Appendixes (Vol. 2)

1A	ALTA Survey
1B	Persons Who Prepared this AFC
2A	Engineering Design Criteria
2B	SoCalGas Routing and Construction Study
2C	Limoneira Will-Serve Letter
2D	Southern California Waste Water Will-Serve Letter
3A	Queue Cluster 7 Phase I Interconnection Study
5.1A	Emission Calculations and Support Data
5.1B	Modeling Support Data
5.1C	PSD Protocol
5.1D	HRA Support Data
5.1E	Construction Data
5.1F	BACT
5.1G	Cumulative Impact Support Data
5.1H	Mitigation and Offsets
5.2A	Special-Status Species
5.2B	Species Observed During Survey
5.2C	Site Photos
5.2D	Biological Resources Resumes
5.3A	Agency Consultation Record
5.3B	Cultural Resources Report (Confidential)
5.3C	CHRIS Literature Search (Confidential)

- 5.3D Cultural Resources Resumes
- 5.3E Cultural Resources Survey Results Map (Confidential)
- 5.5A Offsite Consequences Analysis Modeling Protocol
- 5.8A Paleontological Literature Search (Confidential)
- 5.10A Environmental Justice Analysis
- 5.11A Soil Loss Calculations
- 5.13A FHWA Visual Resources KOP Rating Sheets
- 5.14A Phase I Environmental Site Assessment, Updated
- 5.15A Grading and Drainage Study

Tables

- 2.1-1 Estimated Daily and Annual Water Use for MREC Operations..... 2-12
- 2.1-2 LM6000 Demineralized Water Purity Requirements..... 2-17
- 2.1-3 Major Project Milestones 2-22
- 2.1-4 Estimated Average and Peak Construction Traffic 2-23
- 2.2-1 Major Equipment Redundancy 2-25

- 3-1 Generator tie-line structure heights..... 3-1
- 3.5-1 Design and Construction LORS for the Proposed Transmission Line and Switchyard 3-9
- 3.5-2 Electric and Magnetic Field LORS..... 3-9
- 3.5-3 Hazardous Shock LORS..... 3-9
- 3.5-4 Communications Interference LORS..... 3-10
- 3.5-5 Aviation Safety LORS..... 3-10
- 3.5-6 Fire Hazard LORS..... 3-10
- 3.5-7 National, State, and Local Agencies with Jurisdiction over Applicable LORS 3-11

- 5.1-1 Facility PTE Summary 5.1-2
- 5.1-2 Combustion Turbine Equipment Output Specifications 5.1-3
- 5.1-3 Estimated Fuel Use Summary for the MREC..... 5.1-4
- 5.1-4 Significant Emissions Threshold Summary 5.1-7
- 5.1-5 Potentially Emitted Criteria and Toxic Pollutants 5.1-8
- 5.1-6 Combustion Turbine Emissions (Startup and Steady State Operation Per Turbine) 5.1-9
- 5.1-7 Startup and Shutdown Emissions (per event per turbine) 5.1-9
- 5.1-8 Five Combustion Turbine Emissions (Full Load, Startup and Shutdown, Whichever is Greater) for the Non-Commissioning Year 5.1-9
- 5.1-9 Diesel Fire Pump Engine Emissions..... 5.1-10
- 5.1-10 MREC Maximum Potential to Emit 5.1-10
- 5.1-11 Summary of Maximum Facility Emissions for the MREC 5.1-11
- 5.1-12 VCAPCD Emission Bank Credits Required By MREC..... 5.1-12
- 5.1-13 VCAPCD CEQA Significance Thresholds 5.1-14
- 5.1-14 BACT Values for Combustion Turbines 5.1-15
- 5.1-15 Proposed BACT for the Combustion Turbines 5.1-15
- 5.1-16 Meteorological Missing Data and Data Recovery Rates 5.1-19
- 5.1-17 AERSURFACE Input and Results 5.1-21
- 5.1-18 30-year Precipitation Climatology Summary and Moisture Assigned to the Months in the Modeling Period..... 5.1-21
- 5.1-19 Surface Characteristics for Monitoring Site and MREC Location..... 5.1-23
- 5.1-20 State and Federal Ambient Air Quality Standards 5.1-25
- 5.1-21 VCAPCD Attainment Status..... 5.1-27
- 5.1-22 Background Air Quality Data..... 5.1-28

5.1-23 Stack Parameters and Emission Rates for Each of the Modeled Sources 5.1-30

5.1-24 Air Quality Impact Results for Refined Modeling Analysis of the MREC – Significant Impact Levels 5.1-32

5.1-25 Air Quality Impact Results for Refined Modeling Analysis of MREC – Ambient Air Quality Standards 5.1-33

5.1-26 Commissioning Schedule 5.1-34

5.1-27 Maximum Hourly Emissions Rates During Each Phase of Commissioning (Per Turbine) 5.1-34

5.1-28 Air Quality Impact Results for Commissioning Modeling Analysis – Ambient Air Quality Standards 5.1-35

5.1-29 Fumigation Impact Summary 5.1-36

5.1-30 Summary of LORS - Air Quality 5.1-37

5.1-31 Agencies, Contacts, Jurisdictional Involvement, Required Permits For Air Quality 5.1-46

5.2-3 Summary of Unpaved MREC Permanent and Temporary Disturbance Areas (in acres) 5.2-14

5.2-4 Laws, Ordinances, Regulations, and Standards for Biological Resources 5.2-26

5.2-5 Agency Contacts for Biological Resources 5.2-29

5.3-1 Cultural Resources Reports within 1 Mile of the MREC 5.3-14

5.3-2 Previously Recorded Historic Architecture within the MREC Study Area 5.3-18

5.3-2 Previously Recorded Historic Architecture within the MREC Study Area 5.3-20

5.3-3 Architectural Properties Newly Documented during the Architectural Survey in October 2015 5.3-27

5.3-4 Impacts to Potentially Significant Cultural Resources 5.3-33

5.3-5 Laws, Ordinances, Regulations, and Standards for Cultural Resources 5.3-40

5.3-6 Agency Contacts for Cultural Resources 5.3-42

5.4-1 LORS for Geological Hazards and Resources 5.4-14

5.5-1 Use and Location of Hazardous Materials 5.5-3

5.5-2 Chemical Inventory, Description of Hazardous Materials Stored Onsite, and Reportable Quantities 5.5-4

5.5-3 Toxicity, Reactivity, and Flammability of Hazardous Substances Stored Onsite 5.5-5

5.5-4 Toxic Effects and Exposure Levels of Regulated Substance 5.5-7

5.5-5 Laws, Ordinances, Regulations, and Standards for Hazardous Materials Handling 5.5-15

5.5-6 Agency Contacts for Hazardous Materials Handling 5.5-20

5.5-7 Permits and Permit Schedule for Hazardous Materials Handling 5.5-21

5.6-1 Sensitive Non-residential Land Uses within 1 Mile of the MREC Site 5.6-2

5.6-2 Ventura County General Plan Land Use Designations in the Study Area (2011) 5.6-11

5.6-3 County of Ventura Zoning Districts in the Study Area 5.6-15

5.6-4 Pending General Plan Amendments and Rezones in Ventura County 5.6-19

5.6-5 Project Conformity with Local Land Use Plans and Policies 5.6-20

5.6-6 LORS for Land Use 5.6-28

5.7-1 Definitions of Acoustical Terms 5.7-1

5.7-2 Typical Sound Levels Measured in the Environment and Industry 5.7-2

5.7-3 Summary of Noise Survey Locations 5.7-3

5.7-4 Summary of Measurements at M1 (dBA) 5.7-3

5.7-5 Summary of Measurements at M2 (dBA) 5.7-4

5.7-6 Overall Sound Level Summary Statistics, Monitoring Locations (dBA) 5.7-5

5.7-7 Construction Equipment and Composite Site Noise Levels 5.7-10

5.7-8 Average Construction Noise Levels at Various Distances 5.7-10

5.7-9 Noise Levels from Common Construction Equipment at Various Distances 5.7-10

5.7-10 Construction Vibrations 5.7-11

5.7-11	Summary of Sound Power Levels Used to Model MREC Plant Operations	5.7-12
5.7-12	Existing Sound Levels in Relation to County Guidelines	5.7-12
5.7-13	LORS for Noise	5.7-15
5.8-1	Paleontological Sensitivity Ratings Employed	5.8-8
5.8-2	LORS Applicable to Paleontological Resources.....	5.8-12
5.8-3	Agency Contacts for Paleontological Resources	5.8-14
5.9-1	Nearest Sensitive Receptors By Receptor Type	5.9-1
5.9-2	Top 10 TAC Emissions-2008.....	5.9-2
5.9-3	Chemical Substances Potentially Emitted to the Air from the MREC.....	5.9-4
5.9-4	Toxic Pollutant Emissions Estimates (lbs/hr)	5.9-5
5.9-5	Toxic Pollutant Emissions Estimates (lbs/year)	5.9-5
5.9-6	Toxicity Values Used to Characterize Health Risks (Inhalation)	5.9-7
5.9-7	Health Effects Significant Threshold Levels for VCAPCD	5.9-8
5.9-8	MREC HRA Summary.....	5.9-8
5.9-9	Summary of LORS – Public Health	5.9-14
5.9-10	Summary of Agency Contacts for Public Health	5.9-15
5.10-1	Historical and Projected Populations.....	5.10-1
5.10-2	Historical and Projected Annual Average Compounded Population Growth Rate	5.10-1
5.10-3	Housing Estimates by County, and State, January 1, 2015.....	5.10-2
5.10-4	Employment Distribution in Oxnard-Thousand Oaks-Ventura MSA, 2009 to 2014.....	5.10-7
5.10-5	Employment Data, Annual Average, 2014.....	5.10-7
5.10-6	Ventura County Revenues and Expenditures (in \$ thousands)	5.10-8
5.10-7	Enrollment by Grade for Three Schools Affected by the Proposed Project, 2014-2015	5.10-9
5.10-9	Labor Union Contacts in Ventura County	5.10-13
5.10-10	Available Labor by Skill in Oxnard-Thousand Oaks-Ventura MSA, 2012-2022.....	5.10-13
5.10-11	Typical Plant Operation Workforce	5.10-16
5.10-12	LORS for Socioeconomics.....	5.10-20
5.10-13	Agency Contacts for Socioeconomics	5.10-21
5.11-1	NRCS Soil Map Unit Descriptions and Characteristics*	5.11-2
5.11-2	Estimated Soil Loss from Water Erosion During Construction	5.11-12
5.11-3	Soil Loss from Grading and Wind Erosion.....	5.11-14
5.11-4	Mitigation Measures for Fugitive Dust Emissions	5.11-17
5.11-5	Laws, Ordinances, Regulations, and Standards for Soils	5.11-18
5.11-6	Permits and Agency Contacts for Soils	5.11-19
5.12-1	ADT LOS Thresholds by Road Type	5.12-2
5.12-2	LLOS Criteria for Local Roadways and Freeway Segments	5.12-2
5.12-3	LOS Criteria for Unsignalized Intersection Operations	5.12-7
5.12-4	Ventura County Minimum Acceptable LOS for Roadway Segments and Intersections	5.12-7
5.12-5	Existing Roadway Segment LOS Analysis Summary.....	5.12-8
5.12-6	Existing Intersection LOS Summary	5.12-8
5.12-7	Construction Trip Generation Estimate	5.12-13
5.12-8	Construction Trip Generation	5.12-14
5.12-9	Construction Roadway Segment LOS Analysis Summary	5.12-14
5.12-10	Construction Intersection LOS Summary.....	5.12-15
5.12-11	Laws, Ordinances, Regulations, and Standards for Traffic and Transportation	5.12-19
5.12-12	Agency Contacts for Traffic and Transportation.....	5.12-22
5.12-13	Permits and Permit Schedule for Traffic and Transportation.....	5.12-23

5.13-1 Approximate Dimensions and Colors, Materials, and Finishes of the Major Project
 Features 5.13-9

5.13-2 Cumulative Projects 5.13-15

5.13-3 LORS for Visual Resources 5.13-16

5.13-4 Conformity with the Ventura County General Plan..... 5.13-17

5.13-5 Conformity with the Ventura Ordinance Code, Non-Coastal Zoning Ordinance..... 5.13-18

5.13-6 Agency Contacts for Visual Resources 5.13-19

5.13-7 Permits and Permit Schedule for Visual Resources 5.13-20

5.15-1 CWA Section 303(d) List of Water Quality Impairments in the Santa Clara River 5.15-2

5.15-2 Rainfall near the Proposed Project Site (1948-2005), inches 5.15-5

5.15-3 Expected Water Quality from Limoneira 5.15-11

5.15-4 Expected MREC Wastewater Quality..... 5.15-11

5.15-5 LORS for Water Resources 5.15-15

5.15-6 Agency Contacts, Permits, and Permit Schedule for Water Resources 5.15-16

5.16-1 Construction Hazard Analysis for the MREC..... 5.16-2

5.16-2 Operation Hazard Analysis for the MREC 5.16-3

5.16-3 Construction Training Program..... 5.16-13

5.16-4 Operations Training Program..... 5.16-14

5.16-5 LORS for Worker Health and Safety..... 5.16-15

5.16-6 Agency Contacts for Worker Health and Safety 5.16-21

5.16-7 Permits and Permit Schedule for Worker Health and Safety 5.16-22

6.4-1 Land Use Designations and Uses 6-10

6.4-2 Comparison of the Proposed Site and Alternative Site Locations 6-14

Figures

1.1-1 Architectural Rendering (oblique aerial view of project simulation) 1-3

1.2-1 Project Vicinity 1-5

1.2-2 Project Location 1-7

2.1-1 General Arrangement 2-3

2.1-2 Elevations..... 2-5

2.1-3 Heat and Mass Balance Diagram 2-7

2.1-4a Water Balance, Annual Average Operating Conditions..... 2-13

2.1-4b Water Balance, Summer Case..... 2-15

3.2-1 Typical Monopole 3-3

5.2-1A Protected Areas 5.2-33

5.2-1B Significant Regional Wetlands 5.2-35

5.2-3 Sensitive Natural Communities and Critical Habitat..... 5.2-59

5.2-4 Special-Status Species within the Regional Vicinity..... 5.2-59

5.2-5 Special-Status Species within 1 Mile of the Project Site..... 5.2-59

5.2-6 Land Cover 5.2-59

5.3-1 Survey areas..... 5.3-15

5.3-2 Historic Properties 5.3-35

5.4-1 Surficial Geology within 2 miles of the MREC..... 5.4-3

5.4-2 Surficial Geology around Project Linears..... 5.4-5

5.4-3 Site in Relation to Principal Faults 5.4-9

5.4-4 Oil and Gas Resources within Two Miles of the Project Site 5.4-11

5.6-1 Existing Land Use 5.6-3

5.6-2 Farmland Map..... 5.6-7

5.6-3 Williamson Land Conservation Act Status 5.6-9

5.6-4 General Plan Land Use Designations 5.6-13

5.6-5 Zoning Districts 5.6-17

5.7-1 Noise monitoring locations and sensitive receptors 5.7-7

5.10-1 Minority Populations within 6 Miles..... 5.10-3

5.10-2 Poverty Populations within 6 Miles 5.10-5

5.11-1 Soil map..... 5.11-7

5.12-1 Regional Roadway Network..... 5.12-3

5.12-2 Local Roadway Network 5.12-5

5.12-3 Truck Route 5.12-9

5.13-1 Key Observation Points..... 5.13-21

5.13-2 Project Viewshed and Key Observation Points..... 5.13-23

5.13-3 KOP 1 – View Towards MREC from State Route 126 5.13-25

5.13-4 KOP 2 – View Towards MREC from Todd Road..... 5.13-27

5.13-5 KOP 3 – View Towards the Alignment of the Proposed Transmission Line from State
Route 126..... 5.13-29

5.13-6 KOP 4 – View Towards the Alignment of the Proposed Transmission Line from Telegraph
Road 5.13-31

5.13-7 KOP-5 – View Towards the Alignment of the Proposed Transmission Line from
Foothill Road 5.13-33

5.15-1 Surface Waters..... 5.15-3

5.15-2 Groundwater Basins..... 5.15-7

5.15-3 FEMA Floodplains 5.15-9

6.3-1 Alternative Site Locations 6-3