

Table of Contents

Summary

1. Introduction	
1.1 Project Purpose and Need	1-1
1.2 The Proposed Project/Action and Alternatives	1-2
1.3 CPUC and Forest Service Approvals Required	1-16
1.4 Issues Identified During Scoping	1-17
2. Affected Environment	
2.1 Baseline Data Collection Methodology.....	2-1
2.2 Regional Setting	2-1
2.3 Alternative 2: SCE’s Proposed Project	2-20
2.4 Alternative 3: West Lancaster Alternative.....	2-54
2.5 Alternative 4: Chino Hills Route Alternatives	2-55
2.6 Alternative 5: Partial Underground Alternative.....	2-57
2.7 Alternative 6: Maximum Helicopter Construction in the ANF Alternative.....	2-57
2.8 Alternative 7: 66-kV Subtransmission Alternative.....	2-60
3. Applicable Laws, Regulations, and Standards	
3.1 Federal	3-1
3.2 State	3-3
3.3 Local	3-4
4. Impact Analysis Approach	
4.1 Criteria for Determining Impact Significance.....	4-1
4.2 Applicant-Proposed Measures (APMs)	4-2
4.3 Impact Assessment Methodology	4-3
5. Alternative 1 (No Project/Action): Impacts.....	5-1
6. Alternative 2 (SCE’s Proposed Project): Impacts and Mitigation Measures	
6.1 Direct and Indirect Effects Analysis	6-1
6.2 Cumulative Effects Analysis	6-9
7. Alternative 3: Impacts and Mitigation Measures	
7.1 Direct and Indirect Effects Analysis	7-1
7.2 Cumulative Effects Analysis	7-4
8. Alternative 4: Impacts and Mitigation Measures	
8.1 Direct and Indirect Effects Analysis	8-1
8.2 Cumulative Effects Analysis	8-11

9.	Alternative 5: Impacts and Mitigation Measures	
9.1	Direct and Indirect Effects Analysis	9-1
9.2	Cumulative Effects Analysis	9-6
10.	Alternative 6: Impacts and Mitigation Measures	
10.1	Direct and Indirect Effects Analysis	10-1
10.2	Cumulative Effects Analysis	10-4
11.	Alternative 7: Impacts and Mitigation Measures	
11.1	Direct and Indirect Effects Analysis	11-1
11.2	Cumulative Effects Analysis	11-4
12.	Comparison of Alternatives.....	12-1
13.	Summary of Mitigation Measures and Monitoring Requirements.....	13-1
14.	References	14-1

Appendix A. Soils along the TRTP Project Route

List of Tables

S-1	Summary of Impacts and Mitigation Measures	S-5
S-2	Cumulative Effects Matrix – Alternative 2: SCE’s Proposed Project.....	S-8
S-3	Summary Comparison of Environmental Issues/Impacts–Geology, Soils, and Paleontology	S-10
1-1	Summary of Alternative 2 (SCE’s Proposed Project) Components.....	1-4
1-2	Issues Raised in Scoping: Geology, Soils, and Paleontology	1-17
2-1	Major Soil Units along the Proposed TRTP Alignments	2-7
2-2	Significant Active and Potentially Active Faults in the Project Area.....	2-13
2-3	Peak Ground Accelerations along Project Segments	2-15
2-4	Significant Historic Earthquakes	2-16
2-5	Modified Mercalli Scale for Earthquake Intensity	2-17
2-6	Geology along Segment 10 of Proposed Project Route.....	2-23
2-7	Geology along Segment 4 of Proposed Project Route	2-23
2-8	Geology along Segment 5 of Proposed Project Route	2-24
2-9	Geology along Segment 6 of Proposed Project Route	2-27
2-10	Geology along Segment 7 of Proposed Project Route	2-30
2-11	Geology along Segment 11 of Proposed Project Route.....	2-31
2-12	Geology along Segment 8A of Proposed Project Route	2-40
2-13	Geology along Segment 8B of Proposed Project Route	2-43
2-14	Geology along Segment 8C of Proposed Project Route	2-43
4-1	Applicant-Proposed Measures – Geology, Soils, and Paleontology	4-2
6-1	Cumulative Impacts for Geology, Soils, and Paleontology– Alternative 2.....	6-11
13-1	Mitigation Monitoring Program – Geology, Soils, and Paleontology.....	13-2

List of Figures

2-1 Geologic Time Scale 2-2
2-2 Regional Active Faults and Historic Earthquakes2-65
2-3 Regional Geologic Map A2-66
2-4 Segment 5 Active Fault Crossing2-67
2-5 Regional Geologic Map B2-68
2-6 Segment 6 Active Fault Crossings2-69
2-7 Segment 7 Active Fault Crossings2-70
2-8a Segment 11 Active Fault Crossings2-71
2-8b Segment 11 Active Fault Crossings2-72
2-9 Regional Geologic Map C2-73
2-10 Segment 8A Active Fault Crossings2-74
2-11 Alternative 4 Chino Fault Crossing2-75
2-12 Alternative 7 Fault Crossings2-76