Contents

Volume 1: Chapters 1 through 3

1.0 Introduction 1-1
1.1 Purpose of and Need for Action 1-1
1.2 Planning Area 1-2
1.2.1 Los Angeles County Management Area 1-4
1.2.2 Riverside–San Bernardino County Management Area 1-4
1.2.3 Beauty Mountain Management Area 1-4
1.2.4 San Diego County Management Area 1-5
1.3 Vision Statement 1-5
1.4 Planning Process 1-6
1.4.1 Related Planning and Proposed Plan Amendments 1-7
1.4.1.1 Upper Santa Ana River Wash Plan Amendment 1-7
1.4.1.2 San Diego Border Mountains Plan Amendment 1-8
1.5 Decision Framework 1-9
1.5.1 Public Scoping 1-10
1.5.1.1 Collaborative Planning Workshop 1-10
1.5.1.2 Notice of Intent 1-10
1.5.1.3 Public Scoping Meetings 1-10
1.5.1.4 Cooperating Agencies 1-11
1.5.2 Planning Issues 1-11
1.5.2.1 Issues Eliminated from Detailed Analysis or Further Consideration 1-12
1.5.3 Planning Criteria 1-13
1.5.3.1 General Planning Criteria 1-14
1.5.3.2 Specific Planning Criteria for the South Coast Planning Area 1-14
1.5.4 Plan Implementation and Monitoring 1-16
1.6 Laws, Regulations, and Executive Orders 1-17
1.7 Related Plans and Programmatic Records of Decision 1-18

2.0 Description of Alternatives 2-1
2.1 Introduction 2-1
2.2 General Description of Each Alternative 2-1
2.3 Comparison of Alternatives 2-3
2.3.1 Rangeland Health 2-19
2.3.1.1 Alternative A (No Action) 2-19
2.3.1.2 Alternatives B – D 2-19
2.3.2 Air Resources 2-21
2.3.2.1 Goals and Objectives 2-21
2.3.2.2 Management Actions Common to All Alternatives 2-22
2.3.3 Soil Resources 2-22
2.3.3.1 Goals and Objectives 2-22
2.3.3.2 Management Actions Common to All Alternatives 2-22
2.3.4 Water Resources 2-22
2.3.4.1 Goals and Objectives 2-23
2.3.4.2 Management Actions Common to All Alternatives 2-23
2.3.5 Vegetation 2-24
2.3.5.1 Desired Plant Communities 2-24
2.3.5.2 Invasive Non-native Plants 2-25
2.3.5.3 Vegetative Use Authorization 2-25
2.3.5.4 Goals and Objectives 2-25

2.3.5.5 Management Actions Common to All Alternatives 2-26
2.3.5.6 Management Actions by Alternative 2-28
2.3.6 Wildlife 2-29
2.3.6.1 Goals and Objectives 2-29
2.3.6.2 Management Actions Common to All Alternatives 2-31
2.3.6.3 Management Actions by Alternative 2-33
2.3.7 Special Status Species 2-33
2.3.7.1 Goals and Objectives 2-34
2.3.7.2 Management Actions Common to All Alternatives 2-36
2.3.7.3 Management Actions by Alternative 2-38
2.3.8 Wildland Fire and Fuels 2-40
2.3.8.1 Goals and Objectives 2-40
2.3.8.2 Management Actions Common to All Alternatives 2-41
2.3.9 Cultural Resources 2-44
2.3.9.1 Goals and Objectives 2-45
2.3.9.2 Management Actions Common to all Alternatives 2-45
2.3.9.3 Management Actions by Alternative 2-47
2.3.10 Paleontological Resources 2-49
2.3.10.1 Goals and Objectives 2-49
2.3.10.2 Management Actions Common to All Alternatives 2-49
2.3.11 Visual Resources 2-50
2.3.11.1 Goals and Objectives 2-50
2.3.11.2 Management Actions Common to All Alternatives 2-51
2.3.11.3 VRM Classification 2-51
2.3.12 Special Designations and Lands with Wilderness Characteristics 2-52
2.3.12.1 Goals and Objectives 2-58
2.3.12.2 Management Actions Common to All Alternatives 2-60
2.3.12.3 Management Actions by Alternative 2-62
2.3.13 Range Management – Livestock Grazing 2-66
2.3.13.1 Goals and Objectives 2-66
2.3.13.2 Management Actions Common to All Alternatives: 2-66
2.3.13.3 Management Actions by Alternative 2-67
2.3.13.4 Rangeland Guidelines for Grazing Uses in the Planning Area 2-71
2.3.14 Mineral Resources 2-73
2.3.14.1 Goals and Objectives 2-75
2.3.14.2 Management Actions Common to All Alternatives 2-76
2.3.14.3 Management Actions by Alternative 2-77
2.3.15 Recreation 2-79
2.3.15.1 Goals and Objectives 2-79
2.3.15.2 Management Actions Common to All Alternatives 2-82
2.3.15.3 Management Actions by Alternative 2-83
2.3.16 Transportation and Public Access 2-85
2.3.16.1 Goals and Objectives 2-89
2.3.16.2 Management Actions Common to All Alternatives 2-89
2.3.16.3 Management Actions by Alternative 2-90
2.3.17 Lands and Realty 2-93
2.3.17.1 Goals and Objectives 2-93
2.3.17.2 Management Actions Common to All Alternatives 2-97
2.3.17.3 Management Actions by Alternative 2-100
2.3.18 Public Health and Safety 2-102
2.3.18.1 Goals and Objectives 2-102
2.3.18.2 Management Actions Common to All Alternatives 2-104

3.0 Affected Environment 3-1
3.1 Introduction 3-1
3.1.1 Planning Area Setting 3-1
3.1.2 Geographic Setting 3-2
3.2 Air Resources 3-3
3.2.1 Climate and Weather 3-3
3.2.1.1 Planning Area Climate and Weather 3-3
3.2.1.2 Global Climate Change 3-6
3.2.2 Air Quality 3-8
3.2.2.1 Los Angeles County Management Area 3-10
3.2.2.2 Riverside–San Bernardino County Management Area 3-10
3.2.2.3 Beauty Mountain Management Area 3-11
3.2.2.4 San Diego County Management Area 3-11
3.2.3 General Conformity 3-12
3.2.4 Regional Haze Rule 3-13
3.2.5 References 3-14
3.3 Soil Resources 3-15
3.3.1 Sensitive Soil Characteristics 3-15
3.3.1.1 Endemic Flora-Related Soils 3-17
3.3.1.2 Soils with Engineering Limitations 3-18
3.3.1.3 Fertile Scrub Soils 3-18
3.3.2 Los Angeles County Management Area 3-19
3.3.3 Riverside–San Bernardino County Management Area 3-20
3.3.3.1 Locations of Endemic Flora-related Soils 3-20
3.3.3.2 Locations of Soils with Engineering Limitations 3-21
3.3.3.3 Locations of Fertile Scrub Soils 3-22
3.3.4 Beauty Mountain Management Area 3-22
3.3.5 San Diego County Management Area 3-23
3.3.5.1 Locations of Endemic Flora Related Soils 3-23
3.3.5.2 Locations of Soils with Engineering Limitations 3-23
3.3.5.3 Locations of Fertile Scrub Soils 3-24
3.4 Water Resources 3-25
3.4.1 Surface Water 3-25
3.4.1.1 Los Angeles County Management Area 3-25
3.4.1.2 Riverside–San Bernardino County Management Area 3-25
3.4.1.3 Beauty Mountain Management Area 3-26
3.4.1.4 San Diego County Management Area 3-26
3.4.2 Groundwater 3-27
3.4.2.1 Los Angeles County Management Area 3-27
3.4.2.2 Riverside–San Bernardino County Management Area 3-28
3.4.2.3 Beauty Mountain Management Area 3-30
3.4.2.4 San Diego County Management Area 3-30
3.4.3 Watershed Basins and Hydrologic Units 3-31
3.4.3.1 Los Angeles County Management Area 3-31
3.4.3.2 Riverside–San Bernardino County Management Area 3-31
3.4.3.3 Beauty Mountain Management Area 3-32
3.4.3.4 San Diego County Management Area 3-32
3.4.4 Water Use 3-32
3.4.5 Regulatory Setting 3-33
3.4.6 Federal Reserved Water Rights 3-34
3.4.6.1 Wilderness 3-34
3.4.6.2 Wild and Scenic Rivers 3-34
3.4.7 References 3-35

3.5 Vegetation ... 3-37
3.5.1 Vegetation ... 3-37
3.5.2 Plant Communities ... 3-38
3.6 Wildlife ... 3-42
3.6.1 General Wildlife Habitat ... 3-42
3.6.2 Wildlife Habitat Improvements ... 3-42
3.6.3 Priority Wildlife Species ... 3-42
3.7 Special Status Species ... 3-44
3.7.1 Federally Listed Species and Critical Habitat ... 3-47
3.7.2 State Listed Species ... 3-51
3.7.3 BLM Sensitive Species ... 3-51
3.7.4 Regional Habitat Conservation Planning ... 3-53
3.8 Wildland Fire and Fuels ... 3-56
3.9 Cultural Resources ... 3-58
3.9.1 Prehistoric Context ... 3-59
3.9.1.1 Horizon I: Early Man Period/Early Holocene (10,000 to 7,500 B.P.) ... 3-59
3.9.1.2 Horizon II: Milling Stone Period/Middle Holocene (7,500 to 3,000 B.P.) ... 3-60
3.9.1.3 Horizon III: Intermediate Period/Late Holocene (3,000 to 1,500 B.P.) ... 3-60
3.9.1.4 Horizon IV: Late Prehistoric Period/Late Holocene (1,500 B.P. to Spanish Contact [A.D. 1769]) ... 3-61
3.9.2 Ethnographic Context ... 3-61
3.9.2.1 Ethno-Linguistic Overview ... 3-61
3.9.2.2 Chumash Language Area ... 3-62
3.9.2.3 Takic Language Area ... 3-63
3.9.2.4 Yuman Language Area ... 3-67
3.9.2.5 Ethnohistoric Period ... 3-68
3.9.3 Historic Period ... 3-68
3.9.4 Existing Conditions ... 3-70
3.9.4.1 Documented Prehistoric sites ... 3-70
3.9.4.2 Documented Historic Sites ... 3-71
3.9.4.3 Management Issues and Concerns ... 3-71
3.9.4.4 Traditional Native American Values ... 3-72
3.9.5 References ... 3-73
3.10 Paleontological Resources ... 3-75
3.10.1 Los Angeles County Management Area ... 3-76
3.10.2 Riverside–San Bernardino County Management Area ... 3-76
3.11 Visual Resources ... 3-78
3.11.1 Visual Resource Management Overview ... 3-78
3.11.2 Visual Resource Inventory Process ... 3-79
3.11.3 Background: Issue Identification ... 3-80
3.11.4 Visual Resources of the South Coast Planning Area ... 3-81
3.11.4.1 Los Angeles County Management Area ... 3-82
3.11.4.2 Riverside–San Bernardino County Management Area ... 3-82
3.11.4.3 Beauty Mountain Management Area ... 3-84
3.11.4.4 San Diego County Management Area ... 3-85
3.11.5 References ... 3-88
3.12 Special Designations and Lands with Wilderness Characteristics ... 3-89
3.12.1 Habitat Conservation Programs ... 3-89
3.12.1.1 Natural Communities Conservation Program ... 3-89
3.12.1.2 Habitat Conservation Plans ... 3-90

3.12.2 Wilderness 3-91
3.12.2.1 Otay Mountain Wilderness 3-92
3.12.2.2 Beauty Mountain Wilderness 3-92
3.12.2.3 Agua Tibia Wilderness 3-92
3.12.3 Wilderness Study Areas 3-93
3.12.3.1 Hauser Mountain WSA 3-93
3.12.3.2 Beauty Mountain WSA 3-93
3.12.4 Lands with Wilderness Characteristics 3-94
3.12.5 Wild and Scenic Rivers 3-94
3.12.6 National Scenic and Historic Trails 3-95
3.12.6.1 Pacific Crest National Scenic Trail 3-95
3.12.6.2 Juan Bautista de Anza National Historic Trail 3-95
3.12.6.3 Old Spanish National Historic Trail 3-95
3.12.7 National Monuments 3-96
3.12.7.1 California Coastal National Monument 3-96
3.12.8 Areas of Critical Environmental Concern 3-96
3.12.8.1 Cedar Canyon ACEC 3-96
3.12.8.2 Kuchamaa ACEC 3-96
3.12.8.3 Johnson Canyon ACEC 3-97
3.12.8.4 Million Dollar Spring ACEC 3-97
3.12.8.5 Potrero ACEC 3-97
3.12.8.6 Santa Ana River Wash ACEC 3-97
3.12.8.7 Santa Margarita Ecological Reserve ACEC 3-98
3.12.8.8 California Rocks and Islands ACEC 3-98
3.13 Range Management – Livestock Grazing 3-99
3.13.1 Grazing Authorizations 3-99
3.13.2 Environmental Setting 3-100
3.13.2.1 Special Status Species Habitat within Allotments 3-100
3.13.3 Grazing Allotments 3-101
3.13.3.1 Steele Peak, Beauty Mountain and Rogers Canyon Allotments 3-102
3.13.3.2 Clover Flat Allotment 3-102
3.13.3.3 Hauser Mountain Allotment 3-103
3.13.3.4 Otay Mountain, Dulzura and Mother Grundy Allotments 3-103
3.14 Mineral Resources 3-105
3.14.1 Locatable Minerals 3-105
3.14.2 Leasable Minerals 3-105
3.14.3 Salable Minerals 3-106
3.14.4 Mineral Resource Potential 3-107
3.14.4.1 Locatable (Metallic and Non-metallic) Mineral Potential 3-107
3.14.4.2 Leasable (Fluid and Solid Energy, and Solid) Mineral Potential 3-108
3.14.4.3 Salable (Construction Material) Mineral Potential 3-110
3.15 Recreation 3-112
3.15.1 Los Angeles County Management Area 3-112
3.15.2 Riverside–San Bernardino County Management Area 3-113
3.15.3 Beauty Mountain Management Area 3-114
3.15.4 San Diego County Management Area 3-115
3.15.4.1 Recreation Management Areas 3-115
3.15.4.2 Regional Recreation Opportunities 3-118
3.16 Transportation and Public Access 3-119
3.16.1 Los Angeles County Management Area 3-119
3.16.2 Riverside–San Bernardino County Management Area 3-121
3.16.3 Beauty Mountain Management Area 3-121
3.16.4 San Diego County Management Area 3-122

3.17 Lands and Realty 3-124
3.17.1 Land Status and Jurisdiction 3-125
3.17.2 Land Tenure Adjustment 3-126
3.17.2.1 Disposal 3-126
3.17.2.2 Acquisition 3-127
3.17.3 Access (Easement) Acquisition 3-127
3.17.4 Land Use Authorizations 3-128
3.17.4.1 Rights-of-Way 3-128
3.17.4.2 Renewable Energy 3-129
3.17.4.3 Land Use Permits 3-129
3.17.4.4 Utility Corridors 3-130
3.17.4.5 Communication Sites 3-130
3.17.5 Realty Trespass 3-130
3.17.6 Public/Private Interface 3-131
3.17.7 Withdrawals 3-131
3.17.8 Landfills 3-131
3.18 Public Health and Safety 3-132
3.18.1 Abandoned Mines 3-132
3.18.2 Hazardous Materials Management 3-132
3.18.2.1 Landfills 3-132
3.18.2.2 Mining and Milling Waste 3-132
3.18.2.3 Hazardous Materials Dumping 3-132
3.18.2.4 Illegal Drug Manufacturing and Marijuana Cultivation 3-133
3.18.3 Border Management 3-134
3.18.4 Unexploded Ordnance 3-134
3.19 Social and Economic Values 3-135
3.19.1 Social / Cultural / Economic History 3-135
3.19.1.1 Spanish Period 3-135
3.19.1.2 Mexican Period 3-136
3.19.1.3 American Period 3-137
3.19.2 Demographic and Socioeconomic Characteristics 3-144
3.19.2.1 Demographic Characteristics 3-145
3.19.2.2 Economic Characteristics 3-153
3.19.3 Range Management – Livestock Grazing: Baseline Economic Conditions 3-158
3.19.4 Lands and Realty Management 3-160
3.19.4.1 Baseline Economic Conditions 3-160
3.19.4.2 Program-specific Sociocultural Conditions 3-164
3.19.5 Mineral Resources Management 3-165
3.19.5.1 Baseline Economic conditions 3-165
3.19.5.2 Program-specific Sociocultural Conditions 3-167
3.19.6 Recreation Management 3-167
3.19.6.1 Baseline Economic Conditions 3-167
3.19.6.2 Program-Specific Sociocultural Conditions 3-169
3.19.7 Habitat Conservation Programs 3-169
3.19.7.1 Baseline Economic Conditions 3-169
3.19.7.2 Program-specific Sociocultural Conditions 3-170
3.19.8 Summary of Resource Programs 3-170
3.19.8.1 Baseline Economic Conditions 3-170
3.19.9 References 3-171
3.20 Environmental Justice 3-173
3.20.1 Minority and Low-income Communities 3-174

Tables

Table 2-1 Draft Alternatives Summary 2-3
Table 2-2 Vegetation Management by Alternative 2-28
Table 2-3 Wildlife Resource Management by Alternative 2-33
Table 2-4 Special Status Species Management by Alternative 2-39
Table 2-5 Wildland Fire Management by Alternative 2-44
Table 2-6 Use Allocations by Site Attributes Common to All Alternatives 2-47
Table 2-7 VRM Land Use Designations by Alternative 2-52
Table 2-8 Special Designations and LWC Management by Alternative 2-53
Table 2-9 Parcels Inventoried for Wilderness Characteristics 2-58
Table 2-10 Wilderness Study Areas Management by Alternative 2-63
Table 2-11 Areas of Critical Environmental Concern Management by Alternative 2-63
Table 2-12 Management of Lands with Wilderness Characteristics by Alternative 2-65
Table 2-13 Range Management-Livestock Grazing under Alternative A 2-67
Table 2-14 Range Management-Livestock Grazing under Alternative B 2-68
Table 2-15 Range Management-Livestock Grazing under Alternative C 2-69
Table 2-16 Range Management-Livestock Grazing under Alternative D 2-70
Table 2-17 Mineral Resources Management by Alternative 2-77
Table 2-18 Recreation Management by Alternative 2-83
Table 2-19 OHV Area Designations Management by Alternative 2-86
Table 2-20 OHV Area Designations by Recreation Management Area 2-90
Table 2-21 Routes of Travel Management by Alternative 2-92
Table 2-22 Land Tenure Management by Alternative 2-100
Table 2-23 Land Use Authorizations by Alternative 2-102
Table 3-1 Ambient Air Quality Standards 3-8
Table 3-2 Soil Management Characteristics for South Coast Management Areas; Summary of Acres of Soil Types by Management Area 3-16
Table 3-3 Natural Plant Communities of the South Coast Planning Area 3-38
Table 3-4 Special Status Species 3-44
Table 3-5 Visual Resource Management Objectives by Class 3-78
Table 3-6 Visual Resource Inventory Classification Matrix 3-79
Table 3-7 Visual Resource Inventory Summary 3-87
Table 3-8 Current Livestock Grazing 3-101
Table 3-9 Motorized Vehicle Closures 3-120
Table 3-10 Demographic Profile of South Coast Planning Area v. California and the U.S 3-147
Table 3-11 South Coast Planning Area Population 3-150
Table 3-12 Employment Growth Forecast for 2014 3-152
Table 3-13 Indicators of Community Economic Strength 3-153
Table 3-14 2005 Gross Domestic Product (GDP) 3-154
Table 3-15 Distribution of Private Sector Employees 3-154
Table 3-16 South Coast Planning Area – Five-County Total Economic Value Added by Major Sector during 2006 3-157
Table 3-17 South Coast Employment by Sector (in thousands) 3-158
Table 3-18 Grazing Allotments on BLM Land in the South Coast Planning Area 3-159
Table 3-19 Baseline Economic Condition for Livestock Grazing on BLM Land within the Planning Area 3-160
Table 3-20 Baseline Economic Condition of Communication Sites and Facilities on BLM Land within the Planning Area 3-161
Table 3-21 Baseline Economic Condition of Annual Roadway Maintenance Costs for BLM Right-of-Way within the Planning Area 3-162
Table 3-22 Conceptual Baseline Economic Condition for Wind Energy Site Preparation and Construction within the Planning Area 3-163

Table 3-23 Baseline Annual Economic Condition per Megawatt for Wind Energy Site Maintenance within the Planning Area 3-164
Table 3-24 Baseline Economic Condition of Annual Oil and Gas Production 3-166
Table 3-25 Baseline Economic Condition of Sand/Gravel Extraction 3-167
Table 3-26 Baseline Economic Condition for BLM Dispersed Day-Use Recreation 3-168
Table 3-27 Baseline Economic Condition for BLM Habitat Conservation Land 3-170
Table 3-28 Summary of the BLM South Coast Baseline Economic Condition 3-171

Figures

Figure 3-1 Temperature and Precipitation Data in the Planning Area 3-5
Figure 3-2 Global Temperature Change (1880-2000) 3-7

Maps (following each chapter)

Map 1-1 South Coast Resource Management Plan Planning Area
Map 1-2 Public Lands & Federal Mineral Estate, Los Angeles County Management Area
Map 1-3 Public Lands & Federal Mineral Estate, Riverside–San Bernardino County Management Area
Map 1-4 Public Lands & Federal Mineral Estate, San Diego County Management Area
Map 2-1 Visual Resource Management Classification Alternative A, Los Angeles County Management Area
Map 2-2 Visual Resource Management Classification Alternative A, Riverside–San Bernardino County Management Area
Map 2-3 Visual Resource Management Classification Alternative A, San Diego County Management Area
Map 2-4 Visual Resource Management Classification Alternative B, Los Angeles County Management Area
Map 2-5 Visual Resource Management Classification Alternative B, Riverside–San Bernardino County Management Area
Map 2-6 Visual Resource Management Classification Alternative B, San Diego County Management Area
Map 2-7 Visual Resource Management Classification Alternative C, Los Angeles County Management Area
Map 2-8 Visual Resource Management Classification Alternative C, Riverside–San Bernardino County Management Area
Map 2-9 Visual Resource Management Classification Alternative C, San Diego County Management Area
Map 2-10 Visual Resource Management Classification Alternative D, Los Angeles County Management Area
Map 2-11 Visual Resource Management Classification Alternative D, Riverside–San Bernardino County Management Area
Map 2-12 Visual Resource Management Classification Alternative D, San Diego County Management Area
Map 2-13 ACEC Designations Alternative A, Los Angeles/Orange County Management Area
Map 2-14 ACEC Designations Alternative A, Riverside–San Bernardino County Management Area
Map 2-15 ACEC Designations Alternative A, San Diego County Management Area
Map 2-16 ACEC Designations Alternative B, Los Angeles/Orange County Management Area
Map 2-17 ACEC Designations Alternative B, Riverside–San Bernardino County Management Area
Map 2-18 ACEC Designations Alternative B, San Diego County Management Area
Map 2-19 ACEC Designations Alternative C, Los Angeles/Orange County Management Area
Map 2-20 ACEC Designations Alternative C, Riverside–San Bernardino County Management Area

Map 2-21 ACEC Designations Alternative C, San Diego County Management Area
Map 2-22 ACEC Designations Alternative D, Los Angeles/Orange County Management Area
Map 2-23 ACEC Designations Alternative D, Riverside–San Bernardino County Management Area
Map 2-24 ACEC Designations Alternative D, San Diego County Management Area
Map 2-25 Oil and Gas Leasing Alternative A, Los Angeles County Management Area
Map 2-26 Oil and Gas Leasing Alternative A, Riverside–San Bernardino County Management Area
Map 2-27 Oil and Gas Leasing Alternative B, Los Angeles County Management Area
Map 2-28 Oil and Gas Leasing Alternative B, Riverside–San Bernardino County Management Area
Map 2-29 Oil and Gas Leasing Alternative C, Los Angeles County Management Area
Map 2-30 Oil and Gas Leasing Alternative C, Riverside–San Bernardino County Management Area
Map 2-31 Oil and Gas Leasing Alternative D, Los Angeles County Management Area
Map 2-32 Oil and Gas Leasing Alternative D, Riverside–San Bernardino County Management Area
Map 2-33 Geothermal Leasing Alternatives B and D, Riverside–San Bernardino County Management Area
Map 2-34 Geothermal Leasing Alternative C, Riverside–San Bernardino County Management Area
Map 2-35 ERMAs and SRMAs All Alternatives, Los Angeles County Management Area
Map 2-36 ERMAs and SRMAs Alternative A, Riverside, San Bernardino, and San Diego County Management Area
Map 2-37 ERMAs and SRMAs Alternatives B and D, Riverside, San Bernardino, and San Diego County Management Area
Map 2-38 ERMAs and SRMAs Alternative C, Riverside, San Bernardino, and San Diego County Management Area
Map 2-39 OHV Area Designations & Routes of Travel Alternative A, Los Angeles County Management Area
Map 2-40 OHV Area Designations & Routes of Travel Alternative A, Riverside–San Bernardino County Management Area
Map 2-41 OHV Area Designations & Routes of Travel Alternative A, San Diego County (North) Management Area
Map 2-42 OHV Area Designations & Routes of Travel Alternative A, San Diego County (South) Management Area
Map 2-43 OHV Area Designations & Routes of Travel Alternative B, Los Angeles County Management Area
Map 2-44 OHV Area Designations & Routes of Travel Alternative B, Riverside–San Bernardino County Management Area
Map 2-45 OHV Area Designations & Routes of Travel Alternative B, San Diego County (North) Management Area
Map 2-46 OHV Area Designations & Routes of Travel Alternative B, San Diego County (South) Management Area
Map 2-47 OHV Area Designations & Routes of Travel Alternative C, Los Angeles County Management Area
Map 2-48 OHV Area Designations & Routes of Travel Alternative C, Riverside–San Bernardino County Management Area
Map 2-49 OHV Area Designations & Routes of Travel Alternative C, San Diego County (North) Management Area
Map 2-50 OHV Area Designations & Routes of Travel Alternative C, San Diego County (South) Management Area

Map 2-51 OHV Area Designations & Routes of Travel Alternative D, Los Angeles County Management Area
Map 2-52 OHV Area Designations & Routes of Travel Alternative D, Riverside–San Bernardino County Management Area
Map 2-53 OHV Area Designations & Routes of Travel Alternative D, San Diego County (North) Management Area
Map 2-54 OHV Area Designations & Routes of Travel Alternative D, San Diego County (South) Management Area
Map 2-55 Lands Available for Disposal Alternative A, Los Angeles County Management Area
Map 2-56 Lands Available for Disposal Alternative A, Riverside–San Bernardino County Management Area
Map 2-57 Lands Available for Disposal Alternative A, San Diego County Management Area
Map 2-58 Lands Available for Disposal Alternative B, Los Angeles County Management Area
Map 2-59 Lands Available for Disposal Alternative B, Riverside–San Bernardino County Management Area
Map 2-60 Lands Available for Disposal Alternative B, San Diego County Management Area
Map 2-61 Lands Available for Disposal Alternative C, Los Angeles County Management Area
Map 2-62 Lands Available for Disposal Alternative C, Riverside–San Bernardino County Management Area
Map 2-63 Lands Available for Disposal Alternative C, San Diego County Management Area
Map 2-64 Lands Available for Disposal Alternative D, Los Angeles County Management Area
Map 2-65 Lands Available for Disposal Alternative D, Riverside–San Bernardino County Management Area
Map 2-66 Lands Available for Disposal Alternative D, San Diego County Management Area
Map 2-67 Range Allotments Alternatives A and C, Riverside & San Diego County Management Areas
Map 2-68 Range Allotments Alternatives B and C, Riverside & San Diego County Management Areas
Map 3-1 Air Basins, Air District Boundaries, and Weather Stations in Relation to the Planning Area
Map 3-2 Relationship of Air Quality Monitoring Stations to the Planning Area Management Areas
Map 3-3 Other Resource Management Areas in and Around South Coast Resource Management Area
Map 3-4 Soil Management Characteristics for the San Diego County and Beauty Mountain Management Areas
Map 3-5 Soil Management Characteristics for the Riverside–San Bernardino County Management Area
Map 3-6 Soil Management Characteristics for the Los Angeles/Orange County Management Area
Map 3-7 Groundwater Basins in the San Diego County and Beauty Mountain Management Areas
Map 3-8 Groundwater Basins in the Riverside–San Bernardino County Management Area
Map 3-9 Groundwater Basins in the Los Angeles/Orange County Management Area
Map 3-10 Watershed Basins and Hydrologic Units in the San Diego County and Beauty Mountain Management Areas
Map 3-11 Watershed Basins and Hydrologic Units in the Riverside–San Bernardino County and Los Angeles/Orange County Management Areas
Map 3-12 Vegetation Types in the Los Angeles/Orange County Management Area
Map 3-13 Vegetation Types in the Riverside–San Bernardino County Management Area
Map 3-14 Vegetation Types in the San Diego County Management Area
Map 3-15 USFWS Critical Habitat, Los Angeles/Orange County Management Area

Map 3-16 USFWS Critical Habitat, Riverside–San Bernardino County Management Area
Map 3-17 USFWS Critical Habitat, San Diego County Management Area
Map 3-18 Western Riverside Multiple Species Habitat Conservation Area, Riverside–San Bernardino County Management Area
Map 3-19 San Diego County Multiple Species Conservation Plan, San Diego County Management Area
Map 3-20 Fire Hazard Severity Zones, South Coast Resource Management Area
Map 3-21 Fire History, South Coast Resource Management Area
Map 3-22 Paleontological Sensitivity, South Coast Planning Area
Map 3-23 Special Designation, South Coast Resource Management Planning Area
Map 3-24 BLM Parcels, Los Angeles Management Area
Map 3-25 BLM Parcels, San Bernardino and North Riverside County Management Area
Map 3-26 BLM Parcels, South Riverside and North San Diego County Management Area
Map 3-27 BLM Parcels, South San Diego County Management Area
Map 3-28 Communications & Energy Corridor, Riverside and San Diego Counties
Map 3-29 Active Mining Claims, South Coast Management Area
Map 3-30 Geothermal Mineral Potential, South Coast Management Area

Volume 2: Chapters 4 through 6 and Appendices

4.0 Environmental Consequences 4-1
4.1 Introduction 4-1
4.1.1 General Analytical Assumptions 4-2
4.1.2 Types of Effects 4-2
4.1.3 Summary of Elements of the Human Environment Addressed, Not Addressed, Not Affected, or Not Present 4-3
4.1.4 Supplemental Authorities to Be Considered 4-3
4.2 Impact Analysis 4-5
4.2.1 Impacts to Air Resources 4-5
4.2.1.1 Impacts Common to All Alternatives 4-5
4.2.1.2 Differences between Alternatives 4-6
4.2.1.3 Unavoidable Adverse Impacts 4-21
4.2.1.4 References 4-21
4.2.2 Impacts to Soil Resources 4-22
4.2.2.1 Impacts Common to All Alternatives 4-22
4.2.2.2 Differences between Alternatives 4-23
4.2.2.3 Unavoidable Adverse Impacts 4-53
4.2.3 Impacts to Water Resources 4-55
4.2.3.1 Impacts Common to All Alternatives 4-55
4.2.3.2 Differences between Alternatives 4-56
4.2.3.3 Unavoidable Adverse Impacts 4-80
4.2.4 Impacts to Vegetation 4-81
4.2.4.1 Impacts Common to All Alternatives 4-81
4.2.4.2 Differences between Alternatives 4-82
4.2.5 Impacts to Wildlife 4-130
4.2.5.1 Impacts Common to All Alternatives 4-130
4.2.5.2 Differences between Alternatives 4-134
4.2.6 Impacts to Special Status Species 4-165
4.2.6.1 Impacts Common to All Alternatives 4-165
4.2.6.2 Differences between Alternatives 4-169
4.2.7 Impacts to Wildland Fire and Fuels 4-207
4.2.7.1 Impacts Common to All Alternatives 4-207
4.2.7.2 Differences between Alternatives 4-212
4.2.7.3 Unavoidable Adverse Impacts 4-213

4.2.8 Impacts to Cultural Resources 4-214
4.2.8.1 Impacts Common to All Alternatives 4-214
4.2.8.2 Differences between Alternatives 4-215
4.2.8.3 Unavoidable Adverse Impacts 4-235
4.2.9 Impacts to Paleontological Resources 4-236
4.2.9.1 Impacts Common to All Alternatives 4-236
4.2.9.2 Differences between Alternatives 4-236
4.2.9.3 Unavoidable Adverse Impacts 4-238
4.2.10 Impacts to Visual Resources 4-239
4.2.10.1 Impacts Common to All Alternatives 4-240
4.2.10.2 Differences between Alternatives 4-242
4.2.10.3 Unavoidable Adverse Impacts 4-251
4.2.10.4 References 4-251
4.2.11 Impacts to Special Designations and Lands with Wilderness Characteristics 4-252
4.2.11.1 Impacts Common to All Alternatives 4-252
4.2.11.2 Differences between Alternatives 4-252
4.2.12 Impacts to Range Management – Livestock Grazing 4-297
4.2.12.1 Impacts Common to All Alternatives 4-297
4.2.12.2 Differences between Alternatives 4-300
4.2.12.3 Unavoidable Adverse Impacts 4-308
4.2.13 Impacts to Mineral Resources 4-309
4.2.13.1 Impacts Common to All Alternatives 4-309
4.2.13.2 Differences between Alternatives 4-311
4.2.14 Impacts to Recreation 4-323
4.2.14.1 Impacts Common to All Alternatives 4-323
4.2.14.2 Differences between Alternatives 4-325
4.2.15 Impacts to Transportation and Public Access 4-351
4.2.15.1 Impacts Common to All Alternatives 4-351
4.2.15.2 Differences between Alternatives 4-352
4.2.16 Impacts to Lands and Realty 4-365
4.2.16.1 Impacts Common to All Alternatives 4-365
4.2.16.2 Differences between Alternatives 4-366
4.2.17 Impacts to Public Health and Safety 4-385
4.2.17.1 Impacts Common to All Alternatives 4-386
4.2.17.2 Differences between Alternatives 4-386
4.2.18 Impacts to Social and Economic Values 4-394
4.2.18.1 Impacts Common to All Alternatives 4-394
4.2.18.2 Differences between Alternatives 4-394
Impacts to Social and Economic Values – Alternative A (No Action) 4-394
Impacts to Social and Economic Values – Alternative B (Conservation) 4-404
Impacts to Social and Economic Values – Alternative C (Public Use) 4-413
Impacts to Social and Economic Values – Alternative D (Preferred Plan) 4-421
4.2.18.3 Unavoidable Adverse Impacts 4-429
4.2.19 Impacts to Environmental Justice 4-430
4.2.19.1 Environmental Justice Determination 4-430
4.3 Cumulative Impacts and Reasonably Foreseeable Development 4-431
4.3.1 Cumulative Analysis Methodology and Reasonably Foreseeable Development Scenarios 4-431
4.3.1.1 Wildland Fire and Fuels Assumptions and Reasonably Foreseeable Development: All Alternatives 4-432
4.3.1.2 Mineral Resources - Locatable Mineral (Metallic and Non-metallic/Industrial) Development Potential 4-433

4.3.1.3 Mineral Resources - Fluid and Solid Leasable Mineral (Oil and Gas) Development Potential 4-435
4.3.1.4 Mineral Resources - Geothermal Resources Development Potential 4-438
4.3.1.5 Mineral Resources - Salable (Construction Materials) Mineral Development Potential 4-438
4.3.1.6 Recreation Assumptions and Reasonably Foreseeable Development: All Alternatives 4-440
4.3.1.7 Lands and Realty Assumptions and Reasonably Foreseeable Development: All Alternatives 4-441
4.3.2 Cumulative Impacts Analysis 4-447
4.3.2.1 Impacts from Programs Common to All Alternatives 4-447
4.3.2.2 Impacts to Resources Common to All Alternatives 4-447
4.3.2.3 Alternative A – No Action 4-449
4.3.2.4 Alternative B – Conservation 4-455
4.3.2.5 Alternative C – Public Use 4-461
4.3.2.6 Alternative D – Preferred Plan 4-468

5.0 Coordination and Consultation 5-1
5.1 Introduction 5-1
5.2 Specific Consultation and Coordination Requirements 5-1
5.2.1 Native American Consultation 5-1
5.2.2 State Historic Preservation Office 5-1
5.2.3 U.S. Fish and Wildlife Service Consultation 5-2
5.3 Cooperating Agencies 5-2
5.4 Coordination and Consistency 5-3
5.4.1 Key Coordination Actions 5-3
Federal Agencies 5-3
State of California 5-3
County Agencies 5-4
5.5 Public Participation 5-4
5.5.1 Scoping Period 5-4
5.5.2 Scoping Notice 5-4
5.5.3 Scoping Meetings 5-5
5.5.4 Scoping Report 5-5
5.5.6 Distribution of the Draft RMP/EIS 5-5
Federal Agencies 5-5
California State Agencies 5-6
Local Government 5-6
Indian Tribes and Councils 5-7
Congressional Representatives 5-8
California State Legislature 5-8
Organizations 5-8
Libraries 5-10
5.6 List of Preparers 5-11

6.0 Glossary 6-1

Tables

Table 4-1 Impacts to Paleontological Resources by Alternative 4-237
Table 4-2 Alternative A: Livestock Grazing on BLM Land within the Planning Area 4-395
Table 4-3 Alternative A: Economic Activity Generated by BLM Support of HCPs within the Planning Area 4-397
Table 4-4 Alternative A: Oil and Gas Production on BLM Land within the Planning Area 4-398

Table 4-5 Alternative A: Sand and Gravel Extraction on BLM Land within the Planning Area 4-399
Table 4-6 Alternative A: Recreation Activity on BLM Land within the Planning Area 4-400
Table 4-7 Alternative A: Communication Sites Maintenance and Repair on BLM Land within the Planning Area 4-402
Table 4-8 Alternative A: ROW Maintenance on BLM Land within the Planning Area 4-403
Table 4-9 Alternative A: Total of All Activities on BLM Land within the Planning Area 4-404
Table 4-10 Alternative B: Livestock Grazing on BLM Land within the Planning Area 4-406
Table 4-11 Alternative B: Economic Activity Generated by BLM Support of HCPs within the Planning Area 4-407
Table 4-12 Alternative B: Oil and Gas Production on BLM Land within the Planning Area 4-408
Table 4-13 Alternative B: Sand and Gravel Extraction on BLM Land within the Planning Area 4-409
Table 4-14 Alternative B: Recreation Activity on BLM Land within the Planning Area 4-410
Table 4-15 Alternative B: Communication Sites on BLM Land within the Planning Area 4-411
Table 4-16 Alternative B: ROW Maintenance on BLM Land within the Planning Area 4-412
Table 4-17 Alternative B: All Combined BLM Resource Programs within the Planning Area 4-413
Table 4-18 Alternative C: Livestock Grazing on BLM Land within the Planning Area 4-414
Table 4-19 Alternative C: Economic Activity Generated by BLM Support of HCPs within the Planning Area 4-415
Table 4-20 Alternative C: Oil and Gas Production on BLM Land within the Planning Area 4-416
Table 4-21 Alternative C: Sand and Gravel Extraction on BLM Land within the Planning Area 4-417
Table 4-22 Alternative C: Recreation Activity on BLM Land within the Planning Area 4-418
Table 4-23 Alternative C: Communication Sites on BLM Land within the Planning Area 4-419
Table 4-24 Alternative C: ROW Maintenance on BLM Land within the Planning Area 4-420
Table 4-25 Alternative C: All Combined BLM Resource Programs within the Planning Area 4-421
Table 4-26 Alternative D: Livestock Grazing on BLM Land within the Planning Area 4-422
Table 4-27 Alternative D: Economic Activity Generated by BLM Support of HCPs within the Planning Area 4-423
Table 4-28 Alternative D: Oil and Gas Production on BLM Land within the Planning Area 4-424
Table 4-29 Alternative D: Sand and Gravel Extraction on BLM Land within the Planning Area 4-425
Table 4-30 Alternative D: Recreation Activity on BLM Land within the Planning Area 4-426
Table 4-31 Alternative D: Communication Sites on BLM Land within the Planning Area 4-427
Table 4-32 Alternative D: ROW Maintenance on BLM Land within the Planning Area 4-428
Table 4-33 Alternative D: All Combined BLM Resource Programs within the Planning Area 4-429
Table 4-34 Comparative Summary of Reasonably Foreseeable Development Scenarios 4-443
Table 5-1 SCRMP Revision Team Members 5-12

Appendices

Appendix A BLM Public Lands and Land Tenure
A-1. Public Land Parcels
A-2. Acquired Lands
A-3. Land Tenure Adjustments
A-4. Withdrawals and Classifications

Appendix B Notice of Intent

Appendix C Results of Scoping

Appendix D Plan News
Appendix E Best Management Practices
Appendix F Wilderness
Appendix G Wild and Scenic River Eligibility and Suitability Study
G-1. Map: Wild and Scenic Rivers
Appendix H Areas of Critical Environmental Concern
Appendix I Recreation
Appendix J Transportation Planning and Route Designation
Appendix K Route of Travel Designations
Appendix L Route of Travel Inventory Maps (DVD on inside back cover)
Appendix M Visual Resource Management
M-1. Map: Visual Inventory: San Diego County
M-2. Map: Visual Inventory: Beauty Mountain
M-3. Map: San Bernardino–Riverside County
M-4. Map: Santa Clara River/Soledad Canyon
Appendix N Consideration of Lands with Wilderness Characteristics
N-1. Map: Lands with Wilderness Characteristics - San Bernardino, Riverside, and Beauty Mountain Management Area
N-2. Map: Lands with Wilderness Characteristics - San Diego County
Appendix O Memorandum of Understanding for Cooperation in HCP Planning
Appendix P Executive Order 13433: Facilitation of Hunting Heritage and Wildlife Conservation