

Initial Study/Draft Mitigated Negative Declaration

**Williams Communications, Inc.
Fiber Optic Cable System Installation Project - California Network**

Volume I

Application No. A98-12-037

California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Comments should be submitted to:

John Boccio
CPUC Project Manager

%KEA Environmental, Inc.
601 University Avenue, Suite 185
Sacramento, CA 95825

August 1999

Table of Contents

	Page
Chapter 1. Introduction	1-1
PROJECT PROPONENT	1-1
CEQA LEAD AND RESPONSIBLE AGENCIES	1-2
PROJECT OBJECTIVES	1-2
SCOPE OF THIS EXPANDED INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION	1-3
ORGANIZATION OF THIS IS/MND	1-4
 Chapter 2. Project Description	 2-1
INTRODUCTION	2-1
REGULATORY ENVIRONMENT	2-3
MITIGATION INCORPORATED INTO PROJECT DESIGN AND CONSTRUCTION APPROACHES	2-4
Construction Methods for Fiber Optic Cable and Conduit Installation	2-4
Regenerator and OP-AMP Stations	2-8
Staging Area Establishment	2-9
Access Roads	2-10
Equipment Access through Streams	2-10
Facility Operation and Maintenance	2-10
Avoidance of Sensitive Resources	2-11
Work Zones	2-12
Surface Reclamation	2-13
Erosion Control	2-15
Equipment Maintenance and Refueling	2-17
CONSTRUCTION MANAGEMENT STRUCTURE	2-18
Spread Superintendent	2-18
Spread Supervisor	2-19
Contract Compliance Inspectors	2-19
Environmental Resource Coordinator	2-19
Biological and Archeological Resource Monitors	2-19
ENVIRONMENTAL TRAINING AND AWARENESS	2-19
Williams and its Consultant Team	2-19
Contractor Team	2-20
LAND USES ISSUES	2-21
Public Roads	2-21
Utility Crossings	2-21
Private Property	2-21
Farm and Agricultural Lands	2-22
CONSTRUCTION SCHEDULE AND WORKFORCE	2-22
Construction Schedule	2-22

Timing of Work	2-22
Construction Workforce	2-23
SUMMARY OF MITIGATION MEASURES INCORPORATED INTO DESIGN AND CONSTRUCTION APPROACH	2-23
Specific Measures	2-23
General Measures	2-24
NO-PROJECT ALTERNATIVE	2-26
FUTURE PROJECTS	2-26

Chapter 3. Project Route Descriptions	3-1
INTRODUCTION	3-1
POINT ARENA TO SACRAMENTO	3-2
Proposed Project Route Description	3-2
Proposed Regenerator/OP-AMP Station Locations	3-3
Proposed Construction Methods	3-3
SACRAMENTO TO CALIFORNIA/NEVADA BORDER	3-4
Proposed Project Route Description	3-4
Proposed OP-AMP Station Locations	3-6
Proposed Construction Methods	3-6
SAN FRANCISCO TO SANTA CLARA	3-6
Proposed Project Route Description	3-6
Proposed Regenerator/OP-AMP Station Locations	3-7
Proposed Construction Methods	3-8
PITTSBURG TO SACRAMENTO	3-8
Proposed Project Route Description	3-8
Proposed Regenerator/OP-AMP Station Locations	3-10
Proposed Construction Methods	3-10
SAN LUIS OBISPO TO BAKERSFIELD	3-10
Proposed Project Route Description	3-10
Proposed Regenerator/OP-AMP Station Locations	3-12
Proposed Construction Methods	3-12
SAN LUIS OBISPO TO LOS OSOS LOOP	3-13
Proposed Project Route Description	3-13
Proposed Regenerator/OP-AMP Station Locations	3-14
Proposed Construction Methods	3-14
RIVERSIDE TO CALIFORNIA/ARIZONA BORDER	3-15
Proposed Project Route Description	3-15
Proposed Regenerator/OP-AMP Station Locations	3-16
Proposed Construction Methods	3-16
LOS ANGELES TO RIVERSIDE	3-17
Proposed Project Route Description	3-17
Proposed Regenerator/OP-AMP Station Locations	3-18
Proposed Construction Methods	3-18
LOS ANGELES TO ANAHEIM	3-18
Proposed Project Route Description	3-18
Proposed Regenerator/OP-AMP Station Locations	3-19
Proposed Construction Methods	3-19

Chapter 4. Environmental Setting	4-1
INTRODUCTION	4-1
I. AESTHETICS	4-1
Regulations, Approvals, and Permits Applicable to Aesthetics	4-1
Proposed Project Route Settings	4-2
II. AGRICULTURAL RESOURCES	4-3
Regulations, Approvals, and Permits Applicable to Agricultural Resources	4-4
Proposed Project Route Settings	4-4
III. AIR QUALITY	4-6
California Climate and Meteorology	4-6
Regulations, Approvals, and Permits Applicable to Air Quality	4-7
Pollutants of Concern and Attainment/Nonattainment Status	4-10
Proposed Project Route Settings	4-12
IV. BIOLOGICAL RESOURCES	4-13
Vegetation Resources	4-13
Wildlife Resources	4-22
Fisheries Resources	4-25
Regulations, Approvals, and Permits Applicable to Biological Resources	4-26
Proposed Project Route Settings	4-30
V. CULTURAL RESOURCES	4-61
Prehistory, Ethnography, and History	4-61
Project Study Areas and Delineation of Areas of Potential Effects	4-61
Inventory Methods	4-62
Field Survey Methods	4-62
Results of Inventory	4-63
Regulations, Approvals, and Permits Applicable to Cultural Resources	4-63
Paleontological Resources	4-64
Proposed Project Route Settings	4-67
VI. GEOLOGY AND SOILS	4-72
Geology and Seismicity	4-72
Soils	4-72
Regulations, Approvals, and Permits Applicable to Geology and Soils	4-73
VII. HAZARDS AND HAZARDOUS MATERIALS	4-73
Regulations, Approvals, and Permits Applicable to Hazards and Hazardous Materials ..	4-73
Proposed Project Route Settings	4-73
VIII. HYDROLOGY AND WATER QUALITY	4-74
Approach and Methodology	4-74
Regulations, Approvals, and Permits Applicable to Hydrology and Water Quality	4-76
Proposed Project Route Settings	4-76
IX. LAND USE AND PLANNING	4-78
Regulations, Approvals, and Permits Applicable to Land Use and Planning	4-78
Proposed Project Route Settings	4-79
X. MINERAL RESOURCES	4-79
Regulations, Approvals, and Permits Applicable to Mineral Resources	4-79
XI. NOISE	4-81
Regulations, Approvals, and Permits Applicable to Noise	4-81
XII. POPULATION AND HOUSING	4-82
XIII. PUBLIC SERVICES	4-82

XIV. RECREATION	4-83
XV. TRANSPORTATION/TRAFFIC	4-83
Regulations, Approvals, and Permits Applicable to Transportation/Traffic	4-83
Proposed Project Route Settings	4-83
XVI. UTILITIES AND SERVICE SYSTEMS	4-84
Chapter 5. Environmental Impacts and Mitigation Measures	5-1
INTRODUCTION	5-1
I. AESTHETICS	5-4
Criteria for Determining Significance	5-5
Impact Mechanisms	5-5
Impact Assessment	5-5
Cumulative Impacts	5-8
II. AGRICULTURAL RESOURCES	5-9
Criteria for Determining Significance	5-9
Impact Mechanisms	5-9
Impact Assessment	5-9
Cumulative Impacts	5-10
III. AIR QUALITY	5-11
Criteria for Determining Significance	5-11
Impact Mechanisms	5-13
Impact Assessment	5-14
Cumulative Impacts	5-15
IV. BIOLOGICAL RESOURCES	5-16
Criteria for Determining Significance	5-16
Impact Mechanisms	5-17
Impact Assessment	5-18
Cumulative Impacts	5-65
V. CULTURAL RESOURCES	5-66
Criteria for Determining Significance	5-66
Impact Mechanisms	5-67
Impact Assessment	5-67
Cumulative Impacts	5-72
VI. GEOLOGY AND SOILS	5-72
Criteria for Determining Significance	5-73
Impact Mechanisms	5-73
Impact Assessment	5-73
Cumulative Impacts	5-76
VII. HAZARDS AND HAZARDOUS MATERIALS	5-76
Criteria for Determining Significance	5-77
Impact Mechanisms	5-77
Impact Assessment	5-77
Cumulative Impacts	5-80
VIII. HYDROLOGY AND WATER QUALITY	5-80
Criteria for Determining Significance	5-81
Impact Mechanisms	5-82
Impact Assessment	5-82
Cumulative Impacts	5-87

IX. LAND USE AND PLANNING	5-88
Criteria for Determining Significance	5-88
Impact Mechanisms	5-88
Impact Assessment	5-88
Cumulative Impacts	5-89
X. MINERAL RESOURCES	5-89
Criteria for Determining Significance	5-90
Impact Mechanisms	5-90
Impact Assessment	5-90
Cumulative Impacts	5-90
XI. NOISE	5-91
Criteria for Determining Significance	5-91
Impact Mechanisms	5-92
Impact Assessment	5-92
Cumulative Impacts	5-96
XII. POPULATION AND HOUSING	5-96
Criteria for Determining Significance	5-97
Impact Mechanisms	5-97
Impact Assessment	5-97
Cumulative Impacts	5-98
XIII. PUBLIC SERVICES	5-98
Criteria for Determining Significance	5-98
Impact Mechanisms	5-98
Impact Assessment	5-98
Cumulative Impacts	5-99
XIV. RECREATION	5-99
Criteria for Determining Significance	5-99
Impact Mechanisms	5-99
Impact Assessment	5-99
Cumulative Impacts	5-100
XV. TRANSPORTATION/TRAFFIC	5-100
Criteria for Determining Significance	5-101
Impact Mechanisms	5-101
Impact Assessment	5-101
Cumulative Impacts	5-104
XVI. UTILITIES AND SERVICE SYSTEMS	5-105
Criteria for Determining Significance	5-105
Impact Mechanisms	5-105
Impact Assessment	5-105
Cumulative Impacts	5-107
MANDATORY FINDINGS OF SIGNIFICANCE	5-107
Chapter 6. Citations	6-1
Printed References	6-1
Personal Communications	6-5

Volume II. Technical Appendices

- A. Environmental Checklist Form
- B. Possible Environmental-Related Permits and Agency Approvals for Each Project Route
- C. California State Lands Commission Jurisdiction
- D. Sample Wetland Delineation Report
- E. Sample Storm Water Pollution Prevention Plan
- F. Resource Tables
- G. Environmental Compliance Checklist for Proposed Regenerator/OP-AMP Station Sites
- H. Sample Reclamation Plan
- I. Mitigation Monitoring Plan
- J. Sample Fire Prevention and Response Plan
- K. Consultation and Coordination
 - Appendix K-1. Common and Scientific Names of Plant Species Mentioned in the Text
 - Appendix K-2. Common and Scientific Names of Wildlife and Fish Species Mentioned in the Text
 - Appendix K-3. Special-Status Plant Species Potentially Occurring along Each Project Route
 - Appendix K-4. Special-Status Wildlife Species Potentially Occurring along Each Project Route
 - Appendix K-5. Special-Status Fish Species Potentially Occurring along Each Project Route
- L. Summary of Prefield and Historical Research
- M. Previously Identified Fossil Localities
- N. Background Information on Acoustics

List of Tables

Table	Page
3-1	Right-of-Way Miles and Construction Methods - Point Arena to Sacramento 3-2
3-2	Right-of-Way Miles and Construction Methods - Sacramento to the California/Nevada Border 3-4
3-3	Right-of-Way Miles and Construction Methods - San Francisco to Santa Clara 3-7
3-4	Right-of-Way Miles and Construction Methods - Pittsburg to Sacramento 3-8
3-5	Right-of-Way Miles and Construction Methods - San Luis Obispo to Bakersfield 3-11
3-6	Right-of-Way Miles and Construction Methods - San Luis Obispo to Los Osos Loop 3-13
3-7	Right-of-Way Miles and Construction Methods - Riverside to the California/Arizona Border 3-15
3-8	Right-of-Way Miles and Construction Methods - Los Angeles to Riverside 3-17
3-9	Right-of-Way Miles and Construction Methods - Los Angeles to Anaheim 3-19
4.III-1	Ambient Air Quality Standards Applicable in California 4-9
4.III-2	California Air Basins and Local Air Districts Crossed by the Project Routes 4-9
4.III-3	Air Quality Requirement Attainment Status by Pollutant and Air Basin 4-10
4.IV-1	Vegetation, Wetland, and Wildlife Field Surveys Conducted for Each Project Route 4-15
4.IV-2	Noxious Weed Species of Concern 4-18
4.V-1	Paleontological Sensitivity of Geologic Units Potentially Occurring in the Project Study Area 4-65
4.VIII-1	Beneficial Uses of Major Waterbodies along the Project Routes 4-75
4.XI-1	Maximum Allowable Ambient Noise Exposure for Various Land Uses 4-82
5-1	Sensitive or Protected Resources Identified at the Regenerator/OP-AMP Station Sites during Field Surveys and Site Visits 5-1

5.III-1	Construction Emission Offset Significance Thresholds	5-11
5.III-2	Estimated Construction Emissions Associated with Typical Fiber Optic Cable Installation Projects	5-13
5.III-3	Operational Emissions Associated with a 255-hp Diesel Generator	5-13
5.XI-1	Summary of Construction Noise Sources	5-92
5.XI-2	Estimated Noise in the Vicinity of an Active Construction Site	5-93

List of Figures

Figure	Follows Page
1-1	Locations of Proposed Fiber Optic Cable Routes in California 1-2
2-1	Typical Manhole and Handhole 2-6
2-2	Plowed Installation 2-6
2-3	Bridge Attachment 2-6
2-4	Aerial Installation 2-6
2-5	Typical Regenerator Station Sites 2-8
2-6	Directional Boring 2-10
2-7	General Field Organization for the Williams Fiber Optic System Project 2-18
3-1a	Point Arena to Sacramento Project Route 3-2
3-1b	Point Arena to Sacramento Project OP-AMP Station Locations 3-2
3-1c	Point Arena to Sacramento Project OP-AMP Station Locations 3-2
3-2a	Sacramento to the California/Nevada Border Project Route 3-4
3-2b	Sacramento to the California/Nevada Border Project OP-AMP Station Locations 3-4
3-3	San Francisco to Santa Clara Project Route 3-6
3-4a	Pittsburg to Sacramento Project Route 3-8
3-4b	Pittsburg to Sacramento Project OP-AMP Station Locations 3-8
3-5a	San Luis Obispo to Bakersfield Project Route 3-10
3-5b	San Luis Obispo to Bakersfield Project OP-AMP Station Locations 3-10
3-6	San Luis Obispo to Los Osos Loop Project Route 3-14
3-7a	Riverside to California/Arizona Border Project Route 3-16

3-7b	Riverside to California/Arizona Border Project Regenerator and OP-AMP Station Locations	3-16
3-7c	Riverside to California/Arizona Border Project Regenerator and OP-AMP Station Locations	3-16
3-8	Los Angeles to Riverside Project Route	3-18
3-9	Los Angeles to Anaheim Project Route	3-18
4.III-1	California Air Basins	4-8

List of Acronyms and Abbreviations

ADDS	all-dialect self-supporting
APCD	Air Pollution Control District
APE	area of potential effects
AQMD	Air Quality Management District
ARB	California Air Resources Board
AST	aboveground storage tanks
BART	Bay Area Rapid Transit District
BLM	U.S. Bureau of Land Management
CAAQS	California ambient air quality standards
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNAHC	California Native American Heritage Commission
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CPCN	Certificate of Public Convenience and Necessity
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
DFG	California Department of Fish and Game
DHS	California Department of Health Services
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESU	evolutionarily significant unit
FCAA	Federal Clean Air Act
FCC	Federal Communications Commission
HCP	habitat conservation plan
hp	horsepower
HVAC	heating, ventilating, and air conditioning
I-80	Interstate 80
IS/MND	initial study/mitigated negative declaration
ITE	Institute of Transportation Engineers

KMEP	Kinder-Morgan Energy Partners
LUST	leaking underground storage tanks
mph	miles per hour
MWD	Metropolitan Water District
NAAQS	national ambient air quality standards
NAGPRA	Native American Graves Protection and Repatriation Act
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO _x	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List
NPRR	Northwestern Pacific Railroad
NRHP	National Register of Historic Places
OP-AMP	optical amplification
OPGW	optical ground wire cable
OSHA	Occupational Safety and Health Administration
PM10	particles 10 microns or less in diameter
PM2.5	particles 2.5 microns or less in diameter
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RHCA	riparian habitat conservation area
ROG	reactive organic gases
RWQCB	regional water quality control board
SCL	State equivalent CERCLIS list
SDCWA	San Diego County Water Authority
SPL	state equivalent priority list
SPRR	Southern Pacific Railroad
SR	State Route
SWLF	solid waste landfills
SWPPP	storm water pollution prevention plan
TRIS	Toxic Release Inventory Database
TSD	treatment, storage, disposal facilities
U.S. 101	U.S. Highway 101
UPRR	Union Pacific Railroad
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

USGS
UST

U.S. Geological Service
underground storage tanks

VELB

valley elderberry longhorn beetle

Williams
WQS

Williams Communications, Inc.
water quality standards

