
TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
LIST OF APPENDICES	v
LIST OF TABLES.....	vi
LIST OF FIGURES.....	viii
ACRONYMS AND ABBREVIATIONS	AA-1
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION.....	1-3
1.1 Background.....	1-3
1.2 Project Purpose and Need	1-5
1.3 Purpose and Scope of this Document	1-9
1.3.1 FERC.....	1-10
1.3.2 BLM	1-11
1.4 Public Review and Comment	1-11
1.5 Changes Since Issuance of the Draft EIS	1-18
1.6 Nonjurisdictional Facilities	1-19
1.6.1 Background	1-19
1.6.2 Conclusions.....	1-27
1.7 Related Actions.....	1-28
2.0 PROPOSED ACTION	2-1
2.1 Proposed Facilities	2-1
2.1.1 Pipeline Facilities	2-1
2.1.2 Compressor Stations and Appurtenant Facilities	2-3
2.2 Land Requirements	2-3
2.2.1 Pipeline ROW.....	2-9
2.2.2 Additional Temporary Workspace Areas	2-9
2.2.3 Pipe Storage and Contractor Yards	2-9

TABLE OF CONTENTS

2.2.4 Access Roads	2-11
2.2.5 Aboveground Facilities	2-13
2.3 Construction Procedures.....	2-14
2.3.1 General Pipeline Construction Procedures.....	2-16
2.3.2 Special Construction Procedures	2-21
2.3.3 Aboveground Facility Construction Procedures	2-28
2.3.4 Corrosion Protection and Detection Systems	2-34
2.4 Construction Workforce and Schedule	2-35
2.5 Environmental Inspection, Compliance Monitoring, and Post-Approval Variances	2-36
2.5.1 Environmental Inspection	2-36
2.5.2 Compliance Monitoring	2-38
2.5.3 Post-Approval Variance Process	2-38
2.6 Operation and Maintenance.....	2-39
2.6.1 ROW Monitoring and Maintenance	2-39
2.6.2 Pipeline Integrity.....	2-39
2.7 Future Plans and Abandonment	2-40
2.8 Permits, Approvals, and Regulatory Requirements	2-40
 3.0 ENVIRONMENTAL ANALYSIS	3-1
3.1 Geology.....	3-1
3.1.1 Geology and Physiography	3-1
3.1.2 Mineral Resources	3-1
3.1.3 Geologic Hazards	3-5
3.1.4 Paleontological Resources	3-11
3.2 Soils and Noxious Weeds	3-17
3.2.1 Erosion	3-19
3.2.2 Sensitive Soils.....	3-20
3.2.3 Soil Contamination.....	3-22
3.2.4 Noxious Weeds and Other Invasive Plants	3-22
3.3 Water Resources	3-29
3.3.1 Groundwater	3-29
3.3.2 Surface Water	3-35
3.3.3 Wetlands	3-49
3.4 Vegetation.....	3-53

TABLE OF CONTENTS

3.5	Fish and Wildlife	3-62
3.5.1	Fishery Resources	3-62
3.5.2	Wildlife Resources	3-65
3.6	Special Status Species.....	3-77
3.6.1	North Platte River Threatened and Endangered Species	3-78
3.6.2	Plant Species	3-79
3.6.3	Terrestrial Animal Species.....	3-82
3.6.4	Fish Species.....	3-95
3.7	Land Use, Recreation, Visual Resources	3-101
3.7.1	Land Use	3-101
3.7.2	Recreational and Public Interest Areas.....	3-106
3.7.3	Visual Resources	3-108
3.8	Cultural Resources	3-111
3.8.1	Results of Cultural Resources Survey	3-111
3.8.2	Native American Consultation	3-113
3.8.3	Construction and Operational Impacts.....	3-115
3.9	Socioeconomics.....	3-117
3.9.1	Population	3-117
3.9.2	Employment and Economics	3-120
3.9.3	Housing	3-122
3.9.4	Public Services and Facilities.....	3-126
3.9.5	Public Sector Fiscal Resources.....	3-127
3.9.6	Transportation	3-129
3.9.7	Property Values	3-130
3.9.8	Environmental Justice.....	3-132
3.10	Air and Noise Quality	3-134
3.10.1	Air Quality	3-134
3.10.2	Noise	3-141
3.11	Reliability and Safety	3-146
3.11.1	Safety Standards	3-146
3.11.2	Pipeline Accident Data.....	3-150
3.11.3	Impact on Public Safety	3-152
3.11.4	Terrorism	3-153
3.12	Cumulative Impacts	3-155
3.12.1	Cumulative Impacts to Resources	3-161

TABLE OF CONTENTS

4.0 ALTERNATIVES	4-1
4.1 No Action or Postponed Action	4-1
4.2 System Alternatives.....	4-3
4.2.1 Other Existing Pipeline Systems	4-3
4.2.2 Proposed Pipeline Systems	4-4
4.3 Regional Route Alternatives.....	4-6
4.4 Route Alternatives	4-7
4.4.1 PBEP Route Alternative	4-7
4.4.2 Collocation Alternative	4-10
4.5 Route Variations	4-18
4.5.1 Pine Tree Gulch Variation (Current Proposed Action) (MPs 32.1 to 39.9).....	4-19
4.5.2 Park Meadows Variation (MPs 294.1 to 295.8).....	4-19
4.5.3 Cheyenne Hub Variations (MPs 325 to 327)	4-22
4.5.4 Piceance Creek Variations	4-24
4.6 Aboveground Facilities	4-27
5.0 CONCLUSIONS AND RECOMMENDATIONS	5-1
5.1 Conclusions of the Environmental Analysis.....	5-1
5.2 Alternatives Considered	5-2
5.3 Significant Unavoidable Impacts.....	5-4
5.4 Irreversible/Irretrievable Commitment of Resources; Short- and Long-Term Uses of the Environment	5-4
5.5 FERC Staff Recommended Mitigation.....	5-5
6.0 PUBLIC COMMENTS AND RESPONSES.....	6-1
APPENDIX A – DISTRIBUTION LIST FOR THE FINAL EIS	
APPENDIX B – MAPS SHOWING PIPELINE ROUTE AND ABOVEGROUND FACILITIES	
APPENDIX C – EXISTING PUBLIC AND PRIVATE ACCESS ROADS BY MILEPOST	
APPENDIX D – PIPE STORAGE AND CONTRACTOR YARDS	

TABLE OF CONTENTS

- APPENDIX E – ENTREGA’S UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN**
- APPENDIX F – ENTREGA’S WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES**
- APPENDIX G – ENTREGA’S CONSTRUCTION, MITIGATION, AND RECLAMATION PLAN**
- APPENDIX H – ENTREGA’S WEED MANAGEMENT PLAN**
- APPENDIX I – ENTREGA’S TYPICAL INCISED BANK STABILIZATION RESTORATION PLAN**
- APPENDIX J – ENTREGA’S SITE-SPECIFIC WATERBODY CROSSING PLANS**
- APPENDIX K – ENTREGA’S SITE-SPECIFIC CONSTRUCTION AND REVEGETATION PLAN FOR RIPARIAN WOODLAND COMMUNITIES**
- APPENDIX L – ENTREGA’S FLOOD IRRIGATION RESTORATION PLAN**
- APPENDIX M – ENTREGA’S HYDROSTATIC TEST PLAN**
- APPENDIX N – WETLANDS AFFECTED DURING CONSTRUCTION OF THE ENTREGA PIPELINE PROJECT**
- APPENDIX O – ENTREGA CONSERVATION MEASURE PLAN AND SPECIAL STATUS SPECIES SURVEY PLAN, AND BLM CONSERVATION MEASURE PLAN AND BLM SENSITIVE SPECIES SURVEY PLAN**

LIST OF PREPARERS AND REVIEWERS

REFERENCES

GLOSSARY

INDEX

LIST OF TABLES

LIST OF TABLES

1.4-1	Issues Identified and Comments Received During the Public Scoping Process for the EPP	1-15
1.5-1	Nonjurisdictional Facilities Related to the Entrega Pipeline Project.....	1-21
2.1-1	Proposed Facilities Associated with the Entrega Pipeline Project	2-4
2.1-2	Proposed Receipt/Delivery Laterals and Meter Stations Associated with the Entrega Pipeline Project	2-5
2.2-1	Summary of Land Requirements Associated with the Entrega Pipeline Project.....	2-6
2.2-2	Areas Requiring Greater Right-of-Way Width.....	2-10
2.2-3	Dimensions and Acreage of Typical Additional Temporary Workspace Areas	2-11
2.2-4	Locations and Acreage of Pipe Storage Yards, Contractor Yards, and Rail Sidings	2-12
2.3-1	Summary of Electrical Power Supply Requirements for Compressor and Meter Stations	2-34
2.4-1	Pipeline Construction Workforce and Proposed Schedule.....	2-36
2.8-1	Major Permits, Approvals, and Consultations for the Entrega Pipeline Project.....	2-43
3.1-1	Geologic Conditions Along the Proposed Pipeline Route	3-2
3.1-2	Potential Geologic Hazards Along the Proposed Pipeline Route.....	3-7
3.1-3	Total Miles of Condition 1, 2, and 3 Areas Along the Entrega Pipeline Route	3-13
3.1-4	Conditions 1, 2, and 3 Along the Entrega Pipeline Route Developed by Mapping	3-15
3.2-1	Acreage Summary of Sensitive Soils	3-17
3.2-2	Acreage Breakdown of Topsoil Depth and Average Slope Class Along the Entrega Pipeline Route	3-18
3.2-3	Noxious Weeds Potentially Occurring Along the Proposed Pipeline Route	3-23
3.3-1	Private Water Supply Wells Identified Within 150 Feet of the Entrega Pipeline Project	3-31
3.3-2	Major and Sensitive Waterbodies	3-37
3.3-3	Currently Proposed Hydrostatic Test Water Volumes and Sources	3-47
3.3-4	Summary of Wetland Types Affected by Construction and Operation	3-50
3.4-1	Vegetation Communities Crossed by the Entrega Pipeline.....	3-54
3.4-2	Acres of Land Within Construction and Operation Rights-of-Way	3-57
3.5-1	Fisheries Crossed by the Proposed Project.....	3-62
3.5-2	Crucial Big Game Habitats Affected by the Entrega Pipeline Project.....	3-69
3.6-1	Estimated Noise Attributable to the Proposed Bighole Compressor Station	3-93
3.7-2	Summary of Land Uses Affected by Construction and Operation of the Entrega Pipeline Project.....	3-104
3.8-1	Native American Consultations for the Entrega Pipeline Project	3-114
3.9-1	Population.....	3-117
3.9-2	Labor Market Conditions, August 2004	3-120
3.9-3	Housing Assessment, November 2004.....	3-123
3.9-4	Estimated Temporary Housing Inventories	3-124
3.9-5	Projected Peak Temporary Housing Requirements	3-125
3.9-6	Existing Public Services and Facilities	3-126
3.9-7	County Property and Sales Tax Base	3-128
3.9-8	Projected Assessed Value and Annual Property Taxes, by County	3-129
3.9-9	Race and Poverty.....	3-133
3.10-1	Estimated Operational Compressor Station Emissions.....	3-141

LIST OF TABLES

3.10-2	Existing Noise Levels	3-143
3.10-3	Estimated Noise Levels from Compressor Stations	3-144
3.11-1	Natural Gas Service Incidents by Cause	3-151
3.11-2	Outside Forces Incidents by Cause (1970-1984)	3-151
3.11-3	External Corrosion by Level of Control (1970-1984)	3-152
3.11-4	Annual Average Fatalities - Natural Gas Transmission and Gathering Systems	3-153
3.11-5	Nationwide Accidental Deaths	3-153
3.12-1	Natural Gas Facilities Included in the EPP Cumulative Analysis Located Near the Proposed Meeker Hub	3-159
3.12-2	Steep Slope/Incised Channel Areas Crossed by Existing and Proposed Pipelines (Entrega and WIC)	3-162
3.12-3	Overall Big Game Habitat Disturbance (Square Miles) for Existing and Reasonably Foreseeable Projects within the Entrega Pipeline Cumulative Study Area	3-165
3.12-4	Cumulative County Ad Valorem Tax Increases - Entrega and El Paso Projects	3-172
4.1-1	Comparison of Controlled Emission of Criteria Pollutants for Three Boiler Types (Tons Per Year).....	4-2
4.2-1	Capacity and Subscription Status of Existing Interstate Pipelines Serving the Piceance Basin	4-3
4.2-2	Comparison of Facilities Required by Entrega and WIC Proposed Actions and “One-Pipe” Alternative.....	4-5
4.4-1	Comparison of Resources Crossed by Entrega’s Proposed Action (MPs –0.5 to 33.2) and the PBEP Route Alternative	4-9
4.4-2	Surface Disturbance and Stream Crossing Comparisons between the EPP and PBEP Proposed Actions and Two Collocation Alternatives within the Danforth Hills South Study Area (MPs -0.5 to 33.2)	4-15
4.4-3	Milepost Intervals Considered for EPP and PBEP Collocation to Reduce Sage Grouse Breeding and Brooding Habitat Impacts	4-18

LIST OF FIGURES

LIST OF FIGURES

1.1-1	Project Overview	1-2
1.2-1	Rockies Natural Gas Supply vs. Local Natural Gas Shipping Demand and Committed Pipeline Capacity.....	1-4
1.2-2	Natural Gas Production in Garfield, Mesa, and Rio Blanco Counties, Colorado, from 1999 through 2003; and the Relative Contribution from EnCana Oil and Gas, USA	1-5
1.5-1	Nonjurisdictional Facilities.....	1-21
1.6-1	Relationship of Proposed WIC and Entrega Gas Pipelines	1-24
2.1-1	Project Overview	2-2
2.2-1	Typical Construction ROW	2-7
2.2-2	Typical Construction ROW when Adjacent to Existing Pipeline.....	2-8
2.3-1	Typical Pipeline Construction Sequence.....	2-17
2.3-2	Conceptual Horizontal Directionally Drilled Waterbody Crossing	2-24
2.3-3	Meeker Hub Compressor Station	2-29
2.3-4	Bighole Compressor Station.....	2-30
2.3-5	Wamsutter Compressor Station	2-31
2.3-6	Arlington Pigging Station.....	2-32
2.3-7	Cheyenne Hub Metering Station	2-33
3.3-1	Major Aquifer Systems.....	3-30
3.3-2	Regional Watersheds.....	3-36
3.3-3	Recommended Piceance Creek Reroute 1	3-39
3.3-4	Recommended Piceance Creek Reroute 2	3-40
3.4-1	Vegetation Land Cover	3-56
3.9-1	Projected Construction Workforce.....	3-119
3.12-1	Regional Meeker Hub, Greasewood Hub, and Proposed EnCana Meeker Gas Processing Plant Facilities and Interconnecting Pipelines	3-158
3.12-2	Location of the Entrega Pipeline in Relation to Existing and Proposed Parallel Pipelines and Sensitive Resources	3-160
3.12-3	Overlap between Currently Proposed Entrega and PBEP Construction Schedules and Workforce Estimates, 2005 through 2006.....	3-171
3.12-4	Combined Entrega and PBEP Workforce Estimates, Projected Place of Residence	3-172
4.4-1	El Paso Piceance Basin Expansion Alternative	4-8
4.4-2	Danforth Hills – South Proposed Actions	4-12
4.4-3	Danforth Hills – South EPP and PBEP Collocation Along EPP Route	4-13
4.4-4	Danforth Hills – South EPP and PBEP Collocation Along PBEP Route.....	4-14
4.4-5	Danforth Hills – North Proposed Actions and Potential Collocation Segments	4-17
4.5-1	Moffat County Road 57 Variation	4-20
4.5-2	MP 295 Variation.....	4-21
4.5-3	Cheyenne Hub Proposed Action	4-23
4.5-4	Cheyenne Hub Variation A	4-25
4.5-5	Cheyenne Hub Variation B	4-26