

# CHAPTER 1

## PURPOSE AND NEED

### 1.0 INTRODUCTION

#### 1.1 PROJECT DESCRIPTION AND LOCATION

##### 1.1.1 Description

The Desolation Flats Project Area (DFPA) natural gas producing operators, including Marathon Oil Company, Yates Petroleum, AEC Oil & Gas (USA) Inc., EOG Resources, Inc, Tom Brown, Inc., Basin Exploration, Inc., Questar Exploration and Production Company, Merit Energy Company, and Devon SFS Operating, Inc., (hereafter referred to as "the Operators"), have notified the Bureau of Land Management (BLM) that the Operators intend to drill and develop natural gas wells in the DFPA of south central Wyoming (Figure 1-1). The proposed exploration and development wells, access roads, pipelines, and other ancillary facilities located on federal land, including split estate (e.g., state or private surface ownership with federal mineral ownership, or federal surface ownership with state or private mineral ownership), would be permitted with the BLM and the Wyoming Oil and Gas Conservation Commission (WOGCC). Facilities located on State of Wyoming and privately owned surface would be permitted with the WOGCC.

##### 1.1.2 Location

The DFPA is generally located in Townships 13 through 16 North and Ranges 93 through 96 West in Carbon and Sweetwater counties, Wyoming as shown on Figure 1-1. The DFPA is located approximately 21 miles south of Wamsutter, Wyoming and approximately 14 miles west of Baggs, Wyoming.

Access to the DFPA is provided by the two-lane paved WYO 789 from Interstate 80 (I-80) at Creston Junction south to the intersection with Carbon County Road 608 ("Wamsutter/Dad Road") as shown on Figure 1-2. Access is also provided south from Wamsutter on Carbon County Road 608. Access to the interior of the project area is provided by an existing road network developed to service prior and on-going drilling and production activities. These roads include the Barrel Springs Road, the Eureka Headquarters Road, the South Barrel Springs Road, the Shell Creek Stock Trail Road, and the Standard Road (Figure 1-2).

The location of the DFPA is more specifically described as follows: commencing at the center of Township 16 North, Range 96 West and ending in Township 16 North, Range 94 West, the northern boundary of the DFPA is determined by the southern boundary of the Continental Divide/Wamsutter II Environmental Impact Statement (EIS) project area. From that point through Township 14 North, Range 93 West, the eastern boundary is determined by the western limits of the Creston/Blue Gap EIS project area. The southeast corner of the proposed area includes the existing McPherson Springs Field and EOG Resources' Cedar Chest Unit but excludes all of Township 13 North, Range 93 West due to a lack of existing production and proposed drilling activity.

The southern boundary is set at the north end of Township 12 North which corresponds with the north flank of a geologic structure, the Cherokee Arch. Township 12 North was excluded from the DFPA since it represents a structural play on the Cherokee Arch as opposed to the more Washakie

# CHAPTER 1: PURPOSE AND NEED

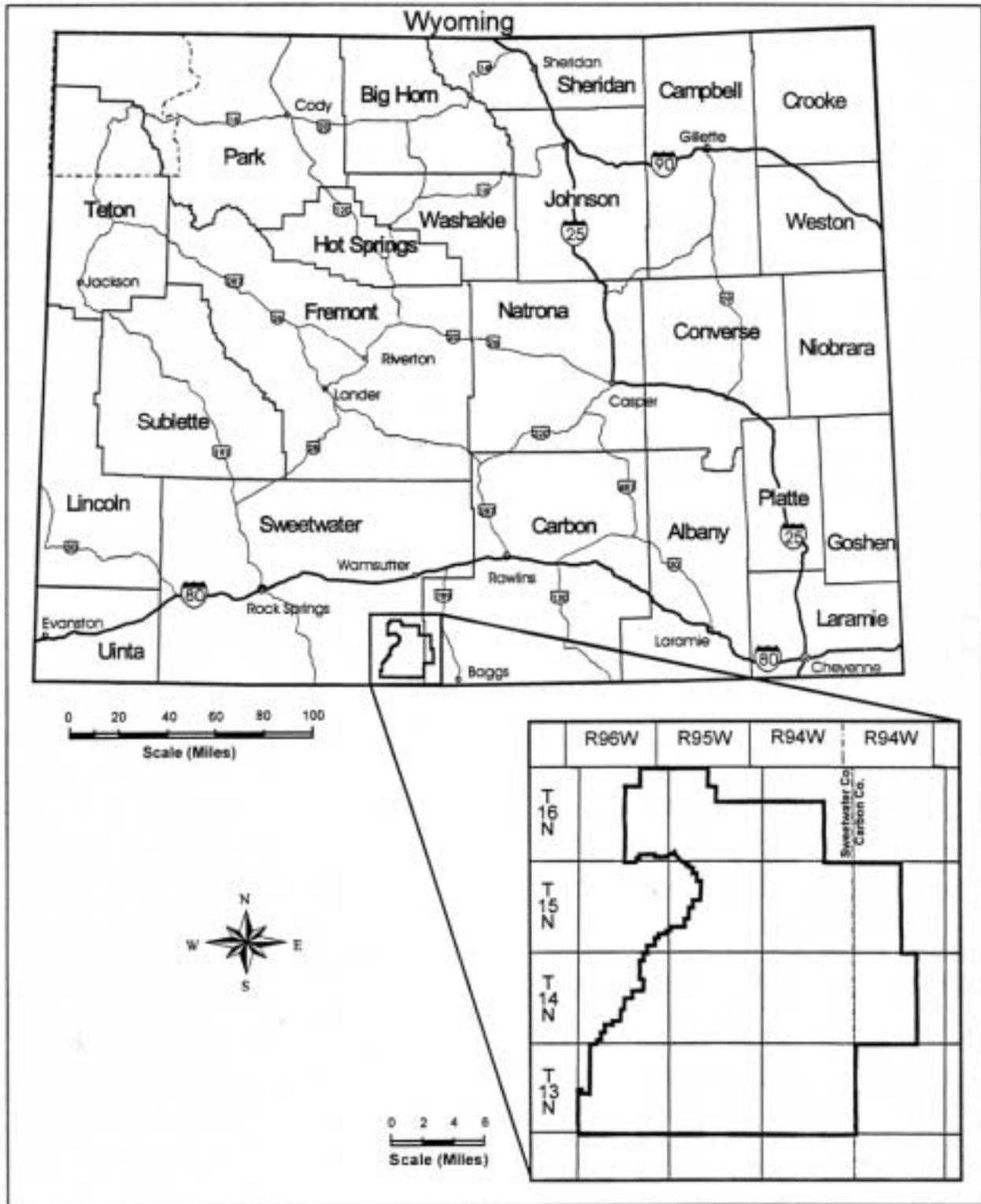


Figure 1-1. Location of the Desolation Flats Project Area in Southcentral Wyoming.

# CHAPTER 1: PURPOSE AND NEED

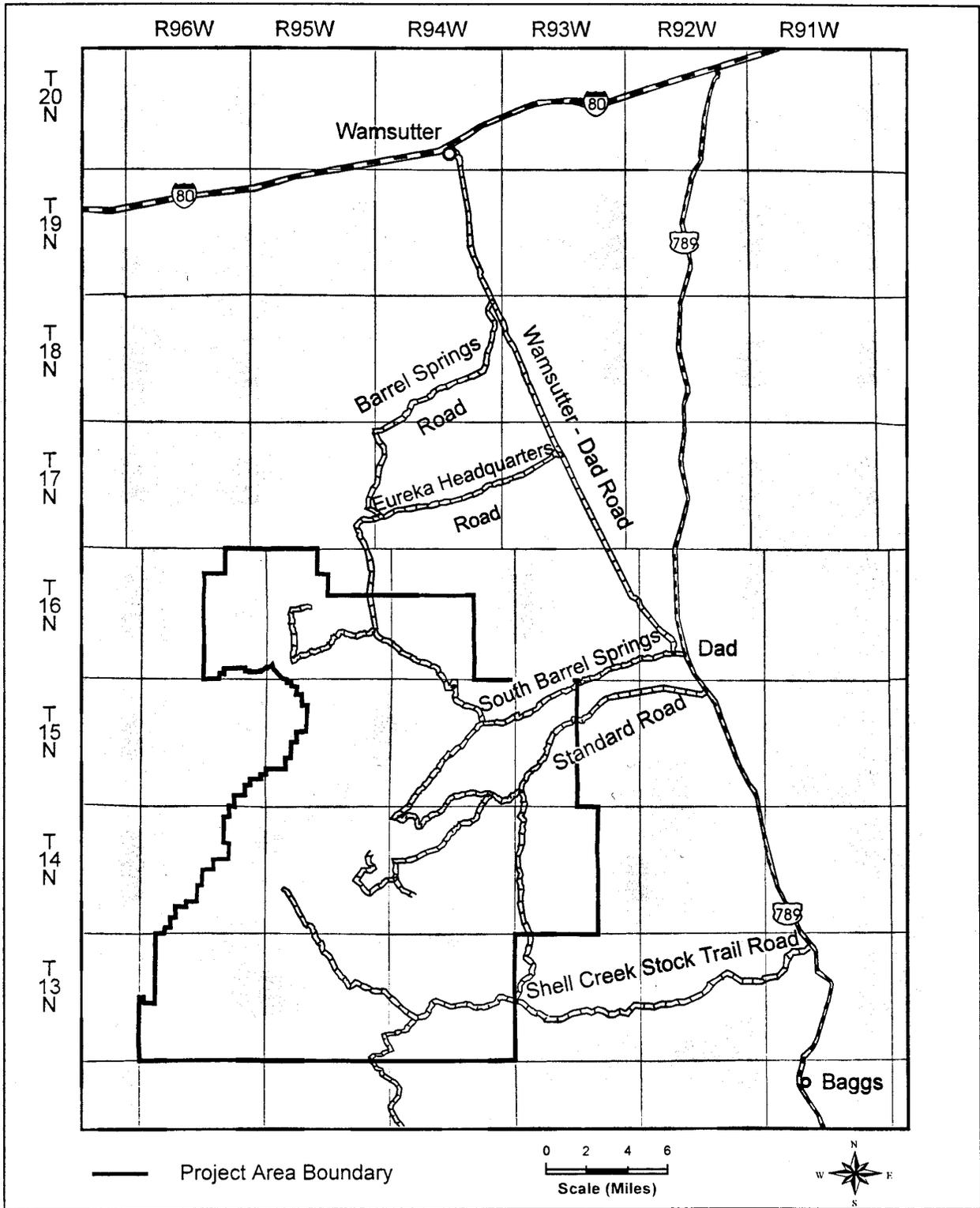


Figure 1-2. Location and Names of Roads Commonly Used by Industry in and around the Desolation Flats Project Area.

## CHAPTER 1: PURPOSE AND NEED

Basin centered plays (i.e., oil and gas exploration and development) in the DFPA. The western boundary of the DFPA is determined by the eastern limits of the Adobe Town Wilderness Study Area (WSA). The Adobe Town WSA also coincides with the deepest portion of the Washakie Basin where the target reservoirs are too deep for development with conventional technology and current market conditions.

### 1.1.3 Project Background

The DFPA includes the recent drilling activity by Marathon Oil Company, EOG Resources, Inc., Tom Brown, Inc., Basin Exploration, Inc., and Questar Exploration & Production Company as well as other minor oil and gas activity in the overall area. The DFPA is bounded on two sides by existing EIS documents (Continental Divide/Wamsutter II EIS and the Creston/Blue Gap EIS). The previously approved Mulligan Draw EIS and Dripping Rock Unit/Cedar Breaks EA (both project areas located within the DFPA) are included in the proposed Desolation Flats EIS for analysis of the potential for increased well density.

The DFPA consists of several natural gas production fields. These fields are predominantly spaced for one or four wells per section depending on the field. The field name, operator(s), and status of drilling activity within the fields are summarized in Table 1-1 and shown on Figure 1-3.

**Table 1-1. Natural Gas Fields within the DFPA.**

| Field Name                    | Operator(s)                                 | Producing Wells | Shut-in Wells | Total Wells |
|-------------------------------|---|-----------------|---------------|-------------|
| Willow Reservoir              | Questar Exploration                         | 1               | 0             | 1           |
| Mulligan Draw/Wedge           | Questar Exploration<br>True Oil Company     | 14              | 1             | 15          |
| Powder Mountain/<br>Polar Bar | Basin Exploration<br>EOG Resources          | 6               | 2             | 8           |
| Desolation Flats              | Marathon Oil Company                        | 0               | 1             | 1           |
| Ruger                         | EOG Resources                               | 2               | 1             | 3           |
| Dripping Rock                 | Questar Exploration<br>Marathon Oil Company | 11              | 1             | 12          |
| Cedar Chest                   | EOG Resources                               | 3               | 2             | 5           |
| Triton                        | Tom Brown Inc.                              | 4               | 0             | 4           |
| Lookout Wash                  | Cabot                                       | 3               | 0             | 3           |
| Hangout Ridge                 | Devon Energy                                | 1               | 0             | 1           |
| McPherson Springs             | Windsor                                     | 1               | 2             | 3           |
| Windmill Draw                 | Xeric Oil and Gas Corp.                     | 3               | 1             | 4           |
| CEPO                          | EOG Resources                               | 2               | 0             | 2           |
| Rim Unit                      | San Marco Petroleum                         | 1               | 0             | 1           |

# CHAPTER 1: PURPOSE AND NEED

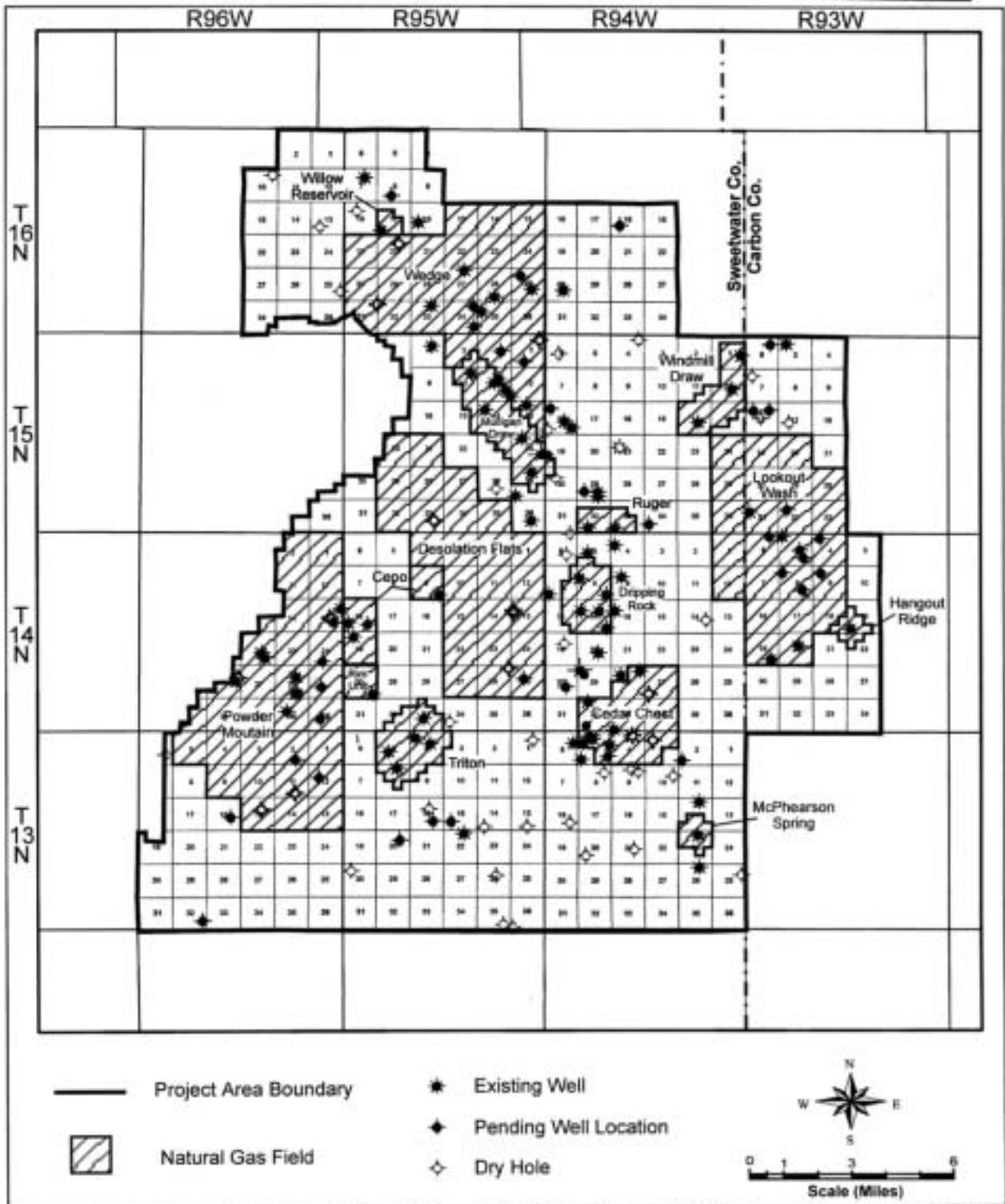


Figure 1-3. Location of the Natural Gas Fields and Well Locations within the Desolation Flats Project Area in Carbon and Sweetwater Counties, Wyoming.

## CHAPTER 1: PURPOSE AND NEED

Also, as shown on Figure 1-3, existing natural gas development is concentrated within and near the natural gas fields listed in Table 1-1. The existing network of roads (developed and undeveloped) within the DFPA is illustrated in Figure 1-4 and contains an estimated 126.1 miles of primary roads, 132.9 miles of secondary roads and 402 miles of two-track roads. The Operators anticipate that future development in the DFPA would likely be concentrated within and near existing fields rather than in outlying areas where development currently does not exist.

### 1.1.4 Land Status

The project area encompasses approximately 233,542 acres of mixed federal, state, and private lands. Of this total, approximately 224,434 acres are federal, 2,335 acres are State of Wyoming, and 6,773 acres are private lands. Surface ownership within the project area is summarized in Table 1-2. Mineral ownership is summarized in Table 1-3. Surface and mineral ownership are shown on Figure 1-5.

**Table 1-2. Surface Ownership of the Desolation Flats Project Area.**

| Surface Ownership | Acres          | Percent      |
|-------------------|----------------|--------------|
| Federal (BLM)     | 224,434        | 96.1         |
| State of Wyoming  | 2,335          | 1.0          |
| Private (Fee)     | 6,773          | 2.9          |
| <b>Total</b>      | <b>233,542</b> | <b>100.0</b> |

**Table 1-3. Mineral Ownership of the Desolation Flats Project Area.**

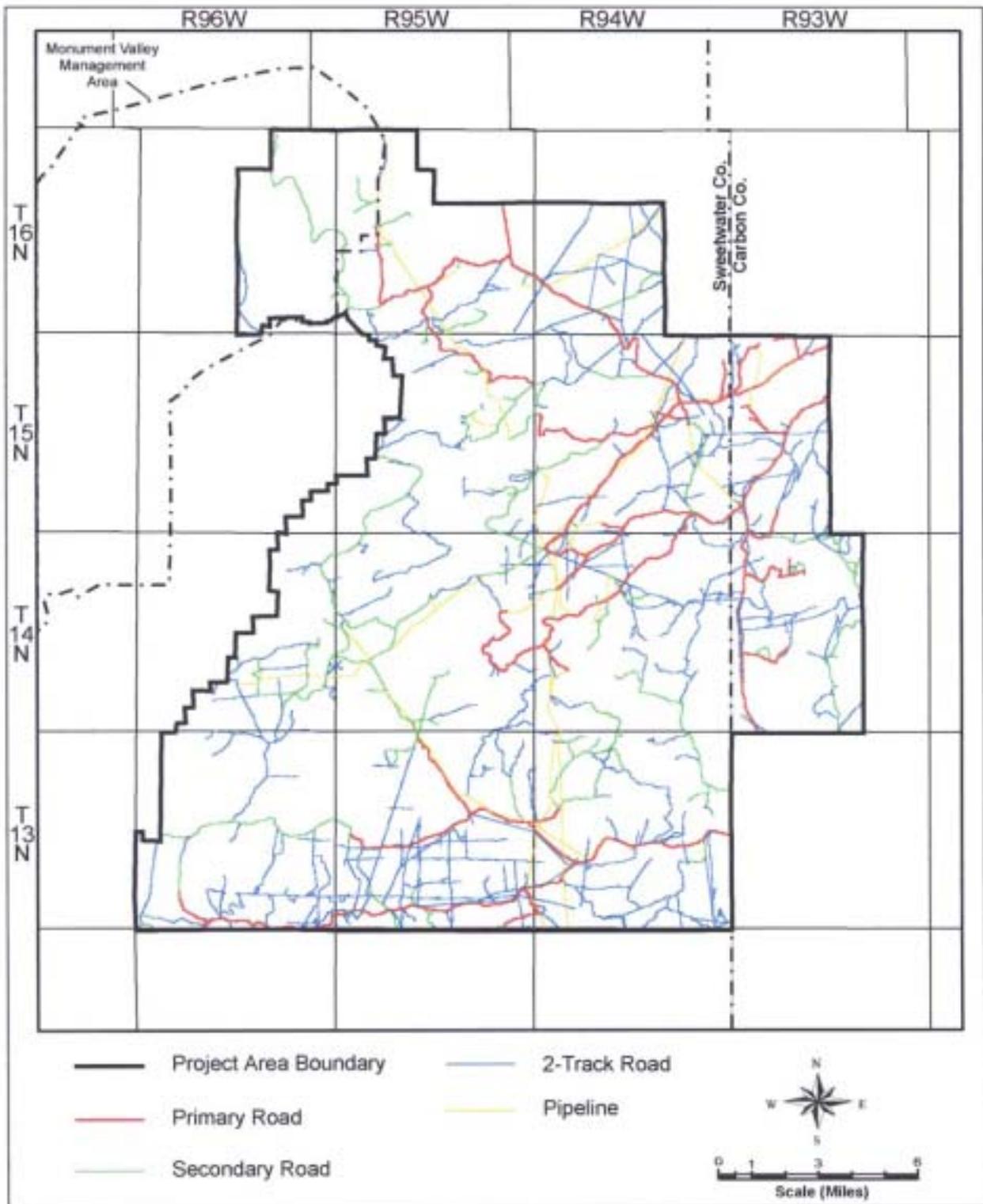
| Mineral Ownership | Acres          | Percent      |
|-------------------|----------------|--------------|
| Federal (BLM)     | 212,611        | 91.0         |
| State of Wyoming  | 14,271         | 6.1          |
| Private (Fee)     | 6,660          | 2.9          |
| <b>Total</b>      | <b>233,542</b> | <b>100.0</b> |

## 1.2 PURPOSE OF AND NEED FOR ACTION

### 1.2.1 Purpose and Need for the Proposed Action

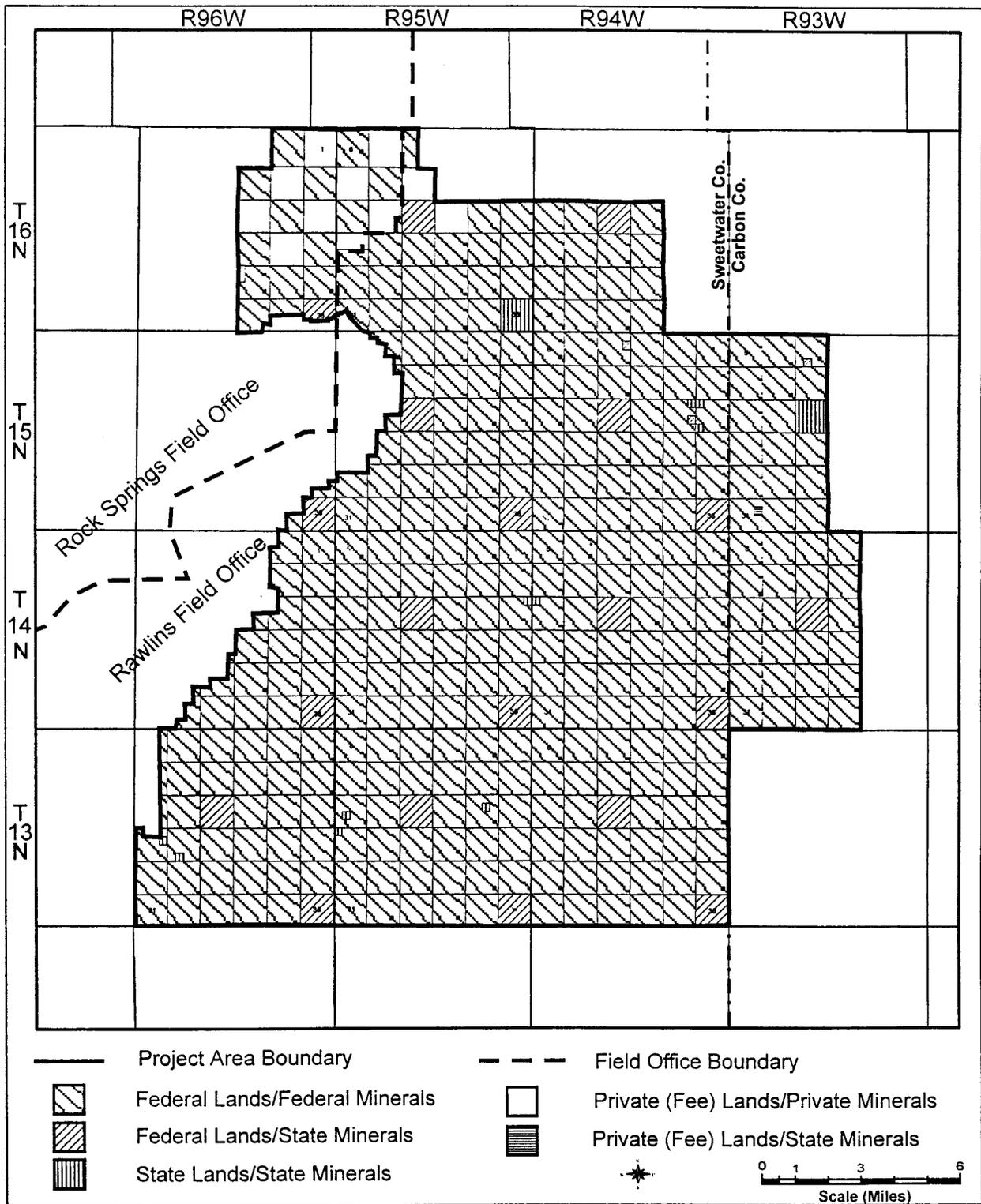
Exploration and development of federal oil and gas leases by private industry is an integral part of the BLM's oil and gas program under authority of the Mineral Leasing Act of 1920 as amended, the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, the

# CHAPTER 1: PURPOSE AND NEED



**Figure 1-4. Existing Developed and Undeveloped Roads within the Desolation Flats Project Area.**

# CHAPTER 1: PURPOSE AND NEED



**Figure 1-5. Surface and Mineral Ownership within the Desolation Flats Project Area.**

## CHAPTER 1: PURPOSE AND NEED

---

National Materials and Minerals Policy, Research and Development Act of 1980, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987.

The BLM oil and gas program encourages development of domestic oil and gas reserves. Natural gas is an integral part of the United States' energy future due to its availability and the presence of the existing market delivery infrastructure. By developing domestic reserves of clean burning natural gas, the U.S. would reduce dependence on foreign energy, such as natural gas from Mexico and Canada. The environmental advantages of burning natural gas rather than oil or coal were emphasized by the U.S. Congress and the President when the Clean Air Act Amendments of 1990 were signed into law.

The National Petroleum Council (NPC) was formed in 1946 to advise, inform and make recommendations to the Secretary of Energy on any matter requested by the Secretary relating to oil and natural gas and the oil and natural gas industries. In December 1999, the NPC issued a report titled *Natural Gas: Meeting the Challenges of the Nation's Growing Natural Gas Demand* (NPC 1999). The report projects that U.S. natural gas consumption will increase 32 percent between 1998 and 2010. This would constitute a 7 trillion cubic foot (TCF) increase, from the 1998 level of 22 TCF to 29 TCF in 2010. Much of the incremental demand is projected for use in the generation of electricity.

To meet this growing demand, the report projects that U.S. domestic gas production would increase from the 1998 level of 19 TCF to 25 TCF in 2010. The remaining demand would be met by imports of foreign natural gas, primarily from Canada. About 14 percent of this increase in domestic supply is anticipated to come from the Rocky Mountain region. Production from the DFPA could help meet this demand.

The Operators propose to develop the natural gas resources within the project area by increasing the total number of wells (i.e., increasing the well density) and ancillary facilities where economically feasible. This proposal would enhance recovery of natural gas from the project area, thus allowing all operators to provide more natural gas to companies distributing and supplying natural gas to consumers, and would benefit consumers by making natural gas supplies available.

The proposed natural gas development would allow the lease holders to exercise their rights within the project area to drill for, extract, remove, and market natural gas products. Also included is the right of the Desolation Flats area lease holders to build and maintain necessary improvements, subject to renewal or extension of the lease or leases in accordance with the appropriate authority.

### 1.2.2 Purpose of the Environmental Analysis Process

Drilling attempts within the DFPA have been successful. This has resulted in a request to the BLM by the Operators for an increase in drilling and production activity within the DFPA. The BLM has advised the Operators that an EIS would be required in view of the Operators' plans to drill additional exploratory and in-fill locations and construct ancillary facilities at levels not analyzed in previous environmental analyses.

The purpose of this EIS is to provide the decision-makers with information needed to make a final decision that is fully informed and based on factors relevant to the proposal. It also documents analyses conducted on the proposal and alternatives in order to identify environmental impacts and mitigation measures necessary to address issues. The EIS also provides a vehicle for public

## CHAPTER 1: PURPOSE AND NEED

---

review and comment on the Proposed Action and its alternatives, the environmental analysis, and conclusions about the relevant issues.

This EIS analyzes the effects of well pad locations, access roads, production facilities, pipelines, and other facilities associated with natural gas development on resources and land use within the project area.

### 1.2.3 Decision to be Made

The decision to be made for this project is whether: to implement the Proposed Action and the alternatives described above; to implement alternative actions to accomplish the purpose and need for action; or to defer any action at this time until a clearer, more definable full field development scenario is presented by the Operators.

## 1.3 ENVIRONMENTAL ANALYSIS PROCESS

The BLM, as directed by the Council on Environmental Quality (CEQ) and the National Environmental Policy Act (NEPA) regulations (40 CFR, Parts 1500-1508), analyzes actions involving federal leases as to their impact on the human environment. The analysis is to determine whether approval of the action would result in unnecessary or undue degradation of the land. The analysis uses an accepted process for evaluating and disclosing the potential environmental consequences of the proposed action and alternatives.

The BLM is the lead agency responsible for preparation of this EIS. The evaluation of this proposal and alternatives was developed through interdisciplinary field review with representatives from the Operators, the BLM, and the project contractor interdisciplinary team (IDT).

Factors considered during the environmental analysis process regarding the natural gas development project include the following:

- The location of environmentally suitable well pad locations, access roads, pipelines, and other production and ancillary facilities that best meet other resource requirements and minimize surface resource impacts yet honor the lease rights within the project area.
- A determination of impacts resulting from the proposed action and alternatives on the human environment, when conducted in accordance with applicable regulations and lease stipulations, and the development of mitigation measures necessary to avoid or minimize these impacts.

This EIS is *not* a decision document. The decision regarding the project will be documented in a Record of Decision (ROD) signed by the BLM State Director, Cheyenne, Wyoming. The BLM's decision will relate primarily to public lands and federal minerals administered by the BLM. Decisions by other jurisdictions to issue approvals related to this proposal may be aided by the disclosure of impacts available in this analysis.

This EIS will guide the implementation of a selected alternative and will facilitate preparation of additional environmental analyses within the DFPA and adjacent lands. Prior to surface disturbance on some drill sites and associated roads, pipelines, and ancillary facilities located on federal surface or federal minerals, additional site-specific analyses may be required.

# CHAPTER 1: PURPOSE AND NEED

---

## 1.4 RELATIONSHIP TO POLICIES, PLANS, AND PROGRAMS

The DFPA is located within the administrative boundaries of the Rawlins Field Office (RFO) and Rock Springs Field Office (RSFO) areas as shown on Figure 1-5. Approximately 94 percent of the DFPA is located within the RFO area, with the remaining 6 percent located within the RSFO. The

documents that direct management of federal lands within these areas, the Great Divide Resource Management Plan (RMP) and the Green River RMP are summarized in the following sections.

### 1.4.1 Great Divide Resource Management Plan

The document which directs management of federal lands within the DFPA located within the RFO administrative area is the ROD and approved Great Divide RMP (USDI-BLM 1987, 1988a, 1990a).

#### 1.4.1.1 Management Objectives

Management objectives in the Great Divide RMP applicable to the proposed action and alternatives within the RFO administrative area are as follows:

- To provide opportunity for leasing, exploration, and development of oil and gas while protecting other resource values.

#### 1.4.1.2 Management Actions

Management actions applicable to the proposed action and alternatives within the RFO administrative area are as follows:

- The entire planning area is open to oil and gas leasing. Leases will be issued with needed restrictions to protect resources.

#### 1.4.1.3 Conformance with Great Divide RMP Direction

The Great Divide RMP (USDI-BLM 1987, 1988a, 1990a) projected a planning period of 20 years, and data used in the RMP analyses for oil and gas development was compiled through 1985. Monitoring and tracking of well development since the completion of the RMP are continuing. BLM initiation of an RFO administrative area land use plan review and possible amendment will occur prior to reaching the reasonably foreseeable development (RFD) estimates made in the current RMP, and the BLM will not authorize oil and gas development actions (APD's, ROW's) that exceed current RFD estimates prior to the plan review and possible amendment.

The recent interest in coalbed methane (CBM) exploration and development within the RFO has increased the concern over the RFD scenario presented in the Great Divide RMP. The RFO, through the development of the Continental Divide/Wamsutter II (CD/WII) Natural Gas Development Project EIS developed a rationale that supported the CD/WII project at a reduced well count in the ROD and at the same time retained a sufficient part of the RFD to cover the Desolation Flats Natural Gas Development Project and future activity in other areas of the RFO. Recent CBM activity has added enough wells to the total count to require that BLM revisit the earlier RFD rationale presented in the CD/WII document. The following is a summary of oil and gas activity within the RFO administrative area.

## CHAPTER 1: PURPOSE AND NEED

The CD/WII Draft EIS (USDI-BLM 1999a) describes the current situation within the RFO until 1998 (see pages 1-8 and 1-9 of the CD/WII DEIS). BLM conducted a review of oil and gas production data and arrived at 1145 wells drilled within the RFO (includes abandoned (ABD) and plugged and abandoned [P&A] wells) since the Great Divide RMP analysis was initiated in 1985. The addition of the abandoned wells was included to account for wells that were not reclaimed as of the date of the count. BLM feels the 1145 well number is not completely accurate since it is highly likely that

many of the abandoned wells have been reclaimed since 1985. Also, the disturbance figures included in the 1985 RMP analysis for oil and gas that were used in the CD/WII DEIS analysis included both a short term disturbance figure as well as a long term disturbance figure. The CD/WII analysis relied on the long term figures to calculate the existing disturbance and future disturbance covered by the existing RFD. Since the CD/WII analysis used only long term disturbance, the plugged and abandoned wells should not have been included in the well count as it is assumed that in the long term all P&A wells are, by definition, reclaimed.

A review of the WOGCC data base on December 31, 2001 showed a total of 2310 wells in the RFO that are considered active (this includes dormant wells [68], completed wells [2105], and spuds [137] within the RFO). The number of spuds includes those wells where APDs are approved and notice has been received that drilling has been initiated, but there is no record of the wells being completed or plugged and abandoned. The number of spuds is a conservative figure because not all spudded wells are going to be productive. The total count of 2310 wells goes back to the beginning of oil and gas production within the RFO in the late 1800s, early 1900s. From the Great Divide RMP EIS (Assumptions for Analysis, Chapter 4, page 220) a determination of the number of wells existing at the time the RMP Draft EIS (USDI-BLM 1987) was developed can be made. A summary provided in the RMP DEIS stated there were 3671 wells drilled in the planning area on all ownerships, and of these, 1896 wells were dry and abandoned. That left 1775 wells (3671 minus 1896) active prior to the RMP. Subtracting this figure from the 2310 wells currently in the RFO according to the WOGCC (Table 1-4) leaves 535 active producing wells since the RMP EIS.

**Table 1-4. Well Status Summary - Rawlins Field Office (RFO) as of 12/31/01**

| Well Description                                 | Federal | Fee or State | Total |
|--|---------|--------------|-------|
| Number of Plugged and Abandoned Wells Within RFO | 1969    | 805          | 2774  |
| Number of Dormant Wells Within RFO               | 38      | 30           | 68    |
| Number of Completed Wells Within RFO             | 997     | 1108         | 2105  |
| Number of Monitoring Wells Within RFO            | 3       | 0            | 3     |
| Notice of Intent to Abandon Within RFO           | 48      | 39           | 87    |
| Number of Spuds Within RFO                       | 85      | 52           | 137   |
| Number of Expired Permits Within RFO             | 252     | 173          | 425   |
| Number of Permits to Drill Within RFO            | 104     | 53           | 157   |
| Total Within the RFO                             | 3496    | 2260         | 5756  |

To convert the current well number (535) to acres disturbed, the well number was multiplied by the average acres disturbed per well in the CD/WII project area. The CD/WII disturbance figure was used because it is the most current available data and part of the CD/WII RMP conformance

## CHAPTER 1: PURPOSE AND NEED

section of the CD/WII Draft EIS. Therefore, 535 wells x 9 acres disturbed per well = 4815 acres of total long term disturbance.

Currently there are 7 oil and gas project development environmental analyses in the RFO where drilling and production activities are authorized but not yet completed. These wells and associated disturbances need to be considered before a determination of the number of wells remaining under

the RFD scenario described in the RMP can be made. See Table 1-5 for a summary of the oil and gas development projects with wells authorized but not yet drilled.

Table 1-5 shows that approximately 1353 wells and 4224 acres of disturbance remain to be completed under existing authorizations for these projects. The well count for wells remaining to be drilled was taken from WOGCC data and the cumulative impact analysis presented in the Draft EIS for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming, page 5-3 (USDI-BLM 1999b). The Pinedale Anticline DEIS cumulative analysis included all wells in southwest Wyoming and was completed as part of a plan review for the Pinedale RMP.

**Table 1-5. Disturbance Figures for Existing Oil and Gas Development NEPA Documents.**

| Project Title                   | Wells Remaining to be Drilled | Average Disturbance per Well (Acres) | Future Authorized Disturbance (Acres) |
|---------------------------------|-------------------------------|--------------------------------------|---------------------------------------|
| Mulligan Draw                   | 23                            | 6.5                                  | 149.5                                 |
| Creston/Blue Gap                | 207                           | 2.23                                 | 461.6                                 |
| Dripping Rock/Cedar Breaks      | 34                            | 18.69                                | 635.5                                 |
| Sierra Madre                    | 16                            | 1.95                                 | 31.2                                  |
| Hay Reservoir                   | 2                             | 4.43                                 | 8.9                                   |
| Continental Divide/Wamsutter II | 1031                          | 2.77                                 | 2855.8                                |
| South Baggs                     | 40                            | 2.03                                 | 81.2                                  |
| Total                           | 1353                          |                                      | 4224                                  |

The total disturbance then for existing and authorized (but not yet drilled) wells is 4815 acres plus 4224 acres = 9039 acres of disturbance either existing or authorized.

The RMP productive life of plan is 20 years (1986-2005). RFD data used in the RMP was collected in 1986 and therefore is used as the comparison of pre-RMP and post RMP well disturbance calculations. Reclamation was assumed to take from 3-5 years in the RMP. Therefore, it can be assumed that most wells drilled before 1996 should be adequately reclaimed.

Reasonably foreseeable development for oil and gas activity within the RFO administrative area as described in the Great Divide RMP (BLM 1988a) is projected to include 1440 new wells (16,092 acres of long-term disturbance) over a 20-year period (1986-2005). As stated above, 9039 acres of disturbance are either existing or authorized within the RFO. Long-term disturbance acreage

## CHAPTER 1: PURPOSE AND NEED

---

available for future projects within the RFO area would be 7053 acres (16,092 acres minus 9039 acres).

The Operators have indicated that approximately 385 wells at 361 well locations, with a forecasted success rate of 65 percent (250 producing wells) may be drilled in the DFPA. The Operators anticipate that 237 of the 250 producing wells would be located within the RFO, with the remaining 13 wells located within the RSFO area. The long-term disturbance acreage projection for the

DFPA is 2029 acres (237 wells with an average of 8.56 acres of long-term disturbance per well). This is 5024 acres (587 wells) less than the long-term acreage available within the RFO. Therefore, the reasonably foreseeable development estimate of the number of future oil and gas wells and associated long term disturbance within the RFO would not be exceeded by this project.

The DFPA natural gas development is in conformance with management objectives provided in the ROD and approved Great Divide RMP (USDI-BLM 1990a), subject to implementation of prescribed mitigation measures proposed by the Operators and BLM required mitigation in Chapter 2, and mitigation measures derived through analysis of impacts in Chapter 4, Environmental Consequences.

### 1.4.2 Green River Resource Management Plan

The document which directs management of federal lands within the DFPA located within the RSFO administrative area is the ROD and approved Green River RMP (USDI-BLM 1992a, 1996a, and 1997).

#### 1.4.2.1 Management Objectives

Management objectives applicable to the proposed action and alternatives within the RSFO include:

- The objective for management of oil and gas resources is to provide for leasing, exploration, and development of oil and gas while protecting other values.

#### 1.4.2.2 Management Actions

Management actions applicable to the proposed action and alternatives within the RSFO include:

- BLM-administered public lands not specifically closed are open to consideration of oil and gas leasing with appropriate mitigation measures.

A segment of the Monument Valley Management Area (MVMA) is located within the DFPA. The MVMA has unique scenic features and has high potential for significant cultural and paleontological resources. Designation of the area as an Area of Critical Environmental Concern (ACEC) is being deferred by BLM until a determination can be made that specific resources meet the ACEC relevance and importance criteria.

The management objective for the MVMA is to provide protection of wildlife, geologic, cultural, watershed, scenic, and scientific values (paleontological and cultural).

## CHAPTER 1: PURPOSE AND NEED

---

The MVMA is open to: (1) consideration for mineral leasing, exploration, and development provided mitigation can be applied to retain the resource values; (2) consideration for mineral material sales with the appropriate constraints applied to all surface disturbing activities; and (3) development and public use with necessary consideration for wildlife, raptors, cultural, watershed, and scientific values. The MVMA is a priority area for future cultural and paleontological inventory. A paleontological survey is required prior to surface disturbing activities. Surface disturbing activities within the MVMA, including rights-of-ways, will be managed to avoid slopes greater than 25 percent and highly erosive areas unless a plan can be developed to mitigate adverse effects to the resource values. Appendix A contains BLM guidance criteria for preparing mitigative plans for any surface disturbing activity proposed in the Rock Springs portion of the DFPA.

Drilling in a portion of the MVMA was analyzed in the Mulligan Draw EIS (USDI-BLM 1992b). This document was completed in September 1992 and provided an analysis of a planned natural gas production project on public lands located within the Mulligan Draw Field area. The ROD authorized the Mulligan Draw operators to drill and develop a maximum of 45 wells on 640-acre spacing.

### 1.4.2.3 Conformance with Green River RMP

Reasonably foreseeable development for oil and gas activity within the RSFO as described in the Green River RMP/EIS is projected to include approximately 1,300 new wells (9,985 acres of long-term disturbance) over a 20-year period (1990-2010). Currently, 5 wells have been drilled within the RSFO part of the DFPA. Four of these wells have been plugged and abandoned, and one well located on private land is producing. The level of development within the RSFO area required for the DFPA as identified in this EIS includes a maximum of approximately 13 new well locations and approximately 111 acres of new long-term disturbance (1.1% of the RSFO project development total) in addition to existing development.

Therefore, the proposed project is within the reasonably foreseeable estimates for future oil and gas development within the RSFO area. The proposed natural gas production project is in conformance with management objectives and actions provided in the Green River RMP and the decisions provided in the ROD for the Mulligan Draw Gas Field Project (USDI-BLM 1992b).

### 1.4.3 Relationship to Other Plans and Documents

#### 1.4.3.1 Local Land Use Plans

NEPA requires consideration of local land use plans in the preparation of environmental analyses. The Proposed Action and alternatives to the Proposed Action for the Desolation Flats Natural Gas Development Project would occur entirely within Sweetwater and Carbon counties.

Sweetwater County has adopted Development Codes which include zoning ordinances, subdivision regulations and a growth management plan (Sweetwater County 1998). Except for a few isolated tracts, the portion of the DFPA in Sweetwater County falls within an Agriculture zoning district. Oil and gas wells and extraction facilities are permitted uses within agriculture zoning districts, however, certain permits are required (Kot 2000).

- Mineral Development Permits are required for the development of oil and gas wells and extraction facilities.

## CHAPTER 1: PURPOSE AND NEED

---

- Zone Changes are required when a proposed use is not permitted by the current zoning. Most oil and gas facilities are permitted in an agricultural zone, however, larger compressor stations and separation, processing, and bulk storage facilities require heavy industrial or mineral development zoning.
- Conditional Use Permits are required for temporary work camps and temporary construction yards or buildings.
- Construction and Use Permits are not required for wells and smaller facilities such as metering stations, distillate tanks and solar collectors, but are required for larger facilities such as compressor stations.

The Carbon County Board of Commissioners approved a land use plan on June 16, 1998 (Pederson Planning Consultants 1998). The Carbon County Land Use Plan recommends land areas between townships 12 and 26 and ranges 86 through 93 as suitable for potential oil and gas exploration, processing and transportation. The Carbon County portion of the DFPA is located within this area. Conditional use and construction and use permits may also be required for the development of certain oil and gas facilities in Carbon County.

Based on the foregoing, the Desolation Flats Natural Gas Development Project would be in conformance with Sweetwater and Carbon county land use plans and development ordinances.

### **1.4.3.2 Greater Wamsutter Area II (GWA II) Natural Gas Development Project Environmental Impact Statement (USDI-BLM 1995)**

An analysis of impacts associated with a maximum development pattern of 750 new production wells at 300 locations within the GWA II and associated access roads, pipelines, and other ancillary facilities required on federal lands was provided in the GWA II Natural Gas Project EIS. The GWA II project area is located north of the DFPA (Figure 1-6). The EIS also displayed the analysis of three other alternatives, including an alternative to develop 300 wells and 250 locations within the project area in addition to existing operations, an alternative to develop 225 wells and 200 locations in addition to existing operations, and the No Action alternative. See Figure 1-6 for other mineral development projects in the vicinity of the DFPA.

Development within the GWA II has reached the levels analyzed in the EIS for that project (i.e., 300 well locations). Since directional drilling has proven to be technically impractical or uneconomical in many areas within the GWA II project area, additional well locations beyond those analyzed in the GWA II EIS were required.

The expansion of development in the GWA II project area and development in the adjacent Continental Divide Area were combined into one analysis, the Continental Divide/Wamsutter II EIS. Disturbances and other impacts associated with the GWA II project are included in the DFPA EIS to fully evaluate potential cumulative impacts.

### **1.4.3.3 Continental Divide/Wamsutter II Natural Gas Development Environmental Impact Statement (USDI-BLM 1999a, 2000)**

This natural gas development project includes the Continental Divide area combined with the GWA II area and is referred to as the Continental Divide/Wamsutter II Project Area (Figure 1-6). The combined project area is generally located in Townships 15 through 23 North, Ranges 91 through 99 West, in Sweetwater and Carbon counties, Wyoming. The total combined area encompasses

## CHAPTER 1: PURPOSE AND NEED

---

approximately 1,061,200.

The scoping process for the Continental Divide Natural Gas Project was originally conducted in March 1995, and preparation of an EIS was initiated. Scoping for the GWA II Project was originally conducted in December 1993. The ROD for the combined Continental Divide and Wamsutter II natural gas production areas was signed in May 2000.

The Continental Divide/Wamsutter II EIS provides an assessment of environmental impacts associated with development of natural gas resources in the Continental Divide/Wamsutter II natural gas producing area (Figure 1-6). The project entails the development of natural gas resources beginning in May, 2000 and continuing for approximately 20 years, with a project life of 30 to 50 years. The ROD allows approximately 930 new wells/well locations within the jurisdictional boundaries of the RSFO (not more than 465 wells or well locations on federal lands and/or federal mineral estate), and allows 1,200 new wells/well locations within the jurisdictional boundary of the RFO area (not more than 600 wells or well locations on federal lands, and/or federal mineral estate) for a total of 2,130 well locations. (This authorization assumes 50% of the wells will be drilled on federal lands and/or federal mineral estate. If private/state land development trends exceed 50% of the authorized wells, the number of wells permitted on federal estate will be limited accordingly, unless federal mineral drainage is identified). Various associated facilities (e.g., roads, pipelines, power lines, water wells, disposal wells, evaporation ponds, compressor stations, etc.) would also be constructed. Impacts associated with this proposed development are included in the cumulative impacts analysis in the DFPA EIS.

### **1.4.3.4 Mulligan Draw Environmental Impact Statement (USDI-BLM 1992b)**

This document was completed in September 1992 and provided an analysis of a planned natural gas production project on public lands located within the Mulligan Draw Field. The ROD authorized Celsius Energy Company and other operators to drill and develop a maximum of 45 wells on 640-acre spacing to develop the natural gas reserves in the Mulligan Draw field area. The Mulligan Draw project area is included within the proposed DFPA for analysis of the potential for increased well density. Approvals provided in the Mulligan Draw ROD will remain in effect until an ROD for the DFPA is completed.

### **1.4.3.5 Creston/Blue Gap Natural Gas Project Environmental Impact Statement (USDI-BLM 1994a)**

This EIS was approved on October 4, 1994, and provided an assessment of the environmental consequences of a proposed natural gas development located east of the DFPA. The BLM's decision allowed a maximum of 275 wells on 250 locations on a 160-acre spacing pattern. Impacts associated with this proposed development will be included in the cumulative impacts analysis in the DFPA EIS.

### **1.4.3.6 Uinta Basin Lateral Pipeline Environmental Assessment (USDI-BLM 1992c)**

This EA was completed in January 1992 and provided an analysis of impacts associated with construction and use of a 20-inch natural gas pipeline located west and north of the DFPA. Total length of the proposed pipeline is approximately 222 horizontal miles and would transport natural gas from various supply sources in the Uinta Basin of eastern Utah and the Piceance Basin of western Colorado to natural gas mainlines located near Wamsutter, Wyoming. Potential impacts

# CHAPTER 1: PURPOSE AND NEED

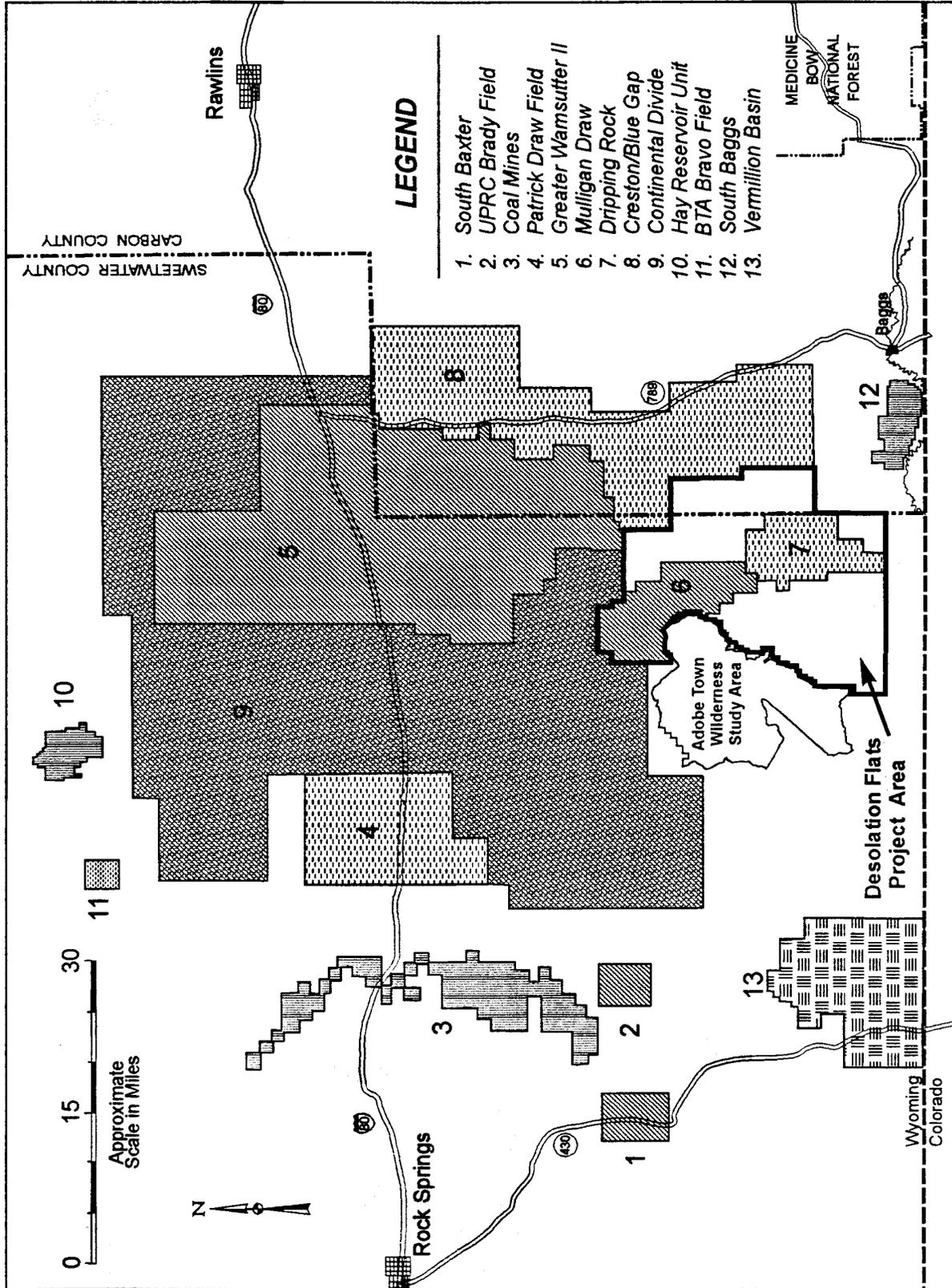


Figure 1-6. Location of other Mineral Development Projects and the Adobe Town WSA in relation to the Desolation Flats Project Area.

## **CHAPTER 1: PURPOSE AND NEED**

---

associated with construction and use of this project will also be included in the cumulative impacts analysis of the DFPA EIS.

### **1.4.3.7 Dripping Rock Unit/Cedar Breaks Area Field Development Environmental Assessment (USDI-BLM 1985)**

This document was completed in April 1985 and provided an analysis of a planned natural gas production project on public lands located within the DFPA. The Decision Record (DR) authorized operators to drill and develop a maximum of 58 wells on 640-acre spacing with associated access roads and pipelines to develop the natural gas reserves in the Dripping Rock Unit/Cedar Breaks field area. Approvals provided in the Dripping Rock Unit/Cedar Breaks DR will remain in effect until an ROD for the DFPA is completed.

### **1.4.4 Wyoming BLM Guidelines for Surface-Disturbing and Disruptive Activities**

Wyoming BLM guidelines for Surface-Disturbing and Disruptive Activities are incorporated into the oil and gas leases within the DFPA. The purposes of these guidelines are: (1) to reserve, for the BLM, the right to modify the operations of surface and other human presence disturbance activities for environmental protection, and (2) to inform a potential lessee of the requirements that must be met when using BLM-administered public lands. Standard mitigation guidelines applicable to the proposed natural gas production operations within the DFPA are presented in Appendix B.

## **1.5 AUTHORIZING ACTIONS**

The proposed federal, state, county, and local actions required to implement the Desolation Flats Natural Gas Development Project are listed in Table 1-6.

## **1.6 ISSUES AND CONCERNS**

Public issues and comments regarding the proposed natural gas development project were solicited for incorporation into this EIS through the scoping process. Scoping consisted of public notices and two formal public scoping meetings. Scoping measures conducted are summarized in Section 6.1 - Public Participation for this EIS. Environmental and social issues of local importance associated with natural gas production identified through the scoping process are summarized as follows:

1. Potential impact to geologic and paleontologic resources at all disturbed sites associated with natural gas production operations.
2. The potential for increased erosion resulting from access road, pipeline, and drill site construction activities, primarily on sensitive soils (e.g., those which are highly erosive such as red soils, calcareous soils, sand dunes, or sandy soils).
3. Potential impacts to the quality of surface and groundwater resources and wetland areas within the project area and adjacent lands.
4. Potential impacts to the air quality of the area resulting from dust and emissions created by construction and natural gas production activities.



## CHAPTER 1: PURPOSE AND NEED

Table 1-6. Continued.

| AGENCY   | NATURE OF ACTION  |
|--|---|
| <b>WYOMING STATE ENGINEER'S OFFICE</b>                   |   |
|  | <p>Issues permits to appropriate groundwater and surface water.</p> <p>Issues temporary water rights for construction permits to appropriate surface water.</p>   |
| <b>WYOMING STATE HISTORIC PRESERVATION OFFICE (SHPO)</b> |   |
|  | <p>Provides consultation concerning inventory of, and impacts to cultural resources</p>   |
| <b>WYOMING OIL AND GAS COMMISSION</b>                    |   |
|  | <p>Acts as primary authority for drilling on state and privately held mineral resources, and secondary authority for drilling on federal lands.</p> <p>Holds authority to allow or prohibit flaring or venting of gas on private or state owned minerals.</p> <p>Regulates drilling and plugging of wells on private or state owned minerals.</p> <p>Approves directional drilling.</p> <p>Administers rules and regulations governing drilling units.</p> <p>Grants gas injection well permits.</p> <p>Administers drainage protection and protection of correlative rights on private/state mineral estate.</p> |
| <b>CARBON/SWEETWATER COUNTIES</b>                        |   |
|  | <p>Grant small wastewater system permits, where applicable.</p> <p>Issue driveway access permits where new roads intersect with county roads. Administer zoning changes where applicable.</p> <p>Prepare road use agreements and/or oversize trip permits when traffic on county road(s) exceeds established size and weight or where the potential for excessive road damage exists.</p>   |

## CHAPTER 1: PURPOSE AND NEED

---

5. Possible adverse impacts to wildlife in the analysis area and adjacent lands, including the following:
  - Potential impacts to wildlife habitats within the project area and adjacent lands for sage grouse, raptors, prairie dogs, big game winter range, and non-game wildlife species.
  - Potential impact to threatened, endangered, and sensitive plant and animal species and communities.
6. Existing road and gas pipeline concerns:
  - Increased traffic and associated impacts on existing county, state, and BLM roads.
  - Utilization of existing road and pipeline corridors rather than construction of new ones (i.e., cumulative site disturbance effects resulting from additional road and pipeline construction within an existing corridor).
7. Potential impacts to known and unknown cultural and historic values within the project area.
8. Disruption of livestock management operations (primarily livestock distribution) and potential for loss of suitable range forage within the project area resulting from additional field development activities.
9. Reclamation of disturbed areas and control of invasive, non-native species invasions following reclamation.
10. Socioeconomic impacts to local communities resulting from project implementation and subsequent increased demand on local facilities and services.
11. Potential impacts associated with noise due to construction activities and natural gas production operations.
12. Cumulative impacts of natural gas in-field development relative to other land and resource activities in the area, both on-going and proposed.
13. Visual Resource Management (VRM), cultural, and paleontological concerns with drilling and production activities in the Monument Valley Management Area and lands adjacent to Monument Valley.
14. Potential impacts to recreation resources within the DFPA.
15. Potential impacts to the Adobe Town WSA, including the proposed natural gas development's effects on the WSA's suitability for wilderness designation.

## CHAPTER 1: PURPOSE AND NEED

---

### 1.7 OPPORTUNITIES

Opportunities that may arise from the Desolation Flats Natural Gas Production project include the following:

1. The natural gas development project would allow the Operators to continue development of both proven and unproven natural gas reserves.
2. Potential economic benefits to communities surrounding the project area by providing jobs and an increase in the local tax base.
3. The natural gas field development project could provide the opportunity to develop a domestic energy source that decreases dependence on foreign sources.
4. The field development project would provide a clean-burning energy resource that could supplement or replace some existing energy sources that are more harmful to the environment.