

## 1.0 INTRODUCTION

Marathon Oil Company (Marathon) has notified the Bureau of Land Management (BLM), Rawlins and Rock Springs Field Offices that Marathon and other operators (including EOG Resources, Inc.; Tom Brown, Inc.; Basin Exploration, Inc.; Yates Petroleum Corporation; Questar Exploration and Production Company; Merit Energy Company; AEC Oil & Gas (USA) Inc. and Devon SFS Operating, Inc.) intend to drill additional exploration and development wells in and adjacent to the Willow Reservoir, Wedge, Mulligan Draw, Powder Mountain, Desolation Flats, Ruger, Dripping Rock, Cedar Chest, Triton, and Lookout Wash Units and the surrounding areas (collectively referred to as the Desolation Flats Project Area). The proposed Desolation Flats Project Area is generally located in Townships 13 through 16 North and Ranges 93 through 96 West in Carbon and Sweetwater Counties, Wyoming.

For purposes of conducting an environmental analysis, Marathon and the other operators have indicated that maximum development of the Desolation Flats Project Area would include the drilling of an additional 592 wells at 555 locations, in addition to the current 68 active producing wells. Many of the new wells will be producing wells, but some will be delineation or exploration wells, as the full extent of the natural gas resource has not yet been determined. A success ratio of 65 percent, resulting in 385 producing wells, is expected for the project. In addition to the new wells, the project will include up to six new compressor stations and two new gas plants to support transportation and processing of the produced gas. The Life of Project (LOP) is estimated by Marathon and the other operators to be in the range of 30 to 50 years.

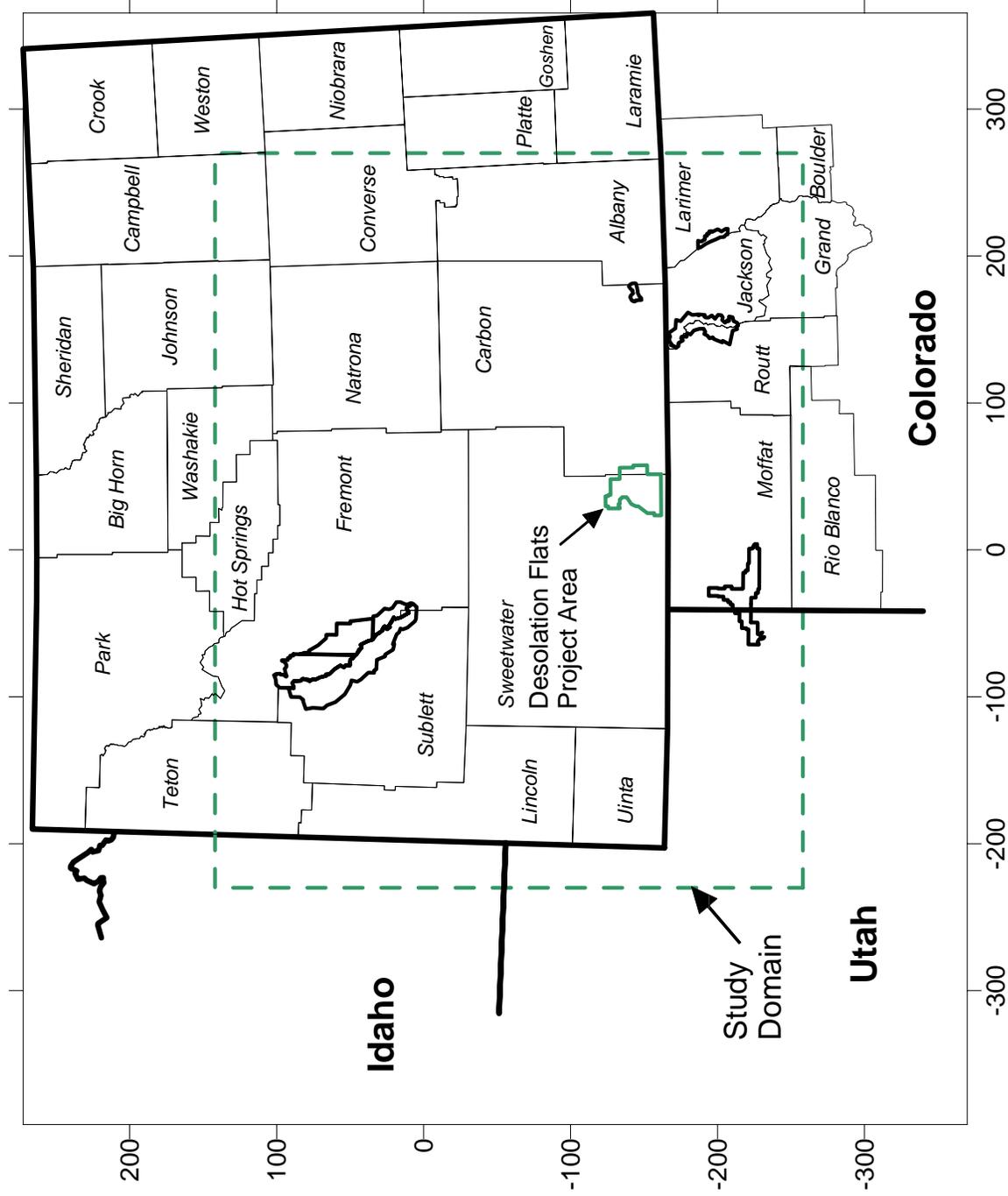
The associated Air Quality Assessment Protocol (Protocol) describes the purpose of the air quality portion of the EIS and methods for estimating emissions. The Protocol document combined with this report provide full information on the methods used and assumptions made to estimate the emissions. Figure 1-1 presents the project study domain utilized for the analysis.

The following section of this report provides the emission estimates for the Desolation Flats project related sources. The project inventory includes site emissions associated with construction and wind erosion; well drilling, completion, and production activities; and gas compression and processing. This inventory reflects the "potential to emit" for the project and assumes the continuous operation of the producing wells and supporting facilities.

Section 3 of this report contains an inventory of Colorado and Wyoming air permit actions resulting in increases and decreases in emissions between 1995 and 2000. Similarly, Section 4 estimates the change in emissions throughout the air basin resulting from increases and decreases in natural gas production between 1995 and 2000. These well emissions were excluded from the permitted emissions considered in Section 3. Emissions potentially resulting from approved Reasonably Foreseeable Developments (RFDs) are estimated in Section 5. Specific emission calculations and permit lists are documented in the appendices.

Some uncertainty is inherent in this type of analysis, which predicts impacts from future events. Assumptions described in the Protocol and text of this document were necessary for completion of the emission inventory. The methodologies utilized for quantifying emissions are in accordance with EPA publication AP-42 Compilation of Air Pollutant Emission Factors, Wyoming Department of Environmental Quality - Air Quality Division (WDEQ-AQD) guidance, and good engineering practices.

**Figure 1-1  
Desolation Flats Study Domain**



Lambert Conformal Projection

Domain Boundaries:

Map Origin = 42.55 N, 108.55 W  
Std. Parallels: 30 N, 60 N

SW Corner = -230km H, -258km V = 40.117 N, 111.339 W  
NW Corner = -230km H, 142km V = 43.832 N, 111.519 W  
NE Corner = 270km H, 142km V = 43.817 N, 105.065 W  
SE Corner = 270km H, -258km V = 40.103 N, 105.276 W