

1. INTRODUCTION

The U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), has prepared an Environmental Impact Statement (EIS) to evaluate and disclose to the public direct, indirect and cumulative environmental impacts from continued exploration for and development of natural gas resources for the Pinedale Anticline Project in Sublette County, Wyoming. This document is the Air Quality Technical Support Document (AQTSD) to the EIS and provides a detailed description of the procedures used and results of modeling of the potential air quality and air quality related values (AQRV) impacts due to the Project and all potential new sources in the region.

Overview of Approach

Version 5 of the CALMET/CALPUFF modeling system was used to estimate the near-source and far-field air quality and AQRV impacts due to emissions from the Pinedale Anticline Project construction, well drilling, and operations and from all estimated new sources in the region since June 30, 1995. CALMET/CALPUFF was run for the entire 1995 calendar year and the model estimated air quality concentration outputs were processed for comparison against PSD Class I and II increments and the National and Wyoming Ambient Air Quality Standards (NAAQS and WAAQS). In addition, the model concentration and deposition outputs were processed to obtain visibility and acid deposition impacts at sensitive areas for comparison against Limit of Acceptable Change (LAC) thresholds.

Report Organization

The Pinedale Anticline Project EIS CALMET/CALPUFF modeling followed the procedures outlined in the "Pinedale Anticline Project Environmental Impact Statement Air Quality Assessment Protocol" (BLM, 1999a). Chapter 2 of this report describes the procedures for performing the CALMET meteorological modeling for the Project EIS air quality modeling. A summary of the development of the emission inventory used in the Project EIS CALPUFF modeling is contained in Chapter 3, more details are provided in the "Pinedale Anticline Oil and Gas Exploration and Development Project Air Emissions Inventory" document (BLM, 1999b). The procedures used for the Project EIS CALPUFF modeling are contained in Chapter 4. Finally, Chapter 5 describes the Project EIS air quality modeling results with detailed tabular summaries of the air quality and AQRV impacts provided for each of the Project Alternatives contained in the appendices.