June 2018

UTAH BUREAU OF LAND MANAGEMENT

AIR RESOURCE MANAGEMENT STRATEGY (ARMS)

NINE MILE CANYON AIR MONITORING SITE

Utah BLM Air Resource Management Strategy

Introduction

The Bureau of Land Management (BLM) initiates and authorizes activities that can affect air resources by releasing pollutants to the atmosphere. The Federal Land Policy Management Act (FLPMA) guides the BLM to manage the public lands in a manner that will protect the quality of air and atmospheric values, and requires the BLM's land use plans provide for compliance with applicable air pollution standards or implementation plans. In addition, the National Environmental Policy Act (NEPA) requires the BLM to analyze potential environmental impacts of actions it initiates or authorizes and to discuss means to mitigate adverse environmental impacts. In response to the requirements and intent of this guiding legislation the Utah BLM has prepared this Air Resource Management Strategy (ARMS).

Because air pollution does not stop at county, state, or tribal lines the science and practice of air pollution control has been moving to managing air quality on an airshed basis, rather than limiting management based on political or jurisdictional boundaries. A core concept of airshed management is the "one atmosphere" approach, which addresses all pollutants of concern in an area holistically, rather than addressing each separately which can be inefficient and counter-productive. Another core concept of the airshed management approach is to engage the community, residents, businesses, local, state, and tribal governments in decisions about the best course for protecting air quality. .

ARMS OBJECTIVES

- Provide certainty and transparency for agencies, project proponents, and the public regarding the conduct and review of air resource and Air Quality Related Values (AQRV) impact analyses in the NEPA process, and the application of mitigation.
- Promote education and awareness of air resources on BLM lands.

There are four main elements of the ARMS: airshed management, NEPA analysis, air monitoring, and public education and awareness. As an integrated and comprehensive strategy each element informs the other. The purpose of this document is to outline the functions and roles of these elements and how they will integrate into the overall management strategy.

Airshed Management

BLM Utah will consider the potential effects of BLM projects, programs, and activities on air quality at the planning, leasing, and project level as appropriate. This includes NEPA documents associated with Resource Management Plans (RMPs), and evaluating the potential impacts, as appropriate, of proposed actions and activities. Examples of such activities include: energy and mineral resource development, hazardous materials management, land use authorizations, smoke management, recreational uses, and transportation management.

BLM Utah will consider air pollution controls on unpermitted and/or non-regulated sources, furthermore BLM Utah will consider through NEPA analysis air pollution control requirements on relevant authorized activities. The implementation of these controls may take

the form of lease stipulations, conditions of approval, best management practices and/or applicant committed measures, as appropriate based on need and authority. Air pollution control requirements and mitigation will be based on sound scientific evaluations, current air quality information, and be consistent with accepted practices and control technologies.

Regional Modeling

To assist in airshed management and dependent on funding the BLM may utilize regional air quality modeling. Modeling will be based on reasonably foreseeable development (RFD) and the BLM may consult with the Utah Air Resource Technical Advisory Group (AiRTAG) when developing modeling protocol. Products from a regional modeling analysis may include cumulative impacts analysis, a comparison of federal versus non-federal sources, or source apportionment.

In 2011 BLM Utah undertook the development of a nested regional scale photochemical grid model (PGM) to examine the cumulative and project-specific direct and indirect air quality impacts of planned and reasonably foreseeable development (RFD) in the Uinta Basin of Utah due to recognized issues with ozone concentrations in that airshed. Information about this modeling study can be found on the BLM Utah air program webpage (see references for link). However, emissions inventories upon which these regional modeling studies are based are time limited, meaning the projections used to determine future year emissions estimates are likely to not be realized. Due to pace of development, application of future controls, field characteristics, and other known and unknown influences future year emissions are likely to be different than originally projected, sometimes substantially different. Dependent upon funding BLM Utah will update the ARMS photochemical modeling analysis to incorporate updated emissions inventories and current emissions growth projections.

To conduct this inventory and modeling update BLM will utilize the Utah State University Bingham Research Center through an existing Assistance Agreement. As in the original inventory and modeling analysis the work will be reviewed through the AiRTAG, with the work products available for public review.

BLM will use the Intermountain West Data Warehouse (IWDW) data products for regional airshed modeling and NEPA modeling. The IWDW is an inter-agency entity developed to maintain ambient monitoring data, emission inventories, meteorology, and air quality modeling inputs and outputs to save time and cost during modeling analyses. The IWDW only supports Community Multiscale Air Quality Modeling System (CMAQ) and Comprehensive Air Quality Model with Extensions (CAMx) photochemical grid models. A plume dispersion model and a photochemical grid model (PGM) are typically used to quantitatively assess the air quality impacts associated with the development. These models require emissions and meteorological information to estimate the concentration and dispersion of pollutants that impact air quality, although modeling products could be leveraged for dispersion modeling (e.g., American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) and California Puff (CALPUFF) Model) by extracting and formatting the data into model-ready files. Two approaches for conducting PGM simulations using the products provided by the IWDW for NEPA projects are outlined in the NEPA IWDW Process Outline Document.

Modeling platform components maintained by the IWDW for NEPA projects include

- Initial and boundary conditions.
- Emissions inventories.

- Meteorological files.
- PGM files.
- Documentation reports or summary reports discussing each model component.

For BLM projects that may need photochemical modeling, executables/model versions and the future-year baseline scenario used in the selected model platform will need to be downloaded from the IWDW. The project will need to repeat the future-year baseline simulation to demonstrate that the data transfer and modeling platform accurately reproduces the WAQS model results. Each new project will also need to perform future-year baseline PGM simulations with the project emissions scenarios. The results of these simulations will then be used to determine the impacts on air quality and AQRVs.

NEPA Analysis

The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences (40 CFR 1500.1(c)). To accomplish this, BLM Utah follows the procedures outlined in the BLM NEPA Manual Handbook (H-1790-1), the Council on Environmental Quality's (CEQ) NEPA regulations (40 CFR Parts 1500–1508) and the Department of the Interior NEPA manual. In addition, the ARMS NEPA guidance borrows heavily from the National Memorandum of Understanding Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions through the NEPA Process (MOU). Furthermore, the BLM Utah has considered earlier NEPA improvement efforts made during their collaboration with the Federal Leadership Forum, including: "Effects Analysis, Reasonably Foreseeable Development Scenarios, and Cumulative Impact Analysis for Oil and Gas Activities on Federal Lands In the Rocky Mountain Region, August, 2002. The ARMS NEPA guidance is intended to define existing agency guidance and procedures as it relates to air quality analysis and mitigation, and is not intended nor should be construed to require actions beyond or in conflict with the overarching guidance and procedures detailed in the documents above or otherwise prescribed by Federal law, policy, and/or guidance.

Air Resource Technical Advisory Group

A main goal of the ARMS NEPA guidance is to provide greater certainty and transparency for agencies, project proponents, and the public regarding the conduct and review of air quality and AQRV impact analyses in the NEPA process, and the application of controls and mitigation. One of the ways this will be accomplished is by emphasizing collaboration in the preparation of NEPA documents. To that end, BLM Utah has formed a technical advisory group (AiRTAG) composed of technical and policy experts from BLM, Environmental Protection Agency (EPA), United States Department of Agriculture Forest Service (USDA-FS), United States Fish and Wildlife Service (USFWS), National Parts Service (NPS), the Utah Department of Air Quality (UDAQ), and other Federal or Tribal stakeholders. The AiRTAG works to reach consensus on monitoring and modeling protocols, makes recommendations on appropriate mitigation strategies, and identifies air resource issues needing further attention.

To meet the goal of improving certainty and transparency, early and effective consultation is essential. The AiRTAG will be the primary venue for communicating upcoming NEPA projects with potential air resources issues to other Federal Agencies. This may include project specific Environmental Impact Statements (EIS) and Environmental Assessments (EA), Resource Management Plans, Leasing Plans, and programmatic NEPA documents.

When reviewing and advising NEPA related air quality analysis, BLM Utah will work with the AiRTAG to determine the appropriate:

a. Affected environment information to include in the baseline assessment;
b. Impact assessment methodology, emissions inventories, assumptions, and scale (e.g. local and/or regional);
c. RFD assumptions;
d. Modeling protocol, performance evaluation, and results reports.
e. Baseline and post-project monitoring protocols;
f. Adaptive management; and/or
g. Mitigation.

In addition to the above tasks, the AiRTAG may review any annual project-specific emissions inventories prepared pursuant to adaptive management strategies required by project-specific NEPA and provide recommendations on whether a "substantial increase" in emission has occurred, and what appropriate enhanced mitigation may be required to address any emission increases. The AiRTAG may also periodically review the enhanced mitigation list and regional air monitoring and provide suggestions on updates and/or improvements.

Analytical Procedures

NEPA analysis by definition is action-specific and each analysis is unique to the specific set of issues associated with the action. Therefore *a priori* determination by the ARMS of what analytical techniques and methodologies will be used for all future NEPA is not feasible or desirable. Some general guiding principles can be defined however to guide and inform the decision-making process on how air resource analysis will be conducted. For instance, a commitment that the analysis of air quality and AQRVs impacts will be done in accordance with current technical standards, guidance, and practices can be applied to all future NEPA analysis without reservation. Following are general guidelines on determining when and to what extent air resources will be analyzed under NEPA.

Emission Inventories

BLM Utah requires, when feasible, an emissions inventory for all projects where air quality has been identified as having a potential impact. Oil and gas projects will require an emission inventory in all cases when an RFD number of wells is defined *and* sufficient information is available to make equipment and control estimations needed for development of emissions factors. Subsequent level of analysis decisions, including modeling, will be based in part on quantitative information contained in the emission inventories. Basing level of analysis decisions on quantifiable emission inventory data will provide a defendable and scientifically justifiable methodology for these decisions.

Emission factor data used in the development of emissions inventories will to the extent possible rely on recognized publicly available data. Examples include AP-42: Compilation of Air Pollutant Emissions Factors (EPA), Intermountain West Data Warehouse (CIRA), and National or State agency emission inventory databases (e.g. NEI). Where specific emissions data is not available, emission factors may be developed using accepted good engineering practices and the methodology used to develop the emissions factors will be disclosed.

Modeling Analysis

BLM will consider conducting air quality modeling analysis when a proposed action meets at least one of the criteria in subparagraph (a) *and* at least one of the criteria in subparagraph (b) below:

a. *Emissions/Impacts* - the proposed action:
   - Is anticipated to cause a substantial increase in emissions based on a BLM approved emissions inventory; or
   - Will materially contribute to potential adverse cumulative air quality impacts.

b. *Geographic Location* - the proposed action is in:
   - Proximity to a Class I or sensitive Class II Area; or
   - A Non-Attainment or Maintenance Area; or
   - An area expected to exceed the NAAQS or PSD increment based on:
     - Monitored or previously modeled values for the area;
     - Proximity to designated Non-Attainment or Maintenance Areas; or
     - Emissions for the proposed action based on a BLM approved emissions inventory.

A "substantial increase in emissions" for purposes of criteria *a. Emissions/Impacts* is a level of emissions that can be reasonably applied to a recognized modeling analysis methodology and be expected to show adverse impacts based on that modeling analysis. Considerations that may be used to determine this include New Source Review analysis threshold limits, Prevention of Significant Determination significance levels, demonstration of impacts from previous modeling analyses, regulatory permit emission thresholds, and professional judgement.

When conducting air quality modeling analysis, BLM will:

- Use appropriate tools and resources consistent with the best science, technical guidance, and rules;
- Build on existing air quality analyses, when appropriate;
- Seek concurrence from interested AiRTAG members; and
- Document its decisions.

If an air quality modeling analysis exists that addresses and describes the impacts for an area under consideration, or a completed regional air quality assessment can provide equivalent information, and is sufficient to enable BLM to access impacts of the proposed action, additional air quality modeling will not be required for specific actions. BLM in consultation with the AiRTAG will choose the appropriate approach. To meet the goal of promoting and supporting a regional perspective for air quality analysis, BLM may pursue programmatic NEPA evaluations for federal oil and gas decisions, such as the regional modeling conducted in the Airshed Management section of the ARMS. Modeling may also not be required if BLM in consultation with the AiRTAG demonstrates that due to design features or mitigation measures that will be implemented the proposed action will not cause a substantial increase in emissions and will not contribute to potential adverse air quality impacts. In addition, appropriate specific NEPA documents can use incorporating by reference (IBR) information to streamline and cut-down size of NEPA air quality write-ups.

<u>Model Selection</u>

BLM Utah will only accept EPA approved models for conducting modeling analysis. When possible BLM Utah will utilize existing regional model analysis that are applicable. BLM will consult with the AiRTAG to identify relevant existing models. If no existing model analysis are identified the BLM in consultation with the AiRTAG will choose an appropriate modeling approach. BLM Utah will also use the guidance presented in the Appendix to the MOU: Analysis Approaches to Evaluate Air Quality for NEPA Decisions Regarding Federal Oil & Gas. There are three general categories of air quality models used in NEPA: near-field models, far-field models, and photochemical models. Each will be described below along with their appropriate application in the ARMS.

Near-field Modeling

Near-field models are used to evaluate actions likely to result in local air quality impacts at transport distances less than 50km. These models will typically be used to conduct local scale modeling analysis with emission estimates, meteorological, and geographic information for single sources. They may also be used when the local air quality impact potential is estimated to be high. Near-field models include: AERMOD / AERSCREEN, VISCREEN, and PLUVUE II.

Far-field Modeling

Far-field models are used to evaluate actions that contain single (or small group) source scenarios at transport distances greater than 50km. These models are conducive to providing regional assessments of cumulative and incremental impacts. Typically project specific emission information will be needed, along with more regional meteorological and geographic information. Currently available far-field models include: CALPUFF and SCIPUFF.

Photochemical Modeling

Photochemical models are used to conduct regional scale modeling with project specific emission, meteorological, and geographic information with complex photochemical processes. This approach utilizes a regional scale one atmosphere simulation of a wide variety of pollutants with a large geographic extent. Emissions are gridded, allow for chemical transformation, and offer a variety of transportation mechanisms to address near and far-field transport. Impact estimates are generated for ambient concentration, atmospheric deposition, and AQRVs. Project-specific direct and indirect impacts will be determined using the ARMS regional photochemical model, either through a model sensitivity simulation, or by running the regional model utilizing source apportionment. Photochemical models include CMAQ and CAMx.

Additional Analytical Components and Procedures

In addition to the emission inventory and modeling guidelines outlined above, BLM may include the following components and procedures in air resource NEPA analysis when appropriate:

1. A comparison of action-specific impacts with the PSD increment levels may be presented to better understand impacts to Class I Areas. The comparison is for informational purposes and is not a formal PSD increment analysis nor is it intended to replace such an analysis.

2. A near-field analysis of Hazardous Air Pollutant (HAP) concentrations based on generally accepted exposure levels.

3. BLM will comply with the CAA conformity requirements under Section 176, 42 U.S.C. § 7506, and corresponding regulations at 40 CFR § 93.150 *et. seq*., where applicable. General conformity ensures that actions taken by federal agencies do not cause or contribute to new violations of NAAQS in non-attainment designated areas, and that federal actions conform to the air quality plans established in state or tribal implementation plans. When possible the BLM will work with regulatory agencies to streamline the conformity analysis through the creation of a presumed-to-conform list, a BLM emissions budget, or through other methods.

4. Science-based threshold values and methodologies will be used when assessing impacts to AQRVs. When assessing potential impacts to AQRVs BLM will apply Federal Land Managers' Air Quality Related Values Work Group (FLAG) values and methodologies for FWS, NPS, and FS administered lands

Mitigation

BLM will identify reasonable mitigation and control measures and design features to address adverse air quality or AQRV impacts in the NEPA process, and work with project proponents to include them either as Applicant-Committed Measures or mitigation measures under applicable NEPA procedures. Mitigation and control measures can include: best management practices, control technologies, design features, and pace of development. BLM will decide on the appropriate mitigation measures to reduce or eliminate adverse impacts* to AQRVs identified in the NEPA process and will describe them in the NEPA decision document.

To the extent allowed by law and consistent with lease rights and obligations, BLM may:

- Implement reasonable mitigation and control measures through appropriate mechanisms, including lease stipulations and conditions of approval, notices to lessees, and permit terms and conditions;
- Take appropriate steps to retain the ability to implement additional reasonable mitigation and control measures for permitted operations;
- Work to implement additional reasonable mitigation and control measures and design features to reduce future emissions from permitted operations.

Adaptive Management

Adaptive management in NEPA is a process to monitor and adjust NEPA mitigation measures due to changing conditions. The goal of adaptive management is to achieve desired outcomes by implementing changes or modifications without reinitiating the NEPA process. Adaptive management recognizes that over a project's life, changes in conditions (environmental or human-derived) can negate any environmental protections envisioned in the original analysis. Adaptive management is applied to NEPA through a continuous improvement process applied to monitoring and adaptation in NEPA-derived mitigation measures. Figure 1 is a schematic representation of the adaptive management process as it applies to NEPA.

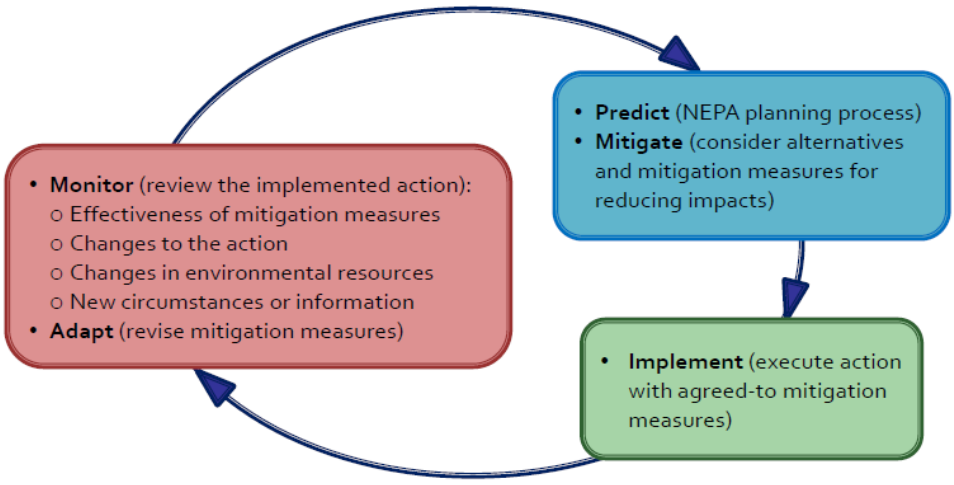

Figure 1

BLM Utah will consider adaptive management as an air resource mitigation measure for project specific NEPA when future environmental conditions and/or a projects potential impact on those conditions cannot be determined adequately with current information. Examples might include projects in areas that are seeing rapidly changing ambient air quality conditions, or where the future emission inventory cannot be determined adequately due to unknown variables, such as gas well forecast production vs. actual production.

Adaptive management as a mitigation measure will be based on outcome-based performance thresholds relevant to the air resource issue of concern (e.g. ambient monitored values, emission inventory changes, etc.), and may incorporate a monitoring plan that examines the environmental effects of the action to determine whether adjustments are necessary to avoid unpredicted effects. While it may not be possible to predict all adaptive management response to future events, BLM will strive to include adaptive measures that could be used within the range of alternatives whose impacts are analyzed, or specifically identify and analyze each of the adaptive measures as an alternative or part of an alternative. Project specific adaptive management criteria will be developed in consultation with the AiRTAG as part of the review process.

When adaptive management has been chosen as a mitigation measure the following components will be included and described in the relevant NEPA document:

- The proposed adaptive management approach
- How the approach is reflected in the alternatives being considered
- The monitoring protocol
- The desired outcome
- The performance measures that will determine whether the desired outcome is being achieved or an adaptive action is needed, and
- The factors for determining whether additional NEPA review is needed.

Contingency Plan

In the event project-specific NEPA modeling under the ARMS is not available for any reason, then air quality analysis conducted for specific projects will follow the guidance

otherwise given in the ARMS, be consistent with the National MOU, and be performed in close consultation with the AiRTAG to determine appropriate analytical procedures, mitigation, and adaptive management requirements.

Air Monitoring

Air monitoring is important for establishing current conditions, analyzing trends, and for the adaptive management process. BLM will utilize existing air monitoring networks that meet the quality assurance standards set by the EPA. Air monitoring stations included the Clear Air Status and Trends Network (CASTNET), Interagency Monitoring of Protected Visual Environments (IMPROVE), National Atmospheric Deposition Program (NADP), and state and tribal air monitoring networks routinely meet the EPA standards. Similarly when meteorological data is needed the BLM will utilize existing networks such as Automated Surface Observing System (ASOS), Remote Automated Weather Stations (RAWS), Snowpack Telemetry (SNOWTEL), and the Integrated Global Radiosonde Network. Other air quality and meteorological networks that meet quality assurance standards may also be used.

BLM may conduct targeted air monitoring to evaluate on-the-ground air resource conditions as needed and funding warrants and allows. Existing air monitoring networks may not adequately cover areas managed by the BLM and short term targeted monitoring may assist in land management decisions for these areas. BLM does not conduct air monitoring to determine attainment status of an area under the requirements of the Clean Air Act, that being a function of the appropriate federal, state, or tribal regulatory agency. BLM Utah maintains limited portable self-contained air monitoring equipment mainly focused on particulate monitoring (PM10, 2.5), ozone monitoring, and meteorology. Examples of the uses this equipment has been deployed for include: monitoring dust levels caused by truck traffic in areas of at-risk petroglyphs, validating modeled rural ozone levels, and long-term climate conditions.

In addition to fielding equipment owned and operated by BLM, cooperative partnerships will also be sought to help fund and operate monitoring in areas that will assist the BLM in managing public lands while also providing value to the monitoring partners. Examples include: assistance agreements with the Utah Dept of Environmental Quality to fund ozone monitoring in the Uinta Basin, cooperative agreements with the Ute Tribe to conduct aerial monitoring for VOC's. and collaborative studies with the U.S. Geologic Survey to conduct dust monitoring in southeast Utah.

In general, the purposes BLM Utah may conduct air monitoring for can by summarized as:

- Collect ambient air quality information for background and inventory purposes
- Evaluate air quality trends associated with BLM authorizations and activities
- Provide a quantitative measure for administration, agencies, and general public
- Validate modeling performance

Public Education and Awareness

As a public agency BLM is committed to complete transparency and believes in an informed and aware public. While air resource issues can be highly technical and complex, BLM Utah will make every effort to inform and educate the public about air resource issues on public lands and how those resources are being managed. Beyond the disclosure inherent in NEPA documents produced by BLM, two main venues will be used to disseminate air resource

information to the public and other interested parties: a BLM Utah air resource web page, and a BLM Utah air resource report.

BLM Utah Air Resource Web Page

BLM Utah has developed an air quality and climate data web page linked from the Utah BLM home page. Currently under development is an interactive map linked to air and climate data that will allow the user to access monitoring data collected by BLM in Utah. Future plans include posting the ARMS on this page, links to ongoing studies and research relevant to BLM and Utah, and as a way to disseminate the air resources report.

BLM Utah Air Quality and Climate web page
https://www.blm.gov/programs/natural-resources/soil-air-water/air/utah

References

BLM Utah Air Program https://www.blm.gov/programs/natural-resources/soil-air-water/air/utah

Intermountain West Data Warehouse (IWDW) http://views.cira.colostate.edu/TSDW/

National MOU Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions through the NEPA Process (MOU) https://www.epa.gov/sites/production/files/2014-08/documents/air-quality-analyses-mou-2011.pdf

Utah Division of Environmental Quality (UDAQ) http://www.airmonitoring.utah.gov/dataarchive/index.htm

Glossary

Airshed: A geographic area that, because of topography, meteorology, and/or climate, is frequently affected by the same air mass.

Ambient Air: The air occurring at a particular time and place outside of structures. Often used interchangeably with "outdoor air."

Air Quality Related Value (AQRV): A resource, as identified by a Federal Land Manager (FLM) for one or more Federal areas that may be adversely affected by a change in air quality. The resource may include visibility or a specific scenic, cultural, physical, biological, ecological, or recreational resource identified by the FLM for a particular area. "These values include visibility and those scenic, cultural, biological, and recreation resources of an area that are affected by air quality" (43 Fed. Reg. 15016).

Attainment Area: A geographical area identified to have air quality as good as, or better than, the National Ambient Air Quality Standards (NAAQS). An area may be an attainment area for one pollutant and a nonattainment area for others.

Class 1 Area: As defined in the Clean Air Act, the following areas that were in existence as of August 7, 1977: national parks over 6,000 acres, national wilderness areas and national memorial parks over 5,000 acres, and international parks.

Conformity: A demonstration of whether a federally-supported activity is consistent with the State Implementation Plan (SIP) -- per Section 176 (c) of the Clean Air Act.

Dispersion Model: A mathematical relationship between emissions and air quality which simulates on a computer the transport, dispersion, and transformation of compounds emitted into the air.

Emission Inventory: An estimate of the amount of pollutants emitted into the atmosphere from major mobile, stationary, area-wide, and natural source categories over a specific period of time such as a day or a year.

National Ambient Air Quality Standards (NAAQS): Standards established by the United States EPA that apply for outdoor air throughout the country. There are two types of NAAQS. Primary standards set limits to protect public health and secondary standards set limits to protect public welfare.

Nitrogen Oxides (Oxides of Nitrogen, NOx): A general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO_2) and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects.

Nonattainment Area: A geographic area identified by the EPA as not meeting the NAAQS for a given pollutant.

Ozone: A strong smelling, pale blue, reactive toxic chemical gas consisting of three oxygen atoms. It is a product of the photochemical process involving the sun's energy and ozone precursors, such as hydrocarbons and nitrogen oxides. Ozone exists in the upper atmosphere ozone layer (stratospheric ozone) as well as at the Earth's surface in the troposphere (ozone). Ozone in the troposphere causes numerous adverse health and is a criteria air pollutant.

Particulate Matter (PM): Any material, except pure water, that exists in the solid or liquid state in the atmosphere. The size of particulate matter can vary from coarse, wind-blown dust particles to fine particle combustion products.

PM2.5: Includes tiny particles with an aerodynamic diameter less than or equal to a nominal 2.5 microns. This fraction of particulate matter penetrates most deeply into the lungs.PM2.5 also is a major contributor to visibility reduction.

PM10 (Particulate Matter): A criteria air pollutant consisting of small particles with an aerodynamic diameter less than or equal to a nominal 10 microns (about 1/7 the diameter of a single human hair). Their small size allows them to make their way to the air sacs deep within the lungs where they may be deposited and result in adverse health effects. PM10 also contributes to visibility reduction.

(PSD) Prevention of Significant Deterioration: A permitting program for new and modified stationary sources of air pollution located in an area that attains or is unclassified for national ambient air quality standards. The PSD program is designed to ensure that air quality does not degrade beyond those air quality standards or beyond specified incremental amounts. The PSD permitting process requires new and modified facilities above a specified size threshold to be carefully reviewed prior to construction for air quality impacts. PSD also requires those facilities to apply controls to minimize emissions of air pollutants.

State Implementation Plan (SIP): A plan prepared by states and submitted to EPA describing how each area will attain and maintain national ambient air quality standards. SIPs include the technical foundation for understanding the air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

(VOCs) Volatile Organic Compounds: Carbon-containing compounds that evaporate into the air (with a few exceptions). VOCs contribute to the formation of ozone and / or may themselves be toxic. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

Acronyms

AiRTAG	Air Resource Technical Advisory Group
AQRV	Air Quality Related Value
ARMS	Air Resource Management Strategy
BLM	Bureau of Land Management
CAA	Clean Air Act
CEQ	Council on Environmental Quality
EPA	Environmental Protection Agency
FLAG	Federal Land Managers' Air Quality Related Values Work Group
FLF	Federal Leadership Forum
FLM	Federal Land Manager
FRM	Federal Reference Method
USFWS	U.S. Fish and Wildlife Service
NAAQS	National Ambient Air Quality Standards
NEI	National Emission Inventory
NEPA	National Environmental Policy Act
NPS	National Park Service
PGM	Photochemical Grid Model
POMS	Portable Ozone Monitoring Station
PSD	Prevention of Significant Deterioration
RFD	Reasonably Foreseeable Development
RMF	Reusable Modeling Framework
RMP	Resource Management Plan
SIP	State Implementation Plan
UDAQ	Utah Department of Air Quality
USFS	U.S. Forest Service

This document is policy, not a regulation or a law. It is meant to guide the actions of Utah BLM generally, but BLM Utah may decide that an approach not consistent with this policy is a better course of action. Further, BLM Utah may choose to change this policy at any time, based on agency discretion. In the event that BLM Utah makes one of these choices, it will explain in writing the rationale for its decision. BLM Utah reserves to itself all final air resource decisions it is charged to make and AiRTAG suggestions are advisory only.