

# New Mexico Pilot Study Outline

## I. Executive Summary

- A. What is Visibility
- B. What is RH
- C. Overview of Case Study (Task at Hand)

## II. Introduction

- A. RH Rules
- B. SIP Requirements for 40 CFR §51.309
- C. SIP Requirements for 40 CFR §51.308
- D. Visibility in NM
- E. NM 2003 SIP Submittal

## III. NM Dust SIP Pilot Study

- A. Overview
- B. Purpose of Project
  - i. Analysis of Tools
    - 1. Definition of Dust
    - 2. Salt Creek Case Study
    - 3. Causes of Dust Regional Analysis
    - 4. DRI New Mexico Study
    - 5. Fugitive Dust Emissions from Wind Erosion
    - 6. Fugitive Dust Handbook
    - 7. CMAQ Modeling for Fugitive Emissions
    - 8. WoE Checklist
  - ii. Template and Protocol
  - iii. Conceptual Model
- C. SIP Template and Protocol
  - i. Visibility Conditions
    - a. Baseline and Natural Conditions
    - b. Dust Light Extinction
    - c. Protocol
      - 1. *EPA Guidance for Tracking Progress Under the Regional Haze Rule*
      - 2. *Estimating Natural Visibility Conditions Under the Regional Haze Program*
      - 3. *TSS*
      - 4. *IEWS*
      - 5. *COHA*
  - ii. Reasonable Progress Goals
    - a. Establish Uniform Rate of Progress
      - 1. *EPA Guidance for Tracking Progress Under the Regional Haze Rule*
      - 2. *Estimating Natural Visibility Conditions Under the Regional Haze Program*

- 3. *TSS*
  - 4. *IEWS*
- iii. Long-Term Strategies
  - a. Coordination with Other States and Countries
  - b. Share of Emission Reductions
  - c. Contributions from Other States and Countries
    - Contributions from Texas
    - Contributions from Mexico
  - d. Protocol
    - 1. *Assessment of the Principal Causes of Dust-Resultant Haze at IMPROVE Sites in the Western United States*
    - 2. *Weight of Evidence Checklist*
    - 3. *DRI New Mexico Pilot Study*
    - 4. *Mexico National Emission Inventory, 1999*
    - 5. *Development of an Area Source Emission Inventory for Ciudad Juarez, Chihuahua, Mexico*
    - 6. *2001 Air Emission Inventory: Guadalupe National Park, Texas*
    - 7. *Natural Resources Conservation Services Web Soil Survey*
    - 8. *TSS*
  - e. Documentation of Modeling, Monitoring, and Emission Inventory
    - 1. *IEWS*
    - 2. *WRAP RMC*
    - 3. *In and Near*
    - 4. *IMPROVE*
    - 5. *COHA*
    - 6. *EDMS*
- iv. Sources and Control Strategies
  - a. Identification and Characterization of Dust Sources
  - b. Identify High Priority Dust Sources
  - c. Identify Which Sources Have Potential Controls or Mitigations
  - d. Identify Available Data Resources and Methods
  - e. Protocol
    - 1. *Dust Definition*
    - 2. *Fugitive Dust Emissions from Windblown Erosion*
    - 3. *Stationary and Area Source Pivot Tables*
    - 4. *In and Near Emissions*
    - 5. *Google Earth*
    - 6. *Fugitive Dust Handbook*
    - 7. *Doña Ana County Natural Events Action Plan*
    - 8. *California State Bill SB 656 List of Air District Measures that Reduce Particulate Matter*
    - 9. *Best Management Practices for Oil and Gas Development on Federal Lands*

- 10. *Site Visits*
- 11. *New Mexico Permit Requirements for Aggregate Mining*
- f. Emission reductions due to ongoing air pollution control programs
  - Doña Ana County NEAP
  - Reclamation of Oil and Gas Exploration in Chaves County
- g. Mitigation of impacts from construction activities
  - Doña Ana County NEAP
- h. Protocol
  1. *State Regulations for Mining and Oil and Gas Development*
  2. *Doña Ana County Natural Events Action Plan*
  3. *Chaves County NEAP*
  4. *California State Bill SB 656 List of Air District Measures that Reduce Particulate Matter*
  5. *Best Management Practices for Oil and Gas Development on Federal Lands*
  6. *New Mexico Permit Requirements for Aggregate Mining*
- i. Dust Emission Reductions for 2018
- j. Protocol
  1. *Fugitive Dust Handbook*
  2. *Dust Definition; Salt Creek Case Study*
  3. *Natural Resource Conservation Service: State of the Land*
  4. *Doña Ana County Natural Events Action Plan Control Measure Determinations*
  5. *Handbook for Dust Control in Mining*
- k. Enforceability
- l. Anticipated Net Effect
- m. Protocol
  1. *TSS*
  2. *WRAP RMC*
  3. *WoE Checklist*
- n. Review of Demonstration for Reasonable Progress
  - CMAQ Modeling
  - Fugitive Dust Emissions from Wind Erosion
- o. Protocol
  1. *WRAP RMC*
  2. *TSS*
  3. *Fugitive Dust Handbook*
  4. *Fugitive Dust Emissions from Windblown Erosion*
- p. Alternative Demonstration of Uniform Rate for Salt Creek Reasonable Progress Goals
  1. *TSS*
  2. *WRAP RMC*

3. *Fugitive Dust Handbook*
    - q. Salt Creek Wilderness Area Long Term Strategy for Dust (Weight of Evidence)
      1. *Causes of Dust/New Mexico Pilot Study*
      2. *Causes of Dust Analysis*
      3. *Dust Definition*
      4. *Fugitive Dust Handbook*
      5. *Fugitive Dust Emissions from Wind Erosion*
      6. *TSS web site*
      7. *NRCS Web Soil Survey*
      8. *Google Earth*
      9. *CARB Emission Inventory Documentation*
      10. *Federal, State and Local Data*
    - v. Monitoring Strategy and Emission Inventory
  - D. Conclusions
    - i. Dust Definition
    - ii. Fine Fraction of Fugitive Dust
    - iii. Causes of Dust Regional Analysis/New Mexico Pilot Study
    - iv. CMAQ Modeling for Fugitive Emissions
    - v. Fugitive Dust Emissions from Wind Erosion
    - vi. Fugitive Dust Handbook
    - vii. Weight of Evidence
    - viii. Overall Recommendations