State of New Mexico
ENVIRONMENT DEPARTMENT
AIR QUALITY BUREAU
2048 Galisteo
Santa Fe, New Mexico 87505
Telephone (505) 827-1494
Fax (505) 827-1523

BILL RICHARDSON
GOVERNOR

RON CURRY
SECRETARY

CINDY PADILLA
DEPUTY SECRETARY

June 15, 2007

Mr. Carl Edlund (6PD)
Multimedia Planning and Permitting Director
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Edlund,

I am pleased to submit the enclosed June 2007 Semi-annual Progress Report for the San Juan County, New Mexico Early Action Compact (EAC) for ozone. This report documents progress achieved with the EAC and other related work in San Juan County from December 2006 through June 2007. The report provides details about public outreach since December 2006, a voluntary program for emissions reductions, related efforts, and next steps in this important project.

The State of New Mexico looks forward to your approval of this submittal and our continued work to protect air quality in San Juan County. If you have any questions about the enclosed report, please contact Andy Berger of my staff at (505) 955-8034.

Sincerely,

M. A. Uhl

Mary Uhl
Air Quality Bureau Chief

cc: Tom Diggs, EPA, Region 6 (6PD-L)
Carrie Paige, EPA, Region 6 (6PD-L)

Enclosure

MU/mj

San Juan County, New Mexico
Early Action Compact Progress Report
June 2007

Overview

This document reports on the progress made between December 2006 and June 2007 on the implementation of the San Juan County Clean Air Action Plan (CAAP) and related projects. The CAAP is the main deliverable from the Early Action Compact (EAC) for ozone. The signatories to the EAC, including the New Mexico Environment Department (NMED), are committed to ensuring that northwestern New Mexico remains in attainment of the 8-hour ozone National Ambient Air Quality Standard (NAAQS). The CAAP includes a public outreach campaign and a voluntary program for emissions controls, both of which are described below.

State Implementation Plan

The NMED successfully submitted to the Environmental Protection Agency (EPA) a State Implementation Plan (SIP) revision for an Early Action Compact for San Juan County. EPA approved this SIP revision on August 17, 2005 (70 FR 48285). The revisions approved by EPA incorporated the CAAP and the photochemical modeling conducted in support of the attainment demonstration for the 8-hour ozone standard within the San Juan County EAC area. These actions will strengthen the SIP in accordance with the requirements of sections 110 and 116 of the Federal Clean Air Act, and will result in emission reductions needed to help ensure continued attainment and maintenance for the 8-hour NAAQS for ozone.

Public Outreach Since December 2006

The Four Corners Air Quality Task Force held two public meetings: February 7, 2007 in Durango with over 90 participants and May 9th, 2007 in Farmington with 65 participants.

The Four Corners Air Quality Task Force coordinated a field trip to the Southern Ute Indian Tribe Air Quality Program headquarters, February 8, 2007, to meet with staff, learn more about their environmental programs and to view monitoring equipment.

The New Mexico Environment Department has actively participated in the EPA Community Action for a Renewed Environment (CARE) project in Northwest New Mexico since its kick-off in early 2006. NMED staff attended the Northwest New Mexico Council of Governments (COG) CARE project team consultation on April 3-4, 2007. The main purposes of the meeting were to assemble key staff from the EPA Region 6, NMED and COG to assess the CARE project progress and status to date, identify and discuss problems and challenges, discuss the transition from "Level 1" to "Level 2", discuss EPA, NMED and other resources that can be tapped by the project, and clarify strategy for moving forward. Outreach materials on VISTAS and the Four Corners Air Quality Task Force were distributed at the CARE meetings.

The New Mexico Environment Department participated and presented at the 4th annual Navajo Nation Environmental Protection Agency (NNEPA) Conference, "Challenges of Environmental Stewardship" held April 24-26, 2007 in Window Rock, Arizona. New Mexico's Climate Change Initiatives and Permit & Planning Issues Related to Four Corners Air Quality were the topics of the presentations by NMED. NMED staff also participated in the judging of a student debate held in conjunction with the conference.

On May 10, 2007 NMED staff attended a field trip to the Public Service Company of New Mexico's (PNM) San Juan Generating Station to witness the construction phase of environmental upgrades. In 2004, PNM agreed to several environmental upgrades to the San Juan Generating Station as part of a consent decree. NMED staff visited the plant and saw that construction of new baghouses had begun. The upgrade project will continue through 2010; however, the first upgrades will begin having an effect end of this year

NMED staff presented on New Mexico's climate change initiatives and served as a panelist for a discussion on "Greenhouse Gas Emissions: Problems, Perspectives, and Policies," at the Leadership New Mexico Environment & Natural Resource session in Farmington on May 18, 2007.

Public outreach in San Juan County is an ongoing process that includes the use of websites, public service announcements and educational outreach materials for children. Public outreach to date includes the distribution of the Tripper, Bear and the Air ozone activity books to local schools, museums, and national parks in San Juan County and the vicinity. *Air quality-related* posters were distributed at all Four Corners Air Quality Task Force meetings and at other public meetings and events in San Juan County. San Juan VISTAS fact sheets and agreement forms as well as fact sheets on the Four Corners Air Quality Task Force have been made available at all public meetings and outreach events.

In addition, the following NMED websites contain outreach and educational materials, updated as they become available, related to the Clean Air Action Plan, the Four Corners Air Quality Task Force, VISTAS and the final approval of the SIP revision:

- http://www.nmenv.state.nm.us/aqb/4C/index.html,
- http://www.nmenv.state.nm.us/aqb/projects/Ozone.html,
- http://www.nmenv.state.nm.us/aqb/ozonetf/index.html,
- http://www.nmenv.state.nm.us/aqb/kids/index.html, and
- http://www.nmenv.state.nm.us/aqb/projects/SJV/index.html

Outreach materials are also available at NMED's Farmington Field Office, located at 724 West Animas Street, Farmington, NM 87401.

Voluntary Program

The voluntary program for emissions controls, Voluntary Innovative Strategies for Today's Air Standards (VISTAS), recognizes companies and organizations for voluntarily reducing emissions of ozone precursors and greenhouse gases in northwestern New Mexico,

including San Juan County. To participate, companies each sign a voluntary agreement and then submit an implementation plan and annual reports to NMED. Participating companies are recognized for their reductions. Still in its initial stages, the program so far has two participating companies. The program website is available at: http://www.nmenv.state.nm.us/aqb/projects/SJV/index.html.

Funding for developing the VISTAS program has been acquired in the form of a grant. A strategic marketing campaign and plan was completed July 1, 2006.

VISTAS grant funds are now being used to develop outreach materials, including an incentive program for companies who participate in the program. The outreach materials will include a short video production about VISTAS. A VISTAS booklet, brochure, and presentation DVD will also be developed for outreach. A membership toolkit will be developed to help encourage more participation. This will strengthen the VISTAS program to create a more well-known and quantifiable program. Outreach materials are scheduled to be completed by Summer 2007.

Table 1, below, summarizes emission reductions accomplished by ConocoPhillips during the calendar year 2006.

Table 1: 2006 ConocoPhillips – San Juan Business Unit Emission Reductions	
Pollutant	Emission Reduction (tons)
NO_x	1,096.97
CO	278.56
VOC	308
CO2	28,288

Strategies implemented by ConocoPhillips during the 2006 year included the following: Compressor engine optimization; purchase and installation of screw compressors and new Cummins IC engines; insulation of separators and certain production tanks; plunger lift optimization; use of capstone turbines; and reduced trucking of produced fluids.

One new business member, Red River Compression, signed up to be a VISTAS partner in February 2007. The company's implementation plan focuses on going above and beyond regulations and permit requirements by using newly patented lean-burn small compressor engine technology in the San Juan County oil and gas field.

Related Projects

The Four Corners Air Quality Task Force is a multi-entity effort analyzing air quality issues in the Four Corners region. The Task Force will develop a broad list of options for improving air quality in the region. Membership includes community members, interest groups, local governments, industry, tribes, and state and federal agencies. The Task Force will work over a two-year period, making its final report available by December 2007. The Task Force website is located at http://www.nmenv.state.nm.us/aqb/4C/. Five work groups within the Task Force focus on issues related to oil and gas development, power plants, other air pollution

emission sources, cumulative effects, and air quality monitoring. Technical background information documents for Modeling; Monitoring; Emissions Inventories; Air Quality Effects; Legislative, Regulatory, and other initiatives in the Four Corners region were produced. Participation in the Task Force has increased to 100+ Members and 150+ Interested Parties. The main product of the Task Force, the draft report is currently being developed and is available for review online: http://www.nmenv.state.nm.us/aqb/4C/DraftTaskForceReport.html. The draft report is a compilation of mitigation option papers written so far by members of the Four Corners Air Quality Task Force. The agencies involved have not reviewed or adopted these options. The options will be considered following the completion of the Task Force's work. The draft Report will be available for an explicit review and comment period by the public during the three weeks between June 22 and July 13, 2007. This will be a web-based process that will allow anyone to review and comment on the Draft Task Force Report. All comments made in this process will be public, and will include the commenter's name and affiliation. The review process will be publicized in several of the local newspapers. For more information on this process, please see the 4CAQTF Public Review Webpage at http://www.nmenv.state.nm.us/aqb/4C/PublicReview.html.

The next Task Force meeting is scheduled for August 8, 2007 in Durango, Colorado.

The New Mexico Environment Department contracted ENVIRON to conduct an Ozone Precursor Emissions Inventory for San Juan and Rio Arriba Counties. The inventory was completed August 31, 2006 and is available online at http://www.nmenv.state.nm.us/aqb/projects/San_Juan_Ozone/NM_Area_Emissions_report.pdf.

A pilot passive ammonia monitoring project was initiated in collaboration with EPA Region 6 in the summer of 2006. The passive monitors are located at three sites in San Juan County. Samples are being collected and analyzed. The pilot monitoring project will continue for one year. Preliminary results were presented by Mark Sather, EPA Region 6, at the Four Corners Air Quality Task Force meeting in May 2007. A presentation with the results is available online at http://www.nmenv.state.nm.us/aqb/4C/Documents/2007-05-09/nh3o3farmington.ppt

A Four Corners air quality modeling project was initiated. A CAMx model will predict criteria pollutant (ozone and particle concentrations), visibility and sulfur and nitrogen deposition. A 2005 and 2018 base case and five mitigation options will be modeled. The modeling project will be completed in 2007.

Next Steps

- Continue design and development of San Juan VISTAS outreach and incentive materials
- Move forward using marketing plan as a road map to increase participation in San Juan VISTAS.
- Publicize San Juan VISTAS work through local media outlets.
- Implement new incentive program for VISTAS participants.
- Continue public outreach and coordination of the Four Corners Air Quality Task Force.
- Continue monitoring and reporting on ambient ozone concentration data.

- Strive to maintain ambient ozone levels below applicable National Ambient Air Quality Standard.
- Contract Four Corners CAMx modeling work. A 2005 and 2018 base case and 5 mitigation options will be modeled.
- Review/Comment on the Draft EIS for the Desert Rock Energy Project and attend the public hearings in July.

Assess Improvements in Air Quality

The 8-hour ozone design value in San Juan County was maintained below the National Ambient Air Quality Standard for ozone of 0.08 parts per million (ppm).

Ozone monitoring data for 2007 is only validated through the first quarter of 2007. For the first quarter in 2007, the fourth highest 8-hour ozone day averages occurred during March and are summarized in Table 2, below.

Table 2: San Juan County Ozone Monitoring Data, Fourth-highest Eight-Hour Averages for First Quarter 2007

Monitoring Location	Fourth-highest 8-hour average (ppm)
Substation	0.058
Bloomfield	0.049
Navajo Lake	0.057

Highest ozone concentrations are usually witnessed during the summer "ozone season" and it is too early to estimate 2007 design values.

The final 8-hr ozone design value for 2005 for San Juan County (San Juan Substation and Bloomfield monitors) was 0.072 ppm. The 2006 8-hr ozone design value for San Juan County Substation monitor was 0.071 ppm. The 2006 8-hr ozone design value for the San Juan County Bloomfield monitor was 0.069 ppm.

San Juan VISTAS implemented technology has led to some ozone precursor (CO, VOC and NO_x) emissions reductions. The most significant NOx emissions reductions (837.5 TPY) was achieved as a result of ConocoPhillips San Juan Business Unit purchasing and installing new screw compressors to replace existing reciprocating compressors; and voluntarily selecting new Cummins internal combustion engines with significantly lower emissions of NOx than typical rich burn engines within the same horsepower range. This process also led to the largest CO emissions reduction (226.7 tons/yr).

The most significant VOC reductions (308 TPY) were obtained by VISTAS participants through improved plunger lift optimization that resulted in reduced venting of natural gas. These reductions were achieved in 2005 by Burlington Resources and in 2006 by ConocoPhillips San Juan Business Unit.