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Staff

Colorado Department  
of Public Health  
and Environment

December 31, 2006

**MEMORANDUM**

**TO: Signatories to the Early Action Compact for Ozone for the Front Range Metropolitan Area**

**Regional Air Quality Council**

Jim Scherer, Chairman

**Air Quality Control Commission**

Robert E. Brady, Jr., Chairman

**Colorado Department of Public Health and Environment**

Dennis E. Ellis, Executive Director

**Colorado Department of Transportation**

Thomas Norton, Executive Director

**Denver Regional Council of Governments**

Nancy N. Sharpe, Chairman

**U.S. Environmental Protection Agency, Region 8**

Robert E. Roberts, Regional Administrator

**Elbert County, Board of County Commissioners**

Stephen F. Stutz, Chair

**Larimer County, Board of County Commissioners**

Kathay Rennels, Chair

**Morgan County, Board of County Commissioners**

Michael Harms, Chair

**Weld County, Board of County Commissioners**

Rob Masden, Chair

**IN RE: Ozone Early Action Compact/Ozone Action Plan Progress Report of December 31, 2006**

The enclosed report provides updates to the EPA regarding the Early Action Compact and Ozone Action Plan for the Colorado counties of Denver, Boulder, Adams, Arapahoe, Broomfield, Douglas, Jefferson, Larimer and Weld. Included among progress items are:

1. Regulatory and EAC Ozone Action Plan updates, as planned and developed since early 2006 and as discussed by EPA in the November 29, 2006 Federal Register Notice, *Final Extension Date for 8-Hour Ozone National Ambient Air Quality Standards for Early Action Compact Areas* (Final Rule), 71 Fed. Reg. 69022.
2. Increased reporting, enforcement and inspections, per the APCD Compliance Action Plan (June 2, 2006) for the oil & gas industry sector
3. Meetings held with stakeholders throughout 2006
4. Update regarding the Regional Air Quality Council's Voluntary Ozone Outreach and Education Program

Progress has been made in all areas: Additional inspections have been conducted at facilities of concern; significant additional compliance and enforcement actions have taken place/are being pursued; and a more stringent regulatory scheme to control VOC's was adopted into Regulation and into the federally enforceable Ozone Action Plan by the Colorado Air Quality Control Commission December 17, 2006. Continuing dialogue with industry, agencies and environmental groups has contributed to much of this progress. It is recognized that the APCD and industry must continue with all due diligence in these activities for continued deferment of nonattainment status, to preserve the Early Action Compact, and ultimately to achieve its remaining milestone—demonstration of attainment of the 8-Hour Ozone Standard.



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Regional Air Quality Council



Paul Tourangeau, Director  
Air Pollution Control Division

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Dick Long, EPA Region 8  
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**Ozone Early Action Compact  
Denver Metro Area  
December 31, 2006 Progress Report**

**Introduction**

In December 2002 state and local agencies in the Denver area entered into an Ozone Early Action Compact (EAC) with the Environmental Protection Agency (EPA). The Compact is a Memorandum of Agreement between the Regional Air Quality Council (RAQC), the Colorado Department of Public Health and Environment (CDPHE), the Air Quality Control Commission (AQCC), the Denver Regional Council of Governments (DRCOG), the Colorado Department of Transportation (CDOT), and EPA Region 8. The EAC was amended in 2004 with additional signatories for Elbert, Larimer, Morgan and Weld Counties, areas potentially affected by ozone nonattainment.

The Compact entails a commitment to develop and implement an Ozone Action Plan in return for deferring any potential non-attainment designation for the EPA's 8-hour ozone standard. The EAC outlines several planning milestones (including progress reports every 6 months) that must be met, culminating in attainment of the 8-hour standard by December 2007.

The June 30, 2004 Progress Report was prepared demonstrating that an Ozone Action Plan, emission control regulations, and supporting documentation had been completed and adopted by the State authority, the Colorado AQCC. The adopted plan and regulations were subsequently reviewed and approved by the Colorado State Legislature and the bill approving the plan and regulations was signed into law by the Governor of Colorado in May 2004.

The December 31, 2004 Progress Report addressed the disposition of comments received from the EPA in August 2004 regarding recommendations for revisions to emission control regulation, Air Quality Regulation No.7, to provide clarity and ensure approvability of the Ozone Action Plan, and a necessary change to the Ambient Air Quality Standards regulation to define the 8-hour ozone control area.

The June 30, 2005 Progress Report addressed progress towards implementation of Ozone Action Plan (OAP) control strategies, the Denver Metro area's voluntary response to the 8-hour ozone issue and planning activities in the North Front Range to ensure cooperation in terms of possible Conformity issues and coordination of voluntary control programs, if necessary.

The December 31, 2005 Progress Report addressed progress towards completion of milestones, the Denver Metro area's voluntary response in summer 2005 to the 8-hour ozone issue and planning activities for 2006 and the activities and report of the Multi-Jurisdictional I/M Transition Committee in the North Front Range. An April 19, 2006 revision clarified modeling assumptions related to Regulation No. 11.

The June 30, 2006 Progress Report follows up on the CDPHE Air Pollution Control Division's (APCD) efforts initiated in November 2005 to quantify projected flash emissions growth beyond that anticipated in the OAP, compliance with 2005 flash emissions reduction requirements and preparedness of the oil and gas industry for achieving required reductions in the 2006 ozone season. In addition, the report presented the results of legislation (HB 06 – 1302), which restructures the I/M program and allows for changes as long as the integrity of the OAP is preserved.

This December 31, 2006 Progress Report describes the efforts of the Air Pollution Control Division, the Air Quality Control Commission, the Regional Air Quality Council, the oil & gas industry, environmental interests and other stakeholders to preserve the EAC in the face of unanticipated growth in the oil & gas industry. In addition the progress report summarizes recent EPA action regarding deferral of the non-attainment designation for the Denver EAC area. This report also addresses the HB 1302 implementation plan for an increased high emitter identification program and efforts to revise the current I/M program.

### **Updates on Regulatory and Ozone Action Plan Activities Related to the EAC**

#### **Revisions to Regulation No. 7 and the Ozone Action Plan**

The APCD initiated a stakeholder process in April 2006 to address the need for a revision to Regulation No. 7 to preserve the EAC by maintaining the 91.3 TPD flash emissions cap in the Ozone Action Plan. The APCD developed a Revised Regulation No. 7 based on control of all tanks above a given threshold. In August 2006 the APCD requested a Public Hearing for Rulemaking. During the pre-hearing process the APCD developed an alternative proposal to revise Regulation No. 7 to achieve the 91.3 TPD cap in 2007 by requiring a system-wide control approach, and to increase operator inspection, record-keeping and reporting requirements.

The AQCC initially opened the Hearing on Saturday, November 18, 2006, and then continued the hearing until Sunday, December 17, 2006. A full written record was presented to the AQCC addressing all proposed alternatives. The AQCC heard testimony, cross examination and rebuttal on the APCD's proposed alternative revision to Regulation No. 7, including the system wide control approach on condensate flash tank emissions requiring 73.3% reduction in 2007 and 78% reduction in 2012, as well as increased operator inspection, record-keeping and reporting requirements. During deliberation, the AQCC decided to increase the required control in 2007 from the proposed 73.3% to 75%, and maintained the required 91.3 TPD cap for controlled flash tank emissions in 2007.

Revisions to the Ozone Action Plan to include the revised Regulation No. 7 were approved by the AQCC in the same motion during the hearing noted above. The schedule for the approval process for the revised Ozone Action Plan and Regulations after the AQCC approval is as follows:

- Submission to Colorado State Legislature for review January 15, 2006 seeking approval on or before February 15, 2006, and
- Submission of the final bill approving the revised plan and regulation to the Governor of Colorado for signature and transmittal to EPA as soon as possible thereafter.

### **Recent EPA Action on the Denver 8-Hour EAC Area Deferral Status**

On November 29, 2006, the EPA published the Final Extension of the Deferred Effective Date for 8-Hour Ozone NAAQS for Early Action Compact Areas (effective December 29, 2006; 71 Fed. Reg. 69022). In this action the deferred effective date of the non-attainment designation for Denver EAC area was extended to July 1, 2007.

The EPA extended deferral only to July 1, 2007, as it wishes to see enhanced control of VOC emissions in the EAC area, prior to extending deferment to April 15 of 2008. As noted above, enhanced control of VOC emissions from oil & gas exploration and production in the EAC area is necessary to maintain the required 91.3 TPD cap for controlled flash tank emissions in 2007.

In FR 69022, the EPA indicated it was encouraged by the AQCC's rulemaking process to make VOC controls more stringent and meet the cap for flash tank emissions via revisions to Regulation No. 7. Adoption of regulatory revisions by the AQCC, which took place December 17, 2006, continues the path toward extended deferment. Additional state action culminating in submittal of an appropriately amended Ozone Action Plan package to EPA will make it highly likely that the EPA will extend deferment in the future.

The EPA anticipates undertaking further rulemaking action to determine whether to extend the deferred non-attainment designation beyond July 1, 2007. A likely schedule for this EPA rulemaking is as follows:

- March 1, 2007: EPA proposes whether to extend the final deferred effective date to April 15, 2008 based on the current actions taken by the Colorado State Legislature. Proposal would open 30-day comment period.
- April 1, 2007: the 30-day public comment period closes.
- May 1, 2007: EPA prepares final rule and starts internal concurrence process.
- On or about May 25, 2007: Signature on the final rule by the Administrator.
- June 1, 2007: Publication of in the Federal Register of the final rule.

**Stakeholder meetings and other actions and activities that have occurred since the June 30, 2006 report.**

The Air Quality Control Commission discussed or received updates and presentations on EAC issues and ultimately deliberated on those issues during Public Hearings for Rulemaking related to revisions in the I/M program (Regulation No. 11) and/or oil & gas compliance and flash tank emissions growth (Regulation No. 7) as follows:

- August 17, 2006 – the APCD requested a Public Hearing for Rulemaking to revise Regulation No. 7 to address the unanticipated growth in condensate flash tank emissions. Hearing was set for November 16/17, 2006.
- September 14, 2006 – at the direction of the AQCC the APCD requested a Public Hearing for Rulemaking Revisions to revise Regulation No. 11 to consider extension of the current model year exemptions from 4 to 5, 6, 7 or 8 years. Hearing date was set for December 14, 2006.
- September 14, 2006 – the APCD requested a Public Hearing to address revisions to the EAC Ozone Action Plan to accommodate the revisions to Regulations No. 7 & 11 once approved. Hearing date was set for December 14, 2006.
- September 28, 2006 – a status conference was held for parties to the rulemaking process for revisions to Regulation No. 7.
- October 18, 2006 - a pre-hearing conference was held for parties to the rulemaking process for revisions to Regulation No. 7.
- October 24, 2006 - a status conference was held for parties to the rulemaking process for revisions to Regulation No. 11 and revisions Regulation Nos. 7 & 11 as related to necessary changes in the EAC Ozone Action Plan document.
- October 27, 2006 - an additional pre-hearing conference was held for parties to the rulemaking process for revisions to Regulation No. 7.
- November 14, 2006 - a pre-hearing conference was held for parties to the rulemaking process for revisions to Regulation No. 11, and revisions Regulation Nos. 7 & 11 as related to necessary changes in the EAC Ozone Action Plan document.
- November 18, 2006 – due to the time needed to discuss other issues, including consideration of state-wide controls on condensate flash tank emissions, the Public Hearing to revise Regulation No. 7 related to controls on condensate tanks in the EAC area was rescheduled to a weekend hearing date of Saturday, November 18<sup>th</sup>. During the pre-hearing process the Division made an alternative proposal, which included the Division revising its regulatory approach from a threshold to a system wide requirement for 73.3% control in 2007 and 78% control in 2012. Although the parties were in relative concert on the issues, the AQCC was not able to be sufficiently briefed with hearing documents prior to the

November 18th meeting. Due to time constraints on the hearing date, the hearing was continued to Sunday, December 17, 2006.

- November 20, 2006 – an additional pre-hearing conference was held for parties to the rulemaking process for revisions to Regulation No. 7.
- December 14, 2006 – The AQCC received presentations on, discussed and approved the APCD implementation plan for HB 1302, which will enhance the clean screen program as an adjunct to the I/M program and also provide a basis for the introduction and establishment of a high emitter identification program. At the same meeting the proposed revision to Regulation No. 11 to increase model year exemptions from 4 to 5, 6, 7 or 8 was tabled, because it was recognized that increased model year exemptions ran counter to the HB 1302 plan.
- December 17, 2006 – the AQCC heard testimony, cross examination and rebuttal on the APCD's proposed revision to Regulation No. 7 which reflected a system wide control approach on condensate flash tank emissions requiring 73.3% reduction in 2007 and 78% reduction in 2012, as well as increased operator inspection, record-keeping and reporting requirements. During deliberation, the AQCC decided to increase the required control in 2007 from the proposed 73.3% to 75%, and maintained the required 91.3 TPD controlled flash tank emissions in 2007.

The Regional Air Quality Council received presentations and discussed the proposed revision to Regulation No. 7 to increase controls on the oil & gas industry, implementation of HB 1302, and proposed revisions to Regulation No. 11 to increase model year exemptions as follows:

- September 7, 2006 - the APCD presented information on the proposed revisions to Regulation No. 7 which included the threshold approach requiring controls on all tanks with uncontrolled emissions of 11 tpy or greater in 2007 and 6 tpy in 2012. The RAQC board directed staff to work towards preservation of the EAC, maintenance of the 91.3 TPD flash emissions cap, and retention of the system-wide control approach which provides flexibility of operation.
- November 9, 2006 – RAQC staff presented an update on the pre-hearing process to date on the proposed revision to Regulation No. 7. RAQC board reiterated their support for the EAC, the 91.3 TPD emissions cap, and the system wide control approach. In addition, presentations were made regarding the implementation of the HB 1302 plan and the proposed revisions to Regulation No. 11 to increase model year exemptions.
- December 7, 2006 – presentations were made on the proposed revisions to Regulations No. 7 & 11 and the implementation plan for HB 1302, all scheduled for AQCC action in December.

The Air Pollution Control Division held stakeholder meetings to present/discuss issues related to revisions to Regulation No. 7 on July 27, 2006.

The APCD/AQCC held stakeholder meetings to present/discuss issues related to the development of the HB 1302 implementation plan on July 31, 2007.

The APCD made a presentation on EAC issues, including the proposed revisions to Regulation No. 7, to the Northern Front Range Transportation and Air Quality Planning Council on September 7, 2006.

The APCD held a stakeholder meeting to present their plan for the HB1302 implementation plan and seek comment on October 17, 2006.

The APCD and industry representatives met with EPA to discuss issues related to the proposed revisions to Regulation No. 7, including, rule effectiveness and increased record keeping and inspections on November 2, 2006

The Denver Regional Council of Governments received briefings from staff and took positions on recent proposed rulemaking related to the EAC at their regular meetings as follows:

- October 4, 2006 - Metro Vision Issues Committee - Motion to Recommend Board Approval of Comments to Air Quality Control Commission Expressing DRCOG Positions on Amendments to Regulations 7 and 11.
- October 18, 2006 - DRCOG Board of Directors Motion to approve comments to the Air Quality Control Commission expressing DRCOG positions on amendments to Regulations 7 and 11

#### **Updates or revisions to modeling, technical analysis or planning activities.**

##### **Rule Effectiveness**

In the original EAC OAP in March 2004, a default 80% RE was used. Since then EPA has come out with guidance that assesses RE on the basis of various criteria and essentially places a given stationary source or group of sources in one of 4 groups of ranges of rule effectiveness.

Analyses by the APCD, RAQC, industry and EPA determined that the oil & gas condensate flash tank controls adopted December 17, 2006, and based on current monitoring of operations and proposed increases in operator inspections, reporting and recordkeeping, should be in RE Group 3 which provides for a range of 81% to 86%.

## **Future Growth in Condensate Flash Tank Emissions**

Initially in summer 2006, the APCD developed straight-line emissions growth trend to 2007 and 2012 based on 2002 through 2004 oil and gas APEN reports and required Regulation No. 7 reporting of operations for 2005 and 2006. Industry countered with exhibits during the pre-hearing process that demonstrated a slowing of growth in 2007 and beyond, as would happen with a diminishing resource and consideration of economics related to sales versus the costs of production. The APCD felt very strongly that the 2007 estimate based on data through mid- to late 2006 was compelling, and it was agreed to retain the initial APCD uncontrolled emissions estimate of 233 tpd for 2007. APCD and industry agreed to use a reasonable estimate of the 2012 future anticipated uncontrolled emissions of 286 TPD.

## **Progress under the APCD Compliance Action Plan (June 2, 2006)**

The APCD Stationary Source Program Oil & Gas Team (OGT) has worked with the oil & gas industry in terms of reporting, recordkeeping, inspections and enforcement since the team was formed in May 2006. The Oil & Gas Team initially developed a report, Action Plan to Address Compliance Issues and Underestimation of VOC Emissions from the Oil & Gas Industry for the 8-hour Ozone Control Area, June 2, 2006, which was submitted to the EPA. The Action Plan described the Division's efforts to be employed to ensure swift conformance to the Ozone Action Plan and Regulation No. 7 requirements, and development of additional VOC controls to offset the underestimated growth in the flash emissions.

## **Growth Estimates**

Information gathered in May, July and November 2006 from the 29 companies that were subject to the regulation in 2005 and 2006 was used to develop the uncontrolled emissions from EAC area condensate tanks for 2005 (195 TD) and 2006 (210 TPD), which was useful in establishing the estimated uncontrolled emissions for 2007 (233 tpd), the target year in the OMP.

## **Compliance Reporting**

The reporting confirmed that the overall system-wide (across all companies on a day-by-day analysis) daily 2006 ozone season required emissions reduction percentage (47.5%) was met (52.5%) as a whole by the subject companies, although there were periodically daily excursions for particular companies identified. Also, it does not appear that the non-ozone season required 38% reduction was achieved in January through April 2006. Approximately, a 30% reduction was achieved, however, as the subject companies installed controls on

the ever increasing number of condensate tanks (as noted below growing from over 4000 tanks in 2005 to over 5000 tanks in 2006).

### **Enforcement**

Since June 2, 2006 there have been 22 active enforcement actions for either failure to respond to the Division Section 111 request, or failure to report production and meet the Regulation No. 7 reduction requirement. The status of these enforcement actions is as follows:

- 14 have been resolved via enforceable consent orders or settlement agreements
- 4 are pending determination for exemption
- 3 have been determined exempt, and
- 1 is pending settlement and working swiftly towards compliance with the Regulation No. 7 requirements

Since June 2, 2006 there have been five enforcement actions for daily violations in 2005 or 2006. The status of these enforcement actions is as follows:

- 1 is pending determination of exemption
- 1 is pending settlement with agreement, and
- 3 are pending negotiation for settlement.

### **Inspections**

Under a special contract with the Weld County Health Department in summer 2006, the APCD commissioned random inspections of flare devices in Weld County. A total of 214 flares at roughly 100 tank batteries were inspected. Preliminary review of the inspection data indicates that for certain companies there may be some amount of under-reporting of flare downtime in Regulation Number 7 compliance submittals. In addition, there appears to be less than optimal compliance with requirements to operate a control device in a manner that allows one to determine proper operation of the device via simple visual observation or other convenient means. The inspection data continue to be reviewed for potential match-up with spreadsheet information and other quality assurance efforts by the APCD. It is anticipated that any resulting enforcement actions will be initiated in the beginning of January 2007 for companies found in violation. Some of these particular compliance difficulties identified by the APCD in 2006 served as the basis for strengthening the administrative and operational provisions of Regulation No. 7, as approved by the AQCC on December 17, 2006.

## **Progress towards preservation of the EAC Agreement**

### **Technology based controls**

#### **Condensate Tank Emissions Controls**

The condensate tank emissions are commonly referred to as flash emissions, and are VOCs emitted during the condensate collection, storage, processing and handling at oil and gas wells. In 2002 there were over 3,000 condensate tanks operating in the nine-county region, primarily in Weld County. In 2005 there were over 4,000 condensate tanks operating in the region noted above. In 2006 there are over 5,000 condensate tanks in the region.

This unanticipated and unprecedented growth in the number of tanks and associated emissions required a revision to Regulation No. 7 to increase controls on the condensate tanks in order to preserve the VOC emissions level cap (91.3 TPD) which was used in the initial photochemical modeling for the EAC Ozone Action Plan.

As noted earlier in this document, additional control requirements prior to the 2007 season have been adopted by the AQCC through revision to Regulation No. 7 to achieve the 91.3 TPD VOC level in 2007.

#### **Revisions to Regulation No. 11 – Automobile Inspection and Readjustment Program**

During its 2006 session, the Colorado General Assembly enacted HB 1302, Development of a Clean Screen/High Emitter program.

This bill requires the CDPHE and the automobile emissions testing Contractor to develop an implementation plan by December 31, 2006, to be approved by the AQCC that provides for “The substantially increased use of remote sensing devices for the identification of vehicles whose emissions comply with the air quality criteria... and that exceed the air quality criteria as determined by the commission.”

The APCD and the Contractor developed a proposed HB 1302 Implementation Plan via a stakeholder process, and presented the Plan to the AQCC on December 14, 2006. The AQCC approved the required Implementation Plan during a Public Hearing on December 14, 2006 as noted above. On the same date the AQCC tabled further discussion of extension of model year exemptions.

The HB 1302 Implementation Plan will not impact the EAC OAP since the level of increased clean screen activity will not exceed the 50% fleet coverage assumed in the OAP.

The bill terminates the current traditional enhanced vehicle emissions testing program effective December 31, 2010 “if the commission finds that this action does not violate federal air quality standards”.

## **Program-based measures**

### **Ozone Outreach and Education Program - Let's Take Care of Our Summer Air**

The Regional Air Quality Council (RAQC) recently completed the eighth year of its Voluntary Ozone Reduction Program. The 2006 program built upon previous years with the implementation of a large-scale awareness, education, and outreach program entitled “Let's Take Care of Our Summer Air.” This comprehensive program is made possible with the help of numerous stakeholders from the Front Range region, including local, state, and federal governments, businesses, transportation organizations, non-profits, and citizens. Its goal is to increase awareness and understanding of ozone pollution and voluntary activities to help reduce ozone in the critical summer months. The 2005 enhanced effort was quite successful, raising general awareness of ozone pollution by 12 percent and the RAQC and its partners worked this year to further increase awareness and understanding of the issues.

The program encompassed large-scale outreach, advertising, and education components in order to raise public awareness and education about ozone issues and increase the number of people undertaking voluntary ozone reduction steps. In addition, it greatly assisted with the promotion of the RAQC's high-emitter outreach project, the Repair Your Air Campaign.

The three main components of the program – media advertising and outreach, citizen outreach, and local government outreach – are designed to complement the efforts of each component of the program to maximize effectiveness and are detailed below.

### **Media Outreach and Advertising**

The media components of the 2006 program were the same as the 2005 program – utilizing television, radio, and outdoor communication channels. The RAQC aired the same commercials produced last year – one focusing on vehicles and the other on lawn equipment. The commercials aired over 800 times throughout a six week period this summer. The radio spots were 10- and 15-second spots that were read as part of the traffic reports and 60-second spots called

“Environminutes” that were read by 97.3 KBCO’s on-air personality. They were aired over 1,300 times throughout a seven week period this summer. The same five billboards were used again this year and rotated at seven different locations through the region from June through August. In addition to the paid media campaign, Suncor Energy donated space for 250 signs located on top of fuel pumps located throughout the region. RTD also donated space for 50 signs located on the back of buses traveling throughout the region. This combination of paid and bonus advertising reached a broad audience and engaged citizens in individuals actions they can adopt that will make a collective impact.

## **Citizen Outreach**

### Events

Throughout the spring and summer, RAQC and its partners hosted two community events to further educate citizens about ozone pollution. The first included 14 Car Care Fairs at which over 300 motorists throughout the region learned about the importance of vehicle maintenance through an interactive visual vehicle inspection performed by NAPA technicians. The second event was the Mow Down Pollution lawn mower exchange, which provided discounts on Neuton cordless electric lawn mowers to those who permanently retired a piece of gasoline-powered lawn equipment. The RAQC also participated in other events, such as a Federal Highway Administration Transportation Fair, Bike to Work Day, and RideSmart Thursdays to promote alternatives to driving.

### Web site

The RAQC enhanced its ozone-dedicated web site at OzoneAware.org to keep citizens engaged in taking action and making them aware of upcoming programs and events. The web site has both English and Spanish language versions. RAQC worked with its partners to increase unique visitors to the web site by over 50 percent from last year.

As a new and fun way to encourage behavior change, the RAQC and its partners created the “Summer Chill” program. Designed as a pledge system, citizens throughout the Front Range region were encouraged to take a pledge to chill this summer and avoid the activities that contribute to ozone pollution. Citizens had the option of mailing in a pledge or registering online at the ozone web site. Several area businesses donated coupons and prizes and periodic drawings were held to award pledge participants. As a complement to the pledge program, the “Summer Chill” campaign established “Chill Zones” at shops, restaurants, and other places where people were able to get out of the heat and chill, reducing ozone causing activities. At the end of the ozone season over 700 people made a pledge to chill. The RAQC hopes to more than double that number for 2007.

### Education

New this year the RAQC and the Greater Metro Telecommunications Consortium (GMTC) worked to write, develop, and produce a 30 minute educational television program on ozone. The project was funded through a Community-Based Clean Air Grant awarded by the Colorado Department of Public Health and Environment as well as contributions by GMTC – a consortium of over 30 municipal cable access stations. The program provides a unique opportunity to deeply explore and explain the complexities of ozone formation and its health impacts. The program aired on all municipal cable access stations on June 14 and was replayed throughout the summer. In addition, the program aired as part of Comcast's Metro Beat TV series July through September and is available to Comcast subscribers on-demand.

For the second year, RAQC worked with Envirotest Systems, Corp. (Air Care Colorado) to host a high school radio scholarship program to educated teenagers about important air quality issues. The contest asked students to write, record, and produce a 30-second public service announcement on air quality, transportation, and public health. The contest was open to all high school students throughout the state. Two student teams were chosen for their creative efforts and were awarded college scholarships. In addition, each corresponding school received an environmental award. The students were able to record their spots at a professional studio at KBCO's offices. The finished spots aired on KBCO several times a day for six weeks.

### **Local Government Outreach**

Local governments continue to be an integral part of the RAQC's ozone reduction efforts. For the 2006 program, the RAQC continued implementation of two unique programs developed last year. The first is a fleet gas cap testing program to identify and replace faulty and missing gas caps on gasoline-powered fleet vehicles. A total of five local governments participated, including the Cities of Englewood and Golden, the Counties of Boulder and Douglas, and the Boulder County Sheriff's Office. The second program is a sub-grant program to encourage and increase ozone outreach and education efforts by providing small grants to a few select governments that developed creative outreach proposals. Small grants in the amount of \$2,500 were awarded to the Cities of Arvada and Aurora, Town of Castle Rock, and the Greater Metro Telecommunications Consortium. Each implemented ozone outreach and education projects over the summer ranging from a lawn mower exchange to a gas can exchange and general public outreach.

Next year will mark the third and final year of the Congestion Mitigation / Air Quality grant, which funded a large portion of these enhanced education efforts. At the end of the 2007 summer ozone season, another follow-up survey will be conducted to measure the campaign's effectiveness in raising awareness and changing behavior.