

2006 REPORT

“Let’s Take Care of our Summer Air”
Ozone Education and Outreach Program

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1445 Market St., Suite 260
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(303) 629-5450
www.raqc.org



LET’S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

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2006 OZONE REPORT

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See “Overview” section for more detailed funding information.

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- American Lung Association of Colorado
- Colorado Department of Public Health and Environment, Air Pollution Control Division
- Colorado Department of Transportation
- Colorado Select NAPA AutoCare Group
- Denver Regional Council of Governments
- Envirotest Systems, Corp. (Air Care Colorado)
- Federal Highway Administration
- JohnstonWells Public Relations
- Launch Advertising
- Local governments throughout the Denver region, in specific:
 - Arapahoe County
 - City of Arvada

- City of Aurora
- Boulder County
- Boulder County Sheriff’s Office
- Town of Castle Rock
- City and County of Denver
- Douglas County
- City of Englewood
- City of Golden
- Greater Metro Telecommunications Consortium – 33 metro-area local governments working jointly on issues related to telecommunications

- Media Visions, Inc.
- National Jewish Medical and Research Center
- Neuton Lawn Mower Company
- Regional Transportation District
- Strategic Environmental Project Pipeline (StEPP) Foundation
- Suncor Energy (U.S.A.) Inc.

The RAQC would also like to thank the following organizations for their involvement in the 2006 “Let’s Take Care of our Summer Air” ozone education and outreach program.

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- Adams 12 Five Star Schools
- Adams County School District 50
- Aurora Public Schools
- Big Horn Waste Services, Inc.
- Bond Video Arts
- Boulder Valley School District
- CBS Outdoor
- Clear Channel
- Colorado Community Papers
- Comcast Spotlight
- Dave Wruck

- Denver Boulder Couriers
- Denver Newspaper Agency
- Denver Public Schools
- Donna Baldwin Talent
- Elizabeth and Tessa Daly, AirWaves winners
- Evergreen Newspapers
- Franciso Miraval, News and Services
- Gloria Ruiz, AirWaves winner
- GSP Marketing
- INVESCO Field @ Mile High
- Jeffco Public Schools
- KBCO 97.3 FM
- KCNC
- KDVR
- Kear/Stevens Creative
- KMGH
- KUSA
- KWGN
- Marcus Wilson, AirWaves winner
- Musaid Abubeker, AirWaves winner
- Nacho Average Voice
- Nancy's Catering
- Niesen Insurance
- NAPA Auto Parts (Genuine Parts Company)
- Premiere Traffic Network
- Project Vision 21, LLC
- Reel Creative Productions
- Skyline High School
- Stadium Management Company, LLC
- The New America School and Tim Mullins
- Unique Litho
- United Site Services, Inc.

OVERVIEW

The Regional Air Quality Council (RAQC) has concluded the eighth year of its Voluntary Ozone Reduction Program. The 2006 program built upon previous years with the continued implementation of

an enhanced awareness, education, and outreach program entitled "Let's Take Care of our Summer Air."

This comprehensive program was made possible with the help of numerous stakeholders from the Front Range region, including local, state, and federal governments, businesses, transportation organizations, nonprofits, and citizens. Its goal was to increase awareness and understanding of ozone pollution and voluntary activities to help reduce it throughout the region. Ground-level ozone pollution is a summertime pollutant that occurs when volatile organic compounds (VOCs) and nitrogen oxides (NO_x) react in the presence of sunlight. These pollutants come from everyday items such as local industry, gasoline-powered vehicles and lawn equipment, and household paints, stains, and solvents.

Ozone pollution can cause breathing problems and respiratory infections in the elderly, young, and those with pre-existing ailments. Even healthy people who exercise or work outdoors can experience breathing problems when exposed to elevated ozone levels.

During the 2006 summer ozone season, the Front Range region maintained compliance with the new, stricter 8-hour standard set by the U.S. Environmental Protection Agency (EPA) despite several days of recording-breaking temperatures (see "Standards and Status" section for more information).

It is imperative that the Denver-metropolitan area and Front Range region maintain efforts to reduce ozone pollution to improve air quality and public health. In addition, it is important to ensure ozone

levels are well below the standard for years to come to reduce the amount of mandatory control measures that may have to be introduced in order to meet federal requirements (see the “Regulatory Plan” section for more information).

The 2006 Voluntary Ozone Reduction Program, named “Let’s Take Care of our Summer Air,” expanded on previous efforts to include a large-scale public awareness campaign, aimed to reach as many people as possible to increase awareness and understanding about ground-level ozone pollution. The program consisted of the following activities:

- A continuation of the Ozone Action Alert Program, designed to warn people in advance of the potential for elevated ozone levels and to encourage changes in ozone-forming activities;
- The implementation of a large-scale information, outreach, and education campaign that focused on simple actions people can do to reduce ground-level ozone;
- The utilization of television, radio, outdoor, web, and print advertising to educate citizens on simple tips to reduce ozone pollution;
- The development of a 30-minute educational television program on ozone pollution, which aired on government access channels, Comcast’s Metro Beat TV series, and at emissions testing centers;
- The development of a behavior-change campaign, “Summer Chill,” in which citizens were encouraged to take a pledge to avoid activities which contribute to ozone pollution;
- The implementation of the Car Care Fairs for Cleaner Air – a partnership with Colorado Select NAPA AutoCare Centers and metro-area school

districts to host vehicle maintenance clinics around the metro area;

- The implementation of a lawnmower exchange event, in partnership with Neuton Lawn Mower Company;
- A continuation of the gas cap testing and replacement program, focusing on local government fleet vehicles;
- The implementation of a local government sub-grant program to assist communication professionals with raising awareness of ozone pollution;
- An expansion of the ozone-dedicated web site, OzoneAware.org, with information for local governments, citizens, businesses, and media;
- A continuation of the Clean Air Crew, a youth group that attended a number of community events throughout the region to raise awareness of ozone and encourage citizens to take a pledge to “chill” on hot summer days;
- A continuation of the AirWaves High School Radio Scholarship program to promote vehicle maintenance as a means to reduce ozone pollution, in partnership with Envirotech Systems, Corp.;
- A continuation of outreach for the “Repair Your Air” Campaign, which identified high-emitting vehicles using remote sensing technology and offered motorists up to \$500 in emissions-related repairs; and
- Participation in additional metro-area events such as Bike to Work Day and RideSmart *Thursdays*.

The 2006 program would not have been possible without the RAQC’s financial partners, all of which contributed greatly to the campaign’s efforts.

- Federal Highway Administration (FHWA), Colorado Department of Transportation, and Denver Regional Council of Governments (DRCOG) – Congestion Mitigation/Air Quality (CM/AQ) grant
- Envirotest Systems, Corp. (Air Care Colorado) – private contribution to develop the AirWaves High School Radio Scholarship Program and to assist with components of the Car Care Fairs
- Colorado Department of Public Health and Environment (CDPHE) – Community-Based Clean Air Grant
- Strategic Environmental Project Pipeline Foundation (StEPP) – Supplemental Environmental Project grant

Additional support was provided by American Lung Association of Colorado, National Jewish Medical and Research Center, and local governments throughout the metropolitan-Denver region.

Summary of Major Funding Sources

Source	Amount
CM/AQ	\$531,500
Envirotest	\$33,000
Community-Based Clean Air Grant	\$25,000
StEPP Foundation	\$18,500
TOTAL	\$608,000

STANDARDS AND STATUS

8-Hour Ozone Standard

After a several-year court battle, EPA promulgated nonattainment designations for the new, stricter 8-hour ozone standard by April 15, 2004.

In 1997, EPA established a more stringent 8-hour standard for ozone based on new studies showing increased health effects.

The newer 8-hour ozone standard limits the allowable level of ozone to 0.08 parts per million (ppm) or 80 parts per billion (ppb) averaged over eight hours. A violation of the 8-hour standard occurs when the three-year average of the 4th maximum concentration at any given monitor reaches or exceeds 0.085 ppm or 85 ppb.

The metro area and Front Range region are currently in compliance. It is still important that the RAQC and its partners continue efforts to ensure the region meets the new standard by 2007, a date set by the region's Early Action Compact for Ozone (see the "Regulatory Plan" section for more information).

1-Hour Ozone Standard

EPA approved the Denver Region's 1-Hour Ozone Redesignation Request and Maintenance plan in the Federal Register on September 11, 2001 and the attainment redesignation became effective on October 11, 2001.

The maintenance plan details strategies to keep the region in attainment of National Ambient Air Quality Standards (NAAQS) for ozone and also requests that the EPA redesignate the Denver-metropolitan area to attainment status for ozone.

The federal 1-hour ozone standard is 0.12 ppm or 120 ppb and a violation occurs when the three-year average of exceedances is greater than one per year. The region has not violated the 1-hour standard since 1988.

REGULATORY PLAN

State, regional, and local agencies in the Denver-

metropolitan area entered into a voluntary agreement with EPA in December 2002 that outlines a process for achieving attainment with EPA's new, stricter 8-hour ozone standard in an expeditious manner.

Called an Early Action Compact for Ozone (EAC), the agreement sets forth a schedule for the development of technical information and the adoption and implementation of necessary control measures into the state implementation plan (SIP) in order to comply with the 8-hour standard by December 31, 2007 and maintain the standard beyond that date.

In exchange for implementing strategies earlier than required by the traditional nonattainment process, EPA agreed to defer a potential nonattainment designation. On April 15, 2004, EPA designated the seven-county, metro-Denver region, in addition to portions of Larimer and Weld Counties, as a deferred nonattainment area for the new 8-hour standard.

The State submitted the plan to the federal government in December 2004. In August 2005, the EPA officially approved the EAC which was the result of a three-year collaborative effort by federal, state, regional, and local agencies to address the issue of ozone pollution in the Denver area. The region fully implemented the strategies outlined in the EAC by the end of 2005. The Ozone Action Plan can be obtained through the RAQC's web site at www.raqc.org.

While the EAC outlines a variety of mandatory strategies, it does not formally include a voluntary outreach and education component. However, the RAQC's outreach efforts are a vital component of

the overall strategy to raise awareness and understanding about ozone pollution.

State regulators currently are in the process of reviewing options to achieve greater emissions reductions from the oil and gas industry. The EAC included an aggressive plan to cut emissions through 2007 and beyond, however it was determined that emissions for the 2006 summer were higher than anticipated. Further reductions are needed in this growing industry in order to achieve the reductions set forth in the EAC.

NUMBERS

Despite the fact that there were over 50 days during the 2006 summer ozone season with temperatures above 90 degrees, the Denver-metropolitan area and Front Range region maintained compliance with the ozone standard. The area did not violate the new, stricter 8-hour standard for ozone set by EPA due in large part to the efforts of industry, local governments, businesses and an enhanced education and awareness effort aimed at curbing ground-level ozone pollution through the education of citizens.

While the region will maintain compliance for another year, the risk of violating the standard over the next few years is still a possibility. Ongoing ozone mitigation efforts will continue to be critical.

The basis for the federal 8-hour ozone standard is the 4th maximum concentration at any given monitor averaged over an 8-hour time period at each monitor. The EPA calculates the standard by averaging the 4th maximum concentration over three years. In 2006, the Fort Collins West monitor recorded the highest value of the season at 97 ppb, followed by the Welch monitor in Adams County,

which recorded 96 ppb. The Rocky Flats and National Renewable Energy Laboratory (NREL) monitors also recorded high values, 94 ppb at each on June 19 and July 29, respectively.

There were a total of nine days that area monitors recorded values at or above 85 ppb during the 2006 season and 10 additional days with values above 80 ppb. The majority of the exceedances occurred in July when the average temperature was 91 degrees. When combined with the two previous years (2004 and 2005), the 4th maximum average at Chatfield is 81 ppb and Rocky Flats is 80 ppb. All other monitors maintained averages well below the 85 ppb limit.

Although the region remained within the federal guidelines for the 8-hour standard, it will remain imperative that the area maintain lowered ozone levels over the next several years to ensure attainment with the standard in future years.

Additional ozone monitoring data for the 2006 summer ozone season, as well as previous seasons, is contained in tables in the Appendices section of this report.

VOLUNTARY PLAN

During the RAQC's planning process to address ozone in the Denver region several years ago it became clear that there was a need for the development of a large-scale, comprehensive ozone outreach and education effort that utilized a multi-media approach in order to reach out to a diverse audience. In 2005, the RAQC was fortunate to receive numerous grants and obtain assistance from other significant financial partners and was able to greatly expand its plans for 2005 through 2007.

The RAQC worked with the professional contractors again for the second year of the campaign to build on the momentum started with the large-scale outreach and education effort started the previous year. With the assistance of the Ozone Outreach, Information, and Education Advisory Committee (Advisory Committee), the RAQC contracted with JohnstonWells Public Relations and Launch Advertising to assist with advertising and public relations activities. The two contractors worked closely with each other, the RAQC Board and staff, and the Advisory Committee to continue building the comprehensive three-year campaign.

The multi-partner effort was a diverse campaign that successfully educated and raised awareness of ground-level ozone pollution. The specific components of the campaign are discussed in more detail below (see the "Components" section for more information.)

Ozone Outreach, Information, and Education Advisory Committee

The Advisory Committee was established last year to serve as a sounding board and to guide the RAQC in its enhanced ozone outreach efforts. A number of public information, communication, marketing, and outreach specialists from prominent organizations in the Denver-metropolitan area participated in the decision-making group.

COMPONENTS

The 2006 "Let's Take Care of our Summer Air" education and outreach program included a myriad of components designed to reach out to citizens, local governments, nonprofits, businesses, and media. In addition, it included a multi-media paid advertising campaign covering television, outdoor, radio, print, and online components in order to

maximize visibility. These various components, which are described in detail below, worked together to raise awareness throughout the Front Range region about this important issue. The major components of the campaign were simultaneously launched June 1 and continued through August 31 to coincide with the start and the end of the summer ozone season.

1. Ozone Action Alerts

One of the longest standing programs of the RAQC's summertime efforts include Ozone Action Alerts, designed to warn citizens of the potential for elevated ozone levels and to encourage behavior change. The technical services staff of the Air Pollution Control Division (APCD) at CDPHE developed a system over eight years ago to forecast imminent meteorological conditions that support the development of ozone concentrations at or above 75 ppb, which are reported on an as-needed basis.

APCD staff meteorologists used national and local weather data and an array of national predictive models to make the advisory calls, which take effect at 4:00 p.m. The advisories remain in effect for the following 24-hour period.

Using the APCD's advisory calls, the RAQC faxed and e-mailed ozone action alerts to the media, local governments, businesses, and citizens when meteorological conditions were expected to increase ozone levels. The alerts were also displayed on Colorado Department of Transportation (CDOT) highway message boards throughout the metro area. All local television stations made an effort to broadcast alerts as well as mention the alerts during various morning and evening weather broadcasts.

In an attempt to make alerts visible for local government employees and businesses, two alert posters were posted to OzoneAware.org to provide easy access to the downloadable materials. One poster indicated an "ozone alert day," and the other indicated that there is "no alert in effect." In addition, the RAQC posted ozone alerts to the web site so people visiting the site could also access the current air quality information. As in the past, many local governments and nonprofit organizations placed a link on their web sites to display current air quality conditions.

The RAQC continued to utilize the new design format created last year. By utilizing the templates from the outdoor boards posted around the metro-area, five alerts were created to raise awareness of the actions associated with an ozone alert. Each alert used one of the actions that citizens may take to help reduce ozone on potentially high ozone days. The alerts included information on how ozone is formed, the health affects, important contact information, and information on the new summer "chill" campaign implemented as part of the 2006 program (see below for more detailed information on the summer "chill" campaign).

Results

The RAQC faxed the new Ozone Action Alerts to nearly 400 local government representatives, media outlets, businesses, and citizens, including several Spanish television media outlets. The ozone alerts allowed local governments to make changes in operational behavior to reduce VOC emissions. It was also an opportunity for them to inform their citizens of the high ozone day through e-mail, signs, and web site and cable updates. The alerts also provided media with information to broadcast the

potential for elevated ozone levels and to encourage changes in ozone-causing behaviors.

During the 2006 ozone season, a total of 49 alerts were issued including 22 in June, 24 in July, and three in August. There were more alerts called this year than in previous years, due in part to unseasonably high temperatures, which led to the potential for elevated levels throughout the region. Due to the forecast nature of the program, the number of alerts is not necessarily an indication of actual ozone levels above the federal standard.

2. Media Advertising

The RAQC continued the advertising campaign to raise awareness about ozone pollution developed by Launch Advertising in 2005. The campaign was based on simple actions citizens can take to help reduce ground-level ozone pollution. The RAQC hopes that through repetition of the media messages over the next several years that citizens will begin to internalize the behaviors associated with reducing ozone pollution.

The purchased advertising schedule utilized television, radio, print, web, and outdoor advertising methods in order to maximize awareness of the issue. In addition, the RAQC's multiple media partners donated bonus television and radio airtime, bus tails, and pump toppers, without which the campaign would not have been as far-reaching.

The use of media was also utilized to publicize the RAQC's public events and programs, including the AirWaves high school radio scholarship contest, Mow Down Pollution, and the Car Care Fairs.

Results

The multi-media paid advertising campaign resulted

in over 2,135 television and radio spots that ran for a six- to seven-week period, in addition to five outdoor billboards rotating at seven of the largest and most visible billboard locations in the metro area during a three-month period. A partnership with the Regional Transportation District allowed for a two-month campaign utilizing 50 large bus tail billboards and a significant partnership with Suncor Energy (U.S.A.) Inc. resulted in nearly 250 bonus gasoline pump toppers. The RAQC and Envirotest also ran a six-week radio campaign on 97.3 KBCO and 95.7 KMGG for the AirWaves program. In addition, the RAQC ran a one-week radio promotion to advertise the Mow Down Pollution lawn mower exchange in mid-May. The total number of impressions across all paid media elements was over 46,300,000.

All media aspects, including the creative work, were developed simultaneously with the other components of the program to ensure continuity throughout the entire campaign. Results of the paid media advertising campaign are detailed in the Appendices section.

3. Media Relations

The RAQC worked with JohnstonWells Public Relations to build upon the successes achieved in 2005 with regard to the comprehensive media outreach plan, which was designed to complement the paid media advertising plan, by raising awareness of this issue among major media outlets throughout the region. By educating reporters, meteorologists, and editors of the importance of ozone pollution, the RAQC and its partners were able to secure a large number of articles and on-air mentions about the essential components of the campaign.

The key elements to media outreach for 2006 included educating media personnel on the “chill” campaign and meteorologists on the important link between weather and ozone formation. The RAQC and its partners focused on fostering strong relationships with media in order to emphasize the importance of including the campaign’s simple messages into their broadcasts.

Results

The program and its events generated over 50 known news stories in both English and Spanish on television, in print (daily, weekly, and community newspapers and local government newsletters), on radio, and online (see the Appendices section for a document on “Known Media Coverage”). The intense outreach to media outlets and personnel paid off, making ozone pollution a priority story to cover during the 2006 season. It is estimated that the number of media impressions reached approximately 40,000,000 during the campaign showing evidence of the priority placed on ozone over the summer. Our media partners were key in helping the RAQC and JohnstonWells reach a diverse and large audience with carefully crafted messages.

4. Public Outreach

Over the past two seasons, public outreach has been a key element in educating citizens about ozone pollution. To enhance this effort the new summer “chill” campaign was developed and launched. Along with existing events, many public outreach measures were implemented to maximize exposure of the campaign and its essential messages as well as educate the citizens on this issue using a more one-on-one approach. A number of informational items armed with important information about ozone pollution were handed out

at various public events. These items are detailed below and examples can be found in the Appendices section of this report.

a. Web site

The ozone-dedicated web site, OzoneAware.org, features over 20 pages of information in both English and Spanish about ground-level ozone pollution including a newsroom where local governments and businesses can download press releases and articles, information on how ozone is formed and how citizens can prevent it, and a “blog” called “Summer Chill” where RAQC staff or citizens posted information and others responded with questions or concerns. The site also includes information about the RAQC and a point of contact for further questions about ozone.

Throughout the summer, the homepage featured a link to the newly-formed pledge page as part of the summer “chill” campaign where citizens were able to pledge online to engage in ozone-reducing behavior. As an added feature to the pledge page, citizens could also click on a link that would bring up all the names of citizens who had also taken the pledge to “chill” on hot summer days.

Results

Overall, the web site proved to be a powerful communication tool with over 4,000 unique visitors logging on the site and over 10,000 total visits over the course of the outreach campaign. The increase in unique visits accounts for a 54 percent increase over last year’s visits to the web site. One of the most interesting web statistics from the summer is that the top referrer to OzoneAware.org was no referrer, which means that visitors to the site recalled the web address and typed it directly into a browser window. Another top referrer to the site was the City

and County of Denver's "Greenprint Denver" web site. Greenprint Denver is a program to promote the importance of sustainable development and ecologically-friendly practices throughout the community. The web site featured a link on the home page to OzoneAware.org along with tips for reducing ozone throughout the summer. This was especially interesting as the plan was revealed in mid-July, nearly two months after the start of ozone season. Other top referring sites included the Colorado Department of Public Health and Environment, Google, other search engines, and the RAQC's main web site.

In addition, the web site posted a new "Ozone Action Alerts" link for 2006. Due to the high number of action alerts called throughout the summer, citizens and media were eager to learn more about them. The new link on the homepage provided a quick and easy way to find out the number of alerts issued as well as to learn how and why meteorologists from CDPHE make the decision of whether or not to call an alert each day.

b. Informational Items

RAQC staff utilized a variety of promotional items to assist in delivering messages about ozone pollution to the public. Many items used the new "chill" theme and colors to help encourage citizens to chill out and avoid ozone-causing behavior during the summer months.

Results

RAQC staff and the Clean Air Crew (see section below for more detailed information) distributed nearly 4,000 educational pieces of literature or giveaways at events and meetings in which they participated, raising awareness and understanding about ozone pollution. These items included:

- **Pledge/Tip cards:** The two-sided card served as both a pledge card for the "chill" campaign as well as an informational tip card. The side-by-side perforated card asked citizens to "pledge to chill" to reduce ozone-causing behaviors on one side while the other side served as a tear-away tip card the individual could keep. The cards were distributed at all public events for which RAQC had a presence as well as by the Clean Air Crew.
- **Bike reflectors:** Bright blue bike reflectors, containing the "Let's Take Care of our Summer Air" tagline and the ozone web address, were distributed at Bike to Work Day and the Ridesmart *Thursdays* kick-off event.
- **Tire pressure gauges:** Key chain tire gauges, containing the "Let's Take Care of our Summer Air" tagline and the ozone web address, were distributed at the Car Care Fairs, Bike to Work Day, and the RideSmart *Thursdays* kick-off event.
- **T-shirts:** Three new t-shirts were created for the 2006 season – one shirt was created for the Town of Castle Rock and featured the "Top Ten Ways to Decrease Ozone Pollution." They were handed out at City-sponsored events such as the Summer Movie Starlight Festivals. Another t-shirt featured the newly created "chill" logo and colors with the word "chill" on the back and were distributed at the RideSmart *Thursdays* kick-off event. The third t-shirt was created for the Clean Air Crew and read "Clean Air Crew" across the front along with the campaign website, and had the "chill" ozone icon on the back. It was worn by Clean Air Crew members when they attended community events.
- **Stickers:** Two stickers, containing "I breathe, therefore I care" and "Don't just breathe, do something" and the "Let's Take Care of our

Summer Air” tagline and web address, were distributed at all events by staff and the Clean Air Crew.

- Vehicle maintenance logs: The logs were designed to fit in a glove box and allow motorists to keep track of gasoline mileage and maintenance schedules as well as provide simple tips to keep a vehicle in optimal performance. The maintenance logs were distributed at the Car Care Fairs and other relevant events.
- Fortune cookies: These edible treats looked just like fortune cookies you might get after a take-out meal, but had ozone tips inside instead of fortunes and were handed out at the RideSmart *Thursdays* and other community events.

c. Ozone Education Video

In an attempt to deepen the understanding of ozone pollution – including how it is formed, ways to reduce it, and how it affects human health – the RAQC hired a professional production team to produce an educational video to be widely broadcast in order to reach a diverse audience. The RAQC teamed up with the Greater Metro Telecommunications Consortium (GMTC) – a coalition of 33 metro-area local governments working jointly on issues relating to telecommunications. With GMTC’s assistance and recommendations, the RAQC contracted with Bond Video Arts to produce the educational program. One of the GMTC members also served as executive producer of the project to represent local governments.

Results

The result of the partnership with GMTC and Bond Video Arts was “Ozone in Our Zone,” which addresses the difference between stratospheric ozone and ground-level ozone pollution. In an

animated trip down an airway and into a lung, viewers were exposed to a visual representation of how ozone pollution affects our health.

The program also featured Kenneth H. Lloyd, executive director of the Regional Air Quality Council, Donald H. Stedman, professor of chemistry and biochemistry at the University of Denver, and Erwin W. Gelfand, M.D., director of pediatrics at National Jewish Medical and Research Center. These highly experienced professionals provided viewers with an interesting combination of information on current programs and projects that address ozone pollution, the chemistry of ozone pollution formation, the adverse health affects, and how citizens can make small changes in their daily lives that combine to make a big impact.

The program began airing as part of the “Metro Voices” series on Front Range government access channels in mid-June and continued through the summer. In addition, the program was aired at all Envirotech Systems Products, Corp. (Air Care Colorado) emissions testing facilities. Comcast also offered the program on-demand and as part its Metro Beat TV series, which aired on Thursday evenings and Sunday afternoons throughout the summer. This combination of airtime afforded the RAQC and its partners to reach a wide and diverse audience.

d. Summer “Chill” Campaign

As a means to encourage citizens to change their behavior in favor of ozone reduction, the RAQC and its partners developed the summer “chill” campaign. The campaign used simple messages and an online and print pledge to encourage awareness and action. The “chill” concept stems from asking people to avoid mowing the lawn, painting the deck, running errands, etc. on hot summer days. Instead, people

were encouraged to chill out and read a book in the park or take a walk to the local movie theater. People not only escaped the summer heat, but helped reduce ozone pollution.

Web pages (<http://pledge.OzoneAware.org>) were added to the existing web site at OzoneAware.org to accommodate an online pledge system where citizens voluntarily pledged to reduce one or more activities, such as drive less and mow after 5 p.m. Visitors to the web site were also able to see the names of others who pledged and the corresponding action chosen. In addition to the online pledge system, a number of pledges were handed out in print form at community events. The print pledges had an attached tip card that the pledgees could take with them after signing a pledge.

Several corporate sponsors (Butterfly Pavilion, Chipotle, Denver-Boulder Couriers, 97.3 KBCO, Noodles & Company, and REI) donated prizes such as gift certificates and coupons to help encourage participation. This year's Clean Air Crew traveled to a number of community events to educate people about ozone pollution and ask them to take a chill pledge.

Results

At the end of the summer, the Clean Air Crew was successful in obtaining 168 pledges by attending a number of community events, such as City Park Jazz in Denver. Over 200 people pledged online and an additional 320 people signed pledges at community events attended by RAQC staff, totaling over 700 pledges. Next year, the RAQC and its partners hope to more than double the number of signed pledges obtained this year.

e. Mow Down Pollution

The RAQC partnered with Neuton Lawn Mower Company to host "Mow Down Pollution" at Invesco Field at Mile High over the summer. As



part of the "Let's Take Care of our Summer Air" outreach campaign, the event gathered citizens together to permanently recycle old gasoline-powered lawn equipment in exchange for deep discounts on zero-emissions alternatives. Citizens were offered a discount of nearly \$150 on Neuton's cordless rechargeable lawnmower. At the event, citizens were also encouraged to recycle old gasoline cans in exchange for new non-spill, non-permeable cans that produce far fewer emissions. In addition, participants at the event could enter to win a Neuton motorized garden cart valued at nearly \$300. Neuton donated the cart to encourage participation in the event. This program was made possible by funding provided by the StEPP Foundation and Envirotech.

Results

The RAQC and its partners permanently prevented 128 pounds of VOCs from entering the metro Denver region's air by recycling 40 pieces of gasoline-powered lawn equipment at the event. In addition, the RAQC and its partners sold a total of 68 battery-operated lawn mowers, which could lead to an additional savings of 90 pounds of VOCs should each consumer use only the newly-purchased equipment. Citizens were also encouraged to trade in old gasoline cans for non-permeable, non-spill cans. Nearly 20 gas cans were recycled and program partners handed out 23 new earth friendly gas cans at the event. It is estimated

that over 30 pounds of VOCs will be eliminated this summer if every consumer uses their new can. The donated garden cart was given away by staff members at 97.3 KBCO FM, the event's radio sponsor.

f. Car Care Fairs for Cleaner Air

The RAQC, in conjunction with the Colorado Select NAPA AutoCare Group and local schools, hosted 14 Car



Care Fairs at local middle schools and high schools across the metro area. Spread across four Saturdays from April 22 through May 13, the 14 fairs reached citizens in all areas of the Denver-metropolitan region. These fairs helped educate motorists on maintaining optimum gas mileage and overall vehicle maintenance as well as provided information on reducing emissions and safety risks. NAPA-certified technicians volunteered their time and provided free, visual vehicle inspections for all participating motorists. The technicians inspected more than 30 components of the vehicles and provided specific information to motorists about their respective vehicles.



In addition, volunteers handed out tire gauges and vehicle maintenance logs to Car

Care Fair participants. Mayor John Hickenlooper helped to publicize the important event by attending the Car Care Fair at North High School in Denver.

Mayor Hickenlooper also appeared on the NAPA AutoCare radio show, broadcasting live from the event, to talk with show hosts John Rush and Donny Seyfer.

Due to the responses from participants, the radio show was the driving force behind motorists' participation. AutoCare Radio on 630 KHOW sponsored by NAPA devoted the entire Saturday morning news radio program on two of the Saturdays to the event as well as mentioned the events during the month-long time span, which helped to increase participation and educate motorists on the importance of vehicle maintenance.

Results

The RAQC and NAPA inspected nearly 300 vehicles at the 14 locations throughout the Denver-metro area in the cities listed below.

- Arvada
- Aurora
- Boulder
- Broomfield
- Denver
- Lakewood
- Littleton
- Longmont
- Thornton
- Westminster
- Wheat Ridge

In addition, the event provided an opportunity to distribute vehicle maintenance logs and other pertinent vehicle maintenance information to over 300 participants.

g. AirWaves High School Radio Scholarship Program

The RAQC, Envirotest Systems, Corp. (Air Care Colorado), and 97.3 KBCO FM partnered



again to implement the AirWaves contest to provide local high school students the opportunity to write and record their own air quality public service announcement (PSA) to be broadcast on a major radio station throughout the metro area.

Students in grades nine to 12 were asked to submit a 30-second PSA relating vehicle pollution to air quality and public health. This is the second year that the partners joined together for the contest. The Ozone Advisory Committee reviewed the entries from the Denver-metro area and chose two PSAs that most closely fit the tone of this year's ozone outreach campaign. The winning students were afforded the opportunity to visit the KBCO studios to record their winning PSAs professionally in preparation for a seven-week long run on the air.

Results

Nearly 2,000 posters were distributed to approximately 300 public and private high schools throughout the entire Front Range region to announce and advertise the scholarship program. The advisory committee had three solid finalists to



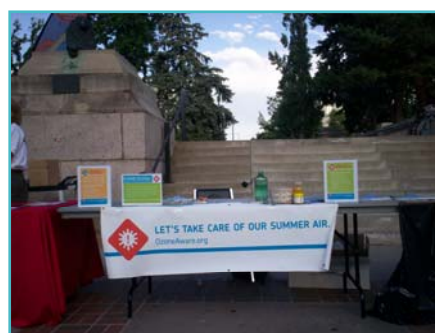
choose from before selecting winners from The New America School in Aurora and Skyline High

School in Longmont. The five students responsible for producing the two winning PSAs were awarded a college scholarship in the amount of \$1,500 per entry as well as the opportunity to be recognized by family and peers on local radio station 97.3 KBCO FM and Spanish-language station 95.7 KMGG throughout the entire Denver-metropolitan region. In addition, each of the two schools received a \$500

environmental scholarship. The finished, produced spots played during morning and afternoon drive time for six weeks between June and mid-July.

h. Bike to Work Day

In June, the RAQC participated in the annual Bike to Work Day, sponsored by the Denver Regional Council of Governments' (DRCOG) to help raise awareness of summer ozone. RAQC staff hosted a booth in Civic Center Park to hand out fun,



informational items, including bike reflectors, tire gauges, stickers, and pledge cards. All items

included the tagline, logo, and the ozone web site – OzoneAware.org. Many local news channels attended the event as well as over 20,000 participants.

Results

The RAQC handed out more than 1,000 bike reflectors, tire gauges, stickers, and pledge cards to Bike to Work Day participants. Denver Mayor John Hickenlooper participated in the event as well as several of the local television stations that aired clips from Bike to Work Day.

i. RideSmart Thursdays

RideSmart *Thursdays* is an annual program developed jointly by the Regional Transportation District (RTD), Denver Regional Council of Governments, and numerous partnering agencies to encourage metro-area citizens to commit to using public transportation or carpool at least one day per week. Intended to increase the use of public

transportation in the area, the program starts out each year with a kick-off event. As part of the large-scale ozone outreach effort, the RAQC helped support RTD and DRCOG's effort this year by



participating in the kick-off event held on August 17 in Skyline Park in downtown Denver. The RAQC attended the event and distributed informational and promotional materials to event participants to assist with raising program awareness. RAQC staff also handed out a large number of pledge cards to event participants who were required to sign a pledge before receiving any promotional items.

Results

RAQC staff handed out nearly 250 t-shirts and 500 ozone fortune cookies at the event. The t-shirt adorned the new summer "chill" logo on the back with the web site address and "Let's Take Care of our Summer Air" tagline on the front. The number of new visitors to OzoneAware.org increased in the days following the event. In addition, the RAQC collected over 200 "chill" pledges at the event.

j. Clean Air Crew

With the addition of the "chill" campaign in 2006 that featured social marketing aspects, program partners agreed to change the organization of the Clean Air Crew. The Crew transformed into an events team focused on encouraging citizens to pledge to chill by handing out pledge/tip cards and promotional items at large community events.

The group was made up of several high school and college students who received a stipend in exchange for reaching out to the public at events to encourage them to pledge. As an added benefit, the RAQC also partnered with Denver/Boulder Couriers who agreed to distribute pledge cards and informational items via their numerous bicycle couriers during the summer. As part of the agreement, bike couriers also donned a Clean Air Crew t-shirt while working during July, the month that typically produces the highest ozone values of the season.

Results

The Clean Air Crew attended six events throughout the summer to collect pledges. It is estimated that the group collected nearly 170 pledges at the events and had the ability to raise awareness of ozone pollution among a diverse crowd. The group targeted events with a large number attendees as well as those that would attract a diverse segment of the population. The events included City Park Jazz in Denver, Skyline Park Concert, the Dragon Boat Festival, the Douglas County Household Hazardous Waste Round-Up in Highlands Ranch, and Film on the Rocks at Red Rocks Amphitheatre. The Clean Air Crew also distributed promotional items, such as bike reflectors and tire gauges.

5. Local Government Outreach

The local governments throughout the Denver-metropolitan area have been among the RAQC's most significant partners in its ozone reduction efforts. Over the past eight years, local government staff have worked to make operational changes in public works and fleet maintenance divisions as well as educate staff and communities about ground-level ozone pollution. This year, the RAQC offered local governments funding to assist with two

programs involving fleet maintenance and education. In addition, the RAQC worked with the North Front Range to coordinate outreach and education efforts. More specific information about these programs is listed below.

a. Fleet Gas Cap Testing Program

From early summer through fall of 2006, the RAQC worked with municipal fleet operators to test and replace faulty gas caps on local government fleet vehicles. The program was made possible through partnerships with seven local government fleets from across the metro-area that agreed to incorporate the testing into their regular preventative maintenance schedules.

A faulty or missing gas cap can allow one gallon of gasoline to evaporate every two weeks. Pollutants in evaporative emissions are a key ingredient in ground-level ozone formation.

The RAQC chose to work with local government fleets because earlier “Put a Cap on Ozone” program findings indicated that approximately 10 to 15 percent of fleet vehicles had a faulty or missing gas cap. The fleet gas cap testing program provided the participating municipalities a free gas cap testing kit as well as free replacement gas caps for all vehicles that either failed the pressure test or had a missing gas cap altogether.

In addition, public information officers from the participating local governments took the opportunity to educate many metro-area residents about the health and regulatory benefits of properly-working gas caps as an ozone pollution control strategy through newsletter articles and employee informational materials.

Results

At the end of the ozone season, the fleet gas cap testing program tested a total of 257 gas caps at local government fleet maintenance divisions throughout the metro area. Of nearly 260 caps tested, 20 were replaced for a gas cap failure rate of nearly eight percent. This is estimated to reduce VOC emissions by about 8 pounds per day during the critical summer months. The results of the program are from five participating local governments including the cities of Englewood and Golden, and the counties of, Boulder, Boulder County Sheriffs Office, and Douglas. Data for Arapahoe County and the City and County of Denver was not yet available.

b. Local Government Sub-Grant Program

In order to increase awareness in various areas throughout the metro area, the RAQC offered a unique opportunity for local governments around the region to apply for funding to increase outreach, information, and education efforts in their respective cities. The RAQC released a request for proposal asking municipalities to develop creative outreach projects totaling up to \$2,500 each.

Results

Four local governments applied for the funding and each had creative ideas about how to increase awareness in their area. All four of the local governments that submitted proposals were selected to receive funding. The local governments that received the sub-grants are the Cities of Arvada, Aurora, and Castle Rock, and the Greater Metro Telecommunications Consortium (GMTC) – an association of representatives from government access channels.

The City of Aurora hosted two gas can exchange events to provide citizens a free non-spill, non-permeable gas can in exchange for permanently recycling an old plastic or metal can. The City hired an independent contractor to properly handle any residual oil and gas from the old cans. At these two events, a total of 288 new cans replaced old ones resulting in a permanent reduction of nearly 400 pounds of VOCs during the critical summer months.

The City of Arvada published an informational article on ozone pollution and ways to reduce it in their citizen newsletter that reaches over 30,000 households. In addition, they printed informational brochures that were available at City Hall and other facilities. The City also planned to host a small-scale lawnmower rebate program to encourage citizens to recycle gasoline-powered lawn equipment in exchange for earth-friendly alternatives. Another item funded was to hire a consultant to speak to city staff about best maintenance practices. Both of these items took longer than anticipated to plan, so Arvada plans to continue these two final efforts next spring as part of the 2007 campaign.

The Town of Castle Rock developed and printed 500 T-shirts with the “Top Ten Ways to Decrease Ozone Pollution” and handed them out at City-sponsored events such as the Summer Movie Starlight Festivals. The promotion also prompted citizens to ask about the Town’s free bus system, CATCO, of which all buses are powered by compressed natural gas.

GMTC used its funding to develop animated graphics to supplement the work already underway for the ozone education video. The graphics helped visually explain what happens to ozone molecules when they are inhaled to our lungs. The result was

a powerful visualization that resulted in a better understanding of how ozone affects our health. The video in its entirety was played throughout the summer and fall on all municipal cable access stations, Comcast’s Metro Beat TV series, and at Envirotest emissions testing facilities.

c. Greater Front Range Outreach

Given the regional nature of air quality, ground-level ozone pollution has become a priority not just for the Denver-metro area, but to the entire Front Range region. The RAQC has been working with Front Range local governments and planning organizations for several years and have increased efforts to further coordinate ozone outreach and information campaigns. All of the materials from the “Let’s Take Care of our Summer Air” program, including the logo, tagline, graphics, Ozone Action Alert templates, advertising materials, and other campaign materials, were made available to all Front Range cities for replication. The past two years, in particular, the City of Fort Collins has made a great effort to incorporate these materials in a number of ways to ensure a consistent message with the Denver region.

SUMMARY

The 2006 Voluntary Ozone Reduction Program complemented and expanded on the efforts of the previous seven years. By securing additional funding, the RAQC was able to successfully continue implementing the large-scale advertising, outreach, and education campaign to complement the strategies outlined in the Early Action Compact designed to reduce ground-level ozone pollution.

The RAQC worked with local governments, businesses, nonprofit organizations, transportation management organizations, employee transportation

networks, citizens, and other concerned and interested groups. The greater visibility allowed the RAQC to leverage a large amount of bonus media throughout the summer which also helped to increase awareness in the area. The RAQC was able to reach a larger audience than ever before through the use of a multi-media approach utilizing television, radio, print, public events, media outreach, and a prominent online presence. This helped deliver a consistent message to audiences across the Front Range Region.

In an attempt to affect long-term behavior change, the RAQC and its partners developed the summer “chill” campaign, which encouraged citizens to take a pledge to chill on hot summer days and avoid activities that contribute to ozone pollution.

As a result, the region maintained compliance with the federal ozone standard, despite record-breaking temperatures during the summer of 2006. The RAQC hopes to expand on the current base of knowledge in the region, working with its partners to extend the program into the next few years.

FUTURE PLANS

Building on the efforts of the 2006 campaign, the RAQC and its partners plan to continue education and outreach efforts to local governments, businesses, and citizens. Similar to the 2006 campaign, the 2007 campaign will focus on changing behavior through education and awareness. Specifically, the campaign will include the following components:

- Citizen Outreach
 - Ozone Action Alert program
 - Ozone Education Video

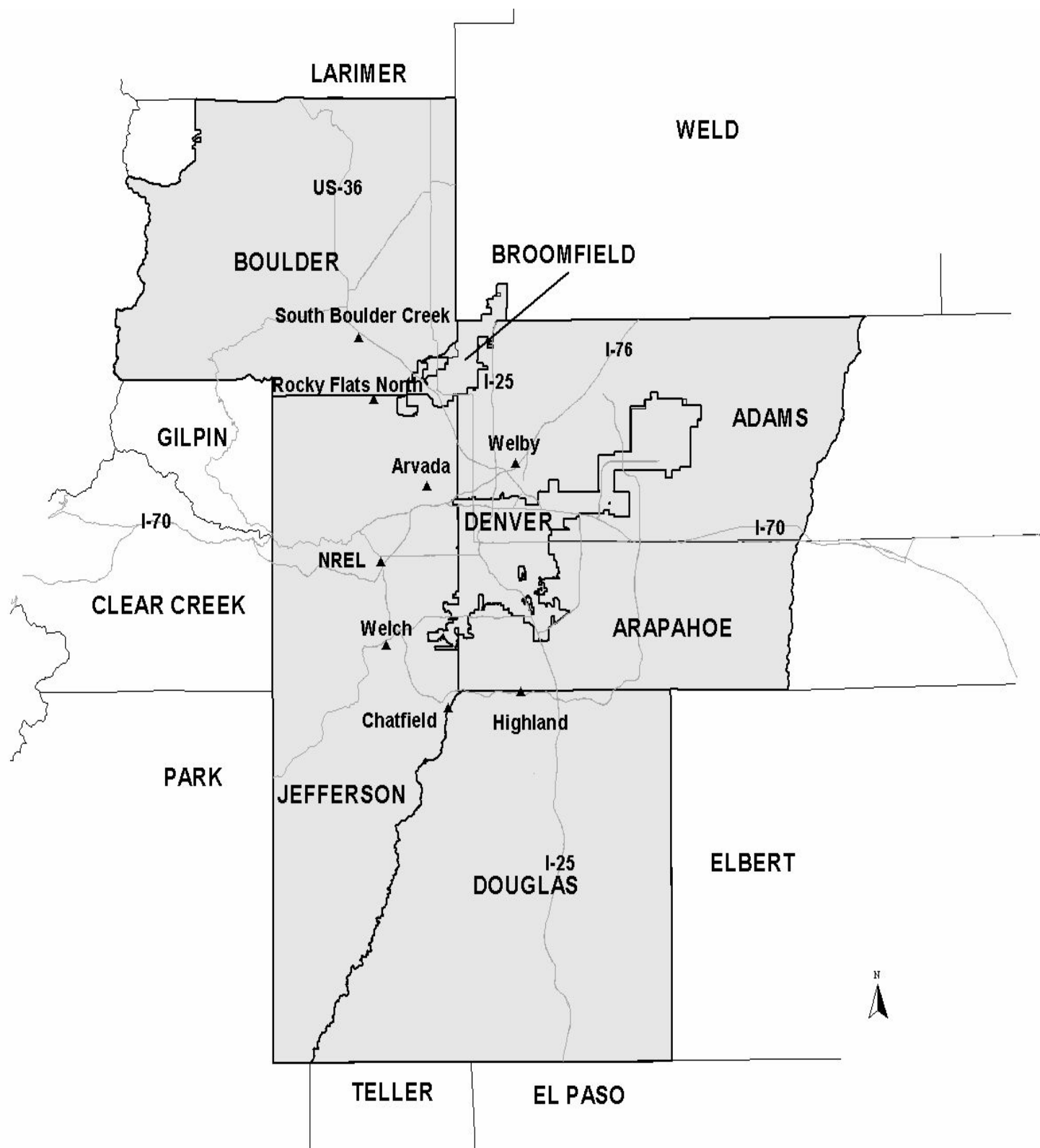
- AirWaves High School Radio Scholarship Program
- Gas Can Exchange
- Dedicated web site: OzoneAware.org
- Community events, such as Bike to Work Day and Ridesmart *Thursdays*
- Local Government Outreach
 - Continuation of fleet gas cap testing
 - Outreach to staff and council
- Media Advertising and Outreach
 - Continuation of paid advertising campaign
 - Continuation of media outreach campaign

The RAQC looks forward to working with all of its partners in 2007 to develop and implement another successful ozone outreach and education campaign. For more information, contact Sara O’Keefe at sokeefe@raqc.org or (303) 629-5450, ext. 220 or visit OzoneAware.org.

DATA APPENDICES

APPENDIX ONE:

**MAP OF THE METROPOLITAN-DENVER
OZONE ATTAINMENT/MAINTENANCE AREA AND MONITORING SITES**



APPENDIX TWO:**AQI/VSI SYSTEM REPORTING SITES FOR OZONE
DENVER-METROPOLITAN AND FRONT RANGE REGIONS**

Site Name	Abbreviation	Location
Arvada	ARV	9101 W. 57 th & Garrison)
Carriage	CRG	23 rd Avenue & Julian Street
Chatfield Reservoir	CHAT	11500 N. Roxborough Park Rd.
Colorado Springs	ACAD	Road 640, USAF Academy
Ft. Collins	FTC	708 S. Mason St.
Ft. Collins West*	FTCW	LaPorte Avenue & Overland Tr.
Greeley Tower	GRET	3101 35 th Ave.
Highlands	HLD	8100 S. University Blvd.
Manitou Springs	MAN	401 El Monte Place
National Renewable Energy Laboratories	NREL	20 th Avenue & Quaker Street
Rocky Flats North	RFN	16600 W. Highway 128
South Boulder Creek	SBC	1405 1/2 S. Foothills Highway
Welby	WBY	3174 E. 78 th Ave (78 th Ave. & Steele St.)
Welch	WCH	124000 W. Highway 285

**The Ft. Collins West monitor is a new special purpose monitor added in 2006 as part of an expansion at the Budweiser facility*

APPENDIX THREE:
OZONE ACTION ALERTS
1999 – 2006

	June	July	August	Total
1999	1	7	0	8
2000	3	15	9	27
2001	1	8	4	13
2002	10	10	0	20
2003	2	25	15	42
2004	3	8	3	14
2005	3	19	1	23
2006	22	24	3	49
Average per month	5.5	14.5	4.5	

APPENDIX FOUR:

OZONE MONITORING DATA (PPB)
SELECT CDPHE MONITORING SITES

Monitor	2006			2006	2005	2004	2004-06	2006	2003-05	2007
	1st Max	2nd Max	3rd Max	4th Max	4th Max	4th Max	Ave. 4th Max	Allow. 4th Max	Ave. 4th Max	Allow. 4th Max
WBY	29-Jul	2-Jul	14-Jul	15-Jul	73	66	69	115	68	112
	81	70	69	69						
HLD	13-Jul	22-Jul	29-Jul	19-Jul	80	72	77	102	81	93
	85	82	82	82						
SBC	19-Jul	14-Jul	15-Jul	29-Jul	76	68	75	110	75	96
	87	86	86	82						
CRG	29-Jul	15-Jul	28-Jul	13-Jul	74	66	70	114	75	108
	92	74	74	72						
CHAT	13-Jul	29-Jul	22-Jul	27-Jul	84	75	81	95	84	84
	92	87	86	86						
ARV	15-Jul	22-Jul	29-Jul	14-Jul	78	65	74	111	75	95
	83	83	82	81						
WCH	29-Jul	13-Jul	14-Jul	22-Jul	64	62	69	128	67	109
	96	87	82	81						
RFN	19-Jun	29-Jul	14-Jul	15-Jul	77	73	80	104	80	87
	94	93	91	90						
NREL	29-Jul	22-Jul	28-Jul	15-Jul	79	74	78	101	82	92
	94	89	84	83						
GRET	13-Jul	29-Jul	14-Jul	23-Jul	78	69	76	107	76	94
	90	87	84	78						
FTC	29-Jul	14-Jul	15-Jul	13-Jun	76	64	72	114	71	100
	84	80	79	78						
RMNP	14-Jul	28-Jul	25-May	12-Jun	75	73	74	106	78	103
	91	77	76	76						
FTCW*	14-Jul	29-Jul	13-Jun	19-Jun	---	---	---	---	---	---
	97	95	88	87						

NOTES: Table includes data through August 31, 2006, which conforms to Colorado Air Pollution Control Division draft data. No data has been formally quality assured at this time. Values highlighted in green in the columns on the left represent exceedances to the 8-hour standard. *The Fort Collins West (FTCW) monitor is a new special purposes monitor, therefore there is not three-year average.

APPENDIX FIVE:

2006
1ST, 2ND, 3RD, AND 4TH MAXIMUM 8-HOUR OZONE VALUES (PPB)
SELECT CDPHE MONITORING SITES

Site	1 st Max	2 nd Max	3 rd Max	4 th Max
NREL	29-Jul	22-Jul	28-Jul	15-Jul
	94	89	84	83
ARV	15-Jul	22-Jul	29-Jul	14-Jul
	83	83	82	81
RFN	19-Jun	29-Jul	14-Jul	15-Jul
	94	93	91	90
CHAT	13-Jul	29-Jul	22-Jul	27-Jul
	92	87	86	86
HLD	13-Jul	22-Jul	29-Jul	19-Jul
	85	82	82	82
CRG	29-Jul	15-Jul	28-Jul	13-Jul
	92	74	74	72
SBC	19-Jul	14-Jul	15-Jul	29-Jul
	87	86	86	82
WCH	29-Jul	13-Jul	14-Jul	22-Jul
	96	87	82	81
WBY	29-Jul	2-Jul	14-Jul	15-Jul
	81	70	69	69
GRET	13-Jul	29-Jul	14-Jul	23-Jul
	90	87	84	78
FTC	29-Jul	14-Jul	15-Jul	13-Jun
	84	80	79	78

APPENDIX SIX:

2006
1ST, 2ND, 3RD, AND 4TH MAXIMUM 1-HOUR OZONE VALUES (PPB)
SELECT CDPHE MONITORING SITES

Site	1 st Max	2 nd Max	3 rd Max	4 th Max
NREL	29-July	01-July	20-July	02-July
	109	100	99	98
ARV	29-July	15-July	14-July	20-July
	99	94	93	92
RFN	19-June	14-July	15-July	29-July
	104	103	103	100
CHAT	17-July	27-July	13-July	02-July
	103	102	100	99
HLD	20-July	13-July	19-July	01-July
	97	95	95	94
CRG	29-July	02-July	23-July	20-July
	108	90	90	87
SBC	25-May	19-June	15-July	14-July
	99	98	98	97
WCH	29-July	22-July	13-July	02-July
	112	98	96	93
WBY	23-July	29-July	20-July	02-July
	89	87	84	82
GRET	29-July	15-July	23-July	13-July
	103	100	95	93
FTC	29-July	13-June	15-July	28-July
	100	94	92	90

APPENDIX SEVEN:

**10 YEARS OF 8-HOUR OZONE LEVELS
4TH HIGHEST MAXIMUM LEVELS (PPB)
SELECT CDPHE MONITORING SITES**

MONITOR	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max	4 th Max
NREL	82	75	95	80	83	81	81	95	74	79	83
RFN	83	76	92	81	81	82	88	91	72	77	90
CHAT	79	75	81	76	80	77	83	95	74	83	86
HLD	73	65	84	75	76	77	76	91	72	79	81
ARV	73	70	89	72	76	74	73	83	65	78	81
CRG	68	66	85	68	71	72	73	85	66	74	72
SBC	75	72	89	75	72	71	78	82	68	76	82
WCH	69	68	80	66	68	64	69	77	62	64	81
WBY	74	71	83	71	62	64	68	66	66	73	69

NOTE: Values shown in bold reflect recordings at or above 85 ppb.

APPENDIX EIGHT:**PAID MEDIA ADVERTISING CAMPAIGN
JUNE – AUGUST 2006**

	Description	Paid Media	Bonus Media	Total
Television	:30 animated spots – one focused on lawn care and the other on car care (6-week run)	446	385	831
Radio	:10 and :15 traffic tags read by live announcers during radio traffic reports (7-week run), :30 AirWaves ads (6-week run), & :60 KBCO Environminute spots (6-week run)	648	234*	1304
Outdoor	5 billboards, all with different messages, that rotated at 7 locations (3-months run)	5	---	5
Transit	50 bus boards promoting the use of public transit, donated by RTD (2-month run)	---	50	50
Pump Toppers	249 signs on the tops of gasoline pumps, donated by Suncor Energy (1-month run)	---	249	249
Print	3 print ads in community newspapers to advertise the Car Care Fairs (2-week run)	3	---	3

*Does not include 422 30-second spots that ran on streaming web sites for KBCO, KOA, KRFX, KHOW, and AM 760

APPENDIX NINE:**KNOWN MEDIA COVERAGE
APRIL – SEPTEMBER 2005****Radio**

- KOA 850-AM & KHOW 630-AM – Interview with Sara O’Keefe on June 1 for broadcast throughout the week.
- KSYY 107.1-FM, "Sassy" and KTNI 101.5-FM, "Martini" – Interview with Sara O’Keefe on 6/19 for broadcast on weekend of 6/24.

Print

- *The Denver Business Journal* – Cathy Procter article on oil and gas’ impact on air quality ran in the 7/28 issue.
- *The Denver Post* – Jon Sarche (AP) story on a possible two year extension for the Denver area to meet federal ozone requirements ran 8/5.
- *The Denver Post* – Blurb in the Briefs says Denver is at risk for violating federal standards and includes quote from Ken Lloyd ran 8/1.
- *The Denver Post* – Kim McGuire story on bad ozone levels included interview with Ken Lloyd ran 8/2.
- *The Denver Post* – Editorial warning of high temperatures and increased ground-level ozone ran 7/17.
- *The Denver Post* – Kim McGuire article on record number of ozone action alerts ran 7/28.
- *The Denver Post* – Kim McGuire story on Front Range ozone levels “heating up” with quote from Ken Lloyd ran 7/19.
- *The Denver Post* – Editorial advocating action on Front Range ozone ran 7/2.
- *The Denver Post* – Howard Roitman article mentioning oil and gas contributions to ground-level ozone pollution ran 6/24.
- *The Denver Post* – Kim McGuire article on the potential for ozone pollution to rise this summer due, in part, to oil and gas ran on 4/21.
- *The Longmont Daily Times-Call* – Melanie Sidwell story on sisters who won AirWaves ran in print and online 6/12.
- *The Longmont Daily Times-Call* – Associated Press story on energy boom affecting air quality (also ran on KCNC-TV website). Mentioned ozone action alerts and RAQC and ran 6/8.
- *Rocky Mountain News* – Todd Hartman story on the impact of oil and gas on smog levels and the sources of ozone in Colorado ran on 8/18.
- *Rocky Mountain News* – Story on reduced ozone levels as a result of cooler weather ran 7/19.
- *Rocky Mountain News* – Todd Hartman story on bad ozone levels, string of alerts and possible causes included interview with Ken Lloyd ran on 7/15.
- *Rocky Mountain News* – Todd Hartman story ran in print and a variation with a quote from Ken Lloyd ran online on the potential for increased ozone levels. Also mentions the string of ozone action alerts. Ran 6/7.

- *Rocky Mountain News* – Tips on earth-friendly mowing appeared in the “Planter Box” section on 6/9.
- *Denver Daily News* – Car Care Fairs story appeared in print and online.

Television

- KDVR-TV Fox 31 – Uses icon online in broadcasts.
- KMGH-TV Channel 7 – Package on hot temperatures causing ozone action alerts and the record number of ozone alerts aired 7/14.
- KMGH-TV Channel 7 – Package on string of ozone action alerts and what residents can do to help reduce ground-level ozone pollution. Included ozone alert graphic. Aired 6/7.
- KMGH-TV Channel 7 – Story on string of ozone action alerts and included a graphic on the number of alerts aired 6/6.
- KMGH-TV Channel 7 – Update on ozone conditions and Summer Chill program featured in Mike Nelson’s blog on 6/1 and 6/2.
- KMGH-TV Channel 7 – Story on Mow Down Pollution aired on the 10 p.m. news previewing the event; included link from station website on 5/11.
- KMGH-TV Channel 7 – Currently using the ozone logos in their forecast broadcasts.
- KCNC-TV Channel 4 – Posted AP story that mentions the alerts RAQC issues on ozone on 6/7.
- KCNC-TV Channel 4 – Weather blog about start of ozone season posted 5/31.
- KUSA-TV Channel 9 – AP story out of Ft. Collins on 43 ozone action alerts ran on website 7/29.
- KUSA-TV Channel 9 – Package aired on string of ozone action alerts and included information on the Chill Pledge on 7/17.
- KUSA-TV Channel 9 – Package aired on record temperatures and included interview with Sara O’Keefe on 6/13. Both video and web copy appear on the web site.
- KUSA-TV Channel 9 – Link on the 9News website to ozone action alert (also mentioned in LINKS section below.) Ticker featuring action alert in broadcast on 6/7.
- KUSA-TV Channel 9 – Story aired on RAQC’s efforts to take care of summer air on 5/19.
- KUSA-TV Channel 9 – Marty Coniglio mentioned ozone action alert in 5:30 p.m. broadcast on 6/4.
- KWGN-TV Channel 2 – Story on Mow Down Pollution aired week of 5/1.
- 850 KOA – Sara O’Keefe interview aired 6/1. Interview will likely air on other Clear Channel Stations.

Online

- **Links:** The following sites link to the OzoneAware.org website
 - KMGH-TV Channel 7 featured link in a story on ground-level ozone and continually features a link to the ozone alert site through their icon
 - KUSA-TV Channel 9 links to ozone action alert.
 - Qwest’s www.IncredibleInternet.com lists it as a featured site on their main page.
- **Meteorologist Briefings:**
 - KUSA-TV Channel 9 – Meteorologist briefing with Marty Coniglio

- KDVR-TV Fox 31 – Meteorologist Briefing with Chris Dunn
- KMGH-TV Channel 7 – Informal briefing with Mike Nelson
- KWGN-TV Channel 2 – Informal briefing with meteorologist Jason Boyer
- **All Sites Below Posted Calendar Listings:**
 - City of Boulder
<http://bcn.boulder.co.us/topical/center.html>
 - Inter-Neighborhood Association (available to all Denver neighborhood associations)
<http://www.neighborhoodlink.com/public/index.html>
 - **YourHub sites posted event listing and release for Mow Down Pollution**
 - Arvada
 - Aurora North
 - Boulder
 - Broomfield
 - Centennial
 - Cherry Hills Village
 - Columbine
 - Commerce City
 - Denver South
 - Denver
 - Englewood
 - Federal Heights
 - Glendale
 - Greenwood Village
 - Highlands Ranch
 - Lakewood
 - Littleton
 - Montbello
 - Northglenn
 - Thornton
 - Westminster
 - City of Denver's Sustainable Development website
<http://www.denvergov.org/sustainability>
 - All Sites Below Posted Calendar Listings for Car Care Fairs:
 - City of Boulder
<http://bcn.boulder.co.us/topical/center.html>
 - City of Longmont
<http://www.infolongmont.com/cgi-bin/calendar/calendar.pl>
 - Posted event notice
http://www.zwire.com/site/community.cfm?brd=2713&pag=569&dept_id=55908

- Inter-Neighborhood Association (available to all Denver neighborhood associations)
<http://www.neighborhoodlink.com/public/index.html>
- KCFR Colorado Public Radio
http://www.cpr.org/spotlight/KVODCalendar_full.htm
- KGNU Community Radio – Boulder
<http://www.kgnu.org/cgi-bin/noticeform.py?Type=EventsCalendar>
- The Denver Post
weekend@denverpost.com
- All YourHub sites where CCF will take place
www.yourhub.com
- City of Denver's Sustainable Development site
<http://www.denvergov.org/sustainability>

CREATIVE APPENDICES

APPENDIX ONE:

TAGLINE AND GOOD/BAD OZONE ICONS



APPENDIX TWO:


WEB SITE: OZONEAWARE.ORG

Ozone Aware -- Let's take care of Colorado's summer air - Microsoft Internet Explorer

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Address http://www.ozoneaware.org/ Go Links









LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org [en Español](#)

Aug. 31 marked the end of the Summer Ozone Season. A total of 49 [Ozone Action Alerts](#) were issued between June and August. Despite record-breaking temperatures, the region maintained compliance with the federal ozone standard. Read the end-of-season [News Release](#) here.

Thank you to all of our partners and stakeholders for doing their part to take care of our summer air. Especially those 700 individuals who took the [pledge to "chill"](#) on hot summer days. [These people](#) pledged to avoid activities -- such as driving, mowing, and painting and staining -- that cause ozone pollution.

Be sure to check back here for more end-of-season updates and the final report.

[Ozone Information](#) | [Preventing Ozone](#) | [Newsroom](#) | [Summer Chill](#) | [About RAQC](#) | [Contact](#)

PLEDGE TO CHILL.
Join the non-movement. Pledge to do less on hot summer days.

» Enter your pledge now.
» See the names of your neighbors who have pledged.

Front Range Air Quality
3 PM 08/15/06
- GOOD -
Visibility: Good
No Alert in Effect
Click for more...

[Signup for Ozone Action Alert](#)
Enter your email address below:
 [Go](#)

- 49 [Ozone Action Alerts](#) issued to date (08/31/06)
- [Click here](#) to find out more about the Alerts

Start | Internet

Inbox - Microsoft Outlook | Ozone Aware -- Let's ... | 2006 Ozone Report.doc ... | Adobe InDesign CS2 - [U... | 9:21 AM

APPENDIX THREE:
OUTDOOR BILLBOARDS

TIGHTEN YOUR GAS CAP.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

MOW IN THE EVENING.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

CHECK YOUR TIRE PRESSURE.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

TUNE UP YOUR CAR.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

REFUEL IN THE EVENING.



LET'S TAKE CARE OF OUR SUMMER AIR.
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APPENDIX FOUR:

OZONE ACTION ALERT TEMPLATE



OZONE ACTION ALERT:

THE REGIONAL AIR QUALITY COUNCIL AND THE COLO. DEPT. OF PUBLIC HEALTH AND ENVIRONMENT HAVE ISSUED AN ALERT FOR THE METRO-DENVER AND FRONT RANGE REGION. HOT TEMPERATURES, CLEAR SUMMER SKIES, AND LIGHT-TO-MODERATE WINDS MAY LEAD TO INCREASED GROUND-LEVEL OZONE THROUGHOUT THE REGION. THIS OZONE ACTION ALERT IS IN EFFECT UNTIL 4:00 P.M. TOMORROW.

SO WHAT'S THE DIRT ON OZONE?

Ground level ozone pollution is created when emissions from everyday items – such as gasoline-powered vehicles and lawn equipment, and household paints, stains and solvents – combine with other pollutants in the atmosphere on hot, summer days.

IT CAN AFFECT YOU.

At ground level, ozone pollution is harmful to all of us, especially the young and elderly. Ozone can also trigger attacks and symptoms in individuals with pre-existing health conditions, such as asthma or other respiratory infections.

High levels of ozone pollution often affect healthy people who work or exercise outdoors and can cause breathing difficulties, eye irritation and reduced resistance to lung infections and colds with exposure for prolonged periods.

CHILL OUT AND BREATHE EASY.

The fewer ozone-causing emissions you produce on hot, still, summer days, the better. Reduce pollution by doing these simple things:

- > Keep your car well maintained
- > Refuel in the evening on hot sunny days
- > Stop at the click – don't overfill gas tank
- > Mow in the evening on hot sunny days
- > Tighten gas cap after refueling



FOR MORE INFORMATION:

24-Hour Air Quality Hotline: 303.758.4848
Media Inquiries: 303.540.1887 (pager)
Ozone Aware: www.OzoneAware.org
RAQC: 303.629.5450 or www.raqc.org
CDPHE: 303.692.3100

TIGHTEN YOUR GAS CAP.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

APPENDIX FIVE:

OUTREACH STICKERS AND TIP CARD



SO WHAT'S THE DIRT ON OZONE POLLUTION?

Ground level ozone pollution is created when emissions from everyday items such as gasoline-powered vehicles and lawn equipment, and household paints, stains and solvents, combine with other pollutants in the atmosphere on hot, summer days. Ground level ozone is harmful to our health and environment. We can reduce our Ozone Alert days by working together. Check out the simple actions you can take on the back of this card.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

(front)

THINK BEFORE YOU START.

Ground Level Ozone Pollution can be reduced when you do these simple things:

- > keep your car well maintained
- > refuel after 5 p.m. on hot sunny days
- > stop at the click – don't overfill gas tanks
- > walk to lunch and run errands after work
- > take the bus at least once a week
- > use gas-powered lawn equipment after 5 p.m. on hot, sunny days
- > avoid painting and staining projects in the heat of the day
- > tightly cap solvents; store in a cool place

(back)

APPENDIX SIX:

“CHILL” PLEDGE CARD AND LOGO

PLEDGE TO CHILL.

Join the non-movement. Pledge to do less on hot summer days.

Check the activities you'll commit to and mail back or register with us online at OzoneAware.org.

- ☐ drive less, walk to lunch, run errands after work
☐ refuel your car after 5 p.m. and stop at the click
☐ mow after 5 p.m. on hot summer days

Name _____ Email _____

Street Address _____ City/State/Zip _____

- ☐ I would like my name to appear on your web site's pledge page.

The Regional Air Quality Council does not sell or give away personal information from the information you provide. It is used solely for the purposes of sending you ozone updates and special offers.

SO WHAT'S THE DIRT ON OZONE POLLUTION?

Ground level ozone pollution is created when emissions from everyday items such as gasoline-powered vehicles and lawn equipment, and household paints, stains and solvents, combine with other pollutants in the atmosphere on hot, summer days. Ground level ozone is harmful to our health and environment. We can reduce our Ozone Alert days by working together. Take the pledge this summer to help take care of our summer air.



LET'S TAKE CARE OF OUR SUMMER AIR.
OzoneAware.org

THINK BEFORE YOU START.

Ground Level Ozone Pollution can be reduced when you do these simple things:

- > keep your car well maintained
- > refuel after 5 p.m. on hot sunny days
- > stop at the click – don't overfill gas tanks
- > walk to lunch and run errands after work
- > take the bus at least once a week
- > use gas-powered lawn equipment after 5 p.m. on hot, sunny days
- > avoid painting and staining projects in the heat of the day
- > tightly cap solvents; store in a cool place

Regional Air Quality Council
 1445 Market Street, Suite 260
 Denver, CO 80202



CHILL. HANG. BE COOL.



LET'S TAKE CARE OF OUR SUMMER AIR.
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APPENDIX SIX:

ONLINE "CHILL" PLEDGE

Register a Pledge - Microsoft Internet Explorer

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Address <http://pledge.ozoneaware.org/> Go Links

PLEDGE TO CHILL.
Join the non-movement. Pledge to do less on hot summer days:

Pledge to Chill.
Please join the non-movement. And pledge to do less on hot summer days. You'll help us reduce ozone pollution when you avoid these activities during the heat of the day. So do your part, and chill.

Name:

City:


I pledge to...

- ☐ drive less, walk to lunch, run errands after work
- ☐ refuel my car after 5pm and stop at the click
- ☐ mow after 5pm on hot summer days

☒ Yes, please [display my pledge](#) on the web site:

Stay tuned for developments. Our partners will be offering discounts and giveaways for some cool chill stuff. We'll also be working with partners to provide some Summer Chill Zones – laid back places where you can go to just chill, read a book, surf the net or enjoy a cold drink.

Be sure to check back in the coming weeks for a list of Chill Zones and partners and the latest Summer Chill news! Thank you to all of our "chill" partners for encouraging all of us to stay cool this summer by taking the pledge to chill.

 **LET'S TAKE CARE OF OUR SUMMER AIR.**
OzoneAware.org

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