

2015 REPORT March 2016

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2015 OZONE REPORT

ACKNOWLEDGEMENTS

The Regional Air Quality Council (RAQC) would like to thank the following organizations, all of which provided generous funding and support to make the 2015 OzoneAware program possible:

- Federal Highway Administration (FHWA), Colorado Department of Transportation (CDOT), and Denver Regional Council of Governments (DRCOG) – Congestion Mitigation/Air Quality (CM/AQ) grant;
- Suncor Energy Inc. and Black and Decker private contributions for Mow Down Pollution;
- Local governments throughout the metropolitan area and Front Range region.

Source	Amount
CMAQ	\$90,000
Suncor Energy	\$30,000
RAQC	\$70,000
TOTAL	\$190,000

Summary of Major Funding Sources

The RAQC would also like to thank the following partners and supporters for their significant contributions to the success of the 2015 OzoneAware campaign.

- American Lung Association of Colorado
- Azteca
- B-Cycle
- Black and Decker
- Colorado Clean Cities Coalition
- Colorado Department of Public Health and Environment, Air Pollution Control Division

- Colorado Department of Transportation
- Deriver Regional Council of Governments Way to Go Program
- Dick's Sporting Goods Park
- Envirotest Systems, Corp. (Air Care Colorado)
- KMGH
- Launch Advertising
- Media Visions, Inc.
- National Center for Atmospheric Research
- Regional Transportation District
- Suncor
- Total Traffic Network

EXECUTIVE SUMMARY

OzoneAware is a RAQC-sponsored outreach and education program with a two-fold mission: 1. to increase public awareness about ozone pollution and its causes and health effects and 2. to motivate area residents to change their behaviors to help reduce ozone pollution. The campaign is made possible with the help of numerous stakeholders from the Denver Metro/Front Range region -including local, state and federal governments; businesses; transportation organizations; nonprofits; and citizens.

Ground-level ozone pollution is a summertime pollutant that forms when emissions from everyday sources such as local industry; gasoline-powered vehicles and lawn equipment; and household paints, stains, and solvents react in the presence of heat and sunlight. Ozone pollution can cause breathing difficulties – particularly in children, the elderly, and people with pre-existing respiratory conditions – and even healthy people who exercise or work outdoors may experience breathing problems and eye irritation when exposed to elevated levels.

High concentrations of ground-level ozone over the past several summer ozone seasons have put the metro area in violation of the federally set, healthbased standard for this harmful air pollutant. The region failed to meet the 2008 Environmental Protection Agency (EPA) federal standard of 75 parts per billion (ppb). On Oct. 1, 2015, the EPA announced a new ozone standard of 70 ppb. Ongoing public information efforts to encourage voluntary ozone reduction are therefore imperative both to improving air quality and public health and to getting the area back into compliance.

With the close of the 2015 OzoneAware ozone season, the RAQC has concluded the eleventh year of its OzoneAware program and 17th year of its Voluntary Ozone Reduction Program. Because of a limited budget, the 2015 ozone program largely mirrored the 2014 program -- in which a fresh approach was taken to campaign messaging and marketing -- while incorporating new outreach and event components. To that end, the program continued to encourage ozone-reducing behaviors through tip-based messaging while also working to engender a personal connection to the issue and emphasize how individuals can make a difference. **The 2015 OzoneAware program included:**

- A community-focused ozone season kick-off event with the RAQC board of directors and partners;
- Messaging that informs the public that most ozone pollution comes from the direct actions of people – especially people using their cars; mowers; and paints, stains and solvents – and that their actions make a difference;

- A paid media program that targets young professionals, empty nesters and Hispanic commuters through the use of updated TV (KMGH), radio (Total Traffic Radio), and B-Cycle advertisements;
- An exclusive media agreement with KMGH and spokespersons from KMGH/Azteca – Mike Nelson and Virginia Garcia, among other Channel 7 meteorologists – to reinforce messaging on TV;
- Marketing of an online/mobile engagement tool

 the OzoMeter -- that allows metro residents
 and participants of the Every Trip Counts and
 OzoneAware Programs to track their ozone
 reduction behaviors and see for themselves how
 their individual actions impact our air quality;
- Outreach to school-aged youth through community events and the ongoing dissemination of an activity book for kids at those events;
- Rotation of 7' x 3' informational displays at 8 locations in the metro area;
- 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;
- An outreach and education campaign that focused on simple actions people can take to reduce ground-level ozone;
- A behavior-change campaign in which citizens were encouraged to take a pledge to avoid activities which contribute to ozone pollution;
- Increased, focused social media efforts;
- Participation in numerous metro-area events, such as Earth Day Denver, Bike to Work Day, and National Get Outdoors Day.

FEDERAL OZONE STANDARDS: COMPLIANCE AND OUTLOOK

The Environmental Protection Agency (EPA) is responsible for establishing and periodically updating federal public health standards, including the standard for ozone. The EPA relies on an independent team of expert scientists known as the Clean Air Science Advisory Committee (CASAC) for advice in setting the appropriate health-based air quality standards. The current eight-hour ozone standard limits the allowable level of ozone to 70 parts per billion (ppb) or .070 parts per million (ppm) averaged over three years.

The State of Colorado was among several states submitting an Early Action Compact (EAC) – a statedevised approach for meeting the former ozone standard of 85 ppb/.085 ppm -- to the EPA in 2004. Unfortunately, in 2007, the Denver region failed to meet the requirements set forth in the EAC. That year, the EPA announced it would not grant another extension date for Denver to meet the eight-hour health-based ground-level ozone standard. The result was the first federal nonattainment designation for the Denver area and the subsequent need for a State Implementation Plan (SIP) to recommend concrete strategies to facilitate the area's compliance.

In 2008, the RAQC worked with EPA, CDPHE and the Denver Regional Council of Governments (DRCOG), as well as numerous regional stakeholders, to develop a SIP that was accepted by the Air Quality Control Commission (AQCC) on December 12, 2008. The SIP was vetted through the legislature for approval before it was signed by Governor Bill Ritter Jr. in June 2009. The SIP includes a number of recommended regulatory and policy strategies, the impacts of which OzoneAware campaign functions to augment.

The Denver Metro/Front Range region has continued to fall out of compliance with federal standards for ozone since 2007. On April 30, 2012, the EPA officially issued the nine-county area a second (marginal) nonattainment status under the 2008 National Ambient Air Quality Standards as required by the Clean Air Act. The EPA's final designations are based on air quality monitoring data; recommendations submitted by the states and tribes; and other technical information including emissions, commuting patterns, population growth, weather patterns and topography.

The Denver Metro Area/North Front Range region did not attain the 2008 ozone standard of 75 parts per billion (ppb) before the deadline set by the U.S. Environmental Protection Agency (EPA) for Marginal nonattainment areas, which was July 20, 2015. Therefore, the region is being reclassified to a Moderate nonattainment area, which requires additional planning requirements, including the development of a State Implementation Plan (SIP), and a new attainment deadline of July 20, 2018. Due to the deadline being in the middle of the ozone season, the region must demonstrate attainment by the end of the 2017 ozone season.

2015 OZONE LEVELS

A region attains the ozone National Ambient Air Quality Standard (NAAQS) when the three-year average of the annual fourth-highest daily maximum eight-hour ozone concentration measured at each monitoring site is less than 76 ppb. In 2015, the highest fourth maximum value was 81 ppb recorded at the Chatfield State Park and National Renewable Energy Lab (NREL) monitors. The highest threeyear average, which is referred to as the regional design value and is the test of attainment, was at 80 ppb at the NREL monitor. Area monitors recorded values at or above 76 ppb on 17 days during the 2015 season, with 40 individual occurrences across all 14 monitors. Compared to the 2014 ozone season – during which the regional design value was 82 ppb and area monitors recorded values at or above 76 ppb on 10 days during the season -- there were only slightly more exceedances in 2015 with the regional design value continuing to decline. Ozone monitoring data for the 2015 summer ozone season, as well as previous seasons, is contained in Appendix E.

THE OZONEAWARE CAMPAIGN

The OzoneAware campaign was initiated in 2005 -following the receipt of significant federal funding -to enhance a voluntary ozone reduction program that the RAQC had administered in-house for the previous six years. The original program was initiated in 1999 after the metropolitan Denver region experienced elevated ground-level ozone readings exceeding the EPA's standard during the summer of 1998. It began as a simple partnership between the RAQC and CDPHE to issue alerts when ozone was forecasted to reach elevated levels. The program has evolved over the past ten years to engage a broad audience (Denver Metro/Front Range residents) through a comprehensive approach that has included paid media, outreach, education, earned media and social media components. The primary messaging of the campaign from 2005-2012 focused on providing tips for ozone reduction.

This approach proved particularly impactful in the first few years of the campaign and has continued to be largely successful in raising awareness about ground-level ozone pollution and reduction activities over the life of the program. While research shows that the number of respondents believing ozone pollution is a problem has increased since the inception of the campaign, research conducted between 2005 and 2011 showed a plateau in the overall effect of the campaign. The RAQC contracted with Corona Insights in 2012 to confirm these findings via focus groups and explore options for fresh campaign traction. In 2013-14, the RAQC endeavored to build upon previous successes to refresh campaign elements and reinforce messaging for a renewed and lasting impact.

The renewed OzoneAware program has continued to encourage ozone-reducing behaviors through tipbased messaging, while also engendering a personal connection to the issue and emphasizing how individuals can make a difference. To that end, the 2013 OzoneAware campaign introduced three important new elements, which were continued through 2015:

- Messaging that informs the public that most ozone pollution comes from the direct actions of people – especially people using their cars, mowers, and paints and solvents – and that their actions make a difference
- An exclusive media agreement with KMGH and spokespersons from KMGH/Azteca – Mike Nelson and Virginia Garcia, among other Channel 7 meteorologists – to reinforce messaging on TV, in schools, and at community events
- An online/mobile engagement tool that will allow metro residents and participants of the Every Trip Counts and OzoneAware Programs to track their ozone reduction

behaviors and see for themselves how their individual actions impact our air quality

The program has utilized the OzoneAware website, earned and social media, and community and local government outreach to expand on both new messaging and existing tips messaging. Strategic targeting and a mix of paid media have furthered the team's layered approach to the campaign.

OzoneAware has managed earned media, social media, and local government and community outreach efforts in-house. Following a formal request for proposal (RFP) process, the RAQC signed a new contract with incumbent Launch Advertising for 2013 and 2014 to revitalize the creative marketing components of the program in support of this strategy. And 2015 continued those program components.

A holistic approach to communications has been and will continue to be imperative to the success of a revitalized campaign. To that end, OzoneAware has implemented the following communications elements in cooperation with its consultants.

COMPONENTS

The 2015 OzoneAware 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, radio, and online components in order to maximize visibility. These various components, which are described in detail below, were collectively employed to raise awareness about ozone pollution throughout the region.

1. Mow Down Pollution

In June, the RAQC partnered with Black and Decker, Suncor Energy, Dick's Sporting Goods Field and All Recycling to host its annual Mow Down Pollution event, and Suncor Energy generously provided \$30,000 in grant funding for the lawn mower exchange and advertising. As part of the OzoneAware program, Mow Down Pollution offers significant discounts on electric lawn equipment and encourages area residents to permanently retire and recycle old gasoline-powered mowers. Discounts of up to \$135 were provided, and \$22,190 was given in total subsidies.

Results

A total of 174 electric Black and Decker mowers were purchased, with 85 percent of participants recycling an old gas powered mower. This resulted in the total elimination of 148 gas-powered mowers and the subsequent prevention of 505 pounds of volatile organic compounds and 18,862 pounds of carbon monoxide from entering Denver's air.

Mower	Units	Unit	Total
Model	Sold	Subsidy	Subsidy
CM1640			
W/TRADE	30	\$135.00	\$4,050
CM1640			
WO/TRADE	13	\$85.00	\$1,105
CM1936Z			
W/TRADE	118	\$135.00	\$15,930
CM1936Z			
WO/TRADE	13	\$85.00	\$1,105
TOTAL	174		\$22,190

The RAQC partnered with Black and Decker, The City of Fort Collins and Colorado Iron and Metal Inc. to host a second Mow Down Pollution event in Fort Collins in July. The event was funded through the Nobel Energy SEP. A total of 71 electric lawn mowers were sold, with 94 percent of participants recycling an old gas powered mower. This resulted in the total elimination of 67 gas-powered mowers and the subsequent prevention of 206 pounds of volatile organic compounds and 7,696 pounds of carbon monoxide from entering Denver's air.

2. Electrify Your Summer/Ozone Kick-Off Event

On June 5th, in lieu of holding a full board meeting, the RAQC's OzoneAware and Charge Ahead Colorado (CAC) programs and the RAQC board of directors held an "Electrify Your Summer" ozone season kick-off event at Market Street Station that included an electric vehicle (EV) showcase and chance for event visitors to win prizes. Visitors learned about the economic and environmental benefits of electric vehicles, received information on EV financial incentives, tax credits, and charging infrastructure, got to see first-hand some of the most popular electric vehicle models available, and had a chance to win an electric lawn mower and other prizes. Local media were invited for media availability with RAQC Board Chairman Andy Spielman, RAQC Director of Mobile Sources Steve McCannon, CAC Grantee/City of Denver Director of Environmental Quality Gregg Thomas, Colorado Energy Office Director Jeff Ackermann, and Denver Metro Clean Cities Coalition Manager Tyler Svitak.

Results

About 25 RAQC staff, board members and partners participated in the kick-off event, which was covered by Channel 7, who interviewed RAQC Board Chairman Andrew Spielman, on its noon and evening newscast and also posted about on social media by various partners.

3. Ozone Action Alerts

OzoneAware issues Ozone Action Alerts to warn citizens of the potential for elevated ozone levels and encourage behavior change to reduce pollution levels. The technical services staff of the Air Pollution Control Division (APCD) at CDPHE developed a system more than 10 years ago to forecast meteorological conditions supporting the development of ozone concentrations at or above 75 ppb, which are reported on an as-needed basis. APCD staff meteorologists use 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 day they are called and remain in effect for the following 24-hour period.

During the 2015 ozone season, the RAQC used Constant Contact to send e-mails to interested media and local government contacts, businesses, citizens and other stakeholders 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 and were included as part of the campaign's paid media strategy in traffic reports on 25 radio stations. Local television stations made an effort to mention the alerts during various morning and evening weather broadcasts, and KMGH and Azteca included them as part of their paid media agreements.

The RAQC posted ozone alerts to the web site so people visiting the site could access current air quality information, and -- as in previous years -many local governments placed a link on their web sites to display current air quality conditions as well. Seven templates were circulated using messaging related to tips, personal responsibility and the OzoMeter. The alerts included information on how ozone is formed, the health effects of ozone, and how residents can help reduce ozone. They also included the CDPHE hotline number and contact information for OzoneAware communication staff, as well as a Spanish language sentence directing Spanish language readers to the OzoneAware website for more information.

Results

The RAQC e-mailed the Ozone Action Alerts to 1,385 local government representatives, media outlets, businesses and citizens. The alerts allowed local governments to make changes in operational behavior to reduce VOC emissions, and further provided local government and media outlets information to inform citizens about the effects of ozone and encourage behavior change.

A total of 25 alerts were issued during the 2015 ozone season. 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. OzoneAware added 332 new recipients to its alert distribution list during the 2015 season.

4. Media Advertising

The RAQC continued the paid advertising campaign initiated in 2005 and refreshed in 2013 to raise awareness about ozone. To that end, the program executed a targeted media strategy including promotion of the program's online engagement tool -- the OzoMeter -- and messaging to help make a personal connection to the issue. In lieu of a broadbased campaign, OzoneAware focused on reaching key target audiences with the goal of creating program ambassadors.

Target audiences included:

- Adults, age 34-54
- Empty nesters, age 55-65
- Young urban professionals, age 23-33
- Hispanic adults, age 18-34

The purchased advertising schedule utilized television, radio, and web advertising methods in order to maximize awareness of the issue. In addition, the RAQC's multiple media partners donated bonus television and radio airtime, extending the campaign's reach.

Strategic media channels included:

- An exclusive partnership with KMGH /ABC, which included station support, extension to an Hispanic audience and social media posts to station followers
- TV advertisements on KMGH and Azteca
- Radio advertisements and alerts on Total Traffic Radio
- Advertising on Denver B-Cycles

Results

The 2015 multi-media paid advertising campaign resulted in 12,268,282 gross impressions (the sum of audiences that a medium or combination of media reaches represented in thousands). The full paid OzoneAware media campaign ran from June 8 through August 30. Specifically, the media mix included the following:

- KMGH/Azteca:
 - Three-month TV schedule
 - Station ambassadors for the campaign Mike Nelson and Lisa Hidalgo, KMGH and Virginia Garcia, Azteca
 - :15 and :30 TV spots featuring ambassadors
 - Online and mobile banners and pre-roll
 - Several mentions regarding ozone alerts in weather reports
 - 1,800,000 digital impressions
 - Facebook posts and Tweets to more than 250,000 station followers

- Total of 209 bonus spots on KMGH
- June 5th story on evening news covering
 Ozone kick-off event and interview with
 RAQC Chairman Andy Spielman
- 45% of adults ages 25-64 saw the OzoneAware message 10.4 times from May-August
- Premiere Traffic Network
 - :10 and :15 traffic sponsorship advertisements running 55 times per week on Clear Channel and Lincoln Financial stations (including ozone alerts, as appropriate)
 - 2,913,358 impressions
 - Bonus schedule
- Denver Bike Sharing
 - B-cycle sponsorship, including 20 branded full bikes, 200 bike shrouds and baskets, 50 day passes for giveaways, and June e-mail feature and Facebook and Twitter posts
- KBCO Radio (Mow Down Pollution event)
 - 109 :15 radio spots promoting the June event (Paid for by Suncor Energy)

All media aspects, including creative work, were developed simultaneously with other components of the program to ensure continuity throughout the entire campaign. Creative designs and detailed results of the paid media advertising campaign are detailed in the Appendices. TV commercials can be viewed on OzoneAware's YouTube Channel at: http://www.youtube.com/user/raqcozone1445

5. The OzoMeter

OzoneAware heavily promoted its OzoMeter tool, which was first introduced to the campaign in 2013. The OzoMeter is housed on the OzoneAware website and allows users to register and track their trips on an individualized dashboard -- or simply use the tool to generate data that is unsaved. The tool tracks miles traveled by various modes of transportation and informs users of their air quality impact in terms of ozone and carbon reductions. It also tells users how much money they have saved and lets registrants log additional ozone reduction behaviors such as mowing in the evening, stopping at the click and combining errands and driving less. Once users have logged an entry, they may post it to Facebook and/or Twitter to showcase their clean air progress.

Results

The OzoMeter continues to be a valuable addition to the campaign, with roughly 585 participants tracking trips. Overall, OzoMeter users have tracked the following since the OzoMeter was introduced in 2013:

- 1.3 million Miles Reduced
- 8.2 million grams Ozone-Causing Emissions Reduced
- \$327k Cost Savings
- 1.3 million lbs. CO2 Reduced
- 810 Mowed their lawn or refueled car after 5 PM
- 1,065 Stopped refueling their car at the click
- 1,563 Combined errands and drove less

6. Social Media

A focus on social media offered an opportunity for OzoneAware to expand on tips messaging and health-related information to support the broader messages of the 2015 campaign. Further, the OzoMeter offered an additional opportunity to expand OzoneAware's social media presence and engagement with its followers. To that end, 2015 social media efforts included:

 Development of a social media calendar with daily content and weekly themes

- Ongoing promotion of prize drawings, community outreach efforts and partner initiatives
- Development and posting of compelling info graphics and other material
- Posting of Ozone Alerts
- Reminders to use the OzoMeter
- Continued social media partnerships with DRCOG, CDOT, ALA, Envirotest, CDPHE, Denver Environmental Health, BikeDenver, B-Cycle and Walk Denver
- Identification and engagement of new strategic partners
- Robust Facebook boosts from KMGH

Results

At the end of the 2015 season, OzoneAware had a total of 1,662 Facebook likes and 924 Twitter followers.

7. Media Relations

The RAQC covered media relations efforts in-house, pitching the kick-off of ozone season to all appropriate print, radio, TV and social media, and tailoring messaging for publications and reporter beats as appropriate. The RAQC also reached out to TV weather teams to ensure that they were equipped to report on Ozone Action Alerts.

Results

Media relations efforts resulted in several media stories related to ground-level ozone and the new proposed standard. A list of media outlets covering ozone during the 2015 season is included below.

- Azteca America
- Channel 7 News
- Channel 9 News
- Colorado Public Radio
- Denver B-Cycle
- KBCO iHeart Radio

- The Denver Channel website
- Sciencemag.org
- EurekAlert! Science News
- Colorado Public Radio
- Journal-Advocate
- Denver Post
- CBS Denver
- Inside Energy
- Denver Business Journal
- Pueblo Chieftain
- Colorado Springs Gazette

6. Outreach

Public outreach played a critical role in raising awareness about summer ozone pollution during the 2015 season. Public outreach augmented paid and earned media efforts and allowed RAQC staff to engage face-to-face with stakeholders to expound upon the messages delivered via other channels. To that end, the RAQC implemented a robust strategic outreach plan that included website updates, event outreach, e-mail marketing, and monthly prize drawings while also including new outreach strategies aimed at reaching school-aged youth.

a. Web site

During the 2014 season, the RAQC migrated all four of the RAQC's websites – including OzoneAware -from Expression Engine to WordPress. All advertising in 2015 continued to direct people to www.OzoneAware.org.

Results

The web site continues to be a powerful communication tool. Visitors to the site increased in 2015 by more than 4,000 people compared to 2014.

b. Clean Air Community

OzoneAware continued the pledge concept initiated in 2009 to encourage area residents to join its Clean Air Community by committing to certain ozonereducing behaviors. Visitors to the website were able to easily pledge online, view the names of other pledges and track their individual actions. Additionally, OzoneAware used an iPad to collect new pledges at events. New pledges were sent welcome e-mails introducing the complementary OzoMeter and were added to e-mail marketing lists for further contact.

Results

OzoneAware signed 70+ new pledges to its Clean Air Community in 2015.

c. Event Outreach

OzoneAware exhibited at a number of community events in order to raise awareness about summer ozone pollution and help area residents understand how their individual actions impact air quality. These events provided OzoneAware an opportunity to engage one-on-one with interested parties to elaborate on campaign messaging and create ambassadors for the issue.

To that end, staff provided information on the causes and effects of ozone and informed citizens about how they can reduce ozone pollution as individuals. Additionally, staff used an iPad to allow people to take a pledge for clean air, sign up for ozone action alerts, and familiarize themselves with the functions of the OzoMeter. Prize drawing displays and branded promotional items such as frisbees, air fresheners and can coolers drew people to the OzoneAware table. A colorful tablecloth and other signage incorporating recently developed graphics and messaging provided consistency with billboards and TV advertisements.

Results

OzoneAware had a presence at the following events:

- Aurora Youth Water Festival
- Ozone Season Kick-Off Event/16th & Market
- Bike to Work Day
- Earth Day Denver
- Mow Down Pollution
- Longmont's Rhythm on the River Festival
- Denver Century Ride
- National Get Outdoors Day
- Colorado Dragon Boat Festival
- Denver County Fair
- South Platte Riverfest
- Commerce City Neighborhood Outreach
 Program

d. Promotional Items & Incentives

Roughly 2,000 promotional items were distributed -including branded can coolers, Frisbees, stickers, tattoos and air fresheners. Additionally, lawn mowers and transit passes were given away in monthly prize drawings and as part of event pledges on OzoneAware.org.

Additionally, 24-hour B-Cycle memberships provided by Denver Bike Sharing as part of the paid media agreement were awarded to winners of random social media contests. The prize drawing program was promoted vie e-mail marketing to OzoneAware Constant Contact lists and through social and community event outreach.

Results

Promotions and incentives were a successful element of the 2015 campaign as incentivizing participation contributed to a significant increase in registrants for receiving ozone alerts, OzoMeter users and social media engagement. Further, the program provided excellent content for regular email marketing to nearly 4,500 stakeholders, and showcasing prizes at events drew people to the OzoneAware table.

7. School-Aged Youth Outreach

OzoneAware continued to increase its focus on outreach to school-aged youth in 2015. To that end, the campaign continued dissemination of the "Become a Clean Air Kid" activity books created in 2013, presented to fifth graders as part of Aurora Public Schools Water Festival, and performed ongoing outreach to youth-based audiences.

In all efforts, OzoneAware staff encouraged students to use the activity books to create a family ozone action plan, track ozone reduction behaviors with the OzoMeter, and involve their parents and friends in ozone reducing ozone as well.

Results

Nearly 1,000 "Become a Clean Air Kid" books were disseminated.

8. Local Government Outreach

Local governments are among the RAQC's most important partners in ozone reduction efforts. Local governments have the capacity to reach a broad number of constituents in a number of ways while making significant decisions regarding air quality impacts at an organizational level as well. To that end, OzoneAware extended its outreach to local governments in 2015 to further increase awareness and extend messaging regarding individual and collective efforts.

Local government outreach in 2015 included:

 Lobby displays (7' tall x 3' wide banner bugs) introducing ozone reduction tips and the OzoMeter

- Inclusion of local government media outlets/newsletters in media distribution
- Participation in local government and community events

Results

OzoneAware rotated lobby displays in 8 community locations during the 2015 ozone season, reaching an estimated 150,000 views. Additionally, the "Air Quality Toolkit for Local Governments" has received 1,442 page views since its publication in February 2013.

APPENDIX A.

PAID MEDIA SCHEDULE

A1: PAID MEDIA ADVERTISING CAMPAIGN JUNE – AUGUST 2015

REGIONAL AIR QUALITY COUNCIL 2015 MEDIA RECOMMENDATION Revision #1, 5/27/15

BUDGET: \$140,000 Net		A	pril				May				Ju	ine			Ju	ıly			A	lugu	st		S	epte	mbe	er -		Oct	ober				
	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	8	14	21	28	5	12	19	TOTALS	VALUE	
CAMPAIGN EMPHASIS																																	
FELEVISION (1,614,300 pop)																																	
MGH/KZCO Partnership											x	x	x	x	x	x	x	x	x	x	x	x									12 Weeks		
30 & :15 spots, Dayparts - AMN, EN, LN,											39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0									468.0 TRPs		
N weather sponsorships, incl. PT, weekends											109	x rur	bon	us K	MGH	1&1	00x r	un b	onus	: Azte	еса										530 Spots		
x Facebook posts, preroll video, standard banner																															209 Bonus Spots		
lisplay, mobile banner ads, RAQC landing page																															\$88,646.50	\$140,071.50	
like Nelson & Lisa Hildalgo as spokespersons																																	
/irginia Ovejero Azteca spokesperson																																	
V Total Impressions - 7,554,924						⊢																								⊢			
5% Reach (726,435 total A25-54), 10.4x Freq						⊢																								⊢			
Digital Total Impressions - 1,800,000																																	
RADIO (1,224,100 pop)																																	
[
raffic Sponsorships-Premiere Traffic Network											X	x	x		x	x		×		x											7 Weeks	7 Weeks	
10 & :15 Spots											34.0	34.0	34.0		34.0			34.0		34.0											238.0 TRPs		
5x/Week, Clear Channel, Lincoln Financial station	s										85x	85x	85x		85x	85x		85x		85x											595 Spots		
otal Impressions - 2,913,358																															\$33,468.75	\$48,759.38	
8% Reach (587,568 total A25-54), 5.0x Freq																																	
Bonus schedule to run in addition											+									→										⊢			
Launch Fees																															\$13,000.00	\$13,000.00	
Media Planning/Buying Fees																															\$8,000.00	\$8,000.00	
GRAND TOTAL																															\$143,115.25	\$209,830.88	

Campaign Total Impressions - 12,268,282

APPENDIX B.

PAID MEDIA CREATIVE ELEMENTS

B1: TELEVISION ADVERTISING



B2: B-CYCLE ADVERTISING





5" tall x 5.125" wide .25" corners

APPENDIX C.

JUNE 5TH KICK-OFF EVENT

MEDIA ALERT

Page 18





MEDIA ALERT

CONTACT: Regional Air Quality Council

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Regional Air Quality Council Kicks Off Ground-Level Ozone Pollution Season with "Electrify Your Summer!" Electric Vehicle Showcase

WHO:	The Board of Directors of the Regional Air Quality Council (RAQC), partner organizations, and downtown Denver businesses
WHAT:	 The RAQC Board of Directors will kick off ground-level ozone pollution season with an "Electrify Your Summer!" electric vehicle (EV) showcase and chance to win prizes. Visitors to the "Electrify Your Summer!" event will: Learn about the economic and environmental benefits of electric vehicles Receive information on EV financial incentives, tax credits, and charging infrastructure See first-hand some of the most popular electric vehicle models available Have a chance to win an electric lawn mower and other prizes Be provided with informational materials on the RAQC's OzoneAware and Charge Ahead Colorado (CAC) programs Interact with RAQC board members and industry experts
WHEN/WHERE:	 FRIDAY, JUNE 5 11:00 a.m. – 2:00 p.m. – Market Street Plaza, 16th Street & Market Street MEDIA AVAILABILITY – 11:00-11:30 a.m. RAQC – Board Chairman, Andy Spielman (to speak about EV adoption and air quality) RAQC – Director of Mobile Sources, Steve McCannon (to speak about the specifics of CAC grant program) CAC Grantee/City of Denver – Director of Environmental Quality, Gregg Thomas (to speak about the benefits of being a CAC grantee) Colorado Energy Office – Director, Jeff Ackermann (to speak about the CAC program, EV Market Study) Denver Metro Clean Cities Coalition – Manager, Tyler Svitak (to speak about the benefits of EVs)
WHY:	Ground-level ozone is a harmful air pollutant that affects all of us – particularly children and the elderly. Ozone can trigger attacks and symptoms in people with pre-existing health conditions such as asthma or other respiratory diseases and may also affect healthy people who work or exercise outdoors. Ground- level ozone can cause breathing difficulties and eye irritation, as well as a reduced resistance to lung infections and colds. It is likened to a sunburn on the lungs.

In addition, the Environmental Protection Agency estimates that tailpipe emissions from cars and trucks account for almost a third of the air pollution in the United States. The adoption of zero-emissions electric vehicles can significantly reduce air pollution caused by motor vehicle travel. A growing number of charging stations – coupled with a wealth of vehicle options to choose from – is making it easier than ever to make the switch to electric vehicles and start paving the way to better air quality and better health in the Denver metro area.

VISUALS:

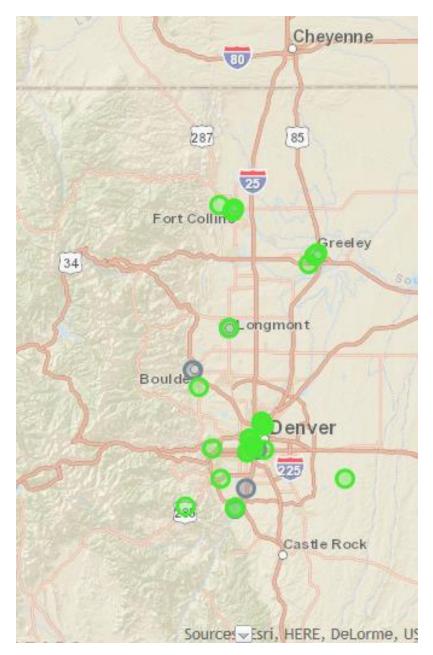
- Electric vehicles on display
- AAA Level 2 mobile charging truck on display
- Charging stations on display
- Electric lawn mowers on display and entered into prize drawing for attending public
- OzoneAware branded B-Cycles
- About 25-30 RAQC board members and staff, partners and community members

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ABOUT THE REGIONAL AIR QUALTIY COUNCIL

The Regional Air Quality Council (RAQC) is the lead air quality planning agency for the Denver metropolitan area. The Council's main purpose is to develop plans and programs to keep the region in compliance with federal air quality standards with significant input from area citizens, business and local governments. The RAQC also oversees the development and implementation of air quality outreach and education programs throughout the region. For more information about the RAQC and its programs, visit <u>www.raqc.org</u>, <u>www.ozoneaware.org</u> and <u>www.cleanairfleets.org</u>.

APPENDIX D. OZONE DATA



D1: MAP OF THE OZONE ATTAINMENT/MAINTENANCE AREA AND MONITORING SITES

D2: AQI/VSI SYSTEM REPORTING SITES FOR OZONE DENVER-METROPOLITAN AND FRONT RANGE REGIONS

Site Name	Abbreviation	Location
Welby	WBY	3174 E. 78th Avenue
Aurora East	AURE	36001 E. Quincy Avenue
S. Boulder Creek	SBC	1405 1/2 S. Foothills Highway
CAMP	CAMP	2105 Broadway
La Casa	CASA	4545 Navajo Street
Chatfield State Park	CHAT	11500 N. Roxborough Park Road
Welch	WCH	124000 W. Highway 285
Rocky Flats - N	RFN	16600 W. Highway 128
National Renewable Energy Laboratories	NREL	20th Avenue & Quaker Street
Aspen Park	ASP	26137 Conifer Road
NPS - Rocky Mtn. NP	RMNP	Rocky Mountain National Park
Ft. Collins - West	FTCW	LaPorte Avenue & Overland Trail
Ft. Collins - CSU	FTC	708 S. Mason Street
Greely - Weld Tower	GRET	3101 35th Avenue

D3: OZONE ACTION ALERTS 2000 - 2015

	June	July	August	Total
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
2007	14	26	4	44
2008	12	21	6	31
2009	1	4	6	11
2010	15	10	10	35
2011	11	20	6	37
2012	13	19	10	42
2013	8	16	8	32
2014	5	7	5	17
2015	14	6	5	25
Average Per Month	8.6	14.9	5.9	28.9

D4: OZONE MONITORING DATA (PPB)

Monitor	hitor		3rd Max			4th Max		2013-2015	
Monitor	2015	2015	2015		2015	2014	2013	Design Value^	
Welby	75	73	71		69	67	77	71	
Treasy	06/23/15	08/20/15	06/08/15	(06/28/15				
Aurora East	81	73	69		68	67	73	69	
Adrona Edot	08/21/15	08/20/15	08/24/15	(06/07/15		10		
South Boulder Creek	79	76	76		74	70	79	74	
South Boulder Creek	06/20/15	07/29/15	08/25/15	(06/23/15	10	15	/4	
CAMP	77	67	67		67	61	67	65	
CAMP	06/21/15	06/20/15	06/23/15	(07/03/15	01	07	05	
La Casa	80	72	71		70	66	71	69	
La Casa	06/21/15	08/20/15	08/01/15	(06/08/15	00		03	
Chatfield State Park	93	90	84		81	74	83	79	
Chatfield State Park	06/21/15	06/23/15	07/03/15	(06/25/15	74	03	79	
Welch	85	83	81		75	66	80	73	
weich	07/03/15	06/23/15	06/21/15	(06/08/15	00	80	13	
Rocky Flats	81	79	79		77	77	85	79	
Rocky Flats	06/21/15	06/20/15	08/01/15	(06/23/15		00	79	
NREL	91	91	84		81	76	84	80	
NREL	06/21/15	06/23/15	07/03/15	(06/20/15	10	04	00	
Aspen Park	74	73	73		70	65	77	70	
Aspeni Faik	07/03/15	06/26/15	07/30/15	(06/08/15	05		10	
Rocky Mtn. Nat'l Park**	74	72	70		69	69	74	70	
Rocky With Nati Park	06/20/15	06/09/15	08/24/15	(07/31/05	03	/4	10	
Fort Collins - West	80	79	76		75	74	82	77	
For Collins - West	06/21/15	08/24/15	09/26/15	(08/01/15	/4	02		
Fort Collins - CSU	76	71	71		69	72	74	71	
For Collins - CSU	06/21/15	08/01/15	08/24/15	(06/28/15	12	/4	/1	
Creeley Wold Tower	77	74	73		73	70	73	70	
Greeley - Weld Tower	06/28/15	08/25/15	06/08/15	(06/09/15	10	13	72	

Denver Metro/North Front Range Area - 2015 8-Hour Ozone Summary* Through Oct. 31st, 2015

Values are maximum daily 8-hour averages for ozone and are expressed parts per billion (ppb).

* Based on 8-hour averages of raw 1-hour ozone data from the Colorado Department of Public Health and Environment (CDPHE) (http://www.colorado.gov/airquality/param_summary.aspx); synced monthly with Air Pollution Control Division (APCD) monthly ozone summary (current as of Sept. 30th, 2015). Final quality assurance conducted by APCD at end of ozone season.

** Rocky Mountain National Park data from the Environmental Protection Agency's (EPA) Clean Air Status and Trends Network (CASTNET) database (www.epa.gov/castnet); synced monthly with APCD monthly ozone summary (current as of Sept. 30th, 2015)

^ Current as of oct. 31st, 2015

	 8-hour average ozone value exceeds 75 ppb 4th highest 8-hour average for current (2015) ozone season Regional Design Value (highest 3-year average of 4th highest 8-hour average ozone concentration) 						
For 2015 Ozone Season:	3 = Days > 84 ppb	27 = Days > 70 ppb					

6 = Days > 80 ppb 47 = Days > 65 ppb 95 = Days > 60 ppb 17 = Days > 75 ppb

D5: DENVER METRO/NORTH FRONT RANGE 8-HOUR OZONE DESIGN VALUE

