

SLAMMING THE BRAKES: HOW WASHINGTON'S OZONE PLAN WILL HURT THE COLORADO ECONOMY AND MAKE TRAFFIC WORSE



The Center For
Regulatory Solutions

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About Us

The Center for Regulatory Solutions is a project of the Small Business and Entrepreneurship Council, a 501c(4) advocacy, research, education and networking organization dedicated to protecting small business and promoting entrepreneurship. The SBE Council works to educate elected officials, policymakers, business leaders and the public about key policies that enable business start-up and growth.

1.0 EXECUTIVE SUMMARY

A plan currently being contemplated by the Obama Administration and the U.S. Environmental Protection Agency (EPA) in Washington, D.C. to dramatically tighten federal ozone limits could have a serious and deleterious impact on Colorado's economy, just when the state is putting the Great Recession in the rear-view mirror. Coloradans may also face longer and worse traffic jams – especially in the Denver metro area – because the more restrictive federal mandates could delay or completely block the approval of badly needed investments in road construction. For these reasons, local and state officials from both parties are speaking out against Washington's ozone agenda. Furthermore, public opinion research shows a strong majority of Coloradans believe their air quality is already good or excellent, and that significant majorities across the state oppose any plan that would cost the state thousands of jobs and billions in lost economic activity for no, or very little, environmental benefit in return.

Washington's ozone agenda hits Colorado especially hard

By lowering the National Ambient Air Quality Standard from 75 parts per billion (ppb) into the 65 to 70 ppb range, EPA would force, with a single action, at least 15 counties in Colorado to be in violation of federal law. These happen to be some of Colorado's most populated counties, concentrated in the Denver metropolitan area, but a number of counties on the Western Slope may be dragged into non-attainment as well. Together, these 15 counties are responsible for 89 percent of Colorado's economy and 85 percent of state employment.

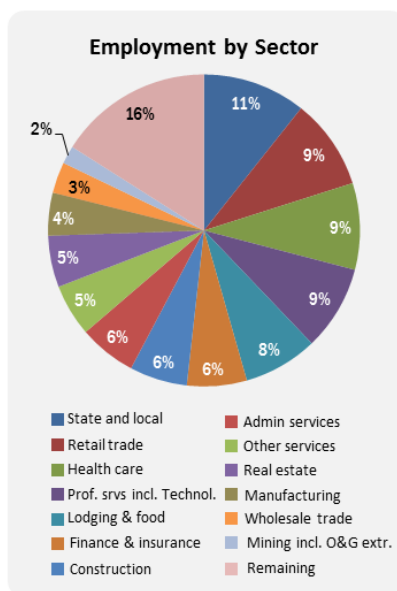
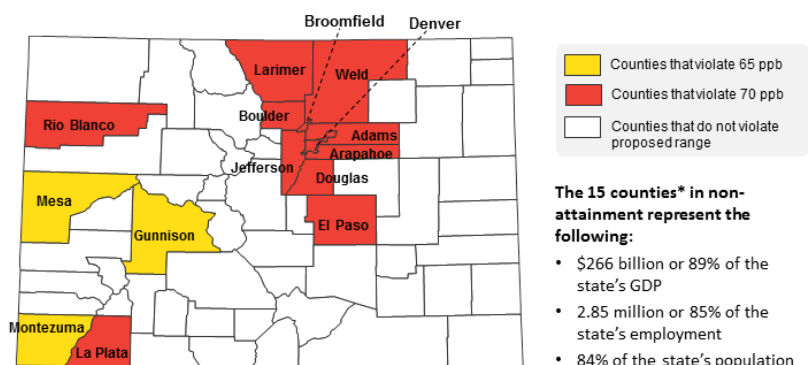
Violation of the proposed ground-level ozone standards will trigger a process that effectively hands over to EPA significant control over permitting and planning programs that currently reside within the purview of state and local authorities in these counties. Opening new manufacturing facilities, expanding existing businesses and upgrading the state's road network – among many other high-priority public and private investments in the Colorado state economy – are threatened by the EPA's ultra-low cap on ozone-forming emissions. Even worse, the EPA's role in micromanaging Colorado's economy could be permanent. Some scientists and planners believe the new standards being contemplated by Washington are so low, they may actually be physically impossible to meet.

Democrats, Republicans and businesses speak out

The new proposed ground-level ozone rules being considered in Washington have provoked a bipartisan backlash in Colorado, which has a proud history of environmental stewardship. In [interviews](#) with the Center for Regulatory Solutions

(CRS), in letters to the Obama Administration, and in other public comments, a broad cross-section of elected officials, business owners and regulatory experts expressed their frustration that the EPA is ignoring that history – especially the removal of Denver’s infamous “Brown Cloud” of the 1970s.

“After the great progress we have made on air quality, our state should be praised, not punished,” [State Sen. Cheri Jahn \(D\)](#) said in an interview. The EPA is “moving the goal posts on ozone” in a way that will “chase manufacturing jobs away from our state” and



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Denver	\$44.7	576,604
Arapahoe	41.8	451,774
Jefferson	38.0	276,585
Adams	32.3	245,357
El Paso	28.4	374,022
Boulder	22.1	247,875
Douglas	21.1	143,450
Larimer	13.7	201,814
Weld	9.9	129,760
Mesa	5.4	84,393
Broomfield	4.1	48,068
La Plata	2.6	38,269
Montezuma	0.8	14,461
Gunnison	0.7	12,182
Rio Blanco	0.4	4,776
Total	\$266.0	2,849,390
Colorado	\$299.5	3,351,702

* Denver and Broomfield counties currently have ozone levels below 65 ppb. However, they would be considered in non-attainment as they are part of the larger Denver MSA that is in non-attainment.

“make our traffic worse” by delaying new road and transportation projects,” Sen. Jahn added. Coloradans have long supported “commonsense environmental regulations,” but the EPA’s ozone proposal “goes too far” and “will only hurt the Front Range economy and working families,” State [Sen. Mary Hodge \(D\)](#) told CRS.

In other interviews, a [Boulder County construction firm](#) told us that EPA’s ozone plan represents “a very real threat to construction industry jobs and the Colorado economy,” and a [Weld County finance](#)

[professional](#) warned of “crushing” impacts that include “slower growth, wage cuts, job losses and a lower standard of living.” Meanwhile, the Denver Metro Chamber of Commerce, Metro Denver Economic Development Corporation and the Colorado Competitive Council have all urged the EPA to consider the harm that these new regulations could cause. In a letter to the EPA, the three groups [warned](#): “We believe

that the economic growth of Colorado is threatened by the EPA's proposal to lower the ozone standard." In a separate letter, the Colorado Association of Commerce & Industry [warned](#) the impacts of the proposed ozone standard would be "instant and profound" for the "vast majority of Colorado's businesses and industries."

Rural Colorado is equally worried. Tightening the federal ozone standard further "would drive small family farms such as mine out of business" through higher fuel, fertilizer and equipment costs, [State Sen. Jerry Sonnenberg \(R\)](#) – who represents communities on the Eastern Plains – told CRS. On the Western Slope, [State Sen. Ellen Roberts \(R\)](#) warned the proposed rules, if implemented, would put her constituents at "a terrible economic disadvantage," despite the region's hard work to "care for our environment even as we grow and diversify our economy." A [bipartisan group](#) of Routt County Commissioners – Timothy Corrigan (D), Douglas Monger (D) and Cari Hermacinski (R) – said the EPA's ozone proposal goes "too far too fast" and is "meeting with a lot of resistance even in places where air quality regulations are welcome."

If EPA officials in Washington dismiss these concerns, "[t]hey will turn away a lot of people who have been receptive to the idea that government can be trusted to do environmental regulation the right way," the commissioners warned in a letter to the White House. In another letter to President Obama's advisers, [Club 20](#) – a coalition representing the communities of Western Colorado – called the EPA's ozone proposal "devastating" in part because it relies on "technologies that don't yet exist to achieve these goals."

Construction bans, delayed road projects

Local and national groups representing [cities](#), [counties](#), [transportation departments](#), [agricultural agencies](#), [state-level environmental regulators](#), [labor unions](#), [construction companies](#), [energy producers](#), [manufacturers](#) and many other stakeholders have all sounded the alarm over Washington's ozone plans. In their view, the EPA is ignoring that very few cost-effective strategies are available to reduce remaining ozone-forming emissions, following four decades of huge private and public investments across all levels of government to solve the problem. Therefore, in comments to the Obama Administration, these stakeholders have warned that states may be forced to adopt much harsher measures, including:

- Construction bans
- Limits or bans on business expansions
- Delays in highway and road projects
- Denials of highway and road projects

- Measures to discourage driving, including the adoption of “no drive” days
- New restrictions on energy production

Colorado’s transportation sector – and anyone who drives – could be hit especially hard by these new, hyper-restrictive standards. A transportation analysis conducted by outside experts commissioned by CRS shows that Washington’s ozone plans would impose new limits on road construction projects in the Denver metro area, which is already grappling with heavy traffic congestion. Ozone-related restrictions on federal funding for new and expanded road projects could impose 4.5 million hours to nine million hours of commuter delays per year across the Denver metro road network by 2025. Those annual delays would increase to somewhere between 15.9 million hours and 31.8 million hours by 2040. The cumulative costs of this extra traffic congestion would reach \$378 million to \$756 million by 2025, and between \$4.2 billion and \$8.5 billion by 2040.

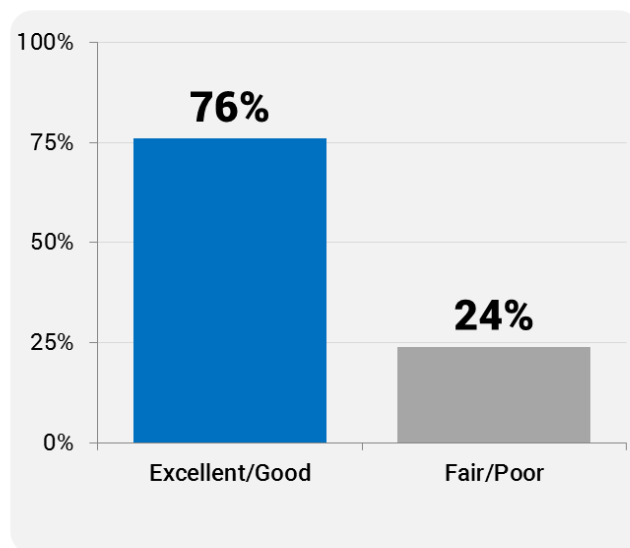
Experience shows cars and trucks that spend more time on the road stuck in traffic jams will [produce more emissions](#) – including those that contribute to ozone – than vehicles traveling to their destinations at or near the speed limit. Therefore, by making traffic worse in the Denver metro area, the EPA’s ozone proposal is not just economically destructive – it is self-defeating.

Voters wary of federal overreach

Recent public opinion research suggests strong opposition to the EPA’s plans in Colorado. A statewide public opinion poll, commissioned by the Colorado Association of Commerce & Industry and the National Association of Manufacturers, found 76 percent of Colorado voters rate their local quality as “Excellent” or “Good.” By a nearly two-to-one margin, Coloradans believe the bigger problem for their local area is “less economic growth and job opportunities caused by regulations” (57 percent) rather than “lower air quality caused by pollution” (30 percent). Furthermore, wide majorities (i.e. more than 55 percent) are unwilling to tolerate more

COLORADO OPINION POLL

How would you rate the air quality in your local area?



Source: CACI/NAM Colorado opinion poll, August 2015

traffic delays and longer commute times, or accept less economic growth and job opportunities, because of stricter federal air quality regulations.

Conclusion

The results of this report show that Washington's plan to dramatically tighten the federal ozone standard – a plan which could be finalized by Oct. 1 or sooner – poses an urgent threat to the Colorado economy, Colorado employers and Colorado workers. It also serves as a call to action for citizens, public officials, business owners and industry groups to demand the federal ozone standard remains at the current 75 ppb level – a standard itself that was only imposed in 2008, and with which many states haven't even yet had a chance to comply.

2.0 OZONE BASICS

Ground-level ozone is formed by a complex chemical reaction involving nitrogen oxides (NO_x), volatile organic compounds (VOCs), sunlight and other weather conditions. Industrial facilities and tailpipe emissions from cars and trucks are sources of NO_x and VOCs, which are together known as ozone precursors. Across the United States, there are also significant levels of so-called background ozone, attributed to natural sources and air pollution that drifts into the country from other nations.

"Coloradans care deeply about the environment. After the great progress we have made on air quality, our state should be praised, not punished. This ozone proposal out of Washington, D.C. scares my constituents, because it could hamstring our regional economy and cost jobs.

We have worked so hard to bring manufacturing jobs to Colorado, and by moving the goal posts on ozone, the EPA is going to chase manufacturing jobs away from our state. This plan could also gum up the approval process for badly needed road and transportation investments, which will make our traffic worse, and make it much harder to attract new industries, grow existing businesses, and strengthen Colorado's middle class."

State Sen. Cheri Jahn (D)

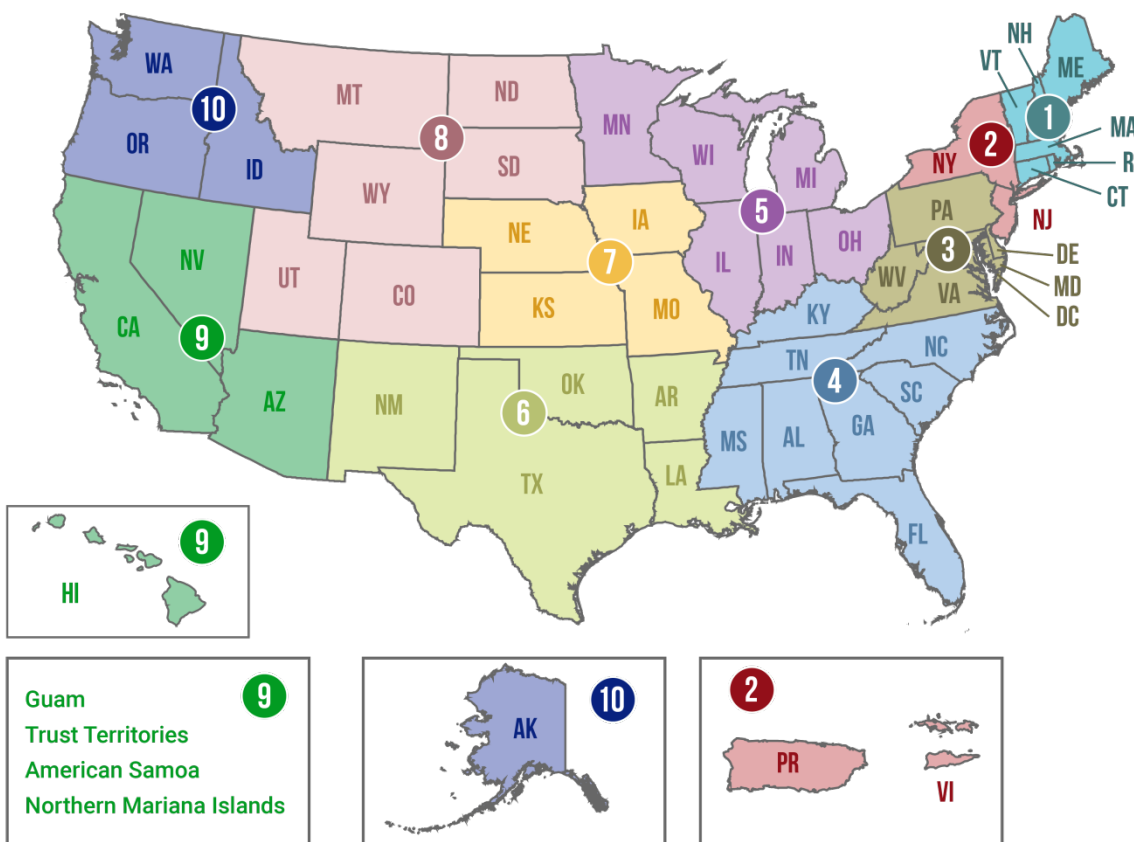
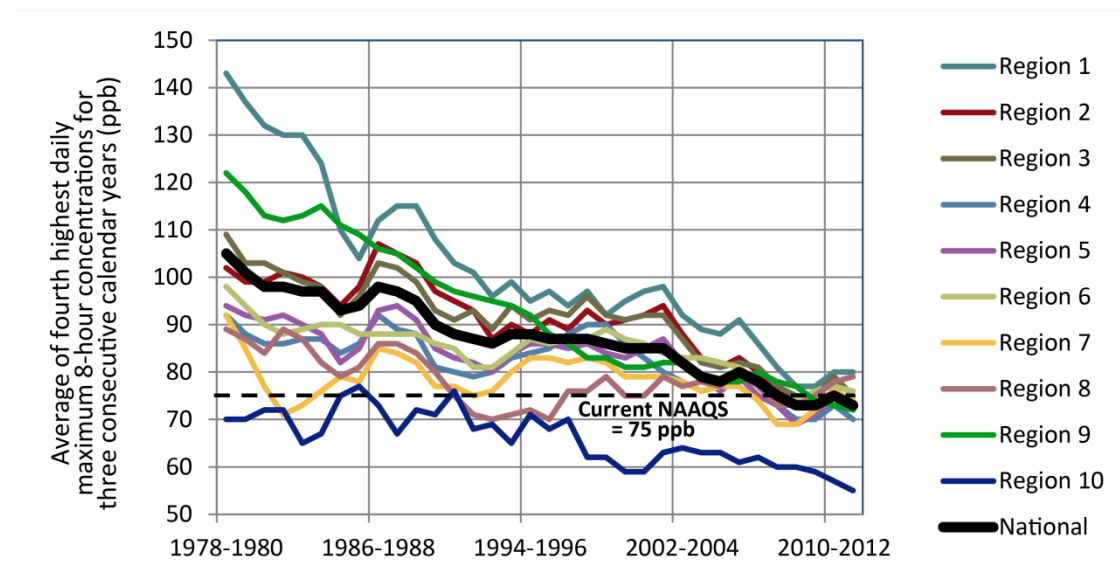
District 20 (Lakewood, Wheat Ridge, Arvada and southern Jefferson County)

In the 1970s, concerns over air pollution and health prompted the EPA to set National Ambient Air Quality Standards (NAAQS) for six "criteria pollutants," including ozone. In 1979, the ozone NAAQS was 120 parts per billion (ppb), averaged over the course of one hour. In 1997, it was lowered to 80 ppb, with the averaging time changed from one hour to eight hours. Then, in 2008, the ozone NAAQS was lowered again to 75 ppb.

Since the late 1970s, ozone levels have [fallen](#) by one-third. Likewise, emissions of NO_x and VOCs have each fallen by more than 50 percent. And according to EPA [data](#), this clean-air trend has been happening across all

regions of the country.

HISTORICAL OZONE TRENDS ACROSS EPA REGIONS



Source: EPA

3.0 HISTORY OF OZONE IN COLORADO

Colorado stands today as one of the biggest and most obvious success-stories of the Clean Air Act since it was passed more than 40 years ago. In the 1970s, the mix of ozone and other pollutants hung over the Denver metropolitan area was so thick it had its own name: “The Brown Cloud.” For perspective, downtown Denver recorded an ozone reading of 310 ppb in 1972, according to [state records](#). That is more than 300 percent higher than the current standard, in place since 2008, of 75 ppb.

“If the EPA carries out this ozone plan, Western Colorado will be placed at a terrible economic disadvantage. We have worked hard to responsibly care for our environment even as we grow and diversify our economy.

Tightening the ozone standard any further just does not make sense when the existing standard, which is less than 10 years old, is working. I urge the EPA to reconsider this plan and leave the 2008 standard in place.”

State Sen. Ellen Roberts (R)

District 6 (Archuleta, Dolores, La Plata, Montezuma, Montrose, Ouray, San Juan, and San Miguel counties)

From the 1970s and into the early 1980s, the Denver metro area violated federal air quality standards almost 200 days of the year, according to the [Denver Department of Environmental Health](#). A big part of the problem was Denver’s location. Situated a mile high and adjacent to the Rocky Mountains, a combination of temperature inversions and the region’s unique geography had the effect of trapping emissions in the lower atmosphere for extended periods before they dissipated. Air quality officials also [report](#) higher levels of background ozone in Western states than other parts of the U.S.

"The EPA may have good intentions, but this ozone proposal goes too far. In Colorado, we have a strong record of growing the economy and cleaning the air using commonsense environmental regulations. Unrealistic mandates from Washington, D.C. will only hurt the Front Range economy and working families."

State Senator Mary Hodge (D)

*District 25 (Aurora, Brighton, Commerce City,
Thornton, eastern Adams County)*

However, by the early 2000s, things had changed dramatically for the better in Colorado. The Denver metro region's air quality was greatly improved and the Brown Cloud was a fading memory.

According to the [New York Times](#), the "lion's share of the improvements" came from new cars and trucks being vastly cleaner than the older vehicles they replaced. Indeed, according to the [EPA](#), cars, SUVs and pickup trucks purchased today are "well over 90 percent cleaner than a new vehicle purchased in 1970."

In addition to newer and cleaner cars, an inspection and maintenance program targeted emissions from older vehicles. Fuel additives were developed that allowed gasoline to burn more efficiently in Denver's relatively thin air, thereby producing fewer ozone-forming emissions. And outside the transportation sector, pollution controls were deployed to "sharply cut emissions from ... coal-fired power generating plants," according to the *Times*.

"If that permit is delayed or denied, I have to find other work for my people, or send them home. This EPA ozone rule is a very real threat to construction industry jobs and the Colorado economy."

Jeff Erker

*Vice President of Operations,
FCI Constructors Inc., Boulder County*

"I am concerned there will be enormous economic costs and consequences. In the past, there were cost-effective options to reduce emissions, and the ozone targets were reachable. Today, we have reached the point of diminishing returns. Reducing emissions any further will be much more expensive and the targets proposed by EPA may never be reached, largely because of high background concentrations that state and local officials have no control over.

As long as there are parts of the state in non-attainment with the ozone standard, EPA gets to regulate an enormous amount of economic activity. In effect, EPA becomes the planning commission, the zoning commission and the state permitting agency all rolled into one. To get anything done, you have to go to the EPA hat in hand."

Raymond Gifford

Former Chairman, Colorado Public Utilities Commission; Partner, Wilkinson Barker Knauer LLP

Primarily because of these measures, the [Christian Science Monitor](#) reported in 2002 that "no other city has achieved a turnaround comparable to Denver's." Making the turnaround even more remarkable was Colorado's rapid population growth since the 1970s. From 2.2 million people in 1970, the Centennial State almost doubled in population by 2000, to 4.3 million. Since then, Colorado's growth has accelerated further, with the population now standing at more than 5.3 million.

In 2008, the federal ozone standard was lowered from 80 ppb to 75 ppb, presenting the Denver metro area with a new air quality challenge. Today, thanks to significant commitment of resources and a lot of collective hard work, the region is close to meeting the 2008 standard, and the EPA has classified a nine-county area around Colorado's capital city as being merely in "marginal nonattainment." Under this classification, the EPA will not impose penalties or new planning requirements, according to the [Colorado Department of Public Health and Environment](#).

However, if the ozone NAAQS is lowered any further, those federal sanctions would almost certainly be triggered, just as they were decades ago during the days of the Brown Cloud. But this time around, the economic impacts and limits on growth would be much harsher, because the cost-effective steps to reduce emissions have already been taken.

This was acknowledged four years ago by the Regional Air Quality Council, the lead air quality planning agency for the Denver metro area and parts of northeast Colorado. At the time, the Obama Administration was in the middle of a failed attempt to dramatically tighten the ozone standard well below the level set in 2008. “The easy, low-hanging fruit has been done,” the RACQ’s chairman told the [Denver Business Journal](#) in June 2011. If Washington, D.C. forces states and local governments to cut emissions much further, “there will be costs,” he noted.

A few months later, based on similar concerns from across the country, the Obama Administration [backed down](#) and kept the 2008 ozone NAAQS in place. But today, President Obama’s EPA is pushing for a second time to dramatically ratchet down the standard, despite the serious economic risks this entails for states like Colorado and cities like Denver.

4.0 THE EPA'S PROPOSAL AND SUPPORT FROM ALLIED POLITICAL GROUPS

The Obama Administration's push to dramatically tighten the ozone NAAQS began in 2010 – just two years after the current standard set at 75 ppb. After a major outcry over the impacts of this proposal, it was [withdrawn](#) by the EPA in 2011.

"The EPA's proposed new standards would drive small family farms such as mine out of business. We have never been able to afford new equipment and if the only way to comply with this new standard is with new equipment, my family would have to leave agriculture. Even if we could meet the standards with expensive upgrades to our machinery, the increased costs to finance those upgrades as well as the fuel and the fertilizer takes a marginally profitable farm and turns it into one that can't make its payments. Unless you want to see the family farm only as a memory, one must make the EPA understand that their new standards will have a devastating effect on rural America and the agriculture economy."

State Senator Jerry Sonnenberg (R)

District 1 (Akron, Burlington, Sterling, Yuma, eastern plains counties)

In late 2014, the EPA decided to [try again](#). It released a proposal to lower the ozone NAAQS from 75 ppb into the range of 65 to 70 ppb. The EPA also agreed to take comment on proposals as low as 60 ppb.

The EPA claims a dramatically tighter standard is justified by health concerns. In particular, the agency has repeatedly [cited asthma prevention](#) as one of the benefits of the

proposal. However, this ignores historical data on air quality and public health which clearly shows recent reductions in ozone have not reduced asthma cases. In fact, the federal government's own [data](#) show [millions more](#) asthma cases have been reported while ozone levels have [fallen significantly](#).

As the Texas Commission on Environmental Quality explained in a recent [report](#), "respiratory effects can occur at the high ozone concentrations that were measured in the 1980s and 1990s." But with today's much cleaner air, the EPA "has not demonstrated that public health will measurably improve by decreasing the level of the ozone standard." The general public is also very much aware of the nation's

"There are so many things we have done as a state and as a country when it comes to improving air quality since the 1970s."

Will Allison

Director, Colorado Air Pollution Control Division

remarkable air quality progress. A recent national [poll](#) commissioned by the National Association of Manufacturers found 67 percent of Americans rate their local air quality as "Excellent" or "Good." The same poll found nearly three times more Americans worry about the impact of "less economic growth and job opportunities caused by regulations" than those who are concerned about "lower air quality caused by pollution."

To bolster what is an objectively weak scientific case, the EPA has looked to a number of outside political groups to serve as surrogates and supporters. For example, in April 2015, the American Lung Association (ALA) issued a report – called "State of the Air" – on state and national air quality trends. Based on this report, the ALA, which has received over \$20 million in [grants](#) from the EPA over the past decade, [called](#) the current ozone standard "weak" and "out of date," despite the fact it was only set in 2008 and has yet to be fully implemented.

To build the case for a dramatic tightening of the federal ozone standard, the ALA even tried to rewrite four decades of history. In Colorado, the ALA told the [Denver Post](#): "Our air looks cleaner than in the 1970s. But we have higher ozone. ... The gains we made in the 1970s are going away."

The ALA was swiftly rebuked by air quality regulators in Colorado, who called the group's report "inaccurate." According to [E&E News](#), air quality regulators in Maryland and Texas also pushed back on the ALA's claims, with an Indiana regulator saying: "We want people to know ... their air is healthy to breathe." In a follow-up [interview](#), Colorado's top air quality official said the ALA was simply wrong to claim that ozone is higher now than in the 1970s and "it makes our jobs harder when positive trends are being spun the exact opposite way."

"We believe that the economic growth of Colorado is threatened by the EPA's proposal to lower the ozone standard. Consequently, we request that the EPA retain the current 75 ppb ozone standard."

**Denver Metro Chamber of Commerce, Metro
Denver Economic Development Corporation
& the Colorado Competitive Council**

The [Denver Post](#) also debunked the ALA's "Chicken Little" claims, noting that "it's important to understand where we've come from and where we actually are, and not to fudge the data." Under pressure, the ALA retracted its misinformation and conceded to the newspaper "ozone is not worse than in the 1970s."

Despite this, the ALA remains a key political ally of the Obama Administration's environmental agenda. EPA [e-mails](#) obtained by the Energy & Environmental Legal Institute suggest the ALA was selected to be the "messenger" of the ozone proposal and other planned regulations, based on polling provided to the agency by the Natural Resources Defense Council (NRDC) – a New York-based environmental group. For example, the ALA [hosted](#) President Obama on a conference call with reporters to build the case for new EPA regulations, and ALA officials have [participated](#) in White House briefings aimed at building public support for their shared agenda.

The ALA has also orchestrated a series of "mass comment" campaigns in support of a dramatically tighter federal ozone standard. These campaigns involve sending thousands of "duplicate" comments under different names, [according to EPA records](#), to create the impression that the proposed ozone standard is broadly understood and supported by the public. In fact, the ALA was [joined](#) by NRDC and two other groups with close ties to the Obama Administration – the Sierra Club and Organizing for Action (OFA) – in generating mass comments on this matter.

"The ozone standards being considered by the EPA simply go too far. The Denver metro area has made great improvements in air quality since the days of the Brown Cloud. And in doing so we have reached a balance that works for our region.

But these proposed limits would put that balance at risk, along with our ability to foster the economic opportunity that our area has become known for."

Don Rosier (R)

Jefferson County Commissioner

Together, these four groups generated [almost 30 percent](#) of the total public comments received by the federal government about the EPA's proposal to dramatically tighten ozone standards. The way these comments were generated is remarkably similar to the way the EPA campaigned to expand the agency's authority over wetlands to cover

"It's undeniable that the negative impact of the proposed ozone standard will be felt in people's day-to-day lives. Coloradans are certain to face longer commutes and even worse traffic as a result of increased red tape from the federal EPA.

These rigid ozone standards could slow down the approval of new road projects, cause long delays on important infrastructure improvements, and in some cases stop projects completely because of onerous emission caps."

Libby Szabo (R)

Jefferson County Commissioner

a host of new water sources – [including drains and ditches](#) – and infringe upon local land-use decisions. A *New York Times* [investigation](#) concluded the EPA "orchestrated a drive to counter political opposition ... and enlist public support in concert with liberal environmental groups." The goal was "to flood the agency with positive comments to counter opposition

from farming and industry groups," and according to the *Times*, the effort was led by the NRDC, Sierra Club and OFA. As noted above, these three groups have also actively lobbied in support of the EPA's ozone proposal.

They have provided other kinds of support, too. For example, after the ALA's ozone claims were discredited, the NRDC issued another [report](#) – called "Sneezing and Wheezing" – which claimed more than 100 million Americans face higher asthma and seasonal allergy risks due to the combined effects of ozone and global warming. As for the Sierra Club, it sent staffers and volunteers to [testify](#) at public hearings on the EPA's proposed ozone standard, complete with a "[script](#)" based on the claim that further reductions in ozone will also reduce the number of asthma cases.

"As a dairy farmer, I am worried about a whole host of EPA regulations coming out of Washington, D.C. But the EPA's ozone proposal is really disturbing. It gives the EPA too much power over basic economic decisions, like building roads and producing energy, and our state will lose jobs because of it."

Chris Kraft

Dairy Farmer, Morgan County

In effect, these outside political groups have been working to give the EPA political cover to move ahead with a dramatically tighter ozone standard. The agency needs this cover for two primary reasons: 1) because a broad swath of the country – including business groups, labor organizations, local governments and state-level officials – believe the agency's ozone agenda goes too far, and 2) because the

underlying science being used by the agency to push the proposed rules is simply not there.

5.0 OPPOSITION FROM PUBLIC OFFICIALS, BUSINESS AND ORGANIZED LABOR

Under the Clean Air Act, cities and counties that do not meet the NAAQS for ozone are placed into “non-attainment,” or violation of federal environmental standards. Once in non-attainment, local and state officials must answer to the federal government for permitting and planning decisions that could impact ozone levels. State officials are required to develop an “implementation plan” that imposes new restrictions across the economy, especially the transportation, construction and energy industries. The EPA has veto power over these implementation plans. States that refuse to comply, or have their implementation plans rejected, face regulatory and financial sanctions imposed on them directly from the federal government.

“There will be economic consequences to our region and state by making the current ozone standard more stringent. The funding necessary to implement ozone reduction strategies is not available locally or through the state...”

Many strategies that have already been implemented for our region and throughout the state have had a significant cost. The economic impacts from lowering the standard will affect citizens, businesses, and growth.”

Marc Snyder

*Chair, Pikes Peak Area Council of Governments
Mayor, Manitou Springs*

Under the current ozone NAAQS of 75 ppb, which was set in 2008, [231 counties](#) are in non-attainment, or close to non-attainment. Under the new range of 65-70 ppb proposed by the EPA, at least [558 counties](#) face the threat of non-attainment. The dramatic expansion of the EPA’s reach comes despite continued progress at the state level in improving air quality.

EPA’s proposal, therefore, is simply a decision by the agency to move the goal posts and redefine the legal definition of non-attainment. To complicate matters further, state and local officials are still struggling to implement the 2008 standard, because the EPA *just this year* finalized the rules for compliance, after a [seven-year](#) delay. If the EPA pushes ahead, ignoring the legitimate concerns of state and local interests, it will mark a radical departure from the way federal ozone standards have been enforced heretofore.

For decades, the ozone NAAQS was set at levels that provided cities and counties with a reasonable pathway out of non-attainment, through manageable reductions in ozone-forming emissions. The result was more cooperation than confrontation among local, state and federal officials in the development of implementation plans, and ozone levels nationwide have been steadily declining. But today, with the EPA proposing to tighten the standard close to background levels in some parts of the country, many stakeholders are warning that long-term – and possibly indefinite – EPA intervention into local economies will have severe regional and national impacts.

The “already confusing” approval process for transportation projects – including roads, bridges, highways and public transit – will only get worse if the EPA tightens the ozone NAAQS any further, according to a joint

“Don’t lose the support of Colorado by pushing regulations that go too far too fast. Withdraw these regulations and come up with a proposal that shows the administration can listen to the people and find the right balance, as Routt County has done.”

Douglas Monger (D)
Routt County Commissioner

[warning](#) from the U.S. Conference of Mayors, National Association of Counties, National League of Cities, and National Association of Regional Councils. These four groups, representing more than 20,000 local governments, also fear that “federal approval or funding” will be withheld while projects are analyzed for “conformity” with ozone standards. Delays and denials will only add to traffic congestion, which is itself a major contributor to air pollution. “Withholding these funds can negatively affect job creation and critical economic development projects for impacted regions, even when these projects and plans could have a measurable positive effect on congestion relief,” the local governments conclude.

The “administrative burdens and slowdown in project delivery” could be severe, [according](#) to the American Association of State Highway and Transportation Officials (AASHTO) and the Association of Metropolitan Planning Organizations (AMPO). “The transportation conformity process will impose a difficult – if not impossible – task in places where background levels are so high that there is little that can be done through transportation planning to reduce ambient ozone,” according to AASHTO and AMPO, which together represent transportation planning officials from all 50 U.S. States, the District of Columbia and Puerto Rico.

"We set and meet high standards because we know it is good for our people and our state. So you might expect us to support the Environmental Protection Agency's (EPA) proposed standards for ground-level ozone. Those standards, however, are too overbearing and are meeting with a lot of resistance even in places where air quality regulations are welcome."

Cari Hermacinski (R)
Routt County Commissioner

Transportation conformity involves "extensive transportation and air quality coordination and computer modeling" which are time-consuming and costly, according to the [Associated General Contractors of America](#) (AGC), which represents more than 26,000 firms in the construction industry. In effect, construction is banned

unless it can be shown the project "will not result in increased emissions," the AGC warns. These "construction bans" will "delay the renovation and improvement of public infrastructure, including highway and transit construction projects, and bridge construction and repairs."

According to the [U.S. Chamber of Commerce](#), the conformity process applies both to long-term transportation plans and individual projects. While all-out federal sanctions that prohibit the release of transportation funds are rare, so-called "conformity lapses" are quite common and "just as disruptive," according to the Chamber, which represents more than three million businesses nationwide. These lapses, which effectively block "permits and approvals for projects in the development stage," have occurred 70 times. The highest-profile case – to be discussed in more detail in Section 6.4 – took place in the late 1990s in Atlanta. There, a conformity lapse of more than two years led to \$700 million of federal transportation funding being withheld, according to the Chamber.

A separate set of regulatory hurdles can slow or stop private-sector construction projects in non-attainment areas. Restrictive permitting procedures are "essentially a ban on the construction of new industrial or manufacturing facilities" and it becomes "very difficult even to expand existing facilities," the AGC [warns](#). This is because states cannot allow any increase in emissions without finding an "offset," or a reduction in emissions from another facility. "If no party is willing to provide offsets, then the project cannot go forward," according to the AGC. In effect, non-attainment areas are placed under "emission caps limiting economic development," the AGC warns.

For this reason, the construction-sector impacts of the proposed ozone NAAQS are deeply concerning to unions and allies of organized labor. For example, one state lawmaker from Queens, N.Y. **warned** “the new standards will impose a hardship on hundreds of thousands of union workers” because businesses “might not be able to afford expansions, new operations, or the ability to hire new employees.”

Meanwhile, a coalition of labor organizations representing 3.2 million workers – **Unions for Jobs and Environmental Progress** – predicts the EPA’s ozone plan “would threaten jobs across most energy-related sectors, including electric utility generation, oil and gas extraction and processing, and all other industry sectors dependent on fossil fuels.”

“EPA’s prediction of human health benefits from further reductions in ozone reflects wishful thinking and bad statistics ... not sound science or sound analysis.”

Tony Cox, Ph.D

Chief Sciences Officer, NextHealth Technologies, Arapahoe County

“These standards must not be implemented. If they go forward as proposed, they will do more than put good people out of work and cause hardships for communities that have done so much to protect the land, air and water around them. They will turn away a lot of people who have been receptive to the idea that government can be trusted to do environmental regulation the right way.”

Timothy Corrigan (D)

Routt County Commissioner

In fact, when combined with other EPA rules targeting the electric power sector, the impact of the proposed ozone NAAQS would be “catastrophic” for some workers, cause “major economic hardship” for others, and may even result in “shutting down all industrial activity in many parts of the

country,” according to the **International Brotherhood of Boilermakers**. The union concludes: “States and industry need a reasonable period of time to fully implement the existing standard before attempting to achieve an even more ambitious standard like the one the EPA proposes to adopt.”

These energy-related impacts have sparked major concern in other economic sectors. Factory owners, already facing a *de facto* construction and expansion ban, would also suffer from higher energy costs, according to the **National Association of Manufacturers**. NAM estimates the overall cost of the new proposed ozone NAAQS at

\$140 billion a year, making it “[the most expensive regulation ever](#)” in U.S. history. Moreover, NAM warns “the nation’s manufacturing comeback – driven largely by an advantage on energy – could be placed in jeopardy.”

Likewise, state regulators who oversee the nation’s agricultural sector are speaking up against the energy-price impacts, among other effects, of the EPA’s proposed ozone NAAQS. “Input costs, such as for fuel and fertilizer, would increase, impacting the economic vitality of rural communities,” according to the [National Association of State Departments of Agriculture](#). Farmers could also be hit with “costly upgrades on equipment such as engines for irrigation systems in order to comply with restrictions resulting from an increase in nonattainment areas,” the agriculture group warns.

“We all want clean air, and American private industry has done some amazing things over the years to create technologies and processes that keep our air clean and safe. But piling more expensive regulation on the economy is entirely the wrong approach...

Handcuffing our local businesses and economy to these new rules will only create economic hardship, without providing any real air quality benefit.”

Reed Williams

President, WillSource Enterprise LLC, Denver County

Given the profound impacts of the proposed new ozone NAAQS across the economy, state air quality regulators are privately and publicly raising major concerns – and even calling on the EPA to stand down. According to a recent survey released by the [Association of Air Pollution Control Agencies](#), a solid majority of state-level

air quality regulators are worried about the EPA moving the ozone NAAQS even closer to background levels. For example, the Virginia Department of Environmental Quality warns the EPA’s attempt to handle background ozone places an “undue burden” on states that “goes well beyond the requirements in the Clean Air Act.”

The [Ohio Environmental Protection Agency](#) says the burden of non-attainment has “a crippling impact on industrial and manufacturing growth.” Expansion plans are postponed and “new businesses look elsewhere due to the extra hurdles and burdens required of companies,” the Ohio EPA warns. State regulators in Ohio say the federal EPA’s planned new ozone NAAQS is especially difficult to justify given that the “scientific evidence demonstrated ... does not justify the proposed range.”

[WESTAR](#), a Seattle-based group representing 15 air quality regulatory agencies from Western states, has sounded the alarm over background ozone levels that are beyond the control of local officials. Some of this background ozone originates from natural sources, such as wildfires; some is blown in from other states or from international sources, such as “Mexico, Canada, or Asia,” according to WESTAR. The group of regulators is worried that rural areas caught in the non-attainment net for the first time, have “very few, if any” local emission sources that can be managed or reduced to meet EPA mandates. Making the “right choices” about reducing ozone levels below their current levels “will depend on how well we understand the science, and our understanding of the science needs to improve,” according to WESTAR.

In Texas, air quality regulators have directly challenged EPA’s scientific justification for the rule. In a recent [interview](#), the top toxicologist at the Texas Commission on Environmental Quality said: “I don’t think the EPA can really back those claims up with science, if you really look at the data.”

Separately, a TCEQ [report](#) on EPA’s sources, methods and assumptions found

them to be “inconsistent,” “misleading,” “unrealistic,” “critically flawed,” and “implausible.” The TCEQ has [warned](#) the impact of the EPA’s proposed ozone standard could be especially hard on motorists, because in some parts of the country, compliance means “we are going to have to get cars off the road” through measures that may include “no drive days.” The EPA has threatened “no drive” measures before. During the 1990s in Los Angeles, the EPA proposed that commuters “would be forced to give up their cars one day a week and find other means of transportation ... based on the license plate number of their car,” [according to the Los Angeles Times](#).

Some regional air quality regulators in California are also worried about the measures that may be needed to further limit emissions from motor vehicles. The executive director of the Mojave Desert and Antelope Valley air quality districts has even [warned](#): “I fear that if the proposed Ozone standards are enacted ... the entire Southern California region will need to be an all-electric zone to meet the requirements.” Another

“This proposed rule would be devastating to Western Colorado and has the potential to be the most costly regulation in our nation’s history ... The achievement of reduced ground level ozone goals is not possible with current technology and methods and it is impractical to rely on ‘unknown solutions’ or technologies that don’t yet exist to achieve these goals.”

Christian Reece

Executive Director, Club 20, Mesa County

California air quality official from the San Joaquin Valley has further warned “standards that approach background concentrations” require “technologies that in many cases are not yet commercially available or even conceived.” In other words, the federal government is setting “mandates that are impossible to meet,” the regulator said in a [letter](#) to the EPA. Even the EPA’s own [analysis](#) of the proposed ozone NAAQS relies heavily on “unknown controls” for ozone-forming emissions.

When taken together, such wide-ranging concerns from so many different stakeholders make a compelling case against the EPA’s proposal to dramatically tighten the ozone NAAQS, especially so quickly after the setting of the 2008 standard. The arguments against the EPA’s proposal are best [summarized](#) by the U.S. Conference of Mayors, National Association of Counties, National League of Cities, National Association of Regional Councils and the more than 20,000 local governments they represent: “[W]e urge EPA to delay issuing a new NAAQS for ozone until the 2008 ozone standard is fully implemented.”

“The Denver metropolitan area has been in and out of attainment with ozone and other air quality standards before. But that does not mean everything will be fine this time around. There are different levels of non-attainment with ozone standards...

Based on what the EPA is now proposing, there is a very real risk we could end up in ‘severe’ non-attainment, which would trigger much tighter federal controls.”

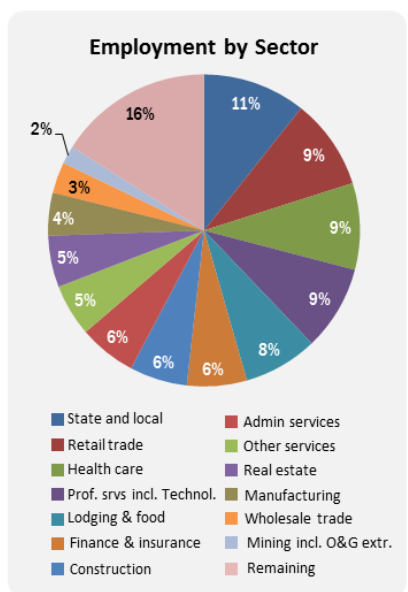
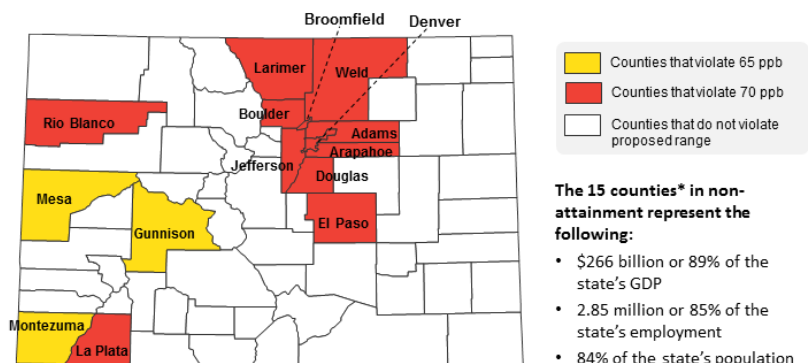
Raymond Gifford

Former Chairman, Colorado Public Utilities Commission, Partner, Wilkinson Barker Knauer LLP

6.0 COLORADO IMPACTS

6.1 Overview

FIFTEEN COUNTIES IN COLORADO WOULD BE IN NON-ATTAINMENT AT 65 PPB; TOGETHER THEY ACCOUNT FOR THE MAJORITY OF THE STATE'S ECONOMY.



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Denver	\$44.7	576,604
Arapahoe	41.8	451,774
Jefferson	38.0	276,585
Adams	32.3	245,357
El Paso	28.4	374,022
Boulder	22.1	247,875
Douglas	21.1	143,450
Larimer	13.7	201,814
Weld	9.9	129,760
Mesa	5.4	84,393
Broomfield	4.1	48,068
La Plata	2.6	38,269
Montezuma	0.8	14,461
Gunnison	0.7	12,182
Rio Blanco	0.4	4,776
Total	\$266.0	2,849,390
Colorado	\$299.5	3,351,702

* Denver and Broomfield counties currently have ozone levels below 65 ppb. However, they would be considered in non-attainment as they are part of the larger Denver MSA that is in non-attainment.

The EPA's proposed range of 65 to 70 ppb for a new federal ozone NAAQS would have a profound impact on Colorado. Fifteen counties, located along the Front Range and on the Western Slope, would see their compliance status change overnight, violating the dramatically tighter ozone standard and finding themselves vulnerable to any number of punitive penalties. As noted in Section 5.0, the stringency of the standard raises the specter of long-term or indefinite non-

attainment status for these counties, which would impose serious restrictions on future economic growth.

An analysis commissioned by CRS and completed by the economics division of FTI Consulting, Inc. – a global research, technology and business advisory firm – finds the vast majority of Colorado's economy, population and workforce could be caught in the net of ozone non-attainment under the EPA's proposed range. The 15 impacted counties represent 89 percent of the state's GDP, 85 percent of the state's workforce

and 84 percent of the state's population. Outside the Denver metropolitan area, the Colorado Springs area and several counties on the Western Slope will be threatened with non-attainment status for the very first time.

"Colorado's continued economic promise is a bright spot in the nation's economy, and our state has established itself as a place where economic prosperity and compliance with environmental regulations can co-exist..."

We are not opposed to ozone standards, but respectfully request the current standards be given more time and the opportunity to work as originally envisioned. We want Colorado to be the best state in the nation in which to do business, but the EPA's onerous proposed regulations will take us in the opposite direction."

Colorado Association of Commerce & Industry

Taken together, the EPA's proposal threatens to limit the growth of some of Colorado's biggest, most important and most promising economic sectors. The 15 impacted counties support jobs in technology, manufacturing, construction, professional services, tourism, healthcare, defense, aerospace and energy, among others. All these sectors face direct regulatory impacts under ozone non-

attainment, or the indirect effects of restricted economic growth and higher energy costs as a result of ozone-related mandates from Washington, D.C. In fact, an [analysis](#) commissioned by NAM predicts Colorado may lose almost 11,000 jobs per year and \$19 billion in economic activity by 2040 – all because of this single mandate.

Another major concern – especially for communities along the Front Range – is the impact of a long-term or indefinite non-attainment status on federally funded transportation projects. A transportation analysis commissioned by CRS and conducted by FTI finds that the proposed ozone rules could significantly disrupt plans to build new and improved roads to relieve traffic congestion. The analysis shows the Denver metropolitan area already suffers from some of the worst traffic congestion and road conditions in the nation, as the number of commuters has grown much faster than the ability and capacity of the region's road network to handle them. The analysis also shows that a \$105.8 billion plan by Denver-area governments to upgrade the region's transportation system, improve road conditions and reduce traffic could suffer

significant setbacks because of the red tape imposed by ozone-related mandates out of Washington.

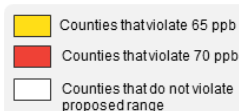
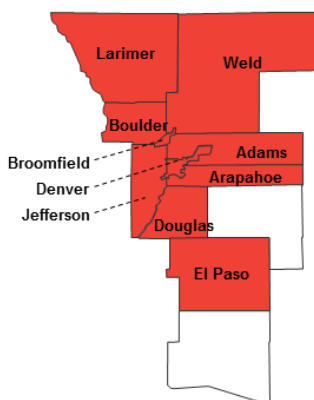
"The proposed standard will have a profound and crushing economic effect on rural Colorado. New federal limits on agriculture and energy production mean slower growth, wage cuts, job losses and a lower standard of living. The Denver metro area will be hit hard, too, because agriculture and energy are key sectors for the state economy as a whole."

Chip Marks
Agribusiness Finance Professional, Weld County

Because of impacts that are both severe and disproportionate relative to the expected environmental benefit (i.e. small, and potentially non-existent), Coloradans are highly skeptical about the EPA's involvement in this area. A statewide public opinion poll, commissioned by the Colorado Association of Commerce & Industry (CACI) and NAM, found 76 percent of Colorado voters rate their local air quality as "Excellent" or "Good." By a nearly two-to-one margin, Coloradans believe the bigger problem their local area is facing is "less economic growth and job opportunities caused by regulations" (57%) rather than "lower air quality caused by pollution" (30%).

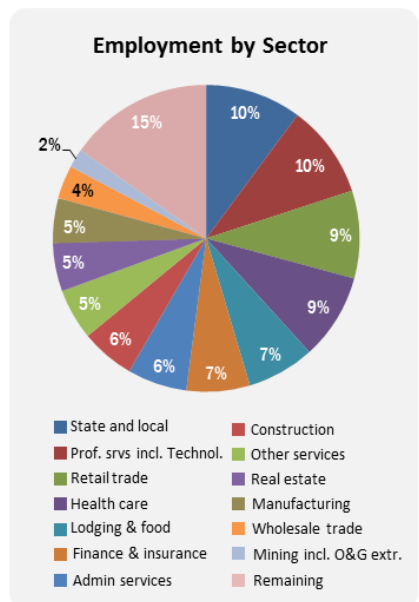
6.2 Front Range

THE FRONT RANGE ENCOMPASSES COUNTIES THAT ACCOUNT FOR 80% OF THE COLORADO'S POPULATION. TEN OF THOSE COUNTIES WOULD BE IN NON-ATTAINMENT AT 65 PPB.



The 10 counties* in non-attainment represent the following:

- \$256 billion or 85% of the state's GDP
- 2.69 million or 80% of the state's employment
- 80% of the state's population



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Denver	\$44.7	576,604
Arapahoe	41.8	451,774
Jefferson	38.0	276,585
Adams	32.3	245,357
El Paso	28.4	374,022
Boulder	22.1	247,875
Douglas	21.1	143,450
Larimer	13.7	201,814
Weld	9.9	129,760
Broomfield	4.1	48,068
Total	\$256.1	2,695,309
Colorado	\$299.5	3,351,702

* Denver and Broomfield counties currently have ozone levels below 65 ppb. However, they would be considered in non-attainment as they are part of the larger Denver MSA that is in non-attainment.

Under the proposed range for EPA's new ozone NAAQS, a 10-county region stretching from Colorado Springs, through the Denver metropolitan area, and north to the Wyoming border, would be classified in non-attainment. This heavily populated corridor along Colorado's Front Range is home to a diverse array of industries and businesses that would suffer direct and indirect impacts from ozone-related restrictions on economic growth. They include power plants, manufacturers,

construction firms, defense contractors, energy producers and technology companies.

As detailed in Section 5.0, a number of prominent stakeholders at the national level are warning that Washington's ozone agenda will impose significant limits on many economic activities, including construction, manufacturing, energy and the planning and execution of transportation projects aimed at reducing congestion and the cost of shipping goods. Those concerns are echoed along Colorado's Front Range.

For example, the Denver Metro Chamber of Commerce and its affiliates, the Metro Denver Economic Development Corporation and the Colorado Competitive Council [warned](#) in a letter to the EPA: “We believe that the economic growth of Colorado is threatened by the EPA’s proposal to lower the ozone standard.” Likewise, Denver-based [CACI](#) believes that the impacts of non-attainment would be “instant and profound” for the “vast majority of Colorado’s businesses and industries.”

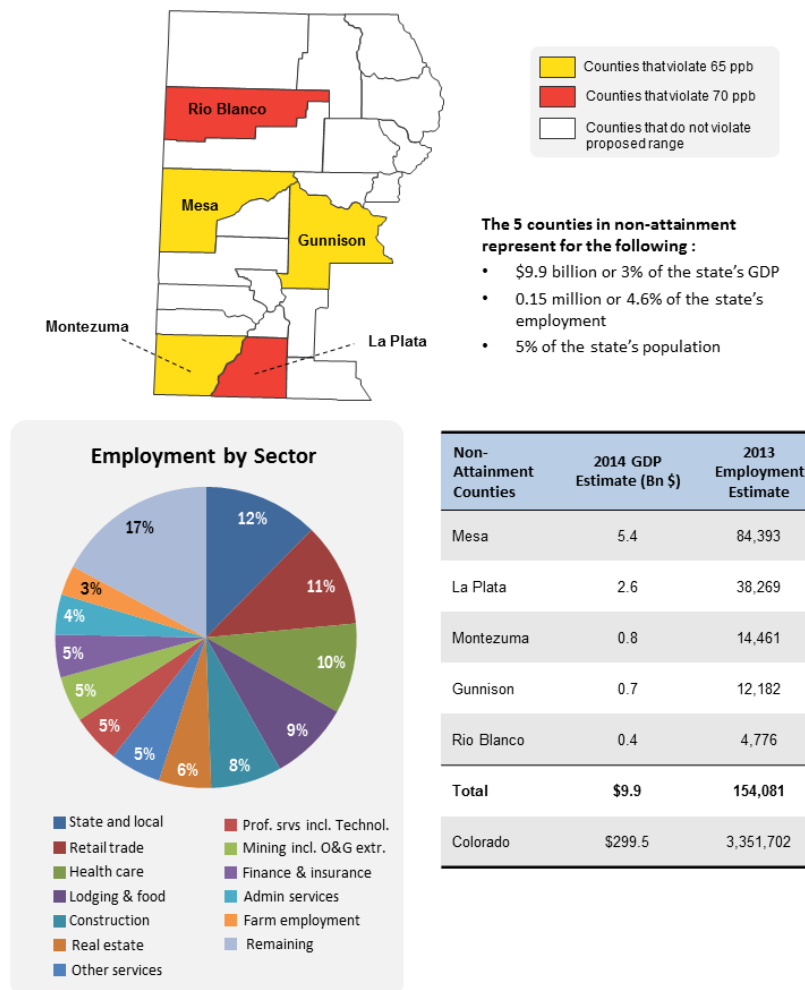
The concerns of trade associations and business groups are acutely felt by individual small business owners. [Chris Kraft](#), a Morgan County dairy farmer, called EPA’s proposal “really disturbing,” and [Jeff Erker](#), a senior official with a Boulder County construction firm, labeled the rule “a very real threat to construction industry jobs and the Colorado economy.”

For El Paso County and Colorado Springs – the state’s second largest city after Denver – the EPA’s proposal could plunge the region into non-attainment for the first time ever. Organizations such as the [U.S. Conference of Mayors](#), the [Association of State Highway and Transportation Officials](#) and the [Association of Metropolitan Planning Organizations](#) have expressed major concerns about the ability of smaller cities and their surrounding suburbs to cope with the administrative burdens triggered by non-attainment.

The Pikes Peak Area Council of Governments – the lead air quality planning agency for the Colorado Springs region – has voiced similar misgivings about a lack of resources to administer new ozone-related mandates from the federal government. “The funding necessary to implement ozone reduction strategies is not available locally or through the state,” said Manitou Springs Mayor Marc Snyder and Chair of the Council. “The economic impacts from lowering the standard will affect citizens, businesses, and growth,” he added in a [letter](#) to the EPA.

6.3 Western Slope

FIVE COUNTIES ON THE WESTERN SLOPE WOULD BE IN NON-ATTAINMENT AT 65 PPB.



On Colorado's Western Slope, even more counties with little, if any, experience dealing with ozone non-attainment could suddenly find themselves held in violation of federal air quality standards. All told, five counties from the state's western edge – Rio Blanco, Mesa, Gunnison, Montezuma and La Plata – are threatened with non-attainment based on the EPA's proposal to tighten the federal ozone NAAQS into the range of 65 to 70 ppb. In terms of land mass, these counties cover 13,500 square miles, or roughly 35 percent of the entire Western Slope.

In these five Western Slope counties, background ozone is a critical factor driving non-attainment, and there is almost nothing these local governments can do about it. They have small populations and almost no major industrial sources of ozone-forming emissions that could be reduced or eliminated. As mentioned in Section 5.0, state air quality regulators across the Western U.S. – including Colorado – have cited high background ozone in rural areas as a major challenge. For this reason, organizations such as the [Association of State Highway and Transportation Officials and the Association of Metropolitan Planning Organizations](#) have warned that the

transportation planning requirements of ozone non-attainment may be impossible to meet in these areas.

Club 20, a coalition of counties, local governments and businesses from Western Colorado, has warned the EPA on this point. In a [letter](#) to the agency, Club 20 warned that the proposal to dramatically tighten the federal ozone standard would have “far reaching consequences throughout Western Colorado on our industries, communities, and individuals.” Because ozone reduction technologies “don’t exist yet,” the group stated, “the only way to achieve the proposed ozone standards will be to close existing industries, remove vehicles from our transportation, and limit the use of all products producing emissions.” Such changes are “wholly unrealistic” and would have a “shattering” impact on local economies.”

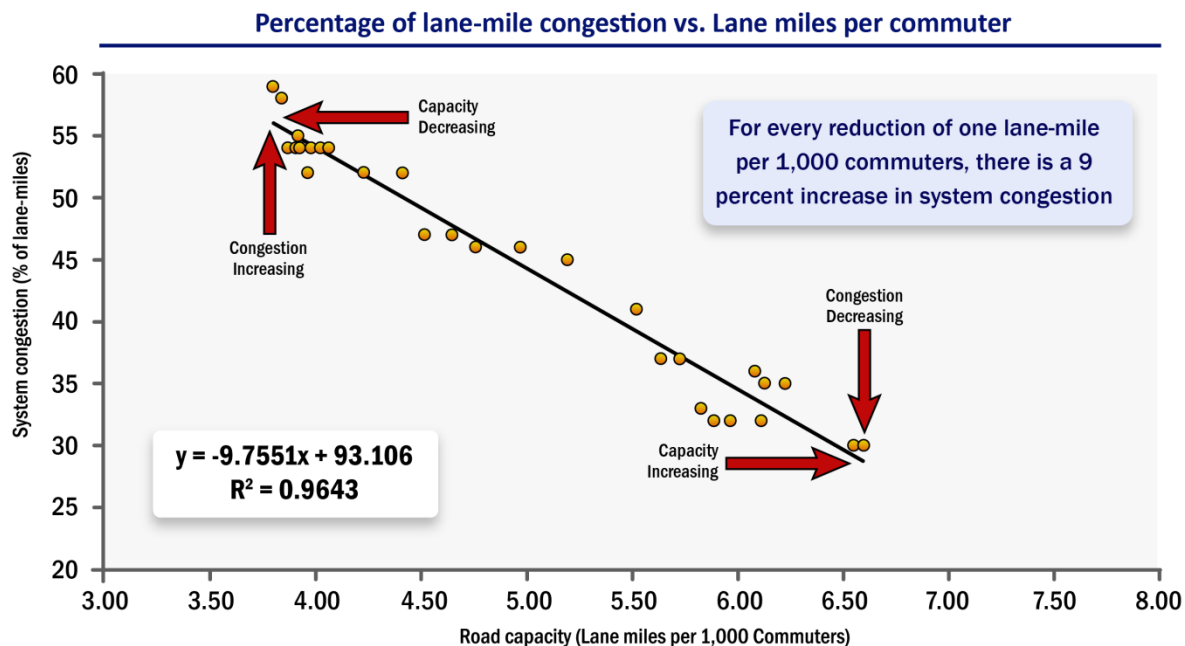
The potential impacts of lowering the ozone standard are so stark that a bipartisan group of Routt County Commissioners – Timothy Corrigan (D), Douglas Monger (D) and Cari Hermacinski (R) – cautioned that a stricter rule would “turn away a lot of people” who would otherwise trust the government to “do environmental regulation the right way.” “Arbitrarily changing the definitions to bring more areas artificially into non-attainment status,” they said in a [letter](#) to the White House, “is not the way to treat Americans who have gone out of their way to be economically productive while protecting the environment at the same time.”

6.4 Transportation

But some of the worst impacts of Washington’s proposed ozone plan will be felt in Colorado’s transportation sector – and by Colorado drivers. New restrictions that come from being out of compliance with federal ozone standards threaten the funding streams needed for new roads and projects to expand the capacity of existing corridors.

As discussed in Section 3.0 – and as anyone who lives in Colorado will attest—the state’s population has grown rapidly in recent decades. This has bolstered Colorado’s economy, but in some regions, improvements in the transportation network have lagged behind the population growth. This is especially true in the Denver metro area.

LINEAR REGRESSION MODELING SHOWS A HIGH CORRELATION BETWEEN INCREASED CAPACITY AND REDUCED TRAFFIC CONGESTION. THIS MEANS THE DENVER METRO AREA NEEDS TO SPEED UP ROAD CONSTRUCTION TO REVERSE ITS CONGESTION TREND

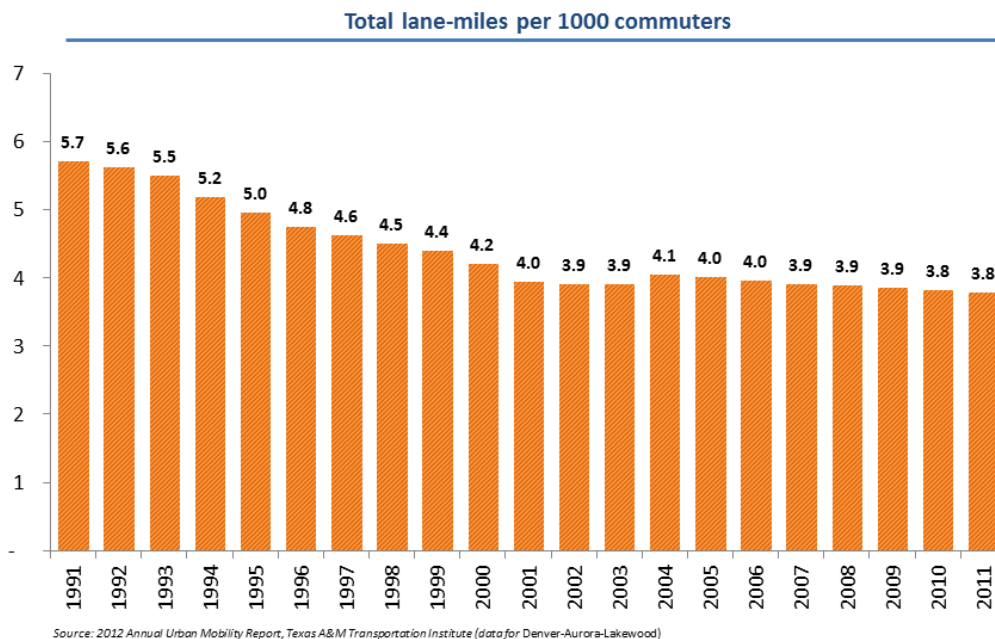


Even as people continue to move to Colorado, and the Denver metro area, because of its high quality of life, the region has developed a reputation for some of the worst traffic congestion and road conditions in the nation. For example, among 101 cities [surveyed](#) for urban mobility and congestion, Denver ranked:

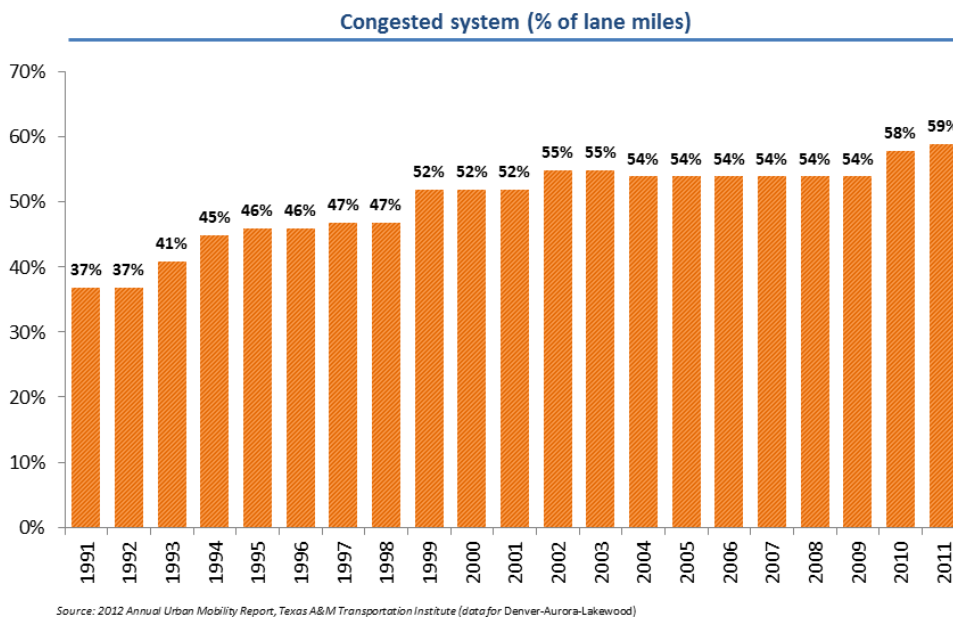
- 10th in commuter stress
- 11th in traffic system congestion
- 13th in annual hours of delay per commuter
- 16th in annual congestion cost (i.e. value of fuel, time, and maintenance) per commuter

A recent [report](#) by TRIP, a national transportation research non-profit, also ranked Denver as the 22nd worst urban area (with at least 500,000 people) for road-induced maintenance costs. The report estimated the average Denver vehicle owner paid more than \$700 each year in additional operating and maintenance costs due to poor road conditions.

DENVER METRO ROAD CAPACITY HAS FALLEN SINCE THE 1990S, ROUGHLY 2% ANNUALLY



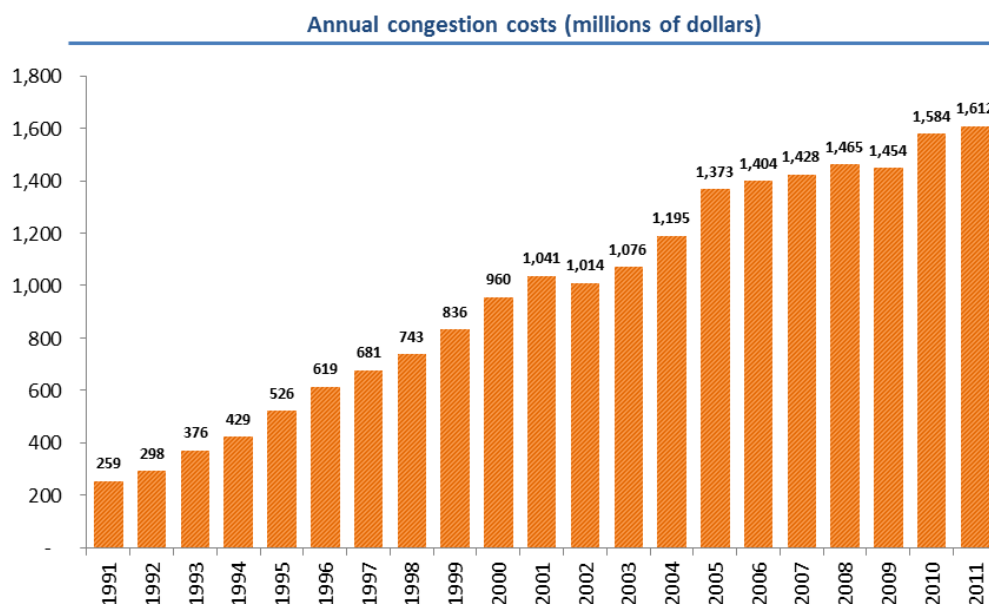
DENVER METRO TRAFFIC CONGESTION HAS WORSENEDED SIGNIFICANTLY SINCE THE 1990S



The analysis conducted for CRS is based primarily on [data](#) from Texas A&M University's Transportation Institute (TTI), a research organization supported by more than 200 public and private [sponsors](#), including the EPA, U.S. Department of Transportation (U.S. DOT) and the American Association of State Highway and Transportation Officials (AASHTO).

As Denver motorists know only too well, the demands on the road system are growing faster than capacity. From 1991 to 2011, the period covered by TTI's comprehensive dataset, the number of Denver metro auto commuters grew by 3.6 percent annually, while total lane-miles on the region's road network grew by less than half that rate – just 1.5 percent. As a result, the capacity of the region's road network – measured on a per-commuter basis – has fallen by roughly two percent each year since the early 1990s.

DENVER METRO CONGESTION COSTS GREW FROM \$259 MILLION IN 1991 TO \$1.6 BILLION IN 2011, OR 9.6 % ANNUALLY



Note: Congestion cost is the yearly value of time, delays and wasted fuel.

Source: 2012 Annual Urban Mobility Report, Texas A&M Transportation Institute (data for Denver-Aurora-Lakewood)

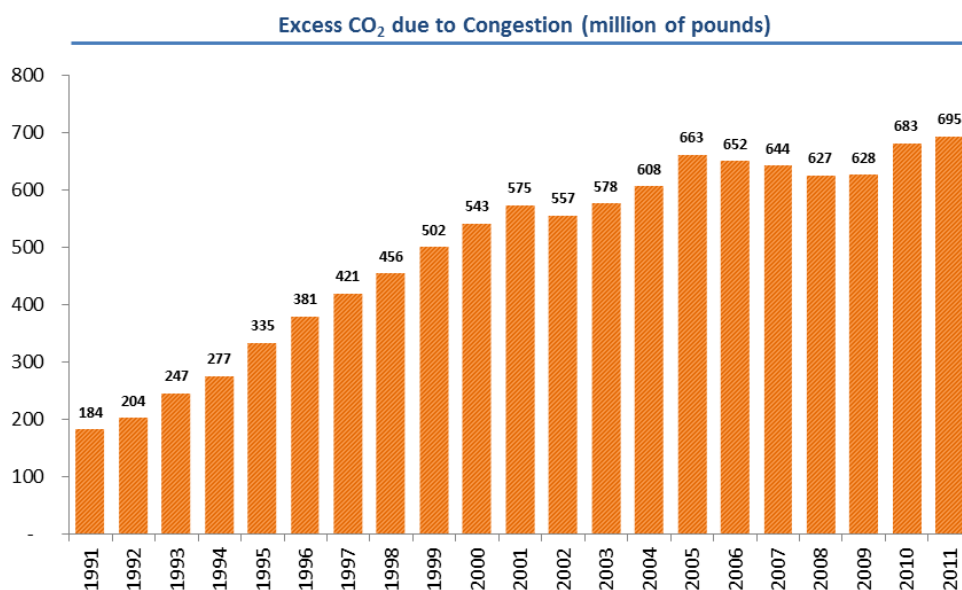
The corresponding increase in congestion has been significant. In 1991, 37 percent of the Denver metro area's road network was classified as "congested." Twenty years later, that number had climbed to 59 percent. The economic costs of traffic congestion are widely documented. [U.S. DOT](#), for example, says congestion "increases the costs of delivering goods and services, because of the increased travel times and operating

costs.” Congestion-related delays also impose costs on households because they “plan their activities around the available time budget as well as around their financial budgets,” which shrink with higher operating and maintenance costs due to bad traffic, according to U.S. DOT.

Based on TTI data, increased congestion from 1991 to 2011 cost the Denver metro economy about \$1.6 billion. These costs primarily came in the form of delays and the wasted fuel of cars stuck in traffic. When fuel is wasted, there are environmental impacts to consider, especially when debating regulatory proposals that claim to be principally concerned with reducing emissions.

In the case of the Denver metro area, congestion-related carbon dioxide emissions rose more than 270 percent – 184 million pounds to 695 million pounds – from 1991 to 2011.

EMISSIONS FROM DENVER METRO TRAFFIC CONGESTION ROSE 6.9% ANNUALLY FROM 1991 TO 2011.



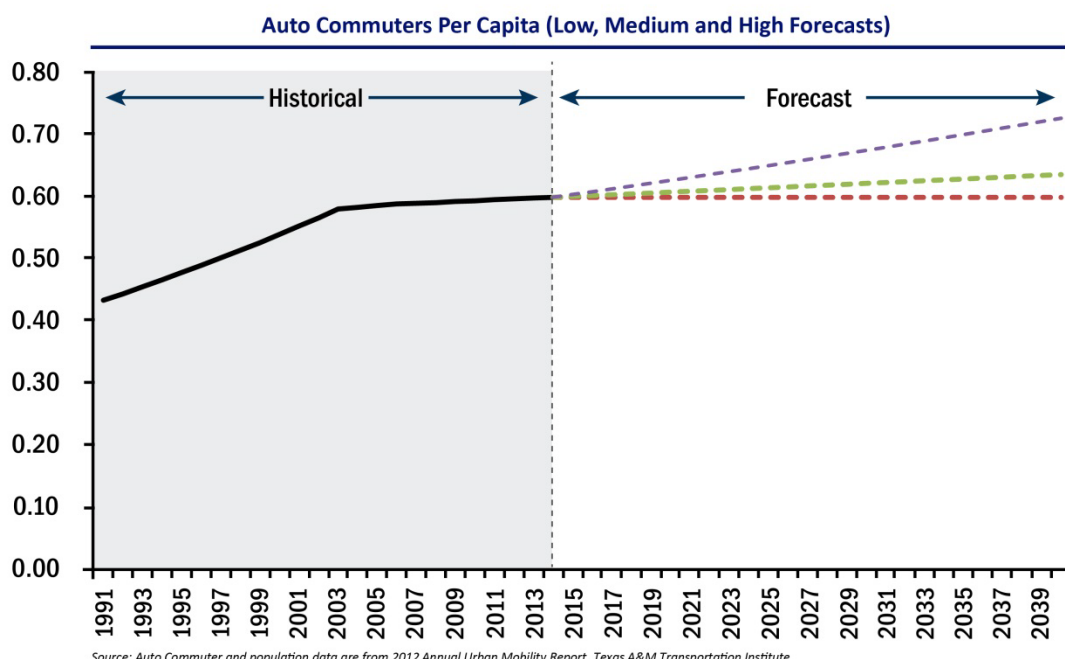
Source: 2012 Annual Urban Mobility Report, Texas A&M Transportation Institute (data for Denver-Aurora-Lakewood).

From this [experience](#), it's reasonable to conclude that any environmental proposal that makes Denver metro traffic congestion worse is self-defeating. Cars and trucks that spend more time on the road stuck in traffic jams will produce more emissions – including those that contribute to ozone – than vehicles traveling to their destinations at or near the speed limit. But the EPA's proposal to dramatically tighten the federal ozone standard from 75 ppb into the 65 to 70 ppb range threatens to make the Denver

metro area's problem with traffic congestion significantly worse – a development that would most likely increase ozone-forming emissions, not reduce them.

As discussed in Section 5.0, groups representing state transportation departments and more than 20,000 local governments across the country are deeply concerned about the EPA's ozone proposal putting the brakes on road construction and other projects that target traffic congestion. These groups warn that under the EPA's proposed 65 to 70 ppb ozone limit, a process called "transportation conformity" could slow the approval of federally funded transportation process, trigger lapses in federal funding, or permanently block road projects on the grounds that they could increase tailpipe emissions from motor vehicles. Such is the stringency of EPA's proposal that highway officials with AASHTO have [warned](#) it may be "impossible" to win EPA's approval for new road projects in areas with high background ozone levels, such as Colorado and many other Western states.

DENVER METRO AUTO COMMUTER PER CAPITA FORECASTS: LOW, MEDIUM AND HIGH



The impact of transportation conformity restrictions associated with tighter ozone standards is a major problem for the Denver metro area, which has an ambitious program to relieve traffic congestion over the long term. Through capacity expansions, transit, maintenance and other strategies, the Denver Regional Council of Governments (DRCOG) aims to limit traffic congestion amid projections of a 40 percent increase in the area's population by 2040. The "fiscally constrained" version of

this transportation [program](#) carries a price tag of \$105.8 billion, and roughly 16 percent of the total, or \$16.5 billion, would be invested in projects to increase road capacity.

By limiting these investments in road capacity – in whole or in part – the EPA’s proposed ozone standard would accelerate the rising trend of traffic congestion in the Denver metro area and make the problem even harder to solve, according to an analysis commissioned by CRS of the transportation conformity process under a 65 to 70 ppb federal ozone cap. In fact, under every scenario analyzed, it appears that the EPA’s proposal to dramatically tighten the federal ozone standard to 65 to 70 ppb will have a significant and negative impact on traffic congestion in the Denver metro area.

This analysis for the Denver metro area is based on the lessons learned from a two-year lapse in federal funding for projects to expand road capacity in Atlanta, Ga., between 1998 and 2000. In Atlanta, roughly \$700 million of federal highway money was frozen in a dispute among state and local officials, the federal government and a coalition of environmental groups, including the Sierra Club, which filed a lawsuit to block the funding from being issued. In negotiations to resolve the standoff, roughly \$300 million – almost half – of road capacity funding was [cut and spent on other programs](#) before the Atlanta Regional Commission’s transportation plan won approval under the transportation conformity process.

NINE FUTURE CONGESTION OUTLOOKS BASED ON POPULATION GROWTH AND AUTO COMMUTER GROWTH WERE EXAMINED BEFORE A REFERENCE CASE WAS CHOSEN

		Outlooks		
Population Growth Cases	High grows at 1991-2011 rate of 2.00%	Outlook 7	Outlook 8	Outlook 9
	Reference grows at an average of low and high growth rate outlooks of 1.59%	Outlook 4	Outlook 5: Reference Case	Outlook 6
	Low growth rate of 1.19%	Outlook 1	Outlook 2	Outlook 3
		Low Ratio stabilizes at 2011's value of 0.595	Reference ratio grows at 2006 - 2011 rate of 0.23%	High ratio grows at 2001 - 2011 rate of 0.74%
		Auto Commuters to Population Ratio Cases		

The CRS-commissioned analysis was also based on a detailed review of nine different projections for population and auto commuter growth in the Denver metro area between 2015 and 2040, based on historical trends and publicly available forecasts. A Reference Case was developed that lies roughly in the middle of the higher and lower projections. For example, the Reference Case assumes annual population growth of 1.59 percent, which is significantly lower than the region's historical rate of growth of two percent per year between 1991 and 2011. Likewise, the Reference Case assumes auto commuter to population growth of 0.23 percent per year, lower than the rate of 0.74 percent annual increase experienced during the last 10 years. Even with these conservative growth assumptions, however, keeping congestion increases to a minimum will require the construction of roughly 2,600 new lane miles from now until 2040.

To estimate the challenges of the transportation conformity process under a dramatically tighter federal ozone standard, three scenarios based on the Atlanta case study were developed:

- A two-year complete lapse in federal funding for projects that increase road capacity, followed by a 50 percent reduction from planned funding levels
- A 50 percent cut in funding for projects that increase road capacity, without a two-year lapse that cuts funding completely
- A 100 percent cut in funding for projects that increase road capacity

The 100 percent funding cut is clearly a worst-case scenario, but one worth including in this analysis for two major reasons: 1) The ozone standards may not be achievable and 2) as they did in Atlanta, environmental groups could tie up the process in courts indefinitely.

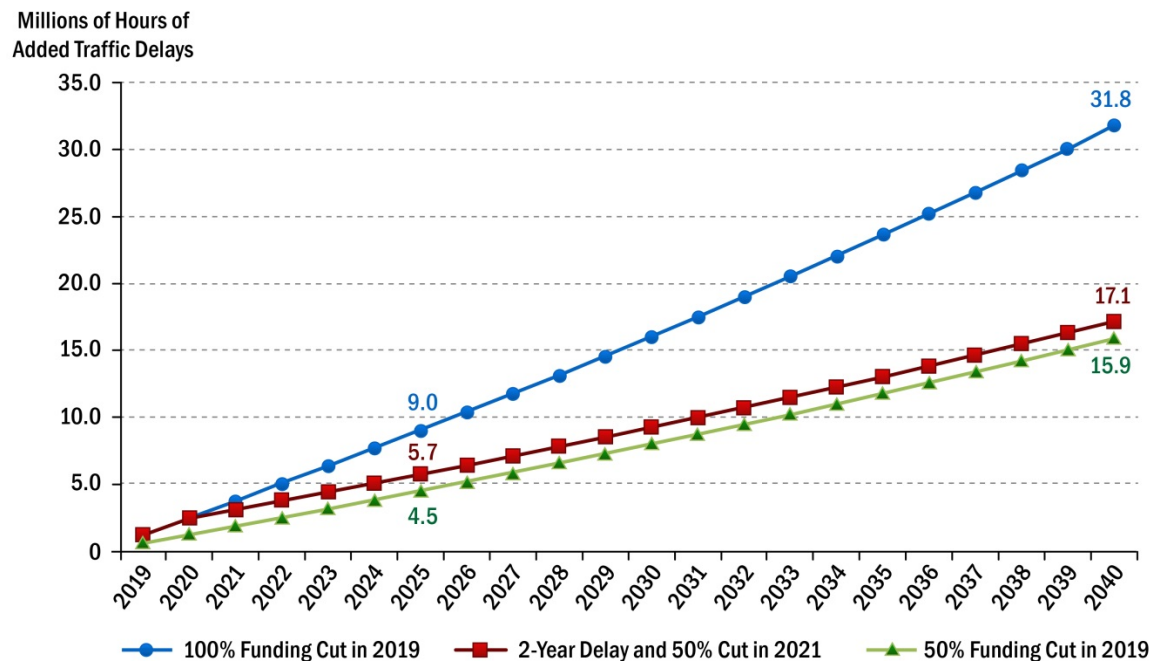
It was appropriate to analyze the 100 percent funding cut scenario because in the first instance, AASHTO and the Association of Metropolitan Planning Organizations – a group whose membership includes the Denver Regional Council of Governments (DRCOG) in Colorado – have [warned](#) that compliance with the transportation conformity process may be “impossible” in places like Colorado “where background levels are so high that there is little that can be done through transportation planning to reduce ambient ozone.” This raises the possibility of an indefinite lapse in transportation conformity that effectively bans federal funding for projects that increase road capacity in the Denver metro area.

The second reason for including a scenario that cuts 100 percent of funding is the ability of environmental groups to intervene via the citizen suit provisions of the Clean Air Act. In the case of Atlanta, the Sierra Club sought to derail the approval of funding

of road projects, and this national environmental group has a strong presence in Colorado. The Sierra Club is hostile to increasing road capacity. The group even has a policy [statement](#) titled “New Roads Are Not the Answer” which proclaims: “Real solutions to traffic jams do not include building and widening highways.” According to the [EPA](#), environmental groups have been “extremely active” in past transportation conformity debates in Colorado, and there is strong reason to believe the Sierra Club and other allied organizations will try to use the tighter constraints under the proposed 65 to 70 ppb ozone standard to effectively halt federal investments in new road capacity projects.

The purpose of running these scenarios is not to predict the congestion-related impacts down to the last hour and the last dollar. Rather, these scenarios highlight the trends that are likely to emerge as the EPA, and potentially outside groups, use a tighter ozone standard and a much more restrictive transportation conformity process to sharply curb investments in construction projects that increase the capacity of the Denver metro road network.

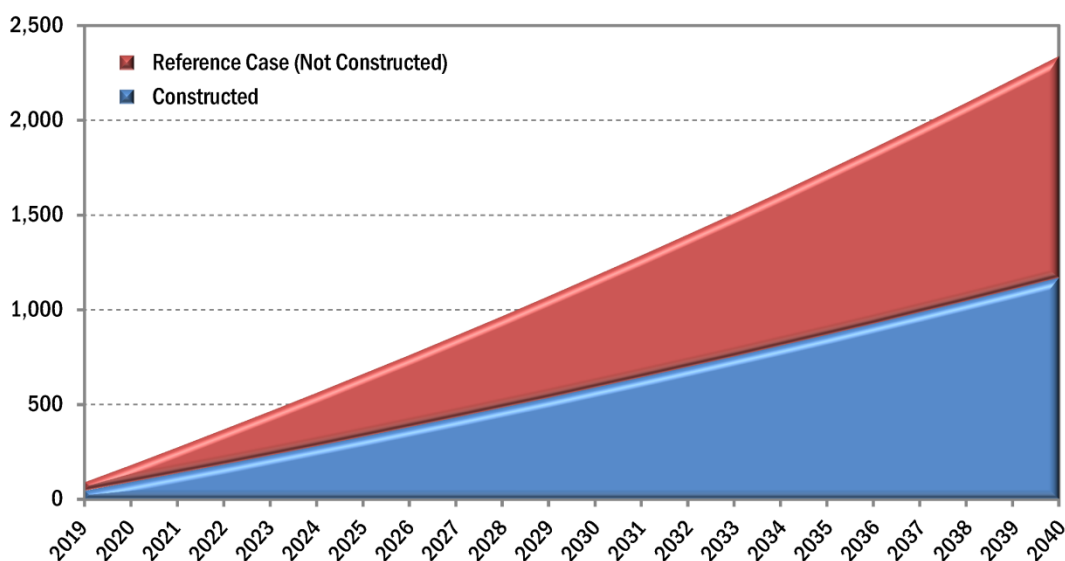
TRANSPORTATION FUNDING CONSTRAINTS TRIGGERED BY EPA OZONE PROPOSAL ADD MILLIONS OF HOURS OF TRAFFIC DELAYS ACROSS THE DENVER METRO ROAD SYSTEM



All three scenarios start to impose restrictions, in whole or in part, on road capacity increases starting in 2019. This reflects the EPA's guidance that local governments will be designated in attainment or non-attainment with the proposed 65 to 70 ppb ozone standard in 2018. Under the Clean Air Act, state and local officials in a non-attainment area have 12 months to comply with the transportation conformity process. If the EPA's timetable holds, this means restrictions on road capacity funding, or Atlanta-style standoffs that cut off federal funding for increasing road capacity, may start to occur in 2019.

By 2025, somewhere between 330 and 660 lane miles of capacity projects would have been blocked. This would generate system-wide delays of 4.5 million hours per year to nine million hours per year above the Reference Case. By 2040, the three scenarios show at least 1,170 lane miles of road capacity projects blocked, triggering somewhere between 15.9 million hours and 31.8 million hours of additional delays annually. These additional delays will come at a cost to the regional economy in terms of lost time and wasted energy. By 2025, the three scenarios show additional congestions costs of \$99 million to \$197 million per year. In 2040, the annual costs of congestion triggered by Washington's ozone agenda balloon to \$421 million per year at the low end, and \$842 million at the high end.

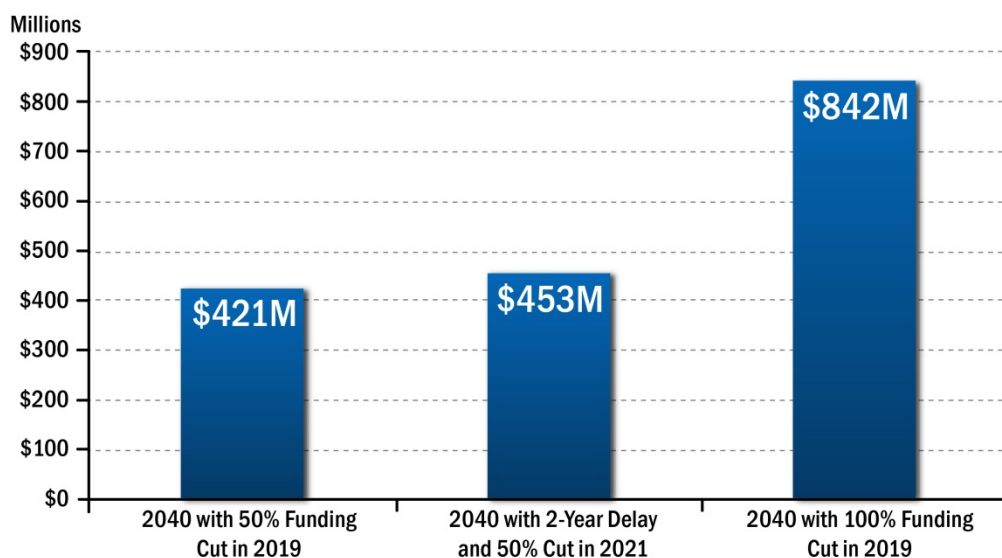
SHORTFALL OF NEW LANE MILES UNDER A 50% FUNDING CUT SCENARIO FOR NEW PROJECTS AND EXPANSIONS



These costs accumulate every year. Therefore, the congestion penalty imposed by the EPA's ozone proposal between 2019 and 2025 lies in the range of \$378 million to \$756 million. By 2040, the range of cumulative costs rises to between \$4.2 billion and \$8.5 billion.

The trends are clear: Tighter ozone standards and a tougher transportation conformity process will make it even harder to add new lanes to the Denver metro area's congested road network. That means more traffic and more delays for the region's already frustrated motorists, just when local and state officials and the citizens they represent were hoping to make some progress on this vexing transportation issue.

ANNUAL COST OF DELAYS AND WASTED ENERGY IN 2040 UNDER EPA-CONSTRAINED TRANSPORTATION SCENARIOS



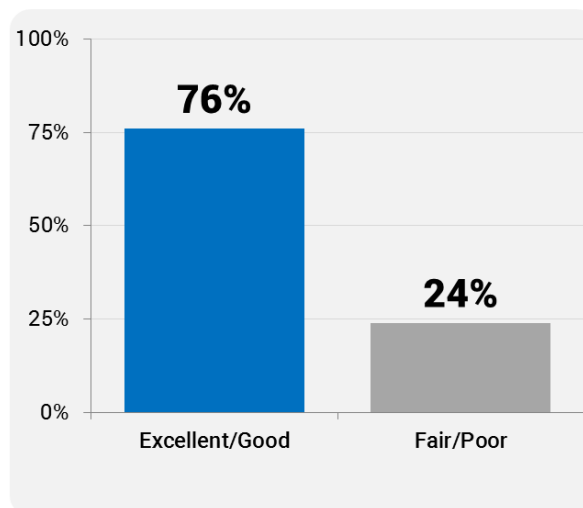
6.5 Polling: Coloradans Approve of Local Air Quality

A recent survey commissioned by CACI and NAM finds that voters in Colorado have a relatively high opinion of the quality and cleanliness of their local air. According to the survey, fully three-quarters (76 percent) of Colorado voters rate their local air quality as "Excellent" or "Good." Just 21 percent rate their local air quality as "Fair," and only three percent consider their local air quality "Poor." Even in the Denver metro area, currently considered in marginal non-attainment with the 2008 standard of 75 ppb, a large majority (70 percent) assign positive ratings to their local air quality. Only four percent of survey respondents in those non-attainment counties think their local air is "Poor."

Public concern about air quality in Colorado – and government regulations dealing with air quality – has evolved with the changing times. Two decades ago, public opinion surveys showed that Denver’s Brown Cloud was “a top concern in the eyes of the general public,” according to a 1991 research [paper](#) authored by officials with the Colorado Health Department, Colorado State University and the State University of New York at Albany. But after the dramatic environmental improvements detailed in Section 3.0, Coloradans are skeptical of claims that Denver’s air quality today justifies a major regulatory crackdown by the federal government.

COLORADO OPINION POLL

How would you rate the air quality in your local area?

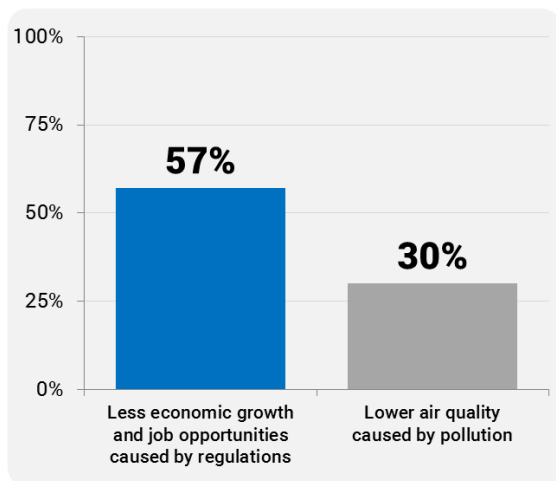


Source: CACI/NAM Colorado opinion poll, August 2015

Today, most Colorado voters oppose any additional environmental regulations on businesses, believing these would have negative impacts on the economy through higher taxes, higher prices, and an unfriendly business environment. Moreover, few

COLORADO OPINION POLL

What do you see as the bigger problem for your local area?



Source: CACI/NAM Colorado opinion poll, August 2015

believe that stricter regulations would have a meaningful impact on air quality, and Coloradans have very little tolerance for changes in lifestyle or the economic repercussions that could be imposed by stricter air quality regulations, like the EPA’s proposed ozone standard.

Majorities in every region of the state rate their local air quality positively, especially in Western Colorado (86 percent). This is particularly significant because, as discussed in Section 6.3, five counties in Western Colorado would be plunged into violation of ozone standards for the first time under EPA’s proposal – not because of

any change in underlying air quality conditions, but because Washington officials simply chose to move the goal posts.

By a nearly two-to-one margin, Coloradans think that a bigger problem for their local area is “less economic growth and job opportunities caused by regulations” (57 percent) rather than “lower air quality caused by pollution” (30 percent). The survey also showed Coloradans are optimistic about their local economic performance and direction of their state, but have little confidence in economic policies coming out of Washington. Nearly three-in-five Coloradans (58 percent) rate their local economy as “Excellent” or “Good,” with 33 percent rating it as “Fair” and just eight percent rating it as “Poor.” This is a much higher rating than reported by a national poll commissioned by NAM in June 2015, which found 45 percent of Americans rate their local economy as “Excellent” or “Good.”

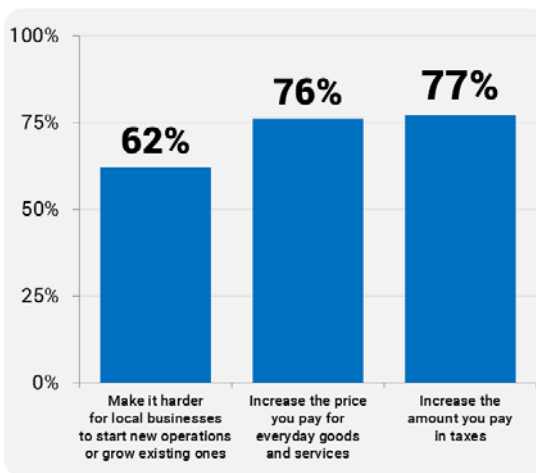
Coloradans are largely optimistic about the direction of their state, with almost six-in-ten (58 percent) saying it’s headed in the right direction. Twenty-eight percent think it’s going down the wrong track. Nationally, the numbers are reversed, with 28 percent of Americans believing the country is headed in the right direction and 59 percent say the nation is on the wrong track.

When asked about the effect of the Obama Administration’s economic policies on their local area, Colorado voters are unenthusiastic. Four-in-ten (40 percent) think the policies have a negative effect, slightly fewer than that (38 percent) think they have a positive effect, and the remaining 23 percent are unsure or think they have no real impact.

In a similar vein, Coloradans oppose tougher environmental regulations on businesses in their area and they overwhelmingly believe that new air quality mandates would have adverse local economic effects, with only modest improvements in air quality. Less than half (40 percent) think that the federal government should implement stricter environmental regulations on businesses operating in their local area. Three-in-four Colorado voters (77 percent) think that stricter federal air quality regulations on their local area would increase taxes. Almost

COLORADO OPINION POLL

Do you think that implementing stricter federal air quality regulations on your local area would:



Source: CACI/NAM Colorado opinion poll, August 2015

two-in-three (62 percent) think it would make it harder for local businesses to start new operations or grow existing ones. More than three-quarters (76 percent) think stricter regulations would increase the price they pay for everyday goods and services, and notably, only 39 percent think that new environmental regulations on local businesses would actually make the local air quality better. More than half (51 percent) think stricter regulations would have no real impact.

For this reason, a strong majority of Coloradans are unwilling to see their quality of life suffer or the economy take a hit because of stricter federal air quality regulations. Just 34 percent said they would accept less economic growth and job opportunities in their area. After decades of road demands outpacing investments in road capacity, Coloradans still have patience for environmental reviews of transportation projects – but their patience is wearing thin. Only 38 percent said they would tolerate more traffic delays and longer commute times for the sake of stricter air quality regulations.

That is especially true when it comes to regulations coming out of Washington, such as the EPA's proposed new ozone standard. Coloradans clearly favor state and local regulations over federal mandates. Less than one-in-five Colorado voters (18 percent) think the federal government should have more of a say over air quality regulations in their local area. Most prefer that these decisions be handled by state and local officials (77 percent).

Given the origins of the EPA's ozone proposal in Washington, its economically destructive impacts, and the powerful control it will give the federal government over decisions usually left to state and local officials, these polling numbers should give pause to the agency and its supporters. At the same time, the results of this survey clearly show why public officials from both major political parties, impacted businesses, and others in Colorado are speaking out against the EPA's ozone agenda.

7.0 CONCLUSION

Coloradans are clearly proud of their environment, their economy and the overall direction their state is presently headed. As they learn more about Washington's ozone agenda, and how it may impact their way of life, the more they oppose it. To date, the ozone issue has maintained a relatively low profile in Colorado, essentially hiding in plain sight behind the controversy generated by several other EPA regulatory proposals.

That is quickly changing, as this report demonstrates. In fact, the debate in Colorado over Washington's ozone agenda is showing some similarities with another recent environmental controversy in the Centennial State. Last year, a number of environmental groups and their allies proposed a series of statewide ballot measures targeting the state's oil and natural gas industry. Colorado is one of the nation's top energy-producing states, and leaders from across the political spectrum and across the economy rallied together to oppose these measures. Colorado Gov. John Hickenlooper (D), who was part of this coalition, [called](#) the ballot initiatives "extreme measures that would drive oil and gas out of Colorado." In the face of likely defeat, proponents of these initiatives [rescinded](#) them before they could even reach the ballot.

A similar coalition is beginning to emerge in Colorado, aimed at defending the state from a proposed federal ozone standard that simply goes too far—and with no, or very little, environmental benefit in return. As more leaders join the coalition from across the state's political spectrum and across its diverse economic sectors, the EPA should heed their advice and keep the existing 75 ppb federal ozone standard in place until that environmental benchmark is fully implemented.

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