

**TRANSPORTATION AND AIR QUALITY: CMAQ AND
CONFORMITY PROGRAMS**

HEARING

BEFORE THE

SUBCOMMITTEE ON CLEAN AIR, CLIMATE CHANGE
AND NUCLEAR SAFETY

AND THE

COMMITTEE ON ENVIRONMENT AND
PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

ON

THE IMPLEMENTATION OF THE CMAQ PROGRAM AND TRANSPOR-
TATION CONFORMITY PROVISIONS OF TEA-21, THE TRANSPORTATION
EQUITY ACT FOR THE 21ST CENTURY

MARCH 13, 2003

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TRANSPORTATION AND AIR QUALITY: CMAQ AND CONFORMITY PROGRAMS

THURSDAY, MARCH 13, 2003

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON CLEAN AIR, CLIMATE CHANGE AND
NUCLEAR SAFETY,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m. in room 406, Senate Dirksen Building, Hon. George V. Voinovich (chairman of the subcommittee) presiding.

Present: Senators Voinovich, Thomas, Carper, and Jeffords [ex officio].

OPENING STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Senator VOINOVICH. Good morning. The hearing will come to order.

We will convene this hearing. We have a number of witnesses today, many of them in the second panel. I think that in fairness to them, we should get started.

I will restrain myself from giving my opening statement which I will have put in the record.

[The prepared statement of Senator Voinovich follows:]

STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE
STATE OF OHIO

The Hearing will come to order. Good Morning.

This hearing continues a long-running conversation that this subcommittee and indeed the whole EPW Committee has had on the issues of congestion and air quality.

Specifically, we are here to discuss two programs—the Conformity program under the Clean Air Act and the Congestion Mitigation and Air Quality—or—CMAQ program under TEA-21. Although these two programs are placed under separate enabling legislation, they both have a lot to do with two major problems—congestion and air quality.

The Department of Transportation has estimated that the cost of traffic congestion to travelers topped \$72 billion in terms of hours of lost time and wasted fuel in 1999 alone. Between 1982 and 2000, the annual hours of delay per driver in 75 urban areas studied by the Texas Transportation Institute increased by 46 hours. Drivers in these areas spent 4 times longer sitting in traffic in 2000 than they did in 1982. Even more startling, small urban areas saw a 400 percent increase over the same period, according to U.S. DOT. These numbers are projected to grow even further in the near future.

One recent study estimated that Cincinnati drivers spent an average of 43 hours in traffic jams in 2000, compared to 4 hours in 1982; while Columbus drivers sat in traffic an average of 38 hours in 2000 compared to 4 hours in 1982; and in my hometown of Cleveland, drivers spent an average of 21 hours in congestion in 2000,

compared to 1 hour in 1982. As a result, 104 million gallons of fuel was wasted in these three cities in 2000.

These costs—hours of delay, lost time and wasted fuel—are not the only costs associated with congestion. Congestion contributes to air quality degradation by increasing travel delays, engine idle time and unproductive fuel consumption.

As we move forward on reauthorizing the Highway Bill in this Committee, it is critically important that we look for ways to reform these two programs—Conformity and CMAQ—so they can be used by the States to reduce congestion and improve their air quality.

The transportation conformity process was designed to ensure that an area's transportation projects and plans fit within a State's implementation plan, which is set pursuant to the Clean Air Act. This sounds like a simple prospect, but making this process work in a high-growth area is anything but simple. Those areas tend to simultaneously have transportation and air quality problems.

As Governor of Ohio, I spent considerable effort to bring Ohio counties into attainment for the air quality standards. When I first entered office, 28 out of Ohio's 88 counties failed to meet the 1-hour ozone standard. As a result of some very hard choices, all 88 of Ohio's counties are now in attainment for ozone.

Unfortunately, under two new NAAQS standards, many of these counties will likely be re-designated as non-attainment counties. Over the next 2 years, EPA is set to implement its new 8-hour standards for ozone and the new 2.5 standards for particulate matter. Preliminary estimates indicate that when these new standards go into effect, 30 counties in Ohio will become non-attainment counties for ozone, and another 15 for particulate matter. Under the current rules, each of these counties stands to lose Federal funding for important highway projects, which imperils countless efforts to reduce congestion and repair our increasingly dilapidated infrastructure.

According to the Ohio Department of Transportation, over \$1.4 billion worth of projects identified for fiscal year 2004 through 2007 would be subject to conformity once the new 8-hour standards are effective.

Many of you may recall that our late Chairman, Senator John Chafee, held a hearing on this topic back in 1999. At that hearing, I stated that a lot of communities in this country would have a dickens of a time meeting the new NAAQS standards and predicted that the chickens would come home to roost when they went into effect. Well, here we are 4 years later, and it looks like the chickens indeed are coming home to roost. Under the new ozone standard, 232 counties in 32 States will be designated non-attainment next year and 176 counties in 26 States for the PM_{2.5} standard in 2005. As I just mentioned, each of these counties stands to lose Federal funding for all of their highway projects under the current rules.

As we move forward on reauthorizing the Highway Bill and on clean air legislation this year, I think we need to take a look at this process and see if there are ways we can change it to make it work better for States and counties in a manner that is consistent with our national clean air goals. I would be interested to hear from our witnesses what suggestions they would have on how to improve this process.

In 1991, Congress authorized \$6 billion for the Congestion Mitigation and Air Quality Improvement Program (CMAQ) in order to help areas fight congestion in order to maintain conformity. Congress reauthorized the CMAQ program in TEA-21, and increased the funding to \$8.1 billion over 6 years. The main goal of CMAQ is to fund transportation projects that reduce emissions in non-attainment and maintenance areas. A second goal of CMAQ is to fund projects that slow the growth of congestion, reduce emissions, and maintain economically viable and mobile communities.

CMAQ funding is apportioned to the States by means of a formula that takes into account the severity of air quality problems and the size of affected populations. The States are required to spend the money in non-attainment areas and maintenance areas. CMAQ funds are focused primarily on the transportation control measures contained in the 1990 Clean Air Act Amendments. The primary purpose of these measures is to lessen the pollutants emitted by motor vehicles by decreasing travel demand and decreasing congestion. Over the first 8 years of the CMAQ program, funding has been concentrated in two areas—transit and traffic flow improvements.

Having been funded at a total of \$14.5 billion over 8 years, the CMAQ program represents less than 1 percent of the total amount spent by all levels of government on highway and transit projects. However, the fact that CMAQ funding will not solve an area's air quality or congestion problems single-handedly does not mean that the program is not valuable. In fact, one of its greatest benefits has been toward assisting areas in the demonstration of conformity—by funding emissions-reducing projects which will offset the emissions increases that are expected when

highway projects are completed. Such projects have included park-and-ride facilities, high-occupancy vehicle lanes, traffic monitoring and incident management centers, special freeway service patrols, and emissions-testing programs.

One major concern that I do have with the CMAQ program is that—in terms of reducing emissions—you don't get much bang for your buck. A recent study of the CMAQ program conducted by the National Academy of Sciences revealed that most CMAQ funds have been allocated to the least cost-effective strategies for reducing emissions. Department of Transportation statistics show that 89 percent of CMAQ-funded projects in 1997 reduced VOC emissions by fewer than 100 kilograms per day or less. In fact, 50 percent of these projects reduced VOC emissions by fewer than 5 kilograms per day or less. This is simply an unacceptable waste of taxpayer dollars when several CMAQ-funded projects, such as inspection and maintenance programs, have shown much higher emissions-reduction totals.

As this Committee considers whether to reauthorizing this program, we need to take a look at whether there any changes—such as reforming the criteria used to fund these projects—that will deliver more emissions-reductions bang for our bucks. I would be interested to hear from our witnesses what suggestions they would have on how best to accomplish this.

I look forward to examining these issues in today's hearing. As I mentioned earlier, we need to find a way to reform these programs in a way that will allow our States to fight congestion in a manner consistent with our national clean air goals.

Our witnesses on the first panel today include Mr. Jeffrey Holmstead, the Assistant Administrator for Air Quality at the Environmental Protection Agency, and Mr. Emil Frankel, the Assistant Secretary for Policy at the Department of Transportation. In our second panel we will hear from various witnesses about the effects these programs have on States and local MPOs. I would like to thank these witnesses for coming here today to discuss these issues and I look forward to their testimony.

Senator VOINOVICH. The former chairman would like to make a brief opening statement.

**OPENING STATEMENT OF HON. JAMES M. JEFFORDS,
U.S. SENATOR FROM THE STATE OF VERMONT**

Senator JEFFORDS. This will be brief. I have a lengthy statement I would like to have made a part of the record.

[The prepared statement of Senator Jeffords follows:]

STATEMENT OF HON. JAMES M. JEFFORDS, U.S. SENATOR FROM THE
STATE OF VERMONT

Thank you Mr. Chairman. In July 2002, the committee held a hearing similar to the one we are having today. From that hearing, I concluded that while there may be occasional conflicts between air quality protection and transportation investments, the overall system is working pretty well and continues to improve.

Today, I hope we will hear about the Administration's plans for increased funding for the CMAQ program and tightening the linkages between air quality and transportation planning and policies. Strengthening the conformity process and ensuring that adequate resources are available for planners is essential.

It is becoming clearer all the time that our ability to meet national air quality standards and continue economic growth requires a very thoroughly integrated approach.

There is no doubt that coordinating these two policy areas and disciplines is complicated. But, our CMAQ investments and conformity have encouraged smarter growth, better land use decisions, and provided air quality benefits.

We should continue moving aggressively along this same path. If we don't, even tomorrow's cleaner vehicles could swamp our efforts to achieve cleaner air as their numbers grow and they travel ever farther.

The total vehicle miles travelled (VMT) has grown 4 times faster than the rate of population growth in the last 30 years. And, at least one study in Tennessee indicates that the VMT increases there will overwhelm the reductions from the cleaner Tier 2 vehicles and heavy duty vehicles. This may make it difficult for them to attain the national air quality standards.

There is no question that attaining the revised ozone and fine particulate standards will be a challenge for all communities across the United States. Fortunately, nonattainment status and conformity requirements due to that status will only be new to a relatively small portion of the areas.

For those that may experience nonattainment for the first time, EPA and DOT should already be providing guidance, training and resources, so these new areas can be ready with the necessary expertise. I hope our witnesses will comment on that.

Expanding and increasing funding for the CMAQ program will make it an even more important tool for communities to reduce vehicle emissions creatively and permanently so that the standards can be attained. We also need to look at possible ways that CMAQ can be used effectively in clean areas so they might stay clean and avoid being designated as a nonattainment area at all.

The first transportation authorization bill of the 21st Century should, in all respects, bring us closer to the point at which vehicle emissions are a trivial or disappearing source of air quality and environmental health problems. That means dealing with all emissions, not just those that contribute to nonattainment.

Mobile sources are a significant source of toxic air pollutants. In 1998, the entire transportation sector was responsible for emitting 2.3 million tons or 4.6 billion pounds of toxic air pollutants, such as benzene and 20 other hazardous chemicals.

Recent studies indicate that people living within a short distance of high-volume freeways have a much higher than normal risk of cancer and other adverse health effects. EPA's final rule on mobile source air toxics, which is scheduled for July 2004, should consider these studies.

Federal Highways should use this information in conducting NEPA analyses too.

As the Committee heard in the August 2001 hearing on mobile source air pollution, the transportation sector is a huge and growing component of the nation's greenhouse gas emissions. One third or 1.8 billion tons in carbon emissions comes from the sector, about 18 percent above 1990 levels and continuing to rise. Senators know my belief about global warming. Scientists appearing before this Committee have told us that unmitigated increases in emissions increase the risks associated with global warming and climate change.

This year's reauthorization bill is the place to start thinking about how to reduce greenhouse gas emissions from this sector. We must also look for ways to strengthen the linkages we have already forged between transportation and air quality and environmental health protection.

I hope we will hear today from DOT and EPA on their proposals, if any, to change policy or law in this area as part of reauthorization, rather than revisiting this again later.

Senator JEFFORDS. One of the witnesses in the second panel is Jerry Lasker with whom I have worked since I was mayor of the city of Tulsa. We have gone through attainment programs over the years. This is something we are going to try to do under the leadership of Senator Voinovich to come up with some real sensible compromises and efforts to work with the States, the countries, and areas so that we are not assuming an attitude of punishment, but of help.

So I look forward to working with you on your subcommittee, Senator Voinovich.

Senator VOINOVICH. Thank you, Mr. Chairman.

I would like to welcome the two witnesses on our first panel. Our first witness is the Honorable Emil H. Frankel, Assistant Secretary for Transportation Policy, U.S. Department of Transportation. Mr. Frankel, we are glad to have you here.

Our second witness is the Honorable Jeffrey R. Holmstead, Assistant Administrator for Air and Radiation, U.S. Environmental Protection Agency.

We are here to discuss two programs—the Conformity Program under the Clean Air Act, and the Congestion Litigation and Air Quality, or CMAQ Program under TEA-21. Although these two programs are placed under separate enabling legislation, they both have to do with two major problems that we have in this country—congestion and air quality.

I would like to call on you first, Mr. Holmstead.

**STATEMENT OF HON. JEFFREY R. HOLMSTEAD, ASSISTANT
ADMINISTRATOR FOR AIR AND RADIATION, ENVIRON-
MENTAL PROTECTION AGENCY**

Mr. HOLMSTEAD. Thank you very much for having me, Chairman Voinovich, and Chairman Inhofe. I am delighted to be here today. With your permission, I would also like to submit my written statement for the record.

Congress has long recognized that a successful strategy for reducing emissions from mobile sources must address the vehicles we drive, the fuels we use, and the roads on which we travel. This morning, as you mentioned, I would like to briefly offer my thoughts on these programs—the Congestion Mitigation and Air Quality (CMAQ) Improvement Program and the Transportation Conformity Program.

Since the passage of the Clean Air Act in 1970, we as a country have been extremely successful in reducing pollution from cars, trucks, and other mobile sources. For example, as I think you know, new cars today are more than 90 percent cleaner than cars purchased 30 years ago. They will become even cleaner still as the Agency gears to passenger and light truck standards and related fuel requirements that come into place beginning next year.

In addition, new technologies for diesel engines, which are enabled by cleaner diesel fuel will result in even greater emission reductions over the next few years. Beginning in 2007, new heavy-duty diesel trucks and buses will be more than 90 percent cleaner than they are today. Within the next 2 months, we will be proposing a rule for non-road diesel engines and fuels that will achieve even greater emission reductions than the 2007 rule for on-road trucks and buses.

Concentrations of the four key pollutants affected most by the transportation sector—carbon monoxide, nitrogen dioxide, ozone, and particulate matter—have all declined significantly. They will decline even more because of the upcoming standards I just mentioned. These reductions will help protect public health by reducing incidents of premature mortality, asthma attacks, and other health problems caused by air pollution. These reductions are obviously extremely good news.

But we have also learned that cleaner cars and cleaner fuels alone cannot achieve the air quality improvements we need. Notwithstanding all the progress we have made, transportation is still a major contributor to air quality problems. It accounts for about 15 percent of inventoried particulate matter emissions, almost 30 percent of the pollutants that cause ozone, and 62 percent of carbon monoxide emissions.

Preliminary data suggests that about 80 million people will live in areas that don't meet the new National Ambient Air Quality Standard for ozone and about 75 million will live in areas not meeting the new fine particulate matter standard. The number of cars and the number of miles driven continue to increase dramatically. Since 1970, the number of vehicle miles driven has almost tripled to 2.8 trillion miles a year.

CMAQ is an innovative and important tool designed to reduce pollution from the transportation sector by funding innovative projects and programs to reduce emissions, and also vehicle miles

traveled. Many of these projects have not only improved air quality, but have the added benefit of reducing traffic congestion and making communities more livable.

We agree with the recommendation of the National Academy of Sciences that CMAQ should be continued and even expanded in certain ways. We also agree, however, that this program can and should be improved. For example, fine particulate matter, or $PM_{2.5}$, is the biggest health concern posed by air pollution and is clearly linked to motor vehicles.

But fine particulate matter and the technologies to address it, such as diesel engine retrofits and anti-idling technologies are not currently considered in the allocation formula or eligibility criteria of CMAQ. As more areas need funds to help them address congestion and air quality issues, it is also clear that pressure on funding decisions will only increase, and so will the need for State and local transportation and air quality agencies to work together closely to select projects for funding. We believe that more effective consultation between air quality planners and transportation planners is critical to maximize the air quality benefits of limited CMAQ resources.

In addition, areas that are able to make the leap from non-attainment to attainment are essentially penalized by reductions to their CMAQ funds. We believe that this disincentive needs to be addressed and that a more stable funding basis should be provided for areas redesignated to attainment.

In addition to the CMAQ program, Congress created another program known as the Transportation Conformity Program to ensure that air quality planning and transportation planning are better coordinated. We believe that the Conformity Program has helped to maintain progress toward meeting air quality goals without unduly compromising improvements in our transportation network. We also believe, however, that this program can and should be improved.

As I mentioned earlier, new National Ambient Air Quality Standards for ozone and fine particulate matter will become effective in 2004. A significant number of counties will become new non-attainment areas under these new standards. A number of people have expressed concern about what this will mean for transportation programs. I want to just briefly address these concerns.

We understand that there will be challenges, but we have learned a lot about the Conformity Program over the last decade. Perhaps more importantly, local and State agencies have developed expertise that will provide a solid basis for success. We are working with the Department of Transportation (DOT) to develop new conformity guidance and regulations that will streamline the program without compromising its air quality benefits. We also will be working with DOT to provide training and other assistance to help new non-attainment areas implement the Conformity Program successfully.

Finally, I would like to briefly address a couple of common misperceptions about what happens if a State fails to meet the conformity deadlines. This is often referred to as a conformity lapse.

First, these conformity lapses are relatively infrequent and generally resolved quickly. In some cases, conformity lapses have de-

layed some highway funding until the plan is approved. I don't want to minimize the impact of these delays because I know they can be disruptive. However, we are not aware of any State that has actually lost highway funding due to a conformity lapse.

I know that there will be many questions about these issues. I would be delighted to answer those questions and to work with the committee to discuss these and any other issues.

Thank you.

Senator VOINOVICH. Thank you, Mr. Holmstead.

Mr. Frankel.

STATEMENT OF HON. EMIL H. FRANKEL, ASSISTANT SECRETARY FOR TRANSPORTATION POLICY, DEPARTMENT OF TRANSPORTATION

Mr. FRANKEL. Mr. Chairman, thank you for the opportunity to discuss transportation conformity and the CMAQ Program—the Congestion Mitigation Air Quality Program.

I would also ask that my written statement be made part of the record of this hearing.

Meeting the dual challenges of congestion relief and air quality improvement is a very high priority for the Department of Transportation, as I know it is for you personally and for the members of this subcommittee and the committee.

Secretary Mineta has noted that one of the core principles of the Department of Transportation's efforts to reauthorize TEA-21 will be to ensure an efficient infrastructure while retaining environmental protections that enhance our quality of life.

As you know, the bill to reauthorize TEA-21 is currently in interagency review and clearance. We are anticipating that that bill will be introduced to Congress within the next few weeks. While I obviously, under those circumstances, can't go into the specifics of the bill, which, therefore is not yet the Administration's bill, I do want to assure you that continuation of a robust and strong CMAQ Program will be a key feature of our proposal, building on the approximately \$14 billion that has been spent under this Program since its adoption in ISTEA.

Over the last 30 years, as Mr. Holmstead has said, we have made remarkable progress in reducing air pollution, particularly from transportation sources. Since 1970, we have reduced carbon monoxide emissions by 45 percent, coarse particulate matter, or PM₁₀ emissions, by 38 percent, and volatile organic compounds, VOC emissions, by 61 percent, despite increases in population, GDP, and vehicle miles traveled.

The automotive fuels: highway, and transit communities have managed to achieve this success while still working to improve mobility.

While the downward trend in emissions is expected to continue, some of our Nation's largest metropolitan areas still face challenges in meeting the current 1-hour ozone standard. We must meet the challenges of implementing the new Ambient Air Quality Standards. The Department of Transportation and EPA are working together to help the States meet these challenges.

We have learned a lot about the linkages between transportation and air quality, including that there is no one right way for the en-

tire Nation to reduce congestion and improve air quality. The problem requires a flexible multilevel solution. The CMAQ Program provides States flexibility to fund transportation improvements that cross traditional Federal aid program boundaries, including transit, ride-sharing, bicycle and pedestrian, alternative fuels and vehicles, emissions inspection and maintenance, and ITS—Intelligence Transportation System—implementation.

In addition, CMAQ supports experimentation by States and MPOs to meet travel demand in the most environmentally sensitive ways and has encouraged cooperation between transportation and air quality agencies.

As we approach reauthorization of TEA-21 we must consider stakeholder concerns about the CMAQ Program. One issue relates to the statutory apportionment formula which I know is of interest to you and to members of this subcommittee. The current formula does not take into account areas that would be designated under the new Ambient Air Quality Standards. There is some concern that State apportionments would not be based on the total number of people living in non-attainment areas.

Another issue relates to the integration of transportation and air quality planning. We have now almost a decade of experience in implementing the Clean Air Act's Transportation Conformity Provisions. Stronger institutional links between transportation and air quality planning agencies have been created and this has led to the development of more realistic plans.

In addition, the conformity provisions have been instrumental in fostering improvements to the modeling processes. However, we have heard concerns that transportation and air quality plans are not synchronized and that this can cause unwarranted lapses in conformity that can disrupt the transportation funding process.

While transportation plans have very long planning horizons and are updated frequently, most air quality plans have very short planning horizons and are updated less frequently. DOT and EPA are evaluating all of these issues as part of the reauthorization process.

DOT actions other than highway and transit, such as airport development, are subject to a different EPA rule, the General Conformity Rule. We are working with EPA to improve implementation of these requirements as well.

In addition, EPA's new Ambient Air Quality Standards will also impact the conformity process. These new standards are more stringent. Many areas across the Eastern United States and California have pollution levels now exceeding these standards. It is too early to tell the magnitude of transportation and air quality planning and conformity issues that might surface following implementation of the new standards. But the Department of Transportation and EPA are working with these areas to increase their capacity to deal with new non-attainment designations and conformity.

Finally, I want to assure you that the Department is committed to continue the progress our Nation has made in reducing motor vehicle emissions. I am proud of our successes under CMAQ with flexible funding for innovative transportation projects that improve air quality and mitigate the congestion. Continued progress will re-

quire improved coordination of the transportation and air quality planning processes.

The American public demands and deserves both mobility and clean air. We must remain focused on providing the highest level of service and environmental protection possible.

Mr. Chairman, this concludes my oral statement. I look forward to working with you and your colleagues as we prepare for reauthorization of the surface transportation programs and responding to any questions you may have.

Senator VOINOVICH. Thank you, Mr. Frankel.

The chairman has asked that I insert in the record, after his short opening statement, a letter from the National Association of Home Builders.

Without objection, it will be inserted in the record.

[The referenced statement and letter follow:]

STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM
THE STATE OF OKLAHOMA

Over the years, I've have had the opportunity to work on the issue of conformity quite a bit. Having chaired this subcommittee during TEA-21, I worked to ensure that States had the tools necessary to meet the requirements in the Clean Air Act. Working with Senator Bond, this committee gave States the flexibility to demonstrate conformity once an area may be newly designated as being in non-attainment. These new non-attainment areas were given a 1-year grace period to demonstrate conformity avoiding the immediate risk of losing critical funding for highway projects.

More recently, having served as Ranking Member for the Transportation and Infrastructure Subcommittee, I, again, had the opportunity to work closely on the issue of conformity by working to ensure that requirements of the Clean Air Act and the transportation needs of States and communities do not run in conflict with each other.

Today, conformity remains a major issue. It is crucial that the important goals of conformity remain a top priority of the work of this committee. We must work to ensure that rather than being a process driven issue, conformity will be about striking the right balance between transportation needs and improving air quality standards, and allowing communities the flexibility to achieve both.

I am pleased to report to this Committee that currently Oklahoma is fully in attainment. However, my home town of Tulsa may soon face issues with ozone attainment with the adoption of the new standards. I have invited Mr. Jerry Lasker here today representing the MPO for Northeastern Oklahoma. I understand that Tulsa is working on an "early action compact" to avoid a non-attainment designation. I look forward to hearing Mr. Lasker's testimony today on this "compact." I wanted to highlight the "early action compact" because it is just another example of flexibility for States to meet air quality and transportation needs. Programs like early action compacts should shape our frame of mind in considering issues of conformity and attainment.

Nevertheless, there are currently 196 counties in non-attainment for ozone. However, under the new standards, there will be 291 counties in non-attainment for ozone. In reality, this figure will be much, much higher because counties that are on the borders of these new 291 non-attainment counties will be also placed in non-attainment. With this many more areas in non-attainment, these "early action compacts" could be more important than ever. Regardless, these attainment problems around the country are the makings of a "perfect conformity storm." Therefore, we must take a very close look at the issues surrounding conformity.

Specifically, we should look at:

1. Synchronizing conformity requirements with State Implementation Plans (SIP's), Transportation Improvement Plans (TIP's), and long range transportation plans in a better way;
2. Ensuring that governmental agencies and MPO's have more flexibility on conformity; and
3. A greater degree of predictability on the conformity process for the private sector.

Under the same principle of flexibility, CMAQ was designed to give States flexibility to tailor projects to meet attainment with NAAQS. With ISTEA's and TEA-21's authorization of CMAQ funds, we now have a number of years of experience to evaluate the value of CMAQ funding to States. With that information and National Academy of Sciences Report 264, it is important that this committee consider the future of CMAQ as to how best to enable States to meet air quality attainment.

One last item: I would like to submit for the record testimony from the National Association of Homebuilders. I think Members and staff would benefit from NAHB's interesting perspective on the issues of conformity and CMAQ.

I look forward to hearing from our witnesses today, and, again, would like to welcome Mr. Lasker and thank him for coming all the way to Washington from Oklahoma to help educate the Committee on these issues.

STATEMENT OF THE NATIONAL ASSOCIATION OF HOME BUILDERS

Thank you for the opportunity to submit a statement for the record presenting the views of the National Association of Home Builders (NAHB) on the issue of the Congestion Mitigation and Air Quality Improvement Program (CMAQ) and transportation conformity process and their impact on the home building industry.

NAHB represents more than 205,000 member firms involved in home building, remodeling, multifamily construction, property management, housing finance, building product manufacturing and other aspects of residential and light commercial construction. The members of NAHB recognize the importance and value of a safe, easily accessible and reliable transportation system. Homeowners and potential homebuyers depend upon transportation systems to move from homes, to places of employment, to shopping and to schools. Homeowners also demand communities with clean air. The transportation conformity process creates the nexus between the necessity of a safe and efficient transportation system with the desire for maintaining clean air. Unfortunately, the conformity process can be confusing, bureaucratic and burdensome without necessarily demonstrating unmistakable air quality benefits. The transportation conformity program goals and processes must be reevaluated and reforms need to be made. NAHB's members believe that the building industry can play a constructive role in addressing this issue.

BACKGROUND

Transportation Conformity

Transportation conformity is a requirement under the Clean Air Act (CAA) and the Transportation Equity Act for the 21st Century (TEA-21) that mandates States with impaired air quality to conduct air quality assessments prior to Federal approval, or the expenditure of Federal funds, for construction of any major transportation project that may have an impact on regional air quality (e.g., highway expansion, bridge construction, new freeway construction, or transit project). In short, it is a Federal requirement that local transportation plans must "conform" to the State air quality plan.

Transportation conformity applies to counties with impaired air quality ("called "non-attainment" areas—today there are approximately 276 counties in 32 States that the U.S. Environmental Protection Agency (EPA) has designated as having excessive amounts of ozone (smog), particulate matter (soot), carbon monoxide, and/or nitrogen dioxide. In addition, EPA is in the process of implementing new, more stringent standards for ozone and particulate matter. With the implementation of these new standards, the number of non-attainment areas considered to have impaired air quality and subject to transportation conformity requirements could double by 2007.

A transportation conformity determination is set up as an all-or-nothing proposition. The projects in the local transportation plan are taken in the aggregate. If local planners are unable to show conformity of both a 20-year transportation plan and a 3-year transportation plan (including the funding to back the projects contained in those plans) with a the State air quality plan, the area experiences a "conformity lapse." The result of a conformity lapse is that all Federal transportation funding for the area is frozen until the transportation plans are approved. With Federal funding suspended due to a conformity lapse, badly needed transportation projects are delayed or even canceled, leaving the population of these areas with continued traffic congestion and no better air quality.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

Enacted as part of the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized in TEA-21, the CMAQ program sought to highlight the impact

highways and transportation facilities have on the environment and quality of life. The CMAQ program provides a flexible funding source to State and local governments for transportation projects and programs that improve air quality and congestion in areas of the country with the most severe air quality problems. Originally, funding was available for only non-attainment areas for ozone and carbon monoxide. However, TEA-21 expanded the program to include former non-attainment areas that are now in Clean Air Act compliance (maintenance areas). Eligible activities for CMAQ funding include transit improvements, traffic flow improvements, cleaner fuels conversion of public vehicles, and bicycle and pedestrian programs that reduce congestion and emissions and improve the quality of life.

Impacts on the Home Building Industry

By all measures, the housing industry, which accounts for 14 percent of the nation's Gross Domestic Product, has been a bellwether during the recent difficult economic times. Fortunately, to date, transportation conformity requirements have not hindered the industry's ability to continue producing safe, affordable housing in most cities. In recent economic data for 2002, builders produced 1.7 million housing units, including 1.36 million single-family units and 345,000 multifamily units. As a result, U.S. homeownership reached its highest level—yet 68.3 percent—in 2002's final quarter. Over the past year, low interest rates and strong underlying demographic demand has kept housing strong while the rest of the economy has struggled to regain its footing.

The construction of 1,000 single-family homes generates 2,448 jobs in construction and construction-related industries, approximately \$79.4 million in wages and more than \$42.5 million in Federal State and local revenues. The construction of 1,000 multifamily homes generates 1,030 jobs in construction and related industries, approximately \$33.5 million in wages, and more than \$17.8 million in Federal, State and local revenues and fees. NAHB members will construct approximately eighty percent of the almost 1.6 million new housing units projected for 2003.

In 2001, 41 of the largest 50 housing markets in the United States were either non-attainment or maintenance areas subject to transportation conformity requirements. As these population centers grow, the demand for affordable housing must be coupled with the need for a safe, efficient and modern transportation system. Driven by consumer demand, land developers and builders plan their projects according to local growth plans. Local transportation plans and projects must be designed to complement and support the local growth plan. Since many consumers factor transportation into their decisions about home location, delayed or canceled transportation projects change the demands of the homebuyer after development projects are planned or even completed. If a metropolitan area is unable to appropriately wade through the red-tape of the Federal conformity requirements so that it can keep transportation project funding flowing, previously approved transportation projects are halted, the congestion continues, and homebuyers are left idling in traffic.

In 1999, a NAHB survey showed that 83 percent of the survey's respondents favored a detached single-family home in a suburban setting with a longer commute to work and farther distances to public transportation and shopping. Overwhelmingly, the survey showed that the greatest concern to respondents was traffic congestion. Respondents chose road widening (44 percent), new road construction (27 percent) and greater availability to public transportation (33 percent) as solutions to traffic problems. Though a substantial number of respondents advocated the use of public transportation, 92 percent owned automobiles and 85 percent said that they use them for commuting.

The survey highlights the tradeoff Americans are willing to make: tolerance of traffic congestion in return for the home of their choice, in the setting of their choice. Further, while Americans support public transportation, they rely on the automobile as their primary means of transportation and support transportation improvements to ease traffic congestion. It is clear that transportation, whether by automobile or by transit, is a vital component of the decisionmaking process for homebuyers. This point is not lost on home builders. Home builders depend on a safe, efficient, modern transportation system (to complement land use choices and patterns) because it is an important selling point for the homebuyers they serve.

NAHB Activity

NAHB began working on transportation conformity in 1999 when environmental advocates in Atlanta, Georgia decided to mount legal challenges to transportation plans in Federal court. Throughout the country, environmental groups have petitioned Federal courts to have transportation plans frozen and then voided by the court because they are "flawed" in some way. If a transportation plan is stricken,

essentially there is no plan and, therefore, no conformity. Without conformity, Federal funding would be frozen until a “better” plan is approved.

In response, NAHB formed a coalition with other construction interests to intervene on a national level in transportation conformity lawsuits. NAHB has participated in transportation-related litigation in Sacramento, Atlanta, Baltimore, and Salt Lake City. NAHB is of the opinion that Congress did not intend for environmental groups to have standing to challenge transportation planning decisions under the Federal Aid Highways Act and that the courts should not resort to picking and choosing specific transportation projects for a region. Congress envisioned a dynamic process where transportation documents are continuously reviewed and updated on a regular basis in an effort to account for new data, technology improvements, and shifts in transportation growth. The conformity process is not static, and by necessity, is dependent on estimates and predictions based on ever-changing data and projections regarding future transportation trends. However, while this litigation continues, it is imperative for parties with an economic interest or those parties who are reasonably affected by an ultimate decision have the opportunity to intervene in those lawsuits. Efforts to keep transportation planning flowing without court-selection of specific transportation projects have been very successful.

NAHB has also recognized that a conformity lapse can result from a poorly coordinated administrative process as much as any court decision. For example, Houston was days away from lapse in the summer of 2001, and San Francisco did experience conformity lapse twice in 2002. Both of these areas became bogged down in underlying challenges to State air quality planning (such as modeling issues) that overlapped with upcoming deadlines for approval of transportation plans. It was not that the transportation plan itself was flawed, but that the air quality plan approval process was not synchronized with the transportation plan approval process. The transportation planning process itself can be unnecessarily burdensome on local planners, and changes should be made to the requirements to facilitate better air quality and transportation planning.

Concerns about Current Transportation Conformity Requirements

In reconsidering transportation conformity while reauthorizing TEA-21, NAHB urges Congress to carefully weigh the air quality benefits gained by implementing the complicated transportation conformity requirements against the economic impacts of the current transportation conformity system. NAHB supports air quality planning aimed at reaching the goals of the CAA and understands the need for future motor vehicle emissions to be factored into transportation planning. As the reauthorization effort progresses, Congress first should carefully consider whether the transportation conformity program is fundamentally addressing the goals of Congress.

NAHB would like to work with Congress to address the major problems with the transportation conformity program. Through several meetings and conversations with industry stakeholders and transportation and environmental officials, NAHB has identified several areas of concern:

- The inconsistency of statutory timelines between transportation and air quality plans results in the delay of transportation projects and subjects MPOs to excessive and burdensome planning requirements. Under TEA-21, conformity is required at least every 3 years, the regional transportation plan must be revised every 3 years and the transportation improvement program (although a 3-year plan) must be revised every 2 years. Congress should enact statutory reforms to merge transportation and clean air requirements into a single timeline that avoids overlapping efforts and additional conformity requirements.

- Excessive statutory triggers result in non-attainment areas continually performing countless transportation conformity demonstrations that often overlap and are considered obsolete before they are complete. Under the existing transportation conformity program, non-attainment areas must demonstrate conformity each time EPA proposes or approves a State Implementation Plan (SIP), each time EPA modifies a control measure that impacts the motor vehicle emissions budget (MVEB), and each time a transportation control measure is added, modified or deleted. Conformity determinations are also required each time a MPO adds or modifies a project in its transportation plan. Congress should ensure that conformity determinations are only required once every 3 years and on a cycle that has timelines consistent with transportation planning. Further, Congress should consider establishing a level of change in the MVEB below which MPOs can make changes to the transportation program without triggering a conformity determination.

- Transportation planners are confused by current EPA and U.S. Department of Transportation (DOT) guidance about what procedures should be followed and which data should be used in planning. Under the current transportation conformity

system, the introduction of “new” air or transportation data triggers the need for a new air quality plan and, in turn, a new conformity determination. Unfortunately, it is difficult to find a balance between introducing new air and transportation data into the system while still maximizing the time available to State and local transportation planners to make conformity determinations prior to statutory deadlines. Congress should ensure that a region is not liable for new data that becomes available during the course of developing a conformity determination. By doing so, an area will be able to meet conformity timelines and avoid penalizing the area for ongoing data collection and analysis.

- The Federal agencies have not concluded properly or consistently what kind of transportation projects can move forward during a transportation conformity lapse. As EPA and DOT address a court decision from 1999 that interprets the statute, once a project is approved by a local government and well on its way to becoming a reality, conformity lapse can leave a partially completed project unfinished. Unfinished or idled transportation projects serve only to perpetuate traffic congestion and dirty air, the very consequences these projects presumably are intended to alleviate.

- The way that EPA implements its new 8-hour ozone and fine particulate matter standards will have significant impact on the transportation conformity process. As stated previously, the number of non-attainment areas may double, limiting State and Federal resources. Further, the newly designated non-attainment areas will have little experience with the implementation of an already complicated conformity process.

Concerns about the Congestion Mitigation and Air Quality (CMAQ) Program

Unfortunately, over its history, the CMAQ program, which is extremely popular with State and local officials, has funded some questionable projects that fail to improve air quality. As a result, in 1998 Congress requested a National Academy of Sciences (NAS) study of the program’s effectiveness in improving air quality. The study recommended reauthorization of the CMAQ program with caveats, such as that State and local air quality agencies should be more involved in the CMAQ project decisionmaking process and that CMAQ funding should be expanded to areas with pollutants other than ozone and carbon monoxide.

During the reauthorization of TEA–21, NAHB urges Congress to weigh the air quality benefits gained by the current administration of the CMAQ program. First, Congress should fully examine whether the CMAQ program is realizing the goals of Congress. Through several meetings and conversations with industry stakeholders and transportation and environmental officials, NAHB has identified the following areas of concern:

- CMAQ-funded projects must not only reduce congestion but also be scientifically proven to provide air quality benefits. By allowing projects with questionable results to continue to be funded, the CMAQ program is not fulfilling its intended goals of cleaning the air and reducing congestion. Further, the program is not making efficient use of taxpayers’ dollars and deriving no air quality benefits for the citizens who live in non-attainment areas, the very citizens the program is designed to help.

- Congress should preserve the original intent of the CMAQ program by ensuring that funding is used exclusively in non-attainment and maintenance areas. Opening up the CMAQ program to non-designated areas would serve only to dilute the already limited funding levels and take away projects from the areas that need the funding the most desperately.

- Only a fully funded CMAQ program that accounts for the increase in non-attainment areas will ensure the popular program’s viability. As stated previously, due to EPA’s implementation of the new 8-hour ozone and fine particulate matter standards, the number of non-attainment areas may double, stretching limited CMAQ funding.

Thank you for allowing NAHB the opportunity to share its views on the CMAQ and transportation conformity programs. NAHB applauds the efforts of the Senate Environment and Public Works Committee to tackle these difficult issues. We look forward to working with members of the committee on these issue and other issues of concern to the home building industry during the reauthorization of TEA–21.

Senator VOINOVICH. Mr. Holmstead, several years ago, as a matter of fact when Senator Chafee was chairman of this committee, I indicated that under the new National Ambient Air Quality Standards that many communities would not be in conformity with the new ozone and particulate standards.

According to the information that I have, under the new Standards, you will have 232 counties in 32 States that will be des-

ignated non-attainment and 176 counties in 26 States for PM_{2.5} standard in 2005. In my own State, the statistics are that 30 of Ohio's 88 counties are projected by EPA to be designated as non-attainment for the new ozone standards, and 15 counties in 2005 for the particulate standards.

As you know from previous conversations that we have had, I am very proud of the fact that when I was Governor of Ohio we worked very hard to bring all of our counties into attainment. Under these new standards, many of them are going to fall out of attainment.

What are you going to do for these counties in terms of the problem of conformity? Many of the projections are that we could lose \$1.7 billion of money in terms of these counties not being in conformity. You have talked about new technology that is out there, such as automobiles are cleaner.

Where are you going right now, looking down the road, as to how this is going to be handled so we don't end up having a gigantic traffic jam of projects that are going nowhere?

Mr. HOLMSTEAD. We are keenly aware of this issue. As you may know, we are going through this process that will culminate in April of next year of actually designating areas. We anticipate that nationally there will be about 50 new areas that haven't really had to deal with conformity before. As Mr. Frankel mentioned, we are doing a couple of things to address this issue.

We are working with DOT to make the Conformity Program work better. There are things that we believe that we can do administratively. We are now, in fact, working on new conformity regulations that will address many of the issues faced by these new areas. We also will be providing additional assistance and training to States and local governments so that they can understand how the process works.

One of the things that we take some comfort in is that when the Conformity Program was first created under the 1990 Amendments—and you are certainly aware of all of the issues that that raised—there were some significant bumps in the road as people began doing conformity for the first time. I think EPA has learned from that experience.

Senator VOINOVICH. They weren't doing conformity. Period. We had a lawsuit that was filed because people were ignoring that. We had quite a crisis for awhile to try to see if we could clean it up.

Mr. HOLMSTEAD. We anticipate that this transition will be quite a bit smoother in part because our regulatory programs will be improved. We have ironed out some of the bugs in large part because of what Mr. Frankel mentioned. The tools are available to make this work. I don't want to minimize the challenges that we will face, but we really are doing everything we can within the current statutory scheme to try to minimize the burden, while at the same time encouraging State air quality planners and transportation planners to continue to work together on these issues.

Senator VOINOVICH. Have you sat down and looked down the road at some of the major projects that are contemplated in areas where you know there will be non-attainment of ozone and particulate matter standards?

Mr. HOLMSTEAD. I haven't done that personally. I am sure that is something that we could respond to you. I know that many of

the areas that now have conformity lapses are areas where there are no projects going on, so they have no real need to resolve those lapses. This is something that Mr. Frankel and I could probably do together. We could look at where some of the upcoming projects are expected to come.

As I think you might know, projects that are already approved, or steps in projects that are already approved, are not subject to these conformity lapses. So those will continue, as will many of the other non-exempt projects. At this point, I don't think we are anticipating that there will be a significant number of conformity lapses.

I think it makes sense for us to look at big projects coming up in some of these areas. But we really don't expect that there will be a significant number of conformity lapses because of the way the program has been refined over the years.

Senator VOINOVICH. Well, for example, in our State we have a track system of transportation allocation of resources. We have Tier 1, Tier 2, and Tier 3. We know what we are going to be doing in the next several years. Right away, design has been done. It would seem to me that you would look down the road to see where those kinds of things are going to occur. You are talking about educating people about what they can do. It seems to me that is where you can spend a little more time in some other areas.

The other thing is that I would be very interested—and I know other members of the committee would be as well—as to how you are going about doing this. I think it is really important that those regulations be vetted; we would then have a lot of input. Once this is done, we won't have a cry from a lot of people out there saying that you are trying to get around the new ozone and particulate matter standards and trying to avoid the laws. This is what triggered the lawsuit that got us in a jam several years ago.

Mr. HOLMSTEAD. Currently, we are going through what we refer to as a "stakeholder process," to make sure that we really do understand the issues of various stakeholders. We are confident that the refinements that we are looking at will be fully in accordance with the laws. So we don't expect any significant problems there. We will have these revised regulations and guidance out well before areas are actually designated under the new standards.

Senator VOINOVICH. You will share that with the committee?

Mr. HOLMSTEAD. Yes.

Senator VOINOVICH. Thank you.

Mr. Frankel, you say that \$14 billion has been spent over the last 8 years. I am familiar with some of those projects in the State of Ohio. The information that I have is that a lot of that money that has been spent has not gone for projects that really do very much about reducing emissions. In fact, I think the National Academy of Sciences did a study of them and was quite critical that many of the projects that were done. One could question about whether or not they complied with the congressional intent.

I just wonder. Are you contemplating looking at some new criteria in determining which of those projects are going to be funded? There are certain ones that were highlighted in that study that contributed more toward reducing emission and helping with the

conformity problem than many others. Could you share with us what your thinking on that is?

Mr. FRANKEL. Well, Mr. Chairman, first of all, roughly \$14 billion has been authorized and \$11 billion spent since the beginning of the program in 1991 and the enactment of ISTEA. That is actually a little longer period. As Mr. Holmstead has said, and as you acknowledged, the National Academy of Science study was generally supportive of the program and recommended its continuation.

It is, as is true under the programs under TEA-21, and ISTEA before it, a grant program—in this case to the States, depending on their level of air quality attainment. There is flexibility on the part of the States and MPOs to develop specific programs and projects. Funded projects do have to meet certain standards, obviously, and must contribute to air quality improvements and congestion relief.

We are looking, in the context of the reauthorization bill, at eligibility issues and what sorts of projects should be eligible or not. We will continue to examine what projects are selected by States to make sure, through general oversight of these programs, that the projects are consistent with the program requirements.

As is true of programs under TEA-21 generally, there is flexibility on the part of States to develop programs that meet these goals. Overall, it is hard to measure the specific impact of the CMAQ program on improvements in air quality, let alone the impact of individual projects.

I think you would acknowledge this, and both of us have said, there have been dramatic improvements in the reduction of emissions attributable to mobile sources. CMAQ has been a big part of that. I think CMAQ will continue to make those contributions while DOT exercises appropriate oversight of the program.

Senator VOINOVICH. Well, I would like to have you review that report and get back to us with your comments on it. Perhaps you can give some consideration in terms of language. We want to be sure that we don't build a bunch of garages all over the United States that couldn't be built with any other money. CMAQ funds are there and people go after them.

I just think that the programs that are being supported and paid for ought to have some real connection with reducing emissions in the area and helping with conformity. I know that is a tough one. I am for flexibility, but if you look at them, they don't fit in with the law that made this money available.

Mr. FRANKEL. I appreciate that, Senator. We will be responsive to that.

[Material to be supplied follows:]

Response to Senator Voinovich's request: The National Academy of Sciences (NAS) report makes ten major recommendations in four different areas of evaluation. A review of each is discussed below.

NAS Recommendation 1. The Congestion Mitigation and Air Quality Improvement Program (CMAQ) has value and should be reauthorized with modifications.

We agree that CMAQ has value and should be continued. It is the only transportation program focused on contributing to improvement in air quality. We agree that some modifications are warranted, primarily for streamlining the program and allowing for funding of areas that will become nonattainment under the Environmental Protection Agency's new air quality standards. The exact changes that will

be contained in the Administration's proposal for reauthorization have not been finally decided, but will likely address many of the report's recommendations.

NAS Recommendation 2. Air quality improvement should continue to receive high priority in the CMAQ program.

The report notes that there are other highway funding categories that focus on congestion relief and finds that the prohibition of construction of single occupant vehicle capacity with CMAQ funds should be continued. We agree that cost-effective congestion relief projects should be funded when they have been found to have emission reduction benefits.

NAS Recommendation 3. State and local air quality agencies should be involved more directly in the evaluation of proposals for expenditures of CMAQ funds.

We have encouraged interagency consultation in the CMAQ project selection process and many areas have responded by including State and local air pollution control officials in project selection. In the interests of local flexibility and decision-making, we have not required any specific make-up of these local project selection committees. It is not clear whether Federal specification of the local project selection process is warranted.

NAS Recommendation 4. The CMAQ program should be broadened to include, at a minimum, all pollutants regulated under the Clean Air Act.

The report specifically notes the new data showing fine particulates (PM_{2.5}) as having serious human health impacts. That is our understanding as well. The current focus of the program is on those EPA-regulated pollutants that can be affected by transportation-related measures. While EPA has not yet designated any areas as being in nonattainment of its new standard for fine particulate matter or under the 8-hour ozone standard, there may well be justification for including these areas in the CMAQ apportionment formula. Failure to do so could restrict funding in States whose nonattainment populations have grown substantially. Other pollutants suggested in the NAS report may not be as applicable to mitigation under the CMAQ program. For example, transportation contributes just 2 percent to sulfur dioxide, and no standards have yet been set for air toxics. As such, it may not be worthwhile to pursue funding for SO₂ reduction since transportation sources are so small compared to the whole. Similarly, without standards and nonattainment designations, we may not be able to target control strategies and areas to address air toxics in reasonable ways.

NAS Recommendation 5. Any local project that can demonstrate potential to reduce mobile source emissions should be eligible for CMAQ funds.

The report specifically mentions vehicle scrappage programs, which are statutorily ineligible, as well as public-private projects, diesel programs and freight, all of which are eligible and have been funded by the CMAQ program. With the exception of scrappage programs, it is not clear what else might be funded under the program that is not already eligible.

NAS Recommendation 6. Relax the restriction on the use of CMAQ funds for operations.

The use of CMAQ funds for operational support is being evaluated by the Department to determine whether eligibility for such funding should be continued and, if so, for how long. Discussions within the Department have ranged from 0 to 5 years of eligibility. The use of CMAQ for operations must be considered very carefully because CMAQ funds are used for transit projects, inspection and maintenance programs, as well as highway projects, and the combined operational needs of just the transit operators and the State and local highways agencies is about \$32 billion annually, many times larger than the \$1.8 billion of CMAQ funding apportioned to the States in fiscal year 2002. In further discussions with the NAS panel, it is clear that this recommendation carried the requirement that further air quality benefit be demonstrated. We are not sure that such a demonstration can be made under existing EPA procedures since operating support does not yield further emission reductions toward attainment.

NAS Recommendation 7. Consider the use of CMAQ funds for land use strategies leading to long term reduction in future mobile source emissions.

As noted in the report, the potential for land use strategies to reduce congestion or vehicle emissions is complex and unclear. An important consideration is that CMAQ funding, is derived from the Highway Trust Fund and must be used for "transportation" projects that assist attainment. Some land use strategies may not be reasonably considered to be transportation activities. Those that are transportation activities may already be eligible for CMAQ funding. At least one proposal for transit-oriented development has been determined to be eligible for CMAQ support. Further, it may be difficult to demonstrate an emission reduction which assists attainment of the standards.

NAS Recommendation 8. Develop more rigorous procedures for selection and evaluation of CMAQ projects in the context of local air quality and congestion problems.

The Department is evaluating what reauthorization recommendations to make concerning project selection. While we support performance-based approaches, there is concern about balancing the needs of the local decisionmakers against the strictures of a federally required project evaluation and selection process.

NAS Recommendation 9. Provide incentives and guidance to local recipients of CMAQ funds to encourage more evaluations of funded projects.

We currently allow CMAQ funds to be used for evaluation purposes of a CMAQ-funded project. We even require it for experimental pilot projects. We are evaluating just how something more might be accomplished. One of the problems is that a high quality evaluation, including before and after studies, can cost as much as the transportation improvement being evaluated according to a recent NCHRP report. State and local jurisdictions might prefer to spend that money doing another project.

NAS Recommendation 10. Undertake a national level, targeted program of evaluation.

We find this an interesting proposal. The CMAQ program has funded more than \$11 billion thus far; some funding might be justified to make sure that the program investment is optimized. It seems unlikely that State and local programs will have the ability to undertake such a program, and the Federal Government may be the only entity that could provide such assessments and disseminate the results nationally.

Mr. FRANKEL. As I think you know, I served as a State transportation executive. So I am aware of that. I think that you would acknowledge, and I am sure under your leadership in Ohio, that it was the case that overall these projects are the ones that do meet the goals of the program.

Senator VOINOVICH. You know and I know that in some instances you get a project and you figure out how you can fund it. You look at all the pots of money. "There is the CMAQ money. Let's go after that money and use it." That is the way it is. I think that we ought to be careful about how we are going about spending that money.

I have to excuse myself to cast a vote. I want to apologize to witnesses that we didn't get started on time. This is the last day that our Chaplain is giving our Senate prayer. We had a vote at 9:30. We just had another vote. That is how it is here in the Senate for our guests that haven't been around Washington.

We never know about our schedule here. Senator Carper and I were once Governors. One of the things that we were able to do when we were Governors is control our schedules. Now we are members of the Senate, the system controls the system. So I apologize to you for the delay in opening the hearing.

I am going to turn the gavel over to Senator Carper, the ranking member of this committee.

Senator CARPER. Thank you, Mr. Chairman.

We have been joined by Senator Craig Thomas of Wyoming. Senator Thomas, do you have a statement you would like to make?

**OPENING STATEMENT OF HON. CRAIG THOMAS, U.S. SENATOR
FROM THE STATE OF WYOMING**

Senator THOMAS. Thank you, Mr. Chairman. Like the rest of us, I have another meeting to go to.

I am concerned about the Congestion Mitigation Air Quality standards. Wyoming, of course, being fairly low in population, we don't have some of the difficulties that they have in other States. They have been in compliance. But now with the proposal to change the particulate matter portion of it from 10 ppm to 2.5 ppm,

it impacts us and reduces our ability to work with this. Much of it will be dust and dirt.

I guess I am interested in where you think that is and whether it seems to be good policy to allow the States to get the money to be able to use them proactively before we had problems.

Mr. FRANKEL. Obviously, I can't speak, Senator, to the specifics of what can be anticipated under the new standards for Wyoming. Perhaps Mr. Holmstead can. I don't think we necessarily anticipate that the change in the standards would necessarily have an impact on Wyoming.

But nonetheless, there is a minimum allocation. Even though Wyoming doesn't currently have non-attainment areas, those funds can be utilized. The Federal Highway Administration funds, the STP program, are available so that a State can be proactive in trying to develop these sorts of projects that can meet air quality concerns in a State such as Wyoming.

The Federal Highway Administration, I know, would look forward to working—and I am sure has worked—with your State government and your State Department of Transportation in trying to develop projects which would be appropriate under the circumstances.

Senator THOMAS. That minimum allocation has been useful. We have worked on projects. I am just concerned. I hope that we can continue to have that minimum payment to Wyoming. Thank you very much.

Senator CARPER. Gentleman, I apologize for missing your statements. I am not going to ask you to give your statements again.

Mr. HOLMSTEAD. They were short.

Senator CARPER. They must have been.

[Laughter.]

Senator CARPER. Could you each just take a minute or two and give me the gist of what you had to say. The nub of what you think I really need to take out of here would be helpful.

Mr. HOLMSTEAD. I would be happy to do that quickly. As I think you know, we have made enormous strides in reducing air pollution from mobile sources. This is largely because of much cleaner cars and much cleaner trucks and buses, but it is also due in part to what Congress has done in the area of linking transportation and air quality through the CMAQ program and transportation conformity.

I think we both agree with the recommendations of the National Academy of Sciences that it is an important program and that in certain respects, it could be expanded and improved. We are working with Mr. Frankel and other folks in the Administration to make some recommendations that will be part of the new Administration bill. But overall I think we are supportive of the goals of that program and think it has worked fairly well. Again, we have had some experience and we think it can be made better.

On the transportation conformity side, as I think you know, conformity was created during the 1990 Amendments. It has been, in some respects, challenging, because for the first time it required State air quality planners and State transportation planners to work together in a way that they hadn't before.

As you can imagine as a former Governor, there were a few bumps in the road, but we think it is working quite well now. In fact, a lot of the models that people use to do these plans have a significant amount of data that go into those models. This whole process has worked out fairly well.

We do anticipate that with new non-attainment areas designated over the next 1½ or 2 years, there will be new areas that have not had to deal with transportation conformity before. We are working to make sure that, first of all, they are educated about how they can do conformity, and that second, our regulations can be further refined specifically to address the needs of some of these areas. We are committed to doing that before the designations occur.

Our bottom line is that we think both of these programs have been good programs and successful programs, but we do agree with those who say they can be improved.

Mr. FRANKEL. I might say, Senator, in response to your request, I want to emphasize something that Mr. Holmstead has said, and that I referred to in my opening statement. That is the closer relationship that both of these programs, CMAQ and conformity rules, have stimulated, particularly at the State level, between transportation officials, air quality officials, transportation planners, and MPOs.

I know you are very aware of this from your experience, particularly as a Governor. Even though we are moving toward more developed and stricter standards, in some regards, in terms of attainment, I think we are not where we were in 1990, 1991, and 1992. I think it is instructive, and I hope encouraging to the Congress. I know you have heard this from others.

Congress adopted the Clean Air Act Amendments in 1990, and ISTEA in 1991. It was not accidental that these two programs were merged. I think this committee was in the lead in trying to tie and bridge the Clean Air Act Amendments of 1990, and ISTEA, the transportation programs, in 1991. I think Congress did so in a very imaginative and thoughtful way. There were a lot of bumps and a lot of difficulties. As you know, when these came into force, I was a State transportation executive in grappling with these sort of things. It is not perfect, by any means.

As Mr. Holmstead has said, as we go forward developing the reauthorization of TEA-21, we will be with EPA. We have been trying to develop some ideas to make improvements in the conformity process. There are some issues that have developed in terms of the synchronization, if you will, of the timing, the scheduling, and the planning processes which I think together we can smooth out. Unintended conformity lapses can be addressed.

Generally, we are committed. The Administration is committed specifically here through EPA and the Department of Transportation, to propose to Congress and to this committee some thoughtful changes which will continue to make improvements. As we go forward in the implementation of these programs, those institutional relationships which have developed at the State level, the metropolitan level, and the Federal level, I think will ensure that we can continue to make progress in reducing emissions.

Senator CARPER. I have a statement that I will ask be entered into the record. I am not going to go through my statement today.

[The prepared statement of Senator Carper follows:]

STATEMENT OF HON. THOMAS R. CARPER, U.S. SENATOR FROM THE
STATE OF DELAWARE

Mr. Chairman, thank you for holding this hearing today, and to our witnesses, thank you for taking the time to be here.

The connection between transportation and air quality is clear. Its interesting that at the same time this hearing is being held, the Banking Committee, on which I also serve, is having a hearing on transit. Talking about transit should remind us that it is simplest to manage air pollution from a vehicle that rarely hits the road—or even easier from one that is never built. Whatever we can do to reduce the number of vehicles on the road in any given day is important. But we should also remember, although today's hearing is not about this, we should continue to help our colleagues take steps to improve the mileage of vehicles and reduce the emissions from them.

Today's hearing is about the TEA-21 Congestion Mitigation and Air Quality (CMAQ) program, which has been a successful effort to pursue our dual goals of improved mobility through reduced traffic congestion and a better environment through reduced air emissions. We should seek to build upon this legacy of effectiveness through the reauthorization of TEA-21. By strengthening the program and providing more resources, we can continue to hand our States and Metropolitan Planning Organizations (MPOs) the tools they need to improve air quality while enhancing mobility.

Transportation remains the dominant source of air pollution in our Nation, posing a significant threat to public health. As a former Governor, I understand the challenges States face in meeting clean air and conformity requirements. In Delaware, mobile source emissions account for over one half of the State's emissions inventory. Two of Delaware's three counties—including New Castle County where I-95 runs—are currently non-attainment areas, with the third county most likely joining them as the new PM_{2.5} and 8-hour Ozone standards are put in place.

However, Delaware has managed to remain in conformity with its State Implementation Plan (SIP). The State has accomplished this by taking advantage of the CMAQ program to fund transportation projects that reduce emissions, by strengthening long-term air quality/transportation planning processes and by facilitating close collaboration and cooperation between the State's Department of Natural Resources and Environmental Control and the Department of Transportation in harmonizing air quality and transportation goals.

I believe we can improve the existing CMAQ program structure to provide even more benefits to air quality, while preserving the flexibility our States need to maintain our transportation network and improve our quality of life. To do this, we must first expand the amount of resources devoted to CMAQ. As more regions across our country face conformity issues, it is appropriate to expand available funds to meet the increasing needs. Out of this larger pot, we should make PM_{2.5} and 8-hour ozone non-attainment and maintenance areas eligible for CMAQ funding. We should devise a way to fund former non-attainment areas as needed to ensure continued attainment, and fund CMAQ projects in travel corridors feeding into non-attainment areas.

Additionally, we should consider extending project funding by phasing it in over time and adopt an interim policy of funding projects beyond 3 years on a case-by-case basis based on continuing air quality benefits.

To ensure that CMAQ resources are well spent and deliver the maximum air quality benefits, greater emphasis should be placed on projects that will result in direct, timely, and sustained air quality benefits. I believe State air quality agencies could help determine such projects by participating in a well-defined consultation and concurrence process during CMAQ project selection. The State air quality agency could establish criteria for identifying air quality benefits and determining a minimum air quality benefit threshold for projects. This would help ensure projects with the most impact get top priority for funding while still providing flexibility to the States to set their own standards and transportation agendas. Part of this process would be providing State resources to improve data collection so that we can clearly understand the impacts of transportation projects on air quality.

Also, where we can make the conformity process more consistent, with planning horizons and the frequency of updates harmonized, we should. The purpose of the conformity requirement is to ensure a healthy and safe environment for us all and we must focus on reaching that result. We should maintain regular and timely analyses to demonstrate compliance of constrained Transportation Improvement Plan (TIP's) and Regional Transportation Plan (RTP's) with State Implementation Plan

(SIP's) motor vehicle budgets, and possibly combine the TIP and RTP into one document to better harmonize timelines. Additionally, we should conduct conformity analyses on the combined TIP/RTP document no less than once every 3 years and retain the 20-year planning horizon for transportation plans. Because the conformity of transportation plans to air quality plans is critical to achieving clean air goals, particularly given the continued increase in motor vehicle use and vehicle miles traveled, preserving, and improving upon, the basic conformity requirements and schedules now in place is crucial.

States and regions also need the flexibility that CMAQ provides to address their attainment goals. We need to further that flexibility by explicitly making both freight and intercity passenger rail eligible activities through the CMAQ program. Rail's ability to reduce emissions by taking drivers and trucks off the road is well documented and CMAQ has been used so far to fund rail projects in my State and others. We must push to make rail clearly eligible to encourage these types of investments when they can be shown to benefit air quality directly.

Combined, these changes could make a good program even better, bringing CMAQ into the 21st century with an even stronger focus on air quality. But in this effort, we must also not forget the daunting issue of congestion. In fact, I believe that congestion is perhaps the single biggest transportation challenge facing my State and the Nation. Yet, the CMAQ program is the only TEA-21 program specifically aimed at fighting congestion. While I absolutely support the connection between air quality improvements and congestion reduction, I believe it is perhaps time to take congestion on, front and center, in new program. Simply put, congestion is too big for CMAQ, at its \$1.35 billion annual funding level, to fight alone.

According to the US DOT, vehicle miles traveled (VMT) have more than doubled over the past 20 years, with similar predictions for the next 20 years. Meanwhile, our highway infrastructure has roughly reached its development maximum, thereby greatly increasing congestion. We need to promote more options to fight congestion through transit, passenger and freight rail, smarter development, land use and other strategies. By providing more resources and enhanced flexibility to States and MPO's through a new program to fight congestion directly, we could make major improvements in mobility, while also including safeguards to ensure such projects are commiserate with a states' air quality goals.

Mr. Chairman, in conclusion I will say that we have an important task ahead of us. The two major contributors to air pollution—transportation and electricity generation—will be topics we should debate this year, and I hope we will. The fact is that we must make significant progress on both of these sources of pollutants. I think we all know it's the right thing to do. We should put out heads together and find a way to strengthen the conformity and CMAQ tools we have, and consider others if necessary, and I look forward to working with you and the committee to get something done that we can both agree to.

Senator CARPER. I do have a couple more specific questions that I would like to ask, if I could.

Mr. Frankel, you have alluded to your sordid past, which included a stint as a transportation agency not far from ours.

Mr. FRANKEL. Thank goodness for Delaware. Connecticut is bigger.

Senator CARPER. A little bit bigger.

We think of Vermont and New Hampshire as big States.

[Laughter.]

Senator CARPER. Put your old hat on, the hat you wore for a number of years as the head of a State transportation agency. Just talk to me a little bit about the kind of changes that you would recommend seeing made from the States' perspective, with respect to CMAQ or conformity. I am really looking for common sense changes.

Mr. FRANKEL. Right. I would say in the CMAQ area, Senator, and you probably heard the part of my answer to the chairman, the CMAQ Program is like the other core highway programs. I would like to say that I think that the basic programs of the Department of Transportation through TEA-21 are really based on the flexibility, the discretion, of States to design their own programs. We

set out national goals and national purposes for these core programs, whether it is the national highway system or interstate maintenance, or the CMAQ Program.

I think you have heard me say this before, in the bill that we present on behalf of the Administration to reauthorize TEA-21, we will try to build on that flexibility and discretion on the part of States. It is not so much that there are specific requirements that I would like to see added—and certainly wearing my old hat that is the case—but rather to continue to work with States and MPOs to assist them in developing their programs to meet their particular needs for shaping a transportation investment program that also meets the requirements of the Clean Air Act and environmental quality.

I think we are on the right road with that. We have had extensive discussions with EPA, stakeholders, and others, about eligibility issues under CMAQ. The chairman has just asked about the other side of it, if you will, and that is projects that perhaps get funded under CMAQ that really don't meet objectives. So I think we need to continue to refine that. Basically the CMAQ Program is a good program that has made an important contribution to the reduction of emissions.

In the case of conformity, again wearing my old hat, the disparity—if I can use that word—between the planning cycles is something that we have to address. I think too much burden has fallen on transportation planners and transportation agencies because the air quality planning process is not as up-to-date as it should be in some places. We have addressed that, and I think we will have some proposals.

I think that is very important not only at the State level and not only for Governors, commissioners, secretaries of transportation, but MPO officials and air quality environmental officials at the State level as well. So I think that is an important thing that we can address.

Also, although not subject to legislation, but I can say we all have to work together to continue to make improvements in the modeling so that the analytical process that occurs on which the conformity findings are based, is more authentic.

I think everybody would acknowledge that we have work that has to be done. Both agencies have struggled over the years to improve that. That is in everybody's interest. It is also extremely difficult, as you know—very, very challenging.

Senator CARPER. Thank you very much.

Mr. Chairman, back to you.

Senator VOINOVICH. Thank you, Senator Carper.

Could you explain how Clear Skies might impact on the new National Ambient Air Quality Standards? As you know, Senator Inhofe and I recently introduced the Clear Skies Proposal. Is there any connection between the two?

Mr. HOLMSTEAD. As I think all three of you know, the real issue in these transportation programs and their link to air quality is an attempt to come into attainment with national air quality standards.

We have done very extensive projections, based on state-of-the-art computer modeling techniques to explore what would happen

over the next few years if there were these national caps put in place under Clear Skies. Just to put it in context, right now I think there are roughly 330 some odd counties in the country that are out of attainment with the ozone standard. There may be 125 or 130 counties that are out of attainment with the $PM_{2.5}$. There is some overlap there. You don't just add those up, but it is hundreds and hundreds of counties.

If you look at the reductions that you get regionally from Clear Skies, especially in the Eastern part of the United States, that number drops dramatically over time. Part of that is due to the other things that are happening—the cleaner standards and cleaner fuels are coming into place, which help to reduce emissions.

So, when you look at those measures and you add on top of that the very dramatic reductions that you get from Clear Skies, the number of remaining non-attainment areas is dramatically reduced. I don't have the exact numbers, but by the 2015 timeframe, which will be the attainment date for most parts of the country for $PM_{2.5}$, the number goes down from 300–400 to in the neighborhood of 50.

This means that all of those counties that had to deal with transportation conformity, are now in a very different position. Some of them may still have to do conformity because they will be doing a maintenance plan. It will dramatically reduce the burden on States and local governments throughout the Eastern United States.

Instead of putting all of that burden on the Conformity Program and on local controls, you just get a dramatic reduction in these regional air pollutants. It will make a very big difference, not only in terms of transportation conformity, but in terms of all of the other planning that States and local governments have to do to come into attainment.

Senator VOINOVICH. I didn't see the ranking member of our committee, Senator Jeffords, come in. Have you had an opportunity to ask any questions?

Senator JEFFORDS. No. I didn't make my statement either. I would like to make my statement part of the record.

Without objection, I assume that would happen.

[Laughter.]

Senator VOINOVICH. Without objection, it will be included, reserving the right to object.

[Laughter.]

Senator VOINOVICH. No, not really.

Senator JEFFORDS. We don't object down here.

Mr. Holmstead, Governor Whitman testified that when Clear Skies is fully implemented, sometime around 2018 or later, it would prevent premature deaths of approximately 12,000. I have two questions for you.

No. 1, how many people does EPA estimate are dying prematurely each year from power plant pollution right now?

Mr. HOLMSTEAD. There is no way to attribute deaths just to power plants because, as I think you know, what is actually causing these premature deaths is $PM_{2.5}$, fine particles. These fine particles are made up of emissions from power plants and emissions from cars. It is a collection of emissions from all of these sources. Collectively we believe that the total number of premature deaths

from PM_{2.5} is tens of thousands of people a year. I don't know that we have an official Agency estimate. But it is in the range of probably more than 25,000 or 30,000 premature deaths that occur every year.

A number of programs already in place will reduce that number. On top of those existing programs, Clear Skies would reduce an additional 12,000 premature deaths. That is our best estimate. The improvement is very dramatic.

Senator JEFFORDS. How many people does EPA estimate are dying prematurely each year from power plant pollution right now?

Mr. HOLMSTEAD. We are not able to estimate that. As I said before, if power plants were the only source of emissions, then we could estimate that. But it really is not fair to power plants to say that they are causing all this pollution when, in fact, what is causing the premature mortality comes from a number of other sources at the same time. But what we can say is that by reducing pollution from power plants we can reduce this number very significantly. It is impossible for anybody to say with certainty the estimated number of premature deaths from power plants.

Senator JEFFORDS. In the past 2 years, what specific steps has EPA taken using its existing authority to reduce that number?

Mr. HOLMSTEAD. The Clean Air Act is passed by Congress and gives us limited ability to do anything until we go through this process of designating areas. We have done a number of things using our non-regulatory authority. For instance, we have a very significant program working with people to reduce diesel retrofits. We certainly continue to pursue enforcement cases that get reductions from power plant emissions. Since I have been at EPA, there have been several settlements of those cases. Additional settlements, I think, are expected fairly soon.

The real reductions under our regulatory authority come once we actually have 3 years of data from States and we do the designations. As you know, this process takes many years to play out. This is one of the reasons why we are so eager to get multi-pollutant legislation, because we can get those reductions, and much bigger reductions, much sooner, especially over the next decade or so.

Senator JEFFORDS. No regulatory actions have been done or started?

Mr. HOLMSTEAD. We are, as you know, limited. We just can't go out and regulate anyone that we want to. We are constrained by the Clean Air Act. So we are actually right now looking at what we would do under something called the Transport Rule. We could do that at some point in the future.

We are also in the process now of developing something called the MACT Standard for power plants. That MACT Standard will be finalized under a settlement agreement at the end of 2004. So we are working on that standard right now.

Under the Clean Air Act we have a number of existing programs that we implement including the Acid Rain Program and other things. We only have the authority that you give us. This is why we are so eager to ask you to put in place more stringent caps and a stronger program.

Senator JEFFORDS. As you may know, I am not very happy about the Agency's level of cooperation with the committee, particularly

regarding the Office of General Counsel and your office. Congress and this committee needs truly responsive information in a much more timely fashion.

Just recently Governor Whitman pledged to reverse this unfortunate situation. I really hope that starts to happen. Can you tell me why I still don't have a complete answer to the questions, the NSR questions that I sent you on July 20, 2002, approximately 7½ months ago?

Mr. HOLMSTEAD. Here is what I can tell you about that issue. First of all, Governor Whitman made it clear that she is following up on her commitment to you to make sure that we can be more responsive. We will do that.

As you know, we have been involved in many, many activities regarding the NSR program, including working on regulations, preparing for hearings and answering questions. I believe that we have answered several hundred questions. We have a handful that we still haven't answered. I will check to see and make sure we can get that.

Senator JEFFORDS. I appreciate your doing that because I am concerned.

This is not a question but rather a comment. There are several other air-related examples where the Agency has given us the run-around in the form of inadequate answers, unresponsive answers, or no answers. I will be talking with the Governor about those shortly. In general, you should note that this noncooperation of NSR and other matters will make it harder to get the multi-pollutant bill done. I just urge you to expedite that.

I have many questions, but we will do it for the record.

Senator VOINOVICH. Thank you.

The only comment I have, Senator Jeffords, is that I know the utilities in Ohio are moving forward with the SER technology which is to reduce their emissions which have some side benefits in terms of particulate matter. All of the utilities are moving forward to comply with the NOx SIP call that is upcoming in 2004 or 2005?

Mr. HOLMSTEAD. Yes, 2004. That is correct.

Senator VOINOVICH. So there is some action taking place. I would comment that because of the uncertainty about new source review, many of them are doing nothing but what they have to do because they are uncertain about whether if they go forward with something, it will trigger new source reviews. So the sooner we get that cleared up so they know where they stand, the better off we will be.

Senator Carper, do you have any other questions?

Senator CARPER. I would just like to ask one more quick question.

Putting on my old hat, and looking back at my checkered past, as Governor of Delaware and a colleague of Governor Voinovich, I was always struck by how in our States we could use CMAQ money for freight railroads, for highways, for bridges, for roads, and for bicycle paths, but we couldn't use it for passenger rail. I always thought that was peculiar. I know the Senate has voted a couple of times by fairly wide margins to change that. I don't think it has worked its way through the House and dropped out in conference.

Do you have any thoughts on that proposal?

Mr. FRANKEL. Well, again, Senator, the projects have to have Congestion Mitigation Air Quality benefits. I take to heart what the chairman has said that there are some projects perhaps that kind of sneak through that stretch a bit. But that continues to be the requirement.

For example, grade separation projects—rail and road—I think frequently CMAQ funds have been utilized for that. States have made the decision to utilize that. Perhaps that is what you have in mind. A freight-rail project in and of itself is not appropriately fundable under CMAQ unless you can show the benefits in terms of traffic movements at a place where there was not grade separation. So I think one needs to look a little bit more at the specific projects as opposed to the elements that would be funded.

Senator CARPER. Thank you. And then one last question if I could, Mr. Holmstead, for you.

With respect to the Administration's budget request for 2004 for CMAQ funds, do you have any idea how CMAQ fares in the Administration's proposal for funding?

Mr. FRANKEL. Actually, I guess I would let Mr. Holmstead answer that but since it is our budget and our proposal, I will try to be responsive. The funding—and I don't want to hold you up—in the President's budget for fiscal year 2004 for CMAQ—generally the highway core program is somewhat down from fiscal year 2003 which was contained in the Omnibus Appropriations bill.

But over the life of the Reauthorization bill, it is our anticipation that the funding for the CMAQ Program will grow consistent with the growth in the other highway core programs.

Senator CARPER. Thank you. Thank you, Mr. Chairman.

Senator VOINOVICH. Thank you very much for your testimony. We look forward to the responses to the questions that we have asked of you today.

Our next panel will come forward. While you are coming forward, I am going to be introducing you.

On our panel we have Howard Maier, executive director of the Northeast Ohio Area Coordinating Agency. Howard, it is nice to see you. Howard and I have worked with each other since my days when I was mayor of the city of Cleveland and then Governor. Howard, I think, represents many of the other people that we are having here from various States.

Mr. Jerry Lasker is executive director of the Indian Nation Council of Governments, Tulsa, OK. Annette Liebe is manager, Air Quality Planning, Oregon Department of Environmental Quality. Marsha Kaiser is director of the Department of Planning and Capital Programming, Maryland Department of Transportation.

These are people that work for government. Many of them have been at it for a long, long time. We thank you for your service to your country. Thank you for coming a long distance to testify today.

Our other witnesses are W. Gerald Teague, M.D., professor and vice chairman of Pediatrics, and director, Division of Pulmonary Medicine, Emory University School of Medicine. Mr. Michael Replogle, Environmental Defense. Michael has been here before, I

think, to testify. We also have Ms. Diane Steed, president, American Highway Users Alliance.

Because we have so many witnesses today, I am going to stick to our 5-minute rule as fastidiously as I possibly can. So if you could limit your remarks to 5 minutes, I would be most grateful. I want you to know that we appreciate the testimony that you have submitted for the record. They will be looked at in terms of the decisionmaking that we are going to have to make in terms of these two important programs.

Senator CARPER. Mr. Chairman, I would just like to make an observation. If we had more witnesses, we would need a bigger table. [Laughter.]

Senator CARPER. The second thing, the Banking Committee in the Senate has jurisdiction over transit. We are having a simultaneous hearing there on transit funding. I am going to slip out. I don't mean to be rude. It is not a walkout or a protest in anything that you are saying. But I need to be in two places at once which is not uncommon here, as Senator Voinovich knows.

Senator VOINOVICH. Thank you.

Ms. Liebe, we will start with you.

STATEMENT OF ANNETTE LIEBE, MANAGER, AIR QUALITY PLANNING, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, ON BEHALF OF THE STATE AND TERRITORIAL AIR POLLUTION PROGRAM ADMINISTRATORS AND THE ASSOCIATION OF LOCAL AIR POLLUTION CONTROL OFFICIALS

Ms. LIEBE. Good morning, Mr. Chairman and Senator Carper. As you know, my name is Annette Liebe. I am with the Oregon Department of Environmental Quality. I am here today testifying on behalf of STAPPA and ALAPCO, which are two national associations of State and local air quality agencies in 54 States and territories, and over 165 major metropolitan areas.

We are here today because transportation remains a dominant source of air pollution across the Nation, contributing substantial amounts of smog-forming emissions, particulate matter, carbon monoxide, greenhouse gasses, and toxic air pollutants, as well as to the formation of regional haze.

Although we continue to make great progress, as Administrator Holmstead mentioned, in reducing emissions from mobile sources, it is clear that the benefits from technological advances alone will not keep pace with current and foreseeable trends in the growth of vehicle miles traveled.

We firmly believe that the CMAQ and transportation conformity programs are critically important to the goal of achieving full integration of environmental and transportation decisionmaking processes, and to ensuring that transportation choices do not undermine efforts to achieve and sustain clean, healthful air throughout the country.

For this reason, our associations have adopted a set of CMAQ and transportation conformity principles for the reauthorization of TEA-21. A copy of our principles is attached to our written statement.

We strongly support the CMAQ program and believe it can be strengthened in several ways. First, since CMAQ was originally es-

tablished, the scope and magnitude of transportation-related emissions and their impact on air quality have expanded significantly. As you know, EPA has adopted new health-based standards for fine particulate and ozone, both of which will be implemented in the next few years, and we have gained an increased understanding of the phenomenon of transported pollution.

Accordingly, we urge that areas eligible to receive CMAQ funding be expanded to also include any area that faces air quality challenges as a result of transportation-related emissions. Specific recommendations are included in our written testimony.

We strongly urge a substantially increased Federal commitment of resources to the CMAQ Program to reflect the true and very significant impact of transportation-related emissions on air quality. This increase should be no less, proportionately, than that to be provided for highway investments.

In Oregon, for example, CMAQ funds have been critical to the implementation of transportation control measure commitments in our air quality plans. I have also cited those examples in the written testimony.

However, to meet the challenges that lie ahead, continued and additional CMAQ funding is necessary. With respect to project eligibility, we urge that greater emphasis be placed on projects that result in direct, timely, and sustained air quality benefits.

Finally, we recommend that the concurrence of State and local air quality agencies be required for CMAQ project selection through a well-defined consultation and concurrence process. In Oregon, for example, this concurrence has occurred through an ongoing robust interagency consultation process that we established under our own conformity rule.

With respect to transportation conformity, our associations strongly believe that the purpose of the program, which is to ensure that transportation plans and programs stay within the allotted motor vehicle emissions budget, is absolutely crucial to achieving clean air goals. Unless this purpose is achieved, it will be necessary to call upon other source sectors, potentially including small businesses, to further reduce emissions.

We believe conformity is working well and strongly endorse preserving the major conformity requirements and schedules that are now in place. Therefore, we are deeply concerned with recent proposals seeking changes. I would like to cite three examples.

First, we are strongly opposed to proposals to shorten the planning horizon for the transportation plan so that the plan's conformity determination would be based on a 10-year rather than a 20-year planning horizon.

In planning for clean air, we must not only chart a course for achieving healthful air quality, but also for maintaining it over the long term. Major transportation investments can have huge air quality impacts, much of which may not occur for several decades. These investments can also significantly have growth and sprawl. Therefore, long-term planning, over at least a 20-year planning horizon, is imperative to ensuring that the potential growth in mobile source emissions is identified, the impact on air quality is assessed, and appropriate adjustments are made.

Second, we oppose proposals to reduce the frequency of conformity determinations for transportation plans from 3 to 5 years. Continued timely analyses will ensure that sound data is generated and allow for the timely improvement of motor vehicle emission estimates.

Finally, we are concerned with the suggestion to lengthen from 1 to 3 years the grace period before an area found to be in violation of an air quality standard for the first time must demonstrate conformity. To allow transportation planning in an area with poor air quality to go unchecked for 3 years is a substantial weakening of the conformity program and of public health protection.

We believe that, as it is currently structured, conformity provides ample flexibility to States to accommodate individual needs and circumstances, while maintaining the integrity of the program. Rather than statutory changes to such things as planning horizons, analyses frequencies, and grace periods, we believe that State and local officials should retain the flexibility to work through a robust interagency consultation process to resolve issues in a way that results in the best solution for everyone.

Thank you for the opportunity to testify. I am happy to answer any questions. I would ask that my testimony be included in its entirety.

Senator VOINOVICH. Thank you for your excellent testimony.

Dr. Teague.

STATEMENT OF DR. W. GERALD TEAGUE, M.D., PROFESSOR AND VICE CHAIRMAN OF PEDIATRICS, DIRECTOR, DIVISION OF PULMONARY MEDICINE, EMORY UNIVERSITY SCHOOL OF MEDICINE

Dr. TEAGUE. Good morning and thank you. I am Gerald Teague, a pediatrician and a professor at Emory University. I would like to thank Senators Voinovich and Carper for having me here today.

As many in the room know, outdoor air quality does affect respiratory health. Studies that were done 10 years ago in children showed a clear relationship between exposure to unhealthy levels of ozone and asthma attacks. Other studies—and these are also done in Atlanta—showed that apart from ozone, suspended particles can increase respiratory symptoms in children.

Today, as a practicing pediatrician, I regularly see and care for children with asthma attacks due solely to air pollution episodes. We have also known, since the 1950's, that vehicle exhaust has a major role in the deterioration of air quality in urban areas. The Clean Air Act, originated in 1970, helped this a lot, and as a result, the air is cleaner today compared to its levels in 1970.

During this same time, though, the prevalence of asthma in urban areas has increased significantly. An estimated 62 million Americans live in areas where the air quality does not meet health-based standards. At the same time as the improvement in air, the United States has experienced a staggering increase in traffic congestion. From 1982 to 1997, traffic congestion increased by 45 percent in metropolitan Atlanta.

This gets to the study that I did that was published in the Journal of the American Medical Association. The study basically looked at a simple question: What happens when a city makes a

well organized highly collaborative attempt to decrease automobile traffic congestion? Would this have any impact on the health of its residents?

The 1996 summer Olympic games in Atlanta provided an opportunity to answer these questions. Atlanta was preparing to be host to an additional 1 million visitors during the 17 days of the games. The visitors would all be concentrated downtown.

To meet this challenge, the city of Atlanta, the Department of Transportation, and the Atlanta Committee on the Games, along with local business leaders, came today to enact a traffic mitigation strategy. It consisted of five basic efforts.

No. 1, we encouraged use of public transportation. We promoted alternative commuting practices to the residents of Atlanta, to shift travel away from rush hour periods, media warnings of severe traffic congestion, specific highway improvements, additional lanes, and widened lanes, and finally traffic restrictions around the venue.

This brings me to the study. To study the effects of this, what we did—colleagues with the Centers for Disease Control—was to measure all acute care visits for asthma around the city. We measured the air pollution variables—weather, traffic, gasoline sales, and public transportation use. We did this during the 17 days of the Olympics and compared all these variables to a baseline period consisting of 4 weeks before and 4 weeks after the Olympic games. That would be a reasonable scientific project.

This is what we learned. During the Olympic games, acute asthma events around Atlanta decreased 42 percent for George Medicaid recipients, 44 percent in a health maintenance organization, 11 percent in two pediatric emergency rooms, and for Georgia hospitals in the region, a 19 percent reduction in asthma-related discharges.

Was the air cleaner? Peak daily ozone concentrations fell 28 percent from 81.3 ppb during the pre-Olympic period to 58.6 ppb during the Olympics. I will refer you to the figures in my submitted written testimony. The peak weekday a.m. traffic counts decreased 22.5 percent.

So based on our study we conclude that efforts to decrease downtown traffic congestion in Atlanta during the Olympic games resulted in reduced automobile use, particularly during the critical morning rush hour period. These changes were associated with a long period of low ozone pollution and significantly lower rates of childhood asthma events.

This study provides direct evidence and supportive evidence to reduce air pollution, and to improve the health of children via reductions in motor vehicle traffic.

Thank you very much.

I would ask that my statement be included in the record in its entirety.

Senator VOINOVICH. Thank you, Dr. Teague. It is wonderful that you did that study during that period of time. We have some good information. Thank you.

Mr. Repogle.

**STATEMENT OF MICHAEL REPLOGLE, TRANSPORTATION
DIRECTOR, ENVIRONMENTAL DEFENSE**

Mr. REPLOGLE. Thank you, Mr. Chairman. I am Michael Replogle, Transportation Director of Environmental Defense. I am representing our 300,000 members. I also chair the Energy and Environment Issue Team of the Surface Transportation Policy Project. I speak on behalf of a dozen other groups this morning, including the National Trust for Historic Preservation, Sierra Club, NRDC, Defenders of Wildlife, the Oregon Environmental Council, the Tri-State Transportation Campaign in New York, the Southern Environmental Law Center, and the Chesapeake Bay Foundation.

Conformity is vital to keeping transportation accountable for effects on public health, air quality, and the environment. Like balancing a checkbook, conformity keeps track of the impacts of transportation spending. Conformity requires transportation plans to respect the pollution limits that are established in the State Air Quality Plans, the SIPs.

Conformity was strengthened by Congress in 1990 because for two decades growth and motor vehicle use and related emissions have been underestimated, leading to the failure of SIPs and missed attainment deadlines. Although cars and trucks are much cleaner than in 1970, their pollution will cause continuing serious harm to the health of Americans in coming decades, even with all the cleaner technologies that are coming down the pike.

Although setbacks have delayed and hampered its implementation, conformity has produced huge benefits. It has been very effective behind the scenes, motivating actions to curb pollution and to protect health.

Now grumbling from conformity's accountants has often drowned out tales of conformity's successes. Yet, conformity has spurred support for cleaner vehicles, fuels, and maintenance, and strategies to curb traffic and pollution growth with better travel choices. It has transportation and air quality agencies finally talking to each other.

Some assert there is a timing mismatch that should be fixed by having conformity look only at the first half of 20-year transportation plans, or by allowing use of out-of-date assumptions and data for conformity analysis, or by reducing the frequency of conformity checks. These ideas would likely cause regional air quality control strategies to fail for the fourth time since the 1970 Clean Air Act.

I met this week with Federal highway officials who could cite no examples where demonstrating conformity for all the projects in the 20-year plan, rather than just the projects in the first 10 years, had created a problem that States hadn't fixed by committing to future emission controls. "If it ain't broke, don't fix it."

Some propose that conformity disregard new data that would show motor vehicle emissions will exceed the estimates that have been used to demonstrate attainment in SIPs. This would simply reenact the old broken pre-1990 system that conformity was intended to fix. There would be no accountability for excess emissions, no need to find solutions, and SIPs would fail again.

Conformity is like balancing your checkbook. It is not a fun way to spend time, but it is vital to your welfare. If you do it frequently

and routinely with current data, you avoid surprises, bounced checks, and overdrafts that are due to bad recordkeeping or bad arithmetic.

Most areas redo their conformity analysis annually voluntarily as they add new road projects. This means timely improvements in tracking vehicle emission assumptions. They get updated when a change of vehicle mix, or parking fares, or transit costs, development patterns, or the models get better. Timely updates improve accountability and protect the integrity of the transportation and the air quality planning process.

What is causing the timing mismatch? Well, it is the failure of the air agencies and EPA to prepare required milestone compliance demonstrations for SIPs every 3 years, with corrective actions where necessary. This is parallel to the current required transportation conformity schedule—every 3 years.

Rather than disconnecting the schedule for conformity determinations from other schedules in the Clean Air Act, this committee should compel prompt EPA action on compliance demonstrations.

The 5-year conformity schedule that is proposed by some would leave no mechanism to hold transportation accountable to revised emission budgets or improved estimates of emissions within the time between the approval of new SIPs and the attainment deadlines. This means that the pollution cleanup burden would fall alone on stationary and area sources or the SIPs would fail again.

In Metro Washington, here in our home region, updated data on the use of SUVs and light trucks show that emissions would exceed the SIP emission budget. Officials in a timely way solved this conformity problem with better accounting for emission strategies that were already under way, by adopting \$42 million of clean buses and other measures to cut pollution, and trimming \$800 million from the region's road programs which cut forecast traffic growth, congestion, and pollution. This saved taxpayers \$800 million.

In Charlotte, NC, conformity showed excess emissions in the 20-year transportation plan. Officials considered and adopted a revised plan with better transit and smarter growth, trimming the forecast traffic growth and pollution by almost a quarter, and winning voter approval for that plan.

To conclude, Congress should reject the changes that have been proposed to the successful Conformity Program that would threaten these successes and harm public health and the environment.

Thank you. I would ask that my prepared testimony be placed in the record.

Senator VOINOVICH. Thank you, very much.

Mr. Lasker.

**STATEMENT OF JERRY LASKER, EXECUTIVE DIRECTOR OF
THE INDIAN NATIONS COUNCIL OF GOVERNMENTS**

Mr. LASKER. Thank you, Mr. Chairman, for the opportunity to address this subcommittee. I am Jerry Lasker. I am the executive director of the Indian Nations Council of Governments in Tulsa, OK.

We have been very proactive in trying to make our air cleaner in our region. We have taken many steps in this regard. To give

you a little bit of history, in 1990 the Tulsa area was in non-attainment. We got in attainment before the Clean Air Act Amendments came into effect. In 1991, we had two exceedences of the 1-hour standard. We developed a program in 2 weeks called the Ozone Alert! Program. It is the fastest I have ever seen Government act.

We established an Air Quality Committee which consisted of public agencies, the private sector, environmental groups, and just general citizens. We came up with the Nation's first episodic voluntary control program. This was called the Ozone Alert! Program. We went the rest of the summer and the next year without having any exceedences of the standard.

The program was very successful. One of the major things was our oil companies and our gasoline suppliers and distributors volunteered to reduce the revapor pressure in their gasoline. This helped out a lot. Our transit company gave free bus rides on ozone alert days. Our health department forecasted the days when there was a potential to exceed the ozone standard. General citizens volunteered to do things that would reduce emissions. As I said, this was a very successful program.

We went from there into being the Nation's first flexible attainment region. This was a program that the private sector, the public sector, the State, the environmental agencies, and the transportation agencies all agreed to. This was a program that if we had problems, exceedences, or violations, we would agree to undertake various measures to bring our emissions down and to keep us in attainment.

With the FAR expired, we went into what is called the 0-3 Flex Program. Again, this was a program where we got into a Memorandum of Agreement with the EPA. Here, if we had an exceedence of the standard, we would institute various measures to again reduce emissions.

I am proud to say that from 1991 until the present, we have been in attainment of the 1-hour standard. We did this for many reasons. The first reason was health related. We were very concerned about the air quality impacts on the health of our citizens.

Second, we wanted to avoid the stigma of non-attainment. When you are looking to develop a region and you need growth, you do not want to be on EPA's Dirty Air List because that is one of the things that if a company is looking to relocate they are looking at certain factors. If you are on that list, it is not going to help you.

The third thing was that we were very concerned about conformity. We have never done conformity, but we had heard that it takes a lot of work and, as Mr. Replegle said, it is not any fun. So we have tried to avoid that.

We are in attainment for the 1-hour standard. When the new 8-hour standards came into effect, this was going to provide a great challenge for the Tulsa area. Right now, two of our five monitors are slightly above the 8-hour standard. Again, we are being very proactive.

What we have done is that we have gotten into an agreement with the EPA and the State to have an Early Action Compact. What this Compact does is basically commits us to being in attainment in the Year 2007, which would be 2 years earlier than if we

did nothing and just slipped into non-attainment in this next season.

To do this we have agreed to undertake SIP modeling. We have agreed to have our stakeholders agree on what emission reduction measures we would implement to reach attainment in the year 2007. In return, the Compact basically says that EPA would defer the effective date of the designation of non-attainment if we were to continue to be slightly above in our monitoring.

The problem we are running into right now is that EPA has told us that they have to make a designation of attainment or non-attainment. Since we are slightly above, they will probably, in April 2004, designate us non-attainment. When DOT looks at that, they say, "Well, you are in non-attainment". That means that conformity will kick in 1 year from the date of designation.

This makes no sense to us. We have signed an agreement with EPA. We are doing all the things to come into attainment 2 years earlier than if we did nothing. It looks like we are being penalized for getting into this Agreement and being proactive. We are very concerned about that.

Our resolution to that problem is to take areas, like Tulsa, that are doing proactive things like becoming an agent in an early action compact, and classifying those areas as unclassifiable. If we miss a milestone, if we don't meet it at the monitors in 2007, we are going to go into non-attainment anyway. But don't penalize us for doing things that are proactive in nature.

That is our main concern right there. We believe that when you do conformity that there should be some consistency in terms of looking at the SIP and the transportation plan. Right now, as much as I like my planning staff, what we have is a job security act that keeps us going and doing things that can be done more efficiently.

Flexibility in CMAQ—right now we are in attainment. We are not eligible to receive CMAQ funds. We believe that areas that are doing things proactively should be eligible.

Thank you for the opportunity to appear before you.

Senator VOINOVICH. Thank you. It is nice to hear from someone who has been involved and has practical experience with some of these things that we are talking about today. Thank you for being here.

Howard, we are glad to have you here, as I mentioned.

**STATEMENT OF HOWARD R. MAIER, EXECUTIVE DIRECTOR,
NORTHEAST OHIO AREAWIDE COORDINATING AGENCY**

Mr. MAIER. Thank you, Mr. Chairman. I am Howard Maier, executive director of the Northeast Ohio Areawide Coordinating Agency. I will just refer to it as NOACA from now on. Thank you for inviting me here to address air quality and the CMAQ Program for our region and metropolitan planning organizations, or MPOs, across the country.

I am representing NOACA in my national association today, the National Association of Regional Councils, which is working with MPOs large and small to better understand changes we can make to CMAQ and to conformity to make them more understandable, easier to implement, and more flexible.

NOACA is the regional voice for the Greater Cleveland area. It represents the five counties of Cuyahoga, Geauga, Lake, Lorain, and Medina. Within these five counties are 170 units of local government. NOACA is the one forum in which these communities come together and make decisions from a regional perspective. The five counties we represent have a population of 2.1 million, which makes us the 14th largest metropolitan area in the United States.

Mr. Chairman, like all major metropolitan regions, we are concerned about growth, our business climate, and being an active partner in national and international trade. NOACA is not only in the business of encouraging economic development, but also in trying to enhance the quality of our life.

I am sure, as the former mayor of Cleveland and former Governor and former NOACA board member, you remember the delicate edge we walk when we choose transportation investments that provide accessibility, recreational, and employment opportunities, and yet do not damage our natural and community systems. NOACA, like all regional councils and MPOs, represents the interests of the public through a comprehensive transportation decision-making process.

Conformity is one piece of the overall process we use to plan and program projects in our region. In 1992, the Federal Government classified Northeast Ohio as a moderate non-attainment area for ozone. This generated a planning challenge for our region. We were required to reduce hydrocarbon pollutants by 15 percent in a 4-year period. That amounted to a reduction of 75 tons per day. That is a substantial amount.

The EPA requirement gave areas less than 4 years to generate this considerable decrease. The reductions identified had to be real, that is, the activities had to meet Federal requirements. We used CMAQ funding to develop some projects that were able to meet this verifiable reduction requirement.

The CMAQ Program, through its specialized focus, afforded us the unique opportunity to pursue projects that helped us meet this requirement. We used this money to purchase buses and other transit improvements, construct park-and-ride lots, develop traffic signal projects, and also to develop our public education program, Ozone Action Days. Of course, there are many other eligible activities, such as trails and intelligent transportation systems. We hope to have projects along those lines in the future.

It is likely that given the limited resources available, these projects would not be completed with regular transportation dollars. They would fall victim to the many competing priorities for these funds.

For this reason, NOACA believes that the CMAQ Program should be expanded to give life to these project opportunities. A very real conformity challenge for us has been the fact that our transportation plans, programs, and projects must be conformed. In our case, it was an eight-county basis that included not only the five counties of NOACA, but also the two counties represented by the Akron Metropolitan Area Transportation Study plus one other county not affiliated with a MPO.

It was quite a challenge for governing bodies of two independent MPOs to be required to establish transportation schedules based

solely on required conformity finding. It was costly in terms of time and other factors. This was through MPOs that get along just fine. We had some difficulties to work through.

NOACA recognizes that its experience with CMAQ and conformity analysis has been possibly different from other MPOs. Many of our projects really emphasize the maintaining and rebuilding of the existing infrastructure rather than adding capacity. So that has given us a bit of an advantage in that regard. We have to look at the entire totality of MPOs across the country.

Let me mention some recommendations quickly. Congress should make the planning horizons, the State implementation plans, and transportation plans consistent. Furthermore, the metropolitan transportation plans should only have to conform every 5 years instead of every 3 years. Federal and State Government, as well as the MPO modeling process, should be consistent and help realize our regional transportation goals. We had to see our transportation projects held hostage to updates in computer programs.

Congress should allow the use of trading between point, area, and mobile sources to allow us to meet cleaner goals. Clean air is clean air and we can all collaborate to help make that happen.

Mr. Chairman, the loss of highway funds as a penalty for lack of conformity should be closely reexamined. Of course, I think that Congress should increase CMAQ funding. It helps make the existing system more efficient. We believe that locally elected officials are best suited to make these decisions. I have an exhaustive list.

Thank you for inviting me here. We will be available through NOACA and through NARC to be helpful in any way we can. I would ask that my statement, which is together with Mr. Lasker's, be placed in the record in its entirety.

Senator VOINOVICH. Thank you.

Ms. Steed.

**STATEMENT OF DIANE STEED, PRESIDENT, AMERICAN
HIGHWAY USERS ALLIANCE**

Ms. STEED. Mr. Chairman, I am very pleased to appear before you today for the first time as the new president of the American Highway Users Alliance. For 70 years the Highway Users has represented both motorists and a broad cross-section of businesses that depend on safe and efficient highways to transport their families, customers, employees, and products.

Our members pay the user fees that finance the Federal Highway Program, and they expect the Government to be good stewards of their investment in our Nation's roads and bridges. Highway Users members strongly believe that the user fees paid on the Nation's roads should be rapidly returned to the roads through projects that make their motoring safer and less frustrating.

I use the term "rapidly" for a reason, Mr. Chairman. I know that you have been a leader among those who want to streamline the project delivery process. I want to thank you for your attention to that issue and assure you that we want to work with you and support your efforts to advance highway projects quickly.

When I tell someone that I work for the Highway Users, the frequent, joking reply is that he is she is one. Nearly every American can claim to be a highway user regardless of race, creed, or even

political affiliation. Representing such a broad group, I can say confidently that highway users, like all Americans, care about the quality of the air we breathe and we want to see it getting cleaner.

But we have also lost patience with the increasing amount of traffic that chokes up our roads, delays our trips, causes accidents, strangles commerce, and even slows emergency vehicles when time really matters. With that in mind, I am very pleased to talk about the Clean Air Act and the CMAQ Program in particular, a transportation program that should address both the problems of congestion and pollution.

The good news is that we have a freer, more mobile society than ever and our air is cleaner. The dramatic improvements in air quality are truly a testament to the outstanding benefits of the Clean Air Act. Incredibly, today's cars on the roads emit less pollution than a 1960's car sitting in its driveway with the engine off.

More progress has been made in mobile source pollution reduction than any other source. For most metropolitan areas, mobile source emissions are no longer the principal source of pollution, and in many cases they aren't even second. The chart I have here to my left depicts the huge gains that have been made in reducing pollution at the same time we have seen increasing population, more cars, more vehicles on the road, and more vehicle miles traveled. Impressively, vehicle miles traveled has increased nearly point-by-point with the gross national domestic product, and that is no coincidence. Mobility leads to economic growth.

In his State of the Union address, President Bush said, regarding his fuel cell car initiative, that the greatest environmental progress will come about through technology and innovation. When contrasting the gross and vehicle miles traveled with the reduction in Clean Air Act pollutants, it is clear that technology and innovation have done far more to clean the air than increased travel has done to sully it.

For example, today's diesel truck engine is eight times cleaner than the engine built just a dozen years ago. With new technology for dramatically cleaner fuels and engines coming along, it is clear that technological advancement leading to cleaner air is only gaining in momentum.

Last summer, this committee held a hearing on CMAQ and conformity. One of the common conclusions reached by several of the witnesses was that the biggest environmental bang for the buck comes from traffic flow improvements, diesel engine retrofits, and in vehicle inspection and maintenance programs.

Yet according to EPA the highest priority for CMAQ funds is the implementation of transportation control measures intended to reduce VMT. The use of the word "control" I think is very telling. TCMs are intended to control the so-called bad people who either need or want to drive alone. Those measures are advocated by some anti-car, anti-motorist planners and groups who believe that Government should be in the business of forcing people out of their cars. TCMs just don't sit well with the population accustomed to basic freedoms.

However, even if that were not the case, TCMs are doomed to failure for another reason, we believe. They are directed mainly at commuters. Eighty percent of trips are not commutes. It should be

no surprise that TCMs have little or no proven track record in causing measurable clean air progress or congestion relief.

Many projects that would result in clean air progress and congestion relief are not mutually exclusive. Nowhere is that more clear than in a comprehensive evaluation of the benefits of making modest improvements to unclog America's bottlenecks. In 1999 we analyzed those bottlenecks and took a look at what it would do to make a small improvement in those bottlenecks.

What we found was astonishing. If the worse 167 bottlenecks were unclogged, the average emissions of volatile organic compounds would drop 44 percent, and carbon monoxide would be reduced 45 percent. Greenhouse gases would drop more than 70 percent and at the same time traffic delays would be reduced 71 percent, saving the average commuter 40 minutes per trip.

Clearly a comprehensive program to relieve bottlenecks is an example of a program that should meet the logical requirements for active congestion mitigation and air quality programs. But currently it is ineligible because it would provide capacity for single occupancy vehicle.

Although we clearly have concerns with the CMAQ Program, the majority of problems can be remedied with only minor statutory adjustments, we think. We believe the CMAQ Program can be restructured to better meet the true pollution reduction goals of the Clean Air Act and markedly reduce traffic congestion. So we recommend the following:

First, allow all transportation projects that reduce congestion and clean air act pollutants to be eligible for funding. Next, focus on technological improvements instead of trying to get people out of their cars. We think we have to be realistic. TCMs just aren't convincing people to stop driving and they never will.

When funding CMAQ projects, we believe that we should measure the benefits and the costs of alternative strategies to relieve congestion and clean air pollution. Based on those criteria, engage in those projects that can be shown to do the most good for congestion and air quality.

Finally, frustrated drivers stuck in traffic would really appreciate targeted programs that fix the worse bottlenecks. We need to give motorists a break from traffic jams and clean the air.

In conclusion, since 1991, \$41 billion, as you have already heard, has been spent for the CMAQ program. But CMAQ doesn't reduce congestion and clean the air just because of its name. Changes in the way the account is administered could go a long way toward realizing the transportation goals of the Clean Air Act.

We look forward to working with you. I would be pleased to answer any questions. I would ask that my testimony be placed in the record in its entirety.

Senator VOINOVICH. Thank you.

Ms. Kaiser.

STATEMENT OF MARSHA KAISER, DIRECTOR, DEPARTMENT OF PLANNING AND CAPITAL PROGRAMMING, MARYLAND DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Ms. KAISER. Thank you, Mr. Chairman. My name is Marsha Kaiser. I am the director of Planning and Capital Programming for the Maryland Department of Transportation. On behalf of the American Association of State Highway and Transportation Officials, we thank you for your leadership in holding this important hearing on transportation congestion and Congestion Mitigation and Air Quality Program.

Just since 1977, over 80 non-attainment or maintenance areas have gone into or barely missed going into a lapse, putting billions of transportation dollars at risk or on hold. Meanwhile, conformity has become a year-end and year-out process consuming scarce staff and resources at a time when our planning needs are growing and our funding for staff is dwindling.

Our recommendations for legislative improvement include four key areas: consistency, flexibility, consultation on new standards, expanded flexibility and eligibility for the CMAQ Program.

On consistency: The goal of conformity, as you know, is to ensure that transportation plans are consistent with plans for attaining air quality standards. But the two planning processes have not been coordinated well. The result is a mismatch of deadlines, time-frames, emission estimates, basic planning assumptions, and penalties, resulting in a convoluted and ineffective process.

I will give you an example in Baltimore. A couple of years ago, as we were updating our long-range plan, we decided to update some assumptions we were using in our traffic forecasting process. However, we were using SIP, State implementation plan assumptions, that were almost 10 years old. What happened was that the huge change and the type of vehicles manufactured and their attractiveness to the driving public alone have resulted in a substantial increase in emissions, a factor that we as a transportation department or metropolitan planning organization, had no control over.

We are not asking that the transportation sector use outdated assumptions. We are asking that the assumptions used be coordinated between the air quality and the transportation planning process. Achieving alignment and greater consistency between these planning processes, including analytical tools and planning assumptions is essential.

Flexibility is needed to help States achieve conformity, greater flexibility is needed to adjust to changing circumstances and chose cost-effective emission reduction strategies. You may be surprised to learn that transportation control measures that are included in State air quality plans cannot be added, deleted, or changed, even if they are not working without going through the cumbersome and very time consuming task of revising the entire State air plan. If a conformity lapse does occur, States are prohibited from applying any off-the-road remedies, even if they reduce emissions in a cost-effective way.

Let me give you two examples. In the Metropolitan Transportation Commission in the San Francisco Bay area, they were sued because one of their transportation control measures from their 1982 SIP increased transit spending, and failed to achieve the projected results and increased ridership. Since the measure was not revised in the SIPs, the court ruled that the MTC was still obligated to continue the provision and to provide funding for this ineffective service.

Another example is in the Maryland-Washington Region of an inadmissible emission solution. The Maryland DOT, with our State air agency, came up with a creative solution. We found that if we provided a million dollars of our transportation funding to the State Air Agency for development of a gas can replacement program, we could get reductions of emissions of almost a ton per day. However, this kind of off-road emission reduction, known as inter-sector trading, is not allowed to be used in the conformity process.

TEA-21 should increase flexibility and allow TCMs substitutions with equivalent emission reduction and to allow trading emission savings from other off-road savings if the goal is truly to clean the air.

In terms of consultation, the bad news is that things are about to get worse. As a result of the new standards for ozone, 242 counties are likely to become new non-attainment areas while another 150 counties will fail to meet new standards for fine particulate matter. There is great uncertainty about what requirements will be applied and how the process will work.

The Environmental Protection Agency should issue guidance on the new standards in consultation with stakeholders prior to the designations. We believe a 3-year grace period to demonstrate conformity is needed once a non-attainment designation is made in order to allow these new areas to develop the tools to establish the consultation process, and to obtain the resources they need, especially in non-urbanized areas to do conformity analysis.

Expanded eligibility for the Congestion Mitigation and Air Quality Program is something we hope happens under the reauthorization. This program has broad support, as you have heard from most members of this panel. It should be continued but with some added flexibility to allow us to address both air quality improvements and the challenges of congestion.

For example, in California decisionmakers have found it cost effective to provide cash incentives to owners to replace older, heavily polluting diesel trucks and buses with cleaner models that were built after 1994. This proven program for reducing emissions is not eligible for CMAQ funding under current restrictions.

Mr. Chairman, our detailed recommendations are presented in our written testimony. We have engaged in a dialog with the environmental councils of the State on these important issues. I would be glad to answer any questions you may have.

I would ask that my prepared statement be inserted in the record in its entirety.

Senator VOINOVICH. Thank you all for your testimony.

When you are doing this work on conformity, do you rely upon your own staff to do this, or do you do it in conjunction with your State's environmental protection agency?

Ms. KAISER. We do it with our staff.

Senator VOINOVICH. I would be interested in the comments of all of you that are in the business.

Ms. Kaiser.

Ms. KAISER. I have staff in the DOT that works on it. We do it in consultation with the State air agency staff. The DOT, by the way, provides funding to the environmental staff to pay for it. We do it in consultation with the Metropolitan Planning Organizations.

Ms. LIEBE. Mr. Chairman, if I may, I would also like to offer a few comments on that question.

I think one of the common misperceptions about the conformity process is that the air quality agencies somehow establishes an emission budget that then gets imposed on the transportation community. Just to clarify, when the conformity rule was originally established, it required our agencies to work together on both transportation planning and on development of the air quality plans.

When we develop an air quality plan, we use the regional transportation plan for purposes of evaluating the mobile source emissions that will go into an air quality plan. We also then evaluate the regional transportation plan for what elements are in that regional transportation plan that might be instrumental to achieving that level of travel that is predicted under the regional transportation plan. We look at those elements for selecting our transportation control measures.

So really the consultative process goes both ways. The regional transportation plan becomes a very important source of input in the air quality planning process, not only from the travel data, but also the population and employment forecasts that are used in that process.

Senator VOINOVICH. The question I have is in terms of getting things done. So often what really stands in the way of progress in dealing with some of these problems is the adequacy of the people that you need to get the job done.

Ms. Liebe, you indicated that the Oregon Department of Environmental Quality oversees what the MPOs are doing. Do you provide them any staffing? How does that work?

Ms. LIEBE. Mr. Chairman, we work in partnership. Their staff is responsible for running the travel model. They help us with the emission estimates. We don't pay them. They provide those resources to us.

Senator VOINOVICH. But in your State they do have the staff to get that done; is that correct?

Ms. LIEBE. That is correct.

Senator VOINOVICH. How about in Maryland?

Mr. MAIER. The Metropolitan Planning Organization has the staff. They have the resources to do it. The Maryland Department of the Environment has staff that the Department of Transportation pays for to do the conformity analysis and the air quality planning.

Senator VOINOVICH. Do you feel that you have the adequate staff combined to get the job done?

Mr. MAIER. At the State level, the process is becoming more complex. It's getting more difficult to stay on top. I have had to add more staff to keep on top of the issues. My concern is in some of

the newer non-attainment areas. In some of our more rural, less urban, non-attainment areas, MPOs, they don't have the resources and the qualified staff to really deal with the complexity of the conformity rule.

Senator VOINOVICH. Howard.

Mr. MAIER. Thank you. At NOACA we are fortunate in that we do have staff members who are well trained and quite able to take care of the modeling process. We work with the Ohio EPA, as you know, on that. We also work with our neighboring MPOs, as well. I don't see any particular problem with the staff work. They have to continually get upgraded and reeducated to work with the models. But they do what they have to do.

Senator VOINOVICH. You all have concerns about conformity and the different perspectives on it. We heard Mr. Holmstead talk. They are trying to deal with this on a regulatory basis; is that correct? It is not statutory. They have the authority through regulation to deal with the conformity problems. Is that your understanding?

The issue is: How much input do those of you who are on the ground actually doing the work in your respective organizations have? Have you been consulted, those of you that represent national organizations that are professionals with the MPOs or with the environmental agencies in their working on these changes? Are they not that far along yet to share that information?

Has there been any input from any of you in terms of these? Mr. Holmstead said they were putting together some new regulations dealing with conformity. Mr. Replogle, you commented about some of the suggestions that they have?

Mr. MAIER. I can start with that, Mr. Chairman. In a word, no. We have not had much—maybe directives have been addressed to staff members. I have not seen anything yet.

Senator VOINOVICH. So the people that are there where the rubber hits the road haven't been involved? I want to find out what the status is?

Mr. HOLMSTEAD. Mr. Chairman, the National Association of Regional Councils is looking at the whole picture. We have advisory committees made up of executive directors and others that are making recommendations. I believe we do have a series of recommendations that Howard has referred to that we are willing to put forth.

Senator VOINOVICH. How about the environmental groups? Have you had any input? Didn't you say, Mr. Replogle, that you were over there?

Mr. REPLOGLE. Well, we met earlier this week with Federal highway officials to talk about some of conformity issues. We do engage, on occasion, with EPA staff as well. EPA is familiar with them.

Senator VOINOVICH. EPA has the conformity responsibility though, right?

Mr. REPLOGLE. Well, it's a shared responsibility between the two agencies to jointly agree upon revisions to the conformity rules. I understand from the testimony this morning that they are working together on new guidance. They have been working for some time on developing a new set of regulations around conformity in the

wake of various court decisions in past years. That has been long in the works. I am not sure what the status of it is.

Senator VOINOVICH. Here is the thing. I have a lot of questions to the process. Maybe this is too simple.

Mr. LASKER, you say your organization has some recommendations on what should be done on conformity.

Mr. LASKER. The National Association of Regional Councils has developed a position which I will leave with you. Howard has referred to those recommendations.

Senator VOINOVICH. Are there any other organizations that have developed some recommendations?

Ms. KAISER. Mr. Chairman, AASHTO has developed some positions. I believe all of us probably have forwarded our own positions to EPA and Federal Highway. I can't say there has been any dialog with them.

Senator VOINOVICH. Here's a suggestion. I used to be president of the National League of Cities and chairman of the National Governors Association. When we had a major problem that was involved with State and local governments, I was very involved in what we called the "Big Seven." These were the mayors and the State legislators. We would try to get various people in a room to start to talk with each other about what various groups were recommending to see if there isn't some way that you could come back to a Federal agency, for example, and say, "Here is what we really think ought to be done."

Too often it seems here that your group is going to see them, and then Mr. Replogle's group comes to see them, and somebody else's group comes to see them. So they have all of this on their table.

I am suggesting, Mr. Replogle, that Environmental Defense be the responsible organization. Perhaps maybe you could work with the regional groups and maybe try to get together and talk about these things. You would share your point of view and they share their point of view. There would be some coordinated effort so that when you talk to the Agency there would be a consensus to say, "Hey, this is the way we think that this thing should get done." This is rather than have you just listen to us and then go off and do your own thing.

Mr. REPLOGLE. That's is an excellent idea. In the last 4 to 6 weeks, environmentalists, including myself, have sat down and met on several occasions with representations from the Association of MPOs and AASHTO, trying to find some common ground on some of these issues. We still have a long way to go.

Senator VOINOVICH. I would like to challenge you to get back to me in a month's time. You represent a lot of the environmental groups, the Sierra Club and so forth. I would like to know what you have been able to do in a month's time about what progress you have made in getting things done. I would like you to do it on your own. If you don't, I may ask you to come in.

We have some of these problems that confront us. It just seems so often there is a lot easier way of getting some of these things done. I would really encourage you to do that. I am going to be in touch with you to see if it is happening.

Senator VOINOVICH. Yes, Ms. Kaiser?

Ms. KAISER. Mr. Chairman, just last week, AASHTO, the environmental councils of the States, STAPPA/ALAPCO, and AMPO did spend a whole day discussing our different positions on conformity and CMAQ. I have to say it was a very long day. I can't say we reached much in the way of consensus, but we did enter into a dialog. We have committed to continue that dialog going.

Senator VOINOVICH. That would be good. There are different perspectives on things. It is also to hear what they have to say and if there is some compromise that could be made. There are some practical things.

Mr. Lasker, I was impressed with you. You really tried to move along and deal with problems. You have been very flexible. What you are saying to me is that the Agency doesn't seem to have any kind of flexibility in terms of some of these things. It would seem if you have somebody that is consciousness and not dragging their feet and they are moving forward, that that should be recognized.

Mr. LASKER. Two key words—flexibility and common sense. If that could prevail, everyone would be happy. The National Association of Regional Councils works very closely with the National League of Cities and the U.S. Conference of Mayors. We will involve them in this discussion.

Senator VOINOVICH. It is really difficult. If you all came to the Agency and said this is what you think, it would be very difficult for them to say no to you. What you are saying is that the environmental groups thinks that means dragging our feet, delaying what needs to be done. I know from your testimony that is not what you are doing. So there is this commonality that I think can somehow be achieved.

Ms. Liebe, you have been trying to get in a word in.

Ms. LIEBE. Actually, I just wanted to make you aware that STAPPA/ALAPCO also has a position on some potential improvements. There are a number of areas where we, in the State of Oregon, have implemented this program with a great degree of flexibility. I would be happy to provide those examples to you and to the committee.

I also just want to make you aware of the effort that was already mentioned with the environmental commissioners of States and STAPPA/ALAPCO and AASHTO to try to come up with some consensus position on conformity.

Senator VOINOVICH. That is good. The other one is the CMAQ Program. I have been there. We worked the system. There is nothing wrong with working the system in trying to get money for projects that you think are very important for your community.

Is there any consensus that we ought to review the CMAQ Program to make sure that the dollars that we are providing are more oriented toward things that are going to make a difference and really help? Am I stepping on someone's toes? Any comment?

Ms. STEED. That's exactly what we would like to see done. In fact, we would like to see cost effective measures be developed. We know, for example, there has been some transit projects that cost something like \$272,000 per ton of pollution removed while at the same time traffic signalization improvements cost something like \$23,000. And yet that year most of the funding for CMAQ projects went toward the transit area which is not as cost effective. That

is why we are recommending some cost effective measures be developed for the program.

Mr. REPLOGLE. Mr. Chairman, I think this area of evaluating cost effectiveness is one that in principle everyone would agree with that we ought to be looking at cost effective strategies. Where the challenge comes is in getting agreement on reasonable analysis methods to make that evaluation. Sadly, we still have very deficient methods in use in many metropolitan areas to evaluate. For example, what is the effectiveness of making an area a safe and attractive place to walk? More people then can walk and fewer people have to drive their car just to go across the street because you can't get across the street.

We have a difficult challenge getting good evaluations of some transit projects in areas where if you implement it in one place, it is highly effective and if you implement it in a different context where everybody gets free parking and where you can't walk anywhere, you will get very much less great effectiveness.

The context is everything for implementation. The CMAQ Program is a tiny fraction of the total Federal transportation dollars which, in turn, is a small fraction of the total transportation dollars. So we really can't evaluate small CMAQ projects except within their larger context. If they are being implemented in a region in an area where we are throwing billions of dollars to subsidize car use and car dependence to work against those alternatives, then it is hard to say whether that investment in a bicycle project is ineffective or whether it is simply being undermined by our spending.

Senator VOINOVICH. It is a difficult decision. To put in some criteria might be very difficult because of the difficulty in objectively evaluating it. You are leaving that up to the local folks who are pretty conscientious about trying to do the right thing.

The last point I am going to make is this. We don't have enough money for highways. The challenge is that we need to recognize that. Ms. Steed was talking about the bottlenecks. There is no way with the current funding today that we are going to be able to take care of the bottlenecks. I think we had some other hearing here with Ms. Peters. I think it is \$109 billion a year that is required between the Federal and the State to take care of the issue of highways. We are only spending about \$67 billion for it.

So we have a big discrepancy here in what is needed. I am lobbying you and your respective organizations to really look at this issue and to come back to us with some recommendations on what you think is a practical thing that we ought to be doing to deal with this problem, recognizing that highway funding is a partnership.

I know that in my State we have a very bad financial situation, as we have in most of the States, but our Governor is recommending that we increase the gas tax in the next 3 years, 2 cents, 2 cents, and 2 cents. He is trying to sell it on the basis of environmental and economic development.

I think we need to face up to this situation. We need to do it rapidly. We were able to get the Highway Trust Fund. Senator Carper and I worked on that in 1998. We worked very hard to get the

Trust Fund money to be used exclusively for highways. We were successful.

Unfortunately, the money coming into that is not adequate to get the job done. Some of us that consider ourselves conservative fiscal hawks do not want to borrow the money to do it. That is where we are. We are borrowing money right now.

It has to be paid for if we are going to move forward. I would be interested in your organization's position on this issue.

Senator Carper.

Senator CARPER. Senator Voinovich, I need to be somewhere else at 12 o'clock. So I am going to not ask you to respond orally right now, but I am going to ask you to respond in writing to this question, if you would.

When we have a big panel like this, one of the things I often times look for, particularly when there are people from diverse backgrounds and diverse points of view, is what do you agree on? Senator Voinovich may have already asked this. But what basic concepts or precepts do you agree on, that there is broad agreement on?

That would be helpful to us as we approach our job particularly in the months ahead in the area of transportation. That makes our job so much easier. If you can help me with that, I would appreciate that very much.

Mr. Maier.

Mr. MAIER. If I may get started on this, one of the things that I gather just from listening to the comments is that CMAQ as a funding source is very well accepted, whether it is for traffic signals, whether it is for transit, no matter what. It does make the existing system more efficient. It allows for us to conserve the funds that we do have and have some opportunity to fund projects that can help all of us, no matter what our points of view might be.

Mr. LASKER. Let me add to that. CMAQ is a good program. But if you are in attainment, you do not get any CMAQ. So what you are doing is that you are getting penalized for being good. If you fail, we will give you money. If you don't fail and you want to do good things, we won't give you any money for that.

I think that you have to look at those areas that are doing something, that have a proactive program. You should get something to try to continue to reduce emissions. I will leave it at that.

Senator CARPER. Thank you.

Mr. Replogle.

Mr. REPLOGLE. I sense a general agreement across the community about expanding the CMAQ Program and expanding its eligibility so that communities can spend those funds in ways that help reduce pollution and address pressing community needs.

Recognizing that we are going to have a lot more people living in non-attainment areas with the new designations, that we have air toxics problems, and fine particulate problems that need to be addressed—the additional population and the additional problems to which we need to apply that program, are things that justify significant program growth over and above the baseline.

Another area where I think there is a general consensus, or a good potential to get one, is that we are all well served by investing

more in better analysis tools and strategic planning systems that help us to better understand that the traffic consequences, air pollution consequences, and growth consequences are of different policies. We can then spend less time fighting about the numbers and spend more time talking about what is the most sensible set of policies that gets us the best performance for the taxpayer dollar.

Ms. STEED. I should also add that there is an EPA/DOT program called "It All Adds Up to Clean Air" that the highway users are participating in. That is exactly what it is trying to, is to come to agreement on some of the things that could be done that has broad agreement across the spectrum. So we will be happy to get back to you on that as well.

Senator CARPER. One more comment. I will just ask you to flesh this out a little more in writing, please.

Ms. LIEBE. This will be short. Just as a final comment, I do think that we all very much support the goal of achieving public health objectives. One very important way of doing that is integrating transportation and environmental planning.

Senator VOINOVICH. Dr. Teague, you were left out. I would be real interested if you have some material on asthma, in light of the fact that we have been reducing emissions overall, what you attribute that increase in asthma. What specifically has the most impact on it?

We have a study down at the University of Cincinnati, Dr. James Lacky. He is looking at diesel fuel and how the particulates from diesel are impacting on children. I would be interested in this whole area of asthma and really what is the culprit here?

Dr. TEAGUE. Thank you. The growth of asthma in the United States population has become a staggering problem, and is close to epidemic proportions. The reason is not known. It is complex. There are many, many factors.

Clearly there are more allergies among the general population. Thirty years ago, 30 percent of people were allergic. Today 60 percent are.

There is something in our lifestyle. It may be a more sedentary lifestyle, staying indoors more, not enough exercise, and maybe dietary patterns related to saturated fat intake. Something has created this asthma epidemic. It has also occurred in other civilized nations while the air has gotten cleaner.

The role of air pollution in asthma was pretty clear, I think, from our study. You come with asthma as a child. Your airways are sensitized. They are inflamed. Then the pollution event occurs. It triggers an attack. That seems to be the role.

We just found by reducing pollution in Atlanta during the Olympics, there was less asthma in the children in Atlanta.

Senator VOINOVICH. Well, anything you have on that, I would really like the best stuff that's out there and the best research work. It seems to me that because it is growing there ought to be the best and brightest looking at it to come up with some recommendations.

I would like to thank all of the panelists for coming. This has been very, very informative for me. I look forward to hearing back from you. Thank you.

[Whereupon, at 12:20 p.m., the subcommittee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. JEFFREY HOLMSTEAD, ASSISTANT ADMINISTRATOR OFFICE OF AIR AND RADIATION, U.S. ENVIRONMENTAL PROTECTION AGENCY

Thank you, Mr. Chairman and members of the subcommittee, for the opportunity to appear here today to discuss the Congestion Mitigation and Air Quality Improvement (CMAQ) program and the transportation conformity program in the context of the new health-based air quality standards for ozone and fine particulate matter.

There has been considerable progress in achieving better air quality for Americans since the passage of the Clean Air Act Amendments in 1990. As we move forward with the implementation of the new air quality standards, the continued integration of transportation and air quality planning will be important for meeting these new standards.

Achieving and maintaining healthy air quality remains an important national priority. EPA sees the reauthorization of TEA-21 as an opportunity to employ all tools available to improve air quality, including transportation, in ways that could help cities across the country make progress toward attainment under both the pre-1997 and the new ozone and particulate matter standards.

According to EPA's latest air quality trends report, air quality monitoring data show that from 1992-2001, concentrations of all six criteria pollutants have declined, including the four criteria pollutants that are most affected by the transportation sector: carbon monoxide, nitrogen dioxide, ozone (smog), and particulate matter (soot).

These air quality data are good news, and are attributable to the transportation and air quality programs currently in place. However, there are approximately 51 million Americans living in 77 counties that are measuring violations of the current 1-hour ozone ambient air quality standard, and 11.1 million people living in 17 counties that are measuring violations of the current standard for particulate matter. Furthermore, when we begin to implement the new, health-based standards for ozone and particulate matter and designate the areas that are not attaining the standards, the number of people living in areas with air quality considered unhealthy will increase.

The criteria pollutant emissions have a significant impact on the health of Americans. Particulate matter is linked to aggravation of pre-existing respiratory ailments, reductions in lung capacity, and a significant number of premature deaths. Ozone can impair lung function, cause chest pain and coughing, and worsen respiratory diseases and asthma. Carbon monoxide can aggravate angina (heart pain).

Even though overall emissions have been reduced, on-road mobile sources continue to be a significant contributor to pollution problems. EPA estimates that in 2001, motor vehicles accounted for 62 percent of the total U.S. carbon monoxide emissions, 27 percent of the ozone precursor of volatile organic compounds (VOCs), 37 percent of the ozone precursor nitrogen oxides (NOx), and 6 percent of the traditionally inventoried direct emissions of particulate matter nationwide. On a regional scale, motor vehicles can be an even larger portion of an area's inventory. For example, in 1999, motor vehicles accounted for 48 percent of NOx in Atlanta, Georgia. According to State air quality plans, on-road vehicles account for 63 percent of total NOx in the Springfield, Massachusetts area; 56 percent of the total NOx in the Los Angeles region in California; and 80 percent of the total carbon monoxide and 53 percent of the total coarse particulate matter in the Las Vegas, Nevada area. Although emissions reductions from stationary sources are important in many areas throughout the country, the continued high incidence of health problems related to these pollutants demonstrates the continuing need to reduce air pollution from motor vehicles. As a Nation, our techniques for reducing motor vehicle emissions have to encompass both technology improvements to vehicles and fuels, as well as programs that encourage other, less polluting, transportation choices and practices.

Technology has provided significant air quality benefits in the past and will continue to do so into the future. Emissions from today's new cars have been reduced by more than 95 percent per vehicle relative to new cars 35 years ago. EPA's new Tier 2 vehicle standards are designed to reduce the emissions of new passenger cars and light trucks even further. The rule combines these requirements with requirements for much lower levels of sulfur in gasoline. We estimate by 2020, NOx produced by vehicles will be approximately 70 percent lower as compared to what the levels of NOx would have been without the Tier 2 program in place.

EPA's new clean diesel program for large trucks and buses is another technology-based program. It will achieve emissions reductions based on the use of high-efficiency exhaust emissions control devices coupled with changes in diesel fuel sulfur levels. Testing indicates that this program will result in particulate matter and NOx emissions levels that are as much as 90 and 95 percent below the current standards for heavy duty engine emissions in effect today.

A third example of emissions-reducing technologies is EPA's Voluntary Diesel Retrofit Program, which is designed to help owners of trucks, buses, and off-road equipment install innovative and cost-effective emission control technology on existing diesel engines. These technologies can result in reductions of particulate matter and volatile organic compounds.

But technology may not be able to achieve all the necessary emission reductions from transportation sources alone. Although emissions per vehicle have declined dramatically, the number of miles Americans are driving continues to increase. In 1970, Americans traveled just over one trillion vehicle miles per year; in 2000 it was almost 2.8 trillion. Growth in vehicle miles traveled (or VMT) has far outpaced population growth. From 1970 to 2001, population grew 39 percent, but VMT grew 149 percent. These trends are continuing. A conservative national estimate of VMT growth is approximately 2 percent per year. However, in many cities, particularly in the southern and western States, VMT is growing much faster than this average. For example, in the early 1990's, Charlotte's VMT grew about 4.9 percent per year, Denver's VMT grew 4.5 percent per year, and Salt Lake City's VMT grew by 4.3 percent per year. Las Vegas projects that its VMT will increase more than 4 percent per year through the year 2020. The continued integration of transportation planning and air quality planning is a means to preserve and continue the progress we have made in ensuring that Americans breathe healthy air.

In addition to technology-based programs, programs that are based on providing travel choices are also important in achieving better air quality. For example, the Commuter Choice Leadership Initiative is a new and successful non-regulatory approach to achieving emission reductions. Built around the tax-free commuter benefits in TEA-21 and modeled after the Energy Star partnership programs, the Commuter Choice Leadership Initiative is an EPA-DOT voluntary partnership program with business to reduce traffic and traffic-related emissions. In the first year and a half of the program, over 1,300 companies from 28 States and Washington, DC, have signed voluntary agreements to offer 640,000 employees commuter benefits meeting a national standard of excellence. EPA projects that if half of U.S. employees worked for employers that offered commuter benefits at the national standard of excellence promoted by the Commuter Choice Leadership Initiative, air pollution and traffic would be cut by the equivalent of taking 15 million cars off the road every year.

In January of this year, EPA launched another innovative, non-regulatory clean air program, SmartWay Transport—a voluntary partnership program that aims to reduce ground freight sector energy use by promoting the use of energy-efficient technologies and improved management practices. Over a dozen top companies representing a diverse group of ground and freight shippers and carriers have already joined EPA as Charter Partners and are helping the Agency to develop performance measures for the program. Although the SmartWay Transport program was created primarily to reduce carbon emissions, the program will also result in voluntary reductions of NOx (a precursor to ozone) and particulate matter that could assist areas in achieving the new air quality standards.

THE CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

The CMAQ program, initially begun under ISTEA and reauthorized in TEA-21, provides funding for transportation projects to improve air quality and reduce congestion. EPA views the program as a valuable transportation funding tool for air quality improvement because the pool of potential projects is largely restricted to areas with poor air quality, (non-attainment areas), or those that had poor air quality in the past (maintenance areas). The CMAQ funds are not restricted to just traditional highway or transit projects. The funds can be used for Travel Demand Management (TDM) programs such as park and ride lots, car and van pool programs and public education, or for other unique Transportation Control Measures (TCMs). There is increasing interest in using CMAQ funds for other measures, such as diesel engine retrofit programs and anti-idling equipment.

An EPA analysis of the benefits of TCMs, such as those funded by the CMAQ program, documents the emission reductions from 22 different shared ride, bicycle and pedestrian, traffic flow, transit and demand management programs. The CMAQ program has funded projects that:

- contribute to attainment and maintenance of the NAAQS;
- produce long-term emission reductions and support sustainable growth;
- fund innovative transportation options (enabling projects such as public education, technology, and support services); and,
- provide alternatives to single occupant vehicle travel and reduce congestion through, for example, regional rideshare programs.

While some of the projects may produce small emission reductions, cumulatively these projects can add up to significant reductions over the life of the attainment plan. In many cases our stakeholders indicate that CMAQ projects are important for helping a State to meet Clean Air Act air quality planning and conformity requirements. The benefits of the CMAQ program, and particularly projects that reduce VMT or manage system capacity, extend beyond emissions reductions. Other benefits include roadway congestion relief, energy conservation, greenhouse gas emission reductions, as well as economic development and community livability. By requiring the project to be implemented in nonattainment areas, more local government and public involvement in transportation investment decisions is encouraged.

EPA and DOT have documented CMAQ's numerous benefits in reports, brochures and fact sheets available to transportation and air quality planners. From EPA's perspective, there is little doubt that the program is beneficial for air quality and is an important program for nonattainment areas and maintenance areas that want to address transportation emissions. Air quality agencies have told us how important it is to have a transportation funding program that is dedicated for air quality purposes. We have been told that many projects that have been highlighted as examples of innovative and effective emission reduction programs would not have been implemented without the availability of CMAQ funds. A National Academy of Science study mandated by Congress and undertaken by the Transportation Research Board draws similar conclusions. The findings of "Special Report 264. The Congestion Mitigation and Air Quality Improvement Program: Assessing 10 Years of Experience" are favorable and include recommendations to reauthorize and expand the program.

While EPA generally agrees with the NAS recommendations, there are some important issues to consider. These issues fall into two main categories apportionment and eligibility. At a time when implementation of the 8-hour ozone NAAQS may change the nonattainment landscape based upon our most advanced understanding of how air pollution affects public health, EPA, as well as other stakeholders, are concerned that the eligibility criteria and apportionment formula in TEA-21 are based upon the old standards and nonattainment classifications.

Under the current program, a change in the classification of nonattainment areas, or the number of areas, will likely change both the amount of CMAQ funds apportioned to each State and the amount available to nonattainment areas. Given the current statutory language in TEA-21, nonattainment areas designated under the 8-hour ozone standard would be eligible for CMAQ funding, but the funds apportioned to the States would not account for the new areas unless they were classified under the system for the 1-hour standard. EPA is working with the Department of Transportation to evaluate this issue and possible solutions.

Like 8-hour ozone nonattainment areas, areas that are designated nonattainment for particulate matter are eligible to receive CMAQ funding under the current program, but the apportionment formula does not explicitly account for them. Just as our knowledge of the health risks of particulate matter has grown, programs to reduce the very small but hazardous particulates known as $PM_{2.5}$ will likely increase in importance. Generally, both diesel and gasoline powered vehicles emit fine particulate matter as well as NO_x and VOCs that lead to its formation. Since the emphasis of most TCMS over the past two decades has been to reduce VOCs and to a lesser degree NO_x , the degree to which TCMS can reduce $PM_{2.5}$ is not as well understood. However, there is optimism that new programs for heavy-duty diesel retrofits, anti-idling devices, cleaner fuels and travel demand strategies can produce significant reductions in concentrations of $PM_{2.5}$. The CMAQ program offers the opportunity for regions to explore innovative strategies to address this pollutant. Consideration should be given to amending the apportionment formula to account for the importance of this emerging air quality issue.

TEA-21's flexible guidelines allow DOT to issue project eligibility guidance that cuts across traditional modal boundaries and makes the funds available for highway, transit and some non-traditional program areas that are more difficult to categorize. EPA and DOT continue to work collaboratively within those guidelines, to make the CMAQ program a more effective air quality resource for State and local government agencies. State and local transportation and air quality agencies need to work together to get the most out of the program as well. Some stakeholders have indicated that consultation between transportation and air quality agencies is not

taking place on an ongoing and consistent basis. We believe that more consultation between State and local transportation and air quality agencies would make the program more effective.

TRANSPORTATION CONFORMITY AND THE NEW OZONE AND FINE PARTICULATE
MATTER STANDARDS

Transportation conformity was established by Congress in the Clean Air Act Amendments of 1990 and was designed to help ensure that an area's transportation activities are consistent with its air quality goals. EPA is responsible for writing the conformity regulations and the Department of Transportation (DOT) must concur with all conformity rules, as DOT is our Federal partner in the implementation of the program. EPA first published the conformity rule in November 1993. We subsequently streamlined and clarified the rule in August 1997, based on extensive discussions with State and local air pollution officials, transportation planners, and other stakeholders, as well as the experience of both DOT and EPA in the field.

In March 1999, however, a decision from the D.C. Circuit Court of Appeals changed several aspects of the 1997 conformity rule. Shortly after that decision, EPA and DOT published guidance that addressed issues affected by the court. Nonattainment and maintenance areas have been operating under this existing guidance since it was published in 1999. On August 6, 2002, we finalized a rule to provide flexibility in implementing conformity, consistent with the court decision. We also plan to incorporate EPA and DOT's existing guidance implementing the court decision into the conformity regulations.

The transportation conformity program requires State and local agencies to evaluate the impact of new transportation activities on air quality on a regular basis. Areas that have air quality worse than the national standards (nonattainment areas) or that have violated the standards in the past (maintenance areas) are required to examine the air quality impacts of their transportation system to ensure that such systems are compatible with clean air goals. In the simplest terms, conformity serves as an "accounting check" to assure that a nonattainment or maintenance area's future transportation network conforms to the area's air pollution reduction plan.

A benefit of conformity accounting is that it requires State and local governments, and the public, to consider the air quality impacts of the planned transportation system as a whole, before transportation plans are adopted and projects are built. Billions of dollars every year are spent on developing and maintaining our transportation system. Conformity helps ensure that these dollars are not spent in a manner that would worsen air quality, as that outcome would only necessitate spending additional money to reverse the air quality impact.

Prior to the 1990 Clean Air Act, transportation planners and air quality planners often did not consult with one another or even use consistent information regarding future estimates of growth. To address these problems, the 1990 Clean Air Act Amendments explicitly linked the air quality planning and transportation planning processes in a manner that had not previously existed. Above all, transportation conformity has compelled the two types of planning agencies to work together through the interagency consultation process to find creative and workable solutions to air quality issues. Most everyone agrees that consultation is an important benefit of the conformity program. A 1999 Harvard study on the program, which was jointly funded by DOT and EPA, confirmed that the program has improved consultation between transportation and air quality planners, and made that consultation more effective.

Consultation is meaningful because air quality and transportation planners have a common goal: transportation activities that are consistent with the State's air quality goals. A State's air quality plan (a State implementation plan, or SIP) establishes emissions ceilings, or budgets, for the various types of sources that contribute to air pollution problems. Transportation conformity makes State and local agencies accountable for keeping the total motor vehicle emissions from an area's current and future transportation activities within these air quality plan budgets. We believe that the interagency consultation that occurs as areas work to ensure that their planned transportation activities conform to their air quality plan budgets will continue to play a critical role in States' efforts to meet the new ozone and particulate matter standards in the future.

EPA is currently working on an implementation strategy for both the new ozone and fine particulate matter standards and intends to finalize the strategies prior to designating areas for these standards. Under the Clean Air Act, newly designated nonattainment areas must start to comply with the conformity requirements beginning 1 year after the effective date of EPA's designation. Because most areas al-

ready know whether they are likely to be designated nonattainment under the new standards, we strongly encourage them to prepare themselves for implementing the conformity program by establishing interagency consultation roles, assessing modeling capabilities and updating planning assumptions as soon as possible. Engaging in these activities now will greatly ease their transition to conformity under the new standards.

Before making designations under the new ozone standard, EPA will provide clarification to States and local government about several broad issues that relate to the conformity program. For example, some areas that will be designated as nonattainment for the 8-hour standard already designated nonattainment for the 1-hour standard and we are working to ensure a smooth transition from the 1-hour standard to the 8-hour standard. This issue is relevant for conformity because the Agency believes that States should not be required to demonstrate conformity for both ozone standards at the same time. We will address this important issue in our 8-hour implementation which will be finalized before areas are designated under the 8-hour standard.

Along with our 8-hour implementation rule, EPA also plans to issue guidance and conformity regulations so that areas are fully aware of the specific criteria and procedures for meeting conformity under the new standards. Through this process, EPA will address questions such as: what options does an area have for demonstrating conformity before a State implementation plan for the new air quality standards is submitted? The current conformity rule provides for alternative conformity tests when an area has not yet submitted a State air quality plan. EPA plans to make these alternative conformity tests available to newly designated areas. We will be answering specific questions about how to apply these tests in our upcoming conformity guidance and rulemaking. We understand that providing areas with adequate and timely guidance is imperative and are working with the Department of Transportation to ensure a smooth transition to implementing conformity under the new air quality standards.

Under the conformity program, there are consequences for an area that does not meet a conformity deadline. However, there may be some misconceptions about these conformity consequences and how they affect a State's highway and transit funding. Under the new air quality standards, for example, if a metropolitan area does not have a conforming transportation plan in place by the expiration of its 1-year grace period, the area would not lose its Federal funding for highway and transit projects. Rather, the area's conformity status would "lapse." During a conformity lapse, additional project funding and approvals are restricted to certain types of projects. These types of projects that can proceed during a lapse include: exempt projects such as safety projects, projects in an approved State air quality plan, traffic signal synchronization projects and Federal highway and transit projects that received funding and approval prior to the lapse. Once a metropolitan area resolves its conformity issue and establishes a conforming transportation plan, the lapse ends and all Federal funding and approvals can resume.

EPA has no knowledge of any State that has lost its highway funding due to an area's inability to demonstrate conformity, but recognizes that even short term conformity lapses can cause disruptions to the transportation planning and project development processes. However, in some cases, lapses have no effect on an area's transportation projects because the area has no new non-exempt projects pending. Most conformity lapses that have occurred over the past 5 years have been relatively short. There have been few instances during this time period where lapses have occurred for more than 6 months.

When communities face difficulties demonstrating conformity, they can choose from several options. When a transportation plan's emissions are greater than the allowable budgets in the air quality plan, areas can decide whether to revise the transportation plan or revise the air quality plan. For example, some areas have added transit programs to reduce the emissions of their transportation plan, while others have gone back to the State air quality plan to see if other sources of pollution could be further controlled to allow the transportation sector's emissions budget to grow. An area can choose to build transportation projects that increase emissions, as long as the net effect of the total transportation system is consistent with the State air quality plan. Due to continued improvements in vehicle emission performance, most areas have been able to continue adding to their transportation network and still stay within their clean air budgets. Consultation between transportation and air quality agencies has played a critical role in developing such solutions that have allowed areas to meet both transportation and air quality goals.

EPA estimates the number of areas that will possibly be designated as nonattainment for the new ozone and particulate matter standards will be less than 150. Of these, around 50 areas will not have had prior experience with demonstrating con-

formity. EPA and DOT, as well as stakeholders across the United States, have gained a wealth of experience in implementing conformity over the past decade. Newly designated areas with no prior experience with conformity will benefit from our collective experience and implementation guidance.

We also expect that several recent EPA actions will make it easier for States and local governments to meet their emissions targets and demonstrate conformity. For example, the emissions reductions from EPA's Tier 2 and clean diesel standards will greatly benefit all areas that are designated under the new standards in their efforts to achieve those standards and ensure conformity. In addition, the President's Clear Skies legislation will reduce emissions of SO₂ by 73 percent, and NO_x by 67 percent. These substantial reductions from the power sector will provide great flexibility for many counties by reducing the need for reductions from other sectors. We have learned a great deal about the conformity program and how we can make it less cumbersome while still preserving its benefits. We are pursuing several actions to simplify the conformity process, which should help the areas designated under the new standards.

As part of this effort, EPA is exploring options that would specifically address two aspects of the conformity process that have been of concern to many stakeholders. The first issue pertains to how often conformity is required. Some air quality planners believe that any change in the minimum frequency of conformity would delay the use of new information in the transportation and conformity process. On the other hand, many transportation planners believe that conformity is required too often, leaving them with little time to focus on planning. These stakeholders claim that increasing the minimum 3-year conformity and transportation plan updates would give transportation planners the ability to develop better plans that focus on other environmental and planning issues, such as environmental justice, in addition to air quality.

In coordination with the Department of Transportation, we are evaluating options that might be able to improve the current conformity frequency requirements.

The second aspect of conformity that is of concern to some stakeholders is the timeframe over which conformity must be demonstrated. The transportation community believes that the current 20-year timeframe for which transportation plans must demonstrate conformity is unfair. Since State air quality plans typically cover a shorter timeframe (typically 10 years or less), they claim that the burden of growth in the years past the timeframe of the State air quality plan rests on the transportation sector. However, environmental stakeholders see a need for long-term planning to ensure that both transportation and air quality goals are achieved.

In response to these stakeholders, EPA is working with DOT to examine the current conformity timeframe requirement to determine whether there is a compromise that would address the issues raised by the transportation community and the long-term air quality concerns held by environmental agencies.

In conclusion, EPA is committed to partnering with DOT to continue our progress in meeting both transportation and air quality goals. EPA has been actively working with the Department of Transportation in developing the President's proposal for the reauthorization of TEA-21, and that proposal will be submitted to Congress soon. Based on our collective experience in implementing the CMAQ and transportation conformity programs, we believe the Administration's proposal will build on the success of TEA-21 and will further assist areas in their efforts to achieve clean air now and in the future, as we move forward with implementing the new ozone and fine particulate matter standards. Thank you again for this opportunity to testify today and discuss our programs with you. I would be happy to respond to any questions that you may have.

RESPONSE OF JEFFREY R. HOLMSTEAD TO ADDITIONAL QUESTIONS
FROM SENATOR JEFFORDS

Question 1. Please describe the resources and the guidance that your agency is going to provide in fiscal year 2004, assuming the budget request is satisfied, to States and communities to help them demonstrate conformity with the PM_{2.5} standard.

Response. A top priority for the EPA is to ensure that newly designated 8-hour ozone and PM_{2.5} nonattainment areas are provided with adequate guidance for implementing these new health-based air quality standards. With regard to the PM_{2.5} standard, EPA is currently working on a broader implementation strategy proposal to provide States with the procedures and criteria for PM_{2.5} area designations and compliance to the Clean Air Act requirements for that standard. We plan to propose

this broader implementation strategy in December 2003, with a final rule expected later in 2004.

EPA is also working on another rulemaking that would amend the conformity regulations to provide clear guidance and rules for implementing conformity for the new 8-hour ozone and PM_{2.5} air quality standards. EPA plans to publish a proposal (the “new standards proposal”) for this conformity rulemaking this summer, and will hold a public hearing on the proposal in Washington, DC, soon after it is published. We anticipate taking a final action on the new standards proposal by April 2004. We will also be releasing guidance documents, as needed, to implement the conformity program for the new standards.

In addition, EPA has supported and will continue to support throughout fiscal year 2004 specific training opportunities to assist areas in meeting the conformity requirements for the new air quality standards. These training opportunities include:

- *NTI Conformity Course*: The National Transit Institute has been offering a course called, “Introduction to Transportation/Air Quality Conformity” in locations across the country. This course was developed by the Federal Transit Administration, in coordination with the Federal Highway Administration and EPA. This 2.5 day course offers an in-depth overview of the criteria and procedures for implementing conformity and is designed for Federal, State and local agencies involved in the conformity process. This course is offered free of charge.

- *MOBILE6 training*: MOBILE6 is EPA’s latest motor vehicle emissions factor model for official use by State and local governments to meet Clean Air Act requirements outside of California. EPA announced the availability of MOBILE6 in the Federal Register on January 29, 2002, (67 FR 4254). EPA and DOT jointly sponsored seven MOBILE6 training courses across the country in 2002. These courses were open to the public and were offered free of charge. The training materials for these courses are on the MOBILE6 website and can be downloaded at: <http://www.epa.gov/otaq/m6.htm> Other training materials prepared by EPA are also available on this website.

- EPA is also considering other potential training and outreach mechanisms and tools that could be developed and made available, within current budget constraints, to State and local transportation and air quality agencies affected by the designations for the new standards.

Question 2. As has been discussed, the purpose of conformity is to ensure that transportation plans achieve the motor vehicle emissions levels set in State Implementation Plans (SIPs) for air quality. Would the Agency agree this coordination is needed for all national ambient air quality standards (NAAQS), including the new ozone and PM_{2.5} standards?

Response. Yes. EPA would agree that linking transportation and air quality planning through the conformity process is necessary for all pollutants and standards for which on-road motor vehicles are important. The purpose of conformity is to ensure that emissions from transportation sources stay within the air quality targets or “budgets” established by the SIP so that public health is protected. Therefore, we believe that it makes environmental sense to have conformity apply for those criteria pollutants, including ozone and PM_{2.5}, for which transportation sources are a major contributor.

Question 3. As I understand the responses you provided last fall to the Committee on this subject, many States have not demonstrated compliance with their 1999 milestones—that is the showing of reasonable further progress in reducing V.O.C.’s and NOx as required by section 182(g) of the Act. What is EPA doing to correct that situation?

Response. Under sections 182(c), (d) and (e) of the Clean Air Act (CAA) as amended in 1990, State plans for serious, severe, and extreme ozone nonattainment areas are required to demonstrate attainment of the 1-hour ozone standard no later than specific dates in the CAA. The dates are 1999 for serious areas, 2005 or 2007 for severe areas, and 2010 for the single extreme area.

In addition, subsections 182(a)-(e) of the Act requires States to show that their clean air plans provide for “rate-of-progress” (ROP) emission reductions. The Act requires a rate of progress of 15 percent reduction in an area’s volatile organic compounds (VOC) emissions by 1996 and a 9 percent reduction of VOC or equivalent oxides of nitrogen (NOx) emission reductions every 3 years thereafter until the attainment date. A progress report, called a “milestone compliance demonstration” is due from affected States, in accordance with EPA regulation, after the applicable milestone is to have been met. If a milestone is not met or the milestone compliance demonstrations are not submitted, the State, under section 182(g)(3), has three options: it can request that the area be reclassified to a higher classification, it can

implement specific additional measures adequate to meet the next milestone, or it can adopt an economic incentive program.

In the late 1990's, EPA began to draft a rule suggesting to States two possible approaches to performing the milestone compliance demonstration: (1) emission inventory updates (where possible) and/or (2) indicators of compliance such as growth rates, VMT change information, regulations planned and adopted, etc.

As it analyzed the issue, EPA recognized that technical problems, centering upon the timeliness of State emission inventory updates and associated growth projections, would arise in many States when the control agencies attempted to develop complete milestone demonstrations. In other words, many States would have problems synchronizing the periodic inventories with the milestone compliance time period. For States with this problem, it would have been prohibitively expensive to implement a revised emissions inventory program, or a separate new inventory program, that matched the compliance milestone demonstration period. Additional costs to States and industry would have resulted from condensing the process of collecting and quality assuring emissions data, which could take from 12 to 18 months, into a 90-day period.

Consequently, EPA did not finalize the draft rule because there were no reliable, readily available methods to evaluate compliance with the milestones. Under the terms of section 182(g)(2), States are not obligated to submit milestone compliance demonstrations until EPA promulgates the rule. Although not required, some States did submit specific milestone compliance demonstrations. While New Jersey did not submit a milestone compliance demonstration, information submitted with its emission inventory update showed that the milestone target were met.

To assist States, the EPA has issued a series of guidance documents that outline how to calculate the many different inventories and how to prepare rate-of-progress SIP revisions. These were made available to States for use in their individual efforts:

1. *Guidance on the Adjusted Base Year Inventory and the 1996 Target for the 15 Percent Rate-of-Progress Plans*, EPA-452/R-92-005, October 1992.
2. *Guidance for Growth Factors, Projections, and Control Strategies for the 15 Percent Rate-of-Progress Plans*, EPA-452/R-93-002, March 1993.
3. *Guidance on the Relationship Between the 15 Percent Rate-of-Progress Plans and Other Provisions of the Clean Air Act Amendments*, EPA-452/R-93-007, May 1993.
4. *Guidance on Preparing Enforceable Regulations and Compliance Programs for the 15 Percent Rate-of-Progress Plans*, EPA-452/R-93-005, June 1993.
5. *Guidance on the Post-1996 Rate-of-Progress Plan and Attainment Demonstration*, EPA452/R-93-015, January 1994. (Errata 2-18-94)

The EPA intends to complete rulemaking for the milestone compliance demonstration associated with the rate of progress requirements for implementing the 8-hour ozone NAAQS in the near future. Our rule and guidance will address a number of issues concerning this requirement, including the mismatch of deadlines between the emissions inventory cycle and the milestone compliance demonstration deadlines.

Question 4. Please provide the Committee with an update to the information requested last summer regarding the status of milestone compliance demonstrations that were required to be filed by the States in February 2003 with respect to the 2002 milestones.

Response. The EPA has received documents relating to the 2002 milestone compliance demonstrations for the Illinois portion of the Chicago nonattainment area; Ventura Co., CA and from Sacramento, CA.

Question 5. Would the Agency agree that the purpose of transportation conformity is to ensure that motor vehicle emissions will be reduced to stay within the emissions budgets established in the State Implementation Plans for the most recent milestone and the attainment years, and then the 10-year maintenance year once an area has attained? And that that should be the case even after those milestones or dates have passed?

Response. Yes. The purpose of transportation conformity is to ensure that emissions from on-road motor vehicles stay within the air quality limits or "budgets" established by the State air quality implementation plan (SIP). The 1990 Clean Air Act Amendments emphasize reconciling the estimates of emissions from transportation plans and programs with the SIP. This integration of transportation and air quality planning is intended to protect the integrity of the SIP by ensuring that: (1) its growth projections are not exceeded without additional measures to counterbalance the excess growth; (2) progress targets are achieved; and, (3) air quality maintenance efforts are not undermined.

To achieve the purpose of conformity and ensure that the SIP's goals are achieved and maintained, EPA has always required transportation plans, programs and projects to demonstrate conformity to the most recent applicable budget in a control strategy SIP (attainment plans and reasonable further progress plans) or maintenance plan for the year that budget is established and for all future years. In the original 1993 transportation conformity rule (58 FR 62194) we state: "The emissions budget applies as a ceiling on emissions in the year for which it is defined, and for all subsequent years until another year for which a different budget is defined or until a SIP revision modifies the budget." The budget represents an emissions target that is established to make progress toward, attain or maintain the respective air quality standard by a given date.

Therefore, EPA believes it is reasonable to expect that if an area's planned transportation activities continue to meet that emissions target in future years, such activities will not cause or contribute to any new violations, increase the frequency of existing violations, or delay timely attainment of the air quality standard.

Question 6. EPA has proposed changes to the conformity provisions of the Clean Air Act or the CMAQ program as part of the Administration's pending proposal for reauthorization of TEA-21. What outside groups were consulted in the process of developing your proposal?

Response. Proposed Changes to Transportation Conformity and CMAQ Programs: The U.S. Department of Transportation took the lead for the Administration in developing the Administration's proposal for the reauthorization of TEA-21, including the proposals concerning conformity and CMAQ. EPA was one of many Administration participants in this process and did not hold a formal stakeholder process. However, we have heard from a number of stakeholders through various forums about their views on potential changes to various aspects of the current conformity and CMAQ processes.

Question 7. Please provide a quantitative and qualitative air quality and emissions analysis and a justification for the statutory changes in the Clean Air Act, or in other laws affecting that Act's implementation, that the Administration proposes to make as part of reauthorization of TEA-21, at whatever time that proposal is submitted to Congress.

Response. *Transportation Conformity:* The Administration has included in its proposal for the reauthorization of TEA-21 four changes that will affect the transportation conformity program. Those changes include: (1) defining the "transportation plan" for the purposes of conformity to be, at a minimum, the first 10 years of the plan; (2) combining the transportation plan and transportation improvement program (or TIP) into one planning document; (3) extending the minimum conformity frequency and transportation plan updates requirements in nonattainment and maintenance areas to 5 years; and (4) streamlining the Clean Air Act's requirements for State conformity SIPs, so that such SIPs only include the interagency consultation procedures for a given nonattainment or maintenance area.

EPA did not perform a quantitative analysis for each of these proposed legislative changes, as we do not have the specific local area information that is required to perform such analyses. In addition, EPA believes it is reasonable to assume that results from individual area analyses, if conducted, would greatly vary. When considering these targeted improvements to the conformity program, however, EPA did consider a wealth of qualitative information.

For example, when considering the proposed change to the conformity timeframe horizon we considered whether prohibiting the implementation of transportation projects today because of emissions that may exceed an emissions budget 20 years into the future is a reasonable and equitable approach to implementing the conformity program. For the Administration's proposed changes to conformity frequency and other planning requirements, EPA primarily considered the need to develop good, comprehensive transportation plans with the need to incorporate new planning information into the conformity process. EPA understands that transportation planners need time and resources to develop comprehensive transportation plans that adequately address many planning and environmental factors including air quality. On the other hand, EPA believes it is important to incorporate the most recent planning information into the conformity process in a timely manner so that good transportation and air quality decisions can be made. From our experience implementing the conformity program, we believe the Administration's proposals strike this balance.

EPA considered the resource burden that the current conformity SIP requirements place on States. Under the current Clean Air Act section 176(c)(4)(C), States are required to submit a conformity SIP that establishes State and local rules for implementing conformity, much of which mirrors the Federal transportation con-

formity rules verbatim. The Act also requires areas to revise their conformity SIPs each time EPA amends the conformity regulations to reflect such changes in their State rules. Under the Administration's proposal, however, States would be required to establish conformity rules that include only the area-specific interagency consultation procedures required by the Federal regulations. This streamlined proposal would result in fewer required SIP revisions, as States could rely on the Federal rules for most conformity provisions and would no longer have to revise their SIPs each time EPA amends the Federal conformity rule. Furthermore, this proposal would ensure that all States can take advantage of regulatory changes to the conformity program as soon as they are promulgated. EPA believes it can offer this flexibility in the conformity SIP requirement without any adverse impacts on the environment.

Question 8. Do you agree with Mr. Frankel or with the State and local air directors who disagree with him on the so-called "mismatch" between air quality and transportation planning cycles?

Response. There are two different "mismatch" issues in the conformity process. The first is the difference between transportation and air quality planning timeframe horizons. The second is the difference between transportation plan and SIP updates.

To address the difference between transportation and air quality planning horizons, the Administration has included in its proposal for the reauthorization of TEA-21 to define the "transportation plan" for the purposes of conformity to be, at a minimum, the first 10 years of the plan. The proposal would also require a "For Informational Purposes Only" regional emissions analysis for the last year of the transportation plan. Transportation plans are required to cover a planning horizon of at least 20 years. However, SIPs are typically developed for a timeframe of 10 years or less. The Administration's proposal would address this discrepancy in the timeframe horizons for the two different planning processes.

In the past, areas have had difficulty demonstrating conformity of the last 10 years of the plan to a budget that is established for a year in the near future (e.g., demonstrating conformity of a 2003-2023 transportation plan to an attainment budget established for 2010). Such difficulties arising from emissions projected 10 to 20 years into the future could cause delays in the implementation of transportation projects that are presently scheduled. EPA believes that the Administration's proposal for adjusting the transportation plan timeframe horizon would provide a reasonable and equitable approach to implementing the conformity program. In addition, the information only analysis would ensure that emissions in the last year of the plan are considered for future conformity determinations.

With regard to the difference in transportation plan and SIP update cycles, EPA believes that the current flexibility provided by the Clean Air Act allows States to decide for themselves whether a SIP revision to incorporate new data or additional control measures justifies the costs of conducting an update to the SIP. States are in a better position to decide whether a revision to their existing SIP is necessary. Since the SIP is based on a demonstration of how to achieve clean air, the motor vehicle emissions budgets within the SIP are also representative of a level of transportation emissions that can protect public health. Therefore, although transportation mobility goals and the models and assumptions on which a SIP is based may change over time, in many cases the SIP's public health goals can be appropriate even without regular SIP updates. Furthermore, most SIP revisions require a great deal of time and resources from State and local agencies and EPA to complete. Therefore, EPA would not want to require regular SIP updates in areas where air quality improvements are occurring as anticipated by the SIP and conformity determinations are being made without difficulty.

Although the CAA does not mandate regular SIP updates, some areas have updated or are in the process of updating their SIPs and as a result, may have more recent mobile source emissions budgets available for conformity purposes. In particular, areas that have had conformity difficulties have often addressed such issues by revising their SIPs to incorporate new planning assumptions and data and/or additional control measures to allow for growth in transportation (e.g., Baltimore MD, New Jersey, Salt Lake City, UT, Albuquerque NM). In addition, many 1-hour ozone areas are revising their current SIPs to accurately reflect estimates of EPA's Tier 2 emissions standards (e.g., New York City, Philadelphia PA, Baltimore MD, Houston, TX). Also, after area designations have been made for the new 8-hour ozone and PM_{2.5} standards, many areas that are designated nonattainment for these standards will be submitting new SIPs to address these standards.

Question 9. How many premature deaths could be avoided starting in 2010 as a result of implementation of the so-called “straw” proposal prepared by the Agency in 2001 and its emission reductions?

Response. Although for internal discussion EPA did some preliminary and incomplete analysis of some benefits in the year 2020 of emissions reductions at the levels of the ‘straw’ proposal, the analysis did not include any of the more detailed and necessary analysis that we have performed for the Clear Skies Act of 2003. Thus, neither the ‘straw’ proposal emissions caps nor our preliminary benefits analysis were based on adequate analysis of technology and engineering feasibility, nor of the ability of capital and labor markets for the power sector to meet the levels and timing of the proposal.

Question 10. In your testimony, you claimed that the Clean Air Act gives the Agency limited ability to do anything [to reduce the number of people dying prematurely from power plant pollution] until the Agency goes through the process of designating [nonattainment areas]. What specific regulatory steps, using sections 176A, 184, 111(d), 112, etc. or other parts of the Act that provide useful authorities, has the Agency taken since January 2001 to reduce power plant pollution that contributes to premature deaths?

Response. EPA has promulgated rules under sections 110 and 126 to reduce regional NOx emissions to reduce interstate ozone pollution in the East. NOx reductions can help reduce fine particle pollution as well.

Section 110: In 1998, EPA issued the NOx SIP Call under section 110(a)(2)(D) of the CAA requiring 22 States and the District of Columbia to revise their SIPs to impose additional controls on NOx emissions. The NOx SIP Call required statewide NOx emissions reductions by an average of 28 percent (over emissions projected to occur in 2007). EPA recommended that States could meet their NOx emission budgets, in part, by establishing a cap-and-trade program for NOx emissions from large power plants and large industrial boilers and turbines. Under the NOx SIP Call EPA expects these sources to achieve an average reduction of 64 percent (over emissions projected to occur in 2007). Since January 2001, EPA has completed rulemaking to approve State implementation plan revisions which meet the NOx SIP Call requirements for the following areas: AL, the District of Columbia, DE, IL, IN, KY, MD, NJ, NY, OH, PA, SC, and WV. Eight of these States and the District of Columbia began implementation of the NOx emission reduction requirements in May 2003.

This program is the single most important measure to reduce interstate ozone pollution from power plants in the short term. Reductions of NOx emissions from the program will enhance the protection of public health for over 100 million people in the Eastern half of the United States. It is a centerpiece of the clean air plans for many cities.

Sec. 126: In 2000, EPA issued a rule to control NOx emissions under section 126 of the CAA (the Section 126 Rule). This rule required large power plants and large industrial boilers and turbines located in 12 Eastern States and the District of Columbia to reduce NOx emissions. It established a cap-and-trade program that was essentially the same as that suggested by EPA for State implementation in the NOx SIP Call. Both the Section 126 Rule and the NOx SIP Call are intended to reduce interstate ozone pollution. When EPA approves a State implementation plan revision as meeting the NOx SIP Call requirements, the Agency withdraws the Section 126 rule requirements for that State.

In addition, EPA has published two additional actions related to the NOx SIP Call and the section 126 rulemakings which affect power plant pollution. On February 22, 2002 (67 FR 8396), EPA proposed to amend these rules in response to court remands. On May 1, 2002 (67 FR 21868), EPA responded to two court decisions directing EPA to reconsider heat input growth rates projected and used in setting NOx emission budgets in the two rules. After reviewing the heat input growth rates and considering the court decisions and additional comments, EPA decided to continue to use the heat input growth rates developed in the rules.

Question 11. What is the status of the implementation rules and guidance necessary for the areas that will soon be designated nonattainment for the 8-hour ozone or fine particulate matter standards?

Response. On June 2, 2003, EPA published proposed rulemaking on alternative approaches to implementation of the 8-hour ozone standard. EPA held three public hearings: Irving, Texas (Dallas area), on June 17, 2003; San Francisco, California on June 19, 2003; and Alexandria, Virginia on June 27, 2003. The public comment period runs to August 1, 2003. EPA plans to publish a final rule by the end of December 2003. Supplemental guidance on specific technical aspects related to prepa-

ration of State implementation plans for the 8-hour standard are either available in draft for comment now or are under preparation.

PM_{2.5} designations are scheduled to be finalized in late 2004 or early 2005. State implementation plans would be due no later than 3 years after designations. EPA is in the process of developing a proposed rule outlining the requirements for State implementation plans designed to attain the standards. We intend to issue the proposal in the fall or early winter 2003 and to finalize the rule in the fall or early winter of 2004.

EPA is also conducting another rulemaking that will revise the transportation conformity regulations to address conformity for the new 8-hour and PM_{2.5} standards. EPA plans to publish a proposal (the "new standards proposal") for this conformity rulemaking this summer, and will hold a public hearing on the proposal in Washington, DC, soon after it is published. We anticipate taking a final action on the new standards proposal by April 2004. This proposal will provide clear guidance for when conformity will first apply in areas that are designated nonattainment for the 8-hour ozone and PM_{2.5} standards. Specifically, the proposal will discuss the implementation of the 1-year conformity grace period and revocation of the 1-hour ozone standard.

The conformity rulemaking will also describe the general requirements for conducting transportation conformity determinations for the new standards. It will include the conformity test(s) that would apply during the time period before newly designated nonattainment areas submit an initial 8-hour ozone or PM_{2.5} SIP that establishes motor vehicle emissions budgets. In addition, the rulemaking will address PM_{2.5} as a criteria pollutant subject to transportation conformity and will outline the specific conformity requirements that would apply in newly designated PM_{2.5} nonattainment areas.

Question 12. At my and Senator Lieberman's request, the GAO has been doing a survey of all the States' air quality and transportation planners on conformity. The final report should be available by the end of April. It will cover many of the topics discussed at the hearing, in plenty of time to factor into reauthorization. But so far, it appears that GAO has found that most of the conformity lapses are a result of administrative or procedural issues, unrelated to emissions budgets constraints. Is that EPA's experience?

Response. EPA agrees with the GAO report that in some cases areas lapse because of administrative or procedural issues such as delays in the planning process. EPA also agrees with the GAO report that most lapses are relatively short (less than 6 month). Although the GAO report does not provide information on the impact of these administrative or procedural lapses that in most cases did not persist for a significant amount of time, EPA believes that most of these short-term administrative lapses had no significant impact on transportation projects or the planning process. However, EPA believes it is important to ensure that the final mix of projects in the plan and TIP conform to the area's SIP before such projects are allowed to proceed, especially in areas where lapses are due to an area not meeting its emissions budget.

We would also like to note that the GAO report did not discuss the number of nonattainment and maintenance areas that have and continue to meet their conformity deadlines on time. There are currently well over a hundred nonattainment and maintenance areas that are meeting the frequency requirements for demonstrating conformity. At any given time, typically no more than 8–10 areas experience a conformity lapse, some of which have no consequences on projects. In those areas where emissions increases from transportation activities exceed the limits established in the SIP and a conformity lapse occurs, EPA believes it is important for air quality and the public health to limit those projects that can proceed during the lapse since the emissions from such projects could cause violations or worsen existing violations of the air quality standard.

Question 13. Would the Agency agree that a transportation plan and TIP may not be found to conform to the SIP if it fails to reduce motor vehicle emissions to the level of the motor vehicle emissions budget for an attainment year?

Response. Yes. EPA generally agrees that if the projected emissions from an area's transportation plan and TIP are not at or below the motor vehicle emission budget in the applicable SIP by a specific conformity deadline, the plan and TIP do not conform and the area enters into a conformity lapse. Motor vehicle emissions budgets can be established for several different years in an area's SIP, including the attainment year, rate-of-progress (or milestone) years, maintenance years, and any other year for which the area chooses to establish a conformity budget. Therefore, to satisfy the conformity requirements the plan and TIP must conform in all years

that establish an adequate or approved budget that are within the timeframe of the transportation plan and TIP.

If an area conducts a conformity determination and discovers that emissions from the transportation plan and TIP exceed the motor vehicle emissions budgets in the SIP, such a result is a clear indication that air quality and public health goals are not being met. In this case, the area will need to make changes to either the plan/TIP and/or the SIP. Options that many areas have considered to address such conformity issues include adding air quality beneficial projects to the plan/TIP, delaying capacity increasing highway projects, and revising the SIP to incorporate new information or additional control measures. Other areas, however, have not had to make any adjustments to their plan and TIP or SIP because emissions from their transportation activities have routinely been at or below the budgets in the SIP.

Question 14. Would the Agency agree that a transportation plan and TIP may not be found to conform to the SIP if it fails to reduce motor vehicle emissions to the level of the motor vehicle emissions budget for a number of years following the attainment years?

Response. Yes. It is important that areas continue to maintain clean air to protect public health after the attainment year. EPA has always believed it was reasonable to require conformity of planned transportation activities for some time into the future, since the full emissions impact of projects that are built today may not be fully realized until some years later. Therefore, for nonattainment areas that only have an adequate or approved attainment year budget, EPA's policy has always been that conformity of transportation plans, programs and projects be demonstrated to that attainment budget for the year for which it was established and for all subsequent years that require a regional emissions analysis and budget test.

Question 15. Would you support a rollback of the conformity lapse enforcement provisions so that metropolitan areas failing to comply with transportation planning requirements face no mandatory consequences?

Response. No. EPA believes that allowing areas to implement an existing plan and TIP during a conformity lapse could worsen air quality since all projects in that plan and TIP could still proceed, even though the emissions impact from those projects no longer conform. The purpose of conformity is to ensure that an area's planned transportation activities are consistent with or "conform to" the motor vehicle emissions level established by the SIP before such activities can be federally funded or approved. Conformity ensures that future funding for additional air pollution control measures won't be needed to offset emissions from previously approved and funded projects.

Furthermore, EPA does not believe that allowing areas to continue to implement their existing planned transportation activities during a conformity lapse is necessary. Lapses are not frequent; only about 56 lapses have occurred since 1997 and the majority of these lapses have been brief. However, there have been other areas where lapses created a forum to consider significant air quality concerns. EPA believes that removing the incentive to determine conformity by specific deadlines in areas that have difficulty keeping emissions from planned transportation activities within the limits established in the SIP would not be protective of air quality or public health in those areas.

Question 16. In the case of *Sierra Club v. Atlanta Regional Commission* decided by the Eleventh Circuit Court of Appeals in October 2002, the Court held that the transportation plan could be found to conform even though motor vehicle emissions had not been reduced to the level required by the SIP for attainment year 1999, and the emissions analysis performed by the metropolitan planning organization demonstrated that if the proposed long-range transportation plan and TIP were adopted motor vehicle emissions in the Atlanta area during 2000 would exceed the NOx emissions budget for 1999 by 50 tons per day, and would likely not be reduced to the budget levels during any year prior to 2004. Is this a correct interpretation of the conformity requirements of the Act?

Response. In *Sierra Club v. Atlanta Regional Commission* (ARC), the Eleventh Circuit Court of Appeals ruled that the analysis years for which ARC chose to demonstrate conformity for the Atlanta 2001–2025 transportation plan were consistent with the Clean Air Act and existing conformity regulations. EPA agrees with the court decision and its interpretation of the statutory and regulatory conformity requirements.

The conformity rule (40 CFR 93.118) outlines the budget test and regional emissions analysis years required of areas that have an applicable motor vehicle emissions budget. Specifically, the rule requires a regional emissions analysis for the attainment year (*if it is in the timeframe of the transportation plan*), the last year of

the transportation plan and any interim years so that analysis years are no more than 10 years apart. The rule contains similar requirements for the budget test, but in no case has EPA ever required the budget test or a regional emissions analysis for a year outside the timeframe of the transportation plan. EPA structured the conformity rule in this manner for two primary reasons.

First, EPA believes that to require a conformity determination for every year within the timeframe of a transportation plan would be a tremendous resource burden on transportation agencies. Describing the transportation system envisioned for future horizon years and running a regional emissions analysis for those years requires a great deal of time and technical capability. Therefore, EPA believes that requiring such analyses for a few select years provides a workable approach for meeting the conformity requirements for the entire transportation plan.

Second, the purpose of conformity is to be an iterative and prospective evaluation of the emissions impact of planned transportation activities. Therefore, EPA has never required areas to look backwards and demonstrate conformity for years that are now in the past. At the time that ARC demonstrated conformity for its 2001–2025 plan, the only applicable budgets in Atlanta’s SIP were the 1999 attainment year budgets. In this case, EPA saw no environmental value in having ARC run a regional emissions analysis for 1999, since 1999 was in the past and any projects scheduled to advance during that year were already approved and funded. Under the conformity regulation, ARC had the option of choosing any analysis year within the first 10 years of the 2001–2025 plan (since analysis years can be no more than 10 years apart for the entire timeframe of the transportation plan). EPA believes ARC’s decision to select 2005 as its first analysis year was consistent with the Clean Air Act and conformity rules requirements. Our position is supported by the Eleventh Circuit Court’s ruling.

Question 17. Does EPA intend to apply this interpretation to other nonattainment areas, or does EPA intend to clarify its rule to require that transportation plans and TIPs achieve the emissions budgets established by a State Implementation Plan for the attainment year and each year thereafter?

Response. EPA sees no discrepancy between its interpretation of the Clean Air Act and conformity regulation for Atlanta and for other nonattainment areas. As previously stated, an adequate or approved motor vehicle emissions budgets (e.g., an attainment budget) is applicable for the year for which it is established and *for any future analysis year* as required by 40 CFR 93.118. EPA does not intend to require nonattainment or maintenance areas to demonstrate conformity for every individual year within the timeframe of the transportation plan due to the tremendous resource burden of such a requirement, nor does EPA intend to require areas to analyze years outside the timeframe of the transportation plan.

The Atlanta situation was unique in that the area had failed to attain the 1-hour ozone standard by its Clean Air Act deadline and controversy arose over how the conformity rule would apply due to the missed attainment date. However, consistent with our implementation of the conformity rule in other nonattainment areas, ARC chose analysis years and made a conformity determination using the most recent applicable budgets available to them (i.e., the 1999 attainment budget) that met the rule’s minimum requirements.

Question 18. Given the current growth rate of VMT, projections on vehicle fuel efficiency, and any other relevant factors, please provide the Committee with an estimate of mobile source emissions of greenhouse gases in 2020.

Response. The Energy Information Administration’s *Annual Energy Outlook 2003* projects transportation carbon dioxide emissions of 767 million metric tons of carbon equivalent (MMTCE) in 2020. (This is equivalent to 2,813 million metric tons of carbon dioxide.) This compares to emissions of 514.5 MMTCE in 2001, and projected emissions of 530.1 MMTCE in 2003. These estimates do not include other greenhouse gas emissions—nitrous oxide (N₂O), methane (CH₄), or hydrofluoro-carbons (HFCs). In 2001, carbon dioxide accounted for roughly 95 percent of transportation greenhouse gas emissions, with the other gases accounting for the remaining 5 percent.

Note that the EIA projections of CO₂ emissions in 2020 are based on the continuation of current trends in VMT growth and a limited increase in vehicle fuel economy through technology improvement and through increases in CAFE. Successful introduction of advanced automotive technologies has the potential to improve fuel efficiency and lower CO₂ emissions more than the “business as usual” case currently projected by the EIA. Development of clean and efficient technologies are a major focus of the Bush Administration. One key program is the FreedomCAR Partnership, a joint effort between DOE and the automotive industry to develop fuel cell

and other technologies. Another is the 21st Century Truck Partnership that has as its goal to accelerate technologies that can improve the efficiency of heavy trucks.

EPA's Clean Automotive Technology program is also developing technologies that have the potential to provide cost-effective improvements in fuel economy and reductions in CO₂ emissions. EPA engineers are the world's leading experts in hydraulic hybrids and now have cooperative research and development agreements with Ford Motor Company, Eaton Corporation, and Parker-Hannifin. Because hydraulic hybrids are particularly efficient at recapturing the energy otherwise lost in vehicle braking, the Agency is currently working with several automotive companies interested in developing and demonstrating hydraulic hybrids in urban delivery truck applications. EPA has also developed Clean Diesel Combustion, a diesel engine design that retains the diesel engine's high efficiency while reducing engine-out emissions of oxides of nitrogen to levels that could potentially meet future stringent emission standards without the need for oxides of nitrogen after treatment. EPA is actively discussing Clean Diesel Combustion with industry partners who could commercialize the technology.

In addition, EPA has initiated voluntary programs that will reduce CO₂ emissions from motor vehicles. One is the Best Workplaces for Commuters Program (formerly known as Commuter Choice). As a result of this program, 3500 employers around the country currently offer their 900,000 employees commuter benefits, such as transit subsidies, van pools, and tele-commuting, as incentives to driving alone to work. Another is the SmartWay Transport Program, in which EPA and 15 charter partners (including major trucking firms, railroads and shipping companies) are developing specific performance goals to improve efficiency, reduce fuel consumption and lower emissions from the U.S. freight industry.

RESPONSES BY JEFFREY R. HOLMSTEAD TO ADDITIONAL QUESTIONS
FROM SENATOR VOINOVICH

Question 1. In my opening remarks, I mentioned that 30 of Ohio's 88 counties are projected by EPA to be designated as nonattainment in 2004 when the new ozone NAAQS is implemented, along with 15 additional counties in 2005 when the new PM_{2.5} NAAQS is implemented. I was glad to hear in your opening remarks that you are currently working with States, like Ohio, that will be affected by these new NAAQS.

What specifically are you doing to help these States and counties so that they do not have their highway funding cutoff when these new NAAQS standards get implemented?

Response. A top priority for the EPA is to ensure that newly designated 8-hour ozone and PM_{2.5} nonattainment areas are provided with adequate guidance for implementing transportation conformity under these new health-based air quality standards. EPA is currently working on a rulemaking that would amend the conformity regulations to achieve this goal. EPA plans to publish a proposal (the "new standards proposal") for this conformity rulemaking this summer, and will hold a public hearing on the proposal in Washington, DC, soon after it is published. We anticipate taking a final action on the new standards proposal by April 2004. We will also be releasing guidance documents, as needed, to implement the conformity program for the new standards.

Every area that is designated nonattainment for the new air quality standards will receive a 1-year grace period for conformity to the new standards upon the effective date of their designation. Areas should use the conformity grace period and the time prior to designations to prepare themselves for demonstrating conformity. EPA has and will continue to support specific training opportunities to assist areas in meeting the conformity requirements for the 8-hour ozone and PM_{2.5} standards by the 1-year grace period deadline. These training opportunities include:

- *NTI Conformity Course:* The National Transit Institute has been offering a course called, "Introduction to Transportation/Air Quality Conformity" in locations across the country. This course was developed by the Federal Transit Administration, in coordination with the Federal Highway Administration and EPA. This 2.5 day course offers an in-depth overview of the criteria and procedures for implementing conformity and is designed for Federal, State and local agencies involved in the conformity process. This course is offered free of charge.

- *MOBILE6 training:* MOBILE6 is EPA's latest motor vehicle emissions factor model for official use by State and local governments to meet Clean Air Act requirements outside of California. EPA announced the availability of MOBILE6 in the Federal Register on January 29, 2002, (67 FR 4254). EPA and DOT jointly sponsored seven MOBILE6 training courses across the country in 2002. These courses

were open to the public and were offered free of charge. The training materials for these courses are on the MOBILE6 website and can be downloaded at: <http://www.epa.gov/otaq/m6.htm> Other training materials prepared by EPA are also available on this website.

- EPA is also considering other potential training and outreach mechanisms and tools that could be developed and made available, within current budget constraints, to State and local transportation and air quality agencies affected by the designations for the new standards.

No metropolitan area's highway funding will be adversely affected once the new standards are implemented unless the area fails to demonstrate conformity by the time the 1-year grace period expires, and as a consequence, enters into a conformity lapse. Of course, highway funding could also be restricted if an area fails to submit a new State implementation plan (or SIP) for the new standards on time and highway sanctions are imposed 24 months later. Under EPA's anticipated implementation rules for the 8-hour ozone and PM_{2.5} standards, areas will have no more than 3 years after nonattainment designations to develop and submit SIPs for the new air quality standards. Under these anticipated rules, some areas may also need to submit plans within 2 years after nonattainment designations that provide for reasonable further progress toward attainment. EPA intends to work with areas over the next several years to insure that all areas complete their transportation and air quality planning in a timely manner to avoid any potential adverse impacts on highway funding.

Question 2. As you know, Senator Inhofe and I introduced the President's Clear Skies bill last month, and this subcommittee is going to hold hearings on that legislation next month.

What effect would Clear Skies have on this situation where the NAAQS are being made even more stringent than they have been for the last several years?

Response. Clear Skies combined with existing and proposed Federal rules would dramatically bring most of the Eastern United States into attainment with both the fine particle and 8-hour ozone NAAQS (see chart below). According to 1999–2001 measured air quality data, there are 129 counties nationwide that are currently exceeding the level of the annual fine particle standard and 290 counties that are currently exceeding the level of the 8-hour ozone standard. Our modeling projects that, in 2020 with Clear Skies, in combination with existing air quality control programs and the proposed non-road diesel rule, only eight counties in the Eastern United States would be out of attainment with the national standards for fine particles and only 20 eastern counties would be out of attainment for the 8-hour ozone standard. In the West, 10 counties (all in California) are predicted to remain out of attainment for the fine particle standard and 7 counties (all in California) are predicted to remain out of attainment for the 8-hour ozone standard.

Clear Skies Would Help Areas Attain the National Ambient Air Quality Standards

	Counties Projected to Exceed the NAAQS			
	Fine Particle Standards		8-Hour Ozone Standards	
	Existing Control Programs (Base Case)	Clear Skies and Existing Control Programs	Existing Control Programs (Base Case)	Clear Skies and Existing Control Programs
Monitored Data 1999–2001	129	129	290	290
Projection: 2010	80	38	59	56
Projection: 2020	53	18	30	27

Question 3. I understand that the Administration has been working on some new proposals to reform the Conformity program. Can you tell me what you are considering and what your timetable is for them?

Response. EPA has and continues to develop both legislative and regulatory proposals to improve the conformity program. In May 2003, the Administration unveiled its proposal for the reauthorization of TEA–21. This legislative proposal contains four changes that will affect the transportation conformity program, including: (1) defining the “transportation plan” for the purposes of conformity to be, at a minimum, the first 10 years of the plan; (2) combining the transportation plan and transportation improvement program (or TIP) into one planning document; (3) extending the minimum conformity frequency and transportation plan updates requirements in nonattainment and maintenance areas to 5 years; and (4) stream-

lining the Clean Air Act's requirements for State conformity SIPs, so that such SIPs only include the interagency consultation procedures for a given nonattainment or maintenance area. EPA believes that, if enacted, these proposed changes would provide a more flexible and practicable approach to implementing the conformity program.

EPA is also working on two rulemakings that will change the transportation conformity program. First, EPA is developing a rulemaking to incorporate into the conformity rule EPA and DOT's current guidance that implements the March 2, 1999, U.S. Court of Appeals decision affecting EPA's 1997 amendments to the conformity regulations. We recently published a proposal for this rulemaking in the Federal Register on June 30, 2003 (68 FR 38973), and we anticipate a final action on the proposal by April 2004. Specifically, the proposed rulemaking addresses two major issues affected by the court regarding projects that can proceed during a conformity lapse and EPA's process for finding newly submitted SIP budgets appropriate to use in a conformity determination (i.e., the "adequacy process"). The proposal would also make a few additional changes to the conformity regulation that would streamline and improve implementation of the program. Of particular interest are EPA's proposals to streamline the number of triggers that require a new conformity determination, and to allow transportation planners to base regional emissions analyses on assumptions available at the beginning of the conformity process.

The second conformity rulemaking that EPA is conducting would amend the conformity rule to address the new 8-hour ozone and PM_{2.5} air quality standards. EPA plans to publish a proposal (the "new standards" proposal) for this conformity rulemaking this summer, with a final rule expected in April 2004. This proposal will provide clear guidance for when conformity will first apply in areas that are designated nonattainment for the 8-hour ozone and PM_{2.5} standards.

The new standards proposal will also describe the general requirements for conducting transportation conformity determinations for the 8-hour and PM_{2.5} standards. It will address the conformity test(s) that would apply during the time period before newly designated nonattainment areas submit an initial 8-hour ozone or PM_{2.5} SIP that establishes motor vehicle emissions budgets. In addition, the rulemaking will address PM_{2.5} as a criteria pollutant subject to transportation conformity and will outline the specific conformity requirements that would apply in newly designated PM_{2.5} nonattainment areas.

STATEMENT OF HON. EMIL H. FRANKEL, ASSISTANT SECRETARY FOR TRANSPORTATION
POLICY, U.S. DEPARTMENT OF TRANSPORTATION

Mr. Chairman and members of the subcommittee, thank you for this opportunity to discuss transportation conformity and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

Meeting the dual challenges of congestion relief and air quality improvement is a high priority for all of us at the Department of Transportation, as I know it is for members of this Committee. In the Transportation Equity Act for the 21st Century (TEA-21), you gave us new tools and authorities to assist us in achieving this goal, and we are proud of the progress that has been made. In reauthorization, the Department wants to continue to build upon the successes of TEA-21 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Five key performance goals, including the protection of the human and natural environment, form the basis for the fiscal year 2004 budget request. Under Secretary Mineta's leadership, these goals will help us develop a safer, simpler, and smarter national transportation system for a strong America.

We are developing the President's proposal for surface transportation reauthorization, and expect that the Secretary will submit it to the Congress soon. The Department has articulated a set of core principles and values that have guided development of our proposal. We plan to build on the successes and lessons of TEA-21. We seek to enhance the safety and security of all Americans, even as we increase their mobility, reduce congestion, and strengthen the economy. We want to ensure an efficient infrastructure while retaining environmental protections that enhance our quality of life.

In my testimony today, I will address three main points. First, I want to assure you that progress has been made in reducing transportation-related emissions of pollutants, and that the Department of Transportation is committed to doing its part to ensure progress continues. Second, I will describe how the CMAQ program has assisted States and localities in addressing their mobility, air quality, and quality of life concerns. Finally, I want to restate the commitment of the Department

to work with our transportation planning and air quality planning partners for effective coordination of the transportation and air quality planning processes.

CONTINUED FOCUS ON AIR QUALITY IMPROVEMENTS

As a Nation, we have made remarkable improvements in reducing air pollution, especially pollution that comes from transportation sources. Where transportation is a significant source of pollutants, the Environmental Protection Agency (EPA) reports that ozone (formed by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NO_x), carbon monoxide (CO), and particulate matter (PM), have all decreased substantially since 1970. A majority of the areas designated as non-attainment (that is, areas that do not meet air quality standards) since 1990 now meet national air quality standards. Air quality monitoring data through 2001 shows that 77 out of 78 carbon monoxide nonattainment areas, 73 out of 85 coarse particulate matter (PM₁₀) areas, and 69 out of 101 ozone areas no longer show air pollution levels that exceed the national ambient air quality standards.

The Clean Air Act (CAA) has led to reduced pollutant emissions from all air pollution sources, the greatest success can be found in the reduction of motor vehicle emissions: CO emissions have been reduced by 45 percent since 1970, PM₁₀ emissions reduced by 38 percent, and VOC emissions by 61 percent from motor vehicles (see *Attachment A*). While NO_x emissions increased by 10 percent over the period, the rate of increase was less than the increase from all sources (19 percent). And, NO_x emissions from automobiles (excluding sport utility vehicles (SUVs) and light trucks) decreased by 33 percent. For VOC and CO, motor vehicle emission reductions were greater than the reductions from all other sources. Thus, motor vehicle emissions now make up a smaller percentage of total emissions. In 1970, motor vehicles contributed 59 percent of total emissions of carbon monoxide, NO_x, VOCs, and PM₁₀, when compared to stationary, area, and non-road mobile sources. However, by 2000, the motor vehicle portion of emissions of these pollutants dropped to 46 percent. Most of these emissions reductions have resulted from stricter emissions standards, improved engine technology, and cleaner fuels.

It is especially important to note that these reductions in emissions were accomplished during a period of 38 percent increase in population, 157 percent growth in gross domestic product (GDP), and 148 percent increase in vehicle miles traveled. The automotive, fuels, highway, and transit communities have managed to achieve this success in improving air quality while at the same time working to address increasing demands to improve mobility.

The downward trend achieved in emissions is expected to continue into the future. Engines and fuels are to become even cleaner under recent EPA-issued regulations for emissions standards and cleaner fuel requirements. Between 2004 and 2007, more protective tailpipe emissions standards will be phased in for all passenger vehicles, including SUVs, minivans, vans, and pick-up trucks. This regulation marks the first time that larger SUVs and other light-duty trucks will be subject to the same national pollution standards as cars. In addition, the EPA tightened standards for sulfur in gasoline, which will ensure the effectiveness of low-emission control technologies in vehicles and reduce harmful air pollution. When the new tailpipe and sulfur standards are implemented, Americans will benefit from the clean-air equivalent of removing 164 million cars from the road. These new standards require all passenger vehicles sold after the phase-in period to be 77 to 95 percent cleaner than those on the road today, and will reduce the sulfur content of gasoline by up to 90 percent.

We expect that motor vehicle emissions will be reduced as new heavy-duty vehicles that meet the 2004 emissions standards for heavy-duty engine standards enter the fleet. Beginning with the 2007 model, heavy-duty engines for trucks and buses must meet even tighter emissions standards, and the level of sulfur in diesel fuel must be reduced by 97 percent by mid-2006. As a result, after a phase-in period, each new truck and bus will be more than 90 percent cleaner than current models. In addition to tighter standards, the Federal Transit Administration (FTA) has been working with industry to develop and demonstrate low-and zero-emissions advanced propulsion technologies for transit buses, including hybrid-electric, battery electric, and fuel cell-powered buses. Under FTA/DOT leadership, a national program is underway to accelerate the development and commercial viability of these advanced technologies. Projects to purchase clean-fuel buses are eligible for assistance under FTA's funding programs.

However, despite dramatic improvements in air quality, some of the nation's largest metropolitan areas still face challenges in meeting the current ozone standard (also known as the 1-hour standard due to the averaging time for the ozone concentration levels). Areas that do not meet the national air quality standards must

develop air quality “State implementation plans” that show how the areas will achieve the standards. The transportation plan for these areas, taken as a whole, as well as individual transportation projects receiving Federal funds, must be found to conform to the air quality plans.

Furthermore, the Nation as a whole, and the transportation community in particular, face additional challenges as new air quality standards are implemented. The new 8-hour ozone and fine particulate (PM_{2.5}) standards will be more stringent, and many areas across the Eastern United States and in California have pollution levels now exceeding these standards. Some of these areas, including small urban and rural areas, may be designated nonattainment for the first time. Other existing nonattainment areas may become larger and involve more jurisdictions under the new standards. The Department and EPA are working with these areas to increase their capacity to deal with new nonattainment designations.

The President’s Clear Skies legislation will assist in these efforts by reducing emissions of nitrogen oxide and sulfur dioxide by approximately 70 percent from the power generating power-generating sector. In many areas, these reductions will provide needed flexibility in meeting the new standards, thus reducing the pressure on other sources.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

We have learned a great deal about transportation and air quality over the last 30 years, and over the last 10 years in particular. One thing we have learned is that there is no one “right way” to address transportation needs that meets the requirements of the entire nation. The transportation needs of Houston differ markedly from those of Chicago. This is doubly true when trying to reduce congestion and improve air quality. We have also learned that if we are to address our mobility and air quality needs simultaneously, we must incorporate national approaches, State and local planning, and project-level investments.

The CMAQ Program was established in 1992 by ISTEA as one of the programs designed to provide States and metropolitan areas flexibility to better address their particular needs, specifically targeted at air quality improvements. Through this program, we have provided \$6 billion during the life of ISTEA and \$8 billion under TEA-21 (1998–2003) to States and local governments for innovative programs and projects that demonstrate an air quality benefit and contribute to attainment of a national ambient air quality standard. Under TEA-21, State and local governments also received additional CMAQ funds from the programmatic distribution of minimum guarantee funds and funds made available through the revenue aligned budget authority (RABA) mechanism.

The concept of the CMAQ program is to provide needed flexibility to fund transportation improvements, whether they be highway, transit, shared ride, bicycle and pedestrian or other types of projects. This flexible approach allows for investments that cross traditional boundaries of the Federal-aid program to support projects focused on transit systems, alternative fuels and vehicles, intermodal highway facilities, emissions inspection and maintenance (I&M) programs, and a host of other projects.

The CMAQ program has also supported more highway and systems management improvements that contribute to emissions reductions through traffic flow enhancements or other means, and has been an important funding source in the implementation of Intelligent Transportation Systems (ITS). In Arizona, for example, CMAQ funding accounted for 87 percent of the Federal funds used for ITS investments.

Overview of CMAQ-Funded Projects

Through fiscal year 2002, about \$11.3 billion had been obligated under the CMAQ program. According to the latest data, the majority of CMAQ funding goes for new and enhanced transit services and traffic flow improvements that ease congestion, reduce starts and stops, and reduce emissions. These two categories are the backbone of any metropolitan area’s transportation system, but they are also the most capital-intensive of the types of projects eligible under the program.

A breakdown of CMAQ funding by type of project is provided in the table below.

CMAQ Funding by Type of Project: 1992–2000

Type of Project	Amount Obligated (\$ Millions)	In Percent
Transit	\$3,383	44%
Traffic Flow	2,452	32

CMAQ Funding by Type of Project: 1992–2000—Continued

Type of Project	Amount Obligated (\$ Millions)	In Percent
Shared Ride	290	4
Demand Management	249	3
Bicycle/Pedestrian	268	3
Inspection and Maintenance and Other	588	8
States with no Nonattainment or Maintenance Areas	491	6

In recent years, there has been a significant increase in the amount of CMAQ funding used for emissions I&M programs. Both Illinois and New Jersey have used CMAQ funding extensively for this purpose. In fact, 75 percent of New Jersey's recent CMAQ funding has been used for its I&M program. This is noteworthy because I&M programs have proven to be important strategies for meeting Federal air quality standards, demonstrating relatively large emission reductions, especially in acute ozone nonattainment areas.

The Benefits of the CMAQ Program

Some CMAQ projects and programs, for example those supporting vehicle I&M programs, have registered notable emissions reductions. According to the States' annual CMAQ reports, I&M programs can yield a reduction of about 5 tons per day in VOC in Illinois to over 40 tons per day in New Jersey. Regional projects, like traffic management centers and other projects that contribute to a modern, intelligent transportation system, also demonstrate larger emissions reductions than local or corridor level projects. Finally, we foresee greater potential for projects that advance new vehicle and fuel technologies which can be much more cost-effective than traditional projects. On the transit side, funding for bus replacement, removing older higher polluting vehicles from city streets in favor of newer models, has shown results, as have heavy-duty diesel retrofit programs and the introduction of alternative fuels.

Further, even the more traditional transportation control measures (TCMs) funded under the CMAQ program can help our State and local partners achieve other goals in addition to improving air quality. Examples include High Occupancy Vehicle Lanes (HOV), turn lanes, transit projects and new buses. These measures improve our quality of life, by reducing pollution, by relieving congestion, and by allowing us to walk or bike in a more pleasant environment.

Finally, the flexibility of the CMAQ program supports experimentation by our partners in the States and metropolitan planning organizations (MPOs) to meet travel demand in the most environmentally sensitive ways. In addition to ITS services, intermodal projects, and I&M programs, the CMAQ program has funded:

- Station cars and car-sharing programs
- Telecommuting
- Parking cash-out programs
- New vehicle technologies, including fuel cell vehicles
- Alternative fuels
- Public-private partnerships
- Transit-oriented development

Many States have made excellent use of their CMAQ funds by implementing innovative and useful projects to address their congestion and air quality problems. In Ohio, for example, the State has spent more than \$50 million in recent years for Intelligent Transportation Systems (ITS) projects, including signalization improvements, freeway surveillance and transit communications that can help speed traffic through its metropolitan areas and reduce emissions. It has also invested about \$20 million in Intermodal Centers, including the modern and very popular Waterfront Station serving the Rock-n-Roll Hall of Fame in Cleveland. Over \$17 million has been used for new buses to expand transit systems in several Ohio cities, with another \$4 million to support transit fare reductions during the ozone season. And finally, Ohio has used CMAQ funding to continue its focus on reducing the number of at-grade crossings benefiting not only air quality and congestion, but also reducing fatalities. In Ohio and other places around the country, CMAQ funding has facilitated the implementation of critical transportation improvements with multiple benefits.

The National Academy of Sciences (NAS) released a comprehensive assessment of the CMAQ program in April 2002. A number of findings and recommendations were offered, with the study concluding the program is valuable to State and local governments and should be continued. The assessment highlighted in particular the impor-

tance of the program's flexibility, encouragement of innovative approaches to reduce emissions, and support for new partnerships across jurisdictions.

Recent Issues

In recent discussions, stakeholders have raised several issues about the CMAQ program and its role in the overall surface transportation program. The first involves concerns about the CMAQ funding formula. The statutory formula apportions funds to the States based on the population living in nonattainment and maintenance areas and the severity of the ozone and CO pollution problem. However, the statutory formula does not include factors for the EPA's new air quality standards. Thus, a State whose nonattainment population will grow under the new EPA standards will receive no comparable increase in funding. Because these new areas will be eligible to use CMAQ funding under provisions enacted in TEA-21, the States' CMAQ apportionments will be stretched thin to cover them. The NAS report and others in the air quality community have also pointed out the importance of addressing the new fine particulate matter standard in the apportionment formula and eligibility, because of the mortality impacts associated with this type of pollution.

Expanding the eligible use of CMAQ funding for operating assistance constitutes a second issue. One of the current strengths of the program is the focus on improvement projects, which could be diminished by providing assistance for routine operations. Currently, we provide operating assistance for up to 3 years under the CMAQ program for new services to help them get established.

A third issue that has been raised is whether to expand CMAQ funding to areas outside of existing nonattainment and maintenance areas. In January of 2002, DOT published a Federal Register notice maintaining our current policy of limiting funding to nonattainment and maintenance areas, but allowing projects to be funded that are in close proximity to, and primarily benefiting, a nonattainment or maintenance area. Comments to the docket revealed that our stakeholders are divided on the issue of funding outside of existing nonattainment and maintenance areas, although the majority of States and MPOs favored retention of our current policy.

We are considering these issues as we develop our reauthorization recommendations. We expect to send a proposal to Congress soon.

THE TRANSPORTATION CONFORMITY PROCESS: COORDINATING TRANSPORTATION AND AIR QUALITY PLANNING

Conformity refers to a requirement of the CAA that is designed to ensure that federally funded or approved highway and transit projects conform to the air quality goals and priorities established in a State's implementation plan (SIP). For programs administered by the Federal Highway Administration and the Federal Transit Administration, we determine whether highway and transit projects conform to a State's SIP by comparing the total expected air quality emissions from the whole transportation system within the nonattainment or maintenance area, including the expected emissions that would result from projects contained in the transportation plan and transportation improvement program (TIP), with the emissions budget for motor vehicles in the SIP.

A failure or inability to make a conformity determination by the required deadline is referred to as a "conformity lapse." During a conformity lapse, the use of Federal highway and transit funds is restricted. Currently, most areas of the country are in conformity. But, as of March 4, 2003, seven areas are in a conformity lapse.

Fulfilling the transportation conformity requirements has created stronger institutional links between two sets of agencies—transportation and air quality—that operated quite independently of each other prior to enactment of the Clean Air Act Amendments of 1990 (CAAA). This interagency consultation has played a crucial role in the development of more realistic and achievable transportation and air quality plans. In addition, the transportation conformity provisions have been instrumental in fostering improvements to the travel demand and emissions modeling processes, because of the specificity of data necessary to meet conformity requirements.

We now have almost a decade of experience in implementing the transportation conformity provisions of the CAAA and, despite successes, stakeholders indicate that there remain opportunities to improve the transportation conformity process. Transportation conformity was intended to form strong linkages between the transportation and air quality planning processes. However, there is a concern among transportation agencies—and even some air quality agencies—that transportation plans and SIPs are not synchronized with one another due to different planning horizons and update frequencies. This sometimes causes "lapses" in conformity that can disrupt the transportation funding process. While transportation plans have very long

planning horizons and have to be updated frequently, most air quality plans have comparatively shorter planning horizons and are updated less frequently.

TEA-21 and the CAA require that transportation plans must cover at least 20 years and be found conforming for that entire time period. However, air quality plans have much shorter planning horizons, often only 5–10 years, resulting in a “mismatch” in which transportation plans must consider emissions controls in the absence of comprehensive air quality planning. Without comprehensive air quality planning, there is no analysis of the most cost-effective emissions controls across all sources beyond the end of the SIP timeframe. If an MPO has a conformity problem in the timeframe beyond that covered by the SIP, it has limited options for achieving substantive emissions reductions with programs over which the transportation agencies have control. Traditional TCMs have little impact on regional emissions levels, despite benefits realized at the local level, and such strategies will provide even fewer reductions in the future, as technology continues to reduce total mobile source emissions. Although MPOs bear the responsibility of assuring that plans conform to air quality budgets, they do not have the authority under current law to establish more effective measures, like I&M programs or reformulated fuels. That process of identifying future control strategies is the intended purpose of the SIP.

This “mismatch” can be further aggravated by differences in the frequency with which transportation plans and air quality plans are updated. Conformity determinations for transportation plans must be made at least every 3 years, must be based on the latest demographic and travel information, and must use the latest emissions estimation model. However, air quality plans are not updated on a regular cycle, and may reflect out-of-date assumptions or may have been developed using an outdated emissions estimation model. When a conformity analysis is performed in such a situation, it is impossible to determine whether the emissions associated with the transportation plan are truly consistent with the emissions budget in the air quality plan. This may be because the transportation plan emissions were estimated using one set of assumptions and model, while the emissions budget was developed under another. Some stakeholders have reported that such situations have occurred and are likely to happen again with the recent release of a new emissions estimation model.

EPA, in coordination with U.S. DOT, has allowed a 2-year grace period before States have to use the new emission model, MOBILE6, for conformity. EPA also requires that SIPs that are started after the official release use MOBILE6. While the Clean Air Act does not require SIP updates in all cases, EPA guidance encourages States to evaluate the effects of MOBILE6 early to plan for any needed SIP updates to accommodate change.

Stakeholders indicate that conformity lapses have occurred because areas could not complete the complex, comprehensive transportation planning and conformity processes within the required timeframes, even though they met their emissions budgets. Data collection, model development, public outreach, and consensus building can all take a considerable amount of time and resources. MPOs also face other daily challenges of ever-increasing congestion, transportation needs due to economic growth, protection of water quality and other environmental resources, efficient freight management, safety, and security.

Many stakeholders have suggested bringing the planning horizons and frequency of updates of both the transportation plans and air quality plans much closer together. Some have suggested a shorter planning horizon, and less frequent updates, while others have suggested a longer air quality planning horizon. We note that some areas have opted to voluntarily extend their air quality planning horizons.

In any case, some stakeholders have suggested it is in the best interests of an effective, integrated process that the air quality plans and the transportation plans are both using the latest, and most consistent, set of planning assumptions, and that the air quality plans include the necessary control measures to ensure timely attainment of the standards. Stakeholders have stated that this would also help us anticipate air quality problems and correct them in a more proactive and coordinated transportation and air quality planning process.

The Department recognizes the value of transportation conformity, and is committed to reducing motor vehicle emissions. We will monitor potential and actual transportation conformity lapses, and strive to minimize the number of conformity lapses that occur.

EPA's new air quality standards will also impact the conformity process. The new standards are more stringent, and many areas across the Eastern United States and in California have pollution levels now exceeding these standards. Some of these areas, including small urban and rural areas, may be designated nonattainment for the first time. Other existing nonattainment areas may become larger and involve more jurisdictions under the new standards. It is too early to tell the magnitude of

transportation and air quality planning and conformity issues that might surface following implementation of the new standards. However, based on our experience when the 1990 Clean Air Act amendments were implemented, we would expect these areas to face challenges in the early years. The Department and EPA are working with these areas to increase their capacity to deal with new nonattainment designations and conformity.

Over the years, we have worked closely with EPA and our State and local stakeholders to improve the transportation conformity process. We are committed to better coordinating the transportation and air quality planning processes and will continue to work with EPA and our stakeholders to identify ways to remedy the mismatch issues, including consideration of possible remedies in the development of our reauthorization proposal.

GENERAL CONFORMITY

The Clean Air Act's General Conformity requirement applies to Federal actions other than the highway and transit actions to which Transportation Conformity applies, and requires that Federal actions conform to State air quality implementation plans. These provisions affect airport improvement and other DOT programs. The FAA and EPA issued guidance last September that will help FAA and airport sponsors perform the analysis supporting FAA conformity decisions on federally assisted and approved airport projects. Because we expect new nonattainment areas to be designated under the new air quality standards, the new standards can also be expected to increase the number of actions requiring general conformity determinations.

CONCLUSION

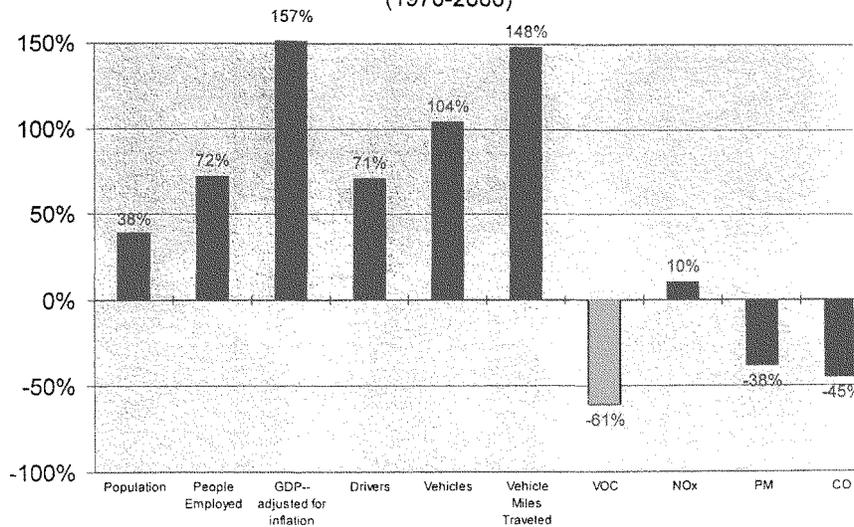
In conclusion, the Department of Transportation is committed to continuing the progress made over the last 30 years in reducing motor vehicle emissions and strongly supports the goals of the Clean Air Act's transportation conformity provisions. Improving transportation safety and mobility, while protecting the environment and enhancing the quality of life for all of our communities, are compatible goals. I am proud of the successes we have achieved under the CMAQ program by providing flexible funding for innovative transportation projects that improve air quality and by improving interagency cooperation between transportation and air quality agencies. However, I also recognize that additional improvement in the coordination of the transportation and the air quality planning processes can be achieved.

Integrating transportation and environmental decisionmaking can effectively advance environmental stewardship and improve our efficiency in meeting our nation's mobility needs. The American public demands and deserves both mobility and clean air, and we must remain focused on providing the highest level of service and environmental protection that we can provide.

Mr. Chairman and members of the subcommittee, this concludes my statement. I again thank you for the opportunity to testify today and I look forward to working with you as we prepare for reauthorization of the surface transportation programs.

I will be pleased to answer any questions you may have.

Attachment A
Percentage of Change in Motor Vehicle
Emissions, Demographics, and Travel
(1970-2000)



RESPONSES BY EMIL FRANKEL TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. Please describe the resources and the guidance that your agency is going to provide in fiscal year 2004, assuming the budget request is satisfied, to states and communities to help them demonstrate conformity with the PM_{2.5} standard.

Answer. The Department of Transportation (DOT) and the Environmental Protection Agency (EPA) have worked closely in providing technical assistance to non-attainment and maintenance areas to address conformity and transportation air quality issues. In anticipation of the number of new areas designated nonattainment for the first time, DOT has embarked on a number of activities to prepare the areas for this challenge:

1. Revise transportation conformity regulations—DOT is working closely with EPA to revise the EPA conformity rule for the implementation of the new ozone and fine particulate standards. Our goal is to complete the rulemaking process by the time the new ozone nonattainment designations are finalized. We believe this will allow newly designated nonattainment areas to fully utilize the 1-year conformity grace period in meeting conformity requirements.

2. Continue existing training courses—DOT has developed a well-received basic training course on transportation conformity. EPA assisted in the development of this training course. The course was offered 6 times during FY 2002, and about 230 public and private sector representatives of transportation and air quality disciplines attended the course. DOT offered this course through the National Transit Institute in 7 cities in FY 2003 and anticipates offering it 7 times in FY 2004. Our field resource centers provided workshops and tailored seminars, primarily focusing on emissions modeling, transportation conformity, and the CMAQ program. In 2004, the Federal Highway Administration (FHWA) will also continue to provide training in MOBILE6, EPA's current emissions factor model.

3. Provide new training opportunities—FHWA's National Highway Institute will be launching 3 new training courses in FY 2004 that will be very helpful in preparing for conformity analysis.

- a. Estimating Regional Mobile Source Emissions
- b. The Implication of Air Quality Planning on Transportation
- c. The CMAQ Program: Purpose and Practice.

4. In May 2002, FHWA launched a Transportation Conformity Community of Practice (CoP) website to allow for sharing of best practices, free exchange of ideas and discussions on topics related to conformity among practitioners. The CoP website can be accessed at: <http://www.fhwa.dot.gov/environment/aqupdate/index.htm>

Question 2. Studies are showing that toxic air pollutants from mobile sources are turning out to be a very significant health threat for people living near high-volume traffic. How is DOT incorporating this elevated risk of cancer and developmental problems from mobile source toxics exposure into NEPA reviews of projects?

Answer. The Department is aware of the evolving science surrounding toxic air pollutants, and is following the basic research that is underway by the Health Effects Institute (HEI) and others to enhance our knowledge. HEI, which is jointly funded by EPA and industry to provide unbiased assessments of health effects, just announced a new research program, "Assessing Exposure to Air Toxics" to reduce what it refers to as "large data gaps in understanding exposures to many air toxics." (see www.healtheffects.org/RFA/RFA2003.pdf). HEI's Strategic Plan 2000-2005 focuses its air toxics research on reducing uncertainties in evaluating the human health risks associated with exposure to mobile-source air toxics.

FHWA is also funding studies focusing on mobile sources to help fill in the current gaps in our understanding. Among major research efforts, FHWA has commissioned research on:

- the Multiple Air Toxics Emissions Study (MATES II) in California and its transferability to other areas,
- particulate matter and air toxics analyses in 7 cities to establish the relationship between transportation activity and air toxic emissions,
- differences between modeling results and monitoring data, and
- development of a Strategic Workplan for Air Toxic Emissions for the transportation community at large.

We are also interested in the nature of mobile source air toxics, the analytical tools available or in development, and the contrast between regional and local, i.e. project-level, impacts.

Finally, FHWA has convened a working group with our EPA counterparts to establish a policy framework for agency field staff and State Departments of Transportation to better assess the effects of air toxics during project development and the NEPA process.

Question 3. Your agency has proposed changes to the conformity provisions of the Clean Air Act or the CMAQ program as part of the Administration's pending proposal for reauthorization of TEA-21. What outside groups were consulted in the process of developing your proposals?

Answer. The Department consulted with a broad range of transportation and environmental stakeholders in developing SAFETEA proposals, including the American Association of State Highway and Transportation Officials, the Association of Metropolitan Planning Organizations, the National Association of Regional Councils, the State and Territorial Pollution Prevention Association/Association of Local Air Pollution Control Officials, and State and local air quality agencies. Other interest groups such as the Highway Users Alliance, the National Association of Home Builders, the Surface Transportation Policy Project, Environmental Defense, and the Sierra Club were also consulted. For the conformity and CMAQ recommendations, DOT also worked closely with EPA.

Question 4. Can you provide the Committee with some examples where an MPO had a problem with finding conformity in the out-years of the transportation plan (the second 10-year period) that had not been solved by the State using EPA's enforceable commitment policy under the conformity rule?

Answer. In SAFETEA, DOT proposes a new provision regarding metropolitan planning to more closely align the transportation and air quality planning horizons for purposes of transportation conformity, and to better integrate the transportation planning and air quality planning processes. Transportation conformity currently must be determined for the entire 20-year planning horizon of metropolitan transportation plans. On the other hand, air quality State implementation plans (SIPs) usually cover a much shorter timeframe (10 years or less). This mismatch in timeframes does not provide for an integrated planning process beyond the life of the SIP.

Without comprehensive air quality planning, there is no analysis of the most cost-effective emissions controls across all sources beyond the end of the SIP timeframe. If an MPO has a conformity problem in the time frame beyond that covered by the SIP, it has limited options for achieving substantive emissions reductions with pro-

grams over which the transportation agencies have control. Traditional TCMs have little impact on regional emissions levels, and such strategies will provide even fewer reductions in the future, as technology continues to reduce total mobile source emissions. Although MPOs bear the responsibility of assuring that plans conform to air quality budgets, they do not have the authority under current law to establish more effective measures, like I&M programs or reformulated fuels. That process of identifying future control strategies is the intended purpose of the SIP.

MPOs that have experienced conformity problems in the outyears have worked with their air quality partners through the interagency consultation process, because they often could not solve these issues themselves. In several cases, the SIP was revised to establish out-year conformity budgets to solve the issue (e.g., Washington, DC established budgets and a trading program in the outyears to address projected emission increases in future years.) In addition, Colorado committed to re-implement an I/M program in the future to solve the outyear conformity problems.

The potential for timeframe mismatch is found in the June 2002 Senate Environment and Public Works Committee (SEPW) staff survey of 16 MPOs on their experience of the conformity process. The Southern California Association of Governments (SCAG) described the potential for this mismatch in the following excerpt. However, it should be noted that although the potential for a mismatch issue exists in this case, SCAG does not actually report that it has an outyear emissions problem for its 2025/2030 transportation plan.

Federal regulations require at least a 20-year planning horizon for the development of any RTP [Regional Transportation Plans]. However, SIPs are only required to address the time period up to the attainment or maintenance date for the relevant area. Thus, SCAG's 2001 RTP extends up to the year 2025, and the upcoming 2004 RTP will extend up to the year 2030. However, and as one example, the 1-hour Ozone SIP for the South Coast Air Basin (SCAB) in the SCAG region is only required to consider the period preceding its stipulated attainment year of 2010. As a consequence, there is always a gap of about 15 to 20 years between SIP and RTP planning horizons. The complex interplay of socio-demographic projections and emission budgets between the SIP and the RTP processes means that there is almost always the potential of a procedural conformity lapse.¹

Other examples can also be found in the same SEPW survey. The PM₁₀ attainment year for a PM₁₀ nonattainment area in the South Coast Air Basin in California is 2006, while the transportation planning horizon is 2025—a gap of at least 19 years. In the absence of realistic PM₁₀ emissions budgets for these future years, the MPO has experienced difficulty in demonstrating conformity beyond the attainment year of 2006. The MPO for San Joaquin Valley (PM₁₀ nonattainment) had a similar experience.

SAFETEA proposed to address this issue by revising the conformity requirement of a transportation plan to be more closely aligned with the timeframe of a SIP. SAFETEA proposed to limit transportation conformity to the first 10 years of the transportation plan, the latest year for which the SIP contains a motor vehicle emissions budget, or the completion date of a regionally significant project, if the project requires approval before the subsequent conformity determination, whichever is longer. Areas will still be required to conduct a regional emissions analysis for the last year of the transportation plan, for informational purposes only, if the transportation plan extends beyond the timeframe covered by the conformity analysis. The proposed changes will ensure that a coordinated and integrated transportation and air quality planning process is used to develop the SIP budgets and to determine transportation conformity. This provision is also intended to encourage the development of longer-term SIPs in areas that anticipate extended air quality problems.

Question 5. At my and Senator Lieberman's request, the GAO has been doing a survey of all the states' air quality and transportation planners on conformity. The final report should be available by the end of April. It will cover many of the topics discussed at the hearing, in plenty of time to factor into reauthorization. But so far, it appears that GAO has found that most of the conformity lapses are a result of administrative or procedural issues, unrelated to emissions budgets constraints. Is that DOT's experience?

Answer. The GAO report, "Federal Planning Requirements for Transportation and Air Quality Protection Could Potentially Be More Efficient and Better Linked," was issued in May 2003. It found that since 1997, about half of the conformity lapses were caused by resource, administrative, or technical problems rather than difficulties meeting emissions budgets. The report indicates that most areas resolved their

¹ SCAG's Comments on Transportation Conformity Issues for the Senate Hearing on TEA-21 Reauthorization, July 22, 2002.

conformity problems in 6 months or less. The GAO report also included DOT's observation that even short conformity lapses can have an impact on the transportation planning process. However, GAO itself did not specifically analyze the impacts of these lapses in its report. The GAO report also stated that "a majority of transportation planners who had trouble demonstrating conformity or failed to do so by a deadline said that the required frequency of demonstrations robs them of time and resources to solve other issues, such as growing congestion." The GAO findings are consistent with DOT analysis.

Question 6. It has been said: "If you build it, drivers will come." In transportation planning, metropolitan planning organizations (MPOs) typically consider a wide array of factors including economic growth, safety, efficiency, and air quality. Is it appropriate for MPOs to also consider the need for open space in conducting metropolitan transportation planning?

Answer. It is appropriate for MPOs to consider the need for open space in conducting transportation planning. The role of the MPO in land use and transportation varies according to state and locality. In some areas, MPOs are responsible for reviewing regionally significant local land use decisions, including the need for open space. In others, land use decisions are solely the prerogative of local officials. Regardless of the MPO's role in decisionmaking, transportation planners need to consider the comprehensive land use plans of the region and local jurisdictions, including plans for open space, and create a constructive dialogue with land use officials. In that way, each group is informed of actions that might affect the other. In SAFETEA, the Administration proposes language to encourage each MPO to coordinate its planning process, to the maximum extent practicable, with those officials responsible for other types of planning activities that are affected by transportation, including State and local economic development, environmental protection, airport operations, and freight.

Question 7. TEA-21 required DOT to streamline the environmental review process for highway projects. While we are still waiting for the Administration's proposal, some have suggested exempting transportation plans from NEPA altogether. Does it make more sense to try implementing TEA-21 by streamlining environmental reviews before considering exempting transportation plans from requirements that all other federal actions have needed to comply with since 1969?

Answer. The Department's position has long been that metropolitan and statewide transportation plans and programs are not major Federal actions under the National Environmental Policy Act. Section 1203 (m) of TEA-21 explicitly continued this practice by stating that any decision by the Secretary on a metropolitan transportation plan shall not be considered to be a Federal action subject to review under NEPA (23 USC 134(o)), and Section 1204(h) made a similar provision for statewide plans (23 USC 135 (i)). Individual projects and actions that receive DOT funding or approval are subject to NEPA.

STATEMENT OF ANNETTE LIEBE, MANAGER, AIR QUALITY PLANNING, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY ON BEHALF OF THE STATE AND TERRITORIAL AIR POLLUTION PROGRAM ADMINISTRATORS AND THE ASSOCIATION OF LOCAL AIR POLLUTION CONTROL OFFICIALS

Good morning, Mr. Chairman and members of the subcommittee. I am Annette Liebe, Manager of the Air Quality Planning Section of the Oregon Department of Environmental Quality. I am testifying today on behalf of STAPPA—the State and Territorial Air Pollution Program Administrators—and ALAPCO—the Association of Local Air Pollution Control Officials—the two national associations of air quality officials in 54 States and territories and over 165 major metropolitan areas. The members of STAPPA and ALAPCO have primary responsibility under the Clean Air Act for implementing our nation's air pollution control laws and regulations and, moreover, for achieving and sustaining clean, healthful air for our citizens. Accordingly, we are pleased to have this opportunity to provide our perspectives on implementation of the Congestion Mitigation and Air Quality Improvement (CMAQ) program under the Transportation Equity Act for the 21st Century (TEA-21) and the transportation conformity program under the Clean Air Act.

STAPPA and ALAPCO are acutely aware of the key role that transportation plays in our nation's economy. We endorse the fundamental principle that transportation and environmental goals need not be at odds with one another, but, rather, that our transportation system can flourish and our economy can grow without jeopardizing our environment. In fact, our transportation choices can contribute to environmental improvements.

Today, however, transportation remains a dominant source of air pollution across the country, contributing substantially to unhealthful levels of ozone, particulate matter (PM) and carbon monoxide (CO). In particular, according to the U.S. Environmental Protection Agency (EPA), these sources are responsible for over 40 percent of volatile organic compounds and more than 50 percent of nitrogen oxides—both of which are ozone precursors—more than 25 percent of fine particulate matter emissions and 70 percent of CO emissions. Transportation sources are also very significant contributors of greenhouse gases—including over a third of carbon dioxide emissions—and toxic air pollutants and play a role in the formation of regional haze. Although we continue to make great progress in reducing emissions from mobile sources, it is clear that the benefits of these technological advances cannot keep pace with current and foreseeable trends of steadily increasing vehicle miles traveled (VMT).

STAPPA and ALAPCO firmly believe that the CMAQ and transportation conformity programs are critically important to our goal of achieving full integration of our environmental and transportation decisionmaking processes and ensuring that transportation choices do not undermine our efforts to achieve and sustain clean, healthful air throughout the country. For this reason, last fall, our associations adopted a set of CMAQ and transportation conformity principles for the reauthorization of TEA-21; a copy of our principles is attached.

CMAQ PROGRAM

STAPPA and ALAPCO strongly support the CMAQ program, which provides a discrete source of funding explicitly set aside for transportation projects that meet air quality objectives and for projects that result in sustainable air quality improvement. The CMAQ program appropriately reinforces the interrelationship between the transportation and air quality planning processes by specifically recognizing and seeking to ameliorate the transportation sector's impact on air quality. Over the past 10 years, it has been demonstrated that CMAQ can play a significant role in helping States and localities address transportation-related air quality problems. We believe, however, that this important program can be strengthened in several ways.

First, since CMAQ was originally established, the scope and magnitude of transportation-related emissions and their impact on air quality have expanded significantly. EPA has adopted new, health-based National Ambient Air Quality Standards (NAAQS) for fine particulate matter and 8-hour ozone, both of which will be implemented in the next few years. A National-Scale Air Toxics Assessment has concluded that motor vehicles are the largest source of hazardous air pollutants nationwide, producing nearly 1.4 million tons of air toxics each year. And we have gained an increased understanding of the phenomenon of transported pollution and precursors and its impact on the ability of many areas to attain and maintain clean air goals.

While STAPPA and ALAPCO believe CMAQ funds should be apportioned based on the severity of an area's air quality problem and its population, we urge that the areas eligible to receive CMAQ funding be expanded from 1-hour ozone, PM₁₀ and CO nonattainment and maintenance areas, to also include PM_{2.5} and 8-hour ozone nonattainment and maintenance areas; areas nearing nonattainment; areas whose transportation-related emissions have an impact on a nonattainment area; and areas that experience other air quality problems as a result of transportation-related emissions, including, but not limited to, hazardous air pollutants from mobile sources.

Accordingly, we believe that the historic allocation of CMAQ funds is inadequate. We strongly urge a substantially increased Federal commitment of resources to the CMAQ program, to reflect the true and very significant impact of transportation-related emissions on air quality. This increase should be no less, proportionately, than that to be provided for highway investments.

In Oregon, CMAQ funds have been used to implement transportation control measure commitments in numerous maintenance plans. Some examples include expansion of transit service and programs, support of transit-oriented development, implementation of commuter trip reduction programs, expansion of bicycle and pedestrian facilities and the purchase of advanced equipment to remove winter road sand that could contribute to PM₁₀. In order to meet the challenges of implementing new standards to protect public health, it is necessary to increase the amount of funding available for these types of projects and assure eligibility for areas that are making progress to maintain healthful air.

With respect to project eligibility, we urge that greater emphasis be placed on projects that will result in direct, timely and sustained air quality benefits. Certain types of congestion mitigation projects, such as road and bridge construction and ex-

pansion, may have the long-term effect of promoting growth in VMT and urban sprawl, and of creating new congested corridors. CMAQ funding should be directed to projects that demonstrate sustained air quality benefits. STAPPA and ALAPCO also recommend that to qualify for CMAQ funds, a project should be required to demonstrate that a specified minimum air quality benefit threshold is met or exceeded, based on established criteria and supporting data, with such a threshold determined with—the concurrence of the appropriate State and/or local air quality agency. Based on more clearly defined funding eligibility criteria and guidance, States and localities should have discretion in determining which qualifying projects receive funding.

Finally, STAPPA and ALAPCO recommend that State and local air quality agencies have a more defined and consistent role in the evaluation and selection of CMAQ projects. We believe the concurrence of State and local air quality agencies must be required for project selection, through a well-defined consultation and concurrence process. In Oregon, this concurrence has occurred through the ongoing interagency consultation process that we established under the conformity rule.

TRANSPORTATION CONFORMITY

STAPPA and ALAPCO remain firmly committed to the purpose of transportation conformity, which is to ensure that shorter-term Transportation Improvement Programs (TIPs) and long-term Regional Transportation Plans (RTPs) contribute to the timely attainment and maintenance of healthful air quality and are consistent with the motor vehicle emissions budgets contained in the State Implementation Plan (SIP) for air quality; we believe that conformity can be implemented as intended, and that its purpose can be fulfilled with increasing success.

In numerous areas, the conformity process has improved working relationships between State and local air quality and transportation officials by requiring consultation and coordination among agencies. The process has made air quality and transportation planners more aware of each others' objectives; resulted in the inclusion in TIPs and RTPs of additional projects that benefit air quality; and opened up the SIP development process to more input from the transportation community. Clearly, this has been the case in Oregon. STAPPA and ALAPCO believe that we must continue to strive for such successes across the country. Moreover, our associations strongly believe that the purpose of conformity—to ensure that transportation plans and programs stay within the allotted mobile vehicle emissions budget—is absolutely crucial to achieving clean air goals, especially given the continued increase in motor vehicle use. While we understand that others seek changes to the conformity process, STAPPA and ALAPCO strongly endorse preserving the major conformity requirements and schedules that are now in place.

For example, we understand that some seek to shorten the planning horizon for the RTP, so that the plan's conformity determination would be based on a 10-year horizon versus the current 20-year horizon. STAPPA and ALAPCO strongly oppose such a change.

Long-term planning, over a 20-year horizon, is imperative to ensuring that the potential growth in mobile source emissions is identified, the impact on air quality is assessed and appropriate adjustments to transportation plans are made accordingly. In planning for clean air, State and local air agencies must not only chart a course for achieving healthful air quality, but also for maintaining it over the long term. Shortening the timeframe over which a transportation plan is required to demonstrate conformity is extremely troubling to us because it takes only the first part of our responsibility—attaining an air quality standard—into account, and ignores our responsibility to plan for maintenance over the subsequent 20 years. Major transportation investments can have huge air quality impacts, much of which may not occur for several decades; these investments can also significantly induce growth. If we eliminate the responsibility to account for the impact of transportation investments beyond 10 years, then we eliminate the ability to hold these projects accountable for their air pollution, and severely compromise our ability to adequately protect public health.

We also understand that some are seeking to reduce the frequency of conformity determinations for transportation plans from every 3 years to every 5 years, and to eliminate the requirement for conformity determinations on the TIP, currently conducted every 2 years. STAPPA and ALAPCO oppose these changes, as well.

Regular and timely analyses to demonstrate compliance of financially constrained TIPs and RTPs with SIP motor vehicle emission budgets must be maintained. Such continued frequency will ensure that sound data is generated and allow for the timely improvement of motor vehicle emission estimates. The result will be improved air quality and timely progress toward attainment of health-based NAAQS

and other air standards. However, in recognition of the desire of transportation officials to improve the alignment of conformity timelines, STAPPA and ALAPCO recommend that the frequency of the conformity analysis on the TIP and the RTP be synchronized and conducted no less frequently than once every 3 years.

A final example of a conformity requirement where change is being sought is the length of the grace period to be allowed before an area found to be in violation of an air quality standard for the first time must demonstrate conformity. We understand that some seek to extend the length of the grace period for such areas from the current 1 year to 3 years. First, we note that Congress has already addressed this issue. Just 2 years ago, statutory conformity provisions were amended to provide for a 1-year grace period. Moreover, an extension of this period to 3 years is of significant concern to our associations. To allow transportation planning in an area with poor air quality to go unchecked for 3 years would be a substantial weakening of the conformity program and of public health protection. While both ozone and PM_{2.5} pose dangerous health consequences, PM_{2.5} is especially dire because of its potentially deadly nature. We believe the 1-year grace period following formal designation is sufficient in terms of allowing an area to ramp up to its responsibilities, even for areas that have never faced nonattainment and conformity before. Most, if not all, of these areas are already aware of their forthcoming nonattainment status. In addition, given all of the areas that already implement conformity, there is now a wealth of experience for new areas to draw on. At least part of the reason many areas across the country will become nonattainment for the new ozone and PM_{2.5} standards is transportation-related sources. This being the case, postponing for 3 years efforts to address the impact of transportation plans and programs on air quality is highly imprudent.

STAPPA and ALAPCO believe conformity is working. We believe it is well worth the effort it requires, given the benefits that will follow in terms of public health and smart growth. In addition, we believe that conformity as it is currently structured provides ample flexibility to States to accommodate individual needs and circumstances, while maintaining the integrity of the program. Rather than statutory changes to such things as planning horizons, analysis frequency and grace periods, STAPPA and ALAPCO believe that State and local officials should retain the flexibility to resolve issues in the way that works best at the State and local level. This may involve revising the emissions budget in a SIP in one area, adding transportation control measures to a TIP in another area or extending the air quality planning horizon in yet another area. In each case, the State and local officials can develop the best solution for their jurisdictions through a strengthened interagency consultation process.

CONCLUSION

At its winter meeting last month, the National Governors Association (NGA) reaffirmed its existing policy on "Transportation Conformity with the Clean Air Act." In that policy, the Governors state:

With the enactment of the Clean Air Act Amendments of 1990, the Intermodal Surface Transportation Efficiency Act of 1991, and the Transportation Equity Act for the 21st Century, Congress took steps to advance two essential national goals: achieving air quality standards and providing for the transportation needs of the American people. The Governors strongly support the attainment of both of these goals and believe that neither should be sacrificed in pursuit of the other.

STAPPA and ALAPCO embrace this perspective, as well. To that end, we are very pleased to have the opportunity to participate with State environmental commissioners, and their transportation counterparts, in a dialog initiated by the Environmental Council of the States and the American Association of State Highway and Transportation Officials at the request of NGA to explore potential areas of common-ground regarding CMAQ and transportation conformity. Likewise, we look forward to working with members of this subcommittee, as well as with EPA, U.S. DOT and other stakeholders, as discussions regarding these two extremely important programs continue.

Thank you.

STATEMENT OF S. WILLIAM BECKER, EXECUTIVE DIRECTOR, STATE AND TERRITORIAL AIR POLLUTION PROGRAM ADMINISTRATORS (STAPPA)/ASSOCIATION OF LOCAL AIR POLLUTION CONTROL OFFICIALS (ALAPCO)

STAPPA/ALAPCO—CMAQ AND TRANSPORTATION CONFORMITY PRINCIPLES FOR REAUTHORIZATION OF TEA-21

Transportation is the dominant source of air pollution in our Nation, posing a significant threat to public health. The State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) endorse the fundamental principle that transportation and air quality goals should be harmonized to ensure that our transportation choices contribute to improving our environment. As we seek to reduce transportation-related emissions, we recognize the critical importance of the Congestion Mitigation and Air Quality Improvement (CMAQ) program, long-term air quality/transportation planning processes and close collaboration and cooperation between air quality and transportation agencies in harmonizing air quality and transportation goals. As the Transportation Equity Act for the 21st Century (TEA-21) undergoes reauthorization, STAPPA and ALAPCO urge that opportunities for enhancing these programs and processes be explored.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM

STAPPA and ALAPCO strongly support the CMAQ program, which appropriately reinforces the interrelationship between the transportation and air quality planning processes by specifically recognizing and seeking to ameliorate the transportation sector's impact on air quality. Over the past 10 years, it has been demonstrated that CMAQ—which provides a discrete source of funding explicitly set aside for transportation projects that meet air quality objectives and for projects that result in sustainable air quality improvement—can play a significant role in helping States and localities address transportation-related air pollution problems. As CMAQ undergoes review as part of the reauthorization of TEA-21, STAPPA and ALAPCO offer the following principles for enhancing the program:

Role of Air Quality Agencies in CMAQ Project Selection

- State and local air quality agencies must have a more defined and consistent role in the evaluation and selection of CMAQ projects.
- The concurrence of State and local air quality agencies must be required for project selection, through a well-defined consultation and concurrence process.

Increase in CMAQ Funds and Expansion of Areas Eligible to Receive Funding

- The historic allocation of CMAQ funds is inadequate to address transportation-related air quality problems that exist now and that will exist in the future. Therefore, overall funding of the CMAQ program should be increased, to reflect the expanding scope and magnitude of transportation-related emissions and their impact on air quality, and in anticipation of new PM_{2.5} and 8-hour ozone nonattainment areas.
- CMAQ funding should be apportioned based on the severity of an area's air quality problem and its population.
- The types of areas currently eligible to receive CMAQ funding (“i.e., 1-hour ozone, PM₁₀ and CO nonattainment and maintenance areas) should be expanded to include PM_{2.5} and 8-hour ozone nonattainment and maintenance areas.
 - areas eligible to receive funding should also include:
 - areas nearing nonattainment;
 - areas whose transportation-related emissions have an impact on a nonattainment area; and
 - areas that experience other air quality problems as a result of transportation-related emissions, including, but not limited to, hazardous air pollutants from mobile sources.

Project Eligibility

- Greater emphasis should be placed on projects that will result in direct, timely and sustained air quality benefits; criteria for substantiating such benefits should be established and data to support the quantification of such benefits should be required.
- Certain types of congestion mitigation projects (e.g., road and bridge construction and expansion) may have the long-term effect of inducing growth in vehicle miles traveled and urban sprawl, and of creating new congestion corridors. CMAQ funding should be shifted away from such projects unless there is a demonstration that these projects will result in sustained air quality benefits.

- To qualify for CMAQ funds, a project should be required to demonstrate that a specified minimum air quality benefit threshold is met or exceeded, based on established criteria and supporting data; such a threshold should be determined with the concurrence of the appropriate State and/or local air quality agency.
- Funding eligibility criteria and guidance should be more clearly defined to meet the above objectives.
- To the extent that these project eligibility criteria are followed, States and localities should then have discretion in determining which qualifying projects receive funding.

Project Funding Beyond Three Years

- Project funding beyond 3 years should be allowed and decided on a case-by-case basis and contingent on a demonstration of need and continuing air quality benefit.
- Such extended project funding should be phased out over time.

Transportation Conformity

Implementation of transportation conformity as Congress envisioned it in Section 176(c) of the Clean Air Act Amendments of 1990 has only begun to occur within the last few years. Delays in establishing motor vehicle emissions budgets resulted in the unintended consequence of protracted use of the less-than-perfect build/no-build test for determining conformity. However, now that motor vehicle budgets are in place in nonattainment areas, STAPPA and ALAPCO firmly believe that conformity can be implemented as intended, and that its purpose—to ensure that shorter-term Transportation Improvement Programs (TIPs) and long-term Regional Transportation Plans (RTPs) contribute to the timely attainment of healthful air quality and are consistent with (i.e., conform to) the motor vehicle emissions budgets contained in the State Implementation Plan (SIP) for air quality—can be fulfilled with increasing success.

Because the conformity of transportation plans to air quality plans is critical to achieving clean air goals—particularly given the continued increase in motor vehicle use and vehicle miles traveled—preserving the conformity requirements and schedules now in place is crucial. Specifically, STAPPA and ALAPCO recommend the following:

Frequency of Conformity Determinations

- Regular and timely analyses to demonstrate compliance of constrained TIPs and RTPs with SIP motor vehicle budgets must be maintained. Such continued frequency will ensure that sound data is generated and allow for the timely improvement of motor vehicle emissions estimates. The result will be improved air quality and timely progress toward attainment of the NAAQS and other air quality goals.
- To better harmonize timelines, conformity analyses on the TIP and the RTP should be synchronized and conducted no less frequently than once every 3 years.
- In addition, the 18-month SIP “trigger” for determining conformity must be maintained.

Planning Horizon

- The 20-year planning horizon for transportation plans must also be retained. Such long-range planning is imperative to ensuring that the potential for growth in mobile source emissions is identified, the impact on air quality is assessed and adjustments to transportation plans are made accordingly.

DEPARTMENT OF ENVIRONMENTAL QUALITY,
Portland, OR, April 2, 2003.

Hon. GEORGE VOINOVICH,
U.S. Senate,
Washington, DC.

Re: Subcommittee on Clean Air, Climate Change and Nuclear Safety—CMAQ and Conformity Hearing of March 13, 2003

DEAR SENATOR VOINOVICH: At the March 13th hearing I testified on behalf of the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) about transportation conformity and the Congestion Mitigation-Air Quality program. At the end of the hearing I offered to provide additional information concerning how the conformity and air quality planning processes work in Oregon. Overall, I believe that transportation conformity works well in Oregon because affected agencies work cooperatively to achieve conformity’s intent: ensure that transportation decisions and investments do not jeopardize healthful air quality.

When the conformity rules were implemented in Oregon, the Oregon Department of Environmental Quality (ODEQ), the Oregon Department of Transportation (ODOT) and the State's Metropolitan Planning Organizations (MPOs) organized themselves as standing committees to achieve the required interagency consultation. These committees meet monthly, and the regular contact allows participants to develop mutual trust and to identify issues before they become critical problems. Moreover, transportation and air quality planning is integrated into the activities of the various agencies through workload sharing. Typically, an MPO or the ODOT conducts the transportation modeling and combines the results with the output of the mobile emissions modeling performed by ODEQ. The product is an estimate of motor vehicle emissions derived from the efforts of several organizations with a good understanding of, and a degree of ownership in, the outcome. Whenever possible, ODEQ utilizes the results of travel modeling that is done for transportation planning purposes in the air quality planning process. This minimizes the amount of modeling that is needed and ensures that the planning processes are coordinated.

This climate of collaboration helped develop some of the innovative features first applied in the Portland, Oregon maintenance plans for ozone and carbon monoxide. One of the features developed in these plans was the "TCM Substitution" process. Transportation Control Measures (TCM) are motor vehicle emission reduction strategies in a SIP that are backed by especially strong enforcement requirements. They include techniques such as expanding public transit services and designating lanes that are available only to High Occupancy Vehicles. Normally, changes to TCMS must be formally approved by EPA before those modifications can take effect. This usually results in a protracted process. Working with EPA's Region X and the MPO for the Portland area, DEQ found ways to accelerate the procedure and reduce the amount of effort.

Briefly explained, TCM substitution can be used when ODEQ, EPA and the MPO agree that a replacement control measure of equal or greater effectiveness is appropriate. First a substitute measure is identified using an advisory committee process and that substitute is made available for public comment. Following a comment period that meets both Federal and State procedural criteria, comment materials are provided to EPA for their concurrence. If EPA finds the measure to be acceptable, Oregon's Environmental Quality Commission is free to adopt and implement the substitution without a SIP revision. (Please see enclosure from the Portland Carbon Monoxide Maintenance Plan for details.)

Another feature of the Oregon SIP is a Motor Vehicle Emissions Budget that extends beyond the duration of the air quality plan. The addition of new highway capacity typically leads to changes in land use that can often result in sprawl. In turn, these changes in land use frequently lead to ever greater demand for highway construction. The phenomenon is identified as "induced demand" and is the reason many conclude "you can't build your way out of congestion." The interaction between transportation and land use can be subtle, and it takes decades for its effects to be felt. Therefore, we feel that a long planning period is essential to capturing the full consequences of an area's transportation decisions. To address this concern Oregon DEQ established motor vehicle emission budgets 10 years beyond the last year of the SIP to balance the emissions from industry, ordinary citizens and highway vehicles. This approach to addressing the "mismatch" between transportation and air quality planning horizons can be implemented by any jurisdiction under current law.

In order to effectively evaluate alternatives during the planning processes, it is necessary to have the analytical tools available that are capable of assessing the full impacts of the proposed alternatives. Computer models for predicting travel behaviors are often not sensitive to the complete range of policy choices that transportation and air quality planners need to assess. In Oregon, potential solutions to these problems are discussed and developed by the Oregon Modeling Steering Committee (OMSC).

The OMSC was organized by ODOT about the same time the conformity rules took effect, and consists of representatives from the Federal Highway Administration, State agencies for Housing, Transportation, Environmental Quality and all of Oregon's MPOs. Through quarterly meetings and modeling projects of common interest, the OMSC has provided a vehicle for standardizing and improving travel models across the State. These efforts allowed the development of new modeling capabilities that can better inform policymakers of the consequences their transportation choices will have on the environment, land use and economic development. The OMSC has also been a forum for sharing expertise between large and small MPOs and the group has recently devised a mechanism that allows the temporary sharing of expert personnel among participating agencies. Such close cooperation

broadens members' professional perspective and nurtures a sense of common purpose.

These examples illustrate how the interagency consultation process can address concerns that have been raised about conformity without the need for changes to the statute. Thank you again for the opportunity to testify on behalf of STAPPA/ALAPCO and to share this information about our experience in Oregon. If you or your staff would like further information, please contact me.

Sincerely,

ANNETTE LIEBE,
Manager, Air Quality Planning.

SUBSTITUTION OF TRANSPORTATION CONTROL MEASURES (D2-10-2—VOLUME 3)

In the event that a Transportation Control Measure (TCM) is not included in the Regional Transportation Plan (RTP) or Transportation Improvement Program (TIP) in the timeframe contained for that measure in this maintenance plan adopted by the Environmental Quality Commission (EQC), the parties in the interagency consultation process established pursuant to OAR 340-020-0760 shall assess whether such measure continues to be appropriate. Where the Metro and the Department of Environmental Quality (DEQ) concur that a transportation control measure identified in the SIP is no longer appropriate, the agencies may initiate the process described in this Appendix to identify and adopt a substitute transportation control measure.

A substitute TCM must provide for equivalent or greater emissions reductions than the measure contained in the maintenance plan. In addition, a replacement measure must be implemented in the timeframe established for the measure contained in this plan. Where such implementation date has already passed, funding based measures selected pursuant to this Appendix must be included in the first year of the next TIP and long range plan adopted by Metro. The substitution process described in this Appendix may be a basis for a finding of timely implementation under OAR 340-020-0840 for no more than 2 years after the implementation date established for the measure to be replaced.

Metro will convene a committee (or working group) to identify and evaluate possible substitute measures. The committee shall include members from all affected jurisdictions, State and/or local air quality agencies and local transportation agencies. In addition, the working group shall consult with EPA. Consultation with EPA may be accomplished by sending copies of all draft and final documents, agendas and reports to EPA Region 10.

Metro, DEQ, and EPA Region 10 must concur with the appropriateness and equivalency of the substitute TCM. All substitute measures must be adopted by the Environmental Quality Commission following the public comment period and EPA's 14-day concurrence period described below. The measure to be replaced shall stay in effect until the substitute measure has been adopted.

The TCM to be replaced must be rescinded for the new TCM substituted pursuant to this Appendix to be effective. By adopting a substitution under this Appendix, the EQC formally rescinds the previously applicable TCM and adopts the substitute measures.

Prior to adopting a substitute measure under this Appendix, the substitute transportation control measure(s) must have been subject to a public hearing and comment process. This means there must be at least one public hearing on the substitution. The hearing can only be held after reasonable public notice which will be considered to include, at least 30 days prior to the hearing:

- notice given to the public by prominent advertising in the area affected announcing the date time and place of the hearing;
- availability of each proposed plan or revision for public inspection in at least one location in each region to which it, will apply;
- notification to interested parties in accordance with the Oregon Administrative Procedures Act;
- notification to the Administrator (through the Region 10 Office);
- notification to the Southwest Washington Air Pollution Control Agency and the Washington Department of Ecology; and
- notification of the chief executives of affected local governments, planning agencies, transportation agencies, environmental control agencies, and economic development agencies.

A description of the measure(s) and analysis supporting the proposal, including assumptions and methodology, must be made available to the public, DEQ, and EPA Region 10 within a reasonable time before the public hearing, and at least 30 days

prior to the close of the comment period. DEQ shall submit to EPA Region 10 a summary of comments received during the public comment period along with DEQ's responses following the close of the public comment period. EPA shall notify DEQ within 14 days if the Agency's concurrence with the substitution has changed as a result of the public comments. Where EPA fails to notify DEQ within 14 days, EPA is deemed to concur.

The analysis of substitute measures under this Appendix must be consistent with the methodology used for evaluating measures in the maintenance plan. Where emissions models and/or transportation models have changed since those used, for purposes, of evaluating measures in the maintenance plan, the TCM replaced and the substitute measure(s) shall be evaluated using the latest modeling techniques to demonstrate equivalent or greater emissions reductions will be achieved through implementation of the substitute measure(s).

Key methodologies and assumptions that must be consistent, and reconciled in the event of a discrepancy, are, for example:

- EPA approved regional and hot-spot (for CO and PM₁₀) emissions models;
- the area's transportation model; and
- population and employment growth projections.

DEQ will maintain documentation of approved TCM substitutions. The documentation, will also provide a description of the substitute and replaced TCMs, including the requirements and schedules. The documentation will also provide a description of the substitution process including the committee or working group members, the public hearing and comment process, EPA's concurrence, and EQC adoption. The documentation will be submitted to EPA following adoption of the substitute measure by the EQC, and made available to the public as an attachment to the maintenance plan. See Section 4.51.4.4, Maintenance Plan Commitments.

STATEMENT OF W. GERALD TEAGUE, M.D., PROFESSOR AND VICE CHAIRMAN OF CLINICAL AFFAIRS, DIRECTOR, DIVISION OF PULMONARY MEDICINE, DEPARTMENT OF PEDIATRICS, EMORY UNIVERSITY SCHOOL OF MEDICINE

Good morning. I am Dr. Gerald Teague, Professor of Pediatrics at the Emory University School of Medicine in Atlanta. I would like to thank Senators Voinovich and Carper and the Senate Committee on the Environment and Public Works for inviting me here today.

HEALTH EFFECTS OF URBAN AIR POLLUTION

As many of us in this room already know, outdoor air quality is known to affect respiratory health. Studies done over 10 years ago in children seen at Grady Hospital, an inner city hospital that serves primarily minorities, established a clear relationship between exposure to unhealthy levels of ozone and increased symptoms of asthma (White et al). Other studies done in Atlanta showed that airborne particles, apart from ozone, can also increase respiratory symptoms in children (Tolbert et al). As a pediatrician who practices in Atlanta, a city which has not met U.S. air quality standards, I regularly care for children with asthma attacks caused by air pollution episodes.

The evidence that air quality significantly impacts health is not limited to breathing problems like asthma. The link between particulate pollution and increased deaths due to heart attacks and arrhythmias in adults is clearly established (Samet et al). Evidence is also mounting that air quality is directly linked to the risk of lung cancer, childhood leukemia, complications of pregnancy like low birth weight, prematurity, and possibly congenital heart defects.

IMPORTANCE OF TRAFFIC CONGESTION

Since the 1950's, we have known that vehicle exhaust fumes play a major role in the deterioration of air quality in urban areas (CMAQ). The Clean Air Act, passed in 1970, authorized the EPA to cap pollutants emitted from a wide range of sources to meet air quality standards and preserve human health. As a result of this legislation, the air is much cleaner today than it was in 1970. However, the prevalence of asthma in urban areas has increased significantly, and an estimated 62 million Americans live in areas where the air quality does not meet the health-based standards. Furthermore, the United States has experienced a staggering increase in traffic congestion (CMAQ). From 1982 to 1997, traffic congestion increased by 45 percent in metropolitan Atlanta.

INTRODUCTION TO THE ATLANTA OLYMPICS STUDY

All of this leads me to the questions we face today. What happens when a city makes a well-organized, highly collaborative, and aggressive attempt to decrease automobile traffic congestion? Can such a strategy work in terms of decreasing traffic volumes and traffic congestion, and increasing traffic flow? If it does, what impact would this have on the air quality of that city? And what impact would this improvement in air quality, in turn, have on the health of the residents of that city?

The 1996 Summer Olympic Games in Atlanta provided an opportunity to answer these questions. To set the stage, Atlanta was preparing to be host to an additional 1 million visitors during the 17 days of the Olympic Games. These visitors would be concentrated in the downtown area, where traffic congestion was already a very serious problem.

METHODS TO REDUCE TRAFFIC CONGESTION DURING THE 1996 ATLANTA OLYMPIC GAMES

In response, the city of Atlanta, the Department of Transportation, and the Atlanta Committee of the Olympic Games along with local business leaders came together to develop and enact a comprehensive traffic mitigation strategy which included the following key components:

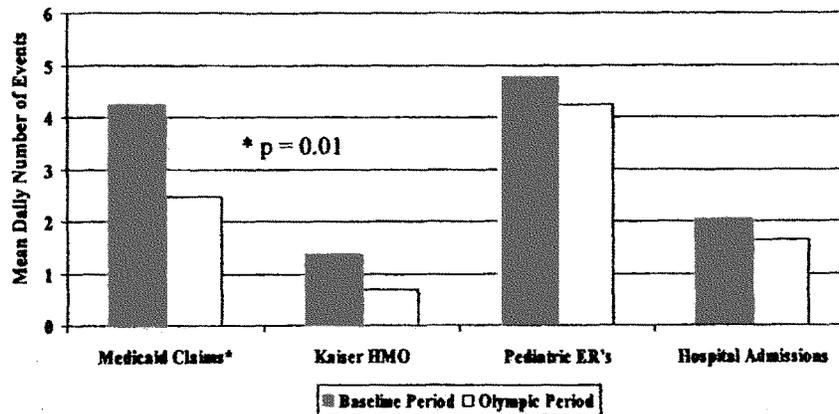
- Expand and encourage use of public transportation—24 hour bus and rapid rail services, additional buses
- Promote alternative commuting practices to shift travel away from rush hour periods—telecommuting, flex hours, etc.
- Media warnings of particularly severe traffic congestion
- Highway improvements—additional lanes, widened lanes
- Traffic restrictions around the venue

STUDY METHODS

To do this study, we measured acute care visits for asthma, mean air pollution concentrations, weather variables, traffic counts, public transportation use, and monthly gasoline sales during the 17 days of the Olympics. This was compared to a baseline period consisting of the 4 weeks before and after the Olympics.

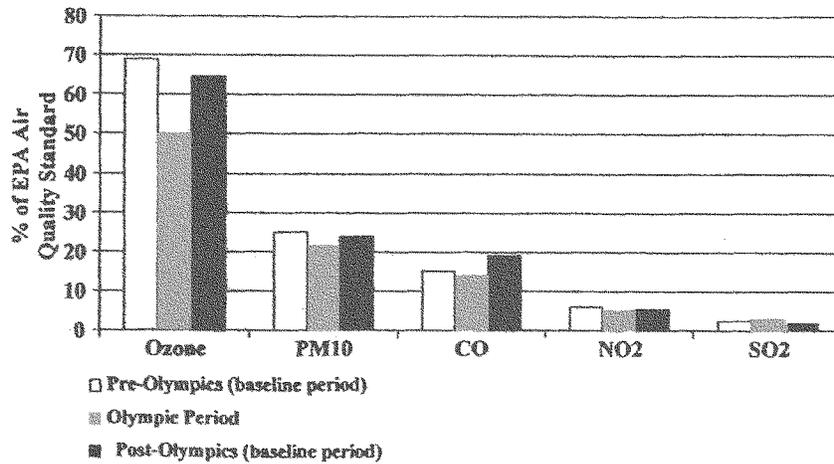
RESULTS

Results: Acute Care Visits for Asthma 1-16 year old residents of Atlanta



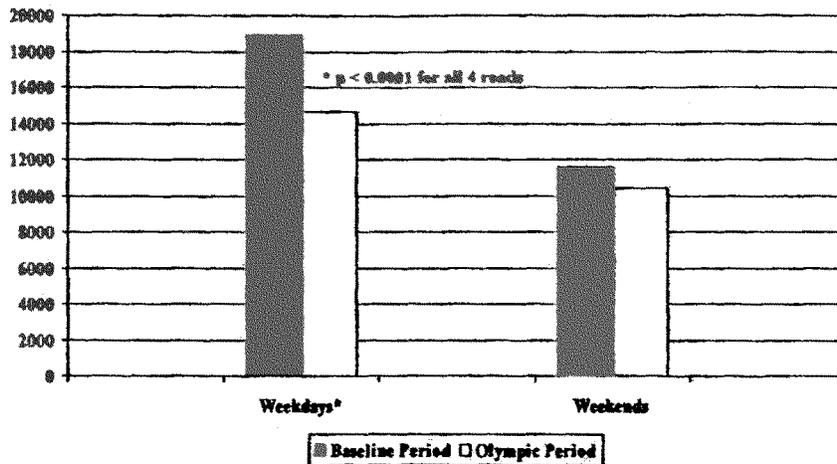
During the Olympics, acute asthma events decreased 42 percent in the Georgia Medicaid Claims file, 44 percent in a health maintenance organization, 11 percent in 2 pediatric emergency rooms, and 19 percent in the Georgia Hospital Discharge data base (see figure above).

Mean levels of major pollutants before, during, and after the Olympic Games as a percentage of the EPA's National Ambient Air Quality Standard (NAAQS) for that pollutant¹



Peak daily ozone concentrations decreased 28 percent from 81.3 ppb during the baseline period to 58.6 ppb during the Olympics (see figure above).

Results: 1-hour AM Peak Traffic Counts daily average for all roads



Peak weekday AM traffic counts decreased 22.5 percent (see figure above).

CONCLUSIONS

Efforts to reduce downtown traffic congestion in Atlanta during the Olympics resulted in decreased automobile use, especially during the critical morning rush hours. These changes were associated with a prolonged period of low ozone pollution and significantly lower rates of childhood asthma events. This study provides evidence in support of efforts to reduce air pollution and improve health via reductions in motor vehicle traffic.

OLYMPIC ASTHMA STUDY MEDIA FACT SHEET

Friedman MS, Powell KE, Hutwagner L, Graham LM, Teague, WG. Impact of changes in transportation and commuting behaviors during the 1996 Summer Olympic Games in on air quality and childhood asthma. *JAMA* 2001; 285(7): 897-905.

1. Our study showed that decreased city-wide use of automobiles in Atlanta during the Olympics led to improved air quality and a large decrease in childhood asthma events.

2. Automobile use decreased most dramatically during the weekday morning rush hour period, which we believe is a critical time period for the buildup of ozone pollution latter in the day.

3. Dramatic increases in public transportation use and the widespread implementation of alternative downtown commuting schedules resulted in the observed decrease in automobile use. Strategies to decrease rush hour commuting included closure of the downtown area to car traffic, flextime, carpooling, telecommuting, and promotion of commuting alternatives through the media. Cooperation between city government, ACOG, local businesses, the local media, and residents of Atlanta ensured the success of these strategies.

4. Our findings are consistent with other studies linking poor air quality to increased asthma events and decreased lung function in children.

5. Our study is important because: (1) it provides evidence that decreasing automobile use can reduce the burden of asthma in our cities. (2) City-wide efforts to reduce rush hour automobile traffic through the use of public transportation and altered work schedules is possible in America.

6. Atlanta's inner-city children on Medicaid seemed to benefit the most from this Olympic experiment in city transportation planning.

7. While some Atlantans may have left the city during the Olympics, we found that overall emergency medical visits did not change while emergency asthma visits did, suggesting this was a real decrease.

8. The decrease in automobile use was driven by the Olympics; the question is whether there can be such a dramatic change in car usage under more routine and sustainable conditions.

9. We believe that sustainable transportation changes are possible if city governments, businesses, and city residents have a strong desire to reduce automobile pollution, and work together in innovative ways to accomplish this.

10. We hope that this study spurs interest in the development and use of near emission-free cars in our cities. The technology and practical application of such cars already exist. Efforts now need to focus on how to encourage and promote their use over the next 5 years.

11. Asthma is a very complicated disease with many possible causes. Air pollution and automobile congestion is only one factor in why a person's asthma may flare up. Efforts to decrease automobile emissions and improve air quality will not help everyone's asthma. But as our study shows, it may have a significant impact on the burden of asthma, especially in our inner-cities.

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4. U.S. Department of Transportation/Federal Highway Administration. The congestion mitigation and air quality improvement program. Publication No. FHWA-EP-00-020.

5. Samet JM, Dominici F, Curriero FC, Coursac I, Zeger SL. Fine particulate air pollution and mortality in 20 U.S. cities 1987-1994. *N Engl J Med* 2000; 343: 1742-1749.

STATEMENT OF MICHAEL REPLOGLE, TRANSPORTATION DIRECTOR,
ENVIRONMENTAL DEFENSE

Mr. Chairman, my name is Michael Replogle, and I serve as Transportation Director of Environmental Defense. Environmental Defense is a leading, national, NY-

based nonprofit organization, representing 300,000 members, that links science, economics, and law to create innovative, economically viable solutions to today's environmental problems. I serve as Chair of the Energy and Environment Issue Team of the Surface Transportation Policy Project, and today also speak on behalf of the Sierra Club, Natural Resources Defense Council, Defenders of Wildlife, Center for Community Change, America Walks, the Southern Organizing Committee for Economic and Social Justice, Metropolitan Atlanta Transportation Equity Coalition, the Tri-State Transportation Campaign (based in New York), and the Chesapeake Bay Foundation.

I am pleased to have this opportunity to discuss transportation and air quality, especially focusing on transportation conformity and the Congestion Mitigation and Air Quality (CMAQ) Program and to offer our views as the subcommittee begins work in reauthorizing TEA-21. I want to incorporate by reference the extensive testimony I provided on transportation and air quality issues to the full Senate EPW hearing on July 30, 2002. I stand by that testimony.

TRANSPORTATION CONFORMITY: A KEY ELEMENT IN TIMELY ATTAINMENT
OF HEALTHY AIR

Conformity is a principal way to keep the transportation system accountable to public health, air quality and the environment. In the 12 years, since TEA-21 was enacted, the science linking emissions from the transportation sector to public health has confirmed, time and again, the powerful link between health and the environment. Conformity is way to balance the checkbook, to keep track of air quality impacts and spur greater efficiency in the transportation system. Without conformity, money will be spent on transportation without this basic accountability.

Clean Air Act (CAA) transportation conformity requires transportation plans that are designed to achieve motor vehicle emission within the pollution limits established in State air pollution implementation plans (SIPs). Conformity was strengthened in the 1990 CAA Amendments to require quantitative emission limits so transportation plans could be held accountable for their performance, and to assure that transportation and air quality planners would coordinate their activities.

Conformity was strengthened because, since adoption of the 1970 CAA, growth in the number of vehicle miles traveled and related transportation emissions had been routinely underestimated, leading to repeated failure of many metropolitan areas to attain healthful air quality by established deadlines. Despite the adoption of far cleaner vehicle and fuel technologies, air pollution from motor vehicles—then and now—continues to harm the health of millions of our citizens.

Today, it is clear that, despite setbacks that have delayed and hampered its implementation, transportation conformity has been successful in many ways.

- It has spurred broad support for timely implementation of cleaner vehicle technologies, fuels, and vehicle maintenance initiatives.
- It has spurred adoption of strategies to reduce traffic and related pollution growth by expanding transportation choices and better managing transportation systems.
- Conformity has made it routine business for transportation planners to consider the air quality implications of alternative policies and investments and fostered much better interagency coordination.

Conformity: Like Balancing Your Checkbook. Transportation conformity has been most effective behind the scenes, providing timely information to decisionmakers to motivate action to reduce pollution and protect public health. Most conformity success stories have gone unreported and little noticed, while the complaints from some transportation officials about the nuisance of transportation conformity are often recounted.

Conformity is a lot like balancing your checkbook—it's not a fun way to spend your time, but its vital to the health of your household or business in the long run that it be done. Doing it routinely, frequently, and with the most accurate, up-to-date information available helps avoid surprises, bounced checks, and overdrafts that can result from untimely failure to record an ATM banking transaction, catch checkbook register arithmetic errors, or mis-recording of data, thereby protecting one's financial health and reputation. So too metropolitan areas doing frequent conformity analysis can catch early errors in forecasting motor vehicle emissions that result from changes in assumptions—such as the share of SUVs and light trucks vs. passenger cars, job and housing patterns, transit fares, parking rates, or improved travel behavior data—or from mistakes in transportation and emissions modeling and analysis. Timely updates to modeling assumptions improve accountability and protect the integrity of transportation and air quality planning.

However, some highway officials argue that there is a “timing mismatch” between the transportation and air quality planning process. They advocate “fixing” this by reducing the frequency of conformity analyses, limiting the future time horizon for air quality analysis, and by allowing use of out-of-date assumptions and data for conformity analysis. Such proposals would greatly weaken transportation conformity and make it likely that regional air quality control strategies will fail for the third time since enactment of the Clean Air Act in 1970. These proposals would put off for another generation the day when all Americans might breathe healthful air. Congress should reject these proposals that threaten public health and the environment.

To explain why, I’d like to recount several conformity success stories, including a recent one here in the Washington, DC-northern Virginia-suburban Maryland area. Successes like these would be imperiled by ill-advised proposals from some highway officials.

Frequent Conformity Checks Deliver Timely Correction of Emission Reduction Shortfalls. In July 2001, Washington-area officials sought to update the region’s transportation plan more than a year before its conformity finding was due to expire, so they could include several new regionally significant highway projects. The area’s Metropolitan Planning Organization (MPO), in a routine update of modeling assumptions, found mobile source emissions exceeding the SIP emission limits by about 8 tons per day of Nitrogen Oxides (NOx) when the growing use of sport utility vehicles (SUVs) and light trucks was accounted for, as these vehicles produce significantly more pollution per mile driven than standard cars. This finding was an early warning that additional emission reduction strategies needed to be adopted before new road projects could be added to the transportation plan. Officials formed a task force to consider reopening the SIP to allow for motor vehicle pollution by finding offsets from other emission sources or fixing the conformity problem by adopting added emission reduction measures. Over the course of a year, area officials deliberated, and eventually settled on three major types of actions which each contributed significantly to address the conformity problem within the transportation planning process:

- The MPO refined their models to *better account for emissions and for emission reducing measures* already being implemented by the District of Columbia and other jurisdictions, but not previously credited by planners.

- The State of Maryland advanced a \$42 million package of *new transportation emission reduction strategies*, including buying clean buses, improving pedestrian and bicycle access to transit, and supporting transit oriented development and telework.

- The State of Virginia *cut back its proposed short-term road program* for 2005 by 100 lane miles of new road capacity (representing about 0.5 percent of 2005 modeled road capacity), which the MPO estimated would result in a 1 percent reduction in regional mobile source NOx, a 0.1 percent decrease in VOC, a 0.6 percent reduction in daily VMT, and a 1.3 percent increase in daily transit trips.¹ And Virginia taxpayers saved \$800 million.

If proposals being pushed by some transportation officials and road lobby groups to reduce the frequency of required conformity analysis of regional transportation plans to every 5 years or to allow the use of obsolete data assumptions for conformity analysis had been in effect, this \$42 million package of emission reduction measures would almost certainly not have been funded. Awareness of the emission benefits of reduced road expansion—driven by fiscal problems more than by the pressures of transportation conformity—would have gone unnoted. The MPO would have devoted less time and resources to considering strategies to reduce emissions and traffic growth.

If the region had been allowed to use old data for conformity analysis of Transportation Improvement Programs (TIPs) and regional transportation plans, the region’s officials would have been able to add major new highway projects to the plan at a time when it was clear that motor vehicle emissions would far exceed the pollution budget established in the SIP, almost guaranteeing that the region would not be able to attain the 1-hour ozone standard by 2005, after it had already missed the 1999 deadline for meeting that standard that was set in the 1990 Clean Air Act.

Our families here in the Washington region would face worse health problems from breathing the air. The “fixes” proposed by some highway officials ostensibly to

¹Kirby, Ronald. F., “Emissions Estimates Associated with the 2002 CLRP and fiscal year 2003–08 TIP, and Potential Transportation Emissions Reductions Measures (TERMs), memorandum of June 28, 2002 to Transportation Planning Board, Washington, DC, Attachment 1, “New 2005 Emissions Calculations Reflecting Changes In the Six-Year Plan and Certain Posted Speed Limits in Virginia”.

“align planning horizons and frequency of updates for transportation plans and SIPs” would actually have the effect of reducing the timely alignment of transportation and air quality plans, leading to much dirtier air, more sick kids, more premature deaths from respiratory problems, and more damage to the health of the Chesapeake Bay and other ecosystems caused by excess air pollution from motor vehicles.

Twenty-Year Conformity Planning Horizon: Vital to Considering Long-Term Effects of Transportation Investments. I'd like to recount another relatively unheralded conformity success story that would have been put in peril by the “fixes” proposed by AASHTO and the road lobby. In the mid-1990's, it became clear that Charlotte, North Carolina's 20-year transportation plan would not stay within the pollution limits set in the region's air quality plan. This helped prompt local officials to consider and adopt a new 2025 Transit Land/Use plan for Charlotte-Mecklenburg with bus rapid transit and light rail to support the five major transportation and development corridors. Funding for the plan is coming from a combination of local, State, and Federal funding, including a half cent local sales tax approved in 1998 by Mecklenburg County voters to expand bus and rapid transit improvements. The requirement that the regional transportation conform 20 years into the future was a vital element in motivating this regional progress and action to curb pollution while expanding transportation choices.

Indeed, the proposal by the road lobby to weaken conformity by having it apply only to the first 10 years of the RTP or to the last horizon year in the SIP threaten to cause a renewed widespread failure of SIP control strategies. Such a proposal would allow major projects, such as new outer beltways, to advance far into planning, development, and construction before accounting more fully for their profound long-term impacts on regional growth and traffic patterns, and related air pollution. The unsophisticated regional traffic models currently in use by most MPOs are already too insensitive to induced traffic and land use effects. This proposal would exacerbate this problem. Some State DOTs complain that they must make up for pollution growth from traffic in the out years of their 20-year transportation plans, without help from SIP control strategies after the attainment year. While SIPs are not required to adopt control strategies beyond the attainment year until the attainment year is reached and requirements for a 10-year maintenance plan are triggered, at least a half dozen States have adopted SIP control strategies that extend beyond or begin after the attainment year, to help transportation agencies deal with this problem.

But this problem would not materialize if metropolitan areas adopted development policies that combine transit oriented development with the implementation of comprehensive regional transit programs. To eliminate the obligation of the transportation agencies to account for the long-range impacts of the choices they make will force other emissions sources to bear the entire cost of future emission reductions.

Adoption of Emission Controls For Years After Attainment Deadline: Ready Solution to Emissions Growth Issues. For example, Denver was faced with a terrible particulate matter (PM) problem in the 1980's. Agencies began taking action against wood burning. There was progress made during this period, but PM was still measuring 185 $\mu\text{g}/\text{m}^3$ compared to the NAAQS of 150 $\mu\text{g}/\text{m}^3$. Conformity made transportation planning and air quality agencies look at other sources of PM. They started looking at street maintenance practices and implemented street sanding and sweeping strategies in the mid-1990's as a short-term emission reduction measure. Strategies have been implemented beyond the initial strategies adopted as part of the Colorado SIP. Within 2 years PM level dropped to 80 $\mu\text{g}/\text{m}^3$. Conformity spurred Denver to also build into regional plans enough maintenance plan measures to meet long-term health standards through 2015. Conformity provided additional incentive for developing light rail in Denver since it would provide long-term help to mitigate the PM problem. Conformity also led to the development of Metro Vision 2020 which includes a commitment by metro area governments to limit growth to a 730-square mile area and has committed the region to transportation alternatives to support this goal. Denver also has a number of travel demand management (TDM) strategies in their long range plan such as a RideArrangers program and a telework program. They do not take credit for TDM system management in the 2025 conformity finding, but they recognized the potential for reduction and retain them as a safety margin in meeting the emissions budget.

Transportation Control Measures (TCMs) are recognized in the Clean Air Act as a key part of attaining and maintaining healthful air quality. Some regions have used them extensively to help assure progress on clean air, including them in their plans even well beyond the attainment year of the SIP. For example, TCMs represent nearly 5 percent of total emission reductions in the San Joaquin region of

California. The MPO projects that TCMs will deliver as much as 10 percent reduction in emissions by 2020. In San Joaquin County rideshare, vanpool, and commuter rail provide significant emissions reductions, with a large percentage of San Joaquin County residents facing long distance commutes into the San Francisco Bay Area.

Conformity: A Key to Coordination Between Transportation and Air Quality Agencies. Since the 1990 Clean Air Act Amendments, conformity has been a significant factor fostering local, regional, and national political support for cleaner fuels and vehicles and inspection and maintenance programs that have helped produce more timely progress toward attainment of healthful air quality. In that period, conformity has been the single greatest factor promoting interagency cooperation between transportation and air quality agencies at the State, local, and Federal levels. Prior to 1990, transportation agencies paid no attention to the air quality consequences of transportation investments and plans. But in recent years, many metropolitan areas have adopted changes to their transportation plans and programs to help reduce traffic growth and emissions. Consideration of air quality impacts of investments has become a routine matter in many metropolitan areas where pollution problems are more severe. In most regions with serious air quality problems, officials and staff of air agencies and transportation agencies routinely meet and work together to help foster effective program administration that delivers progress on both mobility and air quality goals.

For example, Atlanta's conformity problems led the Governor to create a new regional authority responsible for better planning and funding transportation, air quality, and growth management in Georgia's non-attainment areas in an effort to fix a broken interagency cooperation process. The political impetus to accomplish this was obtained only once the transportation plan conformity finding expired. Had the road builder's proposal for a once in 5 year conformity review been in force, informed observers can have little doubt this governance reform would have faced insurmountable obstacles.

And while road builders have often raised the spectre of transportation conformity causing major disruptions to transportation programs, there have been no such disruptions. Even in Atlanta, where the longest conformity lapse of consequence to date took place, the region lost no transportation funding but instead redirected several hundred million dollars of funds from sprawl-inducing, pollution-generating roads into projects that reduced pollution and into safety and system improvements that would not increase emissions.

Proposals to reduce the frequency and time horizon for conformity analysis and to allow use of obsolete assumptions for conformity will not make the system work better. Instead, by reducing incentives for agency coordination they will make the system less efficient. Conformity works well when transportation and air quality experts work closely together on a routine basis, to plan and implement highway and transit investments and air pollution reduction strategies. Conformity, and the current schedule of deadlines, gives these agencies a powerful incentive to work together. The deadlines are also spaced just far enough apart to allow problems to be identified early—before they become crises that threaten air quality targets.

If the minimum frequency of conformity determinations for transportation plans is set at 5 years, and if the life of a short-term transportation funding program conformity finding is extended beyond the current 2 years, as some propose, this will likely be too far apart to detect and correct significant increases in emissions, especially in fast-growing metropolitan areas where vehicle miles traveled or the use of SUVs and light trucks grows, or to account in a timely way for important new data on housing, employment, and travel patterns produced periodically by the U.S. Census and other sources.

Conformity Time Frames Must Be Keyed to Attainment Schedules. The ultimate purpose of conformity is to ensure that motor vehicle emissions are reduced to the levels required by the States in the SIPs to attain the national health standards. For the Clean Air Act to work, all emissions in an area must be reduced to the allowable levels established in the SIP by the deadline for attainment, and kept within those levels thereafter.

Updates of motor vehicle emissions must be coordinated with the Act's attainment deadline. In areas where the deadline has been extended, emissions updates must also be coordinated with the milestones set for making interim progress toward attainment. If the motor vehicle emissions analyses required for conformity are not coordinated with important CAA deadlines, then there is no possibility for taking corrective action to reduce motor vehicle emissions to meet the emission-reduction targets that must be met to attain the national standards.

The key points when emissions targets must be met are the attainment date, and the 3-year interim milestones that are required to ensure progress toward attainment. All the intervals between these dates are 3 years, or less.

For example, the Act's default schedule for nonattainment areas allows less than 3 years between the time the limit on motor vehicle emissions, i.e., the "motor vehicle emissions budget," established in the SIP by the State, and the date when the area is required to attain the NAAQS. Unless EPA grants an extension, States are required to submit a SIP for each nonattainment area within 3 years after designation as nonattainment, and the SIP is required to provide for attainment within 5 years after designation. See CAA section 172(b). That means an area is only allowed 2 years from the time the motor vehicle emissions budget is established in the SIP until the attainment date when motor vehicle emissions must meet the budget.

If the conformity analysis is not required for 5 years, the conformity process would be disconnected from moving an area toward attainment of the NAAQS because the transportation agencies would not have to analyze emissions, or take corrective action to revise their transportation plans and TIPs, during the period when emissions must be reduced. This entire process would become irrelevant. Then the transportation agencies would come back 5 years from now and ask for repeal because conformity had become a paper exercise that no longer served any air quality purpose. To ensure that conformity continues to play a very important role in attaining the NAAQS, the schedule for conformity reviews must remain closely coordinated with statutory timeframes for achieving emissions reductions.

Another set of important emissions reduction targets mandated by the Act are the 3-year milestones established for areas that have extended attainment dates. The Act allows EPA to set later attainment dates than the 5-year deadline required by section 172(b), but also requires interim reductions to achieve "reasonable further progress." See sections 171(1), 172(c)(2) generally. Section 182(c)(2)(B) requires the adoption of measures to achieve at least 9 percent reductions in emissions every 3 years, and 182(g) requires the States to determine if actual emissions comply with the milestones at the end of each 3-year period.

To establish milestones for total emissions in an area, motor vehicle emissions must be determined for the area as well as stationary source emissions. To determine compliance at the end of a milestone, motor vehicle emissions must again be analyzed. The 3-year schedule for conformity was intended to ensure that the transportation agencies would be determining motor vehicle emissions around the time that milestone compliance demonstrations are required by the Act. If conformity is determined every 5 years, the emissions estimates will not be available for the States to make their compliance demonstrations. More importantly, the transportation agencies will have no obligation to take corrective action when a milestone is violated as a result of motor vehicle emissions that exceed the budgets in the SIP. Corrective action will not be required until a new conformity determination is required, which could be as much as 4 years later.

In short, the Act can't work as intended if the conformity schedule is not coordinated with the key statutory deadlines for emissions reductions. Nor will the transportation agencies be as likely to receive cooperation from the State in the development of additional emissions to solve excess motor vehicle emissions. Under current law, sections 182(c)(5) and 182(g)(3), when motor vehicle emissions exceed SIP levels, the State is required to submit additional measures to reduce motor vehicle emissions back down to the levels used to demonstrate attainment in the SIP. If these State obligations are not coordinated with conformity determinations, the transportation agencies may not get timely help to prevent or resolve a conformity lapse.

Transportation agencies and others, such as the authors of the misguided January 2003 Resources for the Future (RFF) Report, *Exhausting Options*, who propose to relax the current conformity schedule do not discuss any of these coordination issues, or the potential adverse impacts on implementation of the Act if the schedules are no longer coordinated. They only consider the burdens on transportation agencies that result from the obligation to keep transportation emissions within the limits required by the States' air quality plans. A balanced approach to these issues is required to ensure that the Act remains an effective tool for achieving a safe air supply for every American. The evidence in the RFF Report demonstrates that while significant efforts are required to keep motor vehicle emissions within bounds, the cooperative efforts of air and transportation agencies has produced effective solutions to these challenges. This kind of effective partnership was a goal of the Act, and is working. Emissions are being kept in bounds and the public is being well served.

Air Agency Performance Needs to Be Enhanced. Rather than disconnecting the schedule for conformity determinations from the other schedules in the Act, the committee should require effective implementation of the corrective measures required of the State air agencies and EPA. EPA supplied this committee with responses to questions transmitted at the hearing last summer which indicate that,

aside from California, almost all States with serious and severe ozone nonattainment areas have not submitted the milestone compliance demonstrations for 1999 required by section 182(g). Even more disturbing, EPA States in its response to Question 16: “We sent no correspondence addressing State failures to submit milestone compliance demonstrations.” EPA has been derelict in not taking action to require emissions updates needed to determine if the States are on track toward attainment, and to require corrective action if they are not.

Implementing this requirement of the Act would go a long way toward resolving the complaints from the transportation agencies that the States are not updating their SIPs to overcome shortfalls in achieving the emissions reductions needed for conformity, milestone compliance and attainment.

Effects of Conformity Fix on New NAAQS Attainment and on Use of 2000 Census Data. Let’s look at how the road builder’s package of conformity “deadline mismatch fixes” might affect the timeliness of considering new information, data, and control strategy requirements.

- Data from the 2000 Census journey-to-work survey is expected to become available in late 2003. Many MPOs continue to use inadequate transportation analysis models that were calibrated on travel data from the early or mid-1990’s on 1990 Census data. Many MPOs are anticipating revisions to their travel forecasting models using 2000 Census data so they can better reflect current travel patterns and behavior. It is not uncommon for a major MPO model update to take 18–24 months, which means improved analysis methods and data to support conformity analysis may become available in late 2005. But a new conformity analysis of a 10-year regional transportation plan, based on a deficient travel model based on obsolete 1990 travel data, might be adopted in the fall of 2005 and, under the road lobby’s proposal, this analysis would continue to be valid until late 2010, after the expenditure of all the funds authorized in a new 6-year transportation bill. In the meantime, major pollution-increasing transportation projects could proceed to be approved and funded for construction without any consideration of their emissions impacts, even if the revised travel data and model shows that the previous 1990-data based model significantly underestimated emissions.

- The MOVES model, which will update the Mobile 6 emission factor model for mobile sources, is anticipated to be made available by EPA in the fall of 2005, and will become mandatory for use in SIPs and conformity analysis by 2007. A conformity analysis made in 2006 might rely on by then out-of-date Mobile 6 emission estimates, but would not need to be updated and replaced with a new regional plan conformity finding until 2011, 6 years after the issuance of the improved MOVES model, which is likely to lead to significant changes in the estimation of mobile source emissions. In the meantime, major pollution-increasing transportation projects could proceed to be approved and funded for construction without any consideration of their emissions impacts, even if the MOVES model shows that the Mobile 6 emission estimates were significantly underestimated.

- The 8-hour ozone designations to be made by EPA in April 2004 are not anticipated to require adoption of SIPs and motor vehicle emission budgets until 2007. The first conformity analysis will be required for newly designated areas 1 year after designation in 2005. The SIP for such areas will be required to provide for attainment by 2009 (see section 172(b)), but the next conformity demonstration would not be required until 2010. Thus, if the transportation plan is not adequate to reduce motor vehicle emissions to the level required for attainment, there would be no requirement to change the plan before the attainment deadline. As a result, the area would fail to attain and another SIP would be required. Thus, a new conformity finding made in early 2007 for a 10-year regional transportation plan might continue to be valid until 2012, allowing a network of new outer beltways to be approved for construction in 2010 or 2011 which would result in massive sprawl, traffic growth, and pollution without considering the impact on the region’s capacity to meet the deadline for attainment of the 8-hour ozone standard in 2012. The burden for emissions reduction required for attainment would fall on stationary and area sources, small businesses, and consumers, while giving the road construction industry a free pass to build new roads that cause substantially greater pollution at taxpayer expense. All the funds authorized in a new 6-year transportation bill would be spent before considering the impacts of 8-hour ozone and PM_{2.5} air quality standards on the road building industry, even if it was clear that the transportation plan approved in 2007 would make it impossible to attain the new NAAQS by an extended 2010 or 2012 deadline.

Helping Conformity Work Better. Instead of the statutory “fixes” sought by the road lobby, schedule coordination should come from better interagency coordination and by ensuring that EPA carries out its obligations to review the adequacy of SIPs

every 3 years, not through relaxing the frequency of accounting system checks and balances.

If there is any statutory adjustment to conformity, it should assure that areas in a conformity lapse will be able to add new emission-reducing transportation projects to non-conforming short-term Transportation Improvement Programs (TIP) and long-range transportation plans, even if those projects were not previously contained in a conforming, fiscally constrained TIP or plan. This is discussed in greater detail in *Attachment 1* to this testimony, which is the response I offered to this Committee to followup questions after the July 30, 2002 hearing on transportation and air quality.

Promote Performance-Oriented Planning Systems. Better interagency coordination and air quality and transportation planning, and more timely project delivery, could also result from a requirement that all State and metropolitan areas develop and periodically update, with public involvement, coordinated transportation, natural resource protection, and growth management plans that consider alternative scenarios that considerably reduce traffic growth and enhance environmental performance through better system management. Such an activity would fit naturally within a new environmental management system for transportation agencies. Such a system should be supported by annual reports on the current and projected performance of transportation system management, investment, and proposed programs and plans, accounting for cumulative and secondary impacts on growth patterns, public health, greenhouse gas emissions, the achievement of natural resource planning goals for air, water, and habitat protection, and the provision of equal access to jobs and public facilities for all residents, including those without cars, without undue time and cost burdens. Short of a mandate for such activities, the Congress could offer a 100 percent Federal funding share for these activities to encourage their voluntary adoption by States and MPOs.

Enforce Fiscal Constraint and Travel Modeling Requirements. Congress should also take steps to assure that EPA and FHWA will better comply with the Clean Air Act and transportation planning laws. Traffic and emission forecasts often rely on unsupported assumptions that go unquestioned in the interagency review process. FHWA and EPA have failed to enforce key Clean Air Act and TEA-21 planning requirements that transportation plans and programs must be fiscally constrained and show the sources of funding that can be relied upon to implement and operate them. They have also failed to enforce regulatory requirements that the effects of congestion and new transportation capacity on travel time and cost appropriately be “fed-back” through the travel behavior analysis process and reflected in emission and traffic estimates.

Many MPOs continue to rely on unrealistic and questionable financial and technical forecasts as they determine the quality and performance of regional transportation systems in future years, including the level and price of transit services, the characteristics of motor vehicles being driven, and the amount of traffic and emissions. Poor accounting often leads to underestimation of motor vehicle emissions, making it more likely that State Implementation Plan (SIP) air pollution control strategies will again fail to deliver on the promise of healthful air for all Americans, more than 35 years after the first Clean Air Act. These problems were detailed in my testimony to the full Senate Environment and Public Works Committee on July 30, 2002.

The failure to reflect “induced” traffic often leads to underestimation of emissions. EPA and FHWA should assure that MPO traffic models used for conformity and project impact analysis appropriately reflect scientifically established relationships between travel time, travel cost, and traveler behavior, as reflected in numerous induced traffic studies. If MPO models do not reflect these relationships adequately, immediate corrective action should be required to assure honest accounting for traffic and emissions growth, with a timely investment in developing best practice analysis methods, regionally and nationally. These empirical relationships are well reviewed in a paper by two former EPA scientists, which I attach to this testimony by reference. Their survey of the literature found that in general for every 10 percent increase in road lane miles, it is typical to find a 3 to 11 percent increase in vehicle miles traveled, with 8 percent being a typical median value. As this paper notes,

Regional transportation planning agencies (or the States) generally maintain a system of models to forecast and evaluate the impact of transportation projects and plans. These models are usually deficient in accurately forecasting emissions (Transportation Research Board 1995) partially because they do not adequately account for both short and long run induced travel effects. This can be partially corrected by building feedback mechanisms into the models to at least account for some of the short run impacts (Johnson and Ceerla, 1996 a).

Air quality regulations already require this step for conformity analysis, though actual practice has generally not kept up with the regulatory requirement.

Some EPA regions are working with metropolitan planning organizations to improve the State of the practice in the modeling of transportation impacts, in particular the impacts of transportation on land development. Various modeling packages (none of which are ideal) are available to provide estimates of land development changes induced by transportation and accessibility changes. Improved modeling of these impacts would provide decisionmakers with far better information on the short-run and long-run emission impact of alternative transportation plans and are critical for development of State Implementation Plans that will actually help bring a region into attainment of the NAAQS. Project selection criteria would also be vastly improved.²

Notable improvements to models used for transportation and air quality planning are being made in many regions, including Portland, Oregon and Sacramento, California. And other States are making progress.

Mr. Chairman, the Ohio Department of Transportation has launched a \$6 million program to develop an integrated transportation and land use model. This work follows the example of Oregon, which has pioneered a similar State-wide model and which is sharing it with its metro area planning agencies. And the Columbus Mid-Ohio Regional Planning Commission is developing an activity-based travel micro-simulation model which offers the promise of bringing that area's analysis tools up to best practice standards. These kinds of tools are vital to making performance-based planning a reality rather than an ill-supported pipe-dream.

Ensure the Integrity of SIP Attainment Strategies. EPA has issued guidance that encourages submission of Attainment SIPs that sound science suggests are unlikely to provide for the attainment of the National Ambient Air Quality Standards (NAAQS) as they are required to do. Moreover, EPA has been finding such SIPs adequate and granting them full approval. Conformity to the emission budgets in these SIPs is unlikely to result in attainment by the statutory deadlines.

In January 2002, EPA released a new Mobile 6 emission factor model that metropolitan areas and States must use this year or next year to update their SIPs. In nearly all metropolitan areas, this improved model is showing that mobile source emissions of NOx and VOC are significantly higher than previously estimated for years prior to 2007. Thus, emissions will be higher than previously thought in the attainment deadline years that have been established for serious and severe 1-hour ozone nonattainment areas. These substantial excess emissions in the attainment year are likely to cause the attainment SIPs to fail unless these emissions are offset by added emission reductions.

Before accepting new Mobile 6 SIPs as adequate for purposes of conformity, or as new attainment demonstrations, EPA should require States to either offset these increased emissions or to use a regional airshed model to evaluate whether their SIP strategies will be adequate to demonstrate attainment by the statutory deadlines. However, EPA has offered States guidance that would allow them to use scientifically unsupported "rollback" methods in lieu of new modeled demonstrations of attainment with the latest emission inventories and forecasts.

Congress should ask EPA in what areas and by how much emissions will increase in each SIP milestone and attainment year using Mobile 6, compared to the emissions estimated using the older Mobile 5 model, and ask EPA or the States to evaluate with regional airshed models the effect these increased emissions will have on forecast ozone levels in various attainment years. Congress should ask EPA to explain the science behind its assumption of a linear relationship between NOx and VOC emissions and ozone levels that is at the heart of the EPA weight-of-evidence and rollback methods for appraising the adequacy of attainment SIPs, in light of a National Academy of Sciences study finding that:

Nonlinearities in the response of ozone concentrations to emission changes generally result in smaller ozone reductions than might be expected or desired from reducing emissions. For example, by the year 2000, mobile sources in Los Angeles are expected to account for about 30 percent of total VOC emissions. Airshed model calculations indicate that removing this fraction of VOCs would decrease peak ozone 16 percent from 270 to 230 ppb for the particular set of episode conditions studied (Russell et al., 1989) . . .

Several recent studies have shown that ozone in rural areas of the Eastern United States is limited by the availability of NOx rather than hydrocarbons,

² Robert Noland and Lewison Lem, "A review of induced travel and changes in transportation and environmental policy in the US and the UK," *Transportation Research Part D*, Vol. 7, 2002.

and that reductions in NO_x probably will be necessary to reduce rural ozone values.³

ASSURE PROGRESS IN DEALING WITH LOCAL HEALTH IMPACTS OF
TRANSPORTATION PROJECTS

Recent scientific research shows that there are many adverse local health impacts experienced by those who live close to major highways carrying large volumes of traffic, including high cancer risk and multiple adverse health effects related to the exposure to small particle air toxics. While diesel exhaust is implicated as the largest contributor to these toxic exposures, all motor vehicles make a contribution. The South Coast Air Quality Management District's Multiple Air Toxics Exposure Study (MATES-II), a Colorado study of leukemia risk factors, and a California Air Resources Board study of the Barrio Logan in San Diego have all found that mobile sources contribute as much as 90 percent to the excess cancer risk people experience due to exposure to hazardous air pollutants. At a January 2003 panel of the Transportation Research Board annual meeting in Washington, DC, several US DOT and EPA officials agreed that this was a serious problem that both agencies are working to develop new policies to address it. Panelists agreed that hot spot exposures near major roads and bus terminals represent a significant health threat that warrants further study.

However, the Federal Highway Administration has thus far resisted calls to evaluate and take steps to mitigate or avoid these health effects in relation to major highway expansion environmental review studies, as required by law. This issue is currently in litigation in relation to the US-95 highway widening project in Las Vegas, Nevada, and has been raised in transportation plan and project reviews in several other regions.

Congress should assure timely EPA action to regulate air toxics and assure that FHWA accounts for and avoids or mitigates the adverse health impacts of exposure of communities to hazardous air pollutants caused by expansion of major highways. Appendix 1 provides more information on this subject.

ASSURING ADEQUATE RESOURCES FOR THE CMAQ PROGRAM

The Congestion Mitigation Air Quality Program (CMAQ), which helps local communities and States reduce traffic and transportation pollution, should be reauthorized at a substantially higher level, recognizing the much larger population living in non-attainment areas and exposed to hazardous air pollutants. CMAQ funds should be targeted to innovative strategies that produce lasting traffic and pollution reduction, rather than to short-term one-time emission reduction strategies or traffic flow improvements.

Health studies have shown air pollution is more widespread and hazardous at lower levels than previously thought, with major health threats from fine particulate matter and air toxics. There is widespread consensus that CMAQ funds should be made available to help the hundreds of additional counties that face new requirements to address their previously unrecognized air quality problems. We join in that consensus. There is also wide support for allowing CMAQ funds to be used to help reduce emissions and exposures to air toxics. We agree with this as well. But this means that CMAQ funding must rise by about half over current levels in the next transportation authorization just to sustain the current level of effort in non-attainment areas on a per capita per pollutant basis.

CMAQ is the key source of transportation funding dedicated to improving transportation related air quality. Failure to boost CMAQ funding levels is likely to hamper the ability of existing non-attainment areas to sustain ongoing pollution-reduction transportation investments or limit funds available to newly designated non-attainment areas that need similar access to resources.

TEA-21's CMAQ obligation formula currently recognizes only the population living in ozone and carbon monoxide non-attainment areas, even though funds can be spent on project that help reduce particulate matter. In 1999, nearly 54 million people live in areas that do not meet the 1-hour ozone standard. According to the latest available monitoring data from EPA, more than double this number—123 million people—live in the 333 counties violating the new 8-hour ozone standard. Some 82 million live in 173 counties that violate the PM fine National Ambient Air Quality Standards (NAAQS), with some overlap with ozone non-attainment areas. If contiguous counties that make up metropolitan areas are included, as is usual in desig-

³National Research Council, *Rethinking the Ozone Problem in Urban and Regional Air Pollution*, National Academy Press, Washington, DC, 1991, page 361-363.

nating non-attainment areas, these numbers will grow significantly. Additional millions live in areas that violate the CO standards.

The Federal Highway Administration counts 172 million people living in 1-hour ozone and CO non-attainment or maintenance areas and has used this figure for fiscal year 2003 CMAQ apportionments to States. Initial estimates suggest that this apportionment population number will increase by about one-fourth when non-attainment area designations are made under the new 8-hour ozone and fine particulate NAAQS in 2004 and 2005. But this increased apportionment estimate does not include the population living in areas affected by air toxics that are outside of what will likely be designated as non-attainment areas under the new NAAQS, nor does it take into account the increased scope of air pollution control efforts that will be needed by existing non-attainment areas to attain the new 8-hour ozone and PM fine air quality standards.

Broad consensus exists that CMAQ eligibility should be expanded to help counties, cities, and States deal with fine particulates and air toxics in addition to ozone and CO. Reauthorization apportionments should recognize the expanded scope of funding needs by proportionate expansion of CMAQ funding based on both population and the degree of pollution remediation needed. Otherwise existing non-attainment areas will face cut-backs in funds for air pollution reduction programs while being asked to take additional steps to further cut pollution to protect public health.

If the eligibility of the CMAQ program is expanded to include air toxics and fine particulates and all newly designated non-attainment areas without cutting the per capita allocation of CMAQ funds to existing non-attainment areas, an increase of at least 50 percent in CMAQ funding will be needed in TEA-3. This will require growing the program from its fiscal year 2002 program obligation level⁴ of \$1.435 billion in fiscal year 2003 to an average of \$2.15 billion a year over the upcoming authorization period.

REPRINTED RESPONSES BY MICHAEL REPLOGLE TO ADDITIONAL QUESTIONS
FROM SENATOR JEFFORDS

Question 1. In general would you agree that conformity is spurring investments in transportation strategies and technologies that reduce air pollution and create better interagency cooperation?

Answer. Yes. Since the 1990 Clean Air Act Amendments, conformity has been a significant factor fostering local, regional, and national political support for cleaner fuels and vehicles and inspection and maintenance programs that have helped produce more timely progress toward attainment of healthful air quality. In that period, conformity has been the single greatest factor promoting interagency cooperation between transportation and air quality agencies at the State, local, and Federal levels. Prior to 1990, transportation agencies paid no attention to the air quality consequences of transportation investments and plans. But in recent years, many metropolitan areas have adopted changes to their transportation plans and programs to help reduce traffic growth and emissions. Consideration of air quality impacts of investments has become a routine matter in many metropolitan areas where pollution problems are more severe. In most regions with serious air quality problems, officials and staff of air agencies and transportation agencies routinely meet and work together to help foster effective program administration that delivers progress on both mobility and air quality goals.

Atlanta's conformity problems led the Governor to create a new regional authority responsible for better planning and funding transportation, air quality, and growth management in Georgia's non-attainment areas in an effort to fix a broken interagency cooperation process. While road builders have often raised the spectre of transportation conformity causing major disruptions to transportation programs, there have been no such disruptions. Even in Atlanta, where the longest conformity lapse of consequence to date took place, the region lost no transportation funding but instead redirected several hundred million dollars of funds from sprawl-inducing, pollution-generating roads into projects that would reduce pollution and into safety and system improvements that would not increase emissions.

After conformity analysis led Charlotte, North Carolina, to see that its transportation plan would lead to emission problems 20 years in the future, local officials developed, considered, and adopted a new 2025 Transit Land/Use plan for Charlotte-Mecklenburg with a new rapid transit system to support the five major transpor-

⁴ estimated: <http://www.whitehouse.gov/omb/budget/fy2004/pdf/appendix/DOT.pdf>, page 721.

tation and development corridors identified in the 1994 Centers and Corridors Plan as well as connections to key development hubs between these corridors. The plan seeks to concentrate jobs around stations, provide residential multi-family housing at stations, and develop rail and bus rapid transit. Capital costs, plus operation, maintenance and other expenditures will cost \$1.085 billion over 25 years and quantifiable benefits such as travel time savings and vehicle operating cost savings total \$72 million a year, generating a benefit cost ratio of 1.6. There are also numerous benefits of the plan that are not quantifiable such as improved access to jobs and revitalization of the core center. Funding for the plan will come from a combination of local, State, and Federal funding. Mecklenburg County Voters approved a half-cent local sales tax in 1998 to fund expansion of bus service and rapid transit improvements in major corridors. The requirement that the RTP conform 20 years into the future was a vital element in motivating this regional progress and action. Limiting conformity determinations to a 10-year time horizon—as some propose—might reduce the incentive for other regions to take the kind of leadership initiatives seen in Charlotte.

Conformity helped Denver develop cost-effective strategies to reduce particulate matter (PM) problems. Agencies began taking action against wood burning in the 1980's, but PM was still measuring 185 $\mu\text{g}/\text{m}^3$ compared to the NAAQS of 150 $\mu\text{g}/\text{m}^3$. Conformity made transportation planning and air quality agencies look at other sources of PM. They found that street sanding and sweeping strategies was a very effective measure and implemented controls beyond what was federally mandated, reducing PM levels to 80 $\mu\text{g}/\text{m}^3$. Conformity also provided an incentive for developing light rail in Denver and the Metro Vision 2020 Plan, which seeks to limit growth to a 700 square mile area with supportive transportation strategies. Denver also has a number of travel demand management (TDM) strategies in their long-range plan such as a Ride Arrangers program and a telework program. While Denver does not take credit for TDM system management in the 2025 conformity finding, the region recognizes TDM emission benefits as a safety margin in meeting their emissions budget.

To deal with emissions problems recognized through the conformity process, many other regions have adopted transportation control measures (TCMs). These represent nearly 5 percent of total emission reductions, for example, in the San Joaquin region of California. The San Joaquin Council of Governments projects that TCMs, including rideshare, vanpool, and commuter rail, will deliver as much as a 10 percent reduction in emissions by 2020.

Conformity has also been valuable in helping to win adoption of new short-term emission reduction strategies in the metropolitan Washington, DC region. In July 2001, the DC metropolitan planning organization updated its modeling assumptions to reflect the growing use of sport utility vehicles (SUVs) and light trucks, which produce more pollution per mile driven than standard cars. As a result, they observed that they could no longer add new road projects to their transportation improvement program (TIP) and regional transportation plan (RTP) and still conform with the NOx motor vehicle emission budget in their adopted SIP. Officials formed a task force to consider reopening the SIP to allow for more motor vehicle pollution by finding offsets from other emission sources or fixing the conformity problem by adopting added emission reduction measures. With adjustments for some refinements to their model estimates and for emission reducing measures already being implemented but not previously credited, the MPO found that the 8 tpd NOx excess emissions over budget was reduced to about 3 tpd.

Following further meetings and analysis, Maryland proposed a \$42 million package of transportation emission reduction strategies, including buying clean buses, improving pedestrian and bicycle access to transit, and supporting transit oriented development. Along with measures advanced by other jurisdictions, this package provides sufficient reductions to offset this emission budget shortfall and the region in July 2002 adopted them as part of a new TIP and RTP. If proposals made by some parties to lengthen the life of TIP conformity findings to 3 or 5 years had been in effect, this \$42 million package of emission reduction measures would almost certainly not have been funded.

Question 2. If Congress does make any changes in the conformity process as part of the next transportation bill, what would be your No. 1 suggestion and please be specific?

Answer. Congress should make one change to the conformity process as part of the next transportation bill. It should adopt the bill introduced in the 106th Congress, 2nd Session as H.R. 3686, the "Road Back to Clean Air Act," by Rep. John Lewis and as S. 2088 by Senator Max Cleland. This bill would put into law the EPA and DOT guidance that helped get Atlanta more focused on solving the city's trans-

portation and air quality problems. It would increase flexibility so other areas of the country could continue to receive Federal funds for transit, safety improvements, road rehabilitation, and other projects even during a lapse in the conformity of their transportation plans. Without this legislative change, because of the way that DOT has at times in the past administered conformity and planning requirements, regions in a conformity lapse can face difficulty adding air quality improving projects to their transportation spending plans unless those projects had been part of a previously conforming fiscally constrained TIP and regional transportation plan.

The text of this bill follows:

A BILL

To amend the Clean Air Act and titles 23 and 49, United States Code, to provide for continued authorization of funding of transportation projects after a lapse in transportation conformity.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Section 1. Continued Authorization of Funding of Transportation Projects After Lapse in Transportation Conformity.

Section 176(c)(2) of the Clean Air Act (42 U.S.C 7506(c)(2)) is amended by adding at the end the following:

“(E) Notwithstanding subparagraphs (C) and (D), any transportation project identified for funding in a transportation plan and transportation improvement program adopted under section 134 of title 23 or sections 5303 through 5306 of title 49, United States Code, shall remain eligible for funding under title 23 or chapter 53 of title 49, United States Code, as applicable, after the long-range transportation plan or transportation improvement program no longer conforms as required by subparagraphs (2)(C)(i) or (2)(D), if—

“(i) the long-range transportation plan and transportation program met the requirements of subsection (c) at the time at which a project agreement for the transportation project was approved under section 106 (a)(2) of title 23 United States Code, or the project was otherwise approved for assistance under chapter 53 of title 49, United States Code, as applicable;

“(ii) the transportation project is a transportation control measure (as defined in section 93.101 of title 40 of the Code of Federal Regulations (as in effect on March 1, 1999);

“(iii) the transportation project qualifies for an exemption from the requirement that the transportation project come from a conforming metropolitan long range transportation plan and transportation improvement program under section 93.126 or 93.127 of title 40, Code of Federal Regulations (as in effect on March 1, 1999); or

“(iv) the transportation project is exempt from a prohibition on approval under section 179(b)(1), except that this paragraph shall not apply to a transportation project described in section 179(b)(1)(B)(iv).”

Section 2. Amendment of Long-Range Transportation Plans and Transportation Improvement Programs Not Conforming to Applicable Implementation Plans.

(a) TRANSPORTATION PLANS—Section 134 of title 23, United States Code, is amended by adding at the end of the following:

“(p) AMENDMENTS TO PLANS AND PROGRAMS NOT CONFORMING TO APPLICABLE IMPLEMENTATION PLANS—Notwithstanding any other provisions of law, a long-range transportation plan or transportation improvement program under this section that no longer conforms to the applicable implementation plan under section 176(c) of the Clean Air Act (42 U.S.C. 7506(c)) and part 93 of title 40, Code of Federal Regulations (or a successor regulation), may be amended without a demonstration of conformity if the amendment is solely for the purpose of adding transportation project—

“(1) for which that State submits a revision of the applicable implementation plan to the Administrator of the Environmental Protection Agency requesting approval of the project as a transportation control measure (as defined in section 93.101 of title 40, Code of Federal Regulations (as in effect on March 1, 1999); or

“(2) that qualifies for an exemption from the requirement that the transportation project come from a conforming metropolitan long-range transportation improvement program under section 93.126 or 93.127 of title 40, Code of Federal Regulations (as in effect on March 1, 1999)”

(b) MASS TRANSPORTATION PLANS—Section 5303 of title 49, United States Code, is amended by adding at the end the following:

“(i) AMENDMENTS OF PLANS AND PROGRAMS NOT CONFORMING TO APPLICABLE IMPLEMENTATION PLANS—Notwithstanding any other provision of law, a long-range transportation plan under this section or a transportation improvement program under section 5304 that no longer conforms to the applicable implementation plan under section 176(c) of the Clean Air Act (42 U.S.C. 7506(c)) and part 93 of title 40, Code of Federal Regulations (or a successor regulation), may be amended without a demonstration of conformity if the amendment is solely for the purpose of adding a transportation project—

“(1) for which the State submits to the Administrator of the Environmental Protection Agency a request for approval as a transportation control measure (as defined in section 93.101 of title 40, Code of Federal Regulations (as in effect on March 1, 1999)) under section 110 of the Clean Air Act (42 U.S.C. 7410); or

“(2) that qualifies for an exemption from the requirement that the transportation project come from a conforming metropolitan long-range transportation plan under and transportation improvement program under section 93.126 and 93.127 of title 40, Code of Federal Regulations (as in effect on March 1, 1999).”

REPRINTED RESPONSES BY MICHAEL REPLOGLE TO ADDITIONAL QUESTIONS
FROM SENATOR VOINOVICH

Question 1. During the hearing, several witnesses talked about how the coordination of the frequency of submittals for the State Implementation Plan (SIP), the Transportation Plan, and the Transportation Improvement Program (TIP) is an important and necessary reform. Among other things, such a reform would lessen the confusion of those involved, reduce costs, and help States meet air quality goals. In your testimony, you reject any proposal to reduce the frequency of conformity analyses. Do you see value in better coordinating the transportation and air quality planning processes?

Answer. Environmental Defense and other environmental groups strongly support better coordination of transportation and air quality planning processes. However, we strongly object to proposals currently being put forward under the misleading name of “streamlining.” By extending deadlines and creating overly long gaps between conformity analyses, these proposals will threaten air quality, threaten public health and reduce information available to the public about the air they breathe.

Equally important, these proposals won’t make the system work better—they’ll make the system more inefficient. They reduce incentives for agency coordination. Conformity works well when transportation and air quality experts work closely together on a routine basis, to plan and implement highway and transit investments. Conformity, and the current schedule of deadlines, gives these agencies a powerful incentive to work together. The deadlines are also spaced just far enough apart to allow problems to be identified early—before they become crises that threaten air quality targets.

But reducing the frequency of required conformity analysis—currently 2 years for TIPs and 3 years for regional transportation plans (RTPs)—is likely to reduce rather than enhance such coordination. Conformity analysis is rather like balancing one’s checkbook. If done routinely and frequently, problems will be detected when they are small and correctable. If done infrequently, the costs of errors is likely to soar, as unrecorded transactions or errors go undetected, with their impacts compounded over time.

If the minimum frequency of conformity determinations is set at 3 or 5 years, this will likely be too far apart to detect and correct the rapid growth in VMT in fast-growing metropolitan areas. Across the country, this rapid growth is causing those areas to fail to attain on time. At a time when our transportation investments are proving to threaten air quality and health, it makes no sense to relax deadlines.

Instead of statutory changes, schedule coordination (if any is needed) should come from better interagency coordination, not through relaxing the frequency of accounting system checks and balances. With wider gaps between reporting deadlines, opportunities for abuses and poor accounting grow larger. Uncertainty about true air quality impacts and benefits would increase.

Today, most metropolitan areas update their TIPs annually and redo their conformity analysis as they do so. Analysis of conformity as TIPs undergo changes to regionally significant projects provides opportunities for timely improvement of what have often proven to be out-of-date or previously incorrect model assumptions.

Many regions, such as Washington, DC, have recently updated motor vehicle fleet data assumptions to reflect the growing use of SUVs and light trucks, which produce more pollution per mile traveled than light duty cars, with a resulting increase in the estimates of motor vehicle emissions in the attainment year. In the

case of Washington, DC, this conformity re-analysis led to increased attention by transportation and air officials and staff to the need for improved interState and interagency coordination and collaborative data collection to upgrade the regional inventories of motor vehicle pollution factors. It also led local and State officials to add \$42 million in new emission-reducing transportation projects to the region's TIP in July 2002 to offset the increased pollution observed through the conformity re-analysis. This investment would not likely have occurred had the 2-year life of the TIP conformity finding been relaxed to 3 or 5 years. These investments will benefit not just air quality, but they will increase mobility in the region, increase access to jobs, foster better quality of life, and promote economic growth.

Conformity helped catch this problem sooner rather than later, when it was still a manageable problem that could be addressed through transportation measures, without needing to reopen the SIP. Had the problem been left to fester, it is more likely that the region's officials would simply have said the problem was too big to manage, and sought to make it someone else's problem. In fact, fear of this kind of crisis is what may motivate concerns about conformity. But by having tight deadlines and careful coordination among agencies, the challenges can be addressed with incremental measures before they escalate to crisis. The beneficiaries of tight deadlines are the millions of children, elderly people, and other individuals who suffer respiratory distress, premature death, injury, and other impairments every year when Federal air quality health standards continue to be unmet. The beneficiaries of relaxed conformity deadlines are primarily polluting industries and other special interests that profit at our society's expense.

In fact, States already have flexibility and discretion in the current system. The current tiered schedule for reappraising TIP and RTP conformity provides appropriate advance notice of conformity problems in a way to encourage timely solutions. For example, many regions first uncover conformity challenges when updating their TIPs to incorporate new projects. Updating these planning factors uncovers previous underestimates in regional vehicle emissions and allows timely corrective measures to be adopted—as they have been in Washington, DC, in the example described above.

At times, this may create what some call a “conformity lockdown,” during which the current 2-year TIP conformity finding remains valid, but no new regionally significant transportation projects can be added to the TIP until the region adopts new emissions-reducing measures to offset the incremental increase. At this point, the increment of emissions imbalance is usually still relatively small and manageable, and measures can be taken reasonably easily to offset the impacts of the new projects. In essence, the system provides “early warning” that provides the time to adopt new emission reduction measures to ensure that the TIP stays in conformity.

If the region fails to offset motor vehicle emissions that exceed the adopted SIP motor vehicle emission budget before the expiration of the 2-year TIP conformity finding, the region would likely enter a conformity lapse. In a lapse, there is yet another safety valve: the region can adopt an Interim TIP composed of projects with funding agreements, exempt projects, and transportation control measures drawn from the conforming long-range RTP, relying on its 3-year conformity finding. At any time, a State can choose to reopen its SIP to identify additional emission reduction measures from mobile or non-mobile sources to offset excess emissions from mobile sources that are in violation of the motor vehicle emission budget.

In short, States have discretion at every stage to align the schedule for updating their transportation and air quality plans and where they choose to seek emission reductions. The system works and should be sustained. If any change is warranted, it would be toward *more frequent* reviews of SIPs—but not less.

Better coordination of air quality and transportation planning should take several forms:

- *Interim Milestone Reports.* First, Congress should enhance this interagency coordination by ensuring that EPA adopts regulations to govern State submissions of SIP milestone compliance reports. These reports would track and report regional emissions every 3 years in nonattainment areas and ensure that remedial measures are implemented immediately when emission reduction targets are not met, as required by Clean Air Act Sections 182(c)(5) and (g). EPA has failed to issue these sorts of regulations, and that failure must be remedied. By ensuring that States meet this required 3-year cycle of SIP reappraisal, Congress could address the concerns of transportation agencies that SIPs are too infrequently updated, while transportation plans are subject to more frequent updates.

- *Prompt Upgrade of Models.* Second, transportation agencies should be required to promptly upgrade their computer models to effectively consider air quality, induced traffic, and fully up-to-date planning factors. Congress should provide EPA and DOT with a strong mandate to establish best-practice planning model stand-

ards and to require timely action by MPOs and other agencies to meet these standards for conformity and SIP planning. A recent report (U.S. General Accounting Office, *Environmental Protection: Federal Incentives Could Help Promote Land Use That Protects Air and Water Quality*, Washington, DC, October 2001, GAO-02-12, page 95) notes that, "DOT and EPA efforts to improve travel-demand-forecasting models may help MPOs and communities determine the effects of transportation improvements on congestion and air quality. However . . . these efforts currently do not call for integrating land use or environmental components into the travel demand model . . . Without such integrated models, communities cannot consider the likely effects that their transportation decisions will have on land use, future growth and development, and air quality." U.S. GAO-02-12, op. cite, page 95.

In regions where transportation models used for conformity and air quality planning have not been upgraded to integrate land use and environmental components, including full sensitivity to induced traffic and growth effects of transportation investments, urban design, and pricing policies, less frequent conformity analysis is likely to impair timely upgrading of analyses.

Question 2. Do you think there are more cost-effective options for achieving air quality improvements in the transportation sector than through the current program?

Answer. Transportation conformity is not an air quality improvement strategy in and of itself. It is a highly cost effective accounting mechanism that assures the integrity of adopted air quality attainment plans by preventing adoption of transportation plans and programs likely to cause pollution in excess of the levels determined to endanger public health. The Clean Air Act allows States great flexibility in determining how to achieve health-based air quality standards—whether through controls on stationary sources, area sources, or transportation sources, and whether through adoption of cleaner technologies, management and pricing strategies, or growth and demand management.

Without a strong and well-enforced transportation conformity program, experience shows that transportation emissions tend to be underestimated, leading to the failure of air pollution control strategies. That failure—more than three decades after the 1970 Clean Air Act—continues to impose huge costs on our society, with the adverse health costs of motor vehicle air pollution estimated by US DOT in 2000 at \$40 billion to \$65 billion, which pales beside the \$27 billion in annual Federal transportation expenditures.

Transportation conformity has played a significant behind-the-scenes role fostering cost-effective air pollution improvements in the transportation sector, including adoption of cleaner vehicle and fuel standards by States and Federal agencies, adoption of inspection and maintenance programs, and reallocation of transportation investments from sprawl-inducing, pollution-generating roads into transit, walking, bicycling, and Smart Growth strategies that meet economic and social needs for mobility with less need for travel by single-occupant vehicles.

EPA's own recent analysis shows that proposed air pollution reduction strategies and technology fixes alone are insufficient to deliver healthful air quality for all Americans over the next decade or even two (<http://www.epa.gov/clearskies/maps.pdf>). Thus, conformity is vital to assuring that motor vehicle emissions are properly accounted for as States and regions strive to achieve emission reductions from various sources and avoid having uncontrolled traffic growth undo progress toward healthful air quality.

REPRINTED RESPONSES BY MICHAEL REPLOGLE TO ADDITIONAL QUESTIONS
FROM SENATOR SMITH

Question 1. You testified that before State SIP's had established motor vehicle emission budgets, the transportation agencies were forced to rely on complex and widely criticized transition rules. EPA and DOT may be proposing a return of these transition rules in new non-attainment areas that will have a 1-year grace period to make a conformity determination. Would you agree that our air quality goals are better served by coordinating conformity with motor vehicle emissions budgets, rather than returning to these transition rules?

Answer. As designed by Congress in the 1990 Clean Air Act, conformity is intended to focus on comparing forecast motor vehicle emissions in a transportation plan and program with an adopted motor vehicle emission budget (MVEB) established in a SIP designed to enable a region to attain the National Ambient Air Quality Standards (NAAQS) by deadlines established by law. Where such MVEBs exist, they should be used as the fundamental yard-stick to measure conformity of transportation plans and programs with air quality plans.

The problem we see with the “build/no-build” transition rule is principally in how it has been applied, and in the length of the transition to conformity against adopted SIP MVEBs, not in the underlying principal of the build/no-build transition rule. The build/no-build rule, first issued by EPA and DOT in 1991, compares emissions in a base-case no-build future scenario vs. emissions in a build scenario, adding or subtracting the applicable transportation projects changes proposed in any given TIP or RTP amendment. This is a desirable and acceptable conformity test to use in the absence of an adopted SIP MVEB when the evaluation uses analysis methods that properly account for induced land use and traffic effects of transportation investments and policies. However, as applied in many regions, build/no-build analyses have assumed no induced land use change or shift in the time-of-day of traffic caused by transportation system changes. Numerous peer-reviewed studies have demonstrated that induced traffic effects are profound and the addition of 10 percent more lane miles of roadways can be expected to induce an additional 6 to 10 percent vehicle miles traveled in a region in a few years time. If induced traffic is unaccounted for, the build/no-build analysis is invalid, and will underestimate motor vehicle emissions growth associated with major highway system expansions, working against the CAA statutory mandate that transportation plans and programs must contribute to timely attainment of the NAAQS.

It is vital that areas expected to be designated as new non-attainment areas should now begin to take steps to prepare to meet conformity analysis requirements. The TEA-21 Federal transportation law provides flexible funding to States and regions in the Surface Transportation Program and other funding categories that can be used for planning and data collection. Such funds should be used now to establish sound, up-to-date, local inventories of jobs, housing, highways, transit resources, and travel behavior, to develop locally applicable transportation planning models that meet best practice standards for appraising travel behavior and induced traffic, to code information on planned transportation investments and forecast job and housing growth expectations, and other information. Outside consultants should be retained to help cultivate local expertise to sustain these analysis systems, which have many cost-effective applications beyond conformity analysis in supporting sound capital program planning, traffic and transit operations planning, transportation equity analysis, growth management, cost-allocation evaluation, and other activities. The cost of establishing such planning and analysis systems is but a tiny fraction of the annual capital facilities investment costs of most States and regions, but can have a payoff far in excess of these costs by assuring more sound decision-making, investment planning, and identification of lower-cost and more optimal strategies for meeting local and national mobility, environmental, economic development, and equity goals. Establishing these planning and analysis tools in a metropolitan area can be accomplished in less than a year, but does require agency commitment and ongoing support.

EPA and DOT should promptly issue long-promised additional model guidance and regulations to assure that non-attainment areas properly account for induced land use and traffic effects in conformity analysis and SIP transportation modeling.

There are no valid reasons why any newly designated non-attainment area cannot establish the requisite transportation and emissions analysis systems well in advance of the expiration of the 1-year grace period following designation. Until adopted SIP MVEBs are available to provide a basis for conformity, the build/no-build test (with appropriate consideration of induced land use and traffic effects), along with the Reasonable Further Progress requirements of the CAA, should be the basis for evaluating conformity in non-attainment areas.

Question 2. If I am interpreting your testimony correctly, you appear to suggest that one way to judge the success of conformity is by how much it redirects transportation spending away from new highway construction. In Northern Virginia, however, they have delayed over \$800 million in highway projects generating a total of 2 tons reduction in emissions, or \$400 million per ton reduced. By comparison, EPA’s vehicle emission standards cost below \$1600 per ton. Stopping new highways does not sound like a very cost-effective strategy to reduce emissions, wouldn’t you agree?

Answer. I’m sorry, but you have misinterpreted my testimony and data and I must disagree with your assertion. I noted that a recent analysis by the Metropolitan Washington Transportation Planning Board showed that by deferring 100 lane miles of highway expansion projects in 2002—a 0.5 percent reduction in lane-miles of road capacity—Virginia *saves* \$800 million in capital costs while cutting NOx emissions by more than 1 percent, or nearly 2 tons per day, and reducing vehicle miles of traffic by 0.6 percent. This illustrates how the very expensive expansion of new highways typically produces a growth in air pollution emissions by spurring

more traffic, rather than a reduction in emissions as often claimed by the road lobby. It illustrates how reducing expenditures on new roads is often the most cost-effective emission reduction strategy, because it avoids generating both costs and air pollution. By not building additional traffic, sprawl, and pollution-inducing highways, regions like Northern Virginia can avoid the need for additional expenditures of up to \$1600 per ton to reduce emissions because they can prevent the pollution from being emitted in the first place.

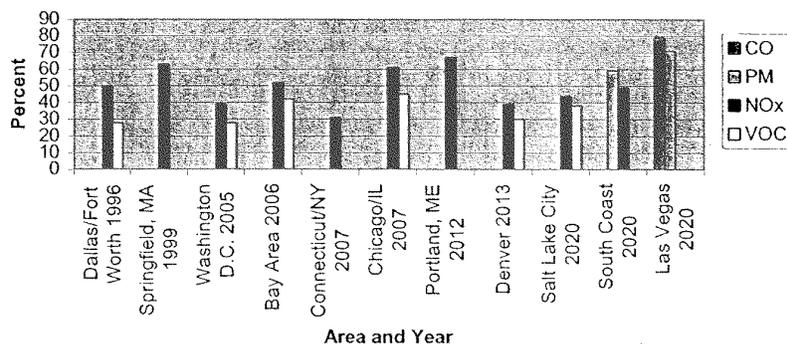
A *savings* of nearly \$400 million per ton of NOx reduction for cutting highway expansions is highly competitive when compared to alternative emission reduction costs of \$1600 per ton for pollution-control technology investments! More regions faced with missed deadlines for clean air attainment should be protecting public health and the taxpayer's wallet by redirecting public investments from road expansions into other more productive forms of investment, such as transit, the revitalization of walkable neighborhoods, education, affordable housing close to jobs, and public health services.

Question 3. You have been an advocate of using land use and other “Smart Growth” strategies to reduce air pollution. Yet, we all know that these strategies take a decade or more to change transportation patterns. How do you expect to generate substantial pollution reductions from these projects when the emission levels from these vehicles will be 95–99 percent cleaner than their 1970's counterparts?

Answer. Even with significantly cleaner cars and truck technologies, Smart Growth strategies offer the promise of avoiding—at essentially no cost—as much as one-quarter of the potential motor vehicle emissions in 2020, thus helping to achieve more timely attainment at less cost. If Smart Growth strategies are ignored and sprawl and highway building advance without any accountability for impacts on emissions, society will need to invest billions of dollars more in pollution abatement technologies to clean up mobile and non-mobile sources so we can achieve healthful air quality.

The amount of motor vehicle pollution emitted per mile driven has fallen by more than 90 percent since 1970, but today motor vehicles still account for a major share of pollution—from one fourth to three fourths of the NOx and VOC emissions—in most non-attainment areas. Adopted or submitted SIPs show that in the attainment year and in future years going out as far as 2020, motor vehicle emissions are expected to continue to account for a large share of emissions in many metropolitan areas, as Graph 1 shows. For example, despite adoption of cleaner technologies, motor vehicles are estimated to account for 28 percent of VOC and 39 percent of NOx emissions in Washington, DC (in 2005), 31 percent of NOx emissions in Connecticut/NY (in 2007), 45 percent of VOC and 61 percent of NOx emissions in Chicago/Illinois (in 2007), 67 percent of NOx emissions for Portland, Maine (in 2012), 30 percent of VOC and 39 percent of NOx emissions in Denver (in 2013), 79 percent of CO emissions and 71 percent of PM emissions in Las Vegas (in 2020), and 38 percent of VOC and 44 percent of NOx emissions in Salt Lake City (in 2020). And despite the fact that California leads the Nation in adopting cleaner vehicles and fuels, the Bay Area expects motor vehicles to contribute 42 percent of VOC emissions and 52 percent of NOx emissions (in 2006), and the South Coast non-attainment area expects motor vehicles to contribute 59 percent of PM emissions and 49 percent of NOx emissions (in 2020).

Graph 1: Share of Selected Criteria Pollutants from highway sources by year and area from adopted or submitted SIPs



The magnitude of emission reductions needed to reach healthful air quality is considerably greater than that now identified through submitted and approved SIPs. EPA's recent posting of maps of estimated effects of the proposed "Clean Skies" initiative (<http://www.epa.gov/clearskies/maps.pdf>) shows that adopted and proposed measures are together inadequate to bring many of the nation's largest metropolitan areas into full attainment of the NAAQS even by 2020. Significant further emission controls will be needed also to deal with hazardous air pollutants, greenhouse gas emissions, and other environmental pollution, even with the cleaner motor vehicles produced under the Tier II and heavy-duty diesel engine rules.

A conservative estimate is that Smart Growth strategies have the potential to reduce traffic growth and emissions over the timeframe of 20-year regional transportation plans by 15 to 25 percent compared to forecast trends in most metropolitan areas. Over the shorter timeframe of a 2-year TIP conformity cycle or the several years prior to reaching ozone attainment deadlines, many regions could accomplish reductions in traffic growth and related pollution well of several percent a year relative to trends with a concerted effort combining Smart Growth, pricing, and demand management strategies.

The degree to which Smart Growth can affect emissions and traffic growth is closely related to the pace of job and housing growth in a community. In slow growth communities, the opportunities for Smart Growth to change travel patterns are modest compared to fast-growing communities. Smart Growth is very pro-growth in the areas where it is being implemented while seeking to discourage job and housing growth in other locations where people lack non-driving travel choices. Where fast growth is occurring, there tend to be more opportunities for growth to become smarter.

The effectiveness of Smart Growth strategies in reducing traffic and pollution is also closely linked to how comprehensively these strategies are implemented. Effective Smart Growth means transit-oriented (not just transit proximate) development that is attractive for walking and cycling, includes a vibrant mix of land uses for various income groups, and highly attractive non-automobile access to other parts of the metropolitan area. It includes pricing policies and incentives that favor transit, walking, bicycling, and alternatives to driving while curbing subsidies for driving. Even in slow growth areas, Smart Growth transportation pricing and urban design incentives, such as Commuter Choice programs where employers pay for transit benefits and offer cash-in-lieu-of-parking benefits can produce substantial shifts in travel behavior and pollution reductions in the span of a year or two, with concerted marketing, promotions, demonstrations, and incentives for rapid adoption of Smart Growth changes. Research and experience cited in my most recent testimony to the Committee shows the magnitude of near-term travel behavior and emission changes that have been achieved in a number of communities with these sorts of strategies.

Question 4. In your written testimony you State, "Because of steep increases in the number of vehicle miles, cuts in the amount of pollutant emitted per mile, particularly for NOx, and small particulates, have been offset by growth in miles driven." While this has been true in the past, doesn't EPA's data clearly show that future vehicle emissions are decreasing, even as vehicle travel increases?

Answer. Since the 1970 Clean Air Act, increasingly stringent motor vehicle and fuel standards have significantly reduced vehicle emissions per mile. Federal light duty Tier 1 vehicle emission standards today allow only 4 percent as much VOC pollution per mile as vehicles emitted in 1969, and 10 percent as much NOx. Despite this sharp reduction, in 1999 motor vehicles still accounted for 29 percent of VOC and 34 percent of NOx emissions nationwide according to EPA. VOC emissions from highway vehicles declined 18 percent during the past decade, but NOx emissions increased by 19 percent during the same period. And as a 2002 TRB study, *The CMAQ Program: Assessing 10 Years of Experience*, noted (page 70), “Although tailpipe emissions from highway vehicles are only a small share of directly emitted PM on a national basis, they account for a substantially higher proportion of longer-lived atmospheric concentrations of fine particles in urban areas, for example, up to 40 to 50 percent in the Denver and Los Angeles metropolitan areas.”

With the full phase-in of Tier 2 standards beginning in 2009, light duty vehicle emission standards will allow only 22 percent as much VOC pollution per mile as Tier 1 standards, and 18 percent as much NOx. But the slow pace of motor vehicle fleet turnover means that the full benefits of these emission reductions will not take effect until 2020 or later. In the meantime, unless regions adopt strategies to better manage travel demand, sprawl, and subsidies that encourage driving, motor vehicle travel will continue to grow and offset much of these emission reduction benefits. Between 1980 and 1999, vehicle miles traveled grew by 87 percent. If a similar pattern continues through 2020, NOx and VOC emissions from motor vehicles will decline by 2020 by only little more than half. But much deeper reductions than this will be needed to achieve healthful air quality for all Americans. *In other words, technology alone will not make the amount of driving irrelevant to considerations of pollution control in the foreseeable future.*

The recent adoption of more stringent motor vehicle emissions and fuel standards for light duty trucks and heavy-duty diesel engines will offer important additional contributions toward clean air. Nonetheless, progress toward timely attainment will for the next several decades be dependent on continued and improved measurement and monitoring of the amount and pattern of motor vehicle use, and greater efforts to avoid pollution by shaping motor vehicle use and travel behavior.

Question 5. In your written testimony, you State, based on the MATES-II study, “that 90 percent of the total cancer risk is attributable to toxic air pollutants emitted by mobile sources.” But you fail to mention that 70 percent of that risk is from diesel emissions, and the EPA heavy duty diesel rule will substantially reduce these emissions. Moreover, you also fail to mention that the same study shows that cancer risk has been declining from 700 per million in 1990 to 300 per million in 1997, which suggests progress is being made on non-diesel related toxic emissions. You suggest that less highway construction and more programs to reduce vehicle travel are needed to reduce these risks, yet isn’t technology and better fuels the real answer to reduce most of these risks?

Less highway construction and improved programs to reduce vehicle travel *should* indeed be evaluated through the planning and project review process to appraise their capacity to avoid or mitigate adverse health risks caused by transportation related air toxics emissions. Travel demand and growth management strategies, pricing incentives, and other actions related to the operation, management, investment in transportation systems and related community systems can often provide very cost-effective approaches to reduce exposure of communities to air toxics and the cancer and other health risks associated with these exposures. Indeed, expansion of highways where unacceptably high air toxic exposure problems already exist will likely increase the scope of the problem by inducing traffic growth and exposures to air toxics. Cleaner technology and better fuels are not the only or best way to reduce most of these health risks, although these are an important part of the solution. While a reduction in cancer risk from 1990 to 1997 is documented in the MATES-II study, the cancer risk in 1997 is *many times higher* than the level at which EPA and FHWA are required to take actions to safeguard public health from such documented risks.

Diesel emissions are indeed the largest source of toxic air pollutants emitted from mobile sources and the EPA heavy duty diesel rule will eventually reduce those emissions substantially. But because of the long-delayed timeframe for implementation of the heavy-duty diesel rule and the very long lifetime of diesel engine equipment, barring major new pollution control initiatives, it will take decades to achieve the substantial emission reductions required to protect public health from toxic air pollutants from these motor vehicles. While technology and fuels will do a lot to reduce these risks, public health will be best protected by a program that combines such initiatives with better strategies to manage the demand and use patterns of

motor vehicles—both diesel and non-diesel—and to manage exposure of the public to these emissions. This must include consideration of how changes in transportation investments—such as highway expansions—will affect the amount of traffic emitting toxic air pollutants, and whether alternative investments might better satisfy mobility objectives while avoiding or mitigating these adverse health impacts. As the example in Washington, DC, cited above shows, reducing highway system expansions can—at least at times—produce both cost savings and substantial reductions in pollution. There are many ways to better manage the system to minimize air toxics while meeting mobility needs, including promotion of faster adoption of cleaner technologies and alternative transportation investment and management strategies. But FHWA is refusing to face core issues related to health impact assessment in its project approval and transportation plan and program approval process.

The health risks from transportation related air toxics remaining after the emission reductions of the last decade far exceed Federal criteria for unacceptable health risks, and will continue to be unacceptably high even if further reductions in per-vehicle emissions are achieved in the foreseeable future. The future risks expected due to the traffic volume anticipated in many major highway corridors are not acceptable to the families who are exposed to toxic emissions. Furthermore, proper consideration of strategies that serve mobility needs without increasing single occupant vehicle travel can minimize these risks. FHWA has not given adequate consideration of these harmful health effects and the alternatives that could mitigate them in its process for reviewing and approving transportation plans, programs, highway funding agreements, and project environmental and design documentation.

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.*, requires a review of the harmful effects of exposure to these motor vehicle pollutants generated by highways. FHWA has violated both NEPA and the requirements imposed by 23 USC § 109(a) and (h) and 23 CFR § 771.105 to assess and mitigate the adverse effects of air pollution from highway projects in a number of cases, such as the proposed widening of US 95 in Las Vegas.

It is not acceptable to dismiss the substantial cancer risks that are exacerbated by highway expansions simply because cleaner technologies are likely to be introduced into the marketplace at some future time without considering the health impacts on several generations of children and adults who we know will be harmed by these effects in the decades prior to these cleaner technologies coming into wider use. The evidence of serious health risks is compelling. California's South Coast Air Quality Management District published a study entitled Multiple Air Toxics Exposure Study (MATES-II) in March 2000. In February 2000, the Journal of the Air and Waste Management Association published a study entitled "Distance Weighted Traffic Density in Proximity to Home is a Risk Factor for Leukemia and Other Childhood Cancers" (JAWMA Study). But FHWA routinely fails to even attempt to estimate the concentrations of toxic vehicular emissions likely to result from vehicle travel in high volume traffic corridors proposed for major expansion, or to assess the health risks of public exposure to pollutant concentrations identified by these recent scientific studies as the source of elevated cancer risks and rates. Not performing such an assessment is arbitrary and capricious and inconsistent with NEPA.

EPA has listed 21 toxic air contaminants from mobile sources, including diesel particulate and diesel exhaust organic gases. The EPA concluded that "[t]he current EPA position is that diesel exhaust is a likely human lung carcinogen and that this cancer hazard exists for occupational and environmental levels of exposure." 65 Fed. Reg. 35, 446 (June 2, 2000). The EPA premised this position on findings by the World Health Organization, National Institute for Occupational Safety and Health, and International Agency for Research on Cancer. *Id.* Other Federal health agencies have listed diesel emissions as containing carcinogens. The National Toxicology Program at NEIHS on May 15, 2000, 2 months before your letter, listed diesel particulate as a "known human carcinogen." EPA has published a list of "Mobile Source Air Toxics (MSAT)" which "includes various volatile organic compounds (VOCs) and metals, as well as diesel particulate matter and diesel exhaust organic gases (collectively DPM + DEOG)." 66 FR 17,229 (March 29, 2001). This list clearly defines the hazardous air pollutants from motor vehicles that FHWA should consider in assessing the health effects of air toxic emissions from the major highway expansion projects.

In refusing to prepare environmental analyses, FHWA has cited evidence that toxic emissions from individual automobiles and overall emissions in urban areas had declined from 1990–97. FHWA has failed to explain, however, why this decline justifies a refusal to consider the public health significance of ongoing cancer risks

identified in studies that relied on monitored ambient concentrations of toxic contaminants near major highways and other information gathered after 1997. Indeed, the toxic pollutant concentrations reported in MATES-II reflect lower per-vehicle emissions than are occurring in most States, because California vehicles are subject to stricter emission standards.

FHWA's response to environmental critics does not address the information showing that the health risks remaining after the emission reductions of the last decade far exceed Federal criteria for unacceptable health risks, and will continue to be unacceptably high even if further reductions in per-vehicle emissions are achieved in the foreseeable future. The future risks expected due to the traffic volume anticipated in the US-95 Las Vegas corridor and many other areas of the Nation subject to highway expansion are not acceptable to the families who are exposed to toxic emissions. Furthermore, proper consideration of strategies that serve mobility needs without increasing single occupant vehicle travel can minimize these risks. Congress should reaffirm FHWA's obligation to consider as part of project reviews these harmful health effects and the alternatives that could mitigate them.

Emissions per vehicle mile traveled are not relevant to assessing the magnitude of the public health risk associated with motor vehicle emissions. The key issue is total emissions from highway corridors and the impacts total emissions are expected to have on the health of nearby populations. When highway expansion increases the vehicle-carrying capacity of the highway it induces additional traffic volumes, which in turn will contribute to increased total emissions from the highway and exposure to higher concentrations in the ambient air of hazardous pollutants in nearby neighborhoods. Risks to human health increase in proportion to human exposure to pollutants in the ambient air, not emissions per vehicle. These increased exposures create significant public health hazards that must be addressed in environmental reviews, the regional planning process, and the air quality conformity process.

At least one reasonable estimate of the cancer risk attributable to diesel emissions is the estimate developed by the California environmental agencies presented in the MATES-II study. Even if a careful review of the evidence suggests a better estimate of the cancer risk is only one-half or one-quarter of the risk estimated by California, the risk would still be very high.

Estimates that regional concentrations of criteria pollutants may improve are simply not relevant to assessing the likely public health impacts of toxic contaminants from motor vehicles. The regional modeling assessments performed to satisfy the "conformity" requirements of the CAA address only the direct emissions of CO, PM₁₀ and ozone precursors from motor vehicles. These pollutants are subject to emissions limitations established by EPA for new motor vehicles, and are expected to decline in the future because future vehicles are required to meet more stringent emissions standards. But no such standards have been established for toxic air contaminants. There is no basis for assuming that comparable reductions will be achieved for toxic air contaminants. Even if emissions from future vehicles are reduced, that reduction would not obviate the need to assess future emissions levels and whether total emissions in a heavily trafficked corridor will cause or contribute to unacceptable health hazards.

In considering whether technology cleanup vs. demand management and improved transportation system planning should be preferred strategies for avoiding or mitigating health impacts of transportation, it is vital to consider the health costs of highways. The Department of Transportation has estimated the national aggregate health costs of criteria air pollutants from highways at \$40 to \$68 billion per year. Table 9, Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, U.S. Department of Transportation, Federal Highway Administration (May 2000). The methodology developed in the Addendum to the Highway Cost Allocation Study to estimate the costs of adverse health effects from air pollution provides a basis for estimating the adverse health effects, and costs, attributable to emissions from specific highway corridors. The Addendum assessed only the health effects attributable to pre-1997 criteria pollutants, and did not include the health effects attributable to toxic air contaminants emitted from motor vehicles. If FHWA intends to justify highway expansions by comparing the value of increased travel against the costs of providing that capacity, a fair assessment of the health costs to the community must be part of the calculus. In addition, that kind of cost-benefit calculus must be applied to both the highway option and reasonably available alternatives that can reduce or mitigate the adverse impacts on health.

Recent studies have significantly improved understanding of the linkage between vehicle emissions and the risk and incidence of cancer among people living near

major highways. The MATES-II and JAWMA studies demonstrate that projects like the US-95 expansion in Las Vegas will increase cancer risks among exposed populations, a highly significant impact on the human environment that warrants environmental impact review. The most important new information derived from these studies is (1) the magnitude of the cancer risk caused by motor vehicle emissions from a highway corridor of the size of the US-95 project, and (2) the demonstrated increased incidence of cancer among children exposed to higher traffic volumes.

It has been known for nearly two decades that motor vehicles emit toxic pollutants that include known or suspected carcinogens. What had not been firmly established by sound scientific research prior to the MATES-II results is that these pollutants reach concentrations in the ambient air in the vicinity of heavily traveled highways that present cancer risks of *at least 1 in 1,000 to 1 in 650*, i.e., levels far greater than the threshold for mitigation established by EPA's cancer risk policy and Federal agency policies generally.

EPA's cancer risk policy requires that pollutants be reduced when risks exceed 1 in 10,000 for the maximally exposed individual. These high cancer risks for nearby residents, and even higher risks for those living adjacent to roadways, far exceed the risk levels adopted by EPA and Congress in setting national health standards, and are unacceptable to the residents of these neighborhoods. EPA has summarized the consensus cancer risk policy of Federal agencies as requiring careful assessment of measures to reduce cancer risks when the population risk is greater than 1 in 1 million.

Where the entire U.S. population is exposed to a chemical classified as a probable human carcinogen, the agency consensus appears to be that risks less than 1 in 1 million generally can be found acceptable without consideration of other factors while risks greater than that level require further analysis as to their acceptability.

56 Fed. Reg. 7757 (February 25, 1991). On the other hand, EPA and other Federal agencies have generally acted to reduce cancer risks greater than 1 in 10,000. Here, the evidence from MATES-II shows that communities near corridors such as US-95 with traffic volumes in excess of 220,000 vehicles per day will be exposed to cancer risks well above 1 in 10,000.

The MATES-II study derived its estimates of community cancer risks from ambient air monitoring of toxic pollutants in 12 residential neighborhoods during 1998 and 1999. MATES-II also included regional toxic emission data for the Los Angeles Basin and a computer modeling program to estimate exposures for areas of the region where monitors were not located. The conclusions of the MATES-II study are startling: the regional average risk of cancer for residents of the Basin is 1400 in one million (1 cancer for each 714 residents), and 90 percent of this heightened cancer risk is attributable to air pollution from mobile sources. (MATES-II at ES-3).

MATES-II determined that exposure to diesel particulate emissions and other toxics from mobile sources combine to cause 90 percent of the elevated risks. *Id.* at E-3. Areas with concentrated traffic suffered from increased risks of cancer above the regional average. *Id.* at ES-5. The study found that the highest cancer risk is in neighborhoods nearest highways where modeled risks were as high as 5800 in one million, meaning that one person out of 170 is likely to suffer cancer. *Id.* at Fig. 5-3a, p. 5-10.

The JAWMA study of cancer rates in Denver, also published in 2000, is consistent with the MATES-II findings. That study focused on rates of childhood leukemia among children under 12 living very near highways (within 750 feet). The study found that children with leukemia were 12 times more likely to live close to highways than children without leukemia, and concluded that a "strong association" exists between proximity to high traffic streets and childhood leukemia. JAWMA Study at 2. The study built on established research connecting childhood cancers to benzene and other volatile organic compounds found in automobile emissions. *Id.*

Both the MATES-II and JAWMA studies have broad applicability. While MATES-II examined the L.A. Basin specifically, the general findings establish a clear link between automobile emissions and cancer risk. Even if the relative magnitude of emissions of cancer causing agents differs somewhat between locales, the underlying conclusion remains irrefutable: highways are the largest source of carcinogens emitted into the ambient air in the urban environments, and the pollutant concentrations are highest in neighborhoods near highways. The size of the cancer risk is proportional to daily traffic loads in the corridor. When traffic loads are known, approximations of ambient concentrations of mobile source toxics can be made for neighborhoods located next to highways in other States by comparing the daily traffic loads on those highways with the

daily traffic loads on highways for which emissions are modeled in the MATES-II study.

Except for diesel particulate, these risk estimates are derived from well-established risk factors that have been the subject of intensive scrutiny for many years. Although the MATES-II cancer risks are derived from risk factors adopted by the California environmental agencies, those factors do not differ significantly from those reported by EPA. See *Integrated Risk Information System* (EPA, Cincinnati, OH)[<http://www.epa.gov/iris>]. In addition, these risk estimates are not for the maximally exposed individual living adjacent to heavily traveled highway corridors, but rather for regional populations. Nearby neighborhood exposures are substantially higher, and may be as much as an order of magnitude higher for the maximally exposed individuals.

With regard to diesel particulate, the cancer risks in MATES-II are estimated based on unit risk factors adopted by California, but not yet by EPA. "The current EPA position is that diesel exhaust is a likely human lung carcinogen and that this cancer hazard exists for occupational and environmental levels of exposure." 65 FR 35,446 (June 2, 2000). This characterization of DPM as a carcinogen is supported by the National Institute for Occupational Safety and Health (NIOSH), the International Agency for Research on Cancer, and the World Health Organization (WHO). *Id.* The National Toxicology Program at NEIHS on May 15, 2000, also listed diesel particulate as a "known human carcinogen." Although a risk factor for DPM has not yet been adopted by a Federal agency, more than enough data has been accumulated from numerous epidemiological studies to allow a risk factor to be determined for risk assessment purposes. Further, California's more stringent emissions standards mean that other jurisdictions, like Las Vegas, may suffer from higher concentrations of toxic emissions from mobile sources.

The JAWMA study emphasized the relationship between proximity to highways and childhood cancers. As such, this study has broad application. Nothing in the study indicates that the areas examined were in any way exceptional. Based on the findings in the JAWMA study, one would predict higher rates of childhood leukemia among those living near major highways such as the expanded US-95 in Las Vegas.

In response to this new information, Sierra Club and local civic and environmental interests have sought action by FHWA to assure a Supplemental Environmental Impact Study (SEIS) for the US-95 corridor expansion project in Las Vegas. Similar issues are presented in other corridors around the country where extremely high traffic volumes would be increased by road expansions in an area close to thousands of residents. But FHWA has refused to consider the issues being raised by environmental and health groups. These issues go to the underlying questions posed by Senator Smith—should such requests for analysis be dismissed because of cleaner technologies are expected to become available in coming years and because emissions are decreasing somewhat in some areas? And are facility investment and transportation system management strategies worth considering as control strategies related to these public health problems?

A significant purpose of an EIS is the involvement and education of the public that the process entails. The U.S. Supreme Court has held that SEISs are necessary to ensure that this purpose is furthered. *Marsh*, 490 U.S. at 371 (1989). The cancer studies raise an issue that clearly warrants such public involvement. The US-95 expansion may look dramatically different to residents alerted to the heretofore unconsidered link between highways and cancer. An SEIS would provide an opportunity to inform the public about the issue and the degree of risk involved. The public has an obvious, critical interest in providing input on this issue.

Public involvement in the consideration of alternative modes of meeting travel demand in the US-95 corridor is critical. NEPA not only serves as a vehicle for informing the public of impacts, it also requires that alternatives be considered. Taken together with the requirement of 23 U.S.C. § 109(h) to mitigate the adverse impacts of air pollution from highways, an SEIS should identify the alternatives that can mitigate or eliminate the cancer risk while at the same time meeting the mobility needs of people who live and work in the US-95 corridor or other similar corridors around the United States.

Federal law requires assessment, reporting, and mitigation of health risks attributable to highway projects. FHWA's failure to assess the adverse health effects, the costs of these health effects, and the alternative transportation facilities and/or services that could prevent or minimize the adverse effects of the project violates NEPA, section 109 of the Federal transportation code and the Department of Transportation's ("DOT") environmental regulation at 23 CFR § 771.105.

The U.S. Supreme Court has affirmed the position adopted by the Council on Environmental Quality (CEQ) that the purpose of the National Environmental Protection Act would be thwarted without an SEIS requirement. 40 C.F.R. § 1502.9(c);

Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 370 (1989). Accordingly, CEQ regulations implementing NEPA impose a duty on Federal agencies to prepare an SEIS when “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed actions or its impacts.” 40 C.F.R. §1502.9(c)(ii). As noted above, the CEQ defines “significantly” according to context and intensity. Context includes effects on society generally and the locality in particular, and intensity includes the magnitude of the impacts on public health and the nature of the risks. 40 C.F.R. §1508.27.

When deciding whether to prepare an SEIS, the agency must apply a “rule of reason,” while taking a “hard look” at new information. *Marsh*, 490 U.S. at 373–74. In weighing the value of new information, the agency must make the decision according to the same NEPA guidelines governing the decision whether to prepare an EIS in the first instance. *Id.* If new information shows that the proposed action will affect the environment in “a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.” *Id.* When new scientific data raise environmental concerns that have not been addressed in a previous EIS, an SEIS is required. *Portland Audubon Society v. Babbitt*, 998 F.2d 705, 708 (9th Cir. 1993). New concerns that require an SEIS can be either quantitative or qualitative. *Environmental Defense Fund v. Marsh*, 651 F.2d 983, 996 (5th Cir. 1981).

In addition to NEPA, Federal highway law requires the consideration of the adverse effects of air pollution prior to approval of the plans and specifications for a highway, 23 U.S.C. §109(a), and the adoption of measures that “eliminate or minimize” the adverse effects of “air pollution.”

23 U.S.C. §109(h). In a case challenging DOT’s approval of a highway project without assessing its impact on air pollution, the court in *D.C. Federation of Civic Associations v. Volpe*, 459 F.2d 1231 (D.C. Cir. 1971), held that 23 U.S.C. §109(a) required such an analysis:

We can find no basis in the statute’s language or purpose for the conclusion that certain hazards are, as a matter of law, immaterial to the Secretary’s evaluation of a project’s safety. The District Court would surely agree that Congress did not intend to permit construction of a bridge in a situation, however rare, where air pollution would be a significant threat to safety. It does not follow, of course, that air pollution will be a significant hazard in all-or even any-highway projects. And the District Court apparently concluded that no extraordinary dangers are likely to arise from the Three Sisters Bridge. Still, the gathering and evaluation of evidence on potential pollution hazards is the responsibility of the Secretary of Transportation, and he undertook no study of the problem.

DOT’s approval of the highway bridge was remanded.

Federal highway law goes beyond NEPA by requiring that the decision to approve a highway be—

“made in the best overall public interest taking into consideration the need for fast, safe and efficient transportation, public services, and the costs of eliminating or minimizing such adverse effects and the following: (1) air, noise, and water pollution; (2) destruction or disruption of man-made and natural resources, aesthetic values, community cohesion and the availability of public facilities and services; (3) adverse employment effects, and tax and property value losses; (4) injurious displacement of people, businesses and farms; and (5) disruption of desirable community and regional growth. Such guidelines shall apply to all proposed projects with respect to which plans, specifications, and estimates are approved by the Secretary after the issuance of such guidelines.”

23 USC §109(h). At a minimum, this provision requires DOT to determine the costs of eliminating or minimizing the adverse health effects attributable to air pollution, and then requiring mitigation in the “best overall public interest.”

DOT’s 1987 regulations implementing this requirement and NEPA provide that the analyses required by §109(a) and (h) are to be performed as part of the NEPA review of the project. 23 CFR Part 771. Thus because both §109(a) and (h) require an analysis of the adverse effects of air pollution and the costs of eliminating or minimizing such effects, a supplemental EIS is required.

Section 109(h) also requires DOT to “eliminate or minimize” the adverse effects attributable to a new or expanded highway. This provision is implemented through DOT regulations in 23 CFR §771.105, but has not been applied by FHWA with regard to the adverse health affects associated with toxic and fine particle air pollutants emitted from this highway project. DOT’s regulation adopts as—

the policy of the [Federal Highway] Administration that:

(b) Alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for

safe and efficient transportation; of the social, economic, and environmental impacts of the proposed transportation improvement; and of national, State, and local environmental protection goals.

(c) Public involvement and a systematic interdisciplinary approach be essential parts of the development process for proposed actions.

(d) Measures necessary to mitigate adverse impacts be incorporated into the action. Measures necessary to mitigate adverse impacts are eligible for Federal funding when the Administration determines that:

(1) The impacts for which the mitigation is proposed actually result from the Administration action; and

(2) The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures. In making this determination, the Administration will consider, among other factors, the extent to which the proposed measures would assist in complying with a Federal statute, Executive Order, or Administration regulation or policy.

On its face, paragraph (d) requires that measures necessary to mitigate the adverse health effects of hazardous air pollutants and fine particles be incorporated into the plans and specifications for the project. Subparagraphs (1) and (2) then establish criteria for determining whether the costs of mitigation are eligible for Federal funding. The rule does not contemplate the approval of a project that would have significant adverse effects on human health without requiring that those effects be mitigated. The project must either include measures to eliminate long-term human exposure to the levels of hazardous air contaminants that are associated with significant risks of adverse health effects, or alternatives must be developed that can prevent these adverse health effects. None of these requirements of DOT's rule have been addressed in the review of the US-95 project in Las Vegas.

For all of the above reasons, less highway construction and more programs to reduce vehicle travel should indeed be evaluated through the planning and project review process to appraise their capacity to avoid or mitigate adverse health risks caused by transportation related air toxics emissions. While cleaner technology and better fuels are an important part of the solution, they are not the only way or necessarily the best way to reduce most of these risks.

Proposals to streamline NEPA reviews through such actions as imposition of arbitrary deadlines for agency action, limits on public involvement, curbs on the engagement of resource agencies and the public in determinations of project purpose and need or available reasonable alternatives, limitations on judicial review of NEPA decisions threaten to reduce compliance with these important legal requirements and public health safeguards. We urge Congress to oppose such efforts as fundamental assaults on America's core environmental and public health laws.

STATEMENT OF HOWARD MAIER, EXECUTIVE DIRECTOR, NORTHEAST OHIO AREAWIDE COORDINATING AGENCY, CLEVELAND, OH AND JERRY LASKER, EXECUTIVE DIRECTOR, INDIAN NATIONS COUNCIL OF GOVERNMENTS, TULSA, OK, REPRESENTING THE NORTHEAST OHIO AREAWIDE COORDINATING AGENCY (NOACA), THE INDIAN NATIONS COUNCIL OF GOVERNMENTS (INCOG) AND THE NATIONAL ASSOCIATION OF REGIONAL COUNCILS (NARC)

WHAT ARE NOACA AND INCOG?

The Northeast Ohio Areawide Coordinating Agency (NOACA) and the Indian Nations Council of Government (INCOG) are two of over 300 federally designated Metropolitan Planning Organizations (MPOs) in the country. MPOs perform the planning component of the Federal surface transportation act to keep the funding for transportation projects flowing into their regions. Part of their responsibility is meeting Clean Air Act and Transportation Equity Act for the 21st Century (TEA-21) requirements and regulations relating to transportation conformity and clean-air planning.

NOACA represents 170 local governments in a five county region. These five counties (Cuyahoga, Geauga, Lake, Lorain and Medina) total 2.1 million people. This is one fifth of the State of Ohio's population. NOACA operates in the heart of a home rule State—where units of local government make autonomous decisions regarding roads, zoning, and economic development within the confines of their respective boundaries. There is no State or Federal mandate to compel these communities to cooperate on these issues. NOACA is the one forum in which these communities come together and make decisions from a regional perspective.

INCOG is a voluntary association of some 50+ local governments in the five-county Tulsa, Oklahoma metropolitan area and has served as the MPO for over 20 years. The city of Tulsa, the region's largest city, contains about half of the region's approximately 800,000 population. Osage County, the region's largest county, borders the State of Kansas, is bigger than the State of Rhode Island and has a population of approximately 45,000.

THE NATIONAL ASSOCIATION OF REGIONAL COUNCILS (NARC)

NARC is a 32-year-old organization serving the interests of regional councils, and MPOs. NARC is an umbrella organization comprised of planning commissions and development districts made up of large urban and small rural councils, and MPOs from across the country. NARC provides advocacy and technical assistance in and for environmental issues, economic and community development, emergency management, and transportation. NARC emphasizes regional intergovernmental cooperation to resolve common problems in all of these important areas.

Regional councils and MPOs are created by compact and enabling legislation as consortia of local governments. As such, regional councils and MPOs represent local elected officials from cities, counties, townships, and villages. Their mission is regional planning and coordination across multiple jurisdictions. Regional Councils and MPOs deliver a wide-range of programs and services such as economic development, first responder and 9-1-1, health care, infrastructure development, aging services, air and water quality, land-use planning, work force development, emergency management and homeland security, and transportation.

Among all of these programs, transportation is key to the continued prosperity and health of all regions across the country. Access to employment and recreation and the movement of goods and services, drive regional economies and serves to bridge communities otherwise separated.

The Committee is addressing one of the most complex aspects of transportation system development—transportation conformity. First and foremost, Congress should consider whether air quality conformity as it currently exists is a tool that truly achieves clean air quality goals in our regions.

Our Nation needs to maintain its commitment to clean air and healthy communities. The Nation has made great strides in the application of new technology to environmental betterment, in the maintenance of our freight and transport fleets, and in energy savings, all leading to cleaner air across the country. However, the complex and burdensome system currently used for assisting our regions in determining standards, in applying data, and in selecting projects does not always work to improve community livability. The current process, while proving itself over the years, also has proven challenging for MPOs. Benefits gained in clean air through the law need to be measured against the increasing cost and complexity of clean air planning.

THE NORTHEAST OHIO EXPERIENCE WITH CMAQ AND CONFORMITY

The 1992 classification of Northeast Ohio as a moderate nonattainment area for ozone generated a planning challenge for the region. State Implementation Plans (SIPs) must be developed for nonattainment areas. SIPs identify how an area will achieve attainment of the National Ambient Air Quality Standards (NAAQS). Because earlier SIP planning efforts often generated documents that did not result in significant improvements in actual air quality conditions, USEPA required a specific format for the new SIPs for the newly classified nonattainment areas. USEPA required that moderate ozone nonattainment areas develop plans that would generate 15 percent reductions in hydrocarbon pollutant emissions by 1996 beyond already mandated improved vehicle technologies (e.g., catalytic converters). Hydrocarbons, a precursor of ozone, were believed to be the primary contributor to ozone attainment problems at that time. In northeast Ohio, the required reduction amounted to roughly 75 tons per day. This SIP requirement gave areas less than 4 years to generate a considerable decrease in hydrocarbon emissions.

Northeast Ohio, like many nonattainment areas, found itself facing a challenge. The reductions identified in the 15 percent SIP had to be real, that is, the activities that were to generate the reduction had to be recognized by USEPA to be certain to achieve the stated reduction. USEPA held the authority to approve or reject any methodology submitted for a given reduction strategy. In many instances (e.g. the Automobile Inspection Maintenance Program), USEPA supplied the approved methodology for local use. Congestion Mitigation and Air Quality (CMAQ) funded projects also had to meet this "verifiable reduction" requirement.

Areas planning to achieve the 15 percent reduction generally adopted a two-tiered approach to the planning effort. First, they identified the available control measures

that could be mandated. These included measures such as changes in fuel formulation and the Automobile Inspection and Maintenance (AIM) Program. Second, once all the possible reductions from these measures were identified, other measures were identified to make up the remaining reduction target. These measures (e.g. signal projects) were generally not things that could be mandated. They also generally required the development of some quantitative or qualitative methodology for estimating the emission reductions associated with them.

During this planning stage, USEPA approved a NOACA methodology for estimating emission reductions from signalization projects. This approval, and the need for additional reductions toward the 15 percent target, led NOACA to ask local governments to identify signalization projects that could aid in meeting its goal. Generally, only signalized corridors generated sufficient reductions to be worth consideration for this planning purpose. Once a set of possible candidate projects was identified, NOACA asked municipalities to become project sponsors and to commit to implementing the projects by the summer of 1996. The projects of those municipalities who could make this commitment were added to the 15 percent Plan. Twenty-two signalization projects made this cut. CMAQ funds were the obvious choice for funding these transportation improvements.

These events led to three results that persist to this day:

1. Twenty-two signalization projects were guaranteed CMAQ funding for their projects in order to ensure compliance with the 15 percent SIP;
2. A large reservoir of additional signal projects whose project sponsors could not commit to the 1996 deadline were on the table and were also candidates for CMAQ funding; and
3. Local communities became aware that CMAQ funds were available and could be used for signalization projects. This resulted in a continuing stream of applications for additional signal projects.

In addition to signalization projects CMAQ dollars have also been used to fund the purchase of buses and the construction of park-n-ride lots. These lots provide an increased opportunity for non-auto dependent travel to work and other destinations. It is probable that many of these projects would not exist in the absence of the CMAQ program.

The CMAQ program through its specialized focus affords a unique opportunity to pursue projects that are beneficial to air quality. It is likely that given the limited resources available, these projects would not be completed with regular transportation dollars. They would fall victim to the many competing priorities for these funds. For this reason, NOACA believes that the CMAQ program should remain to give priority to these air-quality projects.

It should be noted that in the State of Ohio, as it is in many States, CMAQ funding is allocated by the Department of Transportation. While there is general agreement about this process—it is applied at the discretion of the State. Direct apportionments to MPOs in this next surface transportation bill would eliminate any uncertainties they have concerning their share of CMAQ dollars.

NOACA's experience with transportation conformity analyses has been somewhat different than that experienced in many metropolitan areas around the country. Conformity analyses were introduced as a required element of transportation planning in December 1993. Since that time all proposed new projects or revisions that could generate a possible air quality impact must be evaluated for their conformity to the purposes of the State Implementation Plans (SIPs) in nonattainment and maintenance areas. Conformity determination in nonattainment areas involves the comparison of the aggregate system-wide emissions resulting from the construction of a project with those existing in its absence. This is referred to as the Build/No-Build Test. Conformity determination also involves the comparison of the resulting emissions with those in the emissions budget from the applicable SIP. This is called the Budget Test. In maintenance areas, only the SIP Budget Test is required.

Prior to its redesignation to attainment of the 1-hour ozone standard in 1996, NOACA had to conduct both the Build/No-Build and the Budget Tests for its transportation plans, programs, and projects. During this period, the Build/No-Build test was the only aspect of the conformity process that posed a potential problem in the NOACA area. This is because in a long established area like Northeast Ohio, new capacity additions are responsible for very small changes in total area wide emissions. As a result, differences between Build/No-Build scenarios were very small and the demonstration of a net improvement from an analysis frequently needed to rely on the use of off-network reductions to offset tiny increases generated by the model. Off-network reductions are reductions from activities that cannot be captured by the transportation-modeling environment. Signalization projects are an example of such a reduction. Changes in signal number and or timing are not captured in a traditional four-step transportation model. As a result, their impact must be determined

separately and then combined with the model results. Using these off-network results, NOACA successfully passed both Build/No-Build and Budget Tests during its period of nonattainment.

Following redesignation, NOACA only experienced problems with conformity determinations when changes in the MOBILE model resulted in dramatic changes in the forecast of emissions from the transportation system. The MOBILE model, which is developed and updated by USEPA, has been updated several times during the past decade. Twice during this period, NOACA has had to seek revision to its SIP Budgets in order to allow for conformity of its transportation plans with the SIP budget.

Outside of the aforementioned modeling circumstances, the remaining conformity challenge for the area has been that its transportation plans, programs, and projects must be conformed based on the entire nonattainment/maintenance area. In the region this has meant the need to conduct conformity for two MPOs and one additional county.

This situation has resulted in the need for significantly more coordination, and therefore, time than would be experienced in the absence of this requirement. Compounding this situation have been efforts by FHWA to require the two MPOs to share identical transportation planning timeframes as a result of their participation in conformity planning for this multi-jurisdictional area. It severely taxes the governing bodies of two independent MPOs to be required to establish transportation planning schedules based solely on a required conformity finding. The conformity process in and of itself is expensive and time consuming—when the coordination of two Federal agencies, a State DOT, and multiple local jurisdictions is added the costs become unmanageable. This experience is similar for all MPOs—and many of them have multiple State boundaries and many more local jurisdictions.

NOACA recognizes that its experience of CMAQ and conformity analyses has been different from many other metropolitan areas. The area's relatively stable population has resulted in slower VMT growth than in many other areas. As a result, emission reductions from new vehicle improvements have outweighed any emission increases associated with VMT growth. This has averted any of the planning difficulties associated with major population growth and capacity increases realized in other urbanized areas. NOACA expects however along with our colleagues from other MPOs that we will have difficulty in planning for the new 8 hour standards.

THE EXPERIENCE OF TULSA, OKLAHOMA IN CMAQ AND CONFORMITY

Tulsa County was a non-attainment area until 1990. INCOG worked very hard locally to achieve attainment status and Tulsa became a clean air county prior to the signing of the Clean Air Act Amendments. It was very important to avoid the stigma associated with being on the EPA non-attainment list, especially for economic development purposes. Since that time, INCOG worked even harder to maintain our clean air status. While efforts were wide ranging, perhaps most notable was the creation of the nationally recognized Ozone Alert! Program, the nation's first episodic voluntary emissions control program. This program reflects INCOG's philosophy of seeking voluntary common sense measures that are most effective in improving air quality rather than the command and control approach too often used by State and Federal regulators. As part of this program, gasoline suppliers and distributors agreed to voluntarily reduce the Reid Vapor Pressure (RVP) of gas sold in the Tulsa area. The regional transit agency provided free bus rides on Ozone Alert! Days and citizens and businesses were asked to voluntarily reduce their driving and other pollution causing activities.

In addition to the Ozone Alert! Program, Tulsa, by formal agreement with EPA and a host of other Federal, State and local partners, became the nation's first Flexible Attainment Region (FAR). Beginning in 1995, the FAR provided the region a locally crafted strategy to reduce emissions and adequate time to evaluate results before implementing more stringent measures to meet regional goals. This approach avoided the "one-size-fits-all" command and control system, which has been historically imposed by EPA. The FAR agreement came about because the region as local governments and private industry are committed to improving air quality. The necessary ingredients to make this work are flexibility and common sense. When the regions are allowed to develop their own program the local "buy in" is assured and the willingness to commit financial and political capital to achieve results is more readily accepted.

The Tulsa area successfully maintained the 1-hour ozone standard during the 5-year FAR agreement. After the expiration of the FAR agreement in 2000, the Tulsa area experienced a unique weather pattern that resulted in a number of exceedences

of the ozone standard, putting the region close to violating the standard. Again, in order to avoid going into non-attainment INCOG entered into EPA's Ozone Flex program which was designed to defer redesignation until it was shown that locally imposed emission control reduction measures would not work. INCOG is proud to relate that their continuing efforts have been successful and they have remained in attainment of the 1-hour standard.

Presently, Tulsa faces its next challenge in meeting the 8-hr. standard. Current readings at two of the five ozone monitors in Tulsa County place the entire five-county Metropolitan Statistical Area (MSA) on the verge of non-attainment. EPA provided two strategies for reaching attainment. The conventional nonattainment approach requires the Governor of each State to submit to EPA a classification of 'attainment', 'nonattainment' or 'unclassifiable' based on information available for each affected area. This conventional approach then requires nonattainment areas to develop enforceable control measures to reduce emissions, modify the State Implementation Plan (SIP) accordingly and reach attainment by as early as 2009. Transportation conformity analysis begins 1 year after nonattainment designation and is required to continue for 20 years after reaching attainment. Specific EPA guidance for the implementation of this strategy is not yet available for the 8-hour standard. The second strategy provided by EPA is the Early Action Compact (EAC).

The EAC is a 5-year agreement allowing local areas to develop an area specific program identifying and implementing effective control measures to achieve attainment at the monitors by 2007. Further, EAC defers the effective date of the non-attainment designation. If an area fails to achieve EAC commitments, then the conventional nonattainment strategy kicks in. INCOG has proactively entered into the EAC. The EAC will allow EPA to defer the effective date of designation. In return, the EAC commits INCOG and the Oklahoma Department of Environmental Quality to develop additional modeling necessary to identify control measures that will be implemented to bring the area into compliance by 2007 rather than 2009, the date required if INCOG were to slip into non-attainment this next season.

Since the Tulsa area is in compliance with our EAC, INCOG is requesting the definition of 'unclassifiable' designation be expanded to include areas under EAC agreements. Even though INCOG is under an EAC, and the effective date of the designation is put off, they are told that EPA designations of nonattainment will still occur. This being the case, Tulsa will be designated nonattainment. The problem will be solved if States are given the opportunity to defer the designation by recommending an 'unclassifiable' designation.

For a complete discussion of the EAC, please see the material in Attachment A.

INCOG has taken a pro-active approach to improve regional air quality. The stigma associated with being designated non-attainment will have adverse effects on the region's economic development initiatives that so desperately need to be effective during these tough times. INCOG is also very concerned about the health related implications of poor air quality and its program is designed to address those concerns.

For all of our regions, it is clear that clean air is one of several key health goals. They do everything possible to balance accessibility and development goals with a healthy environment. It also is clear that air quality planning is very complex, often misunderstood, and misapplied.

There is also concern in our regions and local communities that current conformity law may strip local elected officials of the authority they exercise through the comprehensive transportation decisionmaking process. This process is adopted in coordination with their citizens, environmental groups, and the business community. Conformity law has the capability to alter decisions made locally and change the very structure of decisionmaking process in a sweeping and possibly regionally detrimental fashion. Therefore, NARC believes, with this new reauthorization, we have the opportunity to fix provisions that will serve only to enhance the current process.

NOACA, INCOG, and NARC as well as all the associations regional members have undertaken an extensive look at current conformity processes and what can be done to make the process smoother, easier to apply, and more effective and meeting clean air goals. The key issues are summarized as follows:

CLEAN AIR PLANNING CYCLES AND CONFORMITY

MPOs are required by law to undertake a comprehensive planning process. Concurrently, air quality plans are undertaken as well. There is no synchronization of timing on all the different plans that MPOs are doing. Plans start and stop at different times and for different reasons. Because this makes coordination extremely

difficult between transportation and air-quality planning, NARC proposes the following revisions.

- Congress should require the planning horizons of State Implementation Plan (SIP) and transportation plans consistent. Furthermore, the Metropolitan Plan would only have to conform every 5 years—when it is updated.

- “Maintenance” should be reduced to 5 years.

There is also the problem of implementing new national modeling standards. NARC is concerned about the implementation of these new standards and the effect new data runs in new models will have on transportation programs. NARC recommends that:

- Conformity modeling processes and modeling results Federal and State Governments adopt should be consistent with regional metropolitan transportation planning processes and fluctuations in modeling outcomes should be accounted for. Furthermore, an appropriate timeframe for model implementation should be allowed and regions should not be held accountable for new variances in model outputs without adequate time to plan.

Very specific aspects of conformity need to be changed to allow our regions to meet clean air goals. For example, the mitigation of emissions from industry to offset emissions from mobile sources can be used as a comprehensive clean air strategy. Specifically, NARC believes changes in these areas will have tremendous benefits to regions:

- Congress should eliminate the conformity update triggers.
- Allow Transportation Control Measure (TCM) substitution in SIPs without SIP revisions as long as equivalent emissions reductions are identified and implemented on a consistent schedule.
- Congress should allow the use of intersector trading for attaining clean air standards. Congress should also allow trading between pollutant categories.
- Conformity provisions should be reassessed in light of experience with implementation of existing provisions. The purpose/benefit of Build/No-Build Tests should be closely reviewed.
- Conformity requirements for areas containing more than one MPO must be clearly stated so as to inform those areas of the precise requirements regarding the coordination of their planning efforts.
- The loss of highway funds as a penalty for non-compliance with conformity or other air quality requirements should be closely reexamined. The penalty should not exacerbate the problem. In many instances, the project that would not be completed due to the loss of highway funds would contribute to reductions in congestion and air pollution.

CONGESTION MITIGATION AND AIR QUALITY PROGRAM

CMAQ has been demonstratively successful in helping to relieve congestion and improve air quality. Recently released reports indicate that CMAQ is a very effective program and well received by MPOs. Some specific adjustments will improve the program and the use of it at the regional level:

- Congress must increase CMAQ funding.
- Congress needs to introduce more flexibility into CMAQ with fewer restrictions on how long programs or projects can be funded and which are eligible, e.g. 13-year limitation on operations.
- Congress should suballocate CMAQ funds to all MPOs in air quality non-attainment and maintenance areas.
- In States where all regions are in attainment, the CMAQ funds will be provided to all MPOs through suballocation (see above) in order to maintain attainment.
- Congress needs to incorporate PM₁₀ and PM_{2.5} into calculations on funding for a region.

EIGHT-HOUR STANDARDS

NARC is also aware that current advances in attaining clean air goals may change as a result of the implementation of USEPA's new more stringent 8-hour ozone standard. This will place Northeast Ohio, Tulsa, and many other regions, under a nonattainment status once more. Depending on how conformity analysis is handled under this new standard, this could result in more difficulty in demonstrating conformity, and could influence how the area chooses to spend available CMAQ dollars.

The new 8-hour standards (NAAQS) were revised by EPA in July 1997. The standard set at 0.08 parts per million (ppm) with 8-hour readings that would be averaged over 3 years. If an MPO is designated nonattainment then requirements

will result in a State Implementation Plan (SIP), Conformity, New Source Review, and other planning requirements—a cumbersome process.

MPOs are concerned by the litigation that took place under the 1-hour standard and the potential for a similar rash of lawsuits once the 8-hour designations are made and the SIPs are submitted. MPOs and States would like to find a legislative solution to this problem in order to avoid the financial burden of defending their TIPs and SIPs.

Rural communities and counties are also aware that their designations for non-attainment may change. Under the new 8-hour standards over 400 counties may be newly designated for nonattainment. Many of these areas are small city or rural counties not covered by MPO planning areas. These areas have neither the tools nor expertise necessary to prepare for and/or meet the standards. The costs of compliance far outweigh the ability of rural counties to fund air-quality initiatives.

To help MPOs prepare for the new standards NARC has a cooperative agreement with EPA and FHWA to provide outreach to all regional councils and MPOs on integrating transportation and air quality planning. A series of workshops have been provided to help our members understand the 8-hour standards and the implementation. NARC is in the process of preparing Guidelines for Regional Councils and MPOs on Integrating Transportation and Air Quality Planning.

CLEAN AIR INCENTIVES

The only “incentives” that exist relative to clean air and conformity are disincentives aimed at punishing regions that fail current air quality standards. These disincentives may, in the extreme, shut down a region’s transportation program. The only extra funding regions receive to combat air quality problems are those from the CMAQ program, applied when a region reaches non-attainment or maintenance status. To correct this imbalance and reward those regions that are in attainment or moving toward a maintenance or attainment status, NARC proposes the Clean Air and Attainment Pilot Program (CAAPP).

- Congress should consider setting-aside, above the normal allocation of category funding, a reward to those regions that are in attainment or in demonstrated maintenance for a set number of years. This allocation would be discretionary and allocated directly to regions to fund strategies to promote clean air. The funding could be used to fund planning, management and operations, and other “clean-air” activities. The program would help create a set of ‘best practices’ that could be emulated by other regions to improve air quality.

- Funding for the CAAPP shall not be taken from the CMAQ program.

Of concern to our regions is the purported linkage between congestion and air-quality. MPOs do not necessarily believe there is always a direct linkage between the two. While cities grow and become more vibrant and while roads in some areas become congested—our air is becoming cleaner. Government reports have concluded that the application of new vehicle technology has been a positive contributor to air being the cleanest it has been in decades. NARC respectfully encourages Congress to look at congestion mitigation in other discussions and through other programs—not through the conformity process.

NARC proposes changes in TEA-21 to allow all States and regions the flexibility to achieve air quality goals and implement world-class transportation systems.

NARC is urging Congress to consider all its partners as important to building and maintaining the best transportation system in the world. NARC has released a twelve-point program to help our lawmakers help regions. NARC seeks more funding for MPOs, better coordination within State and Federal programs, and new and innovative programs aimed at alleviating urban transportation problems such as congestion, funding flexibility, and freight and goods movement. To this end, Congress should guarantee States the flexibility to spend funds and program projects based on their priorities and extend that same responsibility and authority to all local elected officials.

Our association hopes Congress will also consider the role of fiscal constraint on MPOs and councils. While absolutely necessary to allow for the accurate accounting of our public expenditures it is critical that revenue forecasts are precise and fiscal standards remain consistent. MPOs and regional councils are held to higher fiscal standards in their planning and programming processes than the States that fund them. Congress should require States to provide accurate revenue forecasts to MPOs and councils and engage them in calculating these forecasts as well.

NARC will also urge Congress throughout this and the coming year to consider greater emphasis on safety in rural and urban communities, a balanced and inter-modal approach to Federal funding, comprehensive review and consideration of tech-

nology deployment, and greater consideration of freight movement as an essential part of the transportation planning process.

Of particular concern to NARC members and the citizens they represent are the tens of thousands of accidents and deaths on rural roads each year. Coupled with increasing safety concerns in urban areas, this presents a sobering picture of travel on America's roads. NARC is urging Congress to apply resources in new and innovative ways to lessen this tragedy.

NARC is also urging Congress to consider ways to streamline the project delivery process, while ensuring the health of our natural environment. The ability to move projects quickly, especially those that will make our roads safer and eliminate bottlenecks is of key concern. Bound intimately with safety are new concerns for security.

Given the fact that many regional councils are currently involved in emergency management planning, NARC will also urge Congress to consider regional councils and MPOs as primary recipients of homeland and surface transportation security funding.

NARC would like to help all MPOs achieve the same success as that of Cleveland, Tulsa, and in other places, through a balanced, intermodal, comprehensive, and locally and regionally led process of planning, programming, and project selection.

ATTACHMENT A.—CONSIDERATION OF EARLY ACTION COMPACT AREAS AND REGIONS CURRENTLY IN ATTAINMENT

A. THE TULSA AREA'S DESIGNATION FOR THE REVISED NAAQS SHOULD BE "UNCLASSIFIABLE". IT MAY BE NECESSARY TO CLARIFY THE CAA LANGUAGE FOR "UNCLASSIFIABLE" AREAS, (CAA SEC 107 D-1 A III) TO PROVIDE APPROPRIATE DESIGNATION STATUS FOR EAC AREAS MEETING ALL MILESTONES

By July 15, 2003, State Governors are to submit to EPA a list of all areas in the State recommending designation of nonattainment, attainment, or unclassifiable on the basis of available information as meeting or not meeting the revised NAAQS. These designation and boundary recommendations will precede the EPA's April 2004 designations. We believe it appropriate and critical that the Tulsa area be "unclassified" during this initial revised NAAQS designation process. We believe we meet the intent of the CAA's unclassifiable provision through the Tulsa area's EAC commitment and efforts.

Tulsa is very nearly meeting the 8-hour standard, clearly meeting the 1-hour standard, and through EAC MOA, committed to meeting the 8-hour standard by 2007. The EAC provides for 'deferring the effective date of a non-attainment designation' for the Tulsa area. With the past 13 years of pro-active air quality improvements, Tulsa's air quality continues to improve. At present, two of the five Tulsa area monitors are only marginally above 8-hour standard and are expected to be in compliance before the end of 2007. Given that the EAC effectively is intended to provide a transition status only for those areas meeting the 1-hour standard but only marginally not meeting the 8-hour standard, we believe it reasonable and appropriate to be considered "unclassifiable" on the basis of available information as EAC committed milestones are underway and monitor data reflecting these aggressive EAC strategies pending near-implementation.

Once EAC areas are determined to be fully in compliance with all milestones and meeting the standard at the monitor, a designation of attainment could be issued. The EAC agreement includes a local 'maintenance plan' for growth. This plan takes the place of transportation conformity maintenance requirements and includes updating and modeling for future transportation projects for 5 years beyond December 2007.

Additional support for not designating EAC areas, rather defining them as unclassifiable, is provided by EPA's own statement in the November 14, 2002 Jeffrey Holmstead, Memorandum, page 7, 2d paragraph 3d sentence: "If any milestone is missed and EPA withdraws the deferred effective date, *thereby triggering a non-attainment designation and applicable statutory requirements*, a nonattainment SIP would have to be submitted to EPA within 1 year of the new effective date of the nonattainment designation."

B. TRANSPORTATION CONFORMITY ISSUES

Transportation conformity is intended to encourage municipalities and States to consider the impacts of transportation projects on air quality. State Transportation Improvement Plans (TIPs) must conform to State Implementation Plans (SIPs). Specific mandates are placed on areas not in attainment with clean air standards.

The current transportation conformity law holds several requirements we find counterproductive to cleaner air, and more costly than beneficial. Additionally, because the Tulsa area is an EAC Agreement area and expected to meet NAAQS by 2007 or earlier, the ‘triggers’ for transportation conformity requirements are unclear.

Transportation conformity requirements add burden and significant cost to MPOs and local regions by requiring modeling of mobile source emissions for future year modeling. The non-attainment SIP already takes into account the prescribed future growth for all area emissions. Mobile source emissions are modeled for future growth and incorporated into an EPA approved SIP.

There is a disconnect between areas covered by EAC agreements and Federal transportation conformity requirements. If a nonattainment designation (with a deferred effective date on non-attainment designation and related requirements) were to occur for the Tulsa area in 2004, it is unclear whether or not conformity would kick-in within 1 year. Reasonably, transportation conformity would also be deferred under the EACs “related requirements” clause.

There is a disconnect between whether or not—and when—transportation conformity would begin for EAC areas meeting milestones and meeting attainment at the monitors in 2007. The problem arising from this issue is resolved through our earlier recommendation that EAC areas, like Tulsa, be eligible to be designated unclassifiable until 2007. At the end of 2007, when EAC area monitors are in compliance with the revised NAAQS, transportation-planning requirements as planned for in the EAC agreement and SIP planning process would begin.

Once an area reaches attainment, the 20-year maintenance transportation conformity requirement for areas redesignated to attainment creates an arbitrary and unreasonable burden for areas, like Tulsa, that have never been more than marginally above the standard. A reasonable rule for maintenance conformity requirements would take into account the degree of nonattainment an area reached. Areas like Tulsa should not be required to perform conformity nearly as long as areas classified as ‘serious’ or ‘extreme’. A 5-year maintenance conformity period is more reasonable. Also, maintenance requirements for conformity should be better partnered with SIP planning, providing reasonable synchronization of modeling efforts.

Newly designated nonattainment areas will be faced with data inadequacies. Local areas, like Tulsa, will need time to accumulate the necessary resources and data to produce updates to the long range plan every three rather than 5 years. There should be some consideration for a necessary delay in shifting the requirement to update the long-range transportation plan from 5 to 3 years at a minimum. We believe retaining a 5-year plan update is appropriate.

C. OTHER RELATED ISSUES

The current limitations placed on Congestion Mitigation and Air Quality (CMAQ) funding is constraining and minimizes effective project implementation especially in the area of using funds for operational purposes. For example, our transit agency provides free bus rides on Ozone Alert! Days—an important part of our program. They are constrained by the current CMAQ rules for continuing this program for more than 3 years. We recommend allowing more flexibility in both the type of CMAQ projects selected and removing the 3-year limitation for project eligibility for funding.

The current TEA-21 legislation does not provide for areas that are in attainment, like Tulsa, to receive CMAQ funds to undertake air quality improvement programs. We would recommend that consideration be given to expanding the eligibility for receiving CMAQ funds to those areas that have entered in to Early Action Compact agreements with EPA. Simply put, “An ounce of prevention is worth a pound of cure”.

STATEMENT OF DIANE STEED, PRESIDENT, AMERICAN HIGHWAY USERS ALLIANCE

INTRODUCTION

Mr. Chairman and members of the subcommittee, I am honored to appear before you for the first time as the new President of the American Highway Users Alliance. Since 1932, The Highway Users has represented both motorists and a broad cross-section of businesses that depend on safe and efficient highways to transport their families, customers, employees, and products. From coast-to-coast, our members pay the user fees that finance the Federal highway program, and they expect the government to be good stewards of their investment in our nation’s roads and bridges. Highway User members strongly believe that user fees paid on the nations roads

should be *rapidly* returned to the roads through projects that make their motoring experience safer and less frustrating.

I use the term “rapidly” for a reason. Mr. Chairman, I know that you have been a leader among Senators who want to streamline the project delivery process. I want to take a second to thank you for your attention to the problems of project delay. You can count on us to support your efforts to advance highway projects quickly.

This morning I will focus my testimony mainly on our views of the Congestion Mitigation and Air Quality program or CMAQ. However, I would also like to state for the record that I endorse the comments of those who testified last summer (and here today, if applicable) on the specific need to coordinate the submission of Clean Air Act State Implementation Plans (SIPs) with statewide and Metropolitan Transportation Improvement Plans (TIPs).

WE CARE ABOUT CONGESTION RELIEF AND CLEAN AIR

When I tell someone that I work for the Highway Users, the frequent, joking reply is that he or she *is* one. Nearly every American can claim to be a highway user—regardless of race, creed, or *even* political affiliation. Representing such a broad group, I can say confidently that highway users, like all Americans, care about the quality of the air we breathe and want it to keep getting cleaner.

Of course, we have also lost patience with the increasing amount of traffic that chokes up our roads, delays our trips home to our families, causes accidents, strangles commerce, and even slows emergency vehicles when time really matters most.

With that in mind, I am so pleased to speak to you about the Clean Air Act and the CMAQ program—a transportation program that should address both the problems of congestion and air pollution.

CLEAN AIR PROGRESS

The good news is that we have a freer, more mobile society than ever and our air is cleaner. The dramatic improvements in air quality are truly a testament to the outstanding benefits of the Clean Air Act. Incredibly, today’s car on the road emits less pollution than a 1960’s car sitting in its driveway with its engine off. And more progress has been made in mobile source pollution reduction than any other source. For most metropolitan areas, mobile source emissions are no longer the principal source of pollution; for many, they aren’t even second.

Since 1970, there is 28 percent less carbon monoxide in the air, 39 percent less sulfur dioxide, 42 percent less volatile organic compounds, 75 percent less particulate matter, and lead pollution has been all but eliminated. In fact, the only pollutant that has increased since 1970 has been Nitrous Oxides. However the amount of NOx being emitted *from automobiles* is down over 31 percent.

At the same time, the population has grown 38 percent, transportation energy consumption has gone up 61 percent, there are 71 percent more drivers, and 99 percent more vehicles. And most impressively, vehicle-miles-traveled or VMT has increased nearly point-by-point with the gross domestic product at 148 percent and 158 percent, respectively. This is no coincidence. Mobility leads to economic growth.

In the State of the Union address, President Bush introduced his pollution-free fuel cell car initiative by noting that “the greatest environmental progress will come about . . . through technology and innovation”. When contrasting the growth in vehicle miles traveled with the reductions in Clean Air Act pollutants, it is clear that technology and innovation have done far more to clean the air than increased travel has done to sully it. For example, today’s diesel truck engine is eight times cleaner than an engine built just a dozen years ago. And with new technology for dramatically cleaner diesel fuels and engines coming online, it is clear that technological advancement leading to cleaner air is only gaining in momentum.

A MAJOR FLAW IN THE 1990 CLEAN AIR ACT AMENDMENTS

When the Clean Air Act Amendments were written in 1990, there was an assumption from EPA models that increased vehicle-miles of travel (VMT) would be a major source of increased air pollution. As I have already discussed, this has not been the case. VMT has gone up; pollution has gone down. EPA’s models did not reflect the improvements that would be realized by technology. But due to this flaw in the CAAA, State Implementation Plans for air quality conformity are not approved unless States include projects to reduce VMT. If States do not show how their plans would reduce VMT, the EPA can impose sanctions that freeze money for highway projects.

WHICH CMAQ PROJECTS WORK AND WHICH DO NOT

Mr. Chairman, last summer this Committee held a hearing on CMAQ and conformity. One common conclusion reached by several witnesses was that the biggest environmental bang for the buck comes from traffic flow improvements, diesel engine retrofits, and vehicle inspection and maintenance programs. Yet, according to the EPA, the highest priority for CMAQ funds is the implementation of transportation *control* measures (TCMs) intended to reduce VMT. The use of the word “control” is telling. TCMs are intended to control the “bad” people who either need or choose to drive alone. These measures are the “carrots and sticks” advocated by some anti-car, anti-motorist planners and groups who believe that government should be in the business of forcing people out of their cars. TCMs sit uneasily with a population accustomed to basic freedoms. However, even if that were not the case, TCMs are doomed to failure for another reason: They are directed mainly at commuters—but over 80 percent of trips are NOT commutes. It should be no surprise that TCMs have little to no proven track record in causing measurable clean air progress *or* congestion relief.

What should be clear is that there are serious flaws in the CMAQ program. And the reasons are actually quite simple. First, road improvements that increase capacity for single occupant vehicles are prohibited. In other words, by *law*, the vast majority of drivers idling in congestion cannot get any relief under the program. Second, there is no measurement of the projects funded under the program so there is no incentive for prioritize the most effective projects. For example, according to a recent Federal Highway Administration report, transit improvements cost \$272,000 per ton of hydrocarbon removed while traffic signalization improvements only cost \$23,000 per ton. Yet inexplicably, the year that this data was reported, transit received 47 percent of all CMAQ funds while only 32 percent went to traffic lights.

SOME OF THE MOST EFFECTIVE PROJECTS ARE INELIGIBLE FOR FUNDING

Many projects that would result in clean air progress *and* congestion relief are not mutually exclusive. Nowhere is that more clear than in a comprehensive examination of the benefits of making modest improvements to unclog America’s worst bottlenecks. In 1999, we analyzed the worst traffic bottlenecks in the country and calculated the benefits of improving them from what engineers call level of service “F” (or failing) to just passable level of service “D”. What we found was astonishing. If the worst 167 bottlenecks were unclogged, the average emissions of volatile organic compounds would drop by 44 percent, carbon monoxide would be reduced 45 percent. Greenhouse gases would drop over 70 percent. At the same time, traffic delays would be reduced by 71 percent, saving the average commuter 40 minutes per roundtrip. Clearly, a comprehensive program to relieve traffic bottlenecks is an example of a program that should meet the logical requirements for an effective Congestion Mitigation and Air Quality program. But under the current program it is ineligible because it would provide capacity for single occupancy vehicles.

In addition, vehicle scrappage programs are ineligible under CMAQ. The EPA estimates that the dirtiest 10 percent of vehicle contribute 40 percent of the pollution. Providing incentives to scrap old, dirty vehicles would do nothing for congestion relief, but it would do far more to improve air quality than trying in vain to convince people to give up their cars.

RECOMMENDATIONS TO IMPROVE THE CMAQ PROGRAM

Although we clearly have concerns with the CMAQ program, fortunately the majority of problems can be remedied with only minor statutory adjustments. We believe the CMAQ program can be restructured to better meet the true pollution-reduction goals of the Clean Air Act. At the same time, these program improvements can markedly reduce traffic congestion. We recommend the following:

- (1) *Ease CMAQ’s inflexibility.* Allow all transportation projects that reduce congestion and Clear Air Act pollutants to be eligible for funding.
- (2) *Focus on technological improvements* instead of trying to get people out of their cars. Let’s be realistic: TCMs aren’t convincing people to stop driving and they never will. And changes in VMT are not accurate indicators of air pollution anyway.
- (3) *When funding CMAQ projects, measure the benefits and costs* of alternative strategies to relieve congestion and reduce air pollution. Based on those criteria, engage in projects that can be shown to do the most good for congestion and air quality. DOT should report results and develop best practices for obligating CMAQ funds.

(4) *Frustrated drivers stuck in traffic would appreciate a targeted program that fixes the worst bottlenecks. Give motorists a break from traffic jams and clean the air! Traffic congestion is positively nightmarish in many parts of the country. We're wasting 3.6 billion hours and 5.7 billion gallons of fuel in delay. The air quality, safety, and time management benefits of unclogging those bottlenecks would be extraordinary.*

CONCLUSION

Since 1991, \$14 billion has been authorized for the CMAQ program. But CMAQ doesn't reduce congestion and clean the air because of its name alone. Changes in the way the account is administered could go a long way toward realizing the transportation-related goals of the Clean Air Act. We look forward to working with you as you reconsider the structure of this program. I'd be happy to answer your questions at the appropriate time.

States	Congested Miles of Major Highways	Total Miles of Major Highways	Percentage Congested
Alabama	490	1,349	36%
Alaska	28	110	25
Arizona	793	1,316	60
Arkansas	141	859	16
California	5,314	8,379	63
Colorado	637	1,289	49
Connecticut	385	1,048	37
Delaware	128	188	68
District of Columbia	91	121	75
Florida	2,433	3,677	66
Georgia	1,013	2,360	43
Hawaii	129	221	58
Idaho	92	347	27
Illinois	1,481	3,359	44
Indiana	686	1,988	35
Iowa	116	863	13
Kansas	162	957	17
Kentucky	394	977	40
Louisiana	406	1,181	34
Maine	40	248	16
Maryland	817	1,349	61
Massachusetts	805	2,155	37
Michigan	1,317	2,699	49
Minnesota	409	939	44
Mississippi	195	854	23
Missouri	603	1,743	35
Montana	31	230	13
Nebraska	157	476	33
Nevada	188	350	54
New Hampshire	68	260	26
New Jersey	1,028	1,926	53
New Mexico	199	629	32
New York	1,376	3,986	35
North Carolina	769	2,022	38
North Dakota	20	204	10
Ohio	1,042	3,110	34
Oklahoma	355	1,155	31
Oregon	327	858	38
Pennsylvania	962	3,305	29
Rhode Island	144	468	31
South Carolina	395	933	42
South Dakota	21	182	12
Tennessee	846	1,778	48
Texas	2,686	7,159	38
Utah	284	455	62
Vermont	11	155	7
Virginia	837	1,665	50
Washington	645	1,677	38
West Virginia	89	306	29

States	Congested Miles of Major Highways	Total Miles of Major Highways	Percentage Congested
Wisconsin	382	1,665	23
Wyoming	13	297	4
U.S. Total	31,980	75,827	42%

STATEMENT OF MARSHA KAISER, DIRECTOR OF PLANNING AND CAPITAL PROGRAMMING, MARYLAND DEPARTMENT OF TRANSPORTATION, ON BEHALF OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS

Mr. Chairman and Members of the Committee, my name is Marsha Kaiser. I am Director of Planning and Capital Programming for the Maryland Department of Transportation. I am here today to testify on behalf of the American Association of State Highway and Transportation Officials (AASHTO). We applaud your continuing commitment to improving air quality in your State and across the Nation, and thank you for your leadership in holding this hearing to address transportation congestion and the Congestion Mitigation and Air Quality Program (CMAQ).

In my testimony today, first I will discuss "next-generation" refinements to the transportation conformity process to build on the experience we have gained over the last decade. We would like to see procedural modifications to conformity to provide for:

- The alignment and greater consistency between the transportation and air quality planning processes, including analytical tools and planning assumptions;
- Greater flexibility to implement cost effective emission reduction strategies; and
- Enhanced consultation on implementation of the new national standards for ozone and fine particulates.

Second, I will discuss AASHTO's views on the Congestion Mitigation and Air Quality Program, which we believe should be continued with some added flexibility to enhance our ability to meet the dual challenges of congestion and air quality improvement.

TRANSPORTATION CONFORMITY

Background. The Clean Air Act closely aligned transportation and air quality planning through an analytical process called "transportation conformity." The policy objective of transportation conformity is to coordinate air quality and transportation planning by ensuring that transportation plans are consistent with plans for attaining Federal air quality standards.

Mr. Chairman, I want to assure you that all of the State transportation officials across the country fully support the national goal of improving air quality and ensuring a healthy environment in all of our States. After 10 years of experience, transportation and air quality agencies have learned a great deal about how to better coordinate their intertwined planning efforts. That experience has also exposed procedural weaknesses with transportation conformity that we believe can only be addressed legislatively. After 10 years, it is appropriate for Congress to consider refinements to the conformity requirements.

The current transportation conformity regulations were drafted by the U.S. Environmental Protection Agency (U.S. EPA) to implement provisions of the Clean Air Act Amendments of 1990, which more explicitly defined the process for ensuring that transportation plans and programs conform to State air quality implementation plans (SIPs). The dual policy objectives of transportation conformity are to:

- Coordinate the transportation and air quality planning processes; and
- Ensure that transportation plans and Transportation Improvement Programs (TIPs) are consistent with SIPs.

There is generally agreement among the transportation agencies that implement the conformity process that it has improved coordination between transportation and air quality plans and has vastly improved communications between transportation and air quality professionals. In addition, the process has been successful in raising awareness among decisionmakers of the connection between transportation and air quality and has promoted broader involvement in transportation planning by stakeholders.

Nevertheless, 10 years of experience with transportation conformity has also exposed some weaknesses in the current procedures designed to integrate air quality and transportation planning through conformity:

- Misalignments and inconsistencies in planning assumptions, planning horizons, and modeling tools; and
- Absence of any flexibility to revise Transportation Control Measures without first revising the State air quality implementation plan (SIP).

The impact on transportation programs is substantial. Just since 1997, over 80 nonattainment or maintenance areas have gone into—or barely missed going into—a conformity lapse, putting billions of dollars of transportation dollars at the risk. Process inefficiencies impose an additional administrative burden with sizable opportunity costs—scarce staff and resources are diverted from addressing the wide array of existing and emerging transportation policy challenges, including for example, safety and security or broader environmental and community objectives.

AASHTO has identified several procedural improvements to the conformity process improvements which would harmonize the transportation and air quality planning process and reinforce the role of conformity to ensure consistency with SIPs. The goal is simply to strengthen the connection between transportation and air quality planning by making common sense improvements to the conformity process that will benefit transportation and air quality agencies alike.

TRANSPORTATION CONFORMITY PROCEDURE REVISIONS

Provide better integration and consistency in the transportation and air quality planning processes, timelines and updates, planning assumptions and modeling tools.

1. Align Planning Horizons

Metropolitan transportation plans are required to have a minimum of a 20-year planning horizon. The time horizons for SIPs are much shorter—the SIP time horizons extend only to the attainment date, with the latest being 2010. As a result, there is frequently a gap of 10 years or more between the horizon year for the SIP and the horizon year for the long-range transportation plan.

Transportation agencies must demonstrate conformity to the last year of the plan which means that on-road mobile sources are constrained to the motor vehicle emissions budget from the attainment year to the last year of the transportation plan unless SIPs specifically establish budgets for years after the attainment date yet within the transportation planning horizon. Also, there can be no credit taken for technology or other measures that may be available during the out-years unless those measures have a regulation in place and implementation is assured.

The mismatch in the timeframes for transportation and air quality plans has placed an undue burden on the on-road mobile sector where there are very few measures remaining that can be implemented that will yield significant emissions reductions. This is especially true as vehicles continue to get cleaner and Federal controls on vehicles are phased in. This has caused problems for transportation agencies in making conformity determinations, which is a criterion for receiving Federal highway and transit funding.

Recommendation: Require conformity determination on the first 10 years of the transportation plan or to the attainment date, whichever is the longer time period. For informational purposes, regional emissions analysis would be done on the remaining years of the transportation plan.

2. Provide More Predictable and Coordinated Planning Update Cycles and Consistent Planning Assumptions

Long-range transportation plans, which are for 20 year periods, must be updated not less frequently than every 3 years. Transportation Improvement Programs (TIPs) must be updated every 2 years. In addition, there are various SIP-related triggers in the transportation conformity rule that require plan and TIP updates within 18 months of various SIP actions. State Implementation Plans (SIPs) do not have a regular update cycle.

This has created a situation where transportation plans are updated regularly while SIPs are updated on a discretionary and sporadic basis, resulting in overlapping plan cycles, public confusion, less time spent on other important planning tasks and a continuous conformity process in many areas. In addition, the unpredictable nature of the 18-month SIP triggers for conformity redeterminations has caused uncertainty in the transportation planning and TIP development processes. Because transportation plans, TIPs and SIPs must use the latest planning assumptions each time they are updated, the assumptions used in SIPs tend to be older than—and inconsistent with—those in transportation plans and TIPs. AASHTO believes that the conformity process must provide a more predictable and coordinated transportation and air quality plan update cycle along with consistent planning assumptions.

Recommendation: Require the update of metropolitan transportation plans at least every 5 years with transportation conformity determinations required after each update, unless more frequent updates of the TIP are needed. Reaffirm that TIPs must continue to be consistent with plans and eliminate the requirement for a conformity determination on TIPs because it is duplicative of the conformity requirement for plans.

3. Provide Coordinated and Consistent Use of Emissions Models and Emissions Factors

EPA recently released MOBILE6, the new generation of the emissions factor model used in all States except California. The California model, EMFAC2000 was released in 2001 and will be updated in the near future. The conformity rule requires that latest planning assumptions and emissions models be used in transportation plans, TIPs and SIPs when they are updated.

Nonattainment areas have 2 years to begin using MOBILE6 (or EMFAC2001) in conformity determinations with no corresponding requirement that SIPs be updated during that period using the new emissions factors model. (There are exceptions to this 2-year phase in for areas that took credit for Tier II vehicle standards and heavy duty engine regulations in their SIPs—these areas have either 1 or 2 years depending on the specific conditions in their SIPs).

The thrust of the transportation conformity requirement was to provide for an integrated transportation and air quality planning process. However, requiring that regional emissions analysis be done with latest emissions model without requiring a SIP revision using that model *prior* to use in conformity is contrary to an integrated and seamless process. In fact, the different estimating techniques and parameters used in the models result in significant differences in estimates of current and future emissions levels. Conducting conformity analysis on transportation plans and TIPs that use one model while SIPs used an older model creates an apples to oranges comparison, contrary to congressional intent and rationale for transportation conformity.

Use of latest planning assumptions requires that vehicle mix data be the most recently available data for use in conformity determinations and in SIPs. However, because SIPs are not updated on a regular basis, the vehicle mix data used to develop SIPs may be many years older than that required for use in transportation conformity determinations. This has caused problems in several areas simply because different data was used in the SIP planning process than is being used in transportation plan and TIP development.

Recommendation: Require that SIP budgets and conformity demonstrations be based on the same mobile-source emissions factors model and/or same vehicle fleet mix data. Require the use of the latest EPA-approved emissions models in SIPs prior to requiring their use in transportation plans and TIPs. Require the use of the latest vehicle fleet mix data in SIPs prior to requiring their use in transportation plans and TIPs.

4. Synchronize Sanction Clocks

In the event of a conformity lapse, there are immediate consequences in that only certain types of transportation projects may proceed until the lapse is resolved. In contrast, in the event of a SIP failure, there is an 18-month period in which to correct the SIP failure prior to the imposition of sanctions. In essence, a conformity lapse functions as an immediate sanction with no time permitted to correct situations that might have led to the lapse.

Recommendation: Align the conformity lapse with same 18-month time clock for imposition of sanctions for SIP failures in order to provide a similar amount of time to correct deficiencies in transportation plans and TIPs.

5. Require Conformity Only for Nonattainment and Maintenance Areas

Transportation conformity determinations must be undertaken for all nonattainment and maintenance areas. Currently, if an area has completed its 20-year maintenance period prior to the last year of transportation plan, the area still must meet conformity requirements all the way to the last year of the transportation plan—the “horizon year” (e.g., end of 20-year maintenance period is 2006 and the transportation plan horizon is 2025). Because some areas are approaching the end of their 20-year maintenance periods, this situation is beginning to surface. Similarly, when Maintenance Plans reach their 8-year update point, the new SIP budget need only be for 10 years out, rather than the 20+ years required for transportation plans.

Recommendation: Clarify that conformity determinations are required only for that time period when an area is classified as nonattainment or maintenance, and can be suspended when reclassified as attainment.

Provide flexibility to enable transportation agencies to respond to changing circumstances.

1. Allow Substitution of Transportation Control Measures (TCMs) Without a SIP Revision

Transportation control measures that are included in SIPs cannot be added, deleted, or changed unless a formal SIP revision is made with its accompanying processing delays, and a subsequent conformity determination. This discourages the inclusion of TCMs in SIPs with the result that transportation control measures are often included in transportation plans and TIPs and contribute to meeting emissions budget, but are only included in SIPs if they are absolutely essential to achieving needed emission reductions.

Recommendation: Permit the revision or substitution of transportation control measures that yield equivalent emission reductions without the need for either a SIP revision or a conformity determination.

2. During a Conformity Lapse, Consider Emission Reductions from Other than On-Road Mobile Sources

In the event of a conformity lapse, transportation agencies have very few tools at their disposal that will generate sufficient emission reductions to correct a lapse. This is increasingly the case because vehicle technologies continue to improve and new technologies are being phased in that will continue to reduce the amount of emissions from on-road motor vehicles. Further, the cost of emission reductions from on-road sources is higher than other sectors given the tight controls on these sources already.

At the same time, there are uncontrolled sources that account for large portions of emissions in nonattainment and maintenance areas (e.g., marine vessels, off-road vehicles, etc.) Such sources could generate emissions reductions more cost effectively than on-road mobile sources. The ability to “purchase” emissions credits from other sources would provide needed flexibility and cost effective emissions reductions.

Recommendation: In the event of a conformity lapse, permit all polluting sectors to be included in an analysis of strategies to reduce emissions in order to correct the conformity lapse and permit the purchase of emissions credits from other sources.

Develop an inclusive process for implementation of the new National Ambient Air Quality Standards (NAAQS) for ozone and fine particulates.

1. Require Adequate Consultation

EPA recently held public meetings on the implementation of the new ozone and PM NAAQS. These new standards are expected to affect many areas that are not currently nonattainment areas. A significant number of the new nonattainment areas are rural. The impacts will include transportation conformity requirements and new areas will need adequate time to prepare to meet these new requirements.

Recommendation: Require that EPA provide adequate notification of proposed, new requirements and consult with affected areas sufficiently in advance of new designations for those areas to be prepared to address any new transportation-related requirements.

2. Provide an Adequate Grace Period for New Nonattainment Areas to Demonstrate Conformity

Congress provided a 1-year grace period for new areas to demonstrate conformity after the new ozone and/or PM_{2.5} non-attainment designations are made. One year may be insufficient for areas, particularly those that have not had to address conformity issues in the past.

Recommendation: Allow for a 3-year period for an area to demonstrate conformity after the EPA makes designations under the ozone and PM_{2.5} NAAQS. Ensure that the SIPs for these areas are also developed within this timeframe, which is consistent with Clean Air Act requirements for SIP development within 3 years of a designation.

CONGESTION MITIGATION AND AIR QUALITY PROGRAM (CMAQ)

Since the 1970's we have made remarkable progress in reducing air pollution, including emissions from motor vehicles. According to the U.S. Federal Highway Administration¹ emissions from Volatile Organic Compounds (VOCs) are down 59 percent and emissions from Carbon Monoxide (CO) are down 43 percent. Emissions

¹U.S. Federal Highway Administration, *Transportation and Air Quality: Selected Facts and Figures*, January, 2000.

from Nitrogen Oxides (NOx) are up slightly (5 percent) for all vehicles, but decreased by more than 30 percent for automobiles. The introduction of Tier II engine and gasoline standards and heavy duty diesel engine standards are predicted to decrease NOx emissions by 61 percent and 88 percent, respectively, by 2030. This is a remarkable success story when we recognize that these reductions have occurred at the same time we had 37 percent growth in population, 147 percent growth in gross domestic product and 143 percent growth in vehicle miles traveled.

Despite the progress we have made in reducing emissions, the complementary goal of congestion relief remains a challenge. Too many Americans are spending time stuck in traffic. Congestion deeply affects our nation's ability to move goods and services and threatens the health of our economy. Congestion is no longer confined to urban areas, peak periods or work trips. According to the Texas Transportation Institute's *2002 Urban Mobility Study*, "Congestion is growing in metropolitan areas of every size . . . The average annual delay per peak road traveler climbed from 16 hours in 1982 to 62 hours in 2000."

At least fifty percent of the congestion problem is associated with inadequate capacity. The remainder is caused by non-recurring delays, which result from vehicle crashes and breakdowns, weather, construction, special events, poor signalization and even the mix of vehicle types.

To address the dual goals of relieving congestion and reducing emissions, a diverse set of strategies and options—tailored to individual States and regions—is needed. The CMAQ Program was established in 1992 in the Intermodal Surface Transportation Efficiency Act (ISTEA) with funding targeted for programs and projects that could address mobility and air quality needs simultaneously. CMAQ provided flexibility to fund a wide array of transportation improvements including more traditional projects such highway traffic flow and intersection projects, transit, bicycle and pedestrian projects as well as alternative fuels and new vehicle technologies, telecommuting, intermodal highway facilities, and inspection and maintenance programs.

After 10 years and a \$14 billion Federal investment, the CMAQ Program enjoys broad support, largely attributable to its flexibility and broad eligibility. We believe that the key to the continued success of the CMAQ program is continuing and enhancing that flexibility.

AASHTO RECOMMENDATIONS FOR THE CMAQ PROGRAM

- Continue the CMAQ Program with funding levels increasing commensurate with increases in the overall highway program.
- Extend the eligibility of CMAQ funds to all types of projects that reduce congestion or improve air quality, including traffic flow improvements and Single Occupancy Vehicle (SOV) capacity enhancement projects that have air quality benefits.
- Permit States to use CMAQ funds in attainment areas if emissions reductions benefit adjacent non-attainment or maintenance areas, or in areas identified as high risk.
- Eliminate the CMAQ 3-year restriction on highway and transit projects, including operations and Inspection and Maintenance.

Mr. Chairman, I want to assure you that all of the State transportation officials across the country fully support the national goal of improving air quality and ensuring a healthy environment in all of our States. We strongly believe that environmental stewardship is very much a part of our fundamental transportation mobility mission, and continually seek new and innovative, multi-modal strategies to more effectively unite the two. We stand ready to work with you, the Members of your Committee and your staff to simplify, demystify and bring common sense to transportation conformity. And we urge you to broaden the CMAQ Program to enable funds to be used to more effectively target the dual goals of improving mobility and air quality.

STATEMENT OF MELODY FLOWERS, SIERRA CLUB WASHINGTON REPRESENTATIVE

Thank you for this opportunity to comment on the implementation of Clean Air Conformity and the CMAQ program. The Sierra Club, the nation's largest and oldest grassroots environmental organization with over 700,000 members in 65 chapters and over 400 local groups nationwide, is committed to protecting and strengthening Clean Air Conformity and the CMAQ program as one of our top priorities in the reauthorization of TEA-21.

These important programs are aimed at achieving clean air in order to protect public health and safety. While the improvements in air quality over the past 30 years have been impressive, we still have a long way to go. One-half, or more than

142 million, Americans breathe air that is not healthy, according to the U.S. Environmental Protection Agency. It is essential that we maintain conformity between clean air and transportation rules since transportation is one of the largest sources of air pollution in many areas. The Sierra Club endorses the testimony and recommendations put forward today by Michael Replegle.

We would like to take this opportunity to specifically draw your attention to the mounting number of studies that examine health and safety questions surrounding the expansion of highways near schools, hospitals, and other places where children, the elderly and vulnerable populations spend large amounts of time. These studies link air pollution near high-traffic areas to cancer, asthma, heart attacks, and low birth weight babies for people who live in nearby communities.

We have attached 17 peer-reviewed, published studies making this link between traffic-related air pollution and increased health risks. We have raised these issues on numerous highway projects from Washington, DC. to Los Angeles to Las Vegas and Wisconsin.

With highway expansions and constructions proposed in many populated urban areas across the country, the Sierra Club and public health professionals are calling on the Federal Highway Administration of the U.S. Department of Transportation to study the health impacts of increased air pollution and air toxics on children and neighbors where these expansions and constructions are planned.

According to Dr. Ronald Rosen, a pediatric oncologist from Las Vegas, demographic and environmental risk factors are linked to increasing incidence and trends for certain malignancies. Highway air pollution and particulate matter aggravate respiratory and cardiopulmonary disease, asthma, bronchitis, and preliminary data suggest a relationship to childhood leukemia. Historically and more recent studies call attention to urban industrialization contributing to serious public health problems.

Furthermore, Dr. Seth Foldy, city of Milwaukee Medical Commissioner, States there is mounting evidence that people who live near highways and other high-traffic areas may be at higher risk for asthma attacks, lung cancer and other health problems because of motor vehicle pollution, and that in general, expanding highways will draw more cars and trucks to neighboring communities and exacerbate these problems.

The USA Today story printed on March 7, 2003, *Lawsuits Pits Risks and Roads*,¹ focused in particular on the health impacts of the proposed expansion of US-95 in Las Vegas to ten lanes. Sierra Club is suing the Federal Highway Administration on the grounds that the agency failed to adequately consider the health risk associated with increased air pollution and air toxics from the expansion.

Studies conducted in Las Vegas confirm what similar studies across the country have shown: that people who live adjacent to large highways are at a much higher risk for cancer and lung disease because of the pollution from cars.

More recently, scientists have begun to look at the problem on a neighborhood scale to estimate how particular sources of air pollution—including highways—affect nearby communities. These studies have found that certain pollutants can be 25 times more concentrated near busy highways, and people who live near high-traffic areas are more likely to suffer a variety of health problems, like more asthma, cancer, and low birth weights. People who spend many hours driving in traffic are at high risk as well.

The good news is that the California Air Resources Board is considering mapping neighborhoods to warn residents of the pollution risk. See the Los Angeles Times story attached below.²

We ask you to require detailed studies to investigate how much of the health risk could be eliminated if cleaner transportation services—such as clean buses, rail systems, and improved pedestrian and bicycling infrastructure—are built in high traffic corridors.

As Congress proceeds to chart the spending of billions of dollars in Federal transportation funding in the reauthorization of TEA-21, we need to look at the impact of transportation investments on densely populated, high-traffic areas, where highway expansions cause the greatest health problems. These locations are precisely the kinds of places where public transportation is most practical.

By law, the Federal Highway Administration is supposed to evaluate public health risks and explore alternatives for transportation projects. When the agency ignores that part of its responsibility, neighborhoods get more pollution and communities get stuck with bad projects and never know what they are missing—clean air.

¹ <http://www.usatoday.com/news/nation/2003-03-06-vegas-highway-usat-x.htm>

² <http://www.latimes.com/classified/realstate/la-re-freeway15dec15.story>

For a summary of scientific studies on the health risks associated with high-traffic highways, please contact Brett.hulsey@sierraclub.org, 608-257-4994.
Thank you.

KEY STUDIES ON AIR POLLUTION AND HEALTH EFFECTS NEAR HIGH-TRAFFIC AREAS

AIR POLLUTION FROM BUSY ROADS LINKED TO SHORTER LIFE SPANS FOR NEARBY RESIDENTS

Dutch researchers looked at the effects of long-term exposure to traffic-related air pollutants on 5,000 adults. They found that people who lived near a main road were almost twice as likely to die from heart or lung disease and 1.4 times as likely to die from any cause compared with those who lived in less-trafficked areas. Researchers say these results are similar to those seen in previous U.S. studies on the effects of long-term exposure to traffic-related air pollution. The authors say traffic emissions contain many pollutants that might be responsible for the health risks, such as ultrafine particles, diesel soot, and nitrogen oxides, which have been linked to cardiovascular and respiratory problems. (Hoek, Brunekreef, Goldbohn, Fischer, van den Brandt. (2002). Association between mortality and indicators of traffic-related air pollution in the Netherlands: a cohort study. *Lancet*, 360 (9341): 1203-9.)

TRUCK TRAFFIC LINKED TO CHILDHOOD ASTHMA HOSPITALIZATIONS

A study in Erie County, New York (excluding the city of Buffalo) found that children living in neighborhoods with heavy truck traffic within 200 meters of their homes had increased risks of asthma hospitalization. The study examined hospital admission for asthma amongst children ages 0-14, and residential proximity to roads with heavy traffic. (Lin, Munsie, Hwang, Fitzgerald, and Cayo. (2002). Childhood Asthma Hospitalization and Residential Exposure to State Route Traffic. *Environmental Research*, Section A, Vol. 88, pp. 73-81.)

PREGNANT WOMEN WHO LIVE NEAR HIGH TRAFFIC AREAS MORE LIKELY TO HAVE PREMATURE AND LOW BIRTH WEIGHT BABIES

Researchers observed an approximately 10-20 percent increase in the risk of premature birth and low birth weight for infants born to women living near high traffic areas in Los Angeles County. In particular, the researchers found that for each one part per million increase in annual average carbon monoxide concentrations where the women lived, there was a 19 percent and 11 percent increase in risk for low birth weight and premature births, respectively. (Wilhelm, Ritz. (2002). Residential Proximity to Traffic and Adverse Birth Outcomes in Los Angeles County, California, 1994-1996. *Environmental Health Perspectives*. doi: 10.1289/ehp.5688.)

TRAFFIC-RELATED AIR POLLUTION ASSOCIATED WITH RESPIRATORY SYMPTOMS IN TWO-YEAR-OLD CHILDREN

This cohort study found that 2 year old children who are exposed to higher levels of traffic-related air pollution are more likely to have self-reported respiratory illnesses, including wheezing, ear/nose/throat infections, and reporting of physician-diagnosed asthma, flu or serious cold. (Brauer et al. (2002). Air Pollution from Traffic and the Development of Respiratory Infections and Asthmatic and Allergic Symptoms in Children. *Am J Respiratory and Critical Care Medicine*. Vol. 166 pp 1092-1098.)

PEOPLE WHO LIVE NEAR FREEWAYS EXPOSED TO 25 TIMES MORE PARTICLE POLLUTION

Studies conducted in the vicinity of InterStates 405 and 710 in southern California found that the number of ultrafine particles in the air was approximately 25 times more concentrated near the freeways and that pollution levels gradually decrease to near normal (background) levels around 300 meters, or 990 feet, downwind from the freeway. The researchers note that motor vehicles are the most significant source of ultrafine particles, which have been linked to increases in mortality and morbidity. Recent research concludes that ultrafine particles are more toxic than larger particles with the same chemical composition. Moreover, the researchers found considerably higher concentrations of carbon monoxide pollution near the freeways. (Zhu, Hinds, Kim, Sioutas. Concentration and size distribution of ultrafine particles near a major highway. *Journal of the Air and Waste Management Association*. September 2002; Zhu, Hinds, Kim, Shen, Sioutas. Study of ultrafine particles near a major highway with heavy-duty diesel traffic. *Atmospheric Environment*. 36(2002), 4323-4335.)

ASTHMA MORE COMMON FOR CHILDREN LIVING NEAR FREEWAYS

A study of nearly 10,000 children in England found that wheezing illness, including asthma, was more likely with increasing proximity of a child's home to main roads. The risk was greatest for children living within 90 meters of the road. (Venn et al. (2001). Living Near A Main Road and the Risk of Wheezing Illness in Children. *American Journal of Respiratory and Critical Care Medicine*. Vol. 164, pp. 2177–2180.)

A study of 1,068 Dutch children found that asthma, wheeze, cough, and runny nose were significantly more common in children living within 100 meters of freeways. Increasing density of truck traffic was also associated with significantly higher asthma levels—particularly in girls. (van Vliet et al. (1997). Motor exhaust and chronic respiratory symptoms in children living near freeways. *Environmental Research*. 74:12–132.)

CHILDREN LIVING NEAR BUSY ROADS MORE LIKELY TO DEVELOP CANCER

A 2000 Denver study showed that children living within 250 yards of streets or highways with 20,000 vehicles per day are six times more likely to develop all types of cancer and eight times more likely to get leukemia. The study looked at associations between traffic density, power lines, and all childhood cancers with measurements obtained in 1979 and 1990. It found a weak association from power lines, but a strong association with highways. It suggested that benzene pollution might be the cancer promoter causing the problem. (Pearson et al. (2000). Distance-weighted traffic density in proximity to a home is a risk factor for leukemia and other childhood cancers. *Journal of Air and Waste Management Association* 50:175–180.)

MOST TRAFFIC-RELATED DEATHS DUE TO AIR POLLUTION, NOT TRAFFIC ACCIDENTS

Another study analyzed the affect of traffic-related air pollution and traffic accidents on life expectancy in the area of Baden-Wurttemberg, Germany. It estimated that 4325 deaths in this region would result from motor vehicle emissions compared to 891 from traffic accidents (over a lifetime). (Szagun and Seidel. (2000). Mortality due to road traffic in Baden-Aurttemberg—air pollution, accidents, noise. *Gesundheitswesen*. 62(4): 225–33.)

EMISSIONS FROM MOTOR VEHICLES DOMINATE CANCER RISK

The most comprehensive study of urban toxic air pollution ever undertaken shows that motor vehicles and other mobile sources of air pollution are the predominant source of cancer-causing air pollutants in Southern California. Overall, the study showed that motor vehicles and other mobile sources accounted for about 90 percent of the cancer risk from toxic air pollution, most of which is from diesel soot (70 percent of the cancer risk). Industries and other stationary sources accounted for the remaining 10 percent. The study showed that the highest risk is in urban areas where there is heavy traffic and high concentrations of population and industry. (South Coast Air Quality Management District. Multiple Air Toxics Exposure Study-II. March 2000.)

CANCER RISK HIGHER NEAR MAJOR SOURCES OF AIR POLLUTION, INCLUDING HIGHWAYS

A 1997 English study found a cancer corridor within three miles of highways, airports, power plants, and other major polluters. The study examined children who died of leukemia or other cancers from the years 1953–1980, where they were born and where they died. It found that the greatest danger lies a few hundred yards from the highway or pollution facility and decreases as you get away from the facility. (Knox and Gilman (1997). Hazard proximities of childhood cancers in Great Britain from 1953–1980. *Journal of Epidemiology and Community Health*. 51:151–159.)

A SCHOOL'S PROXIMITY TO FREEWAYS ASSOCIATED WITH ASTHMA PREVALENCE

A study of 1498 children in 13 schools in the Province of South Holland found a positive relationship between school proximity to freeways and asthma occurrence. Truck traffic intensity and the concentration of emissions measured in schools were found to be significantly associated with chronic respiratory symptoms. (Speizer, F.E. and B.G. Ferris, Jr. (1973). Exposure to automobile exhaust. I. Prevalence of respiratory symptoms and disease. *Archives of Environmental Health*. 26(6): 313–8. van Vliet, P., M. Knape, et al. (1997). Motor vehicle exhaust and chronic respiratory symptoms in children living near freeways. *Environmental Research*. 74(2): 122–32.)

LUNG FUNCTION REDUCTION AMONG CHILDREN MORE LIKELY IF LIVING
NEAR TRUCK TRAFFIC

A European study determined that exposure to traffic-related air pollution, 'in particular diesel exhaust particles,' may lead to reduced lung function in children living near major motorways. (Brunekreef B; Janssen NA; de Hartog J; Harssema H; Knape M; van Vliet P. (1997). "Air pollution from truck traffic and lung function in children living near motorways." *Epidemiology*. 8(3):298-303.)

ASTHMA SYMPTOMS CAUSED BY TRUCK EXHAUST

A study was conducted in Munster, Germany to determine the relationship between truck traffic and asthma symptoms. In total, 3,703 German students, between the ages of 12-15 years, completed a written and video questionnaire in 1994-1995. Positive associations between both wheezing and allergic rhinitis and truck traffic were found during a 12-month period. Potentially confounding variables, including indicators of socio-economic status, smoking, etc., did not alter the associations substantially. (Duhme, H., S. K. Weiland, et al. (1996). The association between self-reported symptoms of asthma and allergic rhinitis and self-reported traffic density on street of residence in adolescents. *Epidemiology* 7(6): 578-82.)

PROXIMITY OF A CHILD'S RESIDENCE TO MAJOR ROADS LINKED TO HOSPITAL
ADMISSIONS FOR ASTHMA

A study in Birmingham, United Kingdom, determined that living near major roads was associated with the risk of hospital admission for asthma in children younger than 5 yrs of age. The area of residence and traffic flow patterns were compared for children admitted to the hospital for asthma, children admitted for nonrespiratory reasons, and a random sample of children from the community. Children admitted with an asthma diagnosis were significantly more likely to live in an area with high traffic flow (> 24,000 vehicles/24 hrs) located along the nearest segment of main road than were children admitted for nonrespiratory reasons or children from the community. (Edwards, J., S. Walters, et al. (1994). Hospital admissions for asthma in preschool children: relationship to major roads in Birmingham, United Kingdom. *Archives of Environmental Health*. 49(4): 223-7.)

EXPOSURE TO CARCINOGENIC BENZENE HIGHER FOR CHILDREN LIVING NEAR
HIGH TRAFFIC AREAS

German researchers compared 48 children who lived in a central urban area with high traffic density with 72 children who lived in a small city with low traffic density. They found that the blood levels of benzene in children who lived in the high-traffic-density area were 71 percent higher than those of children who lived in the low-traffic-density area. Blood levels of toluene and carboxyhemoglobin (formed after breathing carbon monoxide) were also significantly elevated (56 percent and 33 percent higher, respectively) among children regularly exposed to vehicle emissions. Aplastic anemia and leukemia are associated with excessive exposure to benzene. (Jermann E, Hajimiragha H, Brockhaus A, Freier I, Ewers U, Roscovanu A: Exposure of children to benzene and other motor vehicle emissions. *Zentralblatt fur Hygiene und Umweltmedizin* 189:50-61, 1989.)

[From USA Today]

LAWSUIT PUTS RISKS AND ROADS¹

(By John Ritter)

LAS VEGAS.—Tens of thousands of workers commute from suburbs to resort and casino jobs on the glimmering Strip, the economic soul of this booming entertainment mecca. Many of them creep tediously along U.S. 95, the most congested road in the nation's fastest growing urban area.

With the six-lane freeway morphing twice daily into a rush-hour parking lot, policymakers from the Governor on down ardently support a plan to widen 95 to 10 lanes.

Bucking the popular project are environmentalists and health experts worried about pollution from the more than 300,000 vehicles a day that already troll up and

¹Find this article at <http://www.usatoday.com/news/nation/2003-03-06-vegas-highway-usat-x.htm>

down 95. They cite studies linking higher levels of foul air along busy urban highways to heightened cancer risks among people who live and work nearby.

Urban highway "hot spots" such as 95 are battlegrounds in many cities, but here the issue has come to a head. The Sierra Club sued in January to stop the project. It says the Federal Government failed to consider health consequences and alternatives to highway construction as required by law.

Highway projects have been challenged before on environmental and health grounds, but this is the first such lawsuit based on scientific research into traffic-generated pollution.

U.S. 95 is a test case with broad implications for urban highway expansion and population growth in metro areas across the USA. The outcome not only could send Nevada transportation officials back to the drawing board but also could delay relief measures for other snarled roads. It could force planners to give greater weight to solving congestion with mass transit and even alter the patterns of where people choose to live.

"We're spending the most money on the most polluting source, highways, and we're saying we need to balance that out," says Brett Hulsey, national coordinator of the Sierra Club's anti-sprawl campaign.

Besides 95, environmentalists want the Federal Highway Administration to study the health risks of widening Interstate 75 from Dayton, Ohio, to Cincinnati; building a beltway segment around Denver called the Northwest Parkway; widening 1-94 in downtown Detroit; widening 1-94 and U.S. 45 around Milwaukee; expanding 1-10 and U.S. 290 out of Houston; and widening Virginia's portion of the Capital Beltway around Washington, DC.

HIGHWAYS CAN'T KEEP UP

Beyond health issues, the Las Vegas case spotlights a problem facing many thriving cities, particularly in the West. Las Vegas has grown so fast that its highway system hasn't kept up. Congestion worsens monthly. Yet in the last decade, population spilled over such a wide area that developing mass transit will be costly.

"We have 6,000 people a month moving here, bringing 4,000 automobiles with them," says Jacob Snow, general manager of the Regional Transportation Commission of Southern Nevada. "The worst thing we could do from an air quality standpoint is stop building roadways."

Last month, Federal Judge Philip Pro denied the highway administration's motion to dismiss the Las Vegas case.

Opponents say the widening will funnel even more traffic onto U.S. 95. "I'll leave if this project goes in," says Barbara Roth, 70, who moved near what was then a two-lane street 38 years ago. "The pollution is going to be terrific because the traffic will back up immediately, just like it is now. Crazy is the word."

The judge could stop work on the project and order the highway agency to reassess health risks. He could order it to consider alternatives to widening, such as mass transit, as required under the National Environmental Policy Act.

Highway administration officials won't comment on the case. But in a sign that the highway pollution issue is gaining traction, a Transportation Department research panel held a forum in January called "Air Toxics: The Next Poison Pill for Transportation?"

Delaying or killing the 95 expansion would anger many who believe growth will choke southern Nevada unless its road system expands rapidly. The 6 miles to be widened have more aggressive drivers than any other road in the region, a study in January found. An irate Gov. Kenny Guinn threatened to erect billboards on 95 that say, "Traffic congestion brought to you by the Sierra Club."

At the lawsuit's core is whether high concentrations of auto emissions such as benzene and 1,3 butadiene, which are known carcinogens, raise health risks. Opponents of the expansion say they do:

A Denver study in 2000 found that children living within 250 yards of highways used daily by more than 20,000 vehicles were eight times more likely to get leukemia.

A study the same year of InterStates 405 and 710 in Los Angeles showed that vehicles accounted for 90 percent of the cancer risk from air pollution, and that the highest risk was in congested, heavily populated urban zones.

A study in suburban Buffalo last year found that children living in neighborhoods close to heavy truck traffic had increased asthma risks.

A Sierra Club-financed study of three pollutants concluded that widening 95 would cause up to 1,400 more cancers per 1 million people over 70 years, more than 10 times greater than what the Environmental Protection Agency considers a serious risk.

"It's obvious there's some correlation," says Ronald Rosen, a pediatric oncologist in Las Vegas. He says he has no evidence of more cancers along 95. The study only predicted higher rates. "But to dismiss an environmental group that wants to look at this critically is really a big mistake."

TRANSIT'S LIMITED REACH

Environmentalists want more buses, trains and light rail, but relying on mass transit as much as denser Eastern cities do is unrealistic in the greater Las Vegas sprawl, experts say. Even in the most optimistic scenario, transit could handle no more than 15 percent of trips, says Shashi Nambisan, director of the Transportation Research Center at the University of Nevada-Las Vegas.

"People are choosing to live farther and farther out. Commute times and distances are going up," Nambisan says. Low gasoline prices, the comfort and convenience of personal vehicles, and abundant, cheap parking also work against mass transit in Las Vegas.

But efforts are underway. Nevada voters in November endorsed a \$2.7 billion transportation initiative that includes \$1 billion for transit. The first leg of a 3.6-mile monorail serving the Strip will open next year. A rapid transit bus line will begin serving northern suburbs next winter.

Environmentalists complain that bus service was the budget ax's first victim in the recession. Transit officials say they had no choice because fewer riders meant declines in operating revenue. Transit's supporters point to Salt Lake City's two light-rail lines as proof Las Vegas could do more. Ridership on both lines is nearly double initial estimates. Still, that system carries only about 1 percent of peak-hour trips.

Work is progressing despite the lawsuit. Bulldozers are moving earth, overpasses are being built and new sound walls are going up. More than 200 homeowners were forced to sell and leave.

Three schools, two community centers, a day care facility, 27 apartment buildings and nearly 400 houses abut this stretch. But many residents are unaware of health concerns. Rick Winget, principal of Ruth Fyfe Elementary School, says he's eager to use more of his playground once a wall replaces a chain-link fence between the school and the highway. He says no parents have complained about pollution.

"People are really insensitive to the health risks," says Jane Feldman of the Sierra Club's Las Vegas chapter. "They think cancer won't happen to them, that it happens long-term. But this is hard scientific data and it's scary."

[The Times, December 15, 2002]

TOO FREEWAY CLOSE??

(By William J. Kelly)

Homes along the Southland's busy highways may be more affordable, but new studies show possible health risks linked to increased pollution.

At sunset, Regina Kennard's house stands in the shadow of an elevated stretch of Interstate 15. Attracted by the home's affordability and its proximity to, the onramp for her daily commute to work at a mortgage company in Orange County, Kennard moved from Ontario to Fontana more than a year ago and joined countless other Southern Californians who live along a freeway.

The mother of two chose the 4,729-square-foot lot next to the freeway because it was bigger than those farther up the street. She purchased the 1,977-square-foot home new last year for \$189,900.

"I wanted a big yard," said Kennard, who keeps the windows shut at night because of the din. "I should have been more concerned. I didn't realize the noise."

Even further from her thoughts were the long-term health effects of freeway pollution. Like most buyers, Kennard was unaware of emerging scientific research that shows air pollution immediately downwind of freeways can be more than 4 to 10 times higher than average levels throughout much of Southern California.

"There's a building body of data that living next to a freeway has adverse health effects, particularly among children," said Ira Tager, a UC Berkeley epidemiologist who is studying how air pollution affects asthmatic children for the California Air Resources Board. Work by a variety of health researchers and environmental agencies is finding that the highly concentrated pollution from autos and trucks in-

²Find this article at <http://www.latimes.com/classified/realeState/re-freeway15dec15.story>

creases the incidence of asthma, respiratory infections and cancer in people residing along freeways and other heavily traveled thoroughfares.

The studies, some of which have come out in California during the last year and others that are ongoing, are attracting attention as new homes and condominiums have become more common along freeways because of the shrinking availability of land suitable for building and the increasing demand for housing.

If buyers are unaware of the health dangers, so are builders. "It's new information to me," said Tim Piasky, director of environmental affairs for the Building Industry Assn. of Southern California, who noted that individual builders cannot track every study.

"We count on our regulatory agencies to set the requirements," he said. "Unless there are requirements, builders will use the maximum area."

There are no current requirements or recommendations for buffers between homes and freeways, but the Governor's Office of Planning and Research has drafted new planning guidelines for cities and counties, which are responsible for regulating local land use. The guidelines, according to associate planner Brian Grattidge, ask cities to consider whether it is appropriate to zone housing right next to freeways, given the emerging studies on air pollution.

The California Air Resources Board will issue its first official warning in the spring and advise, but not require, that builders create buffer zones between future residential developments and freeways.

"People who construct new homes should consider having at least 100 meters [less than a tenth of a mile] between them and the freeway," said Shankar Prasad, health advisor for the board.

Buyers have long been aware of home health risks ranging from groundwater contamination—think Erin Brockovich—to the interior culprits of leaded paint, mold and asbestos. But most haven't considered air pollution levels along freeways, according to real estate broker Remy Agaton, who is selling the home of Lydia Fabres, just one house north of Interstate 10 in West Covina. Like Kennard, Fabres did not know about the studies showing higher pollution levels.

"Out of 100, maybe 10 are concerned about the noise, and they never ask about the pollution," said Agaton of Jasrel Real Estate Brokers Inc. in the city of Industry. Buyers are more concerned about amenities, such as good schools and proximity to shopping and transportation routes, said Agaton, who has sold many homes near freeways in her 17-year career.

Fabres, a single mother of four teenagers, said that the location is what attracted her to the West Covina home. She worked in the health-care field near downtown Los Angeles when she purchased the house 3 years ago after a divorce, and freeway proximity saved the busy mother time.

"It was an advantage," she said. "When you came home it was close." It also was close enough for her children to walk to school, a nearby park and the West Covina Plaza.

The noise bothered the family at first, and Fabres said she was fleetingly concerned about pollution. However, she found that the location and features of the three-bedroom, two-bath home with a den and large backyard outweighed those concerns. Fabres is taking time off from work to sell her home and move to Walnut for its schools and proximity to Mt. San Antonio College, where her children, who have no respiratory disease, plan to continue their education after completing high school.

In addition to saving time, buyers are often attracted to freeway-close homes because of lower prices, according to real estate industry executives. Fabres, for instance, is asking \$275,000 for her home. A couple blocks farther north of Interstate 10, a comparable three-bedroom home in the same neighborhood sold for \$289,900 in mid-November.

"Home prices near freeways generally are less expensive," said John Burns, president of John Burns Real Estate Consulting in Irvine. A rule of thumb, he said, is that these homes cost the buyer about \$5 less per square foot than a comparable home in the same area far enough away that buyers do not perceive the freeway as a negative.

But researchers are beginning to document the drawbacks. Large doses of pollutants emitted by motor vehicles can irritate the respiratory system and exacerbate asthma and chronic bronchitis, from which 10 percent to 20 percent of the population suffers, according to Dr. John Balmes of UC San Francisco. Published studies examining the respiratory health of people along freeways show a 75 percent to 100 percent increase in asthma because of the higher concentration of air pollutants, said Balmes, former president of the California Thoracic Society, the medical section of the American Lung Assn. of California. Some of the pollutants, including benzene and diesel soot, are known carcinogens.

One study published earlier this fall in the *Journal of the Air & Waste Management Assn.* shows that the level of so-called ultra-fine particles, which are emitted from automotive tailpipes but are too small to be visible, was four times higher just downwind and east of the 405 Freeway in Westwood. About a fifth of a mile downwind, the level of the particles gradually fell to the same level as upwind of the busy freeway, wrote the research team, headed by William C. Hinds, a professor in the Department of Environmental Health Sciences at UCLA. Carbon monoxide, a good indicator for a range of other automotive emissions, also fell sharply a fifth of a mile downwind of the freeway.

STATEMENT OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

The Associated General Contractors of America (AGC) is the largest most diverse trade association in the construction industry. The association's 33,000 members include 7,500 of the nation's leading general construction contractors engaged in the construction of highways, bridges, tunnels, airport runways and terminals, buildings, factories, warehouses, shopping centers and both water and wastewater treatment facilities. AGC members perform construction contracts for states and other recipients of Department of Transportation (DOT) funding and are, therefore, directly impacted by changes in administration of the Federal-aid highway program. AGC is pleased to provide the following comments on Clean Air Act Transportation Conformity requirements.

CLEAN AIR PROGRESS

Americans have made great progress in cleaning the air. Over the past 30 years national emission trends have been declining. All of the years throughout the 1990's have had better air quality than any of the years in the 1980's, demonstrating a steady trend of improvement. Air quality has improved nationwide primarily because motor vehicle emissions have decreased substantially even as vehicle travel has increased rapidly. From 1980 through 1998, overall motor vehicle emissions of volatile organic compounds (VOC) was reduced 41 percent, emissions of nitrogen oxides (NOx) were reduced 10 percent, and carbon monoxide emissions were reduced 35 percent. This improvement came despite a 72 percent increase in travel during that period.

These reductions are the result of an array of cleaner fuels that have virtually eliminated lead and other pollutants and reformulated gas that reduce smog and tailpipe emissions. New engine technology and vehicle design and construction have reduced tailpipe emissions in the average car in use today by 95 percent compared to the average car in use in the 1960's.

EPA studies show that air quality by 1996 had improved to the point that 80 percent of Americans lived where air quality met the standards for six criteria air pollutants, nearly double the amount from 10 years earlier. Since 1996 air quality has continued to improve. In the past 10 years, the average number of days the air in major metropolitan areas failed to meet Federal ozone (smog) standards has been cut in half. Violations of the national standards for carbon monoxide have been virtually eliminated. U.S. Environmental Protection Agency (EPA) studies estimate that an additional 32 million tons of emissions per year (22 percent) will be eliminated between 1997 and 2015 because of better motor vehicle technology. All of this progress despite significant increased motor vehicle usage.

OVERVIEW OF TRANSPORTATION CONFORMITY

Transportation conformity provisions under the Clean Air Act (CAA) attempt to coordinate transportation planning and air quality planning. The CAA requires metropolitan areas with air quality problems to demonstrate that future transportation projects will not impede the area's ability to attain air quality standards established by the Act. Under the CAA the EPA is required to establish national Ambient Air Quality Standards (NAAQS) for six criteria pollutants. If an area exceeds the Federal standard for any one of these six pollutants, it is designated as a nonattainment area. States must submit State Implementation Plans (SIPs) detailing how these nonattainment areas will be brought into compliance. The SIP typically includes a specific motor vehicle emissions budget (MVEB) capping emissions from transportation sources. Nonattainment areas are then required to demonstrate, using various calculations and models, that car and truck emissions associated with current and future road, highway, and transit projects listed in the area's transportation plan are below this budget. This demonstration is called transportation conformity. If the metropolitan area cannot demonstrate that car and truck emissions

from new roads and highways are below the motor vehicle emissions budget, the area falls into a transportation conformity “lapse” where many new road and transit projects cannot move forward.

TRANSPORTATION CONFORMITY REQUIREMENTS

Under the Federal-Aid Highway Act (as amended in ISTEA and TEA-21), metropolitan planning organizations (MPOs) for each urban region develop a long-term regional transportation plan and a short term transportation improvement plan (TIP). Section 176 of the CAA links air quality planning with transportation planning by requiring both of these transportation plans to match, or “conform” to the SIP. Transportation conformity must be demonstrated once every 3 years, although numerous other triggers render this requirement almost meaningless. For example, conformity must be demonstrated every time a significant change is made to a transportation plan and within 18-months of a State Implementation Plan modification that effects the motor vehicle emissions budget. This overabundance of conformity triggers means that planning organizations are continually performing overlapping demonstrations. The resulting web of incongruous deadlines impose a minefield of procedural traps for nonattainment areas to fall into. As Judge Williams in the U.S. Circuit Court of Appeals for D.C. wrote, “the Act’s conformity requirements are astonishingly confusing, and could if interpreted as stringently as possible seriously disrupt state and local transportation planning.”

RAMIFICATIONS OF FAILING TO DEMONSTRATE CONFORMITY “LAPSE”

One of the principle disruptions to state and local transportation planning from transportation conformity requirements is the consequences of a conformity “lapse”. A conformity “lapse” occurs when a conformity determination for a transportation plan or TIP has expired and is no longer valid. A conformity lapse may be caused by several situations such as: (1) not meeting the required 3-year period for conformity redetermination of a transportation plan or TIP; (2) certain State Implementation Plan consequences; (3) not redetermining conformity within 18 months of a specific State Implementation Plan modification; or (4) a potentially successful citizen suit that invalidates the conformity determination or the motor vehicle emissions budget on which the conformity determination was based.

Only certain types of projects can advance during a conformity lapse. FHWA will not fund active highway design and right-of-way acquisition projects during a conformity lapse. Only those highway projects which have received full funding and/or approval prior to the conformity lapse may continue. A conformity lapse applies to both road and transit projects. Moreover, lapses impact both federally funded and non-federally funded but regionally significant projects (since these projects require Federal approval).

Conformity lapses have caused significant problems across the country. In Atlanta, for example, a conformity lapse suspended over \$700 million in much needed road work. In the Southern California Air Quality Management District, \$0.5 and \$2 billion in transportation projects were subject to postponement during a 1998 and 2001 conformity lapse, respectively.

Conformity lapses have several deleterious impacts. Financially, delays increase project costs due to normal cost escalation factors and contractors needing to re-schedule planned work. Costs also increase due to delayed traffic congestion relief (for example, the Houston-Galveston Area Council estimates that traffic congestion costs the Houston area approximately \$2 billion per year). Delays due to conformity lapses also effect road safety. According to the U.S. DOT, poor road conditions or obsolete road and bridge alignments are a factor in 12,000 highway-related deaths each year—that’s four times the number killed in fires and a third more than die annually of asthma and bronchitis combined.

Conformity lapses are almost never caused by a nonattainment area building too much transportation infrastructure, but are almost always caused by procedural problems with the timing of multiple deadlines for revising the motor vehicle emissions budget, revising the transportation plans, and/or lawsuits.

Currently there are 142 nonattainment areas which contain 414 counties nationwide that are out of compliance for ozone alone with more out of compliance for other pollutants. An additional 194 areas which include 656 counties may soon be in nonattainment status when EPA imposes new standards for ozone and particulate matter.

CONFORMITY PROCESS DOES NOT IMPROVE AIR QUALITY

The transportation conformity process is expensive and burdensome and has not been shown to have a significant impact on improving air quality. The United States

General Accounting Office (GAO) in testimony before the Committee on Environment and Public Works, U.S. Senate, July 30, 2002 (GAO-02-988T p. 10), said that, "Only 31 percent of the planners responding to our survey found the process of demonstrating conformity to be effective in helping their areas achieve air quality goals (40 percent found it to be ineffective)." GAO also stated that, "[T]he current clean air and surface transportation requirements and programs do not directly encourage communities to consider more innovative transportation projects or alternative land development strategies as a means to reduce emissions. Nor do they encourage communities to take action that will preserve the clean air that they still enjoy." (Id. at 15-16).

In addition, the conformity process is being used as a means to prevent transportation improvement projects from being built, not because of their impact on air quality but as a tactic to prevent any transportation improvement project from being undertaken. Transportation project opponents use legal challenges and other maneuvers to disrupt the planning process and stop project construction. This activity undermines safety improvements, increases the cost of the projects significantly and can undermine clean air objectives. Delaying or and stopping transportation improvements has no beneficial impact on air quality and can have a negative impact by keeping congestion relief projects from moving forward. Idling in traffic significantly increases air pollution. Eliminating bottlenecks and traffic congestion can reduce carbon monoxide emissions by as much as 45 percent and ozone forming VOCs by 44 percent. Automobiles operate at a higher efficiency at higher speeds and emission rates for major air pollutants increase at slower speeds. Congress should reconsider whether the costs associated with the transportation conformity process result in equal benefits.

RECOMMENDED REFORM

SEPARATE TRANSPORTATION AND AIR QUALITY PLANNING

Steps should be taken to improve the process and keep it from being used merely as a means for delaying necessary transportation improvement projects as follows:

- Transportation planning and air quality planning *should not be linked*. There is no air quality improvements that result from the conformity process.

Reducing the Number of Conformity Triggers and Increasing the Time Between Conformity Determinations

- Non-attainment areas are continually and exhaustingly performing transportation conformity demonstrations. Although the Clean Air Act requires a conformity demonstration once every 3 years, numerous other triggers render this requirement meaningless. Under EPA's rules, non-attainment areas must demonstrate conformity each time EPA proposes or approves a control strategy implementation plan revision which affects an existing motor vehicle emissions budget, each time the EPA modifies a control measure that impacts the motor vehicle emissions budget, and each time a transportation control measure is added, modified, or deleted. Conformity demonstrations are also needed each time the metropolitan planning organization needs to add or modify a project in its transportation plan (since a road or transit project cannot generally move forward unless it is specifically included in a conforming transportation plan). This overabundance of conformity triggers means that planning organizations are continually performing overlapping demonstrations, wasting valuable time and resources. As the GAO stated in its recent assessment of the transportation conformity requirements: "According to DOT program managers, some planners have found the requirement to update their transportation plans and meet the conformity test at least every 3 years to be too burdensome. Because of the complexity and time involved in preparing the plan and demonstrating conformity, it can take some areas more time than 3 years to complete their plan updates, after which time they need to begin the update process all over again. The tight timeframe inhibits them from devoting their attention or resources to developing more strategic transportation solutions or adopting new and better models for assessing emissions and analyzing transportation plans, among other things."¹

- Transportation conformity demonstrations are a prolonged and arduous process. The metropolitan planning organization (typically a local council of governments) must conduct extensive emissions modeling and inventory work. All conformity demonstrations must go through an interagency consultation process and other agency

¹*Environment Protection: The Federal Government Could Help Communities Better Plan for Transportation That Protects Air Quality*, United States General Accounting Office, Testimony Before the Committee on Environment and Public Works, U.S. Senate, GAO-02-988T, July 30, 2002, p. 11.

scrutiny that involves EPA, the Federal Highway Administration (FHWA), and state agencies. Conformity demonstrations must also go through public notice and comment and public hearing procedures.

- Once a conformity demonstration is complete (often after more than a year and hundreds of thousands of dollars worth of work), each conformity demonstration becomes subject to a potential lawsuit from environmental organizations and others who are unhappy with such issues as urban sprawl, the construction of certain road projects, or the area's mass transit choices. Transportation conformity lawsuits have occurred across the country, including Houston, Atlanta, Sacramento, San Francisco, and Salt Lake City. These suits force local governments or other interested parties to mount legal defenses which are expensive and time consuming. The costs of these legal defenses take funds that could otherwise be used to provide services to the public. The potential repercussions of a successful lawsuit or repercussions for failing to demonstrate conformity are the withholding of Federal highway funding or the halting of road and transit projects, including those that do not receive any Federal funding.

- For the above reasons, the number of conformity triggers should be reduced to one, whether that one trigger be a specific date in time or the time at which the transportation plan is approved.

- In addition to reducing the number of conformity triggers, the length of time between mandatory conformity demonstrations should be increased from 3 years to at least 5 years. As stated above, many metropolitan planners are already having trouble meeting the 3 year requirement. Since most road projects take at least 15 to 20 years to plan and construct, projects will still have several opportunities to be included in a conformity demonstration.

- Along with reducing the number of conformity triggers and the length of time between conformity determinations, a method is needed whereby metropolitan planners can add or modify a road or transit project (to some degree) without the need for a full conformity demonstration. Currently, planning organizations must essentially go through a full conformity analysis in order to make certain changes to a road or transit project. This exercise is unnecessary and a waste of valuable local, state, and Federal resources.

GRANDFATHERING

- Up until 1999, transportation improvement projects that had reached a certain stage in the review and approval process could continue through the design and construction phase despite a conformity lapse. These projects were said to be "grandfathered." A Federal Court ruled in 1999 that EPA did not have the statutory authority to permit grandfathering. State departments of transportation were put under a constraint on what activities they can undertake during a conformity lapse. As a result, \$700 million in transportation projects in Atlanta were halted and projects throughout the country have been threatened.

AGC recommends that transportation projects that are included in a conforming plan and TIP should be allowed to move forward to construction if an area later has a conformity lapse. Project design and right of way acquisition should be allowed to continue during a conformity lapse.

USE OF THE LATEST PLANNING ASSUMPTIONS

- The Clean Air Act requires that all conformity demonstrations be based on the latest planning assumptions. Specifically the Act states that "the determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel and congestion estimates as determined by the metropolitan planning organization or other agency authorized to make such estimates."²

- Conformity problems can result if modeling assumptions change between the time the motor vehicle emissions budget from the State Implementation Plan was created and the time that conformity must be demonstrated. For example, if a non-attainment area sets a motor vehicle emissions budget at 156 tons of NO_x per day and later realizes, prior to its next conformity determination, that the number should really be 165 tons per day (because of new inventory information regarding the number of sport utility vehicles in the area), the metropolitan area could have a difficult time demonstrating conformity to the lower number. This problem could lead to a transportation conformity lapse because it would take several months to revise the motor vehicle emissions budget through the notice-and-comment rule-making process.

²42 C.F.R. § 7506.

- The Clean Air Act should be clarified to stipulate that the most current modeling assumptions are those assumptions used in the creation of the latest motor vehicle emissions budget. In the alternative, the Act should be amended to include a time-delay before new planning assumptions must be used in a conformity determination.

RAMIFICATIONS OF CONFORMITY FAILURE VS. SIP FAILURE

- When an area fails to demonstrate conformity and enters into a conformity lapse, the consequences of the lapse are immediate. On the other hand, if an area fails to submit or implement an adequate State Implementation Plan, there is a range of time, a minimum of 18 to 24 months, before sanctions are imposed. This disparate treatment is not warranted. Transportation planners should also have time to remedy problems before sanctions are imposed. Most of the time conformity lapses occur only for a few short months due to a technical or procedural error. Rather than the current “gotcha” system, planners should be given a short period of time to rectify minor problems before public transportation projects are halted. This would save communities millions of dollars without negatively impacting air quality (since roads and highways in the TIP are not even built, let alone in operation).

LIMIT LAW SUITS

- Special interest groups have successfully used legal challenges to advance no-growth strategies. They have demonstrated the ability to delay and in some cases curtail development of significant transportation projects throughout the country. Limits should be placed on “citizen suits” filed under the authority of the CAA.

CONCLUSION

AGC strongly urges Congress to reconsider the impact of the transportation conformity process on motorist safety, economic development and even air quality improvement.

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