

**Please note that there is approximately 10 minutes of dead air before the presentation begins.**

Blue Skyways Webinar  
June 2, 2010

*“Drivers and Opportunities for  
Improving Air Quality and Reducing GHGs”*

Introduction ~ Josh Tapp

(Introduction Slide) Okay. Well, good afternoon and welcome to the Blue Skyways Collaborative Ozone 101 webcast. This is Josh Tapp, Chief of the Air Planning Branch at EPA’s Region 7 office and I’ll be your host for the next hour and a half. (Next slide) This webcast is sponsored by EPA’s Regions 6 and 7 Air Programs and the Blue Skyways Collaborative. It is intended for local governments, metropolitan planning organizations, departments of planning, health and economic development, chambers of commerce and industry coalitions, environmental, transportation and sustainability non-profits and other federal partners, especially in communities with air quality that is approaching the air quality standard for ozone. Presentations today will include an overview of the Ozone National Ambient Air Quality Standard including how it is set and what is meant by “nonattainment,” an overview of the state air planning process and information on local inputs into that process, information on some of the co-benefits and synergies that communities have achieved when taking proactive actions to improve air quality and a question and answer session will follow these presentations when they’re completed.

(Next slide) Before we move into the presentations, we need to cover a few basic logistics. For this webinar, you will be able to see the presenters’ slides on your screen and you will be able to hear the presenter either by dialing into the conference number provided or through your computer speakers. You can switch options for audio once you’ve logged into the webinar through the webinar dashboard. If you are having technical problems during this webcast or technical problems with hearing the webinar, please email Matt Loesel at the address provided on the slide.

(Next slide) After this webinar, the presentations will be available on the Blue Skyways website at [www.blueskyways.org](http://www.blueskyways.org). You will not be able to ask verbal questions during the webinar. All participants will be on mute to limit background noise. You will be able

to ask questions via the chat feature on the webinar as described in the next slide. There may be a slight delay from when the speaker transitions slides to when you see the slide change.

(Next slide) You can type in your questions using the questions function on the webinar dashboard at any time. Send your questions as you think of them and include the name of the presenter whom you would like to answer the questions if applicable. We will prioritize questions based on broad applicability to the audience. We will not be able to answer all questions live, but we will provide answers to questions via a document shared with all those registered for this webinar.

(Next slide) And now for a little background on Blue Skyways before we get started. The Blue Skyways Collaborative was created to encourage voluntary air emissions reduction in North America's heartland. The idea started in 2004 with the help of the Central States Air Resources Agency (CenSARA) and the US Environmental Protection Agency. The Collaborative celebrated a kickoff meeting in February of 2006. Through partnership with non-profit and environmental groups, private industries, international, federal, state and local governments, Blue Skyways strives to improve air quality. The participants of the Collaborative pledge to make that goal possible through active and meaningful participation and planning or implementation of projects that use innovations in diesel engines, alternative fuels and renewable energy technologies. Working together allows members to leverage funding and share technology and professional expertise. Today, Blue Skyways incorporates ten states including Minnesota, Iowa, Nebraska, Missouri, Kansas, Arkansas, Oklahoma, Louisiana, Texas and New Mexico and the bordering regions in Canada and Mexico. The Collaborative envisions a future where organizations will work together to reduce air emissions and make the heartland of America the central corridor of innovations.

(Next slide) This webinar series is intended for communities that may be facing new nonattainment designations for ozone. The Blue Skyways Collaborative hopes to provide information that addresses the questions that stakeholders are currently asking. That is, how will this affect my community? The Collaborative plans to continue the tradition of providing information on innovative, real life solutions to air quality problems through a network of stakeholders. The Collaborative typically hosts an annual meeting, but this year it is bringing the information to the stakeholders through an initial set of background webinars followed by additional in-person meetings and/or focused webinars. This webinar covers the basics of ozone nonattainment designations and the state planning process. The second webinar scheduled for June 16th will provide basic

information on the co-benefits of improving air quality and advice on how to choose the right actions.

(Next slide) And now on to today's webinar. Our first presentation is entitled, "Ozone: The Health Impacts and the National Ozone Standard." Our presenter for this presentation will be Susan Stone. Susan is a Senior Environmental Health Scientist in the Office of Air Quality Planning and Standards in the EPA's Research Triangle Park facility in North Carolina. She has 16 years experience working on National Ambient Air Quality Standards and is currently working on standards for ozone, PM and sulfur dioxide. Susan has contributed her expertise to numerous air quality regulatory and public outreach documents, especially with respect to the link between air quality and health. Susan. [Presenter was on mute, pause with no audio.] Susan, are you available to give your presentation?

Susan Stone ~ Ozone: The Health impacts and the National Ozone Standard

(Speaker was on mute and slides were changing, but then speaker found the correct slide to start her presentation when she realized she was on mute.)

(Slide – "National Ambient Air Quality Standards") Sorry I was on mute. Sorry about that. Let me go back up. Okay. So I'm going to talk about the National Ambient Air Quality Standards, how we set them, how ozone is formed and the health effects of those. The National Ambient Air Quality Standards are standards that are designed to control pollutants which cause or contribute to air pollution and endanger public health or welfare. And by welfare, that means anything that isn't public health. It could be soiling of buildings, visibility, ecosystem effects, anything that isn't public health is considered to be public welfare. And the National Ambient Air Quality Standards are set for pollutants that come from numerous or diverse sources, ubiquitous pollutants. We call these pollutants criteria air pollutants because we regulate them by developing human health based or environmentally based criteria for setting permissible levels. And this is different from the hazardous air pollution, pollutants, for which we set technology based standards.

(Next slide – "Criteria Pollutants") Okay, there right now are six criteria pollutants. Particulate matter is one of them. That is also known as particle pollution. That's what we use in our public communication documents like the Air Quality Index, that nameless picture of focus group testing. Particulate matter is composed of fine and coarse particles, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead and what we're going to talk about today ground level ozone.

(Next slide – “Primary vs. Secondary Standard”) So we set primary standards to protect public health and secondary standards to protect public welfare. And primary standards are set to protect public health, including the health of sensitive groups such as people with asthma, children, older adults, with an adequate margin of safety, but they are not designed to protect every single person. So the primary standards are not considered to be risk free. The secondary standards, as I said, are meant to protect public welfare. The standards are reviewed approximately every five years, very approximately, and in the review, the options are to leave the standard as it is, to revoke the standard, to make it more protective or more stringent, or to make it less protective or less stringent. And different considerations apply to setting the NAAQS compared to implementing them or achieving them. In setting the standards, we are only allowed to consider science, the science of health effects or the science of the welfare effects. And this was confirmed recently by a Supreme Court decision. However, in implementing the standards, that’s when we can consider cost, technical feasibility and the time needed to attain.

(Next slide – “Review Process for NAAQS”) All right, this next slide shows the review process for the National Ambient Air Quality Standards and the documents that you see in blue are documents that we developed. And so basically if you look at the upper left-hand corner, we rely on scientific studies on environmental and health effects. These themselves are peer reviewed when they’re published. We develop an integrated science assessment. This is reviewed multiple times by our Clean Air Scientific Advisory Committee, or that acronym that you see as CASAC and the public. The Clean Air Scientific Advisory Committee is a congressionally mandated committee. It includes at least one member from the National Academy of Sciences and the composition of that board is prescribed by congress. So they review the integrated science assessment. They approve that it is an adequate assessment of the science and then the Policy Office develops two documents – the Exposure and Risk Assessment and the Policy Assessment. And the Exposure and Risk Assessment translates the scientific information into the number of people who might be affected in different locations and the Policy Assessment integrates science and policy considerations and develops options for the Administrator to consider in setting a proposal. And again, these are reviewed multiple times by both the Clean Air Scientific Advisory Committee and public. The Administrator looks at the options, proposes a decision. We have public hearing and a public comment period on the proposal and then a final decision is made after the comments come in.

Now in 2008, the EPA set a Standard of 75 parts per billion for ozone. Three times during that review and one time afterward, the Clean Air Scientific Advisory Committee recommended an ozone, a Primary Ozone Standard set in the range of 60-70 parts per billion. So the Standard that was set in 2008 was not within that range. Then during that time, the PM Standards were litigated. The annual Standard was remanded back to EPA to explain. That Standard also did not fall within the CASAC recommended range. It was remanded back to EPA to explain why we didn't set a standard within the CASAC recommended range and we had litigation on the Ozone Standard and given all the factors together, the Administrator decided to reconsider the 2008 decision. So in January of this year, 2010, we issued a proposal to set the Primary Standard within the range of 60-70 parts per billion, within the CASAC recommended range, and the public comment period is over and we expect to issue a final decision by August 31st. So that's where we stand with ozone.

(Next slide – “Ongoing NAAQS Review Schedule”) And here's where we stand with the other reviews. Basically, we set a final Standard for ozone in October 2008. We're in the process of setting up the schedule that I just showed you. For NO<sub>2</sub>, we just issued a final Standard in January. We set a one hour Standard for NO<sub>2</sub> at 100 parts per billion. For SO<sub>2</sub>, the decision is going to the Administrator. It will be assigned today. So you can tune in tomorrow. We proposed a Standard within the range of 52-100 parts per billion, a one hour standard, to replace the 24 hour standard. I explained ozone to you. NO<sub>x</sub> and VOC are being considered together, the welfare standard, because they work together on ecosystems and we are scheduled to – well, this says scheduled to have a proposal out in February 12, 2010. I don't think that happened. And then the final decision will be sometime in the future. For CO, we have a proposal at the end of this year and then a final decision next year. For PM, the Standard review is ongoing. As I mentioned, that Standard was litigated. The Standards that were set in 2006, the annual Standard, was remanded and so what we have done is we have expedited the next review of the Standard since we were already so well into it and we will respond to the litigation during that review of the Standard.

(Next slide – “Ozone: Good Up High, Bad Nearby”) So ozone, good up high, bad nearby. Ozone is O<sub>3</sub> no matter where it is. Up in the stratosphere it shields us from UV radiation; at ground level, it is a major ingredient of smog. And I'm going to tell you about the health effects in just a second.

(Next slide – “Ozone Formation”) So ozone really is not emitted directly. Precursors are emitted and these precursors are nitrogen oxides in volatile organic compounds and

nitrogen oxides in volatile organic compounds in the presence of ultraviolet radiation and heat. Heat speeds up the process to form ozone. But you don't necessarily require heat. What we have seen is in the oil fields of Wyoming, in the winter, when you have NOx and VOC together, it can be quite cold, but the ultraviolet radiation coming down and reflecting off of the snow will also form ozone. But typically, the ozone season is from the first of April until the end of October.

(Next slide – “Where do NOx and VOCs Come From?”) And these are just the sources of NOx and VOCs. NOx primarily comes from fuel combustion from both mobile and stationary sources. Volatile organic compounds also come from other types of sources such as solvents and other types of materials. These are, these charts are national figures. So they're national estimates of the portions of precursors that are emitted from different types of sources. These can vary by location. So they may not be exactly what you would see where you live.

(Next slide – “Human Lung”) All right. So turning to what I know best which is the health effects of ozone, this is a latex cast of a human lung. And it's up here to show you really there are two parts to the lung and help you to understand the information that's coming up. There are the air conducting airways. These are the big airways that you see there. The trachea, the bronchi and the bronchials. And then there are the smaller parts of the airway, the gas exchange region, and these are the respiratory bronchials and the alveoli. Actually, in this picture, the alveoli have been cut off. But there are different physiological structures to these two different parts of the lungs, but also this shows you why when we consider setting standards and also in our Air Quality Index Advisories, we look for people who are exercising, estimated to be exercising or exerting themselves in some way because it takes exercise or exertion to get gases or particles deep into the lungs.

(Next slide – “Ozone Irritates Airways”) So ozone is a very powerful oxidizing agent. It irritates the airways. It causes a cough and this isn't just a little polite (coughing sound). It's a bronchitic, it's a cough like you get with bronchitis, a sore or scratchy throat, usually a pain in the middle of the chest when taking a deep breath, fatigue that comes on quickly, especially if you're exerting yourself quite a bit. And people with and without asthma can experience things like shortness of breath and other types of asthma like symptoms. The effects are greater in people with asthma, but even people without asthma can experience these effects. And what typically happens is you'll start taking shallow breaths and you won't be able to take a deep breath.

(Next slide – “Ozone Reduces Lung Function”) And ozone reduces lung function. What you see on this graph is Forced Expiratory Volume in one second. And so what that is is – I don’t know if any of you have had lung function testing – but they tell you, you’re breathing into a tube and they tell you to take a deep breath and then blow it out as quickly as you can. And if your big airways are wide open, you can blow out almost all the gas in your lung in one second. And so what this shows is – so this is a very large dose of ozone. But you see the person who has the smallest effect had almost no effect and then the middle most and then person who had the biggest effect. And we consider a 20 percent, or a 15 percent decrease in FEV<sub>1</sub> to be noticeable. If you had a 15 percent decrease, you would be saying, “Wow, I don’t feel like I can breathe as well today.” Twenty percent is considered to be a large lung function decrement and it would be the type of thing that would cause you to think about going to the doctor. And so you can see that these people had very different effects. And the person who had the largest effect, probably that would stopped them in their tracks.

So you notice there are different magnitudes of effects and different people have different effects. And what we find when we bring people into chambers is if you test them over and over again over the course of a year, they will have about the same effect. So the person who had the smallest effect, if you bring them back, they’ll still have the smallest effect. And we don’t really know exactly why this variability occurs. We think some of it is genetic in basis, but it is repeatable and there are – what you see when you’re doing lung function testing, let’s say, 20 percent of the people have these bigger effects, if you keep bringing them back, you’re going to see that that group of people will continue to have big effects.

(Next slide – “Ozone”) So this is a schematic of the upper airways that I showed you in that picture. And what you see, those little ovals with the squiggles on top, those are the ciliated epithelial cells that line the upper airways. You see a blood vessel down below that, the red things are red blood cells. The blue things, the blue funny looking globs, are white blood cells and the wavy stuff on top is the mucus or the fluid that’s in your airways. Then you see little ozone molecules and what happens is ozone reacts, and we know this, through bronchoalveolar lavage. We exposed people to ozone and then the next day, typically 24 hours later, we’ll bring them back lavage which where we stick a tube in their airways, we rinse some fluid on the surface of their airways and then we suck it back up and we look for chemicals and cells in the lavage fluid. And what we’ve learned is that ozone reacts with proteins and lipids in the airway lining fluid and these are the things that damage the cells that line the airways. There is some evidence that intaking antioxidants or antioxidants in the bronchoalveolar lavage in the

fluids will mitigate the effects of the ozone. But once the cells become damaged, then white blood cells will come into the epithelial lining and they'll create inflammation. And we compare this inflammation to the sunburn that you get on your skin and it's very similar. You get swelling and redness of the cells that line the airways. Like a sunburn, it doesn't occur right away. It takes some time to set up. When you go to the beach, you notice that you might be out in the sun in the afternoon, but you don't really feel the effects until that night or the next day. And what happens is these epithelial cells will die and they'll be sloughed off and then will be replaced with cells that aren't exactly like them. And the cilia actually are one of the defense mechanisms for the upper airways. They move things out of your lungs. And so when the new cells come in, they're not ciliated right away. And so that's one of the defense mechanisms that you lose.

And if you've ever seen people that have been in the sun many times or for a long period of time, you'll notice that what happens is these cells turn over and change. They become changed. You don't have the same type of surface. And so the concern is, and we've seen this in animal studies, and so the concern is that repeated exposures of damage and healing result in permanent structural changes in the lung airway resulting in reduced lung growth in children and reduced quality of life in adults.

(Next slide – “Ozone and Health”) So lung function can inflame and damage the airways. It increases the frequency of asthma attacks and increases susceptibility to respiratory infection and aggravates other chronic diseases such as Chronic Obstructive Pulmonary Disease (COPD). And these effects lead to increased medication use, more often doctor visits, school absences, emergency room visits, hospital admissions and increased risk of premature death. Now, children are considered to be the group at greatest risk from exposure to ozone because their lungs continue to develop until they're about 18 years old. And animal studies, using animals that were exposed to – and these were primates – to levels that were common in California, that are still common in California, found that when these animals were fully matured, their lung physiology was not normal. So kids are more likely, their lungs are still developing and they're more likely to be active outdoors in the summer when ozone levels are high.

(Next slide – “Ozone Health Impacts”) And this is what we call the Ozone Pyramid of Effects. And so we've been studying ozone for a very long time. It's probably the most well studied of the criteria air pollutants and what we look for when we look at the evidence is we look for consistency. Do the studies say the same thing. So if you have a study looking at hospital admissions in Los Angeles, does it say the same thing as the hospital admission study in Boston? But also, across different types of studies and

different effects. Do you see a logical proportionality? And by that, so for the less severe effects, you expect to see more of them and you would see a greater proportion of the population affected. And then for the more severe effects, including death, you would expect to see fewer numbers of that and fewer people affected. And so through the years that we've been studying ozone, this Pyramid of Effects has been filled out and we've learned much more about the different types of health impacts that ozone can cause. And you can see them in the pyramid.

So the at-risk group include people with lung disease, especially asthma and Chronic Obstructive Pulmonary Disease, children. Children are the group at greatest risk because they're also more likely than adults to have asthma. Older adults, especially older adults with lung disease, are more likely to go to the hospital. And then anyone who is active outdoors, whether it's outdoor workers or people who exercise outdoors, are more likely to be exposed and therefore more likely to experience effects.

(Next slide – Contact Information) And this is my contact information. You can contact me directly. Thank you.

Josh Tapp

Thanks, Susan. Just as a reminder, Susan mentioned that if you do have questions that come up during these presentations, please feel free to use the webinar dashboard. We are collecting these questions as we go and we'll prioritize them for a response after all of the presentations are completed.

(Next slide – “Implementing the Ozone Standard”) Our next topic that we're going to cover is entitled, “Implementing the Ozone Standard,” and Amy Bhesania will be speaking to this presentation. Amy is the Chief of the Community Partnership Programs section in EPA's Region 7 office in Kansas City. She's worked in the Air Program in EPA's Region 7 office for four years and has recently led the Ozone Designations Team in Region 7 and has worked with Region 7 on several different grant program. Amy.

Amy Bhesania ~ *Implementing the Ozone Standard*

Thanks, Josh, and thanks Susan as well. I think that was a great introduction into this topic of implementing the Ozone Standard.

(Next slide – “Discussion Topics”) Let me go ahead and jump right in and it takes a second for these slides. So again, you might hear a little bit of a pause. Now that you have some background on the health effects and how ozone is formed, let me tell you

how an area is identified as meeting the Standard and what happens when an area doesn't meet the Standard.

(Next slide – “Current Ozone Standard”) So let me tell you briefly, you know, you might be thinking – Susan talked a little bit about the current Ozone Standard, the 2008 Standard. That is set at 75 parts per billion and we talked, she talked a little bit about the Primary and the Secondary Standard and you'll see that currently they are the same. They are identical. But often, you hear about the Standard and this number and kind of question, what exactly does that mean? What does 75 and how is that number, how do you folks come up to that number? [inaudible – audio problem.]

(Next slide – “Ozone Monitoring Network”) Not only does EPA set an Ozone Standard, they also set monitoring requirements that are associated with the Standard. So depending on certain factors such as population, there's a certain number of ozone monitors that will be required within a state and location. And so a state is the one who develops this monitoring network with EPA. As Susan mentioned, the ozone season typically runs April through October, but really each date is different and depending on geographic location it can be different. This is just an example for you of one state and there will be different set of number of monitors depending on certain criteria.

(Next slide – “How Design Values Are Calculated”) So next I want to talk about the Design Value and how Design Values are calculated. Design Value is the term that is used to describe the number which is compared to the Standard. So the Design Value is based on three years of data, hourly ozone concentrations and then those concentrations are averaged over an eight hour period. And basically, within we'll say the day or within a 24 hour period, you determine the highest eight hour average. And then once your Ozone c's then for the year is complete, you go back and you look at the fourth highest eight hour average within that season. And then in order to calculate the Design Value, you take the highest concentration for each year and you average that over the three years. So it's a three year rolling average. You saw on the last slide it was based on 2006 to 2008 data and so on. So in order to meet the Standard, your Design Value must be less than or equal to the Standard.

So I want to just give a little clarification on another [inaudible – audio cutting in and out] about the Standard ... [inaudible – audio skipped] ... and in a single episode or in a day, this is known as an exceeded, but a monitor violates the Standard, uses the term violating, when the Design Value is above the Standard. So again, there may be more

than one monitor in a county, but what we look at is the highest monitor in that county. That's the one that drives the Design Value.

(Next slide – “Counties Violating Current Standard”) Then the magnitude in terms of how many counties are violating the Standard at the 75, the 2008 Standard, at 75 parts per billion. So this map is based on 2006 to 2008 data and you can see that there are 322 counties out of 675 right now.

(Next slide – “A New Target”) So just when you think you've got it all figured out, EPA moves the target, as Susan mentioned. We did propose a new range which we're looking to finalize the Standard by August and you might notice this is sort of outside of the typical five year review as Susan mentioned before. We look at these every five years and I'll describe a little bit more on the next slide why that is. But just to let you know that on January 6th, EPA did propose to revise the Ozone Standard from 75 and their proposal is for a range between 60 and 70 for the Primary Standard and for the Secondary Standard, which is 7 to 15.

(Next slide – “Why Revise the Ozone Standard”) So why did EPA revise this Standard? There were that the 2008 Ozone Standard was not protective of public health and the environment, and they wanted to ensure that they were looking at the most current information that was scientifically sound and protective of human health.

(Next slide – “Potential Violating Counties: Primary Standard”) So next slide coming up is a map that shows you a range and you can see that the colors are related to the ranges. So the dark blue being the 70, the middle and the light blue being the lower range of 60. And here what you see is that at a 70, you have about 515 counties violating and then at the colors, they're cumulative, they add on top, so as the range goes down, they're adding an additional 93 and then an additional 43 you can see as part of the key there.

(Next slide – “Secondary Standard”) [Inaudible – audio cut out, but slide moved forward to Secondary Standard] ... And we know folks have a lot of questions about this, but again, the Secondary Standard is designed to account for the cumulative effects of repeated ozone exposure for sensitive vegetation. So it's looking at a different type of standard and the headquarters and Region 7 and Region 6 are all gathering more data on the stringency in terms of comparing the Primary to the Secondary Standard.

(Next slide – “Potential Violating Counties: Secondary Standard”) Coming up next is a map of some potential counties that are going to be violating the Secondary Standard

depending on the range. So similar the way that you saw on the slide before with the map for the Primary Standard, these build on top of each other. So at 15 parts per million hours, you have 196 counties [inaudible – audio problem]. But what I want to note here is that this does not show you that there really are a minimal number of counties that would be in violation of the Primary Standard as well. They just want to make sure you understand.

(Next slide – “Designations: The Next Step”) The next one talks briefly about the designations process. I know sometimes it feels a little bit like a dance, a kind of back and forth between EPA and the state and so let me just describe to you how this works a little bit. Designations is a term that’s used when describing the process in which an area is officially determined or designated to meet the Standard. Meeting the Standard means attainment, and not meeting the Standard being nonattainment. So just formally, one year after the new NAAQS are set, the Governor of a state must submit a list to EPA recommending which counties would be designated nonattainment versus attainment. So again, nonattainment is any area that does not meet the National Ambient Air Quality Standards and then attainment would be for those counties and areas that contribute to, that would not contribute to the Standard.

And just to direct, sometimes you’ll see “unclassifiable,” and under limited circumstances that would be due to insufficient monitoring data. An area may be designated as unclassifiable temporarily.

(Next slide – “Ozone Designations Timeline: An Accelerated Schedule”) Let me walk you through the revision to the Schedule here for Ozone Designations. What you’ll see is a difference between the standard schedule and the accelerated schedule and this accelerated schedule was proposed with the revision to the Ozone Standard [inaudible – audio cut out] ... health benefits that were going to be put in place by the 2008 Standard. So let me just take a walk through here. The final, under the accelerated schedule, we assume it was coming up in August. And then normally what would happen is states and tribes would have one year to submit recommendations to EPA. What you’ll see in the accelerated schedule is that timeline is shortened to January.

And then I’m going to skip over the next one. One year from when the state submits their designations to EPA, usually there’s an effective date one year following that of those designations. So you see August 2012. That’s shortened some with the accelerated schedule as well. And in the middle, the states do have an opportunity to work with EPA to modify recommendations. So again, the state submits it to EPA, EPA

takes a look at it and says, “Hey, this is what we’re thinking,” and the state has an opportunity to come back and provide more information, provide more data to EPA before they make their designations effective. And last State Implementation Plans and their designation would be shortened some.

(Next slide – “Setting Boundaries”) So moving on in terms of how a state set up their boundaries. EPA does provide some guidance in terms of how to set the nonattainment boundary and they start with what’s called a “presumptive boundary.” And the presumptive boundary is basically the Core Based Statistical Area. And not everyone is familiar with this term. It’s a census term and you can think of it sort of like an MSA or a metro area, but it’s more specific. They start with the Core Based Statistical Area that’s surrounding any county with a violating monitor. And then the states have an opportunity to make an argument whether a county in that CBSA does or does not contribute to that violation based on the guidance and factors.

(Next slide – “Refining the Boundary”) So just – I’m flipping to the next slide which shows you a list of the nine factors that are used in terms of consideration for determining or refining the boundary. And you can see the list of those here and we expect that those will be the same for the 2010 Ozone Standard.

(Next slide – “If Designated Nonattainment...”) Nonattainment – go through that first. EPA first makes a classification and this classification is set according to the severity of the pollution problem and feasibility of control measures. And once that classification is determined, then an attainment date is set. And so you would get this type of information determining when the attainment date would be set. It would come in the Implementation Rule which comes out following the Standard.

So [inaudible – audio problem] attainment date three years after they’re designated. This plan shows how a state will attain the Standard by the attainment date. And get in here a little bit more about what’s included in the State Implementation Plan next.

(Next slide – “Light at the End of the Tunnel”) So I think sometimes it feels like it’s a really long process, but we do want to let you know there is light at the end of the tunnel. For some folks, it’s a little far off, but states can request a redesignation. And so what a redesignation is is a state being able to show that the area has attained the Standard through permanent emission reductions and that those will continue to remain permanent. And then what happens, they can be redesignated to attainment and the state would have to create a Maintenance Plan which is a ten year plan showing how they would remain in attainment with Ambient Air Quality Standards.

(Next slide – “If Designated Attainment...”) So finally, if an area is designated attainment, I like to sort of think of this as starting an internal clock. It’s really an opportunity for the states to work with their locals in terms of local initiatives, voluntary actions. You’re going to hear more about this. Those are precursors such as NOx and VOCs prior to the next round of designation. It’s an opportunity to go out and develop comprehensive plan to address all the air quality concerns in conjunction with any other plan that the area might be looking at. Again, we’ll be talking more about this in detail later.

(Next slide – Contact Information) So folks, I know I went through that pretty quickly. I just wanted to try as best I could to stay on time. Got my contact information here and a couple of websites. If you have any questions, you can feel free to ... I’ll just turn it back over to Josh.

### Josh Tapp

All right. Thanks, Amy. Next on our agenda is a presentation entitled the State Planning Process that Guy Donaldson will be giving. And briefly, Guy is the Chief of the Air Planning Section at EPA’s Region 6 office in Dallas. His section works with states in the development of air planning, Air Quality Plan. Guy has over has over 20 years of experience in air quality work. So Guy.

### Guy Donaldson ~ State Implementation Plans

(Next slide – “State Implementation Plans”) Thanks, Josh. I’m going to talk about State Implementation Plans and they were mentioned a couple of times in Amy’s presentation.

(Next slide – “The State Implementation Plan (SIP)”) State Implementation Plan. A lot goes into State Implementation Plans and they have a lot of different facets. But today, I’m just going to talk mostly about Ozone State Implementation Plan. That’s what we’re interested in. There’s other portions of State Implementation Plans that would deal with other criteria – pollutants and other aspects of air quality control. Won’t go into a lot of detail. Kind of a high level flyover of the issue and hopefully to give you kind of a framework of what a State Implementation Plan is and how they’re developed.

(Next slide – “The Many Sources of Ozone Precursors”) First thing you need in the State Implementation Plan is there’s many sources of ozone precursors. As we talked about earlier, ozones form the action of volatile organic oxide to nitrogen or NOx or

VOCs or NO<sub>x</sub> come from [inaudible – audio problem]. You can see, you know, NO<sub>x</sub> comes from any type of combustion, from car engines to power plants. VOCs come from unburned gasoline or evaporating gasoline from filling your tanks or spilling when you fill up your lawnmowers to paints and solvents and just a myriad of sources. And the bottom line message is a successful plan to deal with ozone very seldom just has one measure in it. It's usually a list of measures to deal with a lot of different sources.

(Next slide – “So What Will You Have to Do?”) What are some of the things you're going to have to do and what are the things you need to think about? First thing is you need to think about what the sources you have in your area, what is it that is causing the ozone problem? That usually results in development of an emissions inventory and states do that all the time trying to estimate the amount of emissions that come from industry, come from cars and trucks, come from small businesses and there's a wide variety of information that goes into developing an emissions inventory. As you're trying to figure out what you need to do to get an area back into attainment that is nonattainment, you need to – first thing you want to take into account is what are the national strategies? There's a number of national measures to control emissions from cars and trucks and from off-road construction equipment. And these things will all help in an area meeting and attaining and maintaining compliance with the Standards.

The other thing you need to remember is, as Amy mentioned, areas have classifications and I'm going to talk a little bit more about that. But certain control strategies will be required for an area. And while an area has flexibility to, and states have flexibility to develop a State Implementation Plan, certain things will be required. And so the last thing then is to exercise that flexibility and see what control strategies make sense for your area in your particular state and locality.

And the last thing I'll just mention for an area that is new to a lot of you all is that one of the things that comes with a nonattainment designation is a thing called “conformity,” and especially transportation conformity. And what that means, simply put, is that before federal highways will approve a Transportation Plan for an area, it has to be shown that that Transportation Plan conforms to the area's Air Quality Plan. And the idea there is to make sure that highway construction and growth in an area won't undermine the Air Quality Plan that has been developed to get the area into attainment.

(Next slide – “Impact of Federal Mobile Source Programs on NO<sub>x</sub> Emissions”) On this map, I mean, and this graph shows the dramatic reductions in NO<sub>x</sub> that are going to come from rules that have been adopted in the last ten years as the fleet turns over, as

highway vehicles and diesel vehicles and off-road vehicles turn over and new clean engines come into use that are meeting the new tailpipe standards. You can see that dramatic reductions have been happening and will continue to happen at least out to 2020 based on projections. And these projections here are national, but would be expected to take into account some level the amount that we drive and the amount of economic growth that's out there.

(Next slide – “SIP Requirements for 8-Hour Ozone”) There are certain things that an area will have to do if it becomes nonattainment, and this is based on an area's classification. So under the Clean Air Act, there are five classifications – marginal, moderate, serious, severe and extreme. As you step up that scale, an area gets more time to attain the Standard, but also as you step up that scale, there are more prescribed requirements that the Clean Air Act requires for an area. So as an example, a marginal area is expected to attain in three years. A marginal area is one that's just barely over the Standard. And so it's expected to attain in three years and really isn't expected to adopt any control, or isn't required to adopt any control measures. But it is required to put in place additional resource review requirements which would be to require emissions offsets and it's required to do an emissions inventory because if that area doesn't attain in three years it would be reclassified to the next higher level or moderate. As you step up, you can see that moderate areas have some additional requirements – basic vehicle inspection and maintenance, reasonably available control technology on major sources and demonstrations that the area is making progress in reducing emissions. An additional requirement as you continue to step up the scale, as was mentioned an area, when we designate areas, we will establish the classification. When the Implementation Rule comes out, you will be able to see how the classification scheme is going to work out.

(Next slide – “Where do Local Communities Fit In?”) So where do local communities fit in? And I guess this first bullet is not exactly the way I should have revised it. But it is a State Implementation Plan, but local areas can have a lot of input into how a State Implementation Plan works and I think we're going to hear more of that in later presentations. But a local area can convene the stakeholders in the community. They can, community leaders there can provide input to the state. In some instances, local areas have adopted their own ordinances that can later be folded into a State Implementation Plan. Some examples of local ordinances that I've seen include ordinances to restrict idling or require upgrades in building codes for energy efficiency purposes. Those sorts of ordinances sometimes can be quantified and factored into a State Implementation Plan. Certainly, the main place where local communities can

really help out is working with the state and federal partners to make sure that any plan that is developed will be one that will be accepted in that area. Some control strategies will work out better in some areas than others and local community input and buy-in is essential to making a plan work. Obviously, the overall goal of this is to work toward that attainment designation.

(Next slide – “Types of Strategies”) As an area is trying to come up with its control strategy and we could talk about all of these different things at length. But I’ll just kind of touch on some of the things that an area might consider. I mean, the first thing that you might want to look at depending on your source is additional industrial controls. If an area is new to being nonattainment, it may be that there are some RAAQS control out there that haven’t been adopted by the local industry and those are probably the first thing you want to look at. Those are the things you’re likely to have to do anyway under the Act. You may want to implement them early. These are control strategies that have a long history and a lot of guidance that’s available from EPA and from other state experiences in implementing and put reasonably available control technology in place. And like I said, it’s proven technology and it’s cost effective to move forward. Areas that are not new to nonattainment may have to go beyond those RAAQ level of controls and do something more stringent than RAAQ and that becomes obviously a more challenging proposition.

Another sort of no regrets thing is always to look for areas where energy efficiency can be incorporated into various things. I mentioned building codes, but there can be specific energy efficiency projects that can reduce electrical generating demand and consequently emissions. You know, to be frank, I mean, this can be somewhat of a challenge to quantify for State Implementation Plan purposes because, as they always say, changing a light bulb in one place, you’re not sure which power plant is going to cut back on its emissions in another place. But EPA has [inaudible – audio problem] ...

Josh Tapp

(Slides changed rapidly after audio problem. “More Information – SIP” went by quickly and then the slide containing contact information for Guy Donaldson.”

Okay. Well, in the interest of time, let’s just move on if we could. Our next presentation is entitled, “Working with Local Communities,” and Jeff Bennett will be our presenter on that presentation. Jeff is the Air Quality Modeling Unit Chief in the Missouri Department of Natural Resources Air Pollution Control Program in Jefferson City, Missouri. Jeff has been in the Air Program for 17 years and is a veteran of three Ozone submittals. Jeff.

Jeff Bennett ~

Thanks, Josh. It's applicable to a lot of places throughout the country.

(Next slide – “Missouri Community Outreach”) The first thing I want to say is ozone is unique and each area is going to have a unique set of problems. And the one thing that EPA typically had a chance, I'll gloss over it, is the fact that there are biogenic emissions of VOCs that contribute to ozone formation, especially in Missouri. And that's one of the things we have to deal with.

(Next slide – “Ozone Outreach”) And that's – they come from trees and so not only do they come from anthropogenic sources, the ones that Guy and Amy have talked about, but they also come from natural sources. And that makes it difficult to figure out and difficult to explain to folks why controls on VOCs, anthropogenic VOCs are important, but they are. And control of anthropogenic VOCs and NOx are extraordinarily important.

The one thing I want to tell you about ozone though that I haven't heard today is that there are three components to ozone and it's not just [inaudible – audio problem] ... it has a very local [inaudible] and there's a much more [inaudible – audio problem] at the monitors and ozone doesn't have a little trigger to tell you this was local and this one's regional and this one's metropolitan. But you have to consider all three of those at the same time when you're trying to control for ozone [inaudible – audio problem].

People are interested in air quality, but they represent industry interests, they represent environmental interest and community stakeholders and those a lot of times will include representatives, elected officials, the citizenry. We try to go through to make ozone outreach work is [inaudible – audio problem] like today. People are learning about ozone and it makes it easy to talk intelligently about how ozone works and how the outreach can be effective. And what Guy said is important. I mean, if you want to be part of ozone planning in a state environment, especially here in Missouri, just ask questions, show up at a meeting, be there and talk to folks.

(Next slide – “Outreach Timing”) And I tell people this all the time. There's no such time as a stupid question, so don't be afraid to ask any questions. If you don't understand how ozone works, if you don't understand how biogenics impact what's going on, if you don't understand how “ozone transport” from Texas impacts Missouri or from Missouri impacts Chicago, be sure to ask those questions. That's a critical piece to understanding how this [inaudible] and all that we deal with in ozone happens every day.

So one of the things about timing of the outreach is how we do outreach and one of the things that is extremely critical is having early discussion. You know, we made a point during the 2008 Ozone Designation went to four different communities and had a series of meetings, three different meetings at each [inaudible] to talk about how ozone designations work, Amy went over that, to talk about what some of the potential outcomes are going to be. And it's not just that initial meeting. It is that initial meeting, but ongoing participation is extraordinarily critical as well and the one thing that is part of the SIP process that Guy didn't hit too much was that we're required to get public input. States are required to get comments from the citizenry and interested stakeholders as part of the overall SIP development process. And so that's a critical piece. I mean, citizenry and the investor community and environmental community have a say in what we do. It's just how big a say. And the more involved you are, the more you can have a bigger say and that's critical for everybody to understand.

One of the ways that we've done outreach is also, we have our industrial partners go out and do reviews of some of the work that we've done including developing an inventory where, well, each individual company develops an inventory and the state compiles those inventories into a large scale inventory that's used in terms of SIP development.

The question everybody always asks me every time I talk about ozone is, "Well, what are we going to be required to do? How much is it going to cost me? What are some of the things that we're going to be mandated under the Clean Air Act to perform and to accomplish?"

(Next slide – "Emission Control Decisions") And Guy went over some of those and the slide will come up here in a minute. There it is. With St. Louis is a moderate area, so that's where we have a lot of expertise here. But RFP, Reasonable Further Progress, [inaudible]. Areas that were designated moderate and above were required to get 15 percent reduction on their VOC emissions from 1990 levels. What does that mean? It means that everybody had to do a little something basically. The bigger one that we spent a lot of time on is RACT and Reasonably Available Control Technology. And Guy talked about those too. This is a program for major industrial sources. And the problem with defining what a major industrial source is it changes by region. The bigger sources, you know, 250 tons or greater are major sources. In a moderate area, 100 tons, in a marginal area, 100 tons are major sources, 100 tons a year of emissions. Fifty tons or more of emissions are greater in a serious area. So as the designation gets worse, the large source definition gets smaller. So if you're designated marginal,

you're looking at 100 tons. If you're designated serious, you're only going to get 50 tons. And so it depends on what area you're in and what the requirements are going to be. That's the bottom line.

The last one is in my mind the most important. It's called the Attainment Demonstration and when EPA talks about how does a state demonstrate attainment, how do we show that we're doing the right things in terms of controls, that's where all the rubber hits the road literally and figuratively. States are required to go through a process using a computer simulation that demonstrates that not only the federal controls that were put in place, the local controls that are put in place, controls that meet these requirements we just talked about – all those things will demonstrate attainment of the Air Quality Standard by the attainment date. And that's really and that piece of it is really the most critical component is being able to demonstrate attaining the Standard.

(Next slide – “Emission Control Decisions”) In Missouri, we spent a lot of time talking about how much bang you get for your dollar. The State of Missouri statutorily required, and a lot of states are – I mean, I think most of the states are collaboratively required to go through an exercise to demonstrate attainment and make sure people are breathing clean air. We have a statutory requirement that allows us, I'll say, to consider the cost of control on affected industry, affected communities, and so the piece of the puzzle that sometimes doesn't get a lot of talk about is how do states evaluate the cost of control? At the bottom of that slide you're looking at you can see – or you'll be looking at in a second when it comes up – there's going to be a picture of Kansas City, Missouri. You'll see a picture of, you'll sort of see the stark difference. You know, it's a before and after shot. You may be able to see it.

#### Josh Tapp

Hey, Jeff. This is Josh. We're having just a few more minutes left before we need to get on to the next one.

#### Jeff Bennett

Okay, got a couple more left. All right, Josh are you able to see that slide I was just talking about? Okay, so you are looking at it. So the bottom line is we want to make sure that you people are breathing clean air and the construct is when do an evaluation, we're looking for the costs, the total cost of control on the community, on the industry that we're dealing with. And the one thing I want to tell folks about outreach and how we do business is, you know, we do take a lot of input from the community and we take

a lot of input from specific sources and we'll listen to that input. All viewpoints are expressed and considered and that's one of the things that helps in the overall process when we go to do this, to have different viewpoints, to have different understanding and have a comprehensive evaluation.

(Next slide – “Outreach Challenges”) The next slide and the one thing – I've got a picture of a guy lifting weights and sometimes it feels like when you're doing outreach, that's all you do is just keep lifting weights, man, just keep trying at it. And it does work, not just from the state agencies and from the local agencies and from stakeholders. It requires a consistent effort from all three all the way through the process.

One of the things that we talked about a minute ago is how do you answer these very difficult questions? You know, how much control do I need to do? How many dollars do I have to spend to be able to get my area, to get my source in compliance with the Ozone Standard? And if I knew those answers, we wouldn't be talking today, we'd just go out and solve the problem and we wouldn't have to worry about having input, we'd just go out and do it. And the EPA would do the same thing. And so the fact is that those are the difficult questions and people need to understand that when we work through that process and you learn about what your area looks like and what your requirements are going to be, that's how you get to the point where you can [inaudible – audio problem].

Many times you have people come in from the outside and say, “Well, we don't like what you did.” Well, they don't understand what we did, but they come out and say, “Well, we don't, we think you should have done this.” Well, maybe we thought about doing that and it's easy to be the armchair quarterback, the Monday morning quarterback.

And in a second you'll see my contact information and the website you'll see on that slide is a summary or a series of links to the ozone designation process that we went through in 2008 here in Missouri. And to give you an idea about the presentations we gave today, the technical information and to look at the outreach effort that we tried to do there in 2008. And that's all I got.

(Next slide – Contact Information)

Josh Tapp

Okay, thanks Jeff. That was an interesting perspective from a state that has had a lot of experience in dealing with ozone, air quality problem issues and the planning.

(Next slide – “Co-Benefits of Improving Air Quality”) We will have some time here at the end for some questions and answers and also respect the time of the folks that are logged on to the webcast. So next on the agenda is our last combined presentation entitled, “Co-Benefits of Improving Air Quality.” First up in that presentation is Neelam Patel and Neelam is an Environmental Scientist at EPA’s Office of Air and Radiation in Washington, D.C. Neelam has been with EPA for more than six years and has had experience across the agency ranging from oceans and coastal protection, enforcement and compliance, and intergovernmental relation at the territorial, local, tribal and international level. So Neelam, the floor is yours.

Neelam Patel ~ Co-Benefits of Improving Air Quality

Thank you. What I’m going to do today is provide a brief introduction to co-benefits of improving air quality. We heard Guy and Jeff talk about the ozone specific approaches to dealing with work that communities can do. And I’d just like to take time to introduce some of the co-benefits from taking action to reduce ozone in your communities and as I’m going through these co-benefits, it would be great if you could think back to some of the outreach that Jeff was talking about and also keep in mind that Carrie Reese from the North Central Texas COG, excuse me, Council of Government. My coworker, Robyn Kenney and I who have put this presentation together [inaudible – audio problem] ... to think through this perspective that have limited resources and would like to achieve a diverse set of goals that can relate to sustainability, energy conservation or public health.

(Next slide – “Co-Benefits of Improving Air Quality”) And as you can see, by thinking through co-benefits, you can not only attain air quality improvement, especially ozone that we’re talking about today, but also other air quality benefits for reducing VOCs and PMs. And as you’re doing these types of actions, you have the opportunity to reduce greenhouse gas emissions, improve your energy security, provide economic growth in your communities and also get into live opportunities to assess ozone that Guy talked about earlier.

(Next slide – “Opportunities to Address Ozone and GHG Emissions”) And the main message I would like you to take away from this slide as you hear what Carrie will discuss is that there are many different actions that you can take at the community level that can not only help support getting into attainment for ozone and other criteria air

pollutants, but also help you reduce greenhouse gas emissions. And on the second webinar in this series, we'll take more time to go through some of these solutions for mobile sources, stationary sources and area resources from a [inaudible] perspective.

(Next slide – “Chicago’s Anti-Idling Programs”) One example I’d like to go through with you talks about how you can actually implement at the community level policies that can help reduce ozone and other criteria air pollutants while reducing greenhouse gas emissions. And the example we’ve pulled out for you is from the city of Chicago, their anti-idling program. And so they have two main programs and one is doing it internally that deals with only the city fleet and this is [inaudible] message. And so by taking action on anti-idling programs both at the municipal level and leading by example, other vehicles that are emitting [inaudible – audio cut out]

(Next slide – “Quantifying Emission Reductions and Co-Benefits of Anti-Idling Programs”)

(Next slide – “Example: Estimated Benefits for On-Road Heavy Duty Trucks)

[ Continued audio problem] ... use those factors to help make the point that looking at co-benefits can help your communities in many different ways. What we’ve done is taken a look at the truck traffic along I-35 at the US-85 intersection which is just in north Texas. And a 2007 study showed that about 24,000 trucks pass through I-35 per day. And so what we’ve done is estimated that if 8,000 trucks were at a truck stop and idling through the night for six hours, if you put in a policy to reduce the idling time to one hour, then using the factors that were on the previous slide, you could actually reduce 5.9 tons of NOx and reduce the amount of greenhouse gas, excuse me, carbon dioxide emissions by 445 tons per day. And then translating that to – we’ll just go straight down to the costs. I mean, you’re able to save gas definitely and the costs that are saved per day is close to \$100,000 in terms of fuel costs that can be saved per day. This is just to give you an example of what the benefits, what the advantages of looking at co-benefits? You’re able to sell programs based on cost savings in addition to helping areas be closer to complying with clean air regulations.

(Next slide – “Process & Tools for Estimating Co-Benefits) So on this slide, what we’ve done is laid out a process for estimating co-benefits. And in the second webinar, we’ll will take more time to go through other types of co-benefits that you can quantify and help make a case at the local level for moving these programs forward. Because not only can they help with putting you in compliance for the Clean Air Act, but also help with other types of benefits.

(Next slide – Contact Information) My contact information and Robyn Kenney’s contact information is on this slide and we’ll be able to answer any questions. And like I said, Carrie Reese will be talking about more examples. Thank you.

Josh Tapp

Thanks, Neelam. Good job on your presentation.

(Next slide – “Drivers and Opportunities for Improving Air Quality and Reducing Greenhouse Gasses” ) The last presentation that is up is entitled, “Co-Benefits to [inaudible – audio cut out].” And Carrie Reese is going to give this presentation from [inaudible – audio skipped] ... Texas, the Dallas-Fort Worth area. Carrie has been on staff there for ten years and in her current position works with local governments, state and federal partners and other stakeholders to identify and develop innovative transportation policies and programs that reduce the emissions and improve air quality in the north central Texas region. Carrie, the floor is yours.

Carrie Reese ~ Drivers and Opportunities for Improving Air Quality and Reducing Greenhouse Gases

Thank you very much. I think I’ve been invited here today to give a little bit of a local perspective on involvement in SIP development. As was mentioned, we are the metropolitan planning organization for Dallas-Fort Worth area. And we’ve been involved for quite awhile now in working to reduce emissions and improve air quality. And some of the reason for that, of course, as we’re talking today is compliance with the National Ambient Air Quality Standards and we’ve been out of attainment for the Ozone Standard since the 1990 Clean Air Act.

(Next slide – “Drivers and Opportunities”) We’ve grown from four counties to nine counties that were [inaudible] and that’s shown on the map here. And we’re even expecting perhaps another county or two may come online when we actually find out what the new Standard will be later this summer or early this fall. So we’ve been working diligently to try to reduce ozone precursor emissions as well as stay in attainment for other [inaudible]. We’ve been kind of on the threshold for particulate matter in the past years as well as some of the new [inaudible] that are coming down. Since ’95, we’ve been involved with the Department of Energy Clean Cities Program and we house the DFW Clean Cities Technical Coalition here at the COG and so we’ve adopted in that goal to reduce energy use which has been complimentary efforts primarily for reducing ozone. But as we start to look more and more into integrating

climate change into our transportation planning, that's becoming more and more prevalent. And of course, additional goals are to protect public health and to improve quality of life.

[Inaudible – audio cut out/skipping] ... used over the past years [inaudible] use of advanced technologies, alternative fuels, enforcing environmental regulations and then also education and outreach to help change behaviors and attitudes.

(Next slide – “System Improvements”) As you heard Guy talk about in his presentation, development of the SIP is primarily the responsibility of the state. However, in north central Texas, we want to have a voice and we want to be at the table. And we do convene a North Texas Clean Air Steering Committee ad hoc when necessary for SIP development and that's comprised of county and city officials here in the region as well as business interests and environmental interests and it gives us a chance to come to the table and work with the TCQ which is our state environmental agency to provide comment on some of the measures that especially will come down on the state level. You know, they have the main [inaudible] and so they are usually response for implementing those roles. So we want to have the opportunity to comment. At the same time though, being an MPO and also having on-road and non-road mobile emission is the primary source of our precursor [inaudible], we're able to offer up strategies to go into either the transportation controls measure portion of the SIP or into the voluntary section, the measures that our region can commit to do our part and help reduce emissions.

And so the slide here is a traditional transportation system improvements that we're all familiar with that we tend to do regardless of air quality problems, just for congestion mitigation or travel management. And for the first, I'd say, ten years, this was primarily our involvement in the SIP. And I won't go into this and that, but really wanted to talk about where we're kind of going from there. And as our region continues to grow and resources become more scarce and air quality and climate change concerns become greater, we're also having to kind of rethink the way we do our transportation planning. And I was asked to put a little bit of a [inaudible] on our sustainable development program into this presentation, and this is one that's had a lot of political backing in our area, that's a street thinking land use and transportation, and how we can utilize our existing system without continuing to sprawl.

(Next slide – “Sustainable Development”) We're a very large region up here. How we can then promote mixed use and rails. And we've got a program that since 2000, our

Regional Transportation Council has funded a number of infrastructure and planning projects and a few land [inaudible] projects. And it [inaudible] the project and I think they even got about \$120 million into it at this point. And we've been able to fund transportation improvement in these public/private partnerships between the local jurisdictions and the developers.

(Next slide – “Non-System Improvements”) In addition, over the last probably four or five years, we started to really branch out into non-system improvements. We have to look further and further at things that we can do here in our region and a lot of these will be technology projects, enforcement projects and education projects. And our role is really to talk with our partners and stakeholders in our jurisdictions and areas and identify needs and opportunities. We've got our own ideas, but we're not a regulatory agency and everything's done on a voluntary basis. We really have to get some buy-in from the people that will be having to carry this out and when they sometimes think we know what they want to do, but we've learned more and more over the years as we just have more and more contact with them, we're a little more in tune with what their ideas and what their interests are and where they're wanting to go. And if we can align financial resources or grant programs or whatever else with that we're much more successful. [Inaudible – audio cut out] ... just looking for guidance. As I mentioned, we spend a lot of our time trying to bring resources to the region for grant programs. We do have some enforcement programs and then we also have some education and outreach programs.

And I'm going to go very quickly through the next few sets of slides. It's a little bit of an inventory of some of the programs that we have here and I know we're getting very close on time and so I'd like to have questions. But we also have on the bottom of each of the slides, we have contact information and websites that will help you get more information if you want to.

(Next slide – “Clean Fleet Vehicle Policy”) So one of the things that we started doing are implement policies, I guess. They've adopted resolutions that basically kind of coincide with a clean fleet policy that they've encouraged local governments to adopt that was really kind of vague in addressing acquisitions, operations and maintenance. We've had 99 cities, counties, school districts, special districts. What's been interesting about this though is that our Transportation Council, they required it to be mandatory adoption if you're wanting to seek clean vehicle funding from the Council Government. But they've also started using a little bit quid pro quo when looking at traditional transportation funding and applying it to [inaudible – audio cut out] ... models as set

forth by our state that says 25 cities and counties adopted to date and the Council of Governments were able to come in on that to provide resources to our local governments to help and implement this. We've got signs on hand that we've developed that are free of charge to [inaudible] and then of course our website.

(Next slide – “Heavy Duty Idle Restriction”)

(Next slide – “Public Construction Policy”) The third policy item we're looking at right now is clean construction on public works and understanding what the implications might be financially and then administratively, those being public government and the construction industry if they were to put in clean construction [inaudible] requiring better on their public works projects and that will be going on for the next year.

(Next slide – “Clean Vehicle Program”) As I mentioned, we do have a lot of technology programs. We know we can't turn over every vehicle, but it may be we can bring in some capital to help an entity whether they be private or public get over an initial capital hurdle and be able to implement something, or allow somebody an opportunity they might not have had otherwise to try new technology or fuel. And ideally I guess it's kind of like [inaudible] that hopefully we can help [inaudible – audio cut out] ... help everybody, you know, implement. Sometimes up front, more cost prohibitive projects, especially as the economy [inaudible]. And over the years, we've used federal, state, local and private funding. We've had calls for heavy duty and light duty vehicles, sometimes it's dependent on if we're going to target a fleet or not. Sometimes it's open to basically the world of vehicles. We've done, not focused in the past, but we also do multi pollutant consideration. We do all quantification and sometimes that can be the deciding factor if all other benefits are equal.

(Next slide – “Texas Emissions Reduction Plan (TERP) Partnership”) We have grants to do diesel projects in our area [inaudible] and with us being able to bring in some money into the DFW area, we can help align certain funding opportunities with other programs that we have going on. And as you can kind of see on a fleet focus, you've already heard me talk about construction and idle reduction.

Of course, we've got a Clean School Bus Program that we've worked quite a bit with EPA and the Blue Skyways Collaborative on putting in clean air projects. Again, not focused that multi fleet consideration and we have done a lot of replacements and repowers and some retrofits.

(Next slide – “Clean School Bus Program”)

Idle reduction programs – once again, we’ve just brought in funding to help support on site and on board idle reduction activities. (Next slide – “Idle Reduction Program”) If we’ve got a restriction in that’s kind of [inaudible] we also like to try to bring in the [inaudible] in an opportunity to assess industry and making up grades. They need to be able to comply with that.

(Next slide – “Clean Regulated Fleets”) We have an opportunity where we’ve been working with our taxis and limousines on a Green & Go program, basically promoting the use of cleaner vehicles compared to [inaudible]. We had a couple of projects that were open back in ’08 and we’ve currently got one open right now. We’ve also worked with getting additional non-financial incentives at our airports and then we’ve also worked on an extensive marketing campaign as a way for them to help advertise their business of being a green business.

(Next slide – “Electric Vehicles North TX”) And then our most recent initiative is working to prepare the region for the transition to electric vehicles and we’ve been holding meetings through 2009 with utility companies, government, businesses and the [inaudible] industry, both manufacturers and vehicles and infrastructure, to try to develop a plan on how we can get the charging stations in place as the vehicles will start to be launched at the end of the year and we’ve got about 86 folks working with us on that. So it’s been really successful so far.

(Next slide – “Recovery Act: EPA”) I won’t go through this. We did receive from the Recovery Act, from EPA, what our industry, [inaudible] an industry we have trouble working with, a lot of our other funding sources can be geographically limited. But this allowed us to do a lot of [inaudible] and [inaudible] type technologies on delivery trucks and long haul trucks that would come through the north Texas region.

(Next slide – “Recovery Act: DOE”) We did receive some money from the Department of Energy and what was good about this one is that it is allowing us take, I guess, a really good bite at the alternative fuel infrastructure which is something that we’ve also found limited funds for. And so we’re able to do quite a few different refueling and recharging stations in the region with this award.

(Next slide – “Recovery Act: SECO”) And then we also received money from our State Conservation Office that will implement more infrastructure projects.

Josh Tapp

Hey, Carrie, this is Josh. The information you're going through is great. I'm sorry, but is there just maybe one or two more slides you could go through so we can move to the questions and answers?

### Carrie Reese

That's fine. Collaborative programs, work with your state and federal partners.

The next couple of slides, if you're interested, are on our vehicle assistance program, our smoking vehicle program as well as our enforcement program where we've been working with local police departments on the [inaudible] and those stations that are performing those improper inspections as well as they're branching out into helping to enforce truck lane restrictions and anti-idling restrictions. And I'm talking faster than my slide. But they'll be available later.

(Next slide – “Collaborative Programs”)

(Next slide – “Enforcement Program”)

(Next slide – “Education Programs”) And then of course education. That was what I was going to sum up with, that key to anything you do is making sure everybody understands what the issue is and why we all need to be involved and what opportunities there are. And so I guess I can finish with that.

### Josh Tapp

Okay, Carrie. I very much appreciate your presentation and a lot of interesting, on the ground advice and experience there that I think we can all rely on. We'll make sure that your contact information and your presentation is available in its entirety on the Blue Skyways website so that others can go back and refer to it.

(Next slide – “Questions & Answers”) Now, I apologize to all that attended. We wanted to make sure that we gave you a great presentation and introduction, but as you can see when you start talking about ozone there are so many things to talk about and we were challenged to try and get all that done in an hour. But what I wanted to do was to leave 15 minutes of live questions and answers at the end so that you could get some benefit from that. And just a reminder for those questions that we couldn't get to, we will be making sure that we develop a Q&A document that we can provide out to the folks that were registered to attend this webinar.

What I would like to ask is, right now is basically our deadline. I understand we can go for 15 more minutes on this webinar and I would ask each of our presenters if they could make themselves available for an extra 15 minutes here so we can tackle three or four or five of the questions that we've gotten in here and then save the rest of those questions for the Q&A document. Is there anybody that was a presenter here today that cannot stay for an extra 15 minutes? Okay, great.

So for folks that can stay that are calling in, it's still not too late to send in your questions through the webinar dashboard. At this point, I think we the questions picked out that we're going to respond to, but we won't mention your questions, we'll just include those in the Q&A document that we plan to finish up a little bit later.

So what I'd like to do now is to go over – we have about five questions here, and they're directed to individuals that made presentations during this webinar and see if we can provide brief answers to these questions and then maybe if we need to, depending on the level of detail that's required, maybe supplement those in [inaudible]. The first one is directed at Susan Stone. Susan, are you still on the line?

Susan Stone

Yes, I am.

#### *Q&A Session*

Q: Okay. And the question for you, Susan, is, if ozone levels are declining nationwide, why are lung problems increasing?

A: (Susan Stone) Well, we have never – and there's a similar form of that question about, if ozone levels and other pollution levels are decreasing, why are aspirates going up? And that's because what we're saying is we aren't really saying that ozone causes asthma, but it can exacerbate asthma.

Q: Okay, thanks. Susan, do you think that there is some additional information that you can provide in a written answer to that question?

A: Sure.

Q: We'll move forward with that then. The second question that we've got, and again we're looking for questions that have broad applicability, is for Guy Donaldson. Guy, are you on?

A: (Guy Donaldson) Yeah, I'm still here.

Q: Okay, thanks. Your question and it's directed to you is, how are classifications for nonattainment areas determined?

A: (Guy Donaldson) And the answer is we don't know exactly yet. Classifications are based on the amount an area is above the Standard. When we had the old one hour standard, that was set, the ranges of concentration for each of the classifications was set in the Clean Air Act. EPA has to come out with an Implementation Rule that will describe those ranges, what will constitute a marginal area and what will constitute a moderate area, the range of pollutants. But the main thing to remember is the higher the concentration, the higher the classification. And you'll see the Implementation Rule, we plan to [inaudible] and we go final with that when the designations are completed. And so when we come out with designations for an area, we'll also have the classifications – marginal, moderate, serious, severe, extreme.

Q: Thank you, Guy. Again, we're not having verbal interaction here, so if you feel like we're not answering your question correctly or you have follow up questions, feel free to submit that via the dashboard and we'll follow up. The next question is for Neelam. Neelam, are you still on?

A: (Neelam Patel) Yes, I am.

Q: Okay. And the question directed to you is, what are the effective control or strategies for rural areas?

A: (Neelam Patel) So on the list that I had in the presentation, unfortunately, I didn't spend time going through all of those bullets. But for rural areas, especially agricultural areas, there's an opportunity to retrofit or modernize the type of equipment that is used in agricultural communities. And then also some of the stationary source solutions that we discussed that are effective in urban areas can also be effective in rural areas. The only difference is that there might be a lesser impact than reducing ozone because of the population difference. So examples of stationary source solutions that can be used in both which include the type of roofs that are used, installing energy efficiency lighting, and even coming down to the type of water heaters that are used. So that applies to multiple, to many different diverse communities. And actually, if Robyn Kenney has anything more to add or if Jeff from Missouri, they would also have good ideas, if you have time.

Q: Okay, Robyn or Jeff, do you want to respond in part to that question?

A: (Robyn Kenney) Hi, this is Robyn. No, I think Neelam summed it up in terms of there are some rural opportunities and a lot of the opportunities that are on those slides apply both to urban and rural areas.

Q: Jeff, anything else to add?

A: (Jeff Bennett) No, that's right. The fact is that there's not as many sources in the rural areas and so it's sort of a needle in a haystack kind of thing. Maybe you find a very large source that needs some control that otherwise you wouldn't and that's why ozone is specific to each area. That's an important concept. You have to understand that it's not just rural versus urban. It's the concept of all three pieces together like we talked about.

Q: I'm just the host here, but I'll try to do my best to answer these questions and any of the panelists that presented today are welcome to jump into this. On the first question is, what is the estimated background ozone concentration assuming no human activity?

(Josh Tapp also answers) And my response to this is a little bit general in that it's generally done on a case by case basis and looks at a number of things including the geographic location, the proximity of local sources and their impacts on any monitors in the area, what the perceived interstate transport impacts are on a particular ozone monitor, and the perceived local impact. And so specifically what we've done in trying to establish background concentration monitors with states is to look at those factors and probably a couple of others in trying to figure out which one of these provides us with the best background concentration that is [inaudible] a specific area. We enter into these discussions all the time and try to sort through questions you have [inaudible] the preponderance of the evidence would lead to one answer versus the other. So if whoever asked that question wants to follow up with me independently, we can certainly have more of a discussion on that issue with regard to the particular area they're interested in.

Q: The second question that I got is, is there any county in the nation that has a monitor showing nonattainment that is designated attainment or unclassifiable and I assume this is with regard to the Ozone Standard?

(Josh Tapp also answers) And I would say that the answer is recognizing that we're kind of getting ready to go through a new round of nonattainment designations, my anticipation would be that there would be none, or maybe just a limited number. And kind of going back to Amy's statement that the unclassifiable designation relates to a limited number of areas where there would be insufficient monitoring data to make the call about whether an area is in

attainment or nonattainment. And so for example, if you know that the Ozone Standard is based on three years of data collected at a given monitor, if you had a monitor that was only collecting two years worth of data because it was so new and had yet to collect third year data, that might be a reason to designate that area as unclassifiable. However, [inaudible] monitors or monitors that you worried about the results of the data or the accuracy of the data typically don't play into a decision about whether an area is unclassifiable or nonattainment. If the monitor says nonattainment, then typically the agency would move forward with the state in designating a nonattainment area.

So those are five Q's and A's that we were able to take in the next 10 or 15 minutes and again, this doesn't have to be over with yet. I would encourage you to continue to submit your questions and answers. We'll consolidate all of those into one document and return those out to the group for your review. I'd like to thank you for attending the Blue Skyways webcast entitled "Ozone 101." But I'd also like to thank our presenters today for making the time to share their expertise with us.

Again, should you wish to review these presentations or share them with others who were unable to attend today, you can find them at [www.blueskyways.org](http://www.blueskyways.org) and this concludes our webcast. Thank you.

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