

TREASURE VALLEY AIR QUALITY COUNCIL

MEETING MINUTES

February 22, 2006

The Treasure Valley Air Quality Council (“Council”) convened at 1:35 p.m. on February 22, 2006, at the Ada County Courthouse, 200 W. Front Street, Boise, Idaho.

Council members present:

Matt Beebe, Chairman, Canyon County Board of Commissioners
Tammy DeWeerd, Mayor, City of Meridian (via telephone)
William Eddie, Advocates for the West
Beth Elroy, Micron Technology
John McCreedy, Amalgamated Sugar Company
Garret Nancolas, Mayor, City of Caldwell
Pete O’Neill, O’Neill Enterprises, Council Chairman
Alan Prouty, J. R. Simplot Company
Dr. Dale Stephenson, Boise State University
Rick Yzaguirre, Chairman, Ada County Board of Commissioners

Council members absent:

Michael Gifford, Associated General Contractors
Gary Multanen, Best Bath Systems
Rick Stott, Agri Beef Company
Graye Wolfe, Wolfe Ranches

Department of Environmental Quality (“DEQ”) staff present:

Mary Anderson, Monitoring, Modeling, and Emission Inventory Program, State
Air Quality Division
Leonard Herr, Boise Regional Office, Airshed Program
June Hues, Boise Regional Office, Airshed Manager
Michael R. McGown, Administrator, Boise Regional Office
Chris Ramsdell, Monitoring, Modeling, and Emission Inventory Program, State
Air Quality Division
Faye Weber, Assistant to the Administrator and Recorder, Boise Regional Office
Robert Wilkosz, Mobile and Area Source Air Manager, State Air Quality Division

Others Present:

Beth Baird, Boise City
Phil Bandy, Idaho State Department of Agriculture
Claudia Haynes, Citizen Canyon County
Charles Johnson, Citizen Canyon County
Scott Peyron, Scott Peyron & Associates, Inc.
Alan Shealy, City of Boise
Citizen not signed in

NOTE: All attachments referenced in these minutes are available on the Council’s Web site at: <http://air.idaho.gov> or by calling the DEQ Boise Region Office at (208) 373-0550

John McCreedy noted the roll call constituted a quorum.

Chairman Pete O'Neill introduced Dr. Dale Stephenson, the Governor's newest appointment to the TVAQ Council. Dr. Stephenson stated he was glad to be on the Council and hoped to be of service. He provided a brief background of his training and experience. Dr. Stephenson is Director and Associate Professor of the Environmental and Occupational Health Program at Boise State University, College of Health Sciences. He has a Ph.D in environmental health and trained in occupational health specializing in aerosols—air pollutant contaminants at Colorado State. He worked with Los Alamos National Lab for ten years, and then taught at the University of Utah in its public health program for five years.

Approval of January 24, 2006 Meeting Minutes

- **MOTION:** Garret Nancolas moved the Council accept the minutes of the January 24, 2006 meeting as presented.
- SECOND:** William Eddie
- VOICE VOTE:** Motion carried by unanimous voice vote.

Chairman O'Neill thanked DEQ staff for a fine job preparing the minutes and noted the detailed minutes are available to the public on the Council's Web site at:

http://air.idaho.gov/treasure_valley_council/tvc_main.htm

Planned and In-Progress Studies by DEQ

Chairman O'Neill stated the Council would continue with its learning process by hearing a review of the studies currently in progress and what is expected to be learned from those studies.

June Hues, Boise Regional Office, Airshed Manager, reported she was still in the process of reworking the list of historical studies and incorporating feedback from the group. She distributed the "DEQ In-progress and Planned Studies" (Attachment 1). The document lists all DEQ studies in-progress and those planned for the next couple of years that have been approved. The statement of work is included to provide a brief description of the study and the funding source. Ms. Hues briefly reviewed each of the studies and responded to questions from Council members. The list will eventually be incorporated into the existing list of studies. The list includes:

- Ozone Precursor Study
- Travel Demand Management
- Treasure Valley Air Toxics Study
- PM_{2.5} Precursor Study
- Treasure Valley Air Quality Study

Ms. Hues pointed out the Treasure Valley Air Toxics Study is being developed as a "supersite," that will have a lot of different monitoring equipment. It is located near St. Luke's in Meridian, which is a good spot because it is located in a large center of population with many transportation activities in the area. DEQ hopes to collect a lot of data they so far have been unable to grasp. The monitoring period will be January 2007-January 2008, with a report to follow by January 2009.

Ms. Hues reviewed the final and most exciting study on the list, the Treasure Valley Air Quality Study. This study will take all the data from the other studies and the work DEQ is doing on

developing an in-house airshed model or the community multi-scale air quality model (CMAQ), and pull it altogether to provide a detailed picture of the air pollution in the Treasure Valley. Once that information is available, DEQ should be in a good position to find solutions to the problems. This will be the most comprehensive, realistic view of the air quality issues to date. The study will begin December 2007 through 2008, with the final report in May, 2009. The study will cost about \$400,000 and is funded by a Congestion Mitigation Air Quality grant.

She added the Treasure Valley Air Quality Study is also expected to identify what is driving the air pollution problem— is it oxides or nitrogen (NOX) or is it volatile organic compounds (VOC)? Once we identify which one is actually driving the chemical reaction in the Valley, we can determine what kinds of controls should be put in place. The discussion is called “Are we NOX or VOC limited?” A more technical discussion is included in Attachment 1. This is a very important piece of the puzzle, and that important question should be answered with the Treasure Valley Air Quality Study.

Mayor Garret Nancolas asked where the monitoring locations would be for the PM_{2.5} precursor study. Ms. Hues responded, while DEQ has a whole PM_{2.5} monitoring network, for this particular study they will be using the PM_{2.5} monitor at the St. Luke’s “Supersite.” The reason is that site will also have monitors that will monitor all the chemical components that make up PM_{2.5} (aerosol, nitrates, sulfates, ammonia, and carbon compounds—basically, elemental carbon, and organic compounds). Along with the PM_{2.5} ozone monitor, there will also be a meteorological data station. By monitoring it all at once in one location, they can look at what is contributing to the problem.

Chairman O’Neill asked if DEQ expected to learn information from the Treasure Valley Air Quality Study that would change the general direction the Council might take based on what is known today. The Council is charged with making recommendations to the next legislative session. It must establish scientifically where we are today and develop programs to mitigate for that. So the real question is what do we expect to know at the end of these studies that we don’t know today, and how might that change the recommendations that we’re charged with making?

Mr. Hues responded the best answer she could give is that the Treasure Valley Air Quality Study is going to provide a definitive answer to what our problem is. Obviously, actions must be taken prior to having that answer, but we generally know what we are focusing on. We know the control measures that are out there, we know what is happening in other areas, and there is a large laundry list. As a council, looking at the merits of those control measures, you must determine what you feel will or won’t work here locally. The important thing that comes out of this, and as time goes by and we do more studies and get more information, is that list is going to grow and change—but that list is still going to be a big list to consider and choose from.

Mike McGown followed up saying, he thought there was a good understanding of what the problems are, but the PM_{2.5} issue is very complicated. Secondary aerosols are a concern, and in the summer ozone is the problem. Those things form through chemical reactions in the atmosphere, and we do not have a clear understanding of how that chemistry works. These studies will help determine that and let us fine-tune the things we want to go after in that list of control strategies.

Chairman O'Neill thought it was important for the Council to focus its deliberations on moving forward with identifying and developing solutions, and not defer getting started for a year or two because more information will be available.

Alan Prouty agreed the Council should move forward based on the best information available. The Council can lay out a path forward, and revisit the matter in two years to see if we are headed down the right path or if we need to take a step back.

Mr. McGown commented in terms of air quality planning in general, there is always more information to be found. These studies may confirm some of the decisions that are made here by the Council and may recommend that we have to do more. He believed there was no reason to wait until you have all of the information, because you never will.

Dr. Stephenson reported he is currently working on a preliminary study in progress that indirectly involves DEQ. The study is trying to fill a major gap that exists in terms of the health effects experienced during poor air quality events. It is a difficult study to do, with a small research grant. They have taken DEQ data and are working with insurance companies to get health encounter data such as hospital and emergency admissions during periods of poor air quality—winter inversions/summer ozone episodes—to see if there is a correlation similar to studies done in Salt Lake in the Wasatch Front. This is something that needs to be done to find out if there is statistical evidence showing health effects. They are having some difficulty acquiring the data, but that is not uncommon. This preliminary study should have some results by the summer of 2006. They hope to provide more collaborative research in the area of health and effects.

Dr. Stephenson asked if DEQ had information on diesel studies that are planned or are in progress regarding the validation of retrofits and other control mechanisms for diesel fuels. Leonard Herr said he was not aware of anything ongoing right now.

John McCreedy asked who would provide the funding for the Treasure Valley Air Quality Study and if a consultant or a contractor had been selected to perform or implement the study. Ms. Hues said the funding was a CMAQ grant from the federal Department of Transportation, administered by the Idaho Transportation Department. The grant has already been approved, but will not actually be awarded for three years. DEQ will not have the money in hand until fiscal year 2009. A consultant has not been selected because there is no guarantee of the money. The RFPs will not go out until the federal fiscal year starts, probably the fall of 2008.

Mr. McCreedy asked what extent the U.S Department of Transportation, the Idaho Transportation Department, and DEQ would allow this omnibus Treasure Valley Air Quality Study to be part and parcel of the work of the Council. He observed this study seems to be a core element of the items the Council is required to complete, either before or after a plan is drafted, but set by statute.

June Hues thought after the consultant completed the study, it would have to be reviewed to determine the best action. She believed the work the Council is doing would provide the guidance to answer the questions.

Mike McGown commented on funding issues in general and what might be available through federal transportation funds and other grants. EPA money is being cut short on a number of

things, so DEQ is looking at some specific studies and using the transportation money to fill in the gaps. Because of the federal budget issues facing everyone, until that money is actually awarded, there is still a risk for having some of those projects cut out.

Ms. Hues added that DEQ has put in a request for \$500,000 to assist the community in implementing phase one vapor recovery throughout the valley. The Council will hear a report from Russ Hendricks later about the E10 fuel bill. Part of that E10 bill contains language requiring stage one vapor recovery in order to sell E10 fuel during the summer. The grant was requested to offset some of the costs of having to retrofit fuel tanks.

William Eddie commented the 2000 Treasure Valley Secondary Aerosol Study seems to be definitive in its conclusions that VOCs are driving the PM_{2.5} problem. He asked if DEQ thought the study was too limited. Mr. McGown replied he was not certain of the conclusion, but believed the secondary aerosol study did identify VOCs, and there was some need to look at that further to verify the finding that VOCs were the issue in the winter time. Modeling is being developed to use as a tool in addition to monitoring studies to help determine the VOC versus the NOX issue.

Dr. Stephenson pointed out that while the ozone precursor study which will be done this summer is needed to gain new information on a local level, the actual scientific findings already exist from studies done in other locations. The findings have to be proven in our local, unique geographic area, but information from other studies and models can be used to form a basis. So we can begin to implement things without having to wait three or four years until we have our unique findings, because we know the possible answers based on models and other studies. Ms. Hues agreed there is information out there, and that is how they intend to proceed. Information and control strategies are being compiled and refined for the Council's consideration.

Beth Elroy suggested the Council look outside of DEQ at other studies being done by Boise State University, the Clean Cities Coalition, COMPASS, and the Environmental Common Sense Taskforce. She felt it was important not to just focus on DEQ information, but to get a big picture of all past, ongoing and planned studies. She recommended the issue be included as a future agenda item.

Chairman O'Neill felt this was an excellent suggestion and visualized the Interim Drafting Subcommittee considering all data combined from all available sources to get the broadest view. Ms. Hues assured the Council that DEQ staff is trying to gather as much information as possible from outside entities and will continue to search for more.

Chairman O'Neill emphasized the need to ensure that the recommendations of the Council are based on the best scientific information available at the time. The Council must be able to demonstrate that to the public.

Discussion on Outreach Program and Selection of Consultant

Chairman O'Neill presented a report on behalf of the Selection Subcommittee (Chairman O'Neill, Commissioner Beebe, Rick Stott, and Gary Multanen) that was appointed to select a consultant to head up the public outreach program. A request for proposals was issued in late December and several proposals were received. The Subcommittee interviewed three applicants and after considering their presentations, selected Scott Peyron & Associates. Chairman O'Neill

and the Subcommittee divided the assignment into two phases: phase one is the creation of the citizen advisory committee, its functions, and the public hearing process; phase two is the public outreach component. A lot of work can be done in phase one without additional funding, but little can be accomplished in phase two until the Council can raise some money.

Chairman O'Neill provided an update on fund raising activities by Graye Wolfe and other members who volunteered to seek funding from private sources to develop a working capital base. They hope to raise about \$50,000 in a relatively short period of time and are working on a proposal to approach some of the members of JFAC to request a match of that amount in a line item grant to DEQ. This is all still very prospective, and that is why the public outreach effort was broken into two phases—so dollars are not committed until they are in hand.

Chairman O'Neill cautioned that the Council must not get ahead of itself in terms of the public outreach portion. Fund raising efforts need to be brought up to speed. He has checked to make sure the Council is spending funds appropriately and does not get caught in the bureaucracy of spending state money without the auspices of the Department of Administration and other such issues that enter that picture.

Chairman O'Neill introduced Scott Peyron and asked him to give a short presentation on his organization and its public outreach strategy. He suggested a Public Outreach Subcommittee be created to work with the consultant.

Scott Peyron thanked Chairman O'Neill for inviting them as volunteer staff support to the Council until the contract is official. He distributed an information sheet about his firm and briefly discussed its background. Scott Peyron & Associates is the largest public relations firm in Idaho, with extensive experience in public policy. They look forward to helping the Council sensitize the public and various constituencies about the economic development implications of nonattainment.

Mr. Peyron presented the Treasure Valley Air Quality Council Public Outreach Plan and reviewed each of the elements: Public Outreach Overall Strategy, Citizen's Committee, and Public Hearing Process (see Attachment 2). During the phase one public outreach component, they plan to:

- Raise awareness of air quality concerns.
- Develop a mission statement with a message matrix.
- Monitor and participate as needed in any meetings.
- Present the Council's agenda to the editorial boards of the Treasure Valley daily newspapers, and develop effective media relations to tell the story of the scientific work to establish exactly where we are and where we need to go.
- Prepare briefings with the county commissioners.
- Build and manage a web-based citizen input channel to get all information to the citizens and get their perspective on air quality in the Treasure Valley.
- Provide counsel regarding the citizen's committee and related responsibilities. Make sure that any recommendations match up well with the legislation in terms of deliverables.
- Create a hotline-type mailbox and prepare a call for citizen interest in the committee and related news release and media relations around that call for involvement from the public.
- Assist with the public hearing process—set up editorial board presentations to describe the public hearing process, answer any questions the media will have and probably do a media tour of the TV and news radio stations. Produce the collateral material as needed:

brochures, flyers, to make sure there is full public dissemination of the public hearings, and there's an invitation to all to participate.

John McCreedy mentioned as part of the fundraising effort, a list of businesses and entities was developed and a letter was sent out. He welcomed Mr. Peyron to contribute his thoughts on that list and any additional business entities that should receive the letter. Mr. Peyron said he would be happy to review the list and work with Council members on fundraising efforts such as writing grant proposals and talking to other organizations to help with funding for the important work of this Council.

Chairman O'Neill discussed the process to create the citizen's committee. There seem to be two schools of thought on how it should be formed: one is to open it to everyone who wants to be on the committee, and the other is to have proactive involvement to make sure that all stakeholders are included. Perhaps do some hand selection and then explode it to anyone who wants to participate. He felt subcommittees should be created to work on these special issues and asked members to give some thought as to which issue they would like to participate in.

Presentations on Emission Inventory, Transportation and Airshed Modeling

Chris Ramsdell, Emission Inventory Coordinator for DEQ, presented an overview explaining emission inventories, their history, EPA requirements, and current data collection methods (Attachment 3). An emission inventory is a comprehensive listing by source of the different air pollutants in a specified geographic area over a given time. He summarized by saying emission inventories are the foundation of everything in the Air Quality Program. The permitting, the modeling, anything that goes into any of these things, has to have the best emission inventory possible, and that requires the cooperation of the facilities, the federal highways, COMPASS, and other such entities.

In response to Council questions regarding concerns that recent studies did not have the level of detail of the 1999 inventory for the Treasure Valley PM₁₀ Maintenance Plan, Mr. Ramsdell explained it was done for a SIP maintenance plan, where the state and federal rules allow DEQ to ask for better, more detailed data. Dr. Stephenson asked how accurate the latest SIP inventory was and how they validated what had been reported per point source or conglomeration of point sources, and if the politics of market trading play into the accuracy or concerns of accuracy of the inventory. Mr. Ramsdell stated the accuracy of this 1999 Environ-derived inventory is probably the best ever done in the Treasure Valley. The quality assurance and methodology were very closely reviewed. The inventory did not address any emission trading issues. If a trading program for nonattainment purposes is ever created in the Treasure Valley, such a detailed inventory with unquestionable accuracy would have to be developed.

William Eddie asked about gaps in data caused by sources that are not required to report because of their size or other reasons, where DEQ simply applied emission factors without verifying actual information from the operations, and how significant that source of information is in the overall report. Mr. Ramsdell replied the point source survey and getting the actuals from the facilities is obviously the most accurate way to get such information; however, DEQ is limited by stringency laws in Idaho that require the state to be no more stringent than federal requirements. The federal consolidated emission reporting rule (CERR) requires facilities who emit 100 tons per year of actuals to report—that is not the potential to emit 100 tons, but actual emissions. That requirement may be changed in 2008 to require any facility with the potential to

emit 100 tons to send in their emission inventory. So, if a facility only emits 90 tons of PM₁₀ per year, they don't have to submit the information, and the survey data is inaccurate. DEQ tries to estimate the information by looking at the industry's census data such as the amount of coal bought to run through its facility. It is not nearly as accurate, but they are still included as area sources.

Commissioner Yzaguirre was concerned that the Council was being asked to make recommendations on air quality for the future based on information from 1999. He asked how valid and valuable the 1999 information was to 2006 conditions. Mr. Ramsdell indicated the information was the best available, and the authority and funding was not available to replicate another study to that level of detail and accuracy.

Mike McGown noted that while there is no authority to require facilities to report detailed information, there are ways to update the data. Time and money are the real prohibiting factors. DEQ has already done some work to update the information for 2005. We can apply growth factors and supplement information where possible to come up with a good estimate.

Beth Elroy pointed out that DEQ receives information on an annual basis from the larger facilities (greater than 100 tons per year) in a variety of different ways that is more accurate than the 1999 data.

Mr. Ramsdell responded to a question from Chairman O'Neill regarding the number of larger facilities (over 100 tons) in the area, saying there are about 14 facilities in the Treasure Valley that have the potential to emit 100 tons, but of those only about six actually reach that 100 tons per year. Large point sources aren't necessarily the problem, it is a mix, depending on the pollutant. It's important to look at all of the sources including the vegetation that we plant—everything has to be considered.

Chairman O'Neill commented it seemed ironic that once an area reaches nonattainment, there is the ability to get all kinds of information. The Council has been given a proactive mission to help avoid nonattainment, and yet we do not collect the data on a regular basis that would help us do that. He suggested the Council make note of this issue in the preamble of its report.

Jay Witt, Community Planning Association of Southwest Idaho (COMPASS), presented a discussion about transportation models and how they relate to air quality issues (Attachment 4). COMPASS uses a 4-Step Travel Demand Model. A traditional 4-step model has four steps:

- Trip generation - estimate how many trips are going to be produced or generated in a given area.
- Trip distribution - where are those trips going?
- Mode choice - what mode are they going to take? Car, public transportation, walk or bike?
- Trip assignment - takes all information and puts it out onto the roadway network or the transit networks that we have built into the model.

There are three types of key inputs into four-step models: demographics and land-use data, the roadway network or the transportation network, and trip characteristics. He explained the types of input in detail and discussed how the models are used to forecast future demands and estimate emissions for air quality purposes.

Mr. Witt explained the history of how models have developed and been used in the Treasure Valley since the 1980's. In the early 1990's EPA, the Department of Transportation, and the federal highway administration got together and created regulations that linked transportation planning to air quality planning. This brought models even more to the forefront. In 1996 COMPASS formed the transportation model advisory committee, a group of regional experts that come together and discuss the inputs going into the model. The public was invited to take part and learn how models actually operate.

Specifically, COMPASS' model is a two-county model that incorporates both Ada and Canyon Counties. They get 24-hour estimates as well as peak hour estimates (peak hours are between 5:00 p.m. and 6:00 p.m.). It is based on the 2002 calibration. COMPASS did a travel survey of households in the region for the year 2002. Travel household characteristics were put into the model and validated to the 2002-2003 traffic counts. It uses 2002 as the base year in its model and it is able to replicate those 2002 conditions.

When COMPASS does its transportation plans, it has to assure that there will be no adverse impacts to air quality. This is a direct result of nonattainment designations the area has had in the past. This is also known as transportation conformity. If we cannot demonstrate that the plans will not adversely impact air quality, there is a risk that federal transportation funds will be limited. It's very important to do these demonstrations and to show that our transportation plans are going to meet up with the air quality plans DEQ puts together. Emissions budgets are at the heart of this analysis. Ada County has budgets for volatile organic compounds, nitrogen oxides, and particulate matter (PM₁₀). These budgets stem from this 1999 inventory from the PM₁₀ Maintenance Plan.

COMPASS conducts an emissions analysis every year, because a transportation improvement program is produced every year. The emissions are trending downwards, but the budget is also going downwards. The PM₁₀ emissions are not going down, because a majority of the PM₁₀ is emitted from vehicle road dust. It tracks directly with vehicle miles traveled (VMT) and is continuing to grow into future years, but tailpipe emissions for NOX, CO, and VOC are decreasing due to the improved environmental performance of engines and fuels.

Dr. Stephenson asked if COMPASS predicted a downward trend of PM_{2.5}. Mr. Witt replied that there was not a budget for PM_{2.5}, so they are not doing that analysis. He explained that PM_{2.5} is different than the coarse particulate matter (PM₁₀), simply because of the secondary aerosol factor. NOX is a primary component of secondary aerosols, so whether there will be a decrease in PM_{2.5} as a result has yet to be determined.

Mr. Witt summarized that what it comes down to is VMT is just as critical as what is coming out of the tailpipes. If we can reduce the number of vehicle miles, we can have a positive impact on air quality. COMPASS is in the process of developing its long-range plan, Communities in Motion. It looks at a new way of establishing these growth forecasts—how we really want to grow. And, in cooperation with that, Ada County has the Blueprint for Good Growth initiative which is designed to put the tools in place at the local level so that we can grow as planned. Reducing tailpipe emissions is a critical factor—cleaner fuels, cleaner cars are definitely going to have an impact on the valley—but also reducing VMT and how we choose to grow is going to influence emissions as well.

Mr. Witt briefly explained “conformity” and how it affects an area. Conformity applies when an area is in nonattainment or in a maintenance area. It is done at the planning level, and any transportation plans, whether they are transportation improvement programs or long-range transportation plans, have to demonstrate that they will not adversely impact air quality. The maintenance plans or the state implementation plans (SIPs) establish motor vehicles emissions budgets.

Mary Anderson, Airshed/SIP Modeling Coordinator in the Monitoring, Modeling, and Emission Inventory Program at DEQ gave a PowerPoint presentation (Attachment 5) to illustrate airshed modeling. The excellent graphics were developed by Dr. Yayi Dong, DEQ’s airshed modeler. Ms. Anderson described an air quality model as a way to show what happens to chemicals and pollutants when they are put into the air. DEQ uses three types of models for airshed and air quality models:

- Very basic dispersion models, commonly known as permit models
- Photochemical models, which are much more complex and have chemistry in them, and
- Receptor models

She discussed the complexities and differences of the models. Dispersion and photochemical models tell where the pollutant goes and what happens to it, and receptor models tell us where it is from.

Ms. Anderson explained the differences between airshed modeling and permit modeling. Airshed modeling takes into account all sources of emissions explicitly (point sources; area sources, like dry cleaners and gas stations; mobile sources such as cars and non-road). It assumes the emissions are dispersed throughout a grid cell; it cannot address hot-spot locations. It basically gives the average concentration over a 1 kilometer square (1 km) or a four km square (4 km). Airshed modeling accounts for chemistry allowing you to address PM_{2.5}, aerosols or ozone.

Permit modeling is usually used only on point sources. Point sources are any single point, not just permitted facilities, but other types of point sources that can be discreetly identified. Other sources are accounted for in a background concentration. They can address hot-spot locations; they don’t address chemistry. At this point, permit modeling is unable to address PM_{2.5} or ozone.

There are many uses for air quality models. They are used to meet the Clean Air Act which talks specifically about air quality models, to predict concentrations where there are no monitors, to test control strategies by performing what-if scenarios, and to be able to look at all the pollutants at the same time. This is called the one-atmosphere model. Some examples of control strategies an airshed model can test are: the impact of various vehicle fuel emissions, the impact of an area source such as vapor recovery, or a mobile source like a diesel retrofit program.

Ms. Anderson continued, explaining in detail the technical aspects of the components of an air quality modeling analysis, airshed modeling guidance from EPA, and grid or photochemical modeling.

Ms. Anderson explained the need for both modeling and monitoring. Monitoring tells what is actually happening and modeling is our best estimate of that. In summary, modeling is used to

estimate ambient concentrations, and it is just that, an estimate. Airshed modeling can handle chemistry, but not hot-spot analysis while permit modeling can handle hot-spot analysis, but not chemistry. And that is why both airshed modeling and permit modeling are needed for airshed management. They each tackle a different aspect. Modeling can be used to test control strategies for airshed as well as hot-spot locations, and it is just one of many tools used for airshed management.

Progress Report from the Interim Drafting Subcommittee

Chairman O'Neill said the Interim Drafting Subcommittee (Alan Prouty, John McCreedy, Beth Elroy, William Eddie and others) have collaborated on a draft plan to help the Council meet its deadline and define deliverables.

Mr. Prouty circulated the subcommittee's draft Treasure Valley Air Quality Plan (Attachment 6) and a second document (Attachment 7) of notes he put together to outline the status of the drafting work done by the interim committee. He reviewed the components required by the legislation. The last piece is a description of the actions the Council believes need to be taken to preserve, and when necessary, improve air quality in the Treasure Valley.

The Draft Plan is a major work in progress, and this is the initial formation of that document. The subcommittee envisions the Plan having seven chapters, as outlined in Attachment 7. He emphasized this is a work in progress, subject to change from the input of members of the Council and others. He discussed the table of contents, explaining the subcommittee is currently focusing on Chapters 1, 2, and 3.

The first chapter describes of the formation of the Council and its purpose, with a discussion about the demographics of the Treasure Valley. The information about the historical demographics in the Treasure Valley, particularly population trends, was gleaned from other reports.

John McCreedy commented that the dates on pages four and five of the Plan are suggested dates for public hearings and information meetings based on the goal of submitting the Plan for consideration to the legislature in January, 2007. Those dates can be discussed with Scott Peyron and revised as need. Detailed information regarding the citizens' committee and a transition paragraph that succinctly describes the Plan will be added after a draft is completed.

Chapter two focuses on air quality--what the pollutants are, what they mean, where they come from, what are the standards that have to be met, and what are the implications of going into nonattainment again. Additional material will be added.

Mr. McCreedy stated the subcommittee started on chapter three and has struggled over how much detail to put in versus referencing documents in the back as part of the appendix. The subcommittee may add additional material in this chapter about historical air quality issues. Also to be added is a section that provides graphs and trends from the air quality monitors in the Treasure Valley. Section 3.3 is yet to be created and will be a discussion of the key issues going forward, ozone and PM_{2.5}. The next step will be chapter four, which will look into the future of potential emissions from industry, area sources and mobile sources, based on review of the reports from COMPASS and DEQ.

Mr. Prouty asked Council members to review the draft Plan and send their comments to him for review by the subcommittee. The Interim Drafting Committee will continue working on chapters one through three and start on chapter four. He stressed the importance of getting started on chapter five, which will address options for improving air quality. He discussed the schedule for preparing the different chapters to have a document ready to go out for public comment at the end of June. The Council needs to start brainstorming options and thinking about recommendations. He suggested this start at the March meeting with presentations on ideas and reviews of actions taken in other locations that have grappled with air quality issues such as Salt Lake, Denver, Portland, and the San Joaquin Valley. He recommended Council members take assignments of investigating those—how they were addressed and what worked or didn't work. He again emphasized the need for the Plan to be very defensible and credible. It is important the Council do its homework and document where the information came from and the rationale for its recommendations.

Chairman O'Neill complimented the subcommittee on a great start and stated that because of the amount of information handed out, it is important to get copies out very quickly to the Council members who were not in attendance today. He also requested Mr. Prouty and the rest of the subcommittee to communicate electronically to the Council, in general, the matters that Mr. Prouty just discussed. He encouraged members to review the draft Plan and outline, and get their comments back to Mr. Prouty as soon as possible.

Beth Elroy, on behalf of the subcommittee, thanked Faye Weber and DEQ staff for their assistance in putting the draft Plan together.

Mr. McCreedy commented that this is a very rough first draft needing polishing not only by the Subcommittee, but by the Council, and perhaps at some point a professional who is more familiar with developing public reports.

Mr. Eddie noted one of the most challenging things was determining the level of detail necessary. He asked the members, as they reviewed the Plan, to think about the level of detail and information they want to see, to consider its audience (the public), the legislature, and the people who will be implementing the Plan.

Dr. Stephenson asked about the process for receiving, submitting and tracking changes for revisions. Chairman O'Neill said a secure interactive website with a password may be used later in the process. Mr. McCreedy felt the subcommittee was not quite ready for that yet, and suggested Council members read the draft Plan and then email comments to the four subcommittee members so they can all get them at the same time. The subcommittee will then meet to address the comments. Faye Weber will continue to assist the subcommittee with the drafting process.

Mr. McCreedy asked for comments on the timeline presented by Mr. Prouty and asked for volunteers to work on the other elements. He felt the subcommittee had its work cut out with refining the first three chapters.

Chairman O'Neill commented after conversations with the outreach consultant candidates, they initially thought the Draft Plan presented to the legislature in June 2007 would just be a list of bullet points. He now believes the Council may be able to submit a full Plan with everything--all of the alternative strategies, all of the data, and the important parts derived from the public

comments. He asked the subcommittee to continue on with its work and to begin work on chapter four. The matter is on the agenda for March, and the Council needs to start looking at that very long list of strategies and what other regions and states are doing. The first draft probably won't be very prescriptive, and the citizen committee will be weighing in later on in the process.

Mr. Eddie thought it might be difficult to communicate to the public whether it is really a draft Plan that has already been decided, or a menu of suggestions for the public to weigh in on. Chairman O'Neill agreed the Council needs to begin work on the communication process describing what the Council is about, its timetable, and public expectations for a finished product, acknowledging that this is a work in progress.

The subcommittee discussed the timeline for starting work on chapter five, which will address potential options. Mayor Nancolas said he would like to have more information and to hear what other communities have done and what options are available before starting on chapter five. He volunteered to help with chapter five, and congratulated the interim subcommittee on the good job it has done so far on the Plan.

Set Agenda for the Next Meeting

Chairman O'Neill discussed potential agenda items for the March meeting with DEQ staff. Beth Elroy requested the following agenda items for the next meeting:

- Update by Beth Baird on the work the Clean Cities Coalition has done, its progress, what it has accomplished, and what it can do for us on clean air.
- The presentation on vehicle emissions testing data presented to the Environmental Common Sense Taskforce last year. She commented that the data is very powerful and should be reviewed by the Council.
- A presentation from COMPASS or DEQ on the details of the biodiesel study that was done locally for school buses.

Chairman O'Neill felt the majority of the March agenda, and possibly April too, should focus on possible options for control strategies—the “what do you do about it” part of the Plan. He discussed the importance of having the environmental community and perhaps the local EPA office weigh in on the matter. Mr. McGown suggested the Council bring in a representative from the Western States Air Resources Council as well as EPA to share information from their programs. Mr. McGown will research the matter and make some calls of inquiry.

Chairman O'Neill asked June Hues to email the summary from the Governor's Air Quality Conference to Council members and add it to the March agenda.

Presentations on Alternative Fuels

Mike McGown introduced Russ Hendricks, Idaho Farm Bureau, to discuss the E10 proposal before the Idaho Legislature and related ethanol issues. Mr. Hendricks has been working closely with Leonard Herr, DEQ Boise Regional Office, who works on alternative fuels in general.

Russ Hendricks distributed documents to the Council including a pamphlet on E10 (unleaded gasoline with 10% ethanol), the E10 legislation, and a technical paper explaining Air Quality and

Ethanol in Gasoline by Gary Z. Whitten, Ph.D. (Attachment 8). He discussed the opportunities to address air quality issues through mobile sources by reducing vehicle emissions through:

- Conservation
- Increased efficiency
- Cleaner vehicles
- Cleaner fuel

The best and the most immediate choice is having a cleaner fuel. By using a blend of renewable clean-burning fuels, biodiesel, or ethanol, you significantly can reduce tailpipe emissions immediately. E10 is one of the most common renewable fuels—that is 10% ethanol, 90% petroleum, and it contains 3.5% oxygen by weight. The additional oxygen within the fuel helps the fuel burn more completely and efficiently and reduces the tailpipe emissions. The best thing about cleaner fuel is, it doesn't require consumers to make any change in their habits, and we know it can be done in a price competitive way.

There are significant clean air benefits, as discussed in the report by Dr. Witten, who is an air quality expert. Using cleaner fuels, every vehicle will see a reduction in emissions:

- Up to 35% reduction of carbon monoxide, which is a significant ozone precursor and according to the most recent studies, it is being viewed as more important, or as one of the most important ozone precursors.
- Up to 50% reduction in primary PM_{2.5}.
- 25% reduction in benzene. The majority of benzene emissions are tailpipes emissions, and it is a known carcinogen.
- Other toxics are reduced by 21%.

Renewable fuels can be produced locally, and it makes a lot of sense to use what resources we have to provide some of our fuel needs. This provides a substantial benefit to our rural economies by providing additional markets for agricultural products, as well as additional jobs and tax base in the rural areas. And, of course, it reduces dependence on imported fuel. By adding 10% here on this end of the pipeline, that significantly increases our supply and puts downward pressure on prices.

Mr. Hendricks explained the proposed legislation in detail. Similar legislation has been passed in Montana, Hawaii, Minnesota, as well as three Canadian provinces. More than a dozen other states are considering legislation to implement a renewable fuel standard. The purpose of the legislation is to implement a renewable fuel standard in Idaho by requiring that gasoline sold for motor vehicle use contain 10% ethanol. The standard would not go into effect until Idaho is actually producing 30 million gallons of ethanol in the state. This is a win-win scenario. The state wins by having significantly cleaner air and increased rural economic development without spending any tax dollars to accomplish that. Consumers win by getting a superior product at no more expensive price and farmers, and rural residents benefit by having the production in their area.

Some language was added to the bill, at DEQ's request, to address vapor recovery issues. When ethanol is blended with gasoline, it slightly raises the vapor pressure of the fuel. There was concern in the Treasure Valley, with its unique geography and climate, that as the fuel trucks delivered the fuel to the underground tanks with ethanol-blended fuel, an additional amount of evaporative emissions would be displaced into the atmosphere. DEQ has been interested in implementing stage one vapor recovery for some time. This involves the use of a second hose

that would capture those fumes and contain them in the tanker truck so they are not vented to the atmosphere. DEQ is currently pursuing funding to be able to implement that in the Treasure Valley regardless of whether the legislation passes.

Dr. Stephenson noted there was concern about vapor recovery even with filling vehicles from gas pumps with regular blends. He asked if there was any consideration being given to going to a vapor lock system such as other states like Oregon and California have for fueling vehicles. Mr. Hendricks stated it was his understanding there was no intent (by DEQ) to go to stage two recovery, which is at the pump, because newer vehicle models have onboard vapor recovery. Stage two vapor recovery can actually interfere with the operation of that onboard vapor recovery, so the intent is just to let fleet turnover handle that issue.

Chairman O'Neill stated that while the Council is not in a position at this time to support or not support any particular legislation, it is very appreciative of the information.

Leonard Herr, DEQ Boise Regional airshed coordinator, gave a PowerPoint presentation (Attachment 9). He provided an overview of alternative fuels, the pros and cons from an air quality perspective, and what DEQ's is working on with alternative fuels.

He discussed how transportation issues affect the air quality problems. It is the largest contributor of emissions in the valley with:

- 71% of the carbon monoxide comes from vehicles' tailpipe exhaust.
- 50% of the nitrogen oxides come from tailpipe exhaust.
- 20% of the VOCs come from tailpipe exhaust and fuels in general. (This will also come from fuel at gas stations.)

These three problems can be addressed through a number of transportation measures such as reducing the number of vehicle miles traveled, conservation measures, and other ways— but obviously if we can make cleaner fuel, we can put a dent in those numbers.

He discussed the alternatives to petroleum-based motor vehicle fuels and their pros and cons, including:

- Electric
- Compressed natural gas (CNG) and liquid natural gas (LNG) (Used mainly for large transit vehicles – city bus fleets.)
- Renewable biofuels - ethanol and biodiesel

Renewable biofuel is a fuel made from biological organisms. It's typically an agricultural product—grown corn, soy beans, flax seed, rape seed, or it can be waste from industry, forestry, even from restaurants—fry oil. Basically any kind of animal fat or vegetable oil is good for biodiesels. Ethanol is 100% grain alcohol. It is manufactured by fermentation and distillation the same way drinking whisky is made. It is made mainly from corn and barley in this country. Brazil gets nearly 90% of its fuel from ethanol, and it's made mostly from sugar cane. There is also ongoing research to make it from cellulosic sources such as straw, wood, wood waste— anything that has cellulose in it that can convert it to a sugar. That is very expensive right now, but that is where ethanol is going in the future, because it would be impossible to grow enough corn to fuel very many vehicles in the country, much less in the world.

Ethanol right now is typically blended with gasoline for use in vehicles. The two most common kinds are E85 (85% ethanol/15% gas) and E10 (10% ethanol). They both have their own unique pros and cons, but both provide very good reductions of NOX, CO, VOCs, and their emissions are much less toxic than gasoline. The main problem is they increase fuel volatility—how easy it evaporates into the air. This problem can be addressed by implementing stage one vapor recovery. It is a very common control measure throughout the country, but Idaho does not have it. If you are looking at cost-effective, relatively inexpensive control measures, this is one of the low hanging fruits we get to pick. Installing stage one vapor recovery in the Treasure Valley would remove as much VOCs as if we had shut down every major point source in this valley—about 1,000 tons a year. It's a big number, so that is a good control measure regardless of whether or not E10 is used.

Chairman O'Neill noted this was an excellent example, and the kind that should be used to help the public understand and relate to a problem.

Mr. Herr continued saying another problem with E10 is that it increases permeation. That is the gases seeping through the fuel lines in the vehicle, particularly a problem after the car is turned off. Ethanol in the fuel line increases this problem of emitting fumes through the fuel lines. This is a major concern in California because of the huge number of cars, and it has no way to mitigate that. Mr. Herr did not see it as being a big issue in Idaho; others may disagree.

Mr. Herr explained biodiesel is vegetable oil produced from seed crops like soy bean and mustard, also from waste oils like animal fats. It is not being made on the same scale as ethanol. Ethanol is a multibillion dollar industry; biodiesel is not. Whether the future is going to change that is uncertain. There are two different blends: B20 is the most common and contains 20% biodiesel, 80% regular diesel; and B100 which is pure biodiesel. He discussed the pros and cons of each. B20 biodiesel reduces toxicity 20% across the board, with a 10-20% reduction in PM, CO and VOCs. B100 Biodiesel reduces toxicity by 90%, with a 40-70% reduction in PM, CO and VOCs. Both have significant challenges to conquer, that if resolved, could result in an excellent fuel.

Mr. Herr discussed the different programs involved in alternative fuel issues and discussed their activities:

- Clean Cities - a U.S. Department of Energy program to promote alternative fuel infrastructure and alternative fuel use in the United States.
- Clean Air Zones - a DEQ program that works exclusively with schools at this point to promote anti-idling, clean school bus technology, and alternative fuels use in school buses.
- Treasure the Valley's Air – a DEQ Boise Regional Office air quality program that grew out of the Governor's Conference a couple of years ago to reach out to the public at large and incorporate it into air quality efforts. This program's goal is to form cooperative partnerships with other entities, not just other government agencies, but anyone, to enact voluntary programs to try to improve air quality.

Mr. Herr summarized by saying that alternative fuels have really good promise in the long run to improve air quality from vehicles. If you're looking for short-term solutions to air quality problems, you're not going to find any with alternative fuels in this valley. The infrastructure and implementation problems are too large to get this done quickly. Alternative fuels are not a short-term fix for air quality, but we should be promoting them for the long term.

Open Discussion

Chairman O'Neill said the handouts from the meeting would be sent to Council members who were unable to attend so they can catch up on their homework. He will also ask for volunteers to staff some of the subcommittees such as the public outreach group. New volunteers may also be needed for the Interim Drafting Subcommittee as some of the members may be opting out on the recommendations and where we go from here portion, although some continuity and overlap on that would be good.

William Eddie volunteered to stay on the drafting committee and noted that the research on developing options is a broader area. Alan Prouty commented that the group talked about that and felt it needed to be a collaborative effort, but they are all willing to continue working on it.

John McCreedy added they are mainly trying to summarize the data that exists and present it in a readable format. Chairman O'Neill thought the mitigating strategies portion would be more of the same. There is a large list of things to be presented without making a lot of value judgments. Hopefully, as those are presented there will be some cost-benefit relationships presented as well.

Mr. McCreedy stated strong support for Scott Peyron working with Graye Wolfe to expand the list for the fundraising letter. He believed Mr. Peyron and his organization had excellent connections that would be very helpful in that regard. Chairman O'Neill advised the letter was sent to a reduced list, as they may want to present the issue a little differently to the cities and the counties. He may also talk directly to some of the entities.

Chairman O'Neill felt the Council would need to work on parallel courses in order to accomplish its mission. He added that he was personally delighted with the progress made so far and will fine-tune the agenda for the next couple of meetings.

John McCreedy asked about the citizens' committee and when it would be discussed. Chairman O'Neill stated he preferred to have the discussion when Scott Peyron is present. He believed the citizen's committee would work better if the Council first ensures that an appropriate array of stakeholders are represented, and then opens membership to anyone interested in participating. This might help manage the process by providing better leadership and structure. He welcomed input on the matter and asked Council members to think about who would be good representatives to form the initial nucleus of the citizens' committee. Justin Hayes, Alan Shealy and a representative of the City of Boise have been suggested as people who should be an integral part of the committee.

Chairman O'Neill said he was comfortable that the process was not too far behind. He has talked with Mr. Peyron about preparing an early white paper about the Council and its mission, and meeting with the media to get the word out about the citizen's committee and invite participation. They also discussed managing the process, expectations, the time table, and how to build momentum as the process goes along to get the best public involvement. So there are a lot of different things going at different levels.

The meeting adjourned at 5:30 p.m.

Pete O'Neill, Chairman

Faye Weber, Administrative Assistant
and Recorder