

State of Oregon

Department of Environmental Quality Memorandum

To: Columbia River Gorge Commission

Date: July 25, 2003

From: Oregon Department of Environmental Quality, Southwest Clean Air Agency, Washington
Department of Ecology

Subject: Work Plan Addendum: Columbia River Gorge Air Quality Project

Enclosed for your consideration and concurrence is the 2003 Addendum to the Columbia River Gorge Air Quality Project Work Plan. The Addendum describes the redesign of the technical air quality study and decision making process needed to support development of an air quality strategy for the Scenic Area. The Work Plan Addendum reflects the economic realities currently faced by the Lead Air Quality Agencies, and reflects to the greatest extent possible the public, stakeholder and tribal comments received over the past several months.

As you know, good progress was made on the project in 2001-2002. The Lead Agencies began the selection of members for the project's bi-state Air Quality Advisory Committee, and funding was sought to begin the first phase of the Gorge air quality study. However, in the last two years, national and state economic realities have changed drastically, and budget reductions have seriously reduced the availability of funding for this project as well as many others. As a result, the Lead Agencies believe that significant additional funding for the Gorge Air Quality Project is not likely to be available in a reasonable timeframe. Therefore, the scientific study initially outlined in the 2001 Work Plan has been redesigned.

A new study approach has been developed that will provide an initial assessment of Gorge air quality within 2-3 years. The new study takes advantage of opportunities for the leveraging of other technical work on a regional and national level that did not exist at the time the 2001 Work Plan was developed.

The project's essential mission and scope has not changed. It is still to develop an equitable air quality strategy for the Gorge that is consistent with both the resource and economic objectives of the National Scenic Area Act. This includes evaluating emission sources from both inside and outside the Scenic Area to ensure geographic fairness.

The redesigned technical study will not be as comprehensive as the initial technical program outlined in 2001, and will not provide the same level of certainty. It will however, when combined with previous Gorge air quality studies, and parallel processes, provide a significant amount of information regarding the emission source regions, source categories, and (potentially) individual sources that significantly contribute to air quality degradation in the Gorge. The Lead Agencies believe the new study will allow decision-makers to:

1. Gain a good understanding of the physical and chemical processes that influence air quality in the Gorge.
2. Draw reasonable conclusions about many (but likely not all) emission source regions, categories, and individual sources affecting the Scenic Area.
3. Evaluate the air quality benefit that is expected from existing state and federal air quality programs.
4. Conduct a discussion among the Advisory Committee, elected officials, tribes, stakeholders groups, and the public as to whether any additional emission reduction measures (beyond those already anticipated) might be desired to further improve Gorge air quality.

The study is designed to give the Advisory Committee and others sufficient information to begin their evaluation of Gorge air quality, and identify any additional study that may be needed.

State resources for supporting the Advisory Committee have also been severely curtailed. The bi-state Advisory Committee initially planned for 2003 must now be delayed until the redesigned air quality study is completed (about 2-3 years). The Lead Agencies hope to have adequate resources available in the 2005-06 timeframe to support the Advisory Committee effort. At that time, if resources are still not available for Committee support, the Lead Agencies will evaluate other options for proceeding.

Washington State Visibility Disinvestment

Over the last four years, the state of Washington has dealt with a series of budgetary crises demanding ever-increasing resource reductions. The latest state budget forecasts predict additional significant state budgetary shortfalls for the FY 2003/05 biennium. These anticipated shortfalls necessitate elimination of various ongoing state programs including disinvestment from the state-wide visibility protection program of which the Columbia Gorge NSA Air Quality Study is a part.

This disinvestment means that, effective July 1, 2003, Ecology will no longer be able to participate as one of the Lead Agencies in the Gorge Air Quality study. Specifically, Ecology will not chair the Study's Technical/Re-design Team, operate Gorge study air quality monitoring sites, provide modelers/meteorologists and other experts for technical analysis, serve as a repository for Gorge data, provide quality control/quality assurance functions or continue to manage and participate in federal Gorge grants and related contract activities.

Many of these functions, including Ecology's participation in the management and oversight of the Gorge Air Quality Project will become the responsibilities of either the SW Clean Air Agency, Oregon Department of Environmental Quality, or others.

Resource Protection

The Lead Agencies' approach to studying and protecting air quality in the Gorge will focus chiefly on visibility and the emission sources that contribute to haze in the Scenic Area. Focusing on visibility improvement in the Gorge will both directly and indirectly benefit all the resources to be protected under the Scenic Area Act. The main visibility impairing pollutants include sulfates, nitrates, organic and elemental carbon, and fine soil. These air pollutants not only impair visibility and degrade scenic resources in the Gorge, but can also degrade the natural, recreational, and cultural resources of the Scenic Area. These pollutants are created by a wide variety of sources (primarily combustion sources) both inside and outside the Scenic Area. An air quality strategy that reduces these pollutants will improve visibility and thereby protect air quality and other resources in the Gorge.

It should be noted that the scope and funding for this project do not allow for a comprehensive and exhaustive evaluation of all possible air pollution effects on scenic, cultural, natural, and recreational resources. For example, this study will not evaluate air pollution impacts on the full range of possible ecosystem issues, including Columbia River fisheries and native plants. However, as noted above, the agencies expect that an air quality strategy that addresses visibility and haze will also benefit broader ecosystem issues in the Gorge. In addition, there are several other air quality efforts underway, not directly associated with this project that should provide an air quality benefit to the Gorge. These include the Portland-Vancouver ozone maintenance plan, as well as state and federal programs to reduce hazardous air pollutants.

Cultural Resources-Native American Rock Art in the Gorge

Two key visibility impairing pollutants (sulfates and nitrates), are especially significant in the formation of acid rain and fog that may damage cultural resources, primarily Native American rock art, and natural resources (including culturally significant plants). Given the special historic and cultural value of Native American rock art in the Gorge, the Forest Service has funded an independent special study (\$54,000) to sample and analyze fog and cloud water chemistry as a first step in a process for assessing potential risks to culturally significant artifacts and ecosystems in the Scenic Area.

The fog-water study will not provide a definitive assessment of the risk to rock-art or cultural resources. It is a first step, and the results can help inform decision-makers as to the next steps that could be taken to evaluate this issue. This study element is described further in the Addendum document and Appendix A: Technical Study Plan.

Study Timing

The air quality study's monitoring program is scheduled to begin this winter (2003/04), with subsequent study tasks conducted through approximately 2005/06. The start of the winter monitoring program is contingent on the timely availability of EPA funding and the ability to operationally deploy the monitoring equipment in the field. If logistics delay the winter 2003/04 sampling schedule, then the monitoring program will begin with the summer monitoring study scheduled for the summer of 2004. The winter monitoring program would then be conducted in

the winter of 2004/05. This flexible schedule will provide initial study results to the Advisory Committee in the planned 2005-2006 timeframe.

Results from the new technical study will be available beginning in 2-3 years (approx 2005-2006). The Advisory Committee will be convened just prior to the completion of the monitoring study so that it can begin to review initial results. Committee meetings will be open to the public. As final study results become available, the Committee will lead a public process to evaluate results and discuss options for an air quality strategy.

While the technical study proceeds, voluntary pollution prevention initiatives could be pursued. The Lead Agencies are currently working on voluntary initiatives to reduce emissions from several diesel vehicle fleets that travel in the Gorge. Unfortunately, the Lead Agencies do not have the resources at this time to lead an effort to explore additional pollution prevention opportunities.

Setting an Air Quality Goal

The first use of the study results will be an evaluation of the air quality benefit to the Gorge expected from existing state and federal programs that will phase in over the next several years. The Advisory Committee, elected officials, tribes, stakeholder groups and the public will evaluate the predicted benefit of these programs and discuss whether any additional emission reduction strategies are desired.

If additional air quality improvement is desired, the Advisory Committee will lead a public process to agree on an air quality goal for the Scenic Area and evaluate options for developing the most equitable and cost effective strategy for meeting that goal. Additional measures, if needed, could range from voluntary efforts to state or local requirements; and could phase-in under various timeframes. Significantly contributing emission sources that are clearly identified through the 2003-2005 study could be addressed at that time. Other sources that are suspected contributors to Gorge air quality could be studied further, if necessary, and addressed after their contribution has been clarified.

Public Comment

The Lead Agencies have held several public meetings over the past months to describe the draft redesigned study plan. The agencies took public comment on the project redesign through 5:00 p.m. June 16, 2003. The following table summarizes the comments received and the Lead Agency’s response.

Comment	Lead Agency Response
Representatives from the Yakama Nation commented that the proposed study plan was not balanced because it omitted the study and protection of cultural resources.	The Forest Service has funded a special study (\$54,000) to perform an initial assessment of the chemistry of fog/cloud water that could pose a risk to Native American rock art and other ecosystem resources. The fog-water study will not provide a definitive assessment of the risk to rock-art or cultural resources. It is the first step in an evaluation of this

	<p>issue. This study element is described further in the Addendum document and Appendix A: Technical Study Plan.</p> <p>Additional study of cultural resources could be pursued as needed through the option of add-on studies.</p> <p>The overall reduction of visibility impairing pollutants will benefit both cultural and natural resources, including culturally significant artifacts and plants.</p>
<p>Representatives from the Yakama Nation and the Confederated Tribes of Umatilla Indians are concerned about delaying the development of an air quality strategy. They asked that an air quality improvement plan be developed now based on the air quality information gathered to date.</p>	<p>The Lead Agencies have committed to developing an equitable air quality strategy based on geographic fairness and a good understanding of emission sources, both inside and outside the Gorge, that contribute to Gorge air quality. The Lead Agencies believe that further study is needed to better identify the significant emission source regions, categories, and individual sources that contribute to visibility degradation in the Gorge. The Agencies have committed to the completion of this air quality study in order to better inform the strategy development process. The redesigned air quality study will allow an informed public dialogue to begin on air quality issues in 2-3 years. The Agencies believe this is a realistic and reasonable time frame given the current state budget realities.</p> <p>Voluntary emission reduction measures could be pursued in the short-term. Unfortunately, the Lead Agencies do not currently have the resources to lead this effort.</p>
<p>The US Forest Service has submitted a letter to the lead agencies asking that action be taken now to insure additional emission reductions to protect the Scenic Area. The Forest Service requests that the lead agencies develop a private-sector-focused fund raising strategy to support the scientific study and administrative needs of the project. The Forest Service also request that the lead agencies host a week long public forum to address the issues above.</p>	<p>The Lead Agencies believe that further study is needed to better identify the significant emission source regions, categories, and individual sources that contribute to visibility degradation in the Gorge. The bi-state advisory committee will use this information to lead a public process that will determine what, if any, additional emission reduction measures are needed to protect the Scenic Area.</p> <p>The Lead Agencies do not currently have the resources or authorization to pursue a new funding strategy. The Agencies believe that that is unrealistic to expect significant additional funding for this project within a reasonable time frame. The agencies believe that the project should move forward using available resources.</p> <p>The Lead Agencies do not have the resources at this time to support a public air quality strategy</p>

	<p>development process. The redesigned study program will allow this public process to begin 2-3 years from now.</p> <p>The Lead Agencies would support any voluntary emission reduction measures developed while the redesigned study is conducted. For example, Oregon DEQ is currently developing a project to retrofit a portion of the METRO garbage hauling truck fleet with emission reduction technology. Unfortunately, other than the diesel retrofit program, the Lead Agencies do not currently have the resources to lead an effort to develop voluntary emission reduction measures.</p>
<p>The Lead Agencies were asked to clarify about the availability of emission inventory information.</p>	<p>Emission inventories are used by state, local and federal agencies to develop air quality plans for pollutants such as ozone, particulate matter, and carbon monoxide. Inventories of emissions from major industry are developed and updated each year by the state and local agencies. Emission inventories for all emission source categories (i.e. cars, open burning, etc.) are updated every three years.</p> <p>The next three year interval is for calendar year 2002. Emission inventory work is time consuming and labor intensive, and it typically takes 18 months or more to update an emissions inventory. The inventory work for 2002 is currently underway. The Gorge project will draw from this work and add to it. Once completed, the 2002 inventory, as well as subsequent inventory updates can be made available to the public and the Gorge Air Quality Advisory Committee.</p>
<p>The Lead Agencies were asked to clarify how the redesigned scope of the technical study and the primary focus on protecting visibility addressed the protection of all the resources named in the Scenic Area (i.e. scenic, cultural, natural and recreational).</p>	<p>The agencies have clarified this point in the work plan addendum and technical study plan. The air pollutants responsible for visibility degradation can also contribute to the degradation of cultural, natural, and recreational resources. Focusing on and protecting visibility will both directly and indirectly benefit all the resources to be protected under the Scenic Area Act, even if all those benefits may not be readily quantifiable.</p>

Conclusion

The redesigned air quality program continues to describe a scientific investigation and public decision-making process that can lead to an equitable air quality strategy for the Scenic Area. While reduced in scope, the Lead Agencies believe that the redesigned study program and subsequent public process can help achieve the objectives of the National Scenic Area Act. The Lead Agencies request that the Gorge Commission concur with the work program described in this 2003 Work Plan Addendum.

