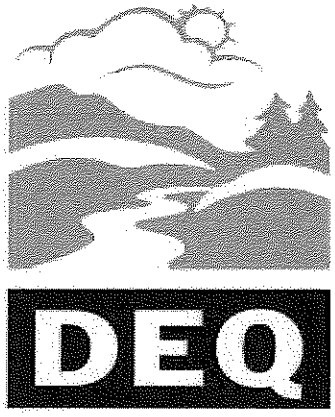
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 11/01/1990



State of Oregon
Department of Environmental Quality

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State of Oregon

ENVIRONMENTAL QUALITY COMMISSION

A G E N D A

WORK SESSION -- November 1, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon

1:00 p.m. - 1. Discussion of Draft EPA Environmental Education Program

1:20 p.m. - 2. Operating Plans: First Quarter Report and Discussion

2:15 p.m. - 3. Out-of-State Waste Fee: Discussion

Note: An invited panel of major participants will respond to questions from the Commission. This is not a public hearing; the public rulemaking hearing has already been held.

4:15 p.m. - 4. Oil Spill Planning: Background and Update

NOTE: The purpose of the work session is to provide an opportunity for informal discussion of the above items. The Commission will not be making decisions at the work session.

REGULAR MEETING -- November 2, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon
8:30 a.m.

Consent Items

NOTE: These are routine items that may be acted upon without public discussion. If any item is of special interest to the Commission or sufficient need for public comment is indicated, the Chairman may hold any item over for discussion. When a rulemaking hearing is authorized, a public hearing will be scheduled and held to receive public comments. Following the hearing, the item will be returned to the Commission for consideration and final adoption of rules. When rules are proposed for final adoption as Consent Items, a hearing has been held, no significant issues were raised, and no changes are proposed to the original draft that was authorized for hearing.

A-1. Approval of Minutes of the September 20-21, 1990 EQC Meeting

A-2. Approval of Deputy Director Position

B. Approval of Tax Credit Applications

C. Authorization for Rulemaking Hearing: Ranking Rules for Inventory of Hazardous Substance Sites

D. Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act

Rule Adoptions

NOTE: Hearings have already been held on these Rule Adoption items; therefore any testimony received will be limited to comments on changes proposed by the Department in response to hearing testimony. The Commission also may choose to question interested parties present at the meeting.

E. Proposed Adoption of Rules for PM_{10} Control Strategy for Grants Pass

F. Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director

G. Proposed Adoption of Rules to Implement Required Out-of-State Waste Surcharge for Solid Waste

Note: No testimony will be received on this item at this time because of the prior consideration and discussion by the Commission at the Work Session on Thursday, November 1, 1990.

H. Proposed Adoption of Rule Establishing Bear Creek TMDL Time Schedule

Information Items

I. Wood Heating Alliance Presentation on Klamath Falls Study

J. Groundwater Management Plan for Malheur County: Background and Update

K. Commission Member Reports: (Oral Reports)
- Governor's Watershed Enhancement Board

L. Director's Report (Oral Report)

M. Legislative Update (Oral Report)

Public Forum

This is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting except those set for a specific time. Anyone wishing to be heard on any item not having a set time should arrive at 8:30 a.m. to avoid missing any item of interest.

The next Commission meeting will be Friday, December 14, 1990, at DEQ offices in Portland, Oregon. There will be a brief work session at the same location on December 13, 1990.

Copies of the staff reports on the agenda items are available by contacting the Director's Office of the Department of Environmental Quality, 811 S. W. Sixth Avenue, Portland, Oregon 97204, telephone 229-5395, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

October 16, 1990

State of Oregon
Department of Environmental Quality Memorandum

Date: October 19, 1990

To: Environmental Quality Commission

From: Carolyn Young

Subject: Agenda Item 1; November 1, 1990 EQC Work Session

Discussion of Draft EPA Environmental Education Program

Attached is the July 1990 Draft of EPA's "Strategic Plan for Establishing the EPA Environmental Education Program" which will be discussed at the Work Session.

CY:l
Attachment

Strategic Plan For Establishing The EPA Environmental Education Program

DRAFT

July 1990

"In the end, environmental education boils down to a simple yet profoundly important imperative: preparing ourselves for life and all its surprises in the next century. When the 21st century rolls around, it will not be enough for a few specialists to know what is going on while the rest of us wander around in ignorance"

- William K. Reilly, Administrator
U.S. Environmental Protection Agency

PREFACE

In November, 1989, EPA Deputy Administrator F. Henry Habicht established an Environmental Education Task Force to provide a cross-media and cross-program forum for discussing the Agency's current environmental education activities, and to develop a Strategic Plan for the new EPA Office of Environmental Education.

Marylouise Uhlig, of EPA's Office of Toxic Substances, is the Co-Chair of the Task Force, along with Philip Smith, of the National Governors Association. Appendix A provides a complete list of the Task Force's members.

In addition to developing this Strategic Plan, the Task Force also

- Organized a Youth Environmental Action Forum, which was held in Washington, D.C. in May, 1990;
- Completed an inventory of current Agency environmental education activities and resources; and
- Recommended several innovative startegies for raising funds to be used to support environmental education efforts.

All of these efforts have produced significant benefits which the Agency's Office of Environmental Education will build upon in establishing a program to carry-out the important mandate which is described in this Strategic Plan.

1. Introduction

The U.S. Environmental Protection Agency's mission is to protect the public from environmental hazards and to enhance the quality of our natural environment. The Agency believes that taking a leadership role in promoting more environmentally-oriented scientific and technical education is fundamental to accomplishing this mission. Education can enhance our knowledge of man's impact on the environment, and can improve our understanding of the environmental consequences of individual and collective actions. This knowledge and understanding are collectively referred to as an *environmental ethic*, because they shape the values which are expressed concretely in environmentally responsible behavior.

Overview of Education Program

The Agency is establishing an Office of Environmental Education with the mandate to foster an enhanced environmental ethic in society by improving the environmental literacy of our youth and increasing the public's awareness of environmental problems. The Office will provide national leadership in these areas, and will build upon the ongoing work of public, non-profit and private sector groups which are already pursuing these goals. The Agency's efforts are being coordinated with, and will fully support the President's National Education Priority Framework, which stresses the need to improve the overall quality of scientific and technical training in our nation's schools. The Program will emphasize four specific themes: wise use of natural resources, prevention of environmental problems, the importance of environmentally sensitive personal behavior, and the need for additional action at the community level to address environmental problems.

Program Focus - Education and Public Awareness

The Environmental Education Program will focus on education and public awareness. Education includes both formal training in scientific and technical disciplines at the K-12th grade and college levels, and informal educational activities such as experiential learning in informal settings. The Program's approach will emphasize improving our youth's literacy in the core environmental sciences, developing a greater understanding of man's impact on the environment, and increasing the number of environmental professionals.

The public awareness part of the Program will target the general public; with initiatives designed to promote a more informed and environmentally responsible citizenry. Central to this effort will be communicating the program's themes via an effective media strategy, and closely coordinating with public, non-profit, and private sector organizations to effectively reach and actively involve the public. The intent is to stimulate a strong, grassroots interest in the environment, and an understanding of what individuals can and must contribute to maintaining a healthy environment.

Strategic Plan as Basis for Broad Review

This Strategic Plan outlines the Agency's approach to establishing the Environmental Education Program, the Program's goals and objectives, and the major planned tasks and activities. Following an internal Agency review, The Plan will be circulated for review and comment by Federal, state, local and non-profit sector leaders in the field of environmental education. Once the Program has been established, the Plan will be evaluated and updated at regular intervals to reflect evolving needs and opportunities.

Legislation has been introduced in the House of Representatives and Senate which calls for establishing an Environmental Education Program and Office within EPA. This Strategic Plan is generally consistent with the proposed legislation, and it assumes that this Program will be modified appropriately, based on any subsequent Congressional mandate. For planning purposes, it is assumed that this Program would consist of approximately ten FTEs and $5-10 million in resources.

II. Problem Statement

"To accomplish the magnitude of behavior change necessary to the task, it will be necessary to go beyond traditional environmental management methods of command and control."

- National Advisory Council for Environmental Technology Transfer

The seriousness and complexity of our nation's environmental problems require fundamental shifts in how we approach their solution. Having concluded that the traditional "end of the pipe" strategy is not sufficient, the EPA Administrator has articulated a new approach, which emphasizes problem prevention, sustainable development, and the need for an enhanced environmental ethic among all segments of the public.

The ultimate success of this new approach will be greatly influenced by the public's understanding of the seriousness of problems like ozone depletion and solid waste disposal, and the role which each individual can play in reducing or eliminating them. The challenge is a dual one -- raising the scientific and technical literacy of our youth so that they approach environmental problems responsibly throughout their lives, and raising the level of awareness of today's adults, so that they actively support the shift to a vision of sustainable development and pollution prevention which are critical to addressing today's problems.

"... These problems are complex and require comprehensive and complex solutions. Education is a part, a vital part of that solution."

- Dr. Constantine Curris, President University of Northern Iowa

Enhancing the environmental literacy of our youth involves confronting a number of problems which many Federal, state and local organizations are also addressing as part of a national effort to improve our youth's scientific and technical skills. These problems include the lack of teaching material which integrates scientific and technical subjects into the teaching of other disciplines, the need to improve the teaching skills of educators in the scientific and technical subjects, and the need to provide young people with information about career opportunities in the environmental professions to motivate them to acquire more scientific and technical training.

"We have got to get that word "protection" out of being just part of the EPA's mission and make environmental protection everybody's mission."

- Dr. Erhard Joeres University of Wisconsin

A key challenge to broadening the public's awareness of environmental problems, and articulating the need for more environmentally sensitive personal behavior, is the problem of how to communicate information about specific changes in personal behavior which is both concrete and persuasive to a broad cross-section of the general public. Bringing about changes in professional behavior could be even more difficult, since it involves convincing public and private sector decisionmakers that they need to view problem prevention and sustainable development as economic necessities as well as environmental realities.

Finally, as we develop a strategic vision for the next several years, it is more clear than ever that we need an adequate supply of world-class scientists and engineers to develop and promote more innovative and preventative solutions to environmental problems. As the public becomes more aware of the urgency of global environmental problems, EPA and other agencies will be required to respond with high quality research, innovative analysis, and sound strategies for public involvement. Thus, as a nation we have a strong vested interest in assuring that students emerging from the education "pipeline" are math and science literate, and motivated to pursue environmental careers. The major challenge to achieving this goal involves reversing a growing shortfall for professional scientists and engineers in America that could be as much as half-a-million people by the year 2000.

III. Program Goals and Approach

In developing a strategic plan which equips the Office of Environmental Education to address the challenges discussed above, the Environmental Education Task Force consulted with numerous leaders in this field, and participated in the ongoing discussions which FCCSET is coordinating to develop a National Education Priority Framework. Based on these discussions and other fact-finding, the Task Force has structured a Program which emphasizes a leadership role in articulating specific national goals for environmental education and working with and supporting existing organizations and networks to accomplish those goals.

"Because the best resources that we have to respond to these problems are our citizens, whether at the national, state, or local level, it is critically important that our young people have a strong foundation in science and math".

- F. Henry Habicht II
Deputy Administrator
U.S. Environmental Protection Agency

The Agency's Environmental Education Program will foster an enhanced environmental ethic in society by:

- Educating our youth in the environmental sciences and about man's impact on the environment;
- Training future environmental professionals; and
- Building public awareness and understanding of major environmental problems on both a national and international level.

The Program will initially focus on two areas. The first is education, where the emphasis will be on improving the basic environmental literacy of our youth, and stimulating interest in environmental careers among college and technical school students. The second area is targeted toward the general public

and involves creating a deeper understanding of the impact of personal and professional behaviors on the environment.

"Fundamentally, EPA views support of better math and science education -- in all sectors -- as important to society's well-being".

EPA submission to FCCSET's Education and Human Resources Committee

The educational component is structured to fully support the President's education goals in science, engineering and technology and, in particular, the goals of preparing our youth for responsible citizenship, and of being first in the world in science and mathematics achievement. The Program focuses on three specific groups: students in grades K through 12; college, university, and school of education students; and community and technical college students.

In the public awareness component of the Program, the emphasis will be on changing our thinking about environmental problems - from "an end of the pipe" approach to one which emphasizes prevention - and on articulating a vision of sustainable development, where a sound economy coexists with a healthy environment. To do this successfully, the Program must reach as many people as possible with a rich mix of information and specific ideas, to motivate environmentally responsible behavior and to inform the public about the role which it can play to make that vision a reality.

Both aspects of the Program are structured to take full advantage of the leverage offered by working with and supporting the efforts of Federal, non-profit, and private sector organizations whose goal is to promote informed, responsible environmental citizenship.

A. Youth Education Activities

The intent of the educational program is to substantially increase the amount and quality of basic environmental education being taught, and the number of students being reached. The Program defines "environmental education" to include a mix of educational disciplines and contexts, ranging from classroom-based instruction in science and mathematics to experiential learning in outdoor settings.

The Program is Consistent with National Education Priority Framework

The Program's strategic objectives and major activities are consistent with those of the President's National Education Priority Framework, as defined by the Federal Coordinating Council on Science, Engineering and Technology's (FCCSET) Committee on Education and Human Resources. The Program will closely coordinate its activities with those of the other Federal, state and local agencies which are pursuing these objectives to ensure the maximum possible benefit to the American public.

The Program has identified specific goals and activities for three major student audiences: K-12th grade; college and university; and community college and technical school students.

1. K-12th Grade Students

Substantially expanding the amount of basic environmental education being provided to children in the K through 12th grade age group, is key to increasing the scientific literacy of our youth. This area of the Program will also strongly emphasize development of an environmental ethic which encourages environmentally responsible behavior, since this objective is more achievable with a youthful audience. It also reflects the finding that a major obstacle in current efforts to inform and motivate changes in adult behavior is the historic gap in the basic education of students in grades K through 12 in basic science and technology.

To address these challenges, the Program has established three broad objectives for improving the environmental literacy of K-12th grade students:

Three Objectives for K-12th Grade Students

- Encourage states to increase the amount of environmental education being provided to students in these grades;
- Ensure that topical environmental issues are part of an environmental education curriculum, and that students are also exposed to a range of experiences and opportunities for learning about environmental issues; and
- Infuse environmental education topics into all basic subjects taught in grades K through 12, where they can provide an integrating context for subjects such as math, English, government, economics, and help capture the interest and enthusiasm of our youth for scientific and mathematics subjects in general.

These objectives reflect the Program's overall strategic approach of articulating a clear national goal -- in this case, reaching all students in grades K through 12th with training in environmental science -- and working with and supporting other organizations in a common effort to achieve this goal.

Program Tactics

Among the specific tactics which the Program will pursue to achieve its objectives for K through 12th grade students are the following:

- ❑ Working to incorporate environmental education topics in the new national testing program for grades 4, 8, 12;
- ❑ Utilizing grants and other funding mechanisms to facilitate the development of comprehensive teaching materials which will better equip teachers to teach environmental education subjects; and
- ❑ Developing an inexpensive system to distribute teaching materials, and provide training and support to teachers.

The chart on the next page provides more specific details on the key activities of this Program area.

2. College, University and School of Education Students

At the college and university level, environmental science is rarely included as a core component of liberal arts or technical degree programs. As a result, relatively few college graduates are adequately trained for, or interested in, careers in environmental professions. Further, there is little sustained effort to build upon the environmental science training which some students are now receiving in grades K through 12th.

In addition, Schools of Education have only recently begun to develop programs which emphasize improving the scientific and technical literacy of future teachers. Quality environmental education at all levels requires teachers who are proficient in the basic environmental sciences, and who are trained in how to incorporate environmental topics into all of the subjects being taught in our schools.

Overview of Strategy for K-12 Audience

Objectives	Summary of Approach	Major Tasks
• States increase the amount of environmental education being provided to students	• Stimulate demand for environmental education curricula and teaching material by encouraging states to increase amount of environmental education	• Develop strategy to encourage states to increase environmental education in formal and informal settings • Develop strategy to incorporate environmental education subjects in the new national testing program (Grade 4,8,12) • Work with Fed., state, local officials involved in programs to improve math/science teacher training (pre-service & in-service) • Showcase success stories; develop a mechanism to provide financial rewards for teachers who are leaders
• Ensure that topical environmental issues are part of an environmental education curriculum • Infuse environmental education topics in all other core subjects (math, geography, literature, etc.) • Encourage the development of innovative environmental education programs which include both formal and informal settings	• Develop teaching material, and design a mechanism which makes it easily available to teachers	• Assess all currently available material from National Wildlife Foundation, Project WILD, National Geographic, etc., and categorize by grade level, subject matter, media, etc. • Use grants to fund development of a "basic literacy curriculum" in environmental ed. Use it to identify gaps in available material • Develop mechanism(s) to produce and distribute material to teachers cheaply and easily • Use grants/award programs to stimulate development of this material
• Increase the number of teachers who are able and willing to teach environmental science courses	• Design and implement a support system for educators which makes maximum use of existing mechanisms	• Evaluate existing programs that provide this type of service to teachers at all regional, state, and local level (National Geographic's "Geographical Alliances," Project WILD, AEE's National Network of Env. Ed. centers, TVA's regional centers, etc.) • Identify what needs to be done to leverage existing channels; to enhance the amount and type of support they offer to local teachers of K-12; and to establish a mechanism for monitoring their performance in pursuit of OEE's objectives
• Build public support for increasing the amount of environmental education being provided to students	• Enhance the visibility of environmental education	• Structure a program for staging bi-annual Youth Forums as means to periodically focus national attention on this area. Define annual awards programs for both visibility and impact on major barriers

The Environmental Education Program has identified the following objectives for its initiatives addressing college and university students:

Objectives for College, and University Students

- Improve teacher training by adding courses in environmental education to School of Education curricula, graduation requirements, and teacher certification requirements;
- Build the environmental ethic and literacy of students, by incorporating environmental education in liberal arts curricula; and
- Motivate students to pursue environmentally-oriented careers by helping to create internship opportunities in non-profit, public sector and private sector settings.

Program Tactics

Emphasis will be given to working with federal, state and local offices to incorporate environmental education in teacher training curricula and degree requirements. In particular, the Program will actively support the FCCSET Committee's efforts to substantially upgrade the scientific and technical content of our nation's teacher training programs. These efforts are driven by the fact that it is far more cost-effective to train teachers in environmental education at this stage of their career, rather than relying on the more costly alternative of in-service training later.

The Program will also encourage ongoing efforts to develop teaching material and curricula for college-level courses in environmental education, and will work to create an efficient mechanism for sharing this material among interested universities and faculty members.

Promote Increase in Supply of Environmental Professionals

Furthermore, the Program will initiate efforts to increase the supply of college and university graduates choosing environmental professions by creating internship opportunities for students, and by developing an outreach program to educate college placement officials about career opportunities in these environmental professions. Special emphasis will be placed on developing mechanisms to reach minority students, and to encourage their participation in degree programs which equip them for environmental careers.

Additional components of the Program's strategy for reaching these students are presented in the following chart.

Overview of Strategy for College, University, and School of Education Students

Objectives	Summary of Approach	Major Tasks
• Improve teacher training by adding courses in environmental education to School of Education curricula, graduation requirements, and certification requirements	• Stimulate demand for environmental eductaion courses	• Create demand for courses in environmental topics by encouraging states to include it in their teacher certification requirements • Fund programs to train in-service teachers in environmental education subjects, and publicize its availability
• Increase supply of graduates choosing environmental careers	• Stimulate development of environmentally-oriented internship opportunities to expose students to possible career paths	• Create internship opportunities for undergrad/grad students to reinforce message that it's a viable career path • Develop outreach program to educate placement officials about career opportunities • Work with faculty and administrators of historically black colleges to build interest in these programs
• Continue to build literacy of students by incorporating environmental education in liberal arts curricula	• Provide assistance in developing curriclua, degree requirements, and teaching material	• Use grants to fund development of model curricula, building on existing programs • Encourage development of a support system that is keyed to needs of college-level faculty who want to teach environmental education • Reward innovative practioners who develop material that can be shared • Create mechansim to package teaching material and to make it easily accessible

3. Community College and Technical School Students

Because the degree programs which are offered by most community colleges and technical schools are oriented to training students for specific professions which do not require a four year degree, these schools are potentially a very valuable resource for training many types of environmental professionals (e.g., waste reduction experts, hazardous material managers, environmental impact appraisers). In addition, these schools could provide an accessible and efficient mechanism for making worker training programs available nationwide, in response to new laws which require most industrial and semi-industrial workers in the U.S. to receive training in the hazards of the materials with which they work.

Objectives for Community College and Technical School Students

To exploit these opportunities, the Program will pursue the following goals for this category of schools:

- ❑ Promote the development of two-year degree two-year programs in environmental specialties;
- ❑ Encourage the graduates of existing environmental programs at two year schools to pursue careers in environmental professions; and
- ❑ Explore how best to create or expand two-year school training programs to provide environmentally-oriented worker training.

Program Tactics

A key tactic in the Program's efforts to achieve these objectives will be to determine where demand currently exists, and in the future will exceed the supply for trained environmental professionals. This information will help in developing a targeted program for educating administrators and faculty at community colleges about the benefits of establishing environmental degree programs, and encouraging their graduates to pursue environmental careers. Strong emphasis will be placed on reaching minority students with this message.

Promote Worker Training Programs

The Program will also work with NACETT's Environmental Education and Training Committee to explore the feasibility of encouraging community colleges and technical schools to aggressively develop environmentally-oriented worker training programs. This initiative will build upon the Committee's recent recommendation to the Administrator

that a network of "environmental training centers" be established. By co-locating these training programs with two-year degree programs in environmental and technical professions, both objectives can be achieved more quickly and cost effectively.

The following chart presents additional details regarding the Program's strategy for community colleges and technical schools.

Overview of Strategy for Community College and Technical School Students

Objectives	*Summary of Approach*	*Major Tasks*
• Stimulate development of two year degree programs to increase the supply of environmental professionals.	• Stimulate demand for degree programs in environmental education	• Document where the demand exists for environmental professionals, what type of training is needed, and what programs already exist to train them and place them • Educate deans/placement officials re career options in this field, growth in demand, etc. • Use grants to establish one or two demo projects that are likely to be successful, and offer incentives to community colleges to establish these programs • Create internships and placement programs to help students find jobs
• Develop teaching material base to support development of curricula for entire higher education audience	• Develop process to assemble, evaluate, and disseminate information on curricula and teaching material	• Design a process to collect and evaluate curricula and teaching materials which are in use in successful 2 years degree programs; and to distribute it to community/technical colleges that are interested in starting programs
• Explore the feasibility of providing worker training via community colleges and technical schools	• Identify the goals and content of newly mandated environmental worker training programs, and assess the cost effectiveness of broadening two-year programs in environmental professions to provide this training	• Define curricula for worker training programs • Identify two or three alternative approaches, including community college-based programs • Evaluate the feasibility of each alternative and define the most cost-effective approach • Recommend a strategy to implement the preferred alternative

C. General Public Awareness Activities

This part of the Environmental Education Program has two broad goals: First, to convince the public that adequately addressing our nation's environmental problems requires a fundamental shift in how we think about environmental problems. Second, to educate the public about specific actions which we as individuals can take to have a positive impact on the environment.

Objectives

The public awareness Program is structured to support and build upon the Agency's ongoing efforts to promote a vision of sustainable development and pollution prevention, and to effectively communicate the economic realities of shrinking supplies of natural resources and growing waste disposal and clean-up costs. A key challenge will be to promote more effective communication about new technologies and production processes, so that decisionmakers have the information they need to respond to the Agency's vision of sustainable development and pollution prevention.

To motivate the general public to be more environmentally sensitive in its personal behavior requires the Program to reach the maximum number of people with suggestions about specific actions which can be taken, on a personal level, to reduce environmental problems. Many existing organizations at the Federal, state, and local levels share this goal, and would support the Program's effort. The Program is structured to capitalize on this support, and thereby leverage its limited resources, by pursuing the following tactics:

Program Tactics

- Develop a comprehensive media strategy which emphasizes reaching as much of the general public as possible with a consistent set of environmental themes and information about specific actions which can make a difference;
- Work with EPA and other Federal officials to identify opportunities to share public awareness materials with the international community;
- Work with youth groups and community-based organizations such as Nature Centers and garden clubs to more effectively promote the services which they provide, and to increase the public's access to these services;

- ❑ Work with organizations such as the Alliance for Environmental Education to insure that its members are fully aware of the Program's public awareness messages, and are incorporating them in their own outreach activities; and

- ❑ Work in close coordination with members of the NACETT's Environmental Education and Training Committee and other non-profit and private sector organizations to formulate strategies for improving public awareness and understanding of our nation's environmental problems.

The following chart presents further detail about the Program's tactics for reaching the general public.

Overview of Strategy for Reaching General Public

Objectives	*Summary of Approach*	*Major Tasks*
• Structure an outreach program to enlist the media's support in communicating the Program's message	• Define a strategy to work cooperatively with the media to convey the Program's major themes	• Develop specific goals and tactics for broad media outreach program
• Develop mechanisms to build coalitions with groups and individuals	• Identify priority opportunities to develop joint-ventures with private sector, non-profit and/or public sector groups	• Develop mechanism to identify and evaluate joint-venture opportunities
• Define process for sharing materials with international audiences	• Identify strategy for collaborating with international groups to share materials	• Identify issues with an international focus and define strategy for sharing materials; structure an approach for identifying targets of opportunity
• Conduct public awareness program regarding two or three environmental problems to educate the public about consequences of their behavior	• Develop public awareness strategy keyed to two or three issues	• Identify two or three environmental issues with a national focus. • Develop public awareness campaign, strategy and materials

V. Establish Foundation to Raise Funds to Support Program's Goals

An essential factor in the success of such a broadly-based and ambitious effort is the availability of sufficient resources. Both the scope of the overall program and the intensity with which each of its components can be pursued is largely dependent on the level of available resources. Thus, the EPA Environmental Education Program supports an approach similar to the one articulated in H.R. 3684 to establish an independent foundation to raise funds from the private and non-profit sectors for use in supporting an expanded environmental information and education program.

For example, as outlined in H.R. 3684, such a foundation would be a charitable, nonprofit corporation whose board would be appointed by the EPA Administrator. National environmental education policies and priorities would be set by the Administrator, via the Office of Environmental Education, and the Foundation's Board would fund activities which implement those priorities and goals.

Regardless of its exact nature, once such a foundation has been established, it would work with EPA's Office of Environmental Education to coordinate each group's efforts in order to achieve the Administrator's environmental education goals.

APPENDIX A

LIST OF ENVIRONMENTAL EDUCATION TASK FORCE MEMBERS

U.S. Environmental Protection Agency
EnvironmentAL Education Task Force

Co-chairs:

Marylouise Uhlig, EPA
Philip Smith, National Governors' Association

Task Force Members:

Lew Crampton, Office of Communications and Public Affairs
Doug Cooper, Office of the Administrator
Kelly Sinclair, Office of Administration and Resources Management
Gerald Yamada, Office of General Counsel
Jerry Kotas, Office of Policy, Planning and Evaluation
Walt Kovalick, Office of Solid Waste and Emergency Response
Steve Page, Office of Air and Radiation
Jean Croft, Office of Research and Development
Mike Quigley, Office of Water
Renelle Rae, Office of Administration and Resources Management
Anna Virbick, Office of Inspector General
Mildred Trainor, Office of International Activities
Todd Koeze, Office of Congressional and Legislative Affairs
Ramona Trovato, Office of Regional Operations and State/Local Relations
Paul Keough, Region 1
James Marshall, Region 2
Stan Laskowski, Region 3
Vivian Jones, Region 4
Jon Grand, Region 5
Joe Winkle, Region 6
Rowena Michaels, Region 7
Nola Cooke, Region 8
Deanna Wieman, Region 9
Tom Wilson, Region 10

Core Group Members:

Jeuli Bartenstein, Office of Administration and Resources Management
Barbara Burke, Office of Pesticides and Toxic Substances
Kate Connors, Office of Cooperative Environmental Management
Cathy Cowley, Office of Pesticides and Toxic Substances
Michael O'Reilly, Office of Communications and Public Affairs
Heather Schoen, Office of Communications and Public Affairs

APPENDIX B

DETAILED TASKS BY MAJOR ACTIVITY AND AUDIENCE

APPENDIX B
DETAILED TASKS BY MAJOR ACTIVITY AND AUDIENCE

Audience	Major Activity	Detailed Tasks
1. K-12th Grade Students	• Stimulate demand for environmental education curricula and teaching material	• Establish membership in group responsible for implementing national testing program. Consider using grant mechanism to fund development of testing material that's appropriate to the three grade levels and then work to incorporate it in the tests. Consult with National Geographic regarding the strategy which they followed to chieve this goal. • Identify groups that are focusing on the teacher training aspect of the national education goals. Establish membership on the appropriate task forces, steering committees, etc., and then work to incorporate available teacher training materials (like Project WILD, National Geographic, etc.) into this evolving program. • Develop an awards/public awareness program re success stories.
	• Develop teaching material, and design a system to make it easily available to teachers	• Use grant to acquire, evaluate, and categorize the material that is currently available. Outputs should include: an inventory of material that's easily accessible by any teacher in country, and is meaningful to a teacher looking for teaching material for a specific grade level; a description of where the gaps are in currently available material (e.g., "there's nothing for K-2 grade levels"); and, where possible, a couple of reasonably comprehensive "packages" for a specific grade level. Focus should be on identifying which subjects are relevant to achieving "environmental literacy," at what grade levels that are now (or should be) taught, and whether "envir. ed" should be a new, stand-alone subject area vs. an enhancement of existing curricula in science, economics, civics, mathematics, computer science, etc. • Use this material to encourage state goals, develop new material for teaching, develop test material, etc.

APPENDIX B
DETAILED TASKS BY MAJOR ACTIVITY AND AUDIENCE

Audience	Major Activity	Detailed Tasks
1. K-12th Grade Students (continued)		• In developing tactics to produce and distribute material, emphasis should be on developing a simple, direct, inexpensive mechanism for teachers to find out what's available in the way of "turn-key" teaching packages. Distribution system should be equally simple (e.g., mail order catalogues and 800 lines), and the material should be inexpensive to acquire. • Design a grant-based mechanism to stimulate ongoing development of educational material.
	• Design and implement a support system for educators which makes maximum use of existing mechanisms	• Define the specific areas that this "support system" would be responsible for. Describe the specific services, capabilities, etc. that are necessary to accomplish each role. Analyze the services of existing networks against this list, and identify gaps, etc. • Develop recommendations regarding what structure needs to be put in place, to what extent it would work through existing programs, what role would be played by EPA's regions, etc. • Develop an implementation plan.
	• Enhance the visibility of environmental education as a separate subject	• Design an organizational structure to organize bi-annual forums. Should include responsibility for tracking outcomes of previous forums, and helping regions to conduct "off-year" mini-forums. • Design awards program that addresses major barriers to institutionalizing env. ed. in K-12 curricula. Work to ensure that the size of the awards is large enough to get teachers' attention. Structure process for identifying candidates, picking winners, publicizing results.

APPENDIX B
DETAILED TASKS BY MAJOR ACTIVITY AND AUDIENCE

Audience	Major Activity	Detailed Tasks
2. Colleges, Universities, and Schools of Education	• Stimulate demand for environmental education courses	• Focus on states like New York that are already close to establishing teacher certification requirements. Work with them to achieve this goal, and then use lessons learned to counsel/encourage other states. • Coordinate with NGA in their work to develop strategies for governors to follow to improve science/math education programs for teachers. • Use grant money to evaluate existing "in-service" teacher training programs and publicize ones that are effective. • Structure a comprehensive awards program that creates incentives for the higher education community to develop environmental education degree programs, teacher training programs, and environmental career path programs. • Define three or four environmental education/environmental management career paths where a strong job market already exists and develop materials to educate placement office, etc.
	• Provide assistance in developing curricula, degree requirements, and teaching material	• Use grant(s) to evaluate what barriors currently exist to developing and sharing course materials among college/university faculaties. Also focus on defining alternative mechanisms for how to foster collaboration within and among college/university faculties. • Use grant to evaluate what role existing support systems (e.g., Geographic Alliances, National Network for Environmental Education) can play in furthering development of college/graduate level curricula and teaching materials.

APPENDIX B
DETAILED TASKS BY MAJOR ACTIVITY AND AUDIENCE

Target Audience	Major Activity	Detailed Tasks
3. Community Colleges and Technical Schools	• Stimulate demand for degree programs in environmental education	• Fund a study of current demand for environmental management professionals, where the demand exceeds the supply, where the growth in demand is likely to occur, etc. Use the results to target areas for demo projects with local community colleges/technical schools vis-a-vis starting degree programs to train environmental professionals. Demo projects should include support to the school's career placement staff. • Develop a process for monitoring the success of these programs in attracting students and producing qualified environmental management professionals who are in demand in the job market. • Use the results of this monitoring process to target support for ongoing degree programs, and to advise schools considering starting new ones.
	• Develop process to assemble, evaluate, and disseminate information on curricula and teaching material	• Design a process to collect and evaluate curricula and teaching materials which are in use in successful 2 year degree programs; and to distribute it to community/technical colleges that are interested in starting programs.
4. General Public	• Define strategy to motivate behavior change via more informed personnel and professional choices	• Build upon the initial survey prepared by the Clearinghouse team of the Environmental Education Task Force to identify and categorize the efforts of public, private and non-profit sector organizations who are active in this area. • Define a public awareness program and establish the necessary relationships with key groups. • Develop an internal process for working to incorporate specific behavior change messages in the speeches and public activities of senior Agency officials.
	• Define process for reaching this audience	
	• Develop a process to track progress and reward positive behavior	• Define procedures to monitor behavior and identify examples of progress (e.g., via regions). • Evaluate options for recognizing contributions via awards program.

State of Oregon
Department of Environmental Quality Memorandum

Date: October 15, 1990

To: Environmental Quality Commission

From: Fred Hansen

Subject: Agenda Item 2, November 1, 1990 Work Session

Operating Plans: First Quarter Report and Discussion

Attached are the current biennium **Operating Plans** for each Division, as acknowledged by the Commission at the June 1990 meeting, and with the status at the end of the first quarter (end of September) noted in the right hand column. Notes that were previously in this column have been retained but reflected in *italics* to distinguish them from the status.

In some cases, the wording of tasks, dates, etc. has been revised. Revisions are noted by striking through deletions and underlining additions. Since an operating plan must be dynamic, we have chosen to reflect the changes in this manner as a trial effort.

The Division Administrators will be present at the work session to provide further information as necessary and respond to any questions you may have.

FH:l

Department of Environmental Quality

Update 10/15/90

Air Quality Division Operating Plan

Priority Objectives related to Strategic Plan
Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Develop funding to maintain and expand Air Quality improvement efforts. (All Goals, All Programs High Priority 7, all AQ High Priorities)	Draft legislative concepts for Comprehension Emissions Fee and Woodsmoke Control Financial Incentive Programs	AQ - Planning	May 1990	*Pursue programs in parallel in case one or other fails to make it through process.* **Completed**
	Seek Governor's support of legislative concepts	AQ - Administrator	June 1990	*Governor Goldschmidt has authorized. If Governor-Elect authorizes, proceed with this and subsequent steps.* **Completed**
	Consult with affected parties, potential fee collection agencies and legislative counsel and draft bill. Identify implementation resource needs	AQ - Admin/Planning	Sept 1990	*Need to draft program to be compatible with Clean Air Act Reathorization which will establish industrial emission fees. Funds from programs will form air quality improvement fund to help reduce air pollution from woodstoves, industry, motor vehicles, field and slash burning and force emission sources. It will also help fund needed new DEQ resources to deal effectively with these sources.* **Much of work completed. Expect draft bill by end of October. See EQC Report for 10/11 meeting for more details.**
	Submit Bills to legislature	AQ - Administrator	~~[June]~~ January 1991	**In Progress (change is an error correction)**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Develop rule to increase VIP fee income to $10 (statutory limit) to offset increase program costs	VIP/Planning	January 1991	
	Rule Adoption	EQC/Planning	April 1991	
	Implement Fee Increase	VIP	July 1991	
B. Develop and implement highest priority control strategy programs to achieve and maintain healthful air quality. (Goals 2, 3 & 4, AQ high priority)	Request authorization to hold public hearings on draft PM10 SIP's in Grants Pass, Klamath Falls, and Medford	Planning	June 1990	**Completed**
	Work with local government in Klamath Falls and secure local mandatory curtailment ordinance and with Grants Pass to secure details of voluntary curtailment program	Planning	October 1990	*If Klamath Falls local government refuses to adopt ordinances, DEQ will be forced to rely on EPA and/or the Oregon Legislature to take appropriate action.* **K-Falls will not consider action until after November elections.**
	Seek EPA funding to support DEQ ambient monitoring/local government operation of curtailment programs	Planning/Technical Services	December 1990	*Depends on funding increases from reauthorized Clean Air Act.* **Completed**
	Adopt PM10 control plans and submit to EPA	EQC/Planning	November 1990	
	Develop interim parking facility offset program for Portland CBD with consensus of City and EPA on criteria for inclusion in offset rule	Planning	August 1990	**Completed**
	Request hearing authorization	Planning/EQC	September 1990	**Completed**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Adopt	EQC/Planning	December 1990	
	Draft long term CO/ozone maintenance plan for Portland area, coordinating with local governments/METRO and appropriate business interests (APP, PDC, BOMA)	Planning	July 1991	
	Hearing Authorization	Planning/EQC	January 1992	
	Adopt	EQC/Planning	April 1991	
	Develop revised slash smoke management plan with input from joint DEQ/ODOF Advisory Committee	Planning	November 1990	**Committee meeting regularly, still on schedule.**
	Hearing Authorization	Planning/EQC	January 1991	
	Adoption	EQC	May 1991	
C. Enhance Air Quality Regulations. (Goals 1, 2, 3 & 4; AQ high priority 2 & 3)	Draft air toxic control regulation for new and existing sources with aid of advisory committee	Planning	December 1990	*Integrate new Clean Air Act requirements into program, assuming Act reauthorization in October.* **A few months of delay expected because of CAA delay and staff vacancy.**
	Hearing Authorization	Planning/EQC	February 1991	
	Adoption	EQC	June 1991	
	Adopt underground piping requirement for Stage II Vapor Recovery	EQC	September 1991	**EQC agreed to skip this step and proceed to full Stage II with hearing authorization accelerated to December 1990.**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Hearing authorization for full Stage II implementation	Planning	January 1991	*Should not proceed until Clean Air Act is reauthorized to insure not loosing emission reduction credits for growth. Schedule assumes reauthorization by at least October 1990.*
	Adopt and implement	EQC/Program Operations	May 1991	*Funding for implementation could be permit fees, new federal funds or funding from comprehensive emission fee program.* **Still working on this.**
D. Enhance AQ control	Inhance implementation of Highest and Best Practicable Treatment and Control rule by reviewing other rules for obsolescence and initiating development of highest and best practicable guidance by source type	Program Operations	December 1990	*Coordination with Regional Operations and Planning Section required.* **On-going** *Rule development will follow based on outcome of this step.* **On-going**
	Hearing authorization on inclusion of continuous emission monitoring mannual in SIP	Planning/Technical Services	October 1991	
	Adopt	EQC/Planning	January 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
E. Implement environmental friendly product labelling program for products that offer low potential for polluting the indoor environment and which are manufactured and packaged using environmentally safe practices. (Goals 1, 2, & 5)	Develop conceptional program with input of Indoor Air Quality Task Force and EQC	Planning	September 1990	**Delayed until clear if EPA budget will contain funds for pollution prevention grants (EPA grant cuts possible under new federal budget cuts).**
	Submit grant application to EPA	Planning	October 1990	**Delayed until clear if EPA budget will contain funds for pollution prevention grants (EPA grant cuts possible under new federal budget cuts).**
	Finalize design of program	Planning	January 1991	*Proceed if grant for program design receive from EPA.*
	Support legislative authorization for increased resources	AQ - Administrator	April 1991	*Request authorization for 1 permanent FTE with general/federal or fee financing.*
	Implement	Planning	July 1991	
F. Develop and implement systematic approach to assess air quality statewide. (AQ priority 2)	Seek EPA funding for special project	Technical Services	July 1990	**Completed**
	Develop approach to area assessment. Include affected parties in approach design.	Technical Services, Planning, Lab, LRAPA, EPA	April 1991	
	Do initial AQ assessment	Technical Services	July 1991	
	Review results of initial assessment	TS, P&D, Lab, LRAPA, EPA, EQC	Beyond July <u>1991</u> ~~(1990)~~	**(Change is an error correction)**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Propose ambient monitoring network modifications	TS, P&D, Lab	Beyond July 1991	
	Seek funding for additional monitoring	AQ Administration	Beyond July 1991	
	Maintain/refine assessment	Technical Services	Ongoing	

Department of Environmental Quality

Update 10/15/90

Water Quality Division Operating Plan

Priority Objectives related to Strategic Plan

Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Development and maintenance of a Statewide Nonpoint Source Assessment ~~[Plan]~~ and Management Plan.	Develop Strategies to achieve implementation of land management practices to control nonpoint source water pollution that results primarily from forestry, agriculture, and urban land use activities.	Nonpoint Source Program staff~~[Manager]~~, Surface Water Section Manager, WQ Division Administrator~~[, EQC]~~	~~[July 1991]~~On-going	**MOA/AP** • **DOA 8/1/89** • **SCS 7/28/89** • **ASCS 8/1/89** • **USFS 7/9/90** • **BLM 4/9/90** • **DLCD** **Groundwater Monitoring ongoing in Malheur County and initiated in Umatilla and Morrow Counties; Groundwater Management Area Action Plan for Malheur County being completed; Committee being formed for lower Umatilla Area.**
	Support designated management agencies with the development and implementation of watershed management plans in conjunction with critical basin ~~[and]~~ TMDL activities and Federal land management.	Nonpoint Source Program ~~[Manager]~~ staff, ~~[Regional Staff,]~~ Basin Coordinators, Surface Water Manager, Division Administrator	On-going	**Plan Approval** • **Urban 8/10/90** • **USA 8/10/90** **Container Nursery Plan Drafted, Technical Specialist Panel Progress Report**
	Manage Section 319 federal grant funds to assist state and local efforts in controlling nonpoint sources of pollution through watershed enhancement and protection projects.	Nonpoint Source Program Manager, ~~[WQ Staff, Region Staff]~~ Surface Water Staff	On-going	**Administering $537,018 in 1990 grant funds covering 18 projects**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
B. Develop and implement an Oil Spill Contingency Plan for the Oregon Coast and estuaries, the Columbia River, and the Willamette River to Oregon City.	Develop strategies for the prevention and cleanup of spills in coastal and ocean waters and rivers with major transportation activities. Develop strategies for the commitment of sufficient resources to maintain oil spill cleanup equipment and provide for training.	~~[Nonpoint Source Program Manager]~~ Oil Spill Prevention Program staff, Surface Water Section Manager, WQ Division Administrator, ~~[EQC]~~	July 1991	• **Project scheduled, staff hired, work assigned.** • **Sensitive resource mapping underway.** • **Debris disposal strategy drafted and reviewed.**
	Coordinate with all affected local, state, and federal agencies, industry and the general public in the development and implementation of the plan.	~~[Nonpoint Source Program Manager]~~ Oil Spill Prevention Program staff, Surface Water Section Manager, Division Administrator	On-going	• **2 Advisory Committee Meetings held for Oil Spill Planning (SB 1039).** • **1 Advisiory Committee Meeting held for Financial Assurance (SB 1038).** • **On-going coordination with adjacent states and through State/BC Task Force.**
C. Improve the effectiveness and enforceability of Water Quality Permits.	Review standard permit conditions. Remove unessential conditions and add those which would improve readability and enforceability of the permits.	Industrial Permit Program Manager, HQ Staff, Regional Staff	June 1991	**Currently reviewing General Conditions (boilerplate) attached to each permit.** **Meeting with AOSA regularly.**
	Evaluate each major permit as renewed for readability, enforceability, and appropriateness of conditions.	Industrial Permit Program Manager, HQ Staff	On-going	• **Increased biomonitoring requirements being added during renewal.** • **General and Source Specific Permits are being revised to include groundwater quality protections.**
	Train all permit writers on writing effective permits and evaluation reports.	Industrial Permit Program Manager, HQ Staff	Annually	
D. Expand groundwater quality	Utilize groundwater management	Nonpoint Source Program	On-going	**Malheur Plan development**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
protection efforts.	area/area of concern program to develop groundwater protection strategies in cooperation with other state agencies.	Manager, Groundwater Section Manager, Other Agencies		**has involved other agencies including ODA, OSHD, WRD, SES, OSU, USGS, etc. and has spawned ideas for groundwater protection strategies for public education, pesticide collection/recycling, enhanced monitoring, and point source controls.**
	Develop guidance for implementation of groundwater rules.	Internal Committee, Point Source Program Manager, Groundwater Section Manager, WQ Division Administrator	September 1990	**Internal guidance document finalized and distributed 8/90.**
	Review Materials of prioritized permitted and unpermitted point sources to assess adequacy of groundwater protection.	Point Source Program Staff, Groundwater Section Manager, Regional Staff, WQ Staff	On-going	**8/90 guidance document includes priorities for implementation based on catagorization of sources based on risk.**
E. Establish updated management programs for the Columbia Basin with Washington ~~[Oregon]~~ and the Willamette Basin.	Initiate the Columbia River Study	Near Coastal Program Staff, Surface Water Section Manager, Division Administrator~~[Water Quality Planning Sect.]~~	October 1990	• **Interstate Agreement 4/90** • **Steering Committee Formed** • **Numerous public hearings held** • **4 year program plan drafted 10/90**
	Complete the Analysis of existing data	Water Quality Planning Sect.	March 1991	
	Initiate Data Collection	Water Quality Planning Sect.	April 1991	
	Establish the Willamette Basin Study Plan	Water Quality Planning Sect.	January 1991	

Department of Environmental Quality

Update 10/15/90

Hazardous and Solid Waste Division Operating Plan

Priority Objectives related to Strategic Plan

Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Develop hazardous waste program priorities for permitting and compliance activities and implement through the state/EPA agreement. (Goals 2, 4, 6, 7)	Prepare revised draft of hazardous waste permitting and compliance milestone priorities which include target outputs by calendar quarters.	Hazardous Waste Permits and Compliance Section (HWPC)	May 1990	**Completed**
	Finalize program priorities following comments from EPA.	HWPC	July 1990	**Completed**
	Track targeted milestones and prepare mid-year review report for permitting and compliance.	HWPC	January 1991	**In Progress**
	Prepare revised milestone if required for permitting and compliance.	HWPC	As needed	
	Prepare end of year review report on milestones targeted and completed for permitting and compliance.	HWPC	June 1991	
B. Develop Comprehensive Hazardous Waste Information System* (Goals 1, 2 & 8) (HSW High Priority 4)	Hire staff replacements	Hazardous Waste Reduction and Technical Assistance Section (HWRTA), Human Resources - MSD	~~[August 1, 1990]~~ January 1991	* *All target dates are contingent upon the timely hiring of qualified staff.*
	Draft new reporting forms	HWRTA	~~[September 15, 1990]~~ March 15, 1991	**Hiring a Consultant**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Finalize new reporting forms	HWRTA	~~[October 15, 1990]~~ April 15, 1991	
	Prototype new forms with regulated community	HWRTA, HWPC	~~[November 15, 1990]~~ May 15, 1991	
	Finalize forms and secure new reporting rule	HWRTA	~~[December 15, 1990]~~ June 15, 1991	
	Develop/modify information system to run all necessary reports	HWRTA, Information Systems	~~[July 1, 1991]~~ December 1, 1991	
	Modify system to include significant elements of EPA's biennial report	HWRTA, Information Systems	January 1, 1991	
	Incorporate/integrate elements of HW reduction and toxic reduction into system	HWTRA, Information Systems	~~[January 1, 1990]~~ January 1, 1991	(1990 was a typo)
	Incorporate new federal reporting requirements into information system (HWDMS,RCRIS and capacity assurance)	HWRTA, HWPC	Ongoing	
	Develop new reports and data categories to meet public, government and information needs	HWRTA	Ongoing	
C. Reorganize solid waste permit review work to improve efficiency and reduce the backlog of submittals. (Goals 1 & 8) (Agency-Wide High Priority #3)	Regional training on policies, permit instructions.	Headquarters Staff	May 13, 1990	**Completed**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Finalize woodwaste policy	Headquarters	June 15, 1990	**Deferred to December**
	Hire temporary staff to address industrial sites.	Headquarters	July 1, 1990	**Completed**
	Begin rulemaking on increased permit fees contingent upon legislative approval.	Solid Waste Staff	October 1, 1990	**Completed**
	Hire permanent staff to track permits/plans	Headquarters	October 1, 1990	**Recruitment begun; expected by January 1.**
	complete review and permit/plan approval on all "low-risk" landfills or transfer stations.	Regional Staff	November 1, 1990	**On Track**
	Review and evaluate new permit processing procedures with regional offices.	Headquarters/Regional Staff	February 1, 1991	
	Get approval from Legislature for additional technical staffing for solid waste.	HSW/MSD Staff	July 1, 1991	
	Hire new solid waste staff paid for with new higher permit fees adopted by rule.	Headquarters	August 1, 1991	
D. Adopt recycling goals and standards (Goal 2) (H&SW High Priority 2)	Develop draft rules for goals and standards	Solid Waste Reduction and Recycling Section (SWRR)	May 1, 1990	*Important for consensus* **Concept developed, rules to follow after legislative session.**
	Develop legislative concept	SWRR, HSW Planning Section	June 1, 1990	**Completed**
	Develop fiscal impact statement	HSW Planning Section,	June 1, 1990	**Completed**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
		MSD Budget Section		
	Identify potential funding source	HSW Planning Section, Agency Mgmt., DEQ Legislative Team	August 1, 1990	*New Fees or Increase existing fees*
	Obtain support for concept	HSW Management	August 1, 1990	**4 bills will be introduced with same concept**
	Executive approval	Director	July 1, 1990	**Completed**
	Draft Legislation	Legislative Counsel, DEQ Legislative Team	January 1, 1991	**Completed 10/1**
	Develop support documents	SWRR, HSW Planning Section, DEQ Legislative Team	January 1, 1991	
	Support legislative passage	DEQ Legislative Team	June 1, 1991	*Important for Advisory Committee to support*
	Develop Implementation Strategy	SWRR, HSW Planning Section, Agency Mgmt.	September 1, 1991	
	Develop Rules	SWRR, EQC	January 1, 1992	*Draft Rules will expedite development of final rules*
E. Implement UST financial assistance programs (Goal 4) (HSW High Priority 8)	Timely review of Grant reimbursement applications (strive for initial 14 day review)	UST Compliance	On-going	*Program Sunsets 8/31/92* **70 applications received; 55 awaiting additional information; 7 approved; 8 ineligible**
	Timely review of loan Guarantee applications (strive for initial 14 day review)	UST Compliance	On-going	*Program Sunsets 8/31/92* **23 applications received; 17 awaiting additional**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
				information; 5 certifictes issued; 1 guarantee approved
	Timely review of Interest Rate Subsidy applications (strive for initial 14 day review)	UST Compliance	On-going	*Program Sunsets 8/31/92* **See loan guarantee status above -- same status**
	Timely review of Pollution Control Facility Tax credits (within 120 days of receipt)	UST Compliance	On-going	*Program Sunsets 12/31/95* **88 approved; 42 staff reports in preparation**
	Interim Legislative committee program review	UST Compliance, Director	Periodic	*Between 89 and 91 sessions* **Status Reports given -- July 23, 1990 and September 12, 1990.**
	Legislative program review	UST Compliance, Director	January-June 1991	**No Activity**
	Regional Inspection of Loan Guarantee soil cleanups and issuance of "Notice of Soil Cleanup"	Regional Offices	On-going	**1 issued**
	Regional Inspection of Loan Guarantee upgrade and replacement UST projects and issuance of "Notice of Construction Completion"	Regional Offices	On-going	**1 issued**

Department of Environmental Quality

Update 10/15/90

Environmental Cleanup Division Operating Plan

Priority Objectives related to Strategic Plan

Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Enhance the cleanup process to include a non-complex cleanup program. (Goal 8) (ECD High Priority 1)	Develop Voluntary Cleanup Initiative (VCI) Plan	Program Development Section	July 1, 1990	**Completed 6/7/90**
	Prepare legislative budget proposal for Voluntary Cleanup Section	Program Development Section	July 7, 1990	**Completed 7/7/90**
	Request E-Board authorization for positions	Program Development Section	July 12, 1990	**E-Board Approved 7/13/90**
	Develop decision regarding cleanup criteria for soil contamination at Level 1 sites	Program Development Section	August 1, 1990	**Done. Will propose soil cleanup standards as rules.**
	Develop decision regarding procedures and policies for interim Level 1 sites, including: Request packet Letter agreement Model workplan Final report outline Certification letter	Program Development Section	September 1, 1990	**Request Packet and letter agreement done on schedule. Others under development.**
	Request public hearing authorization for rulemaking if cleanup criteria are developed	Program Development Section	July 1, 1991	**On Schedule**
	Propose rules for incidental hazardous substances and minor groundwater Level 2 LUST sites	Underground Storage Tank Cleanup Section	July 1, 1991	**On Schedule**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Request public hearing authorization for rulemaking on Level 2 hazardous substances sites	Voluntary Cleanup Section	January 1992	**On Schedule**
	Hire and train staff for Level 2 & 3 voluntary cleanups	Voluntary Cleanup Section	August 1990 - July 1991	**Recruitment underway for 7 positions approved at July 13, 1990 E-Board.**
B. Aggressively pursue responsible parties to pay for cleanup costs and maximize cost recovery of DEQ oversight costs. (Goal 4) (ECD High Priority 2)	(See also Priority #1: Voluntary Cleanup Initiative)			
	Develop overhead cost proposal for MSD review and approval	Program Development Section	July 1, 1990	**Done. Under revision. Expect final approval by December 1990.**
	Request E-Board authorization for Accountant position	Program Development Section	July 12, 1990	**E-Board approved 7/13/90.**
	Provide progress report on cost recovery and enforcement policy and procedures	Program Development Section	March 1, 1991	**On Schedule**
C. Complete site discovery rulemaking and implement on an agency-wide basis.	Propose site discovery rules for EQC adoption	Site Assessment Section	June 29, 1990	**EQC Adopted 6/29/90.**
	Prepare legislative budget proposal for regional positions	Program Development Section	July 7, 1990	**Completed 7/7/90.**
	Begin process for listing sites on Confirmed Release List and Inventory	Site Assessment Section	August 1, 1990	**Process underway. 48 sites proposed for CRL and Inventory by end of September 1990.**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Complete development of initial guidance to implement site discovery program department-wide	Site Assessment Section	August 15, 1990	**Projected to be completed by 10/15/90.**
	Begin training to implement site discovery program department-wide	Site Assessment Section	September 1, 1990	**Training for regional staff initiated.**
	Complete listing of sites on initial CRL & Inventory	Site Assessment Section	November 1990	**New target date December 1990.**
	Complete development of Hazard Ranking System and request public hearing authorization on rules	Site Assessment Section	November 2, 1990	**On schedule.**
	Propose Rules for EQC adoption	Site Assessment Section	January 25, 1991	**On schedule.**
	Begin ranking sites on inventory	Site Assessment Section	February 15, 1991	**On Schedule.**
D. Secure orphan site funding by receiving E-Board approval to sell Pollution Control Bonds to clean up a site. (Goals 1, 2) (ECD High Priority 4)	McCormick and Baxter Goalposts:			
	• Final Phase 1 RI/FS Workplan	Site Response Section	September 5, 1990	**Received final plan 9/7/90.**
	• Start Phase 1 work	Site Response Section	September 10, 1990	**Began work 8/1/90.**
	• If feasible, implement interim remedial action: Final Phase 2 RI/FS Workplan Start Phase 2 work Complete Phase 1 RI/FS work Final Phase 1 & 2 RI/FS Report Select Proposed Remedy Public Comment Record of Decision	Site Response Section	May 9, 1993	**On Schedule.**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
E. Implement Business Planning Project. (Goals 1 & 8) (All Programs High Priority 2)	Complete Feasibility Study; Executive Dept approval	MSD Information Systems	July 1, 1990	**Decision on whether to proceed by October 1990.**
	Award contract	MSD Information Systems	August 15, 1990	**Earliest possible date is February 1991.**
	Identify components for short term implementation	Program Development	September 1, 1990	**Completed.**
	Begin analysis of Business Requirements including Data Model	Program Development	October 1, 1990	**Begin in November 1990 if decision is to proceed.**
	Complete analysis of Business Requirements including Data Model	MSD Information Systems, Program Development	January 1, 1991	**Complete in March 1991.**
	Issue Contract or task order for one or more components of the Plan	MSD Information Systems, Program Development	March 1, 1991	**Issue in May 1991.**

Department of Environmental Quality

Update 10/15/90

Regional Operations Division Operating Plan

Priority Objectives related to Strategic Plan

Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Develop and implement an inspection ranking matrix which will focus on highest priority sources and incorporate unannounced inspections into scheduled workload. (Goal 4) (All Program High Priority 1)	Complete ranking of source inspections (AQ, WQ, SW, HW) based upon the matrix and current resource levels (short-term strategy)	RO Administrator, Regional Managers, Program Managers	August 15, 1990	**Completed.**
	Develop long-term application of inspection matrix. Identify desired inspection level and necessary resources.	RO Administrator, Regional Managers, Program Managers	August 15, 1990	**Completed.**
	Review inspection schedule with EPA.	Program Managers	To be decided	**Completed.**
	Implement short-term strategy (if approved by EPA).	Regional Managers	October 1, 1990	**Implemented for WQ. Working with EPA on AQ Matrix.**
B. Develop and implement a complaint response matrix which establishes priorities and identifies appropriate actions. (Goal 4, 8) (Resource reduction priorities all programs 4)	Form work group.	RO Administrator, Regional Managers	August 15, 1990	**Delayed while Adm. serves as Acting AQ Adm. Expect to initiate process before end of year.**
	Assess number and types of complaints. Evaluate various response options. Prepare draft matrix.	Work Group	September 15, 1990	**(See Note Above)**
	Submit draft matrix to regions/programs and Director for comment.	Work Group, Reviewers	October 15, 1990	**(See Note Above)**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Review comments and modify as necessary	Work Group	November 15, 1990	**(See Note Above)**
	Pilot test the matrix in the regions; review in 6 months.	Regional Managers	December 1, 1990 - May 30, 1991	**(See Note Above)**
	Refine as necessary.	Work Group	June 15, 1991	**(See Note Above)**
	Implement	Regional Managers	July 1, 1991	**(See Note Above)**
C. Establish a base employee training program. (Goal 6, 7) (All programs highest priorities 5)	Identify basic training needs for each program	RO Administrator, Regional Managers, Program Managers, Training Coordinator	October 1, 1990	**Behind schedule while Adm. serves as Acting AQ Adm. Regional Managers assigned to work with programs to identify basic training needs. Will review late in November.**
	Determine necessary resources, scheduling needs	RO Administrator, Regional Managers, Training Coordinator	November 15, 1990	
	Incorporate training requirement in employee work plans	Regional Managers, Supervisors	February 1, 1991	
	Implement		April 1, 1991	

Department of Environmental Quality

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Laboratory Division Operating Plan

Priority Objectives related to Strategic Plan

Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Increase the amount of waters assessed (based on data) to better identify threats to public health and the environment (Goal 2, Water Program Priority 1)	Develop budget proposals to enhance monitoring capabilities	Lab, WQ Program	Start March 1990, Complete July 1991	**On Track**
	<u>RIVERS:</u> Refine Rapid Biomonitoring Protocols (RPB) for assessing stream quality and non point source (NPS) impacts in rangeland (GWEB Projects) and urban (TMDL) areas	Lab	Start June 1990; Complete September 1991	**On Track**
	Transfer Protocols to targeted agencies to increase assessment capability	Lab	Initiate in 1991	**On Track**
	Utilize Protocols in DEQ ambient monitoring on prioritized streams (SCWS)	Lab	Start June 1990	*Budget dependent* **Somewhat delayed pendind additional protocol refinement, budget**
	<u>ESTUARIES:</u> Refine coverage of major shellfish growing bays to meet FDA requirements	Lab, WQ Program, Health Division	September 1990	**Complete**
	Develop approach for monitoring other bays	Lab, WQ Program, Health Division	January 1991	**On Track; OHD Coordinating**
	<u>LAKES:</u> Seek source of long term funding and support	WQ Program	June 1991	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	WETLANDS:			
	Develop assessment and monitoring capability	WQ Program, Lab	January 1991	**On Track**
	Develop implementation approach	WQ Program	July 1991	
	GROUNDWATER:			
	Develop ambient monitoring strategy and priorities	WQ Program, Lab	August 1991	**On Track**
	Initiate Strategy:	Lab		
	Grants Pass Area		July '88-June 1991	**On Track**
	Boardman Area		Start July 1990	**On Track**
	Bend Area		Start September 1990	**On Track**
B. Develop information on AQ in areas of the State which have not previously been evaluated, assayed, or monitored	Develop a priority ranking of areas by use of available monitoring information by pollutant and/or by use of source modeling work	AQ Program, Lab	Begin October 1990; Complete by (Part.) May 1991 (CO) Oct. 1991 (SO_2) July 1992	**Grant Applied for and Approved**
	Identify areas for survey and monitoring effort, costs and scheduling	AQ Program, Lab		
	Implement survey and monitoring schedules for PM_{10}, CO, SO_2, Ozone	Lab,	Start by October 1991	*Special Project, Budget dependent.*
	Develop a survey technique to identify areas of the State that have potential for impact from toxics	AQ Program, Lab	July 1991	**Possible Delay**
	Implement toxics monitoring network	AQ Program, Lab	(Not likely in 1990-1991)	

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
C. Improve NPDES/WPCF self-monitoring laboratory assessment & data Quality Assurance (Goal 2,4,8) (All program high priority 1,2).	List EPA QA requirements and applicable GLPs for NPDES & WPCF self-monitoring analyses.	Lab, WQ	September 1, 1990	**Delayed; In Progress**
	Develop list of permittees doing self-monitoring; laboratory doing work; analytes; contacts; etc.	Lab, WQ, RO	September 1, 1990	*Meet with each Region (?).* **Delayed; In Progress**
	Develop inspection check-list, report format, inspection criteria...	Lab	October 15, 1990	**On Track**
	Prioritize sources-laboratories for inspection; begin scheduling	Lab, RO, WQ	December 1, 1990	**Delayed; In Progress**
	Implement inspection schedule	Lab	January 1, 1991	*7 - 10 labs inspected/month;* *50 labs inspected by June 30, 1991.*

Department of Environmental Quality

Update 10/15/90

Management Services Division Operating Plan
Priority Objectives related to Strategic Plan
Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
A. Coordinate the development of a 1991-93 Operating Budget that reflects the Strategic Plan and proposes options for stable, long-term funding. (All Goals) (All Program High Priority 7)	Complete agency requested budget and submit to the Executive Department.	Division Administrators, Program Managers, Budget Office, Director, EQC.	August 28, 1990	**Complete**
	Revise based on Executive Dept. review and discussions. Submit Governor's Recommended Budget to the 1991 Legislature.	Division Administrators, Program Managers, Budget Office, Director, EQC.	January 8, 1991	
	Seek Legislative approval of the budget.	Division Administrators, Program Managers, Budget Office, Director, EQC.	January-June 1991	
B. Coordinate the development of a comprehensive data management system which is accessible and useful to all programs. (Goals 1 & 2) (All Program High Priority 2)	Improve program and regional office access to electronic data by installing additional needed workstations and communication equipment.	MSD Administrator, Information Systems Office, and Program Managers.	August 1990	*Each Program prioritizes data base programming needs independently* **Complete. In process of adding the Justice Dept. (Michael Huston)**
	Develop DEQ Information Technology Plans and submit 1991-93 request to the Executive Department.	Information Systems Office, Division Administrators.	August 1990	**Complete**
C. Revise the Health and Safety Plan as needed and implement. (Goal 7) (All Program High Priority 6)	Review existing Health and Safety Plan, update	Health and Safety Manager	June 1990	**Review Completed. Fourteen policy and procedures papers are in development. Manager resigned in August, slowing progress.**

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
	Formally adopt implementation strategy.	Division Administrators, Director	July 1990	**(See Note Above)**
	Begin Implementation.	Health and Safety Manager, Division Administrators, and Director.	August 1990	**(See Note Above)**
D. Ensure that a consistent approach reflecting Department Values is followed in dealing with the public, the regulated community, and co-workers. (Goal 6)	Review and revise the Conflict of Interest policy.	Division Administrators, Director	September 1990	**Review Started**
	Develop a training segment for new employees.	Human Resources Office, MSD Administrator	November 1990	
E. Provide training and development opportunities for staff. (Goals 4, 6, & 7) (All Program High Priority 5)	Coordinate with Divisions to deliver training and development programs.	Human Resources Office, MSD Administrator	On-going	*Each Division identifies and prioritizes training needs.*
F. Implement an employee recognition program. (Goal 7)	Recruit and fill the Human Resources Manager vacancy.	MSD Administrator	July 1990	**Position Filled August 1990**
	Implement the approved plan.	Human Resources Manager, Division Administrators, Director	September 1990	**Implementation started in October**
G. Encourage Affirmative Action in the workplace.	Review, update and approve the Department's Affirmative Action Plan.	Human Resources Manager, Division Administrators, Director	September 1990	**Review underway; Diversity in Workplace training provided to managers.**
	Implement the approved plan.	Human Resources Manager, Division Administrators, Director	October 1990	

Department of Environmental Quality

Update 10/15/90

Public Affairs Section Operating Plan

Priority Objectives related to Strategic Plan
Through June 30, 1991

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status	
Develop and implement new initiatives for informing the public about actions they can take to reduce pollution.	Develop set of educational objectives and priorities for the next year	Public Affairs Section	July 1, 1990	**Completed**	**(Pollution Prevention Theme)**
	Revise and update agency brochure to include information on actions the public can take to reduce pollution	Public Affairs Section	To the printer by September 1, 1990	**Draft Completed, Under Review**	
	Reprint and update the recycling curriculum - RE:Recycling. Include section on what the public can do to reduce pollution	Public Affairs Section	To the printer by September 1, 1990	**Completed**	
	Develop and implement a distribution plan for the Clean Air curriculum	Public Affairs Section	July 1, 1990	**Completed**	**Display at Science Teachers Association October 1990**
	Work with Tri-Met on developing a joint clean-air educational program	Public Affairs Section	September 1, 1990	**Completed**	**Ongoing project will be considered**
	Participate in public events with displays on what the public can do to reduce pollution:	Public Affairs Section		**Ongoing**	
	Jackson County Clean Air Fair		September 1990	**Completed**	
	Klamath County "Operation Big Push"		September 1990	**Canceled**	
	Zoo Project S.A.F.E.		June 1991.		

Priority Objectives	Significant Tasks	Responsible Unit	Target Date	1st Quarter Status
				Added: • **Environmental Education Association Conference 11/90** • **Childrens Fair 10/90** • **Salmon Festival 10/90**
	Develop a series of radio public service announcements to give the public car-care tips to reduce air pollution	Public Affairs Section	October 1, 1990	**Delayed to 1991**
	Facilitate a woodburning public education meeting with representatives of nonattainment areas	Public Affairs Section	August 1990	**Cancelled**
	Develop educational materials on household hazardous waste reduction	Public Affairs Section	Spring 1991.	
	Develop and produce a series of educational fact sheets on hazardous and solid waste reduction	Public Affairs Section	On-going	**Ongoing**
	Develop and Implement an educational campaign for Recycling Awareness Week	Public Affairs Section	Fall 1990	**Completed Oct. 6-13, 1990**
	Develop materials and participate in workshops on toxic use reduction	Public Affairs Section	Quarterly	**Completed Ongoing**
	Develop series of educationsal mewspaper ads with Newspaper Publishers Association	Public Affairs Section	November 1990	
	Develop series of educational factsheets on water quality	Public Affairs Section	On-going	
	Organize a DEQ staff Speakers Bureau	Public Affairs Section		**Completed**

NEIL GOLDSCHMIDT
GOVERNOR

Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: November 2, 1990
Agenda Item: E
Division: Air Quality
Section: Planning & Development

SUBJECT:

Proposed Adoption of Rules for PM_{10} Control Strategy for Grants Pass

PURPOSE:

To consider adoption of a revision to the State Implementation Plan (SIP) Rule (OAR 340-20-047) to include the PM_{10} air pollution control strategy for the Grants Pass Nonattainment Area.

ACTION REQUESTED:

___ Work Session Discussion
- ___ General Program Background
- ___ Potential Strategy, Policy, or Rules
- ___ Agenda Item ___ for Current Meeting
- ___ Other: (specify)

___ Authorize Rulemaking Hearing
_X_ Adopt Rules
- Proposed Rules — Attachment A
- Rulemaking Statements — Attachment B
- Fiscal and Economic Impact Statement — Attachment C
- Public Notice — Attachment D

___ Issue a Contested Case Order
___ Approve a Stipulated Order
___ Enter an Order
- Proposed Order — Attachment ___

___ Approve Department Recommendation
- ___ Variance Request — Attachment ___
- ___ Exception to Rule — Attachment ___
- ___ Informational Report — Attachment ___
- ___ Other: (specify) — Attachment ___

DESCRIPTION OF REQUESTED ACTION:

This report requests that the Environmental Quality Commission (EQC, Commission) adopt the proposed PM_{10} control strategy for the Grants Pass Urban Growth Boundary (UGB) area within Josephine County. The control strategy documentation has been changed since the June 29, 1990, EQC hearing authorization to provide details on the operation of a voluntary woodburning curtailment program in Grants Pass.

The proposed control strategy document describes the State of Oregon's plan to meet Federal Clean Air Act requirements to attain the 24-hour PM_{10} standard by the end of 1992 and maintain both the annual and 24-hour PM_{10} standards within the area of the Grants Pass UGB through the year 2000. This control strategy document is proposed as a revision to the State Implementation Plan (OAR 340-20-047). The strategy includes previously adopted state rules for industrial sources of PM_{10} and a voluntary woodburning curtailment program.

Additional details on the proposal are outlined in the Executive Summary of the control strategy (Attachment A).

AUTHORITY/NEED FOR ACTION:

___	Required by Statute: _____	Attachment ___
	Enactment Date: _____	
X	Statutory Authority: 468.305	Attachment E
___	Pursuant to Rule: _____	Attachment ___
___	Pursuant to Federal Law/Rule: _____	Attachment ___
___	Other:	Attachment ___
___	Time Constraints: (explain)	

The U.S. Environmental Protection Agency (EPA) adopted new particulate National Ambient Air Quality Standards (NAAQS) for PM_{10} effective July 31, 1987. The Federal Clean Air Act requires that states develop and adopt SIP revisions to assure that areas which exceed the NAAQS are brought into attainment within a 49-month time frame following adoption of the new health standards (by September 1991 for PM_{10}).

The adopted PM_{10} control strategies were due to EPA as SIP revisions by May 1988, but none of the states were able to meet this deadline. The Sierra Club has sued EPA for failure to require states nationally to submit PM_{10} plans according to the Clean Air Act schedule. The Department of Environmental Quality (Department) and EPA Region 10 agreed to a November 1990 PM_{10} SIP submittal date which has been offered in the suit settlement negotiations. This date has been incorporated into the FY91 State/EPA Agreement as well.

While the plan submittal for Grants Pass is proceeding on this schedule, the plans for Eugene-Springfield, Medford and Klamath Falls are delayed due to their overall greater complexity and/or need for local government ordinances.

Congress is expected to complete the reauthorization of the Clean Air Act by the end of 1990. This may or may not result in extensions of the deadlines for PM_{10} SIP submittals and attainment of PM_{10} standards in Oregon.

DEVELOPMENTAL BACKGROUND:

X	Advisory Committee Report/Recommendation	Attachment F
X	Hearing Officer's Report/Recommendations	Attachment G
X	Response to Testimony/Comments	Attachment H
X	Prior EQC Agenda Items	Attachment I
___	Other Related Reports/Rules/Statutes:	Attachment ___
___	Supplemental Background Information	Attachment ___

Preliminary draft control plan documents were sent to EPA Region 10, City of Grants Pass, Josephine County and southern Oregon environmental organizations in the first part of 1990. As a result, changes were made and incorporated into a final, draft document that was authorized for hearing at the June 29, 1990, EQC meeting. Public hearings were held in Grants Pass on August 2, 1990 and September 13, 1990. With the submittal of supplemental appendix material to EPA in August 1990, all technical concerns expressed by EPA have been addressed. No further comments were received from EPA during the public hearing process.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The testimony from the public hearings in Grants Pass is summarized in Attachment G. Department responses to the testimony are contained in Attachment H. A preponderance of the testimony from citizens was generally critical of the draft plan and there was specific opposition to the proposed voluntary woodburning curtailment program. Some of this may have been due to the fact that the draft plan did not contain sufficient operational details of a voluntary curtailment program, including the intention to exempt sole source and low income households. Such exemptions are now clearly labeled in the plan document.

The City of Grants Pass (Mayor Candace Bartow) expressed general support for the plan, but had some concerns about the use of non-local data (refer to Attachment H) to project emissions in Grants Pass and the impact of the upgraded industrial rules on the economy. Several other persons were concerned about the use of Medford woodburning

characteristics (percentage of households burning wood and cords of wood burned) to help derive the estimate of woodburning emissions in Grants Pass and urged the Department to conduct a wood heating survey in Grants Pass during 1991. The Department believes that the data is applicable, but has committed in the plan to conduct a wood heating survey in Grants Pass by July 1991.

The southern Oregon environmental groups have been critical of the draft plans for Medford, Klamath Falls and Grants Pass. The Oregon Environmental Council, while generally supportive of the proposed plan, expressed a number of concerns and suggested some alternative/supplementary control measures (refer to Attachment H). The Department believes that the basic strategy documented in the draft plan and now detailed in Attachment A provides an ample margin of safety for meeting and maintaining PM_{10} standards in Grants Pass, so additional measures and contingencies do not appear to be warranted at the present time.

PROGRAM CONSIDERATIONS:

The new industrial emission control and monitoring requirements, adopted by the Commission in September 1989, will require additional plan reviews, inspections, monitoring report reviews and other compliance assurance activities by Department staff. This additional work will be done by shifting existing resources, resulting in less attention to lower priority sources and an increased backlog in some permit or inspection activities. The Department intends to address this backlog problem in a base enhancement decision package in the next legislative session.

The daily decision on woodburning curtailment programs will be based on air quality information from the Department's existing air monitoring network and meteorological information from the National Weather Service. The daily woodburning decision will be made by Josephine County staff. A telephone announcement machine will be purchased by the Department through federal grant money and loaned to Josephine County to help disseminate the daily calls to the general public. Residual funds from the purchase will be used to pay the phone line costs for the first heating season. The Department is committed to seek funding assistance to operate the announcement machine after the 1990-1991 heating season.

In the future, if local governments do not implement voluntary curtailment, then the Department could proceed to carry out such a program.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

The major alternatives are:

1. Proceed with completion and adoption of the Grants Pass PM_{10} control strategy as a revision to the State Implementation Plan;

2. Delay submittal of the State Implementation Plan until Congress reauthorizes the Clean Air Act and new PM_{10} schedules possibly go into effect;

3. Do not submit a State Implementation Plan and allow EPA to impose sanctions or develop and implement a Federal Implementation Plan for the Grants Pass area.

The Clean Air Act is expected to be reauthorized by the end of the year. A joint conference committee has been meeting to reconcile differences in the Senate and House Bills. In terms of PM_{10}, the Senate Bill is far more specific than the House Bill and it likely will be the pattern for the final Act. The Senate Bill directs EPA to negotiate a control plan submittal date with the states not to exceed two years. The Bill requires attainment to be demonstrated as expeditiously as practicable, but not later than the end of 1994.

With respect to the status of the state's current PM_{10} SIP development, most work has been completed. The Department negotiated a reasonable plan submittal and attainment date with EPA which was incorporated into the FY91 State/EPA Agreement. This agreement was adopted by the Commission at its May 25, 1990 meeting. Therefore, it is not certain that EPA would be inclined to allow Oregon much if any additional time to submit PM_{10} plans and reach attainment once the Clean Air Act is reauthorized. More importantly, delaying adoption of the PM_{10} plan could result in delaying achievement of healthful air quality for the public.

If the state does not adopt a plan, EPA may take federal action, such as promulgating its own plan under the authority of the Clean Air Act.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends adoption of the proposed PM_{10} control strategy as a revision to the State Implementation Plan, which includes additional operational details of the voluntary woodburning curtailment program in the Grants Pass Urban Growth Boundary area. The Department believes the clarifications are responsive to EPA's expectations and to the public hearing testimony. The proposed strategy is a

balanced and reasonable combination of industrial and wood heating emission reduction elements that will be adequate to attain and maintain the PM_{10} health and welfare standards in the Grants Pass area in an expeditious manner.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed PM_{10} control strategy for the Grants Pass area is consistent with Goals 2, 3, 4 and 5 of the Strategic Plan.

ISSUES FOR COMMISSION TO RESOLVE:

Should adoption of the proposed revisions to the State Implementation Plan be delayed until after reauthorization of the Clean Air Act?

INTENDED FOLLOWUP ACTIONS:

1. Submit the State Implementation Plan revision to EPA for approval.

2. Provide Josephine County necessary assistance to set up the tracking/surveillance element of the voluntary woodburning curtailment program.

3. Seek funding assistance for local government to continue the operation of the voluntary curtailment program beyond the 1990/1991 heating season.

Approved:

Section: John F. Kowalczyk

Division: Tom Bispham

Director: Fred Hansen

Report Prepared By: Howard W. Harris
Phone: 229-6086
Date Prepared: October 15, 1990

HWH:a
PLAN\AH10936

State Implementation Plan

for Particulate Matter

Grants Pass, Oregon
Nonattainment Area

A Plan for Attaining and Maintaining the National Ambient Air Quality Standard for PM_{10}

State of Oregon
Department of Environmental Quality
Air Quality Division

November 1990

Preface and Acknowledgements

This document describes the State of Oregon's plan for attaining and maintaining the National Ambient Air Quality Standard (NAAQS) for PM_{10} in Grants Pass, Oregon. The plan is part of the State Implementation Plan (SIP), under OAR 340-20-047, required by the Federal Clean Air Act.

This plan is based on the Grants Pass Clean Air Policy Advisory Committee Report of April 20, 1988. The Committee consisted of eight members, equally divided between appointees of the City of Grants Pass and the Josephine County Commission. The Committee's work was coordinated by the Josephine County Health Department, with technical assistance provided by the Department of Environmental Quality.

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Appendix 2: Grants Pass Particulate Survey Report
Appendix 3: Grants Pass PM_{10} Monitoring Data
Appendix 4: Grants Pass PM_{10} Design Value Calculations
Appendix 5: Grants Pass Detailed Emission Inventory
Appendix 6: Grants Pass Receptor Modeling Results
Appendix 7: Grants Pass Voluntary Curtailment Program
Appendix 8: Notices of Public Hearings

Note: Appendices are available upon request

Executive Summary

The US Environmental Protection Agency (EPA), in accordance with the provisions of the Clean Air Act, adopted a new particulate national ambient air quality standard (NAAQS), known as PM_{10}, on July 1, 1987. PM_{10} is an abbreviation for particulate matter that is ten (10) micro-meters (microns) or less in aerodynamic diameter. The 10 micron size corresponds roughly to one-tenth of the diameter of a human hair. EPA identified the Grants Pass area as having a strong likelihood of violating the new standard. Subsequent monitoring conducted by the Department of Environmental Quality has confirmed that the Grants Pass area did not meet the standard as of the end of 1988.

The Clean Air Act requires that states develop and adopt State Implementation Plan (SIP) revisions to assure that areas which exceed the PM_{10} NAAQS are brought into attainment within the time frames prescribed by the Clean Air Act (September 1991), and that healthful air quality is maintained. This document describes the State of Oregon's plan to attain the PM_{10} standard in Grants Pass.

High exposure to particulate matter is of concern because of human health effects such as changes in lung functions and increased respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alternation in the body's defense system against foreign materials, damage to lung tissue, increased risk of cancer and, in extreme cases, premature death. Most sensitive to the effects of particulate matter are people with chronic obstructive pulmonary cardiovascular disease and those with influenza, asthmatics, the elderly, children and mouth-breathers.

Air quality measurements taken in Grants Pass have determined that the 24-hour PM_{10} health NAAQS may potentially be exceeded about 3-4 days per year during an average winter season. The annual average concentration of PM_{10} does not exceed the annual average PM_{10} NAAQS. The NAAQS adopted by the US Environmental Protection Agency were established to protect public health and welfare.

The 24-hour PM_{10} NAAQS is 150 micrograms per cubic meter of air ($\mu g/m^3$). Excluding the pollution episode due to the Silver Complex wildfire which occurred in September, 1987, the maximum concentration of PM_{10} measured at the 11th and K Streets monitor in Grants Pass was 208 $\mu g/m^3$ on January 21, 1987. The 24-hour standard cannot be exceeded more than three times averaged over three calendar years. The annual average PM_{10} concentration in Grants Pass is 42 $\mu g/m^3$ (four years of data) as compared to the average annual PM_{10} NAAQS of 50 $\mu g/m^3$.

An inventory of PM_{10} emissions developed for the Grants Pass Urban Growth Boundary (UGB) indicates that the major sources of particulate emissions during winter periods of worst-case 24-hour PM_{10} concentrations are residential wood combustion (54%), industrial emissions (25%) and soil dust (13%). On an annual basis, these sources contribute 31%, 39%, and 17% respectively. Emission inventory information representative of worst-case 24-hour conditions have been qualitatively confirmed through receptor modeling techniques which apportion source contributions on the basis of their chemical "fingerprints".

An air monitoring survey conducted in October 1985 showed that the PM_{10} problem area in Grants Pass includes the central portion of the urban area (city limits and the urbanized area south of the Rogue River). Based on this survey, ambient air monitoring conducted at 11th & K Streets represents the highest PM_{10} levels within the Urban Growth Boundary.

PM_{10} design values are those 24-hour worst case and annual average concentrations from which reductions must be made to achieve the NAAQS. Analysis of all of the available PM_{10} air quality data over the period of December, 1985 to November, 1989 indicates a 24-hour design value of 171 $\mu g/m^3$. and an annual average design value of 42 $\mu g/m^3$. For the control strategy analysis, these design values were compared to a 1986 base year emission inventory. Control strategies included in this plan have been designed to reduce current 24-hour concentrations of PM_{10} by at least 22 $\mu g/m^3$. The strategy will also reduce the annual average PM_{10} concentration.

The control strategies needed to assure attainment and maintenance of the PM_{10} National Ambient Air Quality Standard focus on control of industrial emissions and residential wood combustion. Additional reductions are expected from statewide efforts to reduce slash burning smoke.

Although residential wood combustion (RWC) emissions are the predominant source contributing to the occasionally high winter 24-hour concentrations found in Grants Pass, industrial controls will contribute substantially (approximately 55%) to the necessary reduction to meet the 24-hour standard. A voluntary curtailment program on woodstove and fireplace use during pollution episodes, coupled with a public information effort and normal phase-in of certified stoves, will provide the balance of control needed to meet the PM_{10} health standard. The Department estimates that 25% of the wood burning households will forego use of their woodstoves during the 3-4 days of voluntary curtailment likely to occur on average each winter. These strategies will bring the area into attainment by the end of 1992 with an ample safety margin at the 11th & K critical monitoring site, which is near the City's industrial area. This safety margin will insure attainment at other non-monitored sites where the source impacts are more oriented toward residential wood combustion. In fact, the wood

heating control strategy alone will be sufficient to achieve attainment in these areas.

With respect to slash burning, those emissions will be reduced in western Oregon by about 50% between 1978 and year 2000 as part of the Oregon Visibility Protection Plan. These emission reductions will further insure that background PM_{10} concentrations will not increase in future years.

Implementation of the PM_{10} control strategy will require the efforts of residents and industries within the Grants Pass UGB, Josephine County, the Oregon Department of Environmental Quality, the State Forestry Department, U.S. Forest Service and Bureau of Land Management.

Maintenance of ambient PM_{10} concentrations below the NAAQS will rely on the same strategies. To demonstrate continued maintenance of the annual and 24-hour NAAQS for PM_{10}, annual and worst case day emissions were projected to the year 2000. For the worst case day, the emissions for each individual source category were forecast, taking into account expected growth and the application of the relevant control strategy element. Individual source impacts were then determined directly from the change in emissions between 1992 and 2000. The projection indicates a worst case day concentration in the year 2000 of 135 $\mu g/m^3$, which is significantly less than the 24-Hour standard of 150 $\mu g/m^3$. To check for continued maintenance of the annual standard, the total annual emissions for 1986 (the base year for which the annual design value was determined to be below the annual standard) and 2000 were compared. Annual emissions are expected to be approximately 18% lower in 2000 than in 1986. Thus, continued maintenance of the annual standard will be achieved.

4.13.0 State Implementation Plan for Grants Pass PM_{10} Nonattainment Area

4.13.0.1 Introduction

On July 1, 1987, the Environmental Protection Agency promulgated new federal ambient air quality standards for particles less than or equal to 10 micrometers in aerodynamic diameter (PM_{10}) to replace the Total Suspended Particulate (TSP) standard.[1] The standard became effective 30 days later on July 31, 1987. On August 7, 1987, EPA designated Grants Pass as a Group 1 PM_{10} nonattainment area (52 FR 29383). Group 1 areas are those which have a greater than 95 percent probability of exceeding the PM_{10} NAAQS. Subsequent air monitoring has shown that air quality within the central area of Grants Pass exceeds the 24-hour PM_{10} NAAQS.

Section 110 of the Federal Clean Air Act requires states to adopt and submit plans (State Implementation Plans or SIPs) to EPA within nine months after the effective date of the standard. The Clean Air Act allows EPA four months to approve or disapprove the plan. The plan must provide for attainment of the standard as expeditiously as practicable but no later than three years from the date of EPA approval of the SIP.[2] Hence, attainment theoretically must be reached by September 1, 1991.

The Air Quality Division of the Department of Environmental Quality has developed this plan in consultation with officials of the City of Grants Pass and Josephine County and the U.S. Environmental Protection Agency. The plan is based on the Grants Pass Clean Air Policy Advisory Committee Report dated April 20, 1988 (Appendix 1). The plan was prepared in accordance with the regulations and requirements of the Federal Clean Air Act and the US EPA. The Department expects the plan to achieve attainment of the NAAQS within the time frame required by the Act and to maintain ambient PM_{10} concentrations below the level of the standards until at least the year 2000.

4.13.0.2 SIP Overview

The State Implementation Plan (SIP) for Grants Pass has five sections. The first (4.13.1) provides a description of PM_{10} ambient air quality. Section 4.13.2 is an analysis of the PM_{10} air quality problem within the Grants Pass Nonattainment Area. Section 4.13.3 provides an analysis of control strategies for

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[1] A micrometer (μm) is a unit of length equal to 1/1,000,000 of a meter, about 1/25,000 of an inch. For comparison, the thickness of a human hair is about 100 to 200 micrometers. Common bacteria are about 1 to 2 micrometers in length.

[2] Clean Air Act Section 110 (a)(1).

attaining the NAAQS. Section 4.13.4 describes implementation of the control strategies and commitments to track the effectiveness of the SIP. Section 4.13.5 discusses public involvement including work with a Citizen Advisory Committee and public hearing participation.

4.13.0.3 Area Description

Grants Pass is located in southwestern Oregon. It lies in the Rouge River Valley at an elevation of 948 feet and is surrounded by the Siskiyou Mountains and the Coast Range. The City of Grants Pass had an incorporated population of 16,290 in 1986, the base year for this analysis. The population within the Urban Growth Boundary was estimated to be 27,650 in 1986.

The Grants Pass PM_{10} problem area is located in the urbanized portion of Grants Pass, including the city limits and the urbanized land outside the city limits. Figure 4.13.0-1 shows the boundaries of the Grants Pass Urban Growth Boundary which was recommended by the Grants Pass Clean Air Policy Advisory Committee as the Nonattainment Area boundary. The criteria for selection of the UGB are as follows:

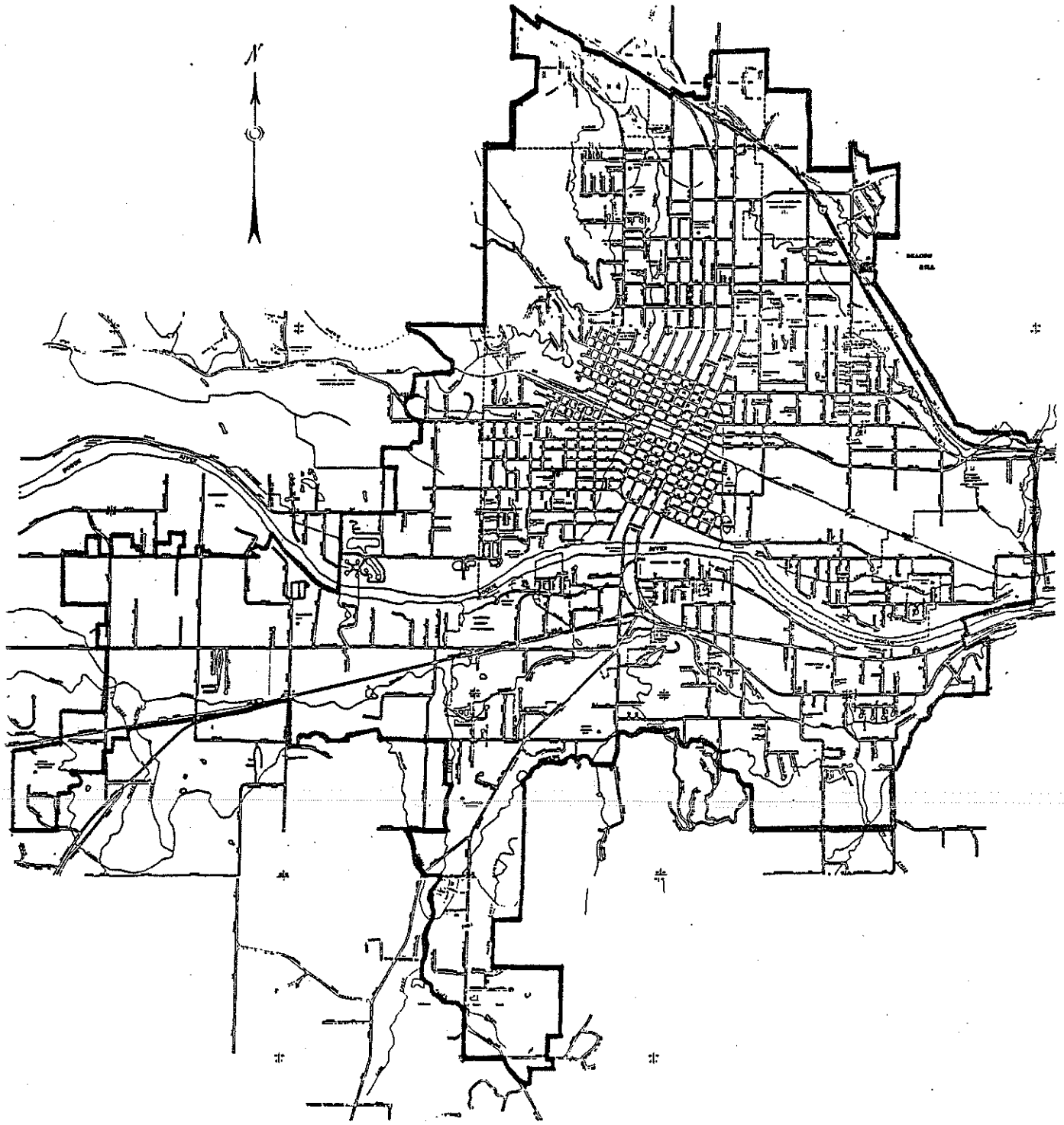
1. The nonattainment area boundary must include the geographical area within which national ambient air quality standards are currently being exceeded. Air Sampling surveys and ongoing monitoring indicate that maximum concentrations are found at the industrial/residential interface, consistent with local topography and the emission density of industrial and residential wood combustion sources.

2. The nonattainment boundary must include the area within which air standards may be exceeded in the future. EPA requires that SIP control strategies consider future population, transportation, housing and industrial growth to assure that air standards will be attained and maintained. Development of a strategy to assure maintenance of air standards therefore requires that the nonattainment area boundary be consistent with the regional planning boundary for which community growth projections are available.

3. The nonattainment area must be a legally defined boundary recognized by local governments. Legal definition is required for rulemaking purposes. Additionally, some component of the control strategy may need to be implemented through county land use planning ordinances tied to the Urban Growth Boundary.

Designation of the Urban Growth Boundary as the nonattainment area is the only legally defined boundary that meets all of the above criteria.

Figure 4.13.0-1: Nonattainment Area Map



4.13.0.4 Grants Pass Meteorology

The climate of the Rogue River Valley is moderate, with marked seasonal changes. The annual rainfall is approximately 32 inches. Winds are fairly light. Surface winds are often channeled to the east, or to the west, in general alignment with the River, which runs through the center of the urbanized area.

The topography of the area restricts natural ventilation of the valley. The combination of low wind speeds, frequent temperature inversions and topography results in a high potential for air pollution. During the winter episodic stagnation conditions may persist for a period of 3 to 4 days, or longer.

4.13.0.5 Health Effects of PM_{10} and Wood Smoke

Particulate matter measuring less than or equal to 10 micrometers is considered a risk to human health due to the body's inability to effectively filter out particles of this size. These particles can become lodged in the alveolar regions of the respiratory system where they trigger biochemical and morphological changes in the lungs.[3]

For example, constriction of air passages (i.e., reduced air flow) occurs rapidly upon exposure to PM_{10}. Episodic and continuous exposure aggravates chronic respiratory diseases such as asthma, bronchitis, and emphysema which in turn restrict the lung's ability to transfer oxygen into the bloodstream. Traditionally, children, the elderly, and cigarette smokers are the most susceptible to lung dysfunctions and are, therefore, at greatest risk from PM_{10} exposure.[4] Episodic exposure can also cause changes in the activity of the lung's mucous secretions and accelerates the mucociliary action in an attempt to sweep the particulates out of the lungs. This results in increased symptoms of cough, phlegm, and dyspnea (difficulty in breathing). Continuous exposure can inhibit this defense mechanism by introducing new particles into the lungs and redistributing those being swept out. This slows the clearance of the bronchial system thus increasing susceptibility to acute bacterial and viral infections.

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[3]J. Koenig, T.V. Larson, P. Jenkins, D. Calvert, N. Maykut and W. Pierson, "Wood Smoke: Health Effects and Legislation," Health Effects of Woodsmoke, Northwest Center for Occupational Health and Safety, January 20, 1988.

[4]U.S. Environmental Protection Agency, Second Addendum to Air Quality Criteria for Particulate Matter and Sulfur Oxides (1982: Assessment of Newly Available Health Effects. EPA 600/8-86-020-F. NTIS # PB-87-176574. 1987b.

The increased stress on the pulmonary system caused by PM_{10} exposure is usually tolerable for those with healthy respiratory systems, however, it can lead to irreversible or fatal damage in people already suffering from cardiopulmonary disease, typically children, the elderly, the ill, and cigarette smokers.[4] Another group that falls into the high risk category are people who breathe through their mouths.[4] This group includes a wide range of people from chronic mouth-breathers to anyone involved in outdoor exercise and heavy labor. During mouth-breathing, particulate matter is breathed more directly into the lungs since it bypasses the filtering systems of the nasal passages.

Among the sources of PM_{10} emissions, wood smoke is of particular concern in Grants Pass because it accounts for a majority of the small particulate matter measured in the nonattainment area. (A description of emission sources in found in Section 4.13.2.2). These particles are less than 1 μm in diameter and remain suspended in the air for long periods of time. Because of their small size and their ability to remain airborne, they are easily inhaled and lodged in the alveolar region of the lungs. These particles can also act as carriers for toxic chemicals which are transported deep into the respiratory system. Some of these toxic substances are then absorbed into the bloodstream.

Wood smoke contains fourteen carcinogenic compounds including benzo(a)pyrene, benzo(a)anthracene, and other polycyclic organic materials.[5] Additionally, wood smoke contains several other hazardous compounds such as aldehydes, phenols, carbon monoxide and volatile organic vapors. These compounds can cause or contribute to illness ranging from neurological dysfunctions and headaches to lung cancer.3 Many of the components of wood smoke are also found in cigarette smoke and coke oven emissions and can affect the cilia in a similar manner making it difficult for the body to expel the particulate matter. Because wood smoke concentrations are highest in residential areas, a large segment of the population is routinely exposed to wood smoke pollution in the winter months. Additionally, it is those people who are most sensitive, children, the elderly, and the ill, who spend the most time in their homes, thereby increasing their risk .[5]

4.13.1 Ambient Air Quality

The historical ambient particulate monitoring site in Grants Pass was located at the Josephine County Courthouse near Sixth and C Streets. Total Suspended Particulate (TSP) was measured at this site year around starting in November 1969. Sampling was

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[5]P.G. Jenkins, Washington Wood Smoke: Emissions, Impacts and Reduction Strategies, Washington Department of Ecology, Olympia, Washington. December, 1986.

conducted on a generally every-sixth-day schedule. Monitoring continued at this site until September 1987, when it was succeeded by monitoring for PM_{10} at a new site located near Eleventh and K Streets.

The concentrations of smoke and dust particles in the central Grants Pass area have occasionally exceeded the old secondary (welfare based) TSP ambient air quality standard in the past. However, TSP levels have generally improved in recent years in the Grants Pass area. This improvement is apparently due to the combination of improved industrial controls and reduced road dust (from paving unpaved roads). The maximum and second highest daily TSP concentrations are shown in Figure 4.13.1-1 for the years 1974 to 1986.

PM_{10} air quality monitoring began in December, 1985 following completion of an area-wide survey designed to characterize the spatial distribution of PM_{10} concentrations (Appendix 2). Sampling was then conducted at the Josephine County Courthouse site and at a new site near 11th and K Streets. Based on the survey, the latter site appeared to be representative of maximum PM_{10} impact in the Grants Pass area. Both Total Suspended Particulate and PM_{10} samplers were operated from December 1985 to March 1986 to obtain comparison data. Since that time, PM_{10} sampling has been conducted at the 11th and K site.

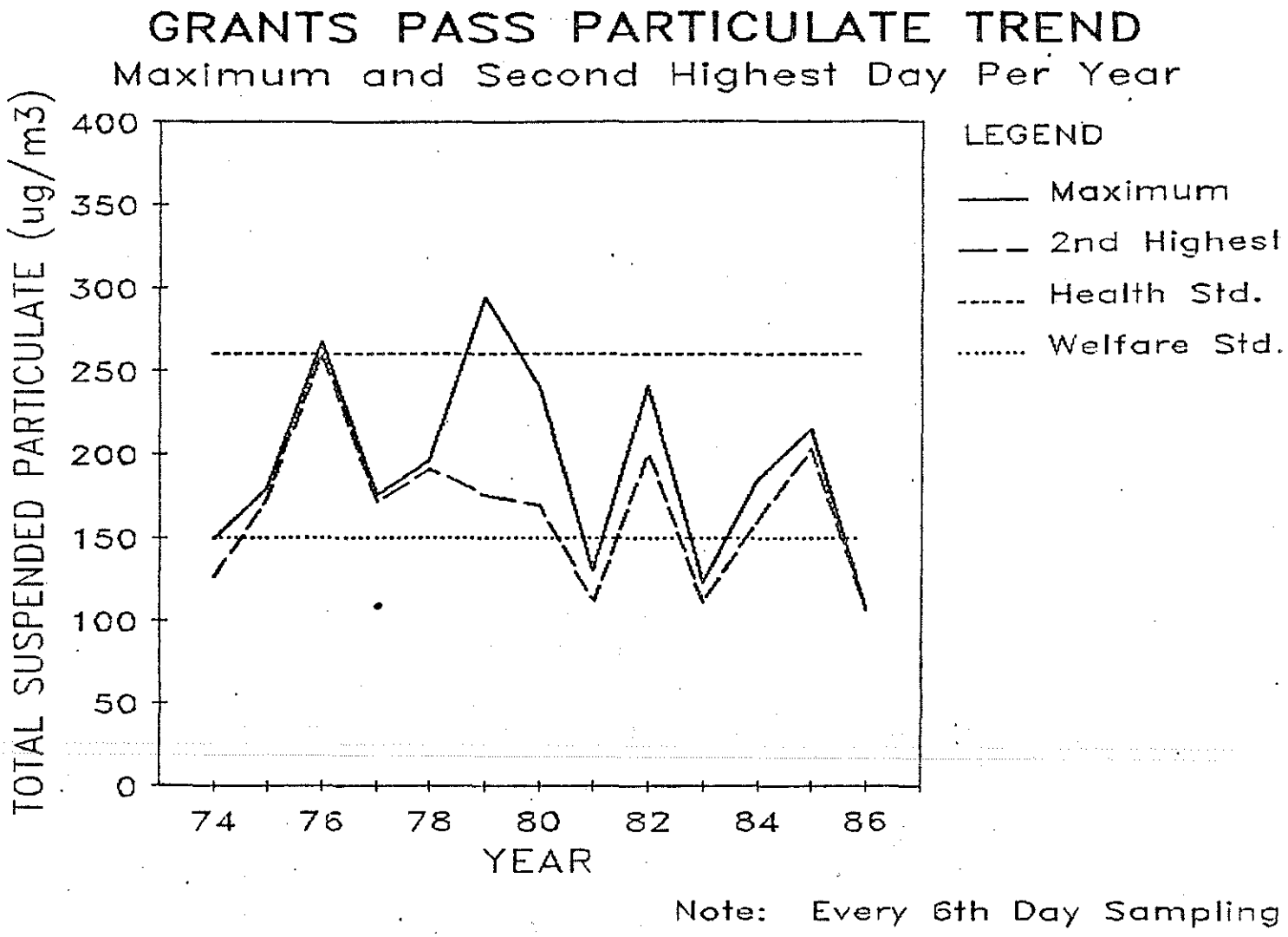
4.13.1.1 Air Monitoring Methods

Several sampling methods have been used to measure suspended ambient particulate concentrations in Grants Pass:

The PM_{10} Medium-Vol. sampler collects PM_{10} aerosol using a 12 port, 47 mm filter sequencing system that is programmed to collect 24-hour samples. The sampler pulls ambient air at a 4 CFM flow rate through a 10 μ Sierra-Anderson 254 inlet providing a PM_{10} cut point. A dual-port system capable simultaneously collecting aerosol on both Teflon and quartz filter substrate is used to allow complete chemical analysis for Chemical Mass Balance receptor modeling purposes. Because of the excellent agreement between PM_{10} concentrations measured by the Medium-Vol and the HV-SSI reference method, EPA has designated the Medium-Vol sampler as an acceptable equivalent method in Oregon.

The PM_{10} High Volume Size Selective Inlet (HV-SSI) is a High Volume air sampler equipped with a Sierra-Anderson SA321A, SA321B or SA1200 PM_{10} cut-point inlet. This method has been designated by EPA as a reference method to be used to judge attainment with the NAAQS. Sampling occurs every 6th day.

Figure 4.13.1-1: Grants Pass Total Suspended Particulate



The High Volume air sampler collects samples of Total Suspended Particulate (TSP). The method uses pre-weighed 8" X 10" filters through which air is drawn at 50 CFM over a 24 hour period. Because these samplers are not equipped with a size selective inlet, the upper limit of particle size captured on the filter may reach 100 μ. Prior to EPA's adoption of the PM_{10} NAAQS, this method was the standard reference method for measurement of airborne particulate matter at the Josephine County Courthouse.

Sampling for total suspended particulate (TSP) had been conducted at the Josephine County Courthouse since 1969. PM_{10} sampling has been conducted at both the Courthouse and 11th & K sites. Table 4.13.1-1 lists the data collection period for each measurement method at these two sites.

Table 4.13.1-1: Data Collection Periods by Method Courthouse and 11th & K

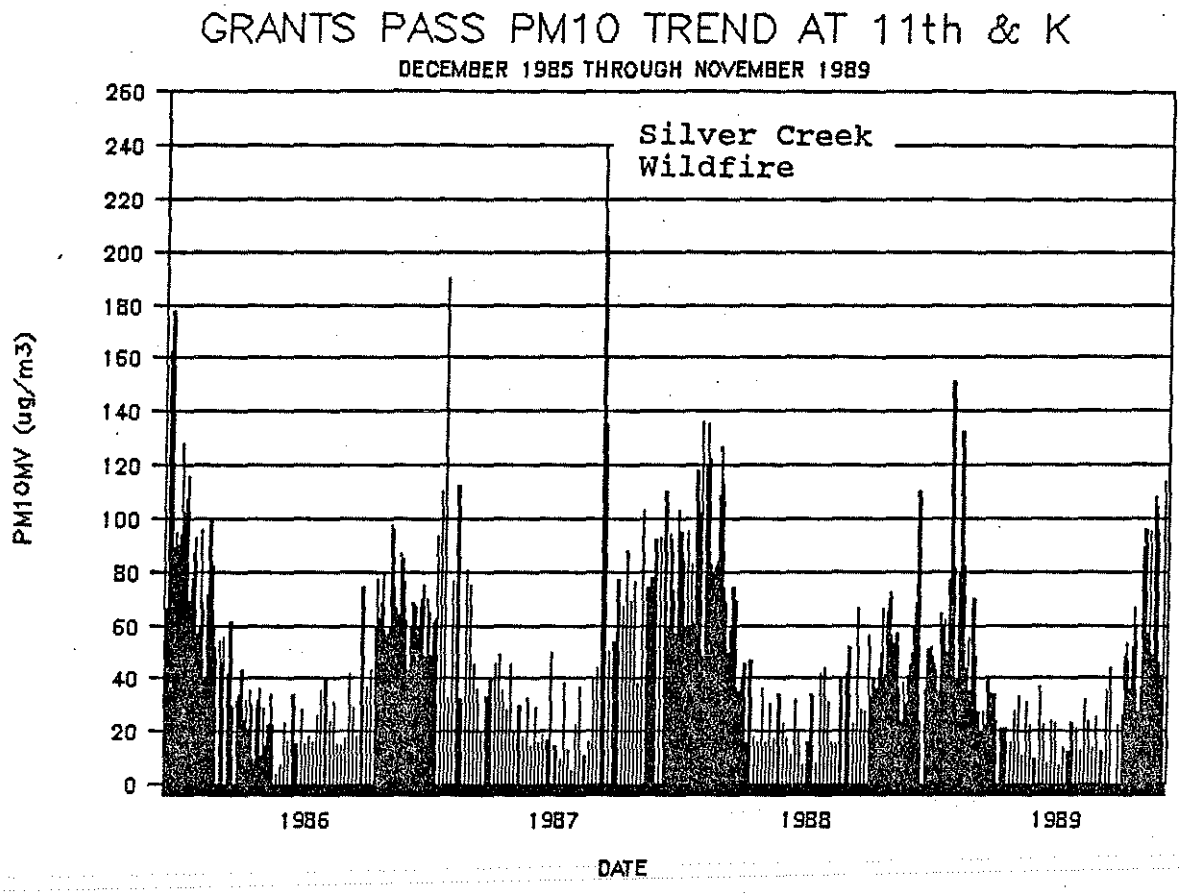
Measurement Method	Began	Terminated
<u>Courthouse</u>		
PM_{10} Medium-Vol.(MV) *	Dec. 1985	Mar. 1986
High-Volume TSP (TSP)	Nov. 1969	Oct. 1987
<u>11th & K Streets</u>		
PM_{10} High-Vol. SSI (SA321B & SA1200 inlets)	Dec. 1985 Sept. 1987	Apr. 1988 (SA321B) Sept. 1989 (SA1200)
PM_{10} Medium-Vol. (MV) *	Dec. 1985	Current
High-Volume TSP (TSP)	Dec. 1985	Jan. 1987

* Both Teflon and Quartz filter substrate are used.

4.13.1.2 PM_{10} Air Quality in Grants Pass

Figure 4.13.1-2 illustrates the seasonal variations in PM_{10} concentrations in Grants Pass. In general the highest 24-hour concentrations occur during the winter space heating season when PM_{10} concentrations have reached levels as high as 208 $\mu g/m^3$ (measured by a High-Volume sampler, January 1987). Peak 24-hour concentrations decrease dramatically during the spring months and reach a low of about 20 to 40 $\mu g/m^3$ during the summer months. Concentrations then rise again in the fall months as woodstove use increases and atmospheric dispersion decreases.

Figure 4.13.1-2: Seasonal Variation in PM_{10} Concentrations



Note: The PM10 trend shown above depicts actual Medium-Volume sampler concentrations, or measurements by other particulate sampling instruments that have been adjusted by formula to equivalent Medium-Volume concentrations. Hence, the previously mentioned January 1987 concentration of 208 $\mu g/m^3$ is roughly equivalent to 190 $\mu g/m^3$, because the High-Volume SSI samplers were determined to measure approximately 10% to 12% higher than the Medium-Volume samplers (refer to Appendix 4).

Review of PM_{10} Concentrations

The maximum and second highest daily concentrations of PM_{10} measured in 1985 through 1989 are summarized in the following table.

Table 4.13.1-2: PM_{10} Maximum Concentrations, 24 Hour Averages

Josephine County Courthouse			11th & K		
	ug/m3			ug/m3	
Year	Max.	2nd High	Year	Max.	2nd High
1985	217	181	1985	200	183
1986	91	79	1986	148	104
			1987	268	230
			1988	136	135

The above listed, relatively high concentrations of PM_{10} for 1987 were measured in early September 1987 and were attributable to the Silver Creek forest fire. Wildfires, such as the Silver Creek fire, are considered to be exceptional events that do not affect the development of plans to meet ambient air quality standards. A complete summary of the PM_{10} monitoring data from 1985 to 1988 is contained in Appendix 3.

Background Air Quality

PM_{10} aerosols from sources external to the UGB collectively contribute to background air quality, which constitutes a portion of locally measured PM_{10}. Sources such as wildfires, slash, agricultural and open burning, wind entrained soil, and secondary aerosols are believed to be the principal contributors to background air quality. PM_{10} concentrations at the Dodge Road site, which is in Sams Valley approximately 18 miles to the southeast of Grants Pass, are considered to be indicative of background concentrations in the Grants Pass urbanized area. Based on the Dodge Road site measurements, the 24-hour background concentration for worst case winter days is estimated to be approximately 44 $\mu g/m^3$.

Aerosol Chemistry

Chemically, Grants Pass winter-season PM_{10} aerosol is principally composed of organic carbon (34%), elemental carbon or soot (0.5%), crustal elements (5%), other trace elements (2%) and secondary sulfate and nitrates (3%). The balance is associated oxygen, hydrogen, water and ammonium. While the winter season aerosol is chemically very similar to the composition of woodsmoke with small amounts of soil elements, the composition of the aerosol during the summer months is quite different and is largely composed of crustal elements (Al, Si, Ca and Fe). Lead concentrations are very low, averaging 0.1 $\mu g/m^3$, 24-hour

average. The aerosol composition for either the summer season or winter cannot be used to directly infer source contributions.

4.13.2 Nonattainment Area Analysis

This section describes the Department's analysis of PM_{10} air quality in Grants Pass as it relates to the National Ambient Air Quality Standards. Source contributions to the airshed's PM_{10} air quality are discussed both in terms of emission strengths and source contributions to air quality as measured at the 11th & K site.

4.13.2.1 Design Values Determination

Attainment of the NAAQS for PM_{10} requires that annual average concentrations not exceed the annual standard of 50 $\mu g/m^3$ and that the expected number of exceedances of the daily standard must be less than or equal to one per year, averaged over a three-year period. Once an area has been identified as exceeding either standard, a PM_{10} design value must be based on concentrations measured during the baseline period. The design value can be used to determine the emission reductions needed to meet the NAAQS. Relative to the daily standard, the 24-hour design value is roughly comparable to the fourth highest measured PM_{10} concentration for the latest three full years of PM_{10} monitoring data. The annual design value is determined by computing the arithmetic average of the latest three full years of data. If the 24-hour design value requires a greater degree of control than the annual design value (as is the case in Grants Pass), then the 24-hour NAAQS becomes the controlling standard for purposes of SIP control strategy development.

The EPA PM_{10} SIP Development Guidelines specify that the preferred approach for estimating a design value is through the use of an applicable dispersion model corroborated by receptor models.[6] If there is no applicable dispersion model and at least one complete year of PM_{10} data is available, then the PM_{10} data should be used to estimate the design value. Because the absence of an adequate meteorological data base prohibits dispersion modeling in Grants Pass, the methodology used by the Department focuses on evaluation of the ambient PM_{10} concentrations. EPA specifies that the annual design value should be calculated as the arithmetic average of 3 years of PM_{10} monitoring data and that the 24-hour design concentration should be estimated using the empirical frequency distribution of at least three years of data. In the event that a full three years of monitoring data are not available, a table look-up procedure is specified. Both of these

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[6] PM_{10} SIP Development Guidelines. US Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. June, 1987. EPA-450/2-86-001.

procedures have been applied to the Grants Pass data and are described in Appendix 4.

Determination of Annual Design Value

Based on the analysis described in Appendix 4 and summarized below, the Annual Design Value PM_{10} concentration is 42 ug/m3. This calculated concentration indicates that Grants Pass is in compliance with the annual NAAQS of 50 ug/m3.

Determination of the 24-Hour Design Value

For Grants Pass the 24-Hour PM_{10} Design Value is 171 $\mu g/m^3$. This peak-day PM_{10} concentration, calculated for the baseline period, indicates that Grants Pass is not in compliance with the 24-Hour NAAQS of 150 $\mu g/m^3$. This is the starting point for determining the strategy needed to attain the standard in 1992. A description of the method used to calculate this value is also found in Appendix 4.

Table 4.13.2-1: Design Values Summary

Averaging Time	Method	Design Value
24 Hour	Graphical Procedure	171 $\mu g/m^3$
Annual	Quarterly Averaging	42

Once the 24-Hour and Annual design values have been determined, they must both be adjusted for emission changes due to growth and control strategies likely to occur by 1992, the year in which attainment must be demonstrated.

4.13.2.2 Emission Inventory

Introduction

Emission inventories provide useful information on the relative strength of sources within an airshed and provide a basis for control strategy evaluations. In addition, emission inventories provide a basis for tracking emission reductions and growth within an airshed. They cannot, however, estimate with certainty the impact of a source, or group of sources, at a specific location. Atmospheric dispersion caused by wind movements within the airshed and transport of pollutants into the airshed from exterior sources (i.e., wildfires, slash burning smoke and secondary aerosols) must be considered.

PM_{10} emissions (usually expressed in tons of particulate per year or TPY) are calculated from emission factors and source activity records. Emission factors are the weight of pollutant

emitted per unit of material processed such as grams of PM_{10} emitted per pound of cordwood burned; pounds of road dust emitted per vehicle mile driven or pounds of particulate emitted per unit area of plywood veneer processed. Emission factors used in this analysis are principally from the Environmental Protection Agency's compilation of emission factors AP-42.[7]

Information on activities which result in air contaminant emissions, such as the amount of cordwood burned by residents, vehicle miles driven, or veneer production volumes are obtained from a variety of sources. This includes industrial air contaminant discharge permit reports, mail surveys of the public, and data gathered from other government agencies.

Estimation of seasonal or worst-case day PM_{10} emissions requires development of a source operating schedule which describes the percent of annual emissions that occur during specific seasons, months, or 24-hour periods.

Base Year Emission Inventory

PM_{10} emissions for the 1986 base year within the Urban Growth Boundary (UGB) were estimated for industrial sources, residential heating (gas, oil and wood), commercial space heating, residential open burning, burning for agriculture and forestry, paved and unpaved roads, construction and agricultural dust and transportation sources (cars, trucks, railroads and aircraft). The basis of the emission estimates for the most significant sources are described below:

Industrial Sources: 469 TPY PM_{10}. These emissions are principally from the wood products industry, mainly wood-fired boilers and veneer dryers.

Residential Wood Heating: 373 TPY PM_{10}. Information obtained from the Department's 1987 wood heating survey[8] in Medford was combined with locally based population estimates to project emissions from woodheating appliances in the Grants Pass UGB. (Medford woodheating characteristics are considered to be representative of Grants Pass, since Grants Pass is only 29 miles to the west of Medford.) Approximately 11,012 housing units (1986 estimate) were located within the UGB, and

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[7] Compilation of Emission Factors, U.S. Environmental Protection Agency AP-42 Fourth Edition and subsequent supplements. US EPA Office of Air Quality Planning and Standards. Research Triangle Park, N.C. 27711.

[8] Oregon Woodheating Survey for 1987: Medford Area. State of Oregon Department of Environmental Quality, Air Quality Division. February, 1987.

approximately 5,950 housing units used wood burning devices. Approximately 66% of the devices were woodstoves while the remainder were fireplaces. The survey indicated that, on average, residents burn 2.7 cords/year of firewood in their woodstoves and 1.2 cords/year in fireplaces. At 40 pounds of PM_{10} emitted per ton of wood burned in a woodstove, 323 tons of PM_{10} are emitted per year. Fireplace emissions at 27 pounds per ton of wood burned total 50 TPY. About 12% of the woodstoves are DEQ-certified models.

Fugitive Dust Emissions: 206 TPY PM_{10}. The principal sources of dust within the UGB are paved and unpaved road dust (143 and 37 TPY, respectively). These figures are calculated from a 1986 estimate of 613,922 vehicles miles per day and a calculated PM_{10}/TSP ratio of 23.7%. The ratio is based on Department studies conducted for the compilation of base year emission inventories for the state Group I PM_{10} areas (refer to the memorandum in Appendix 5). There are also 158 miles of unpaved roads within the UGB.

Transportation Sources: 134 TPY PM_{10}. Highway vehicles (autos and trucks) emit 130 TPY PM_{10} in tailpipe and tire wear particulate; off highway vehicles 3 TPY and railroad diesel engines 1 TPY.

Other Sources: 14 TPY PM_{10}. Residential and Commercial space heating with fuels other than wood contribute 6 TPY. Approximately 354 tons of backyard debris is burned each year generating 1 TPY of PM_{10}. About an equal amount is generated from solid waste incineration on-site at industrial facilities. There is no significant agricultural burning conducted within the UGB. Structural Fires contribute 6 TPY.

Table 4.13.2-2 summarizes annual PM_{10} emissions within the UGB for 1986 and Table 4.13.2-3 summarizes the 24-hour worst case emissions for 1986. Figure 4.13.2-1 illustrates the percent contribution from each major source group for both annual and 24-hour worst case periods.

Table 4.13.2-2: Grants Pass UGB Annual Emission Inventory for 1986

Source	Tons/Year PM_{10}	Percent
Industry	469	39 %
Residential Wood Burning	373	31
Fugitive Dust	206	17
Transportation	134	11
Other Sources	16	2
Totals	1198	100 %

24-Hour Worst Case Inventory

Development of an inventory representative of emissions during a 24 hour period when PM_{10} ambient air concentrations reach their highest levels is important to understanding the sources that cause winter season, high PM_{10} episodes in Grants Pass. The relative proportion of emissions during these periods is expected to be quite different than those reflected in the annual emission inventory, because some sources (such as open burning) are not as active, while others (such as residential wood heating) are much more active.

The 24-hour worst case inventory for the UGB is based on the following information and assumptions:

Industrial Source emissions were factored to 24-hour values on the basis of the respective ratios from the operating permits of 24-hour PSEL's to the annual PSEL's. The 24-hour PSEL's incorporate shift capacity estimates. To reflect maximum production, the plants were assumed to be operating 350 days per year.

Transportation Source emissions are assumed to be constant throughout the year. The worst case day inventory therefore assumes that 1/365 of the annual emissions from this source occurs during the period.

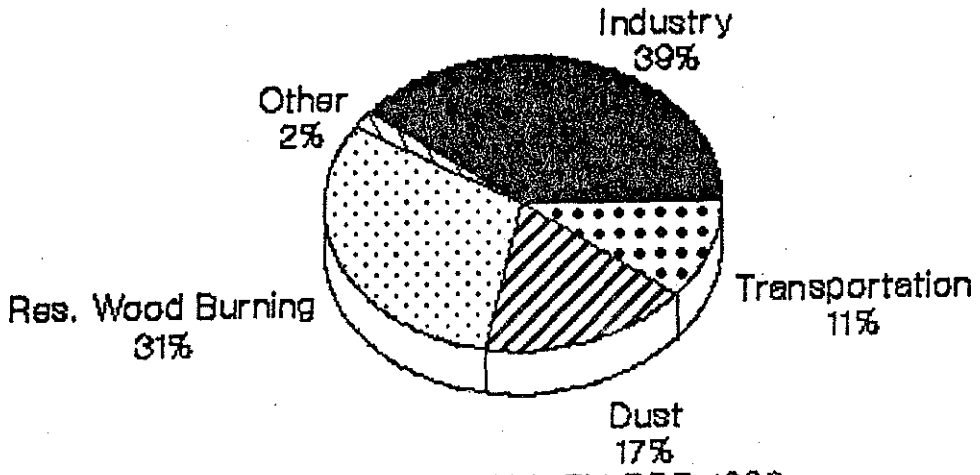
Residential Wood Burning emissions are assumed to be proportional to the coolness of the weather as reflected in the degree heating days statistic calculated by the Department using maximum and minimum temperatures recorded in Grants Pass and reported by the National Weather Service. The highest winter time PM_{10} concentration recorded in Grants Pass through the end of 1988 was 190 ug/m3 (January 21, 1987). The heating degrees for this day (29.0) was used to determine a worst case emission rate.

Table 4.13.2-3: 24-Hour Worst Case 1986 Emission Inventory

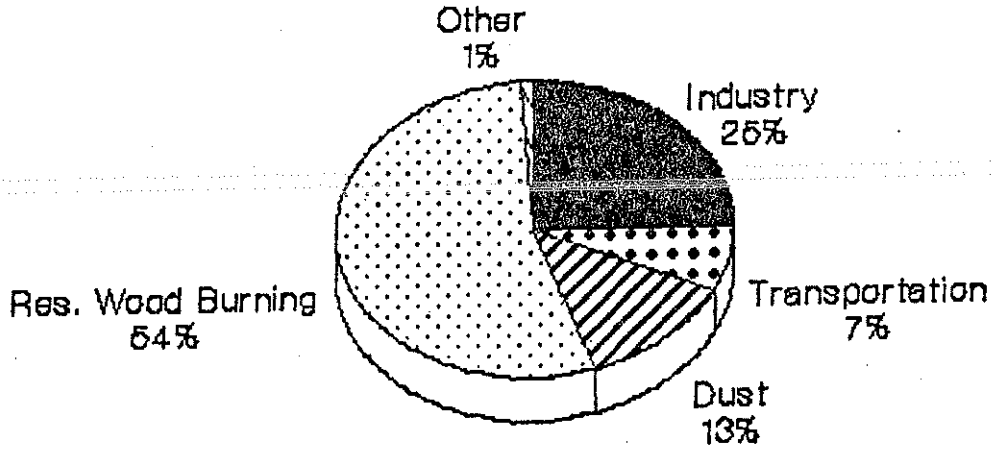
Source	Pounds/Day PM_{10}	Percent
Wood Products Industry	2600	25 %
Residential Wood Burning	5732	54
Fugitive Dust	1346	13
Transportation	774	7
Other Sources	99	2
Totals	10551	100 %

Appendix 5 provides a more detailed summary of the annual and worst case day emission inventory for Grants Pass in 1986.

Figure 4.13.2-1: Grants Pass PM10 Emission Inventories



ANNUAL INVENTORY FOR 1986



24-HR WORST CASE INVENTORY FOR 1986

Growth Factors

PM_{10} emission growth factors were used to estimate future year emission inventories. The primary growth indicator that affects the major area source categories is the population growth rate. For transportation sources, the rate of growth in vehicle miles of travel (VMT) is the primary indicator.

To estimate the industrial component of emission growth, it was assumed that the affected wood products mills will be operating at the Plant Site Emission Limits (PSEL) allowed under the revised Industrial Rules discussed in Section 4.13.3. Furthermore, any major new industrial facilities would be required to secure offsets. Based on these considerations, the emissions for the Wood Products Industry in 1992 could increase for the annual and worst case day by approximately 4 percent over the 1986 level. However, this is not the case, because of the permanent shutdown of a major industrial wood products complex.

The selection of a growth factor for population for the period from 1986 to 1992 was complicated by the fact that actual population growth in the Grants Pass urbanized area during the mid to late 1980's has been lower than the rates that were officially forecast for the Comprehensive Plan. The original forecast expected that population would grow at a rate of approximately 2.4% per year to 1990 and then accelerate to approximately 5.0% per year for the period from 1990 to 1995, based on the upper end of the year 2000 forecasting range for the Urban Growth Boundary (UGB) of 36,000 to 44,800. The actual growth rate between 1984 and 1986 was approximately 1% per year.

With the need for a more realistic population forecast to carry out the planning work for the Grants Pass Carbon Monoxide (CO) section of the State Implementation Plan (Section 4.11), the City of Grants Pass officially revised the 1990 population forecast to 29,742. This had the effect of lowering the original growth rate forecast to a level of 1.7% per year. The sewage treatment Facility Plan (dated 1985) for Grants Pass is predicated on a year 2000 UGB population forecast of 35,300. Use of the 1990 CO SIP population figure and 35,300 for 2000 results in an annual growth rate (compounded) of 1.7%.

Therefore, to project 1992 and 2000 emissions, a growth rate of 1.7% was assumed between 1990 and 2000 for both population and vehicle miles of travel.

Woodburning for woodstoves is expected to increase by 1% per year (6% total) by the year 1992 as a result of an increased amount of firewood burned. At the same time, firewood use in fireplaces is expected to decline by 2% per year. The one percent growth rate for woodstoves, which is lower than the population growth rate, is based on energy projections and fuel cost modeling performed to estimate future woodburning emission growth in the

Pacific Northwest.[9] These projections do not account for emission reductions that will occur as a result of woodstove certification programs, as these reductions are explicitly accounted for in the Section 4.13.3.2, Evaluation of Potential Control Measures.

Projected Emissions in 1992

PM_{10} emissions were projected for the 1992 attainment year. The emissions projections are based on the foregoing growth factors. Table 4.13.2-4 shows both the annual and worst case day PM_{10} emissions for 1992. The Industry category shows lower emissions for 1992 than for 1986 due to the shutdown and subsequent dismantling of the Southern Oregon Plywood mill, which occurred in 1988.

Table 4.13.2-4: Projected 1992 Emission Inventory (No Controls)

Source	--Annual-- Tons	%	-24-Hr Worst Case- Pounds	%
Industry	376	32	2086	20
Residential Wood Burning	386	33	5938	57
Fugitive Dust	230	20	1500	14
Transportation	149	13	864	8
Other Sources	17	2	111	1
Totals	1158		10499	

Projected Emissions Beyond 1992

Analysis of the ability to maintain compliance with the NAAQS during the period 1992 to the year 2000 requires development of a third set of emission estimates. For this maintenance analysis the 1992 inventory must be adjusted to reflect the reductions which are expected to be achieved by the attainment strategy. The growth rates used for the period 1992 to 2000 are [projected to be different from those of the preceding years and their effect on emissions is] described below:

- Population growth rate of 1.7% per year applied to residential oil, gas and wood combustion emissions; solid waste incineration emissions and structural fires;

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[9] U.S. Environmental Protection Agency, Region X, "Residential Wood Combustion Study, Task 3, Fuel Wood Use Projections", EPA 910/9-82-089 (1984).

- Transportation growth rate of 1.7% per year applied to transportation sources and paved, unpaved and construction dust;

- Industrial emissions are held constant at the annual and 24 hour PSEL emission rates shown in the 1992 emission inventory;

The projected residential wood combustion emissions, following application of a 1.7% per year growth rate, were adjusted to reflect emission reduction credits associated with the woodstove certification program resulting in a 7% decline in emissions.

Projected Annual emissions for 1992 before and after implementation of the control strategy, growth factors and estimated Annual emissions for the year 2000 are summarized in Table 4.13.2-5. The 24 Hour Worst Case projected emissions are summarized in Table 4.13.2-6.

Table 4.13.2-5: Projected Annual Emission Inventory for the Year 2000

Source	1992 Before Control (Tons)	1992 After Control* (Tons)	1992-2000 Growth	2000 (Tons)
Industry	376	169	0 %	169
Residential Wood Burning	386	351	-7 %	325
Fugitive Dust	230	230	14 %	263
Transportation	149	149	14 %	169
Other Sources	17	17	14 %	19
Totals	1158	916		945

* See Section 4.13.3.3 for discussion of emission reductions

Table 4.13.2-6: Projected 24 Hour Emission Inventory for the Year 2000

Source	1992 Before Control (lbs)	1992 After Control* (lbs)	1992-2000 Growth	2000 (lbs)
Industry	2086	939	0 %	939
Residential Wood Burning	5939	3851	- 7 %	3578
Fugitive Dust	1500	1500	14 %	1707
Transportation	864	864	14 %	984
Other Sources	111	111	14 %	126
Totals	10499	7265		7334

* See Section 4.13.3.3 for discussion of emission reductions

Comparison of these Tables to Tables 4.13.2-2 and Table 4.13.2-3 shows that the projected total Annual emissions for the year 2000 are reduced from 1986 levels by 253 tons per year and by 3217 pounds per day on the worst case day. Although on an annual basis Dust, Transportation and Other Sources increase, the effect of the Industrial Controls and woodstove certification is a net decrease in total airshed emissions. On the worst case winter day Industrial emissions are still reduced but the most significant reduction occurs in Wood Burning emissions due to the implementation of voluntary curtailment and the other wood smoke control elements.

4.13.2.3 Source Contributions by Receptor Modeling

Introduction

The Environmental Protection Agency PM_{10} SIP Development Guidelines Section 4.4 describes procedures to be used by the states for using receptor models to estimate source contributions to PM_{10} concentrations. These guidelines support the use of receptor models as an important element of the SIP strategy development process. In cases such as Grants Pass, where dispersion modeling cannot be applied because of the absence of meteorological data, receptor modeling (specifically, Chemical Mass Balance or CMB) has been recommended. The specific application of the CMB Receptor Model to PM_{10} source apportionment in Oregon's Group 1 areas is described elsewhere.[10]

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[10] PM_{10} Receptor Modeling for Oregon's Group I Areas: Medford, Grants Pass and Klamath Falls. State of Oregon Department of Environmental Quality, Air Quality Division. March, 1989.

Chemical Mass Balance (CMB) is a mathematical/statistical form of receptor modeling which is based upon regression analysis of aerosol chemistry features. The CMB model does not provide an exact solution to the source apportionment problem but instead attempts to find the most likely combination of source contribution estimates (SCE's). This is done by minimizing the difference, or variance, between the measured and model-predicted concentration of aerosol features. Values for the ambient aerosol matrix are obtained through chemical analysis of PM_{10} filters taken at the 11th & K Streets site, while the source "fingerprint" values are obtained through representative analysis of stack emissions. The CMB modeling protocol applied follows EPA guidance.[11] All of the CMB modeling has been conducted using EPA's Version 6.0 CMB program.[12]

Ambient Aerosol & Source Emission Analysis

Nine PM_{10} samples collected between December 7, 1987 and February 10, 1989, were selected for analysis. These samples are composed of the highest concentrations during this two month winter period that were at least 100 ug/m3. Only one 24 hour sample has exceeded the NAAQS of 150 $\mu g/m^3$ since the end of the Silver Creek wildfire episode in early September 1987. Chemical characterization of the samples includes 19 trace elements analyzed by x-ray fluorescence, 3 inorganic anions, and elemental/organic carbon, providing a data set that is compatible with the source emission profiles. Analytical uncertainties for each of the values are routinely reported and included in the CMB calculations.

PM_{10} source profiles (listed in Table 4.13.2-7) representing all major emission groups within the airshed were used in the modeling. All of the profiles were obtained from the Pacific Northwest Source Profile Project.[13] A list of the sources included in the analysis is presented below:

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[11] Protocol for Reconciling Differences Among Receptor and Dispersion Models. US EPA 450/4-87-008. March, 1987.

[12] Receptor Model Technical Series, Volume III (Revised): CMB User's Manual (Version 6.0) US EPA 450/4-83-014R. May, 1987.

[13] Pacific Northwest Source Profile Library Project, Final Report Prepared by the State of Oregon Department of Environmental Quality, Air Quality Division, J. Core, Ed. September, 1989.

Table 4.13.2-7: Source Profile Names

No.	Acronym	Description
1	GPSOIL	Resuspended soil dust from Grants Pass
2	SLASH	Forestry slash broadcast burning (Also may be vegetative burning such as yard debris.)
3	RWC MED	Residential wood combustion profile for Medford
4	LD AUTO	Light duty autos (leaded gasoline)
5	HOGFUEL	Boiler burning plywood trim in the fuel
6	WOOD	Wood Fiber including sander dust
7	HDDIESEL	Diesel Exhaust (Fed. Test Cycle)
8	SECSO4	Secondary Sulfate estimated as ammonium sulfate
9	SECNO3	Secondary Nitrate estimated as ammonium nitrate
10	SECNH4	Secondary Ammonium ion
11	CONST	Construction Dust - Medford Aerosol Study
12	VENEER	Steam heated veneer drier emissions

Receptor Model Source Contribution Estimates

Table 4.13.2-8 is a summary of the average source contributions obtained for the nine worst case winter days that were modeled. Average PM_{10} concentration for these samples was 120 $\mu g/m^3$.

Table 4.13.2-8: Average Winter Worst Case Day Source Contributions

Source	PM_{10}	$\%PM_{10}$
Wood Smoke	82.1 $\mu g/m^3$	68.2 %
Industry	10.2	8.5
Soil Dust	17.2	14.3
Transportation	0.2	0.2
Sec. Aerosol	2.5	2.1
Others	8.1	6.7
Total PM_{10}	120 $\mu g/m^3$	

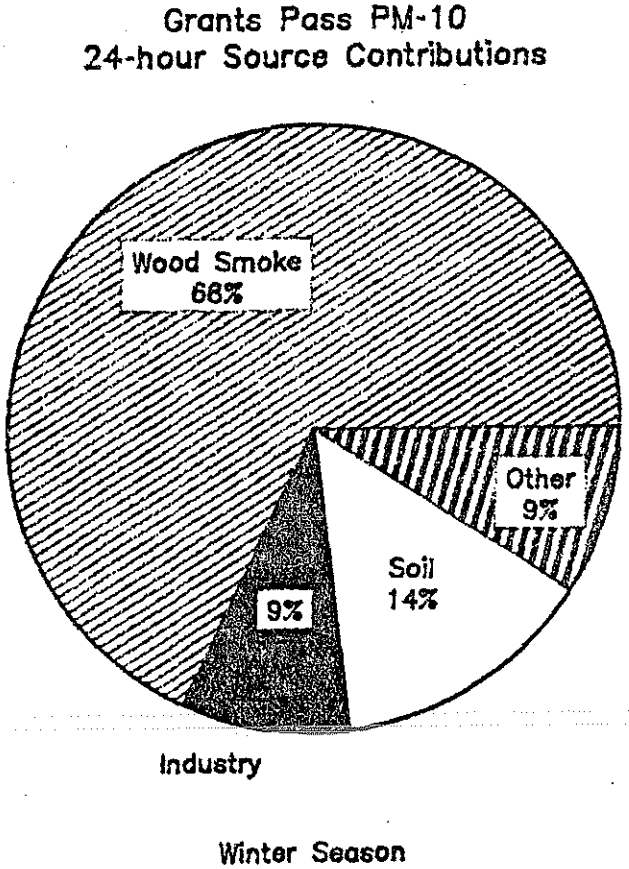
Because of the similarities between source fingerprints for residential wood combustion and veneer driers the apportionment of these two sources cannot be done with CMB alone. The contribution of veneer driers was estimated by applying the 1986 estimated emission rate ratio of Veneer Drier to Hog Fuel Boilers (1,044 lb/day / 760 lb/day) to the HOGFUEL aerosol percentage (3.9 %) which was determined by CMB. Veneer Driers and Hog Fuel Boilers were summed to give the Industrial contribution. The Wood Smoke contribution was then reduced by the percent going to Veneer Driers. Average source contribution uncertainties

(relative percent of mass) vary from 18% for wood smoke, to 11% for hog fuel boilers and 8% for soil dust.

Receptor modeling of these samples collected on high winter days shows that residential wood smoke is the major source of PM_{10}. Of the nine days that were analyzed, the wood smoke contribution ranged from 41% to 98% of the PM_{10} mass. The emissions ratio method of estimating the veneer drier component yields an upper bound estimated industrial source impact of 16%.

Over ninety percent of the aerosol is accounted for in this analysis. The remainder of the PM_{10} includes water associated with the aerosol, contributions from minor sources, and the uncertainty in the apportionment method. Figure 4.13.2-2 illustrates the source contribution estimates determined by the CMB analysis.

Figure 4.13.2-2: Grants Pass PM_{10} Source Contributions by Aerosol Chemistry



Background PM_{10} Air Quality

Receptor modeling of local PM_{10} cannot, however, distinguish between particulate which has been generated within the airshed and particulate which has been transported into the airshed. The control of this "locally" generated particulate requires determination of the local source contributions, which means subtraction of the background contribution. Annual and 24-Hour average background PM_{10} being transported into the Grants Pass UGB is estimated from measurements made at a site in Sam's Valley (Dodge Road). This site is located approximately 18 miles to the northeast of Grants Pass, and the monitored levels are expected to be representative of general background conditions for southwest Oregon. Analysis of the Dodge Road site data indicates that peak day and average PM_{10} concentrations are 44 $\mu g/m^3$ and 15 $\mu g/m^3$, respectively.

Chemical Mass Balance analysis of the sources contributing to this background particulate is needed to be able to subtract the appropriate background value in each source category. Table 4.13.2-9 shows the background source contributions for both Annual and 24-Hour average PM_{10}.

Table 4.13.2-9: Background PM_{10} Source Contributions

Source	Annual Average	24-Hr Average Worst Case
Industry	0.7 $\mu g/m^3$	3.0 $\mu g/m^3$
Wood Smoke	7.1	31.6
Soil Dust	4.6	2.3
Transportation	---	---
Sec. Aerosol	1.4	4.8
Others	1.0	2.3
Total	14.8	44.0

Estimation of "Local" Air Quality Impacts

Estimation of the impact of emission sources within the UGB requires that the background components listed in Table 4.13.2-9 be subtracted from the comparable source contributions listed in Table 4.13.2-8. This difference is presented in Table 4.13.2-10 which lists the "local" source contribution estimates to PM_{10} on average worst case winter days. For comparison the source contributions as determined from the 1986 emission inventory are also shown.

Table 4.13.2-10: Average Worst Case Day "Local" Source PM_{10} Contributions

Source	Receptor Modeling $\mu g/m^3$	Receptor Modeling %	Emission Inventory %
Industry	7.2	9	24
Wood Smoke	50.5	64	54
Soil Dust	14.9	19	13
Transportation	0.2	< 1	7
Sec. Aerosol	0.0	0	--
Others	5.8	7	2
Total	78.6		

The values shown in the last two columns demonstrate that qualitatively the emission inventory and receptor modeling analysis provide roughly comparable results with respect to the contribution of Wood Smoke. Both methods indicate secondary contributions from Industrial and Dust sources. The wood products industry contributions, as estimated by emission inventory, are significantly higher than that estimated by receptor modeling, most likely because dispersion of the emissions are not being considered. Transportation emissions are also higher by the inventory method than indicated by receptor modeling, probably for the same reason. In order to take into account the differences in source contribution estimates, the control strategy analysis was conducted in two ways: 1) rollback was applied to the individual source categories based on the emission inventory relative source strength; 2) rollback was applied to the individual source categories based on the receptor modeling relative source strength.

4.13.3 Emission Reduction Analysis

This section describes the emission reductions necessary to attain the 24-hour PM_{10} standard (4.13.3.1); reviews potential control measures that could be applied in Grants Pass (4.13.3.2); and presents a technical assessment of the adequacy of the control measures to attain the standard within the time limits specified by Section 110(a) of the Clean Air Act (4.13.3.3).

4.13.3.1 Emission Reduction Necessary for Attainment

The EPA PM_{10} SIP Development Guidelines specify that a proportioning method, which separates out the individual source contributions, should be used to estimate the control strategy requirements of the SIP. In the analysis below, the contribution of emission sources to the 1992 design values have been apportioned based on the projected 1992 emission inventories

described in Section 4.13.2.2. The sum of the 1992 source impacts, plus background, provides the 1992 24-Hour worst case day design value.

Projected Source Impacts in Future Years

Table 4.13.3-1 lists 1992 source contribution estimates for the 24-hour worst case scenario. Source contributions at the 1992 design value were apportioned using the 1986 24-hour worst case day emission inventory percentages (see Table 4.13.2-9) applied to the "local" design value of 127 $\mu g/m^3$ (171 $\mu g/m^3$ design value less the background of 44 $\mu g/m^3$).

Table 4.13.3-1: Projected Future Source Category Impacts (Emission Inventory)

Source	1986 Worst Day	"Local" Design ($\mu g/m^3$)	1986-92 Growth (%)	"Local" Design ($\mu g/m^3$)	1992 Worst Day
Wood Smoke	54%	69	6	73	57%
Industry*	24%	30	-20	24	19%
Fugitive Dust	13%	17	11	19	15%
Transportation	7%	9	12	10	8%
Other Sources	2%	2	12	2	1%
Subtotals		127		128 $\mu g/m^3$	
Background				44	
Total				172 $\mu g/m^3$	

* Industrial emissions decrease due to the closing of a major facility in September, 1988.

Air quality improvement needed = 22 $\mu g/m^3$ (172-150 $\mu g/m^3$) or a 17% (22/128) reduction in worst case day emissions. This is equivalent to 1785 pounds per day.

As a crosscheck on the adequacy of the proposed control strategies, a separate rollback calculation was done based on the source contributions determined from the receptor modeling analysis.

Table 4.13.3-2 lists the projected 1992 source category contributions based on the receptor modeling analysis. In this case the 1992 source category contributions were apportioned using the average worst case day percentages derived from Chemical Mass Balance. Again, the percentages are applied to the "local" design value of 127 $\mu g/m^3$.

Table 4.13.3-2: Projected Future Source Category Impacts (Receptor Modeling)

Source	1986 Worst Day	"Local" Design ($\mu g/m^3$)	1986-92 Growth (%)	"Local" Design ($\mu g/m^3$)	1992 Worst Day
Wood Smoke	64%	81	6	86	64%
Industry	9%	11	-20	9	7%
Fugitive Dust	19%	24	11	27	20%
Transportation	<1%	1	12	1	<1%
Other Sources	7%	9	12	10	8%
Subtotals		127		133 $\mu g/m^3$	
Background				44	
Total				177 $\mu g/m^3$	

Air quality improvement needed = 27 $\mu g/m^3$ (177-150 $\mu g/m^3$) or a 20% (27/133) reduction in worst case day concentration.

Both analyses lead to similar reduction requirements. The control strategy selected must be comprised of a mix of individual source reduction measures such that their sum is equal to, or greater than, the total reduction requirement. Adopted control strategies must be shown, through a demonstration of attainment (Section 4.13.3.3), to attain and maintain the NAAQS by reducing emissions such that the 24-Hour worst case PM_{10} concentrations are also reduced.

It should also be noted that since the 24-hour control strategy will reduce all worst case day PM_{10} levels it should result in a reduction in the annual average PM_{10} from the design value as well. Therefore, implementation of strategies to assure attainment of the 24-Hour standard will assure continued compliance with the annual NAAQS. The emission inventory trends described earlier provide confidence that this is true.

4.13.3.2 Evaluation of Potential Control Measures

A number of potential strategies could be used to achieve the required reduction in the 24-hour worst case day PM_{10} concentration. The Grants Pass City Council and the Josephine County Commissioners appointed a citizens committee in December 1987 to evaluate the particulate problem and recommend a strategy that would achieve the health standard consistent with the requirements of the Federal Clean Air Act. The Committee produced a report (Appendix 1) and presented its recommendations to a joint meeting of the City Council and the County Commission on May 21, 1988. The Committee considered a package of control

strategy alternatives, labeled Options A, B and C, which are summarized in Table 4.13.3-3.

Table 4.13.3-3: Potential Control Measures for Grants Pass Urban Growth Boundary

Option A
Firewood Seasoning Education
Voluntary Curtailment During Pollution Episodes (5-10 days/year)
Clean Air Utility Rates
Upgraded Industrial Controls

Option B
Firewood Seasoning Education
Mandatory Curtailment During Pollution Episodes (5-10 days/year)
Clean Air Utility Rates

Option C
Firewood Seasoning Education
Retrofit Subsidy for All Freestanding Stoves
Voluntary Curtailment During Pollution Episodes (5-10 days/year)
Clean Air Utility Rates

Clean Air Utility Rates and Firewood Seasoning Education were common to all three options. One of the main differences between Options A and B was voluntary curtailment versus mandatory curtailment. Also, Option A included upgraded industrial controls, whereas they were not included in Options B and C.

Discussion of Options A, B and C

Option A

The first element of this option consists of a voluntary curtailment program on woodstove and fireplace use that would be activated on an estimated 5 to 10 days during the winter. (Air monitoring data collected through November 1989 indicates that curtailment would be activated less frequently, approximately 3 to 4 days during the heating season.) The curtailment program would be set up to run locally, with assistance from the Department in providing forecasted air quality levels. Firewood seasoning education would be an informational program supported by DEQ materials and tools developed in other areas. Clean Air Utility Rates would be a program of reduced rates applied to baseline consumption levels that would be offered to the customers of utility companies serving the Grants Pass area. The reduced rate program would have to be approved by the Oregon Public Utility Commission. The combination of these measures was estimated to reduce PM_{10} emissions from residential wood combustion by as much as 45%.

The industrial component of this option would require upgraded pollution control equipment for veneer dryers and wood-fired boilers. The upgraded equipment for the boilers would be similar to what has been required in Medford. The upgraded industrial control equipment was estimated to provide an emissions reduction of 56% (refer to the Point Source spread sheets in Appendix 5).

Option B

The sole focus of control under this option would be residential wood combustion. Implementation of this program would require the adoption of local ordinances, including enforcement provisions to carry out a mandatory curtailment program. Again, curtailment would be required approximately 3 to 4 days per winter heating season. Mandatory curtailment was estimated to reduce wood heating emissions (PM_{10}) by approximately 65%--even if sole source heating and a few other exemptions were provided. (Note: Subsequent information developed by the Department indicates that mandatory curtailment could reduce emissions by 80 to 90%.)

Option C

This strategy would also focus on residential wood combustion. Voluntary curtailment would be the same as outlined under Option A. Under this option, existing, high emitting woodstove appliances would be replaced, or retrofitted. The local area would have the primary responsibility for developing funding to support this conversion program. The total cost of retrofits, or replacements is estimated to range between $1 million and $2 million, depending upon the mix of retrofits and replacements. Option C would reduce wood heating emissions by approximately 65%.

Evaluation of Options A, B and C

The three control options have different cost structures. Option A spreads the burden of control between the community (wood heating) and local industry. On a per participating household basis, the additional cost of a voluntary curtailment program would be approximately $2 to 4 for each day of curtailment. The per household cost varies according to the degree of weatherization, the size of the structure and the type of alternative heat. Upgraded industrial pollution control equipment is estimated to have a capital cost of $3 to 4 million.

Because of the much greater participation for a mandatory curtailment program, the overall cost of Option B for the wood heating households would be four times as much as for Option A. There would also be additional costs on local government for enforcement.

Option C costs would depend upon the mix of retrofits and stove replacements. A 100% retrofit program would cost approximately $1.0 million, while a 100% replacement program would cost approximately $2.0 million. The costs to individual households could be reduced through subsidies. Potential sources of subsidy funds could include: Community Development Block Grants (HUD), private foundation grants, state income tax credits, local property tax credits, industry or business contributions, city or county bond issues, state lottery funds, oil overcharge settlement funds, or increased wood cutting fees.

The Committee's deliberations on the options focused mostly on Option A. Given the relatively marginal nature of the PM_{10} problem in Grants Pass, Option B appeared to be too harsh and unpopular. It also would be uneven in its application with a sole focus on residential wood combustion. The major drawback of Option C was the perceived difficulty in securing the necessary funding. The short time frame for implementation also appeared to be a major problem. The Committee thought that an extension for meeting the standard would be needed to implement Option C.

PM_{10} Control Strategy Elements

The Committee recommended Option A as the basic framework for a PM_{10} control strategy in the Grants Pass area. Potential control strategy elements are described below. Emission reduction credits associated with each element are listed and discussed. A PM_{10} emission reduction credit is a measure of the reduction in PM_{10} emissions that would be accomplished through adoption and implementation of the program element. Section 4.13.3.3 demonstrates how the Committee's recommendation will assure attainment of the 24-Hour PM_{10} NAAQS.

Residential Woodsmoke Control Elements

There are two basic approaches to reducing woodsmoke from stoves and fireplaces: (1) improving the performance of the wood heating systems such as through a certified woodstove program; and (2) burning less wood through woodstove curtailment programs. Some strategies have multiple advantages. Certified woodstoves, for example, improve emission performance by reducing the amount of woodsmoke per cord of wood burned while improving energy efficiency, thus reducing the amount of wood burned. Other examples are well designed public information, energy conservation, or firewood seasoning programs that result in better combustion (lower emissions) and better energy efficiency (less fuel burned). The key elements of the residential wood smoke control program are described below.

Woodstove Certification Program

In 1983, the Oregon Legislature directed the Department to require that all new woodstoves sold in the state be certified through laboratory testing of prototypes for emissions and efficiency to assure compliance with established woodstove emission standards. As a result, stoves sold after July, 1986 were required to emit 50% less emissions than conventional woodstoves. After July 1988 new woodstoves were required to emit 70% less emissions.

Subsequent to the adoption of Oregon's emission standards, the Environmental Protection Agency adopted a slightly more restrictive national certification program which will become effective in July, 1990. In December, 1989, the Department began rule making to modify the Oregon Woodstove Certification Rules (OAR 340 Division 21) to assure consistency with EPA's national program. The modified rule is expected to be adopted by March, 1990.

In-home studies of first generation certified woodstoves have indicated that they actually reduce emissions by about 30%. Second generation certified woodstoves have been shown to reduce emissions by about 50%. This lesser than expected performance has to a large extent been due to durability problems with critical stove components. The majority of the stoves certified by the department and sold in Oregon have been second generation stoves.

Second generation catalytic stove designs have incorporated new advancements in combustor technology which in part accounts for the stoves increased effectiveness. First generation catalytic stoves, incorporate less effective catalytic elements which are currently reaching the end of there useful life. When replaced with new generation catalysts, the first generation catalytic stoves will provide effective emissions reductions approaching that of second generation stoves. These improved first generation stoves will make up in part the stove population in 1992.

Recent in-home studies have also shown that woodstove designs which met experimental durability criteria have demonstrated emission reductions averaging 79%. Durability criteria are those design features, and methods of construction which will help ensure that the initial emission performance achieved by a stove is maintained over it's usable life. Some of these units will also make up the woodstove population in 1992.

Additionally, sales of pellet stoves in non-attainment areas, as well as state wide are reported to have significantly increased and are expected to accelerate in the foreseeable future. Pellet stoves are expected to provide a 90% reduction in emissions in the home and are expected to become a significant segment of the woodstove population in non-attainment areas where they have

typically been exempted from curtailment programs. Considering the above factors, the Department is using a conservative 50% emission reduction credit overall for the stove population of 1992.

Basis for Woodstove [10%] Certification Program Credit

As noted in Section 4.13.2.2 on Growth Factors, firewood use is projected to increase by 1% per year over 6 years for woodstoves and decrease by 2% per year for fireplaces. This is the basis of the growth factor used in calculating projected 1992 wood smoke emissions. Therefore, in the absence of any certification program, woodstove emissions would increase by:

1% per year x 6 years = + 6%

With respect to the replacement of stoves, a conservative estimate of the average useful life of woodstoves is 20 years. Therefore, approximately 5% of the stove population will replaced each year.

Building permit authorities in other areas of the state indicate that about 90% of permitted installations are certified stoves. Therefore, if ten percent of the new woodstoves installed are non-certified (i.e., there are no restrictions on the installation of used non-certified woodstoves) and the typical certified woodstove emits 50 % of that emitted from a conventional stove, then 1992 woodstove emissions can be expressed in terms of 1986 woodstove emissions as follows:

$$WS92 = [.06][BL86WS][(0.90)(0.5) + (0.10)(1.0)] + (6\ Yrs)(0.05/Yr)(BL86WS)[(0.90)(0.5) + (0.10)(1.0)] + (BL86WS)[1.0 - (6\ Yrs)(0.05/Yr)]$$

$$= (0.033)(BL86WS) + (0.165)(BL86WS) + (0.70)(BL86WS)$$

$$= (0.898)(BL86WS)$$

Where WS92 = 1992 Woodstove Emissions and

BL86WS = 1986 Baseline Woodstove Emissions

Therefore, the woodstove certification program provides a 10.2% credit ((1. - 0.898) x 100) against the Baseline 1986 woodstove emissions by 1992.

A similar projection was made for determining the effect of the certification program to 2000. The year 2000 woodstove emissions were expressed in terms of a 1992 baseline (refer to calculations in Appendix 5). The certification program results in a 10.3% reduction, or approximately 1% per year after taking into consideration 1.7% annual growth.

Public Information Programs

A comprehensive, professional, and well-financed public information program is essential for public cooperation and support in reducing woodsmoke emissions. The program should describe clearly the need for the public's cooperation, the health-safety-energy-economic benefits to individuals and the community, and precisely what individuals can do to help. Key elements include: home weatherization, firewood seasoning, cleaner burning practices, proper stove installation and sizing, maintenance of woodburning systems and most importantly curtailment of woodburning during poor ventilation episodes. Although no emission reduction credits are taken for the public information program, it is critical to the success of all of the other woodsmoke reduction elements.

EPA's Guidance Document for Residential Wood Combustion Emission Control Measures recognizes public education programs as an essential element of any residential wood burning control strategy. Although EPA recognizes public education programs as an essential element of wood burning control programs, no emission reduction credits can be assigned to the program without further technical justification.[14]

Curtailment During Poor Ventilation Episodes

Woodburning curtailment forecasts can be made twice daily, or whenever PM_{10} air quality levels, as measured by an integrating nephelometer, are forecast to exceed a 24 hour average NAAQS. The advisory is generally based on National Weather Service upper air and barometric pressure data, forecasts of synoptic meteorology, surface temperatures, and wind speed/direction. Nephelometer measurements of hourly light scattering and local observations of air quality conditions are also used.

Woodburning curtailment advisories are generally issued at three levels:

> "Green" advisories are issued for periods during which NAAQS violations are unlikely. Woodburning is unrestricted during these periods but the public is asked to follow good woodburning practices.
>
> "Yellow" advisories are issued for periods approaching exceedence of the NAAQS. The public is asked to curtail all unnecessary woodburning, excepting only pellet stoves, certified woodstoves, and those people that use wood as their sole source of heat.

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[14] US EPA, "Guidance Document for Residential Wood Combustion Emission Control Measures," EPA-450/2-89-015 (1989).

"Red" advisories are issued for periods of severely restricted ventilation during which PM_{10} levels are expected to exceed the NAAQS. Only households in which woodburning is the sole source of heat are permitted to burn during these periods.

Compliance with the advisories can be determined through evening surveys of woodburning activity during "Green", "Yellow" and "Red" curtailment periods using infrared cameras. Data from the surveys is used to direct the public education program, evaluate progress toward achieving program goals, and in evaluating trends in PM_{10} concentrations.

Basis for Woodburning Curtailment Credits (Worst Case Day)

Over the past several heating seasons a number of woodburning communities in Oregon, and other western states, have instituted voluntary woodburning curtailment programs as a means of reducing wood heating emissions. Nearby Medford, Oregon has reported 25% compliance per year for the past 4 years. Klamath Falls, Oregon reported 14% compliance in its first year of voluntary curtailment and 27% in its second year. Missoula, Montana has reported 30% compliance. The goal of the Grants Pass Woodburning Advisory Program is to reduce wood use by 25% on the 1 - 10 days per year on which violations of the PM_{10} health standard would be expected. The goal is to be achieved by the end of the second year of the program. Compliance with the advisory will be based on field surveys. A credit of 25% is justified based on the experience of other communities and Grants Pass' commitment to achieve the National Ambient Air Quality Standards.

Industrial Control Elements

In September, 1988 the Environmental Quality Commission adopted changes to the Industrial Rules (OAR 340-30-005 to 067) specific to Grants Pass and Medford. These rules will significantly reduce PM_{10} emissions from veneer dryers and wood-fired boilers.

The new rules impose emission limits for veneer dryers based on state-of-the-art technology. For dryers using gas, or steam as the heat source, the emission limit is 0.30 pounds per thousand square feet (lb/Msf) of 3/8" veneer dried. For dryers heated directly by combustion gases from wood burning, the emission limit is 0.45 lb/Msf. These emission limits boost the control efficiency from 45% to a minimum of 70%. The upgraded control equipment for veneer dryers is expected to result in an emissions reduction of 99 tons per year, approximately 54% of 1986 emissions.

For existing large, wood-fired boilers (heat-input capacity of greater than 35 million Btu/Hr), the new Rules impose an emission limit of 0.05 grains per standard dry cubic foot (gr/SDCF). The imposition of the reduced emission limit is expected to result in an emissions reduction of 82 tons per year. By the end of 1994, the large wood-fired boiler emission control equipment must meet an emission limit of 0.015 gr/SDCF. However, any such modification, or replacement will be legally limited to 0.030 gr/SDCF. The difference in emissions between 0.030 gr/SDCF and a lower actual emission rate can be banked for offsetting new sources.

The overall industrial PM_{10} emissions reduction is predicted to be 55% between 1986 and 1992.

Long-Term Wood Heating Control Strategy

Wood heating curtailment is viewed as a short-range control strategy to allow rapid attainment of the short-term (24-hour) PM_{10} air quality standard. The Department of Environmental Quality is committed to pursue permanent reductions in wood heating emissions as a long-range strategy to reduce and even eliminate the reliance on curtailment and to provide significant improvement in annual PM_{10} air quality.

At least the following measures will be pursued to reduce permanently wood heating emissions:

- Public education activities will include more specific information on the true cost of wood heating in relation to other alternative cleaner heating sources. The major goal of this effort is to persuade those households that are spending more money to heat with wood than with conventional fuels, such as natural gas, to convert from wood heat.

- Further information and studies on the toxicity, health effects and other detrimental effects of woodsmoke will be pursued and heavily publicized in a continuing effort to convince more people that they should reduce wood burning.

- In home emission control performance of certified stoves will be improved through promotion of durable design criteria and development of a stress test which will aid in identifying durable certified stoves.

- Financial incentive programs will be pursued through the Oregon Legislature and other avenues to promote replacement of conventional wood heating appliances with less polluting systems. These programs could include tax credits, low interest loans and total buy-outs for low income households. An objective would be to graduate these incentives in proportion to the emission reduction potential of the

alternative heating systems, with electric and gas systems qualifying for the largest financial incentives followed by pellet stoves, durable certified woodstoves and finally, other certified woodstoves.

4.13.3.3 Demonstration of Attainment

This section describes the application of emission reduction credits described in Section 4.13.3.2 for demonstrating attainment with the NAAQS. The methodology used is based on a proportional rollback of 1992 emission estimates.

24 Hour Worst Case Day Strategy

Based on the Emission Inventory approach, attainment of the 24 hour NAAQS in 1992 will require a 17% or 1785 pounds of reduction in worst case day emissions. The necessary reduction is achieved through the strategy elements listed below.

Table 4.13.3-4: Summary of 24 Hour Emission Reductions

Strategy Element	Credit	Emission Reduction
Industrial Controls	2086 lbs/d x 55%	1147 lbs/d
Woodstove Strategies		
Certification	4964 lbs/d x 10.2%	506 lbs/d
Curtailment	5134 lbs/d x 25%	1284 lbs/d
	Total Reduction	2937 lbs/d
	Required Reduction	1785
	Excess Reduction Achieved	1152 lbs/d

Especially noteworthy in the above table is the fact that the Woodstove Strategies alone provide sufficient emissions reduction (1790 lbs/d) to meet the standard. This gives a high degree of assurance that the 24 hour NAAQS for PM_{10} will be met in areas within the UGB which are not significantly impacted by industrial sources and where no monitoring data exists. Conversely, the great reduction in emissions within the industrial area from 1986 to 1992 (64%), as a result of the plant shutdown and Industrial Controls, in combination with the Woodstove Strategies provides reasonable assurance that non-monitored areas within and around the industrial area will meet the standard.

The alternative analysis, based on Receptor Modeling, requires a 20% or 27 $\mu g/m^3$ of reduction in worst case day PM_{10} concentrations. This reduction is achievable through the same strategy elements as shown below.

Table 4.13.3-5: Summary of 24 Hour PM_{10} Reductions

Strategy Element	Credit	PM_{10} Reductions
Industrial Controls	55%	5 $\mu g/m^3$
Woodstove Strategies		
Certification	10.2%	8
Curtailment	25%	20
Total Reduction		33 $\mu g/m^3$
Required Reduction		27
Excess Reduction Achieved		6 $\mu g/m^3$

This analysis also demonstrates that the Woodstove Strategies (28 $\mu g/m^3$ reduction) alone are sufficient to meet the 24 hour NAAQS, thus providing a high degree of assurance that the standard will be met everywhere within the UGB.

4.13.3.4 Emission Offsets and Banking

There are no currently banked emissions in the industrial source permits within the Grants Pass UGB.

4.13.3.5 Demonstration of Maintenance

To demonstrate continued maintenance of the annual and 24-hour NAAQS for PM_{10}, annual and worst case day emissions were projected to the year 2000. For the worst case day the emissions for each individual source category were forecast taking into account expected growth and application of the relevant control strategy element to the uncontrolled emissions projected for 1992 (Table 4.13.2-6). Individual source impacts (in $\mu g/m^3$) were determined by applying growth predictions and the application of controls to the values in Table 4.13.3-1.

With the addition of the 44 $\mu g/m^3$ background, the projection indicates a year 2000 worst case day concentration of 135 $\mu g/m^3$, which is less than the 24-hour standard of 150 $\mu g/m^3$. The year 2000 worst case day projections are tabulated below.

Table 4.13.3-6: Grants Pass UGB Worst Case Day Year 2000 Maintenance Analysis

Source	1992 lbs/Day	1992 $\mu g/m^3$	1992-2000 Growth	2000 lbs/Day	2000 $\mu g/m^3$
Industry	939	11	0 %	939	11
Res. Wood Comb.	3851	47	-7 %	3578	44
Fugitive Dust	1500	19	14 %	1707	22
Transportation	864	10	14 %	984	11
Other	111	3	14 %	126	3
Totals	7265	90		7334	91

To check for continued maintenance of the annual standard, the total annual emissions for 1986 and 2000 were compared. Using the same rationale (growth combined with controls) the annual emissions are projected to be approximately 18% lower in 2000 than in 1986, thus indicating continued maintenance of the annual standard (See Table 4.13.2-5).

4.13.4 Implementation of the Control Strategy

4.13.4.1 Schedule for Implementation

The schedule for implementation of the recommended set of measures is shown in Table 4.13.4-1.

Table 4.13.4-1: Control Strategy Implementation

Program Element	Implementation Date	Organization Involved
1. Nephelometer to support voluntary curtailment program	Nov. 1, 1989	EPA/DEQ
2. Volunteer, or appointed Air Quality Coordinator	Nov. 1, 1989	Local Gov.
3. Voluntary Woodheating Curtailment	1990/1991 Heating Season	DEQ/Local Gov.
4. Short Term Public Information	1988/1989 Heating Season	DEQ/Local Gov. & Media
5. Long Term Public Information	1988/1989 Heating Season	DEQ/Local Gov.
6. Updated Woodheating Survey	July 31, 1991	DEQ
7. Industrial Rules	September 30, 1989	DEQ

Discussion of Program Elements

1. Nephelometer: The Department secured Special Project funding from the Environmental Protection Agency for 1989 to install and operate a nephelometer. The funding also covered the installation and operation of meteorological equipment. Nephelometer data collected during the winter of 1989/1990 was regressed against PM_{10} data and exhibited a high degree of correlation. Further regression work was done with meteorological data to develop a PM_{10} forecasting equation for use in making burn/no burn calls on a timely basis. Details on the regression results are contained in Appendix 7.

2. Volunteer Coordinator: The City of Grants Pass and Josephine County in December 1989 jointly appointed Bill Olson (Josephine County Health Department) to serve as the air quality coordinator for Grants Pass.

3. Voluntary Curtailment: The Department worked with local government to set up a voluntary curtailment program. A "red", "yellow", "green" day type of program, similar in operation to the existing program in Medford, was developed. The basic operational aspects of the voluntary curtailment program are summarized below. The announcement of

curtailment calls was anticipated to start on December 1, 1990. Operational details are contained in Appendix 7.

4. Short-Term Public Information: The basic focus of this measure is on future (1990-1991) media contact/Public Service Announcements with respect to voluntary curtailment of woodheating. On a current basis, the Department developed three 30-second Public Service Announcements called "Burning Tips" for the PM_{10} problem areas which were made available to Grants Pass radio stations for the 1988-1989 heating season. Information on voluntary curtailment will be developed for media use to coincide with voluntary curtailment program start-up in 1990.

5. Long-Term Public Information: This program element is focused on written materials, mostly the development and distribution of informational brochures targeted at wood burning households. Several informational brochures have been published by the Department and have been distributed in the PM_{10} problem areas of the State. For the 1989-1990 heating season, the Department developed informational materials around the theme "Burn Smart". The "Burn Smart" brochure includes basic information on the relationship of wood heating to air pollution and tips on energy conservation, woodstove operation and installation. The brochure also has information on proper seasoning of wood that is specific to commonly used wood species.

6. Updated Wood Heating Survey: The residential wood combustion component of the emissions inventories for Grants Pass depended upon statistics that were generated from the Medford Wood Heating Survey conducted in 1987. In order to improve the accuracy of the emissions inventories in the future, the Department will budget for a Grants Pass survey to be conducted by July 1991.

7. Industrial Rules: The Environmental Quality Commission adopted Industrial Rules covering the southern Oregon PM_{10} problem areas in September 1989. Based on the schedule contained in the proposed Rules, upgraded boiler and veneer dryer controls would have to be in place and demonstrate compliance with the Rules by August 1991.

<u>Summary of the Chief Operational Aspects of the Voluntary Woodburning Curtailment Program</u>

Public Awareness	Local media Public Service Announcements (PSA's) have been set up for the 1990-1991 heating season. This will be an ongoing effort. An informational booth was set up at the August 14-18, 1990, Josephine County Fair. The Department of Environmental Quality (DEQ) participated

	in the Jackson County Air Fair week (September 10-15, 1990), which had a regional focus on air quality. The DEQ is committed to participate in future local air quality related fairs.
Prediction of when to call curtailment	B-Scat, wind speed and temperature data from the 11th & K monitoring site will be used in conjunction with upper air temperature data from Medford to make curtailment calls. This will be done on a 9 A.M. to 9 A.M. basis, so calls can be made for the day in question by noon. The prediction formula and operational details are contained in Appendix 7.
Action Point	Curtailment calls have been set at a PM_{10} level of 120 $\mu g/m^3$ for a period from 9:00 A.M. to 9:00 A.M., so that the curtailment announcement can appear in the local evening newspaper (Daily Courier). Based on the design value statistical analysis, the expected number of "red" days will be 3 to 4 during the heating season.
Notifications	Daily calls will be made to the Daily Courier in Grants Pass. The general public will have access to an announcement machine operated by Josephine County.
Exemptions	Households with wood as the only source of heat will be exempt from the curtailment program. Low income households will also be exempt.
Surveillance/Tracking	A surveillance/tracking program will be conducted by local government, with initial program setup assistance by the DEQ. The program details are contained in Appendix 7.

4.13.4.2 Rules, Regulations and Commitments

The Oregon Revised Statutes (ORS) 468.020, 468.295 and 468.305 authorize the Oregon Environmental Quality Commission to adopt programs necessary to meet and maintain state and federal standards. The mechanisms for implementing these programs are the Oregon Administrative Rules (OAR).

Specific air pollution rules applicable to the Grants Pass area (OAR 340-30-005 to 070) are included in Section 3.1 of the Oregon State Implementation Plan.

OAR	Subject
340-30-005 (revised)	Purposes and Application (Adds Grants Pass Urban Growth Boundary Area)
340-30-015 (revised)	Wood Waste Boilers
340-30-021 (added)	Veneer Dryer Emission Limitations
340-30-040 (revised)	Charcoal Producing Plants
340-30-046 (added)	Compliance Schedules
340-30-050 (revised)	Continuous Monitoring
340-30-055 (revised)	Source Testing
340-30-065 (revised)	New Sources
340-30-067 (new)	Rebuilt Sources

Additional rules applicable statewide include:

OAR	Subject
340-20-220 to 275	New Source Review
340-20-300 to 320	Plant Site Emission Limits
340-21-100 to 190	Woodstove Certification Program

On July 18, 1990, the City of Grants Pass passed Ordinance No. 4671, banning open burning on a year-round basis within the city limits of Grants Pass.

Interagency Commitments

Oregon Department of Forestry Smoke Management Plan, OAR 629-43-043

Enforceability

The Clean Air Act requires SIP control strategies to be enforceable. The Industrial Rules cited above provide the means to enforce the industrial control element of the strategy. The Woodstove Certification Program provides enforcement of the residential woodburning control element. Implementation of the voluntary woodstove curtailment strategy element will assure that attainment of the PM_{10} NAAQS is achieved and maintained. This strategy does not need to be enforceable, as the credit of less than 30% is consistent with EPA guidance for such programs.

4.13.4.3 Emergency Action Plan Provisions

OAR 340 Division 27 describes Oregon's Emergency Action Plan. The rule is intended to prevent the excessive accumulation of air contaminants during any periods of air stagnation which, if unchecked, could result in concentrations of pollutants which

could cause significant harm to the public health. The rules establish criteria for identifying and declaring air pollution episodes below the significant harm level, and were adopted pursuant to requirements of the Clean Air Act. The action levels found in the Plan were established by the Environmental Protection Agency and subsequently adopted by the Department.

The "Significant Harm" level for PM_{10} particulate matter is 600 $\mu g/m^3$; the "Alert" level is 350 $\mu g/m^3$; the "Warning" level is 420 $\mu g/m^3$; and the "Emergency" level is 500 $\mu g/m^3$ (all 24 hour averages). These levels were adopted by the Environmental Quality Commission in April, 1988. They must be coupled with meteorological forecasts for continuing air stagnation to trigger the Action Plan.

Authority for the Department to regulate air pollution sources during emergency episodes, including emissions from woodstoves, is provided under ORS 468. When there is an imminent and substantial endangerment to public health (the Significant Harm level) ORS 468.115 authorizes the Department, at the direction of the Governor, to enforce orders requiring any person to cease and desist actions causing the pollution. State and local police are directed to cooperate in the enforcement of such orders.

4.13.5 Public Involvement

Development of the Grants Pass PM_{10} control strategy included several areas of public involvement including Citizen Advisory Committees, public participation at hearings on proposed industrial source rules and meetings with local elected officials.

4.13.5.1 Citizen Advisory Committee

In August 1987 the Department requested that the City of Grants Pass and the Josephine County Commission appoint a citizens committee of eight members with equal representation from the City and the County (four appointments each). The citizen appointments were completed by December 1987. The eight members designated their group the Grants Pass Clean Air Policy Advisory Committee. The main purpose of the Committee was to evaluate the particulate problem in Grants Pass and make recommendations to the City and County on a strategy to meet the PM_{10} standards in Grants Pass.

4.13.5.2 Public Notice

Public notice of proposed rule revisions is done through mailing lists maintained by the Department, through notifications published in local newspapers and through Department press releases.

The public notice for the amendments to Oregon's Industrial Rules affecting the Medford-Ashland and Grants Pass areas was published in the Secretary of State Bulletin on December 15, 1988. The public notice for the entire SIP control strategy was published in the Secretary of State Bulletin on July 1, 1990. Copies of these notices are in Appendix 8 (4.13.5-1). Copies of the notices that were published in the local newspapers are also contained in Appendix 8 (4.13.5-1).

4.13.5.3 Public Hearings

Public hearings on the Industrial Rules were held in Medford on January 10, 1989 and in Grants Pass on January 12, 1989. Public hearings on the entire SIP control strategy were held in Grants Pass on August 2, 1990 and September 13, 1990.

4.13.5.4 Intergovernmental Review

Public hearing notices regarding adoption of this revision to the State Implementation Plan were distributed for local and state agency review through the A-95 State Clearinghouse, 45-day process, which commenced on August 6, 1990. No comments were received through the A-95 review process.

HWH:a
PLAN\AH10915
(10/15/90)

RULEMAKING STATEMENTS FOR PROPOSED GRANTS PASS PM_{10} CONTROL STRATEGY AS A REVISION TO THE STATE OF OREGON CLEAN AIR ACT IMPLEMENTATION PLAN

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(7), this statement provides information on the intended action to amend a rule.

(1) Legal Authority

This proposal amends Oregon Administrative Rules (OAR) 340-20-047. It is proposed under authority of Oregon Revised Statutes (ORS) Chapter 468.

(2) Need for these Rules

Air quality measurements taken in Grants Pass indicate that the federal 24-hour PM_{10} air quality standard is exceeded about 1-10 days per year during the winter months. PM_{10} refers to particulate matter ten micrometers or smaller in diameter. PM_{10} particles are considered a risk to human health due to the body's inability to effectively filter out particles of this size.

The Federal Clean Air Act requires that states develop and adopt State Implementation Plan (SIP) revisions to assure that areas which violate the PM_{10} health and welfare standards are brought into attainment with those standards within prescribed time frames. The proposed control strategy document describes the State of Oregon plan to attain and maintain the annual and 24-hour PM_{10} standards within the Grants Pass Urban Growth Boundary (UGB).

The principal means of achieving the necessary air quality improvements is through PM_{10} emission reductions from woodstoves and fireplaces and the wood products industries. Additional reductions are expected from statewide efforts to reduce slash burning smoke.

(3) Principal Documents Relied Upon

PM_{10} SIP Development Guideline, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park NC, June 1987, EPA-450/2-86-001.

Report of Grants Pass Clean Air Policy Advisory Committee, April 20, 1988.

Previous staff reports to the Environmental Quality Commission (EQC):

Agenda Item D, January 22, 1988, EQC Meeting, Informational Report: New Federal Ambient Air Quality Standard for Particulate Matter (PM_{10}) and Its Effects on Oregon's Air Quality Program.

Agenda Item H, November 4, 1988, EQC Meeting, Request for Authorization to Conduct Public Hearings on New Industrial Rules for PM_{10} Emission Control in the Medford-Ashland AQMA and Grants Pass and Klamath Falls Urban Growth Areas (Amendments to OAR 340, Divisions 20 and 30).

Agenda Item E, September 8, 1989, EQC Meeting, Industrial PM_{10} Rules for Medford-Ashland and Grants Pass: Adoption of New Industrial Rules That Were Taken to Public Hearings in January 1989.

Agenda Item E, June 29, 1990, EQC Meeting, Grants Pass Particulate Matter (PM_{10}) Control Strategy: Rulemaking Hearing Authorization.

Guidance Document for Residential Wood Combustion Emission Control Measures, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park NC, September 1989, EPA-450/2-89-015.

All documents referenced may be inspected at the Department of Environmental Quality, Air Quality Division, 811 S.W. 6th Avenue, Portland, Oregon, during normal business hours.

LAND USE CONSISTENCY STATEMENT

The proposed rule changes appear to affect land use as defined in the Department's coordination program with DLCD, but appear to be consistent with the Statewide Planning Goals.

With regard to Goal 6, (air, water, and land resources quality), the proposed changes are designed to enhance and preserve air quality in the State and are considered consistent with the goal. The proposed rule changes do not appear to conflict with the other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the same fashion as indicated for other testimony on these rules.

It is requested that local, state, and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to our attention by local, state, or federal authorities.

HWH:a
PLAN\AH11025
(10/12/90)

Attachment C

FISCAL AND ECONOMIC IMPACT STATEMENT FOR PROPOSED GRANTS PASS PM_{10} CONTROL STRATEGY AS A REVISION TO THE STATE IMPLEMENTATION PLAN

PROPOSAL SUMMARY

The Grants Pass area exceeds the federal 24-hour PM_{10} air quality standard about 1-10 days per year during the winter months. PM_{10} refers to particulate matter ten micrometers or smaller in diameter. PM_{10} particles are considered a risk to human health due to the body's inability to effectively filter out particles of this size.

The Federal Clean Air Act requires that states develop and adopt State Implementation Plan (SIP) revisions to assure that areas which violate the PM_{10} health and welfare standards are brought into attainment with those standards within prescribed time frames. The proposed control strategy document describes the State of Oregon plan to attain and maintain the annual and 24-hour PM_{10} standards within the Grants Pass Urban Growth Boundary (UGB).

The principal means of achieving the necessary air quality improvements is through PM_{10} emission reductions from woodstoves and fireplaces and the wood products industries. Additional reductions are expected from statewide efforts to reduce slash burning smoke.

The implementation of the PM_{10} control strategy involves residents, industries, local governments, and state and federal agencies. The two groups most affected by the proposed PM_{10} control strategy for the Grants Pass area are the owners/operators of wood products industries and residents with woodstoves or fireplaces.

COSTS TO WOOD PRODUCTS INDUSTRIES

Wood products industry emissions will be reduced by additional control requirements on veneer driers and large wood-fired boilers at plywood plants, more extensive source testing and continuous emission monitoring in order to maximize performance of pollution control equipment, and more restrictive emission offset requirements to insure a net air quality benefit from any new or expanded industries. The new industrial emission control and monitoring requirements will result in estimated capital costs in the range of $3 to 4 million; there will also be related increases in maintenance costs, but those costs are more difficult to quantify. Industrial PM_{10} rules to implement these requirements were adopted by the Environmental Quality Commission in September 1989.

COSTS TO RESIDENTS WITH WOODSTOVES OR FIREPLACES

The residential woodsmoke reduction strategies are closely patterned after the April 1988 recommendations of the Grants Pass Clean Air Policy Advisory Committee. Woodstove and fireplace emissions will be reduced by an expanded public information program, an areawide local voluntary woodburning curtailment program, the Oregon woodstove certification program and continued improvements in firewood seasoning and woodstove operation.

The typical cost of woodburning curtailment is estimated at $2-4 per curtailment day per woodburning home, depending primarily on the type of alternative heat, amount of weatherization, and size of home. Up to 4,200 homes in the critical PM_{10} control area would be affected on the 1-10 days of the year that curtailment would be needed. Actual compliance with the voluntary program is estimated at 25%, based on experience in other areas.

COSTS TO STATE AND LOCAL GOVERNMENT AGENCIES

The new industrial emission control and monitoring requirements will require additional plan reviews, inspections, monitoring report reviews, and other compliance assurance activities by Department of Environmental Quality staff. This additional work will be done by shifting existing resources.

The operational details of the voluntary curtailment program are expected to be developed in the latter half of 1990 and be fully documented by the time of final SIP control strategy adoption. The program probably will operate similarly to the Medford program minus the features that are specific to a mandatory program. The daily decision on woodburning curtailment programs will be based on air quality information from the Department's existing air monitoring network, including Grants Pass B-Scat measurements, and meteorological information from the National Weather Service.

PLAN\AH10939

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PM_{10} CONTROL STRATEGY FOR GRANTS PASS AREA
NOTICE OF PUBLIC HEARING

Hearing Date: August 2, 1990
Comments Due: August 9, 1990

WHO IS AFFECTED: Residents, local governments and industries within the Grants Pass Urban Growth Boundary.

WHAT IS PROPOSED: The Department of Environmental Quality is proposing to amend OAR 340-20-047, the State of Oregon Clean Air Act Implementation Plan.

WHAT ARE THE HIGHLIGHTS:

1) The Grants Pass area has a PM_{10} air pollution problem. (PM_{10} refers to particulate matter ten micrometers or smaller in diameter.) PM_{10} particles are considered a risk to human health due to the body's inability to effectively filter out particles of this size.

2) The proposed control strategy document describes the overall plan to meet the 24-hour PM_{10} standard by the end of 1992 and maintain the annual and 24-hour PM_{10} health and welfare standards within the Grants Pass Urban Growth Boundary at least through the year 2000.

3) The principal means of achieving the necessary air quality improvements is through PM_{10} emission reductions from woodstoves and fireplaces and the wood products industries. Additional reductions are expected from statewide efforts to reduce slash burning smoke.

HOW TO COMMENT: Copies of the complete proposed rule package may be obtained from: Air Quality Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, OR 97204 or the regional office nearest you. For further information contact Howard Harris at (503) 229-6086.

A public hearing will be held before a hearings officer at:

7:00 p.m.
August 2, 1990
Grants Pass City Council Chambers
101 NW A
Grants Pass, Oregon

811 S.W. 6th Avenue
Portland, OR 97204

FOR FURTHER INFORMATION:
Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

11/1/86

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, but must be received by no later than August 9, 1990.

WHAT IS THE NEXT STEP:

After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The adopted rules will be submitted to the U.S. Environmental Protection Agency as part of the State Clean Air Act Implementation Plan. The Commission's deliberation should come in November 1990 as part of the agenda of a regularly scheduled Commission meeting.

A Statement of Need, Fiscal and Economic Impact Statement, and Land Use Consistency Statement are attached to this notice.

HWH:a
PLAN\AH10006
(6/90)

NOTICE OF PUBLIC HEARING

on

Proposed Air Quality Rule Amendments

The Oregon Department of Environmental Quality is proposing to amend OAR 340-20-047, the State of Oregon Clean Air Act Implementation Plan by adding a control strategy plan to meet the federal particulate matter (PM10) standard by the end of 1992 within the Grants Pass urban growth boundary.

The Department will hold a public hearing on the above rule changes on September 13, 1990, 7:00 P.M., Grants Pass City Council Chambers, 101 NW A, Grants Pass, Oregon. Oral and written comments will be accepted at that time. Copies of the complete proposed rule package may be obtained from the Air Quality Division in Portland, 811 SW 6th Avenue, Portland, OR 97204, or call Howard Harris at (503) 229-6086. Written comments may be submitted anytime to the above address, but must be received no later than September 17, 1990.

HWH:a
PLAN\AH10467

AFFIDAVIT OF PUBLICATION

State of Oregon
County of Josephine } ss.

LEGAL NOTICE

NOTICE OF PUBLIC HEARING on Proposed Air Quality Rule Amendments

The Oregon Department of Environmental Quality is proposing to amend OAR [illegible] the State of Oregon Clean [illegible]

[illegible] Portland [illegible] written comments [illegible] but must be received no later than September 17, 1990.
No. 8728014-August 11, 1990

I, William G Parker, being first duly sworn, depose and say that I am the owner, editor, publisher, manager, advertising manager, principal clerk of the Grants Pass Daily Courier, printer or his foreman of the Grants Pass Daily Courier, a newspaper of general circulation, as defined by ORS 193.010 and 193.020; printed and published at Grants Pass, in the aforesaid county and state; that the NOTICE OF PUBLIC HEARING a printed copy of [illegible]

August 11, 1990

[signature]

Subscribed and sworn to before me this 11th day of August, 19 90

[signature]
Notary Public of Oregon.

My commission expires 21st day of February, 19 94.

Courier Publishing Company

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P.O. B[illegible]

PUBLISHERS: THE DAILY COURIER
Grants Pass, Oregon 97526

Legal Publication Dept.
Telephone 474-3734

Date August 11, 1990

PUBLISHING CONCERNING: NOTICE OF PUBLIC HEARING on Proposed Air Quality Rule Amendments
DATES PUBLISHED: August 11, 1990
ORDERED BY

Dept of Environmental Quality
Attn: Howard Harris
811 SW Sixth Avenue, 11th Floor
Portland, Or 97204

#8728014 Amount Due $ 20.10

ADM 10 84 D-4

(2) In determining air purity standards, the commission shall consider the following factors:

(a) The quality or characteristics of air contaminants or the duration of their presence in the atmosphere which may cause air pollution in the particular area of the state;

(b) Existing physical conditions and topography;

(c) Prevailing wind directions and velocities;

(d) Temperatures and temperature inversion periods, humidity, and other atmospheric conditions;

(e) Possible chemical reactions between air contaminants or between such air contaminants and air gases, moisture or sunlight;

(f) The predominant character of development of the area of the state, such as residential, highly developed industrial area, commercial or other characteristics;

(g) Availability of air-cleaning devices;

(h) Economic feasibility of air-cleaning devices;

(i) Effect on normal human health of particular air contaminants;

(j) Effect on efficiency of industrial operation resulting from use of air-cleaning devices;

(k) Extent of danger to property in the area reasonably to be expected from any particular air contaminants;

(L) Interference with reasonable enjoyment of life by persons in the area which can reasonably be expected to be affected by the air contaminants;

(m) The volume of air contaminants emitted from a particular class of air contamination source;

(n) The economic and industrial development of the state and continuance of public enjoyment of the state's natural resources; and

(o) Other factors which the commission may find applicable.

(3) The commission may establish air quality standards including emission standards for the entire state or an area of the state. The standards shall set forth the maximum amount of air pollution permissible in various categories of air contaminants and may differentiate between different areas of the state, different air contaminants and different air contamination sources or classes thereof. [Formerly 449.785]

468.300 When liability for violation not applicable. The several liabilities which may be imposed pursuant to ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and this chapter upon persons violating the provisions of any rule, standard or order of the commission pertaining to air pollution shall not be so construed as to include any violation which was caused by an act of God, war, strife, riot or other condition as to which any negligence or wilful misconduct on the part of such person was not the proximate cause. [Formerly 449.825]

468.305 General comprehensive plan. Subject to policy direction by the commission, the department shall prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of new air pollution in any area of the state in which air pollution is found already existing or in danger of existing. The plan shall recognize varying requirements for different areas of the state. [Formerly 449.782]

468.310 Permits. By rule the commission may require permits for air contamination sources classified by type of air contaminants, by type of air contamination source or by area of the state. The permits shall be issued as provided in ORS 468.065. [Formerly 449.727]

468.315 Activities prohibited without permit; limit on activities with permit. (1) Without first obtaining a permit pursuant to ORS 468.065, no person shall:

(a) Discharge, emit or allow to be discharged or emitted any air contaminant for which a permit is required under ORS 468.310 into the outdoor atmosphere from any air contamination source.

(b) Construct, install, establish, develop, modify, enlarge or operate any air contamination source for which a permit is required under ORS 468.310.

(2) No person shall increase in volume or strength discharges or emissions from any air contamination source for which a permit is required under ORS 468.310 in excess of the permissive discharges or emission specified under an existing permit. [Formerly 449.731]

468.320 Classification of air contamination sources; registration and reporting of sources. (1) By rule the commission may classify air contamination sources according to levels and types of emissions and other characteristics which cause or tend to cause or contribute to air pollution and may require registration or reporting or both for any such class or classes.

(2) Any person in control of an air contamination source of any class for which registration and reporting is required under subsection (1) of this section shall register

REPORT OF
GRANTS PASS
CLEAN AIR POLICY ADVISORY COMMITTEE

APRIL 1988

EXECUTIVE SUMMARY

In July 1987, the Environmental Protection Agency (EPA) revised the air quality standards (annual and daily) for particulate matter (PM). The new standards change the focus from Total Suspended Particulate to only fine particulate that is less than ten micrometers in diameter (referred to as "PM_{10}"). These smaller particles can penetrate the lower respiratory tract and cause adverse health effects.

The Grants Pass urbanized area appears to meet the new federal annual standard for fine particulate, but does not meet the new daily (24-hour) standard of 150 micrograms per cubic meter of air. Violations of the daily standard are estimated to occur five to ten days during the winter. Based on sampling conducted during two winters (1985-1986 and 1986-1987), a peak day concentration of 200 micrograms per cubic meter of air is the level that needs to be reduced to meet the daily health standard.

The peak particulate concentrations generally occur during air stagnation periods in December and January. Approximately 50% of the fine particulate on a peak day is due to residential wood smoke from stoves and fireplaces. The local wood products

industry is estimated to contribute approximately 20% of the fine particulate on a peak day.

The Grants Pass City Council and the Josephine County Commissioners appointed a citizens committee in December 1987 to evaluate the particulate problem and recommend a strategy consistent with Federal Clean Air Act standards. The Committee reviewed three major control alternatives for meeting the new daily federal health standard: 1) Option A - voluntary wood stove curtailment and upgraded industrial controls; 2) Option B - mandatory wood stove curtailment; 3) Option C - voluntary wood stove curtailment and a wood stove retrofit, or replacment program.

Based on an evaluation of the alternative control options, the Committee recommends the adoption of Option A and the following measures be included in the PM10 emissions reduction strategy:

1. Comprehensive Short Term and Long Term public information/education program;
2. Announcement of voluntary curtailment of wood stove/fireplace use on forecast days;
3. Clean air utility rates for electricity and natural gas;
4. Upgraded industrial pollution controls.
5. Nephelometer instrumentation to be installed by DEQ;
6. Local Air Quality Coordinator either volunteer, or appointed;
7. Updated Grants Pass wood heating survey.

ATTACHMENT G

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 24, 1990

TO: Environmental Quality Commission

FROM: Howard Harris, Hearing Officer

SUBJECT: Hearing Report for August 2, 1990, in Grants Pass

Proposed Grants Pass Particulate Matter (PM_{10}) Control Strategy for the Grants Pass Urban Growth Area

Schedule and Procedures

A public hearing was held at the Grants Pass City Council Chambers in Grants Pass on August 2, 1990. A public notice was published in the Secretary of State Bulletin 30 days prior to the hearing. Howard Harris was the Hearing Officer.

Of the 22 people in attendance, oral testimony was given by nine (9) persons. Written testimony was received from the Oregon Environmental Council.

Primary Positions

Of the nine people providing testimony, general support for the proposed PM_{10} control strategy was indicated by two persons, while seven persons indicated they were primarily opposed. A listing of persons providing testimony is attached to this report. The listing includes the name, affiliation and primary position on the proposed strategy.

Major Issues

A common theme among those who testified in opposition to the proposed PM_{10} control strategy was that people whose sole source of heat was from wood heating should not be required to curtail the use of their appliances on call (red) days. Another common theme was that a voluntary (wood heating) curtailment program would be just the first step toward a mandatory curtailment program.

Two individuals criticized the use of Medford survey data to project wood heating emissions in Grants Pass, urging the Department to conduct a local wood heating survey in 1991. Several individuals expressed the concern that the plan did not deal adequately with growth. Two individuals were critical of the Department's efforts with respect to slash burning. Mayor Bartow was concerned about the need for funding assistance to run a voluntary curtailment program after the first heating season. One individual expressed the need for a contingency plan to implement additional control measures. Summaries of the individual testimony are given below.

Candace Bartow, Mayor of Grants Pass

Mayor Bartow expressed support for the voluntary nature of the proposed control plan. She indicated the need to complete a wood heating survey of Grants Pass residents by 1991. The technical data for determining burn and non-burn days needs to be updated and tailored to reflect local conditions as closely as possible. She expressed concern that funding assistance would be needed to do curtailment calls after the first heating season. With respect to industrial controls, she stated that no further industrial controls should be implemented until such time as the proposed plan had been implemented and evaluated, as the loss of jobs needed to be weighed against the need for such controls.

George B. Hutchinson

Mr. Hutchinson, representing the Josephine County Recycling Advisory Commission, supported the City of Grants Pass open burning ban. As a private citizen, he supported the basic thrust of the proposed PM_{10} control plan, but raised several questions:

- How will the plan be enforced?
- How will the monitoring be accomplished?
- Why is the state focusing on woodstoves?
- The plan needs to address slash burning.
- The plan does not address growth.

Gene Bradley

Mr. Bradley said that many people are updating their old wood burning appliances to the new, higher standard devices. He

stated that the DEQ test procedures (for woodstoves) are not a quality form of testing. He indicated that he did not see the need for woodstove regulations in view of the fact that there had been no violations of the standard in Grants Pass during the last three years. He supports the ban on backyard burning, with some exceptions. He stated that the DEQ does not have authority to regulate the Department of Forestry. Wood gathering has been made more difficult by the foresters. Concluding, Mr. Bradley stated that the (control planning) efforts are totally unwarranted in Josephine County.

Jim Bruchie

Mr. Bruchie indicated that there were no problems before the growth started. He stated that existing uses (wood burning) should not be penalized, but new sources should be required to meet the new standards.

Floyd Covey

A long-time resident of Grants Pass (since 1939), Mr. Covey recited his experience in having his wood burning appliance inspected. He protested that the mills are being shut down, individuals can no longer burn in the open and trash cannot be burned.

LLoyd Kirk

Mr. Kirk stated his opposition to the voluntary woodburning curtailment program indicating that it would soon be turned into a mandatory program. He indicated that people do not have the money to curtail.

Dan Keck

Mr. Keck indicated that the $13 fee for unloading tree trimmings at the local land fill was prohibitive and represented an obstacle toward disposal. He thought the voluntary curtailment of woodburning represented the toe in the door and that a mandatory program would follow.

Madeline Forbuss

Ms. Forbuss indicated that she wanted to be able to continue to use wood heat, as alternatives cost too much money. She stated that the pollution occurs during the summer not in the winter.

Donald Kirk

Mr. Kirk indicated that the DEQ needs to have some responsibility toward people who cannot heat without woodstoves.

Paul Wyntergreen

Mr. Wyntergreen submitted written testimony upon the behalf of the Oregon Environmental Council. He indicated that the proposed control plan does not adequately deal with growth. To deal with growth, there should be a ban on the installation of non-certified woodstoves and a ban on the construction of new homes with wood as the sole source of heat. He stated that the DEQ should exercise its authority to prohibit all outdoor open burning in the Rogue Basin Open Burning Control Area during October through February. Slash burning should be prohibited from October through March in Jackson, Josephine and Klamath Counties.

Mr. Wyntergreen also indicated the need for a local woodburning survey in 1991. He criticized the use of non-local data for woodstove installations. He questioned the assumption that first generation stoves will approach the reductions of second generation stoves when the catalytic elements are replaced, because woodstove dealers indicate that the replacement process is not occurring.

Mr. Wyntergreen recommended that a contingency plan should supplement the control plan. This could include such measures as dual fuel capability for industrial sources, an opacity standard for woodstoves and a woodstove offset system. Also, a regional air pollution authority with the Medford-Ashland area could be explored. He urged a stronger emphasis on enforceability.

GRANTS PASS, AUGUST 2, 1990, HEARING TESTIMONY LISTING

Written	Oral	Name	Affiliation	Primary Position		
				Favor	Oppose	Neither
	X	Candace Bartow	Mayor of Grants Pass	X		
	X	George Hutchinson			X	
	X	Gene Bradley				
	X	Jim Bruchie				
	X	Floyd Covey				
	X	Lloyd Kirk				
	X	Dan Keck				
	X	Madeline Forbuss				X
	X	Donald Kirk				
X		Paul Wyntergreen	Oregon Environmental Council		X	

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 25, 1990

TO: Environmental Quality Commission

FROM: Merlyn Hough, Hearing Officer Merlyn

SUBJECT: Hearing Report for September 13, 1990, in Grants Pass

Proposed Grants Pass Particulate Matter (PM_{10}) Control Strategy for the Grants Pass Urban Growth Area

Schedule and Procedures

A public hearing was held at the Grants Pass City Council Chambers in Grants Pass on September 13, 1990. Public notices were published in the Secretary of State Bulletin and the Grants Pass Courier 30 days prior to the hearing. This was the second hearing on the proposed plan, the first having been conducted on August 2, 1990. Merlyn Hough was the Hearing Officer for the second hearing.

Of the fourteen (14) people in attendance, oral testimony was given by six (6) persons. Written testimony was received separately from the Oregon Chapter of the Sierra Club.

Primary Positions

Of the six people providing oral testimony, general support for the proposed PM_{10} control strategy was indicated by two persons, while four persons indicated they were primarily opposed. Two persons recommended either supplementary measures, or alternative measures. A listing of persons providing testimony is attached to this report. The listing includes the name, affiliation and primary position on the proposed strategy.

Major Issues

A common theme among those who testified in opposition to the proposed PM_{10} control strategy was that people whose sole source of heat was from wood heating, or who faced an economic hardship should not be required to curtail the use of their appliances on call (red) days. Another theme was a concern

that a voluntary (wood heating) curtailment program would be just the first step toward a mandatory curtailment program.

Additional measures that were recommended by those persons who were primarily supportive of the proposed plan included: offering financial incentives for people to switch to cleaner burning wood heating appliances; using opacity limits; establishing new building code requirements for new houses for weatherization and backup heat sources; requiring that new subdivisions have access to natural gas; banning the installation of non-certified woodstoves. Summaries of the individual testimony are given below.

Steven Kefalianos

Mr. Kefalianos was critical of the plan. He indicated the need to consider long-range alternatives for energy use and home heating. He also stated his concern that voluntary curtailment of woodburning appliances was a precursor to mandatory curtailment and that he, therefore, opposed the plan.

Glenn Johnson

Mr. Johnson was concerned about the buildup of wood fuel in the woods, if not removed. He stated that a given parcel burns about every 25 years. He indicated that there was a need to burn more wood, but burn it cleaner.

Floyd Covey

Mr. Covey stated his opposition to the plan. He indicated that there was a need to get away from oil dependence and that trucks are a bigger problem.

Mike Kohn

Mr. Kohn stated that he is a chimney sweep who cleans approximately 700 homes per year. He has noticed that flues are much cleaner now than they were several years ago. While he was generally supportive of voluntary curtailment, he indicated that there was a need to do more (financial incentives) to get people to switch to cleaner burning units. He recommended opacity limits as being superior to voluntary curtailment. He cited two studies that demonstrated the lower polluting characteristics of certified stoves. He was concerned that low income families need financial help to

convert to cleaner burning stoves. Such families would face a hardship if forced to curtail.

Paul Wyntergreen

Mr. Wyntergreen stated that voluntary curtailment is a reasonable first step. However, he expressed concern about the long-term effect of growth. There may need to be a tightening unless preventative measures are included now. He recommended for consideration the following: new building code requirements for new houses requiring weatherization and backup heating sources; subdivision access to natural gas; bans on the installation of non-certified stoves; opacity limits; intensive education efforts.

Glenn Diller

Mr. Diller stated that he was very interested in clean air. He recited his experience in installing a woodstove with water coils, which he later modified to be assisted by solar energy. He utilized slash for his woodstove, so in that way he was helping to reduce the amount of slash burned in the forest. He was concerned about the effect of gas furnaces on interior paint, causing a yellowing of the paint. He was also concerned about the effect of gas furnaces on indoor air. He indicated the need for more emphasis on solar heating.

Bob Palzer

Mr. Palzer submitted written testimony on the behalf of the Oregon Chapter of the Sierra Club indicating support for the proposed control strategy for Grants Pass. In a subsequent phone call to Howard Harris (DEQ/Air Quality Division), he requested that his testimony be amended to request that the adoption by the City Council of Grants Pass of a year-round ban on open burning become part of the proposed PM_{10} control strategy.

GRANTS PASS, SEPTEMBER 13, 1990, HEARING TESTIMONY

Written	Oral	Name	Affiliation	Primary Position	
				Favor	Oppose
	X	Steven Kefalianos			X
	X	Glenn Johnson	Small Woodlands		X
	X	Floyd Covey			X
	X	Mike Kohn	Chimney Sweep Association	X	
	X	Paul Wyntergreen	Oregon Environmental Council	X	
	X	Glenn Diller		X	
X		Bob Palzer	Oregon Chapter of the Sierra Club	X	

ATTACHMENT H

RESPONSE TO TESTIMONY RECEIVED AT THE GRANTS PASS PUBLIC HEARINGS ON THE PROPOSED PARTICULATE MATTER (PM_{10}) CONTROL STRATEGY FOR THE GRANTS PASS URBAN GROWTH AREA

The major issues identified in the public hearing testimony are summarized and discussed in this report. The issues are grouped into the following categories: Voluntary Curtailment; Growth; Supplemental/Alternative Controls; Miscellaneous.

Voluntary Curtailment

Issue No. 1: Low income residents and those whose sole source of heat is from woodburning appliances should not be required to shut off their stoves, or fireplaces on called curtailment days.

> Response: The Department emphasizes that the proposed curtailment program for Grants Pass is voluntary. Even the mandatory curtailment program which is proposed for Medford includes by ordinance exemptions for low income households and sole source heaters. For clarity, the plan documentation has been changed to show that low income households and sole source (wood) heaters are exempt from the voluntary curtailment program.

Issue No. 2: A voluntary wood heating curtailment program is just the first step towards a mandatory program.

> Response: The Department is projecting a 25% curtailment rate for the attainment/maintenance calculations. In combination with the expected particulate emission reductions from the major industrial sources, the 25% curtailment rate provides an ample safety margin for meeting the 24-hour particulate standard. The 25% curtailment rate appears to be a reasonable expectation based on the experience with voluntary programs in other areas of the northwest. The Environmental Protection Agency is in agreement with the Department that a mandatory curtailment program does not appear to be needed in Grants Pass. Even in the event of shortfalls, other measures could be explored as a first priority.

Issue No. 3: Additional financial support is needed to run a voluntary curtailment program after the first year of operation.

> Response: The Department is hopeful of obtaining additional revenues to support the statewide air quality program either as a result of Clean Air Act reauthorization, or through action by the state Legislature. If additional funding is received, the Department would be in a better position to

support local governmental efforts with respect to air pollution control.

Growth

Issue No. 4: The proposed plan does not deal adequately with growth.

Response: In projecting particulate emissions to the year 2000, the Department utilized the Grants Pass Comprehensive Plan population forecasts and used a population forecast number of 35,300 for the Urban Growth Boundary. This number was used in the existing Facility Plan (for sewage treatment) on file with the Department. The Environmental Protection Agency requires that population forecast numbers be consistent across the various environmental planning programs under its jurisdiction. To be reached, the forecast year 2000 population for the Grants Pass UGB means that the growth rate has to average 1.7% compounded annually. This is a very high rate of growth. For comparison, the Oregon Department of Transportation in a recently released highway planning document expects the total state population to grow by 1.0% compounded over the 20-year period from 1985 to 2005. From 1980 to 1988, the Josephine County population grew at a compounded rate of 1.0%. With the proposed plan assuming a 1.7% annual, compounded rate of population growth, the emission projection shows that the year 2000 emissions level would be 18% lower than the level for the 1986 base year. If the rate of population growth is actually less than 1.7% than the margin for continued standard maintenance will be greater than 18%.

Supplemental/Alternative Controls

Issue No. 5: A contingency plan should supplement the proposed control plan, including such measures as: dual fuel capability for industrial sources; an opacity standard for woodstoves; a woodstove offset system. Other measures might include new building code requirements for new homes relative to weatherization and backup heating sources; subdivision access to natural gas; bans on the installation of non-certified stoves.

Response: Given the relatively marginal nonattainment situation in the Grants Pass air shed and the fact that the proposed control strategy provides an ample margin of safety for meeting the PM_{10} standard, a contingency plan does not appear to be warranted at the present time. An opacity standard would be difficult and costly for local governments to administer. Furthermore, even if a stove had no visible emissions, such a stove would still emit PM_{10} at a rate of approximately 30% of a conventional stove.

With respect to new building code requirements, subdivision access to natural gas, etc., such measures could be helpful with respect to long-term maintenance of PM_{10} standards, but do not appear to be necessary components of an overall strategy at the present time. Upgraded weatherization requirements and natural gas access make sense from an energy standpoint alone and could be pursued for reasons other than air quality.

Miscellaneous

Issue No. 6: Non-local data (Medford Wood Heating Survey) was used to help establish the amount of woodburning in the Grants Pass area. The Department should conduct a woodburning survey in Grants Pass during 1991.

Response: The close proximity of Grants Pass to Medford, the similarities of the two economies and physical features argued for applying information on Medford woodburning rates to the Grants Pass population statistics to estimate PM_{10} emissions from residential woodburning in Grants Pass. Furthermore, Pacific Power conducted a survey in 1986, called "Energy Decisions '86", among its customer base in Josephine and Jackson Counties and provided the Department with separate survey results for the Medford and Grants Pass Pacific Power service districts. To a question on preferred heating source, 35% of the Medford respondents favored wood heat. On the same question, 39% of the Grants Pass respondents favored wood heat. The two areas also indicated identical wood usage of 3 cords per heating season. The Pacific Power survey results indicated that the Department's Medford Wood Heating Survey could be reasonably applied to Grants Pass.

The Department has committed to conducting a wood heating survey in Grants Pass during 1991. If the results indicate that new estimates of PM_{10} emissions should be made, the State Implementation Plan will be amended accordingly.

Issue No. 7: The Department should exercise its authority to prohibit all outdoor open burning in the Rogue Basin Open Burning Control Area during October through February and should incorporate into the State Implementation Plan the year-round ban on open burning adopted by the City of Grants Pass.

Response: The Department feels local government restrictions are sufficient to assure attainment/maintenance. While the year-round ban on open burning would serve to bolster the proposed strategy, the ban is not necessary to meet standards. Also, there was local concern that confusion could result from listing different boundaries for burning controls, i.e., the Grants Pass city limits for the ban on

open burning and the Urban Growth Boundary for voluntary woodburning curtailment.

Issue No. 8: Slash burning should be prohibited from October through March in Jackson, Josephine and Klamath Counties. There was local concern that confusion could result from listing different boundaries for burning controls, i.e., Grants Pass city limits for the ban on open burning and the Urban Growth Boundary for voluntary woodburning curtailment.

Response: The Department is working through smoke management committees to provide better protection to nonattainment areas from wintertime slash burning. While the Department does not believe a total ban is necessary, or justified, there is an ongoing effort to work toward further restrictions on burning. This will help to assure that there is no impact from slash on woodstove curtailment days.

Issue No. 9: Catalytic elements of stoves are not being replaced, contrary to projections by the Department.

Response: The Department will evaluate air quality improvements annually. If at any time it appears improvements are not matching strategy expectations, then further investigation will be made to identify the cause. If catalytic element replacement becomes a serious problem, the Department will pursue remedial action.

HWH:a
PLAN\AH10940

Attachment I

Previous EQC Agenda Items

Agenda Item D, January 22, 1988, EQC Meeting, Informational Report: New Federal Ambient Air Quality Standard for Particulate Matter (PM_{10}) and Its Effects on Oregon's Air Quality Program.

Agenda Item H, November 4, 1988, EQC Meeting, Request for Authorization to Conduct Public Hearings on New Industrial Rules for PM_{10} Emission Control in the Medford-Ashland AQMA and Grants Pass and Klamath Falls Urban Growth Areas (Amendments to OAR 340, Divisions 20 and 30).

Agenda Item E, September 8, 1989, EQC Meeting, Industrial PM_{10} Rules for Medford-Ashland and Grants Pass: To Consider Adoption of New Industrial Rules That Were Taken to Public Hearings in January 1989.

Agenda Item E, June 29, 1990, EQC Meeting, Grants Pass Particulate Matter (PM_{10}) Control Strategy: Request to Authorize Rulemaking Hearing.

HWH:a
PLAN\AH10023

NEIL GOLDSCHMIDT
GOVERNOR

Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: November 2, 1990
Agenda Item: F
Division: HSW
Section: Solid Waste

SUBJECT:

Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director

PURPOSE:

- Allows the Director to approve financial assistance to waste tire storage permittees for cleanup of waste tire piles.

- Establishes as rule waste tire guidelines which determine the amount of financial assistance to a local government waste tire storage permittee for waste tire pile cleanup.

- Allows the Department of Environmental Quality (DEQ, Department) to cover up to 100 percent of the cost of tire pile cleanups to permittees, who will then be responsible for paying back their share of the cost over time.

- Makes housekeeping changes in the reimbursement and tire carrier permit programs, and adopts as rule existing guidelines for Department reimbursements to local governments which remove illegal waste tire piles in their jurisdictions.

ACTION REQUESTED:

___ Work Session Discussion
___ General Program Background
___ Potential Strategy, Policy, or Rules
___ Agenda Item ___ for Current Meeting
___ Other: (specify)

___ Authorize Rulemaking Hearing
_X_ Adopt Rules
Proposed Rules — Attachment A
Rulemaking Statements — Attachment B
Fiscal and Economic Impact Statement — Attachment C
Public Notice — Attachment D

___ Issue a Contested Case Order
___ Approve a Stipulated Order
___ Enter an Order
Proposed Order — Attachment ___

___ Approve Department Recommendation
___ Variance Request — Attachment ___
___ Exception to Rule — Attachment ___
___ Informational Report — Attachment ___
___ Other: (specify) — Attachment ___

DESCRIPTION OF REQUESTED ACTION:

The Environmental Quality Commission (EQC, Commission) is requested to adopt proposed rule revisions as summarized above, pertaining to waste tire storage, hauling and cleanup, and reimbursement to persons using waste tires.

The Department proposal includes no major changes from the proposed rules submitted for public comment.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: _____ — Attachment ___
Enactment Date: _____
_X_ Statutory Authority: ORS 459.785, .775,.780 — Attachment ___
___ Pursuant to Rule: _____ — Attachment ___
___ Pursuant to Federal Law/Rule: _____ — Attachment ___

___ Other: — Attachment ___

___ Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation — Attachment ___
_X_ Hearing Officer's Report/Recommendations — Attachment E
_X_ Response to Testimony/Comments — Attachment F
___ Prior EQC Agenda Items:
Agenda Item C, 8/10/90 EQC Meeting - Request for hearing authorization for present rulemaking — Attachment ___
Agenda Item J, 1/19/90 EQC Meeting - Amendments Regulating Waste Tire Beneficial Use, and Adding Criteria for Financial Assistance
Agenda Item K, 4/14/89 EQC Meeting - Amendments to Permitting Requirements for Waste Tire Storage Sites and Waste Tire Carriers
Agenda Item G, 7/8/88 EQC Meeting - Waste Tire Program Permitting Requirements
Permittee assistance approvals:
Agenda Item H, 9/8/89, to Larry Waliser;
Agenda Item N(1), 10/20/89, to DuBois;
Agenda Item E, 4/6/90, to Union County;
Agenda Item L, 6/29/90, to Richard Mishler;
Agenda Item J, 6/29/90, to Coos County;
Agenda Item K, 6/29/90, to Klamath County

___ Other Related Reports/Rules/Statutes: — Attachment ___
_X_ Supplemental Background Information — Attachment G
List of major remaining waste tire sites to be cleaned up

Note: This staff report discusses only those issues which were brought up as a result of public comment. For a complete discussion of the issues, please refer to Agenda Item C, 8/10/90 EQC Meeting, Request for Hearing Authorization.

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

1. Delegation of authority to Director to approve financial assistance. DEQ received public testimony in opposition to delegating financial assistance approval for waste tire cleanups from the Commission to the Director of the Department. The testimony was from the representative of a firm which has participated in waste tire cleanups, and whose customers receive the reimbursement (and who is also a member of the Waste Tire Advisory Committee). The testimony suggested it was more appropriate for that decision-making authority to remain with the Commission for three reasons: 1) large sums of money may be involved (hundreds of thousands of dollars); 2) it is best to make such decisions in an open forum, more subject to public scrutiny; and 3) if funds in the Waste Tire Recycling Account become scarce, spending priorities will have to be approved or adjusted between competing program activities (cleanup vs. reimbursement, for example). The testimony noted that this is a policy issue which should be decided by the Commission.

   The testimony suggested that an alternative would be to set a threshold amount of $20,000 or less for decision delegation to the Director. This would relieve the Commission of having to deal with many small decisions.

   Department rules closely define the circumstances under which financial assistance may be given to a permittee, and the amount of assistance which may be given. In reviewing financial assistance requests, the Department first determines the degree of environmental risk (following criteria in program rules), and deals with sites that are high on the list. Then the Department applies criteria based on the permittee's financial situation to determine the amount of financial assistance to be recommended. The Department's rules leave little discretion in recommending the amount of financial assistance to a given permittee.

   Most waste tire piles which have not yet received approval for cleanup are relatively small; only four identified sites have 30,000 or more waste tires (see Attachment G). It is anticipated that only one of these larger sites (with 60,000 tires, estimated cleanup cost of about $100,000) will request financial assistance as a permittee for tire removal. Therefore, the Director is unlikely to make many decisions on funding hundreds of thousands of dollars for cleanup sites. The Department believes that the financial assistance

decision can in general be appropriately made by the Director.

The Department projects sufficient funds through the biennium to meet all anticipated waste tire cleanup costs, as well as all requests for reimbursement, including demonstration projects. If the tire fee is not extended by the 1991 Legislature, the Department will have to allocate any remaining funds between staff costs, cleanup and reimbursement. Waste tire rules (OAR 340-64-090) expressly state how available funds shall be used: 1) to reimburse people who use waste tires; 2) to clean up permitted or non-permitted waste tire sites based on criteria established by rule.

The Department agrees that the rule should leave the option for the Department to refer a financial assistance decision to the Commission. There may be cases where the Department deems it appropriate for the Commission to approve funding. Therefore, Sections 340-60-160 (1) and (3) have been changed from the draft to clarify that either the Commission or the Director may make the funding decision (rather than only the Director).

No testimony was received on other parts of the rule, and no other substantive changes from the proposed rule were made.

PROGRAM CONSIDERATIONS:

Delegation of Authority. Department staff currently makes recommendations to the Commission through the Director. With the proposed rule change, the Commission or the Director could now make the funding decision. The criteria used by staff to make the recommendation have been adopted in rule by the Commission.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Request adoption of the draft rules as proposed in Attachment A, including:

a. Delegating authority to the Director to approve financial assistance to waste tire storage permittees.

b. Establishing criteria for the amount of financial assistance to local government permittees.

c. Allowing the Department to advance 100 percent of the cost of waste tire pile cleanup to a waste tire permittee.

d. Making housekeeping changes for reimbursement recipients using waste tire materials for paving, local governments abating illegal waste tire piles, and waste tire carrier permits.

2. Modify draft rule to establish a cost threshold for delegation of authority to the Director to approve financial assistance to waste tire storage permittees for cleanup of tire piles.

3. Other alternatives were considered to determine the level of financial assistance to local governments, such as basing the percentage of assistance on per capita or median household income, on the tax base, on the assessed per capita value of the county, etc. Amount of financial assistance should be based on the financial capability of the permittee; each of the preceding could be considered a measure of a local government's financial capability. However, each has limitations. Water Quality Division examined these and other potential methods for establishing loan interest rates based on the amount a local community can afford to pay in its analysis of "local ability to pay" in providing loans from the State Revolving Fund for water pollution control facilities (Agenda Item P, 3/3/89 EQC Meeting). Their task force rejected all the methods because of lack of current data, inherent inequities, lack of comparability, or undue complexity of the method. The proposed index serves as an indicator of a local government's financial capability, and is a simple way to determine the amount of financial assistance appropriate for local governments.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission adopt Alternative 1.

The proposed rule has the support of the Advisory Committee (except for public testimony presented by one member as noted above). We do not expect any new policy issues to arise in providing financial assistance to permittees, especially since the Commission has already reviewed financial assistance requests from most large sites. Delegation of the decision-making authority will not change the basis on which financial assistance is given, but only the process. The Department could still refer decisions to the Commission, if appropriate. The rule change provides for efficient administration of the program. It establishes some Department guidelines as rule. It allows timely cleanup of sites for which a permittee cannot pay its share of the costs up front. Other housekeeping changes will improve administration of the waste tire program.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The rule follows agency policy in removing from Commission review a fairly routine set of decisions (amount of financial assistance) that do not involve policy and may not warrant continued Commission scrutiny. This is consistent with Strategic Goals 8 and 9.

The rule follows agency policy on specifying by rule what criteria are to be used in determining benefits.

ISSUES FOR COMMISSION TO RESOLVE:

1. Does the Commission wish to delegate to the Director the Commission's responsibility to make a "finding" that financial assistance should be given to a waste tire permittee?

2. Does the Commission wish to retain decision authority for funding of permittee waste tire cleanups costing over some threshold amount?

3. Is an index based on size of the waste tire pile related to the local government's population the correct way to

determine amount of financial assistance to a local government permittee?

INTENDED FOLLOWUP ACTIONS:

File adopted rules with the Secretary of State's Office.

Notify interested persons of the rule adoption.

Approved:

Section: Deanna Mueller-Crispin

Division: Steve Greenwood

Director: Jeff Hansen

Report Prepared By: Deanna Mueller-Crispin

Phone: 229-5808

Date Prepared: October 15, 1990

dmc
deleg.2
10/15/90

ATTACHMENT A

Proposed Revisions: 10/2/90

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
ADMINISTRATIVE RULES
DIVISION 64 - SOLID WASTE MANAGEMENT: WASTE TIRES

EQC POLICY STATEMENT

In establishing the waste tire program by statute and rule, the Legislature and the Environmental Quality Commission determined that it is in the best interest of the state to provide a long-term solution to disposal of waste tires by developing incentives to create a stable market for uses of waste tires. In addition to establishing long-term solutions, existing environmental problems must be addressed by cleaning up waste tire piles and by regulating disposal.

Proposed additions to rule are underlined.
Proposed deletions are in brackets [].

Definitions

340-64-010 As used in these rules unless otherwise specified:

(1) "Abatement" -- the processing or removing to an approved storage site of waste tires which are creating a danger or nuisance, following a legal nuisance abatement procedure.

(2) "Beneficial use" -- storage of waste tires in a way that creates an on-site economic benefit, other than from processing or recycling, to the owner of the tires, such as in using the tires for raised-bed planters.

(3) "Buffings" -- a product of mechanically scarifying a tire surface, removing all trace of the surface tread, to prepare the casing to be retreaded.

(4) "Commission" -- the Environmental Quality Commission.

(5) "Common carrier" -- any person who transports persons or property for hire or who publicly purports to be willing to transport persons or property for hire by motor vehicle; or any person who leases, rents, or otherwise provides a motor vehicle to the public and who in connection therewith in the regular course of business provides, procures, or arranges for, directly, indirectly, or by course of dealing, a driver or operator therefor.

(6) "Department" -- the Department of Environmental Quality.

(7) "Director" -- the Director of the Department of Environmental Quality.

(8) "Dispose" -- to deposit, dump, spill or place any waste tire on any land or into any water as defined by ORS 468.700.

(9) "DMV" -- Oregon Department of Motor Vehicles.

(10) "End user":

(a) For energy recovery: the person who utilizes the heat content or other forms of energy from the incineration or pyrolysis of waste tires, chips or similar materials.

(b) For other eligible uses of waste tires: the last person who uses the tires, chips, or similar materials to make a product with economic value. If the waste tire is processed by more than one person in becoming a product, the "end user" is the last person to use the tire as a tire, as tire chips, or as similar materials. A person who produces tire chips or similar materials and gives or sells them to another person to use is not an end user.

(c) For paving projects: either the paving contractor laying the paving, or the person for whom the paving is done, depending on the agreement between the paving contractor and the person for whom the paving is done.

(11) "Energy recovery" -- recovery in which all or a part of the waste tire is processed to utilize the heat content, or other forms of energy, of or from the waste tire.

(12) "Financial assurance" -- a performance bond, letter of credit, cash deposit, insurance policy or other instrument acceptable to the Department.

(13) "Land disposal site" -- a disposal site in which the method of disposing of solid waste is by landfill, dump, pit, pond or lagoon.

(14) "Nonocean waters" -- fresh waters, tidal and nontidal bays and estuaries as defined in ORS 541.605.

(15) "Oversize waste tire" -- a waste tire exceeding a 24.5-inch rim diameter, or which is excluded from Federal excise tax (except a passenger tire).

(16) "Passenger tire" -- a tire with less than an 18-inch rim diameter.

(17) "Passenger tire equivalent" -- a measure of mixed passenger and truck tires, where five passenger tires are considered to equal one truck tire.

(18) "Person" -- the United States, the state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

(19) "Private carrier" -- any person who operates a motor vehicle over the public highways of this state for the purpose of transporting persons or property when the transportation is incidental to a primary business enterprise, other than transportation, in which such person is engaged.

(20) "PUC" -- the Public Utility Commission of Oregon.

(21) "Recycle" or "recycling" -- any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity.

(22) "Retreader" -- a person engaged in the business of recapping tire casings to produce recapped tires for sale to the public.

(23) "Rick" -- to horizontally stack tires securely by overlapping so that the center of a tire fits over the edge of the tire below it.

(24) "Store" or "storage" -- the placing of waste tires in a manner that does not constitute disposal of the waste tires. "Storage" includes the beneficial use of waste tires as fences and other uses with similar potential for causing environmental risks. "Storage" does not include such beneficial uses as planters except when the Department determines such uses create environmental risks.

(25) "Tire" -- a continuous solid or pneumatic rubber covering encircling the wheel of a vehicle in which a person or property is

transported, or by which they may be drawn, on a highway. This does not include tires on the following:

(a) A device moved only by human power.

(b) A device used only upon fixed rails or tracks.

(c) A motorcycle.

(d) An all-terrain vehicle, including but not limited to, three-wheel and four-wheel ATVs, dune buggies and other similar vehicles. All-terrain vehicles do not include jeeps, pick-ups and other four-wheel drive vehicles that may be registered, licensed and driven on public roads in Oregon.

(e) A device used only for farming, except a farm truck.

(26) "Tire carrier" -- a person who picks up or transports waste tires for the purpose of storage or disposal. This does not include the following:

(a) Solid waste collectors operating under a license or franchise from a local government unit and who transport fewer than 10 tires at a time.

(b) Persons who transport fewer than five tires with their own solid waste for disposal.

(27) "Tire processor" -- a person engaged in the processing of waste tires.

(28) "Tire retailer" -- a person in the business of selling new replacement tires at retail, whose local business license or permit (if required) specifically allows such sale.

(29) "Tire derived products" -- tire chips or other usable materials produced from the physical processing of a waste tire.

(30) "Truck tire" -- a tire with a rim diameter of between 18 and 24.5 inches.

(31) "Waste tire" -- a tire that is no longer suitable for its original intended purpose because of wear, damage or defect, and is fit only for:

(a) Remanufacture into something else, including a recapped tire; or

(b) Some other use which differs substantially from its original use.

(32) "Waste Tires Generated in Oregon" -- Oregon is the place at which the tire first becomes a waste tire. A tire casing imported into Oregon for potential recapping, but which proves unusable for that purpose, is not a waste tire generated in Oregon. Examples of waste tires generated in Oregon include but are not limited to:

(a) Tires accepted by an Oregon tire retailer in exchange for new replacement tires.

(b) Tires removed from a junked auto at an auto wrecking yard in Oregon.

Waste Tire Carrier Permit Required

340-64-055 (1) After January 1, 1989, any person engaged in picking up, collecting or transporting waste tires for the purpose of storage or disposal is required to obtain a waste tire carrier permit from the Department.

(2) After January 1, 1989, no person shall collect or haul waste tires or advertise or represent himself/herself as being in the business of a

waste tire carrier without first obtaining a waste tire carrier permit from the Department.

(3) After January 1, 1989, any person who gives, contracts or arranges with another person to collect or transport waste tires for storage or disposal shall only deal with a person holding a waste tire carrier permit from the Department, unless the person is exempted by subsection (4)(a) or (b) of this rule.

(4) The following persons are exempt from the requirement to obtain a waste tire carrier permit:

(a) Solid waste collectors operating under a license or franchise from any local government unit and who transport fewer than 10 tires at any one time.

(b) Persons transporting fewer than five tires.

(c) Persons transporting tire-derived products to a market.

(d) Persons who use company-owned vehicles to transport tire casings for the purposes of retreading between company-owned or company-franchised retail tire outlets and company-owned or company-franchised retread facilities while transporting casings between those retail tire outlets and those retread facilities.

(e) Tire retailers or retreaders who transport used tires between their retail tire outlet or retread operation and their customers, after taking them from customers in exchange for other tires, or for repair or retreading while transporting used tires between their retail tire outlet or retread operation and their customers.

(f) The United States, the State of Oregon, any county, city, town or municipality in this state, or any department of any of them [except when vehicles they own or operate are used as a waste tire carrier for hire].

(5) Persons exempt from the waste tire carrier permit requirement under subsection (4)(d) of this rule shall nevertheless notify the Department of this practice on a form provided by the Department.

(6) A combined tire carrier/storage permit may be applied for by tire carriers:

(a) Who are subject to the carrier permit requirement; and

(b) Whose business includes or wants to establish a site which is subject to the waste tire storage permit requirement.

(7) The Department shall supply a combined tire carrier/storage permit application to such persons. Persons applying for the combined tire carrier/storage permit shall comply with all other regulations concerning storage sites and tire carriers established in these rules.

(8) Persons who transport waste tires for the purpose of storage or disposal must apply to the Department for a waste tire carrier permit within 90 days of the effective date of this rule. Persons who want to begin transporting waste tires for the purpose of storage or disposal must apply to the Department for a waste tire carrier permit at least 90 days before beginning to transport the tires.

(9) Applications shall be made on a form provided by the Department. The application shall include such information as required by the Department. It shall include but not be limited to:

(a) A description, license number and registered vehicle owner for each truck used for transporting waste tires.

(b) The PUC authority number under which each truck is registered.

(c) Where the waste tires will be stored or disposed of.

(d) Any additional information required by the Department.

(10) A corporation which has more than one separate business location may submit one waste tire carrier permit application which includes all the locations. All the information required in section (9) of this rule shall be supplied by location for each individual location. The corporation shall be responsible for amending the corporate application whenever any of the required information changes at any of the covered locations.

(11) An application for a tire carrier permit shall include a $25 non-refundable application fee and an annual compliance fee as listed in OAR 340-64-063.

(12) An application for a combined tire carrier/storage permit shall include a $250 application fee, $50 of which shall be nonrefundable, and an annual compliance fee as listed in OAR 340-64-063. The rest of the application fee may be refunded in whole or in part when submitted with an application if either of the following conditions exists:

(a) The Department determines that no permit will be required;

(b) The applicant withdraws the application before the Department has granted or denied the application.

(13) The application for a waste tire carrier permit shall also include a bond in the sum of $5,000 in favor of the State of Oregon. In lieu of the bond, the applicant may submit financial assurance acceptable to the Department. The Department will accept as financial assurance only those instruments listed in and complying with requirements in OAR 340-61-034(3)(c)(A) through (G) and OAR 340-71-600(5)(a) through (c).

(14) The bond or other financial assurance shall be filed with the Department and shall provide that:

(a) In performing services as a waste tire carrier, the applicant shall comply with the provisions of ORS 459.705 through 459.790 and of this rule; and

(b) Any person injured by the failure of the applicant to comply with the provisions of ORS 459.705 through 459.790 or this rule shall have a right of action on the bond or other financial assurance in the name of the person. Such right of action shall be made to the principal or the surety company within two years after the injury.

(15) Any deposit of cash, certificate of deposit, letter of credit, or negotiable securities submitted under sections (13) and (14) of this rule shall remain in effect for not less than two years following termination of the waste tire carrier permit.

(16) A waste tire carrier permit or combined tire carrier/storage permit shall be valid for up to three years.

(17) Waste tire carrier permits shall expire on March 1. Waste tire carrier permittees who want to renew their permit must apply to the Department for permit renewal by February 1 of the year the permit expires. The application for renewal shall include all information required by the Department, and a permit renewal fee.

(18) A waste tire carrier permittee may add another vehicle to its permitted waste tire carrier fleet if it does the following before using the vehicle to transport waste tires:

(a) Submits to the Department:

(A) The information required in OAR 340-64-055 (9); and

(B) A fee of $25 for each vehicle added.

(b) Displays on each additional vehicle decals from the Department pursuant to OAR 340-64-063 (1)(b).

(19) A waste tire carrier permittee may lease additional vehicles to use under its waste tire carrier permit without adding that vehicle to its fleet pursuant to section (18) of this rule, under the following conditions:

(a) The vehicle may not transport waste tires when under lease for a period of time exceeding 30 days ("short-term leased vehicles"). If the lease is for a longer period of time, the vehicle must be added to the permittee's permanent fleet pursuant to section (18) of this rule.

(b) The permittee must give previous written notice to the Department that it will use short-term leased vehicles.

(c) The permittee shall pay a $25 annual compliance fee in advance to allow use of short-term leased vehicles, in addition to any other fees required by OAR 340-64-055 (11), (12) and (18), and 340-64-063 (7) and (9).

(e) Every permittee shall keep a daily record of all vehicles leased on short term, with beginning and ending dates used, license numbers, PUC authority, PUC temporary pass or PUC plate/marker, and person from whom the vehicles were leased. The daily record must be kept current at all times, subject to verification by the Department. The daily record shall be maintained at the principal Oregon office of the permittee. The daily record shall be submitted to the Department each year as part of the permittee's annual report required by OAR 340-64-063(5).

(f) The permittee's bond or other financial assurance required under OAR 340-64-055 (13) must provide that, in performing services as a waste tire carrier, the operator of a vehicle leased by the permittee shall comply with the provisions of ORS 459.705 through 459.790 and of this rule.

(g) The permittee is responsible for ensuring that a leased vehicle complies with OAR 340-64-055 through 340-64-063, except that the leased vehicle does not have to obtain a separate waste tire carrier permit pursuant to OAR 340-64-055 (1) while operating under lease to the permittee.

(20) A holder of a combined tire carrier/storage permit may purchase special block passes from the Department. A person located outside of Oregon who is a holder of a waste tire carrier permit issued by the Department may also purchase special block passes from the Department if he or she also holds a valid permit allowing storage of waste tires issued by the responsible state or local agency of that state, and if such permit is deemed acceptable by the Department. The block passes will allow the permittee to use a common carrier or private carrier which does not have a waste tire carrier permit. Use of a block pass will allow the unpermitted common carrier or private carrier to haul waste tires under the permittee's waste tire carrier permit.

(a) Special block passes shall be available in sets of at least five, for a fee of $5 per block pass. Only a holder of a combined tire carrier/storage permit may purchase block passes. Any unused block passes shall be returned to the Department when the permittee's waste tire permit expires or is revoked.

(b) The permittee is responsible for ensuring that a common carrier or private carrier operating under a block pass from the permittee complies with OAR 340-64-055 through 340-64-063, except that the common carrier or private carrier does not have to obtain a separate waste tire carrier permit pursuant to OAR 340-64-055(1) while operating under the permittee's block pass.

(c) A block pass may be valid for a maximum of ten days and may only

be used to haul waste tires between the origin(s) and destination(s) listed on the block pass.

(d) A separate block pass shall be used for each trip hauling waste tires made by the unpermitted common carrier or private carrier under the permittee's waste tire permit. (A "trip" begins when waste tires are picked up at an origin, and ends when they are delivered to a proper disposal site(s) pursuant to OAR 340-64-063(4).)

(e) The permittee shall fill in all information required on the block pass, including name of the common carrier or private carrier, license number, PUC authority if applicable, PUC temporary pass or PUC plate/marker if applicable, beginning and ending dates of the trip, address(es) of where the waste tires are to be picked up and where they are to be delivered, and approximate numbers of waste tires to be transported.

(f) Each block pass shall be in triplicate. The permittee shall send the original to the Department within five days of the pass's beginning date, one copy to the common carrier or private carrier which shall keep it in the cab during the trip, and shall keep one copy.

(g) The permittee shall be responsible for ensuring that any common carrier or private carrier hauling waste tires under the permittee's waste tire permit has a properly completed block pass.

(h) While transporting waste tires, the common carrier or private carrier shall keep a block pass properly filled out for the current trip in the cab of the vehicle.

(i) An unpermitted common carrier or private carrier may operate as a waste tire carrier using a block pass no more than three times in any calendar quarter. Before a common carrier or private carrier may operate as a waste tire carrier more than three times a quarter, he or she must first apply for and obtain a waste tire carrier permit from the Department.

Waste Tire Carrier Permittee Obligations

340-64-063 (1) Each person required to obtain a waste tire carrier permit shall:

(a) Comply with OAR 340-64-025(1).

(b) Display current decals with his or her waste tire carrier identification number issued by the Department when transporting waste tires. The decals shall be displayed on the sides of the front doors of each truck used to transport tires.

(c) Maintain the financial assurance required under ORS 459.730(2)(d).

(2) When a waste tire carrier permit expires or is revoked or suspended, the former permittee shall immediately remove all waste tire permit decals from its vehicles and remove the permit from display. The permittee shall surrender a revoked or suspended permit, and certify in writing to the Department within fourteen days of revocation or suspension that all Department decals have been removed from all vehicles.

(3) Leasing, loaning or renting of permits is prohibited. No permit holder shall engage in any conduct which falsely tends to create the appearance that services are being furnished by the holder when in fact they are not.

(4) A waste tire carrier shall leave waste tires for storage or dispose of them only in a permitted waste tire storage site, at a land disposal site permitted by the Department, or at another site approved by the Department, such as a site authorized to accept waste tires under the laws or regulations of another state.

(5) The Department may allow a permittee to use up to two covered containers to collect waste tires. A maximum of 2,000 tires may be so collected at any one time, and for no longer than 90 days in each container, beginning with the date when a waste tire is first placed in a container. The containers must be located at the permittee's main place of business.

(6) A waste tire carrier permittee shall inform the Department within two weeks of any change in license plate number or ownership (sale) of any vehicle under his or her waste tire carrier permit.

(7) [(5)] Waste tire carrier permittees shall record and maintain for three years the following information regarding their activities for each month of operation:

(a) The approximate quantity of waste tires collected. Quantities may be measured by aggregate loads or cubic yards, if the carrier documents the approximate number included in each load;

(b) Where or from whom the waste tires were collected;

(c) Where the waste tires were deposited. The waste tire carrier shall keep receipts or other written materials documenting where all tires were stored or disposed of.

(8) [(6)] Waste tire carrier permittees shall submit to the Department an annual report that summarizes the information collected under section (7) [(5)] of this rule. The information shall be broken down by quarters. This report shall be submitted to the Department annually as a condition of holding a permit together with the annual compliance fee or permit renewal application.

(9) [(7)] A holder of a waste tire carrier permit shall pay to the Department an annual fee in the following amount:

Annual compliance fee (per company or corporation)	$175
Plus annual fee per vehicle used for hauling waste tires	25

(10) [(8)] A holder of a waste tire carrier permit who is a private carrier meeting requirements of subsection [(8)] (10)(b) of this rule shall, instead of the fees under section (9) [(7)] of this rule, pay to the Department an annual fee in the following amount:

(a) Annual compliance fee	$25

(b) To qualify for the fee structure under subsection (10) [(8)](a) of this rule, a private carrier must:

(A) Use a vehicle with a combined weight not exceeding 26,000 lbs;

(B) Transport only such waste tires as are generated incidentally to his business; and

(C) Use the vehicle to transport the waste tires to a proper disposal site.

(c) If a vehicle owned or operated by a private carrier is used for hire in hauling waste tires, the annual fee structure under section (9) [(7)] of this rule shall apply.

(11) [(9)] A holder of a combined tire carrier/storage permit shall pay to the Department by February 1 of each year an annual compliance fee for the coming calendar year in the following amount:

Annual compliance fee (per company or corporation)	$250
Plus annual fee per vehicle used for hauling waste tires	$ 25

(12) [(10)] A holder of a waste tire carrier permit shall pay to the Department by February 15 of each year an annual compliance fee for the coming year (March 1 through February 28) as required by sections (9) [(7)] through (11) [(9)] of this rule. The permittee shall provide evidence of required financial assurance when the annual compliance fee is submitted. For the first year's operation, the full fee(s) shall apply if the carrier permit is issued on or before December 1. Any new waste tire carrier permit issued after December 1 shall not owe an annual compliance fee(s) until March 1.

(13) [(11)] The fee is $10 for a decal to replace one that was lost or destroyed.

(14) [(12)] The fee for a waste tire carrier permit renewal is $25.

(15) [(13)] The fee for a permit modification of an unexpired waste tire carrier permit, initiated by the permittee, is $15. Adding a vehicle to the permittee's fleet pursuant to OAR 340-64-055 (18), dropping a vehicle from the permitted fleet, or updating a changed license plate number of a vehicle in the permitted fleet does not constitute a permit modification. However, adding a vehicle is subject to a separate fee pursuant to OAR 340-64-055(18).

(16) (14) A waste tire carrier permittee should check with the PUC and DMV to ensure that he or she complies with all PUC and DMV regulations.

Application for Reimbursement

340-64-120 (1) Application for reimbursement for use of waste tires shall be made on a form provided by the Department.

(2) An applicant may apply in advance for certification ("advance certification") from the Department that his or her proposed use of waste tires shall be eligible for reimbursement.

(a) Such advance certification may be issued by the Department if the applicant proves to the Department's satisfaction that:

(A) The use being proposed is an eligible use under OAR 340-64-110;

(B) The applicant is an eligible end user under OAR 340-64-010(10) [and OAR 340-64-115];

(C) The applicant will be able to document that the waste tires used were generated in Oregon; and

(D) The applicant will be able to document the number of net pounds of waste tires used.

(b) The applicant must still apply to the Department for reimbursement for waste tires actually used, and document the amount of that use, pursuant to sections (3) and (4) of this rule.

(c) Advance certification issued by the Department to an applicant shall not guarantee that the applicant shall receive any reimbursement funds. The burden of proof shall be on the applicant to document that the use for which reimbursement is requested actually took place, and corresponds to the use described in the advance certification.

(3) An applicant may apply to the Department directly for the reimbursement each quarter without applying for advance certification. The application shall be on a form provided by the Department.

(4) To apply for reimbursement for the use of waste tires an applicant shall:

(a) Apply to the Department no later than thirty (30) days after the end of the quarter in which the waste tires were used.

(b) Unless the applicant holds an advance certification for the use of waste tires for which they are applying, prove to the Department's satisfaction that:

(A) The use being proposed is an eligible use under OAR 340-64-010; and

(B) The applicant is an eligible end user under OAR 340-64-010(10) and OAR 340-64-115.

(c) Provide documentation acceptable to the Department, such as bills of lading, that the tires, chips or similar materials used were from waste tires generated in Oregon.

(d) Provide documentation acceptable to the Department of the net amount of pounds of waste tires used (including embedded energy from waste tires) in the quantity of product sold, purchased or used. Examples of acceptable documentation are:

(A) For tire-derived fuel: receipts showing tons of tire-derived fuel purchased.

(B) For incineration of whole tires producing process heat, steam or electricity: records showing net tons of rubber burned.

(C) For pyrolysis plants producing electricity or process heat or steam: billings showing sales of kilowatt hours or tons of steam produced by the tire pyrolysis, calculations certified by a professional engineer showing how many net pounds of tires were required to generate that amount of energy, and receipts or bills of lading for the number of waste tires actually used to produce the energy.

(D) For pyrolysis technologies producing combustible hydrocarbons and other salable products: billings to customers showing amounts of pyrolysis-derived products sold (gallons, pounds, etc.) with calculations certified by a professional engineer showing the number of net pounds of waste tires, including embedded energy, used to produce those products.

(E) For end users of tire strips, chunks, rubber chips, crumbs and the like in the manufacture of another product: billings to purchasers for the product sold, showing net pounds of rubber used to manufacture the amount of product sold.

(F) For end users of tire chips in rubberized asphalt, or as road bed material and the like: billings or receipts showing the net pounds of rubber used.

(G) For end users of whole tires: documentation of the weight of the tires used, exclusive of any added materials such as ballast or ties.

(5) The Department may require any other information necessary to determine whether the proposed use is in accordance with Department statutes and rules.

(6) An applicant for a reimbursement for use of waste tires, and the person supplying the waste tires, tire chips or similar materials to the applicant, for which the reimbursement is requested, are subject to audit by the Department (or Secretary of State) and shall allow the Department access to all records during normal business hours for the purpose of determining compliance with this rule.

(7) In order to apply for a reimbursement, an applicant must have used an equivalent of at least 10,000 pounds of waste tires or 500 passenger tires after the effective date of this rule. Waste tires may be used in more than one quarter to reach this threshold amount.

Use of Waste Tire Site Cleanup Funds

340-64-150 (1) The Department may use cleanup funds in the Waste Tire Recycling Account to:

(a) Partially pay to remove or process waste tires from a permitted waste tire storage site, if the Commission or Director finds that such use is appropriate pursuant to ORS 459.780(2) and OAR 340-64-160.

(b) Pay for abating a danger or nuisance created by a waste tire pile, subject to cost recovery by the attorney general pursuant to OAR 340-64-165.

(c) Partially reimburse a local government unit for the cost it incurred in abating a waste tire danger or nuisance. The Department may reimburse from 90 to 99 percent of the cleanup cost based on the degree of environmental risk posed by the site, as determined by OAR 340-64-155.

(2) The Commission authorizes the Director to make a finding of whether use of cleanup funds is appropriate to assist a permittee, pursuant to ORS 459.780(2), provided that the Director's finding is based on criteria in OAR 340-64-150, 340-64-155 and 340-64-160.

(3) [(2)] Priority in use of cleanup funds shall go to sites ranking high in criteria making them an environmental risk, pursuant to OAR 340-64-155.

(4) [(3)] For the Department to reimburse a local government for waste tire danger or nuisance abatement, the following must happen:

(a) The Department must determine that the site ranks high in priority criteria for use of cleanup funds, OAR 340-64-155.

(b) The local government and the Department must have an agreement on how the waste tires shall be properly disposed of.

(5) The Department may condition use of Waste Tire Recycling Account funds on use of a contractor who has a performance record free of significant violations of waste tire storage and carrier rules and statutes for the three years prior to a subject cleanup.

Criteria for Use of Funds to Clean Up Permitted Waste Tire Sites

340-64-155 (1) The Department shall establish an environmental ranking of permittees requesting cleanup funds based [base its recommendations on use of cleanup funds] on potential degree of environmental risk created by

the tire pile. Sites with a higher ranking will in general be cleaned up before lower ranked sites. The following special circumstances shall serve as criteria in determining the degree of environmental risk. The criteria, listed in priority order, include but are not limited to:

(a) Susceptibility of the tire pile to fire. In this, the Department shall consider:

(A) The characteristics of the pile that might make it susceptible to fire, such as how the tires are stored (height and bulk of piles), the absence of fire lanes, lack of emergency equipment, presence of easily combustible materials, and lack of site access control;

(B) How a fire would impact the local air quality; and

(C) How close the pile is to natural resources or property owned by third persons that would be affected by a fire at the tire pile.

(b) Other characteristics of the site contributing to environmental risk, including susceptibility to mosquito infestation.

(c) Other special conditions which justify immediate cleanup of the site.

(d) A local fire district or a local government deems the site to be a danger or nuisance, or an environmental concern that warrants immediate removal of all waste tires.

(2) In determining the degree of environmental risk involved in the two criteria above, the Department shall consider:

(a) Size of the tire pile (number of waste tires).

(b) How close the tire pile is to population centers. The Department shall especially consider the population density within five miles of the pile, and location of any particularly susceptible populations such as hospitals.

(3) In the case of a waste tire storage permittee which is also a local government:

(a) The following special circumstances may also be considered by the Department in determining whether financial assistance to remove waste tires is appropriate:

(A) The tire pile was in existence before January 1, 1988.

(B) The waste tires were collected from the public, and the local government did not charge a fee to collect the tires for disposal.

(C) The pile consists of at least 1,000 waste tires.

(b) If [both] all the above conditions are present, the Department may assist the local government with up to 80 percent of the net cost of tire removal[.], based on an index. The index will be determined by dividing the local government's population by the number of waste tires at the site. The percentage of cleanup cost which could be covered by financial assistance is as follows:

Table 1: Financial Assistance to Local Governments

Index	% Financial Assistance
Less than 1.0	80%
1.0 - 9.9	70%
10.0 - 99.9	60%
100.0 - 499.9	50%
Greater than 500	25%

(c) If a local government is out of compliance with its waste tire

storage permit, the percentage of financial assistance from Table 1 may be reduced by 10 percentage points.

(4) Financial hardship on the part of the permittee [or responsible party] shall be an additional criterion in the Department's determination of the amount of cleanup funds appropriate to be spent on a site. Financial hardship means that strict compliance with OAR 340-64-005 through 340-64-045 would result in substantial curtailment or closing of the permittee's business or operation, or the bankruptcy of the permittee. The burden of proof of such financial hardship is on the permittee. In interpreting when "financial hardship" may result, the Department may use the following as guidelines:

(a) In the case of a permittee who is not a corporation or a local government, the cost of cleaning up the tires:

(A) Would cause the permittee's annual gross household income to fall below the state median income as determined by the U.S. Department of Housing and Urban Development; and/or

(B) Would reduce the permittee's net assets (excluding one automobile and homestead) to below $20,000.

(b) In the case of a permittee which is a corporation, the cost of complying with the tire removal schedule required by the Department:

(A) Would cause the annual gross household income of each of the corporate officers who are also corporate stockholders to fall below the state median income as determined by the U.S. Department of Housing and Urban Development; and/or

(B) Would reduce the net assets (excluding basic assets of building, equipment and inventory) of the corporation to below $20,000; and

(C) Would, as certified in a statement from the corporation's accountant or attorney, cause substantial curtailment or closing of the corporation, or bankruptcy.

(5) The Department may assist a permittee with the cost of tire removal to the following extent:

(a) For a permittee whose income and/or assets are above the thresholds in section (4) of this rule: the permittee is required to contribute its own funds to the cost of tire removal up to the point where "financial hardship," as specified in section (4), would ensue. The Department may pay the remaining cost of the cleanup up to a maximum of 90 percent (for individuals) or 80 percent (for corporations) of the total cost of the cleanup.

(b) For a permittee whose income and assets fall below the thresholds in section (4) of this rule, the Department may pay up to the following percentage of the cost of cleanup:

(A) For an individual or a partnership: up to 90 percent of the cost (plus any cost of waste tire storage permit fees paid by the permittee);

(b) For a corporation: up to 80 percent of the cost.

(6) The Department may reduce to $1,500 the permittee's required contribution to the cleanup cost in the case of a permittee whose net equity in assets exempt under section (4) of this rule is less than $50,000, or who is over 65 years of age and whose net exempt assets are less than $100,000.

(7) A permittee may receive financial assistance for no more than one complete waste tire removal or processing job.

(8) The Department may advance funds for up to 100 percent of the cost of the cleanup of a permitted waste tire site, if:

(a) The permittee demonstrates that it cannot pay its share of the cleanup cost at the time the cleanup is completed;

(b) The permittee signs an agreement to repay the Department its share of the cleanup costs within a schedule agreeable to the Department, and with such guarantees as the Department deems appropriate.

Procedure for Use of Cleanup Funds for a Permitted Waste Tire Storage Site

340-64-160 (1) The Department may recommend to the Commission or the Director may find that cleanup funds should be made available to partially pay for cleanup of a permitted waste tire storage site, if all of the following are met:

(a) The site ranks high in the criteria making it an environmental risk, pursuant to OAR 340-64-155.

(b) The permittee submits to the Department a compliance plan to remove or process the waste tires. The plan shall include:

(A) A detailed description of the permittee's proposed actions, including how the waste tires will be processed or recycled;

(B) A time schedule for the removal and or processing, including interim dates by when part of the tires will be removed or processed[.];

(C) An estimate of the net cost of removing or processing the waste tires using the most cost-effective alternative. This estimate must be documented[.];

(D) Three bids obtained from responsible contractors. The plan shall also show that the permittee selected the lowest responsible contractor. The contractor shall either be or subcontract with a waste tire carrier permitted by the Department, or be capable of processing the waste tires on site.

(c) The plan receives approval from the Department.

(2) A permittee claiming financial hardship under OAR 340-64-155(4) must document such claim through submittal of the permittee's state and federal tax returns for the past three years, business statement of net worth, and similar materials. If the permittee is a business, the income and net worth of other business enterprises in which the principals of the permittee's business have a legal interest must also be submitted.

(3) If the Commission or the Director finds that use of cleanup funds is appropriate, the Department shall agree to pay part of the Department-approved costs incurred by the permittee to remove or process the waste tires. Final payment shall be withheld until the Department's final inspection and confirmation that the tires have been removed or processed pursuant to the compliance plan.

Use of Cleanup Funds for Abatement by the Department

340-64-165 (1) The Department may use funds in the Account to contract for the abatement of:

(a) A tire pile for which a person has failed to apply for or obtain a waste tire storage site permit.

(b) A permitted waste tire storage site if the permittee fails to meet the conditions of such permit.

(2) The Department may abate any danger or nuisance created by waste tires by removing or processing the tires. The Department shall follow environmental risk criteria in OAR 340-64-155 in determining which sites shall be subject to abatement.

(3) Before taking any action to abate the danger or nuisance, the Department shall give any persons having the care, custody or control of the waste tires, or owning the property upon which the tires are located, notice of the Department's intentions and order the person to abate the danger or nuisance in a manner approved by the Department.

(4) Any order issued by the Department under this subsection shall be subject to appeal to the Commission and judicial review of a final order under the applicable provisions of ORS 183.310 to 183.550.

(5) If a person fails to take action as required under subsection (3) of this section within the time specified, the Director may contract to abate the danger or nuisance.

(6) The order issued under subsection (3) of this section may include entering the property where the danger or nuisance is located, taking the tires into public custody and providing for their processing or removal.

(7) The Department may request the attorney general to bring an action to recover any reasonable and necessary expenses incurred by the Department for abatement costs, including administrative and legal expenses. The Department's certification of expenses shall be prima facie evidence that the expenses are reasonable and necessary. The Department may consider the financial situation of the person in determining the amount of abatement costs to be recovered.

ATTACHMENT B

RULEMAKING STATEMENTS
for
Proposed Revisions to Existing Rules
Pertaining to Transportation of Waste Tires,
Cleanup of Tire Piles,
and Eligibility for Reimbursement for Use of Waste Tires

OAR Chapter 340, Division 64

Pursuant to ORS 183.335, these statements provide information on the intended action to adopt a rule.

STATEMENT OF NEED:

Legal Authority

The 1987 Oregon Legislature passed the Waste Tire Act regulating the disposal, storage and transportation of waste tires, and establishing a fund to clean up waste tire piles and reimburse persons who use waste tires. ORS 459.785 requires the Commission to adopt rules and regulations necessary to carry out the provisions of ORS 459.705 to 459.790. ORS 459.770 requires the Commission to adopt rules to carry out the provision of that section pertaining to reimbursement for use of waste tires. The Commission is adopting revisions to existing rules which are necessary to carry out the provisions of the Waste Tire Act.

Need for the Rule

Improper storage and disposal of waste tires represents a significant problem throughout the State. The Waste Tire Act establishes a comprehensive program to regulate and disposal, storage and transportation of waste tires. The purpose of the reimbursement is to stimulate the market for waste tires, providing an alternative to landfill disposal. The rule revisions are needed to make changes the Department has found necessary in administering this program.

Principal Documents Relied Upon

a. Oregon Revised Statutes, Chapter 459.
b. Oregon Administrative Rules, Chapter 340, Division 64.

LAND USE CONSISTENCY STATEMENT:

The proposed rules appear to affect land use and appear to be consistent with Statewide Planning Goals and Guidelines.

With regard to Goal 6 (Air, Water and Land Resources Quality), the rules provide for the proper collection and storage of waste tires by waste tire carriers.

With regard to Goal 11 (Public Facilities and Services), the rule incorporates criteria for determining the amount of financial assistance for waste tire cleanup which could be given to a local government which is a waste tire storage permittee. This will assist local governments to properly dispose of waste tires.

The rules do not appear to conflict with other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the manner described in the accompanying NOTICE OF PUBLIC HEARING.

It is requested that local, state and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning Goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any apparent conflicts brought to our attention by local, state or federal authorities.

rmkgst.del

ATTACHMENT C

FISCAL AND ECONOMIC IMPACT STATEMENT

I. Introduction

The rule delegates from the Environmental Quality Commission to the Director of the Department of Environmental Quality authority to approve financial assistance requests to waste tire permittees to help them clean up tire piles. This delegation would remove a fairly routine decision from consideration by the Commission.

The rule also establishes as rule, criteria which determine the amount of financial assistance which may be given to a local government waste tire storage permittee for waste tire pile cleanup. The Department has used these same criteria as guidelines in previous recommendations, but now intends to adopt them as rule.

The rule allows the Department to advance up to 100 percent of the cost of tire pile cleanups for permittees who lack financial resources to pay their share of the cleanup costs at the time of the cleanup. All permittees are required to contribute some funds to the cleanup of their waste tire piles. The Department would require that a payback agreement be signed between the permittee and the Department specifying terms of the payment of the permittee's share of the cleanup costs.

II. General Public

The general public is not directly affected economically by these rule changes.

Members of the public who also hold waste tire storage permits may be eligible for financial assistance in removing waste tires. If they are unable to advance cash for their share of the cleanup costs, their payment could be made easier by the Department's willingness to advance 100 percent of the cost of tire removal. They could be allowed to repay the Department over time, in effect receiving an interest-free loan.

III. Small Business

Small businesses holding waste tire storage permits and requesting financial assistance for the removal of waste tires would be affected in the same way as members of the general public (above) by the Department's willingness to advance the total cost of the tire cleanup.

IV. Large Business

The same remarks are true for large businesses.

V. Local Governments

The rule establishes criteria for the amount (percentage of the cleanup cost) of financial assistance with waste tire cleanup which a local government waste tire permittee could receive from the Department. The criteria are based on an index, which divides the local government's population by the number of waste tires at the site. This is a proxy for the financial capability of the local government. A local government with small population and a large number of waste tires to be cleaned up would receive a higher percentage of assistance (up to 80%) than a municipality with a larger population and a smaller waste tire pile. The Commission has approved three applications for financial assistance to local governments, using this index as a guideline. The amount of assistance in each case has been 80% of the cost, ranging from a Department contribution of from $77,000 to $480,000. There may be two or three more local governments which could take advantage of this rule.

Another part of the rule revisions allows the reimbursement for use of waste tires in a paving project to go to either a local paving authority (a unit of local government) or a paving contractor. This allows administrative flexibility for a local government implementing a paving project using crumb rubber from waste tires, depending on the local government's bookkeeping procedures. This would have no direct economic impact, but could simplify accounting procedures.

VI. State Agencies

The impact discussed for local government paving projects using rubber from waste tire could also apply to state agencies conducting such projects.

fiscal.del

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Rules Relating to Regulating Transportation of Waste Tires; Cleanup of Waste Tire Piles; and Reimbursement of Persons Using Waste Tires

Hearing Date: 9/19/90
Comments Due: 9/24/90

WHO IS AFFECTED: Persons hauling waste tires. Waste tire storage permittees. Persons using rubber from waste tires for highway paving projects. Waste tire processors. Local governments.

WHAT IS PROPOSED: The Department proposes to revise existing administrative rules OAR 340-64-010, 340-64-055, 340-64-063, 340-64-120, 340-64-150, 340-64-155, 340-64-160 and 340-64-165, which establish procedures governing waste tire carrier permits, and procedures for tire pile cleanup and reimbursement to persons using waste tires.

WHAT ARE THE HIGHLIGHTS: Rule revisions will delegate to the Director the authority to approve financial assistance to waste tire permittees to clean up tire piles, will establish an index determining the amount of financial assistance a local government waste tire storage permittee will be eligible for to clean up tire piles, and will allow the Department to advance up to 100 percent of tire pile cleanup costs to a permittee. Rule revisions include other changes the Department has found necessary in administering the program.

HOW TO COMMENT: A public hearing will be held before a hearings officer at:

10:00 a.m.
Wednesday, September 19, 1990
Department of Environmental Quality
Hearing Room 3A
811 S.W. 6th Avenue
Portland, OR

Written or oral comments on the proposed rule changes may be presented at the hearing. Written comments may also be sent to the Department of Environmental Quality, Waste Tire Program, Hazardous and Solid Waste Division, 811 S.W. 6th Avenue, Portland, OR 97402, and must be received no later than 5:00 p.m., Monday, September 24, 1990.

(over)

811 S.W. 6th Avenue
Portland, OR 97204

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

11/1/86

Copies of the complete proposed rule package may be obtained from the DEQ Hazardous and Solid Waste Division. For further information, contact Deanna Mueller-Crispin at 299-5808, or toll-free at 1-800-452-4011.

WHAT IS THE NEXT STEP: The Environmental Quality Commission may adopt rule revisions identical to the ones proposed, adopt modified rules as a result of testimony received, or may decline to adopt rules. The Commission will consider the proposed rule revisions at its November 2, 1990 meeting.

WT\SK2880

ATTACHMENT E

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 19, 1990

TO: Environmental Quality Commission

FROM: Deanna Mueller-Crispin, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Waste Tire Program Rules
Portland, 10 a.m., September 19, 1990

On September 19, 1990, a public hearing regarding proposed revisions to existing rules pertaining to waste tire storage, hauling and cleanup and reimbursement to persons using waste tires (OAR 340-64) was held in Portland, Oregon. Three persons attended (plus another who arrived after the official hearing had been closed), and one testified.

Patrick Vaughn of RMAC International testified that he had no problems with the proposed rule changes.

The hearing was closed at about 10:30 a.m.

ATTACHMENT E

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY **INTEROFFICE MEMORANDUM**

DATE: September 21, 1990

TO: Environmental Quality Commission

FROM: Deanna Mueller-Crispin, Hearing Officer

SUBJECT: Written Testimony: Proposed Amendments to WAste Tire Program Rules

Written testimony was received by the Department in response to a request for public comment regarding proposed revisions to existing rules pertaining to waste tire storage, hauling and cleanup and reimbursement to persons using waste tires.

A summary of the written testimony follows.

Mark W. Hope of Waste Recovery, Inc. opposed the rule change that would delegate to the Director approval authority for financial assistance to permittees for tire pile cleanups. He expressed a concern that this could result in the Director effecting policy when large capital expenditures are involved. He noted that if funds in the Waste Tire Recycling Account become scarce, spending priorities will have to be balanced between cleanups and other program activities [such as reimbursement to users of waste tires]. He commented that since the program may approve $100,000's of dollars, it was appropriate to keep the process of allocating these public funds open to public purview. He suggested an alternative would be to limit the size of financial assistance requests to be approved by the Director to $20,000 or less, retaining EQC review of larger amounts.

An anonymous comment was received suggesting that storage for waste tires should be provided at places that process the tires.

Copies of the written comments are attached.

Attachments
wrcom.mem

WASTE RECOVERY, INC.

MAKING WASTE A RESOURCE

8501 N. Borthwick
Portland, Oregon 97217
503/283-2261

August 30, 1990

Oregon Department of Environmental Quality
Waste Tire Program, H & SW Division
811 S.W. 6th Avenue
Portland, Oregon 97204

RE: Comment on Proposed Rule Change to Delegate to the Director Approval Authority for Clean Up Financial Assistance

POSITION: Opposed to rule change which would delegate approval authority to the Director.

EXPLANATION:

Although the DEQ is well meaning in their attempt to expedite the process for approval of funds to assist storage permittees to clean up tire piles, I would recommend that the EQC keep the existing process for the following reason(s):

1) Clean up funds can range from a $1,000 to several $100,000's depending on size, location, recovery process, etc. A question arises as to whether the Director can effect policy in his duties to administer large capital funding. History has shown us, not necessarily within DEQ, that administrators can effect policy through their action to appropriate funds.

   A theoretical example: If funds in the Waste Tire Recycling Account became scarce and there were several competing public interests for these scarce funds, then spending priorities for clean up as well as for other components of the program will have to be evaluated, confirmed and or adjusted within the limits of Oregon Statutes. Rather than the Director making decisions after listening to staff recommendations, which infers singular and final personal judgment, it would be better for the EQC to retain their approval role. Priority adjustments should be made by the Commission as this is a policy issue.

   A practical example: The Waste Tire Program initially approved funds to clean-up projects where tires were simply moved from one pile to another. Once the potential for extended liability and a lack of emphasis on recovery was brought before the policy makers, the policy was shifted, perhaps at a higher cost, in favor of recovery over simple removal. A switch that may not have been made without policy review.

2) The public process by the Commission to act on authorization of funds for clean up projects provides opportunity for comment and due process with a review board on the appropriateness, viability, and/or the fairness of individual financial assistance. The current process is visible with no or little mystique. Since $100,000's of dollars are involved, it best keep the process open. As proposed, the process would then be closed, if not literally at least figuratively, to public purview. This program parallels pollution control tax credits in that money is made available to assist individuals or companies in an effort to benefit the environment while financial liability is incurred by the State. Like tax credits, this allocation of public funds should be reviewed by the Commission.

ALTERNATIVE:

Limit the size of the financial assistance to be approved by the Director to $20,000 or less. This will prevent the EQC from being bogged down with numerous small financial assistance requests, and yet reserve their process for larger expenditures. This approach assumes smaller clean up expenditures would be less controversial and less likely to effect policy than those that are more costly.

Sincerely,

Mark W. Hope
Vice President Northwest Region
& Corporate Environmental Affairs

MWH/el

ATTACHMENT F

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 27, 1990

TO: Environmental Quality Commission

FROM: Deanna Mueller-Crispin, Hearing Officer

SUBJECT: Response to Testimony/Comments, Proposed Revisions in Waste Tire Rules

The Department held a public hearing on proposed rule revisions to the waste tire program rules, and accepted written public comment on the rule until September 24, 1990.

The only comments received concerned proposed delegation of approval authority of financial assistance from the Environmental Quality Commission to the Director of the Department.

Comment: Large sums of money may be involved in requests from permittees for financial assistance for tire pile cleanups. This could result in the Director effecting policy through his action to appropriate funds. If funds in the Waste Tire Recycling Account become scarce, spending priorities will have to be balanced between cleanups and other program activities. Priority adjustments should be made by the Commission as this is a policy issue.

Response: Policy has already been adopted in rule (OAR 340-64-090) that available funds shall be used first to reimburse people who use waste tires; and second to clean up permitted and non-permitted waste tire piles. If funds become scarce, the Department will follow that policy in their allocation.

Comment: Since $100,000's of dollars may be involved, it is best to keep the process of their allocation open through the Commission's public process with its opportunity for comment and review. Delegating approval authority to the Director would close the process.

Response: Criteria have been adopted by the Commission into rule to determine how much funding assistance will be given to any permittee. The rules leave little discretion concerning the amount of assistance. Thus the basis for recommending the amount of assistance will not change whether the recommendation is considered by the Commission or by the Director. In addition, nearly all of the permittees with larger waste tire piles have already received cleanup funding approval from the Commission.

Comment: An alternative would be to limit the size of the financial assistance to be approved by the Director to $20,000 or less. This would relieve the Commission of having to review smaller requests, which are less likely to effect policy.

Response: Given that the Commission has approved criteria for determining the amount of financial assistance for permittees, the Department believes it is appropriate to delegate the approval authority for all levels of assistance. The Department does not expect any new policy issues to arise in providing financial assistance to permittees. However, the Department also believes the rule should provide the option of referring such requests to the Commission should cases arise in the future which the Department deems appropriate for the Commission to consider.

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ATTACHMENT G

MAJOR REMAINING WASTE TIRE SITES TO BE CLEANED UP
(10/15/90)

Site	County	Type of Cleanup	Status	No. Tires	Est. Cost	Est.Date Cleanup
Permittees with ECQ Approval: (Cleanup in process)						
R. Mishler	Polk	permit	appr.	200,000	$105,000	9/91
Joe Ney	Coos	permit	appr.	200,000	96,000	1/91
Harpold	Klamath	permit	appr.	750,000	596,800	7/92
C. Haas	Jackson	permit	appr.	85,000	380,000	8/91
S. Wilson	Jackson	permit	appr.	500,000	600,000	8/93
Douglas Co.	Douglas	permit	appr.	25,000	22,300	90
Cleanup Yet to be Determined for:						
Remoir	Yamhill	abate	dev.	60,000(t)	300,000	8/91
Walker	Jackson	abate	dev.	10,000(f)	10,000	91/92
J.C. Allen	Jackson	abate?	dev.	1,500(t.f,)	4,000	90?
5 other fences	Jackson	abate?	dev.	10,000(f)	20,000	90?
Kammer et al	Columbia	abate	dev.	30,000(f)	50,000	91
B&S Auto	Harney	permit	dev.	60,000	100,000	12/91
R. Busk	Josephine	abate	dev.	28,000	78,000	5/91
B. Haynes	Polk	abate	dev.	10,000?	10,000	91
Worre	Clackamas	abate	dev.	10,000	5,000	91
Tri-City	Polk	abate	hold	5,000	5,000	4/91
USFS	Clackamas?	I.A.	hold	10,000	30,000	91
G. Seifert	Lane	permit?	hold	5,000	5,000	91
K. Wilson	Jefferson	abate	hold	1,000	1,000	91
Petefish	Wasco	abate	hold	20,000	25,000	91
E. Benjamin	Multnomah	abate	hold	1,000	1,000	91
Melcher	Clackamas	abate	hold	5,000	7,000	91
M. Esters	Multnomah	abate	hold	2,000	2,000	91
(new site)	Jackson	abate	hold	4,000	8,000	90-91?
Schommer	Multnomah	abate	hold	2,500?	2,000	91?
Dayton A Wrec.	Yamhill	abate?	hold	10,000	9,000	91?
Longyear	Lincoln	abate?	hold	1,000	800	92?
Greenhill AW	Lane	abate?	hold	1,000	800	92?
O'lake Towing	Lincoln	abate?	hold	1,000	800	92?
Les Schwab	Crook	permit	hold	2.5 mil.	?	?
(Plus up to 400 small sites)						

Key: appr. = approved by EQC for financial assistance
t = truck tires
f = tire fence
dev. = under development
I.A. = Intergovernmental Agreement (with local government)

Note: Some sites need to have status and number of waste tires verified.

lstcln

NEIL GOLDSCHMIDT
GOVERNOR

Environmental Quality Commission

811 SW SIXTH AVENUE, PORTLAND, OR 97204 PHONE (503) 229-5696

REQUEST FOR EQC ACTION

Meeting Date: November 2, 1990
Agenda Item: G
Division: HSW
Section: Solid Waste

SUBJECT:

Proposed Adoption of rules to implement required surcharge on out-of-state solid waste.

PURPOSE:

To adopt a proposed rule establishing a per-ton surcharge on the disposal of out-of-state solid waste in Oregon. The surcharge was mandated by the 1989 Oregon Legislature, and will go into effect after January 1, 1991.

ACTION REQUESTED:

___ Work Session Discussion
___ General Program Background
___ Potential Strategy, Policy, or Rules
___ Agenda Item ___ for Current Meeting
___ Other: (specify)

___ Authorize Rulemaking Hearing
_X_ Adopt Rules
Proposed Rules — Attachment A
Rulemaking Statements — Attachment B
Fiscal and Economic Impact Statement — Attachment C
Public Notice — Attachment E

___ Issue a Contested Case Order
___ Approve a Stipulated Order
___ Enter an Order
Proposed Order — Attachment ___

___ Approve Department Recommendation
___ Variance Request — Attachment ___
___ Exception to Rule — Attachment ___
___ Informational Report — Attachment ___
___ Other: (specify) — Attachment ___

DESCRIPTION OF REQUESTED ACTION:

House Bill 3515, passed by the 1989 Oregon Legislature, requires the Environmental Quality Commission (EQC) to establish a surcharge on out-of-state solid waste disposed of in Oregon. Key parts of the legislation include:

> "Beginning on January 1, 1991, every person who disposes of solid waste generated out-of-state in a disposal site or regional disposal site shall pay a surcharge as established by the Environmental Quality Commission.." (ORS 459.297).
>
> The moneys collected through the surcharge are to be "continuously appropriated to (DEQ) to meet the costs of the department in administering the solid waste program" (ORS 459.297).
>
> "The amount of the surcharge shall be based on the costs to the State of Oregon and its political subdivisions which are not otherwise paid for through the provisions of ORS 459.235 and ORS 459,292 to 459.298, 459.411 to 459.417 and sections 70 to 73, chapter 833, Oregon Laws 1989." (ORS 459.298)

Oregon is not the first state to deal with the issue of waste being imported from other states. In recent years, many states have adopted or proposed regulations that impose special fees or other regulatory controls on out-of-state waste. A recent report from the National Solid Waste Management Association (NSWMA) identifies 11 states that have adopted such measures, ranging from an Indiana law that imposes the average cost for disposal in the state of origin, to a $1 per ton fee in West Virginia. The highest fee appears to be in Kentucky, where counties may assess a fee 25% higher for out-of-state waste. The lowest appears to be Alabama, where one county has a $.50 per ton differential on out-of-state waste. Many of these laws are currently under court challenge.

The 1989 legislature also created, through Senate Bill 1192, a Solid Waste Regional Policy Commission to study the impacts of accepting out-of-state waste and to recommend policies for addressing any identified problems. Under the chairmanship of Judge Kevin Campbell from Grant County, this commission has met several times, and has released an interim report to the Governor and the Legislature on its deliberations. The Regional Policy Commission's scope is broader and it has made no formal recommendation on the amount of the surcharge. The Regional

Policy Commission has, however, endorsed the present process whereby the EQC set a surcharge on out-of-state waste.

The Department held three public hearings on the proposed rules, and public comment was received on a range of possible surcharge rates from $1.50 per ton to $3.50 per ton. The Department also hired an independent economics consultant, National Economic Research Associates (NERA) to review the Department's methodology in calculating the costs of accepting out-of-state waste, and accepted public testimony on both the draft and final NERA reports.

Based upon the public testimony and the NERA report, the Department has made a number of significant revisions to the methodology used to establish the level of the surcharge. These revisions have been discussed with the Solid Waste Advisory Committee and include:

- Changes to the Assumptions, Definitions, and Methodology section which now includes:
  - * an assumed annual real discount rate (3%);
  - * an assumed level of import during the first four years (600,000 tons/year);
  - * a recommended adjustment for inflation after four years; and
  - * a discussion of why one surcharge rate rather than multiple rates was recommended.
- A more detailed analysis and documentation of how costs were calculated.
- A discounting of cost streams that occur over periods of time, using a 3% annual real discount rate.
- Revisions in methodology to respond to recommendations made by NERA.

The Department also received lengthy public testimony from Oregon Waste Systems, Inc. challenging the legal and constitutional authority of the EQC to establish the proposed surcharge on out-of-state waste. The Department asked the Department of Justice to review this testimony and the attorneys for the Department of Justice have concluded that the proposed surcharge is legally and constitutionally defensible.

Definitions, and Methodology which now includes the following: (see Attachment D for more detail)

1. The surcharge cannot be based upon an accounting of historic costs. Rather, it must be based upon a reasonable estimate of expected costs that take into account a range of possible circumstances. The Department has chosen to estimate a range of potential costs for each category, and to recommend a "reasonable" surcharge within that range.

2. The legislation specifically states that the funds shall go to meet the costs of "administering the solid waste program". However, the costs to be included in determining the amount of the surcharge should not be limited to those directly related to solid waste management.

   The statute clearly states that the amount of the surcharge "shall be based on the costs to the State of Oregon and its political subdivisions of disposing of solid waste generated out of state..." The statute further states, " These costs may include <u>but need not be limited to</u> (emphasis added) costs incurred for:

   (1) Solid waste management;

   (2) Issuing new and renewal permits for solid waste disposal sites;

   (3) Environmental monitoring;

   (4) Groundwater monitoring; and

   (5) Site closure and post-closure activities."

3. The amount of the surcharge is to be determined by a reasonable assessment of the costs to Oregon of accepting out-of-state waste. The surcharge amount should <u>not</u> be inflated to discourage importation of waste, nor deflated to encourage importation of waste.

4. Alternative ways to address potential costs through changes in rule or statute were not considered. However, as the NERA report suggests, there may be more efficient ways than the surcharge to address some of the costs.

5. Estimates of the cost of tax credits and other subsidies are based upon eligibility. It is presumed that private companies will generally apply for and receive the maximum subsidy for which they are eligible.

6. The statute (ORS 459.298) identifies specific costs (those already covered under permit fees which pay for technical review and compliance monitoring of specific disposal sites) which should not be included as part of the analysis. In addition, the Department has decided not to include costs that are covered through any other fees or taxes. Other specific fees considered include permit fees, PUC per-mile taxes, and host community fees. There should be no double counting.

7. Because of the administrative complexity of assigning different surcharge amounts to different sites, there will be one surcharge rate for all out-of-state waste disposed of in Oregon. This one per-ton surcharge rate will cover a range of circumstances.

8. Calculations are based upon costs and volumes expected during the next 4 years. However, in some cases looking at the impacts during the next four years requires analysis of a longer-range cost stream. To account for expected inflation, a clause in the proposed rule enables the Environmental Quality Commission to review and adjust the per-ton fee every four years.

9. During the next four years, an average of 600,000 tons per year of solid waste is expected from out-of-state generators.

10. A real discount rate of 3% is used in the Department's calculations.

Using the estimates developed in the revised analysis, the Department has developed a range of estimated costs of accepting out-of-state waste:

$.50	Statewide activities for reducing environmental risk and improving solid waste management, paid for through the per-ton fee on domestic solid waste
$.42	Statewide activities for reducing environmental risk and improving solid waste management, paid for through general funds

$.20 - 1.51	Tax credits and other public subsidies
$.05	Solid waste reduction activities related to the review and certification of waste reduction and recycling plans
$.03 - .72	Increased environmental liability
$.20	Lost disposal capacity
$.33 - .65	Lost tourism or business development revenues due to stigma of accepting out-of-state waste
$.02 - .05	Publicly Supported Infrastructure
$.01 - .03	Nuisance Impacts from transportation
$1.76 - 4.13	Total

The surcharge on out-of-state waste should therefore be within this range of potential costs of $1.76 to $4.13 per ton.

AUTHORITY/NEED FOR ACTION:

X	Required by Statute: ORS 459.297	Attachment F
	Enactment Date: July 1989	
___	Statutory Authority: _____	Attachment ___
___	Pursuant to Rule: _____	Attachment ___
___	Pursuant to Federal Law/Rule: _____	Attachment ___
___	Other:	Attachment ___
X	Time Constraints: (explain)	

The legislature set January 1, 1991 as the date the surcharge is to go into effect. This requires final approval of the rule by the EQC at its November 2 meeting and authorization by the state Emergency Board at its November 15 meeting.

DEVELOPMENTAL BACKGROUND:

__	Advisory Committee Report/Recommendation	Attachment ___
_X_	Hearing Officer's Report/Recommendations	Attachment G
_X_	Response to Testimony/Comments	Attachment H
___	Prior EQC Agenda Items: (list)	
	8/10/90 - Item D Hearing Authorization	Attachment ___
_X_	Other Related Reports/Rules/Statutes:	Attachment I
_X_	Supplemental Background Information	Attachment D

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

At this time, the primary target of this fee will be large regional disposal sites in Gilliam and Morrow counties, and communities in the state of Washington that are considering sending waste to these two sites. During the next biennium, these regional sites are expected to begin importing solid waste from the City of Seattle, Clark County, and several smaller jurisdictions at a rate of about 600,000 tons per year. The Department expects 800,000 tons to be imported during the 1991-1993 biennium.

The other major affected communities will be Morrow and Gilliam counties, who receive benefits from the importation of out-of-state waste in the form of per-ton host fees and thus consider importation of waste a significant form of economic development for these rural counties. Written testimony was received to this effect from Gilliam County, Morrow County, the Arlington Chamber of Commerce, the Port of Morrow, and the Morrow County Planning Commission. (See attachment G) Testimony received from both Oregon Waste Systems, Inc. and Tidewater Barge Lines outlined significant economic benefits that accrue to these communities as a result of importing out-of-state waste, and argued that these benefits should be taken into account when calculating costs.

An attorney for Oregon Waste Systems, Inc. has raised the issue of the constitutionality of this surcharge. He argues that the importation of solid waste is protected by the interstate commerce clause of the U.S. Constitution. The Department agrees that solid waste is covered by the commerce clause of the constitution. However, the Oregon Attorney General's office believes that there is sufficient legal precedent affirming a state's right to charge a fee on out-

of-state waste to recover costs related to accepting out-of-state waste.

The City of Seattle has submitted written testimony which argues that many of the surcharge-related costs in the DEQ analysis were costs that are already borne by the City of Seattle or covered through other fee mechanisms. Examples cited include the portion of the current $.50 per ton fee going to Oregon household hazardous waste programs similar to those already functioning in Seattle, and the extra liability insurance required by the contract between the City of Seattle and Oregon Waste Systems.

Several individuals submitted testimony recommending that the surcharge be high to reflect "worst case" scenarios and to protect the state to the maximum extent possible. This testimony focused especially on environmental liability to the state if "worst case" contamination occurs, and on the potential for unanticipated costs or expenses that have not been included in the analysis.

(Copies of written comments are available from the Department on request.)

PROGRAM CONSIDERATIONS:

The Department hired an independent economic consultant (NERA) to review the assumptions and methodology used to calculate the range of costs of accepting out-of-state waste. The economic consultant review and evaluation was conducted to ensure that the Department's analysis is consistent with standard economic methodology.

The NERA review was completed on October 5, 1990 and contained the following conclusions:

- All but one of the cost categories clearly represent costs to the state which would justify a fee on out-of-state waste. One category, "tax credits", requires an analysis of potential benefits before a similar conclusion can be made.

- The effect of time (discounting) on costs needs to be calculated.

- The Department needs to better demonstrate that some of the costs actually vary by tonnage.

- Cost calculation methodologies, in some instances, needed to be further developed or documented.

. To achieve maximum economic efficiency, other ways of recouping the costs of both in-state and out-of-state waste through changes in law or administrative rule should be explored in the future.

The Department has attempted to address these concerns in its revised analysis of costs (see attachment D).

The Department is bound by statute to expend the funds generated by the surcharge "to meet the cost of the department in administering the solid waste program". The funds generated by the fee would be used to bolster programs in solid waste management for the state, and would reduce reliance on other solid waste fees.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt a surcharge based on the lower end of the range of expected costs to the state ($1.76). This lower surcharge rate reflects more optimistic assumptions about the impact of out-of-state waste.

2. Adopt a moderate surcharge based upon the assumptions and analysis presented by the Department in Attachment D. This surcharge rate would reflect a more conservative (protective) view of potential risks to the state from accepting out-of-state waste than option 1.

3. Adopt a surcharge based upon the higher end of the range of expected costs to the state ($4.13 per ton) This higher figure would be the most protective against potential costs, and incorporates pessimistic assumptions about the impacts on the state. The Solid Waste Advisory Committee recommended that the surcharge be set toward this higher figure.

4. Adopt a variable surcharge that takes into account differences in costs to the state at each disposal site.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the EQC adopt a surcharge based upon the following breakdown of costs:

$.50 Statewide activities for reducing environmental risk and improving solid waste management, paid for through the per-ton fee on domestic solid waste

$.42	Statewide activities for reducing environmental risk and improving solid waste management, paid for through general funds
$.58	Tax credits and other public subsidies
$.05	Solid waste reduction activities related to the review and certification of waste reduction and recycling plans
$.72	Increased environmental liability
$.20	Lost disposal capacity
$.47	Lost tourism or business development revenues due to stigma of accepting out-of-state waste
$.03	Publicly Supported Infrastructure
$.01	Nuisance Impacts from transportation
$2.98	Total

The Department recommends that the EQC adopt a surcharge of $3.00 per ton.

This recommended surcharge represents a moderate approach to protecting the interests of the state. It neither assumes very pessimistic projections (high costs) of future impacts to the state of accepting out-of-state waste, nor optimistic (low cost) projections.

This figure of $3.00 per ton does not take into account potential benefits of accepting out-of-state waste. It does, however, assume a "worst case" for environmental liability in order to ensure the state is protected from the costs of environmental cleanup at landfills accepting out-of-state waste. A 1988 EPA study on cleanup costs at landfills found the average cost to be $13 million, with 4% of landfill cleanups above $30 million. If three landfills in Oregon accept out-of-state waste and have cleanup liabilities of $30 million each, the "worst case" would be $90 million dollars. To protect against this worst case requires a fee of $.72 per ton.

Because the current $.50 per ton fee on domestic solid waste is not charged on out-of-state waste, and because the amount of that fee could change over time, the Department recommends that the EQC word the rule to divide the surcharge into two parts: one of which includes the current per-ton fee on domestic solid waste (currently $.50 per ton), plus one part that is a specific per-ton fee on out-of-state waste only.

The proposed rule reads: "...a per-ton surcharge consisting of the amount of the per-ton fee as specified in Section 5 of this rule (the current $.50 fee on domestic solid waste), plus $2.50". (see attachment A)

The Department also recommends that the rule state that the surcharge be revised for inflation or any other relevant factors at least every four years.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The surcharge is consistent with legislative policy to charge out of state users of Oregon disposal sites, as passed in the 1989 Legislature.

The Department's analysis of costs is also consistent with legislative policy in that it recognizes that every ton of solid waste disposed of in Oregon adds an incremental environmental risk and reduces Oregon's disposal capacity. The surcharge will address the need to reduce the environmental and capacity impacts that any solid waste disposal has on Oregon.

The surcharge is consistent with the interstate commerce clause of the U.S. Constitution, in that it is a charge to compensate for legitimate costs borne by Oregon because of the disposal of out-of-state waste.

ISSUES FOR COMMISSION TO RESOLVE:

1. Should any benefits of taking out-of-state waste be incorporated into the calculations on the "costs" of accepting out-of-state waste?

   The statute states that the surcharge should be based upon "costs" and does not state that benefits should be considered when calculating those costs.

   Although there may be many benefits associated with accepting out-of-state solid wastes, most of these economic benefits are counter-balanced by costs to the state that have been explicitly excluded from the Department's analysis. For example, income taxes are not in themselves a net benefit to the state, since they pay for a variety of services (police, etc.) that are required as a result of increased population.

The Department recommends that the benefits not be included in the calculations for determining the surcharge, but has provided an analysis that both includes and excludes potential benefits under the category of "Tax Credits and other public subsidies". which results in a difference of $.38 per ton.

2. Should the surcharge be based upon best-case or worst case assumptions about the impacts of out-of-state waste? How "risk-averse" should we be?

   Because the Department's analysis of costs is based largely upon expectations of future events, the range of potential costs reflects optimistic versus pessimistic assumptions about the probability of those future events (environmental damage, amount of waste imported, etc.) The Solid Waste Advisory Committee did not reach a consensus, but recommended leaning toward "worst case" assumptions in order to protect the interests of the state. The Department has followed this recommendation, particularly for the category of "environmental liability".

3. Should there be one surcharge rate or a variable surcharge rate applied to each disposal site?

   The Department recommends one surcharge rate rather than a variable rate, due to the administrative complexity and difficulty in implementing a variable rate.

4. How should inflation be accounted for?

   The Department recommends that inflation should be accounted for when the surcharge rate is revised, at least every four years. A set annual escalator, based upon the Consumer Price Index, is much more complex to administer.

5. Should out-of-state generators be exempt from the portions of the per-ton fee that pay for in-state programs, such as planning, recycling, or household hazardous waste?

   Even though out-of-state users may pay for similar programs in their own state, they are disposing of waste in Oregon and therefore should pay the same costs for using the disposal system as Oregonians.

INTENDED FOLLOWUP ACTIONS:

The Department will request authorization from the November 15 Emergency Board to implement the EQC-established surcharge on January 1, 1991.

The Department will notify all disposal sites in the state in December that the surcharge will go into effect.

The Department will collect the surcharge quarterly, using forms already provided to disposal sites for the $.50 per ton fee.

Approved:

Section: Steve Greenwood

Division: Stephanie Hallock

Director: Fred Hansen

Report Prepared By: Steve Greenwood

Phone: 229-5782
Date Prepared: October 18, 1990

Greenwood
G:\SW\SB10006
10/18/90

Proposed Amendments to OAR 340-61

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
ADMINISTRATIVE RULES
DIVISION 61 - SOLID WASTE MANAGEMENT
10/23/90

Proposed additions to rule are underlined.
Proposed deletions are in brackets [].

Permit Fees

340-61-115 (1) Beginning July 1, 1984, each person required to have a Solid Waste Disposal Permit shall be subject to a three-part fee consisting of a filing fee, an application processing fee and an annual compliance determination fee as listed in OAR 340-61-120. In addition, each disposal site receiving domestic solid waste shall be subject to an annual recycling program implementation fee as listed in Table 1, and a per-ton fee on domestic solid waste as specified in Section 5 of this rule. In addition, each disposal site or regional disposal site receiving solid waste generated out-of-state shall pay a surcharge as specified in Section 6 of this rule. The amount equal to the filing fee, application processing fee, the first year's annual compliance determination fee and, if applicable, the first year's recycling program implementation fee shall be submitted as a required part of any application for a new permit. The amount equal to the filing fee and application processing fee shall be submitted as a required part of any application for renewal or modification of an existing permit.

(2) As used in this rule unless otherwise specified, the term "domestic solid waste" includes, but is not limited to, residential, commercial and institutional wastes; but the term does not include:

(a) Sewage sludge or septic tank and cesspool pumpings;

(b) Building demolition or construction wastes and land clearing debris, if delivered to disposal sites that are not open to the general public;

(c) Yard debris, if delivered to disposal sites that receive no other residential wastes.

(3) The annual compliance determination fee and, if applicable, the annual recycling program implementation fee must be paid for each year a disposal site is in operation. The fee period shall be the state's fiscal year (July 1 through June 30) and shall be paid annually by July 1. Any annual compliance determination fee and, if applicable, any recycling program implementation fee submitted as part of an application for a new permit shall apply to the fiscal year the permitted disposal site is put into operation. For the first year's operation, the full fee(s) shall apply if the disposal site is placed into operation

on or before April 1. Any new disposal site placed into operation after April 1 shall not owe a compliance determination fee and, if applicable, a recycling program implementation fee until July 1. The Director may alter the due date for the annual compliance determination fee and, if applicable, the recycling program implementation fee upon receipt of a justifiable request from a permittee.

(4) For the purpose of determining appropriate fees, each disposal site shall be assigned to a category in Table 1 based upon the amount of solid waste received and upon the complexity of each disposal site. Each disposal site which falls into more than one category shall pay whichever fee is the basis of estimated annual tonnage or gallonage of solid waste received unless the actual amount received is known. Estimated annual tonnage for domestic waste disposal sites will be based upon 300 pounds per cubic yard of uncompacted waste received, 700 pounds per cubic yard of compacted waste received, or, if yardage is not known, one ton per resident in the service area of the disposal site, unless the permittee demonstrates a more accurate estimate. Loads of solid waste consisting exclusively of soil, rock, concrete, rubble or asphalt shall not be included when calculating the annual amount of solid waste received.

(5) Modifications of existing, unexpired permits which are instituted by the Department due to changing conditions or standards, receipt of additional information or any other reason pursuant to applicable statutes and do not require refiling or review of an application or plans and specifications shall not require submission of the filing fee or the application processing fee.

(6) Upon the Department accepting an application for filing, the filing fee shall be non-refundable.

(7) The application processing fee may be refunded in whole or in part when submitted with an application if either of the following conditions exist:

(a) The Department determines that no permit will be required;

(b) The applicant withdraws the application before the Department has granted or denied preliminary approval or, if no preliminary approval has been granted or denied, the Department has approved or denied the application.

(8) All fees shall be made payable to the Department of Environmental Quality.

Permit Fee Schedule

340-61-120 (1) Filing Fee. A filing fee of $50 shall accompany each application for issuance, renewal, modification, or transfer of a Solid Waste Disposal Permit. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between $100 and $2,000 shall be submitted with each

application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) A new facility (including substantial expansion of an existing facility):

(A) Major facility[1]	$ 2,000
(B) Intermediate facility[2]	$ 1,000
(C) Minor facility[3]	$ 300

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[1]**Major Facility Qualifying Factors:**

-a- Received more than 25,000 tons of solid waste per year; or
-b- Has a collection/treatment system which,, if not properly constructed, operated and maintained, could have a significant adverse impact on the environment as determined by the Department.

[2]**Intermediate Facility Qualifying Factors:**

-a- Received at least 5,000 but not more than 25,000 tons of solid waste per year; or
-b- Received less than 5,000 tons of solid waste and more than 25,000 gallons of sludge per month.

[3]**Minor Facility Qualifying Factors:**

-a- Received less than 5,000 tons of solid waste per year; and
-b- Received less than 25,000 gallons of sludge per month.

All tonnages based on amount received in the immediately preceding fiscal year, or in a new facility the amount to be received the first fiscal year of operation.

(b) Preliminary feasibility only (Note: the amount of this fee may be deducted from the complete application fee listed above):

(A) Major facility	$ 1,200
(B) Intermediate facility	$ 600
(C) Minor facility	$ 200

(c) Permit renewal (including new operational plan, closure plan or improvements):

(A) Major facility	$ 500
(B) Intermediate facility	$ 250
(C) Minor facility	$ 125

(d) Permit renewal (without significant change):

(A) Major facility	$ 250
(B) Intermediate facility	$ 150
(C) Minor facility	$ 100

(e) Permit modification (including new operational plan, closure plan or improvements):

(A) Major facility ..... $ 500

(B) Intermediate facility ..... $ 250

(C) Minor facility ..... $ 100

(f) Permit modification (without significant change in facility design or operation): All categories ..... $ 100

(g) Permit modification (Department initiated) All categories ..... No fee

(h) Letter authorizations, new or renewal: ..... $ 100

(3) Annual Compliance Determination Fee (In any case where a facility fits into more than one category, the permittee shall pay only the highest fee):

(a) Domestic Waste Facility:

(A) A landfill which received 500,000 tons or more of solid waste per year: $60,000

(B) A landfill which received at least 400,000 but less than 500,000 tons of solid waste per year: $48,000

(C) A landfill which received at least 300,000 but less than 400,000 tons of solid waste per year: $36,000

(D) A landfill which received at least 200,000 but less than 300,000 tons of solid waste per year: $24,000

(E) A landfill which received at least 100,000 but less than 200,000 tons of solid waste per year: $12,000

(F) A landfill which received at least 50,000 but less than 100,000 tons of solid waste per year: ..... $ 6,000

(G) A landfill which received at least 25,000 but less than 50,000 tons of solid waste per year: ..... $ 3,000

(H) A landfill which received at least 10,000 but less than 25,000 tons of solid waste per year: ..... $ 1,500

(I) A landfill which received at least 5,000 but not more than 10,000 tons of solid waste per year: ..... $ 750

(J) A landfill which received at least 1,000 but not more than 5,000 tons of solid waste per year: ..... $ 200

(K) A landfill which received less than 1,000 tons of solid waste per year: ..... $ 100

(L) A transfer station which received more than 10,000 tons of solid waste per year: ..... $ 500

(M) A transfer station which received less than 10,000 tons of solid waste per year: ..... $ 50

(N) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives more than 100,000 tons of solid waste per year: ..... $ 8,000

(O) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives at least 50,000 tons but less than 100,000 tons of solid waste per year: ..... $ 4,000

(P) An incinerator, resource recovery facility, composting facility and each other facility not specifically classified above which receives less than 50,000 tons of solid waste per year: ..... $ 2,000

(b) Industrial Waste Facility:

(A) A facility which received 10,000 tons or more of solid waste per year: ..... $ 1,500

(B) A facility which received at least 5,000 tons but less than 10,000 tons of solid waste per year: ..... $ 750

(C) A facility which received less than 5,000 tons of solid waste per year: ..... $ 150

(c) Sludge Disposal Facility:

(A) A facility which received 25,000 gallons or more of sludge per month: ..... $ 150

(B) A facility which received less than 25,000 gallons of sludge per month: ..... $ 100

(d) Closed Disposal Site: Each landfill which closes after July 1, 1984: ..... 10% of fee which would be required, in accordance with subsections (3)(a), (3)(b), and (3)(c) above, if the facility was still in operation or $50 whichever is greater.

(e) Facility with Monitoring Wells: In addition to the fees described above, each facility with one or more wells for monitoring groundwater or methane, surface water sampling points, or any other structures or locations requiring the collection and analysis of samples by the Department, shall be assessed a fee. The amount of the fee shall depend on the number of wells (each well in a multiple completion well is considered to be a separate well) or sampling points as follows: ..... $ 250 for each well or sampling point.

(4) Annual Recycling Program Implementation Fee. An annual recycling program implementation fee shall be submitted by each domestic waste disposal site, except transfer stations and closed landfills. This fee is in addition to any other permit fee which may be assessed by the Department. The amount of the fee shall depend on the amount of solid waste received as follows:

(a) A disposal site which received 500,000 tons or more of solid waste per year $20,000

(b) A disposal site which received at least 400,000 but less than 500,000 tons of solid waste per year: $18,000

(c) A disposal site which received at least 300,000 but less than 400,000 tons of solid waste per year: $14,000

(d) A disposal site which received at least 200,000 but less than 300,000 tons of solid waste per year: ..... $ 9,000

(e) A disposal site which received at least 100,000 but less than 200,000 tons of solid waste per year: ..... $ 4,600

(f) A disposal site which received at least 50,000 but less than 100,000 tons of solid waste per year: ..... $ 2,300

(g) A disposal site which received at least 25,000 but less than 50,000 tons of solid waste per year: ..... $ 1,200

(h) A disposal site which received at least 10,000 but less than 25,000 tons of solid waste per year: ..... $ 450

(i) A disposal site which received at least 5,000 but less than 10,000 tons of solid waste per year: ..... $ 225

(j) A disposal site which received at least 1,000 but less than 5,000 tons of solid waste per year: ..... $ 75

(k) A disposal site which received less than 1,000 tons of solid waste per year: ..... $ 50

(5) Per-ton fee on domestic solid waste. Each solid waste disposal site that receives domestic solid waste, except transfer stations, shall submit to the Department of Environmental Quality a fee of 50 cents per ton of domestic solid waste received at the disposal site.

(a) This per-ton fee shall apply to all domestic solid waste received after June 30, 1990.

(b) Submittal schedule:

(A) This per-ton fee shall be submitted to the Department on the same schedule as the waste volume reports required in the disposal permit, or quarterly, whichever is more frequent. Quarterly remittals shall be due on the 15th day of the month following the end of the calendar quarter.

(B) Disposal sites receiving less than 1,000 tons of solid waste per year shall submit the fee annually on July 1, beginning in 1991. If the disposal site is not required by the Department to monitor and report volumes of solid waste collected, the fee shall be accompanied by an estimate of the population served by the disposal site.

(c) As used in this section, the term "domestic solid waste" does not include:

(A) Sewage sludge or septic tank and cesspool pumpings;

(B) Building demolition or construction wastes and land clearing debris, if delivered to a disposal site that is limited to those purposes;

(C) Source separated recyclable material, or material recovered at the disposal site;

(D) Waste going to an industrial waste facility;

(E) Waste received at an ash monofill from a resource recovery facility; or

(F) Domestic solid waste which is not generated within this state.

(d) For solid waste generated within the boundaries of a metropolitan service district, the 50 cent per ton disposal fee established in this section shall be levied on the district, not on the disposal site.

(6) Surcharge on disposal of solid waste generated out-of-state. Each solid waste disposal site or regional solid waste disposal site that receives solid waste generated out-of-state

shall submit to the Department of Environmental Quality a per-ton surcharge consisting of the amount of the per-ton fee as specified in Section 5 of this rule, plus $2.50. This surcharge shall apply to each ton of out-of-state solid waste received at the disposal site.

(a) This per-ton surcharge shall apply to all solid waste received after January 1, 1991.

(b) Submittal schedule: This per-ton surcharge shall be submitted to the Department on the same schedule as the waste volume reports required in the disposal permit, or quarterly, whichever is more frequent. Quarterly remittals shall be due on the 15th day of the month following the end of the calendar quarter.

(c) This surcharge shall be in addition to any other fee charged for disposal of solid waste at the site.

(d) The Commission shall, in accordance with ORS 459.298, review the amount of the surcharge at least every four years beginning four years from January 1, 1991, and modify the surcharge as necessary to account for inflation and any other factors which the Commission deems relevant.

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ATTACHMENT B

RULEMAKING STATEMENTS
for
Proposed Revisions to Existing Rules
Pertaining to a Surcharge on Out-of-State Solid Waste

OAR Chapter 340, Division 61

Pursuant to ORS 183.335, these statements provide information on the intended action to adopt a rule.

STATEMENT OF NEED:

Legal Authority

ORS 459.045(1) and (3) require the Environmental Quality Commission to adopt reasonable and necessary rules governing the management of solid wastes to prevent pollution of the air, ground and surface waters. The 1989 Oregon Legislature passed House Bill 3515 which requires the Commission to establish by rule the amount of a surcharge to be collected from all persons disposing in Oregon of solid waste generated out-of-state (ORS 459.298).

Need for the Rule

HB 3515 establishes a requirement, beginning on January 1, 1991, that every person who disposes of solid waste generated out-of-state in a disposal site in Oregon shall pay a surcharge. The Commission is to establish the surcharge based on the costs to the State and its political subdivisions of disposing of solid waste generated out-of-state which are not otherwise paid for. The surcharge is to be used by the Department to meet its costs in administering the solid waste program.

The proposed rule will implement the legislation.

Principal Documents Relied Upon

a. Oregon Revised Statutes 459.297, 459.298 and 459.235.
b. 1989 House Bill 3515.
c. Oregon Administrative Rules, Chapter 340, Division 61.
d. July 11, 1990 memo to Oregon Department of Environmental Quality Solid Waste Advisory Committee from Steve Greenwood.
e. Analysis of the Policy Implications of Regional MSW Disposal, Draft Report, June 4, 1990, U.S. Environmental Protection Agency.
f. Final Environmental Impact Statement: Seattle Waste Transport and Disposal Project, Seattle Solid Waste Utility, July 1990.

g. An Evaluation of the True Costs of Sanitary Landfills for the Disposal of Municipal Solid Waste in the Portland Metropolitan Area, Oregon Department of Environmental Quality, April 1986.
h. Taxing the Solid Waste Stream, Matthew Montavon and Paul L. Shinn, Government Finance Officers Association, April 1990.
i. Putting the Lid on Out-Of-State Garbage., J.S. Brown, State Government News, January 1990.
j. Pricing Solid WAste Disposal at Marginal Cost: The New York City Experience, Mark Berkman and Lisa Mancini, Fifth International Conference on Solid Waste Management and Secondary Materials, Philadelphia, Pennsylvania, December 7, 1989.

LAND USE CONSISTENCY STATEMENT:

The proposed rule appears to affect land use and appears to be consistent with Statewide Planning Goals and Guidelines.

Goal 6 (Air, Water and Land Resources Quality): This proposed rule is designed to further the protection of surface and groundwater quality and air quality throughout the state. It is consistent with this Goal.

Goal 11 (Public Facilities and Services): The proposed rule would contribute to the disposal of solid waste in an environmentally sound manner by providing additional resources for management of solid waste, and is consistent with this Goal.

The proposed rule does not appear to conflict with other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the manner described in the accompanying NOTICE OF PUBLIC HEARING.

The Department requests that local, state and federal agencies review the proposed action and comment on possible conflicts with their programs affecting land use and with Statewide Planning goals within their expertise and jurisdiction.

The Department of Environmental Quality intends to ask the Department of Land Conservation and Development to mediate any appropriate conflicts brought to its attention by local, state or federal authorities.

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ATTACHMENT C

FISCAL AND ECONOMIC IMPACT STATEMENT

I. Introduction

ORS 459.297 requires the Environmental Quality Commission to adopt a surcharge to be paid by all persons disposing of out-of-state solid waste in Oregon after January 1, 1991. The amount of the surcharge is to be based on the costs to the State and its political subdivisions of disposing of solid waste generated out-of-state which are not otherwise paid for. The surcharge is in addition to any other fee charged for disposal of solid waste at the site.

This proposed rule puts forward a range of possible surcharge rates on solid waste which is generated out-of-state and disposed of in Oregon: from $1.50 per ton to $3.50 per ton. The final rule will adopt a single surcharge amount, either from among the proposed range, or another amount. The surcharge would be payable at least quarterly to the Department of Environmental Quality.

The moneys collected through the surcharge are to be used by the Department to meet its costs in administering the solid waste program.

Overall Economic Impacts:

The Department estimates that surcharge rates of $1.50 to $3.50 per ton will generate from $600,000 to $1.4 million respectively per year in surcharge funds in the 1991-1993 biennium. Thereafter $900,000 or $2.1 million, respectively, in surcharge funds will be generated annually by this action. These funds are to be deposited into a special account, and used by the Department for the purposes stated above.

II. General Public

The general public in Oregon is not directly affected economically by this rule. Solid waste generated in-state will not be subject to the surcharge. However if the surcharge is set "too low," it could encourage disposal of larger amounts of out-of-state solid waste in Oregon, and diminish the effective life of Oregon landfills. That would result in the lost landfill capacity having to be replaced sooner, with attendant public and private costs. If the surcharge is "too high," it could discourage the disposal of out-of-state solid waste. This might in turn indirectly discourage the establishment of new regional landfills (potentially with improved environmental safeguards) in Oregon, if the landfill developers anticipated that only minimal amounts of

out-of-state solid waste would be disposed of. In-state levels of solid waste generation might not be sufficient to warrant the development of new landfills; or in-state solid waste disposal rates might have to be raised more to cover the cost of new landfills when they eventually become necessary, without the contribution of out-of-state disposal fees to construction and operation costs.

III. Small Business

Small business in Oregon is not likely to be directly affected economically by this rule. Waste generated in-state is not subject to the surcharge, and the financial resources necessary to establish a new solid waste site (that would accept out-of-state waste) require financial resources which are probably beyond the ability of small business. However, small business could be indirectly affected in the same manner as the general public, above.

IV. Large Business

The general universe of large business is not likely to be directly affected economically by this rule.

Large businesses operating or wanting to develop landfills capable of accepting out-of-state waste will be affected. A landfill operator will either have to pass the surcharge on to its out-of-state customers, or will have to decrease its profits to absorb the surcharge itself. If the surcharge is passed on to the customer, the volume of waste to be disposed could decrease, depending on the price elasticity of solid waste disposal.

The Department is not aware of any work that has been done to identify this elasticity, so it is difficult to quantify what the resulting decrease in disposal volume might be. If the elasticity is one, a one percent rise in cost would result in a one percent decrease in volume. A typical per-ton waste disposal charge is $25; a $1.50 surcharge would increase this charge by 6%. Annual volume of waste disposed of is estimated to be about 600,000 tons eventually (total for all Oregon landfills expected to accept out-of-state waste). A 6% decrease in volume would be 36,000 tons, resulting in an annual revenue loss of $900,000 (@ $25/ton) to the landfill operator. A $3.50 surcharge would cause a 14% increase in disposal charges, and, at an elasticity of one, would result in an annual revenue loss of $2.1 million to the site operator.

For the 1991-93 biennium the anticipated volume of out-of-state waste to be disposed of in Oregon is 400,000 tons/year[1]. At a $1.50 surcharge per ton, landfills accepting this waste would be

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[1]This assumes no decrease in anticipated volume of waste disposed of due to imposition of the surcharge.

responsible for collecting and remitting $600,000/year to the Department (or $1.4 million from a $3.50 surcharge). Thereafter, the volume of out-of-state waste is expected to increase to 600,000 tons/year[1], resulting in an annual surcharge collection of $900,000 (or $2.1 million at a $3.50 surcharge rate).

In most cases the funds must be remitted to the Department monthly. The collected funds may in the meantime collect interest which the landfill operator may keep, resulting in a positive economic impact for the operator. Assuming that half of the funds will be available to the operator for any one-year period, and a 7% interest rate, landfill operators would earn a total of $21,000 in annual interest (at the 400,000 ton volume) and $31,500 (at the higher volume). With a $3.50 surcharge, annual interest earned would be $49,000 and $73,500 respectively.

Some increased record-keeping will be required from operators of landfills accepting solid waste from out-of-state. Tonnage of out-of-state solid waste will have to be tracked separately from solid waste generated in Oregon (which is subject to a separate fee) and reported to the Department, together with the collected surcharge. This could amount to five to ten hours a week of extra staff time, or $3,120 to $6,240/year (at $12 per hour) for each operator.

V. Local Governments

Some local governments operate landfills which now or in the future may accept out-of-state waste. They would be affected in the same way as large businesses (above); the surcharge would either contribute to a higher overall fee for landfill out-of-state customers, or would have to be absorbed by the landfill operator (since the surcharge must be paid to the state).

Local governments in which regional landfills accepting out-of-region (including out-of-state) wastes are located will be affected. The local government receives a "host fee" from the regional site. The fee ranges from $.75 to $1.25 per ton of solid waste depending on how much waste is accepted from outside the local community. If the surcharge results in reduced volume of out-of-state waste to the regional landfill as discussed in IV above, the amount of the "host fee" would decline correspondingly.

Local governments needing to ensure that sufficient solid waste disposal facilities are available to serve their constituencies would be subject to the same considerations noted above for the general public. However, a local government operating a landfill generally has the prerogative of establishing fees itself, so presumably the problem of "too low" a fee would not occur.

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VI. State Agencies

The legislation stipulates that the surcharge is to go to the Department of Environmental Quality "to meet the costs of the Department in administering the solid waste program" (ORS 459.297), while the basis of the surcharge is broader: it is to be "based on the costs to the State of Oregon and its political subdivisions which are not otherwise paid for" (ORS 459.298). Thus it should be noted that the surcharge is not to be determined on a "cost of service" basis to simply fund the activity (of administering the increased costs of the solid waste program); its basis is rather to transfer the full cost of the out-of-state waste disposal to those that are benefitting from it (i.e. out-of-state generators of solid waste).

The Department will receive a positive fiscal impact of from $1.2 to $2.8 million in the 1991-93 biennium. This will be used to cover the Department's increased workload due to the additional volumes of out-of-state solid waste being disposed of in Oregon, and to fund a variety of programs in solid waste management for the state. These funds could reduce reliance on other solid waste fees.

One additional full-time employee will be required in the Department's Waste Reduction Section of the Hazardous and Solid Waste Division to review waste reduction and recycling plans from out-of-state jurisdictions sending solid waste to Oregon. This will come to about $50,000 annually.

Other tasks in the Solid Waste Permitting and Enforcement Section will increase in proportion to the volume of the additional waste. These tasks include statewide activities for reducing environmental risk and improving solid waste management. A 400,000 ton increase represents a 20% increase in solid waste disposal in Oregon, and therefore a corresponding cost increase for additional solid waste staffing effort.

Other state agencies may be subject to increased costs due to the increased volume of waste, but, pursuant to statute, will not receive any of the surcharge funds to offset these costs. Such agencies could include State Police (emergency services for road accidents involving garbage trucks) and the State Highway Division for increased highway repairs due to garbage hauling or additional transportation planning costs.

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Attachment D
Agenda Item G
11/2/90 EQC Meeting

AN ANALYSIS OF THE COSTS OF ACCEPTING OUT-OF-STATE WASTE IN OREGON

October 16, 1990

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Oregon Department of Environmental Quality

On August 10 the Environmental Quality Commission authorized public hearings on a proposed surcharge on out-of-state waste, with the surcharge amount in the range of $1.50 to $3.50 per ton. The Department held public hearings in Portland, Arlington, and Medford, and has received written testimony from a number of parties.

In addition, the Department hired an independent consultant, National Economics Research Associates (NERA) to review the Department's methodology in calculating the costs to the state from accepting out-of-state waste. The September 17 NERA preliminary report recommended a number of changes from the methodology included in the July 25 memorandum to the Solid Waste Advisory Committee.

This report significantly revises the calculations and methodology for determining a surcharge on out-of-state waste, based upon the testimony and consultant's report. Most importantly, it provides more detailed documentation to substantiate the costs to be addressed by the surcharge.

I. BACKGROUND

House Bill 3515, passed by the 1989 Oregon Legislature, requires the Environmental Quality Commission (EQC) to establish a surcharge on out-of-state solid waste disposed of in Oregon. Key parts of the legislation include:

> "Beginning on January 1, 1991, every person who disposes of solid waste generated out-of-state in a disposal site or regional disposal site shall pay a surcharge as established by the Environmental Quality Commission.." (ORS 459.297).

The moneys collected through the surcharge are to be "continuously appropriated to (DEQ) to meet the costs of the department in administering the solid waste program" (ORS 459.297).

"The amount of the surcharge shall be based on the costs to the State of Oregon and its political subdivisions which are not otherwise paid for.." (ORS 459.298)

Oregon is not the first state to deal with the issue of waste being imported from other states. In recent years, many states have adopted or proposed regulations that impose special fees or other regulatory controls on out-of-state waste. A recent report from the National Solid Waste Management Association (NSWMA) identifies 11 states that have adopted such measures, ranging from an Indiana law that imposes the average cost for disposal in the state of origin, to a $1 per ton fee in West Virginia. The highest fee appears to be in Kentucky, where counties may assess a fee 25% higher for out-of-state waste. The lowest appears to be Alabama, where one county has a $.50 per ton differential on out-of-state waste. Many of these laws are currently under court challenge.

II. BASIC ASSUMPTIONS, DEFINITIONS, AND METHODOLOGY

In developing a surcharge that would be based upon "the costs to the State of Oregon and its political subdivisions", there are a number of important definitions and assumptions that need to be outlined.

1. The surcharge cannot be based upon an accounting of historic costs. Rather, it must be based upon a reasonable estimate of expected costs that take into account a range of possible circumstances.

   The legislature did not intend for the Department to make an after-the-fact accounting of costs to the state resulting from past acceptance of out-of-state waste. The surcharge was clearly intended to be anticipatory, that is, to go into effect before large volumes of out-of-state waste arrive in Oregon, and therefore based upon estimates of future, uncertain events.

   In attempting to gauge the impact of future importation of out-of-state waste, there are far too many uncertainties to make precise estimates of the cost to Oregonians. How much waste can we expect to receive and what will the waste characteristics be? Will it be transported by truck, barge, or rail? Will it go to a privately-owned or publicly owned

disposal site? What is the size of the disposal site, and what will the environmental controls be? Landfill or incinerator?

The answers to these questions are subject to a great deal of uncertainty at the present time, and will likely be different for each load of waste. Therefore, the Department has chosen to estimate a range of costs for each category, and to recommend a "reasonable" surcharge within that range.

2. The estimate of "costs to the State of Oregon and its political subdivisions" is a distinct policy question from the decision on how the funds generated from the surcharge should be spent.

   The legislation specifically states that the funds shall go to meet the costs of "administering the solid waste program". However, the costs to be included in determining the amount of the surcharge should not be limited to those directly related to solid waste management.

   This is not meant to imply that DEQ solid waste management programs do not directly or indirectly address many of the costs associated with accepting out-of-state waste. Indeed, the costs of accepting out-of-state waste should be one of the prime considerations in determining how the surcharge revenue should be spent.

3. The amount of the surcharge is to be determined by a reasonable assessment of the costs to Oregon of accepting out-of-state waste. The surcharge amount should <u>not</u> be inflated to discourage importation of waste, nor deflated to encourage importation of waste.

4. Alternative ways to address potential costs through changes in rule or statute were not considered. However, as the NERA report suggests, there may be more efficient ways than the surcharge to address some of the costs.

5. Estimates of the cost of tax credits and other subsidies are based upon eligibility. It is presumed that private companies will generally apply for and receive the maximum subsidy for which they are eligible.

6. The statute (ORS 459.298) identifies specific costs (those already covered under permit fees) which should not be included as part of the analysis. In addition, the Department has decided not to include costs that are covered through any other fees or taxes. Other specific fees considered include permit fees, PUC per-mile taxes, and host community fees. There should be no double counting.

7. Because of the administrative complexity and difficulty of assigning different surcharge amounts to different sites, there will be one surcharge rate for all out-of-state waste disposed of in Oregon. This one per-ton surcharge rate will attempt to reasonably cover a range of circumstances.

8. Calculations are based upon costs and volumes expected during the next 4 years. (However, in some cases looking at the impacts during the next four years requires analysis of a longer-range cost stream) To account for expected inflation, a clause in the proposed rule enables the Environmental Quality Commission to review and adjust the per-ton fee every four years.

9. During the next four years, an average of 600,000 tons per year of solid waste is expected from out-of-state generators.

10. A real discount rate of 3% is used in the Department's calculations.

Sources. The following sources of information were used in developing the calculations and methodology for establishing the surcharge:

1. Analysis of the Policy Implications of Regional MSW Disposal, Draft Report, June 4, 1990, U.S. Environmental Protection Agency.

2. Final Environmental Impact Statement: Seattle Waste Transport and Disposal Project, Seattle Solid Waste Utility, July 1990.

3. An Evaluation of the True Costs of Sanitary Landfills For the Disposal of Municipal Solid Waste in the Portland Metropolitan Area, Oregon Department of Environmental Quality, April 1986.

4. Taxing the Solid Waste Stream, Matthew Montavon and Paul L. Shinn, Government Finance Officers Association, April 1990.

5. Putting the Lid on Out-Of-State Garbage, J.S. Brown, State Government News, January 1990.

6. Pricing Solid Waste Disposal At Marginal Cost: The New York City Experience, Mark Berkman and Lisa Mancini, Fifth International Conference on Solid Waste Management and Secondary Materials, Philadelphia, Pennsylvania, December 7, 1989.

7. The Socioeconomic Impacts of Landfills, Carla Dickstein and Greg Sayre, Institute for Public Affairs, West Virginia University, Morgantown, West Virginia, June 1989.

8. The Solid Waste Advisory committee meeting in May included a panel discussion on the out-of-state waste surcharge. Speaking at that meeting were:

   . Bill Ross, Ross and Associates Consultants

   . Ray Bartlett, ECO Northwest economics consultants

   . Dennis Illingsworth, Wasco County

   . Doris Bjorn, Oregon Waste Systems

   . Joel Ario, OSPIRG

III. COSTS CATEGORIES

For the purposes of this report, the costs of accepting out-of-state waste to Oregon and its political subdivisions shall be calculated within the following categories:

1. Statewide activities for reducing environmental risk and improving solid waste management, paid for through the per-ton fee on domestic solid waste.

2. Statewide activities for reducing environmental risk and improving solid waste management, paid for through general funds.

3. The value of tax credits or other state subsidies related to solid waste management.

4. Solid waste reduction activities related to reviewing and certifying out-of-state waste reduction and recycling plans.

5. Increased environmental liability.

6. Lost disposal capacity.

7. Lost tourism or business development revenues due to stigma of accepting out-of-state waste.

8. Publicly supported infrastructure.

9. Nuisance impacts from transportation.

1. STATEWIDE ACTIVITIES FOR REDUCING ENVIRONMENTAL RISK AND IMPROVING SOLID WASTE MANAGEMENT, PAID FOR THROUGH THE PER-TON FEE ON DOMESTIC SOLID WASTE.

Oregon citizens finance some statewide solid waste management activities through a 50 cents per ton fee on domestic solid waste. These groups of activities are not currently supported by out-of-state users of Oregon disposal facilities.

These costs and activities include:

* Statewide solid waste management planning

* Programs to enhance statewide waste reduction and recycling, including data collection, performance measurement, education and promotion, and demonstration projects.

* Programs for management of Household Hazardous Waste and improving management of Hazardous Waste from very small generators who are conditionally exempt from hazardous waste disposal regulations.

* Establishment of a statewide groundwater monitoring data management system.

* Planning grants for local governments to use for regional and local solid waste management planning.

The per-ton fee is a cost of solid waste management not otherwise paid for by out-of-state generators. The Oregon Legislature has determined that the required level of these activities is generally related to the volume of waste which must be disposed of, i.e., the more waste received the greater the level of activity required. The receipt of out-of-state waste will require an increase in these activities by adding to the overall level of environmental risk. Out-of-state users should therefore share these costs proportionately with in-state users.

Some have argued that the funding for household hazardous waste programs and recycling programs should not be automatically included in the costs used to calculate the out-of-state waste surcharge because some sending jurisdictions may already be paying for, and implementing programs to reduce waste and separate household hazardous waste from the municipal waste stream. However, these are statewide programs designed to improve the management and reduce the impact of waste disposal in Oregon. Waste received from an out-of-state jurisdiction with a similar program still adds an environmental impact to the state of

Oregon, and if out-of-state generators do not pay their fair share, there is a direct cost to in-state generators who must pay more.

Currently, the costs involved in these activities total $.50 per ton.

Estimated cost: $.50 per ton.

2. STATEWIDE ACTIVITIES FOR REDUCING ENVIRONMENTAL RISK AND IMPROVING SOLID WASTE MANAGEMENT, PAID FOR THROUGH THE GENERAL FUND.

Oregon citizens also finance general statewide solid waste management activities through general funds, generated by income tax revenue. To the extent that out-of-state generators use Oregon's solid waste disposal system, they are adding to the need for these costs without paying for them. These activities include:

* Rulemaking and development of statewide policy
* DEQ costs in administering the state solid waste regulatory program.
* Statewide solid waste management planning

Step 1
There is a direct relationship between the amount of waste disposed of and the amount of general fund support required for regulation of solid waste management. This relationship is not clear if analyzed simply from a historical perspective in Oregon. The amount of general fund support for solid waste has fluctuated in response to specific priorities and other funding options. However, the relationship between state funding and waste volumes can be seen by looking at state funding around the country. A 1984 report by the Association of State and Territorial Solid Waste Management Officials presents the state budgets for Municipal Solid Waste programs, clearly showing a relationship between budget dollars and volumes (populations).

Step 2
Currently, the general fund support for these activities totals approximately $1 million per biennium. However, that amount is expected to change during the next biennium to a minimum of $2.2 million for solid waste, and will be adjusted upward annually for inflation. If this figure is divided by the number of tons expected (4 million in-state plus 1.2 million out-of-state per biennium), the cost per ton is a minimum of $.42 per ton.

Estimated cost: $.42 per ton.

3. TAX CREDITS AND OTHER PUBLIC SUBSIDIES

Any Oregon tax expenditures in the form of tax credits or other subsidies to support transport or disposal of solid waste represents a "cost" to the state of Oregon to the extent that other states benefit from those expenditures.

In the case of Pollution Control Tax Credits, up to 50% of the cost of equipment or measures to prevent air pollution, prevent water pollution, or enhance waste reduction or recycling can be taken off Oregon income taxes for those private companies constructing landfills. Activities that qualify for tax credits include such things as liner construction, leak detection systems, leachate collection and treatment, groundwater monitoring, gas controls, and surface water controls.

Some landfills, of course, are publicly owned and therefore not eligible for any tax credits. Other than the pollution control tax credits, Oregon has no other public subsidy at this time.

The cost per ton of these tax credits will vary by the amount and cost of pollution control facilities required by DEQ and by the size of the disposal site. Generally, the larger the site, the more garbage per acre that can be disposed of and the lower the cost per ton of the tax credits.

Step 1 in calculation:
Most of the costs of environmental protection at landfills is included in the construction of each "cell" or waste area. A landfill cost model developed for DEQ by ECO Northwest economic consultants estimates the cost of environmental protection facilities for a small, double-lined landfill cell at approximately 83% of the cell development costs of $3.71 per ton. This comes to $3.07 per ton. Adjusted for 4% annual inflation, this comes to $3.57 in present dollars. For a larger cell, with an average depth of 120 feet, the cost of those environmental protection facilities is $1.36 per ton. Adjusted for a 4% annual inflation rate since 1986, this comes to $1.57 per ton. For an even larger cell, with an average depth of 250 feet, and all clay from on-site, the eligible costs would be $.63 per ton in present dollars. Given the characteristics of the landfills expected to receive the majority of out-of-state waste during the next four years, the most likely estimate would be $1.57 per ton.

Step 2 in calculation:
At a tax credit of 50%, spread equally over ten years, this translates into the most likely eligible tax credit of $.078 per ton per year for ten years.

Step 3 in calculation:
At a 3% real discount rate, this comes to a total expected tax credit in present dollars of $.58 per ton. Using the higher and lower estimates would result in a range of tax credit costs of $.26 per ton to $1.51 per ton.

Step 4 in calculation:
If we want to calculate the "net costs" rather than the costs of these tax credits, we then subtract from the costs identified in step 3 any net benefits that accrue from receiving out-of-state waste.

Public testimony received on behalf of Oregon Waste Systems,Inc. and Tidewater Barge Lines suggests many benefits, including host fees, real and personal property taxes, corporate income taxes, payroll taxes, and similar benefits. However, host fees, income taxes, and property taxes are revenue sources designed to address costs that have been explicitly excluded from this analysis. For example, expected fees to the Port of Morrow ($275,000 per year) are designed to offset costs to the Port of Morrow to process loads through the Port facilities.

To calculate net benefits, any benefits must first be reduced to those attributable to out-of-state waste. Second, those "benefits" in the form of taxes or other payments that are specifically designed to offset other costs should be eliminated from the analysis. Third, what is left should be carefully evaluated to ensure that "net" benefits (minus any costs) are identified. Last, those benefits which are not attributable to the tax credit program should be eliminated.

Using the testimony from Tidewater Barge Lines, we can calculate what the potential net benefits might be. Tidewater identified the following economic benefits:

New jobs (payroll)	$750,000
Port Fees	$275,000
Host Fees	$100,000
Road fees	$.25 per ton
Post-closure trust	$.15 per ton
Property taxes	$100,000
Capital investment	$8 million

First, assuming these figures are accurate, we must calculate the incremental "benefits" that accrue from out-of-state waste by subtracting any of the benefits resulting from in-state waste.

For most categories, this will mean reducing the "benefits" .

New jobs (payroll)	$750,000 (x .33)
Port Fees	$275,000 (x .66)
Host Fees	$100,000 (x .66)
Road fees	$.25 per ton
Post-closure trust	$.15 per ton
Property taxes	$100,000 (x .50)
Capital investment	$8 million (x .50)

Second, the "benefits" which are either double counted or are taxes designed to offset other costs are eliminated. This leaves:

New jobs (payroll)	$750,000 (x .33)
Port Fees	$275,000 (x .66)

Third, we examine each of the remaining categories to determine if there are other costs offsetting the potential benefits. In the case of Port Fees, these are offset by costs to the Port totaling at least 80% of the fees, so the real benefit is only 20%. In the case of new jobs, the number of new jobs is the upper bound of the positive economic impact, and could be lower depending upon how many net new jobs are created and who fills them.

New jobs (payroll)	$750,000 (x .33)
Port Fees	$275,000 (x .66) (x .20)

Fourth, we then need to calculate how many of these benefits accrue from the tax credit itself. Assuming a $.58 per ton tax credit, we can predict that this lowers the cost of disposal enough to attract some out-of-state users who would otherwise not send their waste. If we assume an increase in out-of-state waste of 20% due to the tax credit (probably high), the total net benefit would be:

New jobs (payroll)	$250,000 (x .20)
Port Fees	$36,300 (x .20)

or,

New jobs (payroll)	$50,000
Port Fees	$ 7,260
Total Net benefit	$57,260

Dividing this figure by an assumed 150,000 tons per year of out-of-state waste, the annual net benefit would be $.38 per ton. Subtracting this number from the expected cost of $.58 per ton results in a net cost of $.20 per ton.

Range: $.26 to $1.51 per ton. Expected cost is $.58 per ton. If you subtract potential net benefits of up to $.38 per ton, the expected net cost is $.20 per ton.

4. SOLID WASTE REDUCTION ACTIVITIES RELATED TO THE REVIEW AND CERTIFICATION OF WASTE REDUCTION AND RECYCLING PLANS

Any out-of-state jurisdiction wishing to send waste to a disposal site in Oregon must, under state law, be certified as providing the opportunity to recycle commensurate with that required of Oregon citizens. In addition, those communities sending more than 75,000 tons per year to a disposal site located on Exclusive Farm Use land must submit a comprehensive solid waste reduction plan, to be reviewed by the Department.

Waste reduction plan review and certification for the opportunity to recycle is a direct cost to the DEQ Solid Waste Reduction program. The work involves initial review of waste reduction and recycling plans, as well as annual review of performance. Assuming 3 major communities (over 75,000 population) export to Oregon, and an additional 5 smaller communities export to Oregon, we estimate the costs of accepting out-of state waste in the following manner:

Step 1
To estimate costs for review and certification of waste reduction and recycling plans, we first looked at costs for three different activities: a) initial certification or approval, b) on-going review of performance, and c) review of future submittals related to changes in Oregon's recycling laws.

Step 2
A weighted average of 180,000 tons per year for each of three communities, and an average of 10,000 tons per year for each of 5 additional communities was assumed during the first four years.

Step 3
For the larger communities, the time involved was estimated to average: 12 weeks for initial review, 2 weeks annually for on-going review, and 4 weeks for changes in the law.

For the smaller communities, the time involved was estimated to average: 4 weeks for initial review, 1 week annually for on-going review, and 2 weeks for changes in the law.

Step 4
A cost stream is calculated for the first four years. One large community and two smaller communities are assumed to be reviewed in the first year. Two larger communities and 3 smaller communities are assumed to be reviewed in the 2nd year. A change in law is assumed in year 3.

Step 5
The cost stream results in the following FTE for an Environmental Specialist 3 during the first 4 years:

Year 1	.40
Year 2	.82
Year 3	.66
Year 4	.22

Step 6
The 1990 cost for an Environmental Specialist 3 is $2465 per month. Using a 3% real discount rate, a 23.1% indirect cost, a 35% cost for OPE, and a 28% cost for Services and Supplies, the total present value of the cost stream in the first four years is $107,933. When divided by the total out-of-state tonnage expected during the first four years, discounted at a 3% annual rate, the cost per ton is $.048394.

Estimated cost per ton: $.05

5. INCREASED ENVIRONMENTAL LIABILITY

The recent EPA report lists "Environmental Risk, if systems fail" as one of the possible negative impacts of importing solid waste. There are currently mechanisms in place to reduce the risk of such a failure, and to pay for cleanup in case there is one. However, there is a "window" of potential liability that is not covered by present programs, and importing states add to the liability by adding to the volume of waste. In addition, importing states can potentially escape some of the costs of cleanup. Oregonians cannot.

Currently, regional disposal sites are required to have financial assurance to cover closure and limited environmental liability up to $1 million. Sites that are not designated as "Regional Disposal Sites" under Oregon law do not have this requirement. (At least two sites currently accepting out-of-state waste are not "regional sites")

In addition to the required financial assurance, Oregon recently passed a law that requires (when needed) all disposal sites to pay $.50 per ton on all solid waste toward a bond fund to finance groundwater cleanups at disposal sites that cannot afford cleanup. This fee also applies to out-of-state waste.

The window of unfunded liability occurs when a disposal site accepting out-of-state waste faces a major cleanup (over $5 million) that it cannot afford. If the $.50 per ton charge must be raised statewide to, say $3.00 per ton to cover the cost of this cleanup, out-of-state users of the site may choose to take their garbage elsewhere, escaping their share of the cost of cleanup.

In addition, when a local government is responsible for cleanup, its citizens, under Oregon law, are subject to a charge of up to $60 per person to cover the cost of a cleanup. This charge cannot be applied to out-of-state users under Oregon law.

Given the financial assurance mechanisms in place, and the environmental protection requirements for disposal sites in Oregon, the "expected" uncovered liability contributed by out-of-state waste is low. The problem is, of course, that if a $100 million cleanup were to occur, the "expected" liability doesn't mean much. Therefore, the range of costs has been calculated by taking an "expected" amount of uncovered liability and a "worst case" that would conservatively protect Oregon ratepayers.

Step 1
Because the calculation here is for uncovered environmental liability, the first step is to estimate the total amount of environmental cleanup expected to be covered by the Orphan Site Account for landfills during the next 20 years.

There are over 150 solid waste landfills under permit in Oregon, of which 2% have state-of-the-art environmental protection, an additional 8% have some engineered protection, and 90% have no engineered protection at all. Most of these landfills can be expected to impact ground or surface waters during the next 20 years, requiring some remedial action.

A 1988 EPA report on landfills involved in Superfund cleanups estimated an average cleanup cost of $13.1 million per landfill. Four percent of the landfills had cleanups costing more than $30 million.

Although cleanup activities at many of Oregon's landfills will be financed by other means, the expected demand on the Orphan site account during the next 20 years will be as follows:

$100,000,000	40% probability
50,000,000	40% probability
10,000,000	20% probability
0	0% probability

Step 2
These probabilities can be converted into an expected per-ton surcharge to pay for bonds to finance the Orphan Site cleanups.

$100,000,000	($4 per ton)	40% probability
50,000,000	($2 per ton)	40% probability
10,000,000	($.40 per ton)	20% probability
0	($0 per ton)	0% probability

Step 3
For each potential per-ton surcharge, a probability can be estimated that out-of-state generators disposing in Oregon would seek less expensive disposal options in their own or another state.

$4 per ton	80% probability of leaving
$2 per ton	40% probability of leaving
$.40 per ton	10% probability of leaving

Step 4
We can now calculate the probabilities of out-of-state users avoiding responsibility for paying for liabilities they have contributed to. The next step is to calculate the environmental liability incurred from disposal of out-of-state waste. It is expected that out-of-state waste will be distributed among Oregon disposal sites as follows:

75%	Disposal sites with state-of-the art environmental protection technology (double-liners, etc.)
15%	Disposal sites with limited environmental protection technology.
10%	Disposal sites with no engineered environmental protection

Step 5
For landfills accepting out-of-state waste, the following probabilities are assigned to potential unfunded environmental liability:

Landfills with State-of-the-Art Technology

$50 million	.1%
$20 million	.4%
$10 million	4.5%
$0	95%

Landfills with Limited Environmental Protection

$50 million	1%
$20 million	10%
$10 million	59%
$0	30%

Landfills with no Engineered Environmental Protection

$50 million	10%
$20 million	35%
$10 million	52%
$0	3%

Step 6
Assuming that out-of-state waste will generally constitute 23% of the waste coming to these landfills, the expected unfunded liability at each of the categories of landfills is therefore calculated by multiplying the potential liabilities (times 23%) by the probabilities listed above. The results are:

$133,400	Landfills with state-of-the-art technology
$1,932,000	Landfills with limited technology
$3,956,000	Landfills with no technology

Step 7
These figures are then multiplied by the distribution probabilities to get an expected unfunded liability caused by out-of-state waste:

$133,400 x .75	Landfills with state-of-the-art technology
$1,932,000 x .15	Landfills with limited technology
$3,956,000 x .10	Landfills with no technology

Step 8
This totals $785,450. This figure can now be multiplied by the probabilities that out-of-state users will go somewhere else. (see Step 1 and Step 2 above)

$785,450 x .40 x .80 = $251,344

$785,450 x .40 x .40 = $125,672

$785,450 x .20 x .10 = $15,709

Step 9
This totals up to $392,725. When this figure is then divided by the number of out-of-state tons expected during the next 20 years (12 million), the cost per ton comes to $.03.

Step 10
A worst case analysis, designed to conservatively protect Oregon ratepayers against the highest potential unfunded liability, would calculate the costs using a 100% probability of a $90 million cleanup charge to the Orphan Site Account. This $90 million figure comes from an assumption, based upon the 1988 EPA report, that the "worst case" would involve three landfills with a $30 million cleanup bill. This results in a total expected unfunded liability of .72 per ton. Some have argued that Oregon should protect itself against a potential worst case liability of $100 million. This would result in a cost of $.80 per ton.

Estimated cost: $.03 - $.72 per ton.

6. LOST DISPOSAL CAPACITY

Every ton of solid waste accepted from out-of-state uses disposal capacity which cannot be used for Oregon waste, and which therefore must ultimately be replaced.

Some would argue that privately owned landfill or incinerator capacity is a private good, and is no more a state resource than the widgets produced by a privately-owned factory. However, there are some significant differences between widgets and disposal capacity:

* First, as the draft EPA report points out, solid waste disposal is a necessary public service, similar to sewer and water.

* Second, Oregon law (ORS 459.015) states clearly that "extending the useful life of existing solid waste disposal sites" is in the public interest of Oregon.

* Third, Oregon law (ORS 459.015) states clearly that it is the **policy of the State of Oregon** (emphasis added) to "encourage utilization of the capabilities and expertise of private industry" to accomplish the public need of solid waste management. This suggests that the use of private facilities does not change the public need or interest in preserving disposal capacity.

* Fourth, Oregon law (ORS 459.017) states, "The planning location, acquisition, development and operation of landfill disposal sites is a matter of state-wide concern". This, of course, includes privately owned landfill sites.

* Last, Oregon law (ORS 459.293) states that " The disposal in Oregon of domestic solid waste generated both **outside** (emphasis added) and within Oregon will reduce the total capacity available for disposal of domestic solid waste generated in this state;".

The real cost to Oregonians of losing the disposal capacity is actually in replacing that capacity. The replacement can be accomplished in one of two ways: either replacing the capacity through siting of a new facility, or conserving capacity through recycling or other waste reduction efforts.

Both the public and private costs (if private companies are involved) of siting new disposal facilities are eventually borne by the public. If the new capacity (replacement facilities) is utilized by out-of-state waste generators at the same rate as the existing disposal facilities, then direct siting costs will be shared by in-state and out-of-state users proportionately. However, if present out-of-state generators go elsewhere, then Oregonians will pay the total bill for replacement of used capacity.

Step 1
The per-ton cost of replacing(siting) landfill capacity varies by the size of the landfill being sited. For the purposes of this analysis, we will assume that 50% of the capacity lost to out-of-state waste will be replaced by landfills with a 30 million-ton capacity; 35% of the capacity will be replaced by landfills with a 9 million-ton capacity, and 15 % will be replaced by landfills with a 100,000 ton capacity.

Step 2
Using the 1986 model by ECO Northwest on the true cost of sanitary landfills, the estimate for what ECO calls "predevelopment" costs for a new landfill total $.12 per ton for a landfill with 30 million tons of capacity; $.36 per ton for a landfill with a 9 million ton capacity, and $4.06 per ton for a landfill with a 100,000 ton capacity (the last category has a total predevelopment cost of $300,000).

Step 3
The expected cost of replacement for landfill capacity lost is therefore the sum of:

50% x $.12
35% x $.36
15% x $4.06

This equals $.80 per ton.

Step 4
With no out-of-state waste, the disposal sites are likely to have the following expected lifetimes (for a total expected capacity of 40 years):

60 years	50%
25 years	25%
15 years	25%

This means that, without out-of-state waste, the $.80 per ton predevelopment costs will be, on average, experienced in year 40.

Step 5
With out of state waste, the disposal sites will have their life shortened to the following:

30 years	50%
12.5 years	25%
7.5 years	25%

This means that, with out-of-state waste, the $.80 per ton predevelopment costs will be, on average, experienced 20 years earlier, in year 20.

Step 6
The discounted value of $.80 per ton, at 3% real discount rate, at year 40 is $.24.

The discounted value of $.80 per ton at year 20 is $.44.

Therefore, the difference is the real cost of lost disposal capacity from accepting out-of-state waste is the difference between those two waste streams: $.20 per ton.

Success in siting efforts is not guaranteed, the recent success in siting regional landfills in Gilliam and Morrow counties notwithstanding. In the case of the Portland metropolitan area, it took at least 4 attempts at siting new facilities (2 public and 2 private) at a direct cost of over $5 million before facilities were developed. Therefore, direct siting costs may involve the costs of regional planning for replacing or developing multi-county solid waste disposal sites.

Potential costs per ton: $.20

7. LOST TOURISM OR BUSINESS DEVELOPMENT REVENUES DUE TO STIGMA OF ACCEPTING OUT-OF-STATE WASTE.

A recent EPA draft report on regional solid waste disposal lists "Public perception of state as a waste state, hurting business development and tourism" as one of the costs to states importing waste for disposal. The potential impact is a tangible loss of jobs and tourism income due to a reduction in the "clean" image that Oregon markets. Some economists in the state have argued that this clean image has significant economic value to Oregon as the state attempts to lure tourists and capital investment to the state.

A recent report from West Virginia University cites a large body of research in the area of environmental stigma. Stigma refers to the "perception that an individual or group is discredited because of certain characteristics involving an undesired differentness from what we had anticipated" (Goffman 1963:5). The West Virginia study notes that "naturally beautiful areas which are seeking to attract tourists, agricultural areas known for wholesome products, or family residential areas are all vulnerable to the devaluing of image."

A 1987 study by Edelstein (1987:24) finds that environmental stigma is associated with waste disposal facilities, both hazardous and solid. He states, "a region becomes marked because of its potential for, rather than the actuality of contamination".

This environmental stigma is heightened by the acceptance of out-of-state waste. The West Virginia University study noted that there is a particular stigma attached to receiving out-of-state waste. "By its very nature, garbage is perceived as the dregs of society", the researchers write. "Many believe nothing is more demeaning than to take someone else's garbage."

The West Virginia study goes on to discuss the potential impacts of environmental stigma on tourism. It states that environmental quality is considered an important factor in attracting tourists. The study cites the 1988 incidents of garbage washing up on a part of the New Jersey shore. The publicity from that incident created a stigma that caused a decline in tourism all along the New Jersey shore, including areas far from the incident.

Step 1
The Oregon Economic Development Department estimates that tourism brings in more than $2 billion annually to Oregon's economy. A significant part of that tourist economy ($100 million annually) is based upon the tourist attractions and pristine beauty of the Columbia Gorge Scenic Area. If tourism were to decline by as little as .1%, the economic impact on Oregon would be $2 million. If the decline were .05%, the impact would be $1 million dollars.

On a localized basis, a decline of 1% in tourism revenues within the Columbia Gorge would cost Oregon $1 million.

The Oregon Economic Development Department actively recruits industrial business locations in Oregon. Last year more than 250 firms were actively recruited. EDD staff feel that the stigma from importation of out-of-state waste could negatively influence business location decisions, although the impact would be difficult to document or quantify.

Step 2
Even if there were no accidents or environmental problems associated with out-of-state waste, the stigma of Oregon and the Columbia Gorge area as a repository for other states' garbage would have some impact on the state's tourism economy. This impact will be conservatively estimated at a .01% decline (or 1 ten-thousandth), for an annual impact of $200,000.

Step 3
If there were a significant environmental incident involving out-of-state waste, the amount of publicity on the incident can be expected to greatly increase the impact on the area's and the state's image and therefore on the state's tourist economy. If there were such an incident, the impact on the economy can be conservatively estimated at a .1% decline for that year, for an annual impact of $2 million.

Step 4
The assigned probabilities for the potential outcomes are:

44%	No major incident in first 20 years
50%	One major transport-related incident in 20 years
6%	One major landfill incident in first 20 years

Step 5
The impact of environmental stigma with no major incident is $200,000 per year, or $.33 per ton.

Step 6
The impact of environmental stigma with one major transport accident assumed during the first twenty years is $200,000 annually plus the cost associated with the probability of an incident.

The Association of American Railroads Fact Book (1989) notes that there are 5 rail accidents per million train miles. Assuming that at least half of the out-of-state waste expected will be arriving by train, we can assume 100,000 train miles per year, suggesting a 50% chance that an accident will happen each year. Assuming conservatively that one out of every twenty (5%) accidents would generate significant publicity either regionally or nationally, we

can assume a 50% chance of a transport-related accident that would affect tourism during the first twenty years.

We therefore can calculate the expected annual costs of environmental stigma with a transport accident as $200,000 (the impact without an accident) plus 5% of $2 million. This calculates to $300,000 per year. The 50% probability of this outcome results in an expected cost of $150,000 annually; divided by the expected 600,000 tons equals $.25 per ton.

Step 7
The probability of a significant (more than $20 million) environmental incident at a landfill accepting out-of-state waste during the next 20 years is: (see "unfunded liability" above) 6%, calculated as follows:

.75 x .005	Landfills with state-of-art technology
.15 x .11	Landfills with limited technology
.10 x .45	Landfills with no technology

If there is an environmental incident at landfills accepting out-of-state waste, it is equally likely to happen at any time during the first 20 years. Therefore, we will assume for the purposes of calculation that an incident (or incidents) will occur at year 10, and that the impacts of stigma will occur for a five year period. It will be further assumed that the real discount rate is 3% during this period.

The annual impacts from an environmental incident at the landfill are therefore the probability of an incident (.06) at year 10 times the potential impact ($2 million per year) in the 10th through the 14th year of a 20-year period. This equals $408,927. Dividing this number by the total discounted number of tons during the 20-year period gives us $.0458 per ton. Adding this to the $200,000 expected even with no incident provides a total per-ton cost for this expected outcome of $.07 per ton.

Step 8
Adding the expected impact with no incident ($.15 per ton - $200,000 divided by 600,000 multiplied by a 44% probability), the expected impact with a transport incident ($.25 per ton), and the expected impact with a landfill incident ($.07 per ton) results in a total expected cost of $.47 per ton.

Step 9
Even if no incidents are assumed in the analysis, the cost would be a minimum of $.33 per ton. If either the probability of an incident is increased or the estimated impact on tourism and economic development is increased, the cost per ton could be much higher.

Estimate of potential costs: $.33 per ton to $.65 per ton.

8. PUBLICLY SUPPORTED INFRASTRUCTURE

To the extent that importation of solid waste for disposal uses physical or administrative infrastructure in Oregon that is paid for only by Oregonians, there is an extra cost to Oregonians that should be shared by the exporting state(s).

The Solid Waste Section at DEQ has looked at publicly supported infrastructure in both transport of waste and disposal of waste.

Under transport, DEQ looked at the following categories of infrastructure:

- spill response capability
- maintenance of roadways not covered by P.U.C.
- Extra rail crossings
- State or local planning costs related to interstate transport (e.g. P.U.C. hearings, local planning activities)
- Extra traffic patrolling and safety problems

No specific figures on these costs are currently available; however, most of these costs are likely to be relatively small, given that any transport using truck will pay P.U.C. milage tax. In addition, cost of local road maintenance in the vicinity of the sites will, in many cases, be addressed through local "host fees".

Very little publicly supported infrastructure for disposal was identified that did not already fall into the category of "solid waste management" discussed above. This could change if Oregon experiences some of the safety and illegal hauling problems the state of Pennsylvania has experienced because of interstate transport of solid waste.

The much larger potential for costs related to transport was brought up during the July 17, 1990 of the Solid Waste Advisory Committee. The committee identified a need, brought on by the potential for large shipments of hazardous materials, for transportation planning in the Columbia Gorge corridor. Such planning is likely to be needed because of the concerns generated by transport of out-of-state into Oregon, and the need to address potential policy questions regarding safety, recreational compatibility, and tourism. This type of planning is costly, perhaps in the hundreds of thousands of dollars, and reflects the type of indirect local and state planning costs that may be borne by Oregonians because of the importation of out-of-state waste.

Step 1
The cost of a planning effort to study the transport of hazardous materials through the Columbia Gorge corridor is estimated to cost $1 million, spread equally across three years starting two years from now.

Step 2
Using a real discount rate of 3%, the present value of the study cost is $887,857.

Step 3
To assign the portion of that cost attributable to out-of-state waste, it is assumed that out-of-state waste represents 10% of the total transport of hazardous substances through the Columbia Gorge corridor. This results in an out-of-state waste share of $88786.

Step 4
Dividing this figure by the total number of tons from out-of-state during the next 5 years (3 million tons). This results in a cost of $.03 per ton. This figure may increase or decrease slightly, based upon changes in the assumptions. However, it will not vary by more than a few cents.

Potential costs: $.02 - $.05 per ton

9. NUISANCE IMPACTS FROM TRANSPORTATION

The Draft EPA report identifies a potential for negative "nuisance" impacts to both the importing jurisdiction and the transit jurisdiction. These potential nuisance impacts include noise, litter, traffic, and visual impacts.

Virtually all nuisance impacts related to disposal are paid for through the host community fee of regional sites (though not at non-regional sites). Therefore any measure of loss of "quiet enjoyment" is likely to be felt as part of transit (truck, rail, or barge).

The loss of this "quiet enjoyment" is difficult to quantify, and is likely to be relatively small, given that the incremental increase in barge, rail, or truck traffic will be minimal. However, some minor loss of "quiet enjoyment" can be expected. The draft EPA report has stated that this loss can be quantified through "political valuation", underscoring the difficulty of quantifying these impacts.

Step 1
One way to quantify the nuisance impacts of increased traffic is to look at the potential for out-of-state transport to increase traffic accidents. Figures from the Oregon Public Utility

Commission show that the 1989 accident rate for large trucks was 1.02 accidents per million miles.

Step 2
Assuming that half of the 600,000 tons per year of out-of-state waste will come by truck, an additional 1,500,000 miles are assumed to be driven in Oregon. This results in a 150% chance that each year there will be an additional accident involving a truck carrying out-of-state waste. Assuming that each accident results in a cost (in terms of damage to other vehicles, damage to property, and police and/or fire costs) of $5000, the cost to the state is approximately $.01 per ton.

Potential costs: $.01 - $.03 per ton.

V. SUMMARY AND RECOMMENDATIONS

Using the estimates developed in the preceding analysis, the Department has developed a range of figures for the out-of-state waste surcharge:

$.50	Statewide activities for reducing environmental risk and improving solid waste management, paid for through the per-ton fee on domestic solid waste.
$.42	Statewide activities for reducing environmental risk and improving solid waste management, paid for through general funds.
$.20 - $1.51	Tax credits and other public subsidies
$.05	Solid waste reduction activities related to the review and certification of waste reduction and recycling plans
$.03 - .72	Increased environmental liability
$.20	Lost disposal capacity
$.33 - .65	Lost tourism or business development revenues due to stigma of accepting out-of-state waste.
$.02 - .05	Publicly Supported Infrastructure
$.01 - .03	Nuisance Impacts from transportation
$1.76 - $4.13	Total

The range of potential total costs of accepting out-of-state waste in Oregon is therefore $1.76 to $4.13 per ton. The actual surcharge chosen within that range will be largely determined by whether or not net benefits are included in the calculation on tax credits, and by the perceived need to protect against increased environmental liability.

The Department recommends the fee be reviewed not later than January 1995 and revised to include inflation and other relevant information.

The EQC should word the rule to divide the surcharge into two parts: part of which includes any per-ton fee on in-state users (such as the current $.50 per ton fee), plus one part that applies only to out-of-state waste.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Rules Relating to a Surcharge
on Out-of-State Solid Waste Disposed of in Oregon

Hearing Dates: September 24, 1990
September 25, 1990

Comments Due: October 1, 1990

WHO IS AFFECTED: Owners and operators of solid waste landfills now disposing of solid waste generated out-of-state or who may accept such solid waste for disposal in the future. Out-of-state generators of solid waste disposing of solid waste in Oregon. Local governments, garbage haulers.

WHAT IS PROPOSED: The Department proposes to adopt a new surcharge on solid waste generated out-of-state and disposed of in Oregon. The surcharge will be used to meet the costs of the Department in administering the solid waste program. The Department is requesting public comment on a range of surcharge options from $1.50 per ton to $3.50 per ton of out-of-state solid waste.

An economic consultant has been hired to review the Department's methodology for establishing the amount of the surcharge. The Department would also like to receive public comment on the consultant's report. The consultant's draft report is due on September 11. The report will be available for review no later than September 17 at all DEQ Regional and Branch Offices (Portland, Bend, Pendleton, Medford, Coos Bay and Roseburg), and at the Arlington Public Library, 1st and Locust Street in Arlington (open Monday and Tuesday 9 a.m.-12 noon and Wednesday afternoon from 1-5).

WHAT ARE THE HIGHLIGHTS: The proposed amendments would:

- o establish a surcharge on solid waste generated out-of-state and disposed of in Oregon;
- o require that the surcharge be submitted at least quarterly.

(over)

811 S.W. 6th Avenue
Portland, OR 97204

11/1/86

FOR FURTHER INFORMATION:

Contact the person or division identified in the public notice by calling 229-5696 in the Portland area. To avoid long distance charges from other parts of the state, call 1-800-452-4011.

HOW TO COMMENT:

A public hearing will be held before a hearings officer at:

7:00 p.m.
September 24, 1990
Hearing Room
Portland Building, Second Floor
1120 SW Fifth Avenue
Portland, OR

7:00 p.m.
September 25, 1990
Arlington High School
Arlington, OR

7:00 p.m.
September 25, 1990
Jackson County Courthouse Auditorium
Main and Oakdale
Medford, OR

(The Medford hearing will be preceded by a public information session from 5:00 p.m. to 6:00 p.m. in the same location.)

Written or oral comments may be presented at the hearings. Written comments may also be sent to the Department of Environmental Quality, Solid Waste Permits and Compliance Section, Hazardous and Solid Waste Division, 811 S.W. 6th Avenue, Portland OR 97204, and must be received no later than 12:00 noon, Monday, October 1, 1990.

Copies of the complete proposed rule package and summaries of the economic consultant's draft report may be obtained from Terence Hollins, (503) 229-6922, at the DEQ Hazardous and Solid Waste Division. For further information on the rule, contact Steve Greenwood at 229-5782. You may also call DEQ toll-free at 1-800-452-4011.

WHAT IS THE NEXT STEP:

The Environmental Quality Commission may adopt new rules identical to the ones proposed, adopt modified rules as a result of testimony received, or may decline to adopt rules. The Commission will consider the proposed rule revisions at its meeting on November 2, 1990.

WT\SK2907

(e) Grants to local government units for recycling and solid waste planning activities.

(f) To pay administrative costs incurred by the department in accomplishing the purposes set forth in this section, the amount allocated under this subsection shall not exceed 10 percent of the fees generated under ORS 459.294. [1989 c.833 §153]

Note: See note under 459.292.

459.297 Surcharge on solid waste generated out-of-state. (1) Beginning on January 1, 1991, every person who disposes of solid waste generated out-of-state in a disposal site or regional disposal site shall pay a surcharge as established by the Environmental Quality Commission under ORS 459.298. The surcharge shall be in addition to any other fee charged for disposal of solid waste at the site.

(2) The surcharge collected under this section shall be deposited in the State Treasury to the credit of an account of the Department of Environmental Quality. Such moneys are continuously appropriated to the department to meet the costs of the department in administering the solid waste program under ORS 459.005 to 459.426. [1989 c.833 §155]

Note: 459.297 and 459.298 were added to and made a part of ORS 459.005 to 459.426 by legislative action but were not added to any smaller series therein. See Preface to Oregon Revised Statutes for further explanation.

459.298 Amount of surcharge on solid waste generated out-of-state. Subject to approval by the Joint Committee on Ways and Means during the legislative sessions or the Emergency Board during the interim between sessions, the Environmental Quality Commission shall establish by rule the amount of the surcharge to be collected under ORS 459.297. The amount of the surcharge shall be based on the costs to the State of Oregon and its political subdivisions of disposing of solid waste generated out-of-state which are not otherwise paid for under the provisions of ORS 459.235 and 459.292 to 459.298, 459.411 to 459.417 and sections 70 to 73, chapter 833, Oregon Laws 1989. These costs may include but need not be limited to costs incurred for:

(1) Solid waste management;

(2) Issuing new and renewal permits for solid waste disposal sites;

(3) Environmental monitoring;

(4) Ground water monitoring; and

(5) Site closure and post-closure activities. [1989 c.833 §156]

Note: See note under 459.297.

459.300 Metropolitan service district site selection. (1) The metropolitan service district may provide for the disposal of solid waste from Clackamas, Multnomah or Washington County at a disposal site or sites other than the site selected by the Environmental Quality Commission under section 5, chapter 679, Oregon Laws 1985.

(2) The Department of Environmental Quality shall not use the selection of a disposal site under chapter 679, Oregon Laws 1985, to find that there is not a clearly demonstrated need for a site or sites selected by the metropolitan service district for disposal of waste under subsection (1) of this section. [1987 c.876 §5]

459.305 Certification that government unit has implemented opportunity to recycle; rules; fee; special provisions for metropolitan service district. (1) Except as otherwise provided by rules adopted by the Environmental Quality Commission under subsection (3) of this section, after July 1, 1988, a regional disposal site may not accept solid waste generated from any local or regional government unit within or outside the State of Oregon unless the Department of Environmental Quality certifies that the government unit has implemented an opportunity to recycle that meets the requirements of ORS 459.165 to 459.200 and 459.250.

(2) The Environmental Quality Commission shall adopt rules to establish a program for certification of recycling programs established by local or regional governments in order to comply with the requirement of subsection (1) of this section. No contract or agreement between an owner or operator of a disposal site and a local government unit shall affect the authority of the commission to establish or modify the requirements of an acceptable opportunity to recycle under ORS 459.165 to 459.200 and 459.250.

(3) Not later than July 1, 1988, the commission shall establish by rule the amount of solid waste that may be accepted from an out-of-state local or regional government before the local or regional government must comply with the requirement set forth in subsection (1) of this section. Such rule shall not become effective until July 1, 1990.

(4) Subject to review of the Executive Department and the prior approval of the appropriate legislative review agency, the department may establish a certification fee in accordance with ORS 468.065.

(5) After July 1, 1988, if the metropolitan service district sends solid waste generated within the boundary of the metropolitan service district to a regional disposal site, the metropolitan service district shall:

(a) At least semiannually operate or cause to be operated a collection system or site for receiving household hazardous waste;

ATTACHMENT G

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: October 1, 1990

TO: Environmental Quality Commission

FROM: Robert L. Danko, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Solid Waste Rules, Portland, 7:00 p.m., September 24, 1990

On September 24, 1990, a public hearing regarding proposed revisions to rules relating to a surcharge on out-of-state solid waste disposed of in Oregon (OAR 340-61) was held in Portland, Oregon. Testimony was also received on a draft report by the Department's consultant, National Economic Research Associates, Inc. (NERA). Fifteen people attended, and eight testified.

A summary of the testimony follows:

Doris Bjorn of Oregon Waste Systems, Inc. testified that her company is not opposed to an out-of-state surcharge if it is based on known and measurable costs. It appears that the recommended surcharge was based on DEQ's funding needs rather than on the costs to the state of importation of solid waste. She pointed out that Oregon Waste Systems' contract with Seattle makes the City partly responsible for any surcharges; and it will be the City that decides whether its waste will continue to come to Oregon in the future. She supported most of the NERA report's conclusions, namely that 1) Several cost categories were identified which affect all landfills and not just those accepting out-of-state solid waste; 2) More research needs to be done on some costs; and 3) Where costs have been identified, they should be reduced to reflect offsetting benefits.

Lawrence Schall, a professor at the University of Washington and consultant to Oregon Waste Systems, Inc., concluded that the NERA report presented valid criticisms of the Department's methodology for calculating the surcharge, and that the DEQ proposal for the surcharge (a range between $1.50 and $3.50/ton) was excessive. He said DEQ should use the NERA report to greatly refine and improve its cost computation. He also suggested that the per ton charge was likely to be much

less than the DEQ proposal; in fact, the economic benefits of out-of-state solid waste may exceed the costs to the state. He cited problems with the Department's methodology which are identified by NERA:

1) Benefits produced by out-of-state waste are ignored. He mentioned the ECO Northwest report which said that out-of-state waste represents a $6.50/ton benefit to the state from host fees and incremental taxes.

2) Charges are computed incorrectly. DEQ assumes that costs of disposal are proportional to tonnage, which is often not the case. The method of establishing unfunded liability is incorrect and double counts costs, not giving credit for self-insurance. This gives no incentive to landfills which use more environmentally sound disposal practices. The DEQ methodology overcharges regional landfills, and undercharges small local ones. Each landfill should have to provide financial assurance to cover its risks. Other examples of double counting are costs for noise and nuisance, which are covered in the host fee; and damage to Oregon's image. Charges are included which do not relate to out-of-state waste such as for the Oregon household hazardous waste program.

3) DEQ has failed to demonstrate some costs. For the tax credit, DEQ must do a net cost analysis, as suggested by NERA. DEQ must better demonstrate that out-of-state waste would damage Oregon's image.

John DiLorenzo of O'Connell, Goyak & DiLorenzo representing Tidewater Barge Lines and Finley Buttes Landfill Co. summarized written comments that he submitted. Commented on the following cost components from the Greenwood memo:

1) Under costs associated with "Statewide Activities...," the assumption is that the $.50/ton fee for domestic solid waste is used by DEQ to reduce environmental risks associated with landfills. This is not the case; it is also used to reduce the solid waste generated in Oregon. NERA failed to take into account that this finances Oregon recycling. Because out-of-state generators must bring their own area into compliance with Oregon recycling laws, requiring them to pay this fee also is unfair and discriminatory.

2) Tidewater is not taking issue right now with the

$.25/ton from the General Fund; but they want to see how much of this is used for unfunded liability.

3) Concerning pollution control tax credits: he sees nothing in this statute that allows the Commission to take back the benefits allowed by the tax credit statute for encouraging state of the art technology. It is also unfair to assume that every operator will take advantage of the tax credit; small ones may not.

4) Concerning costs of certifying out-of-state recycling programs: the charge bears no real relationship to tonnages. Under the proposed charge, DEQ would pay itself $400,000 for certifying the Clark Co. recycling activities. A $.01/ton charge would be more reasonable.

5) Concerning unfunded environmental liability: this is really for "excess environmental risk." It should be $0 at regional state-of-the-art facilities. The ECO Northwest report discusses the potential environmental liability from siting new landfills, and states that it is possible to eliminate environmental hazards for these new facilities, and that external costs are highly improbable. Since this cost is really an <u>excess</u> insurance policy, it should focus on probabilities of the state having to absorb excess costs after both financial assurance and the special environmental hazard fund (self-insurance) had been exhausted.

6) Concerning loss of disposal capacity: this cost is spurious. DEQ assumes a finite amount of landfill capacity; in reality the supply of landfill space depends on the number of acres DEQ is willing to permit. DEQ might incur costs in siting a new landfill; but those costs are covered in permit fees.

7) Concerning "image, etc.": the attempt to assign number costs to "image" is speculative. To include infrastructure costs is double counting. "Lack of quiet enjoyment" assumes there are people who would be disturbed; but the nearest house is 3 miles away from Finley Buttes. He quoted the ECO Northwest report which stated that a properly designed landfill should not cause a lack of amenity.

Mr. DiLorenzo also noted that the DEQ methodology failed to account for the positive benefits of Finley Buttes landfill (payroll, court and host fees, taxes). He suggested that DEQ

review the way costs are calculated, keeping in mind demand elasticity for waste disposal. DEQ should guard against disrupting the economies of the host communities.

Lisa Zavala, staff to the Joint Legislative Committee on Environment, Energy and Hazardous Materials, read a statement from Committee co-chairs Sen. Dick Springer and Rep. Ron Cease. They commented that the options presented by DEQ were appropriate. The $1.50 per ton is too low; but the $3.50 may be too high. Their concern was that the fee must be high enough to cover damage from a worst-case scenario to all landfills. More stringent Federal rules may be some time away; in the meanwhile, any landfill can take out-of-state waste. They requested that EQC examine a worst-case scenario for contamination, and noted that it would be apparent that a high fee (from $2.50 to $3.50) is necessary.

Jim Benedict, an attorney for Oregon Waste Systems, Inc., commented that the surcharge should be based on measurable costs, and comply with state law and the U.S. constitution. He suggested that the proposed fees may well violate both of the latter. He noted that the Commerce Clause makes discriminating solely on the basis of place of origin unconstitutional. Oregon is proposing a surcharge based solely on origin of the solid waste. He suggested that the costs discussed in sections B through G of the Greenwood memo are unconstitutional, as they are based solely on origin. Mr. Benedict mentioned a four-pronged test which was applied to taxes (or fees). He noted that several of DEQ's proposed cost categories would not meet the test (e.g. the $.50 equalization fee would not be "fairly apportioned" or "fairly related to benefit the taxing entity"). He noted that the statute requires the surcharge to be based on the "costs to dispose of solid waste," and many of DEQ's proposed cost components don't fit this, as they are solely for the benefit of in-state programs. Furthermore, the statute specifically excludes some costs from the surcharge; Mr. Benedict believes that the $.50/ton fee (on domestic solid waste) was specifically meant not to be imposed on out-of-state solid waste. Fees recovered by DEQ (such as for monitoring and annual compliance) are also specifically excluded. DEQ has not demonstrated that their monitoring costs exceed their permit fees for monitoring.

Brian Johnson of Finley Buttes Landfill Co. testified that DEQ has not developed the data to support even a $1.50/ton fee. He noted that the statute required "costs not otherwise paid for" to be the basis of the surcharge. The range of costs put forward by DEQ is inappropriate, and testimony should not be

limited to that range. Finley Buttes is willing to pay a reasonable and justifiable surcharge.

John Frewing, Chair of the Solid Waste Advisory Committee, wanted to put the Committee's record of decision on the official record. The Committee tended towards the higher end of the surcharge range rather than the lower. Some individuals on the Committee felt some costs were higher than in the DEQ report. Specifically, under unfunded liability, there was a concern that a company importing wastes could escape some of the costs if they stop bringing these wastes, since Oregon laws require Oregon cities to fund environmental problems after the fact. Mr. Frewing personally felt that the cost to Oregon's image should be higher, stating that a reasonable calculation of this cost could be obtained by looking at the dollars expended to attract recreationists, etc.

Mike Conway of the City of Washougal noted that his city had spent a lot of time evaluating various options for waste disposal, and they didn't mind paying the true costs of disposal. He noted that part of the fee his community will pay goes into a trust fund to take care of environmental problems. He wondered when the two states were going to "stop taxing each other."

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY **INTEROFFICE MEMO**

TO: Environmental Quality Commission DATE: October 5, 1990

FROM: Ernest A. Schmidt, Hearing Officer

SUBJECT: Public Hearing - Proposed Rule Establishing a Per-Ton Surcharge on the Disposal of Out-of-State Solid Waste in Oregon

A public hearing was conducted by the Department of Environmental Quality:

7:00 p.m.
September 25, 1990
Arlington High School Library
Arlington, Oregon

to receive testimony regarding proposed revisions to solid waste rules establishing a surcharge on out-of-state solid waste, and on an economic consultant's report (National Economic Research Associates, Inc.) reviewing the Department's methodology in developing that surcharge.

Twenty people attended the hearing. Eleven people testified as follows:

1. Doris Bjorn (Oregon Waste Systems) opposed the magnitude of the proposed range of surcharge. Landfill is constructed to high level environmental standards. Surcharge exceeds real costs to Oregon of importation. Surcharge will make Columbia Ridge Landfill noncompetitive in the Northwest regional disposal market. Waste Management must build a landfill in state of Washington by 1995 as condition of contract with City of Seattle. Local community and state will conservatively lose $40 million because surcharge is too high and waste flow will revert to Washington. Suggested surcharge is intended primarily for financing Oregon recycling and waste reduction programs.

2. Cal Giesler (Arlington Chamber of Commerce) read written testimony in opposition to differential fees and submitted it for the record.

3. Judge Laura Pryor (Gilliam County Court) orally summarized written testimony in opposition to inequitable surcharge and submitted it for the record.

4. Lawrence F. Lear (resident near Condon) spoke in opposition to any surcharge. Feels Oregon statutes outdated for consideration of regional landfill concept. Giving Seattle folks impression of an Oregon "rip-off." Little economic development opportunity in Eastern Oregon. Regional landfills are greatly benefiting Western Oregon by taking "their" waste. Surcharge is discriminatory against Eastern Oregon economic enterprise. DEQ is taking a "Don't Trash Oregon" position.

5. Ed Glenn (resident of Boardman) spoke in opposition to surcharge. Providing a service to Western Oregon. Have greater affinity for Washington neighbors. Fees should be equitable and equal for all. Tax credits are already paid for by Oregon residents, therefore, constitute an "otherwise covered" cost. Seattle is being asked to pay for cost of Oregon recycling.

6. Gary Neal (Port of Morrow) read a written statement in opposition to any surcharge and submitted it for the record.

7. Irvin Rauch (Morrow County Court) read a written statement in opposition, proposing a maximum of 75¢ surcharge, and submitted it for the record.

8. Joe Miller (resident of Heppner) spoke in opposition to a surcharge, stating the solid waste disposal companies are a welcome private business enterprise which shouldn't be interfered with.

9. Alfred Clough (Gilliam County Commissioner speaking as resident of Arlington) spoke in opposition to a surcharge. Regional landfills are a successful public/private enterprise not attainable in Western Oregon. Believes surcharge will cost local economy millions of dollars.

10. Arnie Hedman (Heppner City Council) read a written statement by Mayor Cara Costa in opposition to any surcharge and submitted it for the record.

11. Les Ruark (resident of Gilliam County) spoke in support of a surcharge and indicated a written statement would be submitted by himself and perhaps four others.

On September 28, 1990, a letter was received from Ronald and Gloria Davis, property owners adjacent to Columbia Ridge Landfill, in support of a surcharge on the high side of the proposed range.

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STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 28, 1990

TO: Environmental Quality Commission

FROM: Bradford D. Price, Hearing Officer

SUBJECT: Public Hearing, Proposed Adoption of a New Surcharge on Solid Waste Generated Out-of-State and Disposed of in Oregon.

On September 25, 1990, a public hearing regarding proposed adoption of a new surcharge on solid waste generated out-of-state and disposed of in Oregon was held at the Jackson County Courthouse Auditorium in Medford, Oregon. Six individuals attended the hearing and no one provided testimony.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: October 18, 1990

TO: Environmental Quality Commission

FROM: Bob Danko, Hearing Officer

SUBJECT: Written Testimony: Proposed Amendments to Solid Waste Rules

Written testimony was received by the Department in response to a request for public comment regarding proposed revisions to solid waste rules establishing a surcharge on out-of-state waste, and an economic consultant's report reviewing the Department's methodology in developing that surcharge.

A summary of the written testimony follows.

Bryan Johnson of Finley Buttes Landfill Co. noted that the statutory direction that "the amount of the surcharge shall be based on the costs to the State of Oregon and its political subdivisions which are not otherwise paid for" should be followed. He felt that the Department's proposed range of amounts for the surcharge was premature. He pointed out that the need for quality landfill space was being met by private enterprise rather than governmental groups, and the local people in sparsely populated counties who are willing to accept these new landfills. DEQ should not adopt a surcharge which would jeopardize the economic future of these landfills.

Sen. Dick Springer and Rep. Ron Cease, Co-Chairs of the Joint Interim Legislative Committee on Environment, Energy & Hazardous Materials, stressed the importance that the surcharge be high enough to cover any worst case environmental contamination scenario that might occur to any landfill in the state. They requested that EQC examine the worst case of potential contamination before setting the fee level.

Judge Laura Pryor submitted a Position Paper from Gilliam County. Policy I recommends that both solid and hazardous wastes be considered together to make policy choices which are to Oregon's advantage. She noted that alternative disposal options will be available in Washington State in a few years. Less funding is available for Oregon waste disposal since we have a lower population and generate less waste. A private company investing in a state-of-the-art landfill will need a certain volume of solid waste in order to make a return on investment; this volume may be available only through accepting out-of-state waste. She mentioned Oregon Waste Systems' contract with Seattle, which requires the company to reimburse the City for its share of Oregon surcharges if the company does not build a solid waste facility in

Washington by 1995. They now are negotiating to build such a facility. She pointed out that the revenue to Oregon from a "reasonable fee" on out-of-state waste disposal could have been used to assist local governments to meet new EPA requirements.

Judge Pryor's Policy II concerns the per-ton surcharge on out-of-state waste. She notes that this is a policy question which should be decided after bi-state or regional discussions on how all waste streams are handled on both sides of the Oregon-Washington border. She warns that by acting unilaterally Oregon could be setting itself up for [fee] retaliation in the future if we lose our in-state disposal options and have to send our waste to Washington. She also had specific comments on the DEQ staff report and consultant's draft report. She commented that the $.50/ton fee (for domestic solid waste) and the $.25/ton (general fund) are "revenue offsets to existing funding sources," and wondered whether in-state revenues would have to be raised in the future to offset the loss of the out-of-state charge (when out-of-state waste stops coming to Oregon.) She said that the "only true cost" identified by DEQ was the review and certification of waste reduction plans for out-of-state jurisdictions (identified as $50,000). She suggests raising the permit fee by $50,000 rather than including recycling program certification costs in the surcharge. She also questions whether an increase in tonnage disposed of will result in proportional additional DEQ administrative costs. She notes that DEQ permit fees include the cost of site regulation by DEQ; so DEQ's costs are already covered. She also recommends that DEQ set regulations to prevent out-of-state wastes from going to non-regional sites rather than increasing unfunded liability (via the surcharge) to cover possible contamination at these sites. Concerning lost disposal capacity, she believes that few cities or counties will want to use the Gilliam or Morrow Co. facilities, so depletion by out-of-state waste is not an issue. She suggests that including the cost of a transportation study under Publicly Supported Infrastructure constitutes double counting, as PUC fees cover transportation impact. Finally, she expresses regret that a cooperative process was not used to develop the surcharge.

Cal Giesler submitted comments from the Arlington Chamber of Commerce. They oppose a surcharge on out-of-state solid waste, and feel that any fee proposed to meet DEQ's costs of administering the solid waste program should be levied in an equitable manner against all waste, both internal and external. Collecting a fee solely on imported waste will cause out-of-state generators to stop using the Arlington facility, and the company offering the service will suffer, adversely affecting the local economy.

Cara Costa submitted comments for the City of Heppner in opposition to the out-of-state surcharge. They feel that the surcharge is unnecessary, and imposes an undue burden on out-of-state users and on Morrow County residents.

Irvin Rauch, Morrow County Commissioner, commented for the Morrow County Court on specific cost categories. He said that the $.50/ton for reducing environmental risk and the $.25/ton offsetting General Fund costs are fair if applied to all waste deposited in Oregon. He felt that there should be no unfunded environmental liability if DEQ is doing its job, so the surcharge should contain no cost for that. Some other cost categories did not have sufficient information to justify them (tax credit, solid waste reduction activities). He said the state has no right to assess an amount for lost disposal capacity, as the counties have already addressed this by granting franchises to landfill companies. He suggested $.75/ton was sufficient to cover "solid waste management" costs. He felt that the "other" cost categories were not legitimate costs.

Gary Neal, General Manager of the Port of Morrow, commented that the County Court had already addressed the issue of road impacts in Morrow County. He asked that a surcharge not be set; this would keep the counties from benefitting from having a regional landfill by causing out-of-state waste to go elsewhere.

Kent Goodyear, Chairman of the Morrow County Planning Commission, submitted a letter stating the Morrow County Planning Commission unanimously opposed the imposition of a surcharge on out-of-state solid waste. A business helping to establish a sound economic base in the county should not be penalized.

Delores Miller of Aloha, Oregon submitted comments in favor of a surcharge on out-of-state waste to ensure that all out-of-state cities sending garbage to Oregon have the same rules for recycling as Oregon cities do. She supported a "high" surcharge as out-of-state waste will cause Oregon's landfills to fill up faster.

Sen. Jeannette Hamby stated that Oregonians must be protected from the costs that will accompany the importation of solid waste. She noted that the EQC will not be able to predict what those actual costs will be. She recommends the $3.50 option, as best supported by the evidence, and which will protect the state against future environmental cleanup costs. She points out that not all imported waste will go to state-of-the-art landfills.

Sen. Dick Springer stated that the intent of the surcharge was that no Oregonian, present or future, would have to bear any expense because of out-of-state solid waste. He expressed a concern that there may be costs which we cannot yet anticipate. He believes the $3.50/ton surcharge is justifiable and supportable.

Rep. Ron Cease wrote that it is time for the state to set certain standards as a basis for our solid waste management policy. He suggested that one of the standards should be that the importation of solid waste shall not place a financial burden on Oregon's citizens. He urges the EQC to consider the

long-term costs of solid waste, rapidly increasing cost of environmental cleanup, and to consider that there may be unknown costs. He does not suggest a specific dollar figure, but recommends it be on the higher end of the options.

John DiLorenzo of O'Connell, Goyak & DiLorenzo, submitted testimony on behalf of Tidewater Barge Lines and Finley Buttes Landfill Co. His letter presents a critique of the surcharge cost components identified by DEQ, and gives some "other considerations." DEQ's first cost category includes a fee of $.50/ton on domestic solid waste, on the basis that out-of-state waste should pay the same fee as domestic waste towards reducing environmental risk and improving solid waste management. He points out that some (unknown) part of that fee pays for in-state recycling programs (which is not recognized in the draft NERA report), and comments that this taxes the out-of-state generator twice for recycling: once because the generators must meet Oregon recycling guidelines, and again to support in-state recycling programs. Concerning DEQ's second cost category ($.25/ton of General Fund monies), he suggests that any of these funds spent on risk reduction should be factored into DEQ's assessment for unfunded environmental liability.

Mr. DiLorenzo commented on the tax credit cost category. He said that there is no legislation allowing the EQC to take away by administrative rule the tax credit benefits conferred by ORS 468. Therefore the EQC has no authority to impose a charge in this category. Further, it is unfair to assume, as DEQ does, that every operator will take this credit. The cost category for certification of out-of-state waste reduction plans should not be based on tonnage, as the cost of this review has no real relation to tonnage. Concerning the unfunded environmental liability cost category, he suggests that the cost should be zero when waste is shipped to a state-of-the-art regional landfill, whose environmental risk is remote. He cites other resources which would be available for environmental cleanup before state funds would have to be tapped. Regional landfills are required to provide a $1 million bond to the State of Oregon, and exporting jurisdictions require self-insurance for pollution. The probability of any costs for unfunded environmental liability should only be calculated assuming those other resources are first consumed. He further comments that assigning a cost for lost disposal capacity is spurious, as there is ample land available for expansion around the two new regional landfills. Any permitting costs to DEQ should be recovered through permitting fees, not the surcharge. In any case, any costs incurred are not incurred uniformly on a ton-for-ton basis. He says that the other costs DEQ identifies are too speculative or constitute double counting. Mr. DiLorenzo notes that DEQ's cost analysis fails to account for the considerable economic benefits to the State of the solid waste coming to Finley Buttes Landfill.

Senator Shirley Gold noted that management and tax credits are two of the costs incurred if Oregon accepts out-of-state waste. She expressed

particular concern about potential future liabilities, and pointed out that a large part of Washington's "poison tax" (into which Oregon pays $10 million/year) goes toward cleaning up groundwater from old landfills. She suggests that most landfills that are now superfund sites were also once "state-of-the-art." To ensure sufficient funds in the future, she recommends adopting a "high-end" surcharge of $3.81/ton.

Diana Gale, Director of the Seattle Solid Waste Utility, commented that nearly all of the costs of regulating out-of-state waste are already included in the permit fees and in the host fee to the receiving jurisdiction. Out of the $.50/ton fee on domestic solid waste, she notes that only 20% or $.10 (for statewide groundwater monitoring) is appropriately applied to out-of-state waste. The rest of the $.50 fee goes to planning grants to local governments, household hazardous waste and recycling (all directed only at in-state waste). She says that the $.25/ton (from the General Fund) for DEQ administrative costs is appropriately shared by out-of-state waste (although it would be more equitable to capture this in permit fees). She feels that the benefits of the tax credit exceed the costs, so no cost is appropriate here. The cost of reviewing out-of-state waste reduction plans should be captured through a plan review fee, not the surcharge. There should be no cost for unfunded environmental liability, since Seattle has negotiated its contract to provide triple security to cover these costs (at the Columbia Ridge Landfill). Finally, there should be no cost for siting new landfills; DEQ charges permit review fees to cover its review costs. In Seattle's analysis the true cost of out-of-state waste is $.35/ton.

Lawrence Schall, an economic consultant for Waste Management of North America, submitted written comments on the proposed rule and the draft NERA report. He generally agrees with the draft NERA report's comments concerning the assumptions used by the Department in calculating the range of fees. He states that the benefits produced by out-of-state waste are ignored. Items such as added taxes and fees and the personal income gains from the importation of solid waste should be included in the cost calculations. If this is done, the per ton benefit may exceed the high end of the range of costs proposed by the Department. Also, existing charges on out-of-state waste are in some cases ignored, resulting in the double counting of those costs.

Mr. Schall comments that some computational approaches used by the Department are analytically incorrect. Assuming that costs are proportional to tonnage received is often not accurate. Computational approaches for unfunded liability and lost disposal capacity are also incorrect. Each company should be forced to assume responsibility for the hazards it creates. The Department proposal fails to account for the state-of-the-art technologies and special financial assurance arrangements used at the regional landfills which are likely to receive most of the out-of-state

waste. Only incremental predevelopment costs due to out-of-state waste should be counted under lost disposal capacity.

Also, the Department proposes to charge out-of-state waste for costs not associated with that waste. In-state solid waste fee monies are spent on waste reduction and management of household hazardous waste, which are not programs to cover costs created by out-of-state waste. It is not clear that all solid waste management costs supported by the General Fund are associated with out-of-state solid waste. Finally, Mr. Schall states that the Department has not adequately demonstrated that certain costs exist and has not done an adequate job of measuring the costs. A great deal of work remains to be done by the Department.

Jim Benedict, an attorney for Oregon Waste Systems, Inc. submitted a legal memorandum on the proposed surcharge, focusing on the U.S. Constitution Commerce Clause and statutory limitations. The Environmental Quality Commission must take into consideration the limitations placed on its authority by the Commerce Clause; only fees that are consistent with this clause may be imposed. A higher fee on out-of-state than in-state waste is per se invalid because it discriminates against the interstate movement and disposal of waste on the basis of origin. Such a fee would impose a heavier tax burden on out-of-state waste based solely on the jurisdiction in which the waste originated. This provides an economic advantage to persons disposing in-state waste and is an overt attempt to discourage the free flow of interstate commerce. Any fee on out-of-state waste must also satisfy limitations imposed by the Supreme Court on revenue measures; a state tax on interstate trade is invalid if it fails the "four prong" analysis. The Department proposal fails the test because it imposes a tax that reflects more than the value of the in-state activity [?] and because many of the costs are related to programs and activities that benefit only Oregon residents.

Mr. Benedict states the fee must be based upon actual out-of-pocket costs directly related to disposal of out-of-state waste. The Department is wrong when it attributes the costs of disposal of out-of-state waste to the implementation of all of Oregon's solid waste programs. The Department is also wrong because it is asking out-of-state waste to pay some of the costs of the Oregon pollution control tax credits given to operators of sites that take out-of-state waste. Persons disposing of in-state waste will not be required to pay these costs but will receive the same benefits. The proposed surcharge to cover the cost of certifying waste reduction plans of communities that send waste to Oregon is also inappropriate because no similar charge is made to communities within Oregon. The proposed surcharge components tied to environmental liability, lost disposal capacity and "other costs" discriminate against out-of-state waste and therefore are per se violations of the Commerce Clause. The proposed surcharge tied to waste reduction, recycling and household hazardous waste management costs and tied

to statewide solid waste management costs is invalid because it does not specifically relate to costs of disposing of out-of-state waste.

Finally, Mr. Benedict argues that the proposed surcharge includes costs which the statute specifically excluded from consideration. These costs are those tied to the activities or programs supported by the in-state disposal fee of fifty cents per ton and those now supported by disposal permit fees.

Alice Weatherford-Harper of the Circle W Ranch in Ione submitted comments in support of a surcharge, as it will prolong the life of the landfill by conserving space.

Gloria and Ron Davis of the LD Ranch in Arlington commented that they were in favor of the surcharge to cover costs; they recommend a surcharge "on the high side."

Quincy Sugarman submitted comments for the Oregon State Public Interest Research Group supporting a $3.50/ton surcharge. She cited four areas that justify the high surcharge: unanticipated cost of major environmental cleanup; infrastructure activities, such as planning, currently paid for by Oregonians; image problems; and lost disposal capacity. She commented that one of the best ways to overcome a "dumpsite" image problem is to improve Oregon's own solid waste management programs and publicize Oregon's environmental planning record. She also noted that landfill capacity and siting are still issues in Oregon, with some counties unable to site landfills.

Brent Thompson, member of the Ashland Planning Commission, commented that all recyclable materials should be removed from garbage before it is accepted in the state.

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ATTACHMENT H

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: October 23, 1990

TO: Environmental Quality Commission

FROM: Bob Danko, Hearing Officer

SUBJECT: Response to Testimony/Comments, Proposed Revisions in Solid Waste Rules

The Department held three public hearings on the proposed revisions to the solid waste rules, and accepted written public comment on the rule and the consultant's report reviewing the Department's methodology, until October 26, 1990.

Comments generally fell into six categories:

- Amount of surcharge;
- Principles on which the surcharge should be based;
- Problems with the DEQ methodology identified in the NERA draft report;
- Comments on the draft NERA report itself;
- Comments on the way the Department calculated costs;
- Legal issues.

1. Amount of Surcharge.

o Comment: The amount of the surcharge should be much less than the DEQ range ($1.50 - $3.50/ton).

o Response: DEQ has revised its calculation of the surcharge cost components taking into consideration its consultant's report and comments from the public, and arrived at a figure that falls within its original cost range.

o Comment: $.75/ton ($.50/ton for reducing environmental

risk and $.25/ton for the General Fund offset) is sufficient to cover "solid waste management" costs.

o Response: The statute directs a surcharge to be established equal to the cost to the state of accepting solid waste from out-of-state.

o Comment: A "high" surcharge should be adopted, as out-of-state waste will cause Oregon's landfills to fill up faster.

o Response: One of DEQ's cost categories is for lost landfill capacity.

o Comment: The $3.50 option is best supported by the evidence, and will protect the state against future environmental cleanup costs, and/or against costs which cannot yet be anticipated.

o Response: DEQ has reviewed its assumptions for environmental liability. It has determined that it is prudent to assume a "higher risk" rather than a "most likely" scenario to calculate the likelihood of future environmental damage. This assumption better serves the State of Oregon.

o Comment: The surcharge should be $.35/ton ($.10 for statewide groundwater monitoring, and $.25 for the General Fund offset).

o Response: This would omit important costs to the State. See preceding comments and DEQ Cost Analysis, Attachment D to Staff Report, EQC Agenda Item G, 11/2/90 EQC meeting (hereafter "DEQ Cost Analysis").

o Comment: The unanticipated cost of a major environmental cleanup, infrastructure costs to Oregon (including a transportation study), potentially huge costs of [negative] public perception, and lost disposal capacity justify a $3.50 surcharge.

o Response: The Department believes that these are important cost categories and has included them in its calculations.

2. Principles on Which Surcharge Should be Based.

o Comment: The intent of the surcharge was that no Oregonian, present or future, would have to bear any expense because of out-of-state solid waste.

o Response: DEQ has attempted to base the surcharge on all identifiable costs to the State.

o Comment: The surcharge should be based on known and measurable costs.

o Response: Not all costs are known and measurable. By their nature, indirect costs are difficult to determine. DEQ has attempted to establish a methodology that would measure them as accurately as possible. Just because costs are not yet known or entirely measurable does not mean that they are not real.

o Comment: The long-term cost of solid waste should be considered in setting the surcharge.

o Response: Several of DEQ's cost categories are intended to consider that long-term cost (e.g. cost of lost landfill capacity, unfunded environmental liability, etc.).

o Comment: In establishing a surcharge, DEQ should keep in mind the demand elasticity of waste disposal.

o Response: One of DEQ's assumptions is that the surcharge should neither encourage nor discourage the importation of solid waste. The elasticity of demand is therefore irrelevant to the establishment of the surcharge.

o Comment: The surcharge should promote economic efficiency and be equitable.

o Response: To the extent possible under existing statutes and rules, DEQ agrees. See preceding response.

o Comment: The surcharge should be high enough to cover damage from a worst-case scenario of environmental contamination from all landfills.

o Response: DEQ reviewed its assumptions for unfunded environmental liability, and has included a "higher risk" as well as a "most likely" scenario in calculating the likelihood of future environmental damage. "Worst case" is difficult to define.

o Comment: DEQ should avoid disrupting the economies of the host communities.

o Response: The EQC is required by statute to adopt a surcharge on the importation of solid waste. The statute also specifies that the surcharge shall be based on the costs to the State of disposing of such waste. One of DEQ's assumptions in recommending a surcharge amount is that it neither encourage nor discourage the disposal of out-of-state solid waste. The statute does not direct DEQ to consider the economic impact of the surcharge on host counties or landfill operators.

o Comment: DEQ should not adopt a surcharge which would penalize or jeopardize the economic future of the new regional landfills.

o Response: See preceding response.

o Comment: A company importing solid waste into the state could escape some of the costs for unfunded liability if they stop bringing in these waste, since Oregon laws require Oregon jurisdictions to fund cleanup of environmental problems after the fact.

o Response: DEQ's methodology for establishing the cost for environmental liability takes this into consideration. However, disposal site owners are fully liable for any environmental cleanup required.

o Comment: Treatment of solid and hazardous wastes should be considered together to make policy choices advantageous to Oregon; the surcharge is a policy question

which should be decided after bi-state discussions on how to handle all waste categories.

o Response: The Oregon Solid Waste Regional Policy Commission is charged with examining regional solid waste issues, and making recommendations to the Governor and the 1991 Legislature for state and regional policy toward regional solid waste issues. The Policy Commission made a distinction between regional fees and out-of-region fees; it felt that the approach taken by the Legislature for adopting regional fees was correct. The Policy Commission is recommending the establishing of a bi-state effort to examine regional solid waste issues.

o Comment: Any solid waste coming into the state for disposal should have all recyclable materials removed.

o Response: Out-of-state jurisdictions sending solid waste to Oregon are required to meet Oregon waste reduction and/or recycling program requirements.

3. Problems with DEQ Methodology Identified in Draft NERA Report.

o Comment: The method of establishing unfunded liability is incorrect.

o Response: DEQ has revised its methodology following recommendations from the NERA report. See DEQ Cost Analysis.

o Comment: The cost for unfunded environmental liability is really for "excess environmental risk." This should be $0 at regional state-of-the-art facilities. This cost should focus on probabilities of the state having to absorb excess costs after both financial assurance and the special environmental hazard fund (self-insurance) have been exhausted.

o Response: DEQ's revised methodology assumes a low probability of environmental risk at state-of-the-art landfills. However, the risk is higher than $0.

o Comment: The cost for "loss of disposal capacity" is spurious. It assumes a finite amount of landfill capacity, which is not the case (there is as much capacity as DEQ chooses to permit).

o Response: Out-of-state solid waste will cause Oregon landfill capacity to be used up faster. Because there are public costs involved with siting landfills and siting landfills can be very difficult, it is appropriate to recover in the surcharge the present value of such costs which are caused by more rapid depletion of landfill capacity due to out-of-state solid waste.

o Comment: It is unfair to assume that every landfill operator will take advantage of the tax credit; small ones may not.

o Response: Since all private landfills are eligible for the tax credit, DEQ believes that it is more valid to assume that all eligible landfills will take advantage of the credit than to attempt to predict who will and who won't use the credit.

o Comment: DEQ should incorporate anticipated changes in laws and regulations in setting the surcharge.

o Response: There is no way for DEQ to anticipate what changes may be made in the law. To base the surcharge on "anticipated changes" would be pure speculation. The EQC may review the rule whenever necessary to incorporate any future changes.

o Comment: The "other" cost categories (image, etc.) are not legitimate costs.

o Response: Although they may be difficult to quantify, indirect costs are real costs to the state. As such, DEQ believes it appropriate to include indirect as well as direct costs in calculating the surcharge.

4. Comments on the NERA Draft Report.

o Comment: NERA failed to take into account that the $.50 fee on domestic solid waste is used by DEQ not only

to reduce environmental risks of landfills, but also for recycling programs.

o Response: This was brought to NERA's attention but did not affect its recommendations.

o Comment: NERA did not directly address the issue that DEQ gives no credit (under "unfunded environmental liability") to regional landfills for their requirements for self-insurance and state-of-the-art technology.

o Response: This comment has been forwarded to NERA; the Department's methodology has been revised to take this into account. Note that the state now requires financial assurance of $1 million at regional landfills.

5. The Department's Calculation of Costs.

o Comment: More research needs to be done or information presented to justify some costs (tax credit, solid waste reduction activities, image, etc.).

o Response: The Department has refined its calculation of the costs associated with tax credits, solid waste reduction activities, image, etc. See DEQ Cost Analysis.

o Comment: DEQ assumes that costs generated by disposal are proportional to tonnage, which is often not the case, e.g. in certifying out-of-state recycling programs, planning grants to local governments, DEQ's costs of overseeing landfill operations, its costs of siting new landfills, the tax credit, and costs of unfunded environmental liability. A more accurate analysis of the behavior of the relevant costs is required.

o Response: The Department has refined its cost calculations, where possible to reflect instances where costs are not proportional to tonnage. As a general rule, we think the costs of managing all solid waste and the costs of disposing of out-of-state solid waste are proportional to tonnage.

o Comment: Where costs have been identified, they should be reduced to reflect offsetting benefits, such as from

the tax credit and economic benefits to the local community and state from disposal of out-of-state solid waste. (The ECO Northwest report noted that solid waste represents a $6.50/ton benefit to the state from host fees and incremental taxes.)

o Response: The statute does not require that "net costs" be considered. The Legislature assumed that there are additional regulatory, infrastructure and other costs related to the importation of solid wastes, and there was no intent to offset these costs with income which may be derived from importation of solid waste. In determining its fees for management of solid waste, the Department does not take into account any benefits which might accrue to the State from the disposal of domestic solid waste; there is no reason to do so for out-of-state solid waste.

o Comment: Much of the $.50/ton fee (charged to domestic solid waste) goes to programs which are not related to the costs of disposal of out-of-state waste, such as the household hazardous waste program, recycling and waste reduction, and planning grants to local governments. Only $.10/ton (the statewide groundwater monitoring) can be legitimately included in the surcharge.

o Response: DEQ believes that these programs are related to the costs of disposal of out-of-state waste and the $.50/ton fee is a cost that is not otherwise paid for by out-of-state solid waste. The receipt of out-of-state waste will require an increase in these activities by adding to the overall level of environmental risk and lessening the state's overall solid waste capacity. Waste received from an out-of-state jurisdiction adds an incremental environmental risk that should be offset by increasing all of the Department's solid waste management programs.

o Comment: Including costs of domestic waste reduction programs in the surcharge is double charging the out-of-state generators; they must already meet Oregon recycling program guidelines.

o Response: In-state jurisdictions must meet the same recycling program guidelines as well as paying the $.50/ton fee for solid waste which further supports recycling efforts.

o Comment: Several cost categories (e.g. $.25/ton General Fund offset) used by DEQ affect all landfills in the state and not just those accepting out-of-state solid waste. That should be adjusted to include only those costs created by out-of-state waste.

o Response: The $.25/ton was derived by dividing all General Fund monies by the annual tonnage of solid waste disposed of in the state. Applying that figure to out-of-state waste tonnage charges imported waste incrementally for its contribution to solid waste management requirements. System-wide costs should be shared proportionately by out-of-state wastes.

o Comment: DEQ's $.25/ton General Fund cost category should be reviewed for any funds spent on risk reduction; any such funds should be factored into DEQ's assessment for unfunded environmental liability.

o Response: DEQ's assessment of environmental liability is for risks over and above any risk reduction activities undertaken with General Fund spending.

o Comment: Any DEQ administrative costs now covered by the General Fund should be captured by increased permit fees rather than through the surcharge.

o Response: Should the permit fees be adjusted in the future to pay for these costs, the out-of-state waste surcharge can be revised accordingly.

o Comment: Any fee proposed to meet DEQ's costs of administering the solid waste program should be levied equally against internal and external waste.

o Response: A $.50/ton fee (partially covering costs of solid waste management) is paid by in-state solid waste. It is equitable that out-of-state waste pay the same fee, and is a cost not otherwise paid for by out-of-state solid waste. The Department has included this $.50/ton in its calculations. (See DEQ Cost Analysis.)

o Comment: The only true cost identified by DEQ is for review of waste reduction programs for out-of-state jurisdictions.

o Response: The Department does not agree. There are numerous additional costs. See DEQ Cost Analysis.

o Comment: The cost of reviewing out-of-state waste reduction programs should be covered through a plan review fee, not the surcharge.

o Response: Existing administrative rules do not give the Department the authority to impose a plan review fee for the review of these programs, either for in-state or out-of-state programs. Note that there are on-going oversight costs as well.

o Comment: DEQ must review and certify solid waste reduction plans for all jurisdictions. Costs of so doing must be included in DEQ's activities paid for through the General Fund; a separate surcharge component for certification of out-of-state programs would be double counting.

o Response: Staff costs for certification of out-of-state recycling programs are not budgeted to come from the General Fund; DEQ was not given additional resources to implement this certification requirement for out-of-state solid waste.

o Comment: DEQ's method of establishing unfunded liability double counts costs, not giving credit for self-insurance (trust fund) for environmental problems. This overcharges regional landfills and undercharges small local ones. Each landfill should have to provide financial assurance to cover the risks it creates, depending on its technology.

o Response: The state requires $1 million of financial assurance. ORS 759.298 lists other fees and taxes which address solid waste disposal costs and should not be counted for this surcharge.

o Comment: To address the unfunded environmental liability issue, DEQ should set regulations preventing out-of-state wastes from going to non-regional sites rather than increasing the surcharge to cover this potential cost.

o Response: DEQ has no authority to do this.

o Comment: There should be no cost for unfunded environmental liability if DEQ is doing its job.

o Response: No amount of regulation and oversight can completely eliminate the risk of contamination of the environment. The Legislature recognized this in setting up the "orphan site" funding mechanism addressing environmental liability for all solid waste disposal sites.

o Comment: There should be no cost for lost disposal capacity due to depletion by out-of-state waste, since few additional Oregon jurisdictions will want to use the regional landfills.

o Response: There is a cost to replacing capacity used by out-of-state solid waste. Whether additional jurisdictions choose to use the new regional landfills is irrelevant to the cost, since several Oregon jurisdictions are already using these facilities.

o Comment: Although Oregon appears to have a lot of disposal capacity, the fact that some counties are unable to site landfills within or close to their borders shows that landfill capacity and siting are issues in Oregon.

o Response: The Department agrees that there is a cost for lost disposal capacity.

o Comment: There should be no cost for lost disposal capacity because the counties have already addressed this by granting franchises to landfill companies.

o Response: The cost for lost disposal capacity is the cost of replacing the lost capacity. Out-of-state waste

will reduce the total capacity faster than would otherwise be the case, and thus increase capacity replacement costs.

o Comment: A private landfill must pay for the land it uses, with the land's price reflecting its scarcity. It is incorrect to charge the landfill again for the same land through a surcharge fee for "lost landfill capacity."

o Response: It is not the landfill that is being charged, it is the out-of-state solid waste. It is not cost to the private developer, but rather the cost to the State for replacing the landfill capacity that should be included in the surcharge.

o Comment: Concerning costs of lost disposal capacity, any costs to DEQ of siting new landfills should be recovered through permit fees, not the surcharge. Only incremental predevelopment costs due to the acceptance of out-of-state solid waste not otherwise recaptured by the State should be included in the surcharge.

o Response: DEQ has refined its methodology for determining lost capacity costs. It now compares the cost of landfill capacity without out-of-state solid waste to that cost if out-of-state solid waste is accepted. See DEQ Cost Analysis.

o Comment: Predevelopment costs for siting new landfills should be recovered from the landfill's customers (through a disposal charge), not through the surcharge for "lost disposal capacity."

o Response: Some costs will not be recovered at the landfill.

o Comment: Including infrastructure costs (and costs for a transportation study) is double counting; they are covered by PUC fees and host fees. To include a cost for "infrastructure" in the surcharge, DEQ must demonstrate the nature and magnitude of any such incremental costs, and show that they are not already being paid through other fees.

o Response: The Department excluded costs covered by PUC fees and host fees and recalculated infrastructure costs.

o Comment: There are costs to using the State's infrastructure costs that the State is paying (including funding a transportation corridor study). The surcharge should cover these costs.

o Response: One of DEQ's cost categories takes these costs into consideration.

o Comment: Costs for "loss of quiet enjoyment" assume that someone is there to be disturbed; in fact, the nearest homes are miles away from some of the regional landfills. Moreover, a properly designed landfill should not cause a lack of amenity, according to the ECO Northwest report.

o Response: This category includes transportation routes (i.e. the busy Columbia Gorge). DEQ has refined its cost estimate for nuisance costs in general, basing these on the estimated increase in truck traffic and accident rates caused by importation of solid waste.

o Comment: Costs for noise and nuisance and loss of quiet enjoyment are double counted; they are covered in the host fee.

o Response: DEQ's methodology now assumes that all these costs, except for the increased accident rate discussed in the preceding response, are covered by host fees.

o Comment: The cost to Oregon's image should be larger, and could be based on the dollars the state spends to attract tourists, recreationists, etc.

o Response: DEQ has revised its methodology for determining the cost to Oregon's image, including costs attributed to loss of tourism. See DEQ Cost Analysis.

o Comment: Any cost to Oregon's image should be based only on any promotional expense needed to counter image damage due to out-of-state solid waste. Damage to image

likely arises because of potential pollution; since most out-of-state waste goes to state-of-the-art landfills, the image cost may be very low.

o Response: DEQ believes that the stigma associated with importation of solid waste will have more direct costs to tourism and Oregon's ability to attract industry. In addition, receiving out-of-state solid waste will cause increased traffic with some probability of increased accidents. Attention in the press to such incidents will discourage some tourists from visiting the state, and is likely to have some negative effect on industrial attraction.

o Comment: Two good ways to counter a perception of Oregon as a giant dumpsite is to improve Oregon's solid waste programs, and to publicize Oregon's record on environmental planning.

o Response: DEQ's revised methodology includes substantial costs associated with the stigma caused by accepting out-of-state solid waste. The surcharge is to be used to improve the administration of solid waste management programs.

6. Legal Issues.

o Comment: The statute does not allow the EQC to "take back" the benefits statutorily allowed by the tax credit law for encouraging state-of-the-art technology. DEQ has no authority to impose this charge.

o Response: Including costs for the tax credit in the surcharge does not "take back" the tax credit benefit from the landfill operator. It does, however, take back any cost savings from out-of-state disposers.

o Comment: DEQ may not attempt to include in the surcharge a cost for tax credits simply because Oregon taxpayers pay for these tax credits (if in-state waste disposal fees do not include this cost); the Commerce Clause does not permit compensatory measures for the disparities that result from each state's choice of tax measures.

o Response: Tax credits for pollution control facilities represent tax revenues lost to Oregon's General Fund. In-state generators of solid waste (i.e. all Oregon taxpayers) pay additional taxes to make up for that lost revenue. Out-of-state generators of solid waste do not pay into the General Fund, so the credit constitutes a cost to the State which is not otherwise paid for.

o Comment: The Commerce Clause makes discriminating solely on the basis of place of origin unconstitutional. This surcharge is based solely on origin of the solid waste, and thus may violate the U.S. Constitution.

o Response: The Department is responding to a state statute. The Attorney General's office has advised the Department that states may charge fees on out-of-state wastes to compensate for the costs to the state of disposing of that solid waste.

o Comment: The imposition of a higher fee (e.g. to pay for pollution control tax credits, unfunded environmental liability, administering the solid waste program, etc.) on the disposal of waste generated outside of Oregon than is imposed on the disposal of waste generated inside Oregon is per se invalid under the Commerce Clause. The costs DEQ attempts to attribute to disposal of out-of-state wastes do not distinguish out-of-state from in-state waste. If costs are incurred, they will result equally from the disposal of both waste streams, and a higher fee for the former is invalid.

o Response: In passing ORS 459.298 the Legislature apparently assumed that disposal of out-of-state solid wastes creates costs that are not otherwise paid for. Again, the Attorney General's office has advised us that a state may recover its costs related to the disposal of out-of-state waste.

o Comment: Taxes (or fees) must meet a four-prong test for constitutionality under the Commerce Clause. Several of DEQ's proposed cost categories would not meet the test (e.g. the $.50/ton equalization fee would not be "fairly apportioned to the value of the activity occurring within the state" [waste disposal] or "fairly related to the

services provided by the state" that would benefit the person disposing of the waste).

o Response: In-state waste is paying a $.50/ton fee not now paid by out-of-state solid waste. This is prima facie a cost not otherwise paid for, and meets the statutory direction for establishing the amount of the surcharge.

o Comment: The statute requires the surcharge to be based on the "costs to dispose of solid waste," and many of DEQ's proposed cost components are not, as they are solely for the benefit of in-state programs such as recycling.

o Response: DEQ believes that disposal of out-of-state waste imposes costs on the whole gamut of solid waste management and reduction programs.

o Comment: The statutory language indicates that the word "costs" refers to actual out-of-pocket costs to the State and its political subdivisions. DEQ attempts to charge general costs of the implementation of Oregon solid waste programs to out-of-state solid waste, as well as intangible or hypothetical costs that the State will not actually incur.

o Response: DEQ believes that Legislative intent was to calculate all (both the direct and indirect) costs to Oregon of disposing of out-of-state solid waste.

o Comment: The statute specifically excludes some costs from the surcharge; the $.50/ton fee (on domestic solid waste) was specifically meant not to be imposed on out-of-state solid waste. In addition, fees recovered by DEQ (such as for monitoring and annual compliance) are also specifically excluded. DEQ interprets ORS 459.298 incorrectly.

o Response: DEQ believes that its interpretation is correct. Because out-of-state solid waste is not now paying the $.50/ton fee, it is "not otherwise paid for" and should be included in the surcharge. The same is true for costs to the General Fund.

n/e/r/a
National Economic Research Associates, Inc.
Consulting Economists

EVALUATION OF OUT-OF-STATE WASTE SURCHARGE PROPOSAL

Prepared for

Oregon Department of Environmental Quality

By

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I. INTRODUCTION AND SUMMARY

The Oregon Environmental Quality Commission is required by state law to establish a surcharge on out-of-state waste by January 1, 1991.[1] To meet this requirement, the Oregon Department of Environmental Quality (DEQ) has identified several cost categories and calculated a cost or range of costs for each category. The Department must now recommend a specific surcharge to the Environmental Quality Commission. To help establish the appropriate fee, the DEQ has asked National Economic Research Associates, Inc. (NERA) to critique the assumptions and methods behind its proposed solid waste fees on out-of-state waste. The DEQ will use this critique to develop its final proposal. This report presents our findings.

Based on our review, we have determined that the Department of Environmental Quality, in meeting the out-of-state surcharge mandate, has shown that solid waste landfill disposal is currently underpriced in Oregon. This underpricing will lead to an economically inefficient allocation of resources -- too much waste will be delivered to landfills. The Oregon Legislature's interest in rectifying the pricing problem is consistent with the goal of economic efficiency.

The DEQ's proposal correctly identifies six cost categories which can be attributed to out-of-state waste which would justify a fee on such waste. Several of these cost categories represent costs imposed on the state from all waste sources which would justify a fee on all waste disposed in the state regardless of origin. Consequently, an out-of-state surcharge would move the state closer to setting what economists would define as efficient fees, but not all the way. A seventh cost category, involving tax credits, has not yet been sufficiently demonstrated. Finally, we found several cost categories which might not be justified because they either

[1] The 1989 Oregon Legislature passed H.B. 3515 establishing this requirement.

constituted double counting (depending on the calculation method), are difficult to quantify, and/or are likely to be quite small. We also determined that the methods proposed for calculating costs categories were sound in some, but not all, instances. In those instances where the methods were unsatisfactory, we have recommended alternatives.

To conduct our review we obtained several DEQ documents and discussed the proposal with DEQ staff. We have also referred to recent academic and government reports and studies.

The remainder of this report is organized as follows. Section II reviews the assumptions behind the Department's surcharge proposal. Section III discusses the cost categories identified by the DEQ and comments on the costing methodologies employed. Section IV presents our conclusions.

II. REVIEW OF DEQ ASSUMPTIONS

The DEQ made seven assumptions in preparing its preliminary fee proposal. These assumptions are summarized below:

1. The surcharge cannot be based upon an actual accounting of costs. It must be based on a reasonable estimate of potential costs that take into account a range of possible circumstances.
2. The estimate of costs to the state and its political subdivisions is a distinct policy question from the decision on how the funds generated from the surcharge should be spent.
3. The amount of the surcharge is to be determined by a reasonable assessment of the costs to Oregon of accepting out-of-state waste. The amount shall not be inflated to discourage importation, nor deflated to encourage importation of waste.

4. Current laws and statutes are presumed to exist.

5. Estimates of the cost of tax credits and other subsidies are based on eligibility. It is presumed that private companies will receive the maximum subsidy available.

6. There should be no double counting.

7. Future cost increases should be anticipated, but are not calculated directly into cost estimates.[2]

While these are described as assumptions, they are perhaps more accurately characterized as either definitions to be used in establishing the surcharge or assumptions made in order to calculate the surcharge. Assumptions 1, 2, 3, 6 and 7 serve to define the costs which can be recovered by the surcharge. Assumptions 4 and 5 explain conditions that are assumed for the purpose of calculating specific values. This is a useful distinction for evaluating the DEQ's surcharge methodology, which will become evident below.

A. Evaluating the DEQ's Definitions

Assumptions 1, 2, 3, 6 and 7 are all efforts to define costs that the DEQ should include in a surcharge on out-of-state waste. Assumption 1 makes a distinction between actual and potential costs. The DEQ states that costs should reflect potential rather than actual costs. This definition is not very clear. DEQ should be concerned with actual costs. Note, however, that actual costs should include what the Department considers potential costs. Actual costs in addition to current costs which should be considered include depletion costs, social costs not already accounted for and costs associated with risk. Some of these costs are, in fact, based on future events, but nonetheless are incurred today. Depletion and insurance

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[2] Memo from Steve Greenwood, DEQ, to Solid Waste Advisory Committee, "Out-of-State Surcharge," July 25, 1990.

against future environmental damage are examples of costs determined by future expectations. Other actual costs may be incurred but not currently paid for. Environmental damage is an example.

Note that Assumption 7, which states that future costs are not included in the proposed surcharge, may not, as presently worded, be consistent with Assumption 1. Discussions with DEQ staff clarified that Assumption 7 primarily concerned expected cost increases in new landfill capacity. Again, current actual costs may be dependent on future conditions. Thus, the DEQ's fees should account for expected future costs. For example, environmental insurance costs reflect expected future events. This will be accomplished by adherence to Assumption 1. Assumption 7, however, also addresses the fact that costs to Oregon will increase with inflation. The DEQ should also consider ways to adjust fees over time to account for inflation.

Assumption 2 makes a distinction between the costs incurred and how revenues from the surcharge are spent. This is an appropriate distinction. So long as the surcharge correctly reflects the costs imposed by out-of-state waste, how the funds are spent is irrelevant from an economics perspective.

Assumption 3 further defines the costs to be covered by the surcharge. The DEQ limits the costs to those which it can attribute to out-of-state waste. This limitation is designed to guarantee that out-of-state waste is neither subsidized nor penalized. This is an important objective. By meeting it, the DEQ will establish an efficient price -- a price that reflects the cost of the service provided. Note, however, that if some of the costs identified by the DEQ are imposed on the state by all waste generators regardless of origin, then to fully achieve economic efficiency the DEQ should impose the appropriate fees on all generators. To the extent that current law limits the Department to charging out-of-state

waste for these costs, a second best outcome will result. Out-of-state waste generators will pay the efficient price, but in-state generators will not. Consequently, in-state waste generation will be greater than it would be if the efficient fees were charged.

Assumption 6 also further defines the costs to be included in the surcharge by directing that costs covered by other state fees or taxes be excluded. This avoids double counting and is an important definition.

B. Evaluating the DEQ's Assumptions

Among the DEQ's assumptions, only 4 and 5 are truly assumptions. Assumption 4 limits the methods the Department can employ and Assumption 5 affects how to calculate specific components of the surcharge. Assumption 4 directs that current laws apply. As a result, the DEQ must propose surcharges consistent with existing laws and regulations. Although this is a necessary assumption in view of the DEQ's mandate, it is a restrictive assumption and could lead to a less than fully efficient outcome. The DEQ should consider future changes in law and regulation to achieve a more efficient outcome. The discussion of Assumption 3 above illustrates the problem. Assumption 5 directs that the calculation of tax credits and other subsidies reflect maximum benefits. This is a reasonable working assumption.

III. EVALUATING THE DEQ'S SURCHARGE PROPOSAL

Applying the assumptions described above, the DEQ identified seven cost categories which should be covered by the surcharge. These categories are as follows:

1. Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management, paid for through the per-ton fee on domestic solid waste;
2. Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management, paid for through the General Fund;

3. Tax Credits and Other Public Subsidies;

4. Solid Waste Reduction Activities Related to the Review and Certification of Waste Reduction and Recycling Plans;

5. Unfunded Environmental Liability;

6. Lost Disposal Capacity; and

7. Other Costs (image, public infrastructure, nuisance).

The range of costs assigned to these components is summarized in Table 1.

We have reviewed these cost categories in the context of the DEQ's assumptions and from an economics perspective.

A. Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management Funded by Domestic Fee (Cost Category 1)

The DEQ identified state costs associated with government programs designed to manage solid waste and protect the environment. The Department distinguishes the costs of these programs by funding source. Some programs are financed through a $.50/ton surcharge on domestic or in-state waste. Other programs are financed out of the state's general fund. Based on discussions with DEQ staff, it appears that these programs are in response to the overall demand for waste management and concern for the environment. Programs, for example, monitor all landfill sites regardless of the origin of the waste. Consequently, out-of-state waste poses equivalent demands as in-state waste. Therefore, the DEQ argues that Oregon residents currently subsidize out-of-state waste. Under the circumstances described, out-of-state waste does appear subsidized and the imposition of a fee would be justified. All users or beneficiaries of the state's programs should pay for them. The Department can confirm that these costs are associated with out-of-state as well as in-state waste by comparing the estimated program costs with out-of-state waste to the estimated program costs assuming

no out-of-state waste. This comparison will isolate any costs which do not vary with out-of-state tonnage. These costs, if they exist, should be excluded from the out-of-state fee.

Apart from making the above comparison, the DEQ's method for calculating the surcharge for these state activities is reasonable.[3] The DEQ proposes to assess a charge equivalent to the domestic fee for the same state services. This is appropriate.

B. Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management Funded by General Fund (Cost Category 2)

The DEQ proposes to charge for risk reduction and waste management services funded out of the general fund based on several approaches. The correct approach is the following calculation:

$$\frac{\text{State Expenses}}{\text{Total Tons Disposed}}$$

where the total tons equal both in-state and out-of-state waste. Note that both expenses and tons will vary over time requiring the surcharge to vary as well. This approach is appropriate with one important qualification. This approach assumes the costs are simply proportional to tonnage. Costs, however, may vary by other factors. The DEQ should better establish the linkage between tonnage and costs, especially since the Department is limited by current law to charge by the ton.

C. Tax Credits and Other Public Subsidies (Cost Category 3)

The DEQ proposes to charge landfills which accept out-of-state waste to account for an Oregon income tax credit available to landfill operators in the state regardless of where the waste they accept originates. The Department argues that this credit for investing in certain environmental control measures constitutes a subsidy to out-of-state disposers. State

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[3] Memo from Steve Greenwood, DEQ, to Mark Berkman, NERA, Re: Back-up Documentation for Out-of-State Waste Cost Analysis, September 6, 1990

residents may enjoy lower landfill charges because of the subsidy, but they pay for the low rates through lost tax revenues. Out-of-state disposers avoid this payment. While this is true, states frequently provide tax credits to encourage certain business activities or consumer behavior. These tax credits do not depend on whether the business enterprise serves in-state or out-of-state residents. More importantly, the state does not tax goods going out-of-state differently than in-state to offset the tax credit. Say, for example, that Nike receives an industrial development bond to encourage expansion in-state. The state will not impose a tax or surcharge on shoes shipped out of state. Presumably, the state has determined that the tax loss is more than offset by the employment and income associated with Nike's expansion. The benefits exceed the cost of the tax.

The DEQ determines the value of the tax credit assuming that private operators take full advantage (see Assumption 5). As discussed above, this assumption makes sense. The dollar value is calculated by determining the value of the investments eligible for the tax credit for three landfill capacities (depths). This value is calculated on a per ton basis using the Eco Northwest Landfill costing model.[4] This results in a range of costs from $0.31 per ton for a large landfill to $1.75 per ton for a small landfill. This is a generalized, but perhaps reasonable, approach. Note that the tax credit is spread over 10 years and that the landfill operator will make investments on a cell-by-cell basis. As a result, there will be a stream of tax credits dependent on the age of the operator's landfill cells. Because of this, a more accurate calculation of the tax loss would be to estimate the tax revenue stream over time from all private landfills (public landfills receive no tax credit). The per ton surcharge would be based on the following calculation:

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[4] Eco Northwest, "An Evaluation of the True Costs of Sanitary Landfills for the Disposal of Municipal Solid Waste in the Portland Metropolitan Area," prepared for the Oregon Department of Environmental Quality, April 1986.

$$\frac{\text{Present Value of Net Tax Credits}}{\text{Present Value of Tons Disposed}}$$

Note the cost of the tax credit net of benefits should be used. A surcharge will result only if there are net costs rather than net benefits. Benefits might include lower cost, safer and more accessible landfills, as well as increased employment and tax revenues. A real discount rate should be applied.

D. Solid Waste Reduction Activities Related to the Review and Certification of Waste Reduction and Recycling Plans (Cost Category 4)

Under Oregon law, all out-of-state jurisdictions planning to send waste to landfills operating in Oregon must be certified to have recycling programs equivalent to those required of Oregon jurisdictions. This certification is conducted by the DEQ and imposes a cost on the state. According to DEQ staff this effort is not covered by the state's solid waste management costs described above. This cost then clearly can be attributed to out-of-state waste.

DEQ estimates the cost of certification based on the requirement for one full-time equivalent (FTE) state government employee. This requirement is based on the expectation that three major and five smaller out-of-state communities will require certification over the next three years. To assess a charge to these communities, the DEQ simply divides the cost of this FTE ($50,000) by the number of out-of-state tons expected. Note, however, that costs may not vary only with tonnage. Thus, the large communities will pay a larger share of this cost even though the cost of certifying larger communities may be the same or even less than for small communities. According to DEQ staff, the certification requirements do vary according to community size. Communities with waste in excess of 75,000 tons per year undergo more comprehensive review. Larger communities then should pay higher fees. However, it is not clear that costs for communities larger than 75,000 tons increase directly

with tonnage. In addition, there will be variations in this cost over time. Initial certification expenses will exceed ongoing review expenses. DEQ should consider this variation in establishing the fee.

E. Unfunded Environmental Liability (Cost Category 5)

Despite the existence of both federal (Superfund) and state insurance requirements for landfills, the DEQ has identified several sources of unfunded liability at landfills operating in the state which represent potential costs should environmental damage occur. First, landfills which are not designated as regional disposal sites are not required to have financial assurances for final cover or environmental liability insurance. According to the DEQ, some of these landfills accept out-of-state waste. Second, although Oregon has established a $.50 surcharge on all waste regardless of origin to cover environmental liability, the DEQ does not believe this will be sufficient to cover expected costs. The Department expects the fee to increase over time. Third, the surcharge will not be imposed unless an environmental damage claim arises. Because of this, the state may not be able to collect fees after the fact from waste generators who elect to leave the state. Note that while this exposure will be affected by the state-wide activities for reducing environmental risk (categories 1 and 2), the cost associated with the remaining unfunded liability is a separate expense. There is no double counting.

The Department staff observes that out-of-state waste generators may no longer be shipping waste to Oregon when an environmental problem arises and therefore Oregon will be unable to collect cleanup costs. In addition, according to DEQ staff, current law limits the state's ability to seek payment from waste generators.

The Department considered two approaches to estimating the cost of the unfunded liability. Both approaches rely on expected value techniques. While this is an appropriate technique, neither of the approaches is correct as presented.

The first approach (referred to as Case 1 by DEQ)[5] is termed an expected value analysis of liability at landfills accepting out-of-state waste. This analysis first accounts for the probability that an environmental problem occurs at these landfills over the next 20 years. (A probability of 75 percent is assigned to this event.) Next, it accounts for the probability that damage could range from $100,000 to $100 million. The probabilities for these damages are as follows:

Damage	Probability (Percent)
$ 100,000	10.0%
1,000,000	70.0
10,000,000	15.0
20,000,000	4.4
50,000,000	0.5
100,000,000	0.1

Applying these damage and probability assumptions results in an expected value of $2.58 million. Assuming that 50 percent of the waste delivered to landfills accepting out-of-state waste is out of state, 50 percent of this expected value, or $1.29 million, is attributed to out-of-state waste. This figure is divided by out-of-state waste projected over the 20-year period (600,000 x 20 = 12 million) to arrive at a fee of $0.10 per ton ($1.29 million ÷ 12 million).

There are several problems with this approach. First, it does not directly address the issue of unfunded liability. The damages used here are not net of the funds which will

[5] Memo from Steve Greenwood, DEQ, to Mark Berkman, NERA, September 6, 1990. This memo describes two cases, referred to here as Case 1 and Case 2.

be available to cover environmental problems. Second, the structure of the probabilities is unnecessarily complicated. The first probability regarding whether an event will take place can be incorporated directly into the probability of a specific damage level. This will simplify the analysis. (In the DEQ's Case 1, all the probabilities would be adjusted downward by multiplying through by 75 percent.) Third, the importance of time is not accounted for. For example, the probability of an event may grow over time as landfills age and subsidence or leaching occurs. Events in the future, however, are not as expensive as events today, so that the costs of future events must be discounted. Fourth, the probabilities may be affected by the specific landfill. For example, according to the DEQ, certain landfills are not required to have financial assurance for clean up or environmental liability insurance. These landfills may pose higher probabilities. The costs attributable to out-of-state waste should account for this distinction if possible.

The DEQ's second approach (referred to as Case 2) was designed to address unfunded liability. Under this approach, the DEQ assumes that all users of the system should share equally in the cost of liability. The DEQ estimates this cost by assigning a probability to events of various magnitudes. Unlike Case 1, however, in which the DEQ assigned total dollar costs to the events, in Case 2 the DEQ assigns the surcharge necessary to cover the costs of the event. The following distribution of probabilities and costs results:

Probability (Percent)	Surcharge Required to Cover Cost ($/Ton)
20.0%	$0.50
40.0	1.00
24.0	2.00
10.0	3.00
5.0	4.00
1.0	5.00

The lowest value is the current surcharge for environmental liability. Thus, this schedule suggests that there is an 80 percent chance that the existing fee ($0.50), if imposed, will be insufficient to cover environmental problems.

The DEQ refines the approach, however, by observing that as rates increase, out-of-state waste generators will elect to go elsewhere. A second set of probabilities are assigned to reflect the likelihood that out-of-state waste generators will in fact leave. As the rate increases, the probability that out-of-state generators leave is increased. The notion here is that the share of unfunded liability paid by the state goes up as generators leave the system because Oregon can no longer collect a surcharge.

This approach more accurately addresses the cost of unfunded liability to the state, but is still not quite correct. Correctly assessing this cost, however, is a difficult task. First, the Case 2 approach does not adequately define the cost associated with out-of-state waste having the ability to leave the system. This cost is best defined by comparing the unfunded liability the state will pay if no out-of-state waste leaves to the unfunded liability the state will pay if out-of-state waste does elect to leave. Second, the approach also does not account for the fact that out-of-state waste should not be made responsible for liabilities to which it does not contribute. Third, the approach does not fully take into account the effect of time (the approach relies on present dollars averaged over 20 years). Time should enter the calculation in several ways: (1) the probabilities and costs of events may change over time; and (2) the

time value of money must be addressed. This can be accomplished by present value techniques. Fourth, while the approach correctly identifies that there is a cost associated with the right to leave the system, the DEQ should better define system users who enjoy this right.

To correct these problems, several modifications should be made to the DEQ's Case 2 approach. First, estimates of unfunded liability and their associated tonnages should be used rather than potential fee increases. This can be accomplished in several steps. First, the expected value of the unfunded liability must be calculated adjusted to exclude liability from landfills which do not or did not accept out-of-state waste. Second, the fee required to cover the expected value of the liability estimates should be calculated assuming no out-of-state waste leaves. Third, the out-of-state waste losses should be estimated assuming this fee is imposed. Fourth, using the estimates of unfunded liability and out-of-state losses, an expected value of a required fee can be calculated. Fifth, by taking the difference between the resulting overall expected value of this required fee and the expected value of the required fee assuming no out-of-state waste leaves yields the cost imposed by out-of-state waste because of its ability to leave. In other words, how much should out-of-state waste pay for the right to leave the system. A second modification is required because the time value of money must be accounted for. This modification can be accomplished by discounting the expected liabilities. If the liability is expected to change over time, then it will be necessary to estimate the required fee over time as well.

To see how these modifications work, consider the following simple example. Assume that Oregon receives 100 tons of waste per year, 20 tons from out-of-state. In addition, an unfunded liability (adjusted for public landfills not accepting out-of-state waste) of $100 is assigned a probability of 0.4. Thus, to cover the expected value of the liability equally all waste should be charged $0.40 per ton. This charge is calculated as:

$$\frac{.4 \times \$100}{100 \text{ tons}} = \$0.40 \text{ per ton}$$

However, it is also determined that there is a 30 percent chance that 30 percent of the out-of-state waste will leave Oregon if this fee is imposed. This will mean that fewer tons will be available to cover the liability. Figure 1 describes this problem using a decision tree diagram. The first fork represents the probability of the unfunded liability occurring. As assumed above, there is a 40 percent chance the state will be faced with this cleanup cost. The second fork represents the likelihood that out-of-state waste will leave if the surcharge is increased to $0.40 per ton. Note that the upper fork reflects the 30 percent chance of the loss of 4 tons (.30% x 20 tons = 4 tons). The surcharge under this circumstance is $1.04 per ton ($100 ÷ 96 tons = $1.04 per ton). The lower branch represents the probability that no out-of-state waste leaves (1 - .3 = .7). The surcharge under this circumstance could be $1.00 per ton ($100 ÷ 100 tons = $1 per ton). On an expected value basis, this diagram shows that the cost of the unfunded liability accounting for out-of-state waste leaving is $0.408 per ton. Therefore, the cost of leaving the system is $.008 per ton ($0.408 - $0.400 = $.008). This is the surcharge for out-of-state waste before accounting for the time value of money. Because the event is expected in the future, the state will collect this surcharge and set it aside. To account for this, the surcharge should be discounted by a rate reflecting the state's cost of capital for a period consistent with the liability period.

In order to correctly calculate an unfunded liability surcharge, the DEQ must determine what the potential level of exposure is. This should be calculated noting the following relationship:

Unfunded Liability = Total Liability - Funded Liability.

The first step should be to determine the value of total liability. The DEQ's first attempt at this is the expected value determined in Case 1. This is not an easy value to estimate and the values presented were not documented. The total liability should be based on data on

previous environmental clean-ups and on the likelihood of such an event. Total liability should also be adjusted to account for the fact that out-of-state waste is not accepted at all public landfills. The second step is to calculate funds available to cover the liability. In making this determination, the state must account for the amount of funds which will be available to cover clean-ups from both federal and state superfund and related programs. Both of these steps will be difficult to complete, but some suggested sources include: the U.S. EPA's Record of Decision Annual Summary Reports which identify landfill clean-ups under the federal Superfund including cost information; the U.S. EPA National Priorities List which may be useful in assessing the probability of an environmental accident (although any estimate will be based on a population of older landfills which pose higher risks than modern landfills); and the Center for Hazardous Waste Management, "Coalition on Superfund Report," which should provide some estimates of the potential unfunded claims against the federal Superfund.

Determining the probabilities that out-of-state waste will leave is also difficult. This requires establishing how sensitive out-of-state waste demand is to changes in price. To estimate this sensitivity, the DEQ will have to review historic changes in demand as prices change or simulate the decisionmaking of out-of-state waste generators faced with a price increase by considering the costs of the alternatives they face.

F. Lost Disposal Capacity (Cost Category 6)

The DEQ has identified a cost to the state associated with lost disposal capacity. This cost is based on the need for the state to participate in landfill siting efforts more frequently and sooner than would be the case if there were no out-of-state waste.

The DEQ has calculated a lost disposal capacity charge based on the predevelopment costs associated with a new landfill. These costs are obtained from the Eco Northwest Landfill costing model. These costs are presented on a cost per ton of capacity

basis. Although the model costs reflect the costs to a private developer, this seems a reasonable approximation for state costs.

Because the DEQ expects it will be required to review sites sooner and more often with out-of-state waste than without, the cost should be determined by comparing the stream of expected costs assumed with out-of-state waste to the stream of expected costs without out-of-state waste. By comparing costs over time, both the timing and frequency difference are accounted for. Note that this also avoids any double counting. The costs are associated with the accelerated timetable, not with the predevelopment costs *per se*, which will be incurred at some point in any event.

Also, note that this is another instance where costs may vary because of other factors, in addition to tonnage. The siting of a 600,000 ton landfill may not cost the state three times the cost of siting a 200,000 ton landfill. The DEQ should more carefully establish the linkage between tonnage and cost.

G. Other Costs (Cost Category 7)

The DEQ has identified three additional costs which should be charged against out-of-state waste:

- Image
- Publicly Supported Infrastructure
- Nuisance and Loss of "Quiet Enjoyment".

The Department suggests that by becoming known as a depository for out-of-state waste the state will tarnish its image as an attractive place to live and conduct business. If it can be shown that this reputation does affect the public's attitude toward Oregon then there is a cost associated with out-of-state waste. However, as discussed below, this will be difficult to measure.

DEQ also observes that increased truck and rail traffic from out-of-state waste will impose burdens on the state's infrastructure. The Department noted that at a minimum additional planning efforts were likely which would impose a cost to the state. This would also be a cost associated with out-of-state waste, but may be difficult to distinguish from in-state waste shipments and other traffic.

The Department also indicates that increased noise and other nuisances associated with landfills and waste transport impose costs on the state. Noise and other nuisances generally do impose a cost. Oregon, however, already provides for a local host fee which is imposed by local jurisdictions and is intended, in part, to cover such costs. Therefore, it seems unlikely that there are substantial costs in excess of those already covered.

The DEQ has proposed methods to calculate the values for all three "other" cost categories. To estimate image costs, the DEQ proposes to rely on either the cost of guaranteeing that Oregon is viewed as an environmentally responsible state based on the costs of its existing efforts or on the costs of promoting its environmental record. The former approach would represent double counting unless the costs were associated with additional state efforts such as emergency response planning designed to protect Oregon's image. The state's costs to alleviate environmental risk and promote recycling are already captured in other components of the surcharge. The second approach holds some promise. The DEQ could, for example, study the costs incurred by other states and jurisdictions for promotional campaigns designed in response to some environmental or other disaster. New Jersey, the communities near Three Mile Island, and San Francisco (after the earthquake) might be good sources. Although they all appear more extreme than the waste concern, they could provide an upperbound to the estimate. Before conducting such a study, however, DEQ would need

to first better demonstrate that out-of-state waste does tarnish the state's reputation and discourage economic activity.

Infrastructure costs are more straightforward to calculate. Determining the cost of any required planning study should be possible. The problem here is to remember that this is a one-time cost which must be spread over a number of years. In addition, to the extent that fuel and road taxes already cover such planning efforts, another charge would be double counting.

Establishing the value of lost enjoyment, unfortunately, is not so straightforward. A careful estimate would require a study of the projected noise and odor levels and the size of the affected population. Economists have frequently studied the impact of noise and odor on property values as well as the impacts of pollution on visibility and quality of recreation. These studies might provide useful data for estimating lost enjoyment. (A list of suggested studies is attached as Table 3.) The DEQ must more fully develop its cost estimate in this category.

IV. CONCLUSION

The DEQ has demonstrated that not all costs associated with solid waste disposal in Oregon are currently charged. This results in an in-state subsidy of disposal price which leads to more waste disposal than should be desired. Oregon will move toward a more economically efficient allocation of its resources by charging out-of-state generators to cover costs associated with waste disposal in Oregon. Many of these costs are not currently charged to either in-state or out-of-state waste generators.

Table 2 summarizes our findings on the cost categories and the methodologies used to calculate specific costs. As shown, we found that six of the seven cost categories represent clearly legitimate costs to Oregon for which the state is not currently compensated. The

seventh category, the tax credit, would only represent a real cost to the state to the extent that the cost of the credit in terms of revenue losses exceeds benefits. This comparison should be made before assigning a cost.

Some problems were found in the proposed methodologies for calculating costs. These problems generally fell into several categories. First, in several cases, the effect of time on costs needs to be calculated. When costs are incurred affects how much the state is owed. Second, in several cases costs were charged on a per ton basis, but it was not clear whether costs actually varied only by tonnage. Third, in a few instances variations in costs over time should be accounted for. Fourth, for several categories, including the unfunded liability and the "other" costs category, the cost methodologies were not fully developed. In large part, this is due to the difficult nature of estimating what are complex costs.

Finally, some of the DEQ identified costs are imposed by waste generators from all sources for which the state currently receives no compensation. These categories include: the unfunded liability, the lost disposal capacity, and the other costs category. An efficient resource allocation requires that all consumers pay the full price. Modifying the law to correct the charges to all users would enable the state to set fully efficient disposal fees.

TABLE 1

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OUT-OF-STATE WASTE SURCHARGE PROPOSAL
BY COST CATEGORY

	Cost Categories	Dollars Per Ton
1.	Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management Funded by Domestic Fee	$0.50
2.	Statewide Activities for Reducing Environmental Risk and Improving Solid Waste Management Funded by General Fund	0.25
3.	Tax Credits and Other Public Subsidies	0.31 - 0.75
4.	Solid Waste Reduction Activities Related to the Review and Certification of Waste Reduction and Recycling Plans	0.05 - 0.15
5.	Unfunded Environmental Liability	0.10 - 0.50
6.	Lost Disposal Capacity	0.07 - 0.42
7.	Other Costs	
	a. Image	0.05 - 0.35
	b. Publicly supported infrastructure	0.02 - 0.50
	c. Nuisance and Loss of "quiet enjoyment"	0.02 - 0.10
8	Subtotal	$1.37 - $3.52
9.	Bond Fund	0.50
10.	Total	$1.87 - $4.02

Sources and Notes

Source: Memo from Steve Greenwood, DEQ, to Solid Waste Advisory Committee, "Out-of-State Waste Surcharge," July 25, 1990.

SUMMARY OF NERA COMMENTS ON OREGON DEQ SURCHARGE METHODOLOGY

TABLE 2

Cost Category	Legitimate Cost (1)	Comment (2)	Methodology Requires Revision (3)	Comment (4)
1. Statewide Activities for Reducing Environmental Risk Paid Through Fee	Yes		No	
2. Statewide Activities for Reducing Environmental Risk Paid Through General Fund	Yes		No	Costs may not be strictly proportional to tonnage.
3. Tax Credits and Other Public Subsidies	Maybe	A cost is incurred only if the costs of the credit exceed the benefits. This cost would be incurred by all waste disposers.	Yes	Proposed approach does not reflect that the tax credit is applied over time.
4. Solid Waste Reduction Activities	Yes		Yes	Proposed approach charges on a per ton basis continually, but costs may vary over time. Also, costs may not vary proportionately with tonnage.
5. Unfunded Liability	Yes	This cost is also incurred by some in-state waste disposers.	Yes	Proposed approach does not correctly account for cost of waste leaving the system. Fees are not adjusted for tonnage losses before calculating expected value and the time value of money is ignored.
6. Lost Disposal Capacity	Yes	This cost is also incurred by in-state waste disposers.	Yes	Proposed approach bases cost on private developer costs not on state costs. The time value of money is also ignored.
7. Other Costs (image, infrastructure, nuisance)	Yes	This cost is also incurred by in-state waste disposers.	Yes	Proposed methods are not yet fully developed, but some costs will be difficult to quantify. One method proposed for image would result in double counting.

SELECTED SOURCES FOR EVALUATING ENVIRONMENTAL DAMAGES

Baker, Brian. Perception of Hazardous Waste Disposal Facilities and Residential Real Property Values. Ithaca: Department of Agricultural Economics, Cornell University, July 1987.

Cook, Zena L., et al. The Benefits of Regulating Hazardous Waste Disposal: Land Values as an Estimator. Prepared for Office of Policy Analysis, U.S. Environmental Protection Agency, Washington, D.C.: Public Interest Economic Foundation, June 1984.

Harrison, David, Jr. and Daniel L. Rubinfeld. "Hedonic Housing and the Demand for Clean Air." Journal of Environmental Economics 5 (1978): 81-102.

Harrison, David, Jr. and James H. Stock. Hedonic Housing Values, Local Public Goods, and the Benefits of Hazardous Waste Cleanup. Discussion Paper E-84-09, Energy and Environmental Policy Center, Harvard University, November 1984.

Koehler, Sherry N., et al. Effect of Resource Recovery Facilities on Nearby Property Values. Brooklyn: Konheim & Ketcham, April 1987.

McClelland, Gary H., William D. Schulze, and Brian Hurd. The Effect of Risk Beliefs of Property Values: A Case Study of a Hazardous Waste Site. Boulder: University of Colorado, March 27, 1989.

Nelson, J. P. "Highway Noise and Property Values: A Survey of Recent Evidence." Journal of Transport Economics and Policy XVI (1982): 117-130.

Nelson, Jon P. "Three Mile Island and Residential Property Values: Empirical Analysis and Policy Implications." Land Economics 57 (August 1981): 363-372.

Organization for Economic Co-Operation and Development. "Environmental Policy Benefits: Monetary Evaluation." Paris: 1989.

Price, Joe R. A Study of The Impact of Resource Recovery Facilities on Surrounding Residential Properties. Prepared for The Palm Beach County Solid Waste Authority, Fort Pierce, FL: Callaway & Price, March 10, 1986.

Ridker, Ronald G. and John A. Henning. "The Determinants of Residential Property Values With Special Reference to Air Pollution." The Review of Economics and Statistics 49 (1967): 246-257.

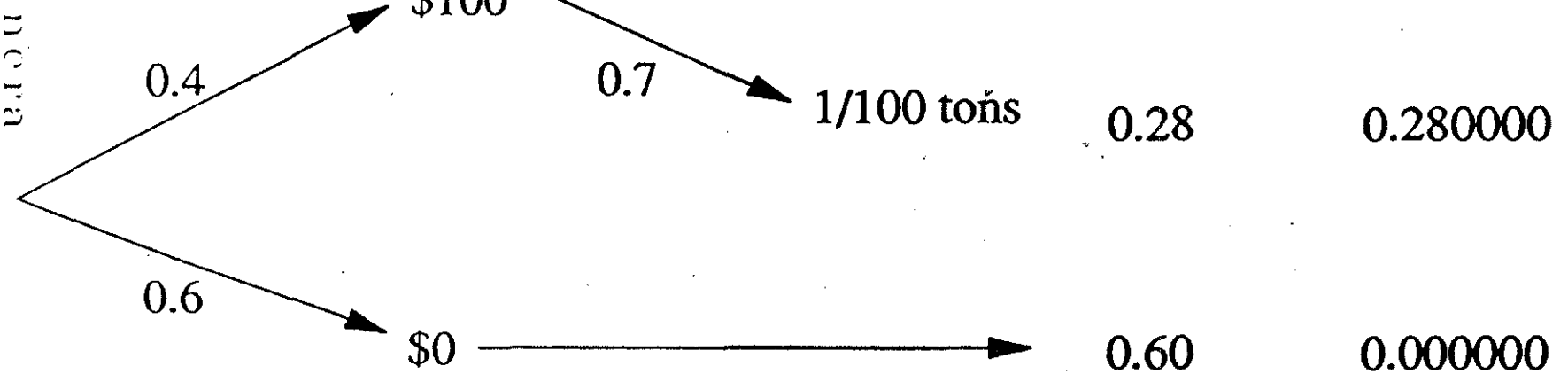
SELECTED SOURCES FOR EVALUATING ENVIRONMENTAL DAMAGES

Smith, V. Kerry and William H. Desvousges. "The Value of Avoiding A LULU: Hazardous Waste Disposal Sites." The Review of Economics and Statistics 68 (May 1986): 293-299.

Wise, Kenneth T. Testimony Regarding Property Value Impacts. Before the State of New York Department of Environmental Conservation, Application No. 90-85-0551, November 1988a.

Wise, Kenneth T. Testimony Regarding Tourism Impacts. Before the State of New York Department of Environmental Conservation, Application No. 90-85-0551, November 1988b.

Expected Value of Unfunded Liability



	Probability	Contribution to Expected Value
1/94 tons	0.12	0.127659
1/100 tons	0.28	0.280000
$0	0.60	0.000000
Total Expected Value / Ton		0.407659

FIGURE 1

andersen and associates
manufacturer's representative

reply to: p.o. box 3001
el macero, ca. 95618

August 30, 1990

State of Oregon Environmental Quality Commission

Re: June 29 Regular Meeting sent 10/24/90 jp

Would you please send minutes of:

Authorization of Rule Making Hearings-
Air Quality Rules Amendment to General Emission Standards for VOC's

Rule Adoptions
Oil Contaminated Soil Cleanup Contractors.....

Thank you in advance for your assistance.

Doug Andersen

Oct 19,

I still have not received the above. Please send.

Thanks,

Doug

northern california office:
2401 stanwell dr., suite 460
concord, ca. 94520

vessels, heat transfer and environmental equipment

no. calif.: (415) 676-2911
so. calif.: (714) 472-4435
FAX: (916) 753-0875

andersen and associates
manufacturer's representative

reply to: p.o. box 3001
el macero, ca. 95618

sent 10/25/90 JP

October 17, 1990

State of Oregon Environmental Quality Commission

Re: September 20, 1990 Work Session

Please send minutes of the Stage II Vapor Recovery: Discussion of New Developments and Policy Options

Thank you,

Doug Andersen

northern california office:
2401 stanwell dr., suite 460
concord, ca. 94520

vessels, heat transfer and
environmental equipment

no. calif.: (415) 676-2911
so. calif.: (714) 472-4435
FAX: (916) 753-0875

10/23

~~1~~, ~~C~~, D, ~~M~~ – note ✓

Debra Folso
Bogle & Gat
222 SW Col
Suite 1400
Portland, Or
972

10/25

~~3~~. ~~B~~, ~~C~~

Les Ruark
Star Route, Box 58
Arlington, OR
97812

✓10/25

Doug Morrison
NWPPA
1300-114th ave SE
Suite 110
Bellevue, Wa 98004

Sent
~~C~~, D

✓10/25

Steve Hudson
Boise Cascade Corp
PO Box 1414
Portland, OR 97201

D, ~~B~~, ~~A~~

✓10/25

10/24

~~X~~ (D) ~~K, L, M~~

NEDC
10015 SW Terwill
Ble

97219

Attn Vicky Thimm

✓ 10/25

10/26

J

molhem Co.

Brett Fisher
NCAP
PO B 1393
Eugene
97440

✓ sent 10/26

~~X~~, D, ~~X~~

James Kincaid
Schwabe
1700 PacWest Ce
1211 SW 5th
PD

97204

10/25 ✓

~~X~~, ~~X~~, ~~X~~, ~~X~~

David Couch
P.O. Box 1583
Medford
97501

✓ 10/25/90

10/22

Mark Hopl
Waste Recovery Inc
8501 N. Borthwick
Portland. OR
97217

Send.
F

✓10/25

EQC Items Requested for Nov. 1-2, 1990 meeting

DATE REQ'D	REQUESTED BY	ITEMS/#S REQUESTED	DATE MAILED	MAILED BY
10/11/90	Walter H. Drew PO Box 217 Florence, OR 97439	Sept. 21 mtg. min.	10/22/90	D. Barta
10/22/90	Merrie Dinteman LRAPA 225 N. Fifth St., #501 Springfield, OR 97477	1, 2, A1, A2, C, E, F, G, I	10/25	
10/23/90	Chuck Root Bear Creek Sanitary Auth. 3915 S. Pacific Hwy. Medford, OR 97501	wants H, was sent J.	10/23/90 #H	D. Barta
10/23/90	Sarah Munro Hill, Huston, Cable, etal. Security Pacific Plaza, Suite 2000 1001 SW Fifth Portland, OR 97204	~~B~~ & D already (picked up the rest)	10/25	
10/24/90				

eqcmail.frm

10/22/90

EQC Item Request

Merrie Dinteman
LRAPA
225 N. Fifth St. #501
Springfield, OR 97477

Work Session
#1, 2

Mtg.
#A1, A2, C, E, F, G, I.
2

waiting for this

While You Were Out

To _____

Date 10-23 Time _____

Sarah Munro called
of Nill Huston Cable Ferris & Haagensen
Phone 224-3092

- ☐ Telephoned
- ☐ Please call
- ☐ Will call again
- ☐ In person
- ☐ Wants to see you
- ☐ Returned your call

Message Item G & D

Security Pacific Plaza
Suite 2000
1001 SW 5th
Portland OR 97204

Taken by _____

FORM CS 97883

To Julie send Item H

Date 10/23/90 Time 815

Chuck Root called
of _____
Phone 779-4144

- ☒ Telephoned
- ☐ Please call
- ☐ Will call again
- ☐ In person
- ☐ Wants to see you
- ☐ Returned your call

Message Bear Creek Sanitary Authority
3915 S Pacific Hwy
Mdfrd 97501
Needs TMDL Rules(?) for
~~EQC~~ Bear Creek for EQC

Taken by Mtng. Julie Sent →

FORM CS 97883

#H Sent 10/23/90

Julie 10/11

Director
DEPARTMENT OF ENVIRONMENTAL QUALITY

Send Sept 21 EQC meeting Minutes to

Walter H Drew
P.O. Box 217
Florence, OR
97439

Sent 10/22/90 by Dolores

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY MEMORANDUM

DATE: October 25, 1990

TO: Interested Parties

FROM: Julie Schmitt, Director's Office

SUBJECT: EQC Staff Report "D"

The above referenced staff report you requested is unavailable at this time. In the interest of timeliness, the other items you have requested are enclosed in this mailing. Item "D" will be forwarded to you as soon as it becomes available.

Thank you for your patience.

State of Oregon

ENVIRONMENTAL QUALITY COMMISSION

A G E N D A

WORK SESSION -- November 1, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon

NEED ADDTL.
20 32 **1:00 p.m.** - 1. Discussion of Draft EPA Environmental Education Program

(18) 30 **1:20 p.m.** - 2. Operating Plans: First Quarter Report and Discussion

20 36 **2:15 p.m.** - 3. Out-of-State Waste Fee: Discussion

Note: An invited panel of major participants will respond to questions from the Commission. This is not a public hearing; the public rulemaking hearing has already been held.

(17) 30 **4:15 p.m.** - 4. Oil Spill Planning: Background and Update

NOTE: The purpose of the work session is to provide an opportunity for informal discussion of the above items. The Commission will not be making decisions at the work session.

REGULAR MEETING -- November 2, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon
8:30 a.m.

Consent Items

NOTE: These are routine items that may be acted upon without public discussion. If any item is of special interest to the Commission or sufficient need for public comment is indicated, the Chairman may hold any item over for discussion. When a rulemaking hearing is authorized, a public hearing will be scheduled and held to receive public comments. Following the hearing, the item will be returned to the Commission for consideration and final adoption of rules. When rules are proposed for final adoption as Consent Items, a hearing has been held, no significant issues were raised, and no changes are proposed to the original draft that was authorized for hearing.

(17) 30 A-1. Approval of Minutes of the September 20-21, 1990 EQC Meeting

20 32 A-2. Approval of Deputy Director Position

B. Approval of Tax Credit Applications

C. Authorization for Rulemaking Hearing: Ranking Rules for Inventory of Hazardous Substance Sites

D. Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act

Rule Adoptions

NOTE: Hearings have already been held on these Rule Adoption items; therefore any testimony received will be limited to comments on changes proposed by the Department in response to hearing testimony. The Commission also may choose to question interested parties present at the meeting.

E. Proposed Adoption of Rules for PM_{10} Control Strategy for Grants Pass

F. Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director

G. Proposed Adoption of Rules to Implement Required Out-of-State Waste Surcharge for Solid Waste

Note: No testimony will be received on this item at this time because of the prior consideration and discussion by the Commission at the Work Session on Thursday, November 1, 1990.

H. Proposed Adoption of Rule Establishing Bear Creek TMDL Time Schedule

Information Items

I. Wood Heating Alliance Presentation on Klamath Falls Study

J. Groundwater Management Plan for Malheur County: Background and Update

K. Commission Member Reports: (Oral Reports)
- Governor's Watershed Enhancement Board

L. Director's Report (Oral Report)

M. Legislative Update (Oral Report)

Public Forum

This is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting except those set for a specific time. Anyone wishing to be heard on any item not having a set time should arrive at 8:30 a.m. to avoid missing any item of interest.

The next Commission meeting will be Friday, December 14, 1990, at DEQ offices in Portland, Oregon. There will be a brief work session at the same location on December 13, 1990.

Copies of the staff reports on the agenda items are available by contacting the Director's Office of the Department of Environmental Quality, 811 S. W. Sixth Avenue, Portland, Oregon 97204, telephone 229-5395, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

October 16, 1990

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: October 24, 1990

TO: Environmental Quality Commission

FROM: Julie Schmitt, Director's Office

SUBJECT: Enclosed Staff Reports

Attached are the Appendix to Item "C" on the EQC Agenda for 11/1,2/90, as well as Item "G". Item "D" will be Federal Expressed to you as soon as it is available.

Thank you for your patience.

Agenda Topics -- November EQC Meeting

Item	Title	Notes	Author	Reviewer
November 1, 1990 Work Session				
1	Discussion of Draft EPA Environmental Education Program		OD-Carolyn Young	
2	Operating Plans: First Quarter Report and Discussion		OD-DA's, Sawyer	
3	Out of State Waste Fee: Discussion		HSW-Greenwood	
4	Financial Assurance for Ships that Transport Bulk Oil (SB 1038): Background and Update		WQ-Schaedel 6121	Hallock
November 2, 1990 Regular Meeting				
~~A~~	Approval of Minutes of the September 20-21, 1990 EQC Meeting		OD-Sawyer 5776	
~~B~~	Approval of Tax Credit Applications		MSD-Young 6408	Downs
~~C~~	Authorization for Rulemaking Hearing: Hazard Ranking Rules for Site Inventory		ECD-Bailey 6811	All (in depth)
~~D~~	Authorization for Rulemaking Hearing on Requirements for Stage II Vapor Recovery at Gasoline Stations	Followup to Work Session Discussion at September 20 meeting.	AQ-Hough 6446	Downs
E	Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act	Held over from the September Meeting	WQ-Wolniakowski 6018	(Hose)
~~F~~	Proposed Adoption of Rules for PM10 Control Strategy for Grants Pass		AQ-Harris 6086	Hose

Agenda Topics -- November EQC Meeting

Item	Title	Notes	Author	Reviewer
~~G~~	Proposed Adoption of Rules for PM10 Control Strategy for Medford		AQ-Hough 6446	Dalke
~~H~~	Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director	Hearing Authorized August 10, 1990	HSW-Mueller-Crispin 5808	Taylor
I	Proposed Adoption of Rules to Implement Required Out of State Waste Surcharge for Solid Waste		HSW-Greenwood 5782	Dalke
~~J~~	Proposed Adoption of Rule Establishing Bear Creek TMDL Time Schedule		WQ-Sturdevant 5289	Hose
~~K~~	Wood Heating Alliance Presentation on Klamath Falls Study	Scheduled as a regular agenda item on the Friday Meeting at the request of James Hermann, President of Earth Stoves Marketing, Inc. He has arranged for an out of town expert to be present for the presentation on that day.	AQ-Wood Heating Alliance	
~~L~~	Groundwater Management Plan for Malheur County: Background and Update	Could also be presented as an Information Item on Friday	WQ-Pettit 6065	Bispham
M	Commission Member Reports: (1) Governor's Watershed Enhancement Board		EQC-	
N	Director's Report		OD-Hansen 5301	
O	Legislative Update (Oral Report)		OD-Loewy 5327	

Send "D":

NEDC
Vicky Thimmesch 10/30 Transerv
10015 SW Terwilliger Blvd.
Portland, OR 97219

—

Debra Holson
Bogle & Gates
222 SW Columbia 10/30 Transerv
Suite 1400
Portland, OR 97201

—

Doug Morrison
NW P&P
1300 114th Ave. S.E. 10/30 FedEx
Suite 110
Bellevue, WA 98004

—

James Kincaid
Schwabe 10/30 Transerv
1700 Pac West Center
1211 SW 5th
PD 97204

224-7250
White Paper Office

Steve Hudson
Boise Cascade Corp. 10/30 Transerv
POB 1414
PD 97201
1600 SW 4th Ave PD 97201

EQC 6 (inc. Sarah Munro) ✓

D & G

Those on dist. list (in-house) marked with a .

Send "B" attach:

Les Ruark
Star Route, Box 58
Arlington, OR 97812

NEIL GOLDSCHMIDT
GOVERNOR

Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

October 30, 1990

Re: Staff Report "D" for
11/2/90 EQC meeting

Enclosed is the item on proposed amendments to water quality standards as part of the triennial review required by the Clean Water Act, per your request.

This item was not available until this week due to meetings held 10/5 and 10/19/90. The report was finalized the week of 10/22/90.

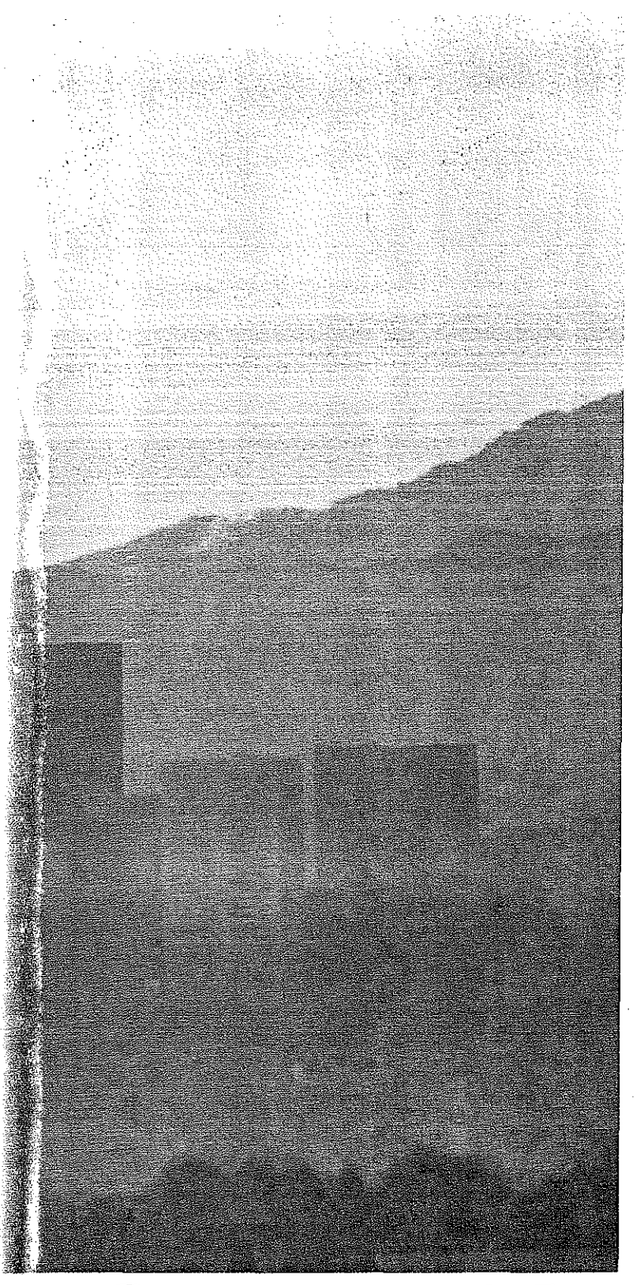
Thank you for your patience.

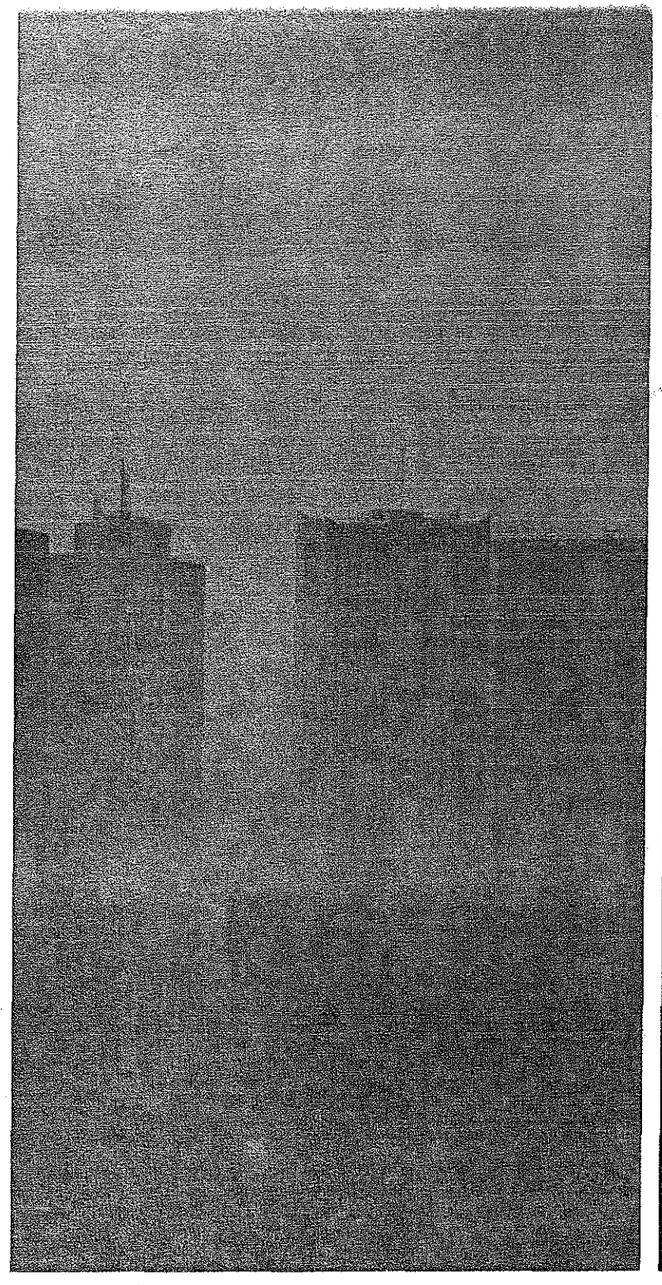
Sincerely,

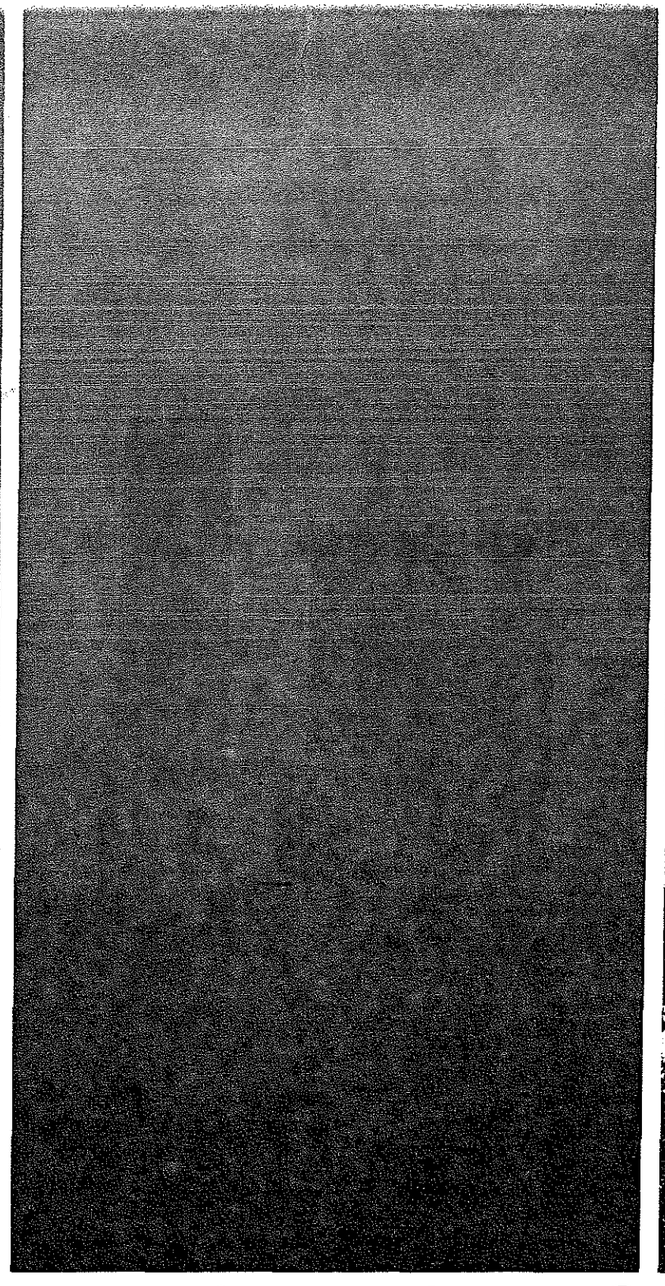
jschmitt

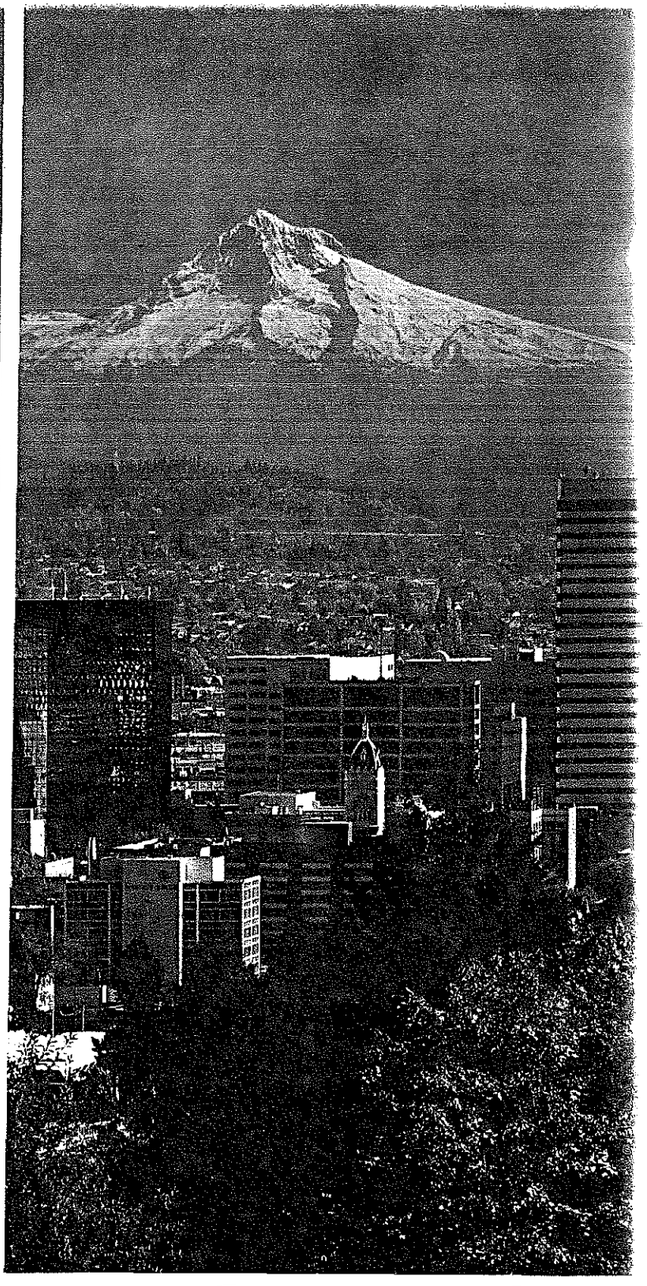
Julie Schmitt
Director's Office

js
Enclosure









Can you identify these convention sites from the air?

Lots of cities can offer you more than Portland, Oregon. More traffic. More litter. More smog.

Which is why Portland is indeed a breath of fresh air.

Long ranked as one of America's cleanest cities by the EPA, Portland passed the nation's first anti-litter bottle bill. And all 365 days in 1989 were well below the federal standards governing ozone and particulate pollution.

One reason is Portland's light rail system. Trains silently pull up alongside the new Oregon Convention Center 164 times per day to pick up thousands of visitors. All of whom reap the benefits of our pristine river city: quiet meals in waterfront cafes, and long walks that are easy on the lungs. Some even opt to fish downtown for chinook salmon (and yes, they're safe to eat).

If you're tired of convention sites that all blend together, you really should look into Portland. And now you know you won't have to squint to see it.

Portland, Oregon
Things look different here.

All 500,000 sq. ft. of the Oregon Convention Center open in September, 1990.

10 agendas/ea. to: AQ, ECD, HSW, MSD, WQ

CHECKLIST FOR EQC MEETING OF:

Agendas are to be sent electronically to agency staff:DEQ and Bill Hutchison:OD seven weeks prior to the EQC meeting. Hard copies of the draft agenda need to be sent to Michael Huston, Kurt Burkholder and Arnold Silver at the Department of Justice.

DRAFT STAFF REPORT DISTRIBUTION

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- Author
- Michael Huston
- Julie Schmitt
- Original back to author

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			In House:
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		·	✓ Bispham
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			✓ ~~Adair~~ Zelnys - agenda only
		·	✓ Downs
		·	✓ Hallock
		·	~~Nikkila~~ AQ
		·	✓ Dalke
		·	✓ Taylor
		·	✓ Zucker
		··	✓ Ken Brooks - EPA, 2 packets
			Shuttle:
		·	✓ Michael Huston - Justice
		·	✓ Hose - LAB
	X		✓ Hammon - ERO
	X		✓ Grimes - SWRO
	X		✓ St. Louis - WVRO
	X		✓ Hector - CRO
	X		CBBO
	X		RBO
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X			EQC and authors
			Mail complete packets to:
	X		Senator Dick Springer
	X		Representative Ron Cease
	X		John Charles - OEC
	X		Peter Ravella - Oregon Insider
	X		Janet Gillaspie
	X		Sarah B. Munro

Agenda + 2 staff reports to all of these, 2 to Ken Brooks

10/29

Date: 10-25-90 9:36pm
From: Krystyna Wolniakowski:WQ:DEQ
To: JULIE SCHMITT:od
cc: Neil Mullane:wq;HLSawyer:OD
Subj: EQC STAFF REPORT ON WATER QUALITY STANDARDS

Given all the additional revisions for the 14 issue papers that were needed due to public comments received recently, the issue papers are still being proofed for the last time. They should be ready by noonish tomorrow. I have notified the mailroom to make the copies. It is an extremeely thick staff report because of all the attachments. Do I need to handdeliver any to the Commission, or fed ex the copies?? Please let me know. Thanks.

Julie

Date: 10-23-90 1:47pm
From: Bill Hutchison:OD:DEQ
To: FJHANSEN:OD:DEQ
Subj: 11/2 EQC Meet

I would like meeting to end by 1 PM if at all possible. If running long, I'll probably keep meeting going until then with lunch to follow meeting. If short meeting means you might want to forego lunch expense that's fine with me. I'll defer to you. thx

TO EQC –

Item	Copies	Mail to EQC	Additional Copies	~~To Be~~ Mailed	Notes
Agenda	400	yes 10/19			Also Mailed to Mail List
1	5	10/19	20 ✓		
2	24	10/19	–		
3	6	10/19	~~20~~ Done		
4	24	10/19			
A-1	24	10/19			
A-2	6	10/19	20 ✓		
B	24	10/19			
C	6 Memo Only	10/19 Memo Only	Mem 30 ✓ A 36 ✓	~~Appendix~~	Mail Wed ✓ JP
D	6 Temp	10/4 Memo	–	~~Report~~	~~Explan. Memo Only~~ Mail Friday?
E	36	10/19			
F	48	10/19			
G				Report	Mail Wed. ✓ JP
H	36	10/19			
I	6	10/19	20 ✓		
J	36	10/19			
K					
L					
M					

Internal Packages to be Assembled & Distributed Wednesday.

DRAFT State of Oregon DRAFT

ENVIRONMENTAL QUALITY COMMISSION

A G E N D A

WORK SESSION -- November 1, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon

1:00 p.m. - 1. Discussion of Draft EPA Environmental Education Program

1:20 p.m. - 2. Operating Plans: First Quarter Report and Discussion

2:15 p.m. - 3. Out of State Waste Fee: Discussion

Note: An invited panel of major participants will respond to questions from the Commission. This is not a public hearing; the public rulemaking hearing has already been held.

4:15 p.m. - 4. Financial Assurance for Ships that Transport Bulk Oil (SB 1038): Background and Update

NOTE: The purpose of the work session is to provide an opportunity for informal discussion of the above items. The Commission will not be making decisions at the work session.

REGULAR MEETING -- November 2, 1990

DEQ Conference Room 3a
811 S. W. 6th Avenue
Portland, Oregon
8:30 a.m.

Consent Items

NOTE: These are routine items that may be acted upon without public discussion. If any item is of special interest to the Commission or sufficient need for public comment is indicated, the Chairman may hold any item over for discussion. When a rulemaking hearing is authorized, a public hearing will be scheduled and held to receive public comments. Following the hearing, the item will be returned to the Commission for consideration and final adoption of rules. When rules are proposed for final adoption as Consent Items, a hearing has been held, no significant issues were raised, and no changes are proposed to the original draft that was authorized for hearing.

A. Approval of Minutes of the September 20-21, 1990 EQC Meeting

B. Approval of Tax Credit Applications

C. Authorization for Rulemaking Hearing: Hazard Ranking Rules for Site Inventory

D. Authorization for Rulemaking Hearing on Requirements for Stage II Vapor Recovery at Gasoline Stations

E. Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act

Rule Adoptions

NOTE: Hearings have already been held on these Rule Adoption items; therefore any testimony received will be limited to comments on changes proposed by the Department in response to hearing testimony. The Commission also may choose to question interested parties present at the meeting.

F. Proposed Adoption of Rules for PM10 Control Strategy for Grants Pass

G. Proposed Adoption of Rules for PM10 Control Strategy for Medford

H. Proposed Adoption of Rule Amendments to Delegate Approval of Financial Assistance for Waste Tire Pile Cleanup to the Director

I. Proposed Adoption of Rules to Implement Required Out of State Waste Surcharge for Solid Waste

Note: No testimony will be received on this item at this time because of the prior consideration and discussion by the Commission at the Work Session on Thursday, November 1, 1990.

J. Proposed Adoption of Rule Establishing Bear Creek TMDL Time Schedule

Information Items

K. Wood Heating Alliance Presentation on Klamath Falls Study

L. Groundwater Management Plan for Malheur County: Background and Update

M. Commission Member Reports:
(1) Governor's Watershed Enhancement Board

N. Director's Report

O. Legislative Update (Oral Report)

Public Forum

This is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. Individual presentations will be limited to 5 minutes. The Commission may discontinue this forum after a reasonable time if an exceptionally large number of speakers wish to appear.

Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting except those set for a specific time. Anyone wishing to be heard on any item not having a set time should arrive at 8:30 a.m. to avoid missing any item of interest.

The next Commission meeting will be Friday, December 14, 1990, at DEQ offices in Portland, Oregon. There will be a brief work session at the same location on December 13, 1990.

Copies of the staff reports on the agenda items are available by contacting the Director's Office of the Department of Environmental Quality, 811 S. W. Sixth Avenue, Portland, Oregon 97204, telephone 229-5395, or toll-free 1-800-452-4011. Please specify the agenda item letter when requesting.

September 16, 1990

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: October 5, 1990

TO:

FROM: Director's Office

SUBJECT: EQC Staff Report Review

Attached are the following for your review:

- Agenda Items _____ (You are designated reviewer for these items)
- Agenda Items _____ (Originating from your division)

Authors

B - Roberta Young
C - Debbie Bailey
F - Howard Harris
H - Deanna Mueller-Crispin
J - Debi Sturdevant
L - Greg Pettit

Please review and return your comments to author by **WEDNESDAY, 10/10/90.** Final reports are due to the Director's Office with all signatures except the Director's by **TUESDAY, 10/16/90 NO LATER THAN 5:00 P.M.**

Thank you.

Review.mem

Date: 9-18-90 7:56am
From: Harold Sawyer:OD:DEQ
To: Deanna Mueller-Crispin:HSW:DEQ
cc: Harold Sawyer:OD:DEQ, spGreenwood:hsw, Fred Hansen:OD, Julie Schmitt:OD
Subj: 2-Day Extension, EQC STaff Report
In-Reply-To: Message from Deanna Mueller-Crispin:HSW:DEQ of 9-17-90

The reason for an extension is justified and OK. Please try to have the final report in by 10 am on Thursday, Oct. 18, so that there is time for Fred to sign it and Julie to get it copied for the Friday Mailing deadline.

---------- Replied Message Body ----------
Date: 9-17-90 5:43pm
From: Deanna Mueller-Crispin:HSW:DEQ
To: Hal Sawyer:od
cc: spGreenwood:hsw, dmCrispin:hsw
Subj: 2-Day Extension, EQC STaff Report

I spoke with Julie today re. a 2-day extension of the final EQC staff report (Nov. 2 meeting) for rule adoption of the solid waste out-of-state surcharge. She said Steve should talk to you, that official policy was that Fred had to okay it.

Steve asked me to contact you. He would like an extension until October 18 to submit the final EQC staff report, because the Solid Waste Advisory Committee is meeting on Oct. 16, and will at that meeting consider the final report from the economic consultant (hired by us to review our methodology). Steve anticipates the SWAC will have comments, and would like 2 days to incorporate their comments into the final report.

If there's a formality that needs to be done to get approval for this extension, please let either Steve or me know. Thanks.

EQC Agenda Topic Review

for the November 1-2, 1990 Meeting

Thursday, September 13, 1990

Room 3a - 8:30 a.m. until completed

Available Topic Forms and latest draft of future agenda topics attached.

✓ = Topic Form Attached

Tentative Agenda Topics -- November 1-2, 1990 EQC Meeting

Item	Title	Notes	Author	Reviewer
November 1, 1990 Work Session				
1	Discussion of Policy Regarding Potential Changes to the Economic Test for Recyclables		HSW-Rozell 6165	
2	Financial Assurance for Ships that Transport Bulk Oil (SB 1038): Background and Update		WQ-Schaedel 6121	
3	Groundwater Management Plan for Malheur County: Background and Update	Could also be presented as an Information Item on Friday	WQ-Patton 5878	
November 2, 1990 Regular Meeting				
A	Approval of Minutes of the September 20-21, 1990 EQC Meeting		OD-Sawyer 5776	
B	Approval of Tax Credit Applications		MSD-Young 6408	
C ✓	Authorization for Rulemaking Hearing: Hazard Ranking Rules for Site Inventory		ECD-Bailey 6811	
D	Authorization for Rulemaking Hearing on Proposed Pudding River Total Maximum Daily Load (TMDL)		WQ-Sturdevant 5289	
E	Authorization for Rulemaking Hearing on Proposed Columbia/Willamette Total Maximum Daily Load (TMDL) for 2,3,7,8 TCDD		WQ-Mullane? 5284	
F ✓	Authorization for Rulemaking Hearing on Requirements for Stage II Vapor Recovery at Gasoline Stations	Followup to Work Session Discussion at September 20 meeting.	AQ-Hough 6446	

Tentative Agenda Topics -- November 1-2, 1990 EQC Meeting

Item	Title	Notes	Author	Reviewer
N	Commission Member Reports: (1) Governor's Watershed Enhancement Board		EQC-	
O	Director's Report		OD-Hansen 5301	
P	Legislative Update (Oral Report)		OD-Loewy 5327	
Q	Intergovernmental Agreement with Clackamas County for the Abatement of Waste Tires	Agreement may be circulated for information rather than being an agenda item.	HSW-Mueller-Crispin 5808	

November 2, 1990

PROPOSED EQC AGENDA TOPIC ____21 September EQC____ Meeting

What title do you assign to the proposed item?

Proposed Hazard Ranking Rules

What action do you want the EQC to take?

Authorize hearing on draft rules

What policy issues are involved that require EQC direction?

The model is primarily a technical model to quantify relative risk among hazardous substances sites on the Inventory. The following issues may be appropriate for the EQC:

1. Does the model adequately consider the factors required by statute: long and short term threats to present and future public health and the environment?

Particularly, the model does not evaluate threat from direct contact based primarily on a determination that immediate threats need to be evaluated and addressed before the listing process concludes.

2. Are the ranking scores appropriately presented for public information?

What are the other potential alternatives for dealing with the issue?

Draft ranking model differently. The SAS considered a number of different approaches, but determined that adapting the Washington State model for Oregon was most appropriate for DEQ's site discovery program and listing process.

Are there Technical Issues that people should be aware of?

As a technical model, the ranking rules incorporate a number of technical issues, such as:

1. identifying the factors relevant to ranking sites and their relative importance in measuring threat;

2. identifying the data to be used to evaluate the factors identified above, including toxicological data;

3. selecting the formulae to combine the various data elements to generate route scores for surface water, ground water, and air routes;

4. selecting the formula to combine route scores to produce public health and environmental scores;

5. selecting the formula to combine public health and environmental scores into one site score; and

6. establishing the procedure to translate numerical scores into "bin" scores, if the Department chooses to create such a procedure.

C-1 D-1

PROPOSED EQC AGENDA TOPIC November 2, 1990, EQC Meeting

What title do you assign to the proposed item?

Stage II vapor recovery at service stations.

What action do you want the EQC to take?

Hearing authorization for complete Stage II systems (above- and below-ground portions) in order to reduce vehicle refueling emissions that contribute to ozone air pollution.

What policy issues are involved that require EQC direction?

Boundaries: Should Stage II be required only in the Portland area counties or in the entire Willamette Valley or western Oregon or statewide? The critical need is in the Portland area to insure attainment and maintenance of the ozone standard and provide airshed room for growth and development. Larger boundaries would further reduce ozone levels in non-problem areas, would reduce toxics emissions and exposures from gasoline refueling, and provide a small gasoline conservation benefit.

Exemption cutpoints and schedules: The Department outlined guiding principles at the September 1990 work session for a 3-year phase-in of Stage II. Larger stations would be affected first, medium stations later, smallest stations exempt.

What are the other potential alternatives for dealing with the issue?

Refueling emissions can be controlled by either of two methods: Stage II on service stations or onboard canisters on vehicles. Onboard canisters on new cars would require federal action (outside state control) and would require 15-20 years for full implementation compared to 2-5 years for Stage II.

Are there Technical Issues that people should be aware of?

Stage II was implemented in California in 1976 and in a growing number of other areas since then. The 3rd-generation Stage II nozzles/hoses are more effective and convenient than the original equipment. Safety concerns on onboard canisters have not yet been fully addressed.

Specific statutes/rules that relate? ORS 468.285, 468.295

Are there any Legal Issues that people should be aware of?

A state-adopted Stage II program would provide an airshed growth cushion; onboard canisters or other federal programs would not.

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

A 3-year phase-in of Stage II would coincide with a potential new Clean Air Act deadline of December 31, 1993, for ozone attainment.

Who will be the Author? Merlyn Hough (229-6446)

(F)

PROPOSED EQC AGENDA TOPIC November 2, 1990 Meeting

What title do you assign to the proposed item?

Industrial VOC Rules for Portland-Vancouver Nonattainment Area.

What action do you want the EQC to take?

Adoption of proposed rule changes and additions.

What policy issues are involved that require EQC direction?

Whether to revise state VOC rules as requested by EPA to make them nationally consistent.

What are the other potential alternatives for dealing with the issue?

Allow EPA to disapprove VOC rules and promulgate their own rules for the state.

Are there Technical Issues that people should be aware of?

Several technical issues were raised at public hearings about the specific requirements and flexibility of EPA guidance. DEQ believes it will be able to resolve these issues with EPA within the time frame for finalizing this item.

Are there any Legal Issues that people should be aware of?

1. EPA has issued a "SIP call" requiring the Department to make its VOC rules nationally consistent.

2. The Sierra Club has filed a notice of intent to file suit against DEQ and EPA for failure to enforce current VOC emission control requirements and deficiencies in the VOC rules.

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

Adopt at November 2, 1990 meeting. Was initially scheduled for the September 21 meeting, but was delayed due to failure to reach agreement with EPA on several key issues. The Department expects to resolve these issues by the November 2 meeting.

Who will be the Author? (name, phone number)

Brian Finneran, 229-6278

(G-7

PROPOSED EQC AGENDA TOPIC November 2, 1990 Meeting

What title do you assign to the proposed item?

PM_{10} Control Strategy for Grants Pass

What action do you want the EQC to take?

Adopt the Grants Pass Particulate Matter (PM_{10}) Control Strategy as an amendment to the State of Oregon Clean Air Act Implementation Plan.

What policy issues are involved that require EQC direction?

Should the proposed revisions to the State Implementation Plan be delayed until after reauthorization of the Clean Air Act?

What are the other potential alternatives for dealing with the issue?

Delay submittal of the State Implementation Plan until Congress reauthorizes the Clean Air Act and new PM_{10} schedules possibly go into effect;

Do not submit a State Implementation Plan and allow EPA to impose sanctions or develop and implement a Federal Implementation Plan for the Grants Pass area;

Are there Technical Issues that people should be aware of?

Compliance with the 24-hour federal PM_{10} standard appears to depend upon a 25% reduction, through voluntary curtailment, of woodburning emissions.

Cite specific statutes and rules that relate to this proposed item.

ORS 468

OAR 340-20-047 State of Oregon Clean Air Act Implementation Plan

OAR 340-30-005 through 340-30-110 Specific Air Pollution Control Rules for the Medford-Ashland Air Quality Maintenance Area and the Grants Pass Urban Growth Area

Are there any Legal Issues that people should be aware of?

No outstanding legal issues

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

Some fine-tuning of the operational details of a voluntary woodburning curtailment program is anticipated prior to the 1991-1992 winter heating season.

Who will be the Author? (name, phone number)

Howard Harris, 229-6086

H

PROPOSED EQC AGENDA TOPIC November 2, 1990, EQC Meeting

What title do you assign to the proposed item?

PM_{10} Control Strategy for the Medford-Ashland Area.

What action do you want the EQC to take?

Adoption of the PM_{10} air pollution control strategy as a revision to the State Implementation Plan (SIP).

What policy issues are involved that require EQC direction?

Contingency plan: Should the adopted plan include commitments to pursue other identified control measures if the control strategy fails to meet PM_{10} standards on schedule? (Much public hearing testimony was received to this effect.)

Local ordinance referendums: The repeal of Jackson County and Central Point ordinances for mandatory woodburning curtailment during pollution episodes are ballot measures on November 6, 1990. Should EQC adoption be delayed until after then?

What are the other potential alternatives for dealing with the issue?

Contingency plan: Add this or keep only the adopted/committed control measures.

Local ordinances: Adopt strategy on November 2, 1990 (and reassess situation if ordinances repealed) or delay until December 1990 EQC meeting.

Are there Technical Issues that people should be aware of? No.

Specific statutes/rules that relate?

ORS 468.305 Comprehensive air pollution control plan.
OAR 340-20-047 State of Oregon Clean Air Act Implementation Plan.
OAR 340-30-005 to -110 Industrial Rules for Medford-Ashland Area.

Are there any Legal Issues that people should be aware of?

The local woodburning curtailment ordinances are critical to the success of the overall PM_{10} control strategy. Some of the likely control measures for the contingency plan would require actions (if the strategy fails) by local governments (woodheating-related) or other state agencies (slashburning-related). Others would require EQC rules (additional industrial controls or restrictions on open burning).

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

State PM_{10} strategies were due to EPA by May 1988 but no state was able to meet that date. The State/EPA Agreement indicates the Medford-Ashland control strategy will be submitted during November 1990.

Who will be the Author? Merlyn Hough (229-6446)

(I)

PROPOSED EQC AGENDA TOPIC _____November 2, 1990__ Meeting

What title do you assign to the proposed item?

Waste Tire Financial Assistance: Adoption of Proposed Rules to Delegate Approval Authority to Director.

What action do you want the EQC to take?

Adopted proposed rule changes.

What policy issues are involved that require EQC direction?

1. Is it appropriate to delegate to the Director the Commission's responsibility to make a "finding" that financial assistance should be given to a permittee to clean up waste tires?

2. Is an index based on size of the waste tire pile related to a local government's population the correct way to determine percent of financial assistance for a local government permittee for waste tire cleanup?

3. Is it appropriate for the Department to "advance" the full cost of the cleanup (including the share to be paid by the permittee) in cases where the permittee cannot provide his or her share up front, and allow the permittee to repay the Department later?

What are the other potential alternatives for dealing with the issue?

1. a. Retain current procedure, with all requests from permittees for financial assistance going to the Commission;
b. Delegate decision authority to the Director only for those cleanups below a certain threshold (e.g. $50,000), and retain Commission approval for those above the threshold.

2. There are many: base percentage of assistance on per capita income, tax base, assessed per capita value of county, median household income, etc.

Are there Technical Issues that people should be aware of?

No.

Cite specific statutes and rules that relate to this proposed item.

ORS 459.705 through 459.790; OAR 340-64

Are there any Legal Issues that people should be aware of?

Does statute allow delegation by Commission of authority to make a "finding?"

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

(Public hearing to be held on September 19, 1990.)

J-1

PROPOSED EQC AGENDA TOPIC _____November 2, 1990__ Meeting

What title do you assign to the proposed item?

Solid Waste: Adoption of Rules Establishing an Out-of-State Waste Surcharge.

What action do you want the EQC to take?

Adopt proposed rule change establishing a surcharge for out-of-state solid waste disposed of in Oregon. (Note: the Department will recommend a single surcharge amount to the Commission; this amount will not be established until after the public hearings in September, and review of the report by a economics consultant hired by the Department.)

What policy issues are involved that require EQC direction?

1. Is the proposed surcharge "reasonable" based upon the range of potential costs of accepting out-of-state waste?

2. How should the fee be calculated: has the Department adequately identified the categories and range of costs that can be anticipated as a result of accepting out-of-state waste?

What are the other potential alternatives for dealing with the issue?

(The fee is mandated)

1. The Department requested public comment on a range of possible surcharge rates: from $1.50 per ton to $3.50 per ton. The surcharge amount might be chosen from any number within that range.

2. Instead of a uniform per ton surcharge on all solid waste coming into Oregon, differential rates might be charged depending on the type of waste, the land disposal site to which it goes, etc.

Are there Technical Issues that people should be aware of?

Yes, how the specific costs are calculated.

Cite specific statutes and rules that relate to this proposed item.

ORS 459.297 and 459.298; OAR 340-61

Are there any Legal Issues that people should be aware of?

All persons disposing of out-of-state solid waste in Oregon are required to pay a surcharge beginning on January 1, 1991.

Also constitutional issues of interstate commerce, and questions about whether private landfill space is a private commodity or a public resource (or both).

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?

K.1

PROPOSED EQC AGENDA TOPIC _November 2, 1990_____ Meeting

What title do you assign to the proposed item?
Bear Creek Total Maximum Daily Load (TMDL) Deadline Amendment

What action do you want the EQC to take?
Adopt proposed rule amendment to delay program plan deadlines for implementation of the Bear Creek TMDL.

What policy issues are involved that require EQC direction?
1. Should a departmental delay cause a potential hardship on the regulated entities, or should they be allowed additional time to complete program plans.

2. Allocation of DEQ resources for establishing TMDLs and for follow-up work on load and waste load allocations (LAs & WLAs), program plan guidance, review and approval, and monitoring of implementation.

What are the other potential alternatives for dealing with the issue?
1. In future TMDL rules, set program plan deadlines relative to the date of LA & WLA distribution by the Department to allow flexibility and avoid the need for this type of rule change.

2. Set timelines commensurate with resource availability.

Are there Technical Issues that people should be aware of?
The technical work is not over when the TMDL is established. LA and WLA calculations also involve modeling work and discussion of technical as well as policy issues.

Cite specific statutes and rules that relate to this proposed item.
The rule being proposed for amendment is OAR 340-41-385. Statutory authority is found in ORS 468.735.

Are there any Legal Issues that people should be aware of?
no

What is the proposed schedule for actions related to the item? Any deadlines or contingent items?
The hearing on the rule amendment is scheduled for September 24. DEQ will distribute LA & WLAs in mid-September and the program plan deadlines will be contingent on the date the allocations are distributed if the proposed amendment is adopted.

Who will be the Author? (name, phone number)
Debra Sturdevant, 229-5289

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: September 26, 1990

TO: Distribution List

FROM: Julie Schmitt, Director's Office

SUBJECT: 9/20, 21/1990 EQC meeting draft minutes

Please review the attached draft copy of the EQC meeting minutes from 9/20, 21/1990. If you have any comment, please respond to Harold Sawyer at 229-5776.

Thank you.

Distribution: EQC, Fred Hansen, Division Administrators, Michael Huston

DRAFT

SEP 26 1990

Approved ____
Approved with corrections ____
Corrections made ____

MINUTES ARE NOT FINAL UNTIL APPROVED BY THE EQC

ENVIRONMENTAL QUALITY COMMISSION

Minutes of the Two Hundred and Seventh Meeting
September 20-21, 1990

Work Session

The Environmental Quality Commission (Commission or EQC) Work Session was convened at about 1:15 p.m. at Conference Room 3a of the offices of the Department of Environmental Quality, 811 S. W. 6th Avenue, in Portland, Oregon. Commission members present were: Chairman Bill Hutchison and Commissioners Carol Whipple and Henry Lorenzen. Also present were Director Fred Hansen of the Department of Environmental Quality and Department staff.

Item 1: Third Party Appeals

Chairman Hutchison introduced the discussions on third party appeals.

Commissioner Lorenzen indicated the opportunity for third party appeals is important, but it should be used in limited circumstances, and the volume should not be a significant burden. Commissioner Lorenzen favored a discretionary approach, but with procedures established to formalize the process. He stated he wants discretion, but also wants some direction to people wanting to appeal.

Chairman Hutchison asked about defining standing, considering environmental effects, and establishing a briefing process. He stated that he wanted the Commission to be able to review issues before they reached court.

Commissioner Lorenzen stated that the aggrieved party standard is not good. He also questioned whether a third party would have the option to go to court even if the Commission elected to grant a third party appeal. Michael Huston responded that the aggrieved party standard is a loose one and is not of much benefit because anyone who had his view rejected would qualify. He also noted that a court would be expected to recognize a granted third party appeal option and defer to the administrative process.

Director Hansen noted that the Commission needs to be specific as to the criteria and information that should be on the table to determine whether to authorize a contested case.

Commissioner Lorenzen noted that there are two parts of the decision -- (1) will the Commission authorize a contested case, and (2) the time it takes for appeal. He noted that the EQC is more knowledgeable on environmental matters than the court. Michael Huston reminded the Commission that under the administrative process of a contested case, a permit is not finally issued until the contested case is resolved. In the case of a challenge of the permit issuance in court, the permit is issued unless enjoined by the court. Thus, the effect of the option for a third party appeal of a permit action can be very significant to a permittee.

Commissioner Lorenzen stated that the process should be short -- for example, two weeks for a third party to petition the Commission for a Contested Case, and the Commission's discretionary decision completed within a week.

Director Hansen again asked for an expression of the criteria the Commission would use to determine whether to approve a petition for a contested case by a third party. He expressed the Department's view that the pulp mill contested cases are evidence that the current process is not broken, but if it is going to be changed, rules are important to establish the criteria. He also noted that this process should not be a substitute for a petition for rulemaking.

Chairman Hutchison and Commissioner Lorenzen noted that participation in the process, major environmental impact, a precedent setting issue (first impression) or a significant question presented (such as an inconsistency) could be criteria.

Tom Donaca, representing Associated Oregon Industries, expressed a preference for remaining with the current situation related to third party appeals. He noted that a change in rules could require all permits to be modified in order for sources to be in compliance. If third party appeals were allowed, significant numbers of sources could end up without a modified permit pending resolution of the appeal and in violation of the new rules.

The Commission asked that a draft rule be developed and brought back to the Commission for consideration in a work session in December or earlier if possible. They expressed the view that they wanted to keep time periods tight, and that they did not want the applicant in limbo.

Item 2: Deputy Director Position Description

Director Hansen advised the Commission that he had concluded that the agency had grown to the point where a Deputy Director was needed to assist the Director and share in the important workload of the Director's office. The Department had a Deputy Director prior to 1975, but the position has not been filled since that time. Since 1984, the agency has grown from under 300 employees to nearly 500. It has become impossible for the Director to attend all of the meetings, provide important legislative support, and have the day to day contact needed with Department managers. He stressed that addition of a Deputy position would not change the relationships between the Commission and the Director, that the Director and the Deputy would speak with one voice and not provide the opportunity for "opinion shopping" within the agency, and that the Deputy would handle more of the administrative matters within the Department (although not entirely) so as to enhance the achievement of the Department's mission and free some of the Director's time to devote to strategic thinking as well as Commission and legislative discussions.

Chairman Hutchison expressed the view that the Director was overworked. He wanted the opportunity to discuss the matter further when all commission members were present. The matter was set aside for discussion at a later meeting.

Item 3: Portland Airport Noise Abatement Plan: Background Discussion

Terry Obteshka of the Department Staff introduced the subject by noting that the Department had invited the Port of Portland to brief the Commission on the 5 year update of the airport noise plan. Noise control at the airport dates to 1981 when the Oregon Environmental Council asked the Department to initiate controls. Hearings were held, and the Port agreed to develop a plan. The original plan was submitted in 1983, updated in 1985, and was scheduled for updating by March 1990. In April, the Commission approved an extension to allow for coordination with long range planning for the airport.

Shelly Klapper, who directs the planning, noise, and properties programs for the airport made the presentation. Mr. Klapper is also the chair of the Noise Abatement Advisory Committee. With him were John Newell, the Port's noise abatement officer, and Steve Lockwood, a member of the Noise Abatement Advisory Committee.

Mr. Klapper noted that the Port seeks to make the airport a good neighbor while providing good air service. The Noise Plan guides airport operations. The Noise Abatement Advisory Committee aids in developing and overseeing the plan and has diverse representation. Update of the noise plan has been under way for a year and is

tied into the 20 year capacity plan development. The existing plan has resulted in a 50% reduction of the acreage affected by a given noise level and an 85% reduction in the population affected by that noise level. This has been accomplished by (1) an Operational Program which controls aircraft arrival and departure routes to minimize flights over residential areas, (2) a Land Use program which prohibits development in some zones, requires disclosure of potential noise impacts in some zones, and requires sound insulation in some instances, and (3) a Review and Monitoring program which includes the Advisory Committee, a complaint response system, periodic evaluation of procedures (track noise and flight paths), and field monitoring.

The accomplishments of the program have been good, however some people are still affected and are unhappy. The easy improvements have been made, further progress will be difficult.

A consultant is aiding in the capacity analysis for the airport and integrating new FAA requirements and noise into the update. A subcommittee of the Noise Abatement Advisory Committee has been involved in this effort. The next step is public hearings, followed by revision and presentation to the Port Commission on November 14. The plan will be presented to the EQC for approval at the December 14, 1990 meeting.

Steve Lockwood noted that quieter planes have helped in the process. However, the number of planes will double in the next decade or so.

Director Hansen noted that major issues remain with respect to land use. In the long term, one must restrict development and increased densities in the noise sensitive zones in order to protect the public's interest in having a viable airport.

Chairman Hutchison thanked the Port representatives for the briefing.

Item 4: Discussion of Pollution Control Facility Tax Credit Eligibility for Farm Equipment

Director Hansen introduced the subject by noting that it is difficult to make recommendations on facilities such as tractors that serve multiple purposes. Chairman Hutchison stated that the Commission needed to decide how to handle the 8 applications that had been delayed as well as establish future direction for handling such equipment.

Commissioner Lorenzen indicated his preference for an approach which includes a standardized methodology for evaluating the application combined with a safety valve that allows a case to be made for a different result based on individual facts. He did not

like the second option suggested by the Department because it did not seem possible to build in all of the potential relevant concerns.

After some discussion, the Commission directed the Department to meet with the Department of Agriculture and perhaps the Extension Service and Soil Conservation Service to come up with a standardized methodology to evaluate tractors. It was not intended that a new policy be developed, rather that review criteria be developed to assist in determining the percent allocable to pollution control. In addition, there should be a safety valve process that would allow an applicant to justify a level of eligibility based on factors not considered in the standardized methodology.

The Commission also expressed the desire to accomplish this process as soon as possible and to apply it to the 8 tractor applications currently being held.

Item 5: Stage II Vapor Recovery: Discussion of New Developments and Policy Options

Director Hansen introduced the item by noting that the Commission had previously discussed the issue at prior work sessions, and had authorized public hearings on rules to require installation of underground piping for Stage II vapor recovery as tank installations are modified. The final decision on a requirement to complete installation of Stage II systems was to be deferred until after reauthorization of the Federal Clean Air Act. Several changes have occurred to warrant reconsideration of the matter.

First, the Portland area recorded 4 ozone standard violations this summer whereas the area was on the margin of compliance previously. Second, EPA has imposed a more stringent gasoline volatility standard in Portland air shed. Growth is continuing in the area and the subject of a growth margin needs to be considered.

This led the Department to re-examine the options. The Department met with a technical advisory committee. The committee ended up concurring in an approach that would fully implement Stage II Vapor Recovery in the Portland Metropolitan area.

The approach proposed by the Department is guided by the following:

- The three Portland Area counties would be implemented first.
- Initial implementation would involve facilities with the largest gasoline throughput.
- Implementation would be phased to affect a constant number of tanks per year (level work for contractors).
- Implementation would be finish by end of 1993 (attain standards and provide room for growth).

The potential would be to then move to implementation in the remainder of the Willamette valley by 1994, and statewide by 1995, however, any such decision would be dependent on further evaluation.

Brian Boe, representing the Oregon Petroleum Marketers Association, expressed support for the Department recommendation relative to the Portland area, but cautioned about expanding the boundaries beyond the tri-county area.

John Charles, representing Oregon Environmental Council, urged a statewide program.

Director Hansen noted that the matter would be back for further consideration at a later date in relation to air toxics.

The Commission urged the Department to pursue the recommended course including returning for authorization for rulemaking hearing for Stage II in the Tri-County area.

Item 6: Strategic Planning Performance Indicators

Director Hansen introduced this item by noting that the Department had agreed to provide the Commission with the Performance and Workload Indicators from the Agency Budget Request Document. He noted that the Department does not have the ability to measure or provide data for a number of the performance measures. He further noted that the Department will be refining the measures over the course of the next year. Director Hansen also noted that the narrative statements at the beginning of each section provide a clearer indication of the environmental goals.

Chairman Hutchison noted that the performance and workload measures provided were not what he expected and felt they would not work to assist the Commission in measuring progress toward environmental goals.

Director Hansen noted that the accomplishment of environmental goals is the sum of many individual pieces that are reflected in the performance and workload indicators. Therefore, if this is not useful to the Commission, the Department needs direction from the Commission on its preferences.

Pete Dalke, Management Services Division Administrator, noted that the Department had tried to meet Executive Department requirements, relate measures to 1989 legislation, and also reflect the Strategic Plan. He noted that it can be modified as it proceeds through the budget process.

Chairman Hutchison stressed the need to reflect on how we are doing on the items that were included as priorities in the operating plans. Director Hansen asked if addition of a column to the operating plan to give the status of each item would provide the desired level of detail. Chairman Hutchison said he thought it would.

Harold Sawyer reminded the Commission that the Strategic Plan was intended to guide future actions. The Department was pretty well locked in for the current biennium by the approved budget and the State/EPA Agreement. The operating plans were developed to identify the high priority projects and tasks for the remainder of this biennium. The Strategic Plan would provide guidance for budget development for the next biennium, and would be better reflected in the operating plans that would be developed following approval of the 1991-93 budget. Mr. Sawyer also reminded the Commission that the Department had indicated in June when the operating plan was approved that a quarterly report would be made following the end of September.

Following further discussion, the Commission decided to wait for further discussion until the quarterly report at the November work session on the status of high priority projects and tasks reflected in the operating plans.

The Work Session was adjourned at about 5:00 p.m.

Regular Meeting

The Environmental Quality Commission regular meeting was convened at about 8:40 a.m. in Conference Room 3a of the Department of Environmental Quality Offices at 811 S. W. 6th Avenue in Portland, Oregon. Commission members present were: Chairman Bill Hutchison, Vice Chairman Emery Castle, and Commissioners Carol Whipple and Henry Lorenzen. Commissioner Wessinger was out of town and unable to attend the meeting. Also present were Michael Huston of the Attorney General's Office, Director Fred Hansen of the Department of Environmental Quality and Department staff.

NOTE: Staff reports presented at this meeting, which contain the Department's recommendations, are on file in the Office of the Director, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204. Written material submitted at this meeting is made a part of this record and is on file at the above address. These written materials are incorporated into the minutes of the meeting by reference.

Chairman Hutchison called the meeting to order and welcomed the public to the meeting. He asked people wishing to testify on any item to fill out a witness registration sheet.

The Commission then proceeded through the published agenda.

Consent Items

The following items were listed on the agenda as Consent Items:

A. Minutes of the August 9-10, 1990 Meeting

B. Approval of Tax Credit Applications

The Department recommended that approval be granted on Pollution Control Facility Tax Credit applications as follows:

TC-2257	Norpac Foods, Inc.	Addition to Wastewater Treatment System
TC-2320	Rogge Forest Products, Inc.	Log Yard Debris Separation System
TC-2451	Blue Sky Farm, Inc.	Straw Storage Shed 120' x 26'
TC-2477	Blue Sky Farm, Inc.	Straw Storage Shed 80' x 106'
TC-2723	Hawk Oil Company	Installation of fiberglass lining in 4 bare steel underground storage tanks, addition of cathodic protection anodes to the tanks, the replacement of bare steel piping with fiberglass, spill containment basins, tank monitor, line leak detectors, an overfill alarm, and monitoring wells.
TC-2724	Hawk Oil Company	Installation of fiberglass lining in 4 bare steel underground storage tanks, addition of cathodic protection anodes to the tanks, the replacement of bare steel piping with fiberglass, spill containment basins, tank monitor, line leak detectors, an overfill alarm, and monitoring wells.
TC-2725	Hawk Oil Company	Installation of fiberglass lining in 3 bare steel underground storage tanks, the addition of cathodic protection anodes to the tanks, the replacement of bare steel piping with fiberglass, spill containment basins, tank monitor, overfill alarm, and monitoring wells.
TC-2726	Hawk Oil Company	Installation of fiberglass lining in 3 bare steel underground storage tanks, the addition of cathodic protection anodes to the tanks, the replacement of bare steel piping with fiberglass, spill containment

		basins, tank monitor, overfill alarm, and line leak detectors.
TC-2727	Hawk Oil Company	Installation of fiberglass lining in 4 bare steel underground storage tanks, addition of cathodic protection anodes to the tanks, the replacement of bare steel piping with fiberglass, spill containment basins, tank monitor, line leak detectors, and an overfill alarm.
TC-2739	Doug Nulf	Fisher 370 Twine Baler
TC-2762	Richmond's Service	Replacement of 3 bare steel tanks and piping with 2 STI-P3 tanks and fiberglass piping, and the installation of Emco-Wheaton spill containment basins and a Pollulert tank monitor.
TC-2836	Hawk Oil Company	Replacement of 3 bare steel underground storage tanks and piping with fiberglass tanks and piping, spill containment basins, tank monitor, line leak detectors, breakaway shutoff devices and monitoring wells.
TC-2842	Springfield Fuel Center	Installation of epoxy lining to the interior of one existing steel 12,000 gallon underground storage tank; the purchase of a 14,000 gallon two-compartment double-bulkhead steel aboveground tank with secondary half-shell containment vessel and two Red Jacket line leak detectors on the aboveground tank.
TC-2858	Blue Sky Farm, Inc.	Straw Storage Shed, 80' x 106'
TC-2911	Boise Cascade Corporation	Replacement of 2 bare steel tanks and piping with one total containment double wall polyethylene jacketed steel underground storage tank and double wall fiberglass piping, and the installation of an EBW spill containment basin, monitoring wells, Petrosonic III tank monitor, Red Jacket line leak detectors and EBW breakaway shutoff devices. A third waste oil tank was decommissioned at the time of the project.
TC-2929	Hyster Company	Installation of a Petrosonic III tank monitor, Red Jacket line leak detectors, Emco spill containment basins, overfill alarm and Stage I vapor recovery fill tubes on four underground storage tank systems.
TC-2950	Fletcher Oil Company	Installation of sacrificial anode cathodic protection on 3 steel underground storage tanks and piping, Petrosonic III tank monitor, Red Jacket line leak

		detectors, spill containment basins, vapor monitoring well and overfill alarm.
TC-3005	May-Slade Oil Company, Inc.	Installation of epoxy lining in three underground storage tanks, impressed current cathodic protection to tanks, and piping and spill containment basins.
TC-3006	May-Slade Oil Company, Inc.	Installation of epoxy lining in three underground storage tanks, impressed current cathodic protection to tanks, and piping and spill containment basins.
TC-3007	May-Slade Oil Company, Inc.	Installation of epoxy lining in two underground storage tanks, impressed current cathodic protection to tanks, and piping and spill containment basins.
TC-3071	Metrofueling, Inc.	Installation of UST leak detection devices on three (3) gasoline USTs and one (1) diesel UST in the form of automatic liquid tank gauges with a built-in alarm.
TC-3075	Metrofueling, Inc.	Installation of UST leak detection devices on two (2) gasoline USTs and one (1) diesel UST in the form of automatic liquid tank gauges with a built-in alarm.
TC-3082	Metrofueling, Inc.	Installation of UST leak detection devices on two (2) gasoline USTs and one (1) diesel UST in the form of automatic liquid tank gauges with a built-in alarm.
TC-3095	Gary's Cannon Beach Service	Installation of epoxy lining in four bare steel underground storage tanks and the replacement of bare steel piping with fiberglass piping, the installation of a tank monitor, spill containment basins, suction pumps and breakaway shutoff devices.
TC-3149	Kirk Century Farms, Inc.	John Deere 300 Stackwagon; John Deere 260 Loader; John Deere 2810 7-Bottom Plow; Used 15 Dandl Flail Chopper; and John Deere 530 Round Baler.
TC-3156	Berger Brothers	Rear's 14' Flail Chopper; New Holland 858 Round Baler.
TC-3169	Oak Creek Farms, Inc.	Wil Rich Plow; Pul-Flail Straw Chopper.
TC-3171	Cersovski Farm	Ford Plow; 15' Dandl Flail Chopper.
TC-3189	Roger F. Neuschwander	John Deere 2800 Plow
TC-3195	Langmack Seed Co., Inc.	16' Pul Flail Chopper

TC-3196	Marion L. Knox	White 548 Plow; Agriweld 2200 Harrow; Dandl Chopper.
TC-3206	Metrofueling, Inc.	Installation of UST leak detection devices on four (4) gasoline USTs and one (1) diesel UST in the form of automatic liquid tank gauges with a built-in alarm.
TC-3212	Metrofueling, Inc.	Installation of UST leak detection devices on four (4) gasoline USTs and three (3) diesel USTs in the form of automatic liquid tank gauges with a built-in alarm.
TC-3213	Metrofueling, Inc.	Installation of UST leak detection devices on five (5) gasoline USTs and one (1) diesel UST in the form of automatic liquid tank gauges with a built-in alarm.
TC-3215	G & R Seeds	Gehl 5' Round Baler; Hesston 60B Stackhand; Roan's 30' Propane Flamer.
TC-3217	Roger Rucked	Straw Storage Shed 124' x 144'
TC-3218	Truax Oil, Inc.	Installation of UST leak detection devices on five (5) gasoline USTs and three (3) diesel UST in the form of automatic liquid tank gauges with built-in alarm.
TC-3220	Clovercrest Market	Replacement of 2 bare steel tanks and piping with 2 STI-P3 tanks and fiberglass piping, and the installation of spill containment basins and a monitoring well.
TC-3221	Jared L. Rogers Chevron	Installation of spill containment basins and a tank monitor system on three steel underground storage tanks.
TC-3222	George's Texaco	Replacement of 3 bare steel tanks and piping with 3 STI-P3 tanks and fiberglass piping, and the installation of spill containment basins, monitoring wells, breakaway shutoff devices and preparation of the site for a tank monitor system.
TC-3225	Lyle Neuschwander	John Deere Flail Chopper; John Deere Mold-Board Plow.
TC-3226	Western Stations Co.	Replacement of 4 bare steel tanks and piping with 4 STI-P3 tanks and fiberglass piping, and the installation of EBW spill containment basins, breakaway shutoff devices, oil/water separator, overfill vend valves, tank monitor, line leak detectors, overfill

		alarm, monitoring wells and single point Stage I vapor recovery.
TC-3227	Daryl J. Ferguson	Replacement of 3 bare steel tanks and piping with 2 STI-P3 tanks and fiberglass piping, and the installation of spill containment basins, a tank monitor, overfill alarm, line leak detectors and monitoring wells.
TC-3228	Grant's Petroleum, Inc.	Replacement of one bare steel tank and piping with 2 STI-P3 tanks and fiberglass piping, and the installation of spill containment basins, monitoring wells, overfill valves, automatic shutoff safety valves, piping for vapor recovery and preparation for the installation of a tank monitor.
TC-3232	Carmichael-Columbia Oil	Installation of a Petronsonic III tank monitor, EBW spill containment basins, OPW overfill valves, float vent valves, piping for Stage II vapor recovery and the underground wiring for an impressed current cathodic protection system to be installed at a later date to augment protection to the tanks now being provided by existing sacrificial anodes.
TC-3235	May-Slade Oil Company, Inc.	Replacement of bare steel piping with fiberglass piping in three underground storage tank systems.

C. Accountabilities and Expectations, Director, Department of Environmental Quality

This item presented a proposed statement of accountabilities and expectations for the position of Director of the Department of Environmental Quality.

D. Authorization for Rulemaking Hearing: Proposed Portland Central Business District Parking Offset Rule

This item requested authorization to hold a public rulemaking hearing on proposed rules which would add an Air Quality Parking Offset Rule to the Portland Carbon Monoxide (CO) State Implementation Plan (SIP). The new rule would allow the City of Portland to exceed the CO SIP parking lid to meet new parking growth needs projected for the next ten years in the Central Business District without any increase in CO emissions.

E. Authorization for Rulemaking Hearing: Proposed Amendments to Soil Matrix Rules for Underground Storage Tank Cleanups

This item requested authorization to hold a public rulemaking hearing on proposed amendments to the Soil Matrix Rules for Underground Storage Tank Cleanups. The proposed amendments make changes in the analytical methods, sampling methodology and reporting requirements, but do not change the actual numeric cleanup standards.

F. Authorization for Rulemaking Hearing: Proposed Amendments to Water Quality Standards as Part of the Triennial Review Required by the Clean Water Act

This item requested authorization to hold public rulemaking hearings on proposed amendments to Water Quality Standards. The proposed amendments are the result of the Triennial Review required by the Federal Clean Water Act. Following review of public comments received on a series of issue papers, the Department developed proposed amendments to the antidegradation policy, definition of waters of the state, dissolved oxygen, bacteria, toxics, mixing zones, particulate matter, and biological criteria. Changes in definitions were also proposed to support the proposed rule changes.

G. City of McMinnville: Request for Approval of Program Plan for Reducing Wastewater Discharges and Meeting the Total Maximum Daily Load for Phosphorous for the Yamhill River

This item requested approval of the City of McMinnville's program plan for reducing wastewater discharges and meeting the Total Maximum Daily Load (TMDL) for Phosphorous for the Yamhill River. The program plan outlines possible options for meeting the TMDL. Approval of the program plan will allow the City to proceed with development of a facilities plan report to be submitted by April 1, 1991.

H. City of Ashland: Request for Approval of Program Plan for Reducing Wastewater Discharges and Meeting the Total Maximum Daily Loads for Bear Creek

This item requested approval of the City of Ashland's program plan for reducing wastewater discharges and meeting the Total Maximum Daily Loads for Bear Creek. The plan calls for the facilities plan to be submitted by August 1992. The Depart-

ment recommended that a two-phase facility plan report be required with the first-phase report due in May 1991. The first-phase report will determine if another year will be needed to complete the facilities plan report and whether an extension of the final compliance date will be needed.

I. Waste Tire Pile Cleanup: Request for Approval of Funds from the Waste Tire Recycling Account to Assist Douglas County

This item requested Commission approval for use of funds from the Waste Tire Recycling Account to expedite cleanup of approximately 25,000 waste tires at a permitted waste tire storage site. The estimated cost for cleanup was $ 22,300 with the permittee required to pay 30% of the cost.

The Commission removed items A, C, F, and four Tax Credit Applications from Item B (TC-2257, TC-2858, TC-2451, and TC-2477) from the consent agenda by consensus to allow for public testimony and discussion.

Action on Consent Items B (part), D, E, G, H & I:

Commissioner Castle MOVED that Consent Item B with the exception of TC-2257, TC-2858, TC-2451, and TC-2477, and Consent Items D, E, G, H, and I be approved. The motion was seconded by Commissioner Lorenzen and unanimously approved.

Consideration of Consent Item A: (Minutes of the August 9-10, 1990 Meeting)

Harry Demaray appeared to ask the Commission to replace the paragraph in the minutes describing his comments at the Public Forum at the August 10, 1990 meeting with a verbatim transcript he had prepared from the tape of the meeting.

Commissioner Lorenzen MOVED that the transcript submitted by Mr. Demaray be included in the record of this meeting and that the minutes be approved as submitted (with correction of typographical errors). The motion was seconded by Commissioner Whipple and approved unanimously.

Consideration of 4 applications from Consent Item B: (Tax Credit Applications)

Harry Demaray appeared to question the appropriateness of granting certification to tax credit applications TC-2451, TC-2477, and TC-2858, submitted by Blue Sky Farms. Mr. Demaray read the reports to suggest that the three straw storage sheds claimed in the applications would have the capacity to store straw from 1500 acres, and the applications indicated that only 500 acres would be taken out of open field burning. Roberta Young

of the Management Services Division responded that the three sheds were used to store straw from the same 500 acres.

It was MOVED by Commissioner Lorenzen that Application TC-2858 be approved. The motion was seconded by Commissioner Castle and unanimously approved.

It was further MOVED by Commissioner Lorenzen that Applications TC-2451 and TC-2477 be approved. The motion was seconded by Commissioner Castle and unanimously approved.

It was MOVED by Commissioner Lorenzen that Application TC-2451 be approved. The motion was seconded by Commissioner Castle and approved with three yes votes and Chairman Hutchison abstaining.

Consideration of Consent Item C: (Accountabilities and Expectations, Director Department of Environmental Quality)

Harry Demaray appeared to recommend amendments to the wording of the statement of Accountabilities and Expectations as presented by Commissioners Lorenzen and Castle.

The Chairman deferred consideration of Item C until later in the meeting after the Commission had opportunity to consider the modifications suggested by Mr. Demaray.

Consideration of Consent Item F: (Authorization of Rulemaking Hearing on Proposed Amendment to Water Quality Standards)

Director Hansen briefly explained the background of the agenda item. He noted that the Department took the extraordinary step of drafting "issue papers" on a number of potential water quality standards issues and circulated them to informally solicit public comment. The Department evaluated comments received and made modifications to several of the concepts in the initial issue papers. Proposed rule amendments were then prepared and the Department was recommending that hearings be held to receive formal testimony on the proposals. Following hearings and evaluation of formal testimony, the matter would be returned to the Commission for adoption.

Chairman Hutchison noted that 8 persons had asked to testify, and the letters had been received from the Northwest Pulp and Paper Association and the Association of Oregon Sewerage Agencies. He then asked for the reaction of the staff. Neil Mullane stated that the package of rules proposed for hearing address many of the comments raised in the letters he had reviewed. Mr. Mullane further noted that many of the comments appear to be asking for amendments to rules other than water quality standards. The

Department made it clear from the beginning that the triennial review process would focus on water quality standards only, and that changes to other rules, including those which previously established technology based design criteria would be considered later. He further noted that 14 issue papers were originally circulated. Comments received assisted the Department to flesh out proposed rule language for the 8 that are now proposed for hearing. The other 6 issues will take more study before any proposals are carried forward.

Floyd Collins, representing the Association of Oregon Sewerage Agencies (AOSA), and John C. Hall, an Engineer/Attorney Consultant to AOSA, appeared to recommend that the Commission refer the matter back to the staff with instructions to discuss the issues further with their organization. Specifically, they wanted additional issues, including modifications to basin design criteria rules, added to the package. They also wanted further input on the Dissolved Oxygen and Antidegradation rules before they were sent out for public hearing. They expressed concern that some of the rules go beyond minimum federal requirements and could cost $200 - 500 million to implement. They stated that the rules need to be based on sound technical and economic requirements. They further stated that the public should be clearly advised if the state intended to go beyond minimum federal requirements.

Commissioner Castle noted that the Commission and Department have always taken public comment to heart and have frequently modified proposals based on testimony presented in hearings. Commissioner Castle further noted that he was troubled by the request of AOSA that the Commission act without the opportunity to consider the substance developed in the public hearing process.

Commissioner Lorenzen noted that the comments of AOSA appear to suggest that the proposed rules were not modified they way they had requested and they would like to discuss it further before any action is taken. He stated that others may differ with AOSA as to what should be in the rule. The informal process on the issue papers was not intended to replace the full rulemaking public involvement process.

Chairman Hutchison asked about the potential need for a new public hearing if the rules were modified substantially as result of the hearing process. Michael Huston advised that a new public notice and new hearing could be required if the initial public notice was drafted in a narrow fashion such that it does not cover the extent of changes proposed. In other cases, if changes are extensive enough, it may be desirable to return the matter for an additional hearing. The Department has done this in the past.

Steven E. Simonson, representing Tri City Sanitary District, offered comments on the proposed Dissolved Oxygen Standard amendments. He stated that the amendments are

difficult to read to the point of being unclear, and thus it would be difficult to offer meaningful testimony.

David J. Abraham, representing Clackamas County, expressed support for the position of AOSA.

Dan Hanthorn, representing the City of Corvallis, indicated that the rules as proposed are hard to interpret and thus it will be difficult to get meaningful comment.

Commissioner Castle expressed concern that persons testifying wanted to present their concerns to the Department in a one-on-one setting rather than presenting concerns in hearing testimony. He stated that he reads hearing testimony, and relies heavily upon it in evaluating and developing his position on an issue. He wants to see modifications based on public testimony, not one-on-one discussions.

Ross Peterson, representing the City of Portland Bureau of Environmental Services, noted that the City concurs with the comments of AOSA. He noted that they were frustrated by the minimal response to some issues raised by AOSA and by the lack of response to others.

John Pointer, representing Citizens Concerned with Waste Water Management, stated that he was not surprised that Portland wants discussions in private rather than in public. He stated his view that Portland is not properly operating its sewage treatment plant, and that DEQ is not taking appropriate enforcement action.

In response to testimony, Director Hansen noted that the Department values the efforts of AOSA to review the rules and provide input. The Department wants rules that are understandable. He noted further that the hearing authorization can be delayed if the Commission wishes, or the Department could move forward with part of the package and hold the Dissolved Oxygen and Antidegradation rules for further discussion. Lydia Taylor, Administrator of the Water Quality Division, stated that the Department was not perfect in its response. She also indicated that the Department was not opposed to exploring the concept of a Science Advisory Board as recommended in the letter from the Northwest Pulp and Paper Association.

Commissioner Castle noted his preference to defer the item until the next meeting, to give the Department time to do as it wishes in the interim. He specifically stated that he did not wish do give any specific direction to the Department for action in the interim. Commissioner Lorenzen indicated his only concern was in whether the rules were sufficiently clear. He stated that all other issues raised were more appropriately considered in the hearing process.

Chairman Hutchison indicated that it was the sense of the Commission to defer action on the item at this time. Director Hansen noted that staff reports for the November meeting are well into the drafting stage, thus it may be the December meeting before this item would be back to the Commission.

Public Forum

Harry Demaray stated that revisions to the Civil Penalty Rules approved in March are, in his opinion, unlawful because the changes were not specifically considered in the public hearing. He stated that the penalty matrix is meaningless for open burning violations. He further stated that he believes the Department is improperly applying the March 1990 rules to violations that occurred in 1989. He asked that the Commission designate an independent investigator to look into the matter.

Director Hansen noted that the changes in the Civil Penalty Rules adopted in March were fully discussed with the Commission prior to adoption.

Chairman Hutchison thanked Mr. Demaray for his testimony and advised him that the Commission did not intend to act on his request for an independent investigator.

John Pointer, Chairman of Citizens Concerned with Wastewater Management, stated that the public supports cleanup regardless of costs. He further stated that the public perception was captured in a Willamette Week article and that DEQ is covering up for industry and not levying enough fines. Mr. Pointer then reiterated a series of accusations against the Department and Commission that he had presented at previous commission meetings and stated he would like a response and the opportunity to rebut.

Chairman Hutchison stated that he disagreed with Mr. Pointer's characterization of the situation, and advised that the Commission declined to act.

Walter H. Drew, a landowner in the Clear Lake Watershed, advised the Commission that the Department failed to present a final recommendation on the Clear Lake Rule at this meeting as indicated in the earlier rulemaking hearing notice. He noted that the presiding officer at the hearing indicated that the matter was delayed for administrative reasons and would not be considered at the September meeting as originally intended. He expressed the view that the Department was being devious and was really delaying the matter to get a statement from a supportive group.

Dick Nichols, of the Water Quality Division, advised the Commission that the matter would probably be back to them at the December meeting. He disagreed with Mr. Drew as to the reason for the delay, noting that he had been assigned to higher priority issues in the interim.

Action Items

J. Method and Criteria for Setting Maximum Measurable Levels for Contaminants in Groundwater: (1) Presentation of Recommendation by the Technical Advisory Committee; and (2) Request for Authorization to Hold Public Hearings on Proposed Rules

This item proposed that the Commission receive the recommendations of the Groundwater Quality Technical Advisory Committee on a method and criteria for establishing Maximum Measurable Levels (MMLs) for contaminants in groundwater. The item further requested authorization to hold a rulemaking hearing on proposed rules recommended by the Advisory Committee.

The Chair of the Technical Advisory Committee, Clinton Reeder, presented an overview of the Committee's report, recommendations, and the proposed rules. His presentation was in three sections as follows:

a) He reviewed the organization of the Committee and how it functioned.

b) He reviewed the proposed rules by walking the Commission through Appendix I of the Committee's report, the schematic of the process for establishing an MML.

c) He reviewed some of the Committee's concerns as outlined starting on page 15 of their report and as expressed in the minority statements of Mary O'Brien, and David Chandler and Lolita Carter.

Chairman Hutchison recognized receipt of the Advisory Committee's Report and thanked Mr. Reeder for the effort he and the Committee put forth in developing the report, recommendations, and proposed rules.

Commissioner Lorenzen asked if Mr. Reeder had a feeling of the scope of groundwater problems in Oregon. Mr. Reeder noted that problems appear minimal except in a few defined areas.

Mr. Reeder closed by urging the Commission to handle groundwater matters with compassion. If this is done, the Commission will get broad support. If issues are handled in a purely regulatory fashion, there will be a backlash.

It was MOVED by Commissioner Lorenzen that the Department recommendation be approved. The motion was seconded by Commissioner Castle and unanimously approved.

K. North Albany Health Hazard Area: Approval of Final Alternative Plan to Annexation

This item requested Commission approval of the final alternative plan to mandatory annexation for alleviating a health hazard in the North Albany Area. The plan will allow expeditious provision of sewer service to the North Albany health hazard area by the City of Albany without the requirement of annexation.

Director Hansen explained that the Commission had reviewed and approved the Alternative Plan in a draft version at its January meeting and was required by statute to review and approve a final version before the Alternative Plan could be implemented.

Wastewater Finance Section Manager Martin Loring further explained that if the Commission chose not to approve the Final Alternative Plan, the proceedings for elimination of the health hazard in North Albany would revert to mandatory annexation. He indicated that the Alternative Plan was the outcome of excellent cooperation between Benton County, the City of Albany, and the residents of the health hazard area, and that it was the opinion of Department staff that it offered the most satisfactory and expeditious means of eliminating the health hazard. It was the recommendation of the Department that the Commission certify the Alternative Plan. Mr.Loring noted that Mr. Ron Hall of the Health Division, Mr. Jeff Condit, Benton County Counsel, and Richard Santner of the Wastewater Finance Section were available to answer questions.

It was MOVED by Commissioner Castle that the Department recommendation be approved. The motion was seconded by Commissioner Lorenzen and unanimously approved.

The Commission then proceeded to consider Agenda Item O and deferred consideration of items L, M, and N until later in the meeting.

O. City of Coos Bay and Charleston Sanitary District: (1) Petition from the City of Coos Bay Requesting Compliance Order and WPCF Permit for Charleston Sanitary District; and (2) Motion to Intervene to Specifically appeal Contest Jurisdiction, and Motion to Dismiss forwarded by Charleston Sanitary District

On August 13, 1990, the Department received a petition from the City of Coos Bay to the Environmental Quality Commission requesting that the Commission issue a compliance order to the Charleston Sanitary District approving a cost allocation of $892,000 for the district's share of construction costs for a sewerage system improvements project, requiring the district's financial participation in the improvement project, and making the district liable, along with the city, for meeting compliance dates in Commission Order WQ-SWR-88-72. In addition, the city requested that the Commission require that the district be issued a water pollution facilities discharge permit regulating the district's collection system.

On August 27, 1990, the Department received motions from the Charleston Sanitary District to the Environmental Quality Commission requesting that the district be allowed to intervene in the proceedings, and requesting that the petition be stayed pending circuit court review, and that the petition be ultimately dismissed after a final decision by the circuit court.

Coos Bay and Charleston were advised the matter would be placed on the agenda and that the Department would recommend that each be given 15 minutes to present their view to the Commission.

Paula M. Bechtold represented the City of Coos Bay. She stated that finance issues would be dropped from their request for EQC consideration since the City and District had agreed to arbitration on these issues. She covered many issues between the City and District, emphasizing the District's refusal to cooperated with the City on sewage treatment plant improvements. She stated that the City was unable to regulate the District, and that this should be done through DEQ by issuance of a WPCF permit. She stated that state law required that the District be regulated through a permit. She cited problems such as high flows and high strength wastes coming form the District to the City treatment plant. She also stated that an order should be issued to the District which would require the District to pay their fair share of construction costs, and hold the District equally responsible with Coos Bay for enforcement actions.

Lynn Heusinkveld represented the Charleston Sanitary District. He stated that the underlying contract between the City and the District should govern the relations between them, and that Commission action was not warranted. He stated that the District should not have to pay for any of the sewage treatment plant improvement costs, and cited the recently concluded arbitration to support his position. He believed that the

District should be part owners of the treatment plant and that plant operation decisions should be conducted through the operations committee as provided by the contract. He also indicated that the District has purchased land for construction of their own independent sewage treatment plant and had applied for a separate permit.

After a brief question and answer period, Chairman Hutchison stated the conclusions of the Commission as follows:

- The City and the District should go back and resolve issues at the local level through negotiations and arbitration if necessary. The City and the District both say that a regional solution is best. Grants can help to reduce the direct costs to local citizens. The public interest is best served by a speedy negotiated resolution of issues.

- If the issues cannot be resolved at the local level, the Commission and Department will need to consider the matter a two system problem, take such action as is necessary to secure jurisdiction over the Charleston Sanitary District, and take enforcement action as necessary against both parties. If progress is not made toward resolution of the issues soon, the Department should be ready to look at rule modifications necessary to secure control of the separate systems.

- The Commission strongly prefers a regional approach to sewage treatment. Anything less would be a disservice to the citizens.

Director Hansen noted that the Department has not yet made a determination on the Charleston permit application for a separate sewage treatment plant, however, the District should be aware that the Department strongly supports a regional approach and views separate smaller facilities to be unattractive from an operational standpoint and not cost effective and thus are not likely to be approved.

The Commission meeting was then recessed for lunch.

Upon reconvening the meeting, the Chairman proposed that final action be taken on Agenda Item C. The matter had been deferred earlier to allow Commission Members time to study amendments proposed by Mr. Demaray.

It was MOVED by Commissioner Castle that Agenda Item C be approved as originally circulated. The motion was seconded by Commissioner Lorenzen and unanimously approved.

Informational Items

L. Commission Member Reports

Chairman Hutchison reported that the Governor's Watershed Enhancement Board (GWEB) had not had a meeting since he became the member. He noted that a conference call was held on a rule amendment. Andy Schaedel advised that GWEB was awaiting applications for project funding assistance and were looking forward to initiating a watershed assessment process. He also noted that 4 of the 5 board members are new.

Commissioner Castle reported that he had appeared before the Board of Forestry to report on the Technical Specialist Panel. He indicated they were comfortable with the progress to date.

Harold Sawyer reported that he had attended the Quality of Life Benchmarks Working Group meeting for Commissioner Wessinger. The working group recommended that the Governor's office forward some generic comments to the Progress Board, and that each agency proceed to send in their individual comments by September 14, 1990.

M. Director's Report (Oral Report)

Pollution Control Bond Sale

The State Treasurer sold $6.77 million Pollution Control General Obligation Bonds on behalf of the Department on September 11. The interest rates on the bonds were 7.17% on the bonds for the City of Gresham and 7.12% for the bonds for the City of Portland. On September 27, DEQ will receive the money from the bond sale and purchase bonds issued by the cities of Gresham and Portland.

EPA Water Quality Division Audit

The Environmental Protection Agency; has issued a critical audit of the Water Quality Division's pretreatment program and enforcement. The Department agrees with many of the findings and has already increased staff to correct deficiencies in the pretreatment program.

Gramm-Rudman - Potential EPA Cuts

EPA reports that because of Gramm-Rudman, the agency is facing possible budget cuts. In the worst case, the cuts could be as much as 32%. The cuts could affect the amount of money DEQ receives from EPA.

Salt Caves Decision

The Department has informed the City of Klamath Falls that we will need more time to finalize our review of the new proposal for the Salt Caves Hydroelectric facility. The review is expected to be completed by October 9, 1990. The Department had originally hoped to complete the review by September 4, 1990, but needs more time to analyze information from public hearings and other sources. The project must receive a certification from DEQ pursuant to Section 401 of the Federal Clean Water Act that it complies with state water quality standards.

Heap Leach Mining

The Governor is preparing a response to the petition that the various natural resource agencies received regarding a moratorium on heap leach mining. A comprehensive approach is being developed involving the various agencies to pursue this issue. Dave Riley of the Governor's office will head up the effort.

Commissioner Lorenzen noted that DEQ appears to have the best handle of any of the state agencies regarding mining activities on federal lands. He expressed the desire to proceed to further discussions of this matter and the potential for establishing design and performance standards to protect the environment. He wondered how the Commission could have input to the joint agency coordinated process. Director Hansen noted that individual agencies would be expected to pursue their concerns and that the joint effort would be looking at how the gaps would be filled. He also noted that a work session discussion on mining was currently planned for the December meeting.

N. Legislative Update (Oral Report)

A memo report was handed out to the Commission.

Meeting Schedule

The Commission tentatively approved a schedule for meetings for 1991 as follows:

January 31-February 1, 1991	July 18-19, 1991
March 7-8, 1991	September 12-13, 1991
April 25-26, 1991	October 24-25, 1991
June 13-14, 1991	December 12-13, 1991

There was no further business and the meeting was adjourned.

Date: 10-16-90 8:12am
From: Deanna Mueller-Crispin:HSW:DEQ
  To: Julie Schmitt:OD:DEQ
  cc: dmCrispin:hsw
Subj: Author! Author!
In-Reply-To: Message from Julie Schmitt:OD:DEQ of 10-15-90

Please put me down for 20 copies of waste tire report. Thanks.

---------- Replied Message Body ----------
Date: 10-15-90 5:04pm
From: Julie Schmitt:OD:DEQ
To: Roberta Young:MSD, Debbie Bailey:ECD,
Krystyna Wolniakowski:WQ, Deanna Mueller-Crispin:HSW,
Steve Greenwood:HSW, Debi Sturdevant:WQ, Greg Pettit:WQ,
Bruce Sutherland:WQ
cc: HLSawyer:OD, Julie Schmitt:OD:DEQ
Subj: Author! Author!

A reminder that final staff reports are due tomorrow, 10/16/90 by 5:00 p.m. PLEASE LET ME KNOW how many copies of your staff report you will be needing for advisory groups, interested parties, mothers, etc...

Thanks!

js

10/16

Julie —

This staff report needs two ~~little~~ things:

① Debbie Bailey will bring a revised Preamble down tomorrow ~~a.m.~~ - Attachment A — final has renumbered pages — & incorporate the two tables added.

② The Appendix A - IRP - ~~the~~ model - which is the last 100 pages of ATTACHMENT A is in final technical edit. We will have copies ready for mailing Friday.

Fred: NOTE →

In the interim — we have drafts for review and a draft was included with the draft staff report.

I'm out until Wed p.m. — Debbie Bailey can help if you have questions.

I talked w/ Hal on this one.

Thanks

Kathy

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