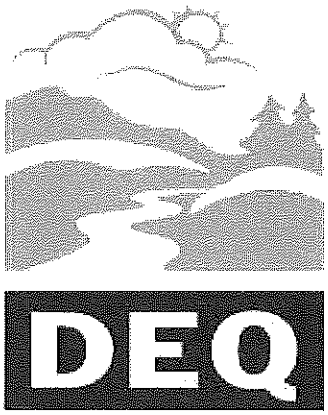
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 01/12/1996



State of Oregon
Department of Environmental Quality

REVISED AGENDA

ENVIRONMENTAL QUALITY COMMISSION MEETING

January 11-12, 1996
DEQ Conference Room 3A
811 S. W. 6th Avenue
Portland, Oregon

Thursday, January 11, 1996: Regular Meeting beginning at 1:00 p.m.

1. **Information Item**: Background Briefing on Proposed Umatilla Army Depot Permits for Incineration of Nerve Agent and Munitions

2. **†Rule Adoption**: 1992-1994 Triennial Water Quality Standards Review: Proposed Revisions to Standards

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Friday, January 12, 1996: Regular Meeting beginning at 8:30 a.m.

Notes:

Because of the uncertain length of time needed for each agenda item, the Commission may deal with any item at any time in the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if agreeable with participants. Anyone wishing to listen to the discussion on any item should arrive at the beginning of the meeting to avoid missing the item of interest.

Public Forum: The Commission will break the meeting at approximately **11:30 a.m.** for the Public Forum if there are people signed up to speak. The Public Forum is an opportunity for citizens to speak to the Commission on environmental issues and concerns not a part of the agenda for this meeting. The public comment period has already closed for the Rule Adoption items and, in accordance with ORS 183.335(13)m no comments can be presented to the Commission on those agenda items. 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.

A. Approval of Minutes

B. Approval of Tax Credits

C. **†Rule Adoption:** Voluntary Wellhead Protection Rules

D. **†Rule Adoption:** Air Quality Industrial Rules (Divisions 21, 25, and 30): Grain Loading and Process Weight Rules; Contingent Hardboard Rule; Board Materials Storage; Sulfur Dioxide Emissions Standard

E. **†Rule Adoption:** Air Quality Industrial Rules: Hydrogen Sulfide; Medford Hardboard Rule

~~F. **Action Item:** James River Corporation, Biochemical Oxygen Demand Effluent Limit Reduction~~

G. **Action Item:** David A. McInnis dba McInnis and Son Sanitary Service, McInnis Enterprises, Ltd., and Schulz Sanitation, Case No. WQIW-NWR-94-311 -- Appeal of Hearings Order Regarding Violation Assessment of Civil Penalty (This item is scheduled for 1:30 p.m. and may be taken out of order)

H. **Action Item:** Variance Application of Dan and Carol Barry (This item is scheduled for 1:30 p.m. and may be taken out of order)

I. **Action Item:** Variance Application of Gordon Herigstad (This item is scheduled for 1:30 p.m. and may be taken out order)

J. **Action Item:** Variance Application of Mr. and Mrs. Stephen W. Wilkins (This item is scheduled for 1:30 p.m. and may be taken out of order)

K. **Information Item:** Enhanced Vehicle Emission Testing Update

L. **Information Item:** Seventh Annual Environmental Cleanup Report

M. **Action Item:** Variance for Coos County Municipal Solid Waste Incinerator

N. Commissioners' Report (Oral)

O. Director's Report (Oral)

†Hearings have already been held on the Rule Adoption items and the public comment period has closed. In accordance with ORS 183.335(13), no comments can be presented by any party to either the Commission or the Department on these items at any time during this meeting.

The Commission has set aside February 22-23, 1996, for their next meeting. The location has not been established.

Copies of staff reports for individual 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.

If special physical, language or other accommodations are needed for this meeting, please advise the Director's Office, (503)229-5395 (voice)/(503)229-6993 (TTY) as soon as possible but at least 48 hours in advance of the meeting.

January 8, 1996

State of Oregon

Department of Environmental Quality Memorandum

Date: January 11, 1996

To: **Environmental Quality Commission**

From: **Stephanie Hallock, Administrator, Eastern Region**

Subject: Umatilla Army Depot Worksession

Attached is an agenda for the worksession discussion and background materials on the proposed incineration facility at the Umatilla Army Depot.

The two state agencies primarily involved with activities at the Depot are DEQ, which prepares the environmental permits, and the Oregon Emergency Management Division (OEM), which is responsible for coordinating the Chemical Stockpile Emergency Preparedness Program (CSEPP), in the event of an incident at the Depot. The worksession will not cover the CSEPP activities, but representatives of OEM and participating counties will be available to answer your questions.

The purpose of the worksession is to provide you with background on the chemical demilitarization program and to explain your role in the permitting process. The worksession also includes brief panel presentations of different views in the community about alternatives to incineration.

Because time is limited, in-depth discussion of technical issues such as risk assessment and alternatives to incineration is also limited. You may wish to direct DEQ to provide future worksessions on technical issues and/or on the emergency preparedness program.

Agenda

UMATILLA ARMY DEPOT
Informational Worksession
for
Environmental Quality Commission

January 11, 1996
1:00 PM to 3:00 PM
811 SW 6th Ave., Portland, Room 3A

Agenda

1:00-1:10 PM	Introductions	Stephanie Hallock, Administrator, Eastern Region, DEQ
1:10-1:25 PM	General Overview	Sue Oliver, Permits Coordinator, DEQ
1:25-1:40 PM	Overview of other Chemical Demilitarization Facilities	Col. Jim Coverstone, US Army
1:40-1:50 PM	EQC Role in Permits Process	Stephanie Hallock, Administrator, Eastern Region, DEQ
1:50-2:00 PM	Remarks by Confederated Tribes of the Umatilla indian Reservation	Representative to be Designated
2:00-2:10 PM	Chemical Demilitarization Citizens Advisory Commission	Karyn Jones, Chair
2:10-2:40 PM	Perspectives on Alternatives to Incineration	Col. Jim Coverstone, US Army Representative Chuck Norris Donald Wysocki, Ph.d., soil scientist, Oregon State University Videotape presentation
2:40-3:00 PM	Questions & Answers	

Agenda

UMATILLA ARMY DEPOT Informational Worksession for Environmental Quality Commission

January 13, 1995
1:00 PM to 3:00 PM
811 SW 6th Ave., Portland, Room 3A

Agenda Topics

1:00-1:10 PM	Introductions	Stephanie Hallock, Administrator, Eastern Region, DEQ

Discussion:

Conclusions:

Action items:	Person responsible:	Deadline:

1:10-1:25 PM	General Overview	Sue Oliver, Permits Coordinator, DEQ
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:
1:25-1:40 PM	Overview of other Chemical Demilitarization Facilities	Col. Jim Coverstone, US Army
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:
1:40-1:50 PM	EQC Role in Permits Process	Brett McKnight, Eastern Region Hazardous Waste Manager
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:

1:50-2:00 PM	Remarks by Confederated Tribes of the Umatilla indian Reservation	Donald Sampson, Chairman, Board of Trustees
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:
2:00-2:10 PM	Army's Approach to Alternatives to Incineration	Col. Jim Coverstone, US Army
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:
2:10-2:30 PM	panel Presentations on Alternatives to Incineration	Karyn Jones, Chemical Demilitarization Advisory commission
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:

2:30-3:00 PM	Questions & Answers by EQC	
Discussion:		
Conclusions:		
Action items:	Person responsible:	Deadline:

tive expenses incurred in the process of renewing the permit for a treatment, storage or disposal facility. [1985 c.670 §11; 1987 c.540 §17]

466.050 Citizen advisory committees. (1) To aid and advise the director and the commission in the selection of a hazardous waste or PCB treatment or disposal facility or the site of such facility, the director shall establish citizen advisory committees as the director considers necessary. The director shall determine the representation, membership, terms and organization of the committees and shall appoint their members. The director or a designee shall be a nonvoting member of each committee.

(2) The advisory committees appointed under subsection (1) of this section shall review applications during an application period established under ORS 466.040 and make recommendations on the applications to the commission. [1985 c.670 §12]

466.055 Criteria for new facility. Before issuing a permit for a new facility designed to dispose of or treat hazardous waste or PCB, the commission must find, on the basis of information submitted by the applicant, the department or any other interested party, that the proposed facility meets the following criteria:

(1) The proposed facility location:

(a) Is suitable for the type and amount of hazardous waste or PCB intended for treatment or disposal at the facility;

(b) Provides the maximum protection possible to the public health and safety and environment of Oregon from release of the hazardous waste or PCB stored, treated or disposed of at the facility; and

(c) Is situated sufficient distance from urban growth boundaries, as defined in ORS 197.295, to protect the public health and safety, accessible by transportation routes that minimize the threat to the public health and safety and to the environment and sufficient distance from parks, wilderness and recreation areas to prevent adverse impacts on the public use and enjoyment of those areas.

(2) Subject to any applicable standards adopted under ORS 466.035, the design of the proposed facility:

(a) Allows for treatment or disposal of the range of hazardous waste or PCB as required by the commission; and

(b) Significantly adds to:

(A) The range of hazardous waste or PCB handled at a treatment or disposal facility currently permitted under ORS 466.005 to 466.385; or

(B) The type of technology employed at a treatment or disposal facility currently permitted under ORS 466.005 to 466.385.

(3) The proposed facility uses the best available technology for treating or disposing of hazardous waste or PCB as determined by the department or the United States Environmental Protection Agency.

(4) The need for the facility is demonstrated by:

(a) Lack of adequate current treatment or disposal capacity in Oregon, Washington, Idaho and Alaska to handle hazardous waste or PCB generated by Oregon companies;

(b) A finding that operation of the proposed facility would result in a higher level of protection of the public health and safety or environment; or

(c) Significantly lower treatment or disposal costs to Oregon companies.

(5) The proposed hazardous waste or PCB treatment or disposal facility has no major adverse effect on either:

(a) Public health and safety; or

(b) Environment of adjacent lands. [1985 c.670 §5; 1987 c.540 §18; 1989 c.833 §96]

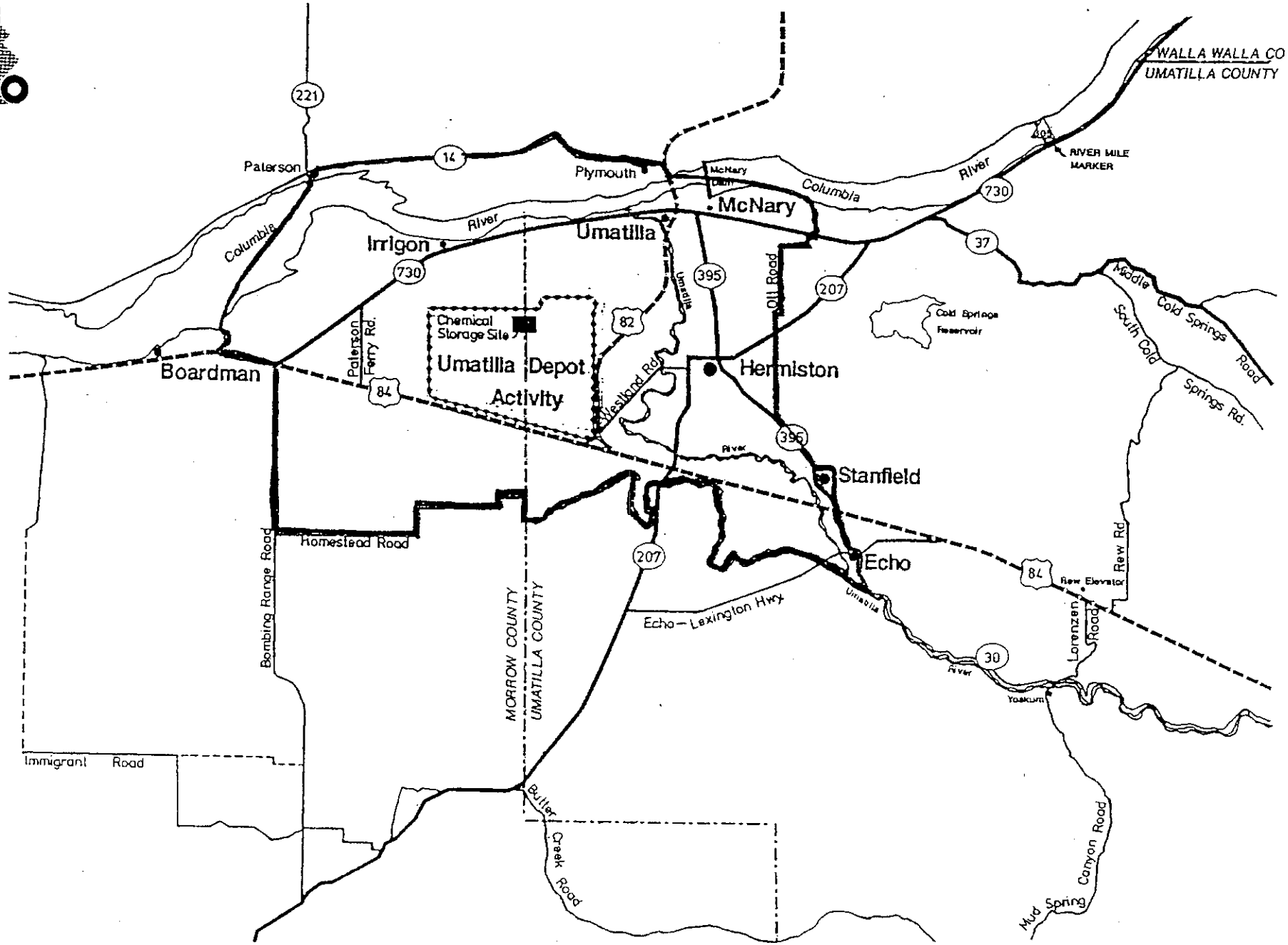
466.060 Criteria to be met by owner and operator before issuance of permit. (1) Before issuing a permit for a facility designed to treat or dispose of hazardous waste or PCB, the permit applicant must demonstrate, and the commission must find, that the owner and operator meet the following criteria:

(a) The owner, any parent company of the owner and the operator have adequate financial and technical capability to properly construct and operate the facility; and

(b) The compliance history of the owner including any parent company of the owner and the operator in owning and operating other similar facilities, if any, indicates an ability and willingness to operate the proposed facility in compliance with the provisions of ORS 466.005 to 466.385 and 466.890 or any condition imposed on the permittee by the commission.

(2) If requested by the permit applicant, information submitted as confidential under paragraph (a) of subsection (1) of this section shall be maintained confidential and exempt from public disclosure to the extent provided by Oregon law. [1985 c.670 §7; 1987 c.540 §19; 1989 c.833 §97]

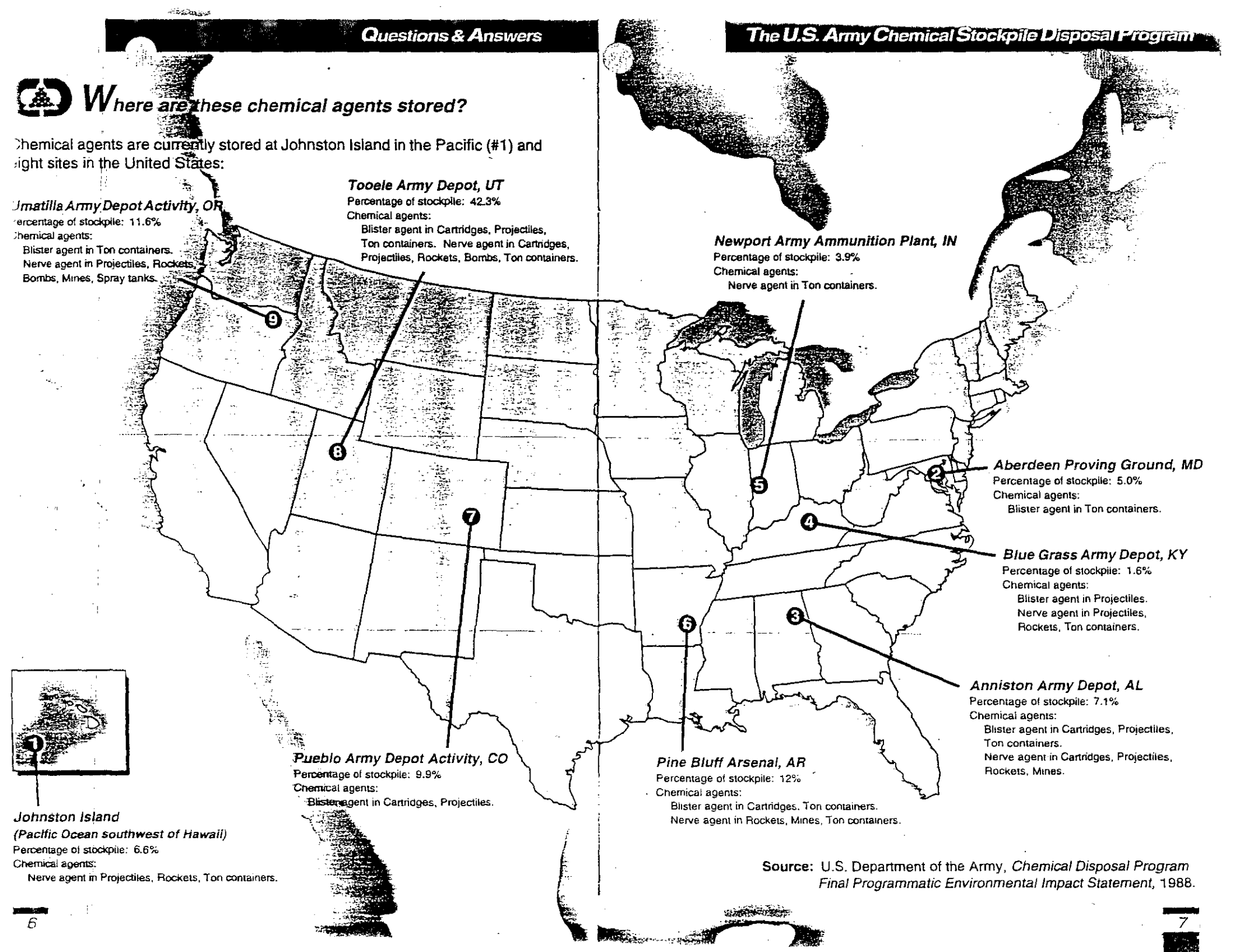
466.065 Applicant for renewal to comply with ORS 466.055. As a condition to the issuance of a renewal permit under ORS 466.005 to 466.385 and 466.890, the commission may require the applicant to comply



PREPARED FOR STATE AGENCY BRIEFING (OCTOBER 25, 1995)

Where are these chemical agents stored?

Chemical agents are currently stored at Johnston Island in the Pacific (#1) and eight sites in the United States:



Umatilla Army Depot Activity, OR
Percentage of stockpile: 11.6%
Chemical agents:
Blister agent in Ton containers.
Nerve agent in Projectiles, Rockets, Bombs, Mines, Spray tanks.

Tooele Army Depot, UT
Percentage of stockpile: 42.3%
Chemical agents:
Blister agent in Cartridges, Projectiles, Ton containers. Nerve agent in Cartridges, Projectiles, Rockets, Bombs, Ton containers.

Newport Army Ammunition Plant, IN
Percentage of stockpile: 3.9%
Chemical agents:
Nerve agent in Ton containers.

Aberdeen Proving Ground, MD
Percentage of stockpile: 5.0%
Chemical agents:
Blister agent in Ton containers.

Blue Grass Army Depot, KY
Percentage of stockpile: 1.6%
Chemical agents:
Blister agent in Projectiles.
Nerve agent in Projectiles, Rockets, Ton containers.

Anniston Army Depot, AL
Percentage of stockpile: 7.1%
Chemical agents:
Blister agent in Cartridges, Projectiles, Ton containers.
Nerve agent in Cartridges, Projectiles, Rockets, Mines.

Pine Bluff Arsenal, AR
Percentage of stockpile: 12%
Chemical agents:
Blister agent in Cartridges, Ton containers.
Nerve agent in Rockets, Mines, Ton containers.

Pueblo Army Depot Activity, CO
Percentage of stockpile: 9.9%
Chemical agents:
Blister agent in Cartridges, Projectiles.

Johnston Island
(Pacific Ocean southwest of Hawaii)
Percentage of stockpile: 6.6%
Chemical agents:
Nerve agent in Projectiles, Rockets, Ton containers.

Source: U.S. Department of the Army, *Chemical Disposal Program Final Programmatic Environmental Impact Statement*, 1988.

CHEMICAL WEAPONS STOCKPILE AT THE UMATILLA ARMY DEPOT

NERVE AGENTS GB (SARIN) AND VX

STORAGE CONFIGURATIONS:

ARTILLERY PROJECTILES
M55 ROCKETS
LAND MINES
500- AND 750- POUND BOMBS
SPRAY TANK
BULK STORAGE ("TON CONTAINERS")

BLISTER AGENT HD ("MUSTARD")

STORAGE CONFIGURATION:

BULK STORAGE ONLY (TON CONTAINERS)

PREPARED FOR STATE AGENCY BRIEFING OCTOBER 25, 1995

CHEMICAL STOCKPILE DISPOSAL PROGRAM

MANDATED BY LAW
DISPOSAL DEADLINE: DEC. 31, 2004

(THE ARMY SELECTED INCINERATION AS THE PREFERRED ALTERNATIVE)

INCINERATION PROCESS

- DRAINING/DISASSEMBLY
- FIVE INCINERATORS OF FOUR DIFFERENT TYPES:
  - LIQUID (AGENT) INCINERATORS (2)
  - DEACTIVATION FURNACE FOR EXPLOSIVES/PROPELLANTS (1)
  - METAL PARTS FURNACE (1)
  - DUNNAGE INCINERATOR (1)

PREPARED FOR STATE AGENCY BRIEFING OCTOBER 25, 1995

UMATILLA ARMY DEPOT CHEMICAL WEAPONS DESTRUCTION

FACT SHEET # 1 BACKGROUND

BACKGROUND

The U.S. Army has applied to the Oregon Department of Environmental Quality (DEQ) for environmental permits to build and operate an incineration facility to destroy chemical weapons stored at the Umatilla Army Depot. The site is located approximately eight miles west of Hermiston, Oregon.

WHAT IS DEQ'S ROLE?

The DEQ is currently reviewing permit applications for both an air pollution control permit and a hazardous waste permit. The hazardous waste permit application is also being reviewed by the Environmental Protection Agency (EPA).

DEQ and EPA have asked the Army to provide additional information before the application can be considered complete. Once the application is complete, DEQ and EPA will prepare draft permits for public review and comment. The permits will outline operating conditions and other requirements for the incinerators and place limits on emissions.

The proposed incineration facility would be required to comply with all state and federal regulations for the control of gaseous and particulate emissions and for the disposal of hazardous waste.

When draft permits are available, DEQ will provide notice and set formal public hearings to receive testimony from the public. In addition, DEQ will hold a variety of informational meetings to fully inform and involve the public in the permit process.

WHAT IS PROPOSED?

The Army's proposal would use five incinerators to destroy the chemical weapons. Two incinerators would be used to destroy liquid nerve and blister agents. The remaining incinerators would be used for thermal treatment of metal parts and destruction of explosives, propellants, and packaging materials which have been in contact with liquid nerve and blister agents.

All container handling, munitions disassembly, and incinerator loading would be conducted within an enclosed building. Emissions from the building and the incinerators would be directed through pollution control systems before being released to the atmosphere. Computer interlocks would shut down waste feed to the incinerators if proper operating conditions are not maintained or if a chemical agent is detected in the exhaust stack.

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WHAT ARE CHEMICAL AGENTS?

The chemical agents stored at the Umatilla Army Depot include nerve agents and blister ("mustard") agents in liquid form. Nerve agents are contained in munitions, such as rockets and land mines, and in large containers, such as spray tanks, bombs, and "ton containers." Mustard agent is stored only in ton containers. Each ton container holds approximately 1,700 pounds of mustard agent in liquid form.

There are two types of nerve agents stored at the Umatilla Army Depot: "GB" and "VX." Both of these agents are odorless, colorless, tasteless, and highly toxic in both liquid and vapor form. Exposure to very small amounts of nerve agent can cause death. The mustard agent stored at the Army Depot can cause severe blisters on exposed skin, and damage to the eyes and respiratory tract if inhaled. In large amounts, especially if inhaled, mustard agent can cause death.

WHAT IS THE DISPOSAL PROCESS?

The disposal process described in the permit application would involve three main steps:

1. **Transport:** The chemical weapons and bulk storage items would be transported in sealed containers from the storage area to an enclosed container handling building.

2. **Disassembly and Incineration:** The chemical weapons and storage containers would be disassembled, drained of agent, and separated into component parts. The various components would then be transferred to the appropriate incinerator.

3. **Waste Management:** The proposed facility would generate both atmospheric (air) emissions and solid wastes. Air emissions would be managed with pollution control sytems. Solid wastes would include scrap metal, ash from the incinerators, and brine salts from the pollution control systems. These materials would be transported to an approved hazardous waste facility for disposal.

WHERE TO GET MORE INFORMATION

More information on the Army's proposal is available at the Hermiston Public Library. To receive more information about the proposed incineration facility from DEQ, please contact Sue Oliver at the DEQ office in Hermiston, 256 East Hurlburt, or call (503) 567-8297.

ACCESSIBILITY INFORMATION

Copies of this publication are available in alternate format (e.g. large type, braille, or Spanish) by calling DEQ Public Affairs, (503) 229-6044 or toll free in Oregon 1-800-452-4011. People with a hearing impairment may call DEQ's TTY at (503) 229-6993.

Revised May, 1995

UMATILLA ARMY DEPOT CHEMICAL WEAPONS DESTRUCTION

FACT SHEET #2

ENVIRONMENTAL PERMITS

BACKGROUND

The U.S. Army has applied to the Oregon Department of Environmental Quality (DEQ) for environmental permits to build and operate an incineration facility to destroy chemical weapons stored at the Umatilla Army Depot. This fact sheet is the second in a series about the proposed incineration facility.

WHAT ARE ENVIRONMENTAL PERMITS?

Permits are how DEQ regulates the discharge of pollutants by setting limits that protect human health and the environment. Permits specify such things as the allowable range of incinerator temperatures, the type of waste to be burned, and requirements for automatic shutdown if an incinerator does not operate within the permit's limits. The permits also include requirements for emissions monitoring, security procedures, inspections, employee training, and emergency planning.

WHAT ENVIRONMENTAL PERMITS DOES THE ARMY NEED?

The Army's proposed incineration facility requires two types of environmental permits: an air contaminant discharge permit (air permit) and a hazardous waste permit ("RCRA permit"). "RCRA" stands for "Resource Conservation and Recovery Act," a law passed by Congress in 1976 to reduce or eliminate hazardous waste.

The RCRA permit will require the proper management and handling of the chemical hazardous wastes and set protective emission limits. The air permit will be processed at the same time as the RCRA permit and will limit hazardous air pollutants and other emissions, such as carbon monoxide and particulate matter. Both permits will rely on a risk analysis and must be issued before construction of the incineration facility can begin. The RCRA permit decision will be made jointly by DEQ and the U.S. Environmental Protection Agency (EPA).

WHAT ARE DEQ'S RESPONSIBILITIES?

The DEQ is responsible for Oregon's air and water quality, and management of hazardous and solid waste to protect public health. As a public agency, DEQ must always consider the opinions and concerns of Oregon citizens. The DEQ provides opportunities for the public to be involved in the permit process through informal meetings, and formal public comment periods and public hearings.

WHAT DOES THE ARMY HAVE TO DO TO GET A PERMIT?

The permit process includes numerous steps to insure that the proposed facility can meet environmental standards. Air permit applications must include details about the operations, expected air emissions, air pollution control equipment, and other information about the facility.

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The RCRA permit application has two parts: Part A and Part B. Part A is a standard form which contains general information about the owner, location, and the type and amount of waste that the facility will manage.

Part B contains detailed technical information that covers everything from equipment and operating procedures to emergency prevention and response procedures. Part B must also include the "trial burn" plan. The trial burn is a series of tests that are conducted under the most difficult conditions likely to be encountered during normal operation of an incinerator.

If the DEQ or EPA decides that the application is incomplete, a "Notice of Deficiency" is issued to request additional information. The DEQ and EPA have issued five Notices of Deficiency since the Army first submitted their application in 1986.

WHAT DOES THE DEQ DO WITH THE APPLICATION?

The technical staff at the DEQ and EPA carefully evaluate the application. If the DEQ and EPA judge that the facility can meet environmental standards, then a draft permit will be issued for public review and comment. If the facility cannot meet standards, then the DEQ will issue a notice stating that the DEQ intends to deny the application. In either case, a notice will be sent to the Army and published in local newspapers.

Issuing a draft permit does not mean there will be final approval for a permit. DEQ does not expect to be making a decision about the draft permit until early 1996. DEQ will then take comments from the public during a formal public comment period of no less than 45 days. A public hearing will be held during this period. DEQ will consider the technical and environmental merits of all comments received during the formal comment period and then make a final decision on the application.

WHAT IF THE DEQ AND EPA ISSUE A FINAL PERMIT?

If a final permit is issued, there would be two separate "shakedown" and "trial burn" tests to establish the final operating conditions. A shakedown test is a start up period used to check equipment and stabilize operations. A trial burn is a combustion test of an incinerator's ability to meet performance standards.

The first shakedown and trial burn of the facility would be conducted with a substitute hazardous material called "surrogate." Surrogate material is chemically similar to the lethal agents. The facility would be carefully monitored to ensure that it will operate as designed.

After review of the surrogate tests there will be a second shakedown/trial burn with the actual chemical agent. Emissions and operating conditions are again monitored to assess performance and ensure safety.

The results of the tests will be reviewed and analyzed to establish the final facility operating conditions. If the results show that major modifications are needed, an additional public comment period is required.

WHERE TO GET MORE INFORMATION

Information on the Army's proposal is available at the Hermiston Public Library or from DEQ. Contact Sue Oliver at the DEQ office in Hermiston, 256 East Hurlburt, or call (503) 567-8297.

ACCESSIBILITY INFORMATION

Copies of this publication are available in alternate format (e.g. large type, braille, or Spanish) by calling DEQ Public Affairs, (503) 229-6044 or toll free in Oregon 1-800-452-4011. People with a hearing impairment may call DEQ's TDD at (503) 229-6993.

August 1994

UMATILLA ARMY DEPOT CHEMICAL WEAPONS DESTRUCTION

FACT SHEET #3 PUBLIC INVOLVEMENT OPPORTUNITIES

BACKGROUND

The U.S. Army has applied to the Oregon Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency (EPA) for environmental permits to build and operate an incineration facility to destroy chemical weapons stored at the Umatilla Army Depot.

This fact sheet describes the many opportunities available to the public to become involved with the permit process for the proposed facility. DEQ maintains an office in Hermiston to provide a local communication link between the public and technical staff preparing the permits.

Concerned citizens, interest groups, and elected officials are encouraged to express their comments on the public health and environmental concerns related to the incineration facility.

DO MY COMMENTS REALLY COUNT?

DEQ is responsible for Oregon's air and water quality, and as a public agency the DEQ must always consider the comments and concerns of Oregon citizens. The public is encouraged to get involved in the permit process by learning about the proposed facility, getting on the DEQ mailing list, attending informational meetings, and providing comments about the proposed facility to the DEQ.

HOW CAN I GET INVOLVED?

Learn About the Proposed Facility

DEQ fact sheets are distributed at meetings, through the DEQ mailing list, or can be obtained by contacting Sue Oliver in the Hermiston office.

An information repository is being maintained at the Hermiston library and is available for public review during the library's normal operating hours. Some information will also be placed in the libraries in Boardman, Echo, Heppner, Stanfield, and Umatilla. Ask your librarian for assistance.

Request to be on the DEQ Mailing List

Contact the DEQ in Hermiston and request to be placed on the Umatilla mailing list. You will receive fact sheets, status updates, and "Chance to Comment" forms, along with advance notice of DEQ meetings and meetings of the Chemical Demilitarization Citizens Advisory Commission. (The Advisory Commission was appointed by the Governor to receive testimony and provide input to the U.S. Army about the proposed incineration facility.)

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Attend Informational Meetings and Public Hearings

The DEQ will occasionally hold "open houses" in the local area to answer citizen's questions. Open houses are informal opportunities for the public to speak directly with DEQ's technical staff about the proposed facility.

Representatives of other agencies (EPA, U.S. Army, Emergency Planning, etc.) will be invited to participate. Open houses will be advertised in local newspapers and advance notice provided to all persons on the DEQ mailing list.

Meetings of the Citizens Advisory Commission are open to the public and are advertised through newspapers and notices sent to persons on the mailing list. DEQ staff can also give presentations to interested groups in the local community (city councils, business groups, etc.).

Provide Your Comments to the DEQ

If the DEQ and EPA are satisfied that the proposed facility can meet environmental standards they will jointly issue a draft hazardous waste permit (this probably will not occur until late 1995). In addition to the hazardous waste permit the DEQ would also issue a draft air contaminant discharge permit.

Issuing draft permits begins a formal public comment period that will last a minimum of 45 days. A formal public hearing will be held to take testimony from the public about the proposed facility. Public notice of this hearing will be provided at least 45 days in advance.

Your comments are welcome any time during the permit process. Comments received prior to the issuance of the draft permit will be forwarded to the appropriate DEQ staff. The DEQ will consider the technical and environmental merits of all comments received during the formal comment period and then make a final decision on the permit application.

WHERE TO GET MORE INFORMATION

Contact Sue Oliver at the DEQ office in Hermiston, 256 East Hurlburt (Suite 117), or call (503) 567-8297 (toll-free in Oregon 1-800-452-4011).

If you would like information direct from the U.S. Army call Donna Fuzi (Umatilla Army Depot Public Affairs Officer) at (503) 564-5312.

If you have questions about emergency planning contact Geoff Tyree, the Bi-County Public Information Officer for the Chemical Stockpile Emergency Preparedness Program (CSEPP) at (503) 922-4437.

ACCESSIBILITY INFORMATION

Copies of this publication are available in alternate format (e.g. large type, braille, or Spanish) by calling DEQ Public Affairs, (503) 229-6044 (toll free in Oregon 1-800-452-4011). People with a hearing impairment may call DEQ's TDD at (503) 229-6993.

OCTOBER, 1994

UMATILLA ARMY DEPOT CHEMICAL WEAPONS DESTRUCTION

FACT SHEET #4 RISK ASSESSMENT BASICS

BACKGROUND

The U.S. Army has applied to the Oregon Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency (EPA) for environmental permits to build and operate an incineration facility to destroy chemical weapons stored at the Umatilla Army Depot. This fact sheet is the fourth in a series about the proposed incineration facility.

The permitting process includes a requirement to assess the potential impact of the incineration facility on human health and the environment. The DEQ is using an independent contractor (Ecology and Environment, Inc.) to conduct a "Pre-Trial Burn Risk Assessment" to estimate the incinerator's potential impact on human health and the environment.

WHAT IS A RISK ASSESSMENT?

The term "risk assessment" refers to the process of estimating the probability of harm to human health or the environment from exposure to chemical pollutants. A risk assessment uses scientific methods to estimate the risks from a chemical by identifying the type of harmful effects a pollutant might cause (its "toxicity") and evaluating how someone might be exposed to that chemical.

Local weather conditions and terrain are considered in determining the probable path of emissions from the incinerator stacks. The goal is to estimate how much (if any) harm to human health or the environment will occur due to air emissions during normal, day-to-day operation of the incinerators, and during unusual ("upset") conditions which are not catastrophic in nature.

(Operating conditions sometimes occur during the burning process that can momentarily upset the balance of the incineration system. These "upset conditions" can result in temporarily increased emissions.)

The environmental part of the risk assessment will include evaluating whether there are risks to ecological resources such as critical fish and wildlife habitat, or endangered species.

THE STEPS IN A RISK ASSESSMENT

The four basic steps in a risk assessment are 1) hazard identification, 2) dose-response assessment, 3) exposure assessment, and 4) risk characterization.

Initially, information from other chemical weapons incinerators and from EPA guidance documents will be used in the Pre-Trial Burn Risk Assessment. Later, the actual results of the Umatilla Trial Burn will be used to re-calculate and/or verify the initial values, and to revise the permit conditions if necessary.

DEPARTMENT OF ENVIRONMENTAL QUALITY
811 S.W. SIXTH AVENUE • PORTLAND, OREGON 97204

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STEP 1
HAZARD IDENTIFICATION
IS THERE A HAZARD?
IF SO, WHAT IS IT?

HAZARD IDENTIFICATION determines whether exposure to a substance causes a harmful health or environmental effect and the nature of the effect. Hazardous substances are identified by analyzing the wastes that will be fed into the incinerators to determine what kind of air pollutants might be produced during the burning process.

The available information on each type of potential pollutant is then reviewed to determine if the chemical substance has been identified as harmful, and what type of harm it might cause. Hazard identification also helps the DEQ and EPA decide what types of pollutants should be measured during the trial burns of the incinerators.

STEP 2
DOSE-RESPONSE ASSESSMENT
HOW MUCH IS HARMFUL?
WHAT ARE THE HARMFUL EFFECTS?

DOSE-RESPONSE ASSESSMENT looks at the relationship between the dose (amount) received and the harm or injury that it causes.

Generally, as the dose of a harmful chemical increases, so does the amount of harm it causes. Some people, such as pregnant women, children, or the elderly, might be more sensitive to a chemical than others. Long term health effects will be assessed for individuals who live, fish, or farm in the area.

STEP 3
EXPOSURE ASSESSMENT
COULD A PERSON BE EXPOSED THROUGH EATING? BREATHING? SKIN CONTACT?

EXPOSURE ASSESSMENT involves describing the nature and size of the population and area exposed and the amount and length of time of the exposure.

Exposure assessment uses a variety of exposure "scenarios" to account for people's different lifestyles. For example, someone who lives close to the incinerators and grows their own food and raises animals might be exposed to stack emissions not only through breathing, but also from eating plants or animal products that have also been exposed. Another scenario assesses exposure of small children because children breathe faster than adults and are more likely to come in contact with soil that has been exposed to stack emissions.

STEP 4
RISK CHARACTERIZATION
WHAT ARE THE POSSIBLE HARMFUL EFFECTS? WHAT IS THE LIKELIHOOD A HARMFUL EFFECT WILL OCCUR?

RISK CHARACTERIZATION combines the information collected during the first three steps and determines the likelihood that humans or animals will experience any of the health effects associated with a substance, or that the environment will be harmed.

Characterizing risks usually involves assigning a value to a risk, such as "there is a one in 100,000

chance that someone who lives near the site might cancer from exposure to the chemicals." But e risks cannot be assigned a number value. For example, some ecological evaluations cannot obtain a risk number because valid scientific data are not available.

ARE RISK ASSESSMENTS RELIABLE?

Risk assessments always involve assumptions and thus include some degree of uncertainty. When information is limited (or not available), "professional judgement" decisions are usually made to err on the side of safety (to overestimate risk). A risk assessment is a scientific tool used to determine the **potential** for risk--it does **not** determine actual risk.

To protect the most sensitive people in a population (such as young children, pregnant women, or the elderly) a number of very conservative assumptions are built into the risk essment process.

Risk assessments generally tend to overestimate risks by assuming "worst-case" conditions, even though it is unlikely these conditions will occur. When the risk is calculated to be "one in a million," risk assessors are really saying that exposure to a chemical will add no more than one excess cancer case per one million people exposed. The actual number may be quite less (e.g. one in ten million), but is not expected to be greater than one in one million.

HOW WILL DEQ USE THE RISK ASSESSMENT?

The Pre-Trial Burn Risk Assessment is being completed concurrently with the drafting of environmental permits that will be issued for public review and comment.

The risk assessment is only one of the tools that Q will use to establish operating conditions and emission limits for the facility. The risk assessment report will include a discussion of the strengths and limitations of the assessment. The results will be used by the DEQ and EPA to set strict and enforceable permit conditions for the operation and management of the facility.

WHERE CAN I GET MORE INFORMATION?

DEQ will be holding public meetings about both the risk assessment and the environmental permits. If you are on the DEQ mailing list you will receive fact sheets and meeting notices in the mail. If you would like to be added to the DEQ mailing list, or have any other questions, comments, or concerns, please contact Sue Oliver at the DEQ office in Hermiston (256 East Hurlburt, Hermiston, OR, 97838) or call (503) 567-8297.

More information about the Army's proposal to build the incineration facility at the Umatilla Army Depot is available at the Hermiston Public Library or from the DEQ. Other DEQ fact sheets in this series include:

Fact Sheet # 1: Background
Fact Sheet # 2: Environmental Permits
Fact Sheet # 3: Public Involvement Opportunities

The Risk Assessment described here will not study the risks of chemical weapons storage or catastrophic accidents at the Depot. However, the Army is conducting such a risk assessment. For further information please contact Suzanne Fournier of the U.S. Army at (410) 671-2583.

ACCESSIBILITY INFORMATION

Copies of this publication are available in alternate format (e.g. large type, braille, or Spanish) by calling DEQ Public Affairs, (503) 229-6044 or toll free in Oregon 1-800-452-4011. People with a hearing impairment may call DEQ's TDD at (503) 388-6145.

(July 1995)

CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM
RAYMOND KELLY - PROGRAM COORDINATOR
(503) 378-2911 ext. 247

THE FACTS - October 23, 1995

How did the program originate?

The Chemical Stockpile Emergency Preparedness Program (CSEPP) began when, after passing Public Law 99-145, Congress realized that emergency preparedness in cities and counties surrounding chemical warfare agent stockpile sites needed upgrading.

What is the purpose of CSEPP?

The CSEPP has three purposes:

1. Enhance emergency preparedness in communities surrounding chemical warfare agent storage sites. This is done through emergency planning efforts, outdoor/indoor warning devices, and mitigation techniques.

2. Protect the environment from the affects of an accident during continued storage and subsequent destruction of chemical warfare agents. This is done through emergency planning and facility permit programs.

3. Ensure the area maintains acceptable environmental integrity and is restored to its original environmental state after the weapons are destroyed. This is done through programs administered and monitored by the Department of Environmental Quality and recovery planning.

Who is responsible?

The U.S. Army stores chemical warfare agents for the Department of Defense. The Department of State Police, Oregon Emergency Management is the lead emergency planning and coordination agency in Oregon. The Department of Environmental Quality issues the permits. All agencies with a role in the State EOP take part in the program.

Where are the chemical agents located?

Within Oregon, chemical agents are stored at the Umatilla Army Depot Activity. It's located in Northern Morrow and Umatilla Counties.

How many people are affected?

About 8,900 people in Morrow County and 22,000 people in Umatilla County live within the CSEPP hazard area.

Have emergency plans been developed?

All basic Emergency Response Plans and Implementing Procedures have been promulgated and are in place. Both hazard area counties have adopted SHELTER IN PLACE as initial (default) Protective Action Strategies.

What's happening today?

The Oregon Health Division and American Red Cross are under contract to OEM for county planning assistance. Each is working directly with hazard zone counties to enhance county public safety capabilities.

A full Training & Exercise program has been actively implemented. The next full EOC activation exercise is scheduled for May 9, 1996.

Public Information and Education materials continue to be published. They are designed to inform the public and tell them what to do in case of an accident at the Umatilla Army Depot.

Emergency Computer Systems: IBS 2.0 installed in June of '94. All Oregon CSEPP counties on-line. Version 1.0 of FEMIS is scheduled to be fielded early Federal FY 96.

Sirens and highway reader boards have been installed in strategic locations, in and around the designated hazard zone. Initial system testing has been completed. Further testing is scheduled throughout the first quarter, Federal Fiscal Year 1996.

What's scheduled for the future?

* Schools and other *special facilities* within the CSEPP hazard zone will be equipped with over-pressurized shelters for school children. Morrow & Umatilla County have signed an agreement with their Educational Service District, for project administration.

* Implementation priorities for Oregon's CSEP Program include placing Tone Alert Radios in all occupied structures, within the CSEPP hazard area; fielding the FEMIS automation system; and implementing a program which allows emergency first responders use of Personal Protective Equipment.

Detailed information about the CSEPP can be obtained by contacting the Program Coordinator at OEM.

DOCUMENT DESIGNATION: REVISED DRAFT ENVIRONMENTAL IMPACT STATEMENT

ABSTRACT: Section 1412, Title 14, Part B of Public Law 99-145 (Department of Defense Authorization Act, 1986) and subsequent legislation require destruction of the U.S. stockpile of lethal unitary chemical agents and munitions, in conjunction with the acquisition of binary chemical weapons. About 94% (by weight) of the stockpile is stored in the continental United States (CONUS) at eight Army installations, including about 12% stored at the Umatilla Depot Activity (UMDA) in northeastern Oregon. A final programmatic environmental impact statement for the disposal of the CONUS stockpile was issued in January 1988, and the resulting Record of Decision selected on-site disposal as the programmatic alternative to be implemented at each of the eight existing storage installations. This Environmental Impact Statement was prepared to assess the potential environmental impacts of on-site disposal of the UMDA stockpile. The proposed action is the construction and operation of a facility for disposal of the UMDA stockpile by incineration during three daily work shifts at a site in the northeastern quarter of UMDA. Alternatives considered are no action (continued storage) and alternative disposal facility locations within the UMDA. Although the no action alternative is precluded by Public Law 99-145, it was analyzed for comparison with the proposed action. Risk analyses conducted as part of the programmatic environmental impact statement indicated that continued storage would result in greater risk than the proposed on-site disposal. The size of the area impacted by possible accidents and the potential number of fatalities from such accidents would be greater for continued storage than for on-site disposal. The environmental impacts of disposal facility construction and incident-free disposal operations would be minimal. It is concluded that the UMDA stockpile of chemical agents and munitions can be destroyed in a safe and environmentally acceptable manner at the preferred UMDA site.

REVIEW COMMENT DEADLINE: Comments on this revised draft environmental impact statement should be submitted by Feb 16, 1990 to:

Program Manager for Chemical Demilitarization
ATTN: SFAE-CD-ME
Aberdeen Proving Ground, MD 21010-5401
Phone: (410) 671-4181

SUMMARY

This Environmental Impact Statement (EIS) assesses the potential environmental impacts of on-site destruction (using the reverse assembly and incineration process) of the lethal unitary chemical agents and munitions stockpiled at the Umatilla Depot Activity (UMDA). UMDA is situated on the county line between Morrow and Umatilla counties in the state of Oregon and encompasses about 7,990 ha (19,700 acres). It is one of eight U.S. Army installations in the continental United States (CONUS) where lethal unitary chemical agents and munitions are stored. A Final Programmatic Environmental Impact Statement (FPEIS) for destruction of the entire CONUS stockpile was issued in January 1988, and it identified on-site disposal as the environmentally preferred alternative. [Copies of the FPEIS may be obtained by contacting the U.S. Army at the following address: Program Manager for Chemical Demilitarization, ATTN: SFAE-CD-ME, Aberdeen Proving Ground, Maryland 21010-5401, phone (410) 671-4181.] Based on the FPEIS, as well as consideration of additional factors such as logistics and security, the resultant Record of Decision selected on-site disposal for implementation at each of the eight CONUS storage sites. A subsequent report, the UMDA Phase I report, evaluated environmental data and disposal technology data that became available after the FPEIS was published. This report concluded that on-site disposal remained valid as the environmentally preferred alternative for UMDA. This EIS thus addresses site-specific impacts associated with the proposed on-site disposal activities at UMDA.

Approximately 11.6% (by weight) of the total U.S. stockpile of lethal unitary chemical agent is currently stored at UMDA. This represents the third largest chemical agent inventory among the Army's eight CONUS storage sites. The chemical agent inventory at UMDA is stored in liquid form inside both explosive and nonexplosive items. These items include almost all of the types of munitions and bulk items found in the U.S. stockpile. The chemical agents are of the nerve type (GB and VX) and of the blister type (HD), also called mustard agent. There are no mustard-filled items at UMDA other than non-explosive ton containers, which are stored inside a single warehouse. All other items are stored inside concrete, earth-covered structures called igloos.

The proposed disposal facility would include a munitions demilitarization building (MDB) that will house the entire disposal process, a container handling building (CHB) for temporary storage of munitions prior to processing, and associated support facilities needed for operations and maintenance. Process-support areas would include the pollution abatement system located adjacent to the MDB, the process utilities building, a personnel and maintenance building, a process support building with an entry control facility, a laboratory, and an enclosed transfer corridor between the CHB and the MDB. The site of the disposal facility would be enclosed by a double security fence and would have an entry control point to ensure that access would be restricted. The preferred siting of the facility is adjacent to the existing chemical agent storage area.

The demilitarization process involves three major steps: (1) the handling and transport of munitions from the existing chemical storage area to MDB, (2) the reverse

assembly and incineration of munitions and agents within the disposal facility, and (3) the management of the waste materials that remain at the completion of the incineration process. Five incinerators would be used primarily as follows: two liquid incinerators for chemical agent destruction, a furnace for incineration of the explosive components of the munitions, a furnace for decontamination of metal parts and munition bodies, and an incinerator for disposal of dunnage. The proposed disposal facility, including these incinerators, would meet stringent permitting requirements of the Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, and Clean Air Act. The disposal facility would not discharge any liquid wastes other than sanitary sewage. Nonhazardous solid process wastes would be shipped off-site to a permitted landfill, although some decontaminated process scrap metal would be sold to a scrap dealer or smelter for reuse. RCRA hazardous wastes would be characterized, appropriately packaged, and shipped off-site to a permitted disposal facility.

The schedule, which is tentative, calls for construction of the disposal facility to begin in early 1996, with preoperational testing (i.e., systemization) to commence in January 1999 and disposal operations to begin in mid 2000. This schedule would allow time to incorporate lessons learned from the Johnston Atoll Chemical Agent Disposal System and would allow time for the regulatory review process for the RCRA permit application. The disposal operations are expected to take approximately 3 years. The construction work force is estimated to peak at about 550 individuals; the estimated operating work force is about 586 individuals with about 150 depot support staff members.

The site and environs of UMDA would be impacted, although minimally, from construction and disposal operations. Operations would involve a risk of low-probability, high-consequence accidents, as discussed below, that could release chemical agent into the environment. The potential impacts of dismantling and closing the disposal facility are not assessed but will be examined in a subsequent National Environmental Policy Act document. Closure of the facility is also addressed in the RCRA permit application. The principal findings of this EIS are listed below for each area of consideration.

CONSTRUCTION ACTIVITIES

The potential environmental impacts associated with construction activities would be minimal. Construction of the disposal facility is expected to be typical of that for any medium-scale industrial facility. A total of about 23 ha (58 acres) of the UMDA installation would be disturbed during construction activities. In addition, a new natural gas line approximately 8.8 km (5.5 miles) in length would connect to an existing natural gas supply between UMDA and the Columbia River, and two new 115-kV power lines totaling 8 km (5 miles) in length would connect to two existing power lines north and east of UMDA. The total area to be disturbed by all construction on and off the UMDA installation would be roughly 30 ha (75 acres).

Construction activities would result in emissions from construction vehicles and increased levels of airborne dust. The National Ambient Air Quality Standard (NAAQS) for particulate matter concerns particles less than 10 μm in diameter (PM_{10}). The dust generation rate for these particles would be about 27 tons/month from construction of the proposed

disposal facilities if the entire 30-ha (75-acre) area were disturbed simultaneously and no dust suppression measures were used. The estimated PM_{10} concentrations from construction, when added to the existing background levels in the area, could result in short-term exceedances of the NAAQS for PM_{10}. However, good engineering practices, including wetting of disturbed surfaces, would be employed during excavation and construction to minimize fugitive dust and erosion, and only a small part of the 30 ha (75 acres) would be disturbed at any one time. Emissions from commuter and construction vehicles would contribute relatively minor amounts of criteria pollutants. Construction activities could also result in short-term increases in ambient noise levels near off-site residences, but annual average noise levels should remain below the 55 dB(A) level recommended by the U.S. Environmental Protection Agency (EPA). Disposal of nonhazardous construction wastes at an off-site permitted landfill would not result in significant adverse impacts.

The anticipated influx of workers into the UMDA area within the 38-month construction period could cause some stress to the existing socioeconomic infrastructure. The total influx of workers, resulting from UMDA disposal facility construction and all known commercial developments in the area, may be as high as 1540 individuals. The existing labor pool in the region is expected to be adequate to meet most of the employment demand; thus worker in-migration would be limited. Even if all workers and their families in-migrated to Morrow and Umatilla counties, only moderate impacts would occur to existing housing, schools, hospitals, police and fire protection, utilities, and transportation systems.

Water use during construction would result in a minor increase in water withdrawal from existing UMDA wells. No prime farmland, threatened or endangered species, wetland, or floodplain would be affected by construction, with the exception of a small amount of wetland that may be disturbed by gas line construction. Erosion would be minimized by appropriate site drainage and runoff control, including the construction of a stormwater retention pond. The new natural gas line would cross the Immigrant Wagon Road, a cultural resource.

INCIDENT-FREE OPERATION

Incident-free operations (i.e., no accidents) would result in minimal impacts to the environment and to disposal plant personnel. Potential impacts could be produced by disposal plant emissions; emissions from transport vehicles; water withdrawal from existing UMDA wells; solid waste generated from incineration of the chemical agents and other wastes; and potential worker exposure to low levels of chemical agent. No significant impacts would be expected from these activities.

Stack emissions would be controlled to levels below regulatory requirements and would therefore comply with applicable ambient air quality standards; thus, minimal air quality impacts would be expected from routine operations.

On-site transport of agents and munitions between the existing storage area and the disposal plant would use special shipping packages to ensure containment of any agent in the

Triennial Standards Review: EQC Adoption of Proposed Standards

Introduction

Since the Commission meeting in November, at which the proposed standards were first considered by the Commission, the Department has held a number of meetings with interested parties. Details of these meetings are contained in the addendum to the staff report.

What became clear at the meetings, particularly with the agricultural community, was that the standards, confined largely to the proposed temperature standard, are only one issue of concern. Additional items of concern were:

1. the 303d list of water quality limited waters; and

2. the proposed ballot measure that would require that cattle be kept out of waterways listed as water quality limited for parameters in which cows are one of the contributing factors.

We have advised the agricultural community that the ballot measure is an electoral matter, and is one in which the Department cannot involve itself. We have, however, advised the agricultural community of measures it can take to mitigate the effects of the ballot proposed ballot measure. In particular, we have emphasized the opportunities under the proposed temperature standard for avoiding listing or preparing a management plan. Further discussion revealed that the major concern with the standards revolved around listing.

The Proposed Temperature Standard

The agricultural community continued to express concern that a set of criteria that apply statewide does not adequately accommodate local variability (the 'one size fits all' argument). The findings of the technical advisory committee indicate that cold-water aquatic species exist across the state, and that the requirements of individual species do not differ by location. However, the proposed temperature criteria does accommodate local differences by providing a variety of criteria that apply based on which life stages exist (or potentially exist) in a given river reach. The temperature standard also provides that if natural temperatures do not meet the standard, the natural temperatures become the standard. Also, if cold-water aquatic species have never existed in a stream or could not possibly exist today even with improvements in management, the designated beneficial use may be changed. This was done a few years ago for some river reaches in the Malheur and Owyhee basins, so that salmonid rearing and spawning are no longer listed as designated uses for those areas.

State of Oregon
Department of Environmental Quality | **Addendum to the Memorandum**

Date: January 11, 1996

To: Environmental Quality Commission

From: Langdon Marsh

Subject: Agenda Item No. 2, Addendum to the November 17 (Agenda Item C), 1992-1994 Triennial Water Quality Standards Review: Proposed Revisions to Standards

Note: This is an addendum to the Department's November 17 staff report, Environmental Quality Commission Agenda Item C, entitled *1992-1994 Triennial Water Quality Standards Review: Proposed Revisions to Standards*. This addendum references that staff report and provides responses made to comments received by the Department through January 3, 1996. (Written comments received after January 3 but prior to January 10 will be made available to the Commission on Thursday, January 11.)

Background

This agenda item was to be considered for rule adoption at the November 17, 1995, Environmental Quality Commission meeting but was delayed pending further discussions with interested parties. The proposed rule revisions would affect five water quality standards evaluated during the 1992-1994 triennial review: dissolved oxygen (DO), temperature, pH, bacteria and groundwater nitrate.

Extension of Public Comment Period

As a result of the APA requirements and Commission directive to hold further discussions, the Department extended the public comment period twice between the November 17 and January 11 EQC meetings.

The first public comment deadline was extended to December 15, 1995; the second public comment deadline was extended to January 9, 1996. These time extensions allowed the Department to further explain the proposed rules to interested parties and to consider further information and public comments while meeting the Oregon APA requirements. Consequently, all written comments received during and after the

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

original public comment deadline (September 19), those received during and after the first extension (December 15) and those received during the second extension (January 9) will be considered by the Department and Commission. Significant points raised from the two most recent public comment extension periods and responses to those comments made by the Department can be found in Attachment B. Additionally, a list of the outreach meetings held by the Department and issues raised from those meetings can be found in Attachment C.

Recommendation for Commission Action

The Department recommends the Commission adopt the rule amendments regarding the *1992-1994 Triennial Water Quality Standards Review: Proposed Revisions to Standards* as presented in Attachment A of this addendum.

Attachments

A. Rule amendments proposed for adoption
B. Significant comments and Department responses; list of those who submitted written comments
C. List of outreach meetings and summary of discussions
D. Detailed changes to original rulemaking proposal made in response to extended public comment

Reference Documents (available upon request)

1. Written comments received
2. Letter dated December 19, 1995, from Janet Gillaspie for the Association of Clean Water Agencies (ACWA) and chlorination information (requested by the Department)
3. November 17, 1995, EQC Staff Report, Agenda Item C, *1992-1994 Triennial Water Quality Standards Review: Proposed Revisions to Standards*

4. Water Quality Standards Review Final Issue Papers
5. Letter dated December 15, 1995, from Jack Smith to the Department and attachments (alternative water quality standard and detailed rationale)

Approved:

Section: _____

Division: _____

Report Prepared By: Lynne Kennedy, Katina Olson, Neil Mullane, Russell Harding, Bob Baumgartner, Greg McMurray

Phone: 229-5371

Date Prepared: January 3, 1996

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10/19/95

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES**

**OAR 340-41-[BASIN](2)(a), 340-41-[BASIN](3),
340-41-026 and 340-41-006**

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules. Because the rules differ by basin, the bracketed portions are examples only. The exact reference to be deleted is given in Figure A.

340-41-[Basin](2)(a)

(a) Dissolved oxygen (DO): **The changes adopted by the Commission on January 11, 1996, become effective July 1, 1996. Until that time, the requirements of this rule that were in effect on January 10, 1996, apply:**

~~[(A) Fresh waters: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fishes;~~

~~(B) Marine and estuarine waters (outside of zones of upwelled marine waters naturally deficient in DO): DO concentrations shall not be less than 6 mg/l for estuarine waters, or less than saturation concentrations for marine waters;~~

~~(C) Columbia River: DO concentrations shall not be less than 90 percent of saturation.]~~

(A) For waterbodies identified by the Department as providing salmonid spawning, during the periods from spawning until fry emergence from the gravels, the following criteria apply:

(i) The dissolved oxygen shall not be less than 11 mg/l. However, if the minimum intergravel dissolved oxygen, measured as a spatial median, is 8.0 mg/l or greater, then the DO criteria is 9.0 mg/l;

(ii) Where conditions of barometric pressure, altitude, and temperature preclude attainment of the 11.0mg/L or 9.0 mg/L criteria, dissolved oxygen levels shall not be less than 95 percent of saturation.

(B) For waterbodies identified by the Department as providing salmonid spawning during, the period from spawning until fry emergence from the gravels, the spatial median intergravel dissolved oxygen concentration shall not fall below 6.0 mg/L;

(C) A spatial median of 8.0 mg/L intergravel dissolved oxygen level shall be used to identify areas where the recognized beneficial use of salmonid spawning, egg incubation and fry emergence from the egg and from the gravels may be impaired and therefore require action by the Department. Upon determination that the spatial median intergravel dissolved oxygen concentration is below 8.0 mg/L, the Department may, in accordance with priorities established by the Department for evaluating water quality impaired waterbodies, determine whether to list the waterbody as water quality limited under the Section 303(d) of the Clean Water Act, initiate pollution control strategies as warranted, and where needed cooperate with appropriate designated management agencies to evaluate and implement necessary best management practices for nonpoint source pollution control;

(D) For waterbodies identified by the Department as providing cold-water aquatic life, the dissolved oxygen shall not be less than 8.0 mg/L as an absolute minimum. Where conditions of barometric pressure, altitude, and temperature preclude attainment of the 8.0 mg/L, dissolved oxygen shall not be less than 90 percent of saturation. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen shall not fall below 8.0 mg/L as a 30-day mean minimum, 6.5 mg/L as a seven-day minimum mean, and shall not fall below 6.0 mg/L as an absolute minimum (**Table 20**);

(E) For waterbodies identified by the Department as providing cool-water aquatic life, the dissolved oxygen shall not be less than 6.5 mg/L as an absolute minimum. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen shall not fall below 6.5 mg/L as a 30-day mean minimum, 5.0 mg/L as a seven-day minimum mean, and shall not fall below 4.0 mg/L as an absolute minimum (Table B);

(F) For waterbodies identified by the Department as providing warm-water aquatic life, the dissolved oxygen shall not be less than 5.5 mg/L as an absolute minimum. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen shall not fall below 5.5 mg/L as a 30-day mean minimum, and shall not fall below 4.0 mg/L as an absolute minimum (**Table 20**);

(G) For estuarine water, the dissolved oxygen concentrations shall not be less than 6.5 mg/L (for coastal waterbodies);

(H) For marine waters, no measurable reduction in dissolved oxygen concentration shall be allowed.

340-41-[Basin](3)

(3) Where the naturally occurring quality parameters of waters of the [(basin)] are outside the numerical limits of the above assigned water quality standards, the naturally occurring water quality shall be the standard. However, in such cases special restrictions, described in OAR 340-41-026(3)(a)(C)(iii), apply to discharges that affect dissolved oxygen.

TABLE 21
DISSOLVED OXYGEN & INTERGRAVEL DISSOLVED OXYGEN CRITERIA
(Applicable to All Basins)

Class	Concentration and Period[1] (All Units Are mg/L)				Use/Level of Protection
	30D	7D	7mi	Min	
Salmonid Spawning		11.0[2,3]		9.0[3] 8.0[4] 6.0[5]	Principal use of salmonid spawning and incubation of embryos until emergence from the gravels. Low risk of impairment to cold-water aquatic life, other native fish and invertebrates. The IGDO criteria represents an acute threshold for survival based on field studies.
Cold Water	8.0[6]		6.5	6.0	Principally cold-water aquatic life. Salmon, trout, cold-water invertebrates, and other native cold-water species exist throughout all or most of the year. Juvenile anadromous salmonids may rear throughout the year. No measurable risk level for these communities
Cool Water	6.5		5.0	4.0	Mixed native cool-water aquatic life, such as sculpins, smelt, and lampreys. Waterbodies includes estuaries. Salmonids and other cold-water biota may be present during part or all of the year but do not form a dominant component of the community structure. No measurable risk to cool-water species, slight risk to cold-water species present.
Warm Water	5.5			4.0	Waterbodies whose aquatic life beneficial uses are characterized by introduced, or native, warm-water species.
No Risk	No Change from Background				The only DO criterion that provides no additional risk is "no change from background." Waterbodies accorded this level of protection include marine waters and waters in Wilderness areas.

[1]30-D = 30-day mean minimum as defined in definitions section.
7-D = Seven -7 day mean minimum as defined in Division 41, Section 006.
7mi = Seven -7 day minimum mean as defined in Division 41, Section 006.
Min = Absolute minimums for surface samples when applying the averaging period, spatial median of IGDO.

[2]When Intergravel DO levels are 8.0 mg/L or greater, DO levels may be as low as 9.0 mg/L, without triggering a violation.

[3]If conditions of barometric pressure, altitude and temperature preclude achievement of the footnoted criteria, then 95 percent saturation applies.

[4]Intergravel DO action level, spatial median minimum.

[5]Intergravel DO criterion, spatial median minimum.

[6]If conditions of barometric pressure, altitude and temperature preclude achievement of 8.0 mg/L, then 90 percent saturation applies.

Note:

Shaded values present the absolute minimum criteria, unless the Department believes adequate data exists to apply the multiple criteria and associated periods.

POLICIES AND GUIDELINES GENERALLY APPLICABLE TO ALL BASINS

OAR 340-41-026

(3) The Commission or Department may grant exceptions to sections (2) and (6) of this rule and approvals to section (5) of this rule for major dischargers and other dischargers, respectively. Major dischargers include those industrial and domestic sources that are classified as major sources for permit fee purposes in OAR 340-45-075(2):

(a) In allowing new or increased discharged loads, the Commission or Department shall make the following findings:

(A) The new or increased discharged load would not cause water quality standards to be violated;

(B) The new or increased discharge load would not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other state and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set;

(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-006(30)(a), unless:

(i) The pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to violate water quality standards and being designated water quality limited; or

(ii) Total maximum daily loads (TMDLs), waste load allocations (WLAs), load allocations (LAs), and the reserve capacity have been established for the water quality limited receiving stream; and compliance plans under which enforcement action can be taken have been established; and there will be sufficient reserve capacity to assimilate the increased load under the established TMDL at the time of discharge; or

(iii) Effective July 1, 1996, in waterbodies designated water-quality limited for dissolved oxygen, when establishing WLAs under a TMDL for waterbodies meeting the conditions defined in this rule, the Department may at its discretion provide an allowance for WLAs calculated to result in no measurable reduction of dissolved oxygen. For this purpose, "no measurable reduction" is defined as no more than 0.10 mg/L for a single source and no more than 0.20 mg/L for all anthropogenic activities that influence the water quality limited segment. The allowance applies for surface water DO criteria and for Intergravel DO if a determination is made that the conditions are natural. The allowance for WLAs would apply only to surface water 30-day and seven-day mean minimums, and the IGDO action level;

~~[(iii)]~~(vi) Under extraordinary circumstances to solve an existing, immediate, and critical environmental problem....

DEFINITIONS

OAR 340-41-006

(44) ''Intergravel Dissolved Oxygen'' (IGDO) -- The concentration of oxygen measured in the stream gravel pore water. For the purposes of compliance with criteria, the dissolved oxygen concentration should be measured within a redd or artificial redd, down-gradient of the egg pocket. Measurements should be taken within a limited time period; for example, prior to emergence of fry during the month of March.

(45) '' Spatial Median'' -- The value which falls in the middle of a data set of multiple IGDO measurements taken within a spawning area. Half the samples should be greater than, and half the samples should be less than the spatial median.

(46) ''Daily Mean'' (dissolved oxygen) -- The numeric average of an adequate number of data to describe the variation in dissolved oxygen concentration throughout a day, including daily maximums and minimums. For the purpose of calculating the mean, concentrations in excess of 100 percent of saturation are valued at the saturation concentration.

(47) ''Monthly (30-day) Mean Minimum'' (dissolved oxygen) -- The minimum of the 30 consecutive day floating averages of the calculated daily mean dissolved oxygen concentration.

(48) ''Weekly (seven-day) Mean Minimum'' (dissolved oxygen) -- The minimum of the seven consecutive day floating average of the calculated daily ***mean*** dissolved oxygen concentration.

(49) ''Weekly (seven-day) Minimum Mean'' (dissolved oxygen) -- The minimum of the seven consecutive day floating average of the daily ***minimum*** concentration. For purposes of application of the criteria, this value will be used as the reference for diurnal minimums.

(50) ''Minimum'' (dissolved oxygen) -- The minimum recorded concentration including seasonal and diurnal minimums.

(51) ''Cold-Water Aquatic Life'' -- The aquatic communities that are physiologically restricted to cold water, composed of one or more species sensitive to reduced oxygen levels. Including but not limited to *Salmonidae* and cold-water invertebrates.

(52) ''Cool-Water Aquatic Life'' -- The aquatic communities that are physiologically restricted to cool waters, composed of one or more species having dissolved oxygen requirements believed similar to the cold-water communities. Including but not limited to *Cottidae*, *Osmeridae*, *Acipenseridae*, and sensitive *Centrarchidae* such as the small-mouth bass.

(53) ''Warm-Water Aquatic Life'' -- The aquatic communities that are adapted to warm-water conditions and do not contain either cold- or cool-water species.

Figure A. Existing Basin Rules for Dissolved Oxygen: OAR 340-41-205, 245, 285 325, 365, 445, 485, 525, 565, 605, 645, 685, 725, 765, 805, 845, 885, 925, and 965

CURRENT DISSOLVED OXYGEN STANDARDS									
Dissolved oxygen standard format by basin All basin criteria are preceded by "(a) Dissolved Oxygen (DO):"									
1	2	3	4	5	6	7	8	9	Comment
(A)	(A)	E(i)	B(i)	B				C(i)	[Salmonid producing waters] [All other Waters] [Fresh waters] [(trout)]: DO concentrations shall not be less than 90 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fish.
(B)	(B)								Marine and estuarine waters (outside of the zones of upwelled marine waters naturally deficient in DO) DO concentrations shall not be less than 6 mg/L for estuarine waters, or less than saturation concentrations for marine waters.
(C)		F	A	A	A				Columbia River: DO concentrations shall not be less than 90 percent of saturation.
		e(ii)	B(ii)					C(ii)	Non-salmonid producing waters: The Dissolved oxygen concentration shall not be less than 6.0 mg/L.
		A						A	Multnomah Channel and mainstem Willamette River from mouth to the Willamette Falls [Mainstem Klamath River from Klamath Lake to Keno Dam (river miles 255 to 232.5)], the DO concentration shall not be less than 5.0 mg/L.
		B						B	Mainstem Willamette River from the Willamette Falls to Newberg: The dissolved oxygen concentration shall not be less than 6.0 mg/L.
		C							Mainstem Willamette River from Newburg to Salem, River mile 85: [Mainstem Klamath River from Keno Dam to the Oregon-California Border (river miles 232.5 to 208.5): The DO concentration shall not be less than 7.0 mg/L.
		D							Mainstem Willamette River from Salem to confluence of Coast to Middle Forks (river mile 187), the DO concentrates shall not be less than 90 percentof saturation.
					B	a	A		All Other [Name] [Except Goose lake] and tributaries; DO concentrations shall not be less than 75 percent of saturation at the seasonal low, or less than 95 percent of saturation in spawning areas during spawning, incubation, hatching, and fry stages of salmonid fish.
							B		Goose Lake: DO concentrations shall not be less than 7.0 mg/L.
(1) North Coast; (2) Mid Coast, Umpqua, South Coast, Rogue; (3) Willamette; (4) Hood; (5) Deschutes and Sandy; (6) John Day, Umatilla; (7) Walla Walla, Grande Ronde, Powder, Malheur, Owyhee, Malheur Lake; (8) Goose & Summer Lakes; (9) Klamath									

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES**

**OAR 340-41-[Basin](2)(b),
OAR 340-41-685(2)(o) and OAR 340-41-026**

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules. Because the rules differ by basin, the bracketed portions are examples only. The exact reference to be deleted is given in Figure B.

(b) Temperature: **The changes adopted by the Commission on January 11, 1996, become effective July 1, 1996. Until that time, the requirements of this rule that were in effect on January 10, 1996, apply. The method for measuring the numeric temperature criteria specified in this rule is defined in OAR 340-41-006(54):**

~~[(A) Columbia River: No measurable increases shall be allowed outside of the assigned mixing zone, as measured relative to a control point immediately upstream from a discharge when stream temperatures are 68° F. or greater; or more than 0.5° F. increase due to a single source discharge when receiving water temperatures are 67.5° F. or less; or more than 2° F. increase due to all sources combined when stream temperatures are 66° F. or less, except for specifically limited duration activities which may be authorized by DEQ under such conditions as DEQ and the Department of Fish and Wildlife may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable and all practical preventive techniques have been applied to minimize temperature rises. The Director shall hold a public hearing when a request for an exception to the temperature standard for a planned activity or discharge will in all probability adversely affect the beneficial uses;~~

~~(B) All other freshwater streams and tributaries thereto: No measurable increases shall be allowed outside of the assigned mixing zone, as measured relative to a control point immediately upstream from a discharge when stream temperatures are 58° F. or greater; or more than 0.5° F. increase due to a single source discharge when receiving water temperatures are 57.5° F. or less; or more than 2° F. increase due to all sources combined when stream temperatures are 56° F. or less, except for specifically limited duration activities which may be authorized by DEQ under such conditions as DEQ and the Department of Fish and Wildlife may prescribe and which are necessary to accommodate legitimate uses or activities where temperatures in excess of this standard are unavoidable and all practical preventive techniques have been applied to minimize temperature rises. The Director shall hold a public hearing when a request for an exception to the temperature standard for a planned activity or discharge will in all probability adversely affect the beneficial uses;~~

~~(C) Marine and estuarine waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.]~~

(A) To accomplish the goals identified in OAR 340-41-120(11), unless specifically allowed under a Department-approved surface water temperature management plan as required under OAR 340-41-026(3)(a)(D), no measurable surface water temperature increase resulting from anthropogenic activities is allowed:

(i) In a basin for which salmonid fish rearing is a designated beneficial use, and in which surface water temperatures exceed 64.0°F (17.8°C);

(ii) In the Columbia River or its associated sloughs and channels from the mouth to river mile 309 when surface water temperatures exceed 68.0°F (20.0°C);

(iii) In the Willamette River or its associated sloughs and channels from the mouth to river mile 50 when surface water temperatures exceed 68.0°F (20.0°C);

(iv) In waters and periods of the year determined by the Department to support native salmonid spawning, egg incubation, and fry emergence from the egg and from the gravels in a basin which exceeds 55.0°F (12.8°C);

(v) In waters determined by the Department to support or to be necessary to maintain the viability of native Oregon bull trout, when surface water temperatures exceed 50.0°F (10.0°C);

(vi) In waters determined by the Department to be ecologically significant cold-water refugia;

(vii) In stream segments containing federally listed Threatened and Endangered species if the increase would impair the biological integrity of the Threatened and Endangered population;

(viii) In Oregon waters when the dissolved oxygen (DO) levels are within 0.5 mg/L or 10 percent saturation of the water column or intergravel DO criterion for a given stream reach or subbasin;

(ix) In natural lakes.

(B) An exceedance of the numeric criteria identified in subparagraph (A)(i) through (v) of this subsection will not be deemed a temperature standard violation if it occurs when the air temperature during the warmest seven-day period of the year exceeds the 90th percentile of the seven-day average daily maximum air temperature calculated in a yearly series over the historic record. However, during such periods, the anthropogenic sources must still continue to comply with their surface water temperature management plans developed under OAR 340-41-026(3)(a)(D);

(C) Any source may petition the Commission for an exception to subparagraph (A)(i) through (ix) of this subsection for discharge above the identified criteria if:

(i) The source provides the necessary scientific information to describe how the designated beneficial uses would not be adversely impacted; or

(ii) A source is implementing all reasonable management practices or measures; its activity will not significantly affect the beneficial uses; and the environmental cost of treating the parameter to the level necessary to assure full protection would outweigh the risk to the resource.

(D) Marine and estuarine waters: No significant increase above natural background temperatures shall be allowed, and water temperatures shall not be altered to a degree which creates or can reasonably be expected to create an adverse effect on fish or other aquatic life.

POLICIES AND GUIDELINES GENERALLY APPLICABLE TO ALL BASINS

OAR 340-41-026

(3) The Commission or Department may grant exceptions to sections (2) and (6) of this rule and approvals to section (5) of this rule for major dischargers and other dischargers, respectively. Major dischargers include those industrial and domestic sources that are classified as major sources for permit fee purposes in OAR 340-45-075(2):

(a) In allowing new or increased discharged loads, the Commission or Department shall make the following findings:

(A) The new or increased discharged load would not cause water quality standards to be violated;

(B) The new or increased discharge load would not unacceptably threaten or impair any recognized beneficial uses. In making this determination, the Commission or Department may rely upon the presumption that if the numeric criteria established to protect specific uses are met the beneficial uses they were designed to protect are protected. In making this determination the Commission or Department may also evaluate other state and federal agency data that would provide information on potential impacts to beneficial uses for which the numeric criteria have not been set;

(C) The new or increased discharged load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-41-006(30)(a), unless:

(i) The pollutant parameters associated with the proposed discharge are unrelated either directly or indirectly to the parameter(s) causing the receiving stream to violate water quality standards and being designated water quality limited; or

(ii) Total maximum daily loads (TMDLs), waste load allocations (WLAs), load allocations (LAs), and the reserve capacity have been established for the water quality limited receiving stream; and compliance plans under which enforcement action can be taken have been established; and there will be sufficient reserve capacity to assimilate the increased load under the established TMDL at the time of discharge; or

(iii) Effective July 1, 1996, in waterbodies designated water-quality limited for dissolved oxygen, when establishing WLAs under a TMDL for waterbodies meeting the conditions defined in this rule, the Department may at its discretion provide an allowance for WLAs calculated to result in no measurable reduction of dissolved oxygen. For this purpose, ''no measurable reduction'' is defined as no more than 0.10 mg/L for a single source and no more than 0.20 mg/L for all anthropogenic activities that influence the water quality limited segment. The allowance applies for surface water DO criteria and for Intergravel DO if a determination is made that the conditions are natural. The allowance for WLAs would apply only to surface water 30-day and seven-day means, and the IGDO action level;

~~[(iii)]~~(iv) Under extraordinary circumstances to solve an existing, immediate, and critical environmental problem that the Commission or Department may consider a waste load increase for an existing source on a receiving stream designated water quality limited under OAR 340-41-006(30)(a) during the period between the establishment of TMDLs, WLAs, and LAs and their achievement based on the following conditions:

(I) That TMDLs, WLAs, and LAs have been set; and

(II) That a compliance plan under which enforcement actions can be taken has been established and is being implemented on schedule; and

(III) That an evaluation of the requested increased load shows that this increment of load will not have an unacceptable temporary or permanent adverse effect on beneficial uses; and

(IV) That any waste load increase granted under subparagraph (iv of this paragraph is temporary and does not extend beyond the TMDL compliance deadline established for the waterbody. If this action will result in a permanent load increase, the action has to comply with subparagraphs (i) or (ii) of this paragraph.

(D) Effective July 1, 1996, in any waterbody identified by the Department as exceeding the relevant numeric temperature criteria specified for each individual water quality management basin identified in OAR 340-41-205, OAR-340-41-245, OAR-340-41-285, OAR-340-41-325, OAR-340-41-365, OAR-340-41-445, OAR-340-41-485, OAR-340-41-525, OAR-340-41-565, OAR-340-41-605, OAR-340-41-645, OAR-340-41-685, OAR-340-41-725, OAR-340-41-765, OAR-340-41-805, OAR-340-41-845, OAR-340-41-885, OAR-340-41-925, OAR-340-41-965, and designated as water quality limited under Section 303(d) of the Clean Water Act, the following requirements shall apply to appropriate watersheds or stream segments in accordance with priorities established by the Department. The Department may determine that a plan is not necessary for a particular stream segment or segments within a water-quality limited basin based on the contribution of the segment(s) to the temperature problem:

(i) Anthropogenic sources are required to develop and implement a surface water temperature management plan which describes the best management practices, measures, and/or control technologies which will be used to reverse the warming trend of the basin, watershed, or stream segment identified as water quality limited for temperature;

(ii) Sources shall continue to maintain and improve, if necessary, the surface water temperature management plan in order to maintain the cooling trend until the numeric criterion is achieved or until the Department, in consultation with the Designated Management Agencies (DMAs), has determined that all feasible steps have been taken to meet the criterion and that the designated beneficial uses are not being adversely impacted. In this latter situation, the temperature achieved after all feasible steps have been taken will be the temperature criterion for the surface waters covered by the applicable management plan. The determination that all feasible steps have been taken will be based on, but not limited to, a site-specific balance of the following criteria: protection of beneficial uses, appropriateness to local conditions; use of best treatment technologies or management practices or measures, and cost of compliance.

(iii) Once the numeric criterion is achieved or the Department has determined that all feasible steps have been taken, sources shall continue to implement the practices or measures described in the surface water temperature management plan in order to continually achieve the temperature criterion;

(iv) For point sources, the surface water temperature management plan will be part of their National Pollutant Discharge Elimination System Permit (NPDES);

(v) For nonpoint sources, the surface water temperature management plan will be developed by designated management agencies (DMAs) which will identify the appropriate BMPs or measures;

(vi) A source (including but not limited to permitted point sources, individual landowners and land managers) in compliance with the Department or DMA (as appropriate) approved surface water temperature management plan shall not be deemed to be causing or contributing to a violation of the numeric criterion if the surface water temperature exceeds the criterion;

(vii) In waters the Department determines to be critical for bull trout recovery, the goal of a bull trout surface water temperature management plan is to specifically protect those habitat ranges necessary to maintain the viability of existing stocks by restoring stream and riparian conditions or allowing them to revert to conditions attaining the coolest surface water temperatures possible under natural background conditions;

(E) Waters of the state exceeding the temperature criteria will be identified in the Clean Water Act (CWA), Section 303(d) list developed by the Department according to the schedule required by the Clean Water Act. This list will be prioritized in consultation with the DMAs to identify the order in which those waters will be addressed by the Department and the DMAs;

(F) In basins determined by the Department to be exceeding the numeric temperature criteria, and which are required to develop surface water temperature management plans, new or increased discharge loads from point sources which require an NPDES permit under Section 402 of the Clean Water Act or hydro-power projects which require certification under Section 401 of the Clean Water Act are allowed a 1.0°F total cumulative increase in surface water temperatures as the surface water temperature management plan is being developed and implemented for the water quality limited basin if:

(i) In the best professional judgment of the Department, the new or increased discharge load, even with the resulting 1.0°F cumulative increase, will not conflict with or impair the ability of a surface water temperature management plan to achieve the numeric temperature criteria; and

(ii) A new or expanding source must demonstrate that it fits within the 1.0°F increase and that its activities will not result in a measurable impact on beneficial uses. This latter showing must be made by demonstrating to the Department that the temperature change due to its activities will be less than or equal to 0.25°F under a conservative approach or by demonstrating the same to the EQC with appropriate modeling.

(G) Any source may petition the Department for an exception to paragraph (F) of this subsection, provided:

(i) The discharge will result in less than 1.0°F increase at the edge of the mixing zone, and subparagraph (ii) or (iii) of this paragraph applies;

(ii) The source provides the necessary scientific information to describe how the designated beneficial uses would not be adversely impacted; or

(iii) The source demonstrates that: it is implementing all reasonable management practices; its activity will not significantly affect the beneficial uses; and the environmental cost of treating the parameter to the level necessary to assure full protection would outweigh the risk to the resource.

(H) Any source or DMA may petition the Commission for an exception to paragraph (F) of this subsection, provided:

(i) The source or DMA provides the necessary scientific information to describe how the designated beneficial uses would not be adversely impacted; or

(ii) The source or DMA demonstrates that: it is implementing all reasonable management practices; its activity will not significantly affect the beneficial uses; and the environmental cost of treating the parameter to the level necessary to assure full protection would outweigh the risk to the resource.

~~[(D)]~~(I) The activity, expansion, or growth necessitating a new or increased discharge load is....

IMPLEMENTATION PROGRAM APPLICABLE TO ALL BASINS

OAR 340-41-120

(10) Agricultural water quality management plans to reduce agricultural nonpoint source pollution shall be developed and implemented by the Oregon Department of Agriculture (ODA) through a cooperative agreement with the Department of Environmental Quality (DEQ) to implement applicable provisions of ORS 568.900–933 and ORS 561.191. If DEQ has reason to believe that agricultural discharges or activities are contributing to water quality problems resulting in water quality standards violations, DEQ shall hold a consultation with the ODA. If water quality impacts are likely from agricultural sources, and DEQ determines that a water quality management plan is necessary, the Director of DEQ shall write a letter to the Director of the ODA requesting that such a management plan be prepared and implemented to reduce pollutant loads and achieve the water quality criteria.

(11) EQC policy on surface water temperature (as regulated in the basin standards found in OAR 340-41-205, OAR-340-41-245, OAR-340-41-285, OAR-340-41-325, OAR-340-41-365, OAR-340-41-445, OAR-340-41-485, OAR-340-41-525, OAR-340-41-565, OAR-340-41-605, OAR-340-41-645, OAR-340-41-685, OAR-340-41-725, OAR-340-41-765, OAR-340-41-805, OAR-340-41-845, OAR-340-41-885, OAR-340-41-925, OAR-340-41-965):

(a) It is the policy of the Environmental Quality Commission (EQC) to protect aquatic ecosystems from adverse surface water warming caused by anthropogenic activities. The intent of the EQC is to minimize the risk to cold-water aquatic ecosystems from anthropogenic warming of surface waters, to encourage the restoration of critical aquatic habitat, to reverse surface water warming trends, to cool the waters of the State, and to control extremes in temperature fluctuations due to anthropogenic activities:

(A) The first element of this policy is to encourage the proactive development and implementation of best management practices or other measures and available temperature control technologies for nonpoint and point source activities to prevent thermal pollution of surface waters;

(B) The second element of this policy is to require the development and implementation of surface water temperature management plans for those basins exceeding the numeric temperature criteria identified in the basin standards. The surface water temperature management plans will identify the best management practices (BMPs) or measures and approaches to be taken by nonpoint sources, and technologies to be implemented by point sources to limit or eliminate adverse anthropogenic warming of surface waters.

(b) Surface water temperatures in general are warming throughout the State. These water temperatures are influenced by natural physical factors including, but not limited to solar radiation, stream-side shade, ambient air temperatures, heated water discharges, cold-water discharges, channel morphology, and stream flow. Surface water temperatures may also be affected by anthropogenic activities that discharge heated water, widen streams, or reduce stream shading, flows, and depth. These anthropogenic activities, as well as others, increase water temperatures. Anthropogenic activities may also result in the discharge of cold water that decreases water temperatures and affects biological cycles of aquatic species;

(c) The temperature criteria in the basin standards establish numeric and narrative criteria to protect designated beneficial uses and to initiate actions to control anthropogenic sources that adversely increase or decrease stream temperatures. Natural surface water temperatures at times exceed the numeric criteria due to naturally high ambient air temperatures, naturally heated discharges, naturally low stream flows or other natural conditions. These exceedances are not water quality standards violations when the natural conditions themselves cause water temperatures to exceed the numeric criteria. In these situations, the natural surface water temperatures become the numeric criteria. In surface waters where both natural and anthropogenic factors cause exceedances of the numeric criteria, each anthropogenic source will be responsible for controlling, through implementation of a management plan, only that portion of the temperature increase caused by that anthropogenic source;

(d) The purpose of the numeric criteria in the basin standards is to protect designated beneficial uses; this includes specific life cycle stages during the time periods they are present in a surface water of the state. Surface water temperature measurements taken to determine compliance with the identified criteria will be taken using a sampling protocol appropriate to indicate impact to the beneficial use. The EQC, in establishing these criteria, recognizes that new information is constantly being developed on water temperatures and how water temperatures affect different beneficial uses. Therefore, continued reevaluation of temperature information is needed to refine and revise numeric criteria in the basin standards over time. The EQC also recognizes that the development and implementation of control technologies and best management practices or measures to reduce anthropogenic warming is evolving and the achievement of the numeric criteria will be an iterative process;

(e) Surface water temperature management plans will be required according to OAR 340-41-026 (3)(a)(D) when the relevant numeric temperature criteria are exceeded and the waterbody is designated as water-quality limited under Section 303(d) of the Clean Water Act. The plans will identify those steps, measures, technologies, and/or practices to be implemented by those sources determined by the Department to be contributing to the problem. The plan may be for an entire basin, a single watershed, a segment of a stream, single or multiple nonpoint source categories, single or multiple point sources or any combination of these, as deemed appropriate by the Department, to address the identified temperature problem:

(A) In the case of state and private forest lands, the practices identified in rules adopted pursuant to the State Forest Practices Act (FPA) will constitute the surface water temperature management plan for the activities covered by the act. Consequently, in those basins, watersheds or stream segments exceeding the relevant temperature criterion, and for those activities covered by the Forest Practices Act, the forestry component of the temperature management plan will be the practices required under the FPA. If the mandated practices need to be improved in specific basins, watersheds or stream segments to fully protect

identified beneficial uses, the Departments of Forestry and Environmental Quality will follow the process described in ORS 527.765 to establish, implement, and improve practices in order to reduce thermal loads to achieve and maintain the surface water temperature criteria. Federal forest management agencies are required by the federal Clean Water Act to meet or exceed the substantive requirements of the state forestry nonpoint source program. The Department currently has Memoranda of Understanding with the U.S. Forest Service and Bureau of Land Management to implement this aspect of the Clean Water Act. These memoranda will be used to identify the temperature management plan requirements for federal forest lands;

(B) The temperature management plan for agricultural nonpoint sources shall be developed and implemented in the manner described in section (10) of this rule;

(C) The Department will be responsible for determining the appropriate surface water temperature management plan for individual and general NPDES permitted sources. The requirement for a surface water temperature management plan and the content of the plan will be appropriate to the contribution the permitted source makes to the temperature problem, the technologies and practices available to reduce thermal loads, and the potential for trading or mitigating thermal loads;

(D) In urban areas, the Department will work with appropriate state, county, municipal, and special district agencies to develop surface water temperature management plans that reduce thermal loads in basins, watersheds, or stream segments associated with the temperature violations so that the surface water temperature criteria are achieved.

(f) The EQC encourages the release of stored water from reservoirs to cool surface water in order to achieve the identified numeric criteria in the basin standards as long as there is no significant adverse impact to downstream designated beneficial uses from the cooler water temperatures. If the Department determines that a significant adverse impact is resulting from the cold-water release, the Department shall, at its discretion, require the development of a management plan to address the adverse impact created by the cold-water release.

(g) Maintaining low stream temperatures to the maximum extent practicable in basins where surface water temperatures are below the specific criteria identified in this rule shall be accomplished by implementing technology based permits, best management practices or other measures. Any measurable increase in surface water temperature resulting from anthropogenic activities in these basins shall be in accordance with the antidegradation policy contained in OAR 340-41-026.

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES**

OAR 340-41-006

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules. Because the rules differ by basin, the bracketed portions are examples only. The exact reference to be deleted is given in Figure B.

(54) ''Numeric Temperature Criteria'' are measured as the seven-day moving average of the daily maximum temperatures. If there is insufficient data to establish a seven-day average of maximum temperatures, the numeric criteria shall be applied as an instantaneous maximum. The measurements shall be made using a sampling protocol appropriate to indicate impact to the beneficial uses;

(55) ''Measurable Temperature Increase'' means an increase in stream temperature of more than 0.25°F;

(56) ''Anthropogenic'', when used to describe ''sources'' or ''warming'', means that which results from human activity;

(57) ''Ecologically Significant Cold-Water Refuge'' exists when all or a portion of a waterbody supports stenotypic cold-water species (flora or fauna) not otherwise widely supported within the subbasin, and either:

(a) Maintains cold-water temperatures throughout the year relative to other segments in the subbasin, providing summertime cold-water holding or rearing habitat that is limited in supply, or;

(b) Supplies cold water to a receiving stream or downstream reach that supports cold-water biota.

FIGURE B. RULE SECTIONS TO BE DELETED BY BASIN
Temperature

Basin	Section and Subsection: (340-41-Basin)
North Coast – Lower Columbia	205(2)(b)[(A),(B),(C)]
Mid Coast	245(2)(b)[(A),(B)]
South Coast	325(2)(b)[(A),(B)]
Umpqua	285(2)(b)[(A),(B)]
Rogue	365(2)(b)[(A),(B)]
Willamette	445(2)(b)[(A),(B),(C),(D)]
Sandy	485(2)(b)[(A),(B)]
Hood	525(2)(b)[(A),(B)]
Deschutes	565(2)(b)[(A),(B)]
John Day	605(2)[(b)]
Umatilla	645(2)[(b)]
Walla Walla	685(2)[(o)]
Grande Ronde	725(2)[(b)]
Powder	765(2)(b)[(A),(B)]
Malheur	805(2)[(b)]
Owyhee	845(2)[(b)]
Malheur Lake	885(2)[(b)]
Goose & Summer Lakes	925(2)[(b)]
Klamath	965(2)(b)[(A),(B)]

NOTE: The Columbia River criteria ((A)(ii)) in the proposed standard apply only to the following basins: North Coast 205, Sandy 485, Hood 525, Deschutes 565, John Day 605, Umatilla 645 and Willamette 445. The Willamette River criteria ((A)(iii)) in the proposed standard apply only to the Willamette Basin 445.

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES**

OAR 340-41-[Basin](2)(d) and Walla Walla 340-41-685(2)(c)

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules.

(pH) Hydrogen Ion Concentration

Basin	Rule
North Coast - Lower Columbia 340-41-202(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (A) Marine waters; 7.0 to 8.5; (B) Estuarine and fresh waters: 6.5 to 8.5. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;
Mid Coast 340-41-242(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (A) Marine waters; 7.0 to 8.5; (B) Estuarine and fresh waters: 6.5 to 8.5. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;

Basin	Rule
Umpqua 340-41-285(2)(d)	(d) pH (hydrogen ion concentration): (A) Fresh waters (except Cascade lakes) and estuarine waters: pH values shall not fall outside the range of 6.5 to 8.5[;]. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria; (B) Marine waters: pH values shall not fall outside the range of 7.0 to 8.5[.]; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.
South Coast 340-41-325(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (A) Estuarine and fresh waters: 6.5 to 8.5. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria; (B) Marine waters; 7.0 to 8.5;
Rogue 340-41-365(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the following ranges: (A) Marine waters: 7.0 – 8.5; (B) Estuarine and fresh waters (except Cascade lakes): 6.5 – 8.5. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.

Basin	Rule
Willamette 340-41-445(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A), (B), and (C) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria:; (A) Columbia River: 7.0 – 8.5; (B) All other basin waters (except Cascade lakes): 6.5 – 8.5~~[.]~~; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.
Sandy 340-41-485(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ranges identified in paragraphs (A), (B), and (C) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) ~~[Main Stem]~~ Mainstem Columbia River (river miles 120 to 147): pH values shall not fall outside the range of 7.0 to 8.5; (B) All other Basin waters (except Cascade lakes): pH values shall not fall outside the range of 6.5 to 8.5~~[.]~~; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.

Basin	Rule
Hood 340-41-525(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ranges identified in paragraphs (A), (B), and (C) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) ~~[Main Stem]~~ Mainstem Columbia River (river miles 147 to 203): pH values shall not fall outside the range of 7.0 to 8.5; (B) Other Hood River Basin streams (except Cascade lakes): pH values shall not fall outside the range of 6.5 to 8.5~~[.]~~; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.
Deschutes 340-41-565(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A), (B), and (C) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) Columbia River (river miles 203 to 218): 7.0 - 8.5; (B) All other Basin streams (except Cascade lakes): 6.5 – 8.5~~[.]~~; (C) Cascade lakes above 3,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.

Basin	Rule
Klamath 340-41-965(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[range of 7.0 to 9.0;]~~ ranges identified in paragraphs (A) and (B) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) Fresh waters except Cascade lakes: pH values shall not fall outside the range of 6.5 – 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin; (B) Cascade lakes above 5,000 feet altitude: pH values shall not fall outside the range of 6.0 to 8.5.
John Day 340-41-605(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A) and (B) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) Columbia River (river miles 218 to 247): 7.0 – 8.5; (B) All other Basin streams: 6.5 – ~~[8.5]~~ 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin;

Basin	Rule
Umatilla 340-41-645(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A) and (B) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) Columbia River (river miles 247 to 309): 7.0 – 8.5; (B) All other Basin streams: 6.5 – ~~[8.5;]~~9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin.
Walla Walla 340-41-685(2)(c)	(c) pH (hydrogen ion concentration): pH values shall not fall outside the range of 6.5 to ~~[8.5;]~~ 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;

Basin	Rule
Grande Ronde 340-41-725(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A) and (B) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) ~~[Main Stem]~~ Mainstem Snake River (river miles 176 to 260): 7.0 – 9.0; (B) All other Basin streams: 6.5 – [~~8.5~~] 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin.
Powder 340-41-765(2)(d)	(d) pH (hydrogen ion concentration): pH values shall not fall outside the ~~[following]~~ ranges~~[:]~~ identified in paragraphs (A) and (B) of this subsection. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria: (A) ~~[Main Stem]~~ Mainstem Snake River (river miles 260 to 335): 7.0 – 9.0; (B) All other Basin streams: 6.5 – [~~8.5~~] 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin.

Basin	Rule	
Malheur River 340-41-805(2)(d)	(d)	pH (hydrogen ion concentration): pH values shall not fall outside the range of 7.0 to 9.0~~[;]~~ When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;
Owyhee 340-41-845(2)(d)	(d)	pH (hydrogen ion concentration): pH values shall not fall outside the range of 7.0 to 9.0~~[;]~~. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;
Malheur Lake 340-41-885(2)(d)	(d)	pH (hydrogen ion concentration): pH values shall not fall outside the range of 7.0 to 9.0~~[;]~~. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria;

Basin	Rule
Goose and Summer Lakes 340-41-925(2)(d)	(d) pH (hydrogen ion concentration): (A) Goose Lake: pH values shall not fall outside the range of 7.5 to 9.5; (B) All other basin waters: pH values shall not fall outside the range of 7.0 to 9.0. When greater than 25 percent of ambient measurements taken between June and September are greater than pH 8.7, and as resources are available according to priorities set by the Department, the Department shall determine whether the values higher than 8.7 are anthropogenic or natural in origin. The following exception applies: Waters impounded by dams existing on January 1, 1996, which have pHs that exceed the criteria shall not be considered in violation of the standard if the Department determines that the exceedance would not occur without the impoundment and that all practicable measures have been taken to bring the pH in the impounded waters into compliance with the criteria.

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES**

OAR 340-41-[Basin](2)(e)

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules. Because the rules differ by basin, the bracketed portions are example only. The exact reference to be deleted is given in Figure C.

(e) Bacteria Standards:

(A) ~~[Effective from July 1, 1995 and through December 31, 1995.]~~ Numeric Criteria: ~~[O]~~organisms of the coliform group ~~[where]~~ commonly associated with fecal sources (MPN or equivalent membrane filtration using a representative number of samples) shall not exceed the criteria described in subparagraphs (i) and (ii) of this paragraph:

~~[(i) Freshwaters: A log mean of 200 fecal coliform per 100 milliliters based on a minimum of five samples in a 30 day period with no more than ten percent of the samples in the 30 day period exceeding 400 per 100 ml;]~~

(i) Freshwaters and Estuarine Waters Other than Shellfish Growing Waters:

(I) A 30-day log mean of 126 ***E. coli*** organisms per 100 ml, based on a minimum of five (5) samples.

(II) No single sample shall exceed 406 ***E. coli*** organisms per 100 ml;

(ii) Marine ~~[w]~~Waters and ~~[e]~~Estuarine ~~[s]~~Shellfish ~~[g]~~Growing ~~[w]~~Waters: A fecal coliform median concentration of 14 organisms per 100 milliliters, with not more than ten percent of the samples exceeding 43 organisms per 100 ml~~[;]~~.

~~[(iii) Estuarine waters other than shellfish growing waters: A log mean of 200 fecal coliform per 100 milliliters based on a minimum of five samples in a 30 day period with no more than ten percent of the samples in the 30 day period exceeding 400 per 100 ml.]~~

~~[(B) Effective January 1, 1996. Bacteria of the coliform group associated with fecal sources and bacteria of the enterococci group (MPN or equivalent membrane filtration using a representative number of samples) shall not exceed the criteria values described in subparagraphs (2)(c)(B)(i) through (iii) of this rule. However, the Department may designate site specific bacteria criteria on a case-by-case basis to protect beneficial uses. Site specific values shall be described in and included as part of a water quality management plan:~~

~~(i) Freshwaters: A geometric mean of 33 enterococci per 100 milliliters based on no fewer than five samples, representative of seasonal conditions, collected over a period of at least 30 days. No single sample should exceed 61 enterococci per 100 ml;~~

~~(ii) Marine waters and estuarine shellfish growing waters: A fecal coliform median concentration of 14 organisms per 100 milliliters, with not more than ten percent of the samples exceeding 43 organisms per 100 ml;~~

~~(iii) Estuarine waters other than shellfish growing waters: A geometric mean of 35 enterococci per 100 milliliters based on no fewer than five samples, representative of seasonal conditions, collected over a period of at least 30 days. No single sample should exceed 104 enterococci per 100 ml.]~~

(B) Raw Sewage Prohibition: No sewage shall be discharged into or in any other manner be allowed to enter the waters of the State unless such sewage has been treated in a manner approved by the Department or otherwise allowed by these rules;

(C) Animal Waste: Runoff contaminated with domesticated animal wastes shall be minimized and treated to the maximum extent practicable before it is allowed to enter waters of the State;

(D) Effluent Limitations and Water Quality Limited Waterbodies: Effluent limitations to implement the criteria in this rule are found in OAR 340-41-120(12) - (16). Implementation of the criteria in this rule in water quality limited waterbodies is described in OAR 340-41-026(3)(a)(I) and OAR 340-41-120 (17).

POLICIES AND GUIDELINES GENERALLY APPLICABLE TO ALL BASINS

OAR 340-41-026

(3)(a)

(H) Any source may petition the Commission for an exception to paragraph (F) of this subsection, provided:

(i) The source provides the necessary scientific information to describe how the designated beneficial uses would not be adversely impacted; or

(ii) The source demonstrates that: it is implementing all reasonable management practices; its activity will not significantly affect the beneficial uses; and the environmental cost of treating the parameter to the level necessary to assure full protection would outweigh the risk to the beneficial uses.

(I) In waterbodies designated by the Department as water-quality limited for bacteria, and in accordance with priorities established by the Department, development and implementation of a bacteria management plan shall be required of those sources that the Department determines to be contributing to the problem. The Department may determine that a plan is not necessary for a particular stream segment or segments within a water-quality limited basin based on the contribution of the segment(s) to the problem. The bacteria management plans will identify the technologies, BMPs and/or measures and approaches to be implemented by point and nonpoint sources to limit bacterial contamination. For point sources, their National Pollutant Discharge Elimination System permit is their bacteria management plan. For nonpoint sources, the bacteria management plan will be developed by designated management agencies (DMAs) which will identify the appropriate BMPs or measures and approaches.

~~[(D)]~~ (J) The activity, expansion, or growth necessitating a new or increased discharge load is....

IMPLEMENTATION PROGRAM APPLICABLE TO ALL BASINS

OAR 340-41-120

(12) Effluent Limitations for Bacteria: Except as allowed in subsection (c) of this section, upon NPDES permit renewal or issuance, or upon request for a permit modification by the permittee at an earlier date, effluent discharges to freshwaters and estuarine waters other than shellfish growing waters shall not exceed a monthly log mean of 126 *E. coli* organisms per 100 ml based on a minimum of five (5) samples. No single sample shall exceed 406 *E. coli* organisms per 100 ml. If a single sample exceeds 406 *E. coli* per 100 ml, then five consecutive re-samples shall be taken at four-hour intervals beginning as soon as practicable (preferably within 28 hours) after the original sample was taken. If the log mean of the five re-samples is less than or equal to 126, a violation shall not occur. The following conditions apply:

(a) If the Department finds that re-sampling within the timeframe outlined in this section would pose an undue hardship on a treatment facility, a more convenient schedule may be negotiated in the permit, provided that the permittee demonstrates that the sampling delay will result in no increase in the risk to water contact recreation in waters affected by the discharge;

(b) The in-stream criterion for chlorine listed in **Table 20** shall be met at all times outside the assigned mixing zone;

(c) For sewage treatment plants that are authorized to use reclaimed water pursuant to Oregon Administrative Rule (OAR) 340, Division 55, and which also use a storage pond as a means to dechlorinate their effluent prior to discharge to public waters, effluent limitations for bacteria shall, upon request by the permittee, be based upon appropriate total coliform limits as required by OAR 340, Division 55;

(I) For Level II limitations, if two consecutive samples exceed 240 total coliform per 100 ml or for Level III and Level IV limitations, if a single sample exceeds 23 total coliform per 100 ml, then five consecutive re-samples shall be taken at four hour intervals beginning as soon as practicable (preferably within 28 hours) after the original sample(s) were taken;

(II) And, if in the case of Level II effluent, the log mean of the five re-samples is less than or equal to 23 total coliform per 100 ml or, in the case of Level III and IV effluent, if the log mean of the five re-samples is less than or equal to 2.2 total coliform per 100 ml, a violation shall not be triggered.

(13) Sewer Overflows in Winter: Domestic waste collection and treatment facilities are prohibited from discharging raw sewage to waters of the State during the period of November 1 through May 21, except during a storm event greater than the one-in-five-year, 24-hour duration storm. However, the following exceptions apply:

(a) The Commission may on a case-by-case basis approve a bacteria control management plan to be prepared by the permittee, for a basin or specified geographic area which describes hydrologic conditions under which the numeric bacteria criteria would be waived. These plans will identify the specific hydrologic conditions, identify the public notification and education processes that will be followed to inform the public about an event and the plan, describe the water quality assessment conducted to determine bacteria sources and loads associated with the specified hydrologic conditions, and describe the bacteria control program that is being implemented in the basin or specified geographic area for the identified sources;

(b) Facilities with separate sanitary and storm sewers existing on January 10, 1996, and which currently experience sanitary sewer overflows due to inflow and infiltration problems, shall submit an acceptable plan to the Department at the first permit renewal, which describes actions that will be taken to assure compliance with the discharge prohibition by January 1, 2010. Where discharges occur to a receiving stream with sensitive beneficial uses, the Department may negotiate a more aggressive schedule for discharge elimination;

(c) On a case-by-case basis, the beginning of winter may be defined as October 15 if the permittee so requests and demonstrates to the Department's satisfaction that the risk to beneficial uses, including water contact recreation, will not be increased due to the date change.

(14) Sewer Overflows in Summer: Domestic waste collection and treatment facilities are prohibited from discharging raw sewage to waters of the State during the period of May 22 through October 31, except during a storm event greater than the one-in-ten-year, 24-hour duration storm. The following exceptions apply:

(a) For facilities with combined sanitary and storm sewers, the Commission may on a case-by-case basis approve a bacteria control management plan such as that described in subsection (13)(a) of this rule;

(b) On a case-by-case basis, the beginning of summer may be defined as June 1 if the permittee so requests and demonstrates to the Department's satisfaction that the risk to beneficial uses, including water contact recreation, will not be increased due to the date change;

(c) For discharge sources whose permit identifies the beginning of summer as any date from May 22 through May 31: If the permittee demonstrates to the Department's satisfaction that an exceedance occurred between May 21 and June 1 because of a sewer overflow, and that no increase in risk to beneficial uses, including water contact recreation, occurred because of the exceedance, no violation shall be triggered if the storm associated with the overflow was greater than the one-in-five-year, 24-hour duration storm.

(15) Storm Sewers Systems Subject to Municipal NPDES Storm Water Permits: Best management practices shall be implemented for permitted storm sewers to control bacteria to the maximum extent practicable. In addition, a collection-system evaluation shall be performed prior to permit issuance or renewal so that illicit and cross connections are identified. Such connections shall be removed upon identification. A collection system evaluation is not required where the Department determines that illicit and cross connections are unlikely to exist.

(16) Storm Sewers Systems Not Subject to Municipal NPDES Storm Water Permits: A collection system evaluation shall be performed of non-permitted storm sewers by January 1, 2005, unless the Department determines that an evaluation is not necessary because illicit and cross connections are unlikely to exist. Illicit and cross-connections shall be removed upon identification.

(17) Water Quality Limited for Bacteria: In those waterbodies, or segments of waterbodies identified by the Department as exceeding the relevant numeric criteria for bacteria in the basin standards and designated as water-quality limited under section 303(d) of the Clean Water Act, the requirements specified in OAR 340-41-026(3)(a)(I) and in section (10) of this rule shall apply.

FIGURE C. RULE SECTIONS TO BE DELETED BY BASIN
Bacteria

Basin	Section and Subsection: (340-41-Basin)
North Coast – Lower Columbia	205(2)(e)(A)(i)
Mid Coast	245(2)(e)(A)(i)
Umpqua	285(2)(e)(A)(i)
South Coast	325(2)(e)(A)(i)
Rogue	365(2)(e)(A)(i)
Willamette	445(2)(e)(A)
Sandy	485(2)(e)(A)
Hood	525(2)(e)(A)
Deschutes	565(2)(e)(A)
John Day	605(2)(e)(A)
Umatilla	645(2)(e)(A)
Walla Walla	685(2)(d)(A)
Grande Ronde	725(2)(e)(A)
Powder	765(2)(e)(A)
Malheur	805(2)(e)(A)
Owyhee	845(2)(e)(A)
Malheur Lake	885(2)(e)(A)
Goose & Summer Lakes	925(2)(e)(A)
Klamath	965(2)(e)(A)

NOTE: The portions of the proposed bacteria standard ((A)(ii), and part of (A)(i)) specific to marine or estuarine waters apply only to basins in which such waters occur (the North Coast 205, Mid-Coast 245, South Coast 325, Umpqua 285 and Rogue 363).

**PROPOSED AMENDMENTS TO
OREGON ADMINISTRATIVE RULES
OAR 340-40-090**

NOTE: The underlined portions of text represent proposed additions made to the rules.

The ~~[bracketed]~~ portions of text represent proposed deletions made to the rules.

340-40-090

~~[The levels]~~Interim standards are contained in **Tables 4A**, **5**, and **6** of this Division ~~[are the interim standards]~~ for maximum measurable levels (MMLs) of contaminants in groundwater to be used in the designation of a groundwater management area. Permanent standards for MMLs are found in **Table 4B.** The~~[se]~~ permanent or interim levels shall be used in all actions conducted by the Department where the use of maximum measurable levels for contaminants in groundwater is required.

TABLE 4A
(OAR 340-40-090)

Interim Standards for Maximum Measurable Levels of Contaminants in Groundwater:[1,2,3]

Inorganic Contaminants	Interim Standard (mg/L)
Arsenic	0.05
Barium	1.0
Cadmium	0.010
Chromium	0.05
Fluoride	4.0
Lead	0.05
Mercury	0.002
~~**[Nitrate-N**~~	~~10]~~
Selenium	0.01
Silver	0.05

1 All reference levels are for total (unfiltered) concentrations unless otherwise specified by the Department.

2 The source of all standards listed is **40 CFR Part 141**.

3 MMLs are used to trigger designation of a groundwater management area when concentrations are detected on an areawide basis which exceed 70 percent of the nitrate MML or 50 percent of other MMLs.

TABLE 4B
(OAR 340-40-090)

Permanent Standards for Maximum Measurable Levels of Contaminants in Groundwater:[1,2,3]

Inorganic Contaminants	Standard (mg/L)
Nitrate-N (Nitrate expressed as Nitrogen)	10

1 All reference levels are for total (unfiltered) concentrations unless otherwise specified by the Department.

2 The source of all standards listed is **40 CFR Part 141.**

3 MMLs are used to trigger designation of a groundwater management area when concentrations are detected on an areawide basis which exceed 70 percent of the nitrate MML or 50 percent of other MMLs.

TABLE 5
(OAR 340-40-090)

Interim Standards for Maximum Measurable Levels of Contaminants in Groundwater (Continued):[1,2,3]

Organic Contaminants	Interim Standard (mg/L)
Benzene	0.005
Carbon Tetrachloride	0.005
p-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
~~[1,1,]~~1,1-Dichloroethylene	0.007
~~[1,1,]~~1,1,1-Trichloroethane	0.20
Trichloroethylene	0.005
Total Trihalomethanes (the sum of concentrations bromodichloromethane, dibromochloromethane, tribromomethane (bromoform), and trichloromethane (chloroform))	0.10
Vinyl Chloride	0.002
2,4-D	0.10
Endrin	0.0002
Lindane	0.004
Methoxychlor	0.10
Toxaphene	0.005
2,4,5-TP Silvex	0.01

1 All reference levels are for total (unfiltered) concentrations unless otherwise specified by the Department.

2 The source of all standards listed is **40 CFR Part 141**.

3 MMLs are used to trigger designation of a groundwater management area when concentrations are detected on an areawide basis which exceed 70 percent of the nitrate MML or 50 percent of other MMLs.

TABLE 6
(OAR 340-40-090)

Interim Standards for Maximum Measurable Levels of Contaminants in Groundwater:[1,3]

Radioactive Substances, Microbiological and Turbidity

Contaminant	Interim Standard
Turbidity	1 T U
Coliform Bacteria	< 1/100 ml
Radioactive Substances	
Gross Alpha[2]	15 pCi/1
Combined Radium 226 and 228	5 pCi/1
Gross Beta	50 pCi/1
I - 131	5 pCi/1
Sr - 90	8 pCi/1
Tritium	20,000 pCi/1

1 The source of all standards listed is **40 CFR Part 141**.

2 Including Radium 226 but excluding Radon and Uranium.

3 MMLs are used to trigger designation of a groundwater management area when concentrations are detected on an areawide basis which exceed 70 percent of the nitrate MML or 50 percent of other MMLs.

SIGNIFICANT COMMENTS AND DEPARTMENT RESPONSES

Addendum to the November 17, 1995, EQC Report:, Attachment E
1992-1994 Triennial Water Quality Standards Review:
Proposed Revisions to Standards

Scope of this Attachment

A list of persons who submitted comments on or before January 3, 1996, is included at the end of this Addendum. The letters received include both new comments written in response to the extension of the comment period, and the late comments that were received immediately after the close of the original comment period. Written comments received after January 3 but prior to January 10 will be made available to the Commission on Thursday, January 11.

Editorial and Repeat Comments

Two commenters suggested editorial changes that would clarify the meaning of the proposed rule language. With one exception--where the meaning would have changed, the suggested edits have been incorporated in the rules.

A number of the comments received raised issues already addressed in the staff report. These comments are discussed briefly here, along with reference to the response provided in Attachment E of the staff report. In cases where the repeat comment includes new elements or nuances, additional discussion is provided.

1) Repeat Comment: Format.

Several commenters opined that the format of the temperature and bacteria standards does not comply with requirements of the Clean Water Act.

Department Response: As explained in the staff report (General Comment No. 1, page 1, Attachment E), staff disagree that the temperature and bacteria standards are inconsistent with Clean Water Act requirements. However, some changes were made in the format of the standards when this comment was originally received to consolidate the rules that apply to water quality-limited situations. Following further discussion in response to the additional comment, staff have determined that the

remaining text in the rule language that does not include numeric or narrative criteria could be moved to portions of Division 41 that pertain to all basins. This would have the advantage of reducing the length of the basin-specific rules. However, staff recognize that in making such a change, those who implement the standards will need to search more widely in the rules for the information they need. To minimize this problem, the rules will be cross-referenced.

2) Repeat Comment: Implementation Guidance.

Commenters noted that implementation guidance will be needed for each of the standards.

Department Response: The staff report (General Comment No. 3, page 2, Attachment E) makes clear that the Department intends to create implementation guidance. To facilitate smooth implementation of the standards, the effective dates of the temperature and DO rules were postponed so that the Department would have time to develop this guidance.

3) Repeat Comment: Numeric Criteria.

Commenters continued to disagree regarding the choice of temperature criteria. Because of the importance of the issue, the original comment and response from the staff report (Temperature Comment No. 1, page 6, Attachment E) are repeated here:

> "Comment: Numeric Criteria. Different numeric criteria should have been chosen. Some commenters stated that the criteria are too high, and some found them to be too low. Several persons stated that the same criteria should not apply across the state, maintaining that basins in Eastern Oregon cannot be expected to attain the same temperatures that can be achieved in Western Oregon. Some commenters pointed out that anadromous fish are restricted from some basins due to the presence of dams. They questioned why criteria that are protective of anadromous fish would apply in areas where the fish do not exist.

Department Response: Staff disagree that the criteria should be changed. No new information was presented that would invalidate the findings of the Technical Subcommittee, which indicated that salmonids may begin to experience adverse impacts in a range from about 58-64° F.

The proposed criteria were selected to protect other cold-water aquatic species in addition to salmon. Trout, which are widely distributed throughout the state, are a cold water species which have similar requirements to salmon. Because cold water aquatic species are native to streams across the state, and because these species' requirements are the same across locations, there is no scientific basis for establishing different standards in Eastern and Western Oregon, or for setting different criteria above dams.

Staff do not expect that all portions of all streams will eventually attain the criteria. The proposed rule accommodates situations in which anthropogenic warming cannot reasonably be reduced enough to bring stream temperatures into compliance with the standard. In such cases, the rule provides that once all feasible steps have been taken to reduce temperatures and that the designated beneficial uses are not being adversely impacted, the Department may declare the resulting temperatures to be the standard."

Additional Staff Response: Concerns have consistently been raised regarding stream situations where cold-water aquatic life have never been supported. The rules provide for such situations in two ways: 1) If the natural conditions would not meet the criteria, the criteria become the naturally occurring values. 2) If the sensitive beneficial use never existed in a stream, the use can be removed from the list of designated beneficial uses for that stream, and a criterion appropriate to protect the next most sensitive use applies. To make this principle more evident in the proposed temperature standard, the wording of the 64° F. criterion has been changed to explicitly reference the sensitive use (salmonid rearing) being protected.

4) Repeat Comment: Excessive Chlorination.

Two commenters expressed concern that the effluent limits in the bacteria standard would result in excessive chlorination, with little gain in public safety. One commenter suggested that to resolve the issue, a mixing zone should be allowed for bacteria. The commenter provided alternative rule language to allow a mixing zone.

Department Response: This comment is related to the issue raised in the staff report (Bacteria Comment No. 2, page 12, Attachment E) with respect to sewer overflows. Staff agree that chlorine and its byproducts can be harmful to aquatic life and those who drink the chlorinated water. The Department agreed in the staff report to consider the issue further and to revisit both the mixing zone rule (which has been interpreted to prohibit a mixing zone for bacteria) and the bacteria standard, if necessary.

The Department currently encourages sewage treatment facilities to use disinfection methods other than chlorination. A number of facilities have already begun using ultraviolet radiation instead of chlorine, and many others who have year-round discharges are planning to do likewise at the time of their next upgrade.

Staff continue to believe that the proposed bacteria standard is a significant improvement over the existing Enterococcus standard, and should be adopted as soon as possible. The proposed standard will result in much lower chlorine use than the Enterococcus standard.

In response to the mixing zone suggestion, preliminary information supplied by sewage treatment agencies does not indicate that allowing a mixing zone would significantly reduce the amount of chlorine used by sewage treatment facilities. This is because the dilution potential of many mixing zones is insignificant compared to the concentrations of bacteria that are commonly measured in effluent that has been through secondary treatment but not disinfection.

To allow mixing zones for bacteria would also require a level of resources that exceeds that available to either the Department or the sewage treatment agencies. Ambient concentrations of bacteria vary widely and unpredictably over time. Under the right conditions, bacteria can live for several days in water, so their concentration at any one location in a stream is a function of the cumulative inputs from a wide range of upstream sources. In order to determine the wasteload allocations associated with designated mixing zones, in-stream bacteria concentrations would need to be continuously monitored over time and factored into the mixing zone calculations. In some cases, the resulting wasteload allocation could be lower than allowed under the proposed effluent criteria.

New Comments that Apply to More than One Standard

5) New Comment: Rulemaking Process.

The Chair and one other member of the Policy Advisory Committee expressed the belief that the work of the Advisory Committee is being subverted by the efforts of one interest to renegotiate the standards outside the agreed-upon process. The commenters state that the agricultural representative was responsible to represent the agricultural community during the Advisory Committee meetings, and that the issues raised after the fact with the Commission and the Department should have been discussed instead with the full Committee during its two-year negotiation process.

Department Response: The purpose of policy advisory committees is two-fold: 1) to represent the diverse array of interests in the State, and 2) to communicate advisory committee discussions with affected communities. Advisory Committee members are told upon appointment that they are responsible to fulfill both of these functions on behalf of the constituents they represent. Clearly, the process works best when these functions are performed during the time the Advisory Committee is negotiating its recommendations. However, rules are most effective when the regulated parties both understand them and support the goals they are designed to achieve. In this case, the Department and the Commission determined that further communication was needed to increase understanding of the proposed rules.

6) New Comment: Burden of Proof.

Some commenters felt that prior to listing a waterbody as water quality-limited, the Department needs to prove that human activities, rather than natural causes, are creating the conditions which impact the sensitive use.

Department Response: Staff disagree that the burden of proof rests on the Department to show that human activities are causing a violation of water quality standards prior to issuing a notice of noncompliance or listing a waterbody as water quality-limited. The first efforts by the federal government to mandate water pollution controls required that states prove that a discharge was causing a problem prior to regulating it. Because of the difficulty and cost of proving cause/effect relationships, virtually no action resulted. In response, the Congress passed the Clean Water Act of 1972, which implicitly placed the burden of proof on sources by requiring treatment of discharges to meet specific effluent limits.

The comment was raised by persons and organizations associated with nonpoint sources, with special reference to the temperature and intergravel dissolved oxygen standards. Although early efforts to reduce water pollution were aimed at point sources, the Clean Water Act recognizes that nonpoint sources can have significant impacts as well. Over time, as point sources have reduced their impacts, the relative share of pollution due to nonpoint sources has increased correspondingly. Loss of riparian vegetation needed to stabilize stream channels, reduce sedimentation, and provide shade has contributed to high stream temperatures and low intergravel dissolved oxygen concentrations. In addition, runoff samples from roads, urban and agricultural areas have been found to contain sediment, nutrients, bacteria, and toxic compounds in concentrations that can adversely affect aquatic life and/or human health.

To minimize situations where an individual or organization might be held accountable for a problem to which they don't contribute, a number of waivers exist in the standards. As mentioned above under Repeat Comment 3, if a waterbody can be shown to be violating a standard solely because of natural causes, the numeric criteria change to reflect the values that are naturally attained. The proposed temperature standard allows sources to petition the Environmental Quality Commission for an exception to the requirements of the rule if the source demonstrates that no adverse impact will result to beneficial uses from the activity in question. The proposed temperature standard also states that only those sources which are likely contributing to a violation will be required to develop management plans. Additionally, if it is demonstrated that the beneficial uses the criteria are intended to protect have not existed in the waterbody since 1975, and that conditions cannot be improved so that the beneficial use could survive in the waterbody, a use attainability analysis may be done and new numeric criteria may be adopted.

7) New Comment: 303(d) List.

Some commenters questioned the mechanism whereby waterbodies are listed on the water quality limited list required by Section 303(d) of the Clean Water Act. They suggested that the listing and de-listing processes should be outlined in detail and made available for public comment.

Department Response: Staff agree that the water quality-limited listing process should include opportunity for public input. In fact, a 60-day public comment period on the 1994/1996 proposed list is scheduled for early 1996. Interested persons may review the suggested list of waterbodies and provide additional information that supports or contradicts a given proposed listing.

EPA has developed guidance regarding the factors that determine whether a waterbody should be listed, and has also provided guidance outlining the requirements for de-listing a waterbody. This guidance may be obtained by request from the EPA or Department.

8) New Comment: Legality of the Standards.

Some commenters opined that the temperature and bacteria standards include text that effectively substitutes management practices and technologies for numeric criteria and the TMDL process mandated by federal law. They maintain that the temperature standard in fact sets goals rather than actual criteria, and that it violates the standing order in NEDC v EPA. They also contend that the one degree growth allowance in the proposed temperature rule is illegal.

Department Response: Staff disagree with this comment. The temperature and bacteria standards include numeric criteria set to protect cold-water aquatic life. With respect to the temperature standard, the majority of the "extra" text is merely intended to explain the process by which nonpoint sources will be asked to do their share in cooling the state's waters. The process includes flexibility to accommodate the variety of solutions which nonpoint sources may employ, but does not undermine the criteria set to protect cold-water aquatic life.

The rule language that allows the one degree increase for new development indicates that the allowance must be included in wasteload and load calculations so that temperature-reduction efforts will bring waters into attainment with the relevant criteria. The section of the proposed temperature standard that allows for adoption of new criteria, once all feasible steps have been taken to reduce temperatures, will be implemented in conformance with Clean Water Act requirements to protect beneficial uses.

New Comments on Temperature

9) New Comment: Volunteer Effort.

Commenters stated that many eastern Oregon streams will never meet the proposed criteria. They said that changing the criteria from the existing standard would have serious implications for morale and the cooperative spirit existing in the agricultural community. The commenters believe that ongoing voluntary efforts by the agricultural community to lower stream temperatures will cease if the proposed standard is adopted.

Department Response: Staff have great empathy for the discouragement that may arise when striving to meet difficult environmental goals. It is the Department's intent to recognize the work that has already been done by many in the agricultural community toward the development of local watershed improvements. Such efforts may be incorporated as the foundation for the management plans required by the proposed temperature standard. Staff also recognize that due to the cumulative nature of heat inputs to streams, the lower portions of many streams will never meet the proposed criteria. However, to the extent that stream temperatures are reduced in the upper reaches of a river, the distance which provides acceptable habitat for cold water species will increase.

Staff also note that regulations can "level the playing field" so that those who wish to improve stream conditions are not at a competitive disadvantage compared to those who demonstrate less inclination toward voluntary stewardship.

As mentioned above in the comment titled, "Numeric Criteria," the Department does not have flexibility under the Clean Water Act to either eliminate the temperature standard or set standards based on what is attainable--rather, the Act requires that standards be set to protect the most sensitive beneficial use.

10) New Comment: Economics.

Commenters disagreed regarding the importance of economic considerations in setting water quality standards. One commenter stated that the proposed temperature standard could put his ranch out of business. Another commenter stated that economic considerations should not be given priority when public health and aquatic ecosystems are at risk.

Department Response: The Department is required to protect designated beneficial uses. The Department is also accountable to the public to do so in a way that creates as few regulations and restrictions on private enterprise as possible, while maintaining equity among affected persons. The proposed temperature standard has enormous flexibility to accommodate local conditions and possibilities, while providing full protection to cold water aquatic species. The proposed standard represents the best science and the most efficient and equitable mix of policies that the advisory committees, staff, and interested members of the public were able to create during four years of effort.

11) New Comment: Feasible Steps.

The Department should define the words *all feasible steps*.

Department Response: Staff do not believe that it is possible to define the universe of "all feasible steps" up-front. In general, the Department will consider whether temperature sources have adopted the best technologies or management practices and measures possible, taking into account the relative costs and benefits to local residents and the larger society through use of Advisory Committees and the public process. The best technologies and management practices possible will likely change over time, and will vary across basins, and according to the type of sources involved. Additionally, due to limited staff resources in some of the designated management agencies (including DEQ), full statewide implementation of the rule could take decades. As societal priorities evolve, and as the scientific understanding of aquatic ecosystems improves--resulting in more effective technologies and practices, these factors will add further iterations to the determination process.

This said, staff have included a preliminary list of criteria in the proposed temperature standard by which "feasible steps" can be recognized. The Department has also agreed to work with interested parties to refine the criteria prior to the effective date of the proposed temperature standard.

Modifications Suggested by the Department

Further discussions among staff about the proposed standards have yielded several suggested changes. These suggestions are described below:

Format

12) Staff Suggestion: Agricultural Water Quality Plans.

The language describing how a surface water temperature management plan would be implemented for agricultural nonpoint sources should be broadened to apply to other water quality parameters. Staff have therefore referenced the language in the temperature rule, broadened it to include all water quality parameters, and moved it to the implementation section of Division 41.

Rationale: Senate Bill 1010, adopted by the 1993 legislature, and Senate Bill 902, adopted by the 1995 legislature, have resulted in statutes that describe a process by which the Commission, the Department, the Board of Agriculture, and the Oregon Department of Agriculture should interact to assure protection of water quality in streams impacted by agricultural nonpoint source pollution. Because this process is new, and is consistent regardless of the water quality parameter of concern, the explanatory language in the temperature standard would be most useful if applied generically across parameters.

Bacteria Standard

13) Staff Suggestion: Wastewater Re-use.

Staff recommend that language be added to the bacteria standard to facilitate the use of reclaimed wastewater for irrigation through the elimination of redundant sampling requirements.

Rationale: Sewage treatment facilities commonly land apply their effluent during summer to avoid in-stream standards violations. The bacteria limitations for reclaimed water are considerably more conservative than the surface-water discharge criteria. However, the indicator organisms for reclaimed water are total coliform; the proposed surface water indicator is E. coli. Because E. coli is a subset of total coliform, and because the number of total coliform allowed by the re-use rules is lower than the surface water E. coli concentrations, it can be inferred that water that meets the re-use rules also meets the criteria for surface-water discharges. Therefore, there is no benefit in requiring that facilities monitor for both E. coli and total coliform.

The proposed bacteria standard has been changed to allow for substitution of the total coliform limitation for the surface-water discharge limitation in cases where reclaimed water is applied in compliance with the re-use rules.

Hydrogen Ion Concentration

15) Staff Suggestion: Crooked River.

Further study should be done to determine whether the upper end of the acceptable pH range in the Crooked River should be changed to 9.0.

Rationale: Staff believe that, although human activities have impacted water quality in the Crooked River, exceedances of the pH standard in some parts of the river could be due to natural causes. Most of the Crooked River watershed is located in the same ecoregion as the John Day, and water chemistry data from the Crooked River is more similar to streams from the eastern portions of the state where pH 9.0 standards have been adopted or are proposed.

LIST OF COMMENTS RECEIVED

Comments received after the September 19, 1995, deadline

Last Name	First Name	Affiliation
Armstrong	Ward	Oregon Forest Industries Council
Collis	Cathryn	City of Portland
Hill	James	City of Medford
Morinaka	Noble	Malheur County Onion Growers Association
Saito	Reid	KLG Farms, Inc.

Extended comment period (December 15, 1995)

Last Name	First Name	Affiliation
Armstrong	Ward	Oregon Forest Industries Council
Beck	Sharon	Oregon Cattlemen's Association
Borman	Michael	Oregon State University, Department of Rangeland Resources
Collis	Cathryn	City of Portland, Environmental Services
D'Avera	Mary	U. S. Department of the Interior, Bureau of Land Management
Gillaspie	Janet	Oregon Association of Clean Water Agencies
Heidgerken	Todd	Water For Life
Johnston	Craig	Northwest School of Law of Lewis & Clark College
Marlett	Bill	Oregon Natural Desert Association
Nelson	Michael	Union County Economic Development Corporation
Sterne	Jack	Northwest Environmental Defense Center
Strong	Ted	Columbia River Inter-Tribal Fish Commission
Test	Peter	Oregon Farm Bureau

Extended comment period (January 9, 1996)

Last Name	First Name	Affiliation
Beck	Sharon	Oregon Cattlemen's Association
Otley	Fred	Oregon Cattlemen's Association
Shock	Clinton	Oregon State University

LIST OF OUTREACH MEETINGS AND SUMMARY OF DISCUSSIONS

At the request of the Commission, the Department and Director held outreach meetings to discuss the proposed standards. The following meetings were held by the Department.

Date	Association/ Location	Purpose of Meeting	Staff Presenter	Attendance
11/29	Oregon Department of Agriculture - Salem	Increased understanding of two agencies' commitments and roles	JLMarsh and Division Administrators	About 20 persons
11/30	State Board of Agriculture - Beaverton	Overview of standards, questions & answers	JLMarsh	About 20 persons
11/30	Associated Oregon Industries (AOI) - Portland	Overview or standards, questions & answers	NJMullane	About 40 persons
11/30	Water for Life-Salem	Overview of standards, questions & answers	NJMullane	About 12 persons
12/5	Farm Bureau - Pendleton	Overview of standards, question & answers	RJHarding	Two sessions; about 100 persons
12/14	Oregon Association of Clean Water Agencies	Discussion of issues concerning the bacteria standard	JLMarsh, Water Quality Staff	Six persons

Date	Association/ Location	Purpose of Meeting	Staff Presenter	Attendance
12/14	Oregon Assoc of Nurserymen, Oregon Cattlemen's Assoc, Oregon Dairy Farmers, Oregon Farm Bureau Federation, Oregonians for Food and Shelter, Oregon Forest Industries Council, Wheat Growers League, Water for Life, Oregon Departments of Agriculture and Forestry, OSU Extension - Portland	Discussion of temperature standard	JLMarsh (Commissioners Wessinger and Whipple)	About 20 persons
12/18	AOI, eastern Oregon branch - Hermiston	Overview of standards, question & answers	RJHarding	About 10 persons
21/21	Senior staff of ODA	Clarification of implementation issues and suggested edits to temperature and bacteria rules	MJDowns	About 12 persons

Date	Association/ Location	Purpose of Meeting	Staff Presenter	Attendance
1/3/96	Similar attendees from the agricultural community as the 12/14 meeting	Further discussion of ways to avoid listing a waterbody as water quality limited, and mechanisms to remove a waterbody from the list	JLMarsh, Water Quality Staff, some members of Temperature Technical Advisory Committee (Commissioners Whipple and Van Vliet)	About 30 persons

SUMMARY OF DISCUSSIONS

The discussions held at the request of interested parties suggested that different interest groups had differing levels of familiarity and agreement with the proposed standards. Members of Association of Clean Water Agencies (ACWA) and Associated Oregon Industries (AOI) reported that they had followed the water quality standards review process, and were aware of most of the policies articulated in the proposed standards. Some members of the agricultural community had less familiarity with the proposed standards and expressed a higher level of concern regarding the potential implications.

Members of ACWA stated their support for both the advisory committee process that was followed, and the rules generated during the 1992-1994 Triennial Review. They expressed support for the temperature standard and emphasized the importance of adopting a new bacteria standard as soon as possible. They offered to research the potential for reducing chlorination byproducts by allowing for mixing zones, as suggested by commenter, Jack Smith.

Members of AOI were generally clear on the proposed standards. One person raised concern that the bull trout temperature criterion should be linked to the presence of different life stages similar to the salmonid spawning/rearing criteria. The Technical Advisory Temperature Subcommittee member from the Oregon Department of Fish and Wildlife (ODFW) reports that existing studies of bull trout do not provide adequate information to select criteria by life stage but ongoing studies by ODFW and others may allow for such determinations in the future.

The agricultural community's understanding of the standards increased as a result of the discussions that were held. Although some concerns were allayed, a number of concerns remain for at least some of the participants with respect to the proposed temperature standard. A number of persons stated that they did not believe that a *one-size-fits-all* standard can accommodate the diversity of conditions that exist in the state. They opined that the Department should develop individual watershed-level temperature goals that are based on what is feasible rather than what is required to fully protect the sensitive beneficial uses. Faculty from Oregon State University provided worksheets for describing local conditions that could be useful in developing site-specific criteria or management plans.

Staff agree that it would be ideal to have reach-specific standards that closely reflect the needs of local ecosystems. However, the resources and information required to develop such standards far exceed those available. Under the Clean Water Act, the state does not have the option of eliminating the temperature standard while waiting for the development of such reach-specific criteria. Given the available resources, the proposed standard provides as much flexibility to accommodate local conditions as is possible within the legal constraints and the need to protect beneficial uses. The meetings with the agricultural representatives were primarily devoted toward exploring this flexibility, and staff would be most willing to provide the same discussions to Commission members at the January 11 EQC meeting.

In addition to the one-size-fits-all concern, the agricultural community requested the Department to define *feasible steps* prior to adoption of the temperature standard. As mentioned in the response to written comment (Attachment B, New Comment No. 11), the Department included some general criteria in the proposed temperature standard in response to this concern and will use the period between rule adoption and implementation to develop interactive sessions with affected parties to create more definitive criteria that may be used to determine when all feasible steps have been taken.

Staff believe that most of the concern expressed by the agricultural community over the proposed temperature standard stems neither from the proposed criteria, nor from the Oregon Department of Agriculture's planned implementation of the standard, but from the threat of third-party lawsuits associated with a draft ballot initiative (or other potential initiatives) that could affect agricultural management practices in water quality-limited watersheds. In agreement with the Oregon Farm Bureau Federation representative, staff believe that further discussions are needed between the Department and interested parties to clarify legal ways that local citizens and organizations can keep waterbodies from being listed on the 303(d) list of water-quality limited waters or remove them once they have been listed. Staff believe that these discussion have little to do with the proposed standards and should not interfere with rule adoption.

DETAILED CHANGES TO ORIGINAL RULEMAKING PROPOSAL

This attachment provides a comparison between the proposed new rules and the rules submitted in the November 17 EQC staff report.

The table below characterizes the organizational changes that were made in response to Repeat Comment No. 1 in this Addendum.

Previous Location of the Rule	New Location of the Rule
Temperature Definitions: 340-41-[basin](2)(b)(B)(i) - (iv)	 OAR 340-41-006 (54) - (57)
Preamble: 340-41-[basin](2)(b)(A)(i) - (v) 340-41-120 (11)(e)(B)	 OAR 340-41-120 (11) (a) - (g) OAR 340-41-120 (10)
Guidance/Policy: 340-41-[basin](2)(b)(F) and (G)	 OAR 340-41-120 (11) (f) and (g)
Renumbered: 340-41-[basin](2)(b) and (c), (D), (E), (H)	 Renumbered after other sections moved
Bacteria: 340-41-[basin](2)(e)(D), (E), (F), (G), (H), (I)	 Moved to OAR 340-41-120 (12) - (17)

Additions were made to the text of the proposed temperature and bacteria rules. These additions and context are provided below. Text that is underlined shows additions to the existing standard; text that is bolded, in italics and underlined represents additions to the rules in the November 17 EQC staff report. Deleted text that is struck through and bracketed shows deletions from the existing standard: text that is bolded, in italics, struck through and bracketed represents deletions from the rules in the November 17 EQC staff report.

New Comment No. 11
Temperature
340-41-026(3)(a)(D)(ii)

(ii) Sources shall continue to maintain and improve, if necessary, the surface water temperature management plan in order to maintain the cooling trend until the numeric criterion is achieved or until the Department, ***in consultation with the Designated Management Agencies (DMAs),*** has determined that all feasible steps have been taken to meet the criterion and that the designated beneficial uses are not being adversely impacted. In this latter situation, the temperature achieved after all feasible steps have been taken will be the temperature criterion for the surface waters covered by the applicable management plan. ***The determination that all feasible steps have been taken will be based on, but not limited to, a site-specific balance of the following criteria: protection of beneficial uses, appropriateness to local conditions; use of best treatment technologies or management practices or measures, and cost of compliance;***

Staff Suggestion No. 12
Format
OAR 340-41-120 (10)

(10) Agricultural water quality management plans to reduce agricultural nonpoint source pollution shall be developed and implemented by the Oregon Department of Agriculture (ODA) through a cooperative agreement with the Department of Environmental Quality (DEQ) to implement applicable provisions of ORS 568.900–933 and ORS 561.191. If DEQ has reason to believe that agricultural discharges or activities are contributing to water quality problems resulting in water quality standards violations, DEQ shall hold a consultation with the ODA. If water quality impacts are likely from agricultural sources, and DEQ determines that a water quality management plan is necessary, the Director of DEQ shall write a letter to the Director of the ODA requesting that such a management plan be prepared and implemented to reduce pollutant loads and achieve the water quality criteria;

Repeat Comment No. 3
Temperature
340-41-[basin](2)(b)(A)

(A) To accomplish the goals identified in OAR 340-41-120***(11)***, unless specifically allowed under a Department-approved surface water temperature management plan as required under OAR 340-41-026(3)(a)(D), no measurable surface water temperature increase resulting from anthropogenic activities is allowed:

(i) In a basin ***for which salmonid fish rearing is a designated beneficial use, and*** in which surface water temperatures exceed 64.0°F (17.8°C);

Comment No. 2
OAR 340-41-120

[(D)](12) Effluent Limitations for bacteria: ***Except as allowed in paragraph (c)(i), (ii) of this subsection,*** upon NPDES permit renewal or issuance, or upon request for a permit modification by the permittee at an earlier date, effluent discharges to freshwaters and estuarine waters other than shellfish growing waters shall not exceed a monthly log mean of 126 E. coli organisms per 100 ml ***based on a minimum of five (5) samples.*** No single sample shall exceed 406 E. coli organisms per 100 ml. If a single sample exceeds 406 E. coli per 100 ml, then five consecutive re-samples shall be taken at four hour intervals beginning as soon as practicable (preferably within 28 hours) after the original sample was taken. If the log mean of the five re-samples is less than or equal to 126, a violation shall not be triggered. The following conditions apply:

[(i)](a) If the Department finds that re-sampling within the timeframe outlined in this subsection would pose an undue hardship on a treatment facility, a more convenient schedule may be negotiated in the permit, provided that the permittee demonstrates that the sampling delay will result in no increase in the risk to water contact recreation in waters affected by the discharge;

[(ii)](b) The in-stream criterion for chlorine listed in Table 20 shall be met at all times outside the assigned mixing zone.

(c) For sewage treatment plants that are authorized to use reclaimed water pursuant to Oregon Administrative Rule (OAR) 340, Division-55 and which also use a storage pond as a means to dechlorinate their effluent prior to discharge to public waters, effluent limitations for bacteria shall, upon request by the permittee, be based upon appropriate total coliform limits as required by OAR 340, Division-55.

(I) For Level II limitations, if two consecutive samples exceed 240 total coliform per 100 ml or for Level III and Level IV limitations, if a single sample exceeds 23 total coliform per 100 ml, then five consecutive re-samples shall be taken at four hour intervals beginning as soon as practicable (preferably within 28 hours) after the original sample(s) were taken.

(II) And, if in the case of Level II effluent, the log mean of the five re-samples is less than or equal to 23 total coliform per 100 ml or, in the case of Level III and IV effluent, if the log mean of the five re-samples is less than or equal to 2.2 total coliform per 100 ml, a violation shall not be triggered.

Much of the flexibility inherent in the proposed temperature standard centers on the preparation of management plans, and the ability to declare the standard to be whatever is achieved once all feasible steps have been taken. The agricultural community is concerned that we have not adequately defined what constitutes a management plan, or what "all feasible steps" are.

We have suggested that we will continue to meet with the agricultural community, with Oregon Department of Agriculture and with the Department of Forestry to solicit their input on preparation of guidance including definitions of feasible steps and what constitute management plans.

While the Department is unwilling to define these unilaterally, we have done some preliminary thinking, and have incorporated this into amended rule language. We hope to be able to develop our initial thoughts further in conjunction with the above groups and agencies as we work through implementation and guidance development. The main reason the Department does not want to take a unilateral role in this, is that the responsibility for developing plans under the proposed temperature standard rests with Designated Management Agencies, in this case Oregon Department of Agriculture and Department of Forestry or appropriate local governments. We believe that they need an active role in reaching these definitions. We also recognize that technologies and management practices evolve over time , and will vary from location to location. The Department wishes to allow the greatest flexibility possible to Designated Management Agencies to tailor their management planning to specific circumstances of an individual situation.

Having said this, the Department does not intend to back away from these issues. We are available at any time to provide whatever advice and technical support may be required. Ad a guide, the following provide some initial working definitions of feasible steps and management planning guidance. We would like to see the affected parties and agencies meet over the next six months to expand on, or change these, to meet their needs. In considering whether or not all feasible steps have been taken, the Department will consider whether temperature sources have adopted the best technologies and management practices and measures possible, taking into account the relative costs and benefits to local residents and the larger society through the use of advisory committees and the public process. As far as management planning goes, the attached draft document explains the Department's preliminary thinking.

The 303d List

The Department released its draft 1994-96, 303d list for public review and comment earlier this week. In relation to the proposed standards and the meetings we have held with the agricultural community, there was initially the erroneous view that if the Commission did not adopt the proposed temperature standard that the list would be truncated. We indicated that if the Commission does not adopt the proposed temperature

standard, that the list will still be produced using the existing temperature standard. The outcome of adopting the proposed standard on the list is marginal. Slightly fewer streams appear on the list under the proposed standard than with the existing standard.

Once this was understood, the agricultural community clearly wished the Department to delay release of the list. We explained that we are under a consent decree requiring us to produce and release the list as required by the Clean Water Act. This left a number outstanding issues.

First, the agricultural community is strongly of the view that the Department should determine the source of increased temperatures before listing. In their view, if the source of the temperature standard violation is natural, then the water should not be listed. If the source is anthropogenic, then it should be listed. In any event, the agricultural community was strongly of the view that the burden of proof should be on the Department to identify the source of temperature violations prior to listing. The Department does not believe the Clean Water Act gives it the discretion to determine these cause and effect relationships prior to listing. The Act, and EPA guidance on 303d listing makes it clear that if adequate data exists to determine that a water quality standard is not being met, then the water must be listed. If subsequent investigations, or additional data show the causes of temperature violations to be natural, then the water can be removed from the list. In the TMDL process, an amount is allowed for natural conditions prior to the determination of waste load allocations for point sources and load allocations for non-point sources.

The second issue concerns resources. With a much increased list, the agricultural community is concerned that neither DEQ nor ODA will get around to addressing many of the listed streams for many years. In the meantime, they are uncertain what they will be able to do. The question of Departmental resources is a valid one for both agencies. However, even if additional resources were available, the large number of water segments would still entail many years work. The Department, along with ODA will be seeking partnerships with other interested parties to assist in developing management plans, which, under the proposed temperature standard would result in a water body being removed from the list. The hope, at this stage, is that individuals and groups, if provided with sufficiently detailed guidance could begin preparing management plans. These could be reviewed by the Designated Management Agency, and if in accordance with the guidance, would result in a water body being delisted, and remaining off the list provided the plan is being implemented. Clearly, this is an issue the Department will continue to address and to consider. See also additional comments under the TMDLs and Implementation section below.

A different, but related issue concerns the perception that the Department will move to address all these streams immediately. We are realistic about the constraints placed upon us by resources. We intend to join with other DMAs to prioritize the water bodies on the list, and to signal clearly where the agencies' priorities lie. We do not intend to even attempt to address all streams on the list at once.

The Department will be meeting with ODA to develop a Memorandum of Understanding in which our respective roles, and how we will work together to address these issues will be specified. We would also like to join with ODA in any outreach activities to the regulated community to explain the program and offer whatever technical support we can.

The third issue concerned third party law suits. The agricultural community was deeply concerned that individual land-owners could be sued if their property abutted a water quality limited stream.. We assured them, that if anyone is to be sued, it would be either EPA, DEQ, or the designated management agency. We tried to assure agriculture that the same 'permit as a shield' regime that applies to point sources would be adopted for non-point sources, such that they would be protected from third party law suits if they were implementing the provisions of a plan. We have inserted additional language to make it clear that provided an individual landowner is implementing the provisions of a temperature management plan, that they will be deemed not to be contributing to a violation of the numeric criteria.

The fourth issue is that adoption of the proposed temperature standard would prejudice good work already being undertaken. Our hope is that the work that is already being undertaken, if written up, would form a firm basis for a management plan. We would hope to encourage anyone doing good things for water to continue with those efforts.

We believe that adoption of the proposed standards, particularly in the case of temperature, give the flexibility required to remove waters from the water quality limited list, and to develop site specific standards, addressing two of the common complaints we heard from the meetings. Indeed, at the last meeting held on January 3, 1996 we presented the available options under the existing and proposed standards for removing a water from the 303d list, or keeping a water that is not on the list from appearing in subsequent listings. A copy of the graphics used is attached.

The agricultural community was also under the misapprehension that the water quality limited list was a state requirement which the Commission would approve. We have assured them that the listing process is a federal requirement and does not involve Commission approval.

TMDLs and Implementation

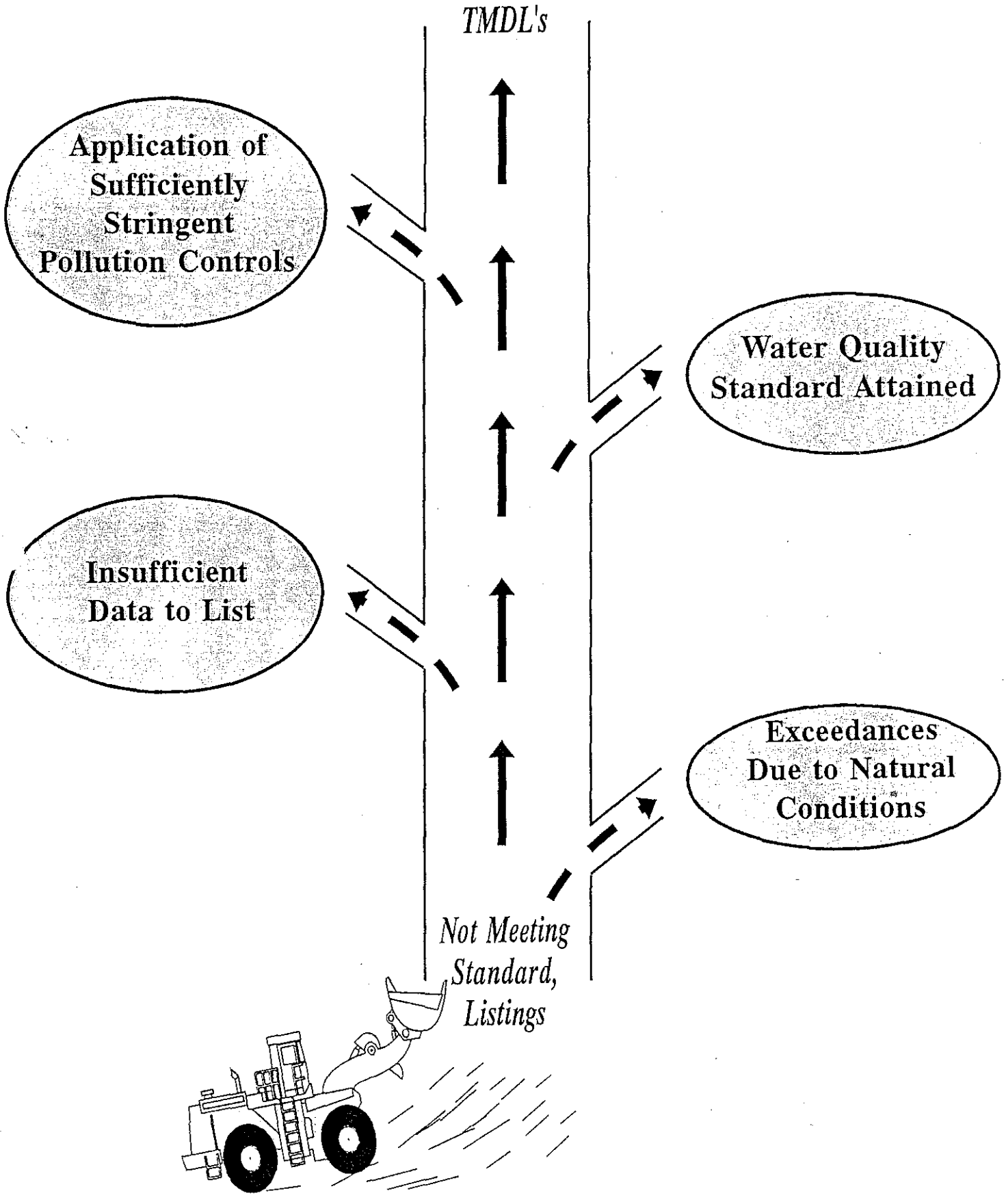
Clearly, with a large number of water bodies now listed as not meeting water quality standards, and the resources available to the Department, standards implementation and development of TMDLs resulting from listing are immediate issues.

For the temperature, bacteria and dissolved oxygen, the Department intends to develop, in conjunction with affected parties, implementation and sampling guidance. This will occur over the next six months.

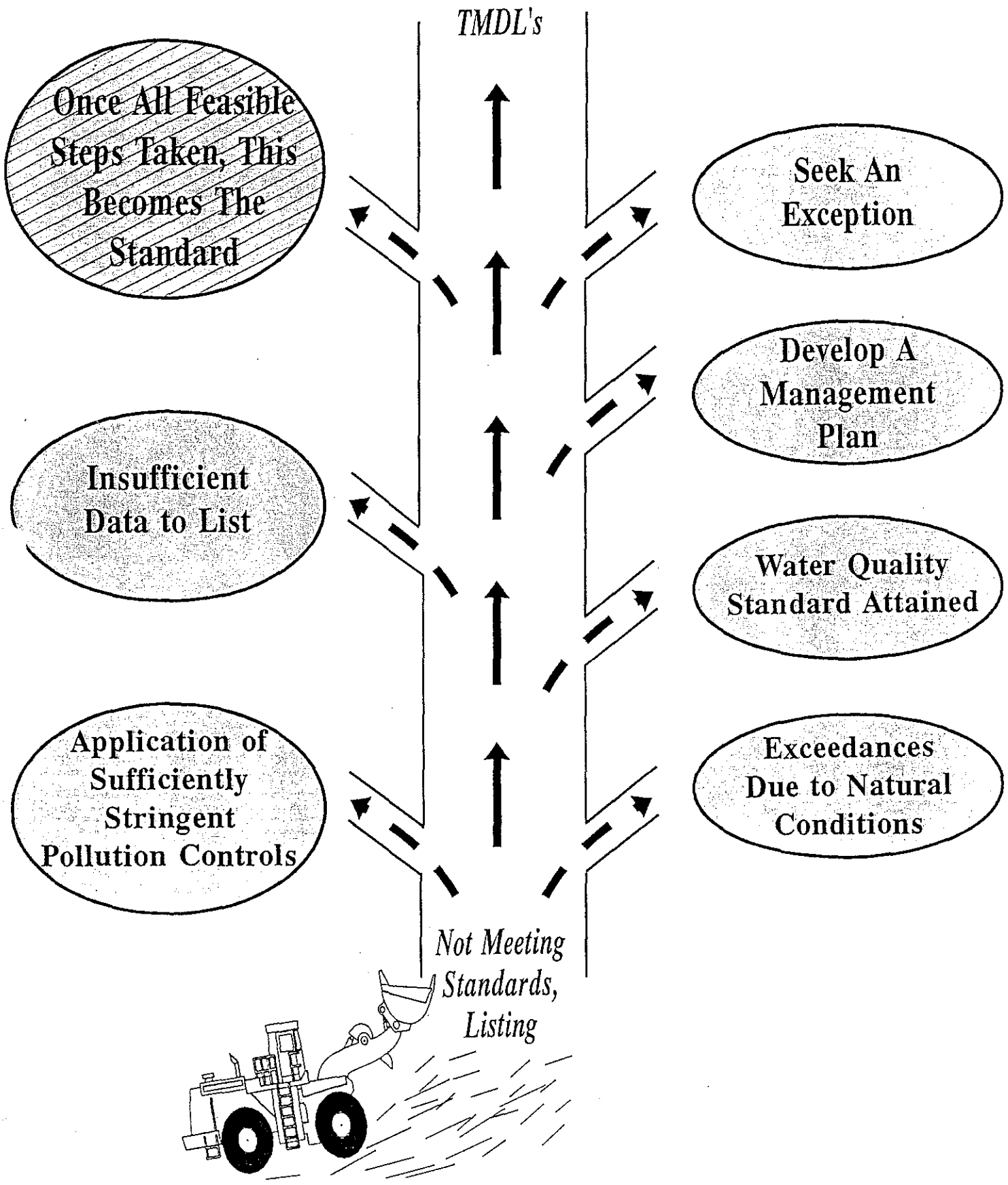
TMDLs are a difficult issue. The Department is currently producing two TMDLs per year (in accordance with a Court order). Clearly, this is unreasonable given the magnitude of the list. We are currently exploring both internally and with EPA alternative strategies for achieving TMDLs that are more efficient.

The Department will be meeting with ODA to develop a Memorandum of Understanding in which our respective roles, and how we will work together to address these issues will be specified. We would also like to join with ODA in any outreach activities to the regulated community to explain the program and offer whatever technical support we can.

EXISTING TEMPERATURE STANDARD



PROPOSED TEMPERATURE STANDARD



GUIDANCE

FOR DEVELOPING WATERSHED MANAGEMENT PLANS TO REMOVE WATERS FROM THE 303(D) LIST

Oregon Department of Environmental Quality
January 9, 1996

PURPOSE

This guidance describes the topics and issues which must be addressed in a watershed management action plan in order for that plan to be approved as the mechanism for removing a waterbody from the 303(d) list of Water Quality Limited waters. The assumption is that the plan is being implemented in lieu of establishment of Total Maximum Daily Loads (TMDLs), but nevertheless aims at the same goal: implementation of land management practices which will control anthropogenic sources of pollution, demonstrably improve and protect water quality, and thus contribute to full support of aquatic beneficial uses.

This guidance emphasizes the particular requirements stemming from Section 303(d) of the federal Clean Water Act and is not meant as a thorough guide to the complete process of developing a watershed management action plan. Such guidance is available through other sources, a few of which are listed at the end of this document. Watershed action plans can take many forms in response to the local situation. The items described below can be included in any watershed plan, regardless of its particular format.

SUMMARY

To remove a waterbody from the 303(d) list, a watershed management action plan must include these features:

1. A thorough description of the problem(s), including
   a. water quality conditions
   b. the water quality standards and criteria of concern
   c. the beneficial uses being impaired
   d. the types of pollution causing the problem
   e. the sources of this pollution in terms of
      - location
      - land management practice (or natural hazard)
      - the relative contribution of each source

2. A statement of the water quality improvement and protection goals of the plan, accompanied by objectives which quantify the desired change in water quality, beneficial use support, and/or pollution loading, and which provide target dates for achievement.

3. A description of the proposed remedies, including the specific practices or systems of practices and how these practices will control the pollution problem.

4. The timeline for implementation.

5. An identification of who will be responsible for implementing the practices.

6. Evidence that participants in the plan are committed to full and timely implementation, or, alternatively, an explanation of how and by whom the implementation of the action plan will be assured.

7. A process for monitoring plan implementation and effectiveness, and for adjusting the plan over time as suggested by monitoring results.

8. A process for involving interested and affected publics in the development, implementation, and evaluation of the plan.

9. A strategy for maintaining the water quality improvements over the long term.

10. An explanation of costs and funding sources.

FURTHER DISCUSSION

The following provides additional commentary on the items listed above.

1. **Problem Description:** The water quality action plan must be based on a clear understanding of the problems to be solved and the causes to be dealt with. Information on water quality conditions, the water quality standards and criteria of concern, and the beneficial uses being impaired is available from the Department, which used this information in its determination that the waterbody should be included on the 303(d) list. To some extent, the types and sources of pollution causing the problem may be inferred from the nature of the problem and from patterns of local land use and management practice. However, in most cases it will be necessary to additionally document watershed conditions and causes of water quality problems.

2. **Goals and Objectives:** To adequately address 303(d) issues, the goals and at least some of the objectives of the plan should specifically focus on the improvement of water quality condition and aquatic beneficial use support. Additional objectives may address aspects of watershed condition which directly relate to water quality (such as erosion control and vegetative cover) or to the successful implementation and maintenance of the program (such as public information sharing and the provision of technical and financial assistance to land managers). The action plan's objectives are particularly important because they are the basis for detailed implementation workplans and also for the evaluation of program effectiveness. The objectives must be explicit about what is to be achieved, where, when, and by whom, and must identify the indicator(s) by which achievement will be measured.

3. **Proposed Management Practices:** The description of management practices (and systems) to be applied also must be explicit about which practices will be used, where, when, and how these practices will control the pollution problem. The selection of practices may be very site-specific, and will likely change over time in response to changing conditions, opportunities, land manager preferences, and lessons learned. Therefore, it may be most appropriate to include detailed descriptions of the practices in an attachment that is designed to be updated on a regular basis. If appropriate, this attachment could be a collection of the management plans being implemented on individual land holdings throughout the watershed. The Department recognizes that some land managers may be reluctant to reveal certain details of their management practice for competitive reasons. In such cases, the practices may be described to Natural Resources Conservation Service (or other designated) staff who will promise to keep the information private and also will assume responsibility for certifying the implementation and effectiveness of the practice(s).

4. **Timeline for Implementation:** Each objective (and any associated workplans) will specify dates for starting and completing the work, and perhaps also for mid-term products. Pursuit of these objectives and application of the selected management practices throughout a whole watershed may take years, and so it may be desirable to break implementation of the plan into logically sequenced phases.

5. **Responsible Participants:** It is particularly important that the action plan identify the roles and responsibilities and commitments of the various public and private participants.

6. **Assurance of Implementation:** To be adequate to remove a waterbody from the 303(d) list, a watershed management action plan must include strong evidence that it will be implemented. This does not mean that the

action plan must be "regulatory" or narrowly prescriptive in nature. In fact, the Department encourages the development of plans which maximize the options from which land managers may select effective pollution control measures. Furthermore, good watershed plans will strongly promote and reward voluntary stewardship efforts. The ideal watershed action plan is one which has strong and widespread local support and to which land managers are enthusiastically committed. It is necessary, however, for this voluntary commitment to be demonstrated before the plan can be approved. Alternatively, a watershed action plan may describe other means by which implementation will be assured.

7. Monitoring and Evaluation: Monitoring for implementation and effectiveness of the action plan should be guided by the goals and objectives of the plan. Effectiveness monitoring should evaluate not only the immediate results of implementing various management approaches but also the longer-range issue of whether or not the water quality and associated beneficial use support is improving---or is likely to, given documented trends in watershed condition. The plan should explain how monitoring results will be used to improve the plan. Monitoring methods may be adjusted to suit the local situation and the nature of the action plan, and must always be technically sound and include processes for quality control and quality assurance. Citizen volunteer monitoring may be an important part of the overall monitoring plan, but the volunteers must be adequately trained and equipped and their data also subjected to quality assurance checks. The monitoring plan should specify the monitoring tasks, who will do them, when, and where.

8. Public Involvement: Each watershed will have a unique set of interested and affected persons with a stake in development and implementation of the action plan. These may include local land owners, other residents of the watershed, local governments, special districts, state and federal agencies with relevant natural resource protection mandates, and others. The action plan should identify who these interests are and how they have been involved in the process.

9. Maintenance of Effort: In most cases, the problems leading to water quality limitations and 303 (d) listing have accumulated over many decades, and may require a number of years to remedy. Some management practices can produce measurable---even visible---results within a year or two. However, it may take a few years to implement the sort of wide scale treatments often necessary to improve water quality throughout the whole watershed, and additional years of maintenance may be necessary before the new practices have their desired effect. It is important for the action plan to demonstrate an ongoing commitment to plan implementation extending out for at least a decade.

10. Costs and Funding: Each watershed management action plan must estimate the costs associated with plan implementation and identify committed funding sources which will support action plan implementation throughout its life span. Unfortunately, an action plan with no funding will result in little or no action---and will not be adequate to remove a waterbody from the 303 (d) list. The action plan should document committed funding for at least the first three years of implementation. Beyond that, the plan should identify potential sources of funding and the mechanisms by which those sources will be tapped, including who will coordinate the fundraising effort. Funds may come from any public or private source, and will include the investments made by the landowners themselves, grants, cost-share funds, in-kind contributions, and donations. The plan should explore the potential to raise funds both outside and inside the watershed.

SOURCES OF ADDITIONAL INFORMATION

Guidelines for Watershed Councils, Volume 2. 1995. Prepared by the Oregon Watershed Health Program, and available from the Governor's Watershed Enhancement Board (GWEB): (503) 378-3589.

Nonpoint Source Pollution Control Guidebook for Local Government. 1994. Oregon Departments of Environmental Quality and Land Conservation and Development. Available from DEQ: (503) 229-6893.

Bauer, S.B. and T.A. Burton. Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams. 1993. U.S. EPA Region 10, 1200 6th Ave., Seattle, Washington 98101. Publ. No. 910/R-93-017.

MacDonald, Lee with A.W. Smart and R.C. Wissmar. Monitoring Guidelines to Evaluate Effects of Forestry Activities on Stream in the Pacific Northwest and Alaska. 1991. U.S. EPA Region 10, 1200 6th Ave., Seattle, Washington 98101. Publ. No. 910/9-91-001.

Minutes for the November 17, 1995 Meeting

are located in Section A of the

February 23, 1996 Meeting Binder

Environmental Quality Commission

☐ Rule Adoption Item
X Action Item
☐ Information Item

Agenda Item B
January 12, 1996 Meeting

Title:
Approval of Tax Credit Applications

Summary:
New Applications - Two (2) tax credit applications with a total facility cost of $56,668 are recommended for approval as follows:

- 1 Field Burning related facility recommended by the Department of Agriculture with a total facility cost of: $46,545
- 1 Plastics Recycling facility costing: $10,123

No applications with claimed facility costs exceeding $250,000 are included in this Report.

Department Recommendation:
Approve tax credit certificates for 2 applications as presented in Attachment A of the staff report.

Report Author | Division Administrator | Director

January 4, 1996

†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

State of Oregon
Department of Environmental Quality Memorandum[†]

Date: January 12, 1996

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item B, January 12, 1996 EQC Meeting

Approval of Tax Credit Applications

Statement of the Need for Action

This staff report presents the staff analysis of pollution control facilities tax credit applications and the Department's recommendation for Commission action on these applications. The following is a summary of the applications presented in this report:

Tax Credit Application Review Reports:

Applicant No.	Applicant	Description
TC 4325	Loren's Sanitation Service, Inc. $10,123	A Reclaimed Plastic facility consisting of a Plasti-Pac Model FC-60B plastic compactor and a portable unit built by Willamette Fluid Power to power the compactor.
TC 4567	R. Dean Bowers $46,545	An Air Pollution Control "Field Burning" facility consisting of a 104' x 72' x 22' pole construction grass seed straw storage shed.

Tax Credit Application Review Reports With Facility Costs Over $250,000 (Accountant Review Reports Attached).

Background and Discussion of Issues

No issues are presented for discussion in this report.

[†]A large print copy of this report is available upon request.

Authority to Address the Issue

ORS 468.150 through 468.190 and OAR 340-16-005 through 340-16-050 (Pollution Control Facilities Tax Credit).

ORS 468.925 through 468.965 and OAR 340-17-010 through 340-17-055 (Reclaimed Plastic Product Tax Credit).

Alternatives and Evaluation

None.

Summary of Any Prior Public Input Opportunity

The Department does not solicit public comment on individual tax credit applications during the staff application review process. Opportunity for public comment exists during the Commission meeting when the applications are considered for action.

Conclusions

- The recommendations for action on the attached applications are consistent with statutory provisions and administrative rules related to the pollution control facilities and reclaimed plastic product tax credit programs.

o Proposed January 12, 1996 Pollution Control Tax Credit Totals:

Certificates	Certified Costs*	Certified Allocable Costs**	No.
Air Quality	$ 0	$ 0	0
CFC	0	0	0
Field Burning	45,545	45,545	1
Noise	0	0	0
Hazardous Waste	0	0	0
Plastics	10,123	10,123	1
SW - Recycling	0	0	0
SW - Landfill	0	0	0
Water Quality	0	0	0
UST	0	0	0
	$56,668	$56,668	2

o Calendar Year Totals Through December 28, 1995:

Certificates	Certified Costs*	Certified Allocable Costs**	No.
Air Quality	$ 5,162,362	$ 5,162,362	18
CFC	11,980	9,186	6
Field Burning	4,131,913	3,797,142	36
Noise	388,234	372,565	2
Hazardous Waste	77,083	77,083	1
Plastics	307,531	241,841	8
SW - Recycling	507,195	507,195	7
SW - Landfill	290,496	290,496	2
Water Quality	86,529,601	86,351,540	46
UST	3,672,466	3,410,779	43
	$101,078,861	$100,220,189	169

*These amounts represent the total facility costs. The actual dollars that can be applied as credit is calculated by multiplying the total facility cost by the determined percent allocable and dividing by 2.

**These amounts represent the total eligible facility costs that are allocable to pollution control. To calculate the actual dollars that can be applied as credit, the certifiable allocable cost is multiplied by 50 percent.

Recommendation for Commission Action

A) The Department recommends that the Commission approve certification for the tax credit applications as presented in Attachment A of the Department Staff Report.

Intended Followup Actions

Notify applicants of Environmental Quality Commission actions.

Attachments

A. Pollution Control Tax Credit Application Review Reports.

Reference Documents (available upon request)

1. ORS 468.150 through 468.190.
2. OAR 340-16-005 through 340-16-050.
3. ORS 468.925 through 468.965.
4. OAR 340-17-010 through 340-17-055.

Approved:

Section:

Division:

Report Prepared By: Charles Bianchi

Phone: 229-6149

Date Prepared: January 4, 1995

Charles Bianchi
JANEQC

Application No. TC-4325

State of Oregon
Department of Environmental Quality

RECLAIMED PLASTIC TAX CREDIT
TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

Wayne A. Thackery, President
Loren's Sanitation Service, Inc.
1141 Chemawa Road, N.
Keizer, OR 97303

The applicant is a company that provides solid waste and recycling collection services in parts of Marion County.

Application was made for Reclaimed Plastic Tax Credit.

2. Description of Equipment, Machinery or Personal Property

The claimed equipment consisting of:

Plastic compactor "Plasti-Pac Model FC-60 B"
Portable power unit built by Willamette Fluid Power to power the compactor.

The equipment compacts plastic bottles on the curbside recycling truck, allowing greater storage capacity for plastic bottles on the recycling truck.

The claimed facility investment costs: $10,123

Copies of checks and invoices were provided to document the cost of the investment.

3. Procedural Requirements

The investment is governed by ORS 468.451 through 468.491, and by OAR Chapter 340, Division 17.

The investment met all statutory deadlines in that:

a. The request for preliminary certification was received on 11/15/94. The request for preliminary certification was approved on 11/23/94

b. The investment was made 12/23/94

d. The request for final certification was submitted complete on 12/14/1995.

4. Evaluation of Application

a. The investment is eligible because the equipment is necessary to process reclaimed plastic.

b. Allocable Cost Findings

In determining the portion of the investment costs properly allocable to reclaiming and recycling plastic material, the following factors from ORS 468.486 have been considered and analyzed as indicated:

1) The extent to which the claimed collection, transportation, processing or manufacturing process is used to convert reclaimed plastic into a salable or usable commodity.

The compactor is used exclusively to compact plastic bottles collected from the public for reclamation.

2) Any other factors which are relevant in establishing the portion of the actual cost of the investment properly allocable to the collection, transportation or processing of reclaimed plastic or to the manufacture of a reclaimed plastic product.

No other factors were considered relevant.

The actual cost of the investment properly allocable to processing reclaimed plastic as determined by using these factors is 100%.

5. Summation

a. The investment was made in accordance with all regulatory deadlines.

b. The investment is eligible for final tax credit certification in that the equipment is necessary to manufacture a reclaimed plastic product.

c. The qualifying business complies with DEQ statutes and rules.

d. The portion of the investment cost that is properly allocable to reclaiming and recycling plastic is 100%.

6. Director's Recommendation

Based upon these findings, it is recommended that a Reclaimed Plastic Tax Credit Certificate bearing the cost of $10,123 with 100% allocated to reclaiming plastic material, be issued for the investment claimed in Tax Credit Application No. TC-4325.

PHS:phs
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(503) 229-5253
December 28, 1995

State of Oregon
Department of Agriculture

TAX RELIEF APPLICATION REVIEW REPORT

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1. Applicant

R. Dean Bowers
22035 Coburg Road
Harrisburg, OR 97446

The applicant owns and operates a grass seed farm operation in Linn County, Oregon.

Application was made for tax credit for an air pollution control facility.

2. Description of Claimed Facility

The facility described in this application is a 104' x 72' x 22', pole construction, grass seed straw storage shed, located at 22299 Coburg Road, Harrisburg, Oregon. The land and the buildings are owned by the applicant.

Claimed facility cost: $46,545
(Accountant's Certification was provided.)

3. Description of Farm Operation Plan to Reduce Open Field Burning.

The applicant has 240 acres of perennial grass seed and 1000 acres of annual grass seed under cultivation. Prior to initiating alternatives to open field burning, the applicant thermally sanitized as many acres as the smoke management program and weather permitted.

The alternatives used on perennial acreage begins with baling the bulk straw followed by flail chopping the remaining residue and stubble and ending with vacuuming the fields. The alternatives used on annual acreage begins with flail chopping the bulk straw followed by plowing the straw under and ending with harrowing and rolling the fields in preparation for seeding.

Using the alternatives, the applicant has reduced his open field burning from 1,200 acres in 1992 to 310 acres in 1994.

To ensure the services of the custom baler on his perennial fields, the applicant was compelled to construct the straw storage shed as the selected alternative begins with bulk straw removal.

4. Procedural Requirements

The facility is governed by ORS 468.150 through 468.190, and by OAR Chapter 340, Division 16. The facility has met all statutory deadlines in that:

Construction of the facility was substantially completed on July 20, 1995. The application for final certification was found to be complete on December 21, 1995. The application was filed within two years of substantial completion of the facility.

5. Evaluation of Application

a. The facility is eligible under ORS 468.150 because the facility is an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution. This reduction is accomplished by reduction of air contaminants, defined in ORS 468A.005; by reducing the maximum acreage to be open burned in the Willamette Valley as required in OAR 340-26-013; and, the facility's qualification as a "pollution control facility", defined in OAR 340-16-025(2)(f)A): "Equipment, facilities, and land for gathering, densifying, processing, handling, storing, transporting and incorporating grass straw or straw based products which will result in reduction of open field burning."

b. Eligible Cost Findings

In determining the percent of the pollution control facility cost allocable to pollution control, the following factors from ORS 468.190 have been considered and analyzed as indicated:

1. The extent to which the facility is used to recover and convert waste products into a salable or usable commodity.

   The facility promotes the conversion of a waste product (straw) into a salable commodity by providing protection from inclement weather.

2. The estimated annual percent return on the investment in the facility.

   There is no annual percent return on the investment as applicant claims no gross annual income.

3. The alternative methods, equipment and costs for achieving the same pollution control objective.

   The method chosen is an accepted method for reduction of air pollution. The method is one of the least costly, most effective methods of reducing air pollution.

4. Any related savings or increase in costs which occur or may occur as a result of the installation of the facility.

   There is an increase in operating costs of $1,100 to annually maintain and operate the facility. These costs were considered in the return on investment calculation.

5. Any other factors which are relevant in establishing the portion of the actual cost of the facility properly allocable to the prevention, control or reduction of air pollution.

There are no other factors to consider in establishing the actual cost of the facility properly allocable to prevention, control or reduction of air pollution.

The actual cost of the facility properly allocable to pollution control as determined by using these factors is 100%.

6. Summation

a. The facility was constructed in accordance with all regulatory deadlines.

b. The facility is eligible under ORS 468.150 as an approved alternative method for field sanitation and straw utilization and disposal that reduces a substantial quantity of air pollution as defined in ORS 468A.005

c. The facility complies with DEQ statutes and rules.

d. The portion of the facility that is properly allocable to pollution control is 100%.

7. The Department of Agriculture's Recommendation

Based upon these findings, it is recommended that a Pollution Control Facility Certificate bearing the cost of $46,545, with 100% allocated to pollution control, be issued for the facility claimed in Tax Credit Application Number TC-4567.

Jim Britton, Manager
Smoke Management Program
Natural Resources Division
Oregon Department of Agriculture
(503) 986-4701
FAX: (503) 986-4730

JB:rc
December 21, 1995

rc/wp/taxcredits/4567

Environmental Quality Commission

☒ Rule Adoption Item
☐ Action Item
☐ Information Item

Agenda Item C
January 12, 1996 Meeting

Title:

Voluntary Wellhead Protection Rules

Summary:

This program addresses the need for Oregon communities to protect their drinking water supplies from environmental contamination. It is extremely expensive to treat contaminated drinking water or to find alternative water supplies for a community should a water supply be lost because of contamination. Since groundwater conditions and vulnerability to contaminants vary substantially from one part of Oregon to another, the protection of a public water supply can best be accomplished by each local community. These rules provide the framework for developing a local wellhead protection plan and getting a certification of the plan from the Department if a community chooses to submit their plan for certification. Through the implementation of these proposed rules, a local community "Team" can determine where their drinking water is coming from, what kind and how many potential contamination sources are within that area, and develop a management approach to reduce the risks of groundwater contamination from those sources. The proposed rules also describe the procedures to develop contingency plans in case the local system becomes contaminated. Through the wellhead protection program, the Department will provide technical assistance and information to communities to accomplish local protection of drinking water supplies.

Department Recommendation:

The Department recommends that the Commission adopt the new rules regarding wellhead protection as presented in the attached staff report.

Report Author | Division Administrator | Director

December 21, 1995

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

State of Oregon
Department of Environmental Quality **Memorandum**

Date: December 21, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item C, January 12, 1996 EQC Meeting

Background

On October 13, 1995, the Director authorized the Water Quality Division to proceed to a rulemaking hearing on proposed rules which would provide a procedure for a community to voluntarily develop a wellhead protection plan.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on November 1, 1995. The Hearing Notice and informational materials were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on wellhead protection.

Public Hearings were held on November 15, 1995 in Medford, November 20, 1995 in Portland, and November 21, 1995 in Pendleton. Mr. Chris Hughes of the Oregon Health Division served as Presiding Officer at all three Public Hearings. Written comments were received through November 28, 1995. The Presiding Officer's Report (Attachment C) includes a record of the oral testimony presented at the hearings.

Department staff have evaluated both the oral and written comments received (Attachment D). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment D as well.

The following sections summarize the issue that this proposed rulemaking action is intended to address, the authority to address the issue, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317 (voice)/(503) 229-6993 (TDD).

response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issue this Proposed Rulemaking Action is Intended to Address

This program addresses the need for Oregon communities to protect their drinking water supplies from environmental contamination. It is extremely expensive to treat contaminated drinking water or to find alternative water supplies for a community should a water supply be lost because of contamination. As of October 1995, over 185 Oregon communities dependent on wells for drinking water have detected environmental contaminants in their drinking water.

Through the implementation of these proposed rules, a local community "Team" can determine where their drinking water is coming from, what kind and how many potential contamination sources are within that area, and develop a management approach to reduce the risks of groundwater contamination from those sources. The proposed rules also describe the procedures to develop contingency plans in case the local system becomes contaminated. Through the wellhead protection program, the Department will provide technical assistance and information to communities to accomplish local protection of drinking water supplies. (A detailed explanation of wellhead protection can be found in Attachment G.)

The Safe Drinking Water Act Amendments of 1986 (42 USC 300F to 300J-26) require each state to develop a wellhead protection program and gain Environmental Protection Agency (EPA) approval. One of the EPA requirements for a state wellhead protection program is to have a procedure whereby local communities can gain state certification of their plans. This proposed rule provides the procedure for Department certification and will be an important part of the Department's program to address the federal requirements of the Safe Drinking Water Act. The proposed rule uses existing statutory authorities to implement a *voluntary* wellhead protection program that reduces the risk of environmental contamination of public water systems. EPA has previously granted approval of state programs that incorporate a voluntary approach as long as the voluntary program includes incentives and technical assistance to encourage widespread use.

In 1993, the Department proposed a bill which would allow a *mandatory* wellhead protection program, to be phased in over ten years. Concerns about land use planning in the mandatory program and lack of financial resources to implement the program were the two main reasons the new statutory authorities for the proposed mandatory program were rejected by the Legislature in 1993.

The primary incentives for local communities to voluntarily implement wellhead protection and gain state certification (beyond the obvious benefit of a more secure source of quality drinking water) include lower costs to the public by a) the potential reduction in OHD-imposed monitoring requirements, and b) reduced likelihood of costs for replacement and/or treatment of contaminated drinking water.

Relationship to Federal and Adjacent State Rules

This proposed rule has been developed to meet federal requirements of the Safe Drinking Water Act Amendments of 1986. It is no more stringent than the federal requirements. The exact language of those federal requirements for a wellhead protection program can be provided if necessary.

Adjacent states have adopted mandatory wellhead protection programs which are considered more stringent than this voluntary approach.

Authority to Address the Issue

In August 1986, the Department was officially designated by the Governor as the lead agency for development and implementation of Oregon's wellhead protection program. Oregon's natural resource agencies developed and gained approval of a comprehensive groundwater protection plan called the Oregon Groundwater Act of 1989. Wellhead protection is an integral part of that statute.

The legal authorities for the Department's proposed rules for wellhead protection include: ORS 468.020, ORS 468.035, ORS 468B.015, ORS 468B.020, ORS 468B.150 to 468B.180, and ORS 468B.410.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

Oregon's proposed rules were developed with the assistance of a broad-based citizen's advisory committee. This "Wellhead Rules and Guidance Committee (WRGC)" was established in November 1994. Eleven public meetings were held with the advisory committee from November 1994 through December 1995 to draft the voluntary wellhead protection rules and to assist the Department in developing a Guidance Manual to assist with the implementation of the proposed rules. The members of the advisory committee are listed in Attachment E.

Initially, consideration was given to proposing a mandatory wellhead protection plan similar to one proposed to the 1993 Legislature. The Department, as well as the Committee members, determined that it was highly unlikely that statutory changes to create a mandatory program would be accepted and approved. The Attorney General's office provided an analysis of existing statutes that provide the Department's authorities to establish a voluntary wellhead protection program. The proposed rules provide the framework for the voluntary program.

Discussion of Significant Issues Involved in the Rulemaking Proposal Presented for Public Hearing.

Goal 5 Land Use Issue. The most significant issue related to the establishment of the voluntary wellhead protection program was the Department of Land Conservation and Development (DLCD) Statewide Planning Program's Goal 5. This land use planning goal states that the "locations, quality and quantity" of groundwater resources shall be inventoried and assessed for conflicting uses. Under the existing DLCD rule language (OAR 660-15), once a community delineates the wellhead protection area, it becomes an inventoried groundwater resource that must be addressed under Goal 5. It is the Department's opinion that any "triggered" Goal 5 land use requirements would create a disincentive to participate in the voluntary program because of the lack of local resources to address additional land use requirements, particularly in small communities. The Department has sought to keep this program entirely voluntary because of the overwhelmingly-positive response to the voluntary approach we have received from citizens across the state over the past year. It is also the Department's opinion (shared with DLCD) that there is no need for multiple agencies to be addressing the same resource issue.

Since DLCD is currently revising the Goal 5 rule, the Committee and the Department has sought to resolve this issue by working with DLCD on its new proposed rules. DLCD is supportive of the Department's voluntary approach. As a compromise, DLCD has proposed exempting over 99% of the total 3450 groundwater public water supplies in Oregon from any Goal 5 requirements. DLCD management and staff, however, expressed reservations about exempting the larger public water systems (which in their opinion are in the state's interest to protect) from all land use requirements in state rules. DLCD is currently proposing that systems serving over 10,000 people or having more than 3000 service connections that CHOOSE to delineate, and then gain certification of the delineation, be required to incorporate land use planning elements into their local wellhead protection plan in their next periodic review (see Attachment F for DLCD's conceptual recommendations for changes to Goal 5). In the Department's wellhead protection program, land use planning is one of MANY alternatives that local communities can choose to use to reduce the future risk of contamination to their drinking water .

Nothing in DLCD's current proposal mandates wellhead protection. It is the local community's decision as to whether they will delineate the wellhead protection area and gain technical approval. That community-solicited approval is necessary for a groundwater resource to be considered "identified" under Goal 5. After approval, only the (currently proposed) 26 larger public water supplies in the state need to then incorporate land use planning elements into their wellhead protection plan submitted to DEQ. DLCD is also recommending to the Land Conservation and Development Commission (LCDC) that once any community gains DEQ certification of their plan, it will have addressed any Goal 5 requirements associated with that groundwater resource. This will serve to prevent having multiple agencies address the same resource issue.

DLCD's Goal 5 rule revision process is still in its early stages. The Department has encouraged citizens concerned about the Goal 5 land use planning issues to be active in DLCD's Goal 5 revision process so that any concerns about land use planning requirements can be discussed with the appropriate agency, DLCD. The Department will continue to be involved in DLCD's rule revision process as well to ensure that the wellhead protection program requirements are fully understood as LCDC determines whether to rely on this program to address the wellhead protection area resources. To reach closure on the Goal 5 land use issue, the Department recommends that staff return to the EQC to provide a briefing on this matter once DLCD has completed the Goal 5 rule revision process.

Agricultural Lands Issue. Representatives of the agricultural community have also voiced concerns to ensure that the implementation of wellhead protection is consistent with SB 1010, Oregon Laws 1993, chapter 263 (codified as ORS 568.900 to 568.933) and SB 502, Oregon Laws 1995, chapter 690, section 6a. These statutes specify that the Oregon Department of Agriculture (ODA) develop and carry out any water quality management plans associated with agricultural lands. The proposed rule addresses those concerns by stating in the rule that the Department will rely upon ODA to address groundwater protection issues for all agricultural lands within wellhead protection areas. It is the Department's understanding that this is no longer a concern given the new rule revisions.

Summary of Significant Public Comment and Changes Proposed in Response

Public comments received during the public hearings and comment period are summarized in Attachment D. The three changes to the proposed rule in response to the public comments are described in Attachment D as well. The changes are related to the Goal 5 land use issue, the agricultural lands groundwater protection issue, and modifications to the definition of "Responsible Management Authority".

Summary of How the Proposed Rule Will Work and How it Will be Implemented

Since groundwater conditions and vulnerability to contaminants vary substantially from one part of Oregon to another, the protection of a public water supply can best be accomplished by each local community. These rules provide the framework for developing a local wellhead protection plan and getting a certification of the plan from the Department if a community chooses to submit their plan for certification.

If a community chooses to do wellhead protection, they can use the procedure provided in the rules to develop a plan which is tailored to their local area. The rules specify what the requirements are for a plan to be certified by the Department should the community choose to have their plan certified. *There are no required timetables or implementation deadlines from the Department for these rules since this is a voluntary program.*

Although there will be some technical assistance provided by other state agencies, the two primary agencies involved in the wellhead protection plan approvals are the Oregon Health Division (OHD) and the Department of Environmental Quality. All technical assistance requests and submittals should be directed to the wellhead protection program staff in the Water Quality Division at Department Headquarters in Portland. The Department will coordinate with Department staff in the Regions, as well as other agencies in Oregon, for input. Under their statutory authority, OHD will review and certify delineation, new wells, and contingency elements of each local plan as it is developed by the community. The Department will coordinate those reviews and provide the final certification for communities who choose to develop a wellhead protection plan.

Recommendation for Commission Action

It is recommended that the Commission adopt the rules regarding wellhead protection as presented in Attachment A.

Attachments

A. Rule Proposed for Adoption
B. Supporting Procedural Documentation:
    1. Legal Notice of Hearing
    2. Fiscal and Economic Impact Statement
    3. Land Use Evaluation Statement

4. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
5. Cover Memorandum from Public Notice

C. Presiding Officer's Report on Public Hearing
D. Department's Evaluation of Public Comments
E. Advisory Committee Membership
F. DLCD's Conceptual Recommendations for Goal 5 Changes
G. Informational Wellhead Protection Fact Sheet

Reference Documents (available upon request)

-Copy of all written comments received (summarized in Attachment D)
-Section 1428 of the 1986 Amendments, Safe Drinking Water Act
-4/12/94 Letter from Kenneth Feigner, EPA Region 10: Summary of EPA requirements for a state wellhead protection program that is voluntary

Approved:

Section:

Division:

Report Prepared By: Sheree Stewart

Phone: (503) 229-5413

Date Prepared: December 21, 1995

ATTACHMENT A

Proposed Rule for EQC Adoption

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
VOLUNTARY WELLHEAD PROTECTION PROGRAM

STATEMENT OF PURPOSE

340-40-140

(1) Meet Federal Requirements - The intent of these rules is to fulfill the Federal requirements under the Safe Drinking Water Act for the establishment of a state Wellhead Protection Program.

(2) Protect Public Water Systems - The purpose of a Wellhead Protection Plan is to protect the groundwater relied upon by a public water system from contamination. This is accomplished by reducing the risk of contamination to the groundwater from potential contaminant sources.

(3) Establish Voluntary Wellhead Protection Program - Local jurisdictions and/or public water systems may voluntarily develop a Wellhead Protection Plan, but are not required, by these rules, to do so.

(4) Procedures for State Approval - These rules establish a process to enable the Department to certify a local Wellhead Protection Plan, if it is submitted for certification, and to establish the process for a Responsible Management Authority, if they choose, to seek certification from the Department for a locally developed Wellhead Protection Plan.

DEFINITIONS

340-40-150

(1) "Contingency Plan" means a document setting out an organized, planned and coordinated course of action to be followed in the event of a loss of capacity to supply water to the distribution system or in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(2) "Department" means the Department of Environmental Quality.

(3) "Delineation" means the determination of the extent, orientation and boundaries of a wellhead protection area using factors such as geology, aquifer characteristics, well pumping rates and time of travel.

(4) "Element" means one of seven components considered by the U.S. Environmental Protection Agency as the minimum required components in any state wellhead protection program: specification of duties, delineation of the wellhead protection area, inventory of potential contaminant sources, specification of management approaches, development of contingency plans, addressing new (future) wells and springs, and ensuring public participation.

(5) "Governmental Entity" means any local, state, Indian tribe, or federal organization or agency which may own or manage lands or activities within a Wellhead Protection Area.

(6) "Plan" means Wellhead Protection Plan.

(7) "Potential Contaminant Source" means any activity which has the potential to release contaminants to the groundwater.

(8) "Public Water System" means a system supplying water for human consumption that has 4 or more service connections or supplies water to a public or commercial establishment which operates a total of at least 60 days per year, and which is used by 10 or more individuals per day.

(9) "Responsible Management Authority" means the Public Water System whose water supply is being protected and any governmental entity with management, rule or ordinance making authority to implement wellhead protection management strategies within a Wellhead Protection Area. Responsible Management Authorities are responsible for implementation of the Wellhead Protection Plan; includes cities, counties, special districts, Indian tribes, state/federal government entities as well as Public Water Systems.

(10) "Signatory" means any Responsible Management Authority in the Wellhead Protection Area who signs the Wellhead Protection Plan. Signing the plan indicates the Responsible Management Authority will implement the actions outlined for their jurisdiction in the plan.

(10) "Stakeholder(s) means person(s) and/or governmental entity(ies) who could or will be affected by activities or requirements that may be required within a local wellhead protection area.

(11) "Team" means the local Wellhead Protection Team; which includes representatives from the Responsible Management Authorities and various interests and stakeholders potentially affected by the Wellhead Protection Plan.

(12) "Wellhead Protection Area" means the surface and subsurface area surrounding a water well, spring or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach that water well, spring or wellfield.

(13) "Wellhead Protection Plan" refers to a Department certified plan which identifies the actions to be taken at the local level to protect a specific defined Wellhead Protection Area. The Plan is developed by the local Responsible Management Authority(ies) and/or team and includes a written description of each element, public participation efforts, and an implementation schedule.

GENERAL POLICIES

340-40-160

(1) It is the policy of the state to promote the protection of the quality of the groundwater resource from contamination by encouraging public water systems and/or governmental entities to voluntarily develop local Wellhead Protection Plans to protect the groundwater resources which a Public Water System relies upon for its drinking water.

(2) A certified Wellhead Protection Plan will be recognized as meeting the Wellhead Protection requirements under the Federal Safe Drinking Water Act of 1986, Section 1428 (42 USC 300F to 300J - 26).

(3) The Department will coordinate and work cooperatively with the Health Division, Department of Agriculture, Water Resources Department, Department of Land Conservation and Development and other governmental entities to promote the voluntary development of Wellhead Protection Plans.

(4) Other state rules may apply and may or may not pertain to the delineated Wellhead Protection Area, including but not limited to the rules of those agencies listed in 340-40-160(3).

(5) The Department will, within available resources, provide information and technical assistance to local Wellhead Protection Teams and other interested parties in the development of their Wellhead Protection Plans.

(6) All Responsible Management Authorities who have jurisdiction within a Wellhead Protection Area are encouraged to work together to develop a Plan to manage those activities that may have the potential to contaminate groundwater within that Wellhead Protection Area.

(7) Implementation of a Wellhead Protection Plan shall rely upon existing enforcement capabilities of the Responsible Management Authorities within the delineated Wellhead Protection Area. Nothing in these rules

will modify or change existing authorities or requirements put in place through other statutes or rules.

(8) The Department shall maintain a guidance manual to assist Responsible Management Authorities and Wellhead Protection Teams in the development of a state certifiable Wellhead Protection Plan. This manual is intended solely to provide information and assistance in identifying strategies for developing a Wellhead Protection Plan. The guidance manual provides examples of how a protection plan could be developed to meet the requirements of these rules to gain Department certification as a Wellhead Protection Plan. It does not contain mandatory standards or other legal requirements nor does it include binding statements or interpretations of law or agency policy.

REQUIRED ELEMENTS OF A WELLHEAD PROTECTION PLAN

340-40-170

(1) A Wellhead Protection Plan shall contain and address the following seven elements:

(a) Specification of duties

(A) The Plan shall identify all the Responsible Management Authorities within a Wellhead Protection Area. The jurisdictional boundaries of each Responsible Management Authority shall be shown on a map.

(B) For each Responsible Management Authority identified, the expectations, their respective responsibilities, and the duties they will perform with regards to implementing the Plan must be identified.

(C) The Plan shall either:

(i) Have all Responsible Management Authorities in the Wellhead Protection Area sign the Wellhead Protection Plan indicating that they will implement the actions outlined for their jurisdiction in the plan; or

(ii) Describe the procedure used to notify and attempt to involve those Responsible Management Authorities not willing to sign the plan.

(b) Delineation of Wellhead Protection Areas

Delineation of Wellhead Protection Areas shall occur as described under Health Division's rules under OAR 333-61-057 (1).

(c) Inventory of potential contaminant sources

After delineation of the Wellhead Protection Area, an inventory identifying the potential sources of contamination within the Wellhead Protection Area shall be completed.

The inventory shall be designed to identify:

(A) Past practices which may have resulted in a potential threat to the groundwater,

(B) Those potential sources of contamination presently existing, and

(C) Those potential sources which may exist in the future.

(d) Management of potential sources of contamination

(A) For those potential sources of contamination identified under the inventory element of OAR 340-40-170 (1) (A)(B)(C) above, the Plan shall identify the management action to be employed to reduce the risk of contamination to the groundwater from those source(s) and justification for the proposed management actions and level of protection provided.

(B) The Plan must identify the process used to address unanticipated potential sources of contamination that may locate within the Wellhead Protection Area, how the source will be evaluated for acceptability within the area, and how the management actions identified in the Plan for reducing the risk of contamination will be implemented.

(C) Any management plans that directly regulate farming practices for the purpose of protecting water quality on agricultural lands within a Wellhead Protection Area shall be developed and implemented by the Oregon Department of Agriculture in accordance with Oregon Department of Agriculture authorities.

(e) Contingency plan

Development of contingency plans for Wellhead Protection Areas shall be in accordance with Health Division rules under OAR 333-61-057 (3).

(f) Siting of new public water system wells or springs

Siting of new public water system wells or springs shall be in accordance with Health Division rules under OAR 333-61-057 (2).

(g) Public participation

A description of the public participation efforts shall be included in the Plan, including:

(A) Documentation that property owners and residents within the Wellhead Protection Area were notified of the development of a Wellhead Protection Plan. Notification at a minimum shall include publication of the intent to develop a Wellhead Protection Plan in a local newspaper and a description of the process for developing and participating in the development of the Wellhead Protection Plan.

(B) Formation of a Team to develop the Plan. The Team can either be a new group formed for the specific purpose of developing a plan or it can be an existing group that is assigned the additional duty of developing a Plan.

(C) Description of steps taken to provide opportunity for various interests within the affected area to participate.

(D) Documentation that all local public hearing procedures were followed in developing and adopting the Plan.

CERTIFICATION PROCEDURE

340-40-180

1) For a Wellhead Protection Plan to be certified by the Department, the plan must meet requirements specified in OAR 340-40-170.

2) The Department shall act as the contact point for development and approval of Wellhead Protection Plans. The Department shall coordinate with other governmental entities so that the Plan is consistent with the requirements of those governmental entities before Department certification of the Plan is granted.

3) The Health Division shall be responsible for certifying the delineation, and reviewing contingency plans and the new wells elements of the plan as provided for under OAR 333-61-020-065. The Department shall accept the Health Division's recommendations and certification.

4) After consultation with the Department of Agriculture on agricultural issues, the Department of Land Conservation and Development on land use issues, the Health Division and other governmental entities as appropriate, the Department shall be responsible for reviewing the remaining elements and giving the overall certification for each local Wellhead Protection Plan if each element is found to be adequately addressed.

5) Within 60 days of the receipt of a request for certification of a Wellhead Protection Plan, the Department will send a written acknowledgment of receipt of the request and an estimated date for Department review and certification of the plan.

6) After certification of the plan the Department will provide a written certification of completion to all signatories to the plan.

UPDATE PROCEDURE

340-40-190

(1) A Wellhead Protection Plan must be recertified every 5 years from the date of prior Department certification.

(2) Recertification of the present Plan can take place if all the following conditions apply:

(a) No conditions that could potentially modify the boundaries of the Wellhead Protection Area have occurred;

(b) An updated inventory is completed and submitted which shows that no new potential sources of contamination have moved into the Wellhead Protection Area which are not addressed in the existing Plan;

(c) The management practices outlined in the existing Plan are still appropriate and being implemented;

(d) The existing contingency element in the Plan is still relevant; and

(e) All signatories to the existing Plan agree to recertify the Plan by signing the recertification request letter.

(3) If a certified Plan cannot meet the conditions under (2) above, then a revised Wellhead Protection Plan must be resubmitted for certification. A revised plan shall require:

(a) Form a Team to develop the Plan. The Team can either be a new group formed for the specific purpose of developing a Plan or it can be an existing group that is assigned the additional duty of developing a Plan;

(b) Identify the elements under OAR 340-40-170 where the Plan is no longer adequate or relevant;

(c) Modify the Plan in those areas identified in (b) of this section to meet conditions outlined in OAR 340-40-170 and 180;

(d) Perform and submit a new potential source inventory; and

(e) Submit to the Department for review and certification per OAR 340-40-180.

DECERTIFICATION PROCEDURE

340-40-200

(1) If the signatories to a Wellhead Protection Plan do not recertify or submit for recertification their previously certified Wellhead Protection Plan, then the Plan is automatically decertified until such time as the signatories of the Plan recertify the Plan through the update procedure per OAR 340-40-190.

(2) Any Responsible Management Authority that is a signatory to a certified Plan shall have the ability to withdraw from participation in a Wellhead Protection Plan and the certification process. The Department shall review the plan to determine if the plan is still certifiable without the participation of the withdrawing Responsible Management Authority.

(3) A plan can also be decertified by the Department if it comes to the Department's attention that a signatory to a Plan is not or has not adhered to and implemented the certified Plan.

(4) To decertify a Wellhead Protection Plan, the Department will send a certified letter to all signatories to the Plan detailing the reason(s) why the Department believes the certified Plan is or was not being followed or is no longer valid and the Department's intent to decertify the Plan.

(a) The signatories to the Plan will have 30 days to respond as to why their Plan should not be decertified.

(b) The Department will review the signatories response and make a determination as to whether the Plan is still certifiable.

(c) The Department will then send a copy of its decision to all signatories of the Plan.

(5) The Department will afford the remaining signatories the opportunity to maintain the certification, provided withdrawal by a Responsible Management Authority does not render the Plan uncertifiable, by notifying the Department and all other Responsible Management Authorities within the Wellhead Protection Area that they will continue to implement the plan as certified in their respective jurisdictions.

APPEAL PROCEDURE

340-40-210

(1) Final Department decisions regarding certification, recertification, or decertification are not subject to contested case hearing rights but are reviewable under ORS 183.484.

ATTACHMENT B

NOTICE OF PROPOSED RULEMAKING HEARING*

(Rulemaking Statements and Statement of Fiscal Impact must accompany this form.)

Department of Environmental Quality — Water Quality Division

OAR Chapter 340-40-140 to 40-210

MEDFORD	Date:	**Nov. 15, 1995**
	Time:	1:00 pm
	Place:	Medford Service Center 821 N. Columbus Conference Room
PORTLAND	Date:	**Nov. 20, 1995**
	Time:	10:00 am
	Place:	State Office Building Room 120-C 800 NE Oregon St.
PENDLETON	Date:	**Nov. 21, 1995**
	Time:	10:00 am
	Place:	Blue Mountain Community College 2411 NW Carden Room P (Pioneer) 148

HEARINGS OFFICER: Chris Hughes, Oregon Department of Human Resources, Health Division

STATUTORY AUTHORITIES: ORS 468.035
ORS 468B.015(2)
ORS 468B.150-180

ADOPT: OAR 340-40-140 to 40-210

AMEND: none

REPEAL: none

Amendments or additions to other sections of Division 40 listed above (or related administrative rules) may be made in response to information or public comment received by the Department.

* This hearing notice is the initial notice given for this rulemaking action.
* Auxiliary aids for persons with disabilities are available upon advance request.

SUMMARY:

The proposed rules use existing statutory authorities to implement a *voluntary* Wellhead Protection Program that reduces the risk of environmental contamination of public water systems. The proposed rules would specifically establish a procedure for a local community's voluntary implementation of a wellhead protection plan, and a procedure for certification of the local plans by the Department upon completion.

LAST DATE FOR COMMENT: 11/28/95

DATE PROPOSED TO BE EFFECTIVE: Upon adoption by the Environmental Quality Commission and subsequent filing with the Secretary of State.

AGENCY RULES COORDINATOR:	Susan Greco, (503) 229-5213
AGENCY CONTACT FOR THIS PROPOSAL:	Sheree Stewart, Groundwater Section
ADDRESS:	Oregon DEQ 811 S. W. 6th Avenue Portland, Oregon 97204
TELEPHONE:	(503) 229-5413 or Toll Free 1-800-452-4011

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments will also be considered if received by the date indicated above.



Signature

10/13/95

Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Voluntary Wellhead Protection

Fiscal and Economic Impact Statement

There are no requirements from the Department to implement this rule. The proposed rules provide the procedure for implementing a *voluntary* wellhead protection program.

Although there may continue to be some limited sources of federal funding available to assist communities in implementing wellhead protection, there are no state funds available at the current time. The costs of developing and implementing a plan to protect the drinking water supply will likely be borne by those that use the public water system in each local community in Oregon. The Department can provide communities with written guidance on ideas for local funding of Wellhead Protection Plan development.

It is important to note that this proposed rule addresses a potential future problem for many public water systems in the state of Oregon. It is generally very expensive to clean up and/or treat contaminated drinking water. Protecting the resource to avoid the cost of having to replace the system will almost always be less expensive.

General Public

There are currently approximately 3450 public water systems in Oregon. If a community chooses to develop a plan to protect their public water system, the cost of developing and implementing the plan will vary substantially from one location to another. The costs vary due to differences in the water system, including production rates and numbers of wells, as well as differences in local geology and land uses.

In general, the cost of delineation will vary from $1000 to $20,000 for most systems. The costs for inventorying the potential sources of contamination within the wellhead protection areas can be significantly reduced by using volunteers and service organizations, which the Department recommends. If volunteers cannot be used, the costs for the inventory step will likely range

from $1500 to $8000 for most systems depending upon size and complexity of land uses within the wellhead protection area. Developing the management approach will likely range from $2000 for small systems to approximately $20,000 for larger public water systems. Using Department technical assistance and resources such as the Guidance Manual (cited in the proposed rule in section 340-40-160(7)), many systems will be able to significantly reduce the cost of all elements of wellhead protection by using volunteers and local organizations to develop and implement the local plan.

State Agencies

There are no fees or anticipated revenue associated with implementation of this proposed rule.

The Department has allocated one FTE (at approximately $60,000 per year) to perform oversight and coordination of the Wellhead Protection Program. The Oregon Health Division and the Oregon Water Resources Department have each allocated approximately .25 FTE per year to provide oversight and technical assistance for the implementation of this rule.

Large Businesses

There are no required fees for large businesses associated with the implementation of this proposed rule. Depending upon the specific management elements of the locally-developed wellhead protection plan, large businesses may be asked to incorporate pollution prevention concepts into their operating practices. This can generally be accomplished by using free technical assistance for the Department and/or incorporating low-cost best management practices described and recommended in the Department 's Guidance Manual.

Small Businesses

There are also no required fees for small businesses associated with the implementation of this proposed rule. Depending upon the specific management elements of the locally-developed wellhead protection plan, small businesses may be asked to incorporate pollution prevention concepts into their operating practices. This can generally be accomplished by using free technical assistance for the Department and/or incorporating low-cost best management practices described and recommended in the Department 's Guidance Manual.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Voluntary Wellhead Protection

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed rules use existing statutory authorities to implement a *voluntary* Wellhead Protection Program that reduces the risk of environmental contamination of public water systems. The proposed rules would specifically establish a procedure for a local community's voluntary implementation of a Wellhead Protection Plan, and a procedure for certification of the local Plans by the Department upon completion.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes_X_ No___

a. If yes, identify existing program/rule/activity:

These rules will become part of Division 40, which contains permitting and compliance associated with statewide groundwater protection. Division 40 is considered to a land use program in the DEQ State Agency Coordination Program.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes___ No_X_ **(if no, explain):**

These proposed rules will establish a new program activity and there are no existing land use compatibility procedures that can sufficiently address the land use implications of this program.

c. **Are the proposed rules considered programs affecting land use? State the criteria and reasons for the determination.**

If a community chooses to develop a Wellhead Protection Plan using the format described in this proposed rule, it could include provisions that may impact existing and potential land use activities with a delineated area. Implementing land use provisions at the local level is one potential method of protecting the drinking water resource addressed in this rule.

3. **If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.**

The proposed rules would implicate land use under Goal 5. The Department of Environmental Quality and the Department of Land Conservation and Development staff are discussing additional language for the proposed Goal 5 rule that would address issues of compliance and compatibility. Under this proposed rule, a Department-certified Wellhead Protection Plan would be deemed to comply with any Goal 5 requirements.

MSD
Division

Intergovernmental Coord.

10/13/95
Date

Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

1. *Are there federal requirements that are applicable to this situation? If so, exactly what are they?*

This proposed rule has been developed to meet federal requirements of the Safe Drinking Water Act (SDWA) Amendments of 1986. Section 1428 of the SDWA states that:

> "The Governor or Governor's designee of each State shall, within 3 years of the date of enactment of the Safe Drinking Water Act Amendments of 1986, adopt and submit to the Administrator a State program to protect wellhead areas within their jurisdiction from contaminants which may have any adverse affects on the health of persons. Each State program under this section shall, at a minimum---
>
> 1) specify the duties of State agencies, local governmental entities, and public waste supply systems with respect to the development and implementation of programs required by this section;
>
> 2) for each wellhead, determine the wellhead protection area...based on all reasonably available hydrogeologic information on groundwater flow, recharge and discharge and other information the State deems necessary to adequately determine the wellhead protection area;
>
> 3) identify within each wellhead protection area all potential anthropogenic sources of contaminants which may have any adverse effect on the health of persons;
>
> 4) describe a program that contains, as appropriate, technical assistance, financial assistance, implementation of control measures, education, training, and demonstration contaminants;
>
> 5) include contingency plans for the location and provision of alternate drinking water supplies for each public water system in the event of well or wellfield contamination by such contaminants; and

6) include a requirement that consideration be given to all potential sources of such contaminants within the expected wellhead area of a new water well which serves a public water supply system."

2. *Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?*

The applicable federal requirements are performance based. The requirements and procedures set forth in this proposed rule are no more stringent than the federal requirements.

Adjacent states have adopted mandatory wellhead protection programs which are considered more stringent than this voluntary approach.

3. *Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?*

Over 75% of Oregon's drinking water comes from groundwater resources. Protection of those resources is critical to accommodate a growing population and to support the continued economic health of Oregon. The federal requirements for wellhead protection were established with a great deal of flexibility so that individual states could develop programs most applicable to their local needs. Our program has been developed to reflect Oregon's significant interests, such as involving the agricultural community in the rulewriting process and implementation plan. EPA has been very supportive in this approach to developing a wellhead protection program tailored to Oregon's unique issues.

4. *Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?*

The proposed rules will clarify federal requirements for wellhead protection.

5. *Is there a timing issue which might justify changing the time frame for implementation of federal requirements?*

There are no timing issues or implementation requirements.

6. *Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?*

Yes. The proposed rules will assist in establishing a margin of accommodation of uncertainty and future growth by providing a reduction in the risk of contamination of public water supplies. There are no stringent requirements associated with the rule that would place limits on future growth. Local communities will determine how to protect the resource if they choose to develop a plan.

7. *Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)*

The proposed rules were established with the help of a diverse citizen's advisory committee to ensure that the "playing field is level" and all elements of the wellhead protection plan can be accomplished with equal consideration of all potential contamination sources.

8. *Would others face increased costs if a more stringent rule is not enacted?*

No.

9. *Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?*

No.

10. *Is demonstrated technology available to comply with the proposed requirement?*

Yes, there are many technologies and methods of operation that have been demonstrated to significantly reduce the risks associated with groundwater contamination.

11. *Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?*

Yes, the cost of protection of the local groundwater resource will almost always be less than the costs associated with having a contaminated drinking water supply.

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

VOLUNTARY WELLHEAD PROTECTION RULES

Date Issued: 10/13/95
Public Hearings: 11/15/95
11/20/95
11/21/95

Comments Due: 11/28/95

WHO IS AFFECTED: Oregon communities and public water systems who choose to voluntarily develop a Wellhead Protection Plan to reduce the risk of environmental contamination to their drinking water system.

WHAT IS PROPOSED: The proposed rule provides a step-by-step procedure for developing a Wellhead Protection Plan at the local level.

HOW TO COMMENT: Public Hearings to provide information and receive public comment are scheduled as follows:

MEDFORD	Date:	**Nov. 15, 1995**
	Time:	1:00 pm
	Place:	Medford Service Center 821 N. Columbus Conference Room
PORTLAND	Date:	**Nov. 20, 1995**
	Time:	10:00 am
	Place:	State Office Building Room 120-C 800 NE Oregon St.

B-10

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.

PENDLETON

Date: **Nov. 21, 1995**
Time: 10:00 am
Place: Blue Mountain Community College
2411 NW Carden
Room P (Pioneer) 148

Written comments must be received by 5:00 p.m. on 11/28/95 at the following address:

Sheree Stewart, Wellhead Protection Coordinator
Department of Environmental Quality
Water Quality Division
811 S. W. 6th Avenue
Portland, Oregon, 97204

A copy of the Proposed Rule may be reviewed at the above address. A copy may be obtained from the Department by calling the Water Quality Division at 229-5413 or calling (Oregon) toll free 1-800-452-4011.

WHAT IS THE NEXT STEP:

The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the exact date the Commission will consider the matter by calling the Department or writing to the Department at the above address.

ATTACHMENT C

(503) 731-4317
FAX (503) 731-4077
TDD-Nonvoice (503) 732-4031

Oregon

DEPARTMENT OF
HUMAN
RESOURCES

HEALTH DIVISION

November 30, 1995

TO: Environmental Quality Commission

FROM: Chris Hughes, PE, Oregon Health Division
Hearings Officer

SUBJECT: Presiding Officer's Report for Rulemaking Hearings

Title of Proposal: Voluntary Wellhead Protection Rules

Hearing #1: November 15, 1995 at the Medford Service Center, 821 N. Columbus, Medford, Oregon

The joint rulemaking hearing for the Health Division and the Department of Environmental Quality on the above titled proposal was convened at 1:00pm. People were asked to sign up on the commenter list at the time that they presented their oral comments to the hearings officer. People were also advised that the hearing was being recorded and of the procedures to be followed. Twenty-five people were in attendance, and three people signed up to give oral comments. Richard Kepler from the Department of Environmental Quality, and Dennis Nelson from the Oregon Health Division, explained the rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

Summary of Oral Comments: Of the three people who presented oral comments at this hearing, the first two presented comments on rules being developed by the Oregon Health Division unrelated to this proposal. The third person presented a comment on this proposal regarding the delineations for small water systems by a registered geologist or engineering geologist, or other licensed professional.

Summary of Written Comments: The third person who commented also presented written comments on the same issue. No other written comments were submitted by those attending this hearing.

This joint rulemaking hearing was adjourned at 3:00pm.

John A. Kitzhaber
Governor

800 NE Oregon Street # 21
Portland, OR 97232-2162
(503) 731-4030 Emergency
(503) 252-7978 TDD
Emergency

24-26 (Rev. 12-94)

Hearing #2: November 20, 1995 at the State Office Building, 800 NE Oregon Street, Portland, Oregon

The joint rulemaking hearing for the Oregon Health Division and the Department of Environmental Quality on the above titled proposal was convened at 10:00am. People were asked to sign up on the commenter list at the time that they presented their oral comments to the hearings officer. People were also advised that the hearing was being recorded and of the procedures to be followed. Forty-five people were in attendance, and three people signed up to give oral comments. Sheree Stewart from the Department of Environmental Quality, and Dennis Nelson from the Oregon Health Division explained the rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

Summary of Oral Comments: Of the three people who presented oral comments at this hearing, the first person presented comments on rules being developed by the Oregon Health Division unrelated to this proposal. The second person presented comments on this proposal regarding Goal 5 issues and incentives to communities to develop a wellhead protection program. The third person presented comments on this proposal also regarding the goal 5 issue.

Summary of Written Comments: The third person who presented oral comments also submitted written comments on this same issue. No other written comments were submitted by those attending this hearing.

This joint rulemaking hearing was adjourned at 12:00 noon.

Hearing #3: November 21, 1995 at Blue Mountain Community College, 2411 NW Carden, Pendleton, Oregon

The joint rulemaking hearing for the Oregon Health Division and the Department of Environmental Quality on the above titled proposal was convened at 10:00am. People were asked to sign up on the commenter list at the time that they presented their oral comments to the hearings officer. People were also advised that the hearing was being recorded and the procedures to be followed. Twenty-three people were in attendance, and none signed up to present oral comments. Sheree Stewart from the Department of Environmental Quality, and Dennis Nelson from the Oregon Health Division explained the rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

Summary of Oral Comments: None.

Summary of Written Comments: None.

This joint rulemaking hearing was adjourned at 11:45am.

RULE HEARINGS
WELLHEAD PROTECTION RULES
November 15, 1995- Medford
November 20, 1995- Portland
November 21, 1995- Pendleton

Good morning/afternoon, it is now _____ am/pm on _____, November __, 1995. This is a joint formal rule hearing for the Oregon Health Division and the Department of Environmental Quality.

For the Oregon Health Division, this hearing is for adoption of the Administrative Rules Chapter 333-61: -020, and -057, concerning the voluntary wellhead protection program
-030, concerning maximum contaminant levels
-034, concerning lead and copper
-036, concerning sampling requirements
-040, concerning reporting and record keeping requirements
-045, concerning variances
-050, concerning construction standards
-060, concerning plan review requirements
-065, concerning operation and maintenance
-070, -071, and -072, concerning the cross connection program
-087, concerning product acceptability
-097, concerning adverse health effects
-098, concerning references
-225, -235, and -245, concerning operator certification.

These rules are to be adopted under statute of authority Chapter 448.131 and 448.273.

For the Department of Environmental Quality, this hearing is for adoption of the Administrative Rules Chapter 340-40: -140, -150, -160, -170, -180, -190, -200, and -210, concerning the Voluntary Wellhead Protection Program.

These rules are developed and adopted under statute of authority Chapter 468.020 and .035, and Chapter 468B.015 and .150-180.

I am Chris Hughes, manager of Field Services and rules adoption supervisor for the Drinking Water Program of the Oregon Health Division, and I am the hearings officer for these proceedings. I wish to welcome all of you to this hearing. The major rule changes and additions have been summarized for your benefit prior to the start of this hearing. The purpose of this hearing is to gather comments from interested parties to help develop better rules- rules that are more understandable and more useful. Comments from interested parties should be constructive and can be given either orally or in writing. Comments received as a result of this hearing will be considered in the development of the final rule, and the Oregon Health Division or the Department of Environmental Quality will respond to each comment in writing. Written comments must be received no later than November 30, 1995, to be considered. If you wish to submit written comments, you may give them to me now, or send them to:

Joint Formal Rule Hearing for the Oregon Health Division and the Department of Environmental quality Voluntary Wellhead Protection Proposed Rules

Hearing held in: Medford, Oregon
November 15, 1995

Chris Hughes, P.E., Manager Field Services and Rule Adoption Supervisor for the Drinking Water Program of the Oregon Health Division - Hearings Officer.

Chris L. Hughes, "Please state your name, address and who you represent for the record."

COMMENT #1

Marilyn Leffler
6901 Old Stage Road
County: Jackson
Central Point, Oregon

"My husband and I own a small mobile home park called Nestled In The Hills Mobile Estates. We have 25 spaces in our mobile home park, so we're really very little. The comment that I would like make today would be in support of 036 regarding the monitoring requirements, the required education and the change in the coliform samples that are required. I would like to say that as a small mobile home park being and owner of one of the many, many, many small water systems in the State of Oregon, we like to see that Dave Leland and his wonderful staff are really doing something with these changes in these rules that are committing small organizations like our little Ma and Pop operation to hopefully look forward to continuing in business because we don't have to have the four quarterly samples of the monitoring staring us in the face every 3 years by reducing this to 1 sample every 3 years. It's going to be a big financial relief for all of us and I just want to thank everyone again who has helped to put together such a wonderful program with the consideration of all of us small organizations in mind and I hope these rules are adopted. Thank you."

COMMENT #2

Alan Boschee
3055 Clearview Avenue
Medford, Oregon 97501
"I represent Medford Water Commission in the capacity as supervisor under cross connection control program. My work address is 411 West 8th Street Room 286, Medford Oregon 97501.

My comments are in regards to changes in cross-connection control 070, 071 and 072. First of all I would like to voice my support on behalf of a letter that was sent to Bonnie Waybright and the Oregon Health Division from the Oregon Cross-Connection Inspectors Regional Sub-Committee. There were two items specifically listed in that letter, the first is in accepting to the Health Division Approved Devise list that that list be amended to include atmospheric vacuum

breakers listed on an approval list. The intent being the consistency with uniform plumbing code. The second was in regards to installation requirements of double check valves that those installation requirements also include freeze protection for those devices. The third comment I feel that the safety training should be included with the tester course to make it consistent with the safety training that is required in the inspector's course. Just not only is safety is an important issue in training, but maintaining consistency between the testers and inspectors course as well. My last comment I would like to see the rules specifically it's page 117 regarding who is qualified to make a repair on backflow prevention devices. I would like to see some simple language added there to include that certified backflow device assembly testers are also able to repair backflow prevention devices. The purpose for that, and I feel the importance of it is that in the testing, excuse me, in the training, diagnosing failures of backflow devices, trouble shooting and repairs are covered in that training and testers are the front-line people who check these devices and going to acknowledge a failing device, diagnose a failing device and with that training being on site would be able to amend quick repair to the device, leave the device, be able to verify leaving that device in a properly functioning condition which ultimately I believe is going to provide not only better safety to the water supply, but also improve service to the water utility customer. That concludes my comments."

COMMENT 3

"Bob Kokanour, I'm the secretary for the Fern Valley States Improvement District.
2402 David Lane
Medford, Oregon 97504.

I have comments in 2 areas; First is the wellhead protection program 333.6157 where it talks about the delineations will be accomplished by a registered geologist, engineering geologist or other licenced professional. My comment in this area is that I do not think that this section of the rules should require the use of these registered geologists etc.. When you are using the calculated fixed radius method to determine your wellhead protection area. I think this rule as written will eliminate all very small systems, those less then 500 populations from participating in the program. Operators of these systems, like myself are usually non-paid individuals, members of the board of directors or owners of small mobile home parks and these cases, most likely would use the calculated fixed radius method. CFR does not require the use of one of these professionals to try and figure out what is going on.

The other area that I am commenting is general requirements for CEU for systems less then 150 service connections which we are. Right now it is required that you get attend a SWSTC or obtain 2 CEU's every two years. I think that we have a problem in this area as I indicated before, most of us in the small systems are non-paid individuals, a lot of us have full time jobs and can not attend a lot of these courses. I am fortunate that I am retired so I can do it. I look back over the last four years since I have been involved with our district and I have attended four of the OAW annual conferences, plus quite a few of the Drinking Water Training Sessions held in our area. In that four years, my total of CEU's was 8.3. If I take away the OAW conferences it is just 2.2. So I think that you need to take a look at those requirements for the very small systems because they are just not going to have the people there that can go to all of those classes. Thank you."

Joint Formal Rule Hearing for the Oregon Health Division and the Department of Environmental Quality Voluntary Wellhead Protection Proposed Rules

Hearing held in: Portland, Oregon
November 20, 1995

Chris Hughes, P.E., Manager Field Services and Rule Adoption Supervisor for the Drinking Water Program of the Oregon Health Division - Hearings Officer.

Chris L. Hughes, "Please state your name, address and who you represent for the record."

COMMENT #4

George Hess
OSU Facility Services
Adams Hall - OSU

"My concerns are testing procedures of adopting the 9th edition and eliminating the 8th edition and eliminating the duplex gauge, because of the situation of our backflow or double checks in places that are very hard to get to, on walls with very expensive equipment under them. Where the test with the differential gauge is pretty messy. We take care of about 400 devices. I would like to see it adopted where we can still use the 8th edition for the duplex gauge under tester discretion. That's my concern. Okay. That's all I have to say."

COMMENT #5

Gayle Killam
The Oregon Environmental Council
520 S.W. 6th, Suite 940
Portland, Oregon 97204

"OEC's been involved with the wellhead protection committee for a year now, and I would like to formally mention that there has been a lot of hard work and commitment to that committee and the voluntary program's success. I just wanted to come today to raise a few oral issues and also submit comments following this in writing. We would personally like to obviously push the protection of public health and environment in this program, but I would like to raise a few of the economic arguments that I think that are some of the strongest ones for wellhead protection. Those are echoed in the rules and some of the document as well. The cost of clean up of any kind of potential spill as well and the cost of finding and developing a new water source both are very great economic costs to communities if a program like this is not adopted, also making a point of mentioning that 75% of the Oregon Drinking Water does come from groundwater resources and makes the implementation of such a program as the wellhead protection program critical to the state. Two issues that I would like to raise today include goal 5 rules which are obviously not up for hearing today, but I think are important to bring into this process because it

will affect what happens with these rules very greatly. Two points that I think have been brought up and need to be echoed, is how a community that chooses to do wellhead protection can use goal 5 requirements to influence another jurisdictions land uses and can potentially impact their water supply as well as the protection of an approved wellhead protection plan area, wellhead protection area from other goal 5 conflicting uses even if it is not subject to mandatory land controls. I think that those are two issues that I would like to see addressed or continue to be worked out. The second issue is about the incentives to communities. There has been a lot of discussion about the money that will come from the federal government we hope, continuing to help the communities deal with these programs, but I would also echo that there has not been enough discussion about the monitoring requirements that will change. One that was mentioned today was the increase/decrease, depending on how you bring it up of the monitoring of VOC's and SOC's from once every 3 years to once every 9 nine years. I think that is something that has not been discussed enough and raises some concern in our eyes. In overall caution, that many of the entities on every side of this issue those supporting and perhaps those skeptical of this program are wary of what maybe adopted by these two agencies with respect to wellhead protection. In light of the uncertainties of the goal 5 changes, and I certainly do not want to hold up this adoption process, but perhaps may recommend that a formal re-visitation of the program occur following what happens with the goal 5 process in the future and I will submit formal comments in writing."

COMMENT #6

Jane Graybill
21130 N.E. Interlachen Lane
Troutdale, Oregon
Unincorporated Multnomah County

"I also want to give to you a letter from Gene Ridings of the Blue Lake Water Co-op 21510 N.E. Blue Lake Road, Troutdale, Oregon 97060. I represent the group Friends of Blue and Fairview Lake and I'm a member of the Interlachen Water Co-op at this area which is East of Portland about 20 miles right along the Columbia River. I want to stress the urgent need to protect our four major drinking water wells and their re-charge and discharge areas, and the wells are located at these dots. I recently viewed the EPA video *Power To Protect* and found it to be very helpful in alerting the average citizen who needs to cooperate with local community groups and government for delineation of wellhead areas with appropriate zoning and I hope it's not too late for our area. Development is a primary driving force in our lake region. In our efforts to set aside land, to purchase land, to preserve land for water quality and habitat in open space and aquifer re-charge has met opposition from every angle. It is our desire to protect our aquifers and our re-charge area for our drinking water supply. About 150 homes in the Interlachen neighborhood use water from the Troutdale sandstone aquifer, the sand and gravel aquifer and the Blue lake aquifer. Above ground our residential area is sandwiched in between industrial zoning on the east and west side. This is proposed Windmar site, industrial and this will be industrial area for the City of Fairview. There will also be 400-600 more homes coming in around the east, south and west ends of fairview lake, just currently undeveloped although 150 homes are now here, there will be 400-600 more wrapped all the way around the rest of the lake. Now three of our four wells are located on the North shore of Fairview Lake and the fourth well belongs to the Blue Lake Water Co-Op and is located on the north east corner up there. The

entire lake region is down gradient from both Gresham and Fairview and receives all the local surface water run off and stores it in Fairview Lake which is the headwater storage area for the upper Columbia slough and that's a water quality body of water limited, body of water. But we have complete lack of zoning to protect our wellhead and we feel especially vulnerable to the impacts of development and industrial encroachment. It is no mechanism in place to protect our wellheads currently. Local jurisdictions are not required to protect our re-charge areas because currently we are not in their city limits. We are however in the urban growth boundary of The City of Fairview. The major goal of Fairview and Gresham is economic development and job security, therefore we urge you to put the protection mechanism in place for our wellheads. Our valuable resource is irreplaceable and deserves adequate protection under goal 5. Because we are under the geographical umbrella of the Portland well field as our back-up water supply, in this area, it would be appropriate to include the lake re-charge area as a potential state or public interest. Therefore, our water system should be deemed a significant resource and should utilize land use planning and zoning to protect our ground water resource. Please help us by making sure that this resource is protected under LCDC's natural resource goal 5, and we urge you to do this as soon as possible because our drinking water resource is in the process of losing it's re-charge area in it's integrity and it's capacity to serve future generations. We are also in a proposed listing area as a super fund site and there are two other super fund sites along the Columbia slough one at the west end Portland area and one at the far east end at the Reynolds site and we're kind of sandwiched also between that area so we feel a lot of vulnerability especially at this time and I do have some written material to turn in too. Thank you."

ATTACHMENT D

Department's Evaluation of Public Comments

COMMENT: Two commenters (#7,#8) expressed concerns about this program remaining voluntary. The concerns specifically addressed the Department of Land Conservation and Development's efforts to revise Goal 5 and how this may impact the voluntary nature of the Department of Environmental Quality's program. One expressed further concerns that the proposed rules should clarify that all groundwater protection efforts occurring on the agricultural lands within the wellhead protection areas will be handled through the Oregon Department of Agriculture.

RESPONSE: The Department responded directly to these two concerns from the Oregon Association of Realtors and the Oregon Farm Bureau. Both of these letters and responses are attached to this summary. The Department does not have the statutory authority to make participation in wellhead protection mandatory. The proposed rule states that participation in wellhead protection is voluntary, but other statutes and rules from other agencies may apply during implementation should a community choose to delineate their wellhead protection area and gain approval of that delineation. Based upon Committee recommendations, the Department proposes adding a clarification to the rule stating that other rules may apply (see proposed rule change below). Both commenters were encouraged to participate in the DLCD Goal 5 rule revision process to address any concerns about future land use planning requirements.

The Department proposes adding a new section in the proposed rule clarifying the agricultural lands groundwater protection issue (see below).

PROPOSED RULE MODIFICATIONS:

340-40-160 General Policies

Renumbered sections (4),(5),(6),(7) to (5),(6),(7), and (8) respectively.
Added new section: *(4) Other state rules may apply and may or may not pertain to the delineated Wellhead Protection Area, including but not limited to the rules of those agencies listed in OAR 340-40-160 (3).*

PROPOSED RULE MODIFICATIONS:

340-40-170 Required Elements of a Wellhead Protection Plan

Added new section under (d) Management of potential sources of contamination:
(C) Any management plans that directly regulate farming practices for the purpose of protecting water quality on agricultural lands within a Wellhead Protection Area shall be developed and implemented by the

Oregon Department of Agriculture in accordance with Oregon Department of Agriculture authorities.

COMMENT: One commenter (#14) suggested changes to the definition of "Responsible Management Authority". The requested changes do clarify the term and the Committee agreed with the revisions.

RESPONSE: The Department recommends the rule definition be modified.

PROPOSED RULE MODIFICATIONS:

240-40-150 Definitions

(deleted language in parentheses, new language underlined)

(9) "Responsible Management Authority" means (a) <u>the</u> Public Water System whose water supply is being protected and any governmental entity with management, rule or ordinance making authority <u>to implement wellhead protection management strategies</u> within the wellhead protection area. Responsible Management Authorities are responsible for implementation of the Wellhead Protection Plan; includes cities, counties, special districts, Indian tribes, state/federal government entities (and) <u>as well as</u> Public Water Systems.

COMMENT: Five commenters (#5,#6,#9,#10,#13) expressed strong support for rule adoption. The commenters pointed out that we need a program in Oregon to prevent groundwater contamination of public water supplies. One commenter stated that if local communities fail to protect their drinking water under this voluntary program, they should not be eligible for state funds to clean up contaminated groundwater.

RESPONSE: The Department agrees that this program would provide a good mechanism for local communities who want to protect their drinking water to do so. The step-by-step approach and the Department certification procedure in the rules will also ensure some level of consistency across the state as the program is implemented. Implementing restrictions for eligibility of cleanup funds would require statutory changes outside the scope of these rules and statutory authorities.

COMMENT: One commenter (#12) expressed concerns about the cost of implementing wellhead protection in a local community. The commenter stated that the state should inform small communities where they can get financial assistance.

RESPONSE: The Department understands that small communities may not have funds for implementing this program. There are currently no state funds available to assist in implementation. The Wellhead Protection Guidance Manual will include a detailed list of potential funding sources for local communities to implement wellhead protection. The proposed rule provides a mechanism for all communities to voluntarily implement a wellhead protection program. There is no requirement or mandate to participate in the program.

COMMENT: The remaining seven commenters (#1,#2,#3,#4,#5,#11,#14) expressed concerns pertaining to proposed Oregon Health Division (OHD) rules. (These public hearings were held in conjunction with OHD since it is a joint program and some of the implementation will be handled through OHD statutes and rules.) Only two of the seven comments pertained to the OHD proposed rules for wellhead protection. One commenter expressed disagreement that calculated fixed radius delineations need to be accomplished by registered geologists. The other commenter suggested revisions to the time-of-travel limits, and implementation of contingency planning.

RESPONSE: OHD recommends the registered geologist requirement not be changed in the proposed rules. All other revisions to the OHD rules will be made in accordance with the commenters' recommendations about the optional time-of-travel limits extending beyond 10 years, and minor language changes to the Contingency Planning section. Under OHD requirements, OHD will respond directly to each of these commenters.

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FAX (503) 362-9615

November 28, 1995

COMMENT #7

Oregon Department of Environmental Quality
Attn: Sheree Stewart, Wellhead Protection Coordinator
Water Quality Division
811 S.W. 6th Avenue
Portland, Or 97204 Fax #503 229-6124

Re: Wellhead Protection Rules

Dear Ms Stewart:

I am writing on behalf of the 13,000 Realtor® members of our Association to voice opposition to the rules currently being considered for adoption by your agency that govern the construction and zoning around municipal wells.

I recently called the Department of Land Conservation and Development and requested that they fax a copy of their recent letter to the League of Oregon Cities. In that letter the Director, Richard Benner, outlined the position of his agency that the **voluntary rules** being considered by your agency will become a **mandatory** provision once a city identifies a wellhead protection program as outlined in your proposed rules.

During the last legislative session I did listen to much of the testimony in committee on the plans of your agency to adopt a wellhead protection program. It was clear from the testimony that the legislature was not interested in any sort of mandatory program. The rules as presently interprepted by the DLCD would raise some very serious property right and zoning issues.

If this matter is to be pursued, we request that your agency clearly outline the impacts on the property owners involved in the 26 local jurisdictions identified in the November 9th letter written to you by Mr. Benner. Again on this basis we **strongly oppose** the adoption of the proposed rules on wellhead protection until we can remove the mandatory impacts on the land-use designations involved in the delination areas.

Sincerely,

Jerry Schmidt
Water Consultant

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NOV 29 1995
Water Quality Division
Dept. of Environmental Quality

cc Senator Brady Adams, Senate Majority Leader
Representative Lynn Lundquist, House Majority Leader

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Oregon

December 7, 1995

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Mr. Jerry Schmidt
Oregon Association of Realtors
693 Chemeketa Street NE
Salem, Oregon 97308-0351

Dear Mr. Schmidt:

I am writing as a followup to our conversation on December 5th about Oregon's Wellhead Protection Program. I am pleased that you have agreed to meet with us. We are interested in hearing more about your specific concerns with the proposed rules. I hope this letter helps to clarify some of the issues you raised in our phone conversation and your written comments on the proposed rules.

As you pointed out, the Department of Environmental Quality (DEQ) proposed a mandatory wellhead protection program in 1992 that would have been phased in over a ten-year period. Much of DEQ's interest in developing a mandatory program came from a recognition of the extremely high costs associated with responding to contaminated public water supplies across the state. You are correct in asserting that "the legislature was not interested in any sort of mandatory program". Using existing authorities for groundwater protection, DEQ determined in 1994 that a voluntary program could be developed to serve those communities that wanted to pursue their own drinking water protection efforts.

As we developed a voluntary wellhead protection program over the past year, we have worked very diligently to include as many interests as possible. The proposed rules were developed by a citizen's advisory committee whose members (listed in Attachment 1) represent broad interests and concerns. The mission of the committee was to develop a voluntary program that can be used by the local community to protect their public water supply. One of the most important cornerstones of this program is that it is designed to be initiated and developed by the local interests in communities across the state. There are no restrictions, land preservation requirements, or development prohibitions imposed by these new rules or the wellhead protection program in general.

The primary goal of the wellhead protection program is to provide local communities with technical tools necessary to determine where their own drinking water is coming from and be able to choose from a variety of ways to protect that resource from contamination. It has been recognized and acknowledged by members of our committee that protection of local community resources cannot be accomplished by imposing a strict regulatory approach. Protection of those local resources can (and must) be the responsibility of that community. In

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

developing our program, we emphasized public involvement, local decision-making, and access to technical assistance. Since there are no current state funds available to pay for protective measures for Oregon's communities, we have tried to emphasize the incentives for a local community to want to take steps to protect their own drinking water supply. One of the more obvious incentives is to avoid the direct and indirect costs to local citizens if their drinking water source becomes contaminated. As you are probably aware, several communities in Oregon have already experienced the costs and inconveniences of having to treat contaminated drinking water and even temporarily buy bottled water as an alternative supply. ***Without a clean and dependable potable water supply, lowered real estate/property values are one of the first of many impacts to be felt by a community.*** One of the best examples of this indirect cost of losing a water supply to contamination is from a small community near you in Marion County.

When the current voluntary program was initiated, we secured the commitment of a representative on the advisory committee from every agency in Oregon whose statutory authorities and rules may have an impact on our wellhead protection program. This included staff from the Department of Land Conservation and Development (DLCD) because we acknowledged early on that we would need to coordinate resource protection authorities which overlap. **The DEQ has no statutory authorities to require participation in or implementation of this program.** We can only rely upon incentives to encourage participation. The DLCD clearly has statutory responsibilities under Goal 5 which could affect any community that identifies the "location, quality, and quantity" of a resource such as groundwater used for drinking water. DLCD has agreed that if a community puts together a wellhead protection plan, this would accomplish the same objective as specified in the DLCD resource goals. DEQ has sought to keep this program entirely voluntary because of the overwhelmingly-positive response we have received from citizens across the state over the past year.

I will do my best here to briefly explain DLCD's compromise regarding land use planning requirements in the delineated wellhead protection areas. I want to point out, though, that DLCD's rule revision process is still in it's early stages. I would encourage you to be active in their revision process so that any concerns about land use planning requirements can be discussed with the appropriate agency, DLCD.

As a compromise, DLCD has proposed exempting over 99% of the total 3450 public water supplies in Oregon from any Goal 5 requirements. DLCD management and staff, however, have expressed reservations about exempting some of the larger public water systems (which in their opinion are in the state's interest to protect) from all statutory requirements regarding land use planning. DLCD has proposed that systems serving over 10,000 people or having more than 3000 service connections that CHOOSE to delineate, and then gain approval of the delineation, should be required to incorporate land use planning elements into their local wellhead protection plan. In this program, land use planning is one of MANY

alternatives that local communities can choose to use to reduce the future risk of contamination to their drinking water (see Attachment 2, from the draft Guidance Manual). **Nothing in DLCD's current proposal mandates wellhead protection.** It is the local community's decision as to whether they will delineate the wellhead protection area and gain technical approval. That community-solicited approval is necessary for a drinking water resource to be considered "identified" under Goal 5. After approval, only the (currently) 26 larger public water supplies in the state need to then incorporate land use planning elements into their wellhead protection plan submitted to DEQ. DLCD is also recommending to the Land Conservation and Development Commission (LCDC) that once any community gains DEQ certification of their plan, it will have addressed any Goal 5 requirements associated with that groundwater resource. Our objective here is to avoid having multiple agencies addressing the same resource issue.

In a similar working arrangement, DEQ will need to rely upon the Oregon Department of Agriculture (ODA) to address groundwater protection issues for all agricultural lands within wellhead protection areas as required by OAR 603-90-000 through 603-90-120 (SB 1010) and the recent Senate Bill 502.

Please give me a call when you can schedule a meeting and we will discuss this in more detail. I can be reached at (503) 229-5413. I have also enclosed several other items for your information. Feel free to comment on the draft Wellhead Protection Guidance Manual if you would like. I would appreciate any input.

Sincerely,

Sheree Stewart
Sr.Hydrogeologist / Wellhead Protection Coordinator

Cc: Kelly Ross, Land Use Specialist, OAR
Genoa Ingram-Read, Governmental Affairs Director, OAR
Senator Brady Adams, Senate Majority Leader
Representative Lynn Lundquist, House Majority Leader
Langdon Marsh, DEQ Director

Enclosures: 2
Attachments: 2

ATTACHMENT 1

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Table 3-4: General Management Tools Available for the Wellhead Protection Area

"Oregon Wellhead Protection's TOP DOZEN List"

1. Public Education/Notification:

It is highly recommended that every Team consider implementing this option within the wellhead protection area. Every effort should be made to contact all property owners within the wellhead protection area so they are aware of the need for protection measures. Consider coordinating one or more "Community Groundwater Protection Workshops" where information is available and presentations are made to inform local residents of the connection between drinking water quality and activities on the land surface. DEQ and OHD can provide technical assistance or presentations at any workshop you wish to host. You may want to work with your local newspaper to reach others in a public education effort with public service ads, maps, and data. The DEQ Wellhead Protection Program (503-229-5279) can provide literature for distribution, as well as some excellent examples of ads and brochures.

FOCUS for educational effort:

- Relationship between surface activities and groundwater quality.
- Familiarity with the location of the protected area.
- Basic information on sources of contamination.
- Effective strategies for safe management of all potentail contaminants.

2. Sign Installation:

Information signs should be placed adjacent to all roadways entering the wellhead protection area. The signs should include the name of the water system or jurisdiction along with a phone number where callers can obtain more information. Example sign:

Be Careful With Our Drinking Water!
You are entering
Anytown Groundwater Protection Area
Call XXX-XXXX
for more information.
(Call 911 to report any spills.)

3. Water Conservation Program:

Implementing water conservation measures in your community can significantly benefit wellhead protection efforts by reducing the pumping rates. Lower pumping rates mean reduced flow rates and less risk of moving any contamination. Conserving water may also help reduce the need for additional water sources in the near future. Water conservation can be accomplished through steps such as distribution of flow control devices, retrofitting high-flow toilets and washing machines, and recycling wastewater. Information on developing a water conservation program can be obtained from the Municipal Water Conservation Specialists at the Oregon Water Resources Department, 503-378-8455, Ext. 283.

4. Public/Private Partnerships:

It is highly recommended that the RMA (or public jurisdictions) seek partnerships with the private business, commercial, and industrial communities within the wellhead protection area. These public/private partnerships can involve setting up a process for collaboration and finding common goals, such as maintaining low cost clean drinking water and continued economic prosperity in the region. Mutual benefits may include maximizing pollution prevention implementation in the community, public recognition of "green businesses", etc.

5. Hazardous Waste Collection:

Establishing a permanent location or holding one-day events to collect hazardous wastes from community residents is a very effective way to reduce risks posed by storing hazardous wastes within the wellhead protection area. This would be a very important element of a local plan addressing any areas with septic tanks as it would potentially reduce the amount of household hazardous wastes dumped into the drains and toilets. More information can be obtained from DEQ's Waste Management and Cleanup Division at 503-229-5913; ask for assistance with household hazardous waste collection. (More information on Household Hazardous Waste will be provided in the Residential/Municipal management section below as well.)

6. Spill Response Plans:

In addition to addressing spill response procedures as part of the contingency plan (Step 6 – Section 3-6), jurisdictions within wellhead protection areas could develop specific spill response procedures to allow quicker response and notifications should a hazardous material spill or release occur within the wellhead protection area. These can be integrated into your county's Emergency Management Plan. Emergency Management Plans are

Table 3-4: General Management Tools Available for the Wellhead Protection Area (Continued)

"Oregon Wellhead Protection's TOP DOZEN List"

6. **Spill Response Plans:** (Continued)

required for Oregon counties, but are optional for cities. The Oregon Emergency Management (OEM) staff can help with the development of spill response plans, can help you locate your county's coordinator, and let you know if your county has an existing approved emergency plan. They can be reached at 503-378-2911 in Salem.

7. **Zoning/Health Ordinances:**

There are many different types of zoning tools. Your community can identify the wellhead protection area with an overlay map, then potentially use a special permitting requirement to monitor new building applicants and chemical uses. Alternatively, your Team may want to develop a public health ordinance that minimizes the risk of contaminating the public water supply. **Appendix E** of this document contains a sample ordinance from a small community using an overlay approach to create a wellhead protection district. EPA also compiled an extensive set of ordinances from communities across the country. Information about the "Wellhead Protection Compendium of Ordinances" can be obtained by contacting DLCD at (503) 373-0050.

8. **Groundwater Monitoring Program:**

Collecting data from existing monitoring/supply wells or from newly installed wells can help your community detect any contaminants that may threaten the water supply in the near future. This is especially useful downgradient of the higher-risk sources in the wellhead protection area. Use the resources listed in **Appendix B** of this document to help you locate any wells and active groundwater cleanup sites in the area. You will need to contact DEQ (503-229-5913) and WRD (503-378-8455) for this information.

9. **Property Purchase/Donation Program:**

Community ownership of as much as possible of the land within the wellhead protection area obviously provides some of the best assurances of long-term protection of the public water supply. Protection could be provided by ownership accomplished through methods such as capital or bond fund programs, or through easements and deed restrictions. Acquisitions of land could also be coordinated through private non-profit land conservation organizations in Oregon such as River Network (503-241-3506), Nature Conservancy (503-228-9561), Trust for Public Land (503-228-6620) or local land trusts in your area. These organizations can assist you in acquiring land within your wellhead protection area by conveyance to a trust, seeking donations, or direct land purchases for conservation.

10. **Septic System Upgrades/Maintenance Program:**

Septic systems are discussed in more detail in the Residential/Municipal subsection below. Septic systems are very common sources of nitrate contamination in groundwater. Many areas of Oregon already have nitrate contamination problems. If your wellhead protection area contains high-density areas (>1 septic system/acre) of septic, you may want to initiate an effort to upgrade these, or at least implement a voluntary or mandatory program for maintenance. For example, septic systems should be pumped out every 2–3 years for proper functioning. We would also highly recommend that you consider implementing a septic tank cleaner ban or prohibition within your wellhead protection area. Most septic system cleaners contain solvents which are extremely threatening to your groundwater quality. Any ban on these substances would need to have an educational component associated with it since it will likely be very difficult to enforce, so you'll need to count on voluntary compliance. Information on septic systems and maintenance can be obtained by calling DEQ's Water Quality Division at 503-229-5279.

11. **Special Chemical Use/Transport Prohibition:**

Another general tool for your consideration may be a prohibition of the use or transport of high risk chemical compounds which produce severe groundwater contamination released into the environment. Compounds called dense non-aqueous phase liquids (DNAPLS) are generally considered to cause irreversible groundwater contamination when they are released into groundwater. Examples of DNAPLS commonly used in Oregon include solvents such as trichloroethylene (TCE), tetrachloroethylene (PCE), 1,1,1-trichlorethane (TCA), vinyl chloride, chlorobenzene, and wood-preservatives such as pentachlorophenol (PCP). These compounds have already been detected in over 80 public water systems in Oregon. Control and/or treatment is typically very expensive for local jurisdictions to address. Your Team may want to consider a threshold amount for the prohibition (such as one gallon) or limiting the implementation of the prohibition to a certain distance from your supply well(s) (such as 2,000'). The DEQ Wellhead Protection Program staff (503-229-5279) can work with any local jurisdiction to assist in developing a site- specific chemical use prohibition plan.

12. **Potential Source Restrictions:**

Local communites may also want to consider establishing and implementing restrictions on the placement of some potential contaminant sources such as underground storage tanks, dry wells, sumps, injection wells, lagoons, and/or landfills within the Wellhead Protection Area.

GW\WH5868BC

OREGON farm bureau

1701 Liberty St. S.E., • Salem, OR 97302-5158 • (503) 399-1701 • FAX (503) 399-8082

November 28, 1995

Sheree Stewart, Wellhead Protection Coordinator
Department of Environmental Quality
COMMENT Water Quality Division
8 811 S.W. Sixth Avenue
Portland, OR 97204

Dear Ms. Stewart:

I am Pete Test, Assistant Director of Governmental Affairs for the Oregon Farm Bureau Federation. We appreciate this opportunity to comment on the Department of Environmental Quality Wellhead Protection Rules.

We complement the committee on their efforts to develop rules that are voluntary. But, the Oregon Farm Bureau Federation is concerned that the LCDC Goal 5 rule revisions may impact the voluntary status of this program. We are at a loss as to how to correct this situation but feel that further efforts should be made to guarantee that the program remains completely voluntary.

We also would like it made clear in the rules that wellhead protection problems and/or management activities related to agriculture and agriculture practices be handled through the Oregon Department of Agriculture as part of their 10-10 water quality responsibilities.

We thank you for giving us this opportunity to comment on these rules. We would like to reserve the right to add further comments if the comment period is extended.

Sincerely,

Pete Test

PT:jhd

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NOV 29 1995
Water Quality Division
Dept. of Environmental Quality

Oregon

December 11, 1995

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Mr. Pete Test
Oregon Farm Bureau
1701 Liberty Street SE
Salem, Oregon 97302-5158

Dear Mr. Test:

I am writing in response to your written comments dated November 28, 1995 on the proposed Department of Environmental Quality (DEQ) wellhead protection rules. We appreciate your interest in this program and understand your concerns about the Goal 5 issues and groundwater protection in agricultural areas.

I am attaching a copy of my response to Mr. Jerry Schmidt's comments from the Oregon Association of Realtors. He expressed the same concern regarding the Department of Land Conservation and Development (DLCD)'s proposed revisions to the Goal 5 rule. In that letter, I have explained DEQ's lack of statutory authority to make participation in the wellhead protection program mandatory. DLCD's proposal does not make participation in the program mandatory either. Please refer to the attached letter for an explanation of our position on this matter. I would encourage you to (or continue to) be involved in the DLCD rule revision process so that your concerns about land use issues can be addressed by DLCD.

To address your concerns about the wellhead protection issues in agricultural areas, we propose adding a new statement in the rules to make it clear that any efforts to prevent groundwater contamination on agricultural lands within a wellhead protection area will be handled through the Oregon Department of Agriculture. This is in accordance with OAR 603-90-000 through 603-90-120 (SB 1010) and the recent Senate Bill 502.

If you would like to discuss either of these issues in more detail, feel free to call me. I can be reached at (503) 229-5413. We would also be happy to meet with you if you would like to discuss your concerns in that forum.

Sincerely,

Sheree Stewart,
Sr. Hydrogeologist / Wellhead
Protection Coordinator

Cc: Terry Witt, Oregonians for Food and Shelter

Attachment

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DEQ-1

ATTACHMENT E

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ATTACHMENT F

RECOMMENDATIONS FOR AMENDMENTS TO THE GOAL 5 PROCESS

A Report to the Land Conservation and Development Commission
From the Commission's Goal 5 Subcommittee and the
Department of Land Conservation and Development

November 27, 1995

RECOMMENDATIONS FOR AMENDMENTS TO THE GOAL 5 PROCESS

November 27, 1995

I. INTRODUCTION

This document summarizes the proceedings and recommendations of the Land Conservation and Development Commission's (LCDC's) Goal 5 Subcommittee. The Department of Land Conservation and Development (DLCD) prepared this report in order to describe the issues and the reasons underlying the recommendations of the subcommittee. The intent of this report is to provide information to LCDC and interested parties about a proposed new Goal 5 rule. These rules will be the subject of future public hearings before LCDC.

A. The Subcommittee's Process

The Land Conservation and Development Commission identified the need for an evaluation of Goal 5 and its administrative rule in their work program for 1993-95. To initiate this effort, DLCD mailed a survey to local governments and other interested parties in February, 1994. An all-day public workshop was held in March 1994 to further identify problems and issues. Following the workshop, LCDC reaffirmed their decision to pursue amendments to the Goal 5 process, and appointed a subcommittee (Commissioners Steve Pfeiffer and Pam Wiley) to oversee this effort and to propose rule amendments.

The subcommittee appointed a Goal 5 advisory committee representing diverse interests (see Attachment A). The advisory committee was not created in order to vote on specific recommendations, nor was it assigned the role of drafting rule amendments. Instead, the committee's role was to help the department and the subcommittee identify and consider various issues and policy options, and to serve as a "sounding board" for various proposals raised during the subcommittee's deliberations.

The subcommittee also appointed five "working groups" at the outset of the process. These groups were asked to conduct a preliminary evaluation of the land use policies applied to specific types of Goal 5 resources, and to propose ideas to resolve these problems. The working groups were assigned the following Goal 5 resource categories: Working Group A: Mineral and aggregate resources; Working Group B: Wetlands;

Working Group C: Fish and wildlife habitat, natural areas, water areas; Working Group D: Historic resources; Working Group E: Cultural resources

Only the first four working groups were convened. The Governor's Office is in the process of developing a "government-to-government" agreement concerning how state agencies will consider rules affecting the interests of Native American Tribes. Therefore, the subcommittee postponed work on cultural resources. The subcommittee has recommended that cultural resources should not be addressed until the conclusion of the governor's effort (estimated to be Spring of 1996).

Detailed reports were prepared by each working group and were submitted to the subcommittee and advisory committee in July of 1994. The advisory committee began meeting in July, 1994. The commission and the subcommittee had initially indicated their desire to make "minor amendments" to Goal 5. However, the working groups and the advisory committee discussed a lengthy list of problems, and proposed several ideas for major rule changes in order to fix these problems.

Based on the working group reports and the subcommittee's discussions, the department proposed rulemaking "concepts" in a document that was circulated for public review. These concepts were the subject of a public hearing before the subcommittee in December, 1994. Based on the public response, the committee made further adjustments to the concepts, and a final "rulemaking concepts" report was submitted to LCDC in April, 1995. The commission recommended that the subcommittee proceed with the development of administrative rules carrying out all of the various "concepts" described in the report.

The subcommittee and advisory committees did not meet regularly in the first few months of 1995 due to individual members' commitments to the legislative session (some meetings did occur, and were devoted to the issue of "determining the state's interest" in each of the resources, described in section IIIB, below). Beginning in June of 1995, the department prepared a "preliminary draft" of an administrative rule (with considerable assistance from a consultant, Portland attorney Mark Greenfield). This draft rule was constructed as a new division to replace the existing Goal 5 rule, and was based on the "concept" document. It was presented to the advisory committee in July, 1995.

The Goal 5 subcommittee and advisory committee convened for a series of meetings from July through September of 1995. The department's draft rule was the primary focus of these meetings, but it also led to more discussions about the main "concepts" underlying the draft rule. In late September, the department summarized the discussions about the

draft rule in the form of an "issue's paper," which became the basis for agreement by the subcommittee regarding a draft rule.

The department prepared a second draft of the rule, which was circulated for public comment in October, 1995. The subcommittee held a public hearing on October 19. Thirty nine people testified at the hearing, and forty one letters of comment were received. The subcommittee met two more times to consider this testimony, and to adjust their recommendation accordingly. On November 9 the subcommittee directed the department to make several changes to the draft rule and to submit it and this report to LCDC for consideration at the commission's December 8, 1995, meeting.

The department determined that both the report about the rule and the amended draft rule itself could not be prepared in time to mail to the commission for the December 8 meeting. The department does not anticipate completion of a new draft rule until approximately December 20, 1995.

B. Recommendation To LCDC

The subcommittee and the department recommend that LCDC amend Goal 5 and the Goal 5 rule. This report contains a description of the recommended changes to the Goal 5 process. These changes will also be proposed as draft administrative rules. The draft rule will be based on the policy decisions reached by the subcommittee. The department has prepared this report to explain the main issues to interested parties, and to assist the full commission in consideration of this proposal. We have also indicated those areas where the subcommittee did not reach a conclusion, or did not agree among themselves about aspects of the draft proposal.

This report outlines most of the issues addressed by the subcommittee, and some additional issues raised by the department. The work session at the December 8, 1995, LCDC meeting will not involve enough time for LCDC to address all the issues described here. Rather, it is intended as a time for department and the subcommittee to present the some of the main elements of the proposal to the commission. The commission may choose to provide further direction to the staff and subcommittee. This session is not intended for public testimony.

If the commission chooses to proceed with any or all of these proposals, the department recommends that rulemaking notice be provided in time for public hearings at the commission's first two regularly scheduled meetings in 1996 (the January and March

meetings). The department will also begin working on proposed wording for an amended Goal 5, as outlined in section V, below. Ten statewide Goal amendment hearings will be conducted by DLCD staff prior to the commission's final rulemaking hearing.

Watersheds

Every place in the state is within a "watershed". The term has sometimes been interpreted to mean special watersheds that are generally "small" in scale and contain private or public water supplies, such as the Clearlake area in Lane County. That area, and others like it are protected primarily through DEQ rules, and Goal 5 application has rarely been a factor in their protection. Surface waters within certain watersheds are generally regulated through basin planning under the Department of Water Resources, or through other programs under DEQ.

LCDC should consider eliminating Goal 5 ESEE requirements for any future consideration of this resource. However, acknowledged plans should not be allowed to overturn any decisions already reached about this resource. Alternatively, removing watersheds from Goal 5 should be considered. If the ESEE process is retained, the commission needs to provide a concise definition of a "watershed" resource. Other criteria would also be required if the commission anticipates serious attention to this resource by local governments in the future.

Groundwater Resources

The inventory and decision processes in Goal 5 do not work where the quantity, quality, and location of resources cannot be determined. This is the case for most groundwater areas in the state. The Department of Water Resources (DWR) and Department of Environmental Quality (DEQ) operate programs to identify and regulate groundwater areas of special concern. However, even in these areas, little or no planning for groundwater has occurred using the Goal 5 process.

Currently, where DWR or DEQ identify areas with enough specificity to complete the Goal 5 process, local governments must conduct an ESEE analysis and consider ways to protect the resource. Generally, these methods would include development limits. The proposal would not change this, except that certain types of areas delineated by DEQ or DWR would be "automatically significant." No inventory decisions would be required. The rule would codify the existing situation with respect to other ground water areas and new broad inventories: local governments would be permitted to inventory groundwater resources, but would not be required to do so (see DWR letter, Attachment E).

For one specific type of groundwater area, "wellhead protection" areas, the department has worked with the Health Division and DEQ in providing a specific proposal. This proposal is outlined below:

Contemplated Amendments to the Goal 5 Rule for Wellhead Protection

- Include DEQ's proposed rule definitions of *delineation, public water system* and wellhead protection area.

- Define the "larger" public water systems, i.e., service population greater than 10,000 or more than 3,000 service connections. According to the Oregon Health Division, 26 systems currently meet this definition. This definition would include those systems that rely on groundwater not only as its primary source of drinking water but also those systems that rely on groundwater as a back-up (secondary) system or for emergency purposes.

- Goal 5 will not require the delineation of <u>any</u> wellhead protection area. However, if the wellhead protection area of one of these "larger" systems is delineated (and that delineation is certified by the Oregon Health Division) then the local government will need to adopt land use controls to reduce the risk of groundwater contamination. These land use controls would be optional for the smaller systems.

- Indicate that local government may rely on the Oregon Health Divisions' certification process, as it applies to "larger public water systems," for purposes of identifying "significant groundwater resources" (i.e., wellhead protection areas) under Goal 5. Thus, a local government would be required to adopt a program to achieve Goal 5 (i.e., land use controls to reduce the risk of contamination of groundwater) for only "larger" public water systems .

- Indicate that local government may rely on DEQ's Wellhead Protection Program as the program to achieve compliance with Goal 5.

- Allow only those wellhead protection areas found to be "significant" under Goal 5 to be considered a Goal 5 conflicting use for the purpose of evaluating other Goal 5 resources.

ATTACHMENT G

Wellhead Protection Fact Sheet

What is Wellhead Protection?

Wellhead protection is a plan designed to protect groundwater resources of public water systems from contamination. Wellhead protection involves defining the area around the well most susceptible to contamination, the inventory of potential contaminant sources within that area, and the implementation of management strategies to reduce the risk associated with those sources. Wellhead protection is an investment in the future. A community's source of drinking water is an extremely important resource, contributing to both the human and economic health of the area.

What is groundwater?

Groundwater contributes most of all of the water that is derived from wells or springs. It occurs in the natural open spaces (e.g., fractures or pore spaces between grains) in sediments and rocks below the surface. Groundwater is distributed fairly evenly throughout the crust of the earth, but it is not readily accessible or extractable everywhere. More than 90 percent of the world's total supply of drinkable water is groundwater.

Where does groundwater come from?

Groundwater originates as precipitation that sinks into the ground. Some of this water percolates down to the water table (shallowest surface of the groundwater) and recharges the aquifer. For shallow wells, for example less than 50-75 feet, the recharge area is often the immediate vicinity around the well or "wellhead." Some wells are recharged in areas that may be a great distance from the well itself.

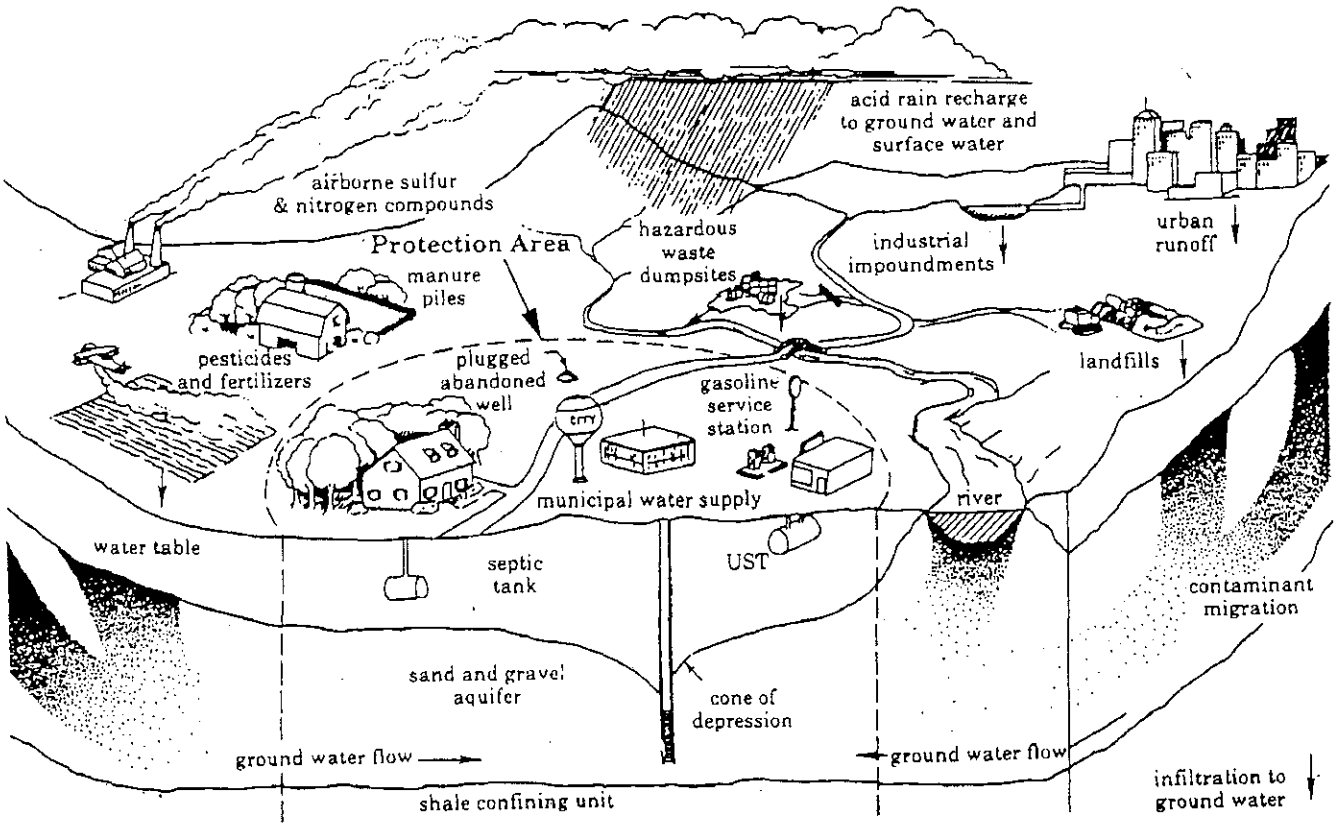
How can the groundwater from my well become contaminated?

If the downward percolating precipitation encounters any source of contamination, at the surface or below it, the water may dissolve some of that contaminant and carry it to the aquifer. Groundwater moves from areas where the water table is high to where the water table is low. Consequently, a contaminant may enter the aquifer some distance upgradient from you and still move towards your well. When a well is pumping, it lowers the water table in the immediate vicinity of the well, increasing the tendency for water to move towards the well.

What are the potential sources of contamination?

Contaminants can be conveniently lumped into three categories: microorganisms (bacteria, viruses, Giardia, etc.), inorganic chemicals (nitrate, arsenic, metals, etc.) and organic chemicals (solvents, fuels, pesticides, etc.). Although it is common practice to associate contamination with highly visible features such as landfills, gas stations, industry or agriculture, potential contaminants are widespread and often come from common

Model Wellhead Protection Area



everyday activities as well, such as septic systems, lawn and garden chemicals, pesticides applied to highway right-of-ways, stormwater runoff, auto repair shops, beauty shops, dry cleaners, medical institutions, photo processing labs, etc. Importantly, it takes only a very small amount of some chemicals in drinking water to raise health concerns. For example, ***one gallon*** of pure trichloroethylene, a common solvent, will contaminate approximately ***292 million gallons*** of water.

What is a Wellhead Protection Plan ?

Wellhead protection plans will vary from community to community, owing to different land uses and aquifer conditions. All local plans should have the following key elements:

1. **Public education.** The general public needs to be informed regarding the source of their drinking water and its vulnerability to contamination.

2. **Delineation of the wellhead protection area.** The wellhead protection area is the area on the surface that overlies that portion of the aquifer that supplies water to the well. A contaminant released within this area may eventually migrate to the well.

3. **Inventory of potential contaminants.** An inventory of potential sources of contaminants within the wellhead protection area provides an assessment of the potential threats to groundwater.

4. **Managing the wellhead protection area.** Strategies should be developed for existing and future activities within the wellhead protection area to reduce the risk of contamination to the aquifer.

5. **Contingency planning**. Water systems should develop options to deal with both short- and long-term loss of their drinking water source(s). Systems should also incorporate the existing emergency response framework into their wellhead protection plan.

6. **New wells.** Procedures should be adopted that address the addition of new wells to the supply. These include aspects of well construction and preliminary delineations to evaluate potential sites for the new wells in terms of well yield, and potential contamination and to focus implementation strategies to protect the recharge areas of those sources.

How large is the wellhead protection area?

This depends on several key issues, including the pump rate and the characteristics of the aquifer. In Oregon, it is recommended that an area large enough to encompass ten years of groundwater travel time be defined so that if the aquifer becomes contaminated upgradient there will be sufficient time to devise a plan to deal with the contamination. Wellhead protection areas may extend in excess of several thousand feet to protect the wellhead.

Why not just protect the entire aquifer instead of having a separate Wellhead Protection Plan for each community?

Protecting all groundwater in the state to the level recommended for wellhead protection would be ideal, and in fact in areas where several communities are in proximity of one another, they might pool their resources to develop a single regional protection strategy. In most cases, however, management of the aquifer is not practical. The area can be very large and resources are limited. Consequently, Oregon's Wellhead Protection Program allows us to focus limited resources on the critical areas of the aquifer that supply us with our drinking water.

Doesn't "Managing the Wellhead Protection Area" mean telling people what they can and cannot do on their property?

The management strategies are not designed to preclude activities in the wellhead protection area. Rather, they are designed to take advantage of common sense and prudent practices to reduce the risk of groundwater contamination.

There are certain facilities that you would not want in your wellhead protection area., e.g. landfills or large-scale chemical storage facilities, however, there is no reason why farming cannot occur in a wellhead protection area, as long as best-management practices, developed by the agricultural community, are followed.

There is no reason why industry cannot be within the wellhead protection area, again as long as practices are in place that will minimize risks to the aquifer. Importantly, ***the management plan is developed locally***, and is therefore tailored to the community's own needs and risks.

Who is responsible for doing wellhead protection?

Wellhead protection should be a community effort. Defining the wellhead protection area, inventorying the potential contaminants, and developing management strategies will likely be conducted by a community advisory team representing the diverse interests of the community as well as local community officials. Implementation of the management plan will be accomplished under local control

in the wellhead protection area.

What are the costs and who pays for wellhead protection?

Estimating the entire cost of developing and implementing the wellhead protection plan is difficult because of the diverse situations and long-term nature of the effort. Defining the protection area could cost less than $1,000 or be as high as $20,000 for most sytems. Some systems have been able to reduce the inventory costs by using volunteers. Management costs will vary depending on the staff requirements for developing new ordinances, conducting inspections, developing education programs, etc.

Although there are limited sources of funding for wellhead protection, the cost of protecting the drinking water supply will likely be borne by those that directly benefit from that protection, i.e., the residents served by the public water system. *The cost of protection, however, is less than the costs associated with having a contaminated drinking water supply.*

What will be the State's role?

Members of various state agencies worked with the citizen's advisory committee to develop Oregon's Wellhead Protection Program. Guidance documents dealing with delineation, contaminant inventory and management strategies will be available by late 1995. State agencies will also provide technical assistance throughout the process.

For further information

Contact Sheree Stewart, Groundwater Section, Oregon Department of Environmental Quality, (503) 229-5413 or toll free within Oregon 1-800-452-4011. People may also contact Dennis Nelson, Drinking Water Program, Oregon Health Division, (503) 731-4010.

Accessibility Information

This publication is available in alternate format (e.g. braille, large type) by calling DEQ Public Affairs at (503) 229-5766. People may also call toll free in Oregon 1-800-452-4011. People with hearing impairments may call DEQ's TTY at (503) 229-6993.

October 1995

Environmental Quality Commission

☒ Rule Adoption Item
☐ Action Item
☐ Information Item

Agenda Item D
January 11-12, 1996 Meeting

Title:

Air Quality Industrial Rules (Divisions 21, 25, and 30)

Summary:

Division 21

1) Clarify the applicability of the process weight and grain loading rules.

2) Conform the contingent hardboard emissions limit (applicable to PM_{10} non-attainment areas that do not meet attainment deadlines) to the language and approach of other state hardboard rules.

Board Materials Storage (OAR 340-25-320, 325)

Specify a new approval process for controls for the board products industry's truck dump and storage areas. The revision would eliminate a current rule conflict.

Division 30

- Emission Limitations

Specify how to calculate emission limitations stated in pounds per thousand square feet. The method would be the same as the method currently specified in similar Division 25 rules.

- Sulfur Dioxide Emissions Standard

Exclude natural gas and liquefied petroleum gas (fuels with naturally low sulfur dioxide emissions) from the rule.

- Housekeeping

1) Replace obsolete Ringlemann Chart visible emission limits with EPA Method 9.

2) Define source test limits for some rules, as requested by EPA.

3) Remove incorrect footnotes from OAR 340-30-600 to 620.

Department Recommendation:

The Department recommends that the EQC adopt the rules regarding Divisions 21, 25, and 30 (process weight and grain loading rules, contingent hardboard emissions limit, board material storage limits, emissions limitations, sulfur dioxide emissions standard, and housekeeping revisions) as presented in Attachment A of the staff report.

Report Author | Division Administrator | Director

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317 (voice) / (503) 229-6993 (TDD).

State of Oregon

Department of Environmental Quality Memorandum†

Date: December 29, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item D , January 11-12, 1996, EQC Meeting

Air Quality Industrial Rules (Divisions 21, 25, and 30)

Background

On October 13, 1995, the Director authorized the Air Quality Division to proceed to a rulemaking hearing on proposed revisions which would clarify rules in Divisions 21, 25, and 30.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on November 1, 1995. The Hearing Notice and informational materials were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on October 20-22, 1995.

A Public Hearing was held November 21, 1995 with Benjamin M. Allen serving as Presiding Officer. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing.

Written comment was received through November 23, 1995. A list of written comments received is included as Attachment D. (A copy of the comments is available upon request.)

Department staff have evaluated the comments received (Attachment E). Based upon that evaluation, modifications to the initial rulemaking proposal are being recommended by the Department. These modifications are summarized below and detailed in Attachment F.

The following sections summarize the issues that this proposed rulemaking action is intended to address, the authority to address the issues, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in

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response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issue this Proposed Rulemaking Action is Intended to Address

Division 21

1) The applicability of the process weight and grain loading rules has been unclear. These revisions would replace general language in the process weight rule with a list of affected equipment, and clarify that the process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) The contingent hardboard emissions limit would apply only to PM_{10} non-attainment areas which do not meet attainment deadlines. Unlike the Department's two other hardboard emission limits, the current contingent emissions limit does not apply to press vent emissions. The revision would conform the contingent hardboard emissions limit to the language and approach of other state hardboard rules by including press vent emissions, and excluding truck dump and storage areas and fuel and refuse burning equipment.

Board Materials Storage (OAR 340-25-320, 325)

The board materials storage rules conflict with the Notice of Construction rules (OAR 340-28-800 to 820) when applied to Title V permit sources. This revision would no longer require a Notice of Construction (OAR 340-28-800 to 820), but would require a detailed application and approval by the Department.

Division 30

- Emission Limitations

The rules do not specify the time period to be used in calculating particulate emission limits given in pounds per thousand square feet. The revision would specify that the limits should be calculated on an hourly basis using the maximum 8 hour production capacity of the plant (the same method used in similar Division 25 rules).

- Sulfur Dioxide Emissions Standard

Certain fuels can not exceed the emission limit in the rule, and it is wasteful of staff time and source funds to write Title V permit conditions and monitoring conditions for them. The revision would exclude natural gas and liquefied petroleum gas (fuels with naturally low sulfur dioxide emissions) from this sulfur dioxide emissions limit, so as to simplify Title V permits.

- Housekeeping

1) Ringlemann Chart visible emission limits are obsolete. This revision would replace them with EPA Method 9.

2) EPA has requested that rules define source test limits. This revision would define source test limits for some rules.

3) OAR 340-30-600 to 620 are incorrectly identified as part of the State Implementation Plan. This revision would remove the incorrect footnotes from OAR 340-30-600 to 620.

Virtually all the above rules except those in Division 30 are a part of the State Implementation Plan (SIP).

Relationship to Federal and Adjacent State Rules

Applicable only to:
Division 30
- Housekeeping

Specifying source test methods makes the Oregon rules more consistent with federal requirements, which already contain source test methods.

Authority to Address the Issue

ORS 468.020, 468A.025.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

The rule problems were generally discovered during the process of implementing the new Title V permit program. Specific issues were raised by staff, affected sources, or members of the public. Department staff developed revisions to address the problems. The proposed revisions were presented to the Air Quality Industrial Source Advisory Committee. The Committee agreed to participate in the rulemaking through the public comment process.

Alternatives considered

Division 21

1) None considered.

2) The Department considered basing this rule on a limit other than the Medford hardboard emissions limit. This rule was originally based on the Medford limit, which is the lowest hardboard emissions limit in the state, and thus is strict, but known to be achievable. The

Medford rule is also scheduled for revision to correct an error in the previous adoption, and would be substantially similar to this proposal.

Board Materials Storage (OAR 340-25-320, 325)
Require that all sources, including Title V sources, use the Notice of Construction (NC) process when applying for approval of alternate raw material control strategies. This might cause confusion about the applicability of the NC process. The NC rules currently exclude all Title V sources; they would have to be revised to exclude Title V sources except for this one purpose. The chosen approach is simpler and yet sufficient to allow the Department control over alternate control strategies.
Another option would be to create a new approval process for Title V sources, and require all others to use the NC process. The new process could be designed to avoid substantive discrepancies between the two processes. This approach would be somewhat unwieldy. The Department feels the preferred alternative is simpler, yet equally effective.

Division 30

- Emission Limitations
  Choose a different method of specifying emission limitations. However, the method chosen is drawn from and is consistent with language in Division 25 governing similar emission limitations.

- Sulfur Dioxide Emissions Standard
  Leave the rule as it is. This would require a wasted effort in writing and complying with permit conditions for fuels that will never exceed the standards.

- Housekeeping
  1) None considered.
  2) Specify source test methods in each Title V permit condition rather than in the applicable rule. This would add complexity to the permits. The current approach meets EPA's requirements while retaining flexibility.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

Division 21

1) Revisions would clarify the applicability of the process weight rule by replacing general language with a list of affected emissions sources, and clarify that the process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) A revision to the contingent hardboard emissions limit would conform the rule to the language and approach of other state hardboard rules by including press vent emissions, and excluding truck dump and storage areas and fuel and refuse burning equipment.

Board Materials Storage (OAR 340-25-320, 325)
For non-enclosure controls on storage and truck dump areas, this revision would no longer require a Notice of Construction (OAR 340-28-800 to 820), but would require a detailed application and approval by the Department.

Division 30

- Emission Limitations

The revision would specify that emission limitations stated in pounds per thousand square feet should be calculated on an hourly basis using the maximum 8 hour production capacity of the plant (the same method as for similar rules in Division 25).

- Sulfur Dioxide Emissions Standard

The revision would exclude natural gas and liquefied petroleum gas (fuels with naturally low sulfur dioxide emissions) from this sulfur dioxide emissions limit, so as to simplify the writing of Title V permits.

- Housekeeping

1) Ringlemann Chart visible emission limits are obsolete. This revision would replace them with EPA Method 9.
2) This revision would define source test limits for some rules.
3) This revision would remove incorrect footnotes from OAR 340-30-600 to 620.

<u>Summary of Public Comment and Changes Proposed in Response</u>

Division 21
Some commenters were concerned about rule changes to process weight, grain loading, and hardboard rules as applied to fugitive emissions. The Department has responded to the comments in Attachment E; no changes are proposed.

Board Materials Storage (OAR 340-25-320, 325)
One commenter pointed out that while two references to Notice of Construction rules were proposed for change, one remained. The Department proposes to change the third reference as well.

Division 30

- Emission Limitations

Some commenters were concerned about the definition of "capacity." The Department has responded to the comments in Attachment E; no changes are proposed.

- Sulfur Dioxide Emissions Standard

As part of this revision, the Department defined "hogged fuel," and "untreated wood." There was substantial comment on the proposed definitions, including suggestions that the fiscal impact statement had understated probable costs, and that the change would result in a increase of landfill material. The Department has removed the definitions from the proposed revision for further discussion.

- Housekeeping

No changes are proposed.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

There will be only minor changes in implementation of these rules. Staff will be advised of the revisions and their effect, if any. The Lane Regional Air Pollution Authority will also be advised of the changes.

Recommendation for Commission Action

The Department recommends that the Commission adopt the rules and rule amendments regarding Divisions 21, 25, and 30 as presented in Attachment A of the Department Staff Report.

Attachments

A. Rule (Amendments) Proposed for Adoption
B. Supporting Procedural Documentation:
   1. Legal Notice of Hearing
   2. Public Notice of Hearing (Chance to Comment)
   3. Rulemaking Statements (Statement of Need)
   4. Fiscal and Economic Impact Statement
   5. Land Use Evaluation Statement
   6. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements

C. Presiding Officer's Report on Public Hearing
D. List of Written Comments Received
E. Department's Evaluation of Public Comment
F. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment
G. Advisory Committee Membership and Report
H. Rule Implementation Plan

Reference Documents (available upon request)

Written Comments Received (listed in Attachment D)
Calculation of sulfur dioxide emissions for a variety of fuels.

Approved:
Section:
Division: Gregory A. Green

Report Prepared By: Benjamin M. Allen
Phone: (503) 229-6828

Date Prepared: December 22, 1995

BMA
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December 22, 1995

Division 21

Definitions

340-21-005 As used in OAR 340-21-005 through 340-21-060:

(1) "Air Contaminant" means a dust, fume, gas, mist, odor, smoke, pollen, vapor, soot, carbon, acid or particulate matter, or any combination thereof.

(2)~~(1)~~"Coastal Areas" means Clatsop, Tillamook, Lincoln, Coos, and Curry Counties and those portions of Douglas and Lane County west of Range 8 West, Willamette Meridian.

(3)~~(2)~~"Fuel burning equipment" means equipment, other than internal combustion engines, the principal purpose of which is to produce heat or power by indirect heat transfer.

(4) "Fugitive Emissions" means emissions of any air contaminant that escape to the atmosphere from any point or area not identifiable as a stack, vent, duct, or equivalent opening.

(5)~~(3)~~ "Municipal Waste Incinerator" means a device used to reduce the volume of general household wastes by combustion which is capable of processing more than 200 lb/hr of such wastes but which is too small to be classed as a major source as defined by the Department's New Source Review rule, OAR 340-20-220 to 340-20-275.

(6)~~(4)~~"New source" means any air contaminant source installed, constructed, or modified after June 1, 1970.

(7)~~(5)~~"Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with OAR 340-028-1100 and 1120. Unless otherwise specified by rule, opacity shall be measured in accordance with EPA Method 9. For all standards, the minimum observation period shall be six minutes, though longer periods may be required by a specific rule or permit condition. Aggregate times (e.g. 3 minutes in any one hour) consist of the total duration of all readings during the observation period that exceed the opacity percentage in the standard, whether or not the readings are consecutive. Alternatives to EPA Method 9, such as a continuous opacity monitoring system (COMS), alternate Method 1 (LIDAR), or EPA Methods 22, or 203, may be used if approved in advance by the Department, in accordance with the Source Sampling Manual.

(8)~~(6)~~"Particulate matter" means ~~any matter, except uncombined water, which exists as a liquid or solid at standard conditions~~ all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by an applicable reference method in accordance with OAR 340-028-1100 and 1120. Sources with exhaust gases at or near ambient conditions may be tested with DEQ Method 5 or DEQ Method 8, as approved by the Department. Direct heat transfer sources shall be tested with DEQ Method 7; indirect heat transfer combustion sources and all other non-fugitive emissions sources not listed above shall be tested with DEQ Method 5 or an equivalent method approved by the Department;

(9)~~(7)~~"Refuse" means unwanted matter.

(10)~~(8)~~ "Refuse burning equipment" means a device designed to reduce the volume of solid, liquid, or gaseous refuse by combustion.

~~(9) "Ringlemann Smoke Chart" means the Ringlemann Smoke Chart with instructions for use as published in **May, 1967**, by the **U.S. Department of Interior, Bureau of Mines**.~~

(11)~~(10)~~ "Standard conditions" means a temperature of 68° Fahrenheit and a pressure of 14.7 pounds per square inch absolute.

(12)~~(11)~~ "Standard cubic foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions. When applied to combustion flue gases from fuel or refuse burning, "standard cubic foot" also implies adjustment of gas volume to that which would result at a concentration of 12% carbon dioxide or 50% excess air.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Application

340-21-007

A standard in OAR 340-21-005 through 340-21-060 does not apply

(1) when any other rule contains an applicable emissions standard that

(a) uses identical units and averaging times, and

(b) is more stringent; or

(2) when OAR 340-25-165(2)(a)(C) applies.

Visible Air Contaminant Limitations

340-21-015

(1) Existing sources outside special control areas. No person shall cause, suffer, allow, or permit the emission of any air contaminant into the atmosphere from any existing air contaminant source located outside a special control area for a period or periods aggregating more than three minutes in any one hour which is:

~~(a) As dark or darker in shade as that designated as No. 2 on the Ringlemann Chart; or~~

~~(b) E~~equal to or greater than 40% opacity.

(2) New sources in all areas and existing sources within special control areas: No person shall cause, suffer, allow, or permit the emission of any air contaminant into the atmosphere from any new air contaminant source, or from any existing source within a special control area, for a period or periods aggregating more than three minutes in any one hour which is:

~~(a) As dark or darker in shade as that designated as No. 1 on the Ringlemann Chart; or~~

~~(b) E~~ equal to or greater than 20% opacity.

(3) Exceptions to sections (1) and (2) of this rule:

(a) Where the presence of uncombined water is the only reason for failure of any emission to meet the requirements of sections (1) and (2) of this rule, such sections shall not apply;

(b) Existing fuel burning equipment utilizing wood wastes and located within special control areas shall comply with the emission limitations of section (1) of this rule in lieu of section (2) of this rule.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Fuel Burning Equipment Limitations

340-21-020

(1) No person shall cause, suffer, allow, or permit the emission of particulate matter, from any fuel burning equipment in excess of:

(a) 0.2 grains per standard cubic foot for existing sources;

(b) 0.1 grains per standard cubic foot for new sources.

(2) For sources burning salt laden wood waste on July 1, 1981, where salt in the fuel is the only reason for failure to comply with the above limits and when the salt in the fuel results from storage or transportation of logs in salt water, the resulting salt portion of the emissions shall be exempted from subsection (1)(a) or (b) of this rule and OAR 340-21-015. In no case shall sources burning salt laden woodwaste exceed 0.6 grains per standard cubic foot. Sources which utilize this exemption, to demonstrate compliance otherwise with subsection (1)(a) or (b) of this rule, shall~~:~~

~~(a) Not exceed a darkness of Ringleman 2 from the boiler stacks for more than three minutes in any one hour;~~

~~(b) S~~ submit the results of a particulate emissions source test of the boiler stacks bi-annually.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Refuse Burning Equipment Limitations

340-21-025

No person shall cause, suffer, allow, or permit the emission of particulate matter, from any refuse burning equipment in excess of:

(1) For equipment designed to burn 200 pounds of refuse per hour or less, 0.3 grains per standard cubic foot; or

(2) For equipment designed to burn more than 200 pounds of refuse per hour:
  (a) 0.2 grains per standard cubic foot for existing sources; or
  (b) 0.1 grains per standard cubic foot for new sources, except that small to medium size municipal waste incinerators located in coastal areas as defined in OAR 340-21-005(1) shall be subject to OAR 340-21-027 and larger municipal incinerators shall be subject to provisions of OAR 340-25-850 through 340-25-885.

[**NOTE:** Sources subject to this rule may also be subject to OAR 340-25-850 through 340-25-905.]

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Particulate Emission Limitations for Sources Other Than Fuel Burning and Refuse Burning Equipment

340-21-030 (1) No person shall cause, suffer, allow, or permit the emission of particulate matter, from any air contaminant source in excess of:

(a)~~(1)~~ 0.2 grains per standard cubic foot for existing sources; or

(b)~~(2)~~ 0.1 grains per standard cubic foot for new sources.

(2) This rule does not apply to fuel or refuse burning equipment or to fugitive emissions.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Particulate Emissions From Process Equipment

Applicability

340-21-035 OAR 340-21-035 through 340-21-045 ~~shall~~ apply to all ~~industrial processes~~ non-fugitive emissions from the following process equipment:

(1) inertial separators without baghouses;
(2) calciners;
(3) material dryers;
(4) material classifiers;
(5) conveyors;
(6) size reduction equipment;
(7) material storage structures;
(8) seed cleaning devices; and

(9) equipment other than that ~~those~~ for which specific emission standards have been adopted. ~~Also excluded are fuel-burning and refuse-burning equipment in which combustion gases do not mix directly with process materials.~~

~~[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]~~

Stat. Auth.: ORS Ch. 468 & 468A

Emission Standard

340-21-040 No person shall cause, suffer, allow, or permit the emission of particulate matter, in any one hour from any process in excess of the amount shown in Table 1, for the process weight rate allocated to such process.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Determination of Process Weight

340-21-045

(1) Process weight ~~per hour~~ is the total weight of all materials introduced into ~~any specific~~ piece of process equipment~~, which process may cause any discharge of particulate matter~~. Solid fuels charged are ~~will be~~ considered as part of the process weight, but liquid and gaseous fuels and combustion air are ~~will~~ not.

(a) For a cyclical or batch operation, the process weight per hour is ~~will be~~ derived by dividing the total process weight by the number of hours in one complete operation ~~from the beginning of any given process to the completion thereof~~, excluding any time during which the equipment is idle.

(b) For a continuous operation, the process weight per hour will be derived by dividing the process weight by a typical period of time, as approved by the Department.

(2) Where the nature of any process or operation or the design of any equipment ~~is such as to~~ permits more than one interpretation of this rule, the interpretation that results in the minimum value for allowable emission applies~~shall apply~~.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Nuisance~~Definitions~~

340-21-050 As used in OAR 340-21-050 through 340-21-060:

~~(1) "Fugitive emissions" means dust, fumes, gases, mist, odorous matter, vapors or any combination thereof not easily given to measurement, collection, and treatment by conventional pollution control methods.~~

~~(2)~~ "Nuisance conditions" means unusual or annoying amounts of fugitive emissions traceable directly to one or more specific sources. In determining whether a nuisance condition exists, consideration shall be given to all of the circumstances, including density of population, duration of the activity in question, and other applicable factors.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Hardboard Manufacturing Plants

340-21-235 (1) No person shall cause or permit ~~the~~ total emissions of particulate matter from all sources within a hardboard plant, ~~other than press/cooling vents,~~ in excess of 0.55 ~~0.25~~ pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

(2) When calculating emissions for this section, emissions from truck dump and storage areas, fuel burning equipment, and refuse burning equipment are not included.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth: ORS Ch. 468 & 468A

Board Materials Storage

Particleboard Manufacturing Operations

340-25-320

(1) Truck Dump and Storage Areas:

(a) Every person operating or intending to operate a particleboard manufacturing plant shall cause all truck dump and storage areas holding or intended to hold raw materials to be enclosed to prevent windblown particle emissions from these areas from being deposited upon property not under the ownership of said person;

(b) The temporary storage of raw materials outside the regularly used areas of the plant site is prohibited unless the person who desires to temporarily store such raw materials first notifies the Department of Environmental Quality and receives written approval for said storage:

(A) When authorized by the Department of Environment Quality, temporary storage areas shall be operated to prevent windblown particulate emissions from being deposited upon property not under the ownership of the person storing the raw materials;

(B) Any temporary storage areas authorized by the Department shall not be operated in excess of six (6) months from the date they are first authorized.

(c) Any person who proposes to control windblown particulate emissions from truck dump storage areas other than by enclosure shall apply to the Department for written authorization to utilize alternative controls. The application shall ~~be submitted pursuant to OAR 340-28-800 through 340-28-820, and shall~~ describe in detail the plan proposed to control windblown particulate emissions and indicate on a plot plan the nearest location of property not under ownership of the applicant.

(2) Other Emission Sources:

(a) No person shall cause to be emitted particulate matter from particleboard plant sources including, but not limited to, hogs, chippers, and other material size reduction equipment, process or space ventilation systems, particle dryers, classifiers, presses, sanding machines, and materials handling systems in excess of a total from all sources within the plant site of three (3.0) pounds per 1000 square feet of particleboard produced on a 3/4 inch basis of finished product equivalent;

(b) Excepted from subsection (2)(a) of this rule are truck dump and storage areas, fuel burning equipment, and refuse burning equipment.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]
Stat. Auth.: ORS Ch. 468 & 468A

Hardboard Manufacturing Operations

340-25-325

(1) Truck Dump and Storage Areas:

(a) Every person operating or intending to operate a hardboard manufacturing plant shall cause all truck dump and storage areas holding or intended to hold raw materials to be enclosed to prevent windblown particle emissions from these areas from being deposited upon property not under the ownership of said person;

(b) The temporary storage of raw materials outside the regularly used areas of the plant site is prohibited unless the person who desires to temporarily store such raw materials first notifies the Department of Environmental Quality and receives written approval:

(A) When authorized by the Department of Environmental Quality, temporary storage areas shall be operated to prevent windblown particulate emissions from being deposited upon property not under the ownership of the person storing the raw materials;

(B) Any temporary storage areas authorized by the Department shall not be operated in excess of six (6) months from the date they are first authorized.

(c) Alternative Means of Control. Any person who desires to control windblown particulate emissions from truck dump and storage areas other than by enclosure shall first apply to the Department for written authorization to utilize alternative controls. The application shall ~~be submitted pursuant to OAR 340-28-800 through 340-28-820, and shall~~ describe in detail the plan proposed to control windblown particulate emissions and indicate on a plot plan the nearest location of property not under ownership of the applicant.

(2) Other Emission Sources:

(a) Hardboard plants which did not exist during the baseline period.

No person shall cause or permit the total emissions rate of particulate matter from a hardboard plant which did not exist during the baseline period to exceed one (1.0) pound per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent.

(b) Hardboard plants which existed during the baseline period.

No person shall cause or permit the total emissions rate of particulate matter from a hardboard plant which existed during the baseline period to exceed the lesser of:

(A) two (2.0) pounds per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent; or

(B) the sum of the baseline emissions rate of the press/cooling vent and the lesser of:

(i) the baseline emissions rate from the hardboard plant excluding the press/cooling vents; or

(ii) one (1.0) pound per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent.

(c) Excepted from subsections (a) and (b) of this section are truck dump and storage areas, fuel burning equipment, and refuse burning equipment.

(3) Emissions from Hardboard Tempering Ovens:

(a) No person shall operate any hardboard tempering oven unless all gases and vapors emitted from said oven are treated in a fume incinerator capable of raising the temperature of said gases and vapors to at least 1500° F. for 0.3 seconds or longer;

(b) Specific operating temperatures lower than 1500° F. may be approved by the Department upon application, provided that information is supplied to show that operation of said temperatures provides sufficient treatment to prevent odors from being perceived on property not under the ownership of the person operating the hardboard plant;

(c) In no case shall fume incinerators installed pursuant to this section be operated at temperatures less than 1000° F.;

(d) Any person who proposes to control emissions from hardboard tempering ovens by means other than fume incineration shall apply to the Department for written authorization to utilize alternative controls. The application shall ~~be submitted pursuant to OAR 340-28-800 through 340-28-820, and shall~~ describe in detail the plan proposed to control odorous emissions and indicate on a plot plan the location of the nearest property not under ownership of the applicant.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-20-047.]

Stat. Auth.: ORS Ch. 468 & 468A

Division 30

Emission limitations

340-30-007

Emission limitations established herein and stated in terms of pounds per 1,000 square feet of production shall be computed on an hourly basis using the maximum 8 hour production capacity of the plant.

Stat. Auth.: ORS Ch. 468 & 468A

Definitions

340-030-0010 As used in this Division:

(1) "Air contaminant" means a dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter, or any combination thereof.

(2) "Air Conveying System" means an air moving device, such as a fan or blower, associated ductwork, and a cyclone or other collection device, the purpose of which is to move material from one point to another by entrainment in a moving airstream.

(3) "Average Operating Opacity" means the opacity of emissions determined using EPA Method 9 on any three days within a 12-month period which are separated from each other by at least 30 days ; a violation of the average operating opacity limitation is judged to have occurred if the opacity of emissions on each of the three days is greater than the specified average operating opacity limitation.

(4) "Charcoal Producing Plant" means an industrial operation which uses the destructive distillation of wood to obtain the fixed carbon in the wood.

(5) "Collection Efficiency" means the overall performance of the air cleaning device in terms of ratio of weight of material collected to total weight of input to the collector.

(6) "Department" means Department of Environmental Quality.

(7) "Design Criteria" means the numerical as well as verbal description of the basis of design, including but not necessarily limited to design flow rates, temperatures, humidities, contaminant descriptions in terms of types and chemical species, mass emission rates, concentrations, and specification of desired results in terms of final emission rates and concentrations, and scopes of vendor supplies and owner-supplied equipment and utilities, and a description of any operational controls.

(8) "Domestic Waste" means combustible household waste, other than wet garbage, such as paper, cardboard, leaves, yard clippings, wood, or similar materials generated in a dwelling housing four (4) families or less, or on the real property on which the dwelling is situated.

(9) "Dry Standard Cubic Foot" means the amount of gas that would occupy a volume of one cubic foot, if the gas were free of uncombined water at standard conditions.
(10) "Emission" means a release into the outdoor atmosphere of air contaminants.
(11) "EPA Method 9" means the method for Visual Determination of the Opacity of Emissions From Stationary Sources described as Method 9 (average of 24 consecutive observations) in the Department Source Sampling Manual (January, 1992).
(12) "Facility" means an identifiable piece of process equipment. A stationary source may be comprised of one or more pollutant-emitting facilities.
(13) "Fuel Burning Equipment" means a device which burns a solid, liquid, or gaseous fuel, the principal purpose of which is to produce heat, except marine installations and internal combustion engines that are not stationary gas turbines.
(14) "Fuel Moisture Content By Weight Greater Than 20 Percent" means bark, hogged wood waste, or other wood with an average moisture content of more than 20 percent by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
(15) "Fuel Moisture Content By Weight Less Than 20 Percent" means pulverized ply trim, sanderdust, or other wood with an average moisture content of 20 percent or less by weight on a wet basis as used for fuel in the normal operation of a wood-fired veneer dryer as measured by ASTM D4442-84 during compliance source testing.
(16) "Fugitive Emissions" means dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof not easily given to measurement, collection and treatment by conventional pollution control methods.
(17) "General Arrangement", in the context of the compliance schedule requirements in section 340-032-0045(2), means drawings or reproductions which show as a minimum the size and location of the control equipment on a source plot plan, the location of equipment served by the emission-control system, and the location, diameter, and elevation above grade of the ultimate point of discharging contaminants to the atmosphere.
(18) "Grants Pass Urban Growth Area" and "Grants Pass Area" means the area within the Grants Pass Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of Grants Pass as of 1 February 1988.
(19) "Hardboard" means a flat panel made from wood that has been reduced to basic wood fibers and bonded by adhesive properties under pressure.
(20) "La Grande Urban Growth Area" means the area within the La Grande Urban Growth Boundary as shown on the Plan and Zoning Maps for the City of La Grande as of 1 October 1991.
(21) "Lakeview Urban Growth Area" means the area within the Lakeview Urban Growth Boundary as shown on the Plan and Zoning Maps for the Town of Lakeview as of 25 October 1993.
(22) "Liquefied petroleum gas" has the meaning given by the American Society for Testing and Materials in ASTM D1835-82, "Standard Specification for Liquid Petroleum Gases."
(23)~~(22)~~ "Lowest Achievable Emission Rate" or "LAER" is defined in OAR 340-028-0110.

(24)~~(23)~~ "Maximum Opacity" means the opacity as determined by EPA Method 9 (average of 24 consecutive observations).

(25)~~(24)~~ "Medford-Ashland Air Quality Maintenance Area" and "Medford-Ashland AQMA" is defined as beginning at a point approximately one mile NE of the town of Eagle Point, Jackson County, Oregon, at the NE corner of Section 36, T35S, R1W; thence south along the Willamette Meridian to the SE corner of Section 25, T37S, R1W; thence SE along a line to the SE corner of Section 9, T39S, R2E; thence SSE to the corner of Section 22, T39S, R2E; thence south to the SE corner of Section 27, T39S, R2E; thence SW to the SE corner of Section 33, T39S, R2E; thence NW to the NW corner of Section 36, T39S, R1E; thence west to the SW corner of Section 26, T39S, T1E; thence west to the SW corner of Section 12, T39S, R1W; thence NW along a line to the SW corner of Section 20, T38S, R1W; thence west to the SW corner of Section 24, T38S, R2W; thence NW along a line to the SW corner of Section 4, T38S, R2W; thence west to the SW corner of Section 5, T38S, R2W; thence NW along a line to the SW corner of Section 31, T37S, R2W; thence north along a line to the Rogue River, thence north and east along the Rogue River to the north boundary of Section 32, T35S, R1W; thence east along a line to the point of beginning.

(26)~~(25)~~ "Modified Source" means any source with a major modification as defined in OAR 340-028-0110.

(27) "Natural gas" means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal component is methane.

(28)~~(26)~~ "New Source" means any source not in existence prior to April 7, 1978 or any source not having an Air Contaminant Discharge Permit as of April 7, 1978.

(29)~~(27)~~ "Odor" means that property of an air contaminant that affects the sense of smell.

(30)~~(28)~~ "Offset" is defined in OAR 340-028-0110.

(31)~~(29)~~ "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with the Department's Source Sampling Manual (January, 1992). Unless otherwise specified by rule, opacity shall be measured in accordance with EPA Method 9. For all standards, the minimum observation period shall be six minutes, though longer periods may be required by a specific rule or permit condition. Aggregate times (e.g. 3 minutes in any one hour) consist of the total duration of all readings during the observation period that exceed the opacity percentage in the standard, whether or not the readings are consecutive. Alternatives to EPA Method 9, such as a continuous opacity monitoring system (COMS), alternate Method 1 (LIDAR), or EPA Methods 22, or 203, may be used if approved in advance by the Department, in accordance with the Source Sampling Manual.

(32)~~(30)~~ "Open Burning" means burning conducted in such a manner that combustion air and combustion products may not be effectively controlled including, but not limited to, burning conducted in open outdoor fires, burn barrels, and backyard incinerators.

(33)~~(31)~~ "Particleboard" means matformed flat panels consisting of wood particles bonded together with synthetic resin or other suitable binders.

(34)~~(32)~~ "Particulate Matter" means all solid or liquid material, other than uncombined water, emitted to the ambient air as measured in accordance with the Department Source Sampling Manual. Particulate matter emission determinations shall consist of the average of three separate consecutive runs. For sources tested using DEQ Method 5 or DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg. Wood waste boilers and charcoal producing plants shall be tested with DEQ Method 5; veneer dryers, wood particle dryers, fiber dryers and press/cooling vents shall be tested with DEQ Method 7; and air conveying systems shall be tested with DEQ Method 8 (January, 1992).

(35)~~(33)~~ "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the federal government and any agencies thereof.

(36)~~(34)~~ "Press/Cooling Vent" means any opening through which particulate and gaseous emissions from plywood, particleboard, or hardboard manufacturing are exhausted, either by natural draft or powered fan, from the building housing the process. Such openings are generally located immediately above the board press, board unloader, or board cooling area.

(37)~~(35)~~ "Rebuilt Boiler" means a physical change after April 29, 1988, to a wood-waste boiler or its air-contaminant emission control system which is not considered a "modified source" and for which the fixed, depreciable capital cost of added or replacement components equals or exceeds fifty percent of the fixed depreciable cost of a new component which has the same productive capacity.

(38)~~(36)~~ "Source" means any structure, building, facility, equipment, installation or operation, or combination thereof, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person, or by persons under common control.

(39)~~(37)~~ "Standard Conditions" means a temperature of 60 degrees Fahrenheit (15.6 degrees Celsius) and a pressure of 14.7 pounds per square inch absolute (1.03 Kilograms per square centimeter).

(40)~~(38)~~ "Veneer" means a single flat panel of wood not exceeding 1/4 inch in thickness formed by slicing or peeling from a log.

(41)~~(39)~~ "Veneer Dryer" means equipment in which veneer is dried.

(42)~~(40)~~ "Wood-fired Veneer Dryer" means a veneer dryer which is directly heated by the products of combustion of wood fuel in addition to or exclusive of steam or natural gas or propane combustion.

(43)~~(41)~~ "Wigwam Fired Burner" means a burner which consists of a single combustion chamber, has the general features of a truncated cone, and is used for the incineration of wastes.

(44)~~(42)~~ "Wood Waste Boiler" means equipment which uses indirect heat transfer from the products of combustion of wood waste to provide heat or power.

[**NOTE:** This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-020-0047.]

[**Publications:** The Publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Visible Air Contaminant Standards

340-30-500 No person owning, operating, or maintaining non-fuel burning equipment sources of emissions shall discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than thirty (30) seconds in any one hour which is equal to or greater than 20 percent opacity.

Stat. Auth.: ORS Ch. 468 & 468A

Particulate Matter Weight Standards

340-30-510

(1) Except for equipment burning natural gas and liquefied petroleum gas, the ~~The~~ maximum allowable emission of particulate matter, from any fuel burning equipment shall:

(a) Be a function of maximum heat input and ~~shall~~ be determined from Figure 1, except that from existing fuel burning equipment utilizing wood residue, it shall be 0.2 grain, and from new fuel burning equipment utilizing wood residue, it shall be 0.1 grain per ~~for each~~ standard cubic foot of exhaust gas, ~~calculated~~ corrected to 12 percent carbon dioxide;

(b) Not exceed Smoke Spot #2 for distillate fuel and #4 for residual fuel, measured by ASTM D2156-65, "Standard Method for Test for Smoke Density of the Flue Gases from Distillate Fuels".

(2) The maximum allowable emission of particulate matter from any refuse burning equipment shall be a function of the maximum heat input from the refuse only and shall be determined from Figure 2.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule is available from the office of the Secretary of State or Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Sulfur Dioxide Emission Standard

340-30-530 For any air contaminant source that may emit sulfur dioxide, no ~~No~~ person shall cause or permit emission of sulfur dioxide in excess of 1,000 ppm from any air contamination source as measured in accordance with the Department's Source Test Manual, except those persons burning natural gas, liquefied petroleum gas, or fuel conforming to provisions of rules relating to

the sulfur content of fuels. This rule applies ~~is applicable~~ to sources installed, constructed, or modified after October 1, 1970.

[**Publications:** The publication(s) referred to or incorporated by reference in this rule are available from the office of the Department of Environmental Quality.]

Stat. Auth.: ORS Ch. 468 & 468A

Figure 1
Particulate Emissions Standards For Fuel Burning Equipment

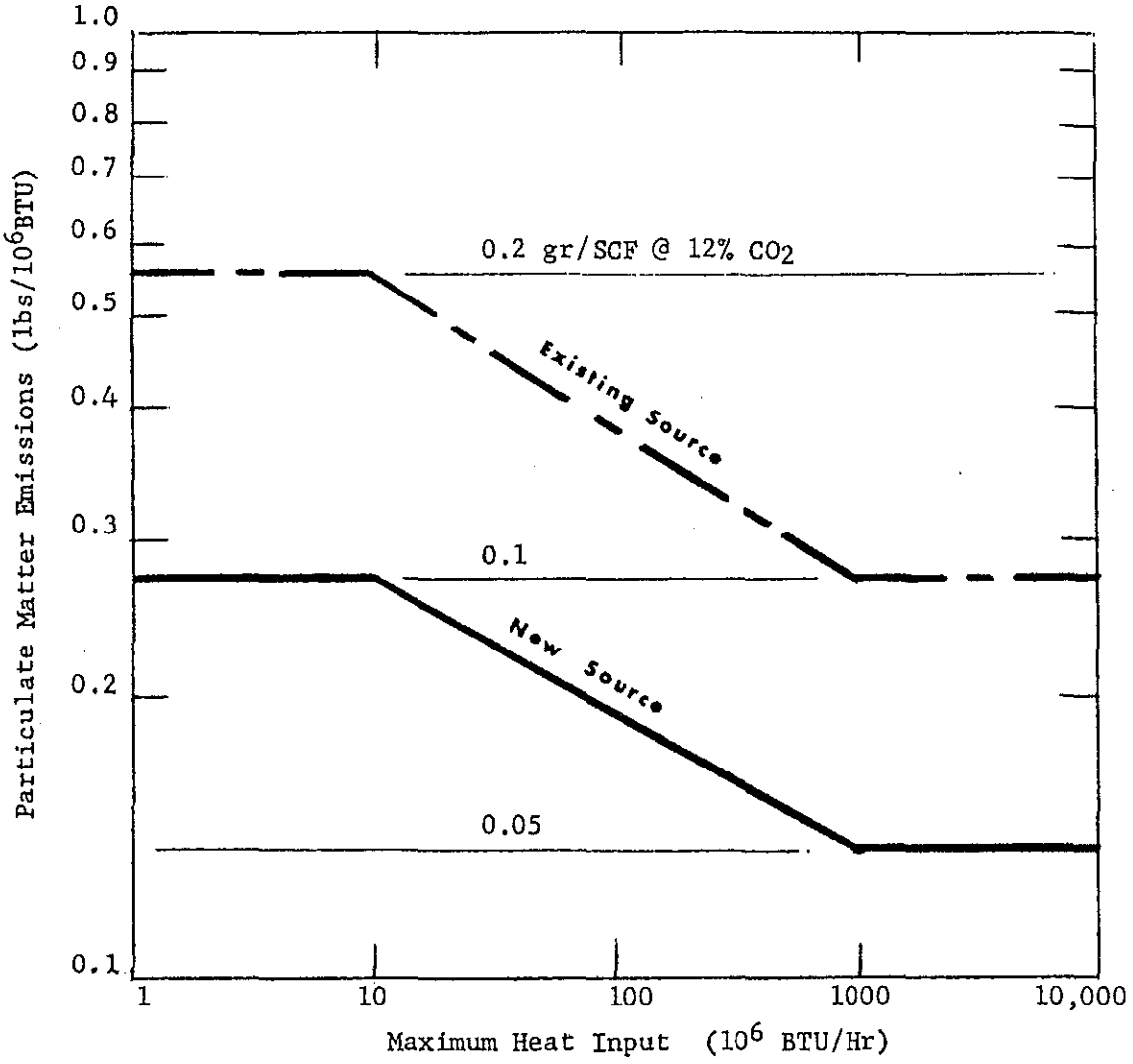
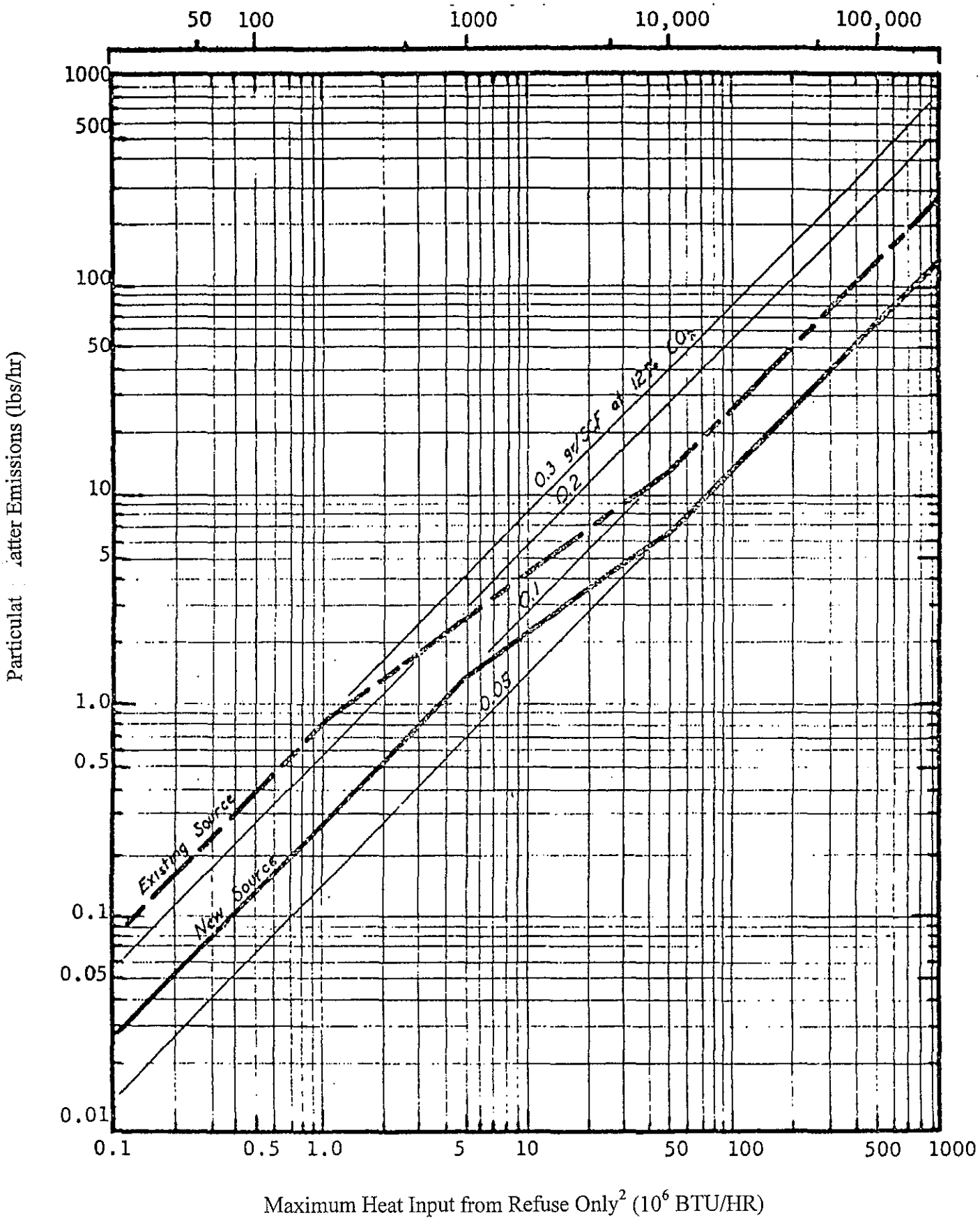


Figure 2
Particulate Emissions Standards For Refuse Burning Equipment



[1] For refuse having heat content of 5000 BTU/lb as fired.
[2] Excluding any auxiliary heat.

NOTICE OF PROPOSED RULEMAKING HEARING

(Rulemaking Statements and Statement of Fiscal Impact **must** accompany this form.)

Department of Environmental Quality AQ

OAR Chapter 340

DATE:	TIME:	LOCATION:
November 21, 1995	11:00 AM	Room 10A, 811 SW 6th Ave, Portland, OR 97204

HEARINGS OFFICER(s): Benjamin M. Allen

STATUTORY AUTHORITY: ORS 468.020, 468A.025

ADOPT: OAR 340-21-007, 30-007

AMEND: OAR 340-21-005, 015-050, 235
340-25-320, 325; 340-30-010, 500, 510, 530

REPEAL:

Amendments or additions to other sections of Division 21, 25, and 30 listed above (or related administrative rules) may be made in response to information or public comment received by the Department.

☒ This hearing notice is the initial notice given for this rulemaking action.

☐ This hearing was requested by interested persons after a previous rulemaking notice.

☒ Auxiliary aids for persons with disabilities are available upon advance request.

SUMMARY:

Division 21

1) Clarify applicability of the process weight rule. Clarify that process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) Conform the contingent hardboard emissions limit to the language and approach of other state hardboard rules by including press vents, and excluding truck dump and storage areas and fuel and refuse burning equipment.

Board Materials Storage (340-25-320, 325)
Change the approval process for non-enclosure particulate controls from Notice of Construction (OAR 340-28-800 to 820) to a process specified by the new rule.

Division 30

- Emission Limitations

Specify that emission limitations should be calculated by the same method as for similar rules in Division 25.

- Sulfur dioxide Emissions Standard

Exclude fuels with naturally low sulfur dioxide emissions from the sulfur dioxide emissions limit so as to simplify the writing of Title V permits.

- Housekeeping

1) Delete obsolete Ringlemann Chart visible emission limits, and replace them with EPA Method 9.
2) Define source test limits for some rules.
3) Remove incorrect footnotes from 30-600 to 620.

LAST DATE FOR COMMENT: November 22, 1995

DATE PROPOSED TO BE EFFECTIVE: Upon adoption by the Environmental Quality Commission and subsequent filing with the Secretary of State.

AGENCY RULES COORDINATOR: Susan Greco, (503) 229-6775

AGENCY CONTACT FOR THIS PROPOSAL: Benjamin M. Allen

ADDRESS: Air Quality Division
811 S. W. 6th Avenue
Portland, Oregon 97204

TELEPHONE: (503) 229-6828
or Toll Free 1-800-452-4011

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments will also be considered if received by the date indicated above.

Benjamin M. Allen — October 13, 1995

Signature of Author of rulemaking package — Date

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Air Quality Industrial rules (Divisions 21, 25, and 30)

Date Issued: October 13, 1995
Public Hearings: November 21, 1995
Comments Due: November 22, 1995
Enter the date the notice is to be issued, the date(s) of the public hearings, and the date that comments are due.

WHO IS AFFECTED:

Sources subject to the Division 21 process weight and grain loading rules.
Hardboard and particleboard manufacturers
Users of natural gas and other fuels with naturally low sulfur dioxide emissions.

WHAT IS PROPOSED:

During the process of developing and implementing the Title V permit program, Air Quality staff discovered a number of rules which were confusing, problematic, or simply obsolete. Most of the following proposed revisions derive from those discoveries.

Division 21

1) Clarify applicability of the process weight rule. Clarify that process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) Conform the contingent hardboard emissions limit to the language and approach of other state hardboard rules by including press vents, and excluding truck dump and storage areas and fuel and refuse burning equipment.

Board Materials Storage (340-25-320, 325)

Change the approval process for non-enclosure particulate controls from Notice of Construction (OAR 340-28-800 to 820) to a process specified by the new rule.

Division 30

- Emission Limitations

Specify that emission limitations should be calculated by the same method as for similar rules in Division 25.

- Sulfur dioxide Emissions Standard

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.

11/1/96

Exclude fuels with naturally low sulfur dioxide emissions from the sulfur dioxide emissions limit so as to simplify the writing of Title V permits.

- Housekeeping

1) Delete obsolete Ringlemann Chart visible emission limits, and replace them with EPA Method 9.

2) Define source test limits for some rules.

3) Remove incorrect footnotes from 30-600 to 620.

HOW TO COMMENT:

Public Hearings to provide information and receive public comment are scheduled as follows:
Room 10A, 811 SW 6th Ave, Portland, OR 97204
11:00 AM
November 21, 1995

Written comments must be received by 5:00 p.m. on November 22, 1995 at the following address:

Department of Environmental Quality
Air Quality Division
811 S. W. 6th Avenue
Portland, Oregon, 97204

A copy of the Proposed Rule may be reviewed at the above address. A copy may be obtained from the Department by calling the Air Quality Division at 229-6828 or calling Oregon toll free 1-800-452-4011.

WHAT IS THE NEXT STEP:

The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the date the Commission will consider the matter by writing to the Department at the above address.

BMA:j
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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial rules (Divisions 21, 25, and 30)

Rulemaking Statements

Pursuant to ORS 183.335(7), this statement provides information about the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

   ORS 468.020, 468A.025

2. Need for the Rule

Division 21

1) The extent of applicability of the process weight rule (OAR 340-21-035, 045) is unclear. In addition, it is not clear that the process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) The "contingent" hardboard rule (OAR 340-21-235) applies only if a PM10 non-attainment area does not reach attainment by a designated date. When the emissions limit in the current rule was adopted, the level of emissions from hardboard press vents was uncertain, and the limit was written to exclude those emissions.

Board **Materials Storage (340-25-320, 325)**
All sources wishing to use a control strategy other than enclosure for their raw material storage and truck dump areas for the board products industry must use the Notice of Construction (NC) process in 28-800 to 820. However, the NC rules expressly exempt Title V sources from use of the process.

Division 30

- **Emission Limitations**

Division 30 rules do not specify what time period should be used in checking compliance with limits stated in pounds per 1000 square feet of production.

- Sulfur dioxide Emissions Standard

The sulfur dioxide emissions standard (OAR 340-30-530) excludes fuels that conform to sulfur content standards, but does not exclude fuels that have naturally low sulfur dioxide emissions,

such as natural gas. Title V permits for sources burning such fuels are therefore required to include a condition based on the standard.

- **Housekeeping**

1) Ringlemann Chart limits are obsolete. EPA Method 9 has replaced it as a compliance measurement method for visible emissions.

2) EPA comments on the first Title V permits required that source test methods used to define pollutant limits be defined. Rather than define the methods in each permit condition, this revision would specify test methods for 'opacity' and 'particulate matter' in the definitions of those terms. Defining the test methods will also clarify requirements for sources.

3) A footnote to 30-600 to 620 indicates that the rules are part of the State Implementation Plan. They are not.

Virtually all the above rules except those in Division 30 are a part of the State Implementation Plan (SIP).

3. Principal Documents Relied Upon in this Rulemaking

Not applicable.

These documents are available for review at DEQ Headquarters, Air Quality Division, 811 S.W. 6th Avenue, Portland, Oregon, 97204.

4. Advisory Committee Involvement

The new Industrial Sources Advisory Committee will first meet in October, 1995. The Committee will be informed about the revisions proposed above. However, the Department expects the Advisory Committee to concentrate on rules which require discussion of policy.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial rules (Divisions 21, 25, and 30)

Fiscal and Economic Impact Statement

Introduction

The Department does not expect any fiscal impact from these revisions. The revisions are intended to make the current rules clearer. Most of the rules will not lead to any changes in interpretation of the current rules. Unless otherwise noted below, no impact is expected.

General Public

No impact expected.

Small Business

Division 21

2) If the contingent hardboard emissions limit is applied, hardboard plants in PM_{10} nonattainment areas would have to include emissions from press vents when monitoring compliance. This might lead to increased source test costs, which could be up to $10,000. These sources already test emissions from press vents under the standard (non-contingency rules). The contingent limit is applied if PM_{10} nonattainment areas fail to meet the national ambient air quality standard for PM_{10} by the deadline set in the Clean Air Act.

Division 30

- Sulfur dioxide Emissions Standard

Affected sources would not need to monitor compliance with conditions based on this standard, which could save a small amount due to reduced recordkeeping.

Large Business

Division 21

2) If the contingent hardboard emissions limit is applied, hardboard plants in PM_{10}

nonattainment areas would have to include emissions from press vents when monitoring compliance. This might lead to increased source test costs, which could be up to $10,000. These sources already test emissions from press vents under the standard (non-contingency rules). The contingent limit is applied if PM_{10} nonattainment areas fail to meet the national ambient air quality standard for PM_{10} by the deadline set in the Clean Air Act.

Division 30

- Sulfur dioxide Emissions Standard

Affected sources would not need to monitor compliance with conditions based on this standard, which could save a small amount due to reduced recordkeeping.

Local Governments

Division 21

2) If the contingent hardboard emissions limit is applied, hardboard plants in PM_{10} nonattainment areas would have to include emissions from press vents when monitoring compliance. This might lead to increased source test costs, which could be up to $10,000. These sources already test emissions from press vents under the standard (non-contingency rules). The contingent limit is applied if PM_{10} nonattainment areas fail to meet the national ambient air quality standard for PM_{10} by the deadline set in the Clean Air Act.

Division 30

- Sulfur dioxide Emissions Standard

Affected sources would not need to monitor compliance with conditions based on this standard, which could save a small amount due to reduced recordkeeping.

State Agencies

Division 30

- Sulfur dioxide Emissions Standard

Department permit writers would not need to include conditions based on this standard in Title V permits for sources that burn specified fuels with naturally very low sulfur emissions. This would save a small amount of staff time, as would the reduced need to confirm compliance with the standard.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial rules (Divisions 21, 25, and 30)

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

Division 21

1) Clarify applicability of the process weight rule. Clarify that process weight rule and grain loading limits do not apply to fugitive emission sources that cannot be easily measured.

2) Modify the hardboard emissions limit to include press vents and exclude truck dump and storage areas, and fuel and refuse burning equipment.

Board Materials Storage

Change approval process for non-enclosure particulate controls from Notice of Construction (OAR 340-28-800 to 820) to process specified by rule.

Division 30

- Emission Limitations

Specify that emission limitations should be calculated by the same method as in Division 25.

- Sulfur dioxide Emissions Standard

Exclude fuels with naturally low sulfur dioxide emissions from the sulfur dioxide emissions limit so as not to require Title V conditions for such fuels.

- Housekeeping

Delete obsolete Ringlemann Chart visible emission limits, and replace them with EPA Method 9.

Define source test limits for some standards.

Remove incorrect footnotes from 30-600 to 620.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

   Yes X No

   a. If yes, identify existing program/rule/activity:

Air Contaminant Discharge Permit program
Oregon Title V Operating Permit Program

   b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

   Yes X No___ (if no, explain):

   c. If no, apply the following criteria to the proposed rules.

   In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Benjamin M. Alla
Division Representative

Intergovernmental Coord.

10/5/95
Date

Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

The following questions should be clearly answered, so that a decision regarding the stringency of a proposed rulemaking action can be supported and defended:

Note: If a federal rule is relaxed, the same questions should be asked in arriving at a determination of whether to continue the existing more stringent state rule.

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

None applicable, except:
Division 30
- Housekeeping

2) EPA's comments on the first Title V permits required that the Department specify source test methods used to define pollutant limits.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Not applicable.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

Not applicable.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Yes. All of the rule changes are intended to clarify the meaning or applicability of current rules. More easily understood rules are more cost effective.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Division 21

1) The applicability of the process weight rule would be defined better for particular emissions units, but the proposed language also retains the flexibility of the current language.

2) The proposed rule language would reduce uncertainty by conforming the language and general approach of this rule to other Oregon Administrative Rules affecting hardboard plants.

Board Materials Storage (340-25-320, 325)

Not applicable.

Division 30

- Emission Limitations

Not applicable.

- Sulfur dioxide Emissions Standard

Not applicable

- Housekeeping

1) Not applicable.

2) Yes. The rules would allow for circumstances where a specified method cannot be used by allowing the Department to approve alternate test methods.

3) Not applicable.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Division 21

1) The rules would clarify existing requirements.

2) Normally, all hardboard plants must include press vent emissions when measuring total emissions. This revision would ensure that hardboard plants subject to the contingent hardboard emissions limit would continue to include press vent emissions when measuring total emissions.

Board Materials Storage
The revision would ensure that all sources follow the same procedure when applying for approval of alternate controls.

Division 30

- Emission limitations

The revision would ensure that similar limits in Divisions 25 and 30 would be calculated in the same way.

- Sulfur dioxide Emissions Standard

This revision would exempt sources burning certain fuels from complying with the rule limit. Certain fuels are already exempted, based on their low sulfur content. This revision would exempt certain additional fuels with naturally very low sulfur emissions.

- Housekeeping

These rules would clarify existing requirements, and replace obsolete or incorrect requirements.

8. *Would others face increased costs unless a more stringent rule is adopted?*

No.

9. *Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?*

No.

10. *Is demonstrated technology available to comply with the proposed requirement?*

Yes, for all proposed revisions.

11. *Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?*

Yes. All of the rule changes are intended to clarify the meaning or applicability of current rules. More easily understood rules are more cost effective.

State of Oregon

Department of Environmental Quality Memorandum†

Date: November 27, 1995

To: Environmental Quality Commission

From: Benjamin M. Allen

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: November 21, 1995 , beginning at 11:00 AM
Hearing Location: Room 10A, 811 SW 6th Ave, Portland, OR 97204

Title of Proposal: Air Quality Industrial Rules (Divisions 21, 25, and 30)

The rulemaking hearing on the above titled proposal was convened at 11:00 AM. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed.

Two people attended; both signed up to give testimony.

Prior to receiving testimony, Benjamin Allen briefly explained the specific rulemaking proposal, the reason for the proposal, and responded to questions from the audience.

People were then called to testify in the order of receipt of witness registration forms and presented testimony as noted below.

Kathryn VanNatta
Representing the Northwest Pulp and Paper Association. Ms. VanNatta did not submit written comment at the time of the hearing, but did submit written comment before the end of the comment period.

NWPPA agreed with comments submitted by Weyerhaeuser Co., Smurfit, and any comments that might be submitted by Associated Oregon Industries.

NWPPA did not support the proposed definition of "untreated wood," and the reference to "untreated wood" in the proposed definition of "hogged fuel." The DEQ should re-think the definitions, and withdraw them until acceptable language is developed. The definitions could be returned to the Air Quality Industrial Source Advisory Committee

NWPPA asked for clarification on the proposed Oregon Administrative Rule 340-030-0007, a method for calculating emission limits. NWPPA asked that the rule be withdrawn until acceptable language is developed. The proposed rule requires that emissions in pounds per 1,000 square feet of production be calculated on an hourly basis. Due to variability in plant production and shift length, NWPPA suggests alternative methods would be more representative of emissions.

Rod Schmall
Representing Smurfit Newsprint Corporation. Mr. Schmall did not submit written comment at the time of the hearing, but did submit written comment before the end of the comment period.

Mr. Schmall did not support the proposed definition of "untreated wood," and the reference to "untreated wood" in the proposed definition of "hogged fuel." Some innovative programs utilize materials which might be considered "treated" under the proposed definition. Smurfit, for example has gone from traditional waste wood to a large proportion of non-traditional wood, including non-recyclable paper products, tire chips, railroad ties, demolition wood, old pallets, yard debris, and miscellaneous industrial wood waste. There is a shortage of economically viable wood waste. Railroad ties are an example of treated wood which Smurfit has made plans to burn, and which otherwise might end up in landfills. Use of the ties as fuels solves problems for Smurfit and the railroad companies.

Also, Smurfit burns some demolition material which may contain paint. Smurfit monitors lead levels in the resultant ash, and has refused shipments of material which are likely to contain excessive amounts of lead. Smurfit operates particleboard plants which use phenol-formaldehyde resins as a binder. The trim waste from the board is appropriate for use as a hogged fuel. Smurfit does not accept wood which obviously contains preservatives.

In sum, programs Smurfit relies on and is proud of could be threatened by a literal interpretation of the proposed definitions of "hogged fuel" and "untreated wood." It could lead to a Smurfit plant being considered a municipal waste combustor.

On interpretation of "capacity" in the proposed 340-030-0007, Mr. Schmall recommended that it be interpreted as "design" or "demonstrated" capacity.

There was no further testimony and the hearing was closed at 12:00.

List of Written Comments Received

on

Air Quality Industrial Rules (Divisions 21, 25, and 30)

1. Kathryn VanNatta, Northwest Pulp and Paper Association
2. Rod Schmall, Smurfit Newsprint Corporation
3. James Whitty, Associated Oregon Industries (2 comments)
4. Kevin Godbout, Weyerhaeuser Company
5. Michael Campbell, Stoel Rives
6. Scott Freeburn, Willamette Industries, Inc.
7. Robert Palzer
   Lisa Brenner
   Sharon Genasci
   George Feldman
   Gary Hancock
8. Donald Haagensen & Jim Kincaid, Cable, Huston, Benedict, & Haagensen
9. Bart Barlow, Boise Cascade
10. Lorinda Ramos, Environmental Protection Agency

Omni Environmental Services submitted written comments which reached the Department after the close of the comment period, and which are not included below.

Department's Evaluation of Public Comment

on

Air Quality Industrial Rules (Divisions 21, 25, and 30)

Division 21

Fugitive emissions - 340-021-0015, 0050

a. Comment: (3)
The Department should reconsider its application of the opacity standard to fugitive emissions. This could cause difficulty, especially for rural, isolated sources in Eastern Oregon. Even if the Department is intending to clarify current practice, such practices may not be as prevalent in applications as the Department may think.

Response:
Opacity and nuisance are the rules that are used to control fugitives effectively in all areas of the state. Rural sources in Eastern Oregon must comply with the opacity and nuisance rules just as other sources do.

b. Comment: (7)
The Department should not exclude fugitive emissions from the grain loading standard. If these are to be removed from the grain loading standard, they must be accounted for elsewhere, which is not being done in these rule amendments. Fugitives are sometimes a major source of emissions, and should not be excluded merely because they are difficult to measure.

Response:
Fugitive emissions are regulated by the opacity and nuisance rules. Most enforcement action taken by the Department on fugitive emission sources has been because of opacity or nuisance complaints. In order to show compliance with grain loading, a source test must be done, yet it is virtually impossible to test fugitive emissions (thus the definition). The Department feels that fugitive emissions are sufficiently controlled using opacity and nuisance rules.

c. Comment: (7)
Fugitive emissions have been removed from 340-020-0050, but are not properly accounted for elsewhere in the package. Fugitives can be a significant health hazard, and can include hazardous air pollutants.

Response:
This proposal would move the definition of fugitive emissions, and clarify the applicability of current rules. It would not cause a substantive change in fugitive regulation. The Department does intend to address the issue of nuisance fugitives in the future, and will solicit further comment at that time.

d. Comment: (8)
Historically, the Department has applied the 340-021-0015 to process equipment, and

has addressed fugitive particulate emissions through 340-021-0050 to 0060. It is not clear that 0015 was ever intended to apply to more than "smoke" type emissions. If 0015 is applied to fugitive emissions, it contradicts 340-021-0050 to 0060 and renders them meaningless.
The commenter suggested three alternatives to the proposed rules:
1) Make clear that the limitations under 0015 are not applicable to fugitive emissions.
2) Provide that 0015 is applicable to fugitive emissions outside Special Control Areas only when the need for application, and the practicability of control measures have been demonstrated.
3) Establish the source property boundary as the point of compliance for sources of fugitive emissions located outside Special Control Areas.

Response:
The Department disagrees. Historical application of 21-015 has never precluded fugitives.

Process weight - 340-021-0035 to 0045

a. Comment: (10)
The broad applicability of particulate emission standards for process equipment has been replaced by specific itemization of particular equipment. This change limits "process equipment" to a narrow set of devices, and may limit the Department's pollution control efforts. The Department should consider a mechanism for adding sources to the list.

Response:
See next.

b. Comment: (5)
The exemptions for fuel burning and refuse burning equipment should be retained.

Response:
Many sources were confused about the prior language, which excluded "fuel burning and refuse burning equipment in which combustion gases do not mix directly with process materials." The proposed language lists equipment in which gases *do* mix directly with process materials, and maintains a catch-all category for all equipment for which there is no other specific standard.

c. Comment: (5)
The Department should take this opportunity to delete 340-021-0045(2) entirely. The current language could be read to require the most stringent interpretation possible, no matter how unreasonable. The Department should be free to choose the interpretation it believes is correct.

Response: In some cases, the process weight rule is more stringent than other Department rules (grain loading). Therefore, it is an important tool to minimize emissions.

d. Comment: (7)
The Department is making a good faith effort for clarification. More work is needed to clarify how process weight is determined in cyclical processes compared to continuous and batch processes.

Response:
The Department has subdivided paragraph (1) of the rule to make a clearer distinction between continuous and cyclical or batch processes.

Contingent hardboard emissions limit - 340-021-0235

a. Comment: (4)
Department rules (340-028-1030) allow sources to meet contingency requirements by applying a RACT bubble for particulate matter to a multiple site facility or to a single plant. Thus, a hardboard plant could emit particulate matter in excess of the .55 pound per thousand square foot limit if RACT bubbles are established as part of a contingency plan.

Response:
If the source applies for a bubble and meets the requirements specified in OAR 340-028-1030, it can exceed specific limits in rules which apply to equipment included in the bubble.

b. Comment: (7)
The commenter does not support more than doubling the allowable emissions from hardboard plants. While the increase reflects the inclusion of both vent and non-vent emissions, the original rule also included emissions from both sources.

Response:
As the commenter acknowledges, the increase reflects the inclusion of both vent and non-vent emissions. Contrary to the commenter's assertion, the previous rule limit applied only to non-vent emissions. The new limit, while higher, applies to non-vent *and* vent emissions.

c. Comment: (7)
Emissions from truck dump and storage areas and fuel and refuse burning equipment should not be excluded unless those emissions are addressed elsewhere. It is not good public policy to address the issues in separate rulemakings.

Response:
Emissions from truck dump and storage areas are addressed by nuisance and fugitive emission rules. Emissions from fuel and refuse burning equipment are addressed by equipment specific limits or by grain loading and process weight rules.

d. Comment: (10)
The Department should review the hardboard emissions limit in the future, in light of actual emissions from hardboard plants, or technological improvements which make emission reductions feasible.

Response:
If air quality or other reasons require reduced emissions in the future, the Department may review the contingent hardboard emissions limit.

Board Materials Storage

Board materials storage - 340-025-320, 325

a. Comment: (4,9)
The Department proposes that sources requesting approval of an alternate control procedure receive written authorization. Does this requirement apply to previously approved control plans (e.g. submitted as part of a Mutual Agreement and Order)?

Response:
No. Previously approved control plans remain approved, though the source should be prepared to submit documentation of how the plan was approved.

b. Comment: (4)
The Department may have mistakenly left in a reference to the Notice of Construction process in OAR 340-025-320(3)(d), dealing with hardboard tempering ovens.

Response:
The Department has replaced the reference with a requirement for written approval from the Department.

Division 30

Emission limitations - 340-030-0007

a. Comment: (1,2)
It is unclear what the Department means by "capacity." The Department should re-examine use of the term, or use "design" or "demonstrated" capacity.

Response:
The proposed language is "maximum 8 hour production capacity." The Department means the maximum amount that the plant could produce in 8 hours, as determined by the design capacity of the equipment.

b. Comment: (4)
The Department should withdraw the proposed rule to develop acceptable language or calculate limits on an hourly basis using maximum 24 hour production. The 24 hour time period will provide a more reliable and collectable data base from which to determine the limit, and can also be used to establish daily or short term Plant Site Emission Limits.
An 8 hour time period may be difficult to calculate. Data from a short 8 hour time period is not really representative of the actual maximum sustainable or very short term peaking capacity of a facility's production.

Response:
The Department intends that emission limitations in this Division should be calculated in the same manner as those in Division 25, which are based on 8 hour capacity. The Department has experienced no difficulty with the 8 hour period.

c. Comment: (5)
Some facilities may not be able to track emissions on an hourly basis. It may be appropriate to add the phrase ", or longer basis, if appropriate," after the word "basis."

Response:
It is the maximum production capacity of the facility that must be determined on an 8 hour basis. Facilities should not have any difficulty with this requirement.

<u>"Hogged fuel" and "untreated wood" definitions - 340-030-0010(20) & (41)</u>

a. Comment:
Commenters generally (1-6,8,9) did not support the definitions of "untreated wood," and the reference to "untreated wood" in the definition of "hogged fuel." Some commenters suggested that the fiscal impact statement understated the effect of the proposed definitions. A number also suggested that the proposed definitions would result in an increase in the amount of material sent to landfills. A few commenters suggested alternate definitions of "untreated wood."
One commenter (7) strongly supported the proposed definitions out of concern for emission of carcinogens and other hazardous air pollutants, and increased levels of criteria pollutants

Response:

Because of the level of concern about what the Department had seen as a minor revision, the Department is withdrawing the proposed definitions of "hogged fuel" and "untreated wood." The Department will reconsider the definitions, taking all submitted comments on this issue into account.

Sulfur dioxide emission limit - 340-030-0530

a. Comment: (4)
The commenter supported the changes to the process weight rule, and the exclusion of some fuels from sulfur dioxide limits.

Response:
None.

b. Comment: (7)
In 340-030-0530, the Department should not categorically exempt hogged fuel if the definition of hogged fuel is revised or withdrawn from the package.

Response:
The Department agrees, and has changed the proposed language to remove the reference to "hogged fuel."

c. Comment: (7)
For 340-030-0510 and 0530, the Department should not exclude all sources of particulate and sulfur dioxide which burn the specified fuels. While the emissions are likely to be low, large sources might burn enough of the fuels to have significant emissions. The Department should consider a fuel consumption level beyond which such emissions must be measured. This would cover large sources without imposing burdensome requirements on the more typical small sources.

Response:
The limit in question is a concentration limit. Concentration is determined in part by the volume of air flowing through a device. The Department does not believe that it is possible to burn either liquefied propane or natural gas in a high enough amount, and at a low enough air flow, to reach the concentration limit in the rule. For example, the limit in the rule is 1,000 parts per million (ppm). Under stoichiometric conditions (and using AP 42 data), natural gas would produce 0.40 ppm of SO_2. Under more realistic conditions, the concentration would be 0.25 ppm. Use of natural gas could never reach the 1,000 ppm level in the rule. (Detailed calculations are available from the Department).

Other

a. Comment: (9)
The commenter supported the proposed rules regarding process weight determinations and grain loading limits.

Response:
None.

b. Comment: (7)
The commenter supported the proposed definitions of air contaminant and fugitive emissions, the more detailed opacity determination methods, and the particulate matter definition and determination methods in Division 21.

Response:
None.

c. Comment: (5)
In 340-021-0005(7), the reference to the Source Sampling Manual should be deleted. The Manual is not a rule, and changes can be made to it without required rulemaking procedures.

Response:
The Source Sampling Manual is a rule. It was adopted as part of the State Implementation Plan, as was the Continuous Monitoring Manual, in 1992.

d. Comment: (6)
The proposed definition of "air contaminant" in 340-021-0005(1) is too broad. The Department should define "air contaminant" as "gas, odor, and vapor except water vapor; dust, fume, mist, smoke, soot, carbon, or other particulate matter; and pollen or any combination thereof released into the atmosphere."

Response:
The Department has defined "air contaminant" consistently with ORS 468A.005(2). In addition, the Department believes that dust, fume, mist, smoke, soot, carbon, and other particulate matter are air contaminants because they would fit under the definition of particulate matter or gaseous pollutants.

e. Comment: (5)
In 340-021-0005(8), it may be useful to specify a maximum particle size in order not to inadvertently regulate large particulate matter.

Response:
By specifying the test methods for particulate matter, the Department has specified the

size also. The Department regulates total suspended particulate matter, which includes particles up to 30 microns in diameter.

f. Comment: (6)
In the revised definition of "particulate matter," 340-021-0005(8), the Department should refer to the Source Test Manual only, rather than specifying a particular test method. The Department should at least allow itself an escape clause for cases when the specified method of compliance is not well suited to a particular situation.

Response:
See next.

g. Comment: (10)
If "particulate matter" is defined only in terms of EPA and Department test methods, will other indicators of particulate matter (such as deposition) be invalid for the identification of problem areas through citizen complaints? Although established reference methods should be used to determine compliance with particulate matter standards, they should not limit the definition of "particulate matter." A statement allowing the Department flexibility in approving alternate measurement methods should be incorporated.

Response
The Department has added a clause allowing flexibility in choosing a test method.

h. Comment: (5)
340-021-0007(1) would apply general Division 21 standards to processes for which specific emissions standards have been adopted, when the specific standard is more stringent and uses identical units and averaging times.

Response:
The commenter appears to have misread the proposed rule. In fact, the rule *does not* apply general Division 21 standards to processes for which specific emissions standards have been adopted, when the specific standard is more stringent and uses identical units and averaging times.

Detailed Changes to the Original Rulemaking Proposal

for

Air Quality Industrial Rules (Divisions 21, 25, and 30)

The Department made a number of changes to the proposal, based on public and internal comment. The changes to the originally proposed language are shown below.

Definitions

340-21-005 As used in OAR 340-21-005 through 340-21-060:

7) "Opacity" means the degree to which an emission reduces transmission of light and obscures the view of an object in the background as measured in accordance with OAR 340-028-1100 and 1120~~the~~ ~~**Department's Source Sampling Manual** (January, 1992)~~. Unless otherwise specified by rule, opacity shall be measured in accordance with EPA Method 9. For all standards, the minimum observation period shall be six minutes, though longer periods may be required by a specific rule or permit condition. Aggregate times (e.g. 3 minutes in any one hour) consist of the total duration of all readings during the observation period that exceed the opacity percentage in the standard, whether or not the readings are consecutive. Alternatives to EPA Method 9, such as a continuous opacity monitoring system (COMS), alternate Method 1 (LIDAR), or EPA Methods 22, or 203, may be used if approved in advance by the Department, in accordance with the Source Sampling Manual.

(8) "Particulate matter" means all finely divided solid or liquid material, other than uncombined water, emitted to the ambient air as measured by an applicable reference method in accordance with OAR 340-028-1100 and 1120~~the~~ ~~**Department's Source Sampling Manual** (January, 1992)~~. ~~Particulate matter emission determinations shall consist of the average of three separate consecutive runs. For sources tested using DEQ Method 5 or DEQ Method 7, each run shall have a minimum sampling time of one hour, a maximum sampling time of eight hours, and a minimum sampling volume of 31.8 dscf. For sources tested using DEQ Method 8, each run shall have a minimum sampling time of 15 minutes and shall collect a minimum particulate sample of 100 mg.~~ Sources with exhaust gases at or near ambient conditions may~~shall~~ be tested with DEQ Method 5 or DEQ Method 8, as approved by the Department. Direct heat transfer sources shall be tested with DEQ Method 7; indirect heat transfer combustion sources and all other non-fugitive emissions sources not listed above shall be tested with DEQ Method 5 or an equivalent method approved by the Department;

Determination of Process Weight

340-21-045

(1) Process weight is the total weight of all materials introduced into a piece of process equipment. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion air are not.

(a) For a cyclical or batch operation, the process weight per hour is derived by dividing the total process weight by the number of hours in one complete operation, excluding any time during which the equipment is idle.

(b) For a continuous operation, the process weight per hour will be derived by dividing the process weight by a typical period of time, as approved by the Department.

(2) Where the nature of any process or operation or the design of any equipment permits more than one interpretation of this rule, the interpretation that results in the minimum value for allowable emission applies.

Hardboard Manufacturing Operations

340-25-325

(1) Truck Dump and Storage Areas:

(a) Every person operating or intending to operate a hardboard manufacturing plant shall cause all truck dump and storage areas holding or intended to hold raw materials to be enclosed to prevent windblown particle emissions from these areas from being deposited upon property not under the ownership of said person;

(b) The temporary storage of raw materials outside the regularly used areas of the plant site is prohibited unless the person who desires to temporarily store such raw materials first notifies the Department of Environmental Quality and receives written approval:

(A) When authorized by the Department of Environmental Quality, temporary storage areas shall be operated to prevent windblown particulate emissions from being deposited upon property not under the ownership of the person storing the raw materials;

(B) Any temporary storage areas authorized by the Department shall not be operated in excess of six (6) months from the date they are first authorized.

(c) Alternative Means of Control. Any person who desires to control windblown particulate emissions from truck dump and storage areas other than by enclosure shall first apply to the Department for written authorization to utilize alternative controls. The application shall describe in detail the plan proposed to control windblown particulate emissions and indicate on a plot plan the nearest location of property not under ownership of the applicant.

(2) Other Emission Sources:

(a) Hardboard plants which did not exist during the baseline period.

No person shall cause or permit the total emissions rate of particulate matter from a hardboard plant which did not exist during the baseline period to exceed one (1.0) pound per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent.

(b) Hardboard plants which existed during the baseline period.

No person shall cause or permit the total emissions rate of particulate matter from a hardboard plant which existed during the baseline period to exceed the lesser of:

(A) two (2.0) pounds per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent; or

(B) the sum of the baseline emissions rate of the press/cooling vent and the lesser of:

(i) the baseline emissions rate from the hardboard plant excluding the press/cooling vents; or

(ii) one (1.0) pound per 1000 square feet of hardboard produced on a 1/8 inch basis of finished product equivalent.

(c) Excepted from subsections (a) and (b) of this section are truck dump and storage areas, fuel burning equipment, and refuse burning equipment.

(3) Emissions from Hardboard Tempering Ovens:

(a) No person shall operate any hardboard tempering oven unless all gases and vapors emitted from said oven are treated in a fume incinerator capable of raising the temperature of said gases and vapors to at least 1500° F. for 0.3 seconds or longer;

(b) Specific operating temperatures lower than 1500° F. may be approved by the Department upon application, provided that information is supplied to show that operation of said temperatures provides sufficient treatment to prevent odors from being perceived on property not under the ownership of the person operating the hardboard plant;

(c) In no case shall fume incinerators installed pursuant to this section be operated at temperatures less than 1000° F.;

(d) Any person who proposes to control emissions from hardboard tempering ovens by means other than fume incineration shall apply to the Department for written authorization to utilize alternative controls. The application shall ~~be submitted pursuant to OAR 340-28-800 through 340-28-820, and shall~~ describe in detail the plan proposed to control odorous emissions and indicate on a plot plan the location of the nearest property not under ownership of the applicant.

Definitions

340-030-0010 As used in this Division:

~~(20) "Hogged fuel" means a fuel derived from untreated wood or bark materials that have been processed through a size reducing device in preparation for use as a fuel in a furnace or boiler.~~

~~(41) "Untreated wood" means any wood that has not been treated with preservatives, such as paint and creosote, or binders, such as glues and urea formaldehyde resins.~~

The remainder of 340-30-0010 was renumbered accordingly.

Sulfur Dioxide Emission Standard

340-30-530 For any air contaminant source that may emit sulfur dioxide, no person shall cause or permit emission of sulfur dioxide in excess of 1,000 ppm from any air contamination source as measured in accordance with the Department's Source Test Manual, except those persons burning natural gas, liquefied petroleum gas, ~~hogged fuel,~~ or

fuel conforming to provisions of rules relating to the sulfur content of fuels. This rule applies to sources installed, constructed, or modified after October 1, 1970.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

for

Air Quality Industrial Rules (Divisions 21, 25, and 30)

Rule Implementation Plan

Summary of the Proposed Rule

Division 21

1) The applicability of the process weight and grain loading rules has been unclear. These revisions would replace general language in the process weight rule with a list of affected equipment, and clarify that the process weight rule and grain loading limits do not apply to fugitive emission sources which cannot be easily measured.

2) The contingent hardboard emissions limit would apply only to PM_{10} non-attainment areas which do not meet attainment deadlines. Unlike the Department's two other hardboard emission limits, the current contingent emissions limit does not apply to press vent emissions. The revision would conform the contingent hardboard emissions limit to the language and approach of other state hardboard rules by including press vent emissions, and excluding truck dump and storage areas and fuel and refuse burning equipment.

Board Materials Storage (OAR 340-25-320, 325)

The board materials storage rules conflict with the Notice of Construction rules (OAR 340-28-800 to 820) when applied to Title V permit sources. This revision would no longer require a Notice of Construction (OAR 340-28-800 to 820), but would require a detailed application and approval by the Department.

Division 30

- Emission Limitations

The rules do not specify the time period to be used in calculating particulate emission limits given in pounds per thousand square feet. The revision would specify that the limits should be calculated on an hourly basis using the maximum 8 hour production capacity of the plant (the same method used in similar Division 25 rules).

- Sulfur Dioxide Emissions Standard

Certain fuels can not exceed the emission limit in the rule, and it is wasteful of staff time and source funds to write Title V permit conditions and monitoring conditions for them. The revision would exclude natural gas and liquefied petroleum gas (fuels with naturally low sulfur dioxide emissions) from this sulfur dioxide emissions limit, so as to simplify Title V permits.

- Housekeeping

1) Ringlemann Chart visible emission limits are obsolete. This revision would replace them with EPA Method 9.

2) EPA has requested that rules define source test limits. This revision would define source test limits for some rules.

3) OAR 340-30-600 to 620 are incorrectly identified as part of the State Implementation Plan. This revision would remove the incorrect footnotes from OAR 340-30-600 to 620.

Proposed Effective Date of the Rule

Effective when adopted.

Proposal for Notification of Affected Persons

Department and Lane Regional Air Pollution Authority staff would be notified of the revisions. Sources would be informed directly or through trade groups.

Proposed Implementing Actions

Division 21

1) The revised rules would be applied. The Department does not expect any substantive change.

2) The contingent hardboard emissions limit would apply only in non-attainment areas that do not meet specific deadlines. The Department does not expect to need to apply the rule.

Board Materials Storage (OAR 340-25-320, 325)

Hardboard and particleboard facilities would be notified of the change in procedure directly or through trade groups.

Division 30

- Emission Limitations

Emissions would be calculated as described in the rule.

- Sulfur Dioxide Emissions Standard

Title V permits would no longer require compliance and monitoring conditions for this rule.

- Housekeeping
  1) The Department would EPA Method 9 in place of Ringlemann standards.
  2) Facilities would be required to use specified tests.

Changes to rules which are part of the State Implemention Plan (most of the rules in Divisions 21 and 25) would be submitted to EPA for approval.

Proposed Training/Assistance Actions

None.

Advisory Committee

for

Air Quality Industrial Rules (Divisions 21, 25, and 30)

The Industrial Source Advisory Committee was informed of the Department's proposed revisions, and of the opportunity to comment. The Department feels that the proposed revisions do not require policy decisions, and asked Committee members to comment through the public hearing process.

Environmental Quality Commission

☒ Rule Adoption Item
☐ Action Item
☐ Information Item

Agenda Item E
January 11-12 Meeting

Title:

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

Summary:

Hydrogen Sulfide
This rule revision would remove hydrogen sulfide from the Oregon Administrative Rules list of Hazardous Air Pollutants (HAPs) to correct an error in the original rulemaking. The revision would bring the list of HAPs in Oregon's rules back into line with the federal list, as intended by the EQC when the list was first adopted.

Medford Hardboard Emission Limit
This revision would make the language of the Medford-area hardboard emissions rule consistent with that of the statewide rule by excluding fuel burning equipment and truck dump and storage areas. The numerical emission limit in the Medford rule would remain much more stringent than the statewide rule.

Housekeeping
The revisions would make minor corrections and clarifications in a number of air quality industrial rules.

Department Recommendation:

The Department recommends that the EQC adopt the rules regarding hydrogen sulfide, the Medford hardboard emission limit, and housekeeping revisions as presented in Attachment A of the staff report.

Report Author | Division Administrator | Director

Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503) 229-5317 (voice) / (503) 229-6993 (TDD).

State of Oregon

Department of Environmental Quality Memorandum[†]

Date: December 29, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item E , January 11-12, 1996, EQC Meeting

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

Background

On September 15, 1995, the Director authorized the Air Quality Division to proceed to a rulemaking hearing on proposed rules which would: remove hydrogen sulfide from the Oregon Administrative Rules list of Hazardous Air Pollutants, correct an error in the Medford area hardboard emission limit rule, clarify Title V fee rules,[1] and make housekeeping changes to air quality industrial rules.

Pursuant to the authorization, hearing notice was published in the Secretary of State's Bulletin on September 29, 1995. The Hearing Notice and informational materials were mailed to the mailing list of those persons who have asked to be notified of rulemaking actions, and to a mailing list of persons known by the Department to be potentially affected by or interested in the proposed rulemaking action on September 18-22, 1995.

A Public Hearing was held October 20, 1995 with Benjamin M. Allen serving as Presiding Officer. The Presiding Officer's Report (Attachment C) summarizes the oral testimony presented at the hearing.

Written comment was received through October 20, 1995. A list of written comments received is included as Attachment D. A copy of the comments is available.

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[1] Note that the Title V Fee rules portion of the package has been withdrawn. Please see Attachments F and G.

[†] **Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).**

Department staff have evaluated the comments received (Attachment E). Based upon that evaluation, a modification to the initial rulemaking proposal is being recommended by the Department. This modification is summarized below and detailed in Attachment F.

The following sections summarize the issues that this proposed rulemaking action is intended to address, the authority to address the issues, the process for development of the rulemaking proposal including alternatives considered, a summary of the rulemaking proposal presented for public hearing, a summary of the significant public comments and the changes proposed in response to those comments, a summary of how the rule will work and how it is proposed to be implemented, and a recommendation for Commission action.

Issue this Proposed Rulemaking Action is Intended to Address

Hydrogen Sulfide
Correct the mistaken inclusion of hydrogen sulfide in the Oregon Administrative Rules list of Hazardous Air Pollutants (HAPs).

Medford Hardboard Emission Limit
Correct an error in the recently adopted Medford hardboard rule.

Housekeeping
Make housekeeping changes to air quality industrial rules.

Relationship to Federal and Adjacent State Rules

Hydrogen Sulfide
The revision would bring the list of Hazardous Air Pollutants in Oregon's rules back into line with the federal list, as intended by the EQC.

Medford Hardboard Emission Limit
Not applicable.

Housekeeping
Not applicable.

Authority to Address the Issue

ORS 468.020, 468A.025.

Process for Development of the Rulemaking Proposal (including Advisory Committee and alternatives considered)

Hydrogen Sulfide
The incorrect listing of hydrogen sulfide was pointed out by a member of the public, and confirmed by Department staff.
The Department considered maintaining hydrogen sulfide on the Oregon list of Hazardous Air Pollutants (HAPs). There might be legal challenges to such an approach, since hydrogen sulfide was not properly adopted as an Oregon HAP. The Department also considered listing hydrogen sulfide as a HAP in the normal manner, but did not find sufficient reason to do so. EPA does not consider hydrogen sulfide to be a HAP.

Medford Hardboard Emission Limit
The error in the Medford hardboard rule was noted by Department staff immediately upon adoption. Staff determined how to correct the error based on information from the original rulemaking.
The Department considered leaving the rule as it stands (continuing to include fuel burning equipment within the Medford-area hardboard emission limit). This would make the rule much more stringent than was intended.

Housekeeping
These issues were raised by staff or by members of the public during the implementation of the Title V permit program. Staff determined preferred solutions.

Advisory Committee
The above proposed revisions were presented to the Air Quality Industrial Source Advisory Committee. The Committee agreed to participate in the rulemaking through the public comment process.

Title V Fee rules
The Department also took comment on revisions developed by staff to clarify application of the fee rules for the Title V permit program. Based on the comments, those revisions have been withdrawn, and will be re-proposed in a different form.

Summary of Rulemaking Proposal Presented for Public Hearing and Discussion of Significant Issues Involved.

Hydrogen Sulfide
Hydrogen sulfide was mistakenly included in the Oregon Administrative Rules list of Hazardous

Air Pollutants (HAPs). The Environmental Quality Commission had intended to adopt the federal HAP list, which does not include hydrogen sulfide. This revision would remove hydrogen sulfide from the list of HAPs.

Medford Hardboard Emission Limit
The emission limit in the recently adopted Medford hardboard rule was based on the assumption that emissions from fuel burning and refuse burning equipment, and truck dump and storage areas would not be included in determining compliance with the limit. The exclusion language was inadvertently left out of the rule, resulting in a limit much more stringent than intended. The proposed revision would add the exclusions to the rule, allowing the limit to apply as intended.

Housekeeping
a) The concept of "non-exempt insignificant mixtures" was rejected during Title V rulemaking. One reference to the concept was mistakenly included in the final Title V rules.
b) References to Total Suspended Particulate (TSP) should more properly be to Particulate Matter (PM). TSP is a term used in ambient monitoring, while PM is used in source testing. The industrial rules revised here refer to source testing, and should use PM.
c) It is not clear in 340-28-2700 where an EPA test method may be found.
d) It is not clear in 340-28-2710(5) how sulfur dioxide emissions are to be reported.

Summary of Significant Public Comment and Changes Proposed in Response

Hydrogen sulfide
Most commenters supported or did not comment on the proposed revision. No changes are proposed.

Medford Hardboard Emission Limit
Response was divided. Some commenters supported the proposed revision. Others opposed the revision, arguing that the only plant affected has a history of particulate fallout complaints. No changes are proposed.

Housekeeping
No changes are proposed.

Title V Fee rules
The rules have been withdrawn, and will be re-proposed in a different form early in 1996.

Summary of How the Proposed Rule Will Work and How it Will be Implemented

Hydrogen sulfide
Hydrogen sulfide will be removed from the list of Hazardous Air Pollutants. It has not been regulated as a HAP, so there will be no change in implementation strategy.

Medford Hardboard Emission Limit
The rule will correct the Medford hardboard rule by matching the current limit with the originally intended exclusions. The corrected language and emission limitation will be used in the affected facility's permit.

Housekeeping
The revisions will clarify or correct existing Department rules. Department staff and the Lane Regional Air Pollution Authority will be notified of the revisions.

State Implementation Plan
Revisions to rules which are part of the State Implementation Plan would be submitted to EPA for approval.

Recommendation for Commission Action

The Department recommends that the Commission adopt the rules and rule amendments regarding hydrogen sulfide, the Medford hardboard emission limit, and housekeeping amendments as presented in Attachment A of the Department Staff Report.

Attachments

A. Rule (Amendments) Proposed for Adoption
B. Supporting Procedural Documentation:
    1. Legal Notice of Hearing
    2. Public Notice of Hearing (Chance to Comment)
    3. Rulemaking Statements (Statement of Need)
    4. Fiscal and Economic Impact Statement
    5. Land Use Evaluation Statement
    6. Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements
C. Presiding Officer's Report on Public Hearing
D. List of Written Comments Received
E. Department's Evaluation of Public Comment
F. Detailed Changes to Original Rulemaking Proposal made in Response to Public Comment

G. Advisory Committee Membership and Report
H. Rule Implementation Plan

Reference Documents (available upon request)

Written Comments Received (listed in Attachment D)

Approved:
Section:
Division:
Report Prepared By: Benjamin M. Allen
Phone: (503) 229-6828
Date Prepared: November 22, 1995

BMA
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November 22, 1995

Rulemaking amendments

Hydrogen Sulfide

List of Hazardous Air Pollutants

340-32-130 For purposes of this Division the Commission adopts by reference the pollutants, including groups of substances and mixtures, listed in section 112(b), as Hazardous Air Pollutants (Table 1).

Table 1

List of Hazardous Air Pollutants and de minimis Emissions Rates

(OAR 340-32-130)

CAS Number	Chemical Name	de minimis Emissions Rate (tons/yr)
75070	Acetaldehyde	9.0
60355	Acetamide	**
75058	Acetonitrile	10.0
98862	Acetophenone	1.0
53963	2-Acetylaminofluorene	**
107028	Acrolein	0.04
79061	Acrylamide	0.02
79107	Acrylic acid	**
107131	Acrylonitrile	0.3
8107051	Allyl chloride	1.0
92671	4-Aminobiphenyl	**
62533	Aniline	1.0
90040	o-Anisidine	**
1332214	Asbestos	**
71432	Benzene (including benzene from gasoline)	2.0
92875	Benzidine	0.0003
98077	Benzotrichloride	0.006
100447	Benzyl chloride	0.1
92524	Biphenyl	10.0
117817	Bis(2-ethylhexyl)phthalate (DEHP)	5.0
542881	Bis(chloromethyl)ether	0.0003
75252	Bromoform	10.0
106990	1,3-Butadiene	0.2
156627	Calcium cyanamide	10.0
105602	Caprolactam	10.0
133062	Captan	10.0
63252	Carbaryl	10.0
75150	Carbon disulfide	1.0
56235	Carbon tetrachloride	1.0
463581	Carbonyl sulfide	5.0
120809	Catechol	5.0
133904	Chloramben	**
57749	Chlordane	0.05
7782505	Chlorine	0.1
79118	Chloroacetic acid	0.1
532274	2-Chloroacetophenone	0.6
108907	Chlorobenzene	10.0
510156	Chlorobenzilate	0.4
67663	Chloroform	0.9

CAS Number	Chemical Name	de minimis Emissions Rate (tons/yr)
107302	Chloromethyl methyl ether	0.1
126998	Chloroprene	10.0
19773	Cresols/Cresylic acid (isomers and mixture)	1.0
95487	o-Cresol	1.0
108394	m-Cresol	1.0
106445	p-Cresol	1.0
98828	Cumene	10.0
94757	2,4-D, salts and esters	10.0
3547044	DDE	0.2
334883	Diazomethane	**
132649	Dibenzofurans	**
96128	1,2-Dibromo-3-chloropropane	0.008
84742	Dibutylphthalate	10.0
106467	1,4-Dichlorobenzene(p)	3.0
91941	3,3-Dichlorobenzidene	0.2
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.06
542756	1,3-Dichloropropene	1.0
62737	Dichlorvos	0.2
111422	Diethanolamine	5.0
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)	**
64675	Diethyl sulfate	**
119904	3,3-Dimethoxybenzidine	5.0
60117	Dimethyl aminoazobenzene	1.0
119937	3,3-Dimethyl benzidine	0.008
79447	Dimethyl carbamoyl chloride	**
68122	Dimethyl formamide	**
57147	1,1-Dimethyl hydrazine	0.008
131113	Dimethyl phthalate	10.0
77781	Dimethyl sulfate	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
51285	2,4-Dinitrophenol	1.0
121142	2,4-Dinitrotoluene	**
123911	1,4-Dioxane (1,4-Diethyleneoxide)	6.0
122667	1,2-Diphenylhydrazine	0.09
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)	2.0
106887	1,2-Epoxybutane	**
140885	Ethyl acrylate	1.0
100414	Ethyl benzene	10.0
51796	Ethyl carbamate (Urethane)	**
75003	Ethyl chloride (Chloroethane)	10.0
106934	Ethylene dibromide (Dibromoethane)	0.1

CAS Number	Chemical Name	de minimis Emissions Rate (tons/yr)
107062	Ethylene dichloride(1,2-Dichloroethane)	0.8
107211	Ethylene glycol	5.0
151564	Ethylene imine (Aziridine)	**
75218	Ethylene oxide	0.2
96457	Ethylene thiourea	0.6
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
50000	Formaldehyde	2.0
76448	Heptachlor	0.02
118741	Hexachlorobenzene	0.04
87683	Hexachlorobutadiene	0.9
77474	Hexachlorocyclopentadiene	0.1
67721	Hexachloroethane	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
680319	Hexamethylphosphoramide	**
110543	Hexane	10.0
302012	Hydrazine	0.004
7647010	Hydrochloric acid	10.0
7664393	Hydrogen fluoride (Hydrofluoric acid)	0.1
~~7783064~~	~~Hydrogen sulfide~~	~~**~~
123319	Hydroquinone	10.0
78591	Isophorone	10.0
58899	Lindane (all isomers)	0.05
108316	Maleic anhydride	1.0
67561	Methanol	10.0
72435	Methoxychlor	10.0
74839	Methyl bromide (Bromomethane)	10.0
74873	Methyl chloride (Chloromethane)	10.0
71556	Methyl chloroform (1,1,1-Trichloroethane)	10.0
78933	Methyl ethyl ketone (2-Butanone)	10.0
60344	Methyl hydrazine	0.06
74884	Methyl iodide (Iodomethane)	1.0
108101	Methyl isobutyl ketone (Hexone)	10.0
624839	Methyl isocyanate	0.1
80626	Methyl methacrylate	10.0
1634044	Methyl tert butyl ether	10.0
101144	4,4-Methylene bis(2-chloroaniline)	**
75092	Methylene chloride (Dichloromethane)	10.0
101688	Methylene diphenyl diisocyanate (MDI)	0.1
101779	4,4-Methylenedianiline	**
91203	Naphthalene	10.0
98953	Nitrobenzene	1.0
92933	4-Nitrobiphenyl	5.0

CAS Number	Chemical Name	de minimis Emissions Rate (tons/yr)
100027	4-Nitrophenol	5.0
79469	2-Nitropropane	0.007
684935	N-Nitroso-N-methylurea	**
62759	N-Nitrosodimethylamine	0.001
59892	N-Nitrosomorpholine	**
56382	Parathion	0.1
82688	Pentachloronitrobenzene (Quintobenzene)	0.3
87865	Pentachlorophenol	0.7
108952	Phenol	0.1
106503	p-Phenylenediamine	10.0
75445	Phosgene	0.1
7803512	Phosphine	5.0
7723140	Phosphorus	0.1
85449	Phthalic anhydride	5.0
1336363	Polychlorinated biphenyls (Aroclors)	0.009
1120714	1,3-Propane sultone	**
57578	beta-Propiolactone	0.1
123386	Propionaldehyde	5.0
114261	Propoxur (Baygon)	5.0
78875	Propylene dichloride (1,2-Dichloropropane)	1.0
75569	Propylene oxide	10.0
75558	1,2-Propylenimine (2-Methyl aziridine)	**
91225	Quinoline	0.006
106514	Quinone	5.0
100425	Styrene	1.0
96093	Styrene oxide	**
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.0000006
79345	1,1,2,2-Tetrachloroethane	0.3
127184	Tetrachloroethylene (Perchloroethylene)	10.0
7550450	Titanium tetrachloride	0.1
108883	Toluene	10.0
95807	2,4-Toluene diamine	0.02
584849	2,4-Toluene diisocyanate	0.1
95534	o-Toluidine	**
8001352	Toxaphene (chlorinated camphene)	0.06
120821	1,2,4-Trichlorobenzene	10.0
79005	1,1,2-Trichloroethane	1.0
79016	Trichloroethylene	10.0
95954	2,4,5-Trichlorophenol	**
88062	2,4,6-Trichlorophenol	6.0
121448	Triethylamine	10.0

CAS Number	Chemical Name	de minimis Emissions Rate (tons/yr)
1582098	Trifluralin	9.0
540841	2,2,4-Trimethylpentane	5.0
108054	Vinyl acetate	**
593602	Vinyl bromide	1.0
75014	Vinyl chloride	0.2
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.4
1330207	Xylenes (isomers and mixture)	10.0
95476	o-Xylenes	10.0
108383	m-Xylenes	10.0
106423	p-Xylenes	10.0
0	Antimony Compounds	5.0
0	Arsenic Compounds (inorganic including arsine)	0.005
0	Beryllium Compounds	0.008
0	Cadmium Compounds	0.01
0	Chromium Compounds	5.0
0	Cobalt Compounds	5.0
0	Coke Oven Emissions	0.03
0	Cyanide Compounds	5.0
0	Glycol ethers	5.0
0	Lead Compounds	0.6
0	Manganese Compounds	0.8
0	Mercury Compounds	5.0
0	Fine mineral fibers	**
0	Nickel Compounds	1.0
0	Polycyclic Organic Matter	**
0	Radionuclides (including radon)	**
0	Selenium Compounds	1.0

** The Department will determine a de minimis value on a case-by-case basis.

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

*1 X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2

*2 Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH)n-OH. Polymers are excluded from the glycol category.

*3 Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

*4 Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100-C.

*5 A type of atom which spontaneously undergoes radioactive decay.

Medford Hardboard Emission Limit

Hardboard Manufacturing Plants

340-30-031

(1) Emissions from Hardboard plants excluding press vents. No person shall cause or permit the total emissions of particulate matter from a hardboard plant, excluding press/cooling vents, to exceed 0.25 pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

(2) Emissions from Hardboard plants including press vents. No person shall cause or permit the total emissions of particulate matter from a hardboard plant, including press/cooling vents, to exceed 0.55 pounds per 1,000 square feet of hardboard produced on a 1/8" basis of finished product equivalent.

(3) When calculating emissions for this section, emissions from truck dump and storage areas, fuel burning equipment, and refuse burning equipment are not included.

Housekeeping

Plant Site Emission Limits for Insignificant Activities

340-28-1060

(1) For purposes of establishing PSELs, emissions from categorically insignificant activities listed in OAR 340-28-110 shall not be considered regulated air pollutants under OAR 340-28-1010 until such time as the Commission determines otherwise, except as provided in section (3).

(2) For purposes of establishing PSELs, emissions from ~~non-exempt insignificant mixture usage and~~ aggregate insignificant emissions listed in OAR 340-28-110 shall be considered regulated air pollutants under OAR 340-28-1010.

(3) For purposes of determining New Source Review or Prevention of Significant Deterioration applicability, OAR 340-28-1900 through 340-28-2000, emissions from insignificant activities shall be considered.

Determining VOC Emissions Using Material Balance

340-28-2700 The owner or operator may determine the amount of VOC emissions for an assessable emission by using material balance. The owner or operator using material balance to calculate VOC emissions shall determine the amount of VOC added to the process, the amount of VOC consumed in the process and/or the amount of VOC recovered in the process by testing in accordance with **40 Code of Federal Regulations (CFR) Part 60 Appendix A EPA Method**

18, 24, 25, a material balance method, or an equivalent plant specific method specified in the federal operating permit using the following equation:

$VOC_{tot} = VOC_{add} - VOC_{cons}$

Where:

VOC_{tot} = Total VOC emissions, tons

VOC_{add} = VOC added to the process, tons

VOC_{cons} = VOC consumed and/or recovered from the process, tons

Determining Sulfur Dioxide Emissions Using Material Balance

340-28-2710

(1) Sulfur dioxide emissions for major sources may be determined by measuring the sulfur content of fuels and assuming that all of the sulfur in the fuel is oxidized to sulfur dioxide.

(2) The owner or operator shall ensure that ASTM methods were used to measure the sulfur content in fuel for each quantity of fuel burned.

(3) The owner or operator shall determine sulfur dioxide emissions for each quantity of fuel burned, determining quantity by a method that is reliable for the source, by performing the following calculation:

$SO_2 = \%S/100 \times F \times 2$

Where:

SO_2 = Sulfur dioxide emissions for each quantity of fuel, tons

%S = Percent sulfur in the fuel being burned, % (w/w).

F = Amount of fuel burned, based on a quantity measurement, tons

2 = Pounds of sulfur dioxide per pound of sulfur

(4) For coal-fired steam generating units the following equation shall be used by owners or operators of major sources to account for sulfur retention:

$SO_{2adj} = SO_2 \times 0.97$

Where:

SO_{2adj} = Sulfur dioxide adjusted for sulfur retention **(40 CFR Part 60, Appendix A, Method 19, Section 5.2)**

SO_2 = Sulfur dioxide emissions from each quantity burned (OAR 340-28-2690(3))

(5) Total sulfur dioxide emissions for the year shall be the sum total of each quantity burned calculated in accordance with OAR 340-28-2710(3) ~~*divided by 2000 pounds per ton*~~ and reported in units of tons/year.

NOTICE OF PROPOSED RULEMAKING HEARING

(Rulemaking Statements and Statement of Fiscal Impact **must** accompany this form.)

Department of Environmental Quality AQ

OAR Chapter 340

DATE:	TIME:	LOCATIONS:
October 23, 1995	11:00 AM	Room 10A, 811 SW 6th Ave., Portland, OR 97204 and Conference room, 210 W. Main Street, Suite 2-D, Medford, OR 97501

HEARINGS OFFICER(s): Benjamin M. Allen

STATUTORY AUTHORITY: ORS 468.020, 468A.025

ADOPT: None.

AMEND: OAR 340-28-110, 1060, 2610, 2620, 2640, 2650, 2670, 2700, 2710, 2720, 340-30-031, 340-32-130,

REPEAL: None.

Amendments or additions to other sections of Divisions 28, 30, and 32 listed above (or related administrative rules) may be made in response to information or public comment received by the Department.

☒ This hearing notice is the initial notice given for this rulemaking action.
☐ This hearing was requested by interested persons after a previous rulemaking notice.
☒ Auxiliary aids for persons with disabilities are available upon advance request.

SUMMARY:

Title V Fee Rules
The revision would clarify the applicability of the Title V Fee Rules rules. The revised language would emphasize that if a source chooses to have a plantwide Plant Site Emission Limit (PSEL), the source can pay fees based on actual emissions from each unit, or the plantwide PSEL, but not a mix of both.

Hydrogen Sulfide
The Environmental Quality Commission mistakenly adopted an incorrect version of the federal Hazardous Air Pollutant (HAP) list. The revision would bring Oregon's list into line with the federal list by removing hydrogen sulfide.

Medford Hardboard rule
The revision would align the language of the statewide and Medford area hardboard particulate emissions rules. The limit in the Medford rule was set based on an expectation that the rules would apply in the same way.

Housekeeping
a) The revision would also remove confusing language from OAR 340-28-1060.
b) References to Total Suspended Particulate (TSP) would be changed to Particulate Matter (PM) when appropriate. TSP is a term used in ambient monitoring, while PM is used in source testing. The industrial rules revised here refer to source testing, and should use PM.
c) The revision would clarify that that no fee is assessed for emission units that have a separate Plant Site Emission Limit (PSELs), but do not operate for the entire calendar year, and that only partial fees are assessed for emission units with PSELs that operate for less than 5% of the permitted schedule.
d) The revision would clarify in 340-28-2700 where an EPA test method may be found.
e) The revision would clarify in 340-28-2710(5) how sulfur dioxide emissions are to be reported.
f) The revision would clarify in 340-28-2720 that a source may choose the time of year to test emissions only if the Department agrees that there is no seasonal variation in emissions.

LAST DATE FOR COMMENT: October 23, 1995

DATE PROPOSED TO BE EFFECTIVE: Upon adoption by the Environmental Quality Commission and subsequent filing with the Secretary of State.

AGENCY RULES COORDINATOR: Susan Greco, (503) 229-6775

AGENCY CONTACT FOR THIS PROPOSAL: Benjamin M. Allen

ADDRESS: Air Quality Division
811 S. W. 6th Avenue
Portland, Oregon 97204

TELEPHONE: (503) 229-6828
or Toll Free 1-800-452-4011

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments will also be considered if received by the date indicated above.

Benjamin M. Allen
Signature of Author of rulemaking package

Sep. 15, 1995
Date

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Air Quality Industrial Rules (including Title V Fee rules and Housekeeping changes)

Date Issued: September 15, 1995
Public Hearing: October 23, 1995
Comments Due: October 23, 1995

WHO IS AFFECTED:

Title V permit holders, Industrial H_2S emitters, and Hardboard plants in the Medford area.

WHAT IS PROPOSED:

This proposal would:

Title V Fee Rules
Clarify the applicability of the Title V Fee Rules rules. The revised language would emphasize that if a source chooses to have a plantwide Plant Site Emission Limit (PSEL), the source can pay fees based on actual emissions from each unit, or the plantwide PSEL, but not a mix of both.

Hydrogen Sulfide
Bring Oregon's Hazardous Air Pollutant (HAP) list into line with the federal list by removing hydrogen sulfide. The Environmental Quality Commission mistakenly adopted an incorrect version of the federal HAP list.

Medford Hardboard rule
Align the language of the statewide and Medford area hardboard particulate emissions rules. The limit in the Medford rule was set based on an expectation that the rules would apply in the same way.

Housekeeping
Delete a reference to 'non-exempt insignificant mixtures' in the Division 28 Title V rules. The language refers to a concept discarded during the Title V rulemaking.

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

HOW TO COMMENT:

Public Hearings to provide information and receive public comment are scheduled as follows:
October 23, 1995
11:00 AM
Room 10 A, 811 SW 6th Ave, Portland, Oregon, 97204
and
Conference room, 210 W. Main Street, Suite 2-D, Medford, OR 97501

Written comments must be received by 5:00 p.m. on October 23, 1995 at the following address:

Department of Environmental Quality
Air Quality Division
811 S. W. 6th Avenue
Portland, Oregon, 97204

A copy of the Proposed Rule may be reviewed at the above address. A copy may be obtained from the Department by calling the Air Quality Division at 229-6828 or calling Oregon toll free 1-800-452-4011.

WHAT IS THE NEXT STEP:

The Department will evaluate comments received and will make a recommendation to the Environmental Quality Commission. Interested parties can request to be notified of the date the Commission will consider the matter by writing to the Department at the above address.

BMA:j
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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial Rules (including Title V Fee rules and Housekeeping changes)

Rulemaking Statements

Pursuant to ORS 183.335(7), this statement provides information about the Environmental Quality Commission's intended action to adopt a rule.

1. Legal Authority

   ORS 468.020, 468A.025

2. Need for the Rule

Title V Fee Rules
Title V sources can choose to have a facility-wide Plant Site Emission Limit (PSEL), or component PSELs for each emissions unit. If a source has a facility-wide PSEL, the source may pay fees on the facility-wide PSEL or on actual emissions for each the emissions units included in the facility-wide PSEL. It may not pay fees based on a mix of actual and permitted emissions for different units. The current rules are not clear about how fees may be calculated.

Hydrogen Sulfide
While hydrogen sulfide (H_2S) is not listed by the EPA as a federal Hazardous Air Pollutant (HAP), it is listed as a HAP in Oregon's Air Quality rules, which were intended to reflect federal listings.

Due to a clerical error, H_2S was originally listed as a federal HAP, then withdrawn. When preparing Oregon's HAP rules, the Department used the incorrect federal HAP list, with the result that the Environmental Quality Commission (EQC) also inadvertently adopted H_2S as an Oregon HAP

Medford Hardboard Rule
The hardboard emission limit rules were adopted in two parts: a statewide rule, and rule with lower limits for the Medford area. The statewide rule, focusing on emissions from hardboard production, exempted fuel and refuse burning equipment, and truck dump and storage areas from the hardboard emissions limit. Since the only hardboard plant in the Medford area did not have its own boiler (the boiler belonged to a separately permitted sister facility), the Medford rule did not contain the exemption language.

The EQC adopted revised statewide and Medford-area hardboard emission limits in January of 1995. The new limit for the Medford rule was based on the assumption that the language of the rule would be aligned with the statewide rule by exempting fuel and refuse burning equipment, and truck dump and storage areas. Unfortunately the relevant language was not included in the final Medford-area rule. The resulting limit is therefore much stricter than was intended.

Housekeeping

a) The concept of "non-exempt insignificant mixtures" was rejected during Title V rulemaking. One reference to the concept was mistakenly included in the final Title V rules.
b) References to Total Suspended Particulate (TSP) should more properly be to Particulate Matter (PM). TSP is a term used in ambient monitoring, while PM is used in source testing. The industrial rules revised here refer to source testing, and should use PM.
c) The Division 28 emission fee rules are not clear that no fee is assessed for emission units that have a separate Plant Site Emission Limit (PSELs), but do not operate for the entire calendar year. Only partial fees are assessed for emission units with PSELs that operate for less than 5% of the permitted schedule.
d) It is not clear in 340-28-2700 where an EPA test method may be found.
e) It is not clear in 340-28-2710(5) how sulfur dioxide emissions are to be reported.
f) In 340-28-2720, it is not clear that a source may choose the time of year to test emissions only if the Department agrees that there is no seasonal variation in emissions.

3. Principal Documents Relied Upon in this Rulemaking

Oregon Administrative Rules, staff reports from previous rule adoptions, supporting notes and documentation for recent hardboard rule adoption.

These documents are available for review at DEQ Headquarters, Air Quality Division, 811 S.W. 6th Avenue, Portland, Oregon, 97204.

4. Advisory Committee Involvement

The new Industrial Sources Advisory Committee will first meet in September, 1995. The Committee will be informed about the revisions proposed above. However, the Department expects the Advisory Committee to concentrate on rules which require discussions of policy.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial Rules (including Title V Fee rules and Housekeeping changes)

Fiscal and Economic Impact Statement

Introduction

The rules are largely clarifications or corrections, and would have little impact. If the errors are not corrected, Medford area hardboard plants and sources emitting hydrogen sulfide will have increased costs.

General Public

There would be no economic impact on the general public as a result of these rules.

Small Business

Title V Fee Rules
Owners or operators who have chosen a facility-wide PSEL rather than component PSELs may pay higher emission fees. However they will probably have chosen a facility-wide PSEL to increase flexibility.

Hydrogen Sulfide
There would be little economic impact from this rule. Sources would not have to deal with H_2S as a HAP, but will need to meet other existing H_2S regulations, such as industry specific rules in Division 25, New Source Review rules in Division 28, and accidental release provisions in 340-32-5400.

Medford Hardboard Rule
There would be no effect on small business.

Large Business

Title V Fee Rules
Owners or operators who have chosen a facility-wide PSEL rather than component PSELs may pay higher emission fees. However they will probably have chosen a facility-wide PSEL to increase flexibility.

Hydrogen Sulfide
There would be little economic impact from this rule. Sources would not have to deal with H_2S as a HAP, but will need to meet other existing H_2S regulations such as industry specific rules in Division 25, New Source Review rules in Division 28, and accidental release provisions in 340-32-5400.

Medford Hardboard Rule
The only affected plant would be able to comply with the revised rule and would not have to purchase additional control equipment or limit production.

Housekeeping
There would be no economic impact as a result of these rules.

Local Governments

Title V Fee Rules
Owners or operators who have chosen a facility-wide PSEL rather than component PSELs may pay higher emission fees. However they will probably have chosen a facility-wide PSEL to increase flexibility.

Hydrogen Sulfide
There would be little economic impact from this rule. Sources would not have to deal with H_2S as a HAP, but will need to meet other existing H_2S regulations such as industry specific rules in Division 25, New Source Review rules in Division 28, and accidental release provisions in 340-32-5400.

Medford Hardboard Rule
There would be no economic impact on local governments as a result of this rule.

Housekeeping
There would be no economic impact as a result of these rules.

State Agencies

Title V Fee Rules
The Department workload would decrease because emission fee determination would be simplified. There would be no change in staffing levels. There would be no effect on fees collected.
Other state agencies would not be affected by the rules.

Hydrogen Sulfide
The Department would not have to regulate H_2S as a HAP or explain to sources the difference between federal and state HAP lists. This would make the work of permit writers more efficient.
Other state agencies would not be affected by the rules.

Medford Hardboard Rule
There would be no economic impact on State agencies as a result of this rule.

Housekeeping
There would be no economic impact as a result of these rules.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Air Quality Industrial Rules (including Title V Fee rules and Housekeeping changes)

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

Title V Fee Rules
Title V sources can choose to have a facility-wide Plant Site Emission Limit (PSEL), or component PSELs for each emissions unit. If a source has a facility-wide PSEL, the source may pay fees on the facility-wide PSEL or on actual emissions for each the emissions units included in the facility-wide PSEL. It may not pay fees based on a mix of actual and permitted emissions for different units. The current rules are not clear about how fees may be calculated.

The rule changes would clarify that if a source chooses to have a facility-wide Plant Site Emission Limit rather than component PSELs, the source will pay fees on the facility-wide PSEL or on actual emissions for all the emissions units included in the facility-wide PSEL. The source can only pay fees on component PSELs if the permit contains component PSELs and not a facility wide PSEL.

Hydrogen Sulfide
While hydrogen sulfide (H_2S) is not listed by the EPA as a federal Hazardous Air Pollutant (HAP), it is listed as a HAP in Oregon's Air Quality rules, which were intended to reflect federal listings.

Due to a clerical error, H_2S was originally listed as a federal HAP, then withdrawn. When preparing Oregon's HAP rules, the Department used the incorrect federal HAP list, with the result that the Environmental Quality Commission (EQC) also inadvertently adopted H_2S as an Oregon HAP

This rule revision would remove H_2S from the list of HAPs. The change would bring the state HAP list into line with the federal list.

Medford Hardboard Rule
The hardboard emission limit rules were adopted in two parts: a statewide rule, and rule with lower limits for the Medford area. The statewide rule, focusing on emissions from hardboard production, exempted fuel and refuse burning equipment, and truck dump and storage areas from the hardboard emissions limit. Since the only hardboard plant in the Medford area did not have its own boiler (the

boiler belonged to a separately permitted sister facility), the Medford rule did not contain the exemption language.

The EQC adopted revised statewide and Medford-area hardboard emission limits in January of 1995. The new limit for the Medford rule was based on the assumption that the language of the rule would be aligned with the statewide rule by exempting fuel and refuse burning equipment, and truck dump and storage areas. Unfortunately the relevant language was not included in the final Medford-area rule. The resulting limit is therefore much stricter than was intended.

This revision would make the language of the Medford-area hardboard emissions rule consistent with that of the statewide rule by excluding fuel burning equipment and truck dump and storage areas. The numerical emission limit in the Medford rule would remain much more stringent than the statewide rule.
This rule is part of the State Implementation Plan.

Housekeeping
a) The concept of "non-exempt insignificant mixtures" was rejected during Title V rulemaking. One reference to the concept was mistakenly included in the final Title V rules.
b) References to Total Suspended Particulate (TSP) should more properly be to Particulate Matter (PM). TSP is a term used in ambient monitoring, while PM is used in source testing. The industrial rules revised here refer to source testing, and should use PM.
c) The Division 28 emission fee rules are not clear that no fee is assessed for emission units that have a separate Plant Site Emission Limit (PSELs), but do not operate for the entire calendar year. Only partial fees are assessed for emission units with PSELs that operate for less than 5% of the permitted schedule.
d) It is not clear in 340-28-2700 where an EPA test method may be found.
e) It is not clear in 340-28-2710(5) how sulfur dioxide emissions are to be reported.
f) In 340-28-2720, it is not clear that a source may choose the time of year to test emissions only if the Department agrees that there is no seasonal variation in emissions.

a) The revision would also delete the remaining reference to "non-exempt insignificant mixtures" from the rule.
b) References to TSP would be changed to PM when appropriate.
c) The revision would clarify when no or a partial fee is assessed.
d) The phrase "Appendix A" would be added to clarify the source of the test method.
e) The rule language would be changed to clarify that emissions should be reported in tons per year.
f) The revision would clarify that a source may choose to test at any time of the year only if the Department agrees that there is no seasonal variation.

2. **Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?**

   Yes X **No** ____

   a. **If yes, identify existing program/rule/activity:**

Changes to the Title V Fee rules will affect the Oregon Title V Operating Permit Program.

   b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

   Yes X No ____ (if no, explain):

   c. If no, apply the following criteria to the proposed rules.

      In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Gregory A. Green — Division Administrator

Intergovernmental Coord.

9/12/95 — Date

Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

The following questions should be clearly answered, so that a decision regarding the stringency of a proposed rulemaking action can be supported and defended:

Note: If a federal rule is relaxed, the same questions should be asked in arriving at a determination of whether to continue the existing more stringent state rule.

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

Fee Election
The federal Clean Air Act Amendments require that Title V permit program fees be sufficient to support the program.

Hydrogen Sulfide
The federal HAP list went through much the same sequence as the Oregon list. H_2S was mistakenly included, then was removed from the list. When the EQC adopted Oregon's HAP list, it was intended to mirror the federal list, which by that time did not included H_2S.

Medford Hardboard rule
Not applicable.

Housekeeping
Not applicable.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Fee Election
Not applicable.

Hydrogen Sulfide
Not applicable.

Medford Hardboard rule
Not applicable.

Housekeeping
Not applicable.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

Fee Election
Permit fees are required to be sufficient to support a states program. This is true in Oregon as well. This rule revision does not affect the sufficiency of Oregon's Title V fees.

Hydrogen Sulfide
Yes. Oregon's HAP list was intended to mirror the federal list. The federal list does not include H_2S. The revision would bring Oregon's HAP list back into line with the federal list, as intended by the EQC.

Medford Hardboard rule
Not applicable.

Housekeeping
Not applicable.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Fee Election
The revision would clarify the applicability of the fee election rules, and make it easier for sources to balance possible increased fees against greater flexibility in plant management.

Hydrogen Sulfide
The revision would bring Oregon's HAP list back into line with the federal list, as intended by the EQC. Some people have been confused by the current disparity in the lists.

Medford Hardboard rule
The revision would allow sources to comply with the rule in the manner originally intended.

Housekeeping
Not applicable.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No, for all proposed revisions.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Not applicable to any proposed revisions.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Fee Election
Not applicable. This is a clarification of existing rules.

Hydrogen Sulfide
The revision would bring Oregon's HAP list into line with the federal list, which would promote equity between out of state and Oregon sources.

Medford Hardboard rule
The revision would align the language of the statewide and Medford-area hardboard rules, so that they would apply in the same manner. Because Medford is a non-attainment area for particulate matter, the specific emissions limits in the two rules would remain different.

Housekeeping
Not applicable.

8. Would others face increased costs if a more stringent rule is not enacted?

No, for all rules.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

Not applicable to any of the proposed revisions.

10. Is demonstrated technology available to comply with the proposed requirement?

Not applicable to any of the proposed revisions.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Fee Election
The revision would clarify the applicability of the fee election rules, and make it easier for sources to balance possible increased fees against greater flexibility in plant management.

Hydrogen Sulfide
The revision would bring Oregon's HAP list back into line with the federal list, as intended by the EQC. H_2S would continue to be regulated by other Oregon Administrative Rules, such as industry specific rules in Division 25, New Source Review rules in Division 28, and accidental release provisions in 340-32-5400.

Medford Hardboard rule
The revision would correct an error in the current rule. As currently written, the Medford area hardboard rule does not apply in the same way as the statewide rule. The limit in the Medford rule was set based on an expectation that the rules would apply in the same way. This revision would correct that problem.

Housekeeping
The revision would remove confusing and purposeless language in the rules.

State of Oregon

Department of Environmental Quality Memorandum

Date: October 24, 1995

To: Environmental Quality Commission
From: Benjamin M. Allen
Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: October 23, 1995, beginning at 11:00 AM
Hearing Location: Portland, Medford

Title of Proposal: Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

The rulemaking hearing was conducted simultaneously in two locations (Portland and Medford), connected by speakerphones. The Presiding Officer regulated and recorded the session in Portland. A staff person in Medford (Gary Grimes) ensured that Medford attendees and witnesses signed forms at that location, and accepted and date stamped written submissions.

The rulemaking hearing on the above titled proposal was convened at 11:00 AM. People were asked to sign witness registration forms if they wished to present testimony. People were also advised that the hearing was being recorded and of the procedures to be followed. The above statement and other official elements of the hearing were made after the speakerphone connection was established and tested.

Five people attended (three in Portland, two in Medford), and all signed up to give testimony.

Prior to receiving testimony, Benjamin M. Allen briefly explained the specific rulemaking proposal, the reason for the proposal, and offered to respond to questions. There were no questions from the audience.

People were then called to testify. Persons in Medford were asked to testify first. Witnesses testified in the order given below. Note that much of the commentary concerned the Title V Fee rules, which have been withdrawn.The Title V Fee Rule portion of the oral comments is therefore not included below.

Medford

Wallace Skyrman
Representing the American Lung Association and the Coalition to Improve Air Quality.

Mr. Skyrman testified that the Medford hardboard rule affects only one plant, which is in an area shown to have the highest levels of PM_{10} in a valley which only recently reached attainment

status. To mainstream this facility with other similar plant emission limits would be a mistake due to its location. The plant has a demonstrated history of complaints with particulate fallout and emissions. It would be wrong to exempt fuel and refuse burning equipment and material storage from the limit.

Mr. Skyrman supported the Department in its proposal to change from TSP to PM to reflect current health standards.

Phyllis Hughes
Representing the Rogue group of the Sierra Club.

Ms. Hughes supported Mr. Skyrman's position.

Ms. Hughes testified that the Department should not exempt fuel and refuse burning and material storage from Medford hardboard limit due to a history of particulate fallout from the plant. Medite (the only hardboard plant in Medford) should not receive mainstream treatment for same reasons given by Mr. Skyrman.

Ms. Hughes supported the Department in its proposal to change from TSP to PM to reflect current health standards.

Portland

Kathryn VanNatta
Representing the Northwest Pulp and Paper Association.

Ms. VanNatta's comments were limited to the Title V Fee rules, which have been withdrawn.

Kevin Godbout
Weyerhaeuser Company

Mr. Godbout's comments were limited to the Title V Fee rules, which have been withdrawn.

James Whitty
Associated Oregon Industries

Mr. Whitty's comments were limited to the Title V Fee rules, which have been withdrawn.

All witnesses but Phyllis Hughes and Jim Whitty submitted written testimony as well as speaking.

There was no further testimony and the hearing was closed at 12:00.

List of Written Comments Received

on

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

1. Michael Campbell, Stoel Rives

2. Kathryn VanNatta, Northwest Pulp and Paper Association
(Ms. VanNatta is a member of the Air Quality Industrial Source Advisory Committee.)

3. Kevin Godbout, Weyerhaeuser Company

4. James Whitty, Associated Oregon Industries
(Mr. Whitty is a member of the Air Quality Industrial Source Advisory Committee.)

5. Jerry Ritter

6. Wallace Skyrman, American Lung Association, Sierra Club

7. Phyllis Hughes,

8. Robert Palzer, Oregon Chapter Sierra Club
Lisa Brenner, Oregon Environmental Council
Sharon Genasci, Northwest District Association
George Feldman, Physicians for Social Responsibility
Gary Hancock
(All the above are members of the Air Quality Industrial Source Advisory Committee).

Department's Evaluation of Public Comment

on

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

Title V Fee rules

Generally, environmental commenters approved the proposed revisions, while industrial commenters strongly opposed them. Based on comments received, the Department has decided to withdraw the rules, and re-propose them in a different form early in 1996.

Hydrogen Sulfide

a. Comment: (1,2)
The Department should go forward with its proposal to remove hydrogen sulfide from the list of Hazardous Air Pollutants (HAPs) in OAR 340-32-130, Table 1.

Response:
The Department agrees.

b. Comment: (1)
Removing hydrogen sulfide from the list of Hazardous Air Pollutants (HAPs) in OAR 340-32-130, Table 1 would ensure consistency between state and federal air pollution programs. Consistency would help prevent mistakes by sources and regulators, and would level the playing field between Oregon and other states. The change would also eliminate inappropriate regulatory burdens for sources subject to regulation under Title III or Title V only because of hydrogen sulfide emissions.

Response:
The Department agrees with the commenter's reasoning.

c. Comment: (1)
The Department incorrectly implied that hydrogen sulfide is an Oregon Hazardous Air Pollutant (HAP). The Environmental Quality Commission (EQC) did not intend to adopt hydrogen sulfide as an Oregon HAP, and did not make the findings necessary to do so.

Response:
The Department agrees. The EQC adopted by reference the pollutants listed in §112(b), Table 1 of the Clean Air Act. Hydrogen sulfide was not listed, and was included in OAR 340-32-130, Table 1 only because of a series of clerical errors. The EQC therefore did not intend to adopt hydrogen sulfide as a HAP. ORS 468.310(2) requires that rules implementing the Clean Air Act may not be more strict than those required by the act unless the EQC makes a finding of a scientifically defensible need for stricter regulations to protect health or the environment. The EQC did not make such findings. Hydrogen sulfide was therefore not properly listed as a HAP.

The Department has revised the language in the staff report to reflect a recommendation that the EQC remove hydrogen sulfide from the list of Hazardous Air Pollutants (HAPs) in OAR 340-32-130, Table 1, rather than a recommendation to remove hydrogen sulfide as an Oregon HAP.

d. Comment: (8)
The Department should not remove hydrogen sulfide from the list of Hazardous Air Pollutants (HAPs) in OAR 340-32-130, Table 1. Hydrogen sulfide was delisted at the federal level for political, not scientific reasons. Hydrogen sulfide has been regulated for Oregon sources for years, and delisting as a HAP is not scientifically defensible. Oregon's statutes and rules do not require that existing protective measures be dropped because of relaxation at the federal level. Because of its odor and negative health effects, hydrogen sulfide deserves greater control, not reduced control. Hydrogen sulfide should not be delisted unless there is at least comparable protection of the public health and welfare for this chemical in other portions of Oregon's air quality rules.

Response:
As noted in the response to c. above, the Department does not believe that the EQC intended to list hydrogen sulfide as an Oregon HAP, or made the findings required to do so. In order to regulate hydrogen sulfide as a HAP, the Department would have to conduct a regular rulemaking to list the chemical, and the EQC would need to make the necessary findings.
While hydrogen sulfide is not regulated as an Oregon HAP, this revision to OAR 340-32-130, Table 1 does not affect Department regulation of hydrogen sulfide under industry-specific rules in Division 25, new source review rules in Division 28, and accidental release provisions in OAR 340-32-5400. The proposed change does not lower the level of public health and welfare protection, but merely corrects the Oregon rules to reflect the EQC's intent.

Medford Hardboard Emission Limit

a. Comment: (1)
The Department is correct in its proposed change to the Medford hardboard rule.

Response:
The Department agrees.

b. Comment: (6,7)
The Medford hardboard rule affects only one facility, which should not be "mainstreamed" with other facilities due to a history of particulate fallout complaints. The Department should not exempt fuel and refuse burning equipment and material storage from the hardboard particulate emission limit.

Response:
The Department proposes exempting fuel and refuse burning equipment and material storage in order to correct an error in the recently adopted Medford hardboard rule. The emission limit in that rule was calculated on the assumption that fuel burning equipment, etc., would be excluded. If such sources were *not* excluded, the emission limit would need to be recalculated. The Department's proposed approach allows the current limit to remain in place, and to be applied as was intended. Excluding fuel burning equipment, etc., also brings the rule language and manner of application into line with the statewide hardboard rule, as was intended.

c. Comment: (8)
When the last round of increased industrial controls for Medford were adopted, increased control for the hardboard facility was inadvertently excluded from the control strategy. The proposed rule change would represent serious backsliding that is not justified in this non-attainment area.

Response:
As discussed above, this revision would correct an error in the previously adopted Medford hardboard rule. Without the proposed revision, the rule will apply be much more restrictive than was intended. The Department considered increased control of the hardboard facility when developing the emission limit that was adopted. This revision is intended to allow proper application of that limit; the Department does not view the correction as backsliding.

d. Comment: (8)
Boiler emissions from the sole hardboard facility in Medford have been an environmental disaster. The boiler has never been able to pass required source tests.

Response:
According to a 1993 source test, the facility showed "emissions of particulate matter below the [New Source Performance Standard] and pound per hour limits," while the "particulate emissions concentration corrected to 12% CO_2 [grain loading] exceeded the permit limit." After further review, the grain loading limit, meant to reflect the Lowest Achievable Emission Reduction, was revised upward, and the facility has since met the revised limit. The Department believes that the current rules and new grain loading limit are protective of the environment, and is reviewing the results of an October, 1995 source test to ensure that the Medford facility is in compliance.

e. Comment: (8)
The proposed rule change should be referred to the Industrial Source Advisory Committee (ISAC) before being presented to the Environmental Quality Commission for adoption.

Response:
This revision is intended to correct an error, not to set policy. ISAC was informed of the rule, and made aware of the opportunity for public comment. Since ISAC members did, in fact, submit testimony, the Department does not see a need to bring the rule before ISAC again.

Housekeeping

a. Comment: (6,7,8)
The Department is correct in proposing to change references from Total Suspended Particulate to Particulate Matter to reflect current health standards.

Response:
The Department agrees.

b. Comment: (2)
A cross-reference in OAR 340-28-2620(5) should be to OAR 340-28-110(42), not (41).
Oregon Title V Operating Permit is not capitalized in OAR 340-28-110(10), which may lead to confusion.

Response:
The Department agrees with both comments, and will correct the errors when next revising Division 28.

Changes to the Original Rulemaking Proposal

for

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

Based on comments received, the Department has decided to withdraw the Title V Fee rules. The Department will re-propose the rules in a different form early in 1996.

Advisory Committee

for

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

The Industrial Source Advisory Committee was informed of the Department's proposed revisions, and of the opportunity to comment. Some Committee members expressed concern about the effect of the proposed Title V Fee rules, among other things. The Department feels that the proposed revisions do not require policy decisions, and asked Committee members to comment through the public hearing process.

State of Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

for

Air Quality Industrial Rules (Hydrogen sulfide, Medford hardboard rule)

Rule Implementation Plan

Summary of the Proposed Rule

Hydrogen Sulfide
This rule revision would remove hydrogen sulfide from the Oregon Administrative Rules list of Hazardous Air Pollutants (HAPs). The change would bring the list of HAPs in Oregon's rules back into line with the federal list, as originally intended by the EQC.

Medford Hardboard Emission Limit
This revision would make the language of the Medford-area hardboard emissions rule consistent with that of the statewide rule by excluding fuel burning equipment and truck dump and storage areas. The numerical emission limit in the Medford rule would remain much more stringent than the statewide rule.
This rule is part of the State Implementation Plan

Housekeeping
a) The concept of "non-exempt insignificant mixtures" was rejected during Title V rulemaking. One reference to the concept was mistakenly included in the final Title V rules.
b) References to Total Suspended Particulate (TSP) should more properly be to Particulate Matter (PM). TSP is a term used in ambient monitoring, while PM is used in source testing. The industrial rules revised here refer to source testing, and should use PM.
c) It is not clear in 340-28-2700 where an EPA test method may be found.
d) It is not clear in 340-28-2710(5) how sulfur dioxide emissions are to be reported.

Proposed Effective Date of the Rule

Effective when adopted.

Proposal for Notification of Affected Persons

Hydrogen sulfide
Hydrogen sulfide has not been regulated as an Oregon HAP. Department and Lane Regional Air Pollution Authority staff will be notified that hydrogen sulfide has been confirmed not to be a HAP.

Medford Hardboard Emission Limit
Regional and permitting staff will be notified that the rule has been corrected. The sole hardboard facility in the affected region will also be notified of the corrected rule language.

Housekeeping
Department and Lane Regional Air Pollution Authority staff will be notified of the revisions.

Proposed Implementing Actions

Hydrogen sulfide
Hydrogen sulfide will not be regulated as an Oregon HAP.

Medford Hardboard Emission Limit
The corrected language and emission limitation will be used in the affected facility's permit.

Housekeeping
Department staff and the Lane Regional Air Pollution Authority will be notified of the revisions.

State Implementation Plan
Revisions to rules which are part of the State Implementation Plan would be submitted to EPA for approval.

Proposed Training/Assistance Actions

None.

State of Oregon
Department of Environmental Quality Memorandum

Date: December 27, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item G, David A. McInnis dba McInnis & Son Sanitary Service, McInnis Enterprises, Ltd., and Schulz Sanitation, Case No. WQIW-NWR-94-311 - Appeal of Hearing Order Regarding Violation and Assessment of Civil Penalty, EQC Meeting: January 11-12, 1995

Background

On December 28, 1994, the Department issued a Notice of Violation and Assessment of Civil Penalty for three violations to David McInnis dba McInnis & Son Sanitary Service (hereinafter "McInnis"). The Department assessed a penalty in the amount of $12,600. The violations were for discharging wastes into the waters of the state on three separate occasions, namely May 17, 1994, May 24, 1994 and August 11, 1994. McInnis timely appealed the Notice.

On May 19, 1994, the Department received a citizen complaint that McInnis was washing portable toilets and allowing the wastewater to drain into a storm drain. The complaint was forwarded to the Bureau of Environmental Services ("BES"), who performed an on-site inspection that same day. The BES inspector noticed that the water entering the storm drain was "high in suspended solids and [had] a significant petroleum sheen." In addition, he noticed there was debris that had been washed down the driveway including what appeared to be toilet paper and human fecal matter. Laboratory tests confirmed that the discharge contained pollutants.

On May 23, 1994, BES obtained a plumber's map which indicated that the catch basin located on the property drained into Deering Drainage Canal. On May 24, 1994, a BES inspector, while performing a follow-up inspection, observed auto fluids draining into a catch basin. The waste was classified by the inspector as industrial process wastewater. On May 25, 1994, a dye test was performed on the catch basin during which the dye did not flow into the on-site holding tank or to the storm sewer. It was undetermined if the dye flowed into Deering Drainage Canal. On August 9, 1994, a second dye test confirmed that the catch basin flowed in Deering Drainage Canal.

On August 11, 1994, BES and the Department performed an inspection of the property. At that time, they observed dumpsters and garbage containers being washed, allowing wastewater to enter the catch basin.

On July 19, 1995, a contested case hearing was held. In the Final Order dated August 7, 1995, the Hearings Officer concluded that McInnis had discharged waste into state waters on May 19, 1994 and May 24, 1994. He further concluded that the Department had failed to present adequate evidence of the alleged August 11, 1995 violation. McInnis was found liable for a civil penalty in the amount of $6,000, $3,000 for each violation.

On September 5, 1995, McInnis appealed the Order. McInnis takes six exceptions to the Hearings Officer's Order. First McInnis takes exception to the Hearings Officer's conclusion that no water from the north side of the property flowed into the storm drain. In Exhibit 8, a BES inspector stated that it had rained recently. The second exception concerns the credibility finding regarding David McInnis. Thirdly, McInnis takes exception to findings related to the May 19, 1994 incident that the alleged discharges constituted "waste" or "caused pollution to waters of the state." ORS 468B.050. McInnis claims that although there is evidence of contamination in the water flowing into the storm drain, no tests were conducted on Deering Drainage Canal. Fourth, McInnis takes exception to the conclusion that the automotive fluids involved in the May 24, 1994 incident constituted "waste" and that the discharge was "pollution." ORS 468B.050. Fifth McInnis takes exception to the Hearings Officer's conclusion that it was probable that the fluids reached the Deering Drainage Canal on May 24, 1994. McInnis claims that there was not evidence that showed that the contaminants reached Deering Drainage Canal. Finally McInnis takes exception to the classification of the violation as moderate. McInnis claims that since there was no testing of Deering Drainage Canal, there is no evidence of adverse impact on the environment or threat to public health, and the violations should be classified as minor.

The Department contends that sufficient evidence was presented to support the conclusion that McInnis discharged wastes into the waters of the state, including eye witness testimony and laboratory results. The discharges were in violation of ORS 468B.050 and McInnis is liable for the civil penalties.

Alternatives and Evaluation

The Commission can either uphold or reverse either part or all of the Hearings Officer's Order.

Attachments

1. Hearing Order Regarding Violation and Assessment of Civil Penalty with Exhibits 1-18 thereto, dated August 7, 1995
2. McInnis' Notice of Appeal, dated August 5, 1995
3. Appellants' Exceptions and Brief, dated October 16, 1995
4. Department's Answering Brief, dated November 14, 1995
5. Appellants' Reply Brief, dated December 5, 1995

Report Prepared By: Susan M. Greco
Phone: 229-5213

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

December 6, 1995

Holly Duncan
Environmental Law Specialist
Department of Environmental Quality
2020 SW 4th Avenue, Suite 400
Portland OR 97201-4987

David A. McInnis
c/o Jess M. Glaeser, Esq.
Yamhill Plaza Building
815 SW 2nd Avenue, Suite 400
Portland OR 97204-3025

RE: David A. McInnis dba McInnis Enterprises and Schulz Sanitation
Case No. WQIW-NWR-94-311

Dear Ms. Duncan and Mr. Glaeser:

The appeal by David A. McInnis has been set for a regularly scheduled Environmental Quality Commission meeting on Friday, January 12, 1996 at 1:30 p.m. The meeting will take place at 811 S.W. 6th Avenue, Portland, Oregon in Conference Room 3A. Each side will be allowed 5 minutes to present their case to the Commission.

Mr. Glaeser has informed me that he will be starting a trial on January 8, 1995 and that the trial could conclude after January 12th. If this should occur, please inform me as soon as possible and the appeal will be rescheduled to a later Commission meeting.

If you should have any questions or need special accommodations, please feel free to call me at (503) 229-5213 in Portland.

Sincerely,

Susan M. Greco
Rules Coordinator

cc: Kathleen Lippitt, OD

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Portland, OR 972
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DEQ-1

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

In the Matter of DAVID A. McINNIS, dba McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULZ SANITATION.	**APPELLANTS' REPLY BRIEF** No. WQIW-NWR-94-311 Multnomah County

Appellants, David A. McInnis, McInnis Enterprises, Ltd., and Schulz Sanitation, submit this reply to the Department's Answering Brief, in the within-captioned matter.

I. The Department has failed to present any evidence of an illegal discharge on or about May 24, 1994.

In the Department of Environmental Quality's Answering Brief, the Department is unable to point to any evidence in the record which supports its contention that if there was a discharge of industrial waste on May 24, 1994, that it reached the "waters of the state." The Department's Answering Brief simply references the Department's Hearing Memorandum at paragraphs 10 and 11. At the very best, DEQ's evidence supports only that Inspector Kelly Hendryx observed auto fluids draining into the catch basin on the McInnis property; that the water was generated from activities on the McInnis property; and that Hendryx classified the waste as industrial process waste water. There is absolutely no evidence, assuming that there was a discharge of auto fluids into the catch basin, that any of this material did, or reasonably could have, reached "waters of the state."

Even under this best-case scenario for the Department, there simply is no evidence from which the Hearing Officer could conclude that any industrial waste discharged on May 24, 1995, actually entered "waters of the state." Likewise, there is no evidence to support the Hearing Officer's conclusion that it was probable that the discharge, if any, reached Deering Canal.

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In the absence of such evidence and proof, the Hearing Officer's finding with respect to the alleged discharge on May 24, 1994, must be reversed.

DATED this 5th day of December, 1995.

Respectfully submitted,

JESS M. GLAESER, OSB #79049
Attorney for David A. McInnis,
McInnis Enterprises, Ltd., and
Schulz Sanitation

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CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing Appellants' Reply Brief on the following:

Ms. Holly Duncan
Enforcement Section
Department of Environmental Quality
2020 S.W. Fourth Avenue, #400
Portland, Oregon 97201

by mailing to her a true and correct copy thereof, placed in a sealed envelope, to the address listed above, deposited in the United States Post Office at Portland, Oregon, on the 5th day of December, 1995.

JESS M. GLAESER, OSB #79049
Of Attorney for David A. McInnis, McInnis Enterprises, Ltd. and Schulz Sanitation

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NOV 14 1995

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: DAVID A. McINNIS, dba McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULZ SANITATION.	))))))	DEPARTMENT'S ANSWERING BRIEF TO DAVID A. McINNIS' APPEAL TO THE ENVIRONMENTAL QUALITY COMMISSION No. WQIW-NWR-94-311

The Department of Environmental Quality requests that the Environmental Quality Commission uphold the Hearings Officer's Final Order and Judgment regarding Notice of Violation, Department Order and Assessment of Civil Penalty No. WQIW-NWR-94-311.

I. BACKGROUND

1. On December 22, 1994, the Department of Environmental Quality issued Notice of Violation, Department Order, and Assessment of Civil Penalty No. WQIW-NWR-94-311 ("Notice") to David A McInnis, doing business as McInnis & son Sanitary Service, McInnis Enterprises, Ltd., and Schulz Sanitation ("McInnis").

2. In its Notice, the Department assessed McInnis a civil penalty for three unpermitted discharges into waters of the state. The Department alleged that McInnis discharged wastes on May 19, 1994, May 24, 1994 and August 11, 1994, from McInnis' property into Deering Drainage Canal, waters of the state.

3. McInnis appealed the Notice and, on July 19, 1995, a contested case hearing was held in front of Lawrence Smith, a Hearings Officer for the Environmental Quality Commission. At the contested case hearing, McInnis was represented by Jess Glaeser, attorney at law. Holly Duncan, Environmental Law Specialist, represented the Department. (For a summary of the evidence presented at the hearing, see the Department's Hearing Memorandum attached hereto and incorporated by reference.)

4. In his Final Order, the Hearings Officer concluded that McInnis discharged wastes into waters of the state on May 19, 1994 and May 24, 1994. The Hearings Officer concluded

that the Department did not present adequate evidence to establish a violation on August 11, 1994.

5. On October 16, 1995, McInnis filed an appeal to the Hearings Officer's Final Order which contains six exceptions to the Hearing's Officer's finding and conclusions.

II. DEPARTMENT RESPONSE

6. At the hearing, the Department presented evidence to support the Hearings Officer's conclusion that McInnis discharged wastes into waters of the state on May 19, 1994. The Department presented evidence in the form of testimony and lab analysis that McInnis discharged wastewater that was high in suspended solids and had a visible petroleum sheen into waters of the state on May 19, 1994. (See, Hearing Memorandum paragraphs 3-6).

7. At the hearing, the Department presented testimony that McInnis discharged industrial waste that contained old crankcase oil or hydraulic fluid into the waters of the state on May 24, 1994. (See, Hearing Memorandum paragraphs 10-11).

8. The record contains evidence sufficient to support the Hearings Officer's finding that McInnis discharged wastes into waters of the state on May 19, 1994, and May 24, 1994, in violation of Oregon Revised Statute 468B.050(1)(a).

III. CONCLUSION

The Department requests that the Environmental Quality Commission uphold the Hearings Officer's Final Order and Judgment.

11/14/95
Date

Holly Duncan
Environmental Law Specialist
Enforcement Section
Department of Environmental Quality

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: DAVID A. McINNIS, doing business as, McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULTZ SANITATION,	))))))	HEARING MEMORANDUM CLOSING ARGUMENT No. WQIW-NWR-94-311 MULTNOMAH COUNTY

On July 19, 1995, a contested case hearing was held in front of Hearings Officer Lawrence Smith on the appeal of the Notice of Violation, Department Order and Assessment of Civil Penalty issued to David A. McInnis, doing business as, McInnis & Son Sanitary Service, McInnis Enterprises, Ltd., and Schultz Sanitation (hereinafter "McInnis").

The Department of Environmental Quality (hereinafter "Department") presented testimony from three witnesses: Ivan Blinderman, Kelly Hendryx and Jim Sheetz. McInnis presented testimony from an employee of Schultz Sanitation, Robert Stiff and David A. McInnis. At hearing, testimony and other evidence was presented of the following facts:

I. FACTS

1. The property located at 5835 Northeast 105th Avenue is owned by David A. McInnis. ("McInnis property"). David A. McInnis, owns and operates McInnis & Sons Sanitary Service, an assumed business name. David A. McInnis is the responsible corporate officer of Schultz Sanitation. (See, testimony McInnis).

2. Schultz Sanitation occasionally uses the McInnis property for repair or maintenance work on portable toilets. (See, testimony Stiff).

3. On May 19, 1994, the Department referred a citizen complaint to the City of Portland, Bureau of Environmental Services (hereinafter "COP BES") that employees of McInnis were washing out portable toilets into a storm drain from the McInnis property. (See, Exhibit 5).

4. On May 19, 1994, COP BES inspectors Ivan Blinderman and Duane Smith responded to the complaint and observed employees of McInnis discharging wastewater into a storm drain, owned by the City of Portland, located at the northwest corner of Northeast 105th and Simpson. (See, Exhibits 7A, 7B, 7C and 8)

5. On May 19, 1994, Smith and Blinderman observed wastewater generated from the McInnis property flowing into the storm drain. The wastewater was high in suspended solids and had a visible petroleum sheen. (See, Exhibit 8). The inspectors collected samples of the discharge as it flowed into the storm drain. Laboratory analysis of the samples confirm that the discharge contained polluting substances. (See, testimony Blinderman, and Exhibit 9).

6. On May 19, 1994, Smith asked an employee at the McInnis property who was the manager or supervisor of the facility. The employee directed Smith to David McInnis. (See Exhibit 8, page 2) Smith reported: "Mr. McInnis stated that employees had been cleaning portable toilets that had been turned over." (See, Exhibit 8, p 2).

7. The wastewater which flowed into the storm drain originated from the activities at the McInnis property and there was no other possible source of the wastewater. (See, testimony Blinderman)

8. On May 23, 1994, Blinderman, researched plumbing records of the McInnis property and obtained a copy of a plumber's map and report of the McInnis property. The plumber's map illustrated that the catch basin located on the McInnis property flowed into Deering Drainage Canal. (See, Exhibit 6C and Blinderman testimony)

9. On May 23, 1994, Blinderman hand-delivered the plumber's map report to David McInnis. Blinderman described to Mr. McInnis that the catch basin located on the property flowed into Deering Drainage Canal. (See, Blinderman testimony)

10. On May 24, 1994, COP BES inspector Kelly Hendryx inspected the McInnis property and observed auto fluids containing old crankcase oil or old hydraulic fluid draining into the catch basin on the McInnis property. The wastewater was generated by activities on the McInnis property and could have come from no other source. (See, testimony Hendryx)

11. Hendryx classified the waste as industrial process wastewater. (See, testimony Hendryx) Hendryx spoke to Steve Murphy, an employee of Schultz Sanitation, and told Murphy that the wastewater being generated needed to be managed in accordance with applicable regulations. (See, Hendryx testimony and Exhibit 11) Hendryx questioned whether the catch basin flowed into a holding tank or Deering Drainage Canal. (See, Exhibit 11)

12. On May 25, 1994, Blinderman performed a dye test on the catch basin to determine whether the wastewater entering the catch basin flowed into a holding tank or into Deering Drainage Canal. (See, Exhibit 10A) The test confirmed that the catch basin did not drain into the holding tank but was inconclusive about whether it flowed into the Deering Drainage Canal. (See, Exhibit 10A, Blinderman testimony)

13. On August 9, 1994, Blinderman performed a second dye test on the catch basin which confirmed that the catch basin flowed into Deering Drainage Canal. (See, Exhibit 10B)

14. On August 11, 1994, several representatives from the COP BES and the Department inspected the McInnis property. At the time of the inspection, the inspectors observed employees of McInnis washing dumpsters and garbage containers and allowing the wastewater to enter the catch basin on the McInnis property. The wastewater contained oils, and other process wastes. (See, testimony Sheetz and Exhibit 13).

15. On August 17, 1994, the Department issued McInnis a Notice of Noncompliance (NON) describing the violations observed during the August 11, 1994, inspection. The NON also confirmed the agreement between the Department and McInnis that McInnis would submit a wastewater control plan within 30 days. (See, Exhibit 13 p 2)

16. McInnis does not have a water quality discharge permit issued by the Department pursuant to ORS 468B.050. (See, Exhibit 2, paragraph 15).

17. On December 28, 1994, the Department issued Notice of Violation, Department Order and Assessment of civil Penalty No. WQIW-NWR-94-311 (Notice of Violation) to McInnis in which the Department assessed McInnis a $12,600 civil penalty for three violations and ordered McInnis to submit a wastewater control plan to the Department which describes how

McInnis intends to eliminate, contain or recycle all wastewaters at McInnis' facility so there is no discharge into waters of the state. (See, Exhibit 1)

18. On several occasions including in the Notice of Noncompliance dated June 10, 1994 (See, Exhibit 12); at the time of the August 11, 1994, inspection; and in the August 17, 1994 Notice of Noncompliance; (See Exhibit 13) the Department requested that McInnis submit a wastewater control plan. On August 11, 1994, McInnis agreed to submit a wastewater control plan within 30 days. (See, Sheetz testimony)

19. On September 13, 1994, McInnis' attorney sent a letter to the Department which included a bid proposal. In his letter, McInnis' attorney states: "I know that we are running up on the thirty day period with respect to providing you with a plan. However, we really do need some additional time to put together a finalized proposal." (See, Exhibit 16)

20. DEQ inspector Sheetz became frustrated with McInnis' lack of response to the requests to submit a wastewater control plan. Mr. Sheetz stated that McInnis was uncooperative. (Sheetz testimony)

II. APPLICABLE STATUTES

21. Oregon Revised Statute (ORS) 468B.050(1) states:

> "...without first obtaining a permit from the director, which permit shall specify applicable effluent limitations and shall not exceed five years in duration, no person shall:
>
> (a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system."

ORS 468B.005(7) defines "**Wastes**" as:

> "sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances which will or may cause pollution or tend to cause pollution of any waters of the state."

ORS 468B.005(8) defines "**waters of the state**" as:

> "lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland of coastal, fresh or salt, public or private... which are wholly or partially within or bordering the state or within its jurisdiction."

III. VIOLATIONS

22. On May 19, 1994, McInnis discharged sewage and industrial wastes from the McInnis property into a storm drain owned by the City of Portland without first obtaining a permit from the Department in violation of ORS 458B.050(1)(a). The storm drain discharges into Deering Drainage Canal, waters of the state as defined in ORS 468B.005(8).

23. On May 24, 1994, McInnis discharged industrial wastes into a catch basin on McInnis property without first obtaining a permit from the Department in violation of ORS 368B.050(1)(a). Waters in the catch basin flow into Deering Drainage Canal, waters of the state.

24. On August 11, 1994, McInnis discharged industrial wastes into a catch basin on the McInnis property without first obtaining a permit from the Department in violation of ORS 468B.050(1)(a). Waters in the catch basin flow into Deering Drainage Canal, waters of the state.

IV. CIVIL PENALTY CALCULATION

25. Exhibits 1, 2 and 3 of the Notice of Violation contain the calculation of the civil penalty assessed McInnis. The Exhibits allege that the violations were Class I violations pursuant to OAR 340-12-055(1)(b) which states "Any discharge of waste that enters waters of the state, either without a waste discharge permit or from a discharge point not authorized by a waste discharge permit" is a class I violation.

26. The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a) because there is no selected magnitude for this particular violation.

27. The penalty was aggravated for two factors:

A. The "R" (causation) factor. The Department alleged that McInnis was negligent in failing to take reasonable care to avoid a foreseeable risk that the discharges of wastewater from McInnis' facility would flow into the waters of the state.

On May 19, 1994, McInnis failed to take reasonable care to avoid the foreseeable risk that the sewage and other wastewater would flow into waters of the state from the McInnis property.

On May 23, 1994, Blinderman provided McInnis with documentation demonstrating that the catch basin on the McInnis property flowed into waters of the state. On May 24, 1994, and August 11, 1994, McInnis failed to take reasonable care to ensure that industrial process wastewater would not flow into waters of the state.

McInnis was negligent in failing to take reasonable care and avoid the foreseeable risk of discharges of the industrial process wastewater into waters of the state in violation of Oregon state law.

B. The "C" (cooperativeness) factor. The Department alleged that McInnis was uncooperative in making efforts to correct the effects of the violation. Specifically, McInnis failed to submit a wastewater control plan to the Department in spite of repeated requests.

28. A Class I moderate magnitude violation with the aggravating factors that McInnis was negligent and uncooperative results in a penalty calculation of $4,200 per violation. For three violations, the total civil penalty assessed McInnis was $12,600.

July 21, 1995
Date

Holly Duncan, Environmental Law Specialist
Enforcement Section
Department of Environmental Quality

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OCT 16 1995

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

In the Matter of DAVID A. McINNIS, dba McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULZ SANITATION.	**APPELLANTS' EXCEPTIONS AND BRIEF** No. WQIW-NWR-94-311 Multnomah County

Appellants, David A. McInnis, McInnis Enterprises, Ltd., and Schulz Sanitation, herewith submit their exceptions to the Hearing Officer's Final Order, and their brief in support of those exceptions.

Appellants' brief was initially due on October 9, 1995. An extension of time was granted until October 16, 1995. These exceptions and brief are therefore timely filed.

SCOPE OF REVIEW

The Environmental Quality Commission's review of the Hearing Officer's Final Order is *de novo*. Pursuant to OAR 340-11-135(4)(i), the "Commission may substitute its judgment for that of the Hearing Officer in making any particular finding of fact, conclusion of law, or order."

EXCEPTIONS AND BRIEF

EXCEPTION NO. 1:

Appellants take exception to a finding of fact contained in Findings of Fact No. 2 in the Hearing Officer's Final Order. Specifically, as part of that finding, the Hearing Officer stated that ground water on the other side of the stream/puddle from the McInnis property was not wet and that no water or runoff from that side flowed into the storm drain that day.

Such a finding is not supported by the evidence. While Mr. Blinderman testified that the north side of the puddle was not wet, Mr. Smith, in the memorandum of his visit to the property (Ex. 8) clearly indicated that rains had contributed to the wetness

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of the McInnis property. Secondly, there was no evidence to support a conclusion that no water or runoff from the north side of the property flowed into the storm drain that day. To the contrary, evidence was presented that it had rained recently, which evidence was supported by Smith's memorandum, and that the area had flooded after those rains. Blinderman and Smith could only testify to their observations during the short period of time that they were on the property on May 19, 1994. A finding that no water or runoff from the north side of the property entered the storm drain on that day is purely speculative and flies in the face of the evidence presented by DEQ's own witnesses, specifically the Smith memorandum.

Proposed Finding. As a proposed finding for Findings of Fact No. 2, appellants propose that the last two sentences of the finding be deleted.

EXCEPTION NO. 2:

Appellants take exception to portions of the Credibility Discussion of the Hearing Officer. Specifically, the Hearing Officer found that McInnis denied having any interest in portable toilets. However, a review of the testimony of David McInnis clearly indicates that he was testifying in response to a question regarding Schulz Sanitation. In fact, Schulz Sanitation has no interest in the chemical or portable toilet business. A wholly separate entity named "Willy Make It?" is the owner of all portable toilets and operates the portable toilet business.

Proposed Finding. As a proposed finding, appellants propose that the Credibility Discussion contain a statement that "McInnis denied that Schulz Sanitation had any interest in portable toilets."

EXCEPTION NO. 3:

Appellants take exception to the Conclusions set out in the Hearing Officer's Final Order with respect to the May 19, 1994 incident.

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DEQ has the burden of establishing a violation by a preponderance of the evidence. ORS 183.450(2). Specifically, with reference to the May 19, 1994 incident, DEQ failed to present any evidence whatsoever that any of the alleged discharges constitutes "waste" as that term is defined in ORS 468B.005(7).

While there was some evidence of contamination of the water flowing into the storm drain on N.E. 105th and N.E. Simpson, there was no evidence that the contamination constituted waste or that the contamination caused pollution or tended to cause pollution as defined in ORS 468B.005(3). In other words, there was no evidence that the contamination caused an alteration of the physical, chemical or biological properties of any of the "waters of the state," or that the contamination caused any public nuisance or rendered the "waters of the state" harmful or detrimental to the public health, safety or welfare. No tests were conducted with respect to Deering Canal at the outfall from the storm sewer. Thus, while the test results of the ponding water may have revealed contaminants, the evidence was not sufficient to show that there was any change or alteration of the physical, chemical or biological properties of the "waters of the state" or that there was a change in the color or odor of the "waters of the state" or that the "waters of the state" were rendered harmful or detrimental to the public health, safety or welfare.

The Hearing Officer appeared to simply conclude, without any evidence to support the conclusion, and without any comment in the Final Order, that the contamination constituted waste as it is statutorily defined.

Perhaps the Hearing Officer was relying upon some form of "official notice." However, if DEQ was relying upon official notice of a general, technical or scientific fact within their specialized knowledge, such notice should not have been accepted by the Hearing Officer since appellants were not provided with notice of the agency's intent to rely upon such "official notice" pursuant to ORS 183.450(4).

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It should be noted that DEQ did not contend that the temporary pooling of water around the storm drain constituted "waters of the state." Since the "waters of the state" in Deering Canal were not tested, there is no evidentiary basis from which one could conclude that "wastes" were discharged into the "waters of the state." There is likewise no basis to conclude that the "waters of the state" were rendered harmful to the public health, safety or welfare, or that there was any change in the color, odor or taste of the "waters of the state." What may have been true with respect to the temporary pooling of water around the storm drain is not necessarily true with respect to the "waters of the state" in Deering Canal absent some direct evidence to support that contention.

Proposed Conclusion. DEQ has failed to meet its burden of proof with respect to whether the contamination found in the pooling water at the corner of N.E. Simpson and N.E. 105th constituted "waste" within the statutory definition. DEQ did not present any evidence that the contamination, assuming that it came from the McInnis property, rendered "waters of the state" harmful to the public health, safety or welfare or that there was any change in the color, odor or taste of "waters of the state."

EXCEPTION NO. 4:

Appellants take exception to the Conclusion contained in the Hearing Officer's Final Order with respect to the May 24, 1994 incident. Specifically, there was absolutely no evidence that the automotive fluids that were seen by the DEQ witness flowing into the catch basin constituted "waste" as statutorily defined. The Hearing Officer treated this issue and concluded, without any testimony or documentary evidence to support the conclusion, that automotive fluids changed the taste and color of water. The Hearing Officer further concluded that the "discharge of such fluids was pollution."

It is interesting to note that the Hearing Officer cites no evidence in the record to support that conclusion. The reason is simple: there was none presented. The Hearing Officer simply concluded, on his own, that automotive fluids constitute pollution. Again, if

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this is some form of "official notice," appellants were not provided with notice of the agency's intent to rely upon general, technical or scientific facts within their specialized knowledge pursuant to ORS 183.450(4). Absent such notice, such evidence cannot be admitted.

Proposed Conclusion. DEQ failed to meet its burden of proof regarding the May 24, 1994 incident. Specifically, DEQ failed to establish that any contaminants contained in the water runoff into the catch basin constituted "waste" as that term is defined by law. There was no evidence that there was any change in the taste, odor or color of "waters of the state," nor was there any evidence that there was any alteration or impact on "waters of the state."

EXCEPTION NO. 5:

Appellants also take exception to the Conclusion of the Hearing Officer that it is probable that the automotive fluids in the catch basin reached Deering Canal, which is "waters of the state." The testimony presented by DEQ witnesses was that the catch basin in question holds approximately 50 gallons of liquid. DEQ witnesses also testified that there is an L-shaped pipe in the catch basin which is designed to prevent lighter liquids, such as automotive fluids, from flowing through the pipe, and which allows solid materials to fall to the bottom of the catch basin. The design of these catch basins is such to prevent solid materials and lighter liquids from passing through the pipe. This testimony was presented through Mr. Blinderman, DEQ's own witness. In addition, both Mr. Blinderman and Mr. Hendryx testified that there was no evidence that any of the automotive fluids that entered the catch basin reached Deering Canal. In fact, both testified that there was no evidence that the automotive fluids went any further than the catch basin. The Hearing Officer's finding that it is probable that automotive fluids went through the catch basin into Deering Canal can only be supported if there was a defect in the functioning of the catch basin. There was no testimony to that effect, and the conclusion as to what "probably" happened is not supported by any evidence in the record.

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DEQ has totally failed to meet its burden of proof with respect to the alleged discharges of May 24, 1994.

Proposed Conclusion: Regarding the May 24, 1994 incident, DEQ failed to meet its burden of proof that any alleged contamination of water runoff from the McInnis property was actually discharged into "waters of the state." There was no evidence presented that contaminants, if any, contained in the water runoff into the catch basin actually reached Deering Canal.

EXCEPTION NO. 6:

Appellants take exception to the finding that the alleged discharges were classified as a moderate violation. DEQ took the position that the magnitude of the violation was moderate since there was an absence of any other selected magnitude. *See*, OAR 340-12-045. However, that regulation also allows the DEQ to make a finding of minor violation if the alleged violation has no potential for or actual adverse impact on the environment nor imposed any threat to public health or other environmental receptors.

The discharges, if they occurred, were minor. The amounts of automotive fluids allegedly seen by Mr. Hendryx flowing into the catch basin were not characterized as large amounts. Likewise, since there was no evidence that the alleged discharge of automotive fluids reached Deering Canal, there can be no evidence of adverse impact on the environment.

Regarding the May 19, 1994 incident, the evidence likewise supports a minor violation. Assuming, without admitting, that the fecal material and grease and oil came from the McInnis property, there was no evidence that there were large amounts of fecal material or fecal chloroform bacteria or suspended grease and oil.

Again, since there was no testing of the "waters of the state" in Deering Canal, there can be no evidence of any adverse impact on the environment or any possibility of a threat to public health.

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Assuming that the May 19, 1994 and May 24, 1994 incidents are affirmed, both of the discharges should be classified as minor, and the fines imposed should be no more than $1,000 per violation.

Proposed Conclusion. Any alleged discharge was minor, and any fine imposed should be no more than $1,000 per violation.

DATED this 16th day of October, 1995.

Respectfully submitted,

JESS M. GLAESER, OSB #79049
Attorney for David A. McInnis,
McInnis Enterprises, Ltd., and
Schulz Sanitation

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CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing Appellants' Exceptions and Brief on the following:

Ms. Holly Duncan
Enforcement Section
Department of Environmental Quality
2020 S.W. Fourth Avenue, #400
Portland, Oregon 97201

by mailing to her a true and correct copy thereof, placed in a sealed envelope, to the address listed above, deposited in the United States Post Office at Portland, Oregon, on the 16th day of October, 1995.

JESS M. GLAESER, OSB #79049
Of Attorney for David A. McInnis, McInnis Enterprises, Ltd. and Schulz Sanitation

JESS M. GLAESER
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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

In the Matter of DAVID A. McINNIS, dba McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULZ SANITATION.	**NOTICE OF APPEAL** No. WQIW-NWR-94-311 Multnomah County

Respondents, David A. McInnis, McInnis Enterprises, Ltd., and Schulz Sanitation hereby file this Notice of Appeal, requesting that the Environmental Quality Commission review the hearings officer's final order dated August 7, 1995.

Pursuant to Oregon Administrative Rule 340-11-132, respondent has served this notice to:

Ms. Holly Duncan
Enforcement Section
Department of Environmental Quality
2020 S.W. Fourth Avenue, #400
Portland, Oregon 97201

DATED this 5th day of August, 1995.

Respectfully submitted,

JESS M. GLAESER, OSB #79049
Attorney for David A. McInnis, McInnis Enterprises, Ltd., and Schulz Sanitation

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FAX (503) 294-4366

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing Notice of Appeal on the following:

Ms. Holly Duncan
Enforcement Section
Department of Environmental Quality
2020 S.W. Fourth Avenue, #400
Portland, Oregon 97201

by mailing to her a true and correct copy thereof, placed in a sealed envelope, to the address listed above, deposited in the United States Post Office at Portland, Oregon, on the 5th day of August, 1995.

JESS M. GLAESER, OSB #79049
Of Attorney for David A. McInnis, McInnis Enterprises, Ltd. and Schulz Sanitation

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RECEIVED
AUG 7 1995

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:	)	HEARING ORDER REGARDING
	)	VIOLATION AND
DAVID A. McINNIS, dba, McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULTZ SANITATION	)	ASSESSMENT OF CIVIL PENALTY
	)	No. WQIW-NWR-94-311
	)	MULTNOMAH COUNTY

BACKGROUND

A Notice of Violation, Department Order, and Assessment of Civil Penalty was issued December 22, 1994, under Oregon Revised Statutes (ORS) Chapter 183 and 468, and Oregon Administrative Rules (OAR) chapter 340, divisions 11 and 12. On January 27, 1995, Jess Glaeser, the attorney for respondent McInnis & Son Sanitary Service, McInnis Enterprises, Ltd., and Schultz Sanitation (hereinafter, McInnis) appealed the Notice. DEQ allowed extension of the time limit for appeal and did not allege that the request was untimely.

A hearing was held on July 19, 1995, in the Department of Environmental Quality (DEQ) offices in Portland, Oregon before hearings officer Lawrence S. Smith. Respondent McInnis was represented by its attorney, Jess Glaeser, with two witnesses. Holly Duncan, environmental law specialist, represented DEQ, with three witnesses.

The record remained open until July 25, 1995, for written closing arguments. The arguments were received by the parties by July 25, 1995, and the record was closed that day. Respondent McInnis also provided two additional pages for Exhibit 17. These pages, marked as pages one and four of the report, are received into the record, as agreed at the hearing. Exhibit 17 consists of seven pages.

ISSUES

Did respondent McInnis violate ORS 468B.050(1)(a) on May 19, 1994, May 24, 1994, and August 11, 1994? If respondent McInnis violated the law, were the penalties appropriate under OAR 340-12-055(1)(b)?

FINDINGS OF FACT

1. David A. McInnis owns and operates McInnis & Son Sanitary Service, and is president of McInnis Enterprises, Ltd., and Schultz Sanitation. He owns property at 5835 N.E. 105th Avenue, Portland, Oregon (hereinafter McInnis property). A repair shop for McInnis & Son is located on this property and has operated there since at least 1994.

2. On May 19, 1994, an employee or employees of McInnis & Son Sanitary Service washed out portable chemical toilets and discharged automotive fluids on the property (Exhibit 7b). The wash water from the toilets contained fecal matter (Exhibit 7c). The wash water from the discharged automotive fluids had a chemical sheen (Exhibit 7d). The wash water ran off McInnis property into a storm sewer on City of Portland property at the northwest corner of 105th and N.E. Simpson. The runoff water entering the sewer contained counts for fecal and for oil and grease greater than the limits allowed by DEQ. Water from the storm sewer is deposited into Deering Canal, which then runs into Columbia Slough. Deering Canal contained water that day. The ground on the other side of the stream from McInnis property was not wet. No water or runoff from that side flowed in the storm drain that day.

3. Right after observing and recording the runoff from McInnis property, an inspector for the City of Portland discussed with David McInnis how to avoid such a problem in the future. The property had two catch basins which were on the down slope away from the road and storm drain. McInnis told the inspector that the catch basins drained into a holding tank on the property. The inspector recommended to McInnis to have runoff water from its operations drain toward the catch basins rather than the storm drain.

4. The other inspector who observed and recorded the runoff doubted that the catch basins drained into a holding tank because of the significant cost of emptying holding tanks. On May 23, 1995, this inspector reviewed the plumbing plans for the property on file with the City of Portland (Exhibit 6c). The plans show clearly that the catch basins do not drain into the holding tank. That same day, the inspector gave McInnis a copy of the plumbing plan and told him that the water from the catch basin went directly to the Columbia Slough. Water in the catch basins flowed into Deering Canal.

5. On May 24, 1994, McInnis employee or employees washed auto fluids and runoff from cleaning waste containers into the catch basins on McInnis property.

6. On June 10, 1994, a DEQ representative sent McInnis a notice of non-compliance, based on the May 19, 1994 discharge (Exhibit 12). The notice requested that McInnis submit a plan by June 30, 1994, which outlined steps McInnis had taken to stop discharges of polluting substances in public waters. The notice did not refer to the catch basins.

7. On June 30, 1994, the attorney for McInnis faxed a letter to DEQ, stating that the cleaning would be done so all runoff water would go to the catch basins rather than the storm drains (Exhibit 14). McInnis alleged that the water in the catch basins was collected in the holding tank.

8. On August 11, 1995, an employee or employees of McInnis washed out at least one dropbox and the runoff went into one of the catch basins on the McInnis property.

9. On April 11, 1995, a McInnis employee rinsed out at least one dropbox on McInnis property (Exhibt 18). The runoff went into one of the catch basins.

10. During the time period stated above, respondent McInnis did not have a water quality discharge permit.

CREDIBILITY DISCUSSION

David McInnis alleged on behalf of respondent McInnis that dropboxes were drycleaned or scraped after the August 11, 1994 meeting and that no water from rinsing dropboxes was discharged in the catch basins. This assertion was clearly contrary to the evidence in Exhibit 18, in which a dropbox is on end over the drain and is contrary to what the witness for DEQ saw that day. He also denied having any interest in portable toilets, but such toilets were clearly on his property in pictures Exhibit 7a, 7b and 7f. His own witness talked about working on portable toilets at the location. David McInnis was very evasive and hostile during cross-examination to the extent that he would not directly answer any questions. Effective cross-examination was not possible, which made his testimony less reliable. His demeanor was indirect

and evasive. He admitted nothing contrary to his interest and denied facts which were obviously true, as stated above. His testimony was not reliable, especially when contradicted by witnesses for DEQ, who were specific and generally consistent in their testimony. They also admitted facts contrary to their interest and their demeanors were direct and earnest.

ULTIMATE FINDINGS

Respondent McInnis discharged waste into the waters of the state on May 19, 1994 and May 24, 1994.

APPLICABLE LAW

ORS 468B.050(1) states in part:

> * * *, [W]ithout first obtaining a permit from the director, * * *, no person shall:
>
> (a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system.

ORS 468B.005(7) states:

> "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances which will or may cause pollution or tend to cause pollution of any waters of this state.

ORS 468B.005(3) states:

> "Pollution" or "water pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

ORS 468B.005(8) states:

> "Water" or "the waters of this state" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private * * * which are wholly or partially within or bordering the state or within its jurisdiction.

CONCLUSIONS AND REASONS

Three violations were alleged. They will be considered separately.

May 19, 1994 incident

DEQ has the burden of establishing a violation by a preponderance of the evidence. The above findings were based on what probably happened. Respondent McInnis alleged that the discharge into the drain was from the storm drain was runoff from the state's property across the road. As stated in the Credibility Discussion above, the witnesses for DEQ were more credible than the witnesses for respondent McInnis. DEQ's witness of the May 19 incident testified directly and had photographs to support his testimony. The water used to clean portable toilets and to wash off automobile fluids flowed from the McInnis property into the storm sewer and therefore, into waters of the state. Although there was some evidence that it had rained the day before, the witness for DEQ credibly testified that there was no other source besides the runoff from McInnis property for the water which entered the storm drain. The pictures and test results from David McInnis were not persuasive because he was not a reliable witness and because the possibility of contamination from the state property did not account for actual discharge of wastes that day.

The testimony of DEQ's witness and the pictures clearly establish that the waste from McInnis property entered the waters of the state. Violation of the statute does not require a particular state of mind. It applies a strict liability standard, so knowledge or intent is relevant only regarding the amount of penalty.

May 24, 1994 incident

DEQ's witness of this incident was credible, as stated in the Credibility Discussion above. Automotive fluids were discharged into the catch basins. The catch basins drained into the Deering Canal, which falls under the definition of "waters of the state". The main question was whether the automotive fluids were pollution under ORS 468B.005(3). This definition is very broad and includes discharges that change the taste or odor of water. Automotive fluids change the taste and odor of water. The discharge would also tend to render such waters harmful to public health or to fish. Discharge of such fluids was pollution.

Respondent McInnis alleged in closing that the catch basin caught all solid materials and that lighter liquids, such as automotive fluids, were blocked. There was insufficient persuasive evidence at the hearing to back such an allegation. McInnis alleged that the catch basin was regularly cleaned and implied that meant the liquid was evacuated, but at another time, McInnis referred to this cleaning as scraping the dried material which was left. It is probable that automotive fluids went through the catch basin into Deering Canal, which was a violation of the above law.

August 11, 1994 incident

DEQ's only evidence of a discharge of a waste into waters of the state on this date was the witness' testimony that he saw an employee washing out a dropbox. He did not state conclusively that automotive fluids drained into the catch basin. His testimony was credible and established that the runoff from cleaning the dropbox entered the catch basin and therefore the waters of this

state. The main question is whether this runoff was pollution under the above law. The witness seemed to assume that the water used to rinse the dropbox carried waste. He did not describe what that waste was. Such an assumption may be correct, but more evidence is needed to establish that it was waste and/or pollution under the above statute. There is insufficient evidence of a violation on August 11, 1994.

CIVIL PENALTY

The civil penalties for the two violations are determined under OAR 340-12-045. The violations are clearly Class One under OAR 340-12-055(1)(b) because they were discharges of waste into the waters of the state without a waste discharge permit.

Under OAR 340-12-045(1)(a)(ii), the magnitude is moderate unless there are grounds to find it major or minor. Respondent McInnis alleges that it was minor because there was insufficient evidence of a discharge of waste into Deering Canal. Such a discharge was established as part of the violation. This discharge had a potential for adverse impact on the environment. The discharge of the fecal matter especially posed a threat to public health. The magnitude was moderate.

The violations are considered under the $10,000 Matrix under OAR 340-12-042(1) because they involved a violation of water quality statutes. The penalty under that matrix for a moderate, class one violation is $3,000. This is the base penalty for each violation.

The only other issues regarding the penalty are the values for the "R" and "C" factors in the calculation. Each violation shall be considered separately.

May 19, 1994 violation

Respondent McGinnis was at least negligent in discharging the waste into the storm drain. Respondent should have known that such wastes were not allowed down the drain and should have properly disposed of the runoff. A value of 2 is appropriate for the "R" factor for this violation.

Regarding cooperation by respondent McInnis (factor "C"), the witnesses for DEQ admitted that McInnis was cooperative that day and there is no evidence of further discharge in the storm drain. McInnis was first told that he could discharge such wastes in his catch basin. He apparently took steps to avoid discharge in storm drain, so this factor is given a value of -2.

The penalty is calculated by taking the base penalty of $3,000 and adding an amount from multiplying the sum of the other factors, including "R" and "C". "R" and "C" cancel each other out and the undisputed values of the other factors were 0. The multiplier was 0, so there is no addition to the base penalty. The total penalty for the May 19, 1994 violation was $3,000.

May 24, 1994 violation

The "R" factor for this violation is 0 for this violation because just four days before, respondent McInnis was told he could discharge waste in the catch basins. He was told differently just the day before the violation, but in light of the prior direction just a few days before, he was not negligent when discharging the waste.

The "C" factor is also 0 because there is no evidence of another violation. There is insufficient evidence to make a finding that respondent McInnis was uncooperative. He should have submitted a plan as requested, but there is no evidence of other discharges into the storm drain, and he was not required in writing to deal with wastes discharged into the catch basins. Without evidence of another violation after May 24, this value is 0.

As stated above, the penalty is calculated by taking the base penalty of $3,000 and adding an amount from multiplying the sum of the other factors, including "R" and "C". "R" and "C" were both 0, and the undisputed values of the other factors were also 0. This means the multiplier was 0, so there is no addition to the base penalty. The total penalty for the May 24, 1994 violation was $3,000.

The total penalty is $6,000 for both violations.

ORDER

Respondent McInnis violated ORS 468B.050(1) on May 19 and May 24, 1994 and therefore is liable for a total civil penalty of $6,000.

Dated this 7th day of August, 1995.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith
Hearings Officer

Appeal Rights

If you are not satified with this decision, you have 30 days to appeal it to the Environmental Quality Commission. See Oregon Administrative Rule (OAR) 340-11-132. If you wish to appeal the Commission's decision, you have 60 days to file a petition for review with the Oregon Court of Appeals from the date of service of the order by the Environmental Quality Commission. See, ORS 183.480 et seq.

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

DEC 2 8 1994

CERTIFIED MAIL Z 777 433 965

David A. McInnis
DBA/ McInnis & Son Sanitary Service
10643 NE Simpson
Portland, Oregon 97220

Re: Notice of Violation, Department Order and
Assessment of Civil Penalty
No. WQIW-NWR-94-311
Multnomah County

Enclosed is a Notice of Violation, Department Order and Assessment of Civil Penalty issued to you for discharging pollutants into waters of the state from your facility located at 5853 Northeast 105th Avenue, Portland, Oregon. The Department of Environmental Quality (DEQ) and City of Portland Bureau of Environmental Services (BES) have documented several incidents in which you discharged wastewater into waters of the state without first obtaining a water quality discharge permit from DEQ. Additionally, DEQ has requested on numerous occasions that you submit a plan describing how you intend to control the wastewater generated at your facility. To date, you have not submitted the wastewater control plan to DEQ.

DEQ first received a complaint on May 17, 1994, that you were discharging pollutants into the Columbia Slough from your facility. Inspectors from BES investigated the complaint and confirmed that you were discharging pollutants into the Columbia Slough. The wastewater was generated from washing refuse drop boxes and chemical toilets and from draining solvents and hydraulic fluid from the vehicle maintenance operation at the site. The wastewater generated at your facility was high in suspended solids, had a significant petroleum sheen, and a thick accumulation of petroleum products, fats and oils.

On May 24, 1994, inspectors from BES performed a follow up inspection of your facility and documented discharges of wastewater into Deering Drainage Canal which flows into the Columbia Slough, waters of the state. The inspectors documented oil and hydraulic fluid draining into a catch basin on the concrete pad located in front of the building at your facility. On May 25, 1994, BES performed a dye test and confirmed that the discharge into the drainage canal flowed into the Columbia Slough.

EXHIBIT 1
(11 pages)

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

On June 10, 1994, DEQ sent you Notice of Noncompliance describing the water quality violations and requested that you submit a wastewater control plan to the Department by June 30, 1994, describing how you intend to manage the wastewater generated at your facility. On June 30, 1994, your attorney, Jess Glaeser sent DEQ a letter requesting technical assistance from DEQ and BES in developing the wastewater control plan.

On August 11, 1994, inspectors from DEQ and BES met with you and your attorney to provide technical assistance in developing a wastewater control plan. At that time, you agreed to submit the proposal for controlling wastewater to DEQ within 30 days of the visit. During the visit, inspectors from BES and DEQ observed discharges of wastewater into waters of the state from your facility. DEQ sent you a second Notice of Noncompliance dated August 17, 1994, describing the violations documented during the August 11, 1994, site visit.

On September 13, 1994, your attorney sent DEQ a letter requesting additional time to develop the wastewater control plan. DEQ granted you the extension until October 24, 1994, on the condition that you immediately cease the cleaning and washing activities. DEQ also requested you provide written assurance that the activity was not transferred to another location. You never provided DEQ with the written assurance and, to date, you have not submitted a wastewater control plan to DEQ.

Discharging waste into waters of the state without first obtaining a permit from DEQ is a significant violation of Oregon's environmental laws. The Columbia Slough is a water quality limited water body and is particularly sensitive to pollutants. Your operation repeatedly violated the water pollution laws and, as a result, you are liable for a civil penalty assessment up to $10,000 per day for each violation.

In the enclosed Notice, I have assessed a civil penalty of $4,200 for each discharge documented by DEQ and BES for a total penalty of $12,600. In determining the amount of the penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-12-045. The Department's findings and civil penalty determination are attached to the Notice as Exhibits 1, 2 and 3.

Appeal procedures are outlined in Section VI of the Notice. If you fail to either pay or appeal the penalty within twenty (20) days, a Default Order will be entered against you.

If you wish to discuss this matter, or if you believe there are mitigating factors which the Department might not have considered in assessing the civil penalty, you may request an informal discussion by attaching your request to your appeal. Your request to discuss this matter with the Department will not waive your right to a contested case hearing.

The enclosed enforcement action also contains a Department Order requiring you to submit a wastewater control plan to the Department within 15 days which describes how you intend to eliminate, contain or recycle all the wastewaters at your facility so there is no discharge to waters of the state.

I look forward to your cooperation in complying with the environmental laws applicable to your operation. However, if any additional violations occur or if you violate the Department Order, you may be assessed additional civil penalties. Copies of referenced rules are enclosed. If you have any questions about this action, please contact Holly Duncan with the Department's Enforcement Section in Portland at 229-6742.

Sincerely,

Lydia Taylor
Interim Director

LT:h
Enclosures
cc: Northwest Region, DEQ
Water Quality Division, DEQ
Department of Justice
Environmental Protection Agency
Environmental Quality Commission
City of Portland, Bureau of Environmental Services
Jess Glaeser, Attorney for McInnis
John Bradley, Multnomah County District Attorney's Office

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: DAVID A. McINNIS, doing business as, McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULTZ SANITATION, Respondent.	)	NOTICE OF VIOLATION, DEPARTMENT ORDER AND ASSESSMENT OF CIVIL PENALTY No. WQIW-NWR-94-311 MULTNOMAH COUNTY

I. AUTHORITY

This Notice of Violation, Department Order, and Assessment of Civil Penalty (Notice and Order) is issued to Respondent, David A. McInnis, doing business as McInnis & Son Sanitary Service, McInnis Enterprises, Ltd., and Schultz Sanitation, by the Department of Environmental Quality (Department or DEQ) pursuant to Oregon Revised Statutes (ORS) Chapter 183 and 468, and Oregon Administrative Rules (OAR) Chapter 340, Divisions 11 and 12.

II. FINDINGS

1. Respondent owns or operates a waste management and septage hauling and disposal business located at 5853 Northeast 105th Avenue, Portland, Oregon ("Respondent's facility"). Respondent operates under the following assumed business names: McInnis & Son Sanitary Service, McInnis Enterprises, Ltd., and Schultz Sanitation.

2. On May 17, 1994, DEQ received a citizen complaint that Respondent was washing chemical toilets and drop boxes, and that the wastewater was flowing into the Columbia Slough.

3. On or about May 19, 1994, inspectors from the City of Portland, Bureau of Environmental Services (BES) inspected Respondent's facility and observed Respondent discharging wastewater into a storm drain located at Respondent's facility. The storm drain discharges into the Columbia Slough, waters of the state.

4. The BES inspectors took samples of the wastewater which contained oil and grease at 119.5 milligrams per liter, and fecal coliform at greater than 6,000/100 milliliters. The

Respondent generated the wastewater from washing refuse drop boxes and chemical toilets and from drainage of solvents, oils and hydraulic fluid from the vehicle maintenance operation at the Respondent's facility.

5. On or about May 24, 1994, Respondent discharged wastewater containing oil and hydraulic fluid into Deering Drainage Canal which flows into the Columbia Slough, waters of the state, through a storm drain located at Respondent's facility.

6. On May 25, 1994, inspectors from BES performed a dye test which confirmed that the discharges from Respondent's facility into the Deering Drainage Canal flowed into the Columbia Slough.

7. On June 10, 1994, DEQ sent Respondent a Notice of Noncompliance describing violations of the water quality regulations, and requesting that Respondent submit a written wastewater control plan to DEQ by June 30, 1994 describing how Respondent will ensure that wastewater does not enter waters of the state from Respondent's facility.

8. On June 30, 1994, Respondent's attorney sent DEQ a letter requesting technical assistance from BES and DEQ in developing the wastewater control plan and complying with the applicable environmental regulations.

9. On August 11, 1994, staff from DEQ and BES met with Respondent to provide technical assistance and explain the elements that should be included in a wastewater control plan. During the site visit, staff from DEQ and BES observed wastewater from Respondent's facility discharging into the waters of the state.

10. On August 11, 1994, Respondent agreed to submit a wastewater control plan within 30 days.

11. On August 17, 1994, DEQ sent Respondent a second Notice of Noncompliance describing the violations documented during the August 11, 1994 inspection of Respondent's facility.

12. On September 13, 1994, Respondent's attorney sent a letter to DEQ requesting additional time to develop a wastewater control plan.

13. By letter dated September 20, 1994, DEQ granted Respondent's request for an extension of time until October 24, 1994, to submit the wastewater control plan at Respondent's facility.

14. Respondent did not submit a wastewater control plan on or before October 24, 1994.

15. Respondent does not have a water quality discharge permit issued under ORS 468B.050 allowing Respondent to discharge wastes into the waters of the state.

III. VIOLATIONS

1. On or about May 17, 1994, Respondent violated ORS 468B.050(1)(a) because the Respondent discharged wastes into the Columbia Slough, waters of the state, without first obtaining a permit. This is a Class I violation pursuant to OAR 340-12-055(1)(b).

2. On or about May 24, 1994, Respondent violated ORS 468B.050(1)(a) because the Respondent discharged wastes into the Deering Drainage Canal which effects a junction with the Columbia Slough, waters of the state without first obtaining a permit. This is a Class I violation pursuant to OAR 340-12-055(1)(b).

3. On or about August 11, 1994, Respondent violated ORS 468B.050(1)(a) because the Respondent discharged wastes into the Deering Drainage Canal which effects a junction with the Columbia Slough, waters or the state without first obtaining a permit. This is a Class I violation pursuant to OAR 340-12-055(1)(b).

IV. DEPARTMENT ORDER

Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby ORDERED TO:

1. Immediately cease discharging any wastes into the waters of the state and come into full compliance with Oregon state law.

2. Within 15 days of receipt of this Order, Respondent shall submit a wastewater control plan to the Department which describes how Respondent intends to eliminate, contain or recycle all wastewaters at Respondent's facility so that there is no discharge to waters of the state, and submit

a statement certifying that the Respondent is not discharging wastes from another location.

V. ASSESSMENT OF CIVIL PENALTIES

The Director imposes civil penalties for the violations cited in Section II, paragraphs as follows:

Violation	Penalty Amount
1	$4,200
2	$4,200
3	$4,200

Respondent's total civil penalty is $12,600.

The findings and determination of Respondent's civil penalty pursuant to OAR 340-12-045 are attached and incorporated as Exhibit Nos. 1, 2 and 3.

VI. OPPORTUNITY FOR CONTESTED CASE HEARING

Respondent has the right to have a formal contested case hearing before the Environmental Quality Commission (Commission) or its hearings officer regarding the matters set out above, at which time Respondent may be represented by an attorney and subpoena and cross-examine witnesses. **The request for hearing must be made in writing, must be received by the Department's Rules Coordinator within twenty (20) days from the date of service of this Notice and Order, and must be accompanied by a written "Answer" to the charges contained in this Notice and Order.**

In the written Answer, Respondent shall admit or deny each allegation of fact contained in this Notice and Order and Respondent shall affirmatively allege any and all affirmative claims or defenses to the assessment of this civil penalty that Respondent may have and the reasoning in support thereof. Except for good cause shown:

1. Factual matters not controverted shall be presumed admitted;

2. Failure to raise a claim or defense shall be presumed to be a waiver of such claim or defense;

3. New matters alleged in the Answer shall be presumed to be denied unless admitted in subsequent pleading or stipulation by the Department or Commission.

Send the request for hearing and Answer to: **DEQ Rules Coordinator, Management Services Division, 811 S.W. Sixth Avenue, Portland, Oregon 97204.** Following receipt of a request for hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

Failure to file a timely request for hearing and Answer may result in the entry of a Default Order for the relief sought in this Notice and Order.

Failure to appear at a scheduled hearing or meet a required deadline may result in a dismissal of the request for hearing and also an entry of a Default Order.

The Department's case file at the time this Notice and Order was issued may serve as the record for purposes of entering the Default Order.

VII. OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondent may also request an informal discussion with the Department by attaching a written request to the hearing request and Answer.

VIII. PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after the Order imposing the civil penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before that time. Respondent's check or money order in the amount of $12,600 should be made payable to "State Treasurer, State of Oregon" and sent to the **Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204.**

12/22/94
Date

Lydia Taylor
Lydia Taylor, Interim Director

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION NO: 1. Discharge of waste into waters of the state on May 17, 1994.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-055(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a) because there is no selected magnitude applicable to this violation.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is $3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant actions and receives a value of 0 because Respondent has no prior significant actions as defined in OAR 340-12-030(14).

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because this violation was documented on a single occasion.

"R" is the cause of the violation and receives a value of 2 because the violation was caused by Respondent's negligence. Respondent failed to take reasonable care to avoid a foreseeable risk of waste discharge into the waters of the state.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 2 because the Respondent was uncooperative in submitting wastewater control plan to the Department as repeatedly requested by the Department.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there is insufficient information on which to base a finding.

PENALTY CALCULATION:

Penalty $= BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$
$= \$3,000 + [(0.1 \times \$3,000) \times (0+0+0+2+2)] + \$0$
$= \$3,000 + [(\$300)) \times (4)] + \$0$
$= \$3,000 + \$1,200 + \$0$
$= \$4,200$

EXHIBIT 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION NO: 2. Discharge of waste into waters of the state on May 24, 1994.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-055(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a) because there is no selected magnitude applicable to this violation.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is $3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant actions and receives a value of 0 because Respondent has no prior significant actions as defined in OAR 340-12-030(14).

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because this violation was documented on a single occasion.

"R" is the cause of the violation and receives a value of 2 because the violation was caused by Respondent's negligence. Respondent failed to take reasonable care to avoid a foreseeable risk of waste discharge into the waters of the state.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 2 because the Respondent was uncooperative in submitting wastewater control plan to the Department as repeatedly requested by the Department.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there is insufficient information on which to base a finding.

PENALTY CALCULATION:

Penalty $= BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$
$= \$3,000 + [(0.1 \times \$3,000) \times (0+0+0+2+2)] + \$0$
$= \$3,000 + [(\$300)) \times (4)] + \$0$
$= \$3,000 + \$1,200 + \$0$
$= \$4,200$

EXHIBIT 3

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-12-045

VIOLATION NO: 3. Discharge of waste into waters of the state on August 11, 1994.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-12-055(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-12-045(1)(a) because there is no selected magnitude applicable to this violation.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$$

"BP" is the base penalty which is $3,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-12-042(1).

"P" is Respondent's prior significant actions and receives a value of 0 because Respondent has no prior significant actions as defined in OAR 340-12-030(14).

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0.

"O" is whether or not the violation was a single occurrence or was repeated or continuous during the period of the violation and receives a value of 0 because this violation was documented on a single occasion.

"R" is the cause of the violation and receives a value of 2 because the violation was caused by Respondent's negligence. Respondent failed to take reasonable care to avoid a foreseeable risk of waste discharge into the waters of the state.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 2 because the Respondent was uncooperative in submitting wastewater control plan to the Department as repeatedly requested by the Department.

"EB" is the approximate dollar sum of the economic benefit that the Respondent gained through noncompliance, and receives a value of 0 because there is insufficient information on which to base a finding.

PENALTY CALCULATION:

Penalty $= BP + [(0.1 \times BP) \times (P + H + O + R + C)] + EB$
$= \$3,000 + [(0.1 \times \$3,000) \times (0+0+0+2+2)] + \$0$
$= \$3,000 + [(\$300)) \times (4)] + \$0$
$= \$3,000 + \$1,200 + \$0$
$= \$4,200$

JESS M. GLAESER
ATTORNEY AT LAW
YAMHILL PLAZA BUILDING
SUITE 400
815 S.W. SECOND AVENUE
PORTLAND, OREGON 97204-3025

TELEPHONE (503) 228-4963
FAX (503) 294-4366

REGIONAL OPERATIONS DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JAN 31 1995

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JAN 30 1995

OFFICE OF THE DIRECTOR

January 27, 1995

Ms. Lydia Taylor
Interim Director
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

RE: David A. McInnis, dba McInnis & Son Sanitary Service

Dear Ms. Taylor:

I am the attorney for David McInnis, dba McInnis & Son Sanitary Service, and McInnis Enterprises, Ltd., dba Schulz Sanitation.

After having received an extension of time within which to file an answer to the Notice of Violation and Department Order, we have now filed an Answer to the Notice of Violation and a request for a hearing and for informal discussion.

As part of that Order, respondent was required to submit a waste water control plan describing how he intended to eliminate, contain or recycle waste water at his facility to ensure that there is no discharge of waste waters into the Columbia Slough. Shortly after our meeting with DEQ and BES personnel at my client's facility, my client discontinued virtually all activities which would result in any discharge of waste waters into the Columbia Slough. Specifically, my client discontinued the steam cleaning and washing of his vehicles and drop boxes and other containers at that location. The vehicles are sent out for cleaning by a commercial cleaner one or two times per week, and the drop boxes and other containers are dry scraped and then wiped down with absorbent towels. This does not generate any waste water, and the solid waste that it generated is properly disposed of.

Secondly, my client no longer performs any major mechanical repair on his vehicles at the subject location. For the most part, major repairs are contracted out and done by commercial truck repair operations. Any and all minor repairs that may result or pose a risk of resulting in the spilling of any oils or other fluids are done under the enclosed bay located on the property. In addition, my client utilizes absorbent pads to clean up any and all oils or other fluids that accidentally spill and those solid wastes are properly disposed of.

EXHIBIT 2
(2 pages)

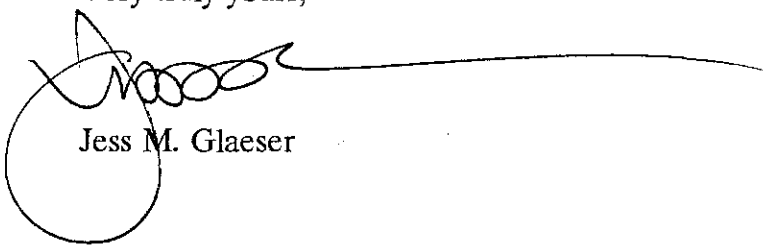
My client now believes that he has taken all steps necessary to ensure that he does not generate any waste water which may flow into the Columbia Slough.

It is important to note that up until the meeting on August 11 with members of DEQ and BES, my client was not aware that the waters that were discharging into the catch basin located on his property were actually flowing into the Columbia Slough. Rather, he believed that these waste waters were going into the catch basin which flowed into a septic tank adjacent to the catch basin located on his property.

In other words, as soon as he learned that there was a potential for waste water to be discharged from this catch basin into the Columbia Slough, he discontinued activities that might result in such discharges.

If you need any additional information or supporting documentation with respect to steps my client has taken to prevent the discharge of waste waters into the Columbia Slough, please contact me.

Very truly yours,



Jess M. Glaeser

JMG:mjp

cc: David McInnis

JESS M. GLAESER
ATTORNEY AT LAW
YAMHILL PLAZA BUILDING
SUITE 400
815 S.W. SECOND AVENUE
PORTLAND, OREGON 97204-3025

TELEPHONE (503) 228-4963
FAX (503) 294-4366

RECEIVED
JAN 30 1995

RECEIVED
FEB 11 1995

January 27, 1995

DEQ Rules Coordinator
Management Services Division
811 SW Sixth Avenue
Portland, OR 97204

RE: In the Matter of David A. McInnis, et al.
Notice of Violation, Department Order and Assessment of Civil Penalty
No. WQIW-NWR-94-311
Multnomah County

Dear Sir/Madam:

This letter will inform you that I have been retained to represent David McInnis, dba McInnis & Son Sanitary Service, and McInnis Enterprises, Ltd., dba Schulz Sanitation with respect to the above-noted matters.

This letter will serve as our request for a hearing as well as a request for an informal discussion.

In addition, enclosed please find our written Answer to the Notice of Violation and Order. Pursuant to my discussions with Holly Duncan, additional time was granted until January 27, 1995, to file the answer and request for hearings.

Very truly yours,

Jess M. Glaeser

JMG:mjp
Enclosure

cc: David McInnis (w/enc.)
Holly Duncan (w/enc.)

EXHIBIT 3
(5 pages)

RECEIVED
JAN 30 1995
RECEIVED
FEB 1 1995

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: DAVID A. McINNIS, doing business as McINNIS & SON SANITARY SERVICE, McINNIS ENTERPRISES, LTD., and SCHULZ SANITATION, Respondent.	ANSWER OF DAVID A. McINNIS, dba McINNIS & SON SANITARY SERVICE, and McINNIS ENTERPRISES, LTD., dba SCHULZ SANITATION No. WQIW-NWR-94-311

In answer to the department's Notice of Violation and Order, respondent David A. McInnis, dba McInnis & Son Sanitary Service, admits, denies, and alleges as follows:

1.

Respondent admits that it owns and operates a waste management and septic hauling and disposal business located in part at 5853 N.E. 105th Avenue, Portland, Oregon. Respondent admits that he operates under the assumed business name of McInnis & Son Sanitary Service. Respondent denies the remaining allegations of paragraph 1 of the Findings.

2.

Respondent has insufficient information to form a belief as to the truth or falsity of the allegations in Finding No. 2, and therefore denies the same.

3.

Respondent lacks sufficient information to form a belief as to the truth or falsity of the allegations in Finding No. 3, and therefore denies the same.

4.

Respondent lacks sufficient information to form a belief as to the truth or falsity of the allegations in Findings No. 4, and therefore denies the same.

JESS M. GLAESER
Attorney at Law
815 S.W. Second Avenue, Suite 400
Portland, OR 97204-3025
Telephone (503) 228-4963
FAX (503) 294-4366

5.

Respondent denies the allegations of Finding No. 5.

6.

Respondent has insufficient information to form a belief as to the truth or falsity of the allegations contained in Finding No. 6, and therefore denies the same.

7.

Respondent admits the allegations of Finding No. 7.

8.

Respondent admits the allegations of Finding No. 8.

9.

Respondent admits that on or about August 11, 1994, staff from DEQ and BES met with respondent. Respondent has insufficient information to form a belief as to the falsity of the remaining allegations of Finding No. 9, and therefore denies the same.

10.

Respondent admits that it agreed to submit a waste water control plan, or to discontinue any practices that would result in any discharge of waste water into the Columbia Slough.

11.

Respondent admits that DEQ sent respondent a second Notice of Noncompliance on or about August 17, 1994.

12.

Respondent admits the allegations contained in Finding No. 12.

13.

Respondent admits the allegations contained in Finding No. 13.

14.

Respondent admits the allegations contained in Finding No. 14.

JESS M. GLAESER
Attorney at Law
815 S.W. Second Avenue, Suite 400
Portland, OR 97204-3025
Telephone (503) 228-4963
FAX (503) 294-4366

15.

Respondent admits the allegations contained in Finding No. 15.

16.

Respondent denies all of the allegations contained in Violations Nos. 1, 2, and 3.

17.

Further, respondent denies that he is liable for any assessment of civil penalties as set forth in the Department Order.

For his First Affirmative Defense, respondent alleges as follows:

18.

The department has failed to identify the real party in interest, or otherwise identify which party, if any, is responsible for any of the alleged discharges into the Columbia Slough.

For his Second Affirmative Defense, respondent alleges as follows:

19.

Up until August 11, 1994, respondent was unaware that any waste water flowing into the catch basin located on his property was subsequently being discharged into the Columbia Slough.

20.

Respondent reasonably believed that the waste water was being discharged into a catch basin which then flowed into a septic tank located adjacent to the catch basin, which waters were then pumped out on a periodic basis.

21.

At no time was prior to August 11, 1994, was respondent aware that any waste water from his facility was entering the Columbia Slough.

JESS M. GLAESER
Attorney at Law
815 S.W. Second Avenue, Suite 400
Portland, OR 97204-3025
Telephone (503) 228-4963
FAX (503) 294-4366

For this Third Affirmative Defense, respondent alleges as follows:

22.

Shortly after the meeting that occurred between respondent, DEQ, and BES, respondent discontinued all practices which would result in the discharge of any waste water into the Columbia Slough.

23.

Specifically, respondent discontinued washing any vehicles or containers by way of steam cleaning or use of other liquids. Vehicles are now sent out for commercial cleaning and containers are dry scraped and wiped out with absorbent rags which are then properly disposed of.

24.

Respondent conducts no major mechanical repairs on the property. Any minor repairs which are done which might result in an accidental spill of oils or other fluids from the vehicles are conducted in an enclosed work-bay and are dry cleaned with the use of absorbent pads which are then appropriately disposed of.

WHEREFORE, respondent having fully answered the department's Notice of Violation and department Order, respondent prays that the Commission enter an order finding in favor of respondent, and that the Department Order be denied and no civil penalty be assessed.

DATED this 27th day of January, 1995.

Respectfully submitted,

JESS M. GLAESER, OSB #79049
Of Attorney for Respondent,
David A. McInnis, dba Mcinnis & Son Sanitary Service

JESS M. GLAESER
Attorney at Law
815 S.W. Second Avenue, Suite 400
Portland, OR 97204-3025
Telephone (503) 228-4963
FAX (503) 294-4366

Oregon

EMPLOYMENT
DEPARTMENT

Hearings Section, Suite 225

June 20, 1995

David McInnis
DBA McInnis & Sons Sanitary Service
10643 N.E. Simpson
Portland, OR 97220

RE: DEQ hearing in the matter of David A. McInnis,
dba McInnis & Son Sanitary Service
Task Order #53-95-13

A hearing to consider the respondent's request for hearing in the above matter will be held on Tuesday, July 11, 1994, at 9:00 a.m. at the DEQ office, 2020 S.W. 4th Avenue, Room C-North (4th floor), Portland, Oregon 97201, as agreed by the parties.

Enclosed is a copy of the Notice of Contested Case Rights and Procedures. Please call if you have any questions or conflicts.

Sincerely,

Lawrence S. Smith
Administrative Law Judge
Portland Hearings Section

Enc.
lss

cc: Jess Glaeser, attorney for respondent David A. McInnis
815 S.W. 2nd Ave.
Portland, OR 97204

Holly Duncan, DEQ
DEQ Enforcement Section
2020 S.W. 4th, #400
Portland, OR 97201

File

EXHIBIT 4a (1 of 2)

John A. Kitzhaber
Governor

800 NE Oregon Street, #6
Portland, OR 97232
(503) 731-4041
FAX (503) 731-4042

JESS M. GLAESER
ATTORNEY AT LAW
YAMHILL PLAZA BUILDING
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815 S.W. SECOND AVENUE
PORTLAND, OREGON 97204-3025

TELEPHONE (503) 228-4963
FAX (503) 294-4366

JUL 1995
RECEIVED
EMP. DIV.
HEARINGS
PORTLAND

COPY

July 7, 1995

Ms. Holly Duncan
Enforcement Section
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204-1390

RE: David A. McInnis, dba McInnis & Son Sanitary Service
Case No. WQIW-NWR-94-311

Dear Ms. Duncan:

This letter will confirm that the hearing in the above-referenced matter has been reset from Tuesday, July 11, 1995, at 9 a.m. to Wednesday, July 19, 1995, at 1:30 p.m.

Enclosed please find color copies of photographs that have been provided by my client. Also enclosed you will find copies of lab reports provided by David McInnis.

If you have any questions or concerns, please do not hesitate to contact me at your convenience.

Very truly yours,

Jess M. Glaeser

JMG:mjp
Enclosures

cc: Lawrence Smith
David McInnis

EXHIBIT 4b (1 of 2)

P.C.# 373
(for office use only)

CITY OF PORTLAND
Bureau of Environmental Services

POLLUTION COMPLAINT

PLEASE PROVIDE THE FOLLOWING INFORMATION AND CHECK THE CORRECT BOX

DATE: 05/19/94 TIME: 10 : 00 a.m./p.m.

TAKEN BY: ABT

ADDRESS / SITE:
105th - Simpson

WHO? WHERE? HOW?

POLLUTION TYPE:
- ☐ SURFACE WATER
- ☐ STREET
- ☐ GROUND
- ☒ SEWER
- ☐ OTHER

POLLUTANT TYPE:
- ☐ OIL/FUEL
- ☐ SOLID
- ☐ HAZARDOUS/TOXIC
- ☒ SEWAGE
- ☐ OTHER

REPORTED BY:
- ☐ CALLER WOULD LIKE TO REMAIN ANONYMOUS
- NAME: Paul Keiran
- ADDRESS: DEQ
- TELEPHONE #: 229 5937
- ☒ TELEPHONE ☐ LETTER
- ☐ IN PERSON ☐ OTHER

POLLUTANT SOURCE:
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☒ RESIDENTIAL

WHO? WHAT? WHERE? WHEN? HOW?

DESCRIPTION:
McDonnis & Son — washing out porta potty's into D eight now!!

EXHIBIT 5

FORWARD TO SR/PP EMERGENCY NOTIFICATION DESK

~~Exhibit 5~~
~~Page 1 of 10~~

ASSIGNED TO: DAS / JHB
- ☒ INVESTIGATOR
- ☐ PERMIT MANAGER

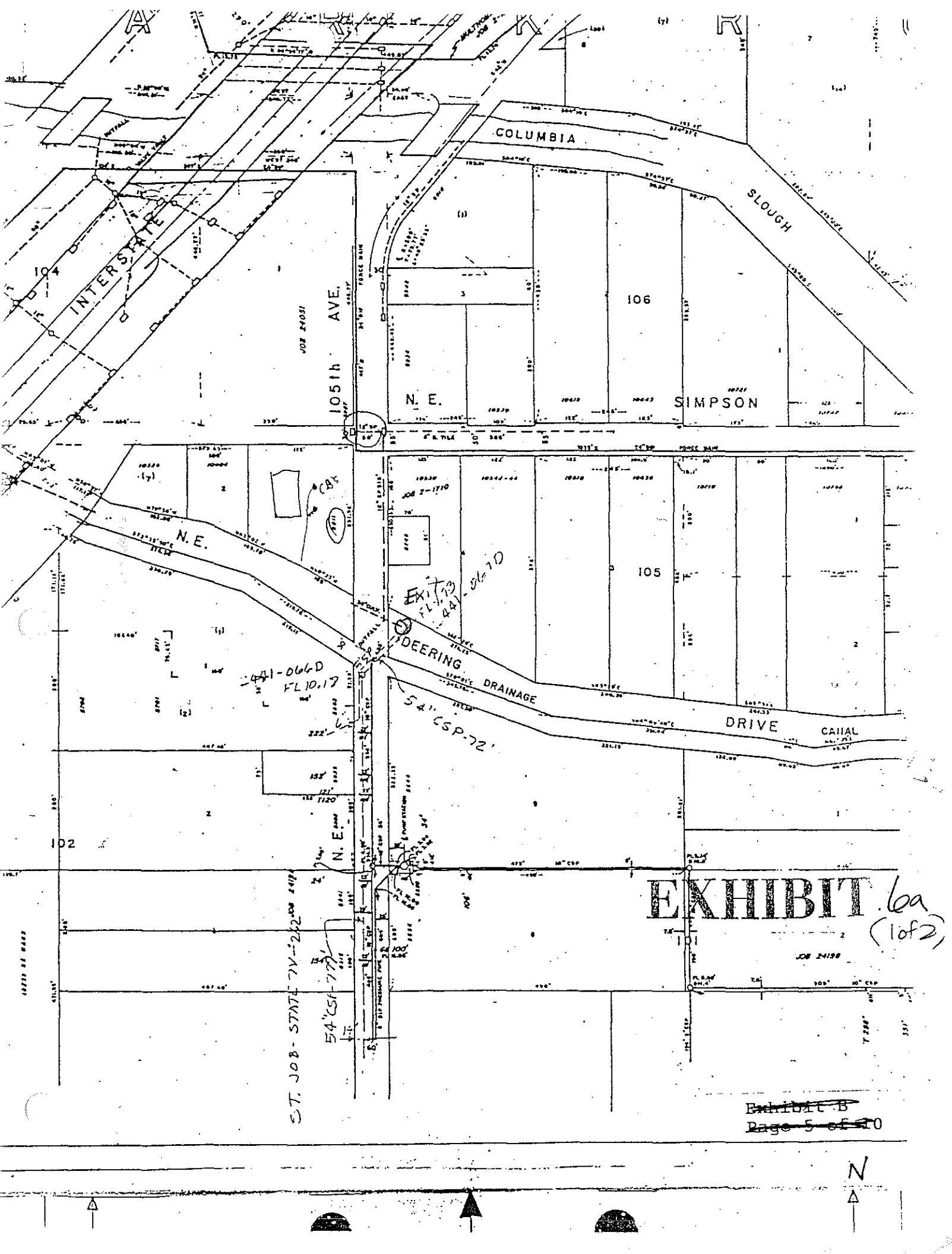
REFERRED TO:
- ☐ DEQ ☐ B.O.M. ☐ U.S.C.G. ☐ S.C.D.
- ☐ NUISANCE ☐ SANITATION ☐ OTHER

COMPLAINANT UPDATE:
- ☒ YES ☐ NO

IF YES

HOW?:
- ☒ TELEPHONE ☐ IN PERSON ☒ LETTER

ATTACH ADDITIONAL SHEETS AS NECESSARY


COLUMBIA
SLOUGH
INTERSTATE
1051h AVE.
N. E.
SIMPSON
DEERING
DRAINAGE
DRIVE
CANAL
104
106
105
102
101
EXHIBIT 6a (1 of 2)
Exhibit B
Page 5 of 10
N

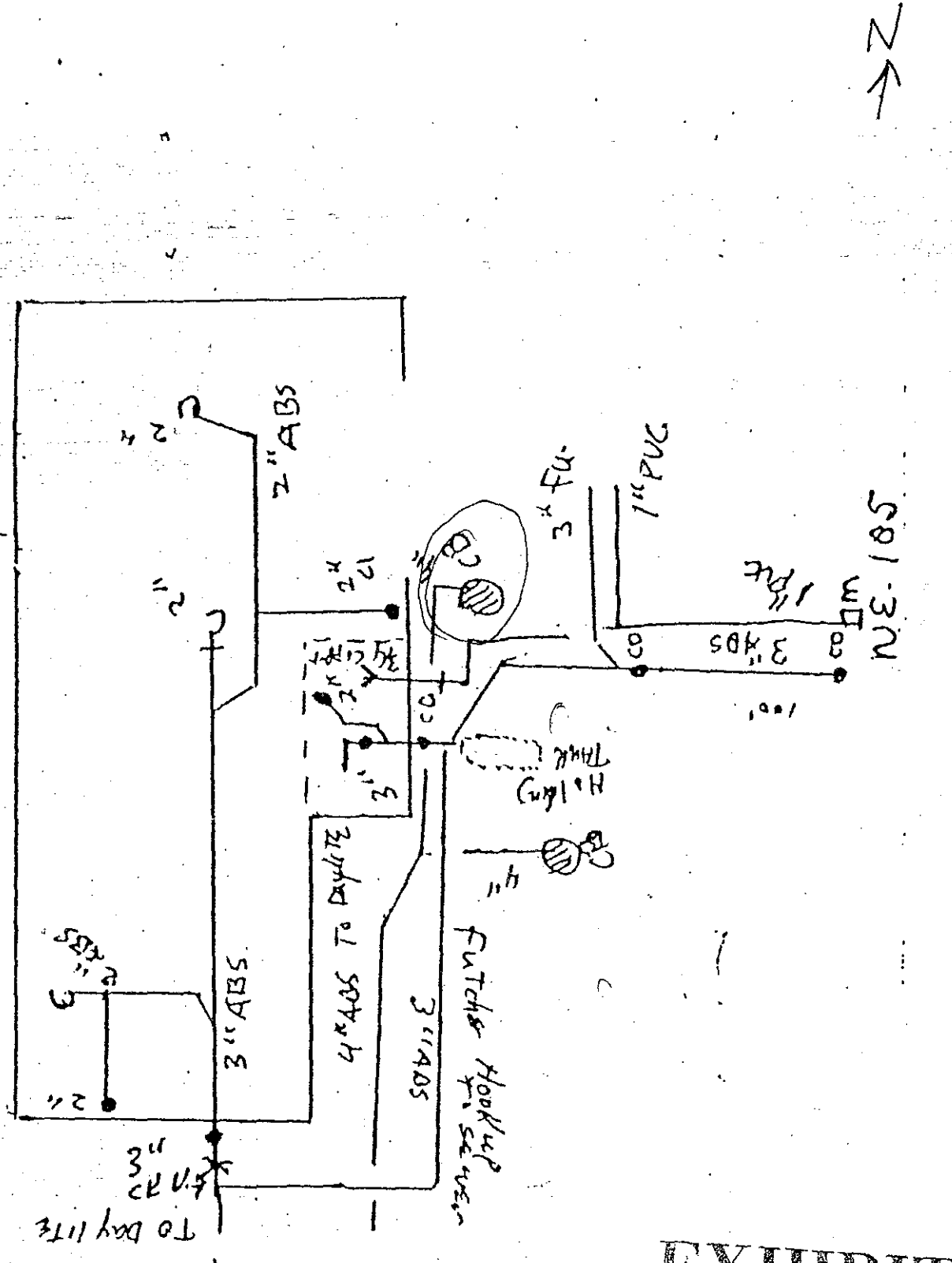


EXHIBIT
6b
(1 of 2)

counts/100 ml.

These activities have placed your firm in violation of several Oregon Revised Statutes and Oregon Administrative Rules, as listed below.

1. ORS 164.785(1) - It is unlawful for any person, including a person in the possession or control of any land, to discard any dead animal carcass or part thereof, excrement, putrid, nauseous, noisome, decaying, deleterious or offensive substance into or in any other manner befoul, pollute or impair the quality of any spring, river, brook, creek, branch, well, irrigation drainage ditch, cistern or pond of water.

2. ORS 164.785(2) - It is unlawful for any person to place or cause to be placed any polluting substance listed in subsection (1) of this section into any road, street, alley, lane, railroad right of way, lot, field, meadow or common. It is unlawful for any owner thereof to knowingly permit any polluting substances to remain in any of the places described in this subsection to the injury of the health or to the annoyance of any citizen of this state. Every 24 hours after conviction for violation of this subsection during which the violator permits the polluting substances to remain is an additional offense against this subsection.

3. ORS 468B.025(1)(a) - ...no person shall: (a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.

4. ORS 468B.050(1)(a) - ...without first obtaining a permit from the director...no person shall...(a) Discharge any waste into the waters of the state from any industrial or commercial establishment or activity or any disposal system.

5. OAR 340-41-445(2)(f) and (k) which prohibits discharges causing bacterial and oily pollution; specifically ...(f) Bacterial pollution or other conditions deleterious to waters used for domestic purposes, livestock watering, irrigation, bathing, or shellfish propagation, or otherwise injurious to public health shall not be allowed;...(k) Objectionable discoloration, scum, oily sleek or floating solids, or coating of aquatic life with oil films shall not be allowed;...

6. OAR 340-45-015(1)(a) which states: (1) Without first obtaining a permit from the Director, no person shall (a) discharge any wastes into the waters of the state from any industrial or commercial establishment or activity, or any disposal system.

7. OAR 340-71-600(13)(a) and (b) which requires licensees of a sewage disposal service to appropriately dispose of sewage; specifically ...Each licensee shall: (a) Discharge no part of the pumpings upon the surface of the ground unless approved by the Department in writing. (b) Dispose of pumpings only in disposal facilities approved

WQ

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHWEST REGION

June 10, 1994

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 15 1994
NORTHWEST REGION

McInnis Enterprises, Ltd., Inc.
dba Schulz Sanitation and McInnis and Son
10643 N.E. Simpson
Portland, OR 97220

CERTIFIED MAIL

Re: WQ-Multnomah County
McInnis Enterprises, Ltd., Inc.
NWR-WQ-94-066
NOTICE OF NONCOMPLIANCE

EXHIBIT 12 (3 pages)

Gentlemen:

On May 19, 1994, personnel with City of Portland Bureau of Environmental Services inspected your facilities at N.E. 105th and Simpson in Portland. On this same date, your employees were observed steam cleaning and washing a large commercial garbage truck owned by McInnis and Son and three portable toilets owned by Schulz Sanitation, a licensed sewage disposal service. Both McInnis and Son and Schulz Sanitation are business entities of McInnis Enterprises, Ltd., Inc. Due to these activities the following effects were documented:

1. Solids and wash water from the garbage truck and the portable toilets were draining from your property, crossing N.E. Simpson, and accumulating in a puddle approximately four feet wide by 20 feet long in a ditch in the public street.

2. The flow from the puddle was draining east along N.E. Simpson and discharging to a City of Portland storm sewer drain located at the N.W. corner of N.E. 105th and Simpson. The water entering the storm sewer drain was observed to be high in suspended solids and a significant petroleum sheen was visible. A thick accumulation of petroleum products and fats and oils appeared to be present in the water along the north side of N.E. Simpson. City of Portland personnel later verified that the storm sewer drain discharges to the Columbia Slough.

Exhibit E
Page 1 of 3

At the time of the inspection, samples of the wastewater discharging from your facility were collected and subsequently analyzed. The results confirmed the inspector's observations described above. The wastewater contained Biochemical Oxygen Demand (BOD) of greater than 200 mg/l, total oil and grease of 119.5 mg/l, nonpolar fraction oil and grease (petroleum fraction) 90.5 mg/l, and fecal coliform bacteria of greater than 6,000

2020 SW Fourth Avenu
Suite 400
Portland, OR 97201-49
(503) 229-5263 Voice/TT

MEMORANDUM

Date: 5/26/94

To: Duane Smith, BES Spill Response/Pollution Prevention Section
Paul Kieran, DEQ Water Quality Source Control Section
Kelly Hendryx, BES Industrial Source Control

From: Ivan Blinderman, BES Spill Response/Pollution Prevention Section

Subject: Connection Verification at McInnis & Son Facility

On May 25, 1994 Kelly Hendryx requested BES Spill Response/Pollution Prevention (SR/PP) Section staff verify the connections of catch basins at the McInnis & Son facility at 5835 NE 105th Avenue. On May 19, 1994 Dave McInnis (owner) stated to Duane Smith (SR/PP) that the catch basins drained to an on-site holding tank. On May 24, 1994 Steve Murphy of Schulz Sanitation (also owned by Dave McInnis) reaffirmed that position to Kelly Hendryx of the Source Control Division during an inspection.

Ivan Blinderman and Ali Dirks (SR/PP) performed record research and field verification to ascertain the discharge point of wastes from dumpster, portable toilet and truck washing, as well as painting and vehicle maintenance, that drain to the catch basins.

Record research indicates that the 2 on-site catch basins flow through a "4" ABS pipe to daylite" (see attached Multnomah County Report of Plumbing Inspection). The plumbing inspector's map indicates the line from the catch basins runs to the south side of the property. The Deering Drainage Canal borders 5835 NE 105th Avenue on the south side.

Field connection verification of the catch basins was performed by Blinderman and Dirks on May 25, 1994. Blinderman dye tested the catch basin in the middle of the washing area while McInnis & Son employees washed out dumpsters. Dye did not flow to the on-site holding tank or to the City of Portland storm sewer on NE 105th Avenue. The bank of the Deering Drainage Canal adjacent to the McInnis & Son facility is inaccessible due to heavy brush. A thick coating of algae and debris on the water's surface extending from the back of the McInnis & Son facility downstream to the culvert at NE 105th Avenue can be seen from the street.

EXHIBIT 10a (1 of 2)

~~Exhibit D~~
~~Page 1 of 2~~

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1211 S.W. 5th Ave., Suite 800, Portland, Oregon 97204-3713
(503) 823-5320, FAX (503) 823-5559

MEMORANDUM

Date: 8/9/94

To: Duane A. Smith

From: Ivan H. Blinderman

Re: Dye Testing at McInnis & Son

At 3:00pm on 8/9/94, I placed dye in the CB located in the middle of the washing area in front of 5835 NE 105th Avenue.

At 3:30pm on 8/9/94, I observed green dye in the Deering Canal (south slough) flowing from the west toward the culvert at 105th Avenue.

Multnomah County plumbing records indicate the CB's on McInnis' property discharges into the Deering Canal aproximately 100 feet west of the culvert at 105th Avenue.

EXHIBIT 106
(1 of 2)

LAB DIRECT Jim Cook 229-2406 / RECEPTION 823-7180

SRP#940009 Sample ID No. Received By: WB Date Received MAY 19 1994

City of Portland
Laboratory Services
Laboratory Analysis Report

Sample Date: 5/19/94

Name: McInnis & Son

Location: NE 105th & Simpson

Collected/Set By: DAS Time: 10:30am

Comp Picked Up By: Time:

Sample Point Code: C.B.

Sample Type: X G ____ C ____ S

DONE		TEST	RESULTS (mg/L)	EPA PRESERVED
		pH		
✓	✓	BOD_5	<200	WB
		TSS		
		F		
X	✓	OG-T	119.5	WB
X	✓	OG-NP	90.5	
		SO_4^{-2}		
		ACIDICS		
		B/N		
✓	✓	VPP	<0.025	WB
		S^{-2}		
		FP	°F	
		CN-A		
		CN-T		
		NH_3-N		
		NO_2^--N		
		NO_3^--N		
		TKN		
		T-PO_4		
		o-PO_4		
		RES CL_2		
		VS		
		ENTEROC.	/100 ml	
✓	✓	FECAL COL	>6000 /100 ml	
		SALMONELLA	/100 ml	

DONE	TEST	RESULTS (mg/L)	EPA PRESERVED
	METALS:		
	Cd		
	Cr		
	Cu		
	Ni		
	Pb		
	Zn		
	Hg		
	As		
	Ag		
	Se		
	Mo		
	Al		
	Sb		
	Ba		
	B		
	Be		
	Fe		
	Mg		
	Mn		
	K		
	ALKALINITY		
	HARDNESS		
	TS		
	TDS		
	TURBIDITY	NTU	
	Cl⁻		
	TOC		
	COD		
	COLOR	color units	
	CONDUCTIVITY	µmhos/cm	
	MBAS		
	TEMPERATURE	°C	

EXHIBIT 9C

~~Exhibit B~~
~~Page 8 of 10~~

COMMENTS:

ENVIRONMENTAL SVCS Fax:5038236995 Jun 9 '94 14:13 P.03/04

SRP#940009 Sample ID No. Received By: WB Date Received MAY 18 94

City of Portland
Laboratory Services
Laboratory Analysis Report

Sample Date: 5/19/94

Name: McInnis & Son

Location: NE 105th & Simpson

Collected/Set By: DAS Time: 10:30am

Comp Picked Up By: Time:

Sample Point Code: C.B.

Sample Type: X G C S

Post-it™ brand fax transmittal memo 7671 # of pages ▸ 1

To Diane Smith	From Randy Sandvik
Co.	Co.
Dept.	Phone # 823-2406
Fax # 823-6995	Fax #

DONE		TEST	RESULTS (mg/L)	EPA PRESERVED
		pH		
	✓	BOD_5		WB
		TSS		
		F		
X	✓	OG-T	1195	WB
	✓	OG-NP		
		SO_4^{-2}		
		ACIDICS		
		B/N		
	✓	VPP		WB
		S^{-2}		
		FP	°F	
		CN-A		
		CN-T		
		NH_3-N		
		NO_2-N		
		NO_3-N		
		TKN		
		T-PO_4		
		o-PO_4		
		RES CL_2		
		VS		
		ENTEROC.	/100 ml	
	✓	FECAL COL	/100 ml	
		SALMONELLA	/100 ml	

DONE		TEST	RESULTS (mg/L)	EPA PRESERVED
		METALS:		
		Cd		
		Cr		
		Cu		
		Ni		
		Se		
		Mo		
		Al		
		Sb		
		Ba		
		B		
		Be		
		Fe		
		Mg		
		Mn		
		K		
		ALKALINITY		
		HARDNESS		
		TS		
		TDS		
		TURBIDITY	NTU	
		Cl⁻		
		TOC		
		COD		
		COLOR	color units	
		CONDUCTIVITY	µmhos/cm	
		MBAS	—	
		TEMPERATURE	°C	

COMMENTS:

EXHIBIT 1d

SRP#940009

Sample ID. No.

City of Portland
Laboratory Services
Chain-of-Custody Record

Date of Sample: 5/19/94

Name: McInnis & Son

TEST	NOTEBOOK No.	PAGE NO.	TEST	NOTEBOOK No.	PAGE NO.	TEST	NOTEBOOK No.	PAGE NO.
ALKALINITY			ENTEROC.			TKN		
BOD_5	121	87	F			S=		
Br			FECAL COL.	Set up 5/19/94		SALMONELLA		
COD			HARDNESS			SO_4^{-2}		
Cl			MBAS			TOC		
RESIDUAL Cl_2			NH_3-N			TS		
CN-A			NO_2-N			TSS		
CN-T			NO_3-N			TURB		
COLOR			OIL & GREASE	113	141	VS		
COND.			o-PO_4/T-PO_4			FLASH POINT		

	METALS PREP NOTEBOOK No.	METALS PREP PAGE No.	METALS ANALYSIS TASK NAME	METALS ANALYSIS DATA FILE	ANALYST
RUN 1					
RUN 2					
RUN 3					

TEST	SET-UP	DATE	ANALYSIS	DATE	CHART SAVED
ACIDICS					
BASE/NEUTRALS					
VPP				5/20	

COMMENTS:

EXHIBIT 99

CITY OF PORTLAND
Water Pollution Control Laboratory
Field Sampling Log Sheet

Date: 5/19/94

Page: 1 of 1

Sequence no.: _____

COMPANY/LOCATION	TYPE	CODE	GAS	COMMENTS/INFORMATION	TIME	I.D. NO.
NE 105th & Simpson	G		N/A	Grab from flume running into C-Bat corner	10:30am	SRP#940009

Post-it™ brand fax transmittal memo 7671 | # of pages ▸

To Diane Smith	From R. Smallend
Co.	Co.
Dept.	Phone #
Fax # 823-6995	Fax #

Exhibit B
Page 1 of 10

EXHIBIT 96

Log written by: LHB

Log verified by: DAS

Samples relinquished by: LHB

Samples received by: MAY 19 1994 MB

Date: MAY 19 1994

Time: 1340

Field_1e 92-02-23

I stated that McInnis should perform a complete review of current work performed at the site. As part of that review he should consider separation of wet and dry operations, water usage reduction, closed loop washing systems, off site washing, and off site water disposal.

I stated that disposal to a sanitary sewer, and subsequent treatment at a wastewater treatment facility, would be the most appropriate option for the wastewater generated from his washing activities.

The McInnis facility is not currently connected to a sanitary sewer system. Sanitary wastes are discharged to a holding tank which is serviced by Schulz Sanitation(owned by McInnis).

I informed Mr McInnis that the City would follow up with formal notice of code violation and that a copy of my investigation report would be forwarded to Paul Keiran, DEQ.

The wastewater discharges observed at the time were clearly in violation of City Code and presented a significant public health threat. Due to the severity of the situation I asked that McInnis do the following:

(1) Cease all washing activities that result in discharges to the COP storm sewer system that are in violation of City Code.

(2) Clean up the water that has accumulated alongside NE Simpson.

(3) Move cleaning operation to take advantage of onsite slope to direct washwater flow to holding tank drain.

Mr. McInnis agreed to complete the tasks listed above and began giving instructions to that end as I left the facility.

Enc:

City of Portland Pollution Complaint #373
City of Portland 1/4 Section Map of locale
Facility Building Plan from City of Portland file
BES Water Pollution Control Laboratory Documents
Field Sampling Log Sheet
Laboratory Analysis Report/Request
Investigation Photograph Log
Photo Plate #1- 4 photos labeled 1,2,3, & 4
Photo Plate #2- 4 photos labeled 5,6,7, & 8

~~Exhibit B~~
~~Page 3 of 10~~

DEQ OF ENVIRONMENTAL QUALITY
RECEIVED
MAY 2 6 1994
NORTHWEST REGION

MEMORANDUM

DATE: May 19, 1994

TO: Kelly Hendryx, BES Industrial Source Control
Paul Keiran, DEQ Stormwater Section

FROM: Duane A. Smith, BES Spill Response/Pollution Prevention

SUBJECT: Pollution Complaint #373 Investigation Report

On May 19, 1994 at 10:08am the Bureau of Environmental Services Emergency Notification Desk received a call from Paul Keiran, DEQ Water Quality Duty Officer(See attached COP Pollution Complaint #373). Mr Keiran was following up on a citizen complaint.
A citizen had reported that employees of McInnis and Son located at NE 105th and Simpson were washing portable toilets in their paved parking lot and allowing the water to drain from their property into a storm drain that discharges to Deering Drainage canal which drains to Columbia Slough.(see attached COP 1/4 section map)

With the knowledge that the address in question is within the COP service district and is served by COP storm sewers, Mr. Keiran requested BES assistance in onsite investigation of the complaint.

Duane Smith(DAS), BES Spill Response/Pollution Prevention Supervisor agreed to investigate the complaint and provide detail to the DEQ.

approximately 10:30am the same day, DAS and Ivan Blinderman(IHB) arrived at McInnis facility located at NE 105th and Simpson. Dave McInnis is the owner and operator of McInnis and Son, a solid waste disposal company, and uses this facility for cleaning, maintenance, repair and storage of garbage trucks, commercial garbage dumpsters, and portable toilets. Over the course of the last 2 or 3 years, BES has received other reports of similar activities.

On arrival DAS/IHB parked the City van at the NW corner of NE 105th and Simpson. From that vantage point DAS made the following site observations(SEE ATTACHED PHOTOGRAPHS AND PHOTO LOG) :

In the McInnis and Son parking lot were several dumpsters in various states of repair and obviously being reconditioned, a large commercial garbage truck with the dump bed partially raised and in the process of being cleaned, and 3 portable toilets. Three persons, apparently employees were engaged in various cleaning and maintenance activities. A steam cleaning outfit was also located in the parking lot adjacent to the dumpsters and garbage truck. While recent rains had contributed to the wetness of Simpson Street (an unimproved gravel road at that location), the street pavement on NE 105th and Simpson was dry.

The entire McInnis facility is paved, on the north side abutting NE Simpson, and within the McInnis facility, is a paved driveway that slopes down towards and terminates at the property line. At the time of this inspection, this driveway was wet, with a line of accumulated solids washed away during cleaning activities. Water was draining down the driveway, across NE Simpson and accumulating in a puddle some 4 feet wide and 20 to 25 feet long. The overflow from the accumulated water was draining east along the north edge of NE Simpson and discharging to a COP storm sewer drain located at the NW corner of NE 105th and Simpson.

EXHIBIT 8
(3 pages)

The water entering the storm drain was high in suspended solids and a significant petroleum sheen was visible. A thick viscous accumulation of a mixture of petroleum products and polar fats and oils was present on the accumulated water along the north side of NE Simpson. At this time it was observed that conditions were still dry and the activity on the McInnis property was the sole source of water currently discharging to the COP storm sewer.

After making these initial site observations, water quality samples were obtained from the free discharge into the COP storm sewer located on the NW corner of NE 105th and Simpson. These "grab" samples were obtained using sample containers provided by the COP Water Pollution Control Laboratory and were collected through implementation of standard QA/QC procedures established to maintain compliance with sample acquisition requirements established by the USEPA.(See attached Field Sampling Log Sheet and Laboratory Analysis Report/Request form (#SRP940009))

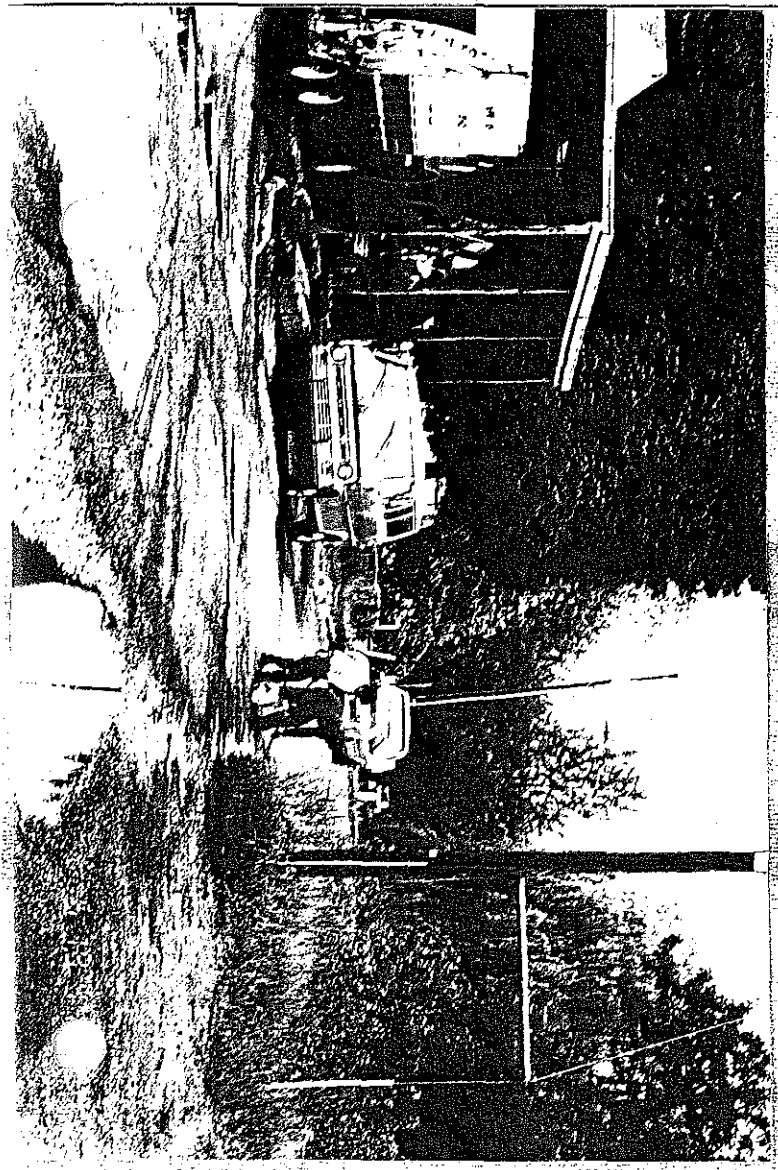
While IHB completed chain-of-custody documents, DAS entered the McInnis facility to gather information.

I entered the McInnis facility by walking up the north facing driveway and observed a significant amount of debris, that appeared to be small bits of toilet paper, paper napkin or towels washed half way down the driveway. Scattered within this debris were solids that appeared to be human fecal material. At the top end of the drive way a single employee seemed to have several projects going at once. As I walked up to introduce myself and ask for the facility manager the employee was cleaning the outside of one of three portable toilets at that location. A steam cleaning machine, connected to a water supply and ready for operation was located next to a large commercial garbage truck with it's dump bed partially raised. The truck was still dripping from recent washing activities that appeared to include washing of the dump bed interior. Also adjacent to this activity were numerous commercial garbage dumpsters in various states of repair and stages of reconditioning. An open two gallon secondary container of brown paint was setting on the ground with a five gallon container of solvent reducer. I asked the employee if he could direct me to the facility manager or supervisor, and the employee pointed across the parking lot to a man in a colored shirt and said "go talk to Dave McInnis over there".
I walked over to Mr. McInnis and introduced myself and presented my COP identification. I explained who I was and that I was responding to a complaint referred to the COP by the DEQ. I stated that the pollution complaint reported that persons on the McInnis property were washing portable toilets and allowing the water to discharge to the Columbia Slough.

I asked Mr. McInnis to provide a quick overview of the activities at this facility. Mr. McInnis informed me that dumpsters are cleaned and reconditioned, which includes washing accumulated material from inside, sanding and grinding exterior surfaces to remove rust and repainting. Portable toilets are brought back from customers to be cleaned and inspected. Mr. McInnis also stated that commercial garbage trucks are also washed and maintained at this location.

I asked Mr. McInnis to walk along with me and observe the materials that were being carried off his parking lot into the storm sewer and ultimately to Columbia Slough.

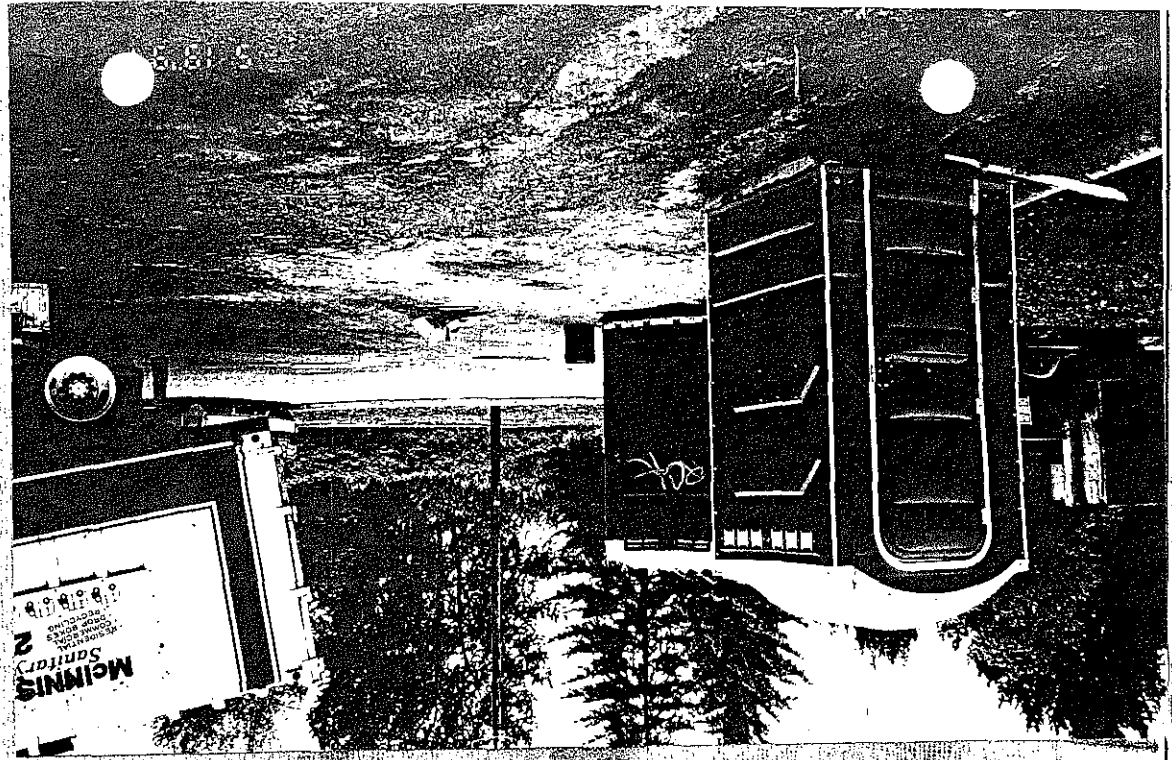
I pointed out the site conditions as described above and informed him that current operational practices were causing prohibited material to be discharged to the COP storm sewer in violation of City Code and State regulation. While making this brief inspection with Mr McInnis I brought his attention to the fecal material being washed down the driveway. Mr. McInnis stated that employees had been cleaning portable toilets that had been turned over.
After some discussion McInnis asked what he should do. McInnis stated that he could put in an oil/water separator that would improve the quality of water discharged to the storm system. I indicated that this may not be appropriate for his activities.






5 19 94





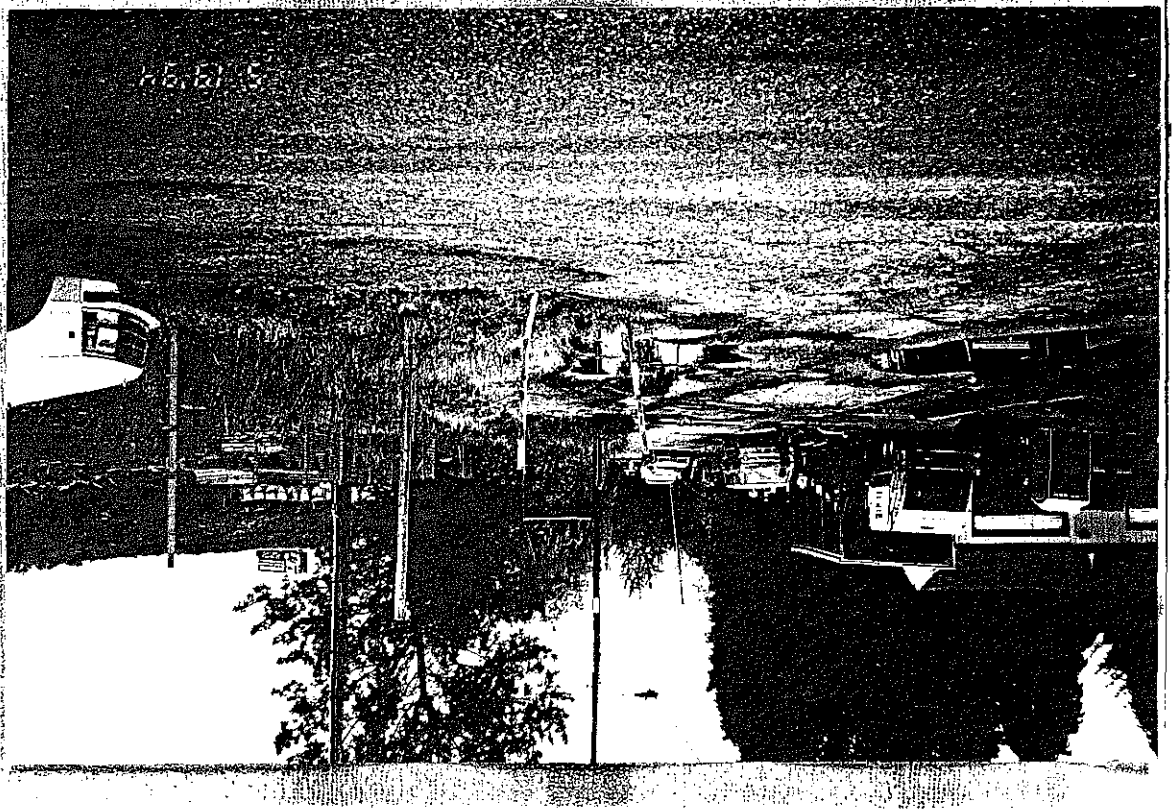


Exhibit 7 of 3

MULTNOMAH COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES/PERMIT SECTION
REPORT OF PLUMBING INSPECTION

Permit No. 040958

Address 5835 NE 105th Date 9-6-83

Lot ____ Block ____ Add'n ____ T ____ R ____

Owner Richard Thorpe

Master Plumber Certified Plbg.

Stories & Class of Building new commercial

Water Closets 1	Rain Drains 7	Connect to Sewer ____
Bath, Shower ____	Area Drain ____	Connect to Cesspool 1
Bath Tub ____	Floor Drain 3	Connect to Septic Tank ____
Basins 1	Fountain, Drinking ____	Water Service 1
Auto. Dishwasher ____	Sink, Bar ____	Trailer ____
Sink, Ordinary ____	Sink, Service ____	Other Fixtures ____
Disposal ____	Urinals ____	____
Laundry Tray ____	Catch Basins 1	____
Auto. Clothes Washer ____	Dry Wells water sy. OK. 2-29-84	BK
Hot Water Tank 1	Swimming Pool C.B - OK. 2-29-84	

Remarks C.W OK. 1-12-84 Dry line Sewer OK. 2-29-84

Date of First Inspection 2-24-84 Date of Final Inspection 5-21-84

Inspector Bob Kendall Inspector Bob Kendall

PHA 1

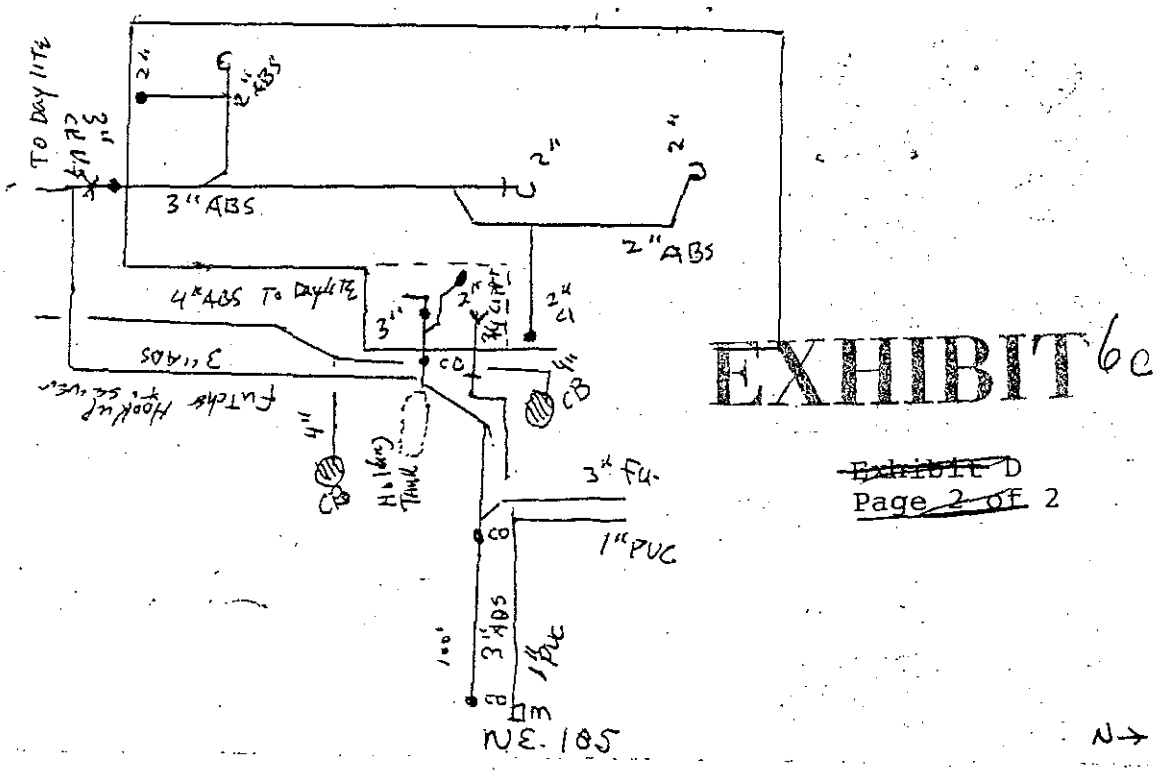


EXHIBIT 6C

~~Exhibit~~ D
Page ~~2 of~~ 2

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

August 17, 1994

Certified Mail

MR. JESS GLAESER
ATTORNEY AT LAW
1001 S.W. FIFTH AVENUE, SUITE 1300
PORTLAND, OR 97204-1129

Re: WQ-Multnomah County
McInnis Enterprises
NWR-WQ-94-088
NOTICE OF NONCOMPLIANCE

Dear Mr. Glaeser:

A description of technical assistance provided to your client, McInnis Enterprises, Ltd., Inc., and a Notice of Noncompliance relative to continuing unlawful discharge of wastewater to state waters are given below.

Technical Assistance

At your request, Department of Environmental Quality (Department) and City of Portland (City) staff met with you and your client, David McInnis, to provide technical assistance in identifying alternatives for control of wastewater from activities conducted on the premises of McInnis Enterprises, Ltd., Inc., (dba McInnis and Son) at N.E. 105th and Simpson (5835 N.E. Simpson). Enclosed are copies of correspondence that relates to the purpose of the meeting.

The meeting was held on August 11, 1994. Key participants included:

David McInnis - Principal, McInnis Enterprises, Inc.
Jess Glaeser - Attorney for McInnis Enterprises, Inc.
Marveita Redding - Environmental Compliance Manager, City of Portland, Bureau of Environmental Services
Duane Smith - Pollution Prevention Specialist, City of Portland, Bureau of Environmental Services
Dennis Illingworth - Department of Environmental Quality, Northwest Region
James Sheetz, P.E. - Department of Environmental Quality, Northwest Region

Exhibit 3
Page 1 of 4

EXHIBIT
13
(4 pages)

During the meeting, the site facilities and activities were described by Duane Smith. Mr. Smith also described the events that occurred on May 19, 1994, that were described in the Notice of Noncompliance sent to McInnis

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-498
(503) 229-5263 Voice/TD

Enterprises, Ltd, Inc., on June 10, 1994. He also described actions taken by City staff subsequent to May 19, 1994, which resulted in the determination that the on-site catch basin referred to in your proposal of June 30, 1994, is not connected to a holding tank. (Only the on-site building restroom is connected to the holding tank.) His staff determined that the on-site catch basins discharge to the Deering Drainage Canal, which flows to Columbia Slough, waters of the state.

In addition, Dennis Illingworth and I described the various technical options that may be applicable to control of wastes and wastewater generated on the site. Mr. Illingworth noted that if chemical toilets are to be cleaned on the site and wastewater from the cleaning operation is to be directed to an on-site holding tank, a Water Pollution Control Facility (WPCF) permit would be required. I described possible options for treatment of wash water and oily wastewater, and explained the requirements to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharge to state waters.

Your proposal dated June 30, 1994, submitted on behalf of McInnis Enterprises, Ltd., Inc., will not contain or control wastewater generated on the site so as to terminate and prevent unlawful discharge of wastewater to state waters. The proposal is unacceptable and is hereby disapproved.

It was verbally agreed on August 11, 1994, that you will submit a new proposal within 30 days. At a minimum, the proposal should address the following:

1 A description of chemical toilet cleaning activities and a plan to contain or control solid matter (feces), chemicals, and wash water.

2 A description of dumpster and garbage container renovation and cleaning activities and a plan to contain or control solid matter (garbage wastes) and wash water.

3 A description of vehicle maintenance, repair, and cleaning activities and a plan to contain or control oils, solvents, and other fluids.

4 A plan to prevent any of the above wastes from being carried by precipitation into any (public or private) storm drains or state waters.

5 A time schedule to implement the proposed containment or control plan.

As discussed at the meeting, a number of possible options were identified that may be combined to form an acceptable plan, such as:

1 Separate the activities to allow the most effective control to be applied to each activity.

by the Department.

The above are considered serious violations of Oregon environmental law. The Department may initiate additional enforcement action on these violations.

You are hereby requested to do the following:

1. Immediately cease the discharge of pollutants to public waters and/or placing polluting substances in a location where they might enter public waters.

2. Take immediate steps to ensure that future discharges of polluting substances into public waters will not recur.

3. By June 30, 1994, submit a written report outlining steps your company has taken to ensure that polluting substances will be prevented from entering public waters.

If you have any questions, you may contact me at 229-5740.

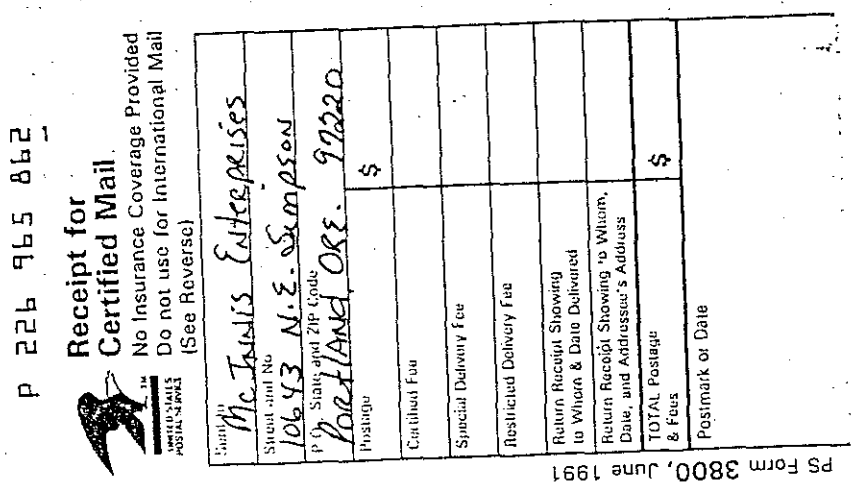
Sincerely,

James R. Sheetz, P.E., DEE
Sr. Environmental Engineer
Source Control Section

JRS:jrs

Exhibit E
Page 3 of 3

cc: Duane Smith, City of Portland, Bureau of Environmental Services
Water Quality Division



Enclosures

1. Letter from James Sheetz to Jess Glaeser dated August 1, 1994.
2. Letter from Jess Glaeser to James Sheetz dated June 30, 1994.
3. Notice of Noncompliance from James Sheetz to McInnis Enterprises, Inc., dated June 10, 1994.

cc: Duane Smith and Marveita Redding, Bureau of Environmental Services, City of Portland, 1120 S.W. 5th Ave., Room 400, Portland, OR 97204
John Hasbrook, District Attorney
Lynn Asyla, DEQ, HQ
Van Kollias, DEQ, HQ
Dennis Illingworth, DEQ, NWR, WQ
Richard Nichols, DEQ, NWR, WQ
Neil Mullane, DEQ, NWR, WQ
Files

P 226 965 858

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(See Reverse)

Sent to: Jess Glaeser, Atty at Law	
Street and No.: 1001 SW First Ave, Ste 1300	
P.O., State and ZIP Code: Portland OR. 97204-1129	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Jess Glaeser
Attorney at Law
1001 SW Fifth Ave Ste 1300
Portland Oreg 97204

4a. Article Number: P 226 965 858

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery: AUG 19 1994

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

PS Form 3811, December 1991 ☆U.S. GPO: 1993—352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

Exhibit B
Page 4 of 4

2 Relocate activities off-site to facilities equipped to handle the wastes generated.

3 Relocate the activities to covered areas to prevent precipitation from washing wastes into the storm drains.

4 Contain sanitary wastes and wastewater generated from the occasional cleaning of chemical toilets in an approved holding tank for disposal in an approved manner.

5 Conduct vehicle maintenance activities in a covered and isolated area to allow "dry" handling of all oil, solvents, and other fluids.

6 Screen, recycle, contain, and/or treat wastewater to allow reuse, containment, or disposal in an approved manner.

In addition, Departmental and City staff offered to provide, upon request, further pollution prevention technical assistance.

The foregoing items relate to development and implementation of a plan that will contain or control wastes and wastewater in the long term. However, it is also necessary for McInnis Enterprises, Inc., to take some immediate interim action to stop the unlawful discharge of wastewater to state waters.

Notice of Noncompliance

On August 11, 1994, dumpsters and garbage containers were being washed into the on-site catch basin that discharges to Deering Canal. Also on this day, the rear end of a truck was being repaired near the on-site catch basin so that oils, solvents, or other fluids could drain or be carried into Deering Canal. (A chemical toilet was on site, but it was not observed being cleaned.) These activities constitute continued unlawful discharge of wastewater to state waters and must be stopped using whatever interim measures are necessary while the ultimate solution is being selected and implemented. Accordingly, the Department will initiate enforcement action for discharge of wastewater to state waters occurring on or after September 1, 1994. This does not mean that enforcement action against McInnis Enterprises, Inc. for unlawful activities prior to September 1, 1994 is waived.

Sincerely,

James R. Sheetz

James R. Sheetz, P.E., DEE
Sr. Environmental Engineer
Source Control Section

JESS M. GLAESER
ATTORNEY AT LAW
SUITE 1300
1001 S.W. FIFTH AVENUE
PORTLAND, OREGON 97204-1129

TELEPHONE (503) 228-4963
FAX (503) 228-1317

June 30, 1994

VIA FAX 229-6945

Mr. James R. Sheetz, P.E., DEQ
Sr. Environmental Engineer
Source Control Section
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987

RE: My Client: McInnis Enterprises, Ltd.
Notice of Noncompliance
NWR-WQ-94-066

Dear Mr. Sheetz:

This letter is a follow-up to our telephone conversation on today's date, wherein I indicated that I represented McInnis Enterprises, Ltd. I informed you that I had just recently been provided with a copy of your letter constituting a Notice of Noncompliance regarding my client. A response to that letter was due on today's date.

The purpose of my call to you was to indicate that my client had identified a couple of steps that could be taken to prevent runoff from his cleaning of trucks and/or chemical toilets which might ultimately enter the storm sewer on N.E. Simpson. Specifically, there is a rise in the parking lot, and conducting the washing operations on one side or the other affects where the water flows. My client believes that washing his equipment can be done on the opposite side of the rise in such a way that the runoff is collected in a catch basin which then flows into a holding tank. This would eliminate any flow of water off of his parking area on to N.E. Simpson.

My concern here is that we want to take steps that will avoid the risk of any conduct that potentially violates Oregon law. In this regard, I requested that either DEQ or the City of Portland Bureau of Environmental Services provide us with some assistance in determining what kinds of remedial steps should be taken in order to prevent any runoff containing pollutants entering the storm sewer on N.E. Simpson. You indicated that it was necessary for you to make some additional requests of other people at DEQ to provide us with that assistance.

EXHIBIT 14
(2 pages)

In this regard, my client will conduct all steam cleaning and washing activities on a location in his property which will assure that the runoff does not flow into the storm sewer on N.E. Simpson. We will await hearing from you with respect to any additional steps that might need to be taken to ensure compliance.

I am faxing this letter to you to insure that something has been received by June 30, 1994, in compliance with your Notice of Noncompliance. If you have any questions or concerns, or if anyone else at DEQ or the City of Portland has any questions, please feel free to contact me at your convenience.

Very truly yours,

Jess M. Glaeser

JMG:mjp

cc: David McInnis

JESS M. GLAESER
ATTORNEY AT LAW
SUITE 1300
1001 S.W. FIFTH AVENUE
PORTLAND, OREGON 97204-1129

TELEPHONE (503) 228-4963
FAX (503) 228-1317

September 13, 1994

Mr. James R. Sheetz, P.E., DEQ
Sr. Environmental Engineer
Source Control Section
Northwest Region
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987

EXHIBIT 15
(6 pages)

RE: My Client: McInnis & Son Sanitary Service/Schulz Sanitation

Dear Mr. Sheetz:

Pursuant to our recent telephone conversation, enclosed please find a copy of the Quality Industries bid proposal. I understand that there are some schematics that were prepared, and as soon as I have those I will send them on to you.

We are submitting this bid proposal to you, and by copy of this letter to the City of Portland, for your comments. This is not intended to be a final position with respect to remedial action on behalf of my client. Rather, we are submitting this for purposes of discussion to ensure that we are headed in the right direction towards resolving the discharge problems. We will also be requesting bids and information from other qualified entities.

I know that we are running up on the thirty day period with respect to providing you with a plan. However, we really do need some additional time to put together a finalized proposal. Obviously, your input with respect to the enclosed bid will be extremely helpful. In addition, my client starts his divorce trial on September 19, 1994. This is a divorce proceeding that has been ongoing for a little over three years and involves major issues with respect to business valuation, etc. His attention really has been focused on those matters, and as a result of this pending trial, we are in need of additional time to further respond. Pursuant to your earlier correspondence, you will note that my client has discontinued any discharge into the catch basin which discharges into the Columbia Slough.

Upon receipt of this letter, please give me a call regarding the issue of additional time beyond the thirty days that we had initially discussed.

Very truly yours,

Jess M. Glaeser

JMG:mjp
Enclosure

cc: David McInnis
Marveita Redding

QI
QUALITY INDUSTRIES
INCORPORATED

4540 SE Johnson Creek Boulevard • Milwaukie, Oregon 97222
Phone (503) 253-1393 Fax (503) 774-8831

BID PROPOSAL

SEPTEMBER 1, 1994

SCHULTZ SANITATION
ATTN: DAVE MCGINNIS

BID PROPOSAL TO INSTALL:

I. 4000 GALLON OIL/WATER SEPERATOR BASED ON AN OIL CONCENTRATION OF 400 PPM AT INLET, AN OIL SPECIFIC GRAVITY OF .90, A FLOW RATE OF 148.1 GPM AND A DESIRED EFFLUENT PURITY OF 10 PPM.

II. 600 GALLON OIL/WATER SEPERATOR BASED ON AN OIL CONCENTRATION OF 400 PPM AT INLET, AN OIL SPECIFIC GRAVITY OF .90, A FLOW RATE OF 14 GPM AND A DESIRED EFFLUENT PURITY OF 10 PPM.
NOTE: EACH UNIT TO BE INSTALLED WITH CATCH BASIN OR DROP BOX AT INLET TO REMOVE LARGE DEBRIS PRIOR TO INLET AT OIL/WATER SEPERATORS.

III. TRENCH DRAIN WITH INTEGRATED DROP BOX, 34 FEET IN LENGTH, 6' IN WIDTH AND VARYING DEPTH FOR DRAINAGE.

WORK IS AS FOLLOWS:

BID PROPOSAL
PAGE 2

I. 4000 GALLON OIL/WATER SEPERATOR

A. PREPARATION
1. PULL PROPER PERMITS
2. LOCATE ALL UTILITIES ON JOB SITE
3. SECURE JOB SITE WITH APPROPRIATE BARRICADES
4. MARK AREAS TO BE EXCAVATED

B. EXCAVATION
1. SAWCUT ASPHALT AS MARKED
2. REMOVE ASPHALT AS CUT AND DISPOSE OF SAME
3. EXCAVATE SOIL AND DISPOSE OF SAME PROVIDED SOIL IS NOT CONTAMINATED

NOTE: CONTAMINATED SOIL (I.E.) SOIL THAT REQUIRES A SPECIAL DISPOSAL SITE APPROVED BY D.E.Q. WILL BE THE SOLE RESPONSIBILITY OF CUSTOMER. IF SOIL IS FOUND TO BE CONTAMINATED, CONTRACTOR WILL PILE SOIL ON CUSTOMERS PROPERTY AND LEAVE CONTAMINATED SOIL FOR DISPOSAL BY CUSTOMER. OR OBTAIN SEPARATE BID FOR OUR DISPOSAL OF SOIL.

C. INSTALLING TANK
1. TANK TO BE BEDDED IN WASHED PEA-GRAVEL
2. TANK TO BE CONNECTED TO EFFLUENT OF EXISTING CATCH BASIN
3. EFFLUENT OF TANK TO BE CONNECTED TO EXISTING DRAIN LINE THAT RUNS TO SLEUTH.

D. VENTING OF TANK
1. CONNECT VENTING TO TANK AND VENT ABOVE GROUND NEAR BUILDING.

E. SET UP
1. FILL TANK WITH CLEAN WATER TO BOTTOM OF EFFLUENT LINE.
2. ADVISE CUSTOMER ON CARE AND MAINTENANCE OF SYSTEM

NOTE: CARE AND MAINTENANCE WILL BE THE SOLE RESPONSIBILITY OF CUSTOMER AND IS REQUIRED TO INSURE WARRANTY OF SYSTEM.

II. 600 GALLON OIL/WATER SEPERATOR

A. PREPARATION
1. PULL PROPER PERMITS
2. LOCATE ALL UTILITIES ON JOB SITE
3. SECURE JOB SITE WITH APPROPRIATE BARRICADES
4. MARK AREAS TO BE EXCAVATED

B. EXCAVATION
1. SAWCUT ASPHALT AS MARKED
2. REMOVE ASPHALT AS CUT AND DISPOSE OF SAME
3. EXCAVATE SOIL AND DISPOSE OF SAME PROVIDED SOIL IS NOT CONTAMINATED

C. INSTALL TANK
1. TANK TO BE BEDDED IN WASHED PEA-GRAVEL
2. TANK TO BE CONNECTED TO EFFLUENT OF COMBINATION TRENCH DRAIN/DROP BOX.
3. EFFLUENT OF TANK TO BE CONNECTED TO CITY STORM EXISTING IN N.E. 105TH STREET.
4. EFFLUENT LINE TO BE BEDDED IN SAND
5. TANK TO BE COVERED IN PEA-GRAVEL
6. EFFLUENT LINE TO BE COVERED IN NATIVE SOIL
7. ASPHALT IN CITY STREET TO BE PATCHED AT LOCTION OF OUR DITCH

D. VENTING OF TANK
1. TANK TO BE VENTED ABOVE GROUND OVER TANK

E. SET UP
1. FILL TANK WITH CLEAN WATER TO BOTTOM OF EFFLUENT LINE
2. ADVISE CUSTOMER ON CARE AND MAINTENANCE OF SYSTEM

III. TRENCH DRAIN/DROP BOX

A. PREPARATION
1. PULL PROPER PERMITS
2. LOCATE ALL UTILITIES ON JOB SITE
3. SECURE JOB SITE WITH APPROPRIATE BARRICADES
4. MARK AREAS TO BE EXCAVATED

B. EXCAVATION
1. SAWCUT ASPHALT AS MARKED
2. REMOVE ASPHALT AS CUT AND DISPOSE OF SAME
3. EXCAVATE SOIL AND DISPOSE OF SAME PROVIDED SOIL IS NOT CONTAMINATED

C. INSTALLING TRENCH DRAIN
1. TRENCH DRAIN/DROP BOX TO BE BEDDED IN SAND
2. CONCRETE TO BE POURED AROUND SIDE OF TRENCH DRAIN/DROP BOX
3. TRENCH DRAIN/DROP BOX TO BE CONNECTED TO INLET OF 600 GALLON OIL/WATER SEPERATOR
4. TRENCH DRAIN/DROP BOX TO BE CAST IRON GRATING

D. SET UP
1. ADVISE CUSTOMER ON CARE AND MAINTENANCE OF SYSTEM

ALL EQUIPMENT, MATERIALS, LABOR AND PERMITS TO BE SUPPLIED BY CONTRACTOR EXCEPT WHERE OTHERWISE NOTED.

ALL ASPHALT/CONCRETE REPAIR TO BE BID SEPARATELY ON SEPARATE CHARGES EXCEPT WHERE OTHERWISE NOTED.

BID PRICE $48,880.00
FORTY-EIGHT THOUSAND, EIGHT HUNDRED AND EIGHTY DOLLARS

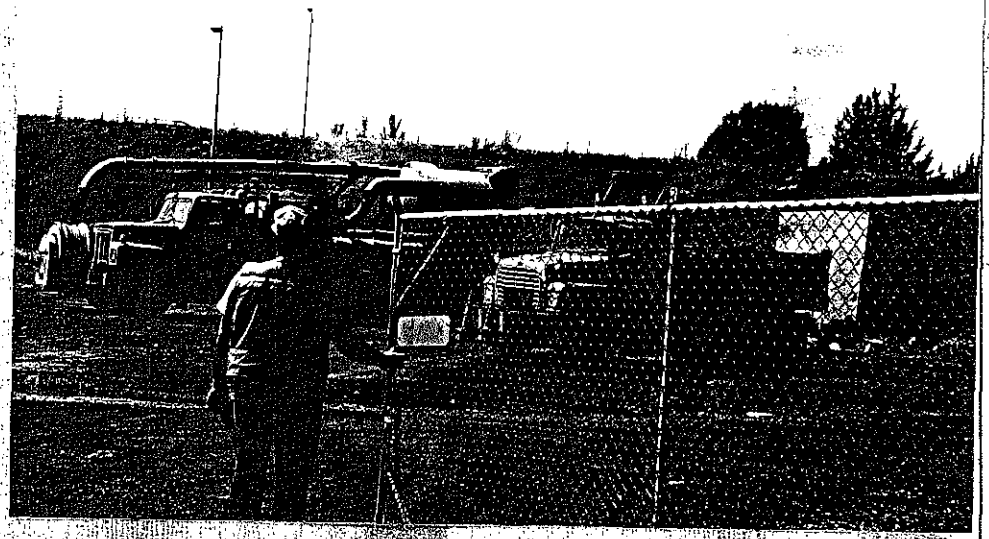
*DOWNPAYMENT OF $28,800.00 UPON ACCEPTANCE OF CONTRACT.
PAYMENT OF $10,000.00 AT START OF JOB
FINAL PAYMENT OF $10,000.00 DUE UPON COMPLETION OF JOB.

RESPECTFULLY SUBMITTED BY: CHARLES WUERPEL

ACCEPTED BY:

DATED:

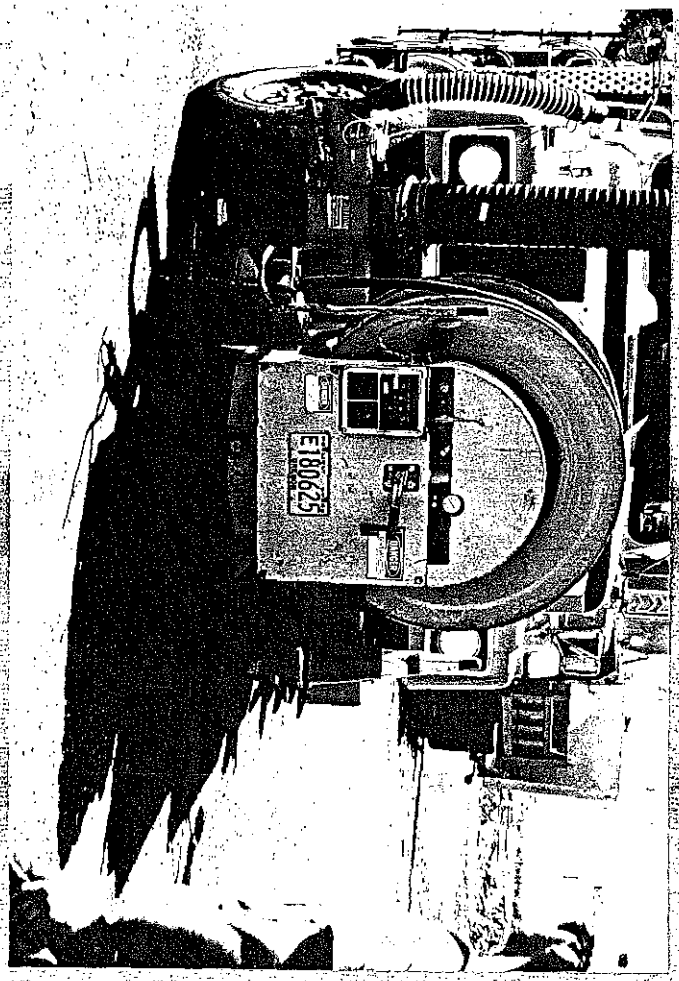


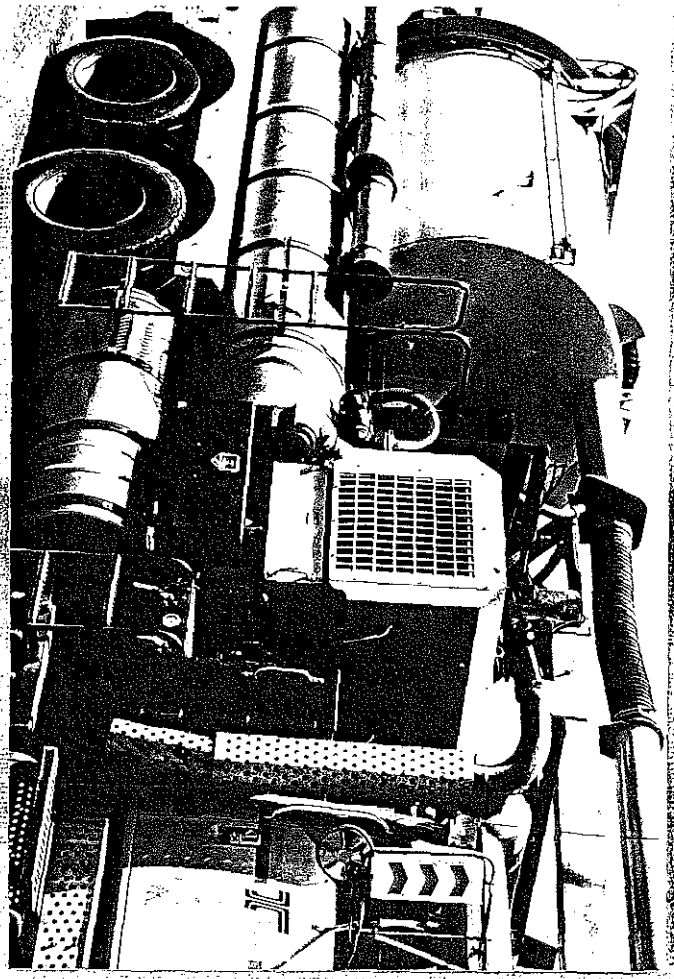




Exhibits 16 a-j

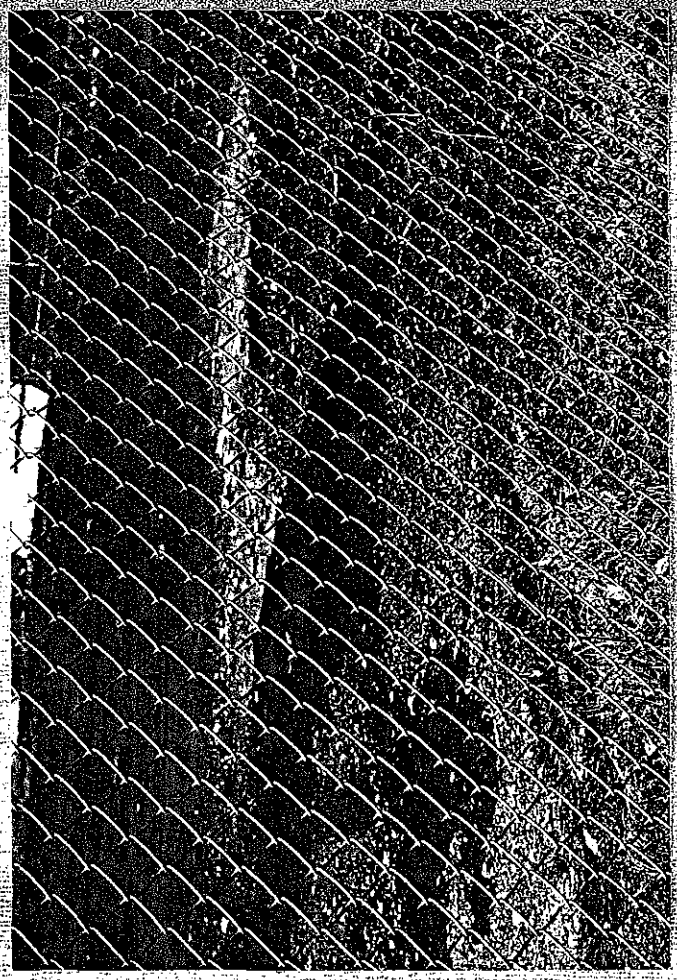



E18625











Schulz SANITATION

APRIL 17, 1995

RE: LAB REPORTS FOR 5835 NE 105TH
SAMPLE ID: 940627Z-1
FIELD ID : STATE 105 SANDY #1

TO QUALIFY FOR DUMPING AT HILLSBORO LANDFILL YOU MUST NOT EXCEED 50,000 PARTS PER MILLION ON THE TPH. IN REFERENCE TO OUR RESULTS, YOU CAN SEE THAT OUR PREMISES TESTED AT 6,400 PARTS PER MILLION. THIS LOW A TPH QUALIFIES US TO RECEIVE A PERMIT FROM HILLSBORO LANDFILL FOR DUMPING. ATTACHED IS OUR APPLICATION. IN SPEAKING WITH ELLEN AT HILLSBORO (640-9427) BASED ON OUR LAB RESULTS WE WILL BE ACCEPTED.

WE TESTED LOW TO AVERAGE ON THE FECAL COLIFORM, PH AND TCLP. IF THESE TO HIGH OR ABOVE THE ACCEPTED LIMITS, WE WOULD ALSO NOT QUALIFY FOR THE LANDFILL.

RE: LAB REPORTS FOR PROPERTY ADJOINING 5835 NE 105TH
SAMPLE ID: 940627Z
FIELD ID : STATE, 105 SANDY

THESE PREMISES TESTED AT 57,000 PARTS PER MILLION TPH WHICH DISQUALIFIES THEM FOR A REGULAR LANDFILL DISPOSAL. (50,000) PARTS PER MILLION ON THE TPH IS THE MAXIMUM ALLOWABLE). WITH THIS HIGH A TPH YOU HAVE TO DISPOSE AT ARLINGTON (HAZARDOUS WASTE) FACILITY, OR CONTACT DEQ FOR DISPOSAL SUGGESTIONS. POSSIBLY HIRE A CONSULTANT FOR HAZARDOUS WASTE TO ASSIST FINDING A SOLUTION FOR DISPOSAL.

EXHIBIT 17 (5 pages)

10643 N.E. SIMPSON • PORTLAND, OREGON 97220 • (503) 253-7587 • FAX (503) 253-0073

Analytical Data

Schulz Sanitation

Job Number: 940627Z
Page Number: 5 of 6

Lab Sample ID: 940627Z-3
Field ID: STATE, 105 Sandy
Date/Time: 06/21/94 1545
Matrix: Sludge

EPA Category: Microbiological

Parameter	Method	Analytical Result	Units
Fecal Coliform Bacteria	SM 909-C	570000	bacteria/g as received

EPA Category: Conventional Parameters

Parameter	Method	Analytical Result	Units
pH	EPA 9045	6.91	S.U.

Analysis Performed: TPH-418.1 Modified, by the Oregon DEQ Method, IR Spectrophotometry.

Parameter	Detection Limit	Laboratory Blank	Sample Results	Units	
TPHs	10	ND	56000	mg/kg	5.6 %

Analytical Data

Schulz Sanitation

Job Number: 940627Z
Page Number: 6 of 6

Lab Sample ID: 940627Z-3
Field ID: STATE, 105 Sandy
Date/Time: 06/21/94 1545
Matrix: Sludge

SUBJECT: TCLP Analysis

Analyte	Method	Detection Limit	Sample Result	EPA Limit
Arsenic	*	0.1	ND	5.0
Barium	*	0.01	1.3	100
Cadmium	*	0.02	0.03	1.0
Chromium	*	0.02	ND	5.0
Lead	*	0.1	ND	5.0
Mercury	*, 7470	0.05	ND	0.20
Selenium	*	0.2	ND	1.0
Silver	*	0.1	ND	5.0

Results are reported in milligrams per liter (mg/L)

ND means none detected at or above the detection limit listed.

* Leachate preparation by EPA SW-846 Method 1311. Analysis by EPA SW-846 Method 6010, ICP, unless otherwise noted.

Analytical Data

Schulz Sanitation

Job Number: 940627Z
Page Number: 2 of 6

Lab Sample ID: 940627Z-1
Field ID: STATE, 105 Sandy #1
Date/Time: 06/21/94 1545
Matrix: Sludge

EPA Category: Microbiological

Parameter	Method	Analytical Result	Units
Fecal Coliform Bacteria	SM 909-C	5000	bacteria/g as received

EPA C : Conventional Parameter

Parameter	Method	Analytical Result	Units
pH	EPA 9045	7.19	S.U.

Analysis Performed: TPH-418.1 Modified, by the Oregon DEQ Method, IR Spectrophotometry.

Parameter	Detection Limit	Laboratory Blank	Sample Result	Sample Duplicate Result	Units
TPHs	10	ND	2000	6400	mg/kg

ND means none detected at or above the detection limit listed.

Analytical Data

Schulz Sanitation

Job Number: 940627Z

Lab Sample ID: 940627Z-1
Field ID: STATE, 105 Sandy #1
Date/Time: 06/21/94 1545
Matrix: Sludge

SUBJECT: TCLP Analysis

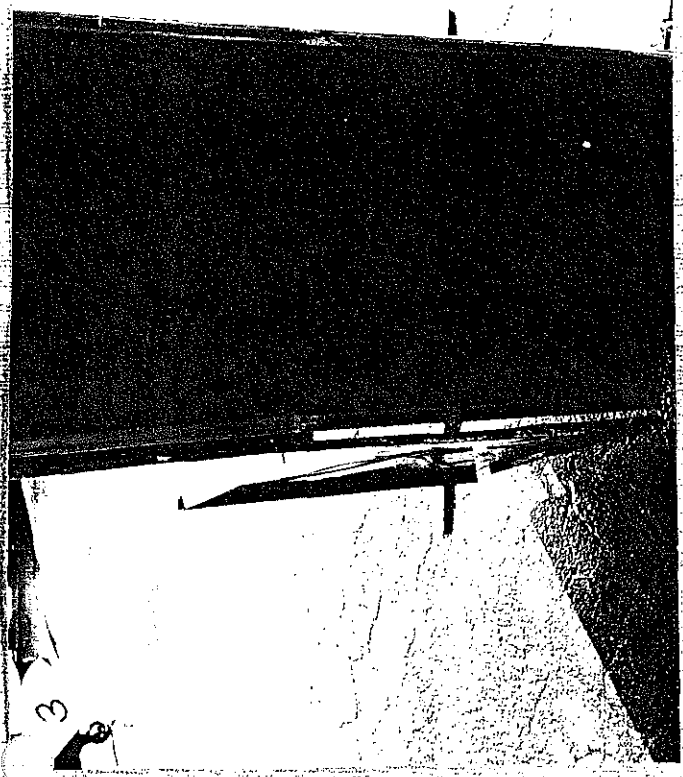
Analyte	Method	Detection Limit	Sample Result	EPA Limit
Arsenic	*	0.1	ND	5.0
Barium	*	0.01	0.89	100
Cadmium	*	0.02	ND	1.0
Chromium	*	0.02	ND	5.0
Lead	*	0.1	ND	5.0
Mercury	*, 7470	0.05	ND	0.20
Selenium	*	0.2	ND	1.0
Silver	*	0.1	ND	5.0

Results are reported in milligrams per liter (mg/L)

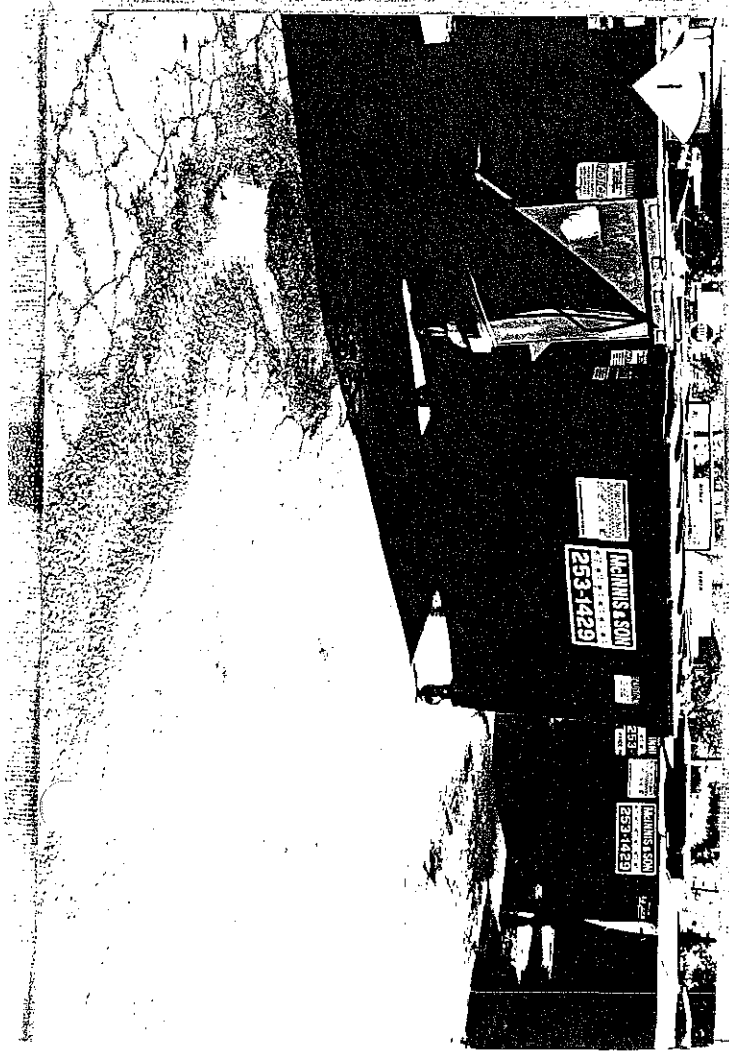
ND means none detected at or above the detection limit listed.

* Leachate preparation by EPA SW-846 Method 1311. Analysis by EPA SW-846 Method 6010, ICP, unless otherwise noted.

Exhibits 18-1 through 4









T OF ENVIRONMENTAL QUALITY
RECEIVED
MAY 26 1994
NORTHWEST REGION

MEMORANDUM

DATE: MAY 25, 1994

TO: DUANE SMITH, BES SPILL RESPONSE/POLLUTION PREVENTION
PAUL KEIRAN, DEQ WATER QUALITY SOURCE CONTROL SECTION

FROM: KELLY HENDRYX, BES INDUSTRIAL SOURCE CONTROL

SUBJECT: INSPECTION OF McINNIS AND SON FACILITY

On May 24, 1994 at 1:45pm Joe Evinger and Kelly Hendryx inspected the McInnis and Son facility located at NE 105th and Simpson. Joe Evinger and Kelly Hendryx observed auto fluids (old crankcase oil or old hydraulic fluid) draining to a catch basin on the south side of the concrete pad located in the front of the building. One of the mechanics present stated that the catch basin discharged to a holding tank used to collect domestic sewage. We also noticed a new pad of gravel (2" minus with concrete) in the area of discharge reported by the SR/PP section. Their was no catch basin in the street by the new gravel that was visible.

Kelly and Joe contacted Steve Murphy at the Schultz Sanitation office on Marx concerning the observed practice. Steve reaffirmed the discharge of the catch basin to a holding tank. I stated to Steve that the wastewater in the tank will now be classified as an Industrial process wastewater and could not be treated sa septage. I also stated that we would mail McInnis and Son a batch discharge request procedure and try to develop a location to accept the waste after appropriate testing. I also stated that the discharge would be required to meet all local limits and be certified as such prior to discharge. I then explained that if the batch discharges were to continue then a full permit would be required to facilitate the continued acceptance of the wastewater.

Observations and concerns: The observed discharge to the catch basin will have a difficult time meeting local limits without pretreatment! Duane Smith will be notified that the holding tank is now accepting Industrial process wastewater and should not be considered acceptable for the septage program. Is the catch basin discharging to the holding tank?

EXHIBIT 11

State of Oregon
Department of Environmental Quality Memorandum

Date: December 28, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item H, Variance Application of Dan L. and Carol Barry, EQC Meeting: January 11-12, 1996

Background

Mr. and Mrs. Barry (hereinafter "Appellant") desired to place a mobile home on one-half of the property in question. There is already a mobile home on the property which is connected to a standard sewage system. Appellant sought to connect the new mobile home to this existing system because the system is approved for a five bedroom house. Since the lot is in such close proximity to the city (less than 300 feet), the lots would need to be annexed by the city for water and sewer hookup which would cost approximately $78,000. Under OAR 340-71-160(5)(f), Appellant is required to hook up to city water and sewer, and no exceptions are allowed due to cost. The appellant sought a variance from this rule.

A variance hearing was held on May 24, 1994 with Paul Kennedy acting as the variance officer. On June 8, 1994 a variance was approved which allowed hook-up of the second mobile home to the existing system with the addition of a sand filter system. The conditions are more completely explained in Attachment #2. The appellant appealed the conditions placed on the variance on June 27, 1994. The matter was then referred to Lawrence Smith for review and issuance of a preliminary order.

On September 25, 1995, Mr. Smith issued a Preliminary Order and Opinion. Mr. Smith held that the current system was not adequate for 2 mobile homes and that the variance officer's decision should be upheld.

On December 8, 1995 a letter was sent to appellant requesting, in writing, any objections appellant had to the Hearings Officer's Preliminary Order and Opinion. Such objections were to be received by December 22, 1995. None were received by that date.

Authority of the Commission with Respect to the Issue

ORS 454.605 to 454.745; OAR 340-71-415

Alternatives and Evaluation

The Commission may either uphold or reverse either part or all of the Hearings Officer's Preliminary Order and Opinion. Since no exceptions to the Preliminary Order and Opinion were received from Appellant, the Variance Officer recommends that the Commission adopt the Preliminary Order and Opinion as written.

Attachments

1. Application for Variance from Administrative Rules, dated April 4, 1994.
2. Variance Application Approval with Conditions, dated June 8, 1994.
3. Letter requesting an appeal of the conditions to the variance, dated June 27, 1994.
4. Variance Staff Report by Paul Kennedy, dated August 1, 1994.
5. Letter from Dan L. Barry, dated August 15, 1995.
6. Hearings Officer's Preliminary Order and Opinion, dated September 25, 1995.
7. Letter from Susan Greco setting time for review by Commission, dated December 8, 1995.

Report Prepared By: Susan M. Greco
Phone: (503) 229-5213

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

December 8, 1995

Mr. Dan L. and Mrs. Carol Barry
1533 10th Street
Grants Pass OR 97526

RE: Variance Application
Lot 800, Section 8, T 36S R 5W, W.M.
2.82 acres, Josephine County

Dear Mr. and Mrs. Barry:

The Environmental Quality Commission will be considering the Preliminary Order and Opinion of the hearings officer in your variance application for property located in Josephine County at a regularly scheduled meeting to be held January 12, 1996 at 1:30 p.m. The meeting will be held at 811 S.W. 6th Avenue, Portland, Oregon in Conference Room 3A. At this meeting the Commission will be making a final determination on your variance application.

If you do not agree with the hearings officer's order, I will need to receive, in writing, any objections that you have to the proposed order prior to December 22, 1995. Please forward to the Environmental Quality Commission, c/o Susan M. Greco, 811 S.W. 6th Avenue, Portland, Oregon, 97204.

If you should have any questions, please feel free to call me at (503) 229-5213 or (800) 452-4011 extension 5213 within the state of Oregon.

Sincerely,

Susan M. Greco
Rules Coordinator

cc: Sherm Olson
Paul Kennedy

811 SW Sixth A
Portland, OR 9
(503) 229-569
TDD (503) 2
DEQ-1

Regarding the variance application of

PRELIMINARY ORDER AND OPINION

DAN AND CAROL BARRY
1533 10th Street
Grants Pass, Oregon 97526

WQ-IOSWW-VARIANCE APPLICATION:
Lot 800, Section 8, T36S, R5W,
W. M., 2.82 acres, Josephine County

HISTORY

On April 4, 1994, Dan and Carol Barry (hereinafter, applicant) applied to the Department of Environmental Quality for a variance from particular requirements or standards pertaining to on-site sewage. After a hearing on the property on May 24, 1994, Variance Officer Paul Kennedy issued a Variance Approval with conditions on June 8, 1994. On June 27, 1994, applicant appealed the conditions of the Approval.

On July 10, 1995, the Environmental Quality Commission (EQC) referred the appeal to Hearings Officer Lawrence Smith for initial review and preliminary order under ORS 454.660 and OAR 340-71-440. On July 21, 1995, the Hearings Officer gave applicant until August 14, 1995, to submit further written information. Applicant requested more time and was allowed until August 21, 1995, to submit further information. Further information was received on August 21, 1995, and the record was closed.

This Preliminary Order and Opinion is based on a complete review of the file and information from the applicant. The documents considered were: the Variance Approval with conditions issued June 8, 1994; applicant's letter of appeal of June 27, 1994; a memo to Linda Zucker from the Variance Officer, dated August 1, 1994, with a copy of the applicable statute and rules; a letter with further information from applicant, dated August 15, 1995; and applicant's application for variance from administrative rules, dated April 4, 1994, with five attachments in response to specific requests for information in the application.

ISSUE

Whether the requirements of specific rules concerning the siting and construction of a conventional sand filter treatment and disposal system should be waived.

OPINION

Applicant's request for standard variance is allowed to install a conventional sand filter, per the recommendation of the Variance Officer.

DISCUSSION

ORS 454.655(4) states in part:

> (4) After receipt of an application and permit fee, * * *, the department shall issue a permit if it finds that the proposed construction will be in accordance with the rules of the Environmental Quality Commission. No permit shall be issued if a community or area-wide sewerage system is available which will satisfactorily accomodate the proposed sewage discharge.

OAR 340-71-160(5)(f) states:

> A sewage system which can serve the proposed sewage flow is both legally and physically available, as described below:
>
> (A) Physical Availability. A sewerage system shall be deemed physically available if its nearest connection point from the property to be served is:
>
> (i) For a single family dwelling, or other establishment with a maximum projected daily sewage flow of not mmore than four hundred fifty (450) gallons, within three hundred (300) feet;
>
> (ii) For a proposed subdivision or group of two (2) to five (5) single family dwellings, or equivalent projected daily sewage flow, not further than two hundred (200) feet multiplied by the number of dwellings or dwelling equivalents.
>
> * * * *
>
> (B) Legal Availability. A sewerage system shall be deemed legally available if the system is not under a Department connection permit moratorium, and the sewerage system owner is willing or obligated to provide sewer service.

Applicant's property was subdivided. They desire to place a mobile home on one-half of the property. They already have a mobile home on the other half, which is serviced by a standard sewage system. They seek to connect the new mobile home to the old system, because the old system was approved for a five bedroom house. Applicant's lots are within 100 feet and 250 feet of the sewer system for Grants Pass. The lots would have to be annexed to the city before any sewer hookup. The city gave applicant a quote of $77,860 for annexation and sewer and water hookup. This cost could not be shared because one neighbor is exempt from assessment and the other has an approved on-site sewage removal system. The above statute and rule requires applicant to hook up. The statute does not allow for any exceptions due to cost. A permit cannot be issued because this system is available. The definition of available is by rule, so applicant seeks a variance from that rule.

ORS 454.657 states in part:

> (1) After hearing the Environmental Quality Commission may grant to applicants for permits required under ORS 454.655 specific variances from the particular requirements of any rule or standard pertaining to subsurface sewage disposal systems for such period of time and upon such conditions as it may consider necessary to protect the waters of the state, as defined in ORS 468B.005. The commission shall grant such specific variance only where after hearing it finds that strict compliance with the rule or standard is inappropriate for cause or because special physical conditions render strict compliance unreasonable, burdensome or impractical.

Section (2) of this statute allows for variance based on hardship. The applicant did not request such a variance.

OAR 340-71-415(3) states:

> No variance may be granted unless the Commission or a special variance officer finds that:
>
> (a) Strict compliance with the rule or standard is inappropriate for cause; or
>
> (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.

By seeking a variance, applicant concedes that their application cannot meet the requirements of a particular rule or standard. Applicant is the proponent of a certain fact (a variance from the rules and/or standards), so applicant has the burden of proof.

The standard under the existing service rule states that applicant must hookup with the Grants Pass sewage system because he is within 300 feet of that service. A variance may be granted for cause or if special physical conditions render strict compliance unreasonable and burdensome. The Variance Officer allowed variance in regards to the rule on existing service and that holding is upheld.

Applicant did not deny that the existing service was increased one time, so another increase is not allowed under OAR 371-71-205(6) (section (5) under the rule effective April 1 1995). A new permit was required.

Applicant requests approval of his current system for both mobile homes because it was allegedly able to serve a five bedroom house. The drainage field was only 500 linear feet, and two mobile homes could produce up to 950 gallons of sewage per day. His current system is not adequate for two mobile homes. The Variance Officer offered a good compromise of the sand filter system. The cost is much less than hookup with the city system and requires some monitoring, but it is needed to protect the waters of this state. The sand filter system will also allow a higher water table, which was also a concern of the Variance Officer. The Officer lists numerous conditions, including the requirement of removing the system upon sale. A possible option for a purchaser is to keep the system after signing an agreement with DEQ to maintain.

OAR 340-71-220(2) states in part:

> Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:
>
> * * * *
>
> (b) Water table levels shall be predicted using "conditions associated with saturation." If conditions associated with saturation do not occur in soil with rapid or very rapid permeability, predictions of the highest level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in the area.

(A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.
EXCEPTION: In defined geographical areas where the Department has determined through a groundwater study that degradation of the groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.
* * * *

This rule requires a depth of at least four feet from the water table for a standard absorption facility. Applicant would like to continue to use his standard system, but the water level is clearly within four feet of the surface, so a variance on this standard is not appropriate, and applicant has not established special conditions which make adherence to the standard unreasonable, burdensome or impractical. The recommendation by the Variance Officer of a sand filter system is a good compromise.

Applicant has the right to do further testing to establish the water table and applied again for a variance. At this point, their request for variance must be denied.

ORDER

Applicant's variance request is approved with conditions as outlined by the Variance Officer, under ORS 454.657.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith

Lawrence S. Smith, Hearings Officer

This Proposed Order and Opinion was mailed to the applicant and DEQ on: 9/25/95

FURTHER REVIEW

If the applicant and DEQ agrees with this preliminary order and opinion, the director of the Environmental Quality Commission (EQC) will enter a final order. If the applicant and/or DEQ disagrees with this preliminary order and opinion, the proposed order will be sent to the EQC for review and action. You will be notified of the EQC meeting date when this preliminary order and opinion will be considered.

August 15, 1995

Sherman Olson
Judge Lawrence S. Smith

RE: WQ-10SWW- Variance Approval Appeal
Lot 800, Section 8, T 36 S, R 5 W, W.M.
2.82 Acres; Josephine County

Dear Sirs:
I don't have much to add to my appeal other than over a years delay is excessive and could have been used to do winter checks on the property. I'm sure they would have confirmed the low water table on that part of my property.

Even with the record rainfall of last winter the water table in and around the the septic system was well below 24 inches. In the photographs enclosed you should note the north end of where I want to put the second mobile is over 30 inches deep. I then applied 12 yds of 3/4 minus gravel. At no time during the winter did any water stand anywhere in the pit. No drain has ever been installed.

Mr. Kennedy based his evualation in the summer without taking into consideration the fact that until about two years before he inspected the property I had been pasturing a horse and several steers for many years. To keep grass for the animals I kept the entire pasture very wet by flood irrigating it all summer.

Also before the well and septic were installed four to five feet of soil were moved from the rear of the property to the front of the property to level it. The rear southeast portion of the property is wet and much of that soil was moved to the area where the septic system is located. A D-8 cat pushed dirt six full days and a road grader was then used 1 full day to level and shape the property to it's present form.

I feal in fairness to me with this long delay a winter check should have been done, it would confirmed my claims. Also the proven present system that has worked properly with no problems since its instalation in 1977 is a good indication the system can handel the extra flow. Please note the system is an approved five bedroom system.

I'm only asking to place another mobile on the property, not a house. If a problem arouse the mobile could be removed. Also more drainfield could be added as there is a lot of room to do so.

Please take note of the system Mr. Kennedy is requireing me to install. It is an electronic nightmare that would be prone to failure and high maintiance. In checking with M r. Constanza I was told no system this complicated or like this has ever been instaled in Josephine county.

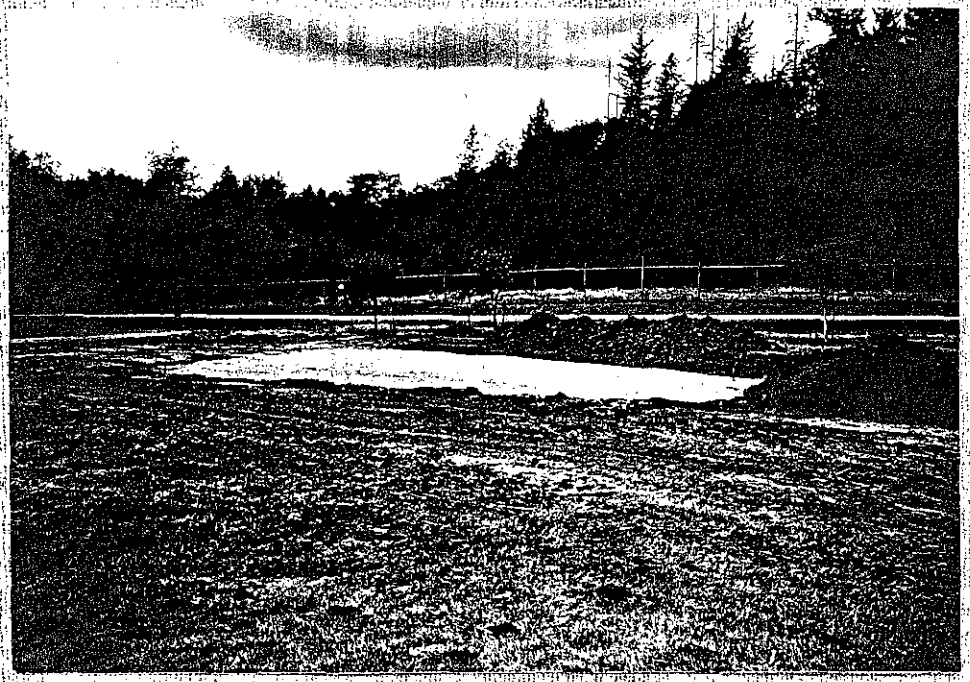
Please examinethe June 8, 1994 Variance Approval I recieved from Mr. Kennedy very carefully. It would make my present system part of the the system he is requiring to put in. Then check the requirments on the Schedule A number 11 and you will find he is requiring me to remove the system if I sellthe property. Theend result would be if I sold the property allthe septic system would have to be removed or left un useable for even one residence.

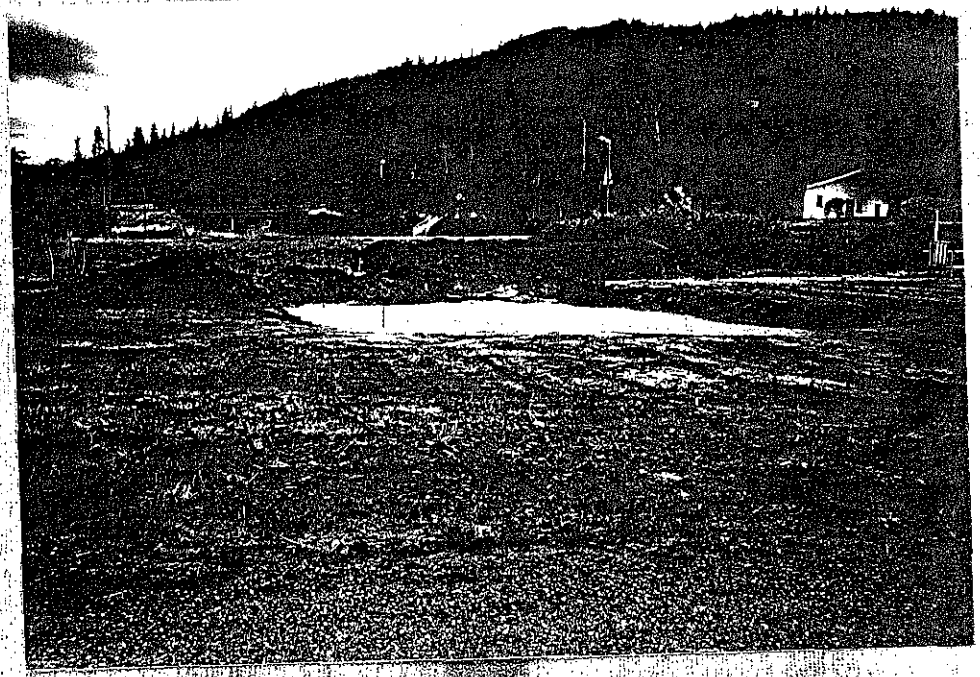
I think the only soloution to the Variance would be to let me connect the second mobile to the present system. If a capacity or other problem occoures that can't be easily fixed like adding more drainfield or a second septic tank, one of the mobiles would be removed from the property.

Sincerely,

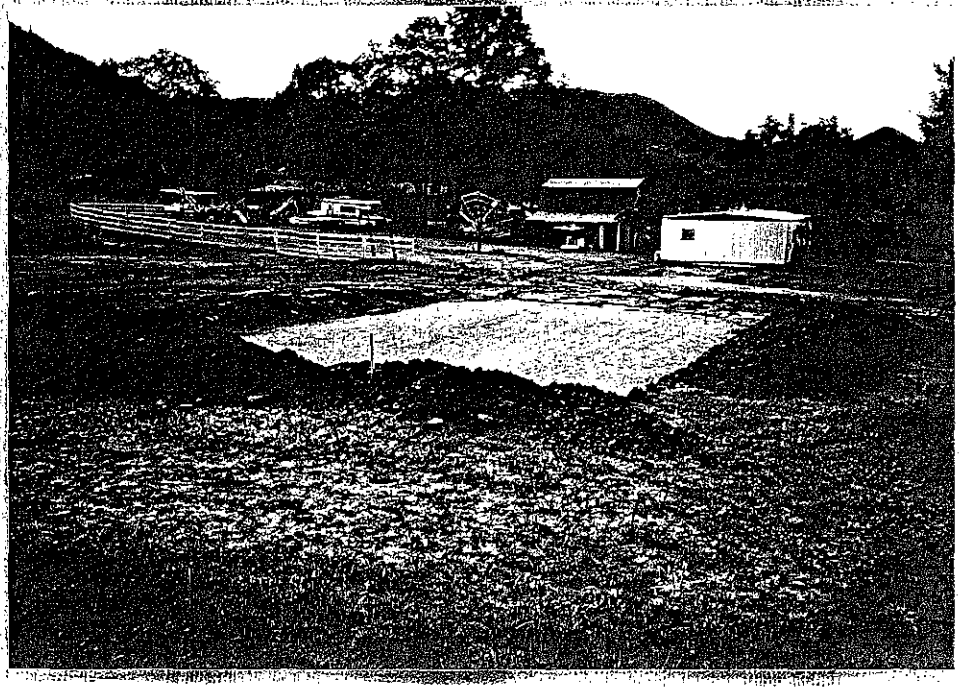
Dan L. Barry

Dan L. Barry
1533 N.E. 10th. St.
Grants Pass, Oregon 97526
Phone- 503-474-6001









State of Oregon
Department of Environmental Quality

Memorandum

Date: August 1, 1994

To: Linda Zucker

From: Paul Kennedy PEK

Subject: Staff Report Barry Variance Appeal

Re: Mr. Dan L. & Mrs. Carol Barry
1533 10th Street
Grants Pass, OR 97526
WQ-IOSWW-Variance Approval Appeal
Lot 800, Section 8, T 36S, R 5W, W. M.
2.82 acres, Josephine County

A variance hearing was held at the above described property on May 24, 1994 as provided for under Oregon Administrative Rules (OAR 340-71-430). The purpose of the hearing was to provide a forum for the presentation of supportive facts to show that strict compliance with certain rules regulating sewage disposal system development are inappropriate, or that special physical conditions at the site render strict compliance to be unreasonable, burdensome or impractical.

The Department considered a variance request to the following Oregon Administrative Rules:

1. OAR 340-71-160 (5)(f) - Permit Application Procedure which requires a new development that includes an on-site system within 300 feet of city sewer be hooked up to city sewer.

2. OAR 340-71-205 (7) - Authorization Notice which allows an one time increase in on-site system flows. Existing system was increased once before.

3. OAR 340-71-220 (3) The sizing on a standard subsurface system, 5 bedroom would be 625 linear feet. Existing system is approximately 500 linear feet.

4. OAR 340-71-290 (3)(a)(C) - which requires a temporarily perched groundwater table to be at eighteen (18) inches or more below the ground surface for those sites requiring serial distribution. During my site review I found soil mottles within 12" of ground surface in the existing drainfield area and areas up slope from this drainfield

In order for a variance to be feasible and have any likelihood of working a sand filter system with the existing serial disposal trenches should be required.

Based upon my review of the variance record; the information gained at the field visit; review of the variance proposal; the variance exhibits; and related technical references; I made a decision in regard to the Barry's variance request. Under ORS 454.660 (1) and (2) the State of Oregon has delegated the authority to me to conduct and grant variances. Under ORS 454.657 (1) as a variance officer I must consider the variance to specific OARs. I am also responsible for setting forth those system conditions that ensure public health and protect the waters of the state. I consider the Barry's variance to be the minimum criteria needed for an approval.

In the recorded variance hearing I made mention of my option to change the submitted proposed variance to include a sand filter in order to grant an approval. To overcome the inherent soil characteristics, the normal seasonal soil groundwater conditions, and the existing under sized drainfield for what would be a two mobile system on this parcel the following construction practices were required under this variance approval:

SAND FILTER

1. Construct Sand Filter System according to the standards under OAR 340-71-295.

   Area = projected daily flow divided by 1.23.

   Under this variance a 4 bedroom MAXIMUM will be allowed = 450 gal/day / 1.23 = 366 square feet.

   If constructed in a square format, the sand filter would have 19.13 feet per side (square root of 366 square feet is 19.13 feet). A rectangular sand filter format may be used.

2. Installation of a 1500 gallon pump-surge tank to serve the sand filter system.

3. Because the proposed system is to serve two separate mobiles (households verses bedrooms) the daily flows to the drainfield can be expected to double. Typically on-site systems are sized to accommodate a certain number of bedrooms in one household. The maximum loading for a four bedroom household is 450 gal/day peak flows with an average daily flow of 225 gal/day. With two households on this parcel the peak flows could plausibly be in the range of 900 gal/day. The soils series on this land form are a Holland sandy loam (42D) which are characterized under the category of "Septic tank absorption fields" as "severe percs slowly" (1). A standard on-site drainfield system can be expected to function poorly on this soil series type of because of the moderately slow soil permeability characteristic.

It is my opinion that the proposed sand filter system is not likely to present a public health hazard nor is it likely, given the provisions and allowances made for the design, construction, and proper operation of this treatment absorption facility, that the system will have an adverse impact upon groundwater.

CONDITIONS

This variance is not meant to be perpetual, under Oregon Revised Statues (ORS) 454.657 (1) it states that "specific variances from the particular requirements of any rule or standard pertaining to subsurface sewage disposal systems for such a period of time and upon such conditions as it may be necessary to protect public health and welfare and to protect the waters of the state". This system requires high maintenance. The sophistication of this system warrants a knowledgeable care taker who will be responsible for the daily operations of this system. Mr. Barry has sought a variance to the above OARs, if he is not willing to be the caretaker of this system then this variance should not be approved. There is a real potential for a lesser system to be installed which in my opinion is a threat to public health and waters of the state.

COST

Mr. Barry submitted the cost to hook up to the City of Grants Pass Waste Water Treatment System would be approximately $78,000.00. This cost documentation sheet was provided as part of the variance application. A sand filter costs approximately $5,000.00 to $8,000.00 in comparison.

In conclusion I feel it was unreasonably burdensome to prohibit a sand filter method of sewage treatment and disposal by strict adherence to the administrative rules. I feel any change to the Barry's variance as approved would compromise this variance. I would request that if changes are made to this variance then the approval would be rescinded.

Variance Appeal Hearings Officer

In reviewing Oregon Revised Statue, I found that ORS 454.655 (4) - states that "No permit shall be issued if a community or area-wide sewerage system is available which will satisfactorily accommodate the proposed sewage discharge."

Do I have authority to grant a variance to a rule OAR 340-71-160 (5)(f) - "Permit Application Procedure which requires a new development that includes an on-site system within 300 feet of city sewer be hooked up to city sewer", which appears to contradict a

statue ORS 454.655 (4) - that states " No permit shall be issued if a community or area-wide sewerage system is available which will satisfactorily accommodate the proposed sewage discharge." ?

What is the definition of "available" is it legal, physical, and economical? It appears that variances apply only to rules and standards, but not to statues in which this variance should have not have been permitted.

(note: copies of all OARs and ORSs are enclosed.)

Please feel free to contact me if you have questions concerning this decision. My telephone number is 440-3338.

Paul Kennedy
Variance Officer
On-Site Sewage Disposal Program

Enclosures:

CC: Greg Farrell: DEQ: On-Site MGR:WR

DL- WRO

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 29 1994
OFFICE OF THE DIRECTOR

June 27, 1994

Mr. Fred Hansen, Director
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204-1390

Re: **VARIANCE APPEAL**

Dear Mr. Hansen:

I would like to appeal the condition of the variance granted in the letter I received June 10, 1994 via Certified Mail Z-710-387-858. I feel the restrictions imposed are far too restrictive, costly, and unnecessary.

I presently have an approved 5 bedroom system that has worked fine since it was completed on December 7, 1977. The system has never been altered or repaired in any way, except for replacement of floats and float controls on the pump for the dousing tank. The system was upgraded on paper only to a 5-bedroom system on July 12, 1979, to accommodate a second two bedroom mobile to be placed on the property.

The system was originally installed for the sole purpose of placing two (2) 2-bedroom mobiles on the property.

I encountered problems with zoning regulations, and during the time it took to resolve them and split the property into two (2) tax lots, the regulation was changed whereby I could no longer connect since the mobiles were on different tax lots. This was all explained in the variance application.

Approximately 8 - 10 years before the septic and well were installed, I had the property leveled. After several days of changing the irrigation ditches, a D-8 Cat pushed dirt for six full days, removing 4 to 5 feet of soil from the rear of the property to the front. Also, a small hill was removed from the North front and moved to the South front and middle of the property. Then a road grader was on the property 8 more hours grading, leveling, and cutting the irrigation ditch on the North property line.

I feel the soil samples taken by Mr. Paul Kennedy were inaccurate. Because so much soil was moved, it is hard to tell where and from what depth it came. Also, cattle and horses had been on the property until two years ago. Massive flood irrigation was used to maintain grass for as many as five animals on the property at one time. The property seems to have a very low water table except for the Southeast corner portion.

On February 18, 1980 and February 27, 1980, the test hole in the ~~Southwest~~ Southeast corner reached a high level of 21". Several other holes were dug and all were good, with water tables well below 24". Some, near my present drainfields, were well below 48" all winter.

The high water level Mr. Kennedy envisions does not exist on this property except on the rear Southeast portion. The location of the well and irrigation ditches make it difficult to place a second system elsewhere. The conditions placed on the variance approval are both too restrictive and costly for me to accept.

I would be willing to enlarge my present drainfield 625 linear feet to comply, and have plenty of room to do so with the present drainfield consisting of three 110' lines, and one 30' line. This could be done by simply adding in the same manner.

I would also be willing to install a second septic tank for the new mobile and flow to the drainfield. I would further be willing to install a second complete system behind the present system, which could be accomplished by installing water-tight culverts in the South irrigation ditch, which would give me approximately 30 feet at the narrowest point, with plenty of room for a second drainfield. This part of the property has already had good holes checked, but without water-tight culverts, there was not enough room for the drainfield.

I will not accept a condition that is not permanent, and approval must not cease with sale of the property; although I have no immediate plans to sell.

I hope you will reconsider the variance, and let me connect a second 2-bedroom with conditions I can afford, and which are permanent.

Sincerely,

Dan Lloyd Barry

Dan Lloyd Barry

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

WESTERN REGION
Roseburg Branch Office

June 8, 1994

CERTIFIED MAIL
Z 710 387 858

Mr. Dan L. & Mrs. Carol Barry
1533 10th Street
Grants Pass, OR 97526

Re: WQ-IOSWW-Variance Approval
Lot 800, Section 8, T36S, R5W, W. M.
2.82 acres, Josephine County

Dear Mr. and Mrs. Barry,

This correspondence verifies that a variance hearing, provided for under Oregon Administrative Rules (OAR 340-71-430), was held at the above described property on May 24, 1994. The purpose of the hearing was to provide a forum for the presentation of supportive facts to show that strict compliance with certain rules regulating sewage disposal system development are inappropriate, or that special physical conditions at the site render strict compliance to be unreasonable, burdensome or impractical.

You have asked the Department for variance consideration that would require variance from the following administrative rules:

1. OAR 340-71-160 (5)(f) - Permit Application Procedure which requires a new development that includes an on-site system within 300 feet of city sewer be hooked up to city sewer.

2. OAR 340-71-205 (7) - Authorization Notice which allows an one time increase in on-site system flows. Existing system was increased once before.

3. OAR 340-71-220 (3) The sizing on a standard subsurface system, 5 bedroom would be 625 linear feet. Existing system is approximately 500 linear feet.

4. OAR 340-71-290 (3)(a)(A) - which requires a temporarily perched groundwater table to be at twelve (12) inches or more below the ground surface in order to be feasible for a sand filter system where gravity equal distribution disposal trenches are used for the absorption facility.

Based upon my review of the variance record; the information gained at the field visit; review of the variance proposal; the variance exhibits; and related technical references; I am pleased to advise you that a variance from the above cited rules is granted.

725 SE Main St.
Roseburg,OR 97470
(503) 440-3338

To overcome the inherent limiting soil and groundwater conditions of this parcel the following construction practices are required under this variance approval:

1. Construct Sand Filter System according to the standards under OAR 340-71-295.

   Area = projected daily flow divided by 1.23.

   Under this variance a 4 bedroom MAXIMUM will be allowed = 450 gal/day / 1.23 = 366 square feet.

   If constructed in a square format, the sand filter would have 19.13 feet per side (square root of 366 square feet is 19.13 feet). A rectangular sand filter format may be used.

2. Installation of a 1500 gallon pump-surge tank to serve the sand filter system.

It is the Department's contention that the proposed system can be expected to function in a satisfactory manner and not create a potential public health or environmental hazard by degradation of groundwater.

It is my concurrent opinion that the proposed sand filter system is not likely to present a public health hazard nor is it likely, given the provisions and allowances made for the design and construction of the absorption facility, that the system will have an adverse impact upon groundwater. Therefore, in my view, it would be unreasonably burdensome to prohibit this method of sewage treatment and disposal by strict adherence to the administrative rules.

Pursuant to OAR 340-71-440, my decision to approve your variance request may be appealed to the Environmental Quality Commission. An appeal must be made by letter within twenty (20) days of the certified mailing and must clearly state the grounds for the appeal. An appeal should be addressed to the Environmental Quality Commission in care of Mr. Fred Hansen, Director, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon, 97204-1390.

The Department's Grants Pass On-Site Waste Management Section is authorized to issue a construction-installation permit, subject to all of the conditions described herein under Schedule A and Schedule B. This approval does not supersede and is subject to any and all local and state land-use laws, rules and regulations which may apply. In addition you must follow established procedures at the County level for filling applications, submittal of plans, payment of fees, request(s) for inspections, etc.

Please feel free to contact me if you have questions concerning this decision. My telephone number is 440-3338.

Sincerely,

Paul Kennedy

Paul Kennedy
Variance Officer
On-Site Sewage Disposal Program
Water Quality Division

Enclosures: Schedule A, Conditions
Schedule B, Plot Plan

CC; Greg Farrell: DEQ: On-Site MGR:WR
Chuck Costanzo: DEQ:WR:On-Site Agent

SCHEDULE A

The following are special conditions and requirements for the on-site sewage disposal system to be constructed on:

Lot 800, Section 8, T36S, R5W, W. M.
2.82 acres, Josephine County.

1. All work done on this on-site sewage disposal system shall be done by a person or business permitted/licensed through the Department of Environmental Quality (herein after referred to as "Department") in accordance with Oregon Revised Statues, Chapter 454.695.

2. To secure the construction permit, the installer shall **through written statement** to the Department's Grants Pass On-Site Waste Management Section: submit sand filter plans and get plans approved; acknowledge that he or she has thoroughly reviewed the conditions of the variance approval with the On-Site staff; and that he or she understands and will comply with all conditions associated with this permit and variance.

3. All activities related to the development of this property within its boundaries are restricted to the summer months when soil and site conditions are generally dry. This includes, but is not limited to, land clearing, the mobile and related appurtenances, the on-site sewage disposal system and underground utilities. Site development is limited to the period from **June 1 through September 30**, assuming favorable climatic conditions, unless otherwise authorized by the Department's Grants Pass Office.

4. This on-site sewage disposal system shall serve a **maximum of four (4) bedrooms:** two (2) single family dwellings of no more than **two (2) bedrooms per mobile.** The design peak flow shall not exceed four hundred fifty (450) gallons per day, and the <u>average</u> daily sewage flow must not exceed two hundred seventy-five (275) gallons per day. It is recommended that low water-use plumbing fixtures and appliances be used within the dwelling where practical and that water conservation practices be followed.

5. Septic Tanks: existing septic tank serving the Barry's residence shall be plumbed into the 1500 gallon water tight dosing tank that delivers effluent to the sand filter. Dosing tank shall conform to requirements listed under the July 1991 edition of the Oregon Administrative Rules (OARs) Chapter 340 Divisions 71, 72, and 73.

6. Pump: Dosing pump will be activated by **high water level float** and will cycle (24 times) to the sand filter per day. Each pump cycle will deliver approximately 18.75 gallons to the sand filter. Each dosing pump cycle will be followed by a 1/2 hour delay before the next dosing pump cycle.

   Dosing Tank Floats: There is to be a **low level float**, audio alarm (15 second with automatic shut off), and visual alarm which will stop the dosing pump cycling and initiate the filling of the tank. As the tank fills, after 250 gallons there will be a **250 gal. float** that activates a yellow visual alarm. There will a orange visual alarm with event counter that is actuated by a **high level float** that initiates the next 24 pump down cycles (300 gallons per 24 cycles). Two inches (2") above the high level float there will a **cutoff float** that actuates: a red visual alarm; an audio alarm; and bypass valve which would then allow a dose of approximately 360 gallons to the first drainfield drop box. After a bypass event the design 24 cycle pump mode would be reactivated automatically.

   (300 gal/24cycle) = 12.5 gal/cycle, there are typically 48 each 1/8 inche orfices in a sand filter manifold, (12.5 gal/cycle / 48 orfices = 0.26 gal/cycle/orfice.

7. If applicable all underground utilities must be maintained at a minimum of ten (10) feet from the disposal trenches in all directions and must be located and installed so as to not circumvent the separation distance between the disposal trenches and groundwater interceptor.

8. Except as specifically authorized, all requirements of the Oregon Administrative Rules, Chapter 340, Division 71, Rules 71-100 through 71-600 shall be met.

9. The permittee shall comply with all local planning, zoning, building etc. ordinances which apply to the proposed development of this property.

10. Activities related to property improvement and development must not encumber or adversely impact the area of the property designated for the construction-installation of the on-site sewage disposal system as authorized by this variance.

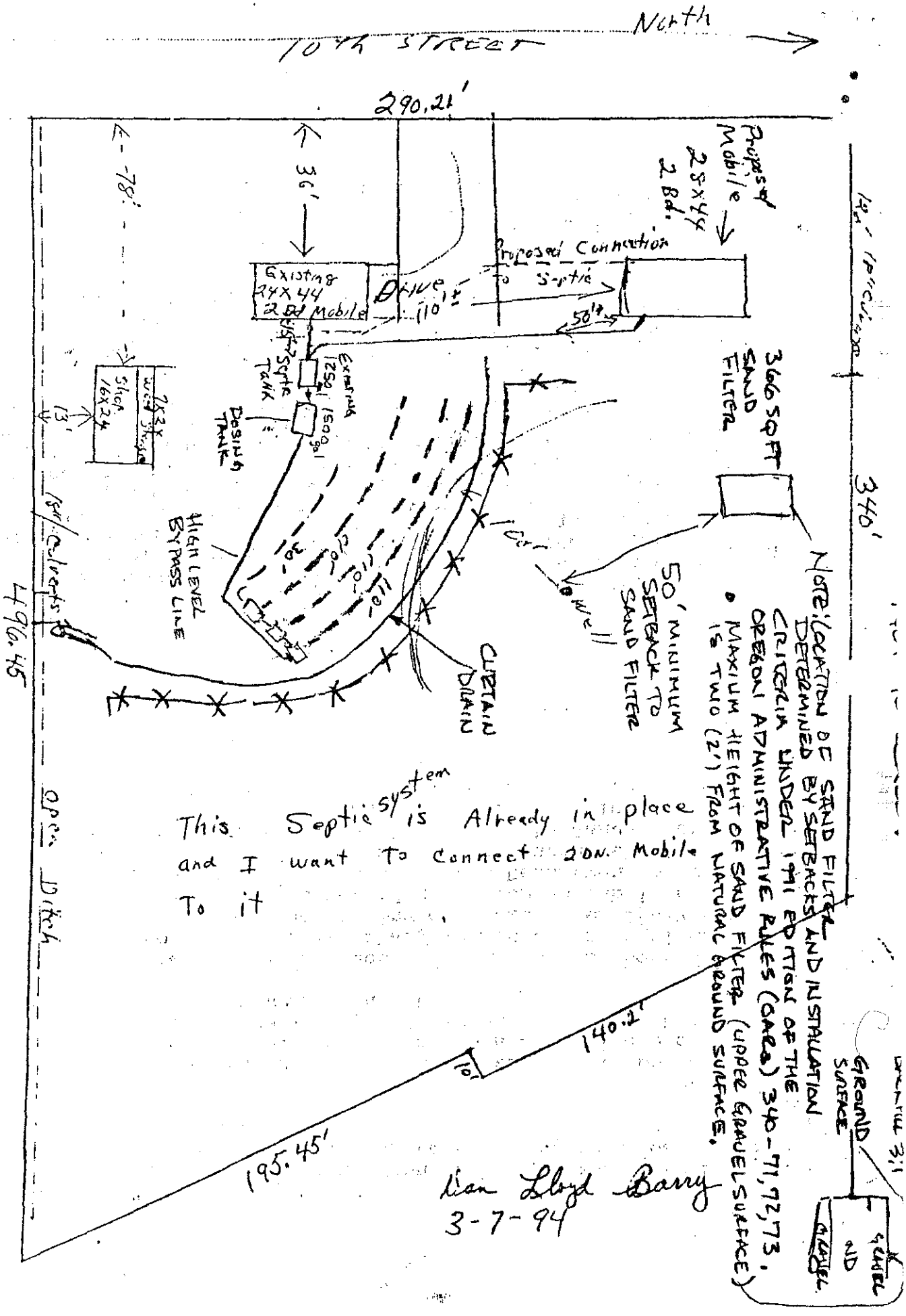
11. If at such time this property is developed beyond the limitations of this variance or sold to another party then a written notification to the Department's Grants Pass Office is required within 30 days after City or County development plan approvals or escrow closing. At this time the variance

is void and a letter of abandonment of this On-Site System is required within 30 days of vacancy, escrow closing, and or development approval.

12. A **Certificate of Satisfactory Completion** shall be secured before the system is put into use. A Certificate shall be issued for the system only if all conditions of this variance approval have been met.

13. All installation and inspection requirements under OARs 340-71-290 through 340-71-295 shall be met or as required by the this variance. All monitoring criteria under 340-71-305 and this variance shall be recorded and copies submitted as scheduled under this variance to the Department's Grants Pass Office. Dosing tank pump event counter shall be recorded monthly. In the week of the 15th January of each year an annual operation and maintenance evaluation inspection by an on-site agent from the department is required.

GRANTS PASS



This Septic system is Already in place and I want to Connect 2 on Mobile To it

Lisa Lloyd Barry
3-7-94

APR 1 1 1994
$225
CK# 575

Application for Variance from Administrative Rules Regulating On-Site Sewage Disposal Systems

Please complete this application form and submit the application fee* ($225) and required attachments to:

Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204

REFERENCE INFORMATION—Please Print

Dan L. Barry - Carol Barry	36	5	8
Name of Owner	Township	Range	Section
1533 N.E. 10th St.	800	2.82 Acre	
Address	Tax Lot or Account No.	Parcel Size	
Grants Pass Ore. 97526	Subdivision Name		
City State Zip Code			
Business Phone 476-1755 Home Phone	Lot	Block	

ATTACHMENTS

Provide The Following Items:

1. Complete and accurate directions to the property. A locater map would be helpful.
2. Two (2) copies of the parcel's legal description (metes and bounds, warranty deed, sales contract, or approved subdivision plat). Include the protective covenants, deed restrictions and easements, if applicable.
3. Two (2) copies of an assessor or title company plat map or a surveyor plat map.
4. Two (2) copies of a land use compatibility statement from the appropriate land use authority that your proposed land use is compatible with the LCDC acknowledged comprehensive plan or statewide planning goals.
5. Copies of all correspondence and field notes relating to past evaluations for septic tank-drainfield development on the subject property. A copy of the site evaluation report must be included.
6. Two (2) copies of narrative description of your variance proposal including the system construction specifications. Please list the step-by-step procedures that you propose to be followed for the installation of this system.
7. On a plot plan draw to a defined scale not smaller than one inch equals thirty feet, show the location and dimensions of the proposed drainfield and its replacement area. Indicate separation distances between disposal trenches, wells, springs, water courses, agricultural drainage tile, ditches, drainage ways, waterlines, buildings, roads, embankments, and other identifying features which help demonstrate parcel to drainfield relationships. Please provide two (2) copies.
8. Two (2) copies of a profile view of the proposal which illustrates the projected drainfield layout, trench dimensions, backfill depth, boundaries, (in cases where a crown over the drainfield is proposed), slope direction and percent of slope.

Hardship variances may be considered in cases of extreme and unusual hardship. The following factors may be considered: Advanced age or bad health of applicant; need of applicant to care for aged, incapacitated or disabled relative; and relative insignificance of the environmental impact of granting a variance. Documentation of hardship must be provided. FOR HARDSHIP CONSIDERATION MARK THIS BOX. [ ]

A minimum of two test pits must be provided within the specific area where the actual variance system is being proposed. The pits should be approximately two feet wide, four feet long, and excavated to either bedrock or to a depth of five (5) feet. Similar pits must be provided in the area of the repair system. The Variance Officer may require the proposed drainfield and the future replacement drainfield be staked out.

Please note that it is your responsibility to present all of the facts and the reasoning which you feel justifies the granting of the variance.

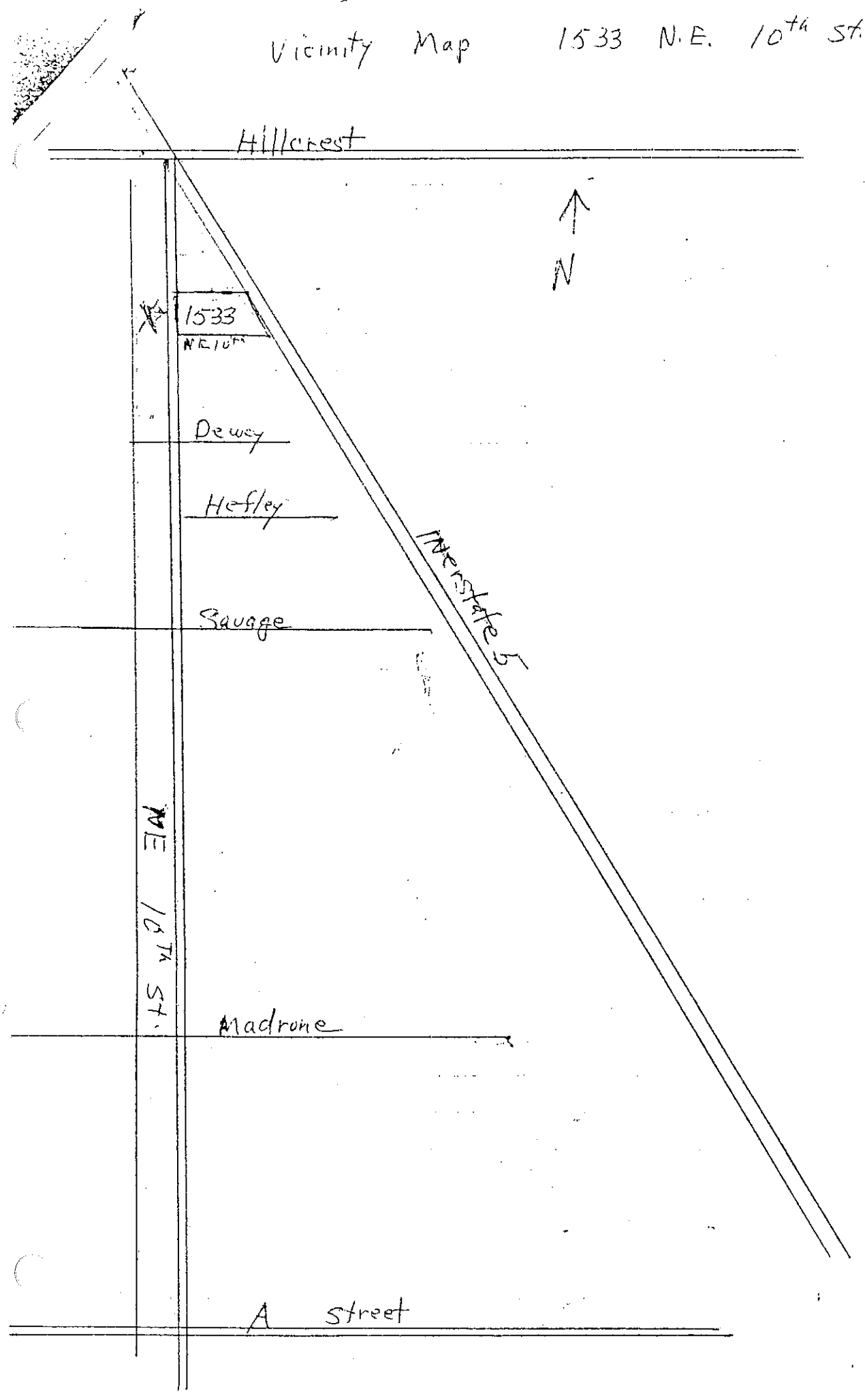
By my (our) signature(s), I (we) request the Department of Environmental Quality act on this application and hereby grant permission to enter onto the above described property.

Dan L. Barry	4-4-94	Carol Barry	4-4-94
Signature of Owner	Date	Signature of Owner	Date

NOTE: **All owners must sign this application form. If there are more than two (2) owners, attach additional duplicate applications.**

* Pursuant to ORS 454.662, the applicant is not required to submit the application fee if, at the time of filing the application, the applicant is 65 years of age or older, is a resident of the State of Oregon, and has an annual household income, as defined in ORS 310.630, of $15,000 or less. Appropriate documentation must be submitted with the application.

Vicinity Map 1533 N.E. 10th St.



JOHNSON, TELFER & SLOAN

#1463
#1300

WARRANTY DEED

28241 5-5-66

VOL 249 PAGE 746

KNOW ALL MEN BY THESE PRESENTS, That Ernest F. Calhoun also known as E. F. Calhoun, and Jennie Calhoun, husband and wife, and Bertha Calhoun, an unmarried woman, hereinafter referred to as Grantor, in consideration of TEN DOLLARS PLUS OTHER CONSIDERATION paid to Grantor by Dan L. Barry and Carol Barry, husband and wife, hereinafter referred to as Grantees, do hereby grant, bargain, sell and convey unto the Grantees as tenants by the entirety, the heirs of the survivor and their assigns, that certain real property, with the tenements, hereditaments and appurtenances thereunto belonging or appertaining, situated in Josephine County, Oregon, to wit:

A parcel of land situated in the Southeast Quarter of the Northeast Quarter of Section 8, Township 36 South, Range 5 West of the Willamette Meridian, Josephine County, Oregon, described as follows:

Beginning at a point on the east line of 10th Street 515 feet south of the intersection of said east line of 10th Street with the southwesterly line of Interstate Highway No. 5, the same being the southwest corner of property described in Vol. 249, pg 470 of Josephine County Deed Records; thence south along the east boundary of 10th Street, 290.21 feet to an iron pipe which is the northwest corner of property described in Vol. 236, pg 135 of Josephine County Deed Records; thence South 89° 06' East along the norht line of said described property projected 496.45 feet to an iron pipe on the westerly right of way line of Interstate Highway No. 5; thence North 29° West along said right of way line 195.85 feet; thence North 55° 42' East 10 feet; thence North 30° West along said highway right of way line 140.2 feet to the southeast corner of property described in Volume 249, pg 270 of said Deed Records; thence west along the south line thereof 340 feet to the point of beginning. Containing 2.82 acres, more or less.





SUBJECT TO: (1) Levies and assessments, irrigation and water rights, easements and regulations of Grants Pass Irrigation District; (2) right of way granted Pacific Power and Light Company as shown in Volume 204, pg 342 of Josephine County Deed Records; (3) relinquishment of access rights to Interstate Highway No. 5; and (4) Right to use ditch located in southeast corner of said property as reserved in deed recorded in Vol. 249, pg 470 of Josephine County Deed Records.

TO HAVE AND TO HOLD the above described and granted premises unto the Grantees, as tenants by the entirety, their heirs and assigns, forever.

Grantor hereby covenants to and with Grantees and the heirs of the survivor and their assigns, that Grantor is lawfully seized in fee simple of the above granted premises, free from all encumbrances except the last half of the 1966 irrigation assessments for said acreage granted which Grantees shall pay in the sum of $19.50; and Grantor will warrant and forever defend that above granted premises and every part and parcel thereof against the lawful claims and demands of all persons whomsoever.

WITNESS Grantor's hand and seal this May 5, 1966.

Ernest F. Calhoun (SEAL)

Jennie Calhoun (SEAL)

Bertha Calhoun (SEAL)

STATE OF OREGON, COUNTY OF JOSEPHINE) ss May 5, 1966. Personally appeared the above named Ernest F. Calhoun, Jennie Calhoun and Bertha Calhoun and acknowledged the foregoing instrument to be their voluntary act and deed. Before me:

Notary Public for Oregon. My commission expires 7-14-69.

JOHNSON, TELFER & SLOAN
ATTORNEYS AT LAW
GRANTS PASS, OREGON

County Clerk and Ex-Officio Recorder of Conveyances, in and for said County, do hereby certify that the within instrument was received for record on the 5 day of May A.D. 1966 at 2:45 o'clock P.M. and recorded in book Vol. 249 of Deeds on page 746 Records of said County. Witness my hand and seal of said County affixed.

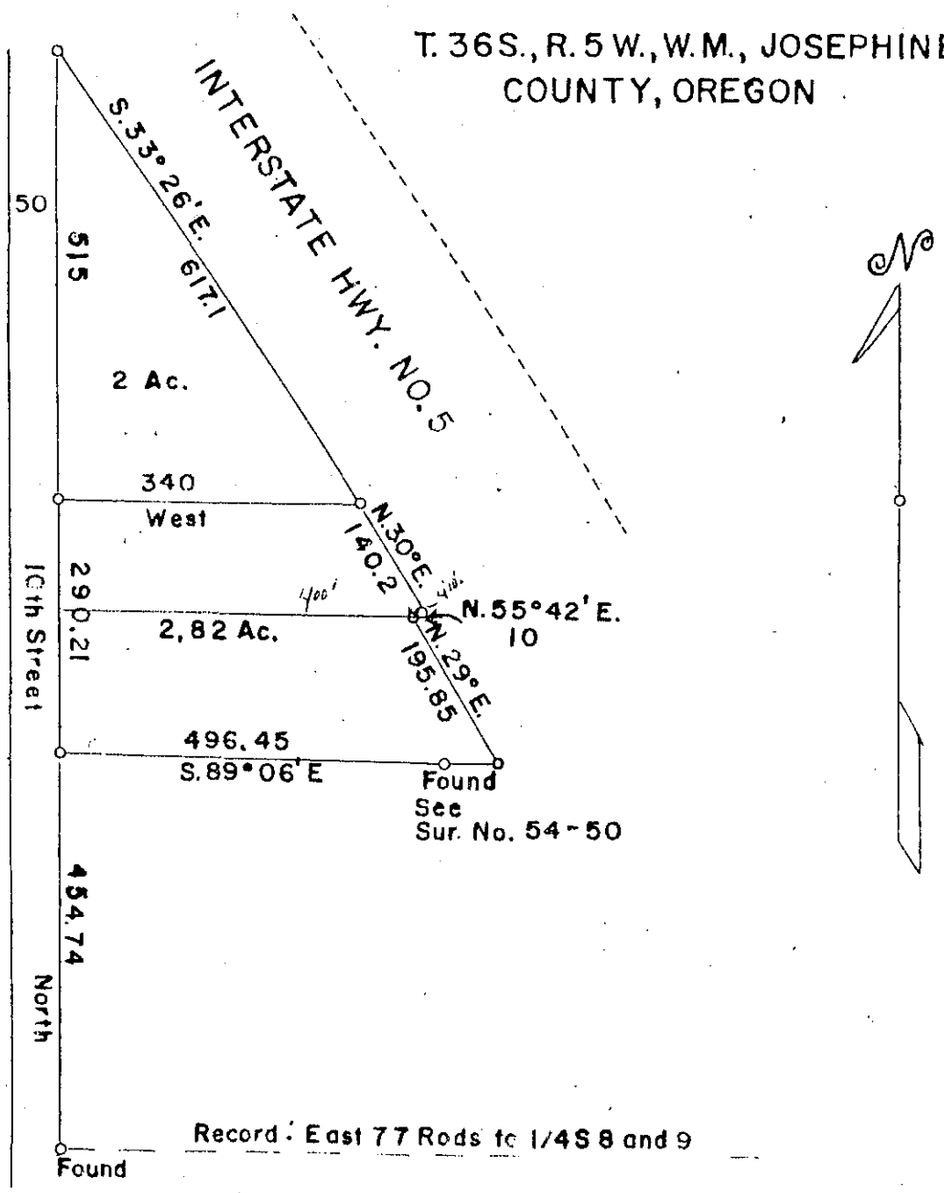
28241

CLERK
OREGON
249
County, Oregon.
RNES, Co. Clerk
Deputy

1-64-10M

#3

T. 36S., R. 5 W., W.M., JOSEPHINE COUNTY, OREGON



METES AND BOUNDS SURVEY IN SECTION 8 FOR THE GRACE BIBLE CHURCH AND E.F. CALHOUN OF GRANTS PASS, OREGON

Scale: 1 inch = 200 feet

Survey executed April 1 — 5, 1966

REGISTERED
OREGON
LAND SURVEYOR

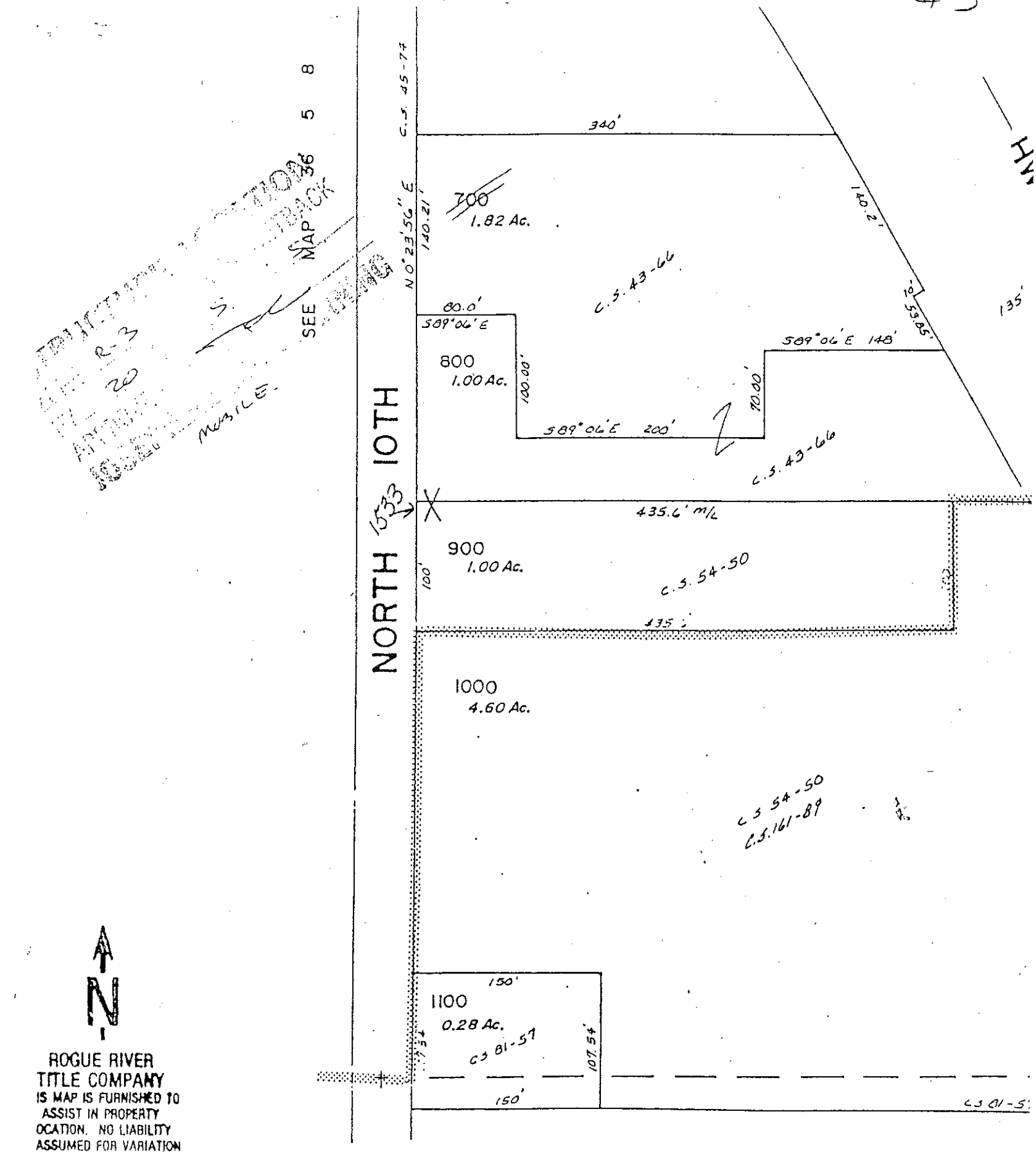
Marvin C. Ramsey

MAY 10, 1957
MARVIN C. RAMSEY
404

#3

EXHIBIT
B

SEE MAP 36 5 8
NORTH 10TH STREE
CITY
R-3
HWY
1000
4.60 Ac.
900
1.00 Ac.
800
1.00 Ac.
700
1.82 Ac.
515
340
435.6' M/L
N0°23'56"E 140.81'
S89°42'E 200'
S89°42'E 1148
1333
1511
100
50'



ROGUE RIVER TITLE COMPANY
IS MAP IS FURNISHED TO ASSIST IN PROPERTY OCATION. NO LIABILITY ASSUMED FOR VARIATION DIMENSION OR LOCATION.

36 R 5 S 8-14

Scale: 1" = 100 Ft

OFFICE OF THE ASSESSOR, JOSEPHINE COUNTY OREGON

Name of Taxpayer Barry, Dick & Lu

Address 1533 NE 10th St GP, Ore

3	3007589	
Code	Account Number	Tax Lot

REQUEST MADE:
- ☐ Assessor's Office
- ☐ Telephone
- ☐ In the Field

Subject Combine tax lot 700 with 800 on map 36-5-8-14

Assessor or Deputy

Dan Lloyd Barry
Taxpayer or Representative

Date 3/4/94

№ 204

FEE $ 10.-

36 - S - 8-14 TL 800

JOSEPHINE COUNTY DEVELOPMENT PERMIT

☒ Urban Growth Boundary ____ ☐ County ☒ Previous Permit No. 79-223

☐ Subdivision ☐ Major Partition _____ Block ___ Lot ___

☐ Minor Partition: Date _____

YES	NO	
☐	☒	Flood Hazard Flood Elevation _____ feet. (If yes, building site elevation may be required prior to issuance of Building Permit.)
☐	☒	Is proposed structure within the Flood Hazard Area.
☐	☒	Scenic Waterway (If yes, requires permit from Dept. of Transportation.)
☐	☒	Requires Watermaster review or approval.
☒	☐	Other: ☒ 50' fire break required ___ Airport Overlay ___ Erosion Control
☐	☒	UGB surfaced driveway required.
☒		House No. 1533 to be clearly visible from a dedicated right-of-way.
☐	☒	Stream Setback: 50 ft. from Class I banks and 25 ft. from Class II banks.

PROPERTY OWNER: DAN LLOYD BARRY PHONE: 476-1755

MAILING ADDRESS: 1533 NE 10TH ST. GP OR 97526

	DEVELOPMENT	EXISTING	PROPOSED
Vacant Land:	☐ Yes ☒ No		
Conventional Residence		☐ ____ ___Br	☐ ____ ___Br
Manufactured Housing		☒ 24 x 44 ___Br	☒ 28 x 44 ___Br
Multi-Family		☐ _____ Units	☐ _____ Units
Commercial		☐ _____	☐ _____
Industrial		☐ _____	☐ _____
Agriculture Bldg.		☐ _____	☐ _____
Addition to Existing Bldg.			☐ _____
Home Occupation		☐ _____	☐ _____
Garage		☒ _____	☒ 22 x 24 PRIVATE GARAGE
Other		☒ 16 x 24 SHOP PRIVATE	☐ NO COMM USE.
Proposed Building Height:		24 x 24 SHED	

SITE REVIEW REQUIREMENTS MADE A PART OF THIS DEVELOPMENT PERMIT. _____

NOTES: MOBILE TO MEET SEPTIC REQUIREMENTS OR HOOKUP TO CITY SEWER. WM. TRR. OK -

Zoning Classification R-3 Property Acreage _____

SETBACKS FROM PROPERTY AND STREET:

Front: 20 Ft.; Center Line _____ Ft.; Sides 5 Ft.; Rear 5 Ft.

Additional Setback Notes _____

ACCESS:
- ☐ Easement, Private Road, or Court Declared Public Road
- ☐ Non-maintained County Road
- ☒ Maintained County Road. Obtain road approach permit from County Public Works Department.
- ☐ State Highway. Obtain road approach permit from State Highway Department.

ADDITIONAL PERMITS: ALL STRUCTURES APPROVED BY THIS PERMIT MUST ALSO BE CLEARED WITH THE ENVIRONMENTAL HEALTH AND BUILDING/SAFETY DEPARTMENTS.

INCORRECT INFORMATION PROVIDED BY THE APPLICANT MAY INVALIDATE THIS PERMIT.

Signature _____ ☐ Owner ☐ Contractor License # _____

APPROVED BY _____ DATE 7 14 94 PERMIT # 94-228

THIS PERMIT VALID FOR ONE YEAR. THE USES AUTHORIZED BY THIS PERMIT SHOULD BE ESTABLISHED OR UNDER CONSTRUCTION WITHIN ONE YEAR.

THIS PERMIT EXPIRES 7 14 95

REV 6/1/88

Original-Planning Dept. Canary-Environmental Health Dept. Pink-Building/Safety Dept. Goldenrod-Applicant

TL 800 SHIP 36 RANGE 5 SECTION 8-14 1/4 LOT 800 ADDRESS 1533 NE 10 ST

ZONING CLEARANCE PERMIT

Josephine County, Oregon

Date August 30 1977 Zoned Area V

Owner Dan Lloyd Barry

Mailing Address 1464 NW 6th St. Grants Pass

Property Description

Subdivision-Name ——— Lot —— Block ——

Twp 36 Range 5 Section —— Tax Lot 1300

Size or Lot-Width 290' Depth —— Total Area 2.82 AC

Fronting on 10th Street

Proposed Use

Residential X If mobile home, state size ——

Commercial —— Industrial —— Other ——

Does a residence presently exist on this parcel: Yes —— No X

Subsurface Sewage Disposal System on this Parcel? Yes —— No X

Provisions: Septic permit required before building

NOTE: PLEASE RETAIN THIS DOCUMENT & BRING IT WITH YOU WHEN APPLYING FOR SEPTIC, SEWER, ELECTRICAL & BUILDING PERMITS.

X Dan Lloyd Barry
Signature of Applicant

District Classification SR-2.5 Minimum Lot Size 2.5 Acres

Any structure to be placed on the above mentioned lot must observe the following setbacks:

30' From Front Property Line (Note: Corner lots have 2 front yards)

60' From Center Line of Road 20' From Rear Property Line

10' From Left Side Property Line 10' From Right Side Property Line

Approved by: Chris Ekenberg

No. 1382

VE[illegible]ICATION OF ZONING PROVIS[illegible] S* #3,

Josephine County, Oregon

Date 11 August 1977 Zoned Area V

Owner Dan Lloyd Barry

Mailing Address 1464 Northwest 6th, St. G.P. OR.

Property Description

Subdivision - Name ~~Lot~~ ~~Block~~

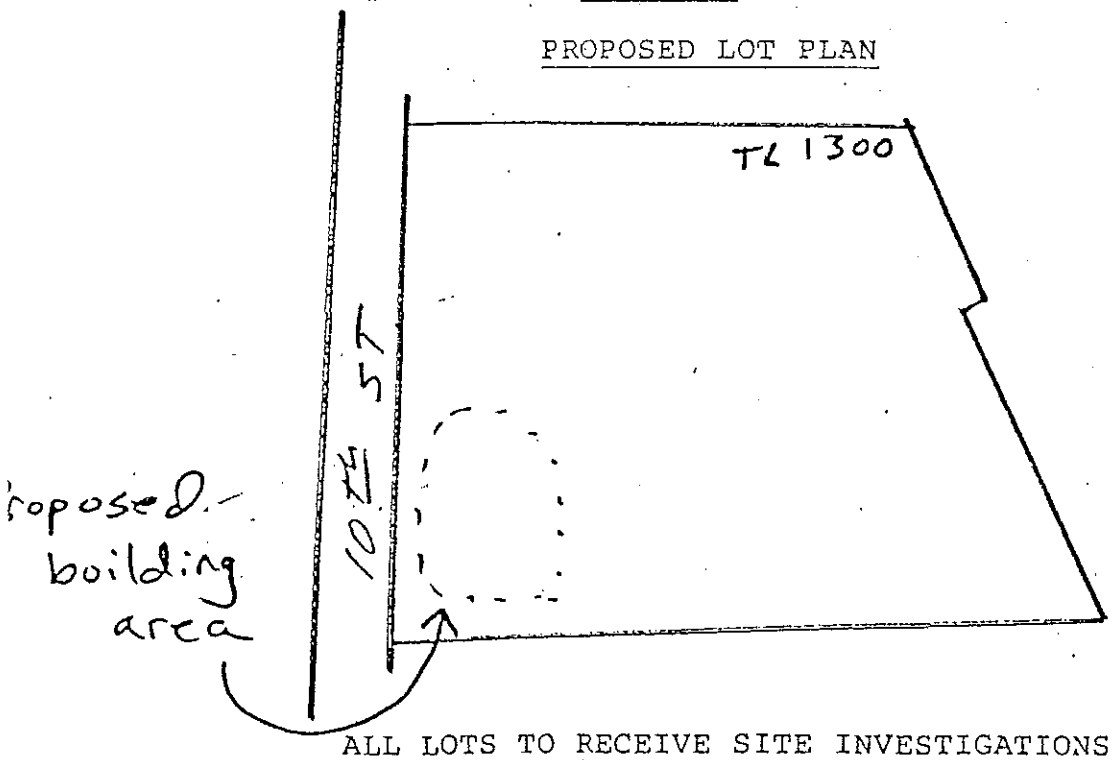
Twp 36 Range 5 Section 8 Tax Lot 1300

Existing Lot - Width 290' ± Depth 450' ± Total Area 2.82 Acres

Fronting On 10th ST.

Number of Proposed Lots 1 Existing Residence: yes ___ no X

PROPOSED LOT PLAN



ALL LOTS TO RECEIVE SITE INVESTIGATIONS

Zoning Clearance required before developing property. The following conditions must be met before Zoning Clearance Permit will be issued.

~~Use~~ septic approval before building

I, Dan Lloyd Barry
Signature of Applicant

District Classification SR-2.5 Min. Road Frontage 25 Feet

Min. Lot Size 2.5 acres Min. Lot Width at Building Line 250 Feet

Approved By: Charles E Lambert

FOR SITE INVESTIGATION ONLY

No. 693

JOSEPHINE COUNTY HEALTH DEPT.
ENVIRONMENTAL HEALTH SERVICES

RECORD OF SEWAGE DISPOSAL SYSTEM

Be Completed By Installer:

Permit Issued to: Name Dan Lloyd Barry Installer's Name Steve W. Seibert
Mailing Address 1464 N.W. 6th St. Permit Number 8433
G.P. Property Address 1551 10th St.

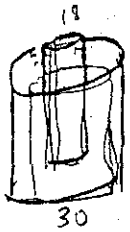
Total Number: Living units ____ bedrooms 4 baths ____ basement: yes ____ no ____

Water Supply: Public system ____ individual ✓ community ____

Septic Tank: Distance from well 200+ feet Material Concrete
Total liquid capacity 250 gal. 1250

Drainfield: Total linear feet 360' ft.
Total square footage 720' ft.
Width of trench or bed 24" ft.
Distance between drain lines 8' ft.
Type of rock filter material 1½ Round
Depth rock over drain line 2" in.
Depth rock beneath drain line 6" in.
Transit used: yes ✓ no ____
Distance of well from subsurface disposal unit 125 ft.

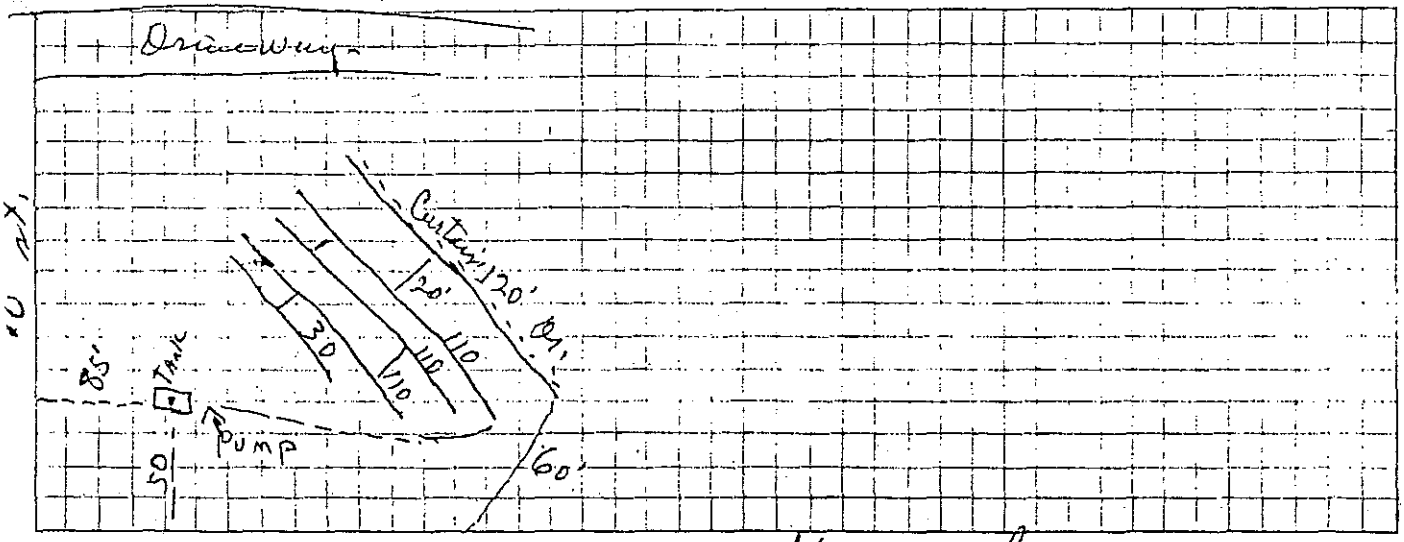
Chamber 30"-36" CULVERT



Seepage Pit: Depth ____ width ____ length ____
Square feet ____ lined (dry well) ____ or gravel filled (pit) ____

Privy: Ground Excavation: depth ____ width ____ length ____
Cubic feet ____

SKETCH OF ACTUAL SYSTEM AS CONSTRUCTED



Steve W. Seibert 10-27-77
SIGNATURE OF INSTALLER DATE

FOR OFFICIAL USE ONLY

system meets all codes and apparently WILL X WILL NOT ____ function satisfactorily and is therefore
APPROVED ✓ for occupancy. DISAPPROVED ____

Remarks ____

Date 12/2/77 Sanitarian

Zone Verification 695V

SUBSURFACE SEWAGE APPLICATION FOR SITE EVALUATION

Nº 4806

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

Name of Property Owner Dan Lloyd Lowry Phone 6-255~
Mailing Address of Property Owner 1464 NW 6th St, GP
Directions to Property 10th St.

Twp 36 Range 5 Sec. 8 Tax Lot No. 1300 Total Acreage 2.82
No. of Building Sites 1
TEST PITS HAVE BEEN PROVIDED ✓ PROPERTY FLAGGED ✓ PLOT PLAN SUBMITTED ✓

$ 25.00 Ck 8-12-77 UB
Fee Received

Dan Lloyd Lowry
Signature of Applicant

FIELD INFORMATION

General Topography Knoll 10 0-5% Field Sloping fm north

Relationship to Existing Domestic Water Sources

Hydrology: Depth to Ground Watertable (representative)
Hole #1 Mottled 37"
Hole #2 ~24"

Relationship to Surface Waters

Soil Profile
Hole #1 0-25" Stabilized fill (loam)
25-39" Silt loam
39"+ Residual Silt loam
Hole #2 0-23" Loam fill
23-39" Silt loam
39"+ Residual

Miscellaneous Information

Date 8/12/77 Sanitarian

Evaluation Results: Acceptable ____ Not Acceptable ____ Conditionally Acceptable X
Special Conditions for Approval Certain Depth Required

Sanitarian Date 8/26/77

THIS IS NOT A PERMIT FOR CONSTRUCTION

8/30/77 PERMIT NO. Nº 8433 #67

CLEARANCE 1382 V

PREVIOUS APPROVAL 4806 INSTALLATION LOCATION 1533 N.6. 10th Street

APPLICATION FOR SUBSURFACE SEWAGE DISPOSAL PERMIT

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

Street Address of installation (If no street address, describe specific location):
1533 10th Street

PROPERTY OWNER: Dan Lloyd Barry PHONE 6-2555

MAILING ADDRESS: 1464 NW 6th Street ZIP 97526

DESCRIPTION OF PROPERTY: Twsp 36 Ran 5 Sec 8 Tax Lot 1300

Acreage 2.82 Name of Subdivision 10th Street

PROPOSED WATER SUPPLY: Private well Community ____ Public ____ Other ____

BUILDING INFORMATION: Home x Mobile Home temp No. of Bedrooms 4

Commercial ____ No. Employees ____ Other ____

PERMIT REQUESTED: New $25.00 Repair ____ Hook-up ____ Other ____

$ 25.00 csh 8/31/77 vb
Permit Fee Paid / Clerk / Date

p Dan Lloyd Barry
Applicants Signature

SURFACE SEWAGE DISPOSAL PERMIT: **Approved x Disapproved ____

MINIMUM SEPTIC TANK CAPACITY IN GALLONS: 1000

TRENCHES: Square Feet 720 Width 24" Length 360 Depth 18-30"

Equal ____ Loop x Serial x

8/30/77
Date of Issue

8/30/77
Sanitarian Date

THIS PERMIT EXPIRES ON: 8/30/78

**SPECIAL INSTRUCTIONS AND CONDITIONS: Custom Design Required

DATE INSTALLATION APPROVED 12/7/77 SIGNED NG

CERTIFICATE ISSUED ____

THIS PERMIT AND THE ENCLOSED RECORD FORM MUST BE POSTED IN A CONSPICUOUS PLACE AT THE BUILDING SITE WHEN THE FINAL INSPECTION IS REQUESTED.

DATE 8/30/77 PERMIT NO. 0433

ZONE CLEARANCE 1302 V

PREVIOUS APPROVAL 4806 INSTALLATION LOCATION 10th Street

RECEIPT FOR SUBSURFACE SEWAGE DISPOSAL PERMIT

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

Street Address of installation (If no street address, describe specific location): 10th Street

PROPERTY OWNER: Dan Lloyd Berry PHONE 6-2555

MAILING ADDRESS: 1464 NW 6th Street ZIP 97526

DESCRIPTION OF PROPERTY: Twsp 36 Ran 5 Sec 8 Tax Lot 1300

Acreage 2.82 Name of Subdivision 10th Street

PROPOSED WATER SUPPLY: Private well Community ____ Public ____ Other ____

BUILDING INFORMATION: Home x Mobile Home temp No. of Bedrooms 4

Commercial ____ No. Employees ____ Other ____

PERMIT REQUESTED: New $25.00 Repair ____ Hook-up ____ Other ____

$ 25.00 csh 8/31/77 vb
Permit Fee Paid / Clerk / Date

Dan Lloyd Berry
Applicants Signature

THIS IS A RECEIPT FOR FEES RECEIVED
AND NOT A PERMIT AUTHORIZING CONSTRUCTION

#5

DATE 8/30/77 PERMIT NO. 8433

ZONE CLEARANCE 1302 V

PREVIOUS APPROVAL 4806 INSTALLATION LOCATION 10th Street

SUBSURFACE SEWAGE DISPOSAL PERMIT

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

Street Address of installation (If no street address, describe specific location):
10th Street

PROPERTY OWNER: Dan Lloyd Barry PHONE 6-2555

MAILING ADDRESS: 1464 NW 6th Street ZIP 97526

DESCRIPTION OF PROPERTY: Twsp 36 Ran 5 Sec 8 Tax Lot 1300

Acreage 2.82 Name of Subdivision 10th Street

PROPOSED WATER SUPPLY: Private well Community ____ Public ____ Other ____

BUILDING INFORMATION: Home x Mobile Home temp No. of Bedrooms 4

Commercial ____ No. Employees ____ Other ____

PERMIT REQUESTED: New $25.00 Repair ____ Hook-up ____ Other ____

$ 25.00 csh 8/31/77 vb
Permit Fee Paid / Clerk / Date

Dan Lloyd Barry
Applicants Signature

SUBSURFACE SEWAGE DISPOSAL PERMIT: **Approved x Disapproved ____

MINIMUM SEPTIC TANK CAPACITY IN GALLONS: 1000

TRENCHES: Square Feet 720 Width 24" Length 360 Depth 18-30"

Equal ____ Loop x Serial x

8/30/77
Date of Issue

[signature] 8/30/77
Sanitarian Date

THIS PERMIT EXPIRES ON: 8/30/78

**SPECIAL INSTRUCTIONS AND CONDITIONS: Curtain Drain Required

THIS PERMIT MUST BE POSTED ON BUILDING SITE

Approval is specific only for area designated on plot plan. No structures, excavation or traffic is allowed over this area and no wells within 100 ft. of this area

DATE INSTALLATION APPROVED 12/7/77 SIGNED [signature]

CERTIFICATE ISSUED yes

THIS PERMIT AND THE ENCLOSED RECORD FORM MUST BE POSTED IN A CONSPICUOUS PLACE AT THE BUILDING SITE WHEN THE FINAL INSPECTION IS REQUESTED.

If you have any questions regarding this report, feel free to contact me at this office. If you feel an error has been made or if you desire a review of these findings, you may apply for an Authorization Notice Denial Review (fee $200) by contacting this office. In addition you may also request a Variance (fee $ 225) to the Rules I have cited as reasons for denying your request. Variance applications are available at this office.

Sincerely,

Charles D. Costanzo, R.S.
Environmental Specialist

CDC:

#5

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

SOUTHWEST REGION

Grants Pass Branch Office
510 NW 4th St., Rm #76
Grants Pass, OR 97526
(503) 471-2850

April 4, 1994

Dan Lloyd Barry
1533 N.E. 10th Street
Grants Pass Ore.

RE: AUTHORIZATION NOTICE DENIAL #1794-118
1533 N.E. 10th st.
T. 36; R.5; Sec. 8; Tax Lot 800 2.82 acres

Dear Mr. Barry:

On Friday, April 1, 1994, I visited your property in response to your application for an approval to hook a second dwelling unit to the existing on-site sewage disposal (septic) system at 1533 N. E. 10th Street. As I explained during my visit, I must deny your application for the following reasons:

1. The size of the existing septic system is not large enough to accommodate two separate dwelling units based on the sizing criteria found in the ON-SITE SEWAGE DISPOSAL RULES. See the specific rules cited below.

2. The Grants Pass sewer system is within 300 feet of your lot which prohibits permitting a new or enlarged septic system.

The denial of your request to connect a second dwelling unit to this system is based on the rules found in Oregon Administrative Rules 340-71-205 (7); 340-71-220 (3); Table 2-Quantities of Sewage Flows; and 340-71-160 (5) (f).

The City's sewer lines are within 300 ft. of your lot and available for connection. Your desire to place a second dwelling unit on your lot is hindered by the prohibitive costs associated with connecting to the City of Grants Pass sewerage system. Unfortunately, these high costs are not valid reasons for waiving the rule which prohibits issuing a permit to enlarge the existing septic system (OAR 340-71-160 (5) (f).

Case - Mail pick-up - 1794-1 #5

Oregon

AUTHORIZATION NOTICE
To Use Existing Sewage Disposal System

DEPARTMENT OF ENVIRONMENTAL QUALITY

Southwest Region
Grants Pass Branch Office
510 NW 4th St., Rm #76
Grants Pass, OR 97526
(503) 471-2850

ate: 3-7-94 A.N.# 1794-118

T. 36 R. 5 Sec. 8 TL 800

DAN LLOYD BARRY — roperty Owner
1533 N.E. 10th Street — Property Address

ailing Address: Same, Grants Pass, OR 97526

urpose of Notice: PLACING 2nd MH on PROPERTY - (2 BDRMS Each)

ype of System: _____ Inspection Date: _____

isposal Trenches: Sq. Ft. _____ Lineal Ft. _____ Date Installed _____

ank Size _____ Gallons. System Designed to serve _____ Gals/Day or ____ Bdrms.

]This Notice establishes that the sewage system located on the property identified above appears adequate by ()field inspection ()record review to serve a _____ (type of structure) with a sewage flow of _____ gallons per day.

]The sewage disposal system appears to be functioning satisfactorily at the date of inspection. However, it is the opinion of this Department that this system has the potential for a winter time malfunction due to inadequate soil conditions and/or high winter water table.

]The sewage disposal system does not appear to be functioning satisfactorily.

OMMENTS: See denial letter 4-4-94

_____ Date Issued: _____
)EQ Representative

Expiration Date: _____

lote: This Notice does not guarantee satisfactory or continuous operation of the sewage system.

#5

STATE OF OREGON
DEPARTMENT OF
ENVIRONMENTAL QUALITY

FEB 25 1994

RECEIVED
WEST REGION GRANTS PASS

February 24, 1994

Bob Hart
Josephine County Planning
510 N.W. 4th Street
Grants Pass, OR 97526

City of
Grants
Pass
101 Northwest A Street
Grants Pass, Oregon 97526
503-474-6360

Dear Bob:

I am writing to you by request of Lloyd Barry. Mr. Barry owns property at 1533 N.E. 10th Street, which is also known as tax lots 700 and 800, Assessor's Map 36-5-8-14. Mr. Barry wants to place a mobile home on the property and inquired whether this request would be handled by City or County Planning.

This property is located outside City limits but within the Urban Growth Boundary. Tax lot 800 is adjacent to City limits. We currently do not have an annexation agreement on either of these properties. The nearest sewer main is in N.E. 10th Street. It is 100 feet to the south of tax lot 800, and 250 feet south of tax lot 700. This sewer main could be extended in 10th Street to serve these properties.

Since this development is within 300 feet of a City sewer main, it is my understanding that the County would require the developer to extend the main and connect to it. To connect to the main, the owner would have to sign an annexation agreement with the City, and thus the City would process the request. If for some reason the County does not require connection to the public sewer system, then the development request would be handled by County Planning.

I hope this information helps you. If you have questions, please feel free to contact me at 474-6355.

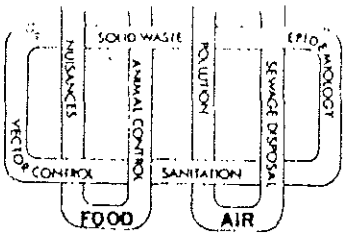
Sincerely,

Barton Brierley

Barton Brierley
Associate Planner

xc: Chuck Costanza, DEQ
Lloyd Barry

#5



C. William Olson, M.P.H.
Health Department Administrator

JOSEPHINE COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH SERVICES

Mailing Address: Josephine County Court House
Grants Pass, Oregon 97526

Telephone: 474-5431 or 474-5432

Location: Corner 4th & "C" Sts.

March 3, 1980

WINTER EVALUATION NOTICE

TO: Don Lloyd Barry
1464 N.W. 6th Street
Grants Pass, OR 97526

RE: Winter evaluation of test holes. Site Evaluation # 7134.
36-5-8, TL 1302.

Examination of the test holes on 2-18-80 and 2-27-80 has confirmed that the location is not acceptable for subsurface sewage disposal due to: High water table

Water levels observed in the test holes were 21"

Regrettable, our original denial issued still stands.
If you have any questions, please feel free to contact this office.

Sincerely,

CHARLES D. COSTANZO, R.S., DIRECTOR
Environmental Health Services

Hollis Gunter, R.S.
Sanitarian

HG:bh

/18/79

#5

APPLICATION FOR HOOK-UP AND EXTENSION OF EXISTING SUBSURFACE SEWAGE SYSTEM

Josephine County Health Department
Environmental Health Services
1 N.W. "A" Street
Grants Pass, Oregon 97526
MAILING ADDRESS: County Courthouse, Grants Pass, Oregon

LEGAL DESCRIPTION: Township 36 Range 5 Sec. 8 Tax Lot 1300

The existing subsurface sewage disposal system was installed on 10-27-77 (Date) under authority of the Josephine County Health Department, Permit Number 8433, to serve a 4 (Number) bedroom dwelling or _____ (Number) individuals if a commercial establishment.

1. The current subsurface sewage disposal system consists of disposal trenches with a total length of 360 feet and a septic tank with a 1250 gallon capacity determined by Dee Pennock (measurement, pumping, records, etc

2. The last establishment served by the sewage disposal system was a:

   a) 4 bedroom dwelling (include all rooms built for use as bedrooms though actually used for other purposes such as for a den or sewing room)

   b) Date previous establishment was last connected to sewage system Still in use

   C) Other (please specify) _____ serving _____ individuals.

3. I propose to connect a:

   a) 2 bedroom dwelling (include all rooms built for use as bedrooms though actually used for other purposes such as for a den or sewing room.

   b) Other (Please specify) _____ Serving _____ individuals.

   c) This is a special hardship provision (22K Zoning Ordinance) and will be temporary as long as the need exists. Dwelling will house a maximum of _____ people.

4. I verify that the existing subsurface sewage disposal system located on the property described above has/has not failed by discharging sewage (includin sink or laundry wastes) upon the ground surface or into any public water, o by clogging or backing up, or in any other manner.

5. The system has failed, but was completely repaired on _____ date _____ permit number, and it has operated continuously since the repair without another failure.

Applicants Signature Dan Lloyd Barry

Date 7/12/79

Property has now been split - wants to add a new tank and use old drain field on Lot #1300 — (Original Lot will have a new drain field since the old Tank

#5

APPLICATION FOR SUBSURFACE SEWAGE DISPOSAL **PERMIT**

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

PERMIT NO.

INSTALLATION LOCATION 1533 10TH STREET (N.E.

ZONE CLEARANCE 79-132 I

10701

7/13/79 #8433
Date Permit # Site Eval. # Old Permit #

Disapproved

PROPERTY OWNER BARRY, DAN LLOYD — 476-2555 TELEPHONE

MAILING ADDRESS 1464 N.W. 6th St., Grants Pass, Or ;97526 — Issued — ZIP

INSTALLATION ADDRESS 1533 10th ST. (N.E.) — Expires

DESCRIPTION OF PROPERTY T 36 R 5 SEC 8 TL 1300 — Installed

Acreage 1.82 Subd. ____ Lot ____ Blk ____

PERMIT REQUESTED New ____ Repair XX Hook-Up XX Other ____

BUILDING INFORM. Home ____ Mobile Home X No. of Bdrms. XX(5)

Commercial ____ No. Employees ____ Other ____

PROPOSED WATER SUPPLY Private XX Community ____ Public ____ Other ____

$ 15.00 Cash 7/13/79 fa
Permit Fee Paid / Clerk / Date

Dan Lloyd Barry
Applicants Signature

THIS IS A RECEIPT FOR FEES RECEIVED
AND NOT A PERMIT AUTHORIZING CONSTRUCTION

#5

APPLICATION FOR SUBSURFACE SEWAGE DISPOSAL PERMIT

Josephine County Environmental Health Services
Josephine County Courthouse, Grants Pass, OR 97526

PERMIT NO.

INSTALLATION LOCATION 1533 10TH STREET (N.E.)

ZONE CLEARANCE 79-132 I

№ 10701

7/13/79 (Date) #8433 (Permit #) (Site Eval. #) (Old Permit #)

PROPERTY OWNER: BARRY, DAN LLOYD — Disapproved — 476-2555 TELEPHONE

MAILING ADDRESS: 1464 N.W. 6th St., Grants Pass, Or ;97526 — Issued — ZIP

INSTALLATION ADDRESS: 1533 10th ST. (N.E.) — Expires

DESCRIPTION OF PROPERTY: T 36 R 5 SEC 8 TL 1300 — Installed

Acreage 1.82 Subd. ____ Lot ____ Blk ____

PERMIT REQUESTED: New ____ Repair XX Hook-Up XX Other ____

BUILDING INFORM.: Home ____ Mobile Home X No. of Bdrms. (5)

Commercial ____ No. Employees ____ Other ____

PROPOSED WATER SUPPLY: Private XX Community ____ Public ____ Other ____

15.00 Cash 7/13/79 fa
Permit Fee Paid / Clerk / Date

Dan Lloyd Barry
Applicants Signature

SUBSURFACE SEWAGE DISPOSAL PERMIT: **Approved A Disapproved ____

MINIMUM SEPTIC TANK CAPACITY IN GALLONS: EXISTING

TRENCHES: Square Feet ____ Width ____ Length ____ Depth ____

Equal ____ Loop ____ Serial ____

Date of Issue 7/12/79

ZAG 7/12/79 THIS PERMIT EXPIRES ON: 7/12/80.
Sanitarian Date

**SPECIAL INSTRUCTIONS AND CONDITIONS: EXISTING SYSTEM IS LARGE ENOUGH TO SERVE 5 BEDROOMS UNDER CURRENT SIZING

DATE INSTALLATION APPROVED 7/12/79 SIGNED [signature]

CERTIFICATE ISSUED 705

THIS PERMIT AND THE ENCLOSED RECORD FORM MUST BE POSTED IN A CONSPICUOUS PLACE AT THE BUILDING SITE WHEN THE FINAL INSPECTION IS REQUESTED.

Sewer Cost #6
1977

ITEM: 3.1

APPLICANT: D. Lloyd Barry, Grace Bible Church, and E.G. Richmond

I. PROPOSED ACTION:

Request for a change of zone from a SR-5 (Suburban Residential) district to a SR-1 (suburban Residential) district for property located at 1555, 1533, and 1511 N.E. 10th Street in Area I. (36-5-8 tax lots 1301, 1400, and 1300)

II. ACTION REQUIRED:

Recommend approval, recommend approval with conditions, recommend disapproval, table or postpone.

III. APPLICANT'S STATEMENT:

The Genral Plan for the city of Grants Pass designates this area as Urban Medium DensityResidential and the Comprehensive Plan for the Josephine County Urbanizing Area desigantes this area as Urban Low DensityResidential. The subject area is presently zoned SR-2.5.

The property is within the Urban Growth boundary of the city and could potentially be annexed into the city, at which point the properties would be served by public sewer and water with all costs of extending the services paid by the annexing property owners. Upon checking into these services, the applicants found this property has special problems and the cost of these services would be prohibitive.

The property is across 10th Street from Hillcrest Memorial Cemetery which is exempt from paying for extension of sewer and water services. If services were installed, the applicants would pay the enitre costs rather than the normal ½ cost assessed for each side of the street.

An annexation study by the city of Grants Pass, dated June, 1977, estimates the cost of these services to be $21.00 per lineal foot for water and $25.00 per lineal foot for sewer, or a total cost of $46.00 per foot. Costs of providing sewer and water services down 10th Street for the distance along tax lots I300, 1301 and 1400 would be $41,630.00. Existing services are , however, 337.54 feet south of the subject area. The cost of bringing services to the subject area would be $15,846.38. Connection fees of $375 for water and $260 for sewer would also be assessed. Total costs in 1977 were estimated at $ 60,016.38 to be born by four property owners. Additional costs for drainage, curbs, gutters, expanded street paving and sidewalks would have to be installed at the owners expense.

The costs would not be exorbitant if the properties were developed to urban levels. The applicants do not, however, wish to subdivide and develop their parcels to urban levels, but wish to maintain the open character of the area. Each of the parcels is already provided with independent septic systems and wells. Two of the parcels are under the minimum lot size required by the zoning district. City limits are approximately 340 feet south. Uner the circumstances, it would seem appropriate to rezone this area to SR-1. The 1972 draft zoning map designated this area as SR-1.

Sewer #6 Cost
1993

EXHIBIT "A"

11/9/93

Approximate Cost Estimates

36-5-8-14/700 & 800

Sewer

390 ft. @ $40/ft = $15,600

Water

390 ft @ $45/ft = $17,550

Drainage

390 ft @ $44/ft = $17,160

Street

290 ft @ $95/ft = $27,550

Total -- $77,860.

Barton Brierley
City of Grants Pass

Does Not Include Sidewalks, Street Lighting, or Connection Fees.

street paving and sidewalks. The 1993 left out sidewalks and street lighting, and only included curbs and gutters and paving on one side of the street.

In my opinion these costs I would have are not only unfair, paying other people share, but probably more than the property would be worth after completion.

I feel my variance should be approved as my system was originally installed to accomadate 2-2 bedroom mobiles, has ample repair area, and has worked well with no problems. I have no problems with a periodic revaluations to insure the workability of the system.

Also I am installing a mobile home not permanent houses that can by moved if either the system fails or other development should become fusible.

The property has been changed back to one tax lot, entire 2.82 acres and the county has already issued me a development permit, NO 79-223.

The mobile I plan to install is a 1988 2 bedroom double wide that has to be moved because of hardship it was placed under no longer exists.

Dan L. Barry

P.S. I am willing To Pay the Revaluation Fee Periodicly to have the System checked and if it Fails will Connect to the Sewer if I can. Otherwise I will remove the Mobiles From the Property

Dan L. Barry

property. The development permit was issued August 17, 1979 and the mobile was delivered a few days later.

County planning had required me to create a second tax lot for the second mobile and in trying to connect to the existing system I could no longer connect because the two mobiles were not on the same tax lot.

At that time we stored the mobile in two halves on the property until the winter check of the test holes was completed. On March 3, 1980 the new system was denied and the mobile was moved from the property.

In July of 1981 I sold the Oregon Motel and purchased the 24X44 2 bedroom mobile from my daughter and son in law on my property at 1533 N.E. 10th St. where I still live.

Sometime in the early 1980's the planning changed the zoning of my property to R-3. No notification of the zone change was received by myself or my neighbor Mr. E. G. Richmond. We didn't have any indication of this until a 58 unit apartment complex was started about 3 years ago.

Checking with the planning depth. I found my property, Grace Bible Church, E.G. Richmond, apartment property, and Hillcrest Cemetery had been rezoned to R-3 Medium Density Residential 7 or 8 years prior.

The city was annexing the apartment property and extending the sewer 330 feet up 10th St. and I was now 100 feet from the sewer on one tax lot and 250 feet on the other.

I fell into the 300 foot rule and could no longer enlarge or put in any septic on my property. However I could build up to 17.5 houses per acre.

The problem is the cost of running the sewer to my property. I not only have to pay my share, I have to pay for the Richmond property - 100 feet and the entire cemetery share as cemeteries are exempt and Mr. Richmond doesn't want or need the sewer as he is on a septic system that has worked well for many years.

Enclosed are costs the city has quoted both in 1977 and 1993. Please note the costs of the 1977 left out drainage, curbs, gutters,

I purchased the property May 5, 1966. My plans for it at the time was to build houses on the property. The parcel was created when I-5 divided the Calhoun dairy on both sides of the freeway. At that time the county was not zoned.

In 1969 I purchased the Oregon Motel and quit building houses and concentrated full time on remolding and running the Motel.

In the early 1970's the entire county was zoned and upon checking at the county planning office was told my property was zoned SR-1-(Subarden Residential-1 house 1 acre).

In 1977 my daughter and son had married and asked if they could build or live on the property. I told them they could if they put a mobile on the property that could by moved as when I left the motel I wanted to live there myself.

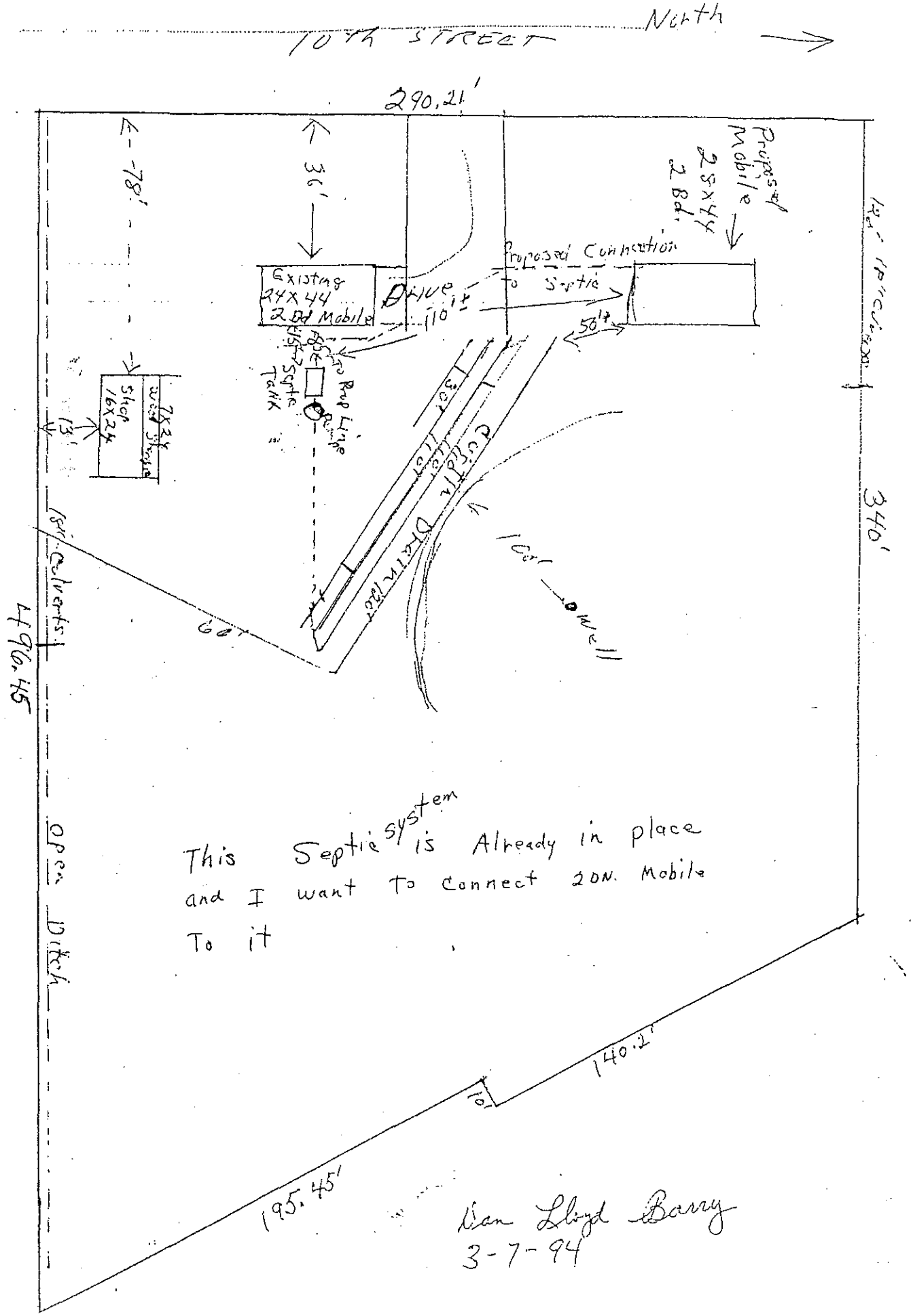
Checking with Josephine County Environmental Health I was told two-two bedroom mobiles could by placed on the property with a four bedroom system. The system was installed and approved on December 7, 1977. The well was completed February 10, 1978 and is a 35 gpm well still in use.

My daughter and son in law purchased a mobile and placed it on the property. I obtained the permit for the mobile it was discovered at county planning the property had mistakenly been zoned S.R. 2.5. I immediately applied for a zone change and it was zoned SR-1 in 1979. During that time the lot was split into two tax lots a required by county planning.

1979 At that time I checked with Environmental Health and was told that to put two-two bedroom homes on the same septic I needed a 5 bedroom septic. On July 12, 1979 the system was changed to a 5 bedroom system permit NO-8433. No physical change was necessary as I had installed a 1250-gal septic tank on the original installation. At the same time I applied for another septic system on the second tax lot and it was not approved, winter check was required.

Thinking we had approval to connect to the existing system my son bought a 24X52 two bedroom mobile and had it delivered to the

728



This Septic system is Already in place and I want to connect 2 on. Mobile To it

State of Oregon
Department of Environmental Quality Memorandum

Date: December 29, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item I, Variance Application of Gordon Herigstad, EQC Meeting: January 11-12, 1996

Background

The property in question was evaluated by Deschutes County as unsuitable for "any on-site sewage disposal system" in 1984. This determination was based on a high permanent groundwater level which could rise as close as 18 inches from the ground surface. At that time, the water table was observed at 26 inches from the surface. When Mr. Herigstad (hereinafter "Appellant") purchased the property in 1984, a realtor informed him that the property had failed a soil test for the installation of an on-site sewage system.

On August 18, 1993, appellant had the property examined by a consultant, Robert C. Paeth, Ph.D. Dr. Paeth determined that free water occurs below 36 inches and the soil is somewhat poorly drained.

An application for a variance was received on August 20, 1993. A variance hearing was held at the property on October 19, 1993 by Daryl Johnson, a DEQ variance officer. The variance officer's findings stated that the soil color was gray to grayish brown at a depth of 9 inches, which indicated the soil is often saturated for extended periods of time at that level. The free water level was measured at 42 inches from the surface.

The variance application proposed the installation of a conventional sand filter, constructed to discharge through the bottom onto the underlying soil. This proposed system would require a variance from OAR 340-71-290(3) which sets forth the required levels of permanent water table. Maintenance of a 24 inch separation distance between the filer bottom and the high level of the permanent water table is required. The variance request was denied on November 24, 1993 since the variance officer determined that the water table will rise to within 9 inches. An appeal of the denial was timely received on December 11, 1993.

On September 6, 1994, appellant submitted further information to the then hearings officer Linda Zucker. Appellant contends that (1) the property is borderline to compliance with standards required in Oregon for septic systems and (2) that the variance officer discriminated against the appellant based on the appellant's perceived place of residence.

In June 1995, the matter was referred to Lawrence Smith for review and issuance of a preliminary order. In the Preliminary Order and Opinion dated September 25, 1995, Mr. Smith

first determined that the soil test completed in 1984 by Deschutes County was the most reliable indicator of the level of the water table since it was the most in depth and detailed of the three tests submitted. This soil test concluded that the water table would rise to within 12 inches of the surface on a permanent basis. Mr. Smith further concluded that appellant purchased the property knowing that the property had failed a soil test and that the test results are not borderline as appellant claims. Finally Mr. Smith concluded that there was not indication of bias on behalf of the variance officer. The denial of the variance was upheld.

On December 20, 1995, appellant submitted a letter along with various attachments indicating his objections to the hearings officer's order. Appellant contends that the soil test done by Deschutes County in 1984 should be disregarded since one of the test holes was not located on his property. The appellant further contends that the report by Dr. Paeth should be used to determine whether his request for a variance should be allowed.

Authority of the Commission with Respect to the Issue

ORS 454.605 to 454.745; OAR 340-71-415

Alternatives and Evaluation

The Commission may either uphold or reverse either part or all of the Hearings Officer's Preliminary Order and Opinion. The Variance Officer recommends that the Commission uphold the hearings officer's order as written.

Attachments

1. Deschutes County Site Evaluation, dated 1984.
2. Letter from Jay E. Langley, Deschutes County, stating that the site is unsuitable for on-site sewage disposal, dated May 10, 1984.
3. Variance Application, dated July 20, 1993.
4. Report from Paeth Soil Consulting, dated August 18, 1993.
5. Letter denying variance request, dated November 24, 1993.
6. Letter requesting appeal of denial of variance request, dated December 1, 1993.
7. Variance Facts and Findings Report, dated May 25, 1994.
8. Appellant's response to request for further information, dated September 6, 1994.
9. Hearings Officer's Preliminary Order and Opinion, dated September 25, 1995.
10. Letter and attachments setting forth appellant's objections to Preliminary Order and Opinion, dated December 20, 1995.

Report Prepared By: Susan M. Greco
Phone: (503) 229-5213

Regarding the variance application of

PRELIMINARY ORDER AND OPINION

GORDON HERIGSTAD
208 Frederic St., Apt. B
Burbank, CA 91505

WQ-IOSWWS-VARIANCE APPLICATION:
Twp. 20, R. 11, Sec. 7, Lot 14,
Block 16;
Deschutes River Recreation Homesites
Deschutes County

HISTORY

On August 19, 1993, the application of Gordon Herigstad (hereinafter, applicant) for a variance from particular requirements or standards pertaining to on-site sewage was received by the Department of Environmental Quality. After a hearing on the property on October 19, 1993, Variance Officer Daryl Johnson issued a Variance Denial on November 24, 1993. On December 13, 1993, applicant appealed the Denial.

On July 10, 1995, the Environmental Quality Commission (EQC) referred the appeal to Hearings Officer Lawrence Smith for initial review and preliminary order under ORS 454.660 and OAR 340 71-440. On July 21, 1995, the Hearings Officer gave the applicant until August 14, 1995, to submit further written information. No further information was received from the applicant by that date, so the record was closed.

This Preliminary Order and Opinion is based on a complete review of the file and information from the applicant. The documents considered were: the Variance Denial issued November 24, 1993, along with Variance Facts and Findings Reports by Variance Officer Johnson in support of the Denial; the applicant's letter of appeal; and the applicant's response for further information, dated September 5, 1994.

ISSUE

Whether the requirements of specific rules concerning the siting and construction of a conventional sand filter treatment and disposal system should be waived.

OPINION

The applicant's request for standard variance is denied because compliance to the rules was not inappropriate, and strict compliance was not unreasonable, burdensome, or impractical.

DISCUSSION

ORS 454.657 states in part:

> (1) After hearing the Environmental Quality Commission may grant to applicants for permits required under ORS 454.655 specific variances from the particular requirements of any rule or standard pertaining to subsurface sewage disposal systems for such period of time and upon such conditions as it may consider necessary to protect the waters of the state, as defined in ORS 468B.005. The commission shall grant such specific variance only where after hearing it finds that strict compliance with the rule or standard is inappropriate for cause or because special physical conditions render strict compliance unreasonable, burdensome or impractical.

Section (2) of this statute allows for variance based on hardship. The applicant did not request such a variance.

OAR 340-71-415(3) states:

> No variance may be granted unless the Commission or a special variance officer finds that:
>
> (a) Strict compliance with the rule or standard is inappropriate for cause; or
>
> (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.

By seeking a variance, the applicant concedes that its application cannot meet the requirements of a particular rule or standard. The applicant is the proponent of a certain fact (a variance from the rules and/or standards), so the applicant has the burden of proof.

The main issue in the applicant's appeal was the level of the water table. The Variance Officer concluded that the water table raised to within approximately nine inches of the land surface, based on the discoloration of the soil at that level. During a visit to the property on June 2, 1994, he determined the free water level to be 42 inches from the surface. The applicant reports that in June 1984, when he purchased the property, there was no water in a hole "about four feet deep" at the highest point on the property. The applicant reported that the river was at the highest level at that time. The applicant's expert (Dr. Robert C. Paeth, PhD) found the free water level to be below 36 inches from the surface. The applicant reported that his expert told him the findings were on the borderline. The Deschutes County Community Development Department on May 4, 1984, concluded that the water table was expected to rise within 12 inches of the surface on a permanent basis and as a result, the property was not suitable for any type of on-site sewage disposal system. The applicant conceded that his realtor told him in 1984 that the soil failed the test for an on-site sewage disposal system. The applicant reported that he never saw water within 12 inches of the surface. Based on this evidence, the 1984 report appears to be the most reliable indicator of the water table. The water table on that land would be expected to rise within 12 inches of the surface on a permanent basis.

OAR 340-71-220(2) states in part:

> Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:
>
> * * * *
>
> (b) Water table levels shall be predicted using "conditions associated with saturation." If conditions associated with saturation do not occur in soil with rapid or very rapid permeability, predictions of the highest level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in the area.

> (A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.
> EXCEPTION: In defined geographical areas where the Department has determined through a groundwater study that degradation of the groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.
> * * * *

This rule requires a depth of at least four feet from the water table for any absorption facility. The stated exception is not applicable because there is no evidence that the groundwater level was determined by the Department in the applicant's area. As stated above, the water table will rise within 12 inches of the surface, so a normal absorption facility cannot be approved under this rule. A variance from this rule would not be appropriate because the findings are not on the borderline as the applicant alleged. Compliance in this case would not be strict because of the substantial difference between the rule's standard (48 inches) and the site's level (12 inches), so it is not unreasonable, burdensome, or impractical to apply the standard.

The applicant proposes, per the recommendation of his expert, to install a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil.

OAR 340-71-290(3) states in part:

> Sites Approved for Sand Filter Systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-220, or where standard or pressurized disposal trenches would be used, and all the following minimum site conditions can be met:
> * * * *
> (b) The highest level attained by a permanent water table would be equal to or more than distances specificed as follows:

Soil Groups	Minimum Separation Distance from Bottom Effective Seepage Area
* * * *	
(B) Loam, silt loam, sandy clay loam, clay loam	18 inches

The applicant did not disagree that the soil on his land is mostly loam or loamy sand, so the applicable standard is 18 inches. Based on the above reports, the highest level is within 12 inches, so the site does not meet this standard. The difference between these levels is substantial, so the application of the rule's standard in this case was not strict. Because of this difference, compliance was not inappropriate. The rule established a minimum for protection of the water table. Neighbors rely on ground water for their needs. To allow the minimum to be reduced to 12 inches would endanger the water table and as a result, the public. The applicant has not established special physical conditions on the lot. As stated above, the compliance with

the rule was not strict due to the large disparity between the standard in the rule and and the established water table of the site. Compliance therefore would not be unreasonable, burdensome or impractical due to the lack of special physical conditions and the difference between the standard and the site's level.

OAR 340-71-290(5) states in part:

> Sites with saprolite, fractured bedrock, gravel or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter, that meet all other requirements of section 340-71-290(3), may utilize either a conventional sand filter without a bottom or a sand filter in a trench that discharges biologically treated effluent directly into those materials. The application rate shall be based on the design sewage flow in OAR 340-71-295(1) and the basal area of the sand in either type of sand filter. A minimum twenty-four (24) inch separation shall be maintained between a water table and the bottom of the sand filter.

The ground below the proposed sand filter is loam or sandy loam. This rule requires a minimum of 24 inches between the bottom and the water table. As stated above, the water table seasonally reaches to within 12 inches of the surface, so the proposed sand filter does not meet the rule's standard. Variance from this standard is not appropriate because the distance is only one-half allowed under the rule. For the same reason, compliance would not be unreasonable, burdensome or impractical. The table level was established a permanently peaking about 12 inches below the surface. At that level, the proposed filter would not adequately prevent pathogens or nitrates from entering the water table, thereby affecting beneficial uses of the water table. The applicant's request for variance from this rule must be denied.

The applicant purchased the property with the understanding that a test of the lot's soil for an on-site sewage disposal system had failed. He is seeking to overturn that decision or receive a variance from that holding. The results regarding the water table were not borderline as he claimed. They are significantly below the minimums allowed by rule. Without further evidence of the water table in the form of independent testing, his request for variance must be denied.

The applicant asked in the alternative to do further testing to establish the water table. Nothing in the rule prevents him from doing so and again asking for a variance with new data. Based on the data in the documents, his request for variance must be denied.

The applicant alleged bias by the Variance Officer. This preliminary order and opinion is based mainly on the results of the Deschutes County study 11 years ago. That study was the most in-depth and detailed. The applicant is in effect seeking to overturn that 1984 decision with insufficient data to rebut those findings. This study was reliable evidence in support of the Variance Officer's opinion, so bias has not been established. The applicant has not established that the Variance Officer relied on improper or unreliable information when making his decision. The results were not on the borderline, as the applicant stated, so the Variance Officer did not have the discretion in this case to allow a variance.

ORDER

The applicant's variance request is denied under ORS 454.657.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith, Hearings Officer

This Proposed Order and Opinion was mailed to the applicant and DEQ on:

FURTHER REVIEW

If the applicant and DEQ agrees with this preliminary order and opinion, the director of the Environmental Quality Commission (EQC) will enter a final order. If the applicant and/or DEQ disagrees with this preliminary order and opinion, the proposed order will be sent to the EQC for review and action. You will be notified of the EQC meeting date when this preliminary order and opinion will be considered.

MR. GORDON HERIGSTAD
128 SHIRLEY STREET
MOLALLA, OREGON 97038
503-8298039

December 20, 1995

Mr. Langdon Marsh - Director
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

Dear Mr. Marsh,

I received in the mail sometime in October this year a Preliminary Order and Opinion report from a Mr. Lawrence Smith of the Employment Department, State of Oregon. He choose to deny my Appeal of September 5, 1994 which I filed to the D.E.Q. of the State of Oregon. I do not recognize Mr. Smith in this case because he is not part of the D.E.Q.

I would like to start off by apologizing to Mr. Daryl Johnson of the Bend office for accusing him of discrimination against me personally. Mr. Johnson is not on trial here, the soil is.

The following pages are my second appeal regarding installation of a sand filter system on my lot in Bend, Oregon.

ISSUE

Whether the soil test done by Dr. Paeth in June 1993 on my lot 14, block 16, Deschutes River Recreation Homesites, will qualify it for an above the ground sand filter system. There also seems to be an issue regarding the May 4, 1984 soil test.

DISCUSSION

It appears that Mr. Smith based his denial of my Appeal on this same May 1984 Deschutes County soil test as did Mr. Daryl Johnson of Bend.

Two times now Dr. Paeth's report was ignored or disregarded completely by the D.E.Q. in favor of the 1984 soil test. Because of this bias I must bring to the attention of the D.E.Q. the real facts surrounding the 1984 Deschutes County soil test on my lot 14, block 16. Who ever did the soil test in May 1984, had their bearings off slightly. They dug one test hole on lot 14 and one test hole on lot 13, which is to the left of my lot. Apparently someone stood on the road, forgetting they were on a corner, looked 90 degrees away from the road and walked in that direction. I don't believe the owners were on the sight at the time of the test to show the actual property lines. The people doing the test apparently only found the property markers next to the street.

When I bought the lot there were the beginnings of a driveway in exactly that direction. The driveway started on lot 14 (my lot), and went 45 degrees to the property lines ending up over on lot 13 to the left. It only went about fifty feet in that direction. The second test hole was to the left of the attempted driveway, putting it about 10 to 15 feet over on lot 13 to the left. Because of this situation, I strongly feel the 1984 Soil Test done by Deschutes County on my lot is invalid.

Because there was only one hole on my lot, I feel the test was fraudulent and should be disregarded once and for all completely. Mr. Olson informed me days ago that there must be two test holes on the same lot to make it legal and fare to the property owner. I have enclosed a letter of testimony, two maps and a picture which show the situation in May 1984.

In the summer of 1984, after I had purchased the property, I found the original corner markers. I marked the property lines with steel post and string making it very visible. When I put my driveway in, in 1990 I had Mr. Wyatt fill in both early test holes as there was no reason to leave them open any longer. That covered a period of about six years. I knew by then 1990, the original soil test was fraudulent because there had never been any water in the test holes, let alone water coming to 12 inches from the surface or the ground or on the surface of the ground several times a year. Bear in mind one test hole was not even on my property.

OPINION

The practice of farming out D.E.Q. technical business to another department is not practical or acceptable. This is a gross disservice to myself and other tax paying citizens of the state of Oregon.

I feel my lot would handle a Sand Filter System with no problems. I feel the land is within the prescribed limits for a conventional Sand Filter System. I would like to build my dream house on my lot on the Deschutes River.

CLOSING

I have included maps and copies of everything I felt would be relevant in your review. I have also included a letter of testimony from Mr. Kenneth Wyatt who lives on Kingsburg Rd. near my lot. Mr. Wyatt has observed these test holes and the surface of the lot for standing water many times through these years of question.

If you feel you again cannot come to a conclusion in my favor, I would like to request another delay.

I can and would designate someone to observe the surface for standing water, take specific measurements and observations on specific dates from February through May 1996. This would cover snow melt and spring thaw and rain storms.

In closing, I beg that you take the time to review Dr. Paeth's findings of August 18, 1993 and take into consideration the letter of testimony of Mr. Kenneth Wyatt.

Thank you for your time and patience, I remain Truly Yours

Gordon Herigstad

Gordon Herigstad

Dr. Paeth can be reached at 503-695 5464

mr. Wyatt can be reached at 503-593 5805

KENNETH WYATT
KW EXCAVATING
17056 KINGSBURG RD.
BEND, OREGON 97702
503-5935805

December 10, 1995

Mr. Langdon Marsh
Director D.E.Q.
811 S.W. Sixth Ave.
Portland, Oregon 97204

Dear Mr. Marsh,

I am writing this letter on behalf of Mr. Gordon Herigstad of Molalla, Oregon.

My name is Kenneth Wyatt. My wife Betty and I moved here from Molalla, Oregon in 1990. This letter will cover a time period form Spring of 1984 to present. I was aware of Gordon's lot, lot 14, block 16 being for sale at that time. I was the one who showed it to him.

By 1984 I had already purchased my lot here on Kingsburg Rd. My wife and I and brother-in-law Frank were doing a lot of camping out in this area at that time.

When Mr. Herigstad and I looked at the lot prior to him buying it we noticed two test holes and what looked like a partial driveway. The peculiar thing about the driveway was that it started on lot 14 (Herigstad's lot) and ended up on someone else's lot to the left. The one test hole was to the left of that driveway, looking from the street, which put it about 10 to 15 feet on someone else's lot. The other test hole was somewhat to the left of center of Gordon's lot 14, block 16. We thought this a little peculiar at the time that both test holes were not on the same lot. The street curves there as the map shows. Someone apparently went straight in from the street which put them at about a 45 degree angle to the real property lines. Neither test hole had any water in them at that time I remember. During the summer of that year 1984, I observed those test holes at least twice more as I fished in the area.

In the years between 1984 and when we moved here to Deschutes River Homesite area 1990, I observed those test holes a number of times. This was mostly during the summer during the high water season and at least a couple times each winter. This was in the process of hiking or fishing or playing in the snow in the area and knowing Gordon owned the lot. I have to say I never observed any water in either test hole during these years.

In June of 1990 when we moved to the lot on Kingsburg Rd. permanently, I started a Backhoe business. Mr. Herigstad came over from Molalla and hired me to grade in a driveway. At that time we did major cleanup on Mr. Herigstad's lot. In the process he had me fill in both the old test holes as there was no water in either and apparently no reason to leave them open. This was about early July 1990. The river was at its normal summer high level. My brother-in-law Frank and I enjoyed fishing off the bank of the new driveway for the German Browns which were out there.

With my business of doing local excavation in the area I had a chance to observe Gordon's lot many times throughout the year which included summer, winter and spring since 1990.

In June 1993 Mr. Herigstad again hired me to dig two new test holes on his lot 14. These two new test holes were dug when the soil Scientist Dr. Robert Paeth arrived and was ready to do the tests.

In 1993 Mr. Herigstad left instructions to take time to observe the lot not only in the summer but in the winter during any heavy rains and particular during the spring snow melts. He asked me to make a note of any accumulation of water on the surface as well as any in the test holes. I never saw any accumulation on the surface and only temporary in the test holes. Once while the snow was still froze we got an unexpected rain in the spring, there was some slight accumulation on top the ice.

In May or June 1994, Mr. Herigstad again came to do Cleanup on the lot. I had observed the two test holes several times the previous Summer, winter and spring. I didn't notice any standing water in the holes or on the surface during that year.

In June 1995 this year, Mr. Herigstad hired me to haul in some cinder rock for the driveway. At the same time we filled in one of the test holes. The other test hole which is in the center of the lot, not too far from the street was left open. He requested I dig the remaining test hole out to 5 feet deep. This would then show a true water level if there was going to be one. Water did appear and came up to about 4 feet from the surface as measured by Mr. Herigstad.

This spring 1995 there was also no standing water on the ground after the snow melt. The water level stayed the same in the test hole during this summer 1995 high water season, as we had instructions from him to observe it often.

Mr. Herigstad indicated to me early on that the 1984 soil test done by Deschutes County, indicated water coming to within a foot from the surface of the ground. This seemed very strange, because not only has this never happened summer or winter since I have been here, but there has never even been any standing water in the open test holes at all. That is not until I dug the one out to 5 feet. Then a small amount of water appeared.

There are meadows about a mile away. There the water comes to the surface. It is quite obvious because of all the swamp grass and no trees. There is a healthy growth of brush and trees on Gordon's lot that doesn't show that kind of wet ground.

The water level disappeared out the bottom in November as the level of the river receded to its winter low level. The level as you know is controlled by the release of water from the Wikiup Dam and reservoir.

As I have mentioned I have had an opportunity to observe this lot both summer and winter. During the spring snow melts there doesn't seem to be any accumulation of water on the surface of the ground or in the test holes.

This has been my observations. I hope this letter can be of assistance. I am available any evening by phone if there are any questions. 503-5935805

Yours Truly

Mr. Kenneth Wyatt

Kenneth O. Wyatt

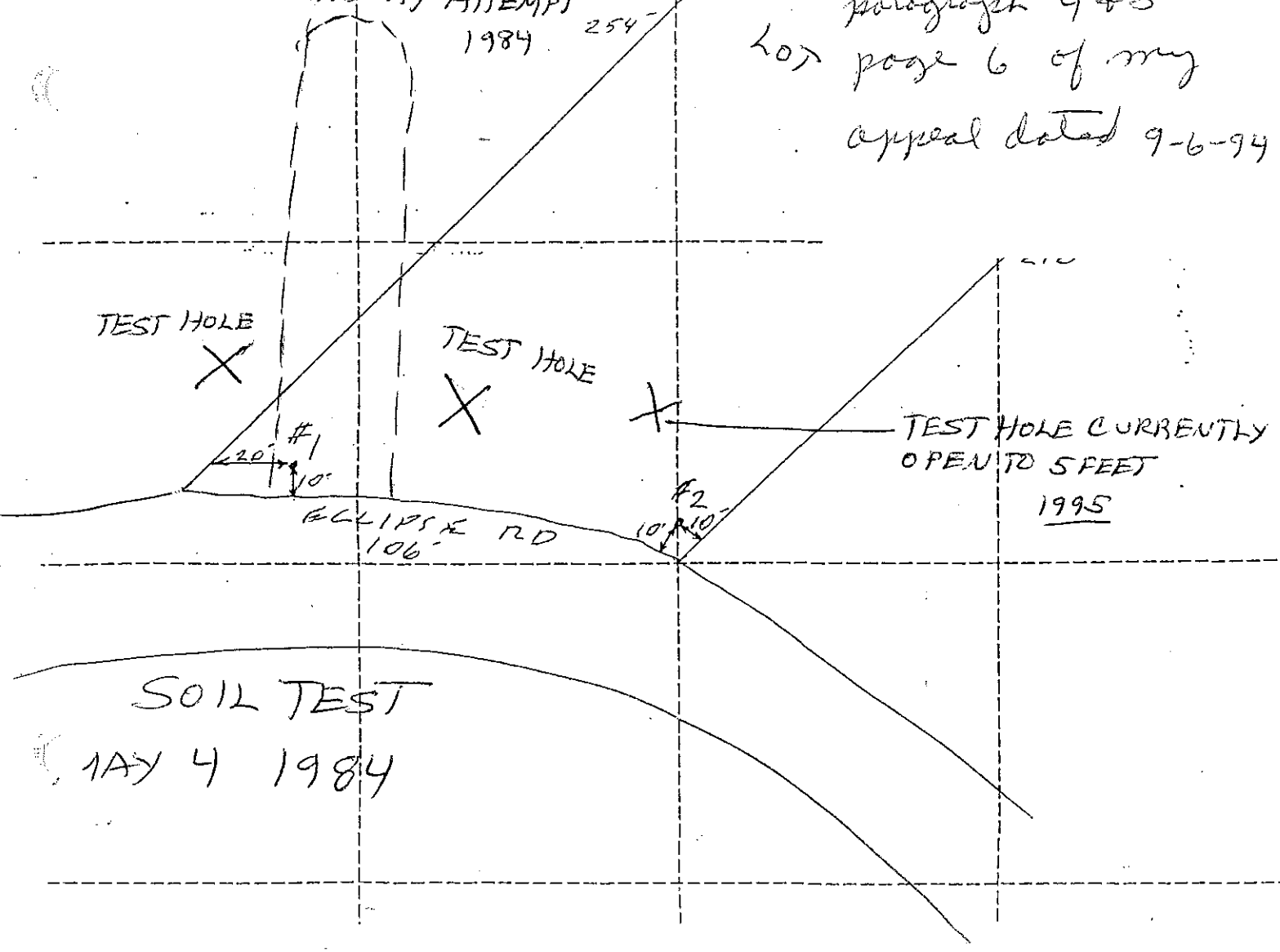
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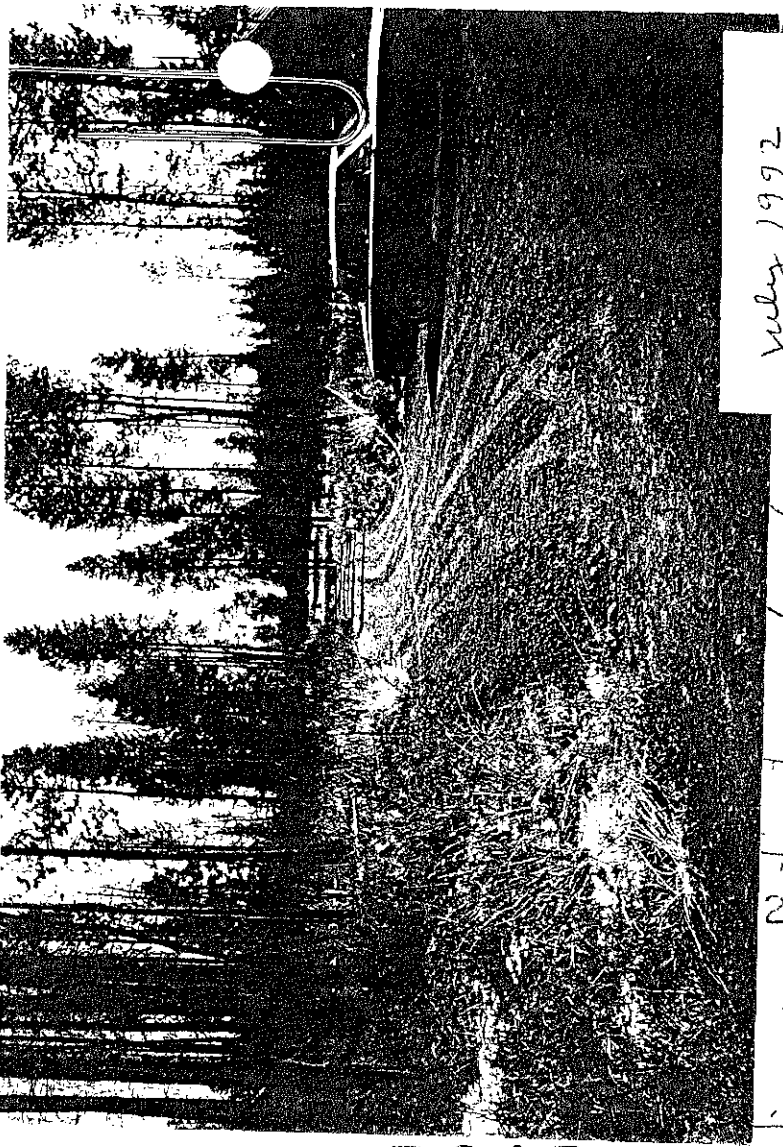
13

Summer 1984
Please refer to
paragraph 4 + 5
on page 6 of my
appeal dated 9-6-94

EARLY DRIVEWAY ATTEMPT
1984



SOIL TEST
MAY 4 1984



July 1992
note opening to
left of driveway

1·68

DESCHUTES RIVER
Flow

The X's mark the spot of the 1984 soil test holes

LAKE

ROAD

3300
00
0
3700
9
3800
10
3900
11
4000
12
4100
13
4200
14
4300
15
4400
16
4500
17
460
18
19
2200
15
12100
16
16
N. 75°00' E 212.27
N. 6°18' W 260'
S 43°15' W
N. 49°19' E 201.19
N. 46°55' E 25'
N. 52°15' E 217.8
N. 5°20' E 202.4'
N. 5°18' E 203.8'
N. 5°15' E 204'
N. 6°18' W
N. 88°42' E
N. 31°54' W 187.6
S 35°42' W 83.6
100'
60
88.5'
105.5'
103.56'
289'
200'
9700
18
9600
19
9400
9500
9300
9200
9100
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8900
8800
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8600
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8400
10600
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10300
10200
10100
10000
9900
9800
9
10
11
12
13
14
15
16
17
220'
320'
1

Lawrence Smith denial

State of Oregon
Department of Environmental Quality

Certificate of Mailing

I certify that on September 25, 1995, I deposited in the United States Mail at Portland, Oregon, postage prepaid, envelopes containing the PRELIMINARY ORDER AND OPINION REGARDING THE VARIANCE APPLICATION OF GORDON HERIGSTAD, Case No: WQ-I)SWWS-Variance Application, to the following person[s]:

Gordon Herigstad
208 Frederic Street, Apt. B
Burbank CA 91505

Susan M. Greco

Susan M. Greco
Rules Coordinator
Department of Environmental Quality

9/25/95
Date of Signature

Regarding the variance application of

PRELIMINARY ORDER AND OPINION

GORDON HERIGSTAD
208 Frederic St., Apt. B
Burbank, CA 91505

WQ-IOSWWS-VARIANCE APPLICATION:
Twp. 20, R. 11, Sec. 7, Lot 14,
Block 16;
Deschutes River Recreation Homesites
Deschutes County

HISTORY

On August 19, 1993, the application of Gordon Herigstad (hereinafter, applicant) for a variance from particular requirements or standards pertaining to on-site sewage was received by the Department of Environmental Quality. After a hearing on the property on October 19, 1993, Variance Officer Daryl Johnson issued a Variance Denial on November 24, 1993. On December 13, 1993, applicant appealed the Denial.

On July 10, 1995, the Environmental Quality Commission (EQC) referred the appeal to Hearings Officer Lawrence Smith for initial review and preliminary order under ORS 454.660 and OAR 340 71-440. On July 21, 1995, the Hearings Officer gave the applicant until August 14, 1995, to submit further written information. No further information was received from the applicant by that date, so the record was closed.

This Preliminary Order and Opinion is based on a complete review of the file and information from the applicant. The documents considered were: the Variance Denial issued November 24, 1993, along with Variance Facts and Findings Reports by Variance Officer Johnson in support of the Denial; the applicant's letter of appeal; and the applicant's response for further information, dated September 5, 1994.

ISSUE

Whether the requirements of specific rules concerning the siting and construction of a conventional sand filter treatment and disposal system should be waived.

OPINION

The applicant's request for standard variance is denied because compliance to the rules was not inappropriate, and strict compliance was not unreasonable, burdensome, or impractical.

DISCUSSION

ORS 454.657 states in part:

> (1) After hearing the Environmental Quality Commission may grant to applicants for permits required under ORS 454.655 specific variances from the particular requirements of any rule or standard pertaining to subsurface sewage disposal systems for such period of time and upon such conditions as it may consider necessary to protect the waters of the state, as defined in ORS 468B.005. The commission shall grant such specific variance only where after hearing it finds that strict compliance with the rule or standard is inappropriate for cause or because special physical conditions render strict compliance unreasonable, burdensome or impractical.

Section (2) of this statute allows for variance based on hardship. The applicant did not request such a variance.

OAR 340-71-415(3) states:

> No variance may be granted unless the Commission or a special variance officer finds that:
>
> (a) Strict compliance with the rule or standard is inappropriate for cause; or
>
> (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.

By seeking a variance, the applicant concedes that its application cannot meet the requirements of a particular rule or standard. The applicant is the proponent of a certain fact (a variance from the rules and/or standards), so the applicant has the burden of proof.

The main issue in the applicant's appeal was the level of the water table. The Variance Officer concluded that the water table raised to within approximately nine inches of the land surface, based on the discoloration of the soil at that level. During a visit to the property on June 2, 1994, he determined the free water level to be 42 inches from the surface. The applicant reports that in June 1984, when he purchased the property, there was no water in a hole "about four feet deep" at the highest point on the property. The applicant reported that the river was at the highest level at that time. The applicant's expert (Dr. Robert C. Paeth, PhD) found the free water level to be below 36 inches from the surface. The applicant reported that his expert told him the findings were on the borderline. The Deschutes County Community Development Department on May 4, 1984, concluded that the water table was expected to rise within 12 inches of the surface on a permanent basis and as a result, the property was not suitable for any type of on-site sewage disposal system. The applicant conceded that his realtor told him in 1984 that the soil failed the test for an on-site sewage disposal system. The applicant reported that he never saw water within 12 inches of the surface. Based on this evidence, the 1984 report appears to be the most reliable indicator of the water table. The water table on that land would be expected to rise within 12 inches of the surface on a permanent basis.

OAR 340-71-220(2) states in part:

> Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:
>
> * * * *
>
> (b) Water table levels shall be predicted using "conditions associated with saturation." If conditions associated with saturation do not occur in soil with rapid or very rapid permeability, predictions of the highest level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in the area.

> (A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.
> EXCEPTION: In defined geographical areas where the Department has determined through a groundwater study that degradation of the groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.
> * * * *

This rule requires a depth of at least four feet from the water table for any absorption facility. The stated exception is not applicable because there is no evidence that the groundwater level was determined by the Department in the applicant's area. As stated above, the water table will rise within 12 inches of the surface, so a normal absorption facility cannot be approved under this rule. A variance from this rule would not be appropriate because the findings are not on the borderline as the applicant alleged. Compliance in this case would not be strict because of the substantial difference between the rule's standard (48 inches) and the site's level (12 inches), so it is not unreasonable, burdensome, or impractical to apply the standard.

The applicant proposes, per the recommendation of his expert, to install a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil.

OAR 340-71-290(3) states in part:

> Sites Approved for Sand Filter Systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-220, or where standard or pressurized disposal trenches would be used, and all the following minimum site conditions can be met:
> * * * *
> (b) The highest level attained by a permanent water table would be equal to or more than distances specificed as follows:

Soil Groups	Minimum Separation Distance from Bottom Effective Seepage Area
* * * *	
(B) Loam, silt loam, sandy clay loam, clay loam	18 inches

The applicant did not disagree that the soil on his land is mostly loam or loamy sand, so the applicable standard is 18 inches. Based on the above reports, the highest level is within 12 inches, so the site does not meet this standard. The difference between these levels is substantial, so the application of the rule's standard in this case was not strict. Because of this difference, compliance was not inappropriate. The rule established a minimum for protection of the water table. Neighbors rely on ground water for their needs. To allow the minimum to be reduced to 12 inches would endanger the water table and as a result, the public. The applicant has not established special physical conditions on the lot. As stated above, the compliance with

the rule was not strict due to the large disparity between the standard in the rule and and the established water table of the site. Compliance therefore would not be unreasonable, burdensome or impractical due to the lack of special physical conditions and the difference between the standard and the site's level.

OAR 340-71-290(5) states in part:

> Sites with saprolite, fractured bedrock, gravel or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter, that meet all other requirements of section 340-71-290(3), may utilize either a conventional sand filter without a bottom or a sand filter in a trench that discharges biologically treated effluent directly into those materials. The application rate shall be based on the design sewage flow in OAR 340-71-295(1) and the basal area of the sand in either type of sand filter. A minimum twenty-four (24) inch separation shall be maintained between a water table and the bottom of the sand filter.

The ground below the proposed sand filter is loam or sandy loam. This rule requires a minimum of 24 inches between the bottom and the water table. As stated above, the water table seasonally reaches to within 12 inches of the surface, so the proposed sand filter does not meet the rule's standard. Variance from this standard is not appropriate because the distance is only one-half allowed under the rule. For the same reason, compliance would not be unreasonable, burdensome or impractical. The table level was established a permanently peaking about 12 inches below the surface. At that level, the proposed filter would not adequately prevent pathogens or nitrates from entering the water table, thereby affecting beneficial uses of the water table. The applicant's request for variance from this rule must be denied.

The applicant purchased the property with the understanding that a test of the lot's soil for an on-site sewage disposal system had failed. He is seeking to overturn that decision or receive a variance from that holding. The results regarding the water table were not borderline as he claimed. They are significantly below the minimums allowed by rule. Without further evidence of the water table in the form of independent testing, his request for variance must be denied.

The applicant asked in the alternative to do further testing to establish the water table. Nothing in the rule prevents him from doing so and again asking for a variance with new data. Based on the data in the documents, his request for variance must be denied.

The applicant alleged bias by the Variance Officer. This preliminary order and opinion is based mainly on the results of the Deschutes County study 11 years ago. That study was the most in-depth and detailed. The applicant is in effect seeking to overturn that 1984 decision with insufficient data to rebut those findings. This study was reliable evidence in support of the Variance Officer's opinion, so bias has not been established. The applicant has not established that the Variance Officer relied on improper or unreliable information when making his decision. The results were not on the borderline, as the applicant stated, so the Variance Officer did not have the discretion in this case to allow a variance.

ORDER

The applicant's variance request is denied under ORS 454.657.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith, Hearings Officer

This Proposed Order and Opinion was mailed to the applicant and DEQ on:

FURTHER REVIEW

If the applicant and DEQ agrees with this preliminary order and opinion, the director of the Environmental Quality Commission (EQC) will enter a final order. If the applicant and/or DEQ disagrees with this preliminary order and opinion, the proposed order will be sent to the EQC for review and action. You will be notified of the EQC meeting date when this preliminary order and opinion will be considered.

COMMUNITY DEVELOPMENT DEPARTMENT
COURTHOUSE ANNEX/Bend, Oregon 97701
Environmental Health
(503) 388-6561

May 10, 1984

IFG Leasing Co
PO Box 4337
Sunriver, OR 97702

Re: T 20, R 11, S 7C, TL 4200
71-84 D

Dear IFG Leasing Co :

This letter is in response to your on-site sewage disposal system site evaluation conducted on May 4, 1984.

The property has closely scattered trees and a brushy ground cover.

The test pits revealed the following soil conditions: 0 - 12 inches, coarse loamy sand, 12 - 26 inches, coarse loam, with the water table at 26 inches. The test pit indicates that the seasonal, permanent water table reaches to with 12 inches of the ground surface.

The test pit shows that this site is unsuitable for any on-site sewage disposal system.

You may have additional test pits examined by this department within 90 days of the initial site evaluation with no additional evaluation charge.

You may also apply for a denial review. This review is conducted by the Department of Environmental Quality Central Region Office. A written request must be submitted within 30 days of this denial notification. A $60.00 denial review fee is charged.

A variance may be applied for at the Department of Environmental Quality Central Region Office located at 2150 NE Studio Road, Bend, Oregon. A $225.00 fee will be charged by that agency.

Jay E. Langley
Sanitarian

TO

LINDA K. ZUCKER

HEARINGS OFFICER

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

811 SOUTH WEST 6TH STREET
PORTLAND, OREGON 97204

FROM

GORDON HERIGSTAD
128 SHIRLEY STREET
MOLALLA, OREGON 97038

VARIANCE APPEAL SCHEDULE

DESCHUTES RIVER RECREATION HOMESITES

DESCHUTES COUNTY BEND, OREGON

September 6, 1994

GORDON HERIGSTAD
128 SHIRLEY STREET
MOLALLA, OREGON 97038
phone 503-8298039

September 6, 1994

Linda K. Zucker Hearings Officer
Oregon Department of Environmental Quality
Water Quality Division
811 South West Sixth Ave.
Portland, Oregon 97204

Dear Ms. Zucker,

I am honored that you have taken the time to review my Variance Appeal. I will do my best to provide the information you need and to voice my convictions in a way that can best conclude your final decision.

My name is Gordon Herigstad. I own lot-14 block-16, township 20, range 11, section 7, tax lot 4200, tax account 117085, Deschutes River Recreation Homesites, Deschutes County. My Oregon residence is 128 Shirley Street, Molalla, Oregon 97038. My work address is 208 South Frederic St. Burbank, California 91505, phone 818-5661776.

To be fare I will start by explaining a few preliminaries. I have spent most of my life in the Molalla area. Starting in 1946 my family and I moved there from the Canby district. For the past twenty years I have made my living going to sea on ships as a Marine Engineer. While following this profession I have been in either the San Francisco, California area or the San Pedro, California area. I average half a year or so in both California and Oregon. I Contend that I am therefore an Oregon resident.

I see no reference to Miss. or Mrs. Zucker in your letter of July 25, 1994. If I may be so bold I will use Ms. Zucker. Referring to your letter you ask, explain why you believe strict compliance with specific rules is inappropriate or why special physical conditions render strict compliance unreasonable, burdensome or impractical in this case.

I will start off then by saying what I feel this case represents. Number one; a border line case of complying to any and all current Oregon guidelines and standards for septic systems throughout the state. And number two; a rather obvious case of discrimination by Mr. Daryl Johnson against me and my lot in Deschutes County.

As you know this is the day and age of fairness and exposing discrimination against any number of things places and peoples. I am only interested in peoples along the Deschutes River.

I am going to attempt to point out how the information in Mr. Johnson's letter and report is not consistent and is not exactly true, and why in his biased opinion he does not want to approve this variance.

(Power corrupts, and absolute power corrupts absolutely.)

What Mr. Johnson states on page 2 & 3 of your VARIANCE FACTS AND FINDINGS REPORT 8/18/94 sounds like a lot of political gobble-de-gook which is designed to confuse the owner and the reader, to make sure nobody or nothing will pass unless he so allows it.

I demonstrate; OAR 340-71-150(4)(a) which limits the use of standard and/or alternative sewage treatment and disposal systems to properties that comply with the requirements of, it now refers you to another Oregon regulation, OAR 340-71-220 and/or the requirements of, it now refers you to yet another batch of one hundred regulations, OAR 340-71-260 though 340-71-360 as appropriate for a specific type of alternative system.

Here is a classic catch-22 situation. This sets up a situation where a Variance officer can interpret any environment or condition as he so chooses.

I continue now with two regulations quoted on page 3 of your report.

OAR 340-71-290(3)(b)(B) - which limits the use of conventional sand filter systems to sites where the highest level of a permanent water table will not rise closer than 18 inches of the bottom of the effective seepage area (bottom of the proposed filter).

OAR 340-71-290(5) - which restricts the use of conventional sand filter systems that discharge effluent through the bottom, to locations where the water table does not rise closer than 24 inches to the filter bottom, and also limits the use of this design of sand filter to sites with saprolite, fractured bedrock, gravel, or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two feet thick in contact with and below the bottom of the sand filter.

I quote now from a letter to me dated 11/24/93. Mr. Johnson informs me that the hearing was indeed held on my property. He goes on to quote two Oregon regulations of which his decision is based upon to deny the variance. I feel I should also quote these Oregon regulations.

conventional system

1. OAR 340-71-220(2)(b)(A) - which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent groundwater table.

Sand filter system

2. OAR 340-71-290(5) - which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

I want you to notice now that this OAR 340-71-220(2)(b)(A) from letter 11/93, is not even listed in the VARIANCE FACTS AND FINDINGS REPORT 8/18/94. Also notice that the version OAR 340-71-290(5) from letter 11/93, is over in Crook county somewhere compared to the 8/18/94 version.

In the case of Oregon septic guidelines, rules like OAR 340-71-290(3)(b)(B) and OAR 340-71-290 (5) explained on page 3 of your VARIANCE FACTS AND FINDINGS REPORT 8/18/94, and on page 2 of this report, are set up for the entire state. As we know there is a lot of different kind of dirt in the entire state of Oregon. The dirt is not the same in all areas and counties in the state, but still the rules are the same for all counties.

You see Ms. Zucker all of this gives Mr. Johnson unlimited latitude. Unquestioned conduct. Mr. Johnson has absolute power as Variance Officer of Deschutes county. Nobody would question what he says or prints if he/she valued their job.

In the case of discrimination, this being a border line case which could go either way, you can be sure that if Mr. Johnson's daughter or son-in-law owned my lot in question, it would miraculously pass within an inch of the state guidelines. In his opinion section it indeed would have all the right conditions. In my shipboard work life this is called a "two pot galley".

Now I would like to go back to the absolute beginning. About 1959-1960 the area of Deschutes River Recreation Homesites was developed and subdivided. It was in the middle of nowhere and developed from basically useless land. Sun River was not thought of yet because that area was really an unusable swamp. When DRRHS went on the market it did not sell. The developer then used a different strategy. They would market this wilderness in Southern California. That would encourage California people and money. To accommodate these people the streets were named after different cities in Los Angeles County. In the mid 1960's television adds saturated the Los Angeles airwaves. Suckers there would buy this wilderness land sight unseen for the reasonable prices they were being offered for. They did it and it worked. Californians bought heavy in the area. My older brother who lived in Southern California at the time also purchased two lots there.

The Californians who bought lots there were thinking of the future. They were thinking of a campsite or a homesite away from it all someday, or just a simple investment. They were pursuing happiness as we know it, the American Dream. They had no idea of the pre-justice Oregonians would develop against them in the years to come.

SUMMARY OF APPLICANT'S PROPOSAL page 2 of Variance Facts and Findings Report 8/18/94.

Robert C. Paeth CPSS is Soil Scientist for Mr. Herigstad. Dr. Paeth proposed the installation of a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil. The underdrain gravel (clean, round, washed gravel, 3/4" to 1-1/2" in size) at the base of the filter would extend five (5) feet beyond the walls of the filter to enlarge the absorptive surface area, and would not be placed below the natural ground surface. Filter fabric would cover the upper surface of the underdrain gravel lense, and top soil would be used to backfill around the filter and cover that part of the underdrain gravel extending beyond the filter walls. Dr. Paeth calculated the absorptive surface area to be 1.012 square feet. He estimates the loam soil has a permeability rate ranging from 0.6 to 2.0 inches per hour, thus it would be possible to transmit from 14.4 to 48 inches of water in a 24 hour period. (This is very good drainage)

Dr. Paeth goes on to say, conventional sand filter treatment units have demonstrated the ability to significantly reduce BOD-5, total suspended solids, total nitrogen, and fecal bacteria. He also cites studies that suggest sand filtered effluent will have little adverse impact on the quality of the shallow groundwater aquifer below the site. Dr. Paeth also states that free water occurs below 36 inches.

On page 2 of the letter to me from Deschutes County dated 11/24/93, Mr. Johnson states; After consideration of your proposal, I find that I cannot justify approval of your variance request. It is my opinion that your proposal to install an elevated sand filter does not justify allowing variance to the rules as discussed above.

To start with in my opinion there is very little variance to vary. If Mr. Johnson decides to slow down development in the area he can. He can follow his personal agenda without question.

We all know of the prejudice and the discriminations Oregonians now have of Californians in general. In some cases for good reason. Californians are not wanted nor is their continuous development. This obviously would include anyone with a California address. I believe Mr. Johnson has a one man campaign going to curb growth along the Deschutes River. I believe he is purposefully misrepresenting some of the facts he states in your VARIANCE FACTS REPORT for instance page 2 paragraph 2 and all of page 3.

I purchased this property in June 1984. At that time as I recall, the river was at its high point. I remember two test holes. The lot was covered with thick brush and small trees. I refer to line 3 of a letter to IFG Leasing Co. the previous owners, from Deschutes County 5/10/84. "The property has closely scattered trees and a brushy ground cover". No swamp there. I remember one test hole in the middle of the lot and was about four feet deep. Another shallow test hole was on the down river side property line, as though someone didn't exactly know where the property line was. To the best of my knowledge there was no water in the deep hole which was at the highest point of the lot. The realtor indicated to me that a soil test had been done by the County and it had failed. Therefore the lot was for sale.

Later I was shown the letter from Deschutes County to IFG Leasing Co. Sacramento, California date 5/10/84. It was signed by a Mr. Jay E. Langley.
I initially accepted this report, however though the years as I worked on the lot I began to question the County's findings. In paragraph 3 they state that the water table is at 26 inches with seasonal, permanent water table reaching to 12 inches from ground surface. I have never seen the water that close to the surface in the ten years I have owned the lot.

Back to your letter of VARIANCE FACTS AND FINDINGS 8/18/94. On page 1 paragraph 1, Mr. Johnson interprets this earlier letter from Deschutes County 5/10/84 to IFG Leasing, considerably different. For one thing he adds to the letter and states that the land is flat. This was not in the original letter.
Page 1 paragraph 2 of the VARIANCE FACTS AND FINDINGS letter Mr. Paeth states that free water occurs below 36 inches, BELOW 36 inches, and goes on to say, although nearly level, the property has some sloping areas due to the micro relief.

Page 2 paragraph 1 of this same letter of Findings, Mr. Johnson states that soil colors were observed at a depth beginning at 9 inches from the surface. These colors are indicative of soils that are "often" saturated for "extended" periods of time. That would mean swamp area. There is no swamp there. He goes on to say that during a visit to the property on 6/2/94 that the free water level was 42 inches. The two test holes dug to 4 ft deep are still there as of 9/94.

On page 2 paragraph 2, Mr. Johnson also states that soil colors indicate the water table will "often" rise to within approximately 9 inches of the land surface. There is no one on this earth that has ever witnessed water on my property at 9 inches from the surface of the land, with a test hole or without. I would like to know what Mr. Johnson means by often? Once a month? Does the river high water come many times a year? As far as I know it only comes once a year and stays about six months or less.

I will now list all of Mr. Johnson's quotes of 9 inches listed in the VARIANCE FACTS AND FINDINGS letter 8/18/94:

Page 2 Par. 1; soil colors were observed at a depth beginning at 9 inches from the surface.

Par. 2; soil colors indicate the water table will often rise to within approximately 9 inches of the land surface.

Page 3 Par. 2; At the subject property, the highest level of the permanent water table is expected to rise to within 9 inches or closer of the bottom of the effective seepage area. (bottom of the proposed filter)

Par. 3; At the proposed site, the water table is expected to rise to within 9 inches or closer to the filter bottom, and the soil texture in contact with the filter bottom is loam.

Par. 5; It is expected that the water table will rise to within 9 inches or less from the filter bottom.

I feel this repetition is there for a reason other than what it appears to be.

The irregularity of the surface of the lot in question is at least 9 inches or more. Does this mean that often times a year water will run up hill from the river and stand in places on the surface of my property that is 9 inches or more irregular? Do I believe in the Tooth Fairy? No. He goes on to state in paragraph 5, Other lots located on the 2a terrace in this part of Deschutes County have experienced water tables that have been above the ground surface in the spring. This is indeed true in some areas including in the Homesite area. These are swampy meadow areas where there is nothing but swamp water, swamp grass and no trees at all. The closest area like this to me is approximately a mile.

The lay of my land is that the high point is about 36 inches above the river high water level. I do not believe water will run up hill. Physics does not allow water to freely run up hill unless it is pumped. Mr. Johnson will not convince me otherwise. The street next to the front of the lot has a deep roadbed. This would prevent water from coming from the direction of the other side of the road and running uphill to 9 inches from the surface on my property.

Ms. Zucker, there has been a nice house and home on the lot one lot up river from me since sometime before 1984 when I purchased my lot. The house is about 50 feet from the river. They have a well and conventional septic system which is located between the house and the street. There has been absolutely no trouble with either one of these in the past ten years, summer or winter. That house is barely more than 100 feet from my lot.

And now Ms. Zucker it is time for my conclusion.

Mr. Johnson did not do any of the research work on this project himself. He states so in a letter to me from him dated 11/24/93, page 1, paragraph 2 and page 2 paragraph 1.

He starts by informing me the hearing was indeed held. He used exclusively the soil report done in 1984 by Mr. Langley and the recent one done by Dr. Paeth. He re-wrote that old report with a sprinkle from Dr. Paeth and presented it as a new and original report. He based his report on work that had already been done, as tough anything and everything from the past is the absolute gospel.

This is what he based his denial on. Is this fare to me Ms. Zucker? That 1984 report could have been completely pre-justiced and a lie for all we know, to discourage California owners. We don't know unless somebody does original research, do we? That is preciously why I hired an independent soil expert Mr. Robert Paeth from Corbett, Oregon. I wanted the best in order to get the best correctness.

The on site variance hearing took place on my lot, lot 14, block 16, DRRHS, on 10/19/93. It was attended by Dr. Robert C. Paeth, Soil Scientist and Mr. Daryl Johnson R.S. of Deschutes County.

Shortly after this I had a lengthy phone conversation with Dr. Robert Paeth in Corbett, Oregon. He brought me up to date on everything he had done on the project and everything that had happened so far regarding the lot. Dr. Paeth informed me that the findings were borderline. It could pass and work fine depending on the variance officer. He said he didn't think it looked good in this case. He informed me that as him and Mr. Johnson walked the property, Mr. Johnson commented that he thought he would not pass it. His rationale was that, if I passed this one everyone along the river would want one. My response was, well so what? Isn't the Planning Commission there to serve and help the county. Isn't he paid by the county to do a job for the county and its people? Is he afraid of a work load? Or is he just exercising his power to curb growth along the river? This means that he actually drove to the site there that day with this pre-justiced decision of denying the variance already in place in his mind.

Ms. Zucker I feel I also must relay an experience I had at the Deschutes County Tax Assessors office in July 1993. The year before Oregon had passed a state wide measure called Proposition 5. I had been informed by an annual tax statement that my Assessed Value and corresponding property taxes, on the lot in question, had been increased radically. The assessed value had been raised in one year from six thousand to twenty eight thousand. The coming year was going to be two thousand in addition. Through the years I had done considerable cleanup on my lot for whatever difference that should make. I decided it was time to go to the Tax Assessors office in person. I wanted someone to tell me in person what was their actual motivation for this drastic increase. I spoke to an Assessor who appeared to be a veteran there. The answers I received were far from straight forward. Finally he in essence told me that they had taken it upon themselves to raise the assessed value and taxes on all the riverfront lots along that part of the Deschutes River because they were all presumed to be septic feasible and therefore had value. I promptly responded with, could you please write that up for me because I have just or are in the process of applying for a septic variance. This could make a big difference if you people have given a blanket approval in the area, He replied that of course he couldn't do that.

I wind my case down Ms. Zucker by making you an offer.

This is what I propose in the name of fairness. The two test holes are still there and open. I will leave these holes open for one year. During that year Mr. Johnson can send a messenger out there once a month or oftener to measure the water level in the test holes. Of course the messenger would have to stop and pick up my friend Mr. Wyatt or Mr. Wyatt's wife to witness this gaging. No cheating you know. This way all could witness, often through the year, Mr. Johnson's water running up hill and spilling into the test hole and keeping it 9 inches from the surface.

I of course am going way out on the proverbial limb by making this offer. But I am willing to take the chance for fairness to prove a point.

I will close my appeal by saying; I feel that because my lot is on the edge of the septic guidelines the state of Oregon has laid down and because of possible discrimination by Mr. Johnson against my lot or my address or me, I feel the Variance should be approved. I rest my case.

I thank you Ms. Zucker most graciously for your valuable time. I am honored that you took the time to review my case.

Respectfully yours

Gordon Herigstad

Gordon Herigstad

8-18-94

VARIANCE FACTS AND FINDINGS REPORT

recd 7/18/94

APPLICANT'S NAME: Mr. Gordon Herigstad

~~Requested 7/18/94~~

PROPERTY DESCRIPTION:

T. 20 S.; R. 11 E., W.M.; Sec. 7C; Tax Lot 04200; Deschutes County.
Lot 14, Block 16, Deschutes River Recreation Homesites.
Property Size: 0.5 acres.

VARIANCE OFFICER: Daryl Johnson

note the amount of time Daryl Johnson mentions 9" from the surface

DATE APPLICATION RECEIVED: August 20, 1993

DATE OF VARIANCE HEARING: October 19, 1993

DATE OF VARIANCE DECISION: November 24, 1993

HISTORICAL SITE EVALUATION INFORMATION:

The property was evaluated for on-site sewage disposal methods by staff with the Deschutes County Community Development Department on May 4, 1984. The property is located between Eclipse Road and the Deschutes River. Two test pits placed near the road were examined, and they were found to be similar. The soil profile was described as a coarse loamy sand from 0 to 12 inches, above a coarse loam. The water table was observed at 26 inches from the surface. The county report indicates the water table is expected to rise to within 12 inches of the surface, and was judged to be permanent in nature. Mottling, an indicator used to predict water levels, was not observed above the standing water in the test pits. The slope of the landform was described as flat. IFG Leasing Company (the owner of the property at that time) was informed by letter dated May 10, 1984, that the property was not suitable for any type of on-site sewage disposal system because of the shallow depth of the permanent water table.

The property was also examined by Robert C. Paeth, PhD. In Dr. Paeth's report of August 18, 1993, he describes the soils in the area proposed for a disposal system as deep and somewhat poorly drained, typically having a dark grayish brown loam surface horizon, above a coarse sandy loam and sand upper subsoil, above a very dark grayish brown silt loam with dark yellowish brown mottles. Free water occurs below 36 inches. Although nearly level, the property has some sloping areas due to the micro relief.

1

SUMMARY OF VARIANCE OFFICER'S SITE OBSERVATIONS:

The variance officer's observations are similar to those described by Dr. Paeth. The proposed disposal area is located adjacent to the floodplain of the Deschutes River, commonly referred to as the 2a terrace. The color of the surface horizon was determined to be dark grayish brown (10YR4/2) to grayish brown (10YR5/2). Gray (10YR5/1) to grayish brown (10YR5/2) soil colors were observed at a depth beginning at 9 inches from the surface. These colors are indicative of soils that are often saturated for extended periods of time. In this area of Deschutes County, this would normally be in the spring. Due to the landscape position, the water table is considered to be permanent, and the depth to the water table may fluctuate several feet throughout the year. During a visit to the property on June 2, 1994, the free water level was measured at 42 inches from the surface.

para 2 It should be noted that soil color characteristics normally associated with conditions of saturation do not always appear in the soils of southern Deschutes County, due to: coarse textured soils; groundwater temperatures too low to allow decomposition of organic matter, thus oxygen is not depleted to the extent that ferric iron is reduced to ferrous iron, a soluble form of iron which moves through and relocates in the soil profile, producing red, yellowish red or brown mottles; and groundwater movement is rapid enough through these porous soils such that the oxygen concentration in the groundwater remains high. (In the professional judgement of the variance officer, the gray, low chroma (10YR5/2 and 10YR 5/1) soil colors indicate the water table will often rise to within approximately 9 inches of the land surface (i.e. closer to the ground surface than the morphological evidence suggests).)

SUMMARY OF APPLICANT'S PROPOSAL:

Dr. Paeth proposed the installation of a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil. The underdrain gravel (clean, round, washed gravel, 3/4" to 1-1/2" in size) at the base of the filter would extend five (5) feet beyond the walls of the filter to enlarge the absorptive surface area, and would not be placed below the natural ground surface. Filter fabric would cover the upper surface of the underdrain gravel lense, and top soil would be used to backfill around the filter and cover that part of the underdrain gravel extending beyond the filter walls. Dr. Paeth calculated the absorptive surface area to be 1,012 square feet. He estimates the loam soil has a permeability rate ranging from 0.6 to 2.0 inches per hour, thus it would be possible to transmit from 14.4 to 48 inches of water in a 24 hour period.

Conventional sand filter treatment units have demonstrated the ability to significantly reduce BOD_5, total suspended solids, total nitrogen, and fecal bacteria. Dr. Paeth cites studies that suggest sand filtered effluent will have little adverse impact on the quality of the shallow groundwater aquifer below the site.

SUMMARY OF RULES TO BE CONSIDERED FOR VARIANCE:

OAR 340-71-150(4)(a)--which limits the use of standard and/or alternative sewage treatment and disposal systems to properties that comply with the requirements of OAR 340-71-220

and/or the requirements of OAR 340-71-260 through OAR 340-71-360 (as appropriate for a specific type of alternative system). The rule also requires the property to contain sufficient area to accommodate an initial and replacement system, both in full compliance with the on-site rules. (The site examined was found not to meet all the criteria applicable to any on-site sewage disposal system listed in Division 71 of the administrative rules.) Specifically, the minimum separation distance to a permanent water table can not be met.

OAR 340-71-290(3)(b)(B)--which limits the use of conventional sand filter systems to sites where the highest level of a permanent water table will not rise closer than 18 inches of the bottom of the effective seepage area (the bottom of the proposed filter). (At the subject property, the highest level of the permanent water table is expected to rise to within 9 inches or closer of the bottom of the effective seepage area.)

include Dog

OAR 340-71-290(5)--which restricts the use of conventional sand filter systems that discharge effluent through the bottom, to locations where the water table does not rise closer than 24 inches to the filter bottom, and also limits the use of this design of sand filter to sites with saprolite, fractured bedrock, gravel, or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two feet thick in contact with and below the bottom of the sand filter. (At the proposed site, the water table is expected to rise to within 9 inches or closer to the filter bottom, and the soil texture in contact with the filter bottom is loam.)

VARIANCE OFFICER'S EVALUATION:

The variance officer's duty is to determine if, in his professional judgement, the system proposed for variance from the administrative rules is adequate to safeguard the public's health and environmental interests when waiving standards that were specifically developed for that same purpose. Although well prepared, the applicant's proposal does not adequately address the most significant development limitation at the site. Maintenance of the 24 inch separation distance between the filter bottom and the high level of a permanent water table is of great importance and concern in this area of Deschutes County. A sand filter is capable of doing a fine job of pre-conditioning septic tank effluent before discharging it into the environment. The filter does not, however, eliminate all pathogens from the wastewater, nor does it remove nitrates to an extent which assures the beneficial uses of the groundwater are not impaired. The minimum separation distance provides that further treatment of the polished effluent can occur before it contacts the water table, thus reducing further the potential to impair beneficial uses of the groundwater. In addition, it provides a buffer between the filter and groundwater so that on those occasions when the water table rises higher than the morphological evidence suggests, the filter is not likely to be flooded.

(It is expected that the water table will rise to within 9 inches or less from the filter bottom.) Other lots located on the 2a terrace in this part of Deschutes County have experienced water tables that have been above the ground surface in the spring, even when the morphological evidence suggests differently. (It must also be noted that the temperatures are quite low in the winter, and the risk that portions of the system may freeze is of concern, particularly when the concrete walls of the filter unit are not insulated and the depth of cover above the filter's gravel base is not especially deep.) The variance officer was not able to offer alternative approaches to overcome the shallow groundwater table limitations.

3

Variance from particular requirements of the Oregon Administrative Rules for On-Site Sewage Disposal may be granted if a finding can be made that strict compliance with the rules is inappropriate for cause, or that special physical conditions render strict compliance to be unreasonable, burdensome or impractical. Based upon the variance record and information obtained relevant to this proposal, such findings can not be made. In the judgement of the variance officer, authorization to construct the system as proposed would not be in the best interest of public health or environmental concerns. The variance officer was not convinced that a sand filter system will function satisfactorily due to the limitations present. The variance request was therefore denied.

Darryl Johnson's denial

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

CENTRAL REGION

November 24, 1993

Gordon Herigstad
208 S. Frederic St.
Burbank, California

Re: WQ-IOSWWS-Variance Denial
Twp.20, R.11, Sec.7, Lot 14,
Block 16
Deschutes River Recreation
Homesites
Deschutes County

This letter confirms that a variance hearing was held on the above described property on October 19, 1993, as provided for under Oregon Administrative Rules (OAR) for On-Site Sewage Disposal, Chapter 340, Division 71, Section 430. The hearing was conducted to consider your request for the Department to waive certain Oregon Administrative Rules governing on-site sewage treatment and disposal.

The site evaluation work done previously by representatives of the Deschutes County Environmental Health Department established that the subject property does not meet criteria listed in the Oregon Administrative Rules for a Standard system or any alternative on-site sewage disposal system. It was determined that the groundwater below the site would periodically and seasonally rise closer to the ground surface than eighteen (18) inches.

You have chosen to pursue the variance request to install a conventional sand filter without a bottom to be mounted on a bed of gravel, which in turn, would be placed between the ground surface and the bottom of the sand filter.

In accordance with your variance proposal, the hearing was conducted to receive testimony in support of your request from the Department to waive the following rules:

1. OAR 340-71-220 (2) (b) (A)---which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent groundwater table.

2146 NE 4th Street
Suite 104
Bend, OR 97701
(503) 388-6146
DEQ/CR-101

2. OAR 340-71-290 (5)---which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

Note: Variance to the above rule reflects the interpretation that the upper horizon of the soil profile of the site is of a finer textured loam series.

Since earlier site evaluation work done by Deschutes County determined that the permanent groundwater table would periodically rise closer to the ground surface than 18 inches, the following rules were also considered in the case of your variance request:

Oregon Administrative Rules, Chapter 340, Division 71, Section 290 (3) (b) (A) & (B) ; which require that the highest level attained by a permanent groundwater table would be equal to or more than 24 inches from the bottom effective seepage area of a Sand Filter system in rapid draining soils such as gravel, sand, loamy sand and sandy loam, and 18 inches of like separation for when a loam soil is considered.

After consideration of your proposal, I find that I cannot justify approval of your variance request. It is my opinion that your proposal to install an "elevated" sand filter does not justify allowing variance to the rules as discussed above. The effectiveness and suitability of such a design can, at this time, only be speculated. In accordance with OAR-340-415 (3), information and testimony presented during the hearing and in your written proposal does not demonstrate cause to find that;

(a) Strict compliance with the rule or standard is inappropriate for cause; or
(b) Special physical conditions render strict compliance unreasonable, burdensome or impractical.

Pursuant to OAR 340-71-440, my decision to deny your variance request may be appealed to the Environmental Quality Commission. Grounds for appeal with supporting evidence must be directed to the Environmental Quality Commission, in care of Fred Hansen, Director, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon, 97204-1390. Appeal must be made within twenty (20) days of the certified mailing date of this letter.

If you have any questions please feel free to contact me at 388-6146.

Sincerely,

Daryl Johnson R.S.
Environmental Specialist

cc: Roger Everett, Deschutes County Env. Health
Bob Paeth, Paeth Soil Consulting

3

COMMUNITY DEVELOPMENT DEPARTMENT
COURTHOUSE ANNEX/Bend, Oregon 97701
Environmental Health
(503) 388-6561

May 10, 1984

IFG Leasing Co
PO Box 4337
Sunriver, OR 97702

Re: T 20, R 11, S 7C, TL 4200
71-84 D

Dear IFG Leasing Co :

This letter is in response to your on-site sewage disposal system site evaluation conducted on May 4, 1984.

The property has closely scattered trees and a brushy ground cover.

The test pits revealed the following soil conditions: 0 - 12 inches, coarse loamy sand, 12 - 26 inches, coarse loam, with the water table at 26 inches. The test pit indicates that the seasonal, permanent water table reaches to with 12 inches of the ground surface.

The test pit shows that this site is unsuitable for any on-site sewage disposal system.

You may have additional test pits examined by this department within 90 days of the initial site evaluation with no additional evaluation charge.

You may also apply for a denial review. This review is conducted by the Department of Environmental Quality Central Region Office. A written request must be submitted within 30 days of this denial notification. A $60.00 denial review fee is charged.

A variance may be applied for at the Department of Environmental Quality Central Region Office located at 2150 NE Studio Road, Bend, Oregon. A $225.00 fee will be charged by that agency.

Jay E. Langley
Sanitarian

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

EASTERN REGION
Bend Office

May 25, 1994

Mr. Gordon Herigstad
208 S. Frederic Street
Burbank, CA 95128

Re: Variance Application
Twp.20, R.11, Sec.7,
Lot 14, Block 16
Deschutes River Recreation Homesites
Deschutes County

Enclosed is the "Variance Facts and Findings Report" in reference to your appeal. Linda Zucker, Hearings Officer requested that this report be sent to you.

Sincerely,

Daryl Johnson R.S
Environmental Specialist
Variance Officer

DJ/ns

2146 NE 4th Street
Suite 104
Bend, OR 97701
(503) 388-6146

5/25/94

VARIANCE FACTS AND FINDINGS REPORT

NAME: Mr. Gordon Herigstad

PROPERTY DESCRIPTION:
T. 20 S.; R. 11 E., W.M.; Sec. 7; Tax Lot 4200
Lot 14, Block 16, Deschutes River Recreation Homesites
Approximately one half acre, Deschutes County

VARIANCE OFFICER: Daryl Johnson

DATE APPLICATION COMPLETE: The application was received 8-19-1993

DATE OF VARIANCE HEARING: The hearing was held 10-19-1993
The applicant was represented by Bob Paeth, Paeth Soil Consulting

DATE OF VARIANCE DECISION: Variance decision letter issued 11-24-93.
Variance request denied.

HISTORICAL SITE EVALUATION INFORMATION:

- Original site evaluation done by Deschutes County Representative Tom McIntyre on 5-4-84.
- Evaluation report stating "unsuitability" issued 5-10-84, signed by Jay Langley, Deschutes County Representative. The site evaluation report indicated that the site was not suitable for "any on-site sewage disposal system" due to excessive high permanent groundwater conditions.

SUMMARY OF VARIANCE OFFICER'S SITE OBSERVATIONS:

Additional site evaluation work was not done by the variance officer. Note: The variance application is predicated on the fact that the applicant understands that the site does not meet certain criteria (rules). Site suitability relative to established criteria was determined by Deschutes County and accepted by the applicant.

SUMMARY OF APPLICANT'S PROPOSAL:

The applicant was requesting a variance to the rules to allow the installation of "a conventional sand filter, without a bottom, on a surface of loam soil". The surface of loam soil was to be installed over the natural ground surface in order to provide for a vertical setback from the groundwater table as prescribed by rule.

RULES TO BE CONSIDERED FOR VARIANCE:

OAR 340-71-290 (3) (b) (A) and (B), which states; "The highest level attained by a permanent water table would be equal to or more than distances specified as follows:"

(A) Gravel, sand, loamy sand, sandy loam - 24 inches
(B) Loam, silt loam, sandy clay loam, sandy clay - 18 inches

VARIANCE OFFICER'S EVALUATION:

Mr. Herigstad did not provide sufficient reason in accordance with Oregon Administrative Rules, Chapter 340, Division 71, Section 415 (3) (a) or (b) to justify granting of the variance request.

There is no justification to allow the installation of a sand filter system to be installed on an elevated mound of soil in order to meet vertical set back requirements. The concept of such an "elevated system" is not an approved or proven design in the State of Oregon. Such a design is experimental in nature. There is no data available relative to effectiveness or suitability of such a design. Therefore, to allow such a system to be installed and operated prior to establishment of design suitability would be risky.

As variance officer, I have no opinion as to whether the proposal could be modified in any way. Any modifications or changes to the original variance request must be presented by the applicant. Modified or specially designed systems should be addressed through the Experimental Systems program, OAR 340-71-450.

Strict compliance [in accordance with OAR 340-71-415 (3) (a) and (b)] is appropriate because:

1. Shallow water table levels have been determined.
2. Minimum groundwater separation requirements have been established to protect public health and the environment.
3. The shallow groundwater is the drinking water source for individual lot owners in the area.

PAETH SOIL CONSULTING
37401 E. Knieriem Road
Corbett, Oregon 97019

Phone (503) 695-5464
Fax (503) 695-5868

August 18, 1993

Mr. Sherman O. Olson Jr., Variance Officer
Industrial And On-Site Waste Section
Water Quality
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: VARIANCE REQUEST, T20S, R11E, Sec. 7C, Tax Lot 4200, Lot 14, Block 16, Deschutes River Recreation Homesites, Inc, Deschutes County, Oregon

Dear Sherm:

The property referenced above consists of about 0.5 acres fronting on Eclipse Road adjacent to the Deschutes River.

Soils in the area proposed for the disposal system are deep and somewhat poorly drained, with medium textured surface horizons, coarse textured upper subsoils, and medium textured lower subsoils. Typically, the surface horizon is dark grayish brown loam. The upper subsoil is coarse sandy loam and sand. The lower subsoil is very dark grayish brown silt loam with dark yellowish brown mottles (Attachment A). Free water occurs below 36 inches. The parcel is nearly level but has sloping areas due to the micro relief.

The Deschutes County Community Development Department issued an unfavorable site evaluation report, May 10, 1984, indicating that this parcel is "unsuitable for any on-site sewage system" (Attachment B). The site evaluation field sheet (Attachment C) indicated groundwater occurred at 26 inches. The denial was based on soil matrix colors of (10YR5/3) and (10YR5/2). No mottling was observed.

To over come limitations of this parcel and facilitate installation of sand filter system, a variance is requested from Oregon Administrative Rules (OAR):

1. OAR 340-71-220(2)(b)(A)---which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent water table.

2. OAR 340-71-290(5)---which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

This variance proposes installation of a conventional sand filter, without a bottom, on the surface of a loam soil. The sand filter will be placed on a blanket of 3/4" to 1-1/2" clean, round, washed gravel that extends five feet beyond the sand filter in all directions (Figure 1). The gravel blanket will be covered with filter fabric prior to construction of the sand filter and back filling with top soil (Figure 1, Sand Filter Cross Section).

The conventional sand filter proposed for installation on this parcel will significantly reduce BOD_5, total suspended solids, total nitrogen and fecal bacteria. Studies of conventual intermittent sand filters in Oregon (6) showed BOD_5, total suspended solids, fecal coliform, and total coliform in septic tank effluent were reduced 99%, 93%, 3 logs (99%), and 2 logs (98%), respectively, by sand filtration in a conventional intermittent sand filter. Additional field studies (3) and column studies (5) demonstrated that two feet of sand was effective i removing virus and bacteria from household wastewater.

Studies by Beek and deHaan (1) and Staunes and Nilsson (7) showed that phosphorus was removed from septic tank effluent after passing through a few inches of unsaturated soil.

Similarly, studies conducted by the Department of Environmental Quality, involving conventional intermittent sand filters (6) showed that sand filtration reduced total nitrogen about 50 percent. Gilbert, et al, (2) demonstrated that denitrification took place in natural soils, when effluent was dosed so that alternate wet and dry cycles are produced.

These studies suggest that sand filtered effluent will have little adverse impact on the quality of shallow groundwater in the vicinity of this parcel.

The triangular sand filter (Figure 1) has a surface area of 392 square feet. The surrounding gravel blanket has a surface area of 1012 square feet. The loam soil below the gravel blanket has a permeability rate that ranges from 0.6 to 2.0 inches per hour. Calculations based on these values indicate that soil on this parcel would transmit 14.4 inches of water in 24 hours at the low permeability rate and 48.0 inches in 24 hours at the high permeability rate.

The average annual rainfall is 12.0 inches at Bend and 19.1 inches at Fall River (4). This parcel is about mid way between these two stations, so precipitation values from this two station were averaged for purposes of discussion. Based on this averaging of precipitation, the average annual precipitation at the site is about 15.6 inches. December, with 2.5 inches of rainfall, is the highest rainfall month. If half of this amount were to fall in one 24-hour period, the soil would only have to transmit 1.31 inches (1.25 inches of rainfall and 0.06 inches of effluent) to dispose of the rainfall and effluent through the gravel blanket under the sand filter.

The medium textured soil on this parcel is capable of disposing of 14.4 inches of fluid in a 24-hour period, so there is no hazard of the loam soil under the gravel blanket becoming saturated and causing treated effluent to surface.

Two feet of unsaturated medium textured soil below the sand filter will provide adequate treatment of effluent prior to discharge into shallow underlying groundwater. Studies by Magdoff et al (5), using columns, showed that two feet of medium sand was adequate to remove virus and bacteria from household wastewater. Additionally, studies of pressure distribution systems is soils with shallow groundwater in Oregon (6) showed 15 inches of medium textured soil was adequate to reduce fecal coliform counts to back ground levels.

If you have questions, I can be reached by phone at 695-5464.

Sincerely,

Robert C. Paeth

Robert C. Paeth, CPSS
Soil Scientist

Figures:
1. Plot Plan of Proposed On-Site Sewage System

Enclosures:
1. Attachment A, Soil Profile Descriptions
2. Attachment B, Descutes County Site Evaluation Report.
3. Attachment C, Deschutes County Site Evaluation Field Sheet.
4. Miscellaneous File Information
5. Variance Application
6. Compatibility Statement
7. $225.00 check
8. Legal description
9. Tax Lot Map
10. Directions to the Parcel

LITERATURE CITED

1. Beek, J. and F.A. deHaan. 1973. Phosphate Removal by Soil in Relation to Waste Disposal. In: Proc. of Intl. Conf. on Land for Waste Management. Ottawa, Canada.

2. Gilbert, R.G., J.C. Lance, and J.B. Miller. 1979. Denitrifing Bacteria Populations and Nitrogen Removal in Soil Columns Intermittently Flooded with Secondary Effluent. J. Environ. Qual., Vol. 8, no. 1, pp 101-104

3. Green, K.M. and D.O. Oliver. 1975. Removal of Virus from Septic Tank Effluent. In: Proc. of the National Home Sewage Disposal Symposium. ASAE, St. Joseph, Michigan. pp. 137-143.

4. Johnsgard, G. A. 1963. Temperature and Water Balance for Oregon Weather Stations. Special Report 150. Agricultural Experiment Station and Oregon state University, p 127

5. Magdoff, F. R. Keeney, J. Bouma, and W.A. Ziebell. 1974. Columns Representing Mound-Type Disposal Systems for Septic Tank Effluent: II Nutrient Transformation and Bacterial Populations. J. Environ. Quality, Vol. 3, No. 3, pp. 228-234.

6. Ronayne, M.P., R.C. Paeth and S.A. Wilson. 1982. Final Report - Oregon Site Experimental Systems Program. State of Oregon, Department of Environmental Quality, Portland, Oregon.

7. Staunes, A.O., and P. Nilsson. 1987. Investigation of Soil Treatment Systems for Septic Tank Effluent: III. The Fate of Phosphorus. Vatten 43:45-53.

ATTACHMENT A

SOIL PROFILE DESCRIPTIONS

Test Hole 1

0-10" Dark grayish brown (10YR4/2) loam, weak fine subangular blocky structure, friable, slightly sticky, slightly plastic, many coarse, medium, fine, and very fine roots.

10"-13" Grayish brown (10YR5/2) loam, weak medium and fine subangular blocky structure, friable, slightly sticky, slightly plastic, common medium, fine, and very fine roots.

13"-24" Grayish brown (10YR5/2) loam, moderate medium subangular blocky structure, friable, slightly sticky, slightly plastic, common fine and very fine roots.

24"-29" Grayish brown (10YR5/2) coarse sandy loam, massive, very friable, non sticky, non plastic, common fine and very fine roots.

29"-34" Light yellowish brown (2.5Y6/3) sand, single grained, loose, non sticky, non plastic, few fine and very fine roots.

34"-47" Very dark grayish brown (10YR3/2) silt loam, moderate medium subangular blocky structure, firm, slightly sticky, slightly plastic, common dark yellowish brown (10YR4/4) mottles, few fine and very fine roots. Free water standing in the test hole at 47 inches.

Test Hole 2

0-8" Dark grayish brown (10YR4/2) loam/silt loam, weak fine and very fine subangular blocky structure, friable, slightly sticky, slightly plastic, many coarse, medium, fine, and very fine roots.

8"-17" Grayish brown (10YR5/1.5) loam/silt loam, moderate very fine subangular blocky structure, friable, slightly sticky, slightly plastic, common coarse, medium, fine, and very fine roots.

17"-21" Grayish brown (2.5Y5/2) silt loam, moderate medium subangular blocky structure, firm, slightly sticky, slightly plastic, common dark brown (7.5YR4/4) mottles, few fine and very fine roots.

21"-29" Dark grayish brown (10YR4/2) loamy sand, moderate coarse subangular blocky structure, slightly compact in place, firm, non sticky, non plastic, common dark brown (7.5YR4/4) mottles.

29"-39" Light brownish gray (10YR6/2) sand, single grained, loose, non sticky, non plastic, common dark yellowish brown (10YR4/4) and light yellowish brown (10YR6/4) mottles. Free water standing in the test hole at 39 inches. A very dark grayish brown (10YR3/2) silt loam horizon occurs at the water line.

ATTACHMEN

COMMUNITY DEVELOPMENT DEPARTMENT
COURTHOUSE ANNEX/Bend, Oregon 97701
Environmental Health
(503) 388-6561

May 10, 1984

IFG Leasing Co
PO Box 4337
Sunriver, OR 97702

Re: T 20, R 11, S 7C, TL 4200
71-84 D

Dear IFG Leasing Co :

This letter is in response to your on-site sewage disposal system site evaluation conducted on May 4, 1984.

The property has closely scattered trees and a brushy ground cover.

The test pits revealed the following soil conditions: 0 - 12 inches, coarse loamy sand, 12 - 26 inches, coarse loam, with the water table at 26 inches. The test pit indicates that the seasonal, permanent water table reaches to with 12 inches of the ground surface.

The test pit shows that this site is unsuitable for any on-site sewage disposal system.

You may have additional test pits examined by this department within 90 days of the initial site evaluation with no additional evaluation charge.

You may also apply for a denial review. This review is conducted by the Department of Environmental Quality Central Region Office. A written request must be submitted within 30 days of this denial notification. A $60.00 denial review fee is charged.

A variance may be applied for at the Department of Environmental Quality Central Region Office located at 2150 NE Studio Road, Bend, Oregon. A $225.00 fee will be charged by that agency.

Jay E. Langley
Sanitarian

ATTACHMENT (

SITE EVALUATION FIELD WORKSHEET

Applicant TFB Leasing Co. Feas. # 21-84

Subdivision DRRH L 14 B 16 T 20 R 11 S 7C TL 4200

EVALUATOR: Tom Rutt DATE: 5-4-84

	Depth	Texture	Soil Matrix Color and Mottling (Notation), %Coarse Fragments, Roots, Structure, Layer Limiting Effective Soil Depth, etc.
Pit 1	0-12"	COLS	10 YR 5/3 ROOTS TO 26"
	12-26"	COL	10 YR 5/2 NO MOTTLING
			WATER AT 26"
Pit 2			SAME AS #1
Pit 3			
Pit 4			

Landscape Notes CLOSELY SCATTERED TREES, BRUSHY GROUND

Slope FLAT Aspect — Groundwater 26"

Other Site Notes

Residential ~~1~~ Commercial SISTEM SPECIFICATIONS Filter Fabric

Type System: Design Flow gpd

Initial System Sizing /150 g. Max. Depth Absorption Facility (in)

Replacement System Sizing /150 g. Max. Depth Absorption Facility (in)

~~Special Conditions~~ RESIDUAL BASED ON LRD CLIMOMA SOIL CONDITION (10YR TO WITHIN 12" OF ~~THE~~ GROUND SURFACE. WAS TABLE JUDGED TO BE PERMANENT

PLOT PLAN ON REVERSE SIDE

M2055

Application for Variance from Administrative Rules
Regulating On-Site Sewage Disposal Systems

Please complete this application form and submit the application fee* ($225) and required attachments to:

Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204

REFERENCE INFORMATION—Please Print

GORDON HERIGSTAD — Name of Owner

20 — Township | 11 — Range | 07C — Section

208 S. FREDERIC ST. APT. B — Address

04200 — Tax Lot or Account No. | Parcel Size

BURBANK — City | CALIF. — State | 91505 — Zip Code

Subdivision Name "DESCHUTES RIVER RE HOMESITES"

Business Phone | 818-5661774 — Home Phone

Lot 14 Block 16

ATTACHMENTS

Provide The Following Items:

1. Complete and accurate directions to the property. A locater map would be helpful.

2. Two (2) copies of the parcel's legal description (metes and bounds, warranty deed, sales contract, or approved subdivision plat). Include the protective covenants, deed restrictions and easements, if applicable.

3. Two (2) copies of an assessor or title company plat map or a surveyor plat map.

4. Two (2) copies of a land use compatibility statement from the appropriate land use authority that your proposed land use is compatible with the LCDC acknowledged comprehensive plan or statewide planning goals.

5. Copies of all correspondence and field notes relating to past evaluations for septic tank-drainfield development on the subject property. A copy of the site evaluation report must be included.

6. Two (2) copies of narrative description of your variance proposal including the system construction specifications. Please list the step-by-step procedures that you propose to be followed for the installation of this system.

7. On a plot plan draw to a defined scale not smaller than one inch equals thirty feet, show the location and dimensions of the proposed drainfield and its replacement area. Indicate separation distances between disposal trenches, wells, springs, water courses, agricultural drainage tile, ditches, drainage ways, waterlines, buildings, roads, embankments, and other identifying features which help demonstrate parcel to drainfield relationships. Please provide two (2) copies.

8. Two (2) copies of a profile view of the proposal which illustrates the projected drainfield layout, trench dimensions, backfill depth, boundaries, (in cases where a crown over the drainfield is proposed), slope direction and percent of slope.

Hardship variances may be considered in cases of extreme and unusual hardship. The following factors may be considered: Advanced age or bad health of applicant; need of applicant to care for aged, incapacitated or disabled relative; and relative insignificance of the environmental impact of granting a variance. Documentation of hardship must be provided. FOR HARDSHIP CONSIDERATION MARK THIS BOX. [ ]

A minimum of two test pits must be provided within the specific area where the actual variance system is being proposed. The pits should be approximately two feet wide, four feet long, and excavated to either bedrock or to a depth of five (5) feet. Similar pits must be provided in the area of the repair system. The Variance Officer may require the proposed drainfield and the future replacement drainfield be staked out.

Please note that it is your responsibility to present all of the facts and the reasoning which you feel justifies the granting of the variance.

By my (our) signature(s), I (we) request the Department of Environmental Quality act on this application and hereby grant permission to enter onto the above described property.

Gordon Herigstad — Signature of Owner | 1-20-93 — Date

Signature of Owner | Date

NOTE: All owners must sign this application form. If there are more than two (2) owners, attach additional duplicate applications.

* Pursuant to ORS 454,662, the applicant is not required to submit the application fee if, at the time of filing the application, the applicant is 65 years of age or older, is a resident of the State of Oregon, and has an annual household income, as defined in ORS 310.630, of $15,000 or less. Appropriate documentation must be submitted with the application.

XL151 (b)
DEQ/WQ-406 Revised (10/29/86)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
522 S. W. FIFTH AVENUE
P.O. BOX 1760
PORTLAND, OR 97207

FOR DEQ USE ONLY

LAND USE COMPATIBILITY STATEMENT
FOR ON-SITE SEWAGE DISPOSAL SYSTEMS

APPLICANT'S NAME	MAILING ADDRESS	PHONE
GORDON HERIGSTAD	208 SO. FREDERIC ST. APT. B BURBANK, CALIF. 91505 CITY STATE ZIP	818-5661774

PROPERTY LOCATION

TOWNSHIP	RANGE	SECTION	TAX LOT OR ACCT NO
20	11	07C	04200
SUBDIVISION/PROJECT	LOT	BLOCK	COUNTY
	14	16	DESCHUTES

☐ PROPERTY IS A LOT OF RECORD CREATED BEFORE AUGUST 1, 1981.

PROPOSED LAND USE
Residential - Single family

STATEMENT OF COMPATIBILITY FROM APPROPRIATE LAND USE AUTHORITY
(An equivalent statement may be provided in lieu of this form)

PROPERTY'S ZONING DESIGNATION
Flood Plain / Landscape Management (FP/L.M)

THE ABOVE PROPOSAL HAS BEEN REVIEWED AND FOUND TO BE:

☒ COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN
☐ NOT COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN

OR

☐ CONSISTENT WITH THE STATEWIDE PLANNING GOALS
☐ NOT CONSISTENT WITH THE STATEWIDE PLANNING GOALS

REASON FOR FINDING OF COMPATIBILITY/INCOMPATIBILITY
Compatible only with a conditional use permit for Hoop

PROPERTY IS LOCATED (CHECK ONE)

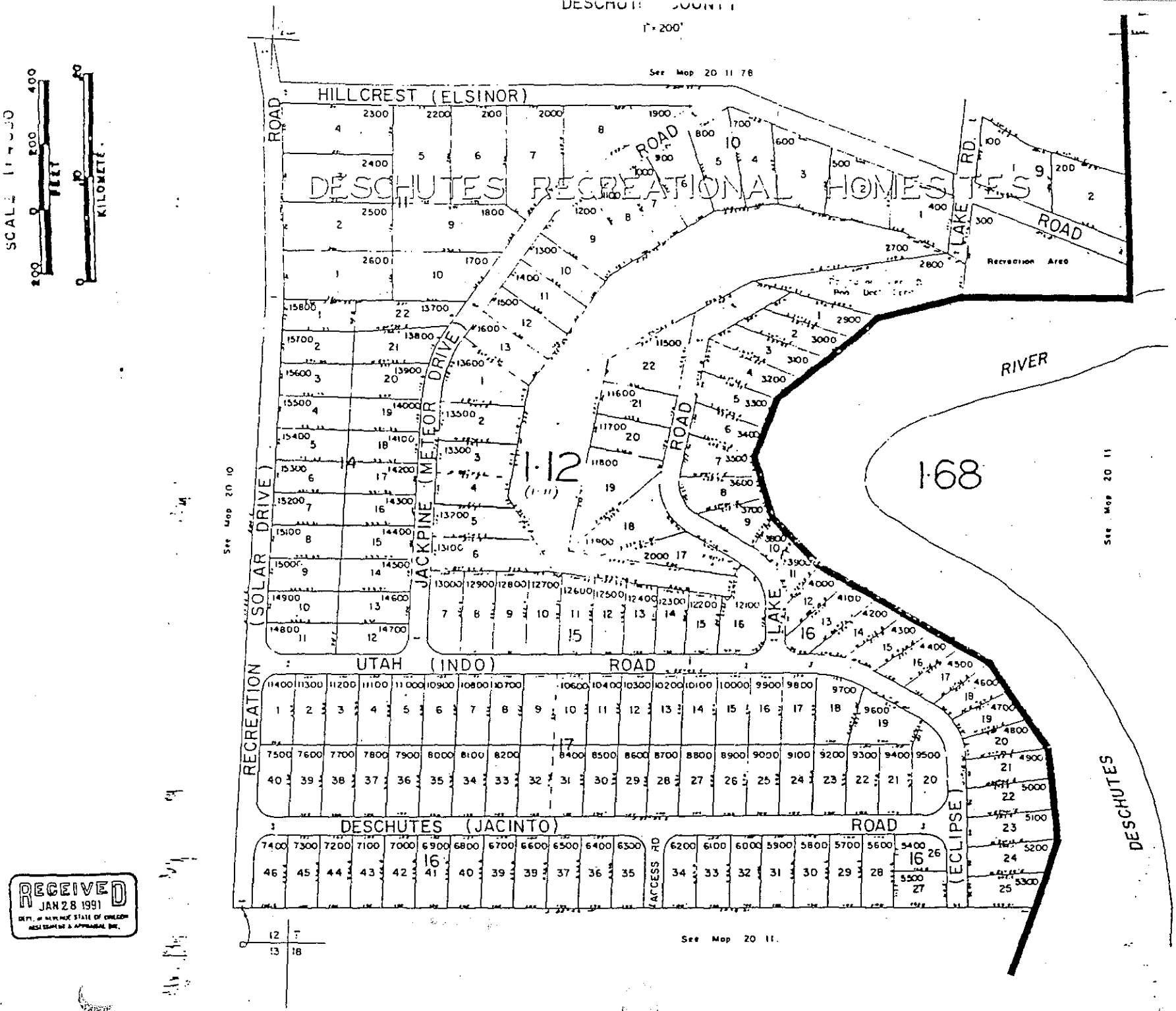
☐ INSIDE CITY
☐ INSIDE URBAN GROWTH BOUNDARY OUTSIDE CITY LIMITS
☒ OUTSIDE URBAN GROWTH BOUNDARY

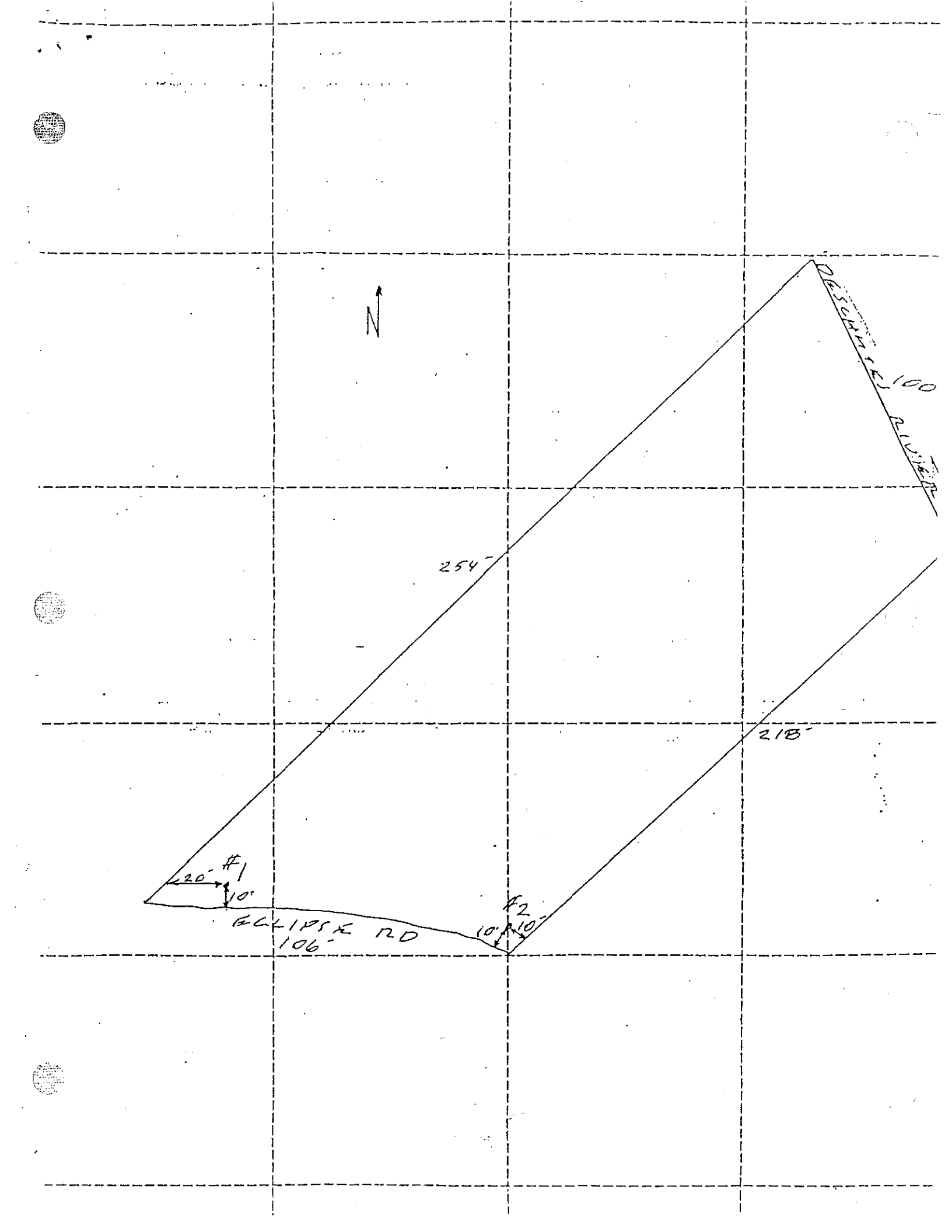
LAND USE AUTHORITY
Deschutes County Community Development Department

SIGNED	TITLE	DATE
William Monroe	Associate Planner	7/19/93

☐ CITY/COUNTY CONCURRENCE IF INSIDE URBAN GROWTH BOUNDARY

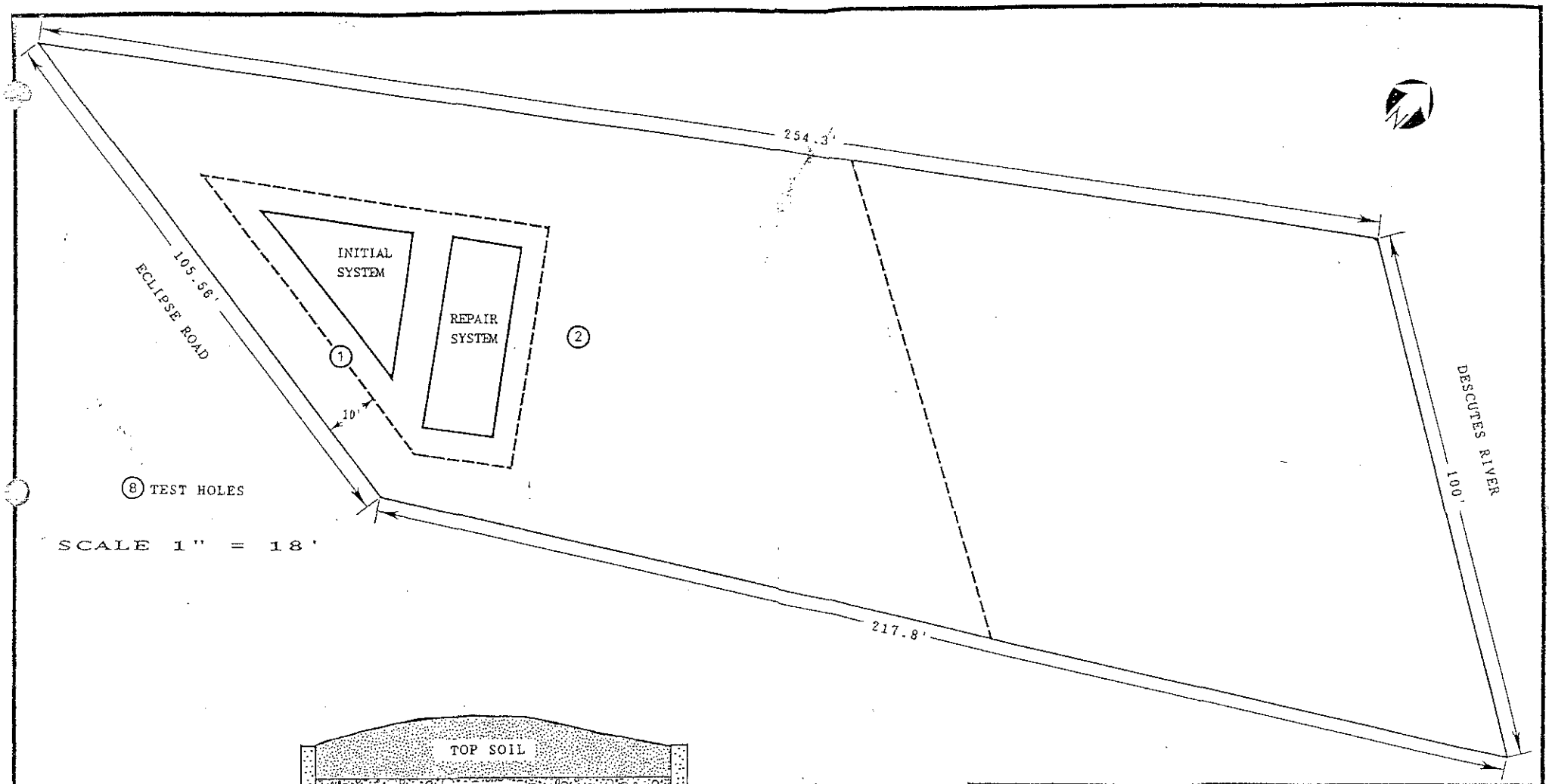
SIGNED	TITLE	DATE

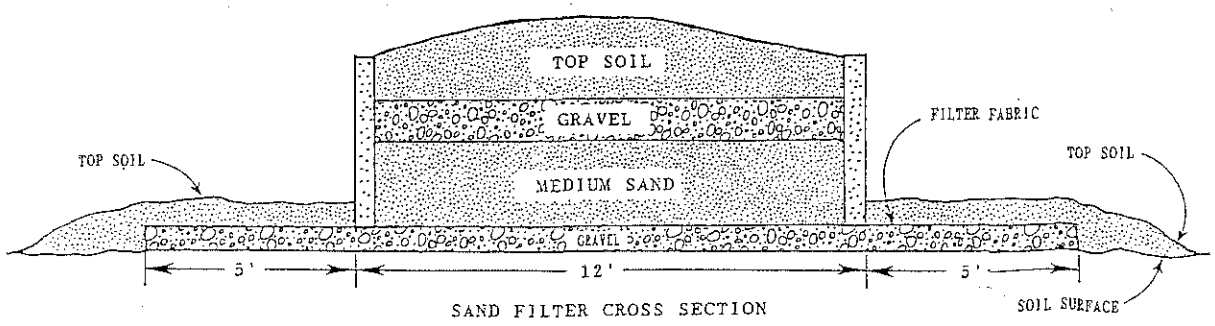

DESCHUTES COUNTY
1" = 200'
SCALE
400
200
0
FEET
200
0
KILOMETER
See Map 20 11 78
HILLCREST (ELSINOR) ROAD
DESCHUTES RECREATIONAL HOMES TR
LAKE RD.
ROAD
Recreation Area
RIVER
1-68
1-12
(1-11)
See Map 20 10
See Map 20 11
RECREATION (SOLAR DRIVE)
JACKPINE (METEOR DRIVE)
ROAD
LAKE
UTAH (INDO) ROAD
DESCHUTES (JACINTO) ROAD
(ECLIPSE)
DESCHUTES
ACCESS RD
See Map 20 11.
RECEIVED
JAN 28 1991


N
DESCHUTES RIVER
254'
218'
#1
20'
10'
#2
10'
10'
ECLIPSE RD
106'

DIRECTIONS TO THE PARCEL

Proceed south of Bend on Highway 97. Turn right at the Sunriver exit. Cross the Deschutes River and turn left at the second road (Solar Drive) proceed for about 1 mile to Kingsburg Road. Turn left on Kingsburg Road and go 0.4 miles to Eclipse Drive. Turn left on Eclipse Drive and go 0.2 miles to the parcel on the right, just past the gray house with the blue roof.





SAND FILTER CROSS SECTION

FIGURE 1

PLOT PLAN OF PROPOSED ON-SITE SEWAGE SYSTEM

GORDON HERIGSTAD
Deschutes County, Oregon
August 1993

Paeth Consulting

1984

MOUNTAIN VIEW PROPERTIES
REAL ESTATE

(503) 593-1274

Broker
Res. 593-2115

MARK HALVORSEN

P. O. Box 4337 ■ Sunriver Bus. Park ■ Sunriver, OR 97701

DESCHUTES RIVER RECREATION HOMESITES

2,543 FT X 100 FT RIVER FRONT
BY 2178 FT X 1056 STREET FRONT

Lot 14
Block 16

abandoned lot

ON LOT #39 & 40 BLOCK 28

89.6 X 116 FT. WIDE

KEN WYATT

may 1984

It's a pleasure to serve you...

We are pleased to send the attached material in response to your request. Feel free to call on us if we may be of further service.

Community Development Department

Administration Bldg./1130 N.W. Harriman
Bend, Oregon 97701
(503) 388-6575

Jane
Signature

This is the package to take to DEQ —

Deschutes County Community D.D.

265.00

SITE EVALUATION FIELD WORKSHEET

Applicant TFG LEASING CO. Feas. # 71-84

Subdivision DRRH L 14 B 16 T 20 R 11 S 7C TL 4200

EVALUATOR: Tom Dietz DATE: 5-4-84

	Depth	Texture	Soil Matrix Color and Mottling (Notation), %Coarse Fragments, Roots, Structure, Layer Limiting Effective Soil Depth, etc.
Pit 1	0-12"	COLS	10 YR 5/3 ROOTS TO 26"
	12-26"	COL	10 YR 5/2 NO MOTTLING
			WATER AT 26"
Pit 2			SAME AS #1
Pit 3			
Pit 4			

Landscape Notes CLOSELY SCATTERED TREES, BRUSHY GROUND

Slope FLAT Aspect — Groundwater 26"

Other Site Notes

Residential ✓ Commercial SYSTEM SPECIFICATIONS Filter Fabric

Type System: Design Flow gpd

Initial System Sizing /150 g. Max. Depth Absorption Facility (in)

Replacement System Sizing /150 g. Max. Depth Absorption Facility (in)

~~Special Conditions~~

DENIAL BASED ON LOW CHROMA SOIL COLOR (10YR TO WITHIN 12" OF ~~XXX~~ GROUND SURFACE. WATER TABLE TAKEN TO BE PERMANENT

PLOT PLAN ON REVERSE SIDE

XX2055

FILE # 71-84

APPLICATION FOR INDIVIDUAL SITE EVALUATION

The following information is required to complete an application for a site evaluation. Please be as accurate and complete as possible.

Township 20 Range 11 Section 7C Tax Lot 4200

Subdivision Deschutes River Recreation Homesites Lot 14 Block 16

Parcel Size _____ Sq. Ft or 1/2 AC M/L Acres

Are there any bodies of water (e.g., streams, springs, canals, ponds) on or adjacent to this property? X Yes _____ No

Are there existing or porposed wells on the property? _____ Yes well is proposed

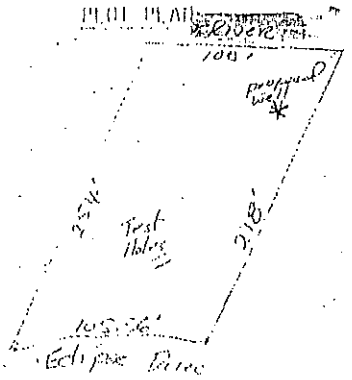
Are there existing wells on the adjacent property? _____ Yes X No

Are there any encumberances (e/g/ liens, easements) which could prevent the installation of a subsurface sewage disposal system? _____ Yes X No

Test Holes are READY _____ Test Holes are NOT ready WILL BE DUG WHEN INSPECTOR IS on PROPERTY

In the area below, sketch the parcel showing the location of: 1. Property lines and dimensions, 2. Existing and proposed wells, 3. Wells on adjacent lots, 4. All bodies of water, 5. Escarpments, 6. Location of test holes.

PLOT PLAN



The Deschutes County Environmental Health Section will not be held responsible ***for any problems or denials resulting from incorrect or inaccurate information**** ****supplied by the applicant.

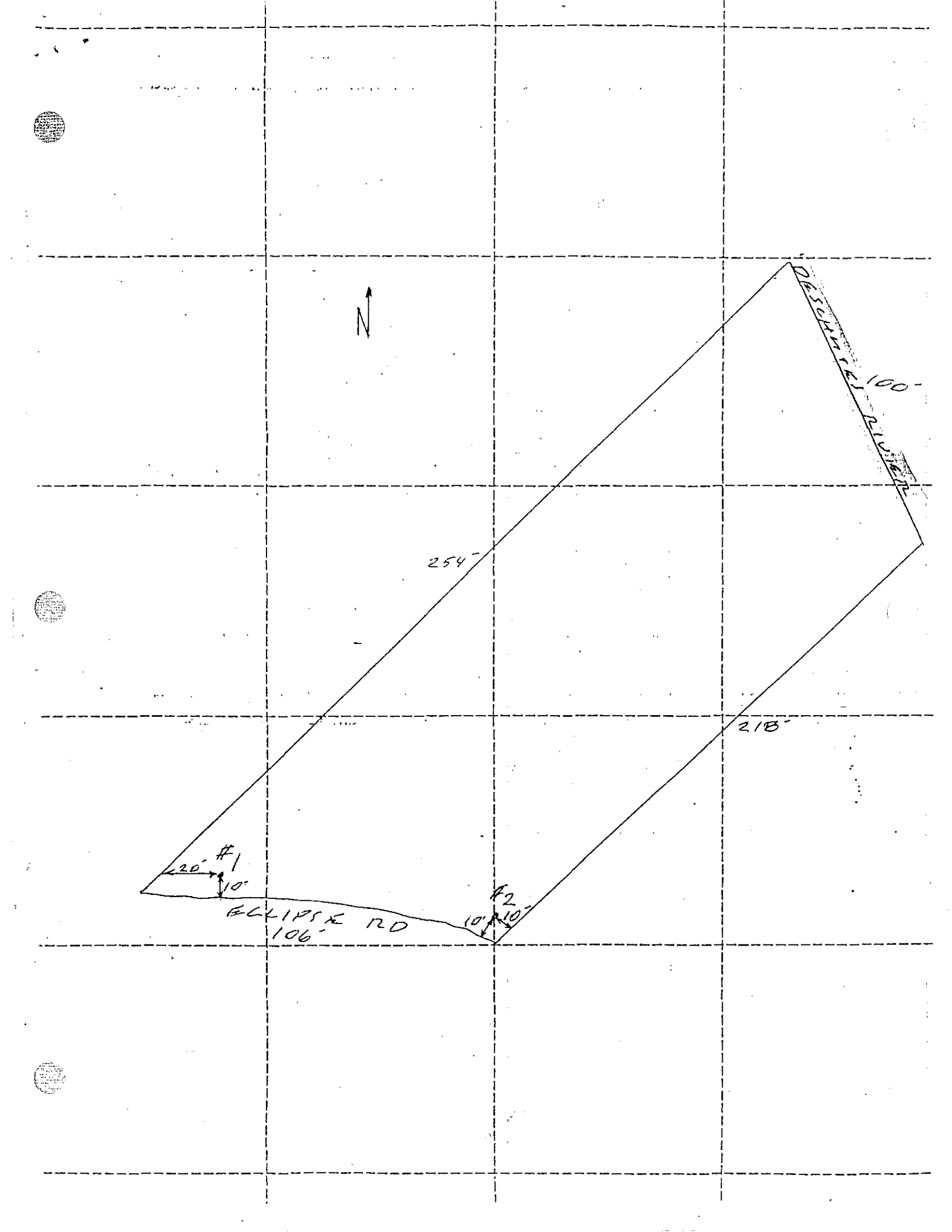
Name of Applicant IFG Leasing Co.

Address: c/o MT VIEW PROPERTIES, P.O. Box 4337 Phone Number: 593-1274
SUNRIVER, OR 97702

City, State, Zip Code: SUNRIVER, OREGON 97702

Signature Marcella Duncan Date _____

Receipt Number 5658 Amount 165.00


N
DESCHUTES RIVER
100'
254'
218'
#1
20'
10'
#2
10'
10'
ECLIPSE RD
106'

COMMUNITY DEVELOPMENT DEPARTMENT
COURTHOUSE ANNEX/Bend, Oregon 97701
Environmental Health
(503) 388-6561

May 10, 1984

IFG Leasing Co
PO Box 4337
Sunriver, OR 97702

Re: T 20, R 11, S 7C, TL 4200
71-84 D

Dear IFG Leasing Co :

This letter is in response to your on-site sewage disposal system site evaluation conducted on May 4, 1984.

The property has closely scattered trees and a brushy ground cover.

The test pits revealed the following soil conditions: 0 - 12 inches, coarse loamy sand, 12 - 26 inches, coarse loam, with the water table at 26 inches. The test pit indicates that the seasonal, permanent water table reaches to with 12 inches of the ground surface.

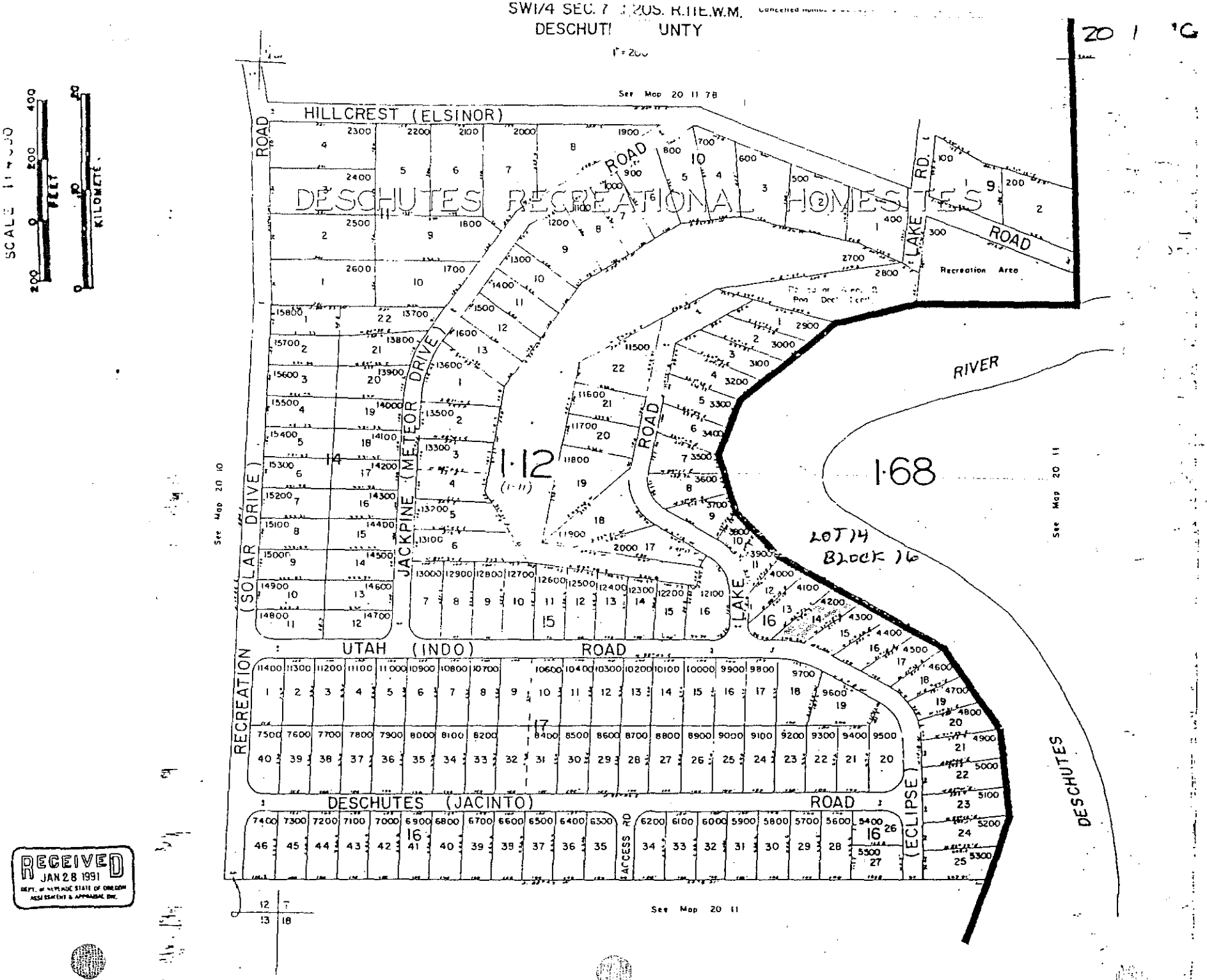
The test pit shows that this site is unsuitable for any on-site sewage disposal system.

You may have additional test pits examined by this department within 90 days of the initial site evaluation with no additional evaluation charge.

You may also apply for a denial review. This review is conducted by the Department of Environmental Quality Central Region Office. A written request must be submitted within 30 days of this denial notification. A $60.00 denial review fee is charged.

A variance may be applied for at the Department of Environmental Quality Central Region Office located at 2150 NE Studio Road, Bend, Oregon. A $225.00 fee will be charged by that agency.

Jay E. Langley
Sanitarian


SW1/4 SEC. 7 T.20S. R.11E.W.M.
DESCHUTES COUNTY
20 11 7G
1" = 200'
SCALE 1" = 200'
See Map 20 11 7B
HILLCREST (ELSINOR) ROAD
DESCHUTES RECREATIONAL HOMESITES
LAKE RD.
ROAD
Recreation Area
RIVER
1-12
(1-11)
1-68
See Map 20 10
See Map 20 11
METEOR DRIVE
JACKPINE
ROAD
LOT 14
BLOCK 16
RECREATION (SOLAR DRIVE)
UTAH (INDO) ROAD
LAKE (ECLIPSE)
DESCHUTES (JACINTO) ROAD
ACCESS RD
DESCHUTES
See Map 20 11
RECEIVED
JAN 28 1991
DEPT. OF REVENUE STATE OF OREGON
ASSESSMENT & APPRAISAL DIV.

TO

LINDA K. ZUCKER

HEARINGS OFFICER

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

PORTLAND, OREGON

FROM

GORDON HERIGSTAD

VARIANCE APPEAL SCHEDULE

DESCHUTES RIVER RECREATION HOMESITES

DESCHUTES COUNTY BEND, OREGON

September 6, 1994

GORDON HERIGSTAD
208 SO. FREDERIC STREET APT-B
BURBANK, CALIF. 91505
818-5661776

September 6, 1994

Linda K. Zucker Hearings Officer
Oregon Department of Environmental Quality
811 South West Sixth Ave.
Portland, Oregon 97204

Dear Ms. Zucker,

I am honored and humble that you have taken the time to review my Variance Appeal. I will do my best to provide the information you need and to voice my convictions in a way that can best conclude your final decision.

My name is Gordon Herigstad. I own lot-14 block-16, township 20, range 11, section 7, tax lot 4200, account 117085, Deschutes River Recreation Homesites, Deschutes County. My Oregon residence is 128 Shirley Street, Molalla, Oregon 97038. My work address is the California address at the top of the page.

To be fare I will start by explaining a few preliminaries. I have spent most of my life in the Molalla area. Starting in 1946 my family and I moved there from the Canby district. For the past twenty years I have made my living going to sea on ships as a Marine Engineer. While following this profession I have been in either the San Francisco, California area or the San Pedro, California area. I average half a year or so in both California and Oregon. I Contend that I am therefore an Oregon resident.

I see no reference to Miss. or Mrs. Zucker in your letter of July 25, 1994. If I may be so bold I will use Ms. Ms. Zucker referring to your letter you ask, explain why you believe strict compliance with specific rules is inappropriate or why special physical conditions render strict compliance unreasonable, burdensome or impractical in this case.

I will start off then by saying that I feel this case represents, number one; a border line case of complying to any and all current Oregon guidelines and standards for septic systems throughout the state. And number two; a rather obvious case of discrimination by Mr. Daryl Johnson against me and my lot in Deschutes County.

As you know this is the day and age of fairness and exposing discrimination against any number of things places and peoples. I am only interested in peoples along the Deschutes River.

I am going to attempt to point out how the information in Mr. Johnson's letter and report is not consistent and is not exactly true, and why in his biased opinion he does not want to approve this variance.

Power corrupts, and absolute power corrupts absolutely.

What Mr. Johnson states on page 2 & 3 of your VARIANCE FACTS AND FINDINGS REPORT 8/18/94 sounds like a lot of political gobble-de-gook which is designed to confuse the owner and the reader, to make sure nobody or nothing will pass unless he so allows it.

I demonstrate; OAR 340-71-150(4)(a) which limits the use of standard and/or alternative sewage treatment and disposal systems to properties that comply with the requirements of, it now refers you to another Oregon regulation, OAR 340-71-220 and/or the requirements of, it now refers you to yet another batch of one hundred regulations, OAR 340-71-260 though 340-71-360 as appropriate for a specific type of alternative system.

Here is a classic catch-22 situation. This sets up a situation where a Variance officer can interpret any environment or condition as he so chooses.

I continue now with two regulations quoted on page 3 of your report.

OAR 340-71-290(3)(b)(B) - which limits the use of conventional sand filter systems to sites where the highest level of a permanent water table will not rise closer than 18 inches of the bottom of the effective seepage area (bottom of the proposed filter).

OAR 340-71-290(5) - which restricts the use of conventional sand filter systems that discharge effluent through the bottom, to locations where the water table does not rise closer than 24 inches to the filter bottom, and also limits the use of this design of sand filter to sites with saprolite, fractured bedrock, gravel, or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two feet thick in contact with and below the bottom of the sand filter.

I quote now from a letter to me dated 11/24/93. Mr. Johnson informs me that the hearing was indeed held on my property. He goes on to quote two Oregon regulations of which his decision is based upon to deny the variance. I feel I should also quote these Oregon regulations.

1. OAR 340-71-220(2)(b)(A) - which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent groundwater table.

2. OAR 340-71-290(5) - which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

I want you to notice now that this OAR 340-71-220(2)(b)(A) from letter 11/93, is not even listed in the VARIANCE FACTS AND FINDINGS REPORT 8/18/94. Also notice that the version OAR 340-71-290(5) from letter 11/93, is over in Crook county somewhere compared to the 8/18/94 version.

In the case of Oregon septic guidelines, rules like OAR 340-71-290(3)(b)(B) and OAR 340-71-290 (5) explained on page 3 of your VARIANCE FACTS AND FINDINGS REPORT 8/18/94, and on page 2 of this report, are set up for the entire state. As we know there is a lot of different kind of dirt in the entire state of Oregon. The dirt is not the same in all areas and counties in the state, but still the rules are the same for all counties.

You see Ms. Zucker all of this gives Mr. Johnson unlimited latitude. Unquestioned conduct. Mr. Johnson has absolute power as Variance Officer of Deschutes county. Nobody would question what he says or prints if he/she valued their job.

In the case of discrimination, this being a border line case which could go either way, you can be sure that if Mr. Johnson's daughter or son-in-law owned my lot in question, it would miraculously pass within an inch of the state guidelines. In his opinion section it indeed would have all the right conditions. In my shipboard work life this is called a "two pot galley".

Now I would like to go back to the absolute beginning. About 1959-1960 the area of Deschutes River Recreation Homesites was developed and subdivided. It was in the middle of nowhere and developed from basically useless land. Sun River was not thought of yet because that area was really an unusable swamp. When DRRHS went on the market it did not sell. The developer then used a different strategy. They would market this wilderness in Southern California. That would encourage California people and money. To accommodate these people the streets were named after different cities in Los Angeles County. In the mid 1960's television adds saturated the Los Angeles airwaves. Suckers there would buy this wilderness land sight unseen for the reasonable prices they were being offered for. They did and it worked. Californians bought heavy in the area. My older brother who lived in Southern California at the time also purchased two lots there.

The Californians who bought lots there were thinking of the future. They were thinking of a campsite or a homesite away from it all someday, or just a simple investment. They were pursuing happiness as we know it, the American Dream. They had no idea of the pre-justice Oregonians would develop against them in the years to come.

SUMMARY OF APPLICANT'S PROPOSAL page 2 of Variance Facts and Findings Report 8/18/94.

Robert C. Paeth CPSS is Soil Scientist for Mr. Herigstad. Dr. Paeth proposed the installation of a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil. The underdrain gravel (clean, round, washed gravel, 3/4" to 1-1/2" in size) at the base of the filter would extend five (5) feet beyond the walls of the filter to enlarge the absorptive surface area, and would not be placed below the natural ground surface. Filter fabric would cover the upper surface of the underdrain gravel lense, and top soil would be used to backfill around the filter and cover that part of the underdrain gravel extending beyond the filter walls. Dr. Paeth calculated the absorptive surface area to be 1.012 square feet. He estimates the loam soil has a permeability rate ranging from 0.6 to 2.0 inches per hour, thus it would be possible to transmit from 14.4 to 48 inches of water in a 24 hour period. (This is very good drainage)

Dr. Paeth goes on to say, conventional sand filter treatment units have demonstrated the ability to significantly reduce BOD-5, total suspended solids, total nitrogen, and fecal bacteria. He also cites studies that suggest sand filtered effluent will have little adverse impact on the quality of the shallow groundwater aquifer below the site. Dr. Paeth also states that free water occurs below 36 inches.

On page 2 of the letter to me from Deschutes County dated 11/24/93, Mr. Johnson states; After consideration of your proposal, I find that I cannot justify approval of your variance request. It is my opinion that your proposal to install an elevated sand filter does not justify allowing variance to the rules as discussed above.
To start with in my opinion there is very little variance to vary. If Mr. Johnson decides to slow down development in the area he can. He can follow his personal agenda without question.

We all know of the prejudice and the discriminations Oregonians now have of Californians in general. In some cases for good reason. Californians are not wanted nor is their continuous development. This obviously would include anyone with a California address. I believe Mr. Johnson has a one man campaign going to curb growth along the Deschutes River. I believe he is purposefully misrepresenting some of the facts he states in your VARIANCE FACTS REPORT for instance page 2 paragraph 2 and all of page 3.

I purchased this property in June 1984. At that time as I recall, the river was at its high point. I remember two test holes. The lot was covered with thick brush and small trees. I refer to line 3 of a letter to IFG Leasing Co. from Deschutes County 5/10/84. "The property has closely scattered trees and a brushy ground cover". No swamp there. I remember one test hole in the middle of the lot and was about four feet deep. Another shallow test hole was on the down river side property line, as though someone didn't exactly know where the property line was. To the best of my knowledge there was no water in the deep hole which was at the highest point of the lot. The realtor indicated to me that a soil test had been done and it had failed. Therefore the lot was for sale.

Later I was shown the letter from Deschutes County to IFG Leasing Co. Sacramento, California date 5/10/84. It was signed by a Mr. Jay E. Langley.
I initially accepted this report, however though the years as I worked on the lot I began to question the County's findings. In paragraph 3 they state that the water table is at 26 inches with seasonal, permanent water table reaching to 12 inches from ground surface. I have never seen the water that close to the surface in the ten years I have owned the lot.

Back to your letter of VARIANCE FACTS AND FINDINGS 8/18/94. On page 1 paragraph 1 Mr. Johnson, interprets this earlier letter from Deschutes County 5/10/84 to IFG Leasing, considerably different. For one thing he adds to the letter and states that the land is flat. This was not in the original letter.
Page 1 paragraph 2 of the VARIANCE FACTS AND FINDINGS letter Mr. Paeth states that free water occurs below 36 inches, and goes on to say, although nearly level, the property has some sloping areas due to the micro relief.

Page 2 paragraph 1 of this same letter of Findings, Mr. Johnson states that soil colors were observed at a depth beginning at 9 inches from the surface. These colors are indicative of soils that are "often" saturated for "extended" periods of time. That would mean swamp area. There is no swamp there. He goes on to say that during a visit to the property on 6/2/94 that the free water level was 42 inches. The test holes were covered up in December 1993. So how could he determine free water level in 6/94?

On page 2 paragraph 2, Mr. Johnson also states that soil colors indicate the water table will "often" rise to within approximately 9 inches of the land surface. There is no one on this earth that has ever witnessed water on my property at 9 inches from the surface of the land, with a test hole or without. I would like to know what Mr. Johnson means by often? Once a month? Does the river high water come many times a year? As far as I know it only comes once a year and stays about six months or less.

I will now list all of Mr. Johnson's quotes of 9 inches listed in the VARIANCE FACTS AND FINDINGS letter 8/18/94:

Page 2 Par. 1; soil colors were observed at a depth beginning at 9 inches from the surface.
Par. 2; soil colors indicate the water table will often rise to within approximately 9 inches of the land surface.
Page 3 Par. 2; At the subject property, the highest level of the permanent water table is expected to rise to within 9 inches or closer of the bottom of the effective seepage area. (bottom of the proposed filter)
Par. 3; At the proposed site, the water table is expected to rise to within 9 inches or closer to the filter bottom, and the soil texture in contact with the filter bottom is loam.
Par. 5; It is expected that the water table will rise to within 9 inches or less from the filter bottom.

I feel this repetition is there for a reason other than what it appears to be.

The irregularity of the surface of the lot in question is probably 9 inches. Does this mean that often times a year water will run up hill from the river and stand in places on the surface of my property? Do I believe in the Tooth Fairy? No. He goes on to state in par. 5. Other lots located on the 2a terrace in this part of Deschutes County have experienced water tables that have been above the ground surface in the spring. This is indeed true including in the Homesite area. These are swampy meadow areas where there is nothing but swamp grass and no trees at all. The closest area like this to me is approximately a mile.

The lay of my land is that the high point is about 36 inches above the river high water level. I do not believe water will run up hill. Physics does not allow water to freely run up hill unless it is pumped. Mr. Johnson will not convince me otherwise. The street next to the front of the lot has a deep roadbed. That would prevent water from coming from the direction of the road and running uphill to 9 inches from the surface on my property.

Ms. Zucker, there has been a nice house and home on the lot one lot up river from me since sometime before 1984 when I purchased my lot. The house is about 50 feet from the river. They have a well and conventional septic system which is located between the house and the street. There has been absolutely no trouble with either one of these in the past ten years, summer or winter. That house is barely more than 100 feet from my lot.

And now Ms. Zucker it is time to drop the bomb shell.

Mr. Johnson did not do any of the research work on this project himself. He states so in a letter to me from him dated 11/24/93, page 1, paragraph 2 and page 2 paragraph 1.

He starts by informing me the hearing was held. He used exclusively the soil report done in 1984 by Mr. Langley and the recent one done by Dr. Paeth. He re-wrote that old report with a sprinkle from Dr. Paeth and presented it as a new and original report. He based his report on work that had already been done, as tough anything and everything from the past is the absolute gospel.

This is what he based his denial on. Is this fare to me Ms. Zucker? That 1984 report could have been completely pre-justiced and a lie for all we know, to discourage California owners. We don't know unless somebody does original research do we. That is preciously why I hired an independent soil expert Mr. Robert Paeth from Corbett, Oregon. I wanted the best in order to get the best correctness.

The on site variance hearing took place on my lot, lot 14, block 16, DRRHS, on 10/19/93. It was attended by Dr. Robert C. Paeth, Soil Scientist and Mr. Daryl Johnson R.S. of Deschutes County.

Shortly after this I had a lengthy phone conversation with Dr. Robert Paeth in Corbett, Oregon. He brought me up to date on everything he had done on the project and everything that had happened so far regarding the lot. Dr. Paeth informed me that the findings were borderline. It could pass and work fine depending on the variance officer. He said he didn't think it looked good in this case. He informed me that as him and Mr. Johnson walked the property, Mr. Johnson commented that he thought he would not pass it. His rationale was that, if I passed this one everyone along the river would want one. My response was, well so what? Isn't the Planning Commission there to serve and help the county. Isn't he paid by the county to do a job for the county and its people? Is he afraid of a work load? Or is he just exercising his power to curb growth along the river? This means that he actually drove to the site there that day with this pre-justiced decision of denying the variance already in place.

Ms. Zucker I feel I also must relay an experience I had at the Deschutes County Tax Assessors office in July 1993. The year before Oregon had passed a state wide measure called Proposition 5. I had been informed by an annual tax statement that my Assessed Value and corresponding property taxes, on the lot in question, had been increased radically. The assessed value had been raised in one year from six thousand to twenty eight thousand. The coming year was going to be two thousand in addition. Through the years I had done considerable cleanup on my lot for whatever difference that should make. I decided it was time to go to the Tax Assessors office in person. I wanted someone to tell me in person what was their actual motivation for this drastic increase. I spoke to an Assessor who appeared to be a veteran there. The answers I received were far from straight forward. Finally he in essence told me that they had taken it upon themselves to raise the assessed value and taxes on all the riverfront lots along that part of the Deschutes River because they were all presumed to be septic feasible and therefore had value. I promptly responded with, could you please write that up for me because I have just or are in the process of applying for a septic variance. This could make a big difference if you people have given a blanket approval in the area. He replied that of course he couldn't do that.

I wind my case down Ms. Zucker by making you an offer.

This is what I propose in the name of fairness. I will dig and pay for another hole. I will have it 5 feet deep with sloping edges so anything falling into it can easily climb out. I leave this hole open for one year. During that year Mr. Johnson can send a messenger out there once a month or oftener to measure the water level in the test hole. Of course the messenger would have to stop and pick up my friend Mr. Wyatt or Mr. Wyatt's wife to witness this gaging. No cheating you know. This way all could witness often through the year, Mr. Johnson's water running up hill and spilling into the test hole and keeping it 9 inches from the surface.

I of course am going way out on the proverbial limb by making this offer. But I am willing to take the chance to prove a point.

I will close by saying; I feel that because my lot is on the edge of the septic guidelines the state of Oregon has laid down and because of possible discrimination by Mr. Johnson against my lot or my address or me, I feel the Variance should be approved. I rest my case.

I thank you Ms. Zucker most graciously for your valuable time. I am honored that you took the time to review my case.

Respectfully yours

Gordon Herigstad

Gordon Herigstad

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

EASTERN REGION

Bend Office

May 25, 1994

Linda Zucker
Hearings Officer
Environmental Quality Commission
811 SW 6th Avenue
Portland, OR 97204

Re: Gordon Herigstad
Variance Decision Appeal
Fact and Findings Report

Enclosed is the "Variance Facts and Findings Report" that you requested. If you have any questions give me a call. I also sent the report to Gordon Herigstad.

Sincerely,

Daryl Johnson
Environmental Specialist
Variance Officer

DJ/ns

Enc.

2146 NE 4th Street
Suite 104
Bend, OR 97701
(503) 388-6146

VARIANCE FACTS AND FINDINGS REPORT

NAME: Mr. Gordon Herigstad

PROPERTY DESCRIPTION:
T. 20 S.; R. 11 E., W.M.; Sec. 7; Tax Lot 4200
Lot 14, Block 16, Deschutes River Recreation Homesites
Approximately one half acre, Deschutes County

VARIANCE OFFICER: Daryl Johnson

DATE APPLICATION COMPLETE: The application was received 8-19-1993

DATE OF VARIANCE HEARING: The hearing was held 10-19-1993
The applicant was represented by Bob Paeth, Paeth Soil Consulting

DATE OF VARIANCE DECISION: Variance decision letter issued 11-24-93.
Variance request denied.

HISTORICAL SITE EVALUATION INFORMATION:

- Original site evaluation done by Deschutes County Representative Tom McIntyre on 5-4-84.

- Evaluation report stating "unsuitability" issued 5-10-84, signed by Jay Langley, Deschutes County Representative. The site evaluation report indicated that the site was not suitable for "any on-site sewage disposal system" due to excessive high permanent groundwater conditions.

SUMMARY OF VARIANCE OFFICER'S SITE OBSERVATIONS:

Additional site evaluation work was not done by the variance officer. Note: The variance application is predicated on the fact that the applicant understands that the site does not meet certain criteria (rules). Site suitability relative to established criteria was determined by Deschutes County and accepted by the applicant.

SUMMARY OF APPLICANT'S PROPOSAL:

The applicant was requesting a variance to the rules to allow the installation of "a conventional sand filter, without a bottom, on a surface of loam soil". The surface of loam soil was to be installed over the natural ground surface in order to provide for a vertical setback from the groundwater table as prescribed by rule.

RULES TO BE CONSIDERED FOR VARIANCE:

OAR 340-71-290 (3) (b) (A) and (B), which states; "The highest level attained by a permanent water table would be equal to or more than distances specified as follows:"

(A) Gravel, sand, loamy sand, sandy loam - 24 inches
(B) Loam, silt loam, sandy clay loam, sandy clay - 18 inches

VARIANCE OFFICER'S EVALUATION:

Mr. Herigstad did not provide sufficient reason in accordance with Oregon Administrative Rules, Chapter 340, Division 71, Section 415 (3) (a) or (b) to justify granting of the variance request.

There is no justification to allow the installation of a sand filter system to be installed on an elevated mound of soil in order to meet vertical set back requirements. The concept of such an "elevated system" is not an approved or proven design in the State of Oregon. Such a design is experimental in nature. There is no data available relative to effectiveness or suitability of such a design. Therefore, to allow such a system to be installed and operated prior to establishment of design suitability would be risky.

As variance officer, I have no opinion as to whether the proposal could be modified in any way. Any modifications or changes to the original variance request must be presented by the applicant. Modified or specially designed systems should be addressed through the Experimental Systems program, OAR 340-71-450.

Strict compliance [in accordance with OAR 340-71-415 (3) (a) and (b)] is appropriate because:

1. Shallow water table levels have been determined.
2. Minimum groundwater separation requirements have been established to protect public health and the environment.
3. The shallow groundwater is the drinking water source for individual lot owners in the area.

Dec. 11 1993

Dear Mr. Hansen,

I am writing regarding the copy of the letter inclosed.

I would like to appeal the desecion of Mr. Daryl Johnson to ~~deny~~ my Variance.

I appeal this on the grounds that I feel the depth of soil is adiquite, I feel a sand filter system would work adiquit.

I am a native of Molalla, Oregon. about half the year I spend in Burbank, Calif. making my living. I feel Mr. Johnson was expressing bias and prejudice against me because he thought I was an out of stater.

I feel primarily that it was his strong bias against out of state people that made him deny this variance.

Thankyou. Please forward corrispondance To. 128 Shirley St. Molalla, Oregon 97038 Ph. 503-8298039

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
DEC 13 1993
OFFICE OF THE DIRECTOR

Sincerely
Gordon Hargitay

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

CENTRAL REGION

November 24, 1993

Gordon Herigstad
208 S. Frederic St.
Burbank, California

Re: WQ-IOSWWS-Variance Denial
Twp.20, R.11, Sec.7, Lot 14,
Block 16
Deschutes River Recreation
Homesites
Deschutes County

This letter confirms that a variance hearing was held on the above described property on October 19, 1993, as provided for under Oregon Administrative Rules (OAR) for On-Site Sewage Disposal, Chapter 340, Division 71, Section 430. The hearing was conducted to consider your request for the Department to waive certain Oregon Administrative Rules governing on-site sewage treatment and disposal.

The site evaluation work done previously by representatives of the Deschutes County Environmental Health Department established that the subject property does not meet criteria listed in the Oregon Administrative Rules for a Standard system or any alternative on-site sewage disposal system. It was determined that the groundwater below the site would periodically and seasonally rise closer to the ground surface than eighteen (18) inches.

You have chosen to pursue the variance request to install a conventional sand filter without a bottom to be mounted on a bed of gravel, which in turn, would be placed between the ground surface and the bottom of the sand filter.

In accordance with your variance proposal, the hearing was conducted to receive testimony in support of your request from the Department to waive the following rules:

1. OAR 340-71-220 (2) (b) (A)---which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent groundwater table.

2146 NE 4th Street
Suite 104
Bend, OR 97701
(503) 388-6146

2. OAR 340-71-290 (5)---which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

Note: Variance to the above rule reflects the interpretation that the upper horizon of the soil profile of the site is of a finer textured loam series.

Since earlier site evaluation work done by Deschutes County determined that the permanent groundwater table would periodically rise closer to the ground surface than 18 inches, the following rules were also considered in the case of your variance request:

Oregon Administrative Rules, Chapter 340, Division 71, Section 290 (3) (b) (A) & (B) ; which require that the highest level attained by a permanent groundwater table would be equal to or more than 24 inches from the bottom effective seepage area of a Sand Filter system in rapid draining soils such as gravel, sand, loamy sand and sandy loam, and 18 inches of like separation for when a loam soil is considered.

After consideration of your proposal, I find that I cannot justify approval of your variance request. It is my opinion that your proposal to install an "elevated" sand filter does not justify allowing variance to the rules as discussed above. The effectiveness and suitability of such a design can, at this time, only be speculated. In accordance with OAR-340-415 (3), information and testimony presented during the hearing and in your written proposal does not demonstrate cause to find that;

(a) Strict compliance with the rule or standard is inappropriate for cause; or
(b) Special physical conditions render strict compliance unreasonable, burdensome or impractical.

Pursuant to OAR 340-71-440, my decision to deny your variance request may be appealed to the Environmental Quality Commission. Grounds for appeal with supporting evidence must be directed to the Environmental Quality Commission, in care of Fred Hansen, Director, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon, 97204-1390. Appeal must be made within twenty (20) days of the certified mailing date of this letter.

If you have any questions please feel free to contact me at 388-6146.

Sincerely,

Daryl Johnson R.S.
Environmental Specialist

cc: Roger Everett, Deschutes County Env. Health
Bob Paeth, Paeth Soil Consulting

VARIANCE FACTS AND FINDINGS REPORT

rec'd 7/18/94

APPLICANT'S NAME: Mr. Gordon Herigstad

PROPERTY DESCRIPTION:

T. 20 S.; R. 11 E., W.M.; Sec. 7C; Tax Lot 04200; Deschutes County.
Lot 14, Block 16, Deschutes River Recreation Homesites.
Property Size: 0.5 acres.

VARIANCE OFFICER: Daryl Johnson

DATE APPLICATION RECEIVED: August 20, 1993

DATE OF VARIANCE HEARING: October 19, 1993

DATE OF VARIANCE DECISION: November 24, 1993

HISTORICAL SITE EVALUATION INFORMATION:

The property was evaluated for on-site sewage disposal methods by staff with the Deschutes County Community Development Department on May 4, 1984. The property is located between Eclipse Road and the Deschutes River. Two test pits placed near the road were examined, and they were found to be similar. The soil profile was described as a coarse loamy sand from 0 to 12 inches, above a coarse loam. The water table was observed at 26 inches from the surface. The county report indicates the water table is expected to rise to within 12 inches of the surface, and was judged to be permanent in nature. Mottling, an indicator used to predict water levels, was not observed above the standing water in the test pits. The slope of the landform was described as flat. IFG Leasing Company (the owner of the property at that time) was informed by letter dated May 10, 1984, that the property was not suitable for any type of on-site sewage disposal system because of the shallow depth of the permanent water table.

The property was also examined by Robert C. Paeth, PhD. In Dr. Paeth's report of August 18, 1993, he describes the soils in the area proposed for a disposal system as deep and somewhat poorly drained, typically having a dark grayish brown loam surface horizon, above a coarse sandy loam and sand upper subsoil, above a very dark grayish brown silt loam with dark yellowish brown mottles. Free water occurs below 36 inches. Although nearly level, the property has some sloping areas due to the micro relief.

SUMMARY OF VARIANCE OFFICER'S SITE OBSERVATIONS:

The variance officer's observations are similar to those described by Dr. Paeth. The proposed disposal area is located adjacent to the floodplain of the Deschutes River, commonly referred to as the 2a terrace. The color of the surface horizon was determined to be dark grayish brown (10YR4/2) to grayish brown (10YR5/2). Gray (10YR5/1) to grayish brown (10YR5/2) soil colors were observed at a depth beginning at 9 inches from the surface. These colors are indicative of soils that are often saturated for extended periods of time. In this area of Deschutes County, this would normally be in the spring. Due to the landscape position, the water table is considered to be permanent, and the depth to the water table may fluctuate several feet throughout the year. During a visit to the property on June 2, 1994, the free water level was measured at 42 inches from the surface.

It should be noted that soil color characteristics normally associated with conditions of saturation do not always appear in the soils of southern Deschutes County, due to: coarse textured soils; groundwater temperatures too low to allow decomposition of organic matter, thus oxygen is not depleted to the extent that ferric iron is reduced to ferrous iron, a soluble form of iron which moves through and relocates in the soil profile, producing red, yellowish red or brown mottles; and groundwater movement is rapid enough through these porous soils such that the oxygen concentration in the groundwater remains high. In the professional judgement of the variance officer, the gray, low chroma (10YR5/2 and 10YR 5/1) soil colors indicate the water table will often rise to within approximately 9 inches of the land surface (i.e. closer to the ground surface than the morphological evidence suggests).

SUMMARY OF APPLICANT'S PROPOSAL:

Dr. Paeth proposed the installation of a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil. The underdrain gravel (clean, round, washed gravel, 3/4" to 1-1/2" in size) at the base of the filter would extend five (5) feet beyond the walls of the filter to enlarge the absorptive surface area, and would not be placed below the natural ground surface. Filter fabric would cover the upper surface of the underdrain gravel lense, and top soil would be used to backfill around the filter and cover that part of the underdrain gravel extending beyond the filter walls. Dr. Paeth calculated the absorptive surface area to be 1,012 square feet. He estimates the loam soil has a permeability rate ranging from 0.6 to 2.0 inches per hour, thus it would be possible to transmit from 14.4 to 48 inches of water in a 24 hour period.

Conventional sand filter treatment units have demonstrated the ability to significantly reduce BOD_5, total suspended solids, total nitrogen, and fecal bacteria. Dr. Paeth cites studies that suggest sand filtered effluent will have little adverse impact on the quality of the shallow groundwater aquifer below the site.

SUMMARY OF RULES TO BE CONSIDERED FOR VARIANCE:

OAR 340-71-150(4)(a)--which limits the use of standard and/or alternative sewage treatment and disposal systems to properties that comply with the requirements of OAR 340-71-220

and/or the requirements of OAR 340-71-260 through OAR 340-71-360 (as appropriate for a specific type of alternative system). The rule also requires the property to contain sufficient area to accommodate an initial and replacement system, both in full compliance with the on-site rules. The site examined was found not to meet all the criteria applicable to any on-site sewage disposal system listed in Division 71 of the administrative rules. Specifically, the minimum separation distance to a permanent water table can not be met.

OAR 340-71-290(3)(b)(B)--which limits the use of conventional sand filter systems to sites where the highest level of a permanent water table will not rise closer than 18 inches of the bottom of the effective seepage area (the bottom of the proposed filter). At the subject property, the highest level of the permanent water table is expected to rise to within 9 inches or closer of the bottom of the effective seepage area.

OAR 340-71-290(5)--which restricts the use of conventional sand filter systems that discharge effluent through the bottom, to locations where the water table does not rise closer than 24 inches to the filter bottom, and also limits the use of this design of sand filter to sites with saprolite, fractured bedrock, gravel, or soil textures of sand, loamy sand, or sandy loam in a continuous section at least two feet thick in contact with and below the bottom of the sand filter. At the proposed site, the water table is expected to rise to within 9 inches or closer to the filter bottom, and the soil texture in contact with the filter bottom is loam.

VARIANCE OFFICER'S EVALUATION:

The variance officer's duty is to determine if, in his professional judgement, the system proposed for variance from the administrative rules is adequate to safeguard the public's health and environmental interests when waiving standards that were specifically developed for that same purpose. Although well prepared, the applicant's proposal does not adequately address the most significant development limitation at the site. Maintenance of the 24 inch separation distance between the filter bottom and the high level of a permanent water table is of great importance and concern in this area of Deschutes County. A sand filter is capable of doing a fine job of pre-conditioning septic tank effluent before discharging it into the environment. The filter does not, however, eliminate all pathogens from the wastewater, nor does it remove nitrates to an extent which assures the beneficial uses of the groundwater are not impaired. The minimum separation distance provides that further treatment of the polished effluent can occur before it contacts the water table, thus reducing further the potential to impair beneficial uses of the groundwater. In addition, it provides a buffer between the filter and groundwater so that on those occasions when the water table rises higher than the morphological evidence suggests, the filter is not likely to be flooded.

It is expected that the water table will rise to within 9 inches or less from the filter bottom. Other lots located on the 2a terrace in this part of Deschutes County have experienced water tables that have been above the ground surface in the spring, even when the morphological evidence suggests differently. It must also be noted that the temperatures are quite low in the winter, and the risk that portions of the system may freeze is of concern, particularly when the concrete walls of the filter unit are not insulated and the depth of cover above the filter's gravel base is not especially deep. The variance officer was not able to offer alternative approaches to overcome the shallow groundwater table limitations.

Variance from particular requirements of the Oregon Administrative Rules for On-Site Sewage Disposal may be granted if a finding can be made that strict compliance with the rules is inappropriate for cause, or that special physical conditions render strict compliance to be unreasonable, burdensome or impractical. Based upon the variance record and information obtained relevant to this proposal, such findings can not be made. In the judgement of the variance officer, authorization to construct the system as proposed would not be in the best interest of public health or environmental concerns. The variance officer was not convinced that a sand filter system will function satisfactorily due to the limitations present. The variance request was therefore denied.

PAETH SOIL CONSULTING
37401 E. Knieriem Road
Corbett, Oregon 97019

Phone (503) 695-5464
Fax (503) 695-5868

August 18, 1993

Mr. Sherman O. Olson Jr., Variance Officer
Industrial And On-Site Waste Section
Water Quality
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: **VARIANCE REQUEST, T20S, R11E, Sec. 7C, Tax Lot 4200, Lot 14, Block 16, Deschutes River Recreation Homesites, Inc, Deschutes County, Oregon**

Dear Sherm:

The property referenced above consists of about 0.5 acres fronting on Eclipse Road adjacent to the Deschutes River.

Soils in the area proposed for the disposal system are deep and somewhat poorly drained, with medium textured surface horizons, coarse textured upper subsoils, and medium textured lower subsoils. Typically, the surface horizon is dark grayish brown loam. The upper subsoil is coarse sandy loam and sand. The lower subsoil is very dark grayish brown silt loam with dark yellowish brown mottles (Attachment A). Free water occurs below 36 inches. The parcel is nearly level but has sloping areas due to the micro relief.

The Deschutes County Community Development Department issued an unfavorable site evaluation report, May 10, 1984, indicating that this parcel is "unsuitable for any on-site sewage system" (Attachment B). The site evaluation field sheet (Attachment C) indicated groundwater occurred at 26 inches. The denial was based on soil matrix colors of (10YR5/3) and (10YR5/2). No mottling was observed.

To over come limitations of this parcel and facilitate installation of sand filter system, a variance is requested from Oregon Administrative Rules (OAR):

1. OAR 340-71-220(2)(b)(A)---which requires at least four feet of separation between the bottom of disposal trenches and the highest level attained by a permanent water table.

2. OAR 340-71-290(5)---which allows installation of a conventional sand filter without a bottom on sites with saprolite, fractured bedrock, gravel, or soil with textures of sand, loamy sand, or sandy loam in a continuous section at least two (2) feet thick in contact with and below the bottom of the sand filter.

This variance proposes installation of a conventional sand filter, without a bottom, on the surface of a loam soil. The sand filter will be placed on a blanket of 3/4" to 1-1/2" clean, round, washed gravel that extends five feet beyond the sand filter in all directions (Figure 1). The gravel blanket will be covered with filter fabric prior to construction of the sand filter and back filling with top soil (Figure 1, Sand Filter Cross Section).

The conventional sand filter proposed for installation on this parcel will significantly reduce BOD_5, total suspended solids, total nitrogen and fecal bacteria. Studies of conventual intermittent sand filters in Oregon (6) showed BOD_5, total suspended solids, fecal coliform, and total coliform in septic tank effluent were reduced 99%, 93%, 3 logs (99%), and 2 logs (98%), respectively, by sand filtration in a conventional intermittent sand filter. Additional field studies (3) and column studies (5) demonstrated that two feet of sand was effective removing virus and bacteria from household wastewater.

Studies by Beek and deHaan (1) and Staunes and Nilsson (7) showed that phosphorus was removed from septic tank effluent after passing through a few inches of unsaturated soil.

Similarly, studies conducted by the Department of Environmental Quality, involving conventional intermittent sand filters (6) showed that sand filtration reduced total nitrogen about 50 percent. Gilbert, et al, (2) demonstrated that denitrification took place in natural soils, when effluent was dosed so that alternate wet and dry cycles are produced.

These studies suggest that sand filtered effluent will have little adverse impact on the quality of shallow groundwater in the vicinity of this parcel.

The triangular sand filter (Figure 1) has a surface area of 392 square feet. The surrounding gravel blanket has a surface area of 1012 square feet. The loam soil below the gravel blanket has a permeability rate that ranges from 0.6 to 2.0 inches per hour. Calculations based on these values indicate that soil on this parcel would transmit 14.4 inches of water in 24 hours at the low permeability rate and 48.0 inches in 24 hours at the high permeability rate.

The average annual rainfall is 12.0 inches at Bend and 19.1 inches at Fall River (4). This parcel is about mid way between these two stations, so precipitation values from this two station were averaged for purposes of discussion. Based on this averaging of precipitation, the average annual precipitation at the site is about 15.6 inches. December, with 2.5 inches of rainfall, is the highest rainfall month. If half of this amount were to fall in one 24-hour period, the soil would only have to transmit 1.31 inches (1.25 inches of rainfall and 0.06 inches of effluent) to dispose of the rainfall and effluent through the gravel blanket under the sand filter.

The medium textured soil on this parcel is capable of disposing of 14.4 inches of fluid in a 24-hour period, so there is no hazard of the loam soil under the gravel blanket becoming saturated and causing treated effluent to surface.

Two feet of unsaturated medium textured soil below the sand filter will provide adequate treatment of effluent prior to discharge into shallow underlying groundwater. Studies by Magdoff et al (5), using columns, showed that two feet of medium sand was adequate to remove virus and bacteria from household wastewater. Additionally, studies of pressure distribution systems is soils with shallow groundwater in Oregon (6) showed 15 inches of medium textured soil was adequate to reduce fecal coliform counts to back ground levels.

If you have questions, I can be reached by phone at 695-5464.

Sincerely,

Robert C. Paeth

Robert C. Paeth, CPSS
Soil Scientist

Figures:
1. Plot Plan of Proposed On-Site Sewage System

Enclosures:
1. Attachment A, Soil Profile Descriptions
2. Attachment B, Descutes County Site Evaluation Report.
3. Attachment C, Deschutes County Site Evaluation Field Sheet.
4. Miscellaneous File Information
5. Variance Application
6. Compatibility Statement
7. $225.00 check
8. Legal description
9. Tax Lot Map
10. Directions to the Parcel

LITERATURE CITED

1. Beek, J. and F.A. deHaan. 1973. Phosphate Removal by Soil in Relation to Waste Disposal. In: Proc. of Intl. Conf. on Land for Waste Management. Ottawa, Canada.

2. Gilbert, R.G., J.C. Lance, and J.B. Miller. 1979. Denitrifing Bacteria Populations and Nitrogen Removal in Soil Columns Intermittently Flooded with Secondary Effluent. J. Environ. Qual., Vol. 8, no. 1, pp 101-104

3. Green, K.M. and D.O. Oliver. 1975. Removal of Virus from Septic Tank Effluent. In: Proc. of the National Home Sewage Disposal Symposium. ASAE, St. Joseph, Michigan. pp. 137-143.

4. Johnsgard, G. A. 1963. Temperature and Water Balance for Oregon Weather Stations. Special Report 150. Agricultural Experiment Station and Oregon state University, p 127

5. Magdoff, F. R. Keeney, J. Bouma, and W.A. Ziebell. 1974. Columns Representing Mound-Type Disposal Systems for Septic Tank Effluent: II Nutrient Transformation and Bacterial Populations. J. Environ. Quality, Vol. 3, No. 3, pp. 228-234.

6. Ronayne, M.P., R.C. Paeth and S.A. Wilson. 1982. Final Report - Oregon Site Experimental Systems Program. State of Oregon, Department of Environmental Quality, Portland, Oregon.

7. Staunes, A.O., and P. Nilsson. 1987. Investigation of Soil Treatment Systems for Septic Tank Effluent: III. The Fate of Phosphorus. Vatten 43:45-53.

ATTACHMENT A

SOIL PROFILE DESCRIPTIONS

Test Hole 1

0-10"	Dark grayish brown (10YR4/2) loam, weak fine subangular blocky structure, friable, slightly sticky, slightly plastic, many coarse, medium, fine, and very fine roots.
10"-13"	Grayish brown (10YR5/2) loam, weak medium and fine subangular blocky structure, friable, slightly sticky, slightly plastic, common medium, fine, and very fine roots.
13"-24"	Grayish brown (10YR5/2) loam, moderate medium subangular blocky structure, friable, slightly sticky, slightly plastic, common fine and very fine roots.
24"-29"	Grayish brown (10YR5/2) coarse sandy loam, massive, very friable, non sticky, non plastic, common fine and very fine roots.
29"-34"	Light yellowish brown (2.5Y6/3) sand, single grained, loose, non sticky, non plastic, few fine and very fine roots.
34"-47"	Very dark grayish brown (10YR3/2) silt loam, moderate medium subangular blocky structure, firm, slightly sticky, slightly plastic, common dark yellowish brown (10YR4/4) mottles, few fine and very fine roots. Free water standing in the test hole at 47 inches.

Test Hole 2

0-8"	Dark grayish brown (10YR4/2) loam/silt loam, weak fine and very fine subangular blocky structure, friable, slightly sticky, slightly plastic, many coarse, medium, fine, and very fine roots.
8"-17"	Grayish brown (10YR5/1.5) loam/silt loam, moderate very fine subangular blocky structure, friable, slightly sticky, slightly plastic, common coarse, medium, fine, and very fine roots.
17"-21"	Grayish brown (2.5Y5/2) silt loam, moderate medium subangular blocky structure, firm, slightly sticky, slightly plastic, common dark brown (7.5YR4/4) mottles, few fine and very fine roots.

21"-29" Dark grayish brown (10YR4/2) loamy sand, moderate coarse subangular blocky structure, slightly compact in place, firm, non sticky, non plastic, common dark brown (7.5YR4/4) mottles.

29"-39" Light brownish gray (10YR6/2) sand, single grained, loose, non sticky, non plastic, common dark yellowish brown (10YR4/4) and light yellowish brown (10YR6/4) mottles. Free water standing in the test hole at 39 inches. A very dark grayish brown (10YR3/2) silt loam horizon occurs at the water line.

Application for Variance from Administrative Rules
Regulating On-Site Sewage Disposal Systems

Please complete this application form and submit the application fee* ($225) and required attachments to:

Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204

REFERENCE INFORMATION—Please Print

GORDON HERIGSTAD — Name of Owner
20 — Township
11 — Range
07C — Section

208 S. FREDERIC ST. APT. B — Address
04200 — Tax Lot or Account No.
Parcel Size

BURBANK — City
CALIF. — State
91505 — Zip Code
Subdivision Name "DESCHUTES RIVER RE HOMESITES"

Business Phone
818-566-1776 — Home Phone
Lot 14 — Block 16

ATTACHMENTS

Provide The Following Items:

1. Complete and accurate directions to the property. A locater map would be helpful.

2. Two (2) copies of the parcel's legal description (metes and bounds, warranty deed, sales contract, or approved subdivision plat). Include the protective covenants, deed restrictions and easements, if applicable.

3. Two (2) copies of an assessor or title company plat map or a surveyor plat map.

4. Two (2) copies of a land use compatibility statement from the appropriate land use authority that your proposed land use is compatible with the LCDC acknowledged comprehensive plan or statewide planning goals.

5. Copies of all correspondence and field notes relating to past evaluations for septic tank-drainfield development on the subject property. A copy of the site evaluation report must be included.

6. Two (2) copies of narrative description of your variance proposal including the system construction specifications. Please list the step-by-step procedures that you propose to be followed for the installation of this system.

7. On a plot plan draw to a defined scale not smaller than one inch equals thirty feet, show the location and dimensions of the proposed drainfield and its replacement area. Indicate separation distances between disposal trenches, wells, springs, water courses, agricultural drainage tile, ditches, drainage ways, waterlines, buildings, roads, embankments, and other identifying features which help demonstrate parcel to drainfield relationships. Please provide two (2) copies.

8. Two (2) copies of a profile view of the proposal which illustrates the projected drainfield layout, trench dimensions, backfill depth, boundaries, (in cases where a crown over the drainfield is proposed), slope direction and percent of slope.

Hardship variances may be considered in cases of extreme and unusual hardship. The following factors may be considered: Advanced age or bad health of applicant; need of applicant to care for aged, incapacitated or disabled relative; and relative insignificance of the environmental impact of granting a variance. Documentation of hardship must be provided. FOR HARDSHIP CONSIDERATION MARK THIS BOX. [ ]

A minimum of two test pits must be provided within the specific area where the actual variance system is being proposed. The pits should be approximately two feet wide, four feet long, and excavated to either bedrock or to a depth of five (5) feet. Similar pits must be provided in the area of the repair system. The Variance Officer may require the proposed drainfield and the future replacement drainfield be staked out.

Please note that it is your responsibility to present all of the facts and the reasoning which you feel justifies the granting of the variance.

By my (our) signature(s), I (we) request the Department of Environmental Quality act on this application and hereby grant permission to enter onto the above described property.

Gordon Herigstad — Signature of Owner
1-20-93 — Date

Signature of Owner — Date

NOTE: All owners must sign this application form. If there are more than two (2) owners, attach additional duplicate applications.

* Pursuant to ORS 454.662, the applicant is not required to submit the application fee if, at the time of filing the application, the applicant is 65 years of age or older, is a resident of the State of Oregon, and has an annual household income, as defined in ORS 310.630, of $15,000 or less. Appropriate documentation must be submitted with the application.

XL151 (h)
DEQ/WQ-406 Revised (10/29/86)

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
522 S. W. FIFTH AVENUE
P.O. BOX 1760
PORTLAND, OR 97207

FOR DEQ USE ONLY

LAND USE COMPATIBILITY STATEMENT
FOR ON-SITE SEWAGE DISPOSAL SYSTEMS

APPLICANT'S NAME	MAILING ADDRESS	PHONE
GORDON HERIGSTAD	208 SO. FREDERIC ST, APT B BURBANK, CALIF. 91505 CITY STATE ZIP	818-5661776

PROPERTY LOCATION

TOWNSHIP	RANGE	SECTION	TAX LOT OR ACCT NO
20	11	07C	04200
SUBDIVISION/PROJECT	LOT	BLOCK	COUNTY
	14	16	DESCHUTES

☐ PROPERTY IS A LOT OF RECORD CREATED BEFORE AUGUST 1, 1981.

PROPOSED LAND USE
residential - single family

STATEMENT OF COMPATIBILITY FROM APPROPRIATE LAND USE AUTHORITY
(An equivalent statement may be provided in lieu of this form)

PROPERTY'S ZONING DESIGNATION
Flood Plain / Landscape Management (FP/LM)

THE ABOVE PROPOSAL HAS BEEN REVIEWED AND FOUND TO BE:

☒ COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN
☐ CONSISTENT WITH THE STATEWIDE PLANNING GOALS
OR
☐ NOT COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN
☐ NOT CONSISTENT WITH THE STATEWIDE PLANNING GOALS

REASON FOR FINDING OF COMPATIBILITY/INCOMPATIBILITY
Compatible only with a conditional use permit for floodp

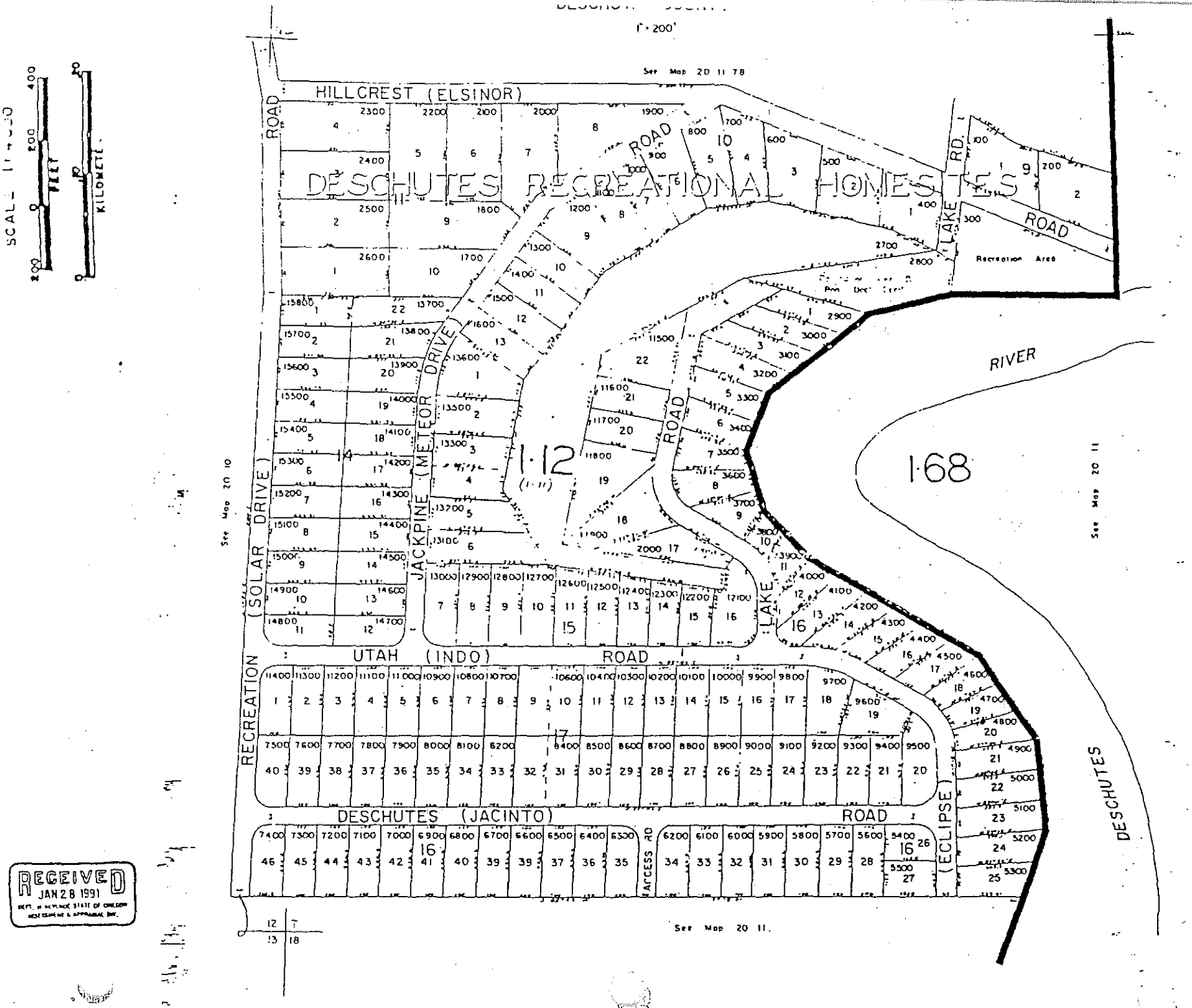
PROPERTY IS LOCATED (CHECK ONE)
☐ INSIDE CITY
☐ INSIDE URBAN GROWTH BOUNDARY OUTSIDE CITY LIMITS
☒ OUTSIDE URBAN GROWTH BOUNDARY

LAND USE AUTHORITY
Deschutes County Community Development Department

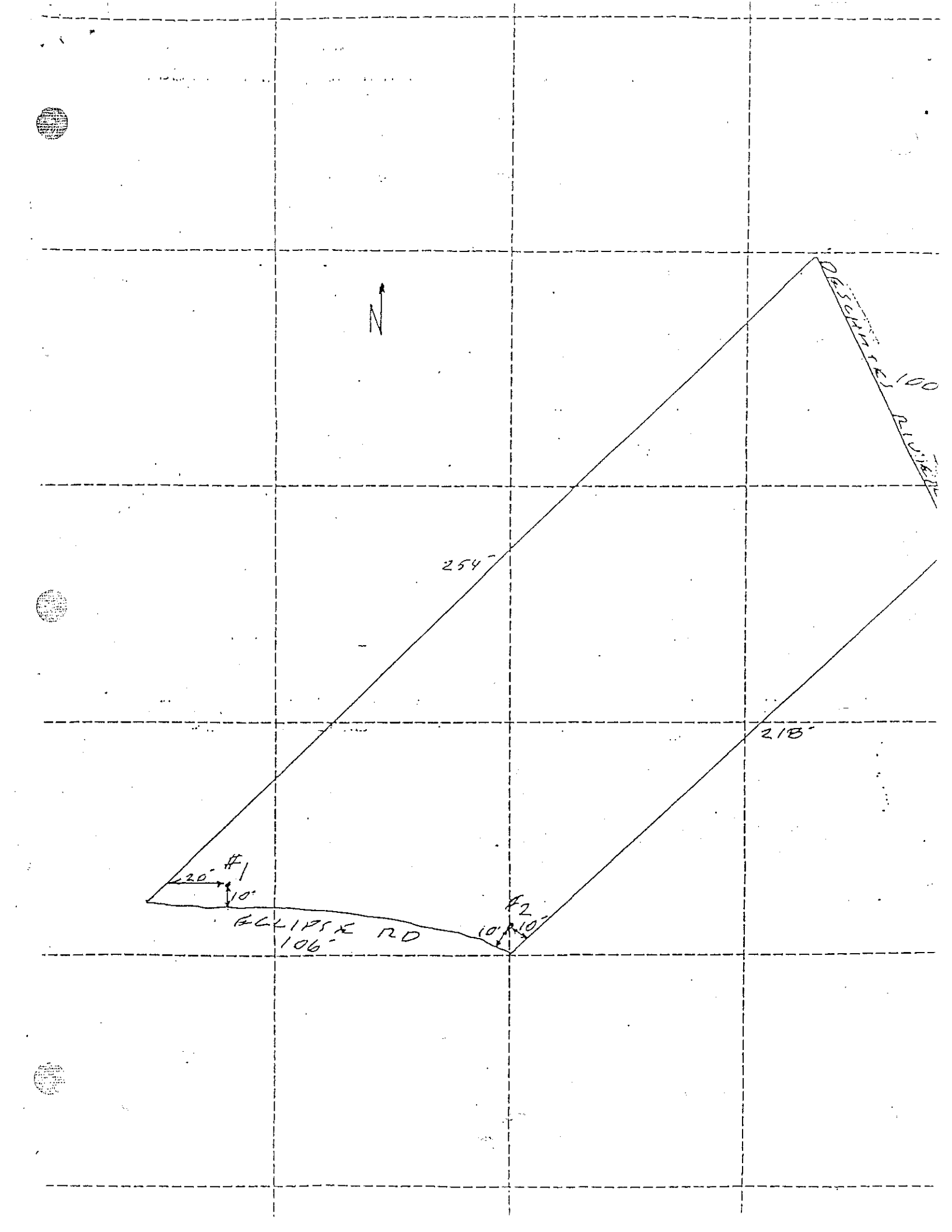
SIGNED	TITLE	DATE
(Williams Munro)	Associate Planner	7/19/93

☐ CITY/COUNTY CONCURRENCE IF INSIDE URBAN GROWTH BOUNDARY

SIGNED	TITLE	DATE

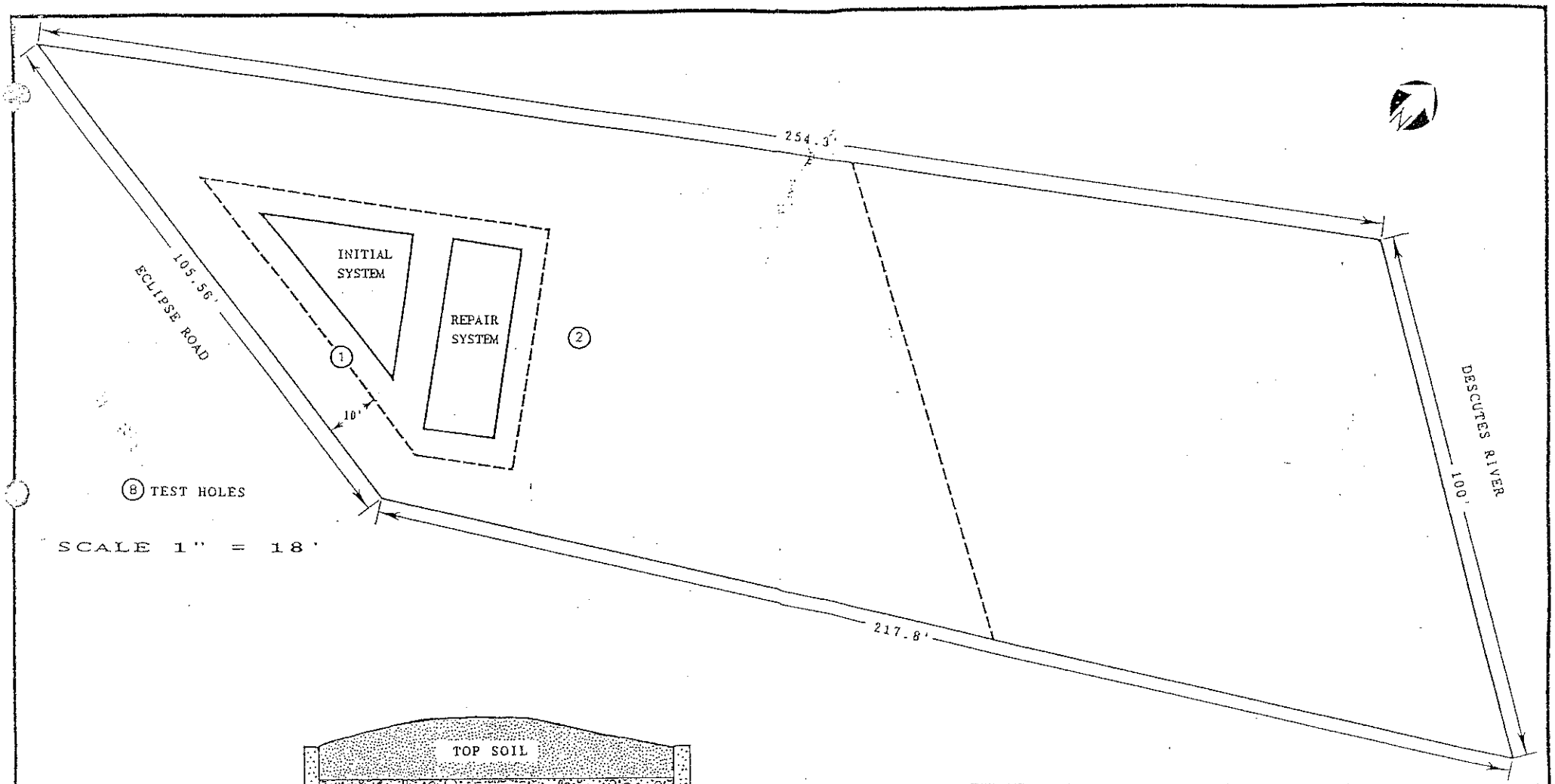


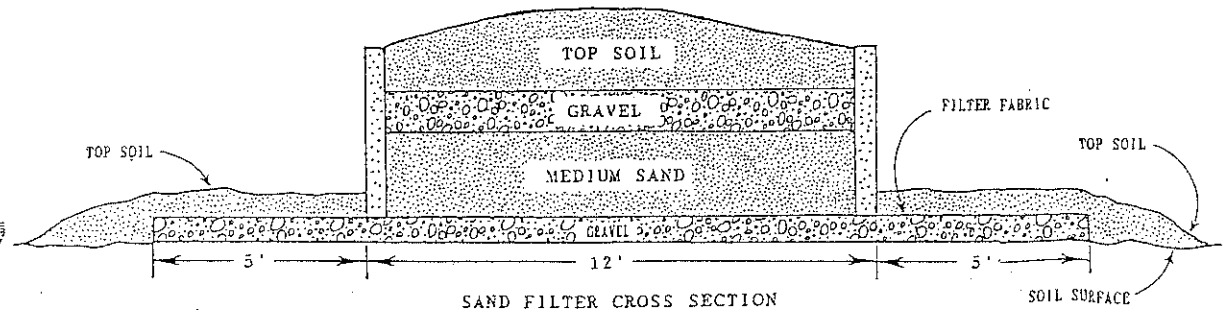
RECEIVED
JAN 28 1991
DEPT. OF REVENUE STATE OF OREGON
ASSESSMENT & APPRAISAL DIV.


N
DESCHUTES RIVER
100
254'
218'
#1
20'
10'
#2
10'
10'
ECLIPSE RD
106'

DIRECTIONS TO THE PARCEL

Proceed south of Bend on Highway 97. Turn right at the Sunriver exit. Cross the Deschutes River and turn left at the second road (Solar Drive) proceed for about 1 mile to Kingsburg Road. Turn left on Kingsburg Road and go 0.4 miles to Eclipse Drive. Turn left on Eclipse Drive and go 0.2 miles to the parcel on the right, just past the gray house with the blue roof.





SAND FILTER CROSS SECTION

FIGURE 1

PLOT PLAN OF PROPOSED ON-SITE SEWAGE SYSTEM

GORDON HERIGSTAD
Deschutes County, Oregon
August 1993

Paeth Consulting

1984

MOUNTAIN VIEW PROPERTIES
REAL ESTATE
(503) 593-1274
Broker
Res. 593-2115
MARK HALVORSEN
P.O. Box 4137 • Sunriver Business Park • Sunriver, OR 97701

DESCHUTES RIVER RECREATION HOMESITES

2543 FT X 100 FT RIVER FRONT
BY 217.8 FT X 1056 STREET FRONT

Lot 14
Block 16

Abandoned

ON LOT #39 & 40 BLOCK 28

189.6 X 116 FT. WIDE

KEN WYATT

ATTACHMEN

COMMUNITY DEVELOPMENT DEPARTMENT
COURTHOUSE ANNEX/Bend, Oregon 97701
Environmental Health
(503) 388-6561

May 10, 1984

IFG Leasing Co
PO Box 4337
Sunriver, OR 97702

Re: T 20, R 11, S 7C, TL 4200
71-84 D

Dear IFG Leasing Co :

This letter is in response to your on-site sewage disposal system site evaluation conducted on May 4, 1984.

The property has closely scattered trees and a brushy ground cover.

The test pits revealed the following soil conditions: 0 - 12 inches, coarse loamy sand, 12 - 26 inches, coarse loam, with the water table at 26 inches. The test pit indicates that the seasonal, permanent water table reaches to with 12 inches of the ground surface.

The test pit shows that this site is unsuitable for any on-site sewage disposal system.

You may have additional test pits examined by this department within 90 days of the initial site evaluation with no additional evaluation charge.

You may also apply for a denial review. This review is conducted by the Department of Environmental Quality Central Region Office. A written request must be submitted within 30 days of this denial notification. A $60.00 denial review fee is charged.

A variance may be applied for at the Department of Environmental Quality Central Region Office located at 2150 NE Studio Road, Bend, Oregon. A $225.00 fee will be charged by that agency.

Jay E. Langley
Sanitarian

71-84

APPLICATION FOR INDIVIDUAL SITE EVALUATION

The following information is required to complete an application for a site evaluation. Please be as accurate and complete as possible:

Township 20 Range 11 Section 7C Tax Lot 4200

Subdivision Deschutes River Recreation: Home sites Lot 14 Block 16

Parcel Size _____ Sq. Ft or 5 4k 2n/4 Acres

Are there any bodies of water (e.g., streams, springs, canals, ponds) on or adjacent to this property? X Yes _____ No

Are there existing or porposed wells on the property? _____ Yes well is proposed

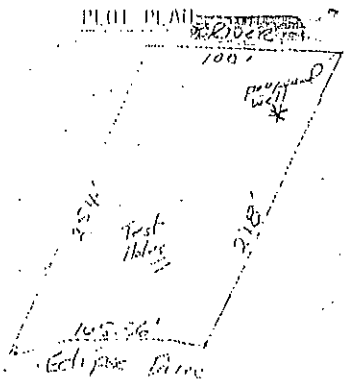
Are there existing wells on the adjacent property? _____ Yes X No

Are there any encumberances (e/g/ liens, easements) which could prevent the installation of a subsurface sewage disposal system? _____ Yes X No

Test Holes are READY _____ Test Holes are NOT ready WILL BE DUG WHEN INSPECTOR IS ON PROPERTY

In the area below, sketch the parcel showing the location of: 1. Property lines and dimensions, 2. Existing and proposed wells, 3. Wells on adjacent lots, 4. All bodies of water, 5. Escarpments, 6. Location of test holes.

PLOT PLAN



The Deschutes County Environmental Health Section will not be held responsible
for any problems or denials resulting from incorrect or incomplete information
***supplied by the applicant.

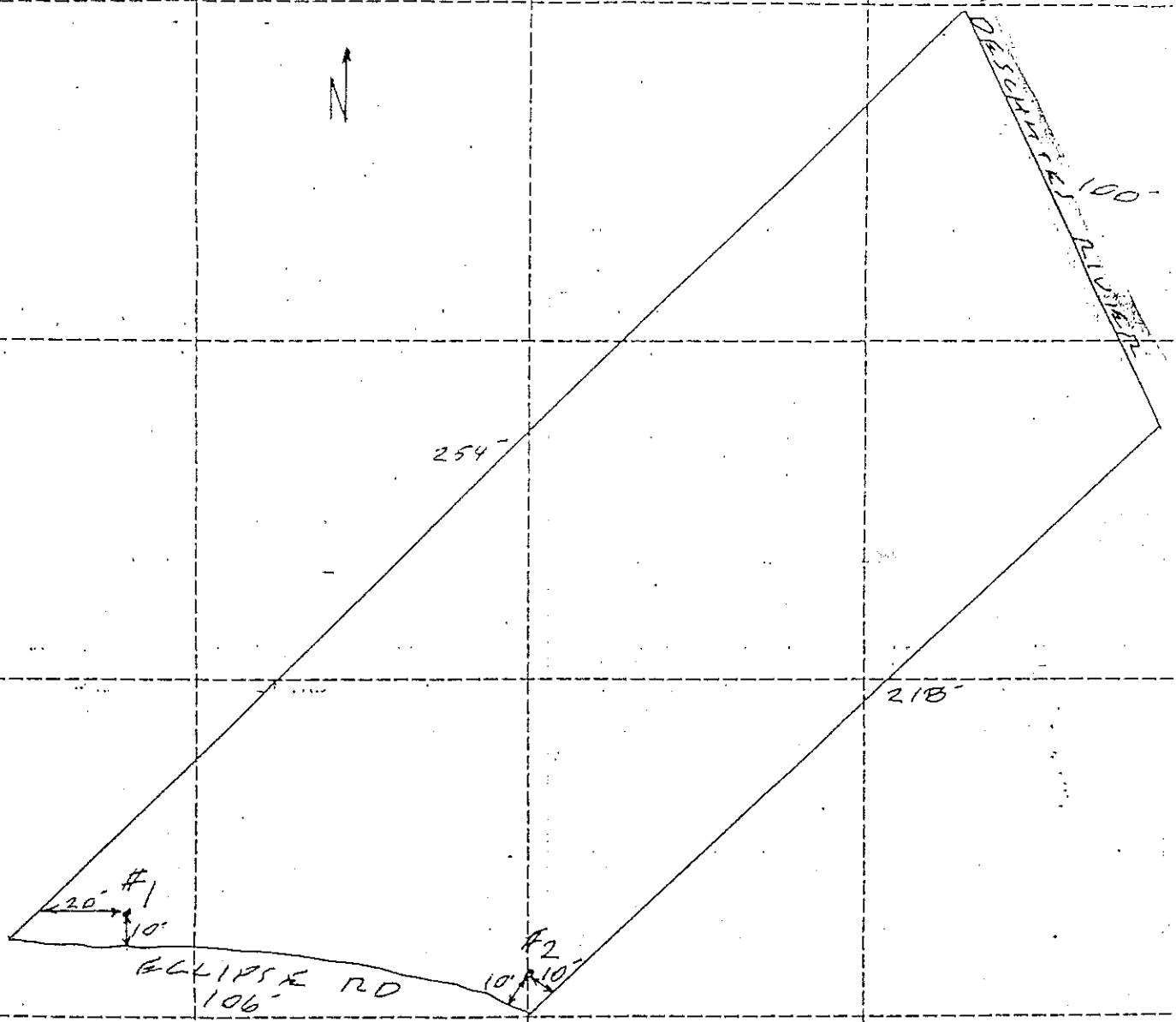
Name of Applicant IFG Leasing Co.

Address c/o MT VIEW PROPERTIES, PO Box 4337 Phone Number 593-1274
SUNRIVER, OR 97702

City, State, Zip Code SUNRIVER, Oregon 97702

Signature [signature] Date

Receipt Number 5658 Amount 165.00


N
DESCHUTES RIVER
100'
254'
218'
#1
20'
10'
#2
10'
10'
ECLIPSE RD
106'

SITE EVALUATION FIELD WORKSHEET

ATTACHMENT

Applicant TFG LEASING CO. Feas. # 71-84

Subdivision DRRH L 14 B 16 T 20R 11 S 7C TL 4200

EVALUATOR: Tom McDaniel DATE: 5-4-84

	Depth	Texture	Soil Matrix Color and Mottling (Notation), %Coarse Fragments, Roots, Structure, Layer Limiting Effective Soil Depth, etc.
Pit 1	0-12"	COLS	10 YR 5/3 ROOTS TO 26"
	12-26"	COL	10 YR 5/2 NO MOTTLING
			WATER AT 26"
Pit 2			SAME AS #1
Pit 3			
Pit 4			

Landscape Notes CLOSELY SCATTERED TREES, BRUSHY GROUND

Slope FLAT Aspect — Groundwater 26"

Other Site Notes

Residential ✓ Commercial SYSTEM SPECIFICATIONS Filter Fabric

Type System: Design Flow gpd

Initial System Sizing /150 g. Max. Depth Absorption Facility (in)

Replacement System Sizing /150 g. Max. Depth Absorption Facility (in)

~~Special Conditions~~

REMOVAL BASED ON LAV CHITTIM SOIL CONDITION TO WITHIN 12" OF ~~XXX~~ GROUND SURFACE. WATER TABLE JUDGED TO BE PERMANENT

PLOT PLAN ON REVERSE SIDE

KG2055

State of Oregon
Department of Environmental Quality

Memorandum

Date: December 29, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item J, Variance Application of Mr. and Mrs. Stephen W. Wilkins, EQC Meeting: January 11-12, 1996

Background

Mr. and Mrs. Stephen W. Wilkins (hereinafter "Appellant") purchased property located at Lot 69, Block 70, Deschutes River Recreation Homesites (hereinafter "property'), in September 1988. Prior to their purchase of the property, an inspection was performed by Deschutes County for on-site septic disposal approval. The evaluation report from this inspection, dated June 2, 1978, stated that the property was suitable for installation of a septic tank for a residence since the depth of the water table was over 5 1/2 feet. In 1979 a permit was issued by Deschutes County for construction of a sewage disposal system. The system was constructed and a Certificate of Satisfactory Completion was issued in 1980.

On August 9, 1993, an inspection of the property was done by Deschutes County in response to an application to place the system in service. Due to soil profiles observed in the test pits, including mottling at approximately 15 inches from the surface, the County inspector concluded that water was likely to be present at less than 24 inches from the surface for extended periods of time. Based on this and other observations, the county felt that the system could cause pollution to public waters and denied the request to place the system into service.

Appellant submitted a request for a variance on June 17, 1994 and a hearing was held at the property on September 7, 1994. In Appellant' request, he suggested that (1) the mottling be considered relict because water levels are now regulated by Wickiup Dam, (2) the property is higher than adjacent properties with shallow water levels and (3) for 15 months, no standing water has been observed in the test holes.

At the hearing on the property, two test pits were examined by Sherm Olson, as variance officer for DEQ. Static groundwater levels were at 63 inches and 73 inches. Two neighboring lots had water levels at 28 inches and 26 inches below the surface. The variance officer determined that these lots are slightly higher than the property. Based on these observations, the variance officer did not feel that the mottling was relict.

Appellant proposed to install a sand filter treatment unit, constructed to discharge through it bottom onto the underlying soil. Although the proposed system requires variance from va

administrative rules (See Attachment #15 which details the grounds for the variance denial), the variance officer was particularly concerned with the maintenance of the 24 inch separation distance between the bottom of the facility and the permanent water table. The request for a variance was denied on March 3, 1995. The Appellant timely appealed the denial and the matter was referred to Lawrence Smith for review and issuance of a preliminary order.

On September 25, 1995, Mr. Smith issued a Preliminary Order and Opinion. In that order, Mr. Smith denies the request for a standard variance, upholding all but one of the variance officer's reasons for denial. On December 21, 1995, Appellant took exception to the Preliminary Order and Opinion as follows:
(1) The Order states that although "The lot was first approved for an on-site sewage system[,] [a]pplicant has not alleged that they detrimentally relied on this prior approval so there is no issue of estoppel." Appellant contends that the purchase of the property was partially based upon a Certificate of Satisfactory Completion.
(2) There was a recent approval for a system only two lots removed from the property.
(3) Appellant continues to contend that the proposed sand filter system is adequate to protect the waters of the state especially since the property is outside the flood plan.

Authority of the Commission with Respect to the Issue

ORS 454.605 to 454.745; OAR 340-71-415

Alternatives and Evaluation

The Commission may either uphold or reverse either part or all of the Hearings Officer's Preliminary Order and Opinion. The Variance Officer recommends that the Commission uphold the Hearings Officer's order as written.

Attachments

1. Evaluation Report of Suitability of Proposed Sewage Disposal, dated June 2, 1978.
2. Building Permit, dated 1979.
3. Building Permit, dated April 28, 1980.
4. Septic Tank Permit, dated July 16, 1987.
5. Certificate of Satisfactory Completion, dated November 24, 1980.
6. Site Evaluation Field Inspection Form, dated August 9, 1993.
7. Denial of On-Site Sewage Disposal by Deschutes County, dated August 16, 1993.
8. Amendment of Denial Letter dated August 16, 1993, dated Octob28, 1993.
9. Variance Application and Attachments, dated June 15, 1994
10. Letter from Stephen W. Wilkins, outlining reasons for request for variance, dated June 15, 1994.

11. Letter from Sherm Olson indicating what further information was required for variance application, dated June 24, 1994.
12. Letter from Stephen W. Wilkins, including detailed plans and descriptions of proposed system, dated August 15, 1994.
13. Letter from Sherm Olson setting date of variance hearing, dated August 25, 1994.
14. Site Evaluation Field Worksheet, dated September 7, 1994.
15. Denial of Variance Application by Department of Environmental Quality, dated March 3, 1995.
16. Notice of Appeal, dated March 17, 1995.
17. Preliminary Order and Opinion, dated September 25, 1995.
18. Letter responding to Preliminary Order and Opinion, dated December 21, 1995.

Report Prepared By: Susan M. Greco
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December 21, 1995

VIA FACSIMILE AND REGULAR MAIL: (503) 229-5850

SUSAN GRECO
OREGON DEPT. OF ENVIRONMENTAL QUALITY
811 SW SIXTH AVE.
PORTLAND, OR 97204-1390

Re: Mr. and Mrs. Stephen Wilkins/Variance Application
Lot 69, Block 70, Deschutes River Recreation Homesites

Dear Ms. Greco:

The purpose of this letter is to respond to the Preliminary Order and Opinion issued by the Hearings Officer regarding the variance application for property located at Lot 69, Block 70, Deschutes River Recreation Homesites.

In the Preliminary Order, the Hearings Officer states as follows:

> "Applicant has not alleged that they detrimentally relied on this prior approval, so there is no issue of estoppel."

This is quite contrary to what is in the file. The Applicants purchased this property in September of 1988, based upon a Certificate of Satisfactory Completion for a subsurface sewage system, Permit No. 09-440-80, dated November 24, 1980. It was based upon this Certificate of Satisfactory Completion that the Applicants purchased the property, with the understanding and belief that there was a septic system that was suitable for the construction of a single-family residence as allowed by the zoning. A copy of that Certificate of Satisfactory Completion is attached hereto as Exhibit "A".

There is also extensive documentation in the file that the test holes were, in fact, left open for a period of nearly two years and the Applicants never observed any subsurface water in any of those test holes during that entire period of time.

Next, the Applicants submit a Site Plan and Sand Filter Drainfield Layout, which complies with the setback requirements distanced from an existing well located outside the 100-year flood plain. The Site Plan is attached hereto as Exhibit "B". Applicants further submit, from Orenco Systems, Inc., a Sand Filters and Shallow Drainfields Report, which substantiates the fact that a sand filter and drainfield would be suitable for this particular site. The Report is attached hereto as Exhibit "C".

I am also enclosing a copy of a letter from the Deschutes County Planning Department (Exhibit "D") which confirms the property has sufficient area outside the flood plain so that no special conditional use permit or variance is required to construct a residence.

There have also been continuing statements about the observation of water levels on neighboring lots. However, the file does document that there was approval given March 9, 1993 to a subsurface pressure distribution system on Lot 67, Block 70, Deschutes River Recreation Homesites, which is only two lots removed from the Applicants' property.

This is an issue that has become extremely discouraging and very upsetting to the Applicants. Applicants purchased this piece of property with a Certificate of Satisfactory Completion of a subsurface disposal system believing that they would be able to build a single-family residence utilizing the existing subsurface system. They see other lots in the immediate vicinity receive approvals for subsurface disposal systems with fewer restrictions and safeguards than they themselves propose with their sand filter system. Finally, after two years, they do not see the presence of any ground water, as alleged by the variance officer in his report.

The position of the Department of Environmental Quality renders this piece of property of no value whatsoever to the Applicants or to anyone else. It appears from the record and from the decisions of the variance officer that this decision is based upon a very subjective conclusion that there may be groundwater based on other observations in the area, rather than based upon a thorough analysis of whether the Applicants' proposed system would work on this particular lot based upon the best available technology. If there had never been a system installed and approved, the Applicants could perhaps understand the position of the Department. But when the system has been installed and approved, and they are willing to substantially upgrade that system using the latest technology, it is difficult for the Applicants to understand the position of the Department.

Robert S. Lovlien

ROBERT S. LOVLIEN

RSL/alk
Encl.
cc: Mr. and Mrs. Stephen Wilkins
(RSL:WILKINS.003)

EXHIBIT "A"

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY

CERTIFICATE OF SATISFACTORY COMPLETION

SUBSURFACE OR ALTERNATIVE SEWAGE SYSTEM

Permit Number 09-440-80 Date 11-24-80

Name of owner MONTY MOORE

Mailing address 50630 DEER FOREST DR. LA PINE, OR

Installer's name FRANK JAVORY

Sewage-Cesspool license No. 65241

Business address BOX 524, LA PINE

Exact location of proposed sewage disposal system DESCHUTES RIVER RECREATION HOMESITES Lot 69 Block 70

Total number: Living Units _____ Bedrooms 1-4 Baths _____

Water supply: Public system ☐ Community system ☐ Well ☑ Spring ☐ Cistern ☐

Septic tank: Material CONCRETE Total liquid capacity 1000 gal.

Distance from: Well, springs, or cistern 50 ft. Building foundation _____ ft.

Sub-surface tile or perforated pipe disposal field PLASTIC Other _____

Distribution box: Yes ☐ No ☑

Length each line: 50 50 50 ft.

Total length: . . . . . 150 ft.

Width of trench: . . . . . 2 ft.

Total square footage: . . . . . 300 ft.

Distance between lines: . . . . . 10 ft.

Filler material: Type RIVER ROCK Size 1-3 in.

Distance of sub-surface or other type of system from:

Water line _____ ft. Cistern _____ ft.

Well — ft. Spring _____ ft.

Nearest:

River _____ ft. Stream — ft. Lake — ft.

Nearest lot line:

Front 10 Side 15 Rear _____ ft.

Nearest foundation — ft.

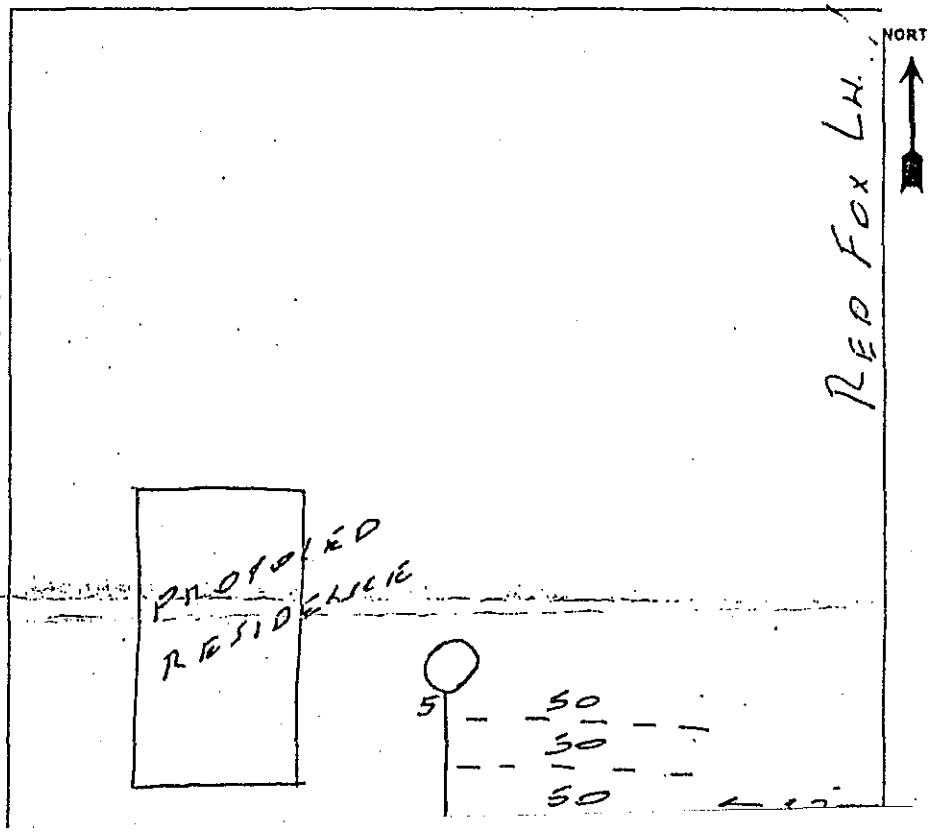
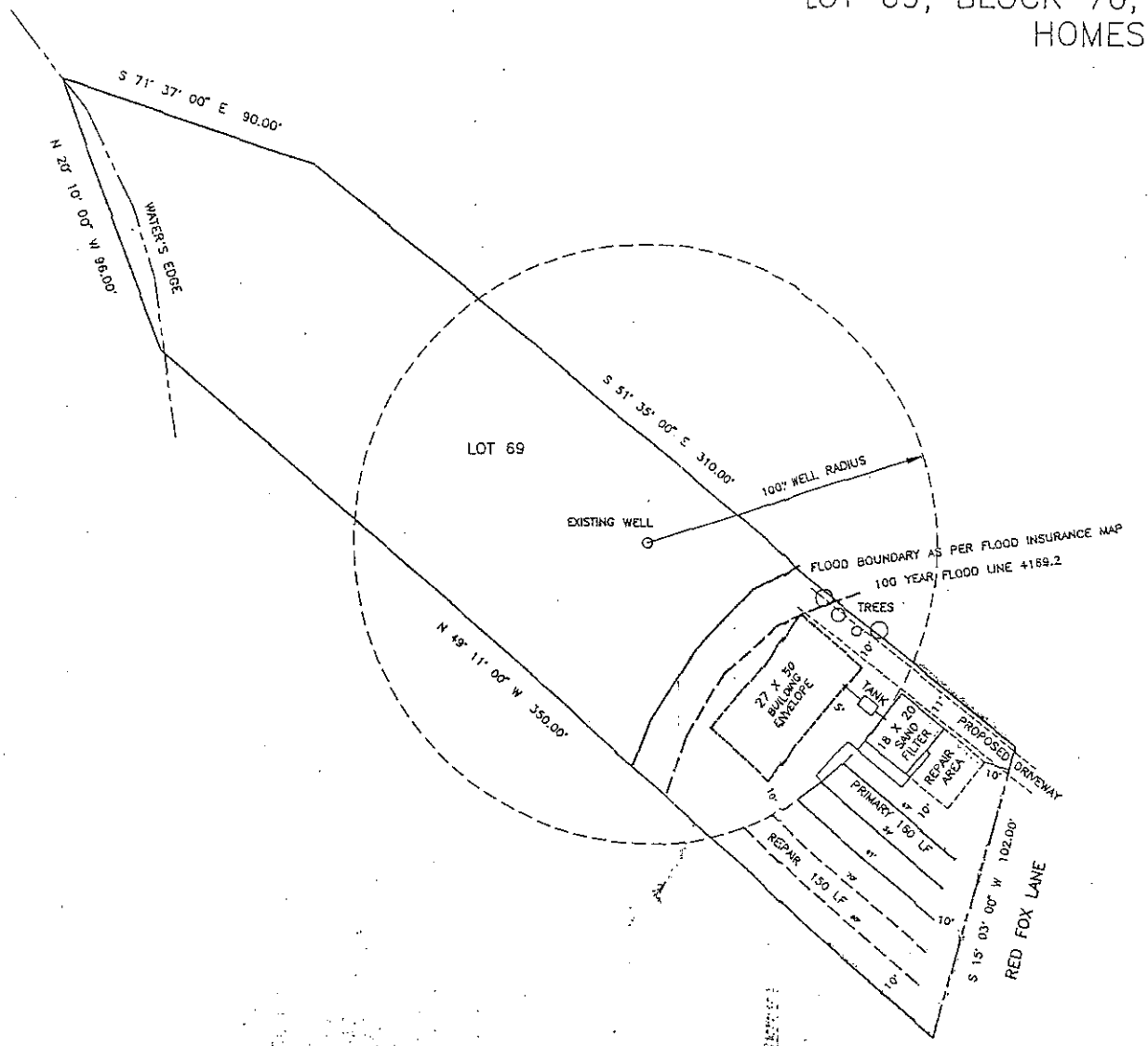
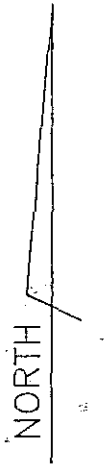


EXHIBIT "B"

SITE PLAN AND SAND FILTER D INFIELD LAYOUT FOR STEVE AND BONNIE WILKINS - - LOT 69, BLOCK 70, DESCHUTES RIVER RECREATION HOMESITES, UNIT 6, D.C.O.

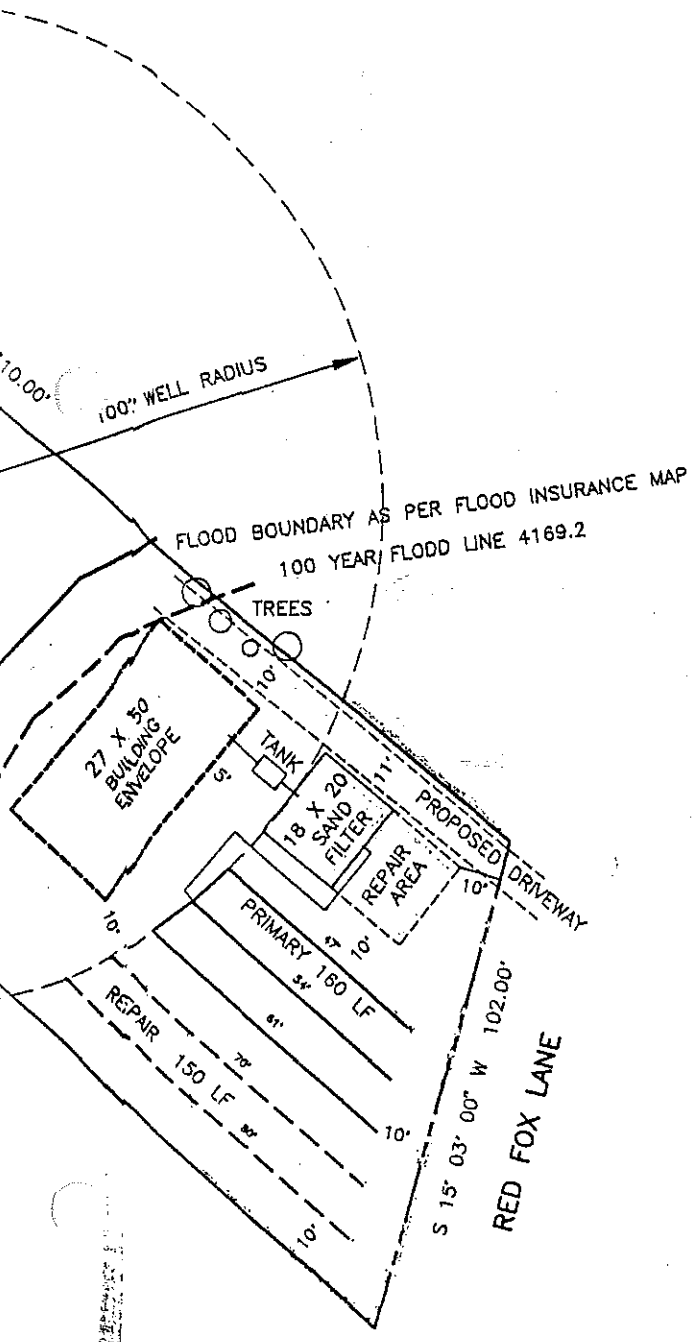


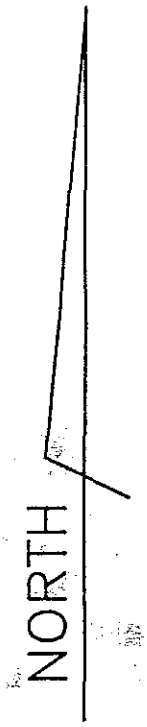


SCALE: 1"=30'

EXHIBIT "B"

SITE PLAN AND SAND FILTER DRAINFIELD LAYOUT FOR STEVE AND BONNIE WILKINS LOT 69, BLOCK 70, DESCHUTES RIVER RECREATION HOMESITES, UNIT 6, D.C.O.





SCALE: 1"=30'

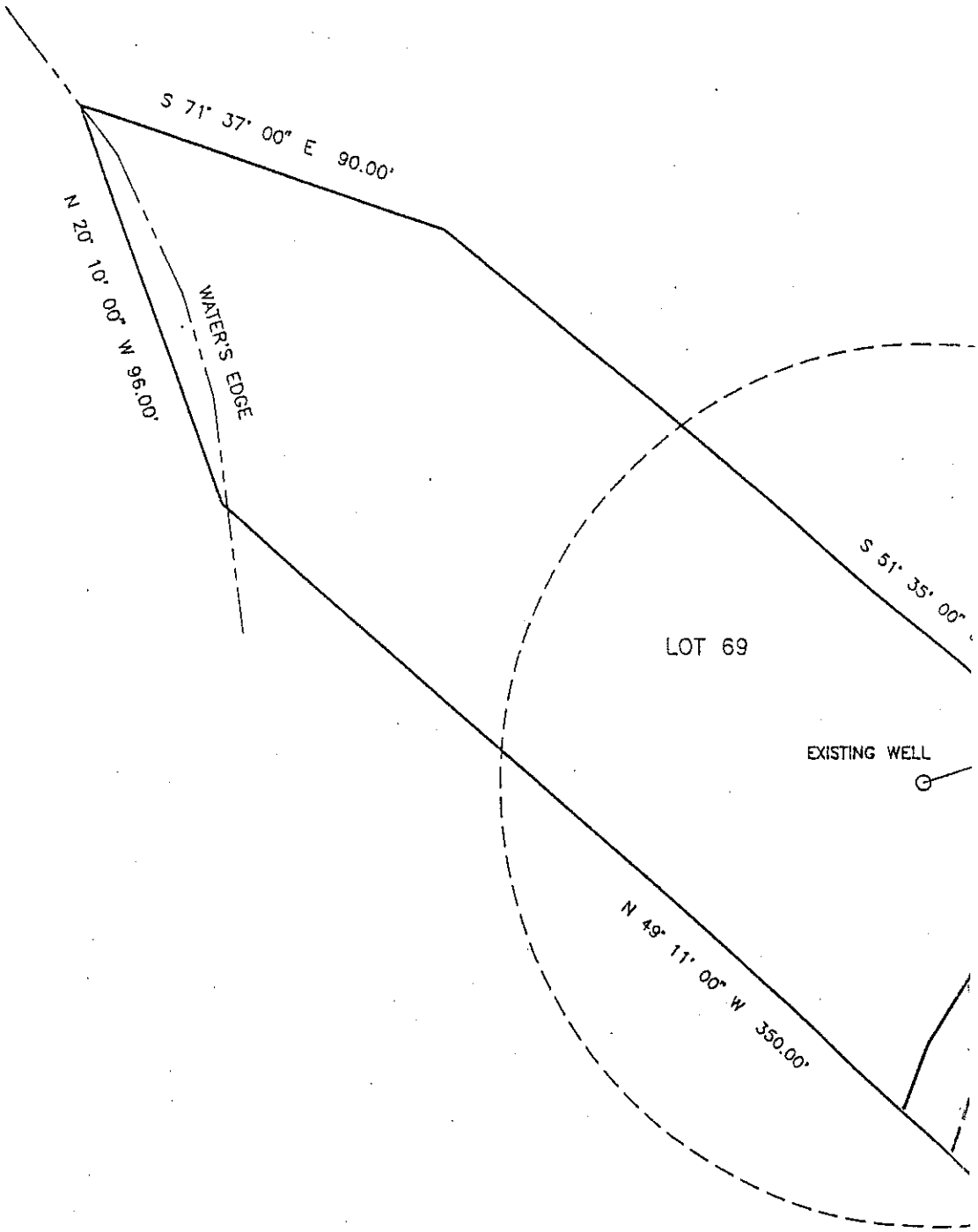

S 71° 37' 00" E 90.00'
N 20° 10' 00" W 96.00'
WATER'S EDGE
S 51° 35' 00"
LOT 69
EXISTING WELL
N 49° 11' 00" W 350.00'

EXHIBIT "C"

SAND FILTERS AND SHALLOW DRAINFIELDS

Harold L. Ball, P.E.
Orenco Systems, Inc.
2826 Colonial Road
Roseburg, Oregon 97470

INTRODUCTION

Since 1976, in the states of Oregon, Washington and California, more than 10,000 intermittent sand filters (ISFs) serving single-family homes have been installed. In the same time period more than 200 recirculating sand filters ranging in capacity from 500 gallons to more than 180,000 gallons per day have gone into operation. More recently, sand filter technology is being introduced in Alaska, Montana, Idaho, Massachusetts, and British Columbia, Canada, where smaller and more efficient filter systems are being installed. Audits and routine monitoring by county and state agencies have continued to show excellent results. The high quality of sand filter effluent means that on-site wastewater disposal systems can be successful even in marginal soils. Low maintenance, reliability and reasonable cost have made sand filters an ideal choice for wastewater disposal when sewers are not available and conventional septic tank-drainfield systems are not feasible.

INTERMITTENT SAND FILTERS

Effluent Quality

ISF effluent is clear, colorless, and odorless. Its quality was first documented in Oregon by the Department of Environmental Quality (Ronayne et al., 1982). Biochemical oxygen demand (BOD_5) and suspended solids (TSS) were consistently less than 5 mg/L, ammonia was less than 1 mg/L, nitrates averaged 30 mg/L, and fecal coliform bacteria averaged a little more than 400 organisms/100 ml. Recent field trials by Orenco Systems (OSI) have shown that addition of a small recirculating trickling filter unit to the septic tank (Fig. 6) preceding a residential sand filter can reduce the total nitrogen leaving the sand filter to less than 10 mg/L, and reduce BOD and TSS levels to less than 1 mg/L.

Drainfield Requirements

Seventeen years of observing drainfields that follow sand filters has made it clear that biomat formation does not occur and that sand filter effluent is absorbed in drainfields at considerably higher rates than usually are reported for septic tank effluent. A recirculating sand filter serving the community of Dexter, Oregon, is followed by a drainfield that has been loaded at more than 16 gpd/sqft (bottom area) for ten years. Both Oregon DEQ and the Washington State Health Department allow reductions in drainfield area following sand filters. Even where regulations do not allow such reductions, they occur de facto: sand filter effluent that flows by gravity to a drainfield invariably soaks into the soil within 20 to 30 feet of the first drop box.

The high quality of effluent produced by an ISF opens up the potential for very shallow drainfields that don't require imported rock fill. A gravel-less drainfield at OSI facilities in Roseburg, Oregon, has been receiving effluent from various experimental sand filters for five years. Ten inches deep, 12 inches wide and 40 feet long, it is loaded at an average of more than 600 gpd. The soil is 28 inches f silt loam underlain by a claypan with wintertime ground water at a depth of 18

inches. This drainfield exhibits no visible evidence that wastewater is being applied and is completely odorless.

Particularly when nitrate loading is a concern, shallow drainfields merit consideration. Measurements of flows in septic tank effluent pumping systems involving thousands of homes have demonstrated that the average wastewater generation per person is less than 50 gpd. Therefore, the nitrate nitrogen contribution to the soil from an ISF, which reduces total nitrogen by nearly 50%, is annually about 3 lbs per person. If rules allowed very shallow gravel-less trenches and subsurface landscape irrigation, nitrate levels could be further reduced before the wastewater reaches the ground water. Not only do shallow trenches provide the opportunity for increased denitrification (Wert and Paeth, 1985; MacVicar, 1958), but the increased proportion of effluent exposed to the root zone allows more nitrate to be removed from the soil by plants. Since 98% of soil biota are found in the top 16 inches of soil, placing the sand filter effluent as close to the ground surface as possible means that further treatment by microbial action is greatly enhanced. When nitrogen levels in septic tank effluent are diminished by trickling filter treatment prior to the effluent's application to a sand filter, the amount of nitrogen contributed to ground water by the ISF effluent becomes negligible.

Typical Intermittent Sand Filter (West Coast)

The simplicity of the system may lead to the assumption that it's easy to throw together an ISF and once in, it can be ignored. The truth is, the success of an ISF depends on sound construction techniques, the satisfactory operation of all its component parts, and annual maintenance. Every documented problem or failure has been a result of ignoring proven methods or of blatant abuse by the homeowner. These have run the gamut from installing dirty sand and failure to maintain open orifices to disposal of byproducts of illicit drug manufacture into the ISF system.

The most up-to-date regulations for sand filters are found in Oregon; however, other regions, most notably British Columbia, and Placer, Lake, and Calaveras counties in California, are making rapid advances. The following description follows Oregon DEQ rules, which are currently in the process of being updated. Figure 1 is a schematic

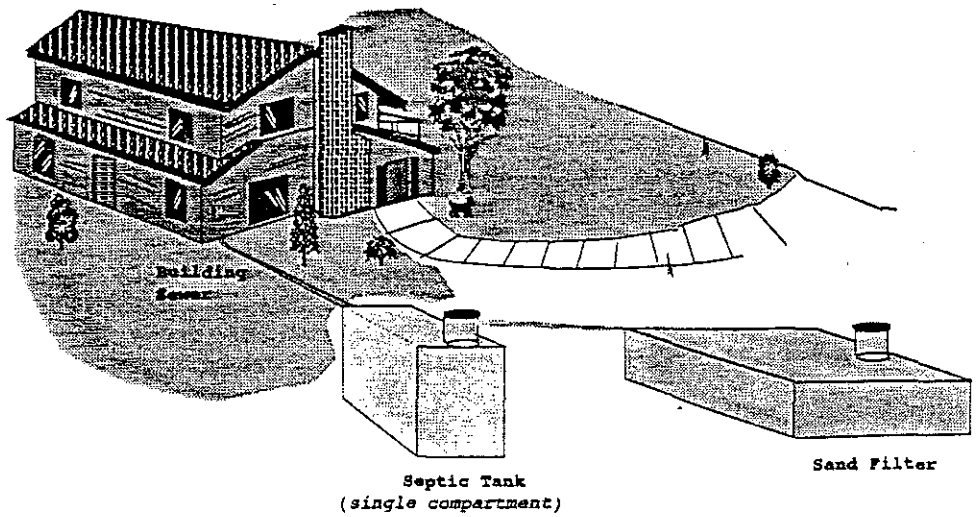


Fig. 1 Intermittent Sand Filter System

of a residential ISF system. All the wastewater from the home discharges to a septic tank. A pump housed in a screened vault within the septic tank doses the septic tank effluent onto the sand filter. After the effluent drains through the

sand into the bottom gravel layer, it either drains out through a four-inch PVC pipe to the drainfield or is dosed to the drainfield by a pump located in a basin within the sand filter.

Figure 2 depicts what Oregon calls a dosing septic tank. Typically it's a 1000-gallon, single-compartment, structurally-sound, watertight tank, either fiberglass or concrete. Oregon approved tanks must be designed by an engineer and certified

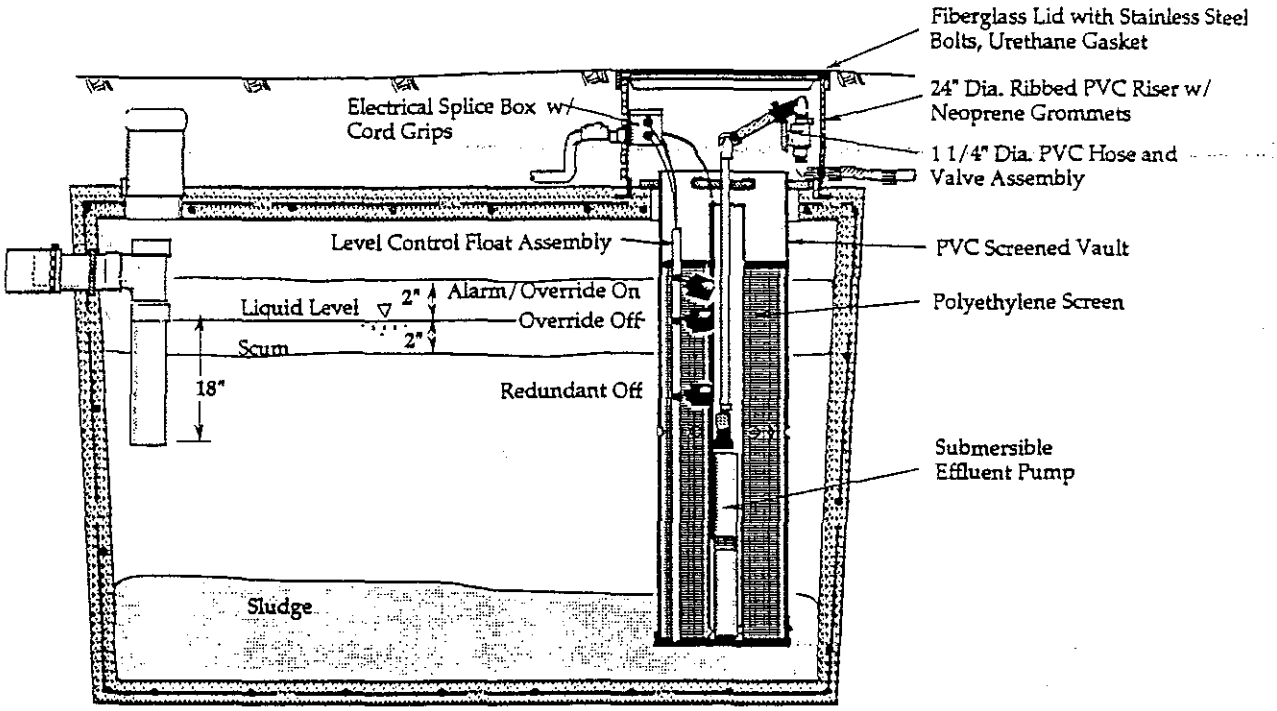


Fig. 2 Typical 1000-1500 Gal Dosing Septic Tank with Effluent Pumping System

watertight by the manufacturer. Unfortunately, elsewhere in the United States, very few manufacturers sell quality tanks. As long as on-site rules do not require them, even manufacturers who want to do a good job cannot make quality tanks and price them to compete with shoddy ones. If safe and reliable on-site wastewater disposal is to be realized, ensuring the availability of structurally-sound, watertight septic tanks is critical.

The dosing septic tank is equipped with an easily removable screened vault housing a pump. A basic pump system as shown in Fig. 2 consists of the following components:

Pump: High-quality submersible turbine type pumps are recommended because of their extreme resistance to corrosion, long life (250,000 to 2 million cycles), light weight (30 lbs), and their ability to pump the 20 to 30 gpm required at heads up to 200 feet or more. The very steep performance curve characteristic of these pumps (Fig. 3) is a valuable asset when pressure dosing. If a few orifices begin to clog, reduced flow causes pressure to increase enough to clear the clogging.

Splice Box: This is required so the electrical components (pumps and float switches) can be safely and legally removed and replaced.

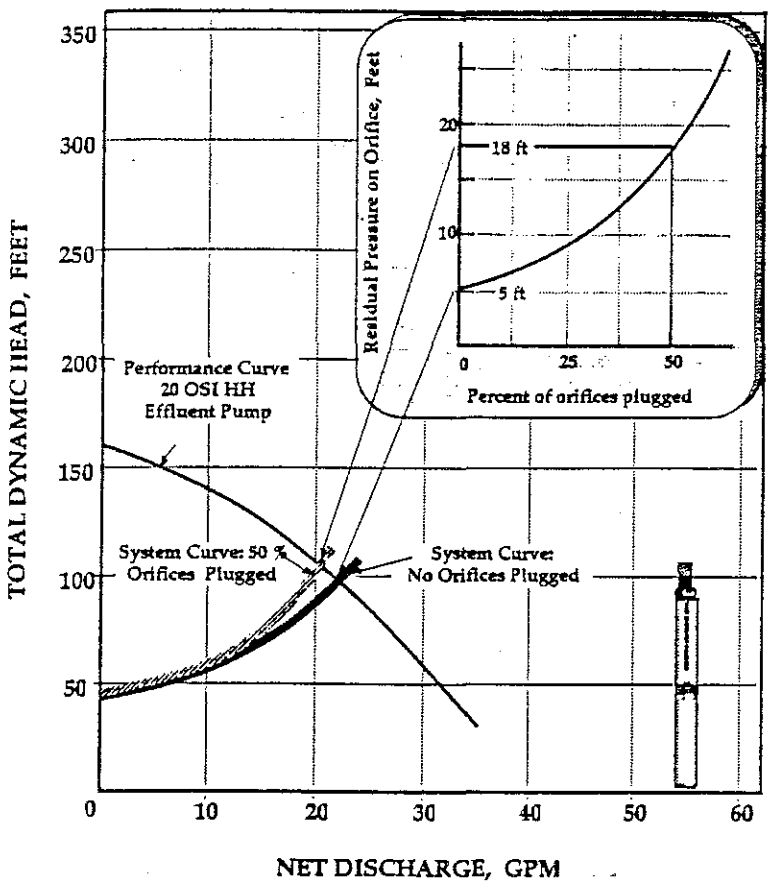


Fig. 3 Steep Pump Curve: Ideal for Pressure Dosing

Risers: Watertight risers, with grommets for electrical and plumbing access and a latchable lid with gasket, permit easy access to the equipment for maintenance and simplify septage pumping.

Level Controls: Used correctly, both mercury floats and recently-improved mechanical switch floats have proved reliable and accurate. Dozens of types are available, so it is important that a system designer specify exact model numbers. Floats should always be securely attached to a support system designed for the purpose. Strapping floats to the pump discharge pipe is bad practice. Pump vibration tends to loosen the straps causing the floats to slip their settings, and removal of the pump for any reason requires that strapped-on floats be readjusted. Furthermore, straps that manufacturers supply with most float switches are nylon, a material whose tendency to absorb water makes it unstable in a wastewater environment.

Discharge Assembly: These parts should all be PVC to avoid corrosion and a PVC union should be included for easy pump removal. A 1/8-inch hole is required between the check valve and pump volute to prevent air binding in the pump. The hole should always be located below the minimum water level. When pumping downhill to an ISF, an anti-siphon valve is essential.

Control and Alarm Panel: A fiberglass enclosed panel to control the pump(s) in an ISF needs to have UL or CSA listing, current limiting circuit breaker with thermal magnetic tripping characteristics, HOA (hand, off, automatic) switch, audible and visual alarm, silence relay, and fused alarm circuit separate from the pump circu

It also should have monitoring devices such as hour meters and counters. When a single control panel regulates both a pump in the septic tank and a pump in the sand filter, a high water condition occurring in the bottom of the sand filter should not only activate alarms but prevent the pump in the septic tank from adding additional effluent to the ISF. "Smart panels" sound alarms when the water level is too low (leaking tank) and when too much water is passing through the system (stuck toilet valve). When equipped with programmable timers, and in some locales rules require them, they may be set to cause the ISF to be dosed in fairly equal doses over a 24-hour period, regardless of varying flows, producing a markedly improved effluent quality.

Screened Pump Vault: This is required to house the pumping assembly and to ensure that no gross solids are pumped from the septic tank into the ISF. When inspecting the first experimental ISF systems installed in Oregon, investigators found most of the orifices in the distribution manifolds plugged with gross solids. Since then, Oregon has required any system pumping to a pressurized distribution manifold to have the pump enclosed in a corrosion-proof 1/8-inch mesh screen. Twelve years of experience have shown that, when properly used, these screens normally require cleaning only as often as the tank needs pumping. Exceptions to this rule of thumb have involved conditions that would have seriously damaged the ISF or distribution system had the screen not plugged first or had it not been there at all.

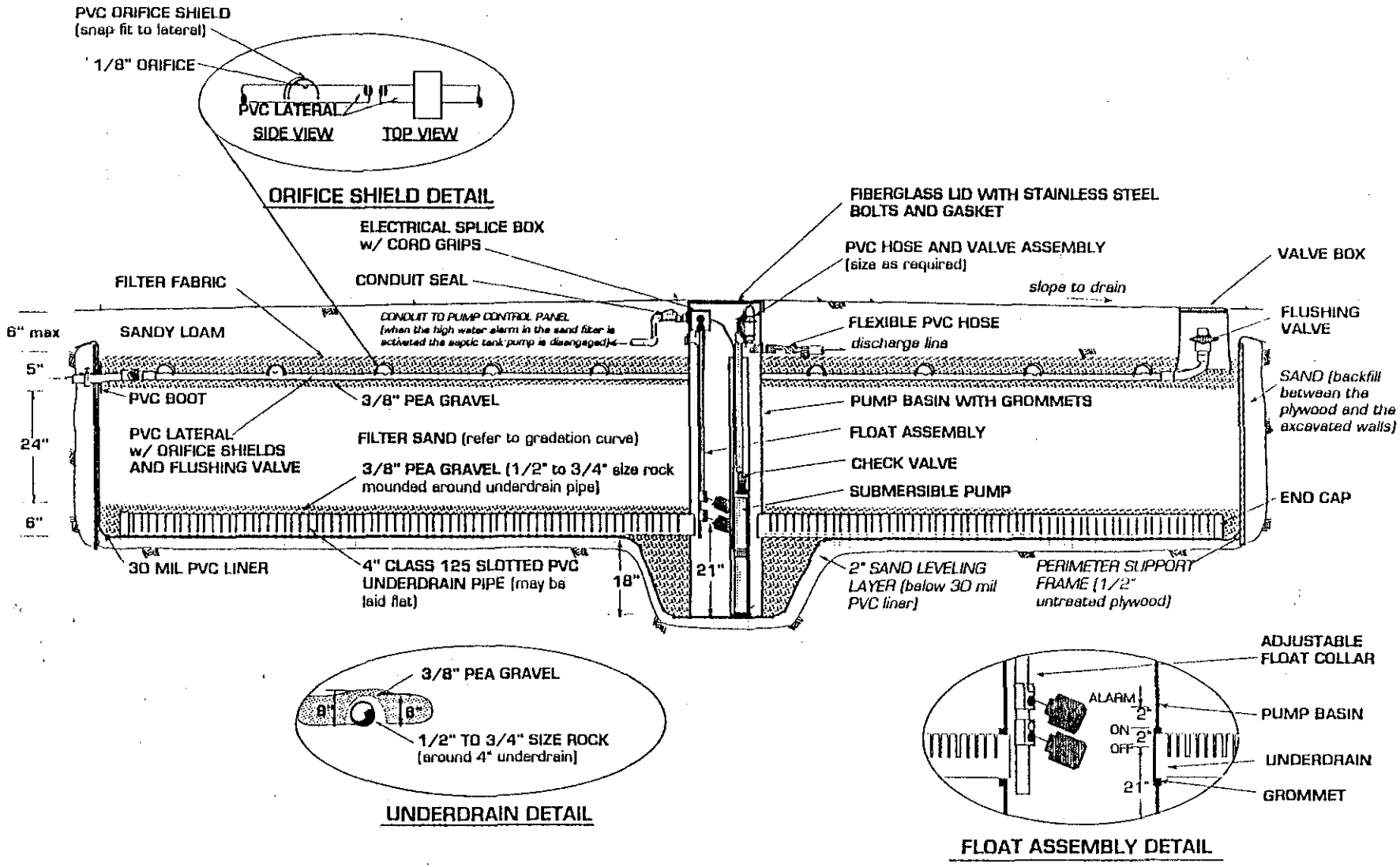
Figure 4 is a side view of a typical ISF designed to serve a large single-family home having as many as nine occupants; for a smaller home, a smaller filter will suffice. If the drainfield is located lower than the ISF then the four-inch collection pipe can convey the gravity-flow effluent from the bottom of the filter directly to the drainfield and a pump basin is not required. Nevertheless, for maximum treatment, ISF effluent should be pressure-dosed to a shallow drainfield.

PVC pond liner of 30 mil thickness was selected by Oregon DEQ for lining ISFs because it is tough enough to withstand handling during construction and easily repaired if a puncture does occur. PVC liners can be patched, much like an inner tube, with specially formulated cement which should be furnished by the liner supplier.

Sand manufactured per ASTM specifications for concrete sand works very well as ISF sand media, except that no more than 4% should pass the #100 sieve.

Figure 5 is a top view of an ISF. Typical filters are 360 square feet, Oregon's current "one size fits all" requirement. Square or nearly square configurations are most common, but on hillsides rectangular filters require less excavation. The pressure-distribution system should use small-diameter PVC pipes to maintain scouring velocities as high as possible and still provide equal distribution. With a sequencing distribution valve, the ISF may be dosed in zones. Very high pressure (30 ft +) thus applied to each orifice has been shown to virtually eliminate orifice plugging. Flushing the distribution system annually is recommended. If a flushing valve is installed, annual maintenance of an ISF should take less than 30 minutes. Blinding of the laterals' orifices, which may be caused by the covering gravel (Falkowski and Converse, 1988), can be avoided by use of protective orifice shields.

The total cost of an ISF includes the cost of permits and inspection (variable), the cost of materials ($2500 to $4000) and the cost of labor, typically two men and a backhoe for two days. ISF parts are available in kit form, to simplify the installer's job and to assure the owner that components are not only of high quality but also that they are compatible. With proper training and teamwork between contractors and regulators, contractors should be able to install most ISFs for less than $6000.



SIDE VIEW

Figure 4 18' x 20' SAND FILTER W/ PUMP BASIN

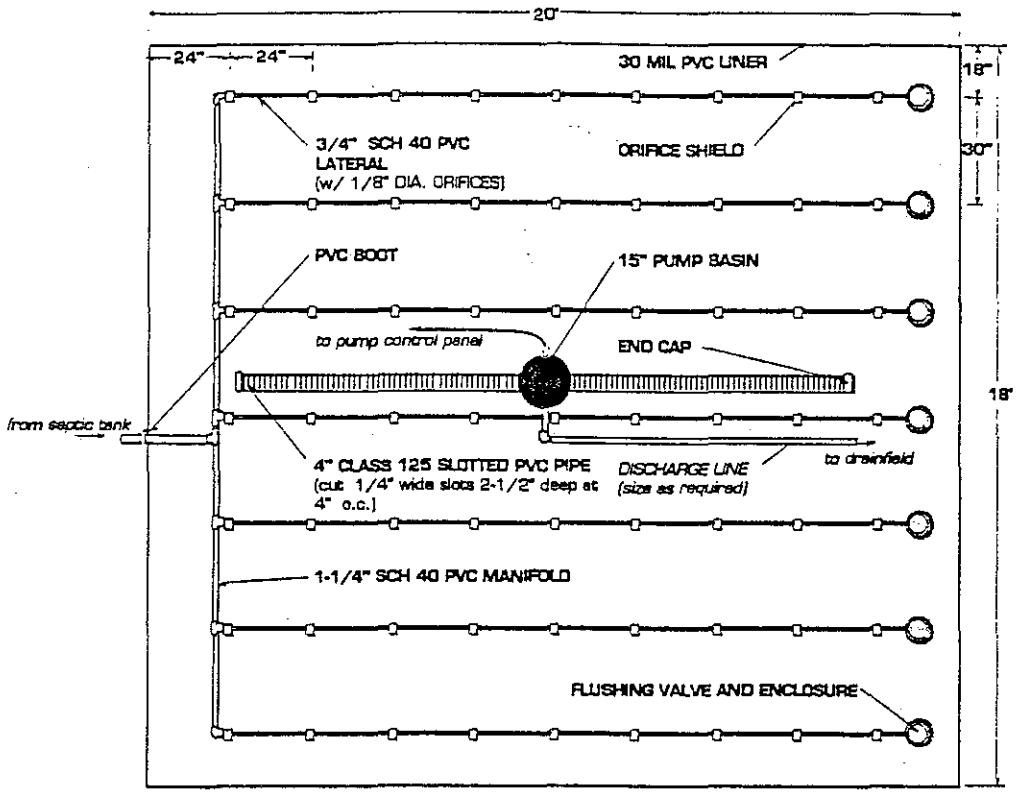


Fig. 5 18' x 20' Sand Filter with Pump Basin (Top View)

CURRENT RESEARCH

The goal of ongoing R & D at OSI and in collaboration with the University of California at Davis (UCD), California State University, Chico (CSUC), and Oregon State University is sand filters that are easier to design, simpler to build, more effective in their treatment of wastewater and more affordable. Most of this research has focused on ISFs, which have the greatest potential for widespread application, although investigations have begun into improving recirculating sand filters used for larger flows. Significant findings are:

(a) Based on data from thousands of units in pressure sewer STEP systems, a watertight single-compartment septic tank equipped with a screened-vault pumping device consistently discharges effluent with BOD_5 averaging 123 and TSS averaging 29 mg/L (Orenco Systems, Inc., 1990). Contrary to common belief, average effluent quality from systems thus configured always exceeds that from systems with multiple tanks. In both Oregon DEQ's experimental systems study (Ronayne et al., 1982) and Placer County, California's more recent sand filter study (Cagle, 1993), data was collected from systems in which a primary septic tank was followed by a separate pump tank with a large reserve volume. DEQ reported BOD_5 averaging 217 and TSS averaging 146; Placer County reported BOD_5 averaging 160 and TSS averaging 73.

(b) By applying small doses of effluent at frequent intervals to protected and closely spaced 1/8-inch diameter orifices in an ISF, it is possible to obtain higher loading rates (Mohammed, 1991; Calaway, 1957; Furman et al., 1955). In experimental ISFs with concrete sand (ASTM) as media, increasing the loading rate to 4 gpd/sqft caused no decrease in effluent quality and no visible signs of clogging.

(c) Loading rates are affected not only by strength of wastewater (BOD_5 and TSS), but also by spacing and size of orifices, dosing frequency, media size and gradation, ambient temperature, air movement, etc.

(d) In an experimental ISF serving a two-bedroom home which went into operation late in 1990, an average of 115 gpd of wastewater flows to a septic tank equipped with a recirculating trickling filter (Fig. 6) and then is dosed to a 32 square foot stratified sand filter. BOD_5 and TSS of the ISF effluent average 1 mg/L, total nitrogen averages less than 10 mg/L, and fecal coliform are undetectable. A 10-inch deep, 12-inch wide, and 20-foot long gravel-less drainfield following the filter actually infiltrates effluent at a faster rate now than when it was installed three years ago.

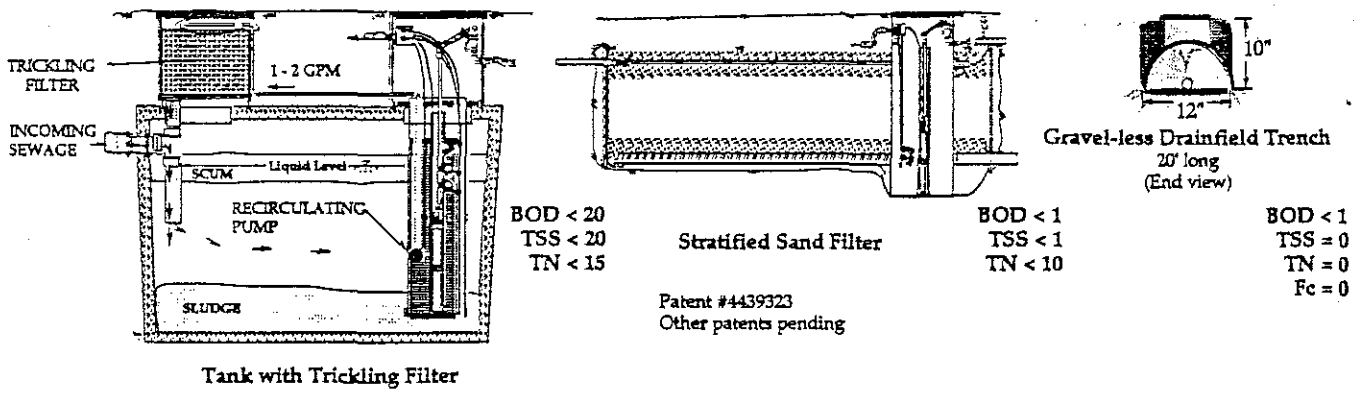


Fig. 6 Dosing Septic Tank with Trickling Filter followed by ISF

e) In a comprehensive audit of 450 watertight septic tanks on an effluent sewer system, researchers discovered that eight years after installation, average sludge and scum accumulations were less than 55% of the maximum allowable before pumping is required (Bounds, $T._1$, 1992). Using that data and corroborating numbers from Public Health Service studies, an average mean time between tank pumpings for those tanks is predicted to be at least 15 years (Bounds, $T._2$, 1992). Naturally, accumulation rates in a few individual tanks may vary significantly from the average, and accumulation rates may vary by region of the country, so monitoring is essential and particularly important where tanks are not watertight. Nevertheless, assertions that every septic tank should be pumped every two, three, or even five years are unsupported by scientific evidence. When indicated by monitoring, much longer pumping intervals save money and decrease the pressure on already overburdened septage receiving facilities.

A research project is just under way, the goal of which is to determine the fate of contaminants, principally nitrate nitrogen, when sand filter effluent is discharged to ground water via drainfields. Sponsored by the United States Environmental Protection Agency, this project's specific objectives are to develop a methodology, using suction lysimeters, for monitoring, in situ, the treatment efficiency of subsurface absorption trenches and to use that methodology to monitor existing absorption trenches in California, Oregon, and Washington. Lead by Professors George Tchobanoglous (UCD) and Stewart Oakley (CSUC), researchers plan to involve regulatory agencies in the project to help develop, using the monitoring results obtained, new design and monitoring standards for absorption trenches receiving sand filter effluent.

THE FUTURE OF SAND FILTERS

and filters are gaining increasing acceptance as regulatory authorities become more familiar with them and encourage their use. Massachusetts, Washington, British Columbia, and several counties in California are installing and monitoring 100 square foot residential sand filters followed by very shallow, gravel-less drainfields. In Anchorage, Alaska, three ISFs were installed in September 1993 as part of an experimental program in which the units will be insulated and heated with warm air.

Since disinfection can render ISF effluent recyclable, we may one day soon see it returned to the home to flush toilets. Particularly in areas seriously affected by drought, it's not hard to envision homes being disconnected from conventional sewer lines and converted to on-site systems in order to reuse sand filter effluent for irrigation and other uses. The goal would be to reduce overall water consumption and at the same time lessen the load on existing sewage treatment plants.

REFERENCES

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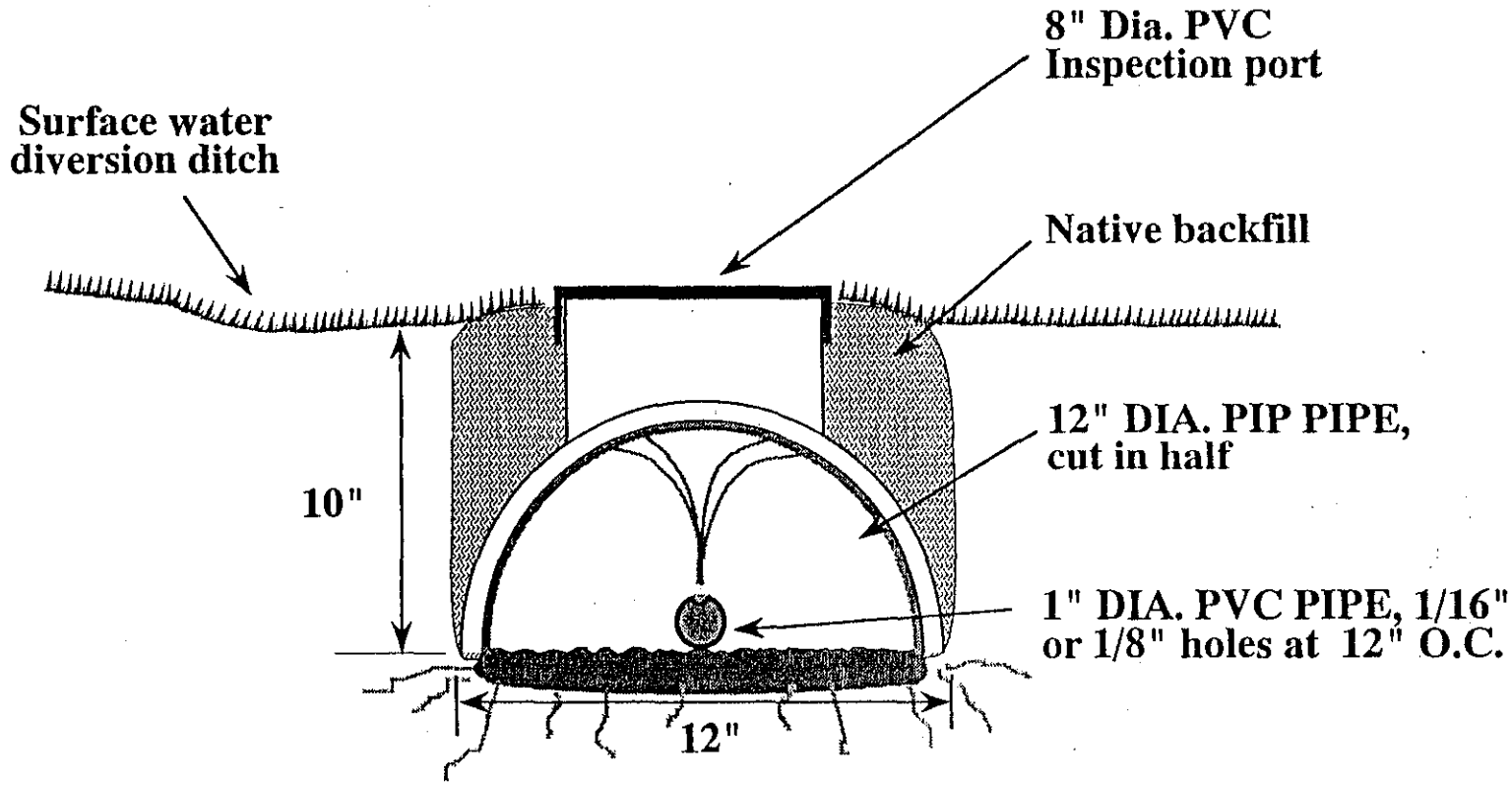
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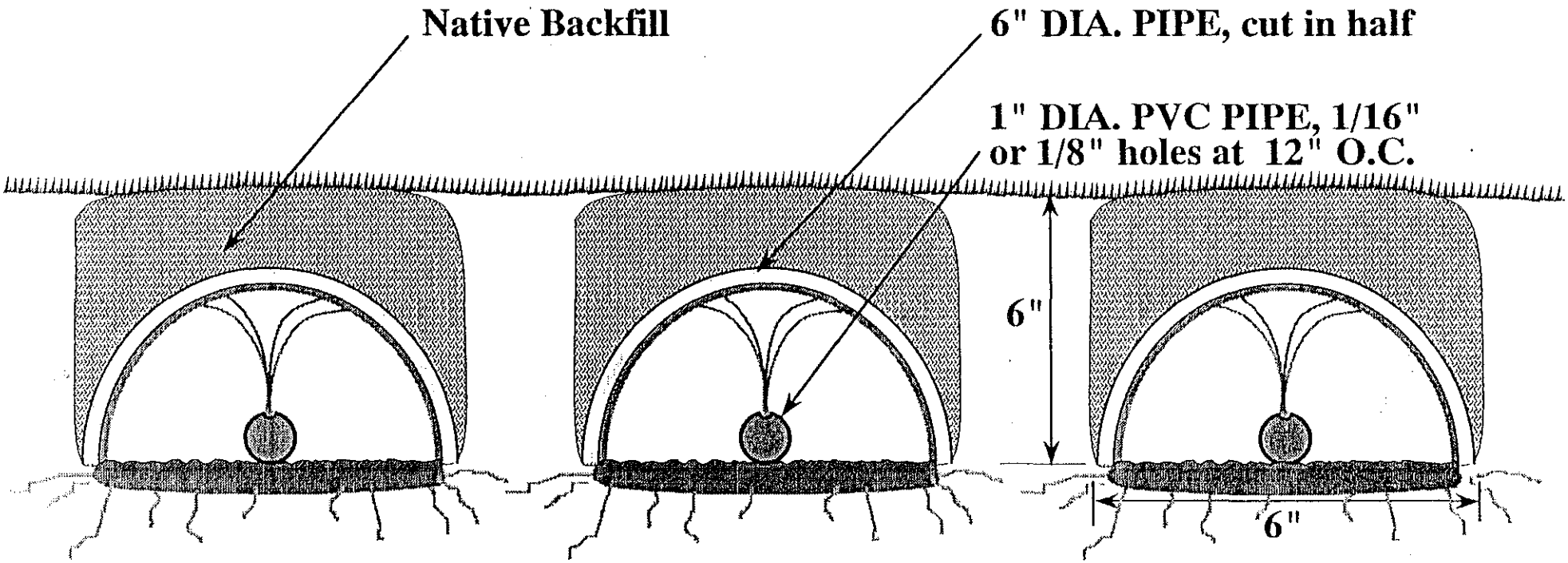
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END VIEW

PRESSURE DISPOSAL TRENCH DETAIL

Typical drainfield loading rate following sand filters may range from 5 to 15 gal/sq.ft.



END VIEW

PRESSURE DISPOSAL TRENCH DETAIL

Typical drainfield loading rate following sand filters may range from 5 to 15 gal/sq.ft.

EXHIBIT "D"

March 29, 1993

DESCHUTES COUNTY PLANNING DEPT
COURTHOUSE ANNEX

ATTN: David Leslie

Re: Lot 69 Block 70 DESCHUTES RIVER RECREATION HOMESITES, UNIT 6
Tax Lot 1400 Tax Map 20 10 35 CO

Dear Sir:

This letter is to confirm my understanding that based upon your review of site survey and Floodplane maps, the subject property has sufficient area outside of the Floodplane so that no special conditional use permit or variances* are required in order to construct a residence.

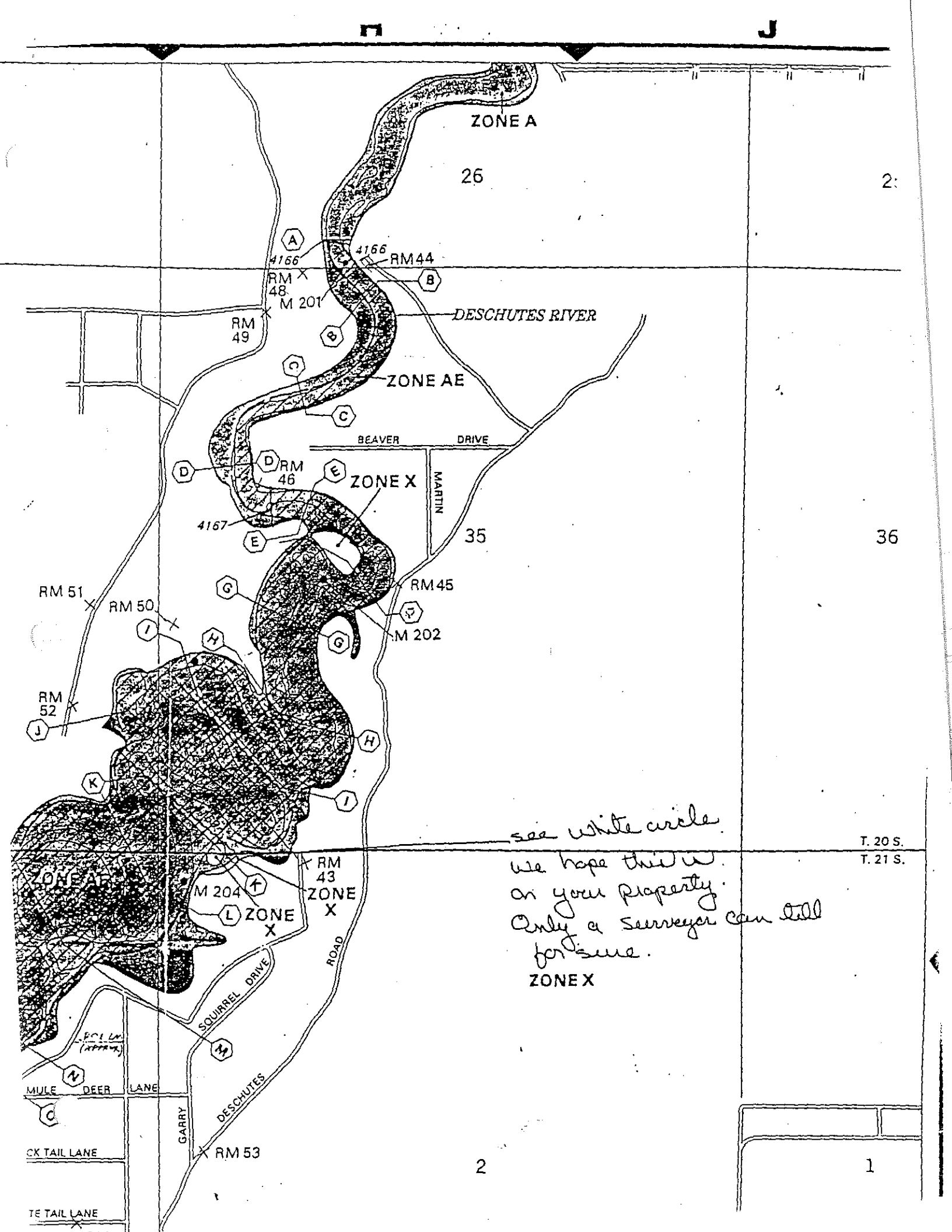
Sincerely,

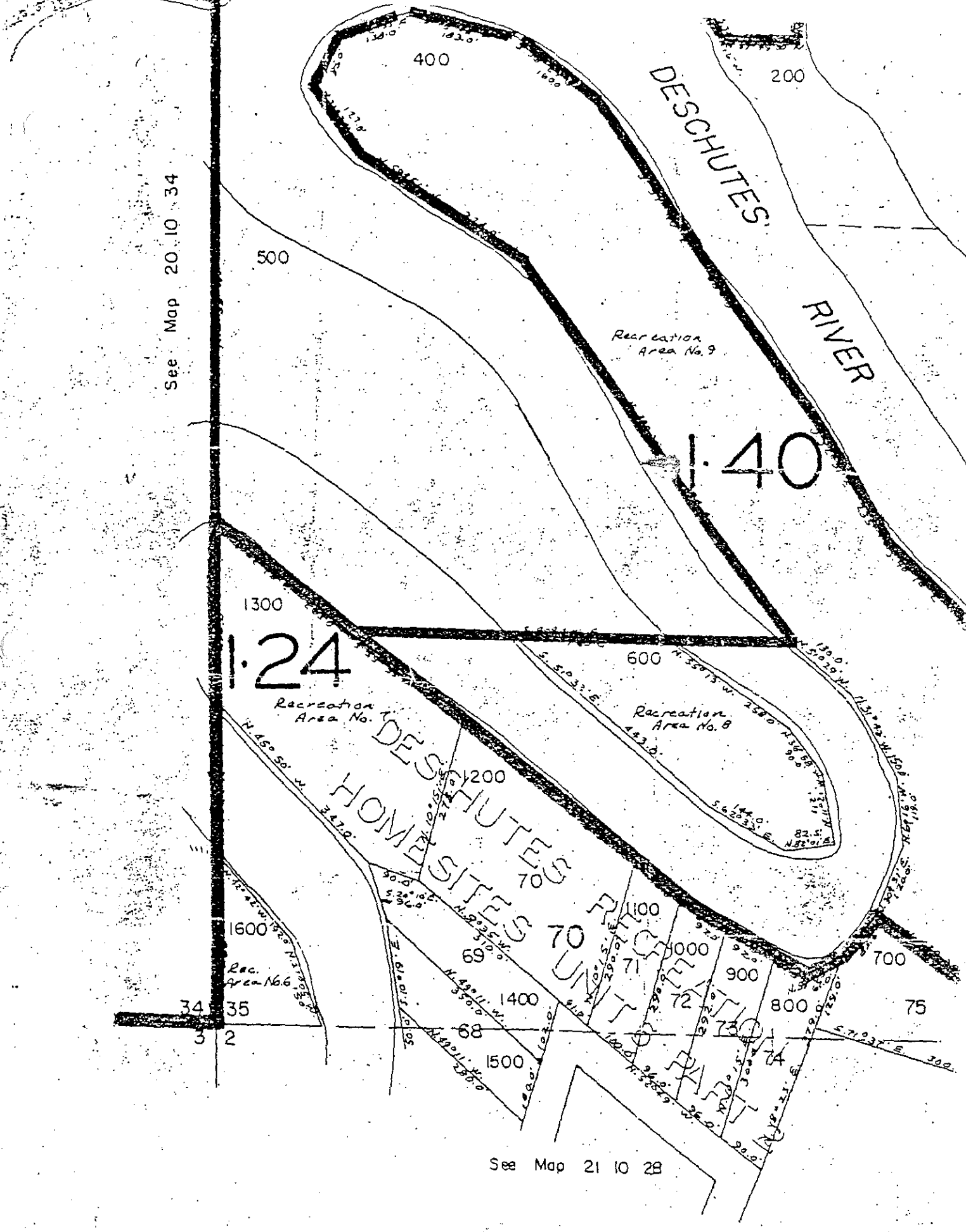
Bonnie C. Wilkins

ACKNOWLEDGED:
March 30, 1993

By David Leslie
David Leslie, Deschutes County Planning Dept

* ALL STRUCTURES MUST COMPLY WITH YARD SETBACK REQUIREMENTS OF TITLE 18, DESCHUTES COUNTY CODE.


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See Map 21 10 28

Regarding the variance application of

PRELIMINARY ORDER AND OPINION

MR. AND MRS. STEPHEN W. WILKINS
1747 N.W. Rimrock Drive
Bend, Oregon 97701

WQ-IOSWWS-VARIANCE APPLICATION:
Lot 69, Block 70, Deschutes Recreational Homesites, Unit 6;
Tax Lot 1400; Section 35C;
Township 20 South; Range 10 East, W.M.;
Deschutes County

HISTORY

On June 17, 1994, the application of Mr. and Mrs. Stephen W. Wilkins (hereinafter, applicant) for a variance from particular requirements or standards pertaining to on-site sewage was received by the Department of Environmental Quality. After a hearing on the property on September 7, 1994, Variance Officer Sherman Olson issued a Variance Denial on March 3, 1995. On March 17, 1995, applicant appealed the Denial.

On July 10, 1995, the Environmental Quality Commission (EQC) referred the appeal to Hearings Officer Lawrence Smith for initial review and preliminary order under ORS 454.660 and OAR 340-71-440. On July 21, 1995, the Hearings Officer gave the applicant until August 14, 1995, to submit further written information. No further information was received from the applicant by that date, so the record was closed.

This Preliminary Order and Opinion is based on a complete review of the file and information from the applicant. The documents considered were: the Variance Denial issued March 3, 1995; the applicant's letter of appeal of March 17, 1995; a certificate of satisfactory completion issued November 24, 1980; a site evaluation worksheet dated September 7,1994; a building permit for the lot, dated October 14, 1987; a building permit for the lot issued in 1979; a building permit for a septic system on the lot issued April 28, 1980; a letter from applicant, dated August 15, 1994, with an article by Harold Ball, P.E., revised February 8, 1994; a letter of denial by Dan Haldeman, sanitarian for Deschutes County, dated August 16, 1993; a correction letter of denial by Haldeman, dated October 28, 1993; and an evaluation report of suitability of proposed salvage disposal, dated June 2, 1978.

ISSUE

Whether the requirements of specific rules concerning the siting and construction of a conventional sand filter treatment and disposal system should be waived.

OPINION

Applicant's request for standard variance is denied because compliance to the rules was not inappropriate, and strict compliance was not unreasonable, burdensome, or impractical.

DISCUSSION

ORS 454.657 states in part:

> (1) After hearing the Environmental Quality Commission may grant to applicants for permits required under ORS 454.655 specific variances from the particular requirements of any rule or standard pertaining to subsurface sewage disposal systems for such period of time and upon such conditions as it may consider necessary to protect the waters of the state, as defined in ORS 468B.005. The commission shall grant such specific variance only where after hearing it finds that strict compliance with the rule or standard is inappropriate for cause or because special physical conditions render strict compliance unreasonable, burdensome or impractical.

Section (2) of this statute allows for variance based on hardship. The applicant did not request such a variance.

OAR 340-71-415(3) states:

> No variance may be granted unless the Commission or a special variance officer finds that:
> (a) Strict compliance with the rule or standard is inappropriate for cause; or
> (b) Special physical conditions render strict compliance unreasonable, burdensome, or impractical.

By seeking a variance, applicant concedes that its application cannot meet the requirements of a particular rule or standard. Applicant is the proponent of a certain fact (a variance from the rules and/or standards), so applicant has the burden of proof.

One of the main issues in applicant's appeal was the level of the water table. The Variance Officer concluded that the water table raised to less than 24 inches of the land surface, based on the discoloration of the soil at that level and the types of plants on the lot. During a visit to the lot on September 7, 1994, he determined the free water level to be 62 and 73 inches from the surface in two test holes. A review by Deschutes County on May 29, 1978, concluded that the depth of the water table was deeper than 66 inches. The resulting evaluation report approved the installation of a septic tank and subsurface drainfield to serve a residence. An inspection by Dan Haldeman of Deschutes County on August 9, 1993, concluded that the groundwater level in the spring, after the snows melt, was less than 24 inches from the surface. The inspector also noted that the groundwater of a neighboring lot 200 feet away was less than 12 inches from the surface. He later stated that this level might have been from a relic situation. The Variance Officer disputes this conclusion because later testing on neighboring lots showed that the water table was high on the other lots, with no connection to levels before Wickiup Dam was built.

In letters, applicant refers to test holes on the property, which he monitored at least monthly for 15 months, but he does not state the depth of the holes. Without more specific contrary information regarding the water table, the depth as stated by the inspector for Deschutes County and the variance officer

for DEQ must be accepted. The water table level seasonally flows within 24 inches of the surface.

OAR 340-71-220(2) states in part:

> Criteria For Standard Subsurface System Approval. In order to be approved for a standard subsurface system each site must meet all the following conditions:
> * * * *
> (b) Water table levels shall be predicted using "conditions associated with saturation." If conditions associated with saturation do not occur in soil with rapid or very rapid permeability, predictions of the highest level of the water table shall be based on past recorded observations of the Agent. If such observations have not been made, or are inconclusive, the application shall be denied until observations can be made. Groundwater level determinations shall be made during the period of the year in which high groundwater normally occurs in the area.
> (A) A permanent water table shall be four (4) feet or more from the bottom of the absorption facility.
> EXCEPTION: In defined geographical areas where the Department has determined through a groundwater study that degradation of the groundwater would not be caused nor public health hazards created. In the event this exception is allowed, the rule pertaining to a temporary water table shall apply.
> * * * *

This rule requires a depth of at least four feet from the water table for any absorption facility. The stated exception is not applicable because there is no evidence that the groundwater level was determined by the Department in applicant's area. As stated above, the water table will rise within 24 inches of the surface, so a normal absorption facility cannot be approved under this rule. The prior approval granted in 1978 and renewed in 1980 was in error. A variance from this rule would not be appropriate because the water table level is much below the minimum. Compliance in this case would not be strict because of the substantial difference between the rule's standard (48 inches) and the site's level (less than 24 inches), so it is not unreasonable, burdensome, or impractical to apply the standard.

Applicant proposes, per the recommendation of his expert, to install a conventional sand filter treatment unit, constructed to discharge effluent through its bottom onto the surface of the underlying loam soil.

OAR 340-71-290(3) states in part:

> Sites Approved for Sand Filter Systems. Sand filters may be permitted on any site meeting requirements for standard subsurface sewage disposal systems contained under OAR 340-71-220, or where standard or pressurized disposal trenches would be used, and all the following minimum site conditions can be met:
> * * * *

(b) The highest level attained by a permanent water table would be equal to or more than distances specificed as follows:

Soil Groups	Minimum Separation Distance from Bottom Effective Seepage Area
(A) Gravel, sand, loamy sand, sandy loam	24 inches

* * * *

Applicant did not disagree that the soil on his land is sandy loam for the first two feet. The applicable standard is 24 inches. Based on the above reports, the highest level is within 24 inches, so the site does not meet this standard, especially considering the fact that the discharge point is at least 10 inches below the surface. The difference between these levels is substantial, so the application of the rule's minimum in this case was not strict because the difference between the levels was large. Because of this difference, compliance was not inappropriate. The rule established a minimum for protection of the water table. Neighbors rely on ground water for their needs. To allow the minimum to be reduced to less than 14 inches would endanger the water table and as a result, the public. Applicant has not established special physical conditions on the lot. As stated above, compliance with the rule was not strict due to the large disparity between the standard in the rule and and the established water table of the site. Compliance therefore would not be unreasonable, burdensome or impractical due to the lack of special physical conditions and the difference between the standard and the site's level.

OAR 340-71-290(6)(f) states:

The requirements in OAR 340-71-295 shall be met.

OAR 340-71-295 outlines the requirements for conventional sand filter design and construction. It requires a minimum of 366 square feet of medium sand surface. Applicant proposes a sand filter lot of 18 feet by 20 feet, or 360 square feet. This area substantially complies with the limit, so the physical conditions make strict compliance unreasonable, especially in light of the findings by applicant's expert that a properly maintained field will adequately screen the sewage, even with six square feet less than the minimum. The other variances from the rule on sand filters were supported by the report of applicant's expert.

Regarding the first area of denial, a variance for the proposed sand filter system was denied because the proposed pressure drains for the drainfield did not comply with the specifications listed in OAR 340-71-100(33), the definition of "Disposal Trench", which refers to a diagram of the trench (Diagram 12). Without further evidence from applicant that the differences are minimal or trivial, a variance cannot be granted because compliance with the standard would be appropriate and applicant has not established special physical conditions would not render strict compliance as unreasonable, burdensome or impractical.

Regarding denial ground number 2 listed in the Variance Denial, applicant has not established that its backup or replacement field meets the requirements.

Regarding denial ground number 3 listed in the Variance Denial, applicant has not provided evidence that its lack of filter material would substantially meet the objectives of the rule, protection of water table.

Regarding denial ground number 4 listed in the Variance Denial, applicant did not specifically rebut the findings of the Variance Officer under OAR 340-71-260(3), so these findings are accepted.

Regarding denial ground number 5 listed in the Variance Denial, applicant did not provide information as promised to establish how the one-inch pipe proposed by applicant would work as effectively as the two-inch pipe and not back up.

The lot was first approved for an on-site sewage system. Applicant has not alleged that they detrimentally relied on this prior approval, so there is no issue of estoppel.

Applicant has the right to do further testing to establish the water table and apply again for a variance. At this point, their request for variance must be denied.

ORDER

Applicant's variance request is denied under ORS 454.657.

ENVIRONMENTAL QUALITY COMMISSION

Lawrence S. Smith

Lawrence S. Smith, Hearings Officer

This Proposed Order and Opinion was mailed to the applicant and DEQ on: 9/25/95

FURTHER REVIEW

If the applicant and DEQ agrees with this preliminary order and opinion, the director of the Environmental Quality Commission (EQC) will enter a final order. If the applicant and/or DEQ disagrees with this preliminary order and opinion, the proposed order will be sent to the EQC for review and action. You will be notified of the EQC meeting date when this preliminary order and opinion will be considered.

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

March 3, 1995

CERTIFIED MAIL

Mr. and Mrs. Stephen W. Wilkins
1747 N.W. Rimrock Drive
Bend, Oregon 97701

Re: WQ-WC-VARIANCE DENIAL: Lot 69, Block 70, Deschutes River Recreational Homesites, Unit 6; Tax Lot 1400; Section 35C; Township 20 South; Range 10 East, W.M.; Deschutes County.

Dear Mr. and Mrs. Wilkins:

In response to a variance application submitted to this office, I visited your property adjacent to Red Fox Lane on September 7, 1994. The purpose of my visit was two-fold: to review the area where you proposed approval of a sewage disposal system; and to conduct a variance hearing to determine if certain rules regulating the siting and construction of sewage disposal systems should be waived.

The property had previously been evaluated for sewage disposal methods by staff with Deschutes County. A field inspection form prepared by Mr. Tom McIntyre on May 29, 1978 indicates that two test holes were examined, and that they both exhibited sand and pumice. It was also noted that mottling (an indicator used to predict groundwater levels) was not observed, and that the depth to a water table was over 5-1/2 feet. An evaluation report was issued by Mr. John Glover, dated June 2, 1978, stating the property was suitable for installation of a septic tank and subsurface drainfield to serve a residence. On March 9, 1979, a permit application was received and processed by Deschutes County, and Permit No. 09-248-79 was issued which authorized the construction of a sewage disposal system. On April 28, 1980, a permit renewal application was received and processed by the county, and permit No. 09-440-80 was issued. The system authorized by the permit was constructed and inspected by Deschutes County, resulting in the issuance of a Certificate of Satisfactory Completion. The permit record indicates the system contains a 1,000 gallon concrete septic tank and three disposal trenches, each 50 feet long.

On August 9, 1993, Mr. Dan Haldeman visited the property in response to an application requesting authorization to place the sewage system into service. Mr. Haldeman observed the system was located on the 2-A terrace of the Deschutes River floodplain. Four test pits on this terrace location were also reviewed and described by Mr. Haldeman. Generally, the soil profiles exhibited a sandy loam texture to depths ranging from 14 inches to 22 inches. Below the sandy loam horizon the soil was found to have textures of loam and/or silt loam to the bottom of the pits (40 to 45 inches). The presence of mottling around root channels at about 15 inches from the surface, and the presence of soil colors having chromas of 2 or less suggest

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

that groundwater levels are likely to be present at less than 24 inches from the surface for extended periods of time. Willows and other water-loving plants were observed to be abundant over the property. The slope of the land surface ranges between 0 and 2 percent. Based on these and other factors, it was the county's judgement that the system would cause pollution of public waters and/or create a public health hazard if placed into service. The request to place the system into service was denied. The county's action to deny your request would imply the original favorable site evaluation report, permits issued based on this report, and the Certificate of Satisfactory Completion were all issued in error. A four foot separation between the disposal trench bottom and the highest level of a permanent water table has been required of all subsurface sewage systems constructed in Oregon since the mid-1970's.

In a letter submitted with the variance application, you have asked that the mottling observed by the county be considered as relict because Wickiup Dam now regulates water levels in the Deschutes River, and the river influences groundwater levels on downstream property adjacent to the river. The letter states your property is higher than adjacent properties that have shallow water levels, and that over a 15 month period you have not observed standing water in any of the test pits on your property.

On the date of my visit I examined the two test pits nearest to the road (pits 1 and 4 in the county report) and found the soil profiles described by Mr. Haldeman on August 9, 1993 to be consistent with my own observations. With the use of a soil auger, the soil below 52 inches was found to be a water-bearing gravelly sand. Static groundwater levels in these two pits was measured at 63 inches in one pit and 73 inches in the other. Mr. Haldeman observed the water level on a neighboring lot to be 12 inches below the surface in April of 1993. I measured water levels on the lot across the road (I believe this to be lot 1) at 28 inches below the surface, and determined this lot was slightly higher than your property. The water level on the second lot south of yours (lot 67) had a water level of 26 inches, and it was also slightly higher than your lot. With these observations in mind, it would be logical to conclude that mottling observed within the soil profile should not be considered as relict.

Generally recognized soil color characteristics associated with conditions of saturation do not always appear in the soils of southern Deschutes County. This may be due to: coarse textured soils with large macropores that transmit soil water rapidly); relatively high pH soils; groundwater temperatures too low to allow decomposition of organic matter, thus oxygen is not depleted to the extent that ferric iron is reduced to ferrous iron, a soluble form of iron which moves through and relocates in the soil profile, producing red, yellowish red or brown mottles; and groundwater movement is rapid enough through these porous soils such that the oxygen concentration in the groundwater remains high. Further, it has been observed that on terrace 2-A and lower terrace positions in this area of southern Deschutes County, groundwater levels rise very near or above the surface in the spring for several weeks after the accumulated winter snows melt. In my professional opinion, groundwater levels will rise higher than the morphological evidence suggests if snowfall accumulates to levels normal to this area. I would not be surprised to see groundwater as near as 12 inches to the surface.

The sanitary system you have proposed to construct consists of a dosing septic tank, sand filter treatment unit (with an effluent pump station within the filter), and a pressurized disposal trench absorptive facility. Septic tank effluent would be pumped into the filter unit in measured doses to enhance the treatment level of the wastewater. The sand filter unit is of a design developed by Orenco Systems, Inc., and uses features and components that differ from standards that have been established for sand filters constructed in Oregon. The treated effluent would be pumped from the bottom of the filter to the disposal area, where it would be distributed equally throughout the disposal facility. The disposal facility would use trenches constructed approximately 10 inches deep and 12 inches wide, with a half section of 12 inch diameter pipe housing pressurized distribution piping placed on the trench bottom. The initial disposal facility would contain 160 linear feet of trench length. An area immediately southwest from the initial disposal facility has been identified for installation of an additional 150 linear feet of disposal trench should a failure of the system become apparent. The proposal would require variance from the following administrative rules:

1. OAR 340-71-100(33)--which defines a disposal trench to mean a ditch or trench with vertical sides and substantially flat bottom with a *minimum* of twelve inches of clean, course filter material into which a single distribution pipe has been laid, the trench then being backfilled with a minimum of six inches of soil. The disposal trench in your proposal substantially differs from this definition.

2. OAR 340-71-150(4)(a)--which limits the use of standard and/or alternative sewage treatment and disposal systems to properties that comply with the requirements of OAR 340-71-220 and/or the requirements of OAR 340-71-260 through OAR 340-71-360 (as appropriate for a specific type of alternative system). The rule also requires the property to contain sufficient area to accommodate an initial and replacement system, both in full compliance with the on-site rules. The property does not comply with these requirements.

3. OAR 340-71-220(8)--which establishes disposal trench construction standards. Your proposal would require variance from the minimum width of a disposal trench (24 inches), the minimum trench depth (18 inches), and the standard that filter material extend the full length and width of the trench to a depth of not less than 12 inches. Your proposal is to use trenches 12 inches wide, as shallow as 10 inches deep, and not to use any filter material within the trench.

4. OAR 340-71-260(3)--which requires that unless otherwise allowed by specific rule, alternative sewage treatment and disposal systems must comply with all rules that pertain to site criteria, construction and maintenance of standard systems. Several construction features in your proposal do not comply with specific requirements within OAR 340-71-220.

5. OAR 340-71-275--which establishes the standards that apply to systems using pressurized distribution. In addition to the standards concerning the depth of filter material above and below the pressurized distribution piping, the piping must have a minimum diameter of 2 inches unless submitted plans and specifications show the use of a smaller pipe diameter will comply with established hydraulic design criteria.

Filter material within the disposal trench is not a part of your proposal, and hydraulic calculations were not included to show that the proposed 1 inch diameter piping would provide an equivalent delivery of effluent throughout the disposal system as would occur with 2 inch pipe.

6. OAR 340-71-290(3)(b)(A)--which limits the use of conventional sand filter systems to sites where a minimum separation distance of 24 inches can be maintained between the highest level of a permanent water table and the bottom of the disposal facility. The bottom depth of the disposal area is proposed to be not less than 10 inches from the surface. The southeast portion of the disposal facility may be deeper because of the slope of the natural land surface. It is expected that there will be no separation distance between the trench bottom and the water table at times when groundwater is at its highest after the snow melts.

7. OAR 340-71-290(6)(f)--which requires the sand filter be constructed in compliance with OAR 340-71-295. The proposal presented for consideration requests approval to construct a sand filter that does not meet the requirements of OAR 340-71-295.

8. OAR 340-71-295--which establishes the design and construction requirements for conventional sand filters. The sand filter proposed for consideration differs from several standards, including but not limited to the filter's minimum area, sand specifications, filter material specifications, media depths, and pipe size.

As the variance officer, it is my duty is to determine if in my professional judgement the system proposed for variance consideration is adequate to safeguard the public's health and environmental interests when waiving standards that were specifically developed for that same purpose. Although well prepared, your proposal does not adequately address the most significant development limitation at the site. Maintenance of the 24 inch separation distance between the bottom of the disposal facility and the high level of a permanent water table is of great importance and concern in this area of Deschutes County. A sand filter is capable of doing a fine job of pre-treating septic tank effluent before discharging it into the environment. The filter does not, however, eliminate all pathogens from the wastewater, nor does it remove nitrates to an extent which assures the beneficial uses of the groundwater are not impaired. The minimum separation distance provides that additional treatment of the polished effluent can occur before it contacts the water table, thus reducing further the potential to impair beneficial uses of the groundwater. Also, it provides a buffer between the disposal facility and groundwater so that on those occasions when the water table rises higher than the morphological evidence suggests, the disposal facility is not likely to be flooded. It is expected that the water table will come into contact with or flood portions of the disposal facility in the spring, during normal snowfall years. Other lots located on the 2-A terrace in this part of Deschutes County have experienced water tables that have been above the ground surface in the spring, even when the morphological evidence suggests differently. It must also be noted that the temperatures are quite low in the winter, and the risk that portions of the system may freeze is of concern.

Variance from particular requirements of the Oregon Administrative Rules for On-Site Sewage Disposal may be granted if a finding can be made that strict compliance with the

rules is inappropriate for cause, or that special physical conditions render strict compliance to be unreasonable, burdensome or impractical. Based upon the variance record and information obtained relevant to this proposal, such findings can not be made. In my judgement, authorization to construct and use an on-site sewage system at the proposed site would not be in the best interest of public health or environmental concerns. I am unable to modify your proposal to overcome the apparent site limitations. As a result, I am regretfully unable to grant your variance request.

Pursuant to OAR 340-71-440, my decision to deny your variance request may be appealed to the Environmental Quality Commission. Requests for appeal must be made by letter, and must clearly state the grounds for the appeal. The appeal must be directed to the Environmental Quality Commission, in care of Mr. Christopher Rich, Management Services Division, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon, 97204-1390, within twenty (20) days of the certified mailing date of this letter.

I apologize for the delay in providing you with a timely written decision. Please feel free to contact me if you have questions concerning this decision. My telephone number is 229-6443, or toll free 1-800-452-4011.

Sincerely,

Sherman O. Olson, Jr.

Sherman O. Olson, Jr.
Variance Officer
On-Site Sewage Disposal Program
Water Quality Division

soo
WC\WQ

cc: Oregon Representative Dennis Luke
Roger Everett, Deschutes County
Stephanie Hallock, Administrator, Eastern Region:DEQ
Richard Nichols, Water Quality Manager, Eastern Region:DEQ

RECEIVED
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Lisa N. Bertalan
Stanley D. Austin

March 17, 1995

APPEAL

ENVIRONMENTAL QUALITY COMMISSION
C/O MR. CHRISTOPHER RICH
MANAGEMENT SERVICES DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
811 SW 6TH AVENUE
PORTLAND OR 97204-1390

Re: WQ-WC-VARIANCE DENIAL: Lot 69, Block 70, Deschutes River Recreational Homesites, Unit 6; Tax Lot 1400; Section 35C; Township 20 South; Range 10 East, W.M.; Deschutes County

This office represents Mr. and Mrs. Stephen Wilkins of Bend, Oregon, in the above captioned matter.

The purpose of this letter is to appeal the decision of Sherman O. Olson, Jr. which denied the variance request for a proposed sewage disposal system to be located on our clients' property described above.

The Wilkins' variance request was denied primarily on the allegations that they could not maintain a 24 inch separation distance between the bottom of the proposed disposal facility and the water table at times when ground water would be at its highest.

The Wilkins had submitted their application without the assistance of a soil scientist or engineer. Additional information will be submitted on behalf of the Wilkins by a qualified soil scientist and an engineer experienced in the installation and construction of sewage disposal systems in Deschutes County.

There have been open test holes on the property for over two years. They were installed after the winter of 1992-93 which was the wettest year in recent memory in Deschutes County. During that period of time our clients have never seen nor has there been any documentation of any water in any of the test holes on the subject property.

Mr. Olson alleges he was able to measure water levels on the second lot south of the subject property

with a water level of 26 inches. However, Lot 67 had received standard septic system approval in 1993. The Wilkins' position would be that the system can be designed with disposal trenches in compliance with OAR 340-71-100(33) and OAR 340-71-220(A). The Wilkins also contend that there is sufficient area for a complete replacement system in compliance with OAR 340-71-150(4)(a).

Additional information will be submitted to demonstrate that a pressurized distribution system will meet all applicable criteria of OAR 340-71-275.

The Wilkins disagree emphatically with the finding that there cannot be a minimum separation distance of 24 inches between the highest level of any permanent water table and the bottom of the disposal facility as required by OAR 340-71-293(3)(b)(A). There is no evidence that such a water table is or ever has been in existence on the subject property based upon actual observations and based upon approvals of neighboring systems.

The Wilkins, therefore, believe that a sand filter system can meet the design and construction standards of OAR 340-71-295 and comply with the minimum separation distances between a permanent water table and the bottom of the disposal facility.

The Wilkins respectfully request that the record be left open for submittal of additional testimony from qualified professionals in support of the Wilkins' position.

Robert S. Lovlien
da
c: Stephen & Bonnie Wilkins
Sherman O. Olson, Jr.
Dennis Luke
Roger W. Everett
wilk001.001

CERTIFIED MAIL - R.R.R.
REGULAR MAIL

SITE EVALUATION FIELD WORKSHEET

Tax Reference: _____ Evaluator: _____

Applicant: _____ Date: 9/7/94 Parcel Size: _____

	DEPTH	TEXTURE	SOIL MATRIX COLOR AND MOTTLING (NOTATION), % COARSE FRAGMENTS, ROOTS, STRUCTURE, LAYER LIMITING EFFECTIVE SOIL DEPTH, ETC.
Pit 1			Soils was as described by Dan Holderman
			roots to 80/90"
			Free Water at 73"
Pit 2			
Pit 3			
Pit 4			Same as described by Dan Holderman -
			gravelly Sand below 52"
	Free		Water at 63"

Landscape Notes: _____

Slope: _____ Aspect: _____ Groundwater Type: _____

Other Site Notes: _____

SYSTEM SPECIFICATIONS

Peak Daily Flow: _____ gpd Average Daily Flow: _____ gpd

1. Initial System: _____ Disposal Facility: _____ (linear feet/square feet) Max. Depth: _____ inches
2. Replacement System: _____ Disposal Facility: _____ (linear feet/square feet) Max. Depth: _____ inches

Special Conditions: _____

Ground elevations measured from PIT #4 -

PIT #4 - 6.05 PIT #1 6.45

2nd Lot to South 5.5 (Water measured at 26"

Lot across street - 5.40 (Water at 28" - augered)

PLOT PLAN ON REVERSE SIDE

Oregon

August 25, 1994

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Mr. and Mrs. Stephen Wilkins
1747 N.W. Rimrock Drive
Bend, Oregon 97701

Re: WQ-IOSWW-Variance Assignment: Lot 69, Block 70, Deschutes River Recreational Homesites, Unit 6; Tax Lot 1400; Section 35; Township 20 South; Range 10 East, W.M.; Deschutes County

Dear Mr. and Mrs. Wilkins:

The Department of Environmental Quality is in receipt of your on-site sewage variance application. That application has been assigned to me for further action. I plan to visit your property along Red Fox Drive at approximately 9:30 a.m. on September 7, 1994. At that time I will evaluate soil, topographic and other information relevant to your proposed variance from Oregon Administration Rules (OAR) governing on-site sewage treatment and disposal. Please be sure to: (1) flag the sand filter, septic tank, the ends of the disposal trenches in the initial and future repair/replacement areas, and nearby property lines; and (2) have available at least two 5 foot deep (minimum depth) test pits within the area where the disposal trenches are proposed. I would also like to be advised of all water wells within 200 feet of your property.

Following my evaluation of the site conditions, I will conduct an information gathering hearing (as provided under OAR 340-71-430). You or any person you desire to attend the hearing are welcome. The hearing will provide an opportunity for you to offer additional facts or reasons which would allow a finding that strict compliance to the rules regulating on-site sewage treatment and disposal are inappropriate for cause, or to indicate why physical conditions render strict compliance to be unreasonable, burdensome, or impractical.

I have advised Roger Everett, Director, Deschutes County Environmental Health Division, of this pending variance action. He or his staff will have an opportunity to provide comments on your proposal.

If you have any questions concerning the variance process or hearing arrangements, feel free to contact me at (503) 229-6443.

Sincerely,

Sherman O. Olson, Jr.

Sherman O. Olson, Jr.
Variance Officer
On-Site Sewage Disposal Program
Water Quality Division

SOO

cc: Roger Everett, Deschutes County
Joni Hammond, Eastern Region:DEQ
Daryl Johnson, Eastern Region:DEQ

811 SW Sixth Avenue
Portland, OR 97204-13
(503) 229-5696
TDD (503) 229-6993

August 15, 1994

DEPT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
811 SW SIXTH AVENUE
PORTLAND, OR 97204

Attn: Sherman O. Olson, Jr.
Environmental Specialist

Dear Mr. Olson,

With reference to our application for a variance I am enclosing the additional requirements outlined in your letter of June 24, 1994. A copy of your letter is enclosed.

1. Detailed plans and specifications that illustrate where the initial system and repair systems are to be located on the property, with all detail as requested.

2. Two copies of a narrative description of the proposed system with copies of drawings of the proposed system.

Please process my request for a variance as applied for.

Sincerely,

Stephen W. Wilkins

cc: Dennis Luke, State Rep.

RECEIVED
AUG 17 1994
Water Quality Division
Dept. of Environmental Quality

SAND FILTERS AND SHALLOW DRAINFIELDS

Harold L. Ball, P.E.
Orenco Systems, Inc.
2826 Colonial Road
Roseburg, Oregon 97470

INTRODUCTION

Since 1976, in the states of Oregon, Washington and California, more than 10,000 intermittent sand filters (ISFs) serving single-family homes have been installed. In the same time period more than 200 recirculating sand filters ranging in capacity from 500 gallons to more than 180,000 gallons per day have gone into operation. More recently, sand filter technology is being introduced in Alaska, Montana, Idaho, Massachusetts, and British Columbia, Canada, where smaller and more efficient filter systems are being installed. Audits and routine monitoring by county and state agencies have continued to show excellent results. The high quality of sand filter effluent means that on-site wastewater disposal systems can be successful even in marginal soils. Low maintenance, reliability and reasonable cost have made sand filters an ideal choice for wastewater disposal when sewers are not available and conventional septic tank-drainfield systems are not feasible.

INTERMITTENT SAND FILTERS

Effluent Quality

F effluent is clear, colorless, and odorless. Its quality was first documented in Oregon by the Department of Environmental Quality (Ronayne et al., 1982). Biochemical oxygen demand (BOD_5) and suspended solids (TSS) were consistently less than 5 mg/L, ammonia was less than 1 mg/L, nitrates averaged 30 mg/L, and fecal coliform bacteria averaged a little more than 400 organisms/100 ml. Recent field trials by Orenco Systems (OSI) have shown that addition of a small recirculating trickling filter unit to the septic tank (Fig. 6) preceding a residential sand filter can reduce the total nitrogen leaving the sand filter to less than 10 mg/L, and reduce BOD and TSS levels to less than 1 mg/L.

Drainfield Requirements

Seventeen years of observing drainfields that follow sand filters has made it clear that biomat formation does not occur and that sand filter effluent is absorbed in drainfields at considerably higher rates than usually are reported for septic tank effluent. A recirculating sand filter serving the community of Dexter, Oregon, is followed by a drainfield that has been loaded at more than 16 gpd/sqft (bottom area) for ten years. Both Oregon DEQ and the Washington State Health Department allow reductions in drainfield area following sand filters. Even where regulations do not allow such reductions, they occur de facto: sand filter effluent that flows by gravity to a drainfield invariably soaks into the soil within 20 to 30 feet of the first drop box.

The high quality of effluent produced by an ISF opens up the potential for very shallow drainfields that don't require imported rock fill. A gravel-less drainfield at OSI facilities in Roseburg, Oregon, has been receiving effluent from various experimental sand filters for five years. Ten inches deep, 12 inches wide and 40 et long, it is loaded at an average of more than 600 gpd. The soil is 28 inches of silt loam underlain by a claypan with wintertime ground water at a depth of 18

inches. This drainfield exhibits no visible evidence that wastewater is being applied and is completely odorless.

Particularly when nitrate loading is a concern, shallow drainfields merit consideration. Measurements of flows in septic tank effluent pumping systems involving thousands of homes have demonstrated that the average wastewater generation per person is less than 50 gpd. Therefore, the nitrate nitrogen contribution to the soil from an ISF, which reduces total nitrogen by nearly 50%, is annually about 3 lbs per person. If rules allowed very shallow gravel-less trenches and subsurface landscape irrigation, nitrate levels could be further reduced before the wastewater reaches the ground water. Not only do shallow trenches provide the opportunity for increased denitrification (Wert and Paeth, 1985; MacVicar, 1958), but the increased proportion of effluent exposed to the root zone allows more nitrate to be removed from the soil by plants. Since 98% of soil biota are found in the top 16 inches of soil, placing the sand filter effluent as close to the ground surface as possible means that further treatment by microbial action is greatly enhanced. When nitrogen levels in septic tank effluent are diminished by trickling filter treatment prior to the effluent's application to a sand filter, the amount of nitrogen contributed to ground water by the ISF effluent becomes negligible.

Typical Intermittent Sand Filter (West Coast)

The simplicity of the system may lead to the assumption that it's easy to throw together an ISF and once in, it can be ignored. The truth is, the success of an ISF depends on sound construction techniques, the satisfactory operation of all its component parts, and annual maintenance. Every documented problem or failure has been a result of ignoring proven methods or of blatant abuse by the homeowner. These have run the gamut from installing dirty sand and failure to maintain open orifices to disposal of byproducts of illicit drug manufacture into the ISF system.

The most up-to-date regulations for sand filters are found in Oregon; however, other regions, most notably British Columbia, and Placer, Lake, and Calaveras counties in California, are making rapid advances. The following description follows Oregon DEQ rules, which are currently in the process of being updated. Figure 1 is a schematic

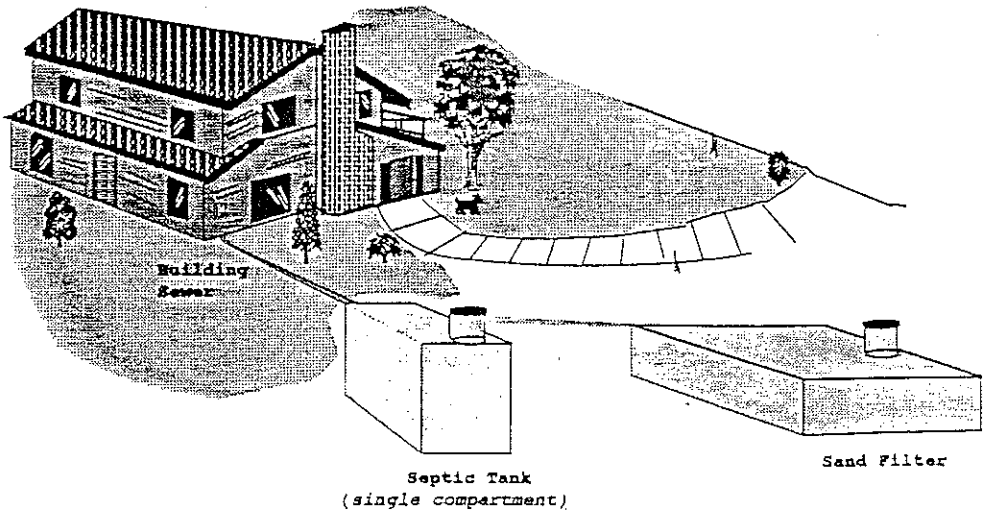


Fig. 1 Intermittent Sand Filter System

of a residential ISF system. All the wastewater from the home discharges to a septic tank. A pump housed in a screened vault within the septic tank doses the septic tank effluent onto the sand filter. After the effluent drains through the

sand into the bottom gravel layer, it either drains out through a four-inch PVC pipe to the drainfield or is dosed to the drainfield by a pump located in a basin within the sand filter.

Figure 2 depicts what Oregon calls a dosing septic tank. Typically it's a 1000-gallon, single-compartment, structurally-sound, watertight tank, either fiberglass or concrete. Oregon approved tanks must be designed by an engineer and certified

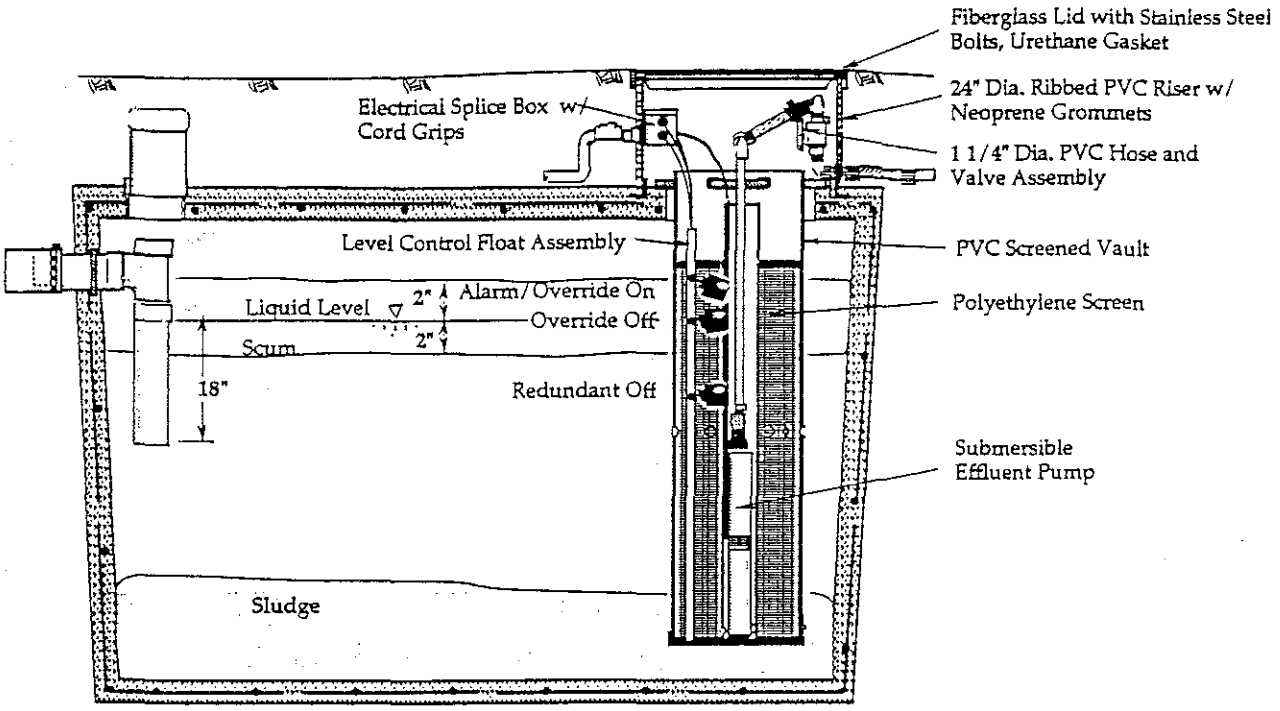


Fig. 2 Typical 1000-1500 Gal Dosing Septic Tank with Effluent Pumping System

watertight by the manufacturer. Unfortunately, elsewhere in the United States, very few manufacturers sell quality tanks. As long as on-site rules do not require them, even manufacturers who want to do a good job cannot make quality tanks and price them to compete with shoddy ones. If safe and reliable on-site wastewater disposal is to be realized, ensuring the availability of structurally-sound, watertight septic tanks is critical.

The dosing septic tank is equipped with an easily removable screened vault housing a pump. A basic pump system as shown in Fig. 2 consists of the following components:

Pump: High-quality submersible turbine type pumps are recommended because of their extreme resistance to corrosion, long life (250,000 to 2 million cycles), light weight (30 lbs), and their ability to pump the 20 to 30 gpm required at heads up to 200 feet or more. The very steep performance curve characteristic of these pumps (Fig. 3) is a valuable asset when pressure dosing. If a few orifices begin to clog, reduced flow causes pressure to increase enough to clear the clogging.

Splice Box: This is required so the electrical components (pumps and float switches) can be safely and legally removed and replaced.

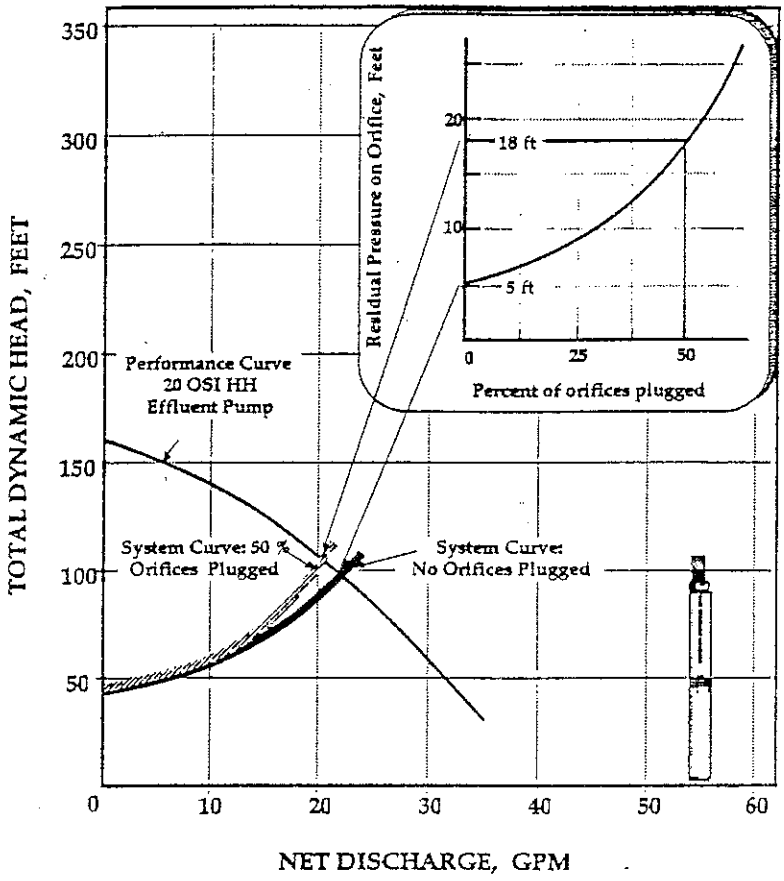


Fig. 3 Steep Pump Curve: Ideal for Pressure Dosing

Risers: Watertight risers, with grommets for electrical and plumbing access and a latchable lid with gasket, permit easy access to the equipment for maintenance and simplify septage pumping.

Level Controls: Used correctly, both mercury floats and recently-improved mechanical switch floats have proved reliable and accurate. Dozens of types are available, so it is important that a system designer specify exact model numbers. Floats should always be securely attached to a support system designed for the purpose. Strapping floats to the pump discharge pipe is bad practice. Pump vibration tends to loosen the straps causing the floats to slip their settings, and removal of the pump for any reason requires that strapped-on floats be readjusted. Furthermore, straps that manufacturers supply with most float switches are nylon, a material whose tendency to absorb water makes it unstable in a wastewater environment.

Discharge Assembly: These parts should all be PVC to avoid corrosion and a PVC union should be included for easy pump removal. A 1/8-inch hole is required between the check valve and pump volute to prevent air binding in the pump. The hole should always be located below the minimum water level. When pumping downhill to an ISF, an anti-siphon valve is essential.

Control and Alarm Panel: A fiberglass enclosed panel to control the pump(s) in an ISF needs to have UL or CSA listing, current limiting circuit breaker with thermal magnetic tripping characteristics, HOA (hand, off, automatic) switch, audible and visual alarm, silence relay, and fused alarm circuit separate from the pump circui

It also should have monitoring devices such as hour meters and counters. When a single control panel regulates both a pump in the septic tank and a pump in the sand filter, a high water condition occurring in the bottom of the sand filter should not only activate alarms but prevent the pump in the septic tank from adding additional effluent to the ISF. "Smart panels" sound alarms when the water level is too low (leaking tank) and when too much water is passing through the system (stuck toilet valve). When equipped with programmable timers, and in some locales rules require them, they may be set to cause the ISF to be dosed in fairly equal doses over a 24-hour period, regardless of varying flows, producing a markedly improved effluent quality.

Screened Pump Vault: This is required to house the pumping assembly and to ensure that no gross solids are pumped from the septic tank into the ISF. When inspecting the first experimental ISF systems installed in Oregon, investigators found most of the orifices in the distribution manifolds plugged with gross solids. Since then, Oregon has required any system pumping to a pressurized distribution manifold to have the pump enclosed in a corrosion-proof 1/8-inch mesh screen. Twelve years of experience have shown that, when properly used, these screens normally require cleaning only as often as the tank needs pumping. Exceptions to this rule of thumb have involved conditions that would have seriously damaged the ISF or distribution system had the screen not plugged first or had it not been there at all.

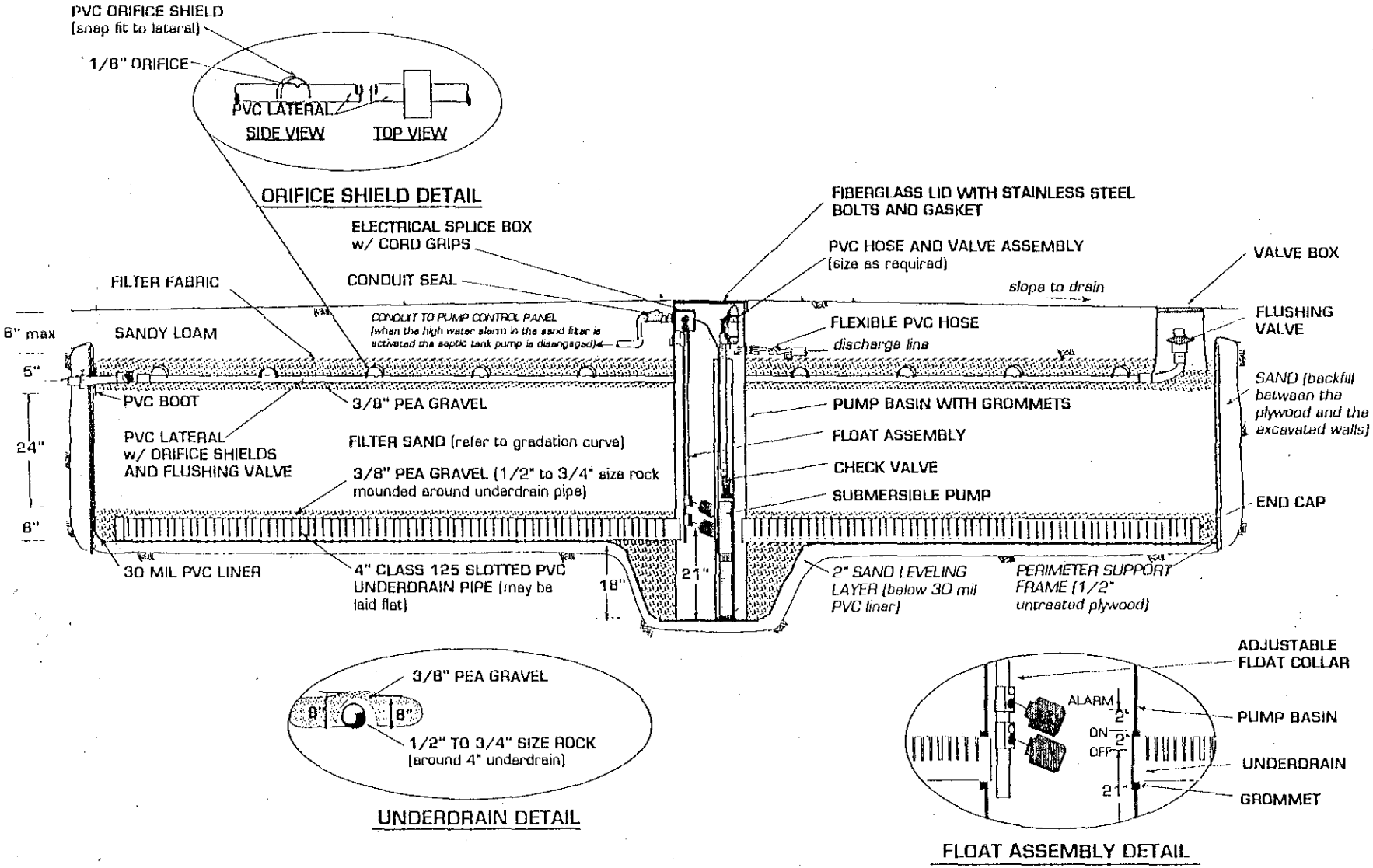
Figure 4 is a side view of a typical ISF designed to serve a large single-family home having as many as nine occupants; for a smaller home, a smaller filter will suffice. If the drainfield is located lower than the ISF then the four-inch collection pipe can convey the gravity-flow effluent from the bottom of the filter directly to the drainfield and a pump basin is not required. Nevertheless, for maximum treatment, ISF effluent should be pressure-dosed to a shallow drainfield.

PVC pond liner of 30 mil thickness was selected by Oregon DEQ for lining ISFs because it is tough enough to withstand handling during construction and easily repaired if a puncture does occur. PVC liners can be patched, much like an inner tube, with specially formulated cement which should be furnished by the liner supplier.

Sand manufactured per ASTM specifications for concrete sand works very well as ISF sand media, except that no more than 4% should pass the #100 sieve.

Figure 5 is a top view of an ISF. Typical filters are 360 square feet, Oregon's current "one size fits all" requirement. Square or nearly square configurations are most common, but on hillsides rectangular filters require less excavation. The pressure-distribution system should use small-diameter PVC pipes to maintain scouring velocities as high as possible and still provide equal distribution. With a sequencing distribution valve, the ISF may be dosed in zones. Very high pressure (30 ft +) thus applied to each orifice has been shown to virtually eliminate orifice plugging. Flushing the distribution system annually is recommended. If a flushing valve is installed, annual maintenance of an ISF should take less than 30 minutes. Blinding of the laterals' orifices, which may be caused by the covering gravel (Falkowski and Converse, 1988), can be avoided by use of protective orifice shields.

The total cost of an ISF includes the cost of permits and inspection (variable), the cost of materials ($2500 to $4000) and the cost of labor, typically two men and a backhoe for two days. ISF parts are available in kit form, to simplify the installer's job and to assure the owner that components are not only of high quality but also that they are compatible. With proper training and teamwork between contractors and regulators, contractors should be able to install most ISFs for less than $6000.



SIDE VIEW

Figure 4 18' x 20' SAND FILTER W/ PUMP BASIN

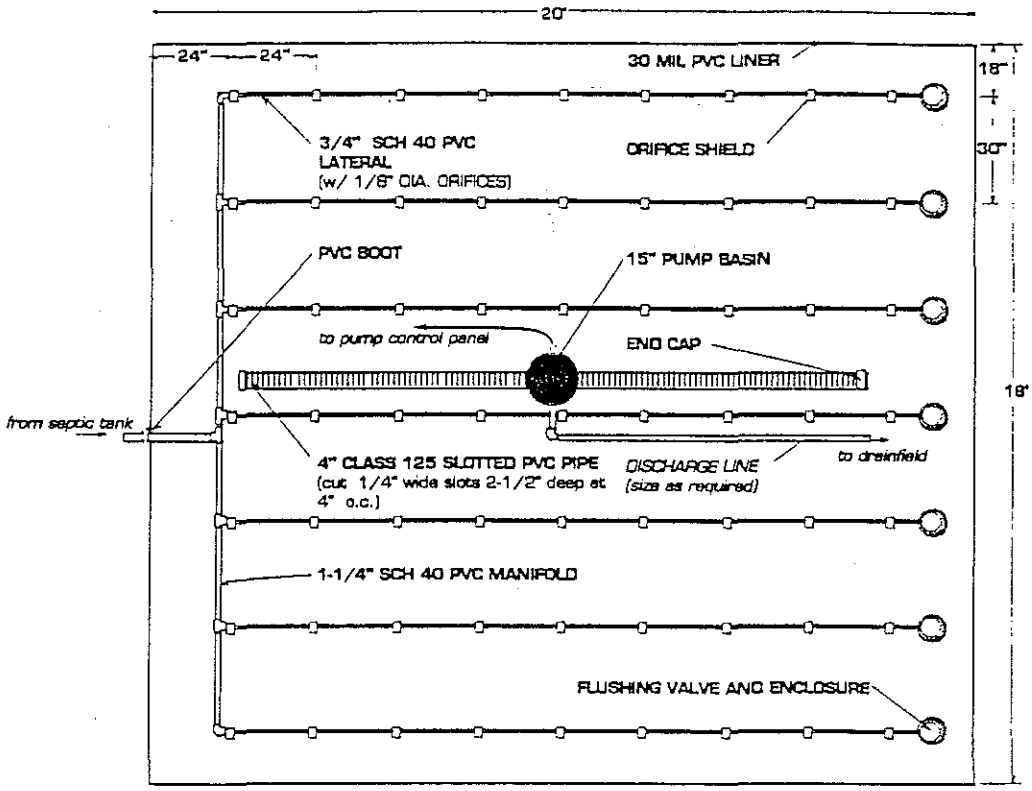


Fig. 5 18' x 20' Sand Filter with Pump Basin (Top View)

CURRENT RESEARCH

The goal of ongoing R & D at OSI and in collaboration with the University of California at Davis (UCD), California State University, Chico (CSUC), and Oregon State University is sand filters that are easier to design, simpler to build, more effective in their treatment of wastewater and more affordable. Most of this research has focused on ISFs, which have the greatest potential for widespread application, although investigations have begun into improving recirculating sand filters used for larger flows. Significant findings are:

(a) Based on data from thousands of units in pressure sewer STEP systems, a watertight single-compartment septic tank equipped with a screened-vault pumping device consistently discharges effluent with BOD_5 averaging 123 and TSS averaging 29 mg/L (Orenco Systems, Inc., 1990). Contrary to common belief, average effluent quality from systems thus configured always exceeds that from systems with multiple tanks. In both Oregon DEQ's experimental systems study (Ronayne et al., 1982) and Placer County, California's more recent sand filter study (Cagle, 1993), data was collected from systems in which a primary septic tank was followed by a separate pump tank with a large reserve volume. DEQ reported BOD_5 averaging 217 and TSS averaging 146; Placer County reported BOD_5 averaging 160 and TSS averaging 73.

(b) By applying small doses of effluent at frequent intervals to protected and closely spaced 1/8-inch diameter orifices in an ISF, it is possible to obtain higher loading rates (Mohammed, 1991; Calaway, 1957; Furman et al., 1955). In experimental ISFs with concrete sand (ASTM) as media, increasing the loading rate to 4 gpd/sqft used no decrease in effluent quality and no visible signs of clogging.

(c) Loading rates are affected not only by strength of wastewater (BOD_5 and TSS), but also by spacing and size of orifices, dosing frequency, media size and gradation, ambient temperature, air movement, etc.

(d) In an experimental ISF serving a two-bedroom home which went into operation late in 1990, an average of 115 gpd of wastewater flows to a septic tank equipped with a recirculating trickling filter (Fig. 6) and then is dosed to a 32 square foot stratified sand filter. BOD_5 and TSS of the ISF effluent average 1 mg/L, total nitrogen averages less than 10 mg/L, and fecal coliform are undetectable. A 10-inch deep, 12-inch wide, and 20-foot long gravel-less drainfield following the filter actually infiltrates effluent at a faster rate now than when it was installed three years ago.

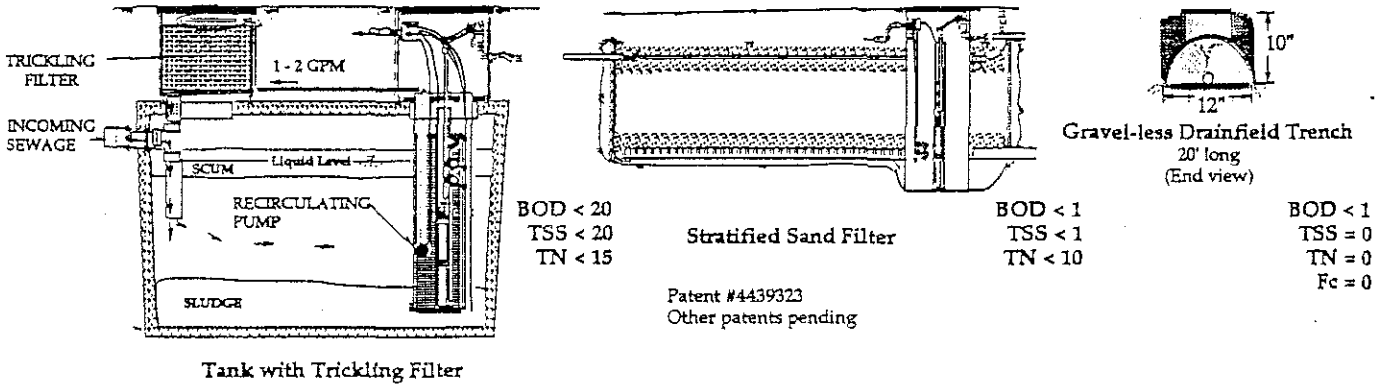


Fig. 6 Dosing Septic Tank with Trickling Filter followed by ISF

e) In a comprehensive audit of 450 watertight septic tanks on an effluent sewer system, researchers discovered that eight years after installation, average sludge and scum accumulations were less than 55% of the maximum allowable before pumping is required (Bounds, $T._1$, 1992). Using that data and corroborating numbers from Public Health Service studies, an average mean time between tank pumpings for those tanks is predicted to be at least 15 years (Bounds, $T._2$, 1992). Naturally, accumulation rates in a few individual tanks may vary significantly from the average, and accumulation rates may vary by region of the country, so monitoring is essential and particularly important where tanks are not watertight. Nevertheless, assertions that every septic tank should be pumped every two, three, or even five years are unsupported by scientific evidence. When indicated by monitoring, much longer pumping intervals save money and decrease the pressure on already overburdened septage receiving facilities.

A research project is just under way, the goal of which is to determine the fate of contaminants, principally nitrate nitrogen, when sand filter effluent is discharged to ground water via drainfields. Sponsored by the United States Environmental Protection Agency, this project's specific objectives are to develop a methodology, using suction lysimeters, for monitoring, in situ, the treatment efficiency of subsurface absorption trenches and to use that methodology to monitor existing absorption trenches in California, Oregon, and Washington. Lead by Professors George Tchobanoglous (UCD) and Stewart Oakley (CSUC), researchers plan to involve regulatory agencies in the project to help develop, using the monitoring results obtained, new design and monitoring standards for absorption trenches receiving sand filter effluent.

THE FUTURE OF SAND FILTERS

Sand filters are gaining increasing acceptance as regulatory authorities become more familiar with them and encourage their use. Massachusetts, Washington, British Columbia, and several counties in California are installing and monitoring 100 square foot residential sand filters followed by very shallow, gravel-less drainfields. In Anchorage, Alaska, three ISFs were installed in September 1993 as part of an experimental program in which the units will be insulated and heated with warm air.

Since disinfection can render ISF effluent recyclable, we may one day soon see it returned to the home to flush toilets. Particularly in areas seriously affected by drought, it's not hard to envision homes being disconnected from conventional sewer lines and converted to on-site systems in order to reuse sand filter effluent for irrigation and other uses. The goal would be to reduce overall water consumption and at the same time lessen the load on existing sewage treatment plants.

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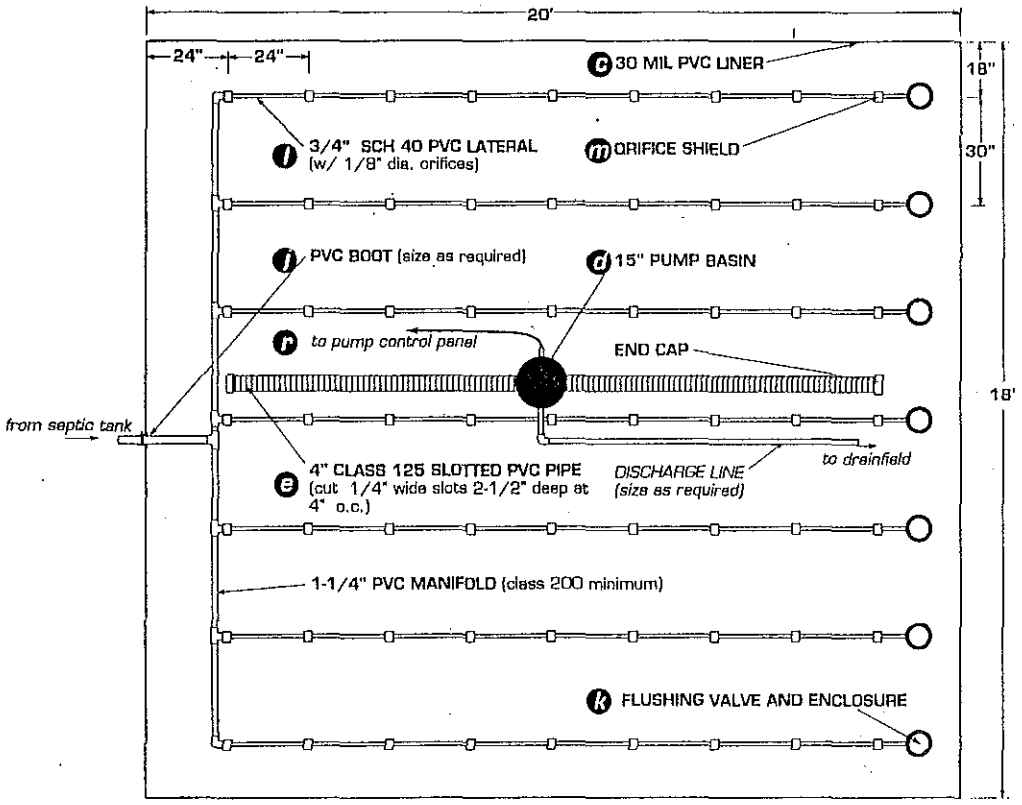
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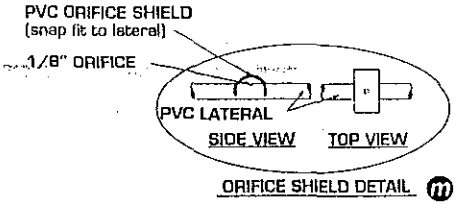
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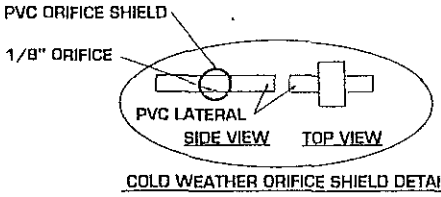
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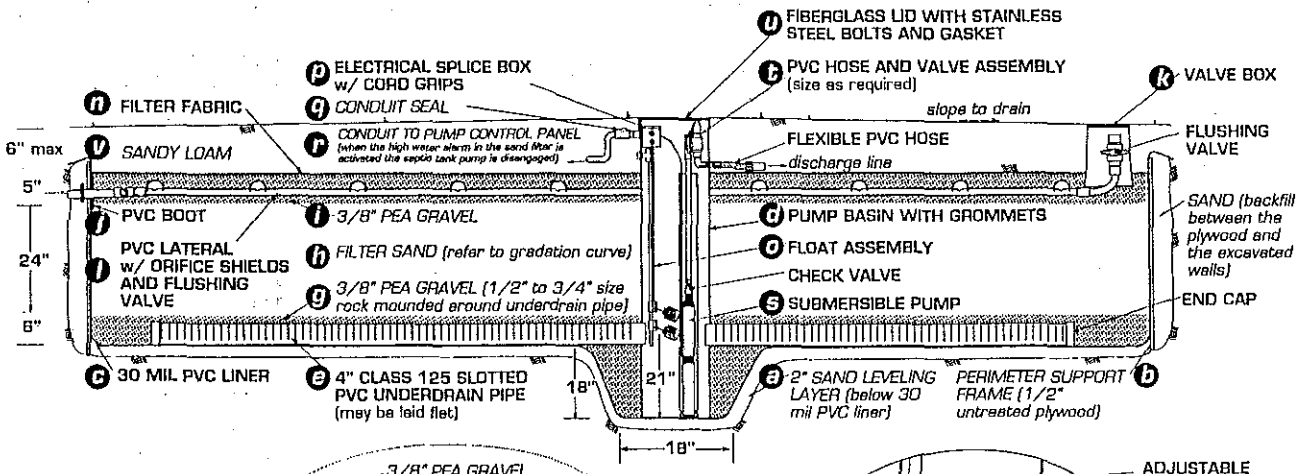
TOP VIEW

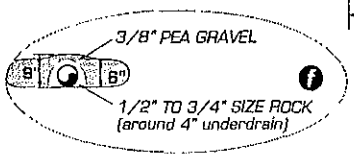


ORIFICE SHIELD DETAIL M

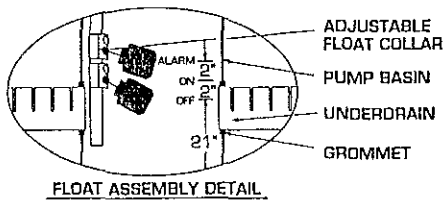


COLD WEATHER ORIFICE SHIELD DETAIL





UNDERDRAIN DETAIL



FLOAT ASSEMBLY DETAIL

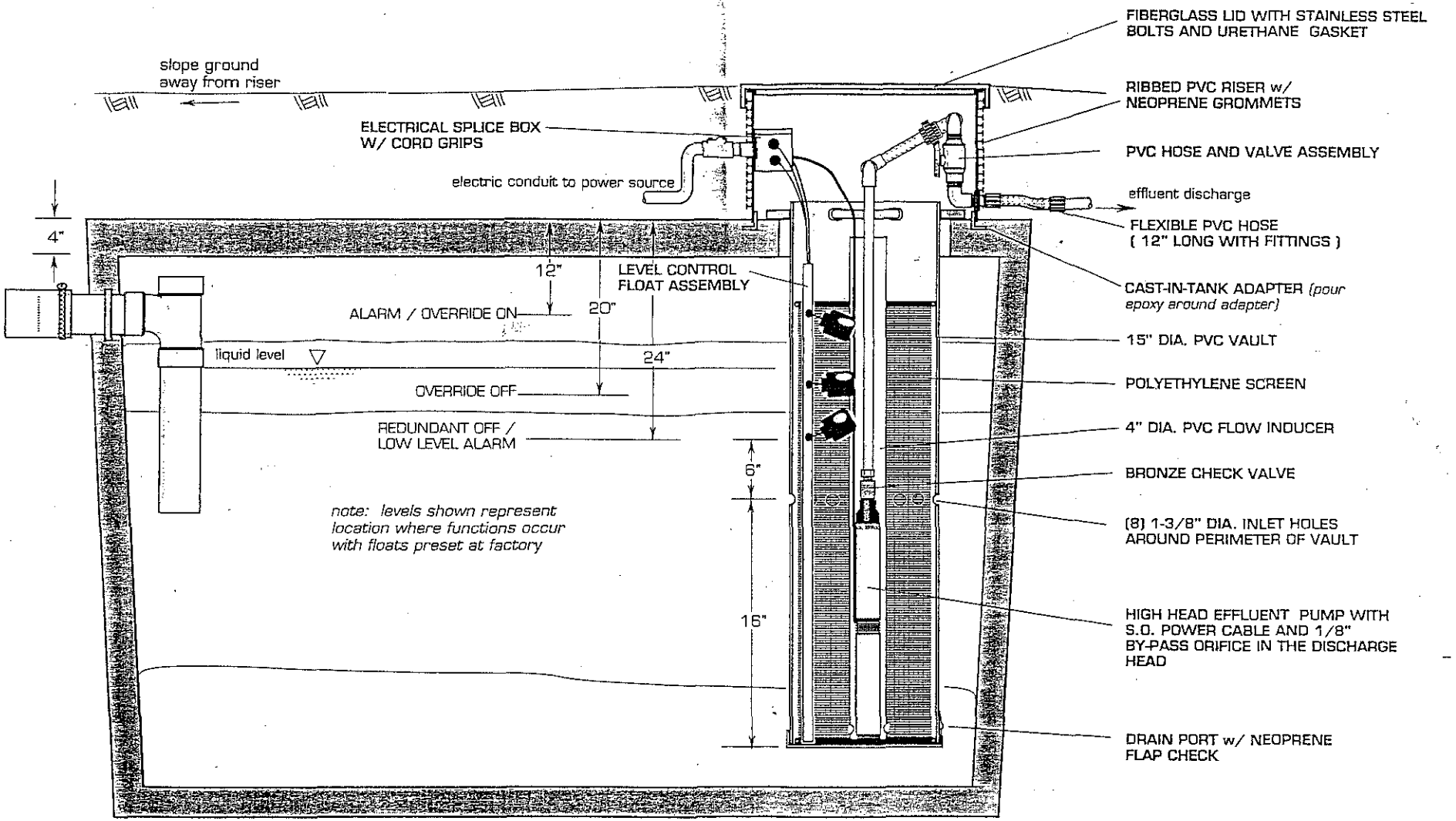
Orenco Systems Incorporated
2826 Colonial Road
Roseburg, Oregon 97470
(503) 673-0185
Fax (503) 673-1128
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FIGURE 1

SIDE VIEW (NTS)

18' x 20' SAND FILTER w/ PUMP BASIN

drawing 1820 PGL



Orenco Systems Incorporated
2826 Colonial Road
Roseburg, Oregon 97470
(503) 673-0165
Fax (503) 673-1126
© 1994 Orenco Systems Inc.

SAND FILTER PUMP TANK PACKAGE

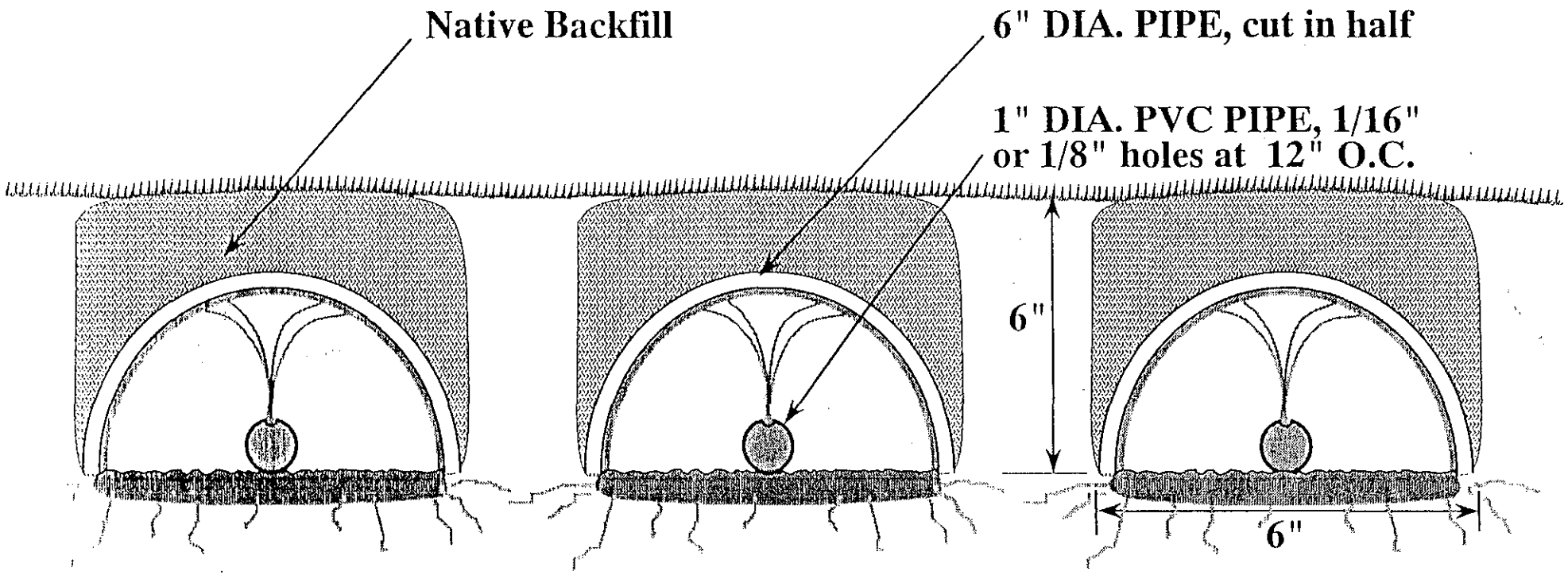
SIDE VIEW TYPICAL1000 OR 1500 GALLON TANK W/ MF-2AR
LEVEL CONTROL FLOAT ASSEMBLY

NOTE: Items in **bold** included with sand filter package

**Drawing not to scale*

drawing SFPT

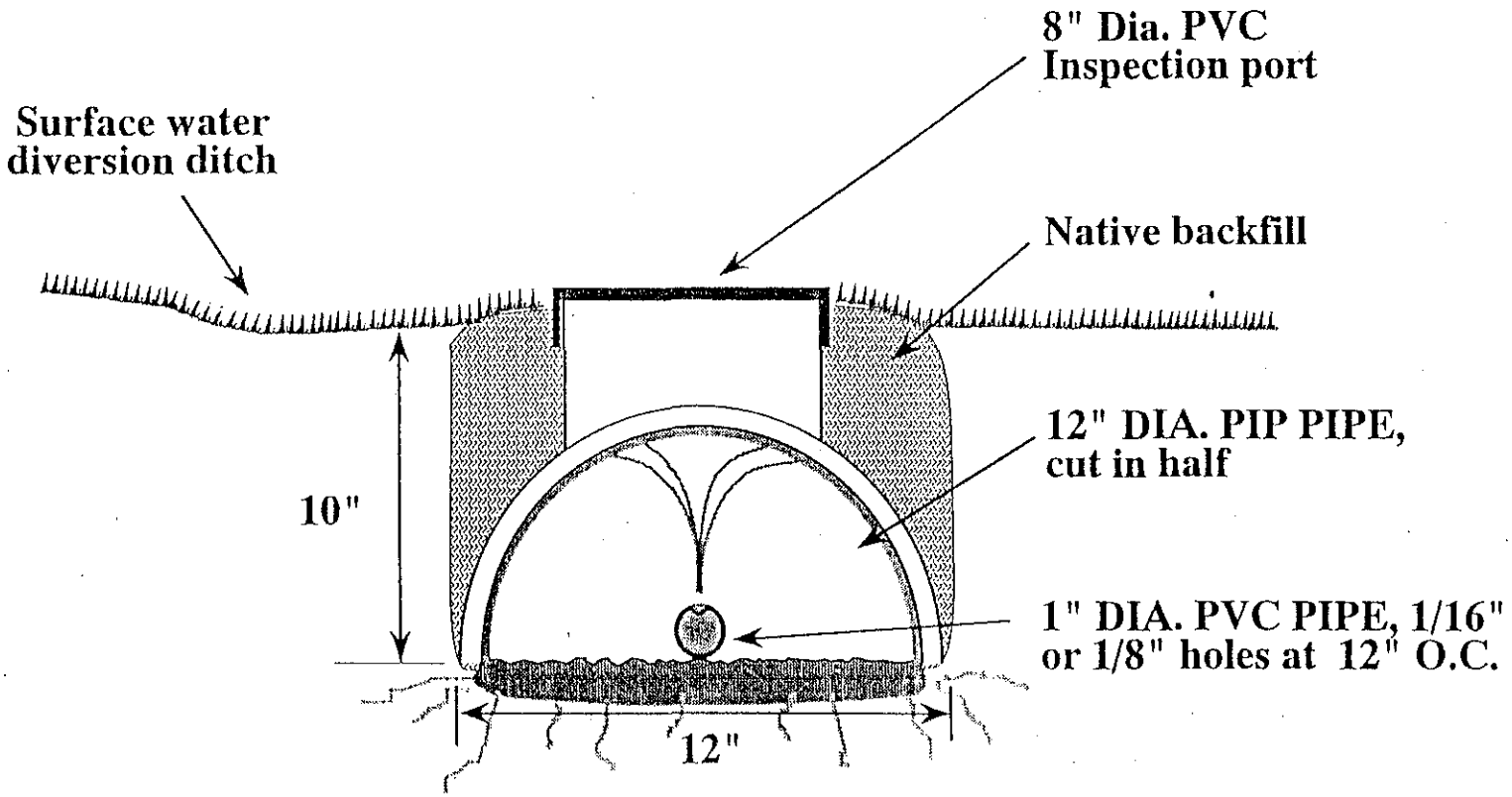
© 5/18/94, Orenco Systems Inc.
U.S. Patent No. 4439323



END VIEW

PRESSURE DISPOSAL TRENCH DETAIL

Typical drainfield loading rate following sand filters may range from 5 to 15 gal/sq.ft.



END VIEW

PRESSURE DISPOSAL TRENCH DETAIL

Typical drainfield loading rate following sand filters may range from 5 to 15 gal/sq.ft.

Oregon

June 24, 1994

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

Mr. and Mrs. Stephen Wilkins
1747 N.W. Rimrock Drive
Bend, Oregon 97701

Re: WQ-IOSWW-Variance: Tax Lot 1400; Sec. 35; Township 20 South; Range 10 East, W.M.; Deschutes County.

Dear Mr. and Mrs. Wilkins:

The variance application submitted to this office for the above-described property has been reviewed and found to be incomplete. Before the Department of Environmental Quality (Department) can respond to your request, all the following items must be provided:

1. Complete and **detailed plans and specifications** that illustrate how and where the initial system and future repair/replacement system are to be located on the property. The plan should also show the location of the dwelling, driveway, water line, all wells within 200 feet of the proposed disposal area, utilities (if underground), property lines, ditches, septic tank, disposal trenches (in both the initial and future repair/replacement areas), and other existing and proposed features on the property. The plan needs to be accurate and **drawn to scale**. The plan submitted with your application lacks this detail, and it is not clear that system specifications were included.

2. Two copies of a **narrative description** of the system you are proposing for consideration by the variance officer. Describe the proposed system and how it will overcome the site limitations described in the County report. It is your burden to provide the supporting documentation that justifies granting variance from established rules.

The cover letter submitted with the variance application appears to express your belief that the morphological evidence observed by Dan Haldeman in the test pits he examined is not a valid indicator of how near to the surface groundwater is expected to rise. Mr. Haldeman states that groundwater may rise to within 15 to 20 inches of the surface. If you dispute Mr Haldeman's conclusions, and believe groundwater levels are deep enough to comply with the Department's standards, then you should be requesting a review of his decision through the Department's Bend office (the office phone number is 388-6146). Mr. Daryl Johnson of that office will guide you through this process.

The variance procedure is only appropriate when you concur that the site does not comply with established standards. As a major part of this process, it is your obligation to develop a specific proposal that addresses and overcomes the site development limitations identified in the County report. The proposal must include detailed plans, specifications and a narrative

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993
DEQ-1

description, as previously described in this letter. The variance officer's duty is to determine if, in his professional judgement, your proposal is adequate to safeguard the public's health and environmental interests when waiving standards that were specifically developed for that same purpose. He may recommend you consider modifications to your proposal if he believes the changes are warranted. Ultimately, however, his decision is made based on your proposal.

The missing and/or incomplete items must be sent to my attention, Department of Environmental Quality, Water Quality Division, 811 S.W. Sixth Avenue, Portland, Oregon 97204. Please feel free to call if I may be of additional assistance. My telephone number is (503) 229-6443, or toll free 1-800-452-4011 within the state of Oregon.

Sincerely,

Sherman O. Olson, Jr.
Environmental Specialist
On-Site Sewage Disposal Program
Water Quality Division

soo

IW\WQ

cc: Dan Haldeman, Deschutes County
Joni Hammond, Eastern Region:DEQ
Daryl Johnson, Eastern Region:DEQ

June 15, 1994

DEPT OF ENVIRONMENTAL QUALITY
2146 NE 4th Street, Suite #104
Bend, OR 97701

Re: S 34158
20-10-35CO 01400
54799 Red Fox Lane, Bend, OR 97707

Dear Sir:

I am submitting documentation for your review and request that you consider this as an application for a variance from the Oregon Rules regarding the soil color as found on the subject property.

The discoloration of the soil as described in the denial letter was caused by water which was present prior to the construction of Wickiup Dam, and is therefore a relic situation according to Mr. Dan Haldeman of Deschutes County Sanitation Department.

I have had test holes open on the property for 15 months and have observed these holes at least monthly over this 15 month period of time. Never, at any time has there been standing water in any of the test holes on the subject property. The proposed building and existing septic area of the property is considerably higher than the neighboring lots which may have high water tables, in fact the Flood Area Map indicates that the subject septic area is outside of Flood Area.

The original application to the County was for authorization to hook up to the existing system. The response from Deschutes County went on to deny any type of standard or non-standard system. I am requesting the variance to include any type or kind of on site sewage disposal system.

Sincerely,

Stephen W. Wilkins

Stephen W. Wilkins
(503) 383-3000

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 17 1994
CENTRAL REGION
BEND

Application for Variance from Administrative Rules
Regulating On-Site Sewage Disposal Systems CK# 2547 / 225.00

Please complete this application form and submit the application fee* ($225) and required attachments to:

Department of Environmental Quality, Sewage Disposal Section, 811 S.W. Sixth Avenue, Portland, Oregon 97204

REFERENCE INFORMATION—Please Print

STEPHEN W. WILKINS	20 S	10 E	35
Name of Owner	Township	Range	Section
1747 NW RIMROCK DR.	1400		
Address	Tax Lot or Account No.		Parcel Size
BEND OR. 97701	Subdivision Name DESCHUTES RIVER REC. HOMESITES		
City State Zip Code			
382-4201 (work) 383-3000	Lot 69	Block 70	UNIT 6
Business Phone Home Phone			

ATTACHMENTS

Provide The Following Items:

1. Complete and accurate directions to the property. A locater map would be helpful.

2. Two (2) copies of the parcel's legal description (metes and bounds, warranty deed, sales contract, or approved subdivision plat). Include the protective covenants, deed restrictions and easements, if applicable.

3. Two (2) copies of an assessor or title company plat map or a surveyor plat map.

4. Two (2) copies of a land use compatibility statement from the appropriate land use authority that your proposed land use is compatible with the LCDC acknowledged comprehensive plan or statewide planning goals.

5. Copies of all correspondence and field notes relating to past evaluations for septic tank-drainfield development on the subject property. A copy of the site evaluation report must be included.

6. Two (2) copies of narrative description of your variance proposal including the system construction specifications. Please list the step-by-step procedures that you propose to be followed for the installation of this system.

7. On a plot plan draw to a defined scale not smaller than one inch equals thirty feet, show the location and dimensions of the proposed drainfield and its replacement area. Indicate separation distances between disposal trenches, wells, springs, water courses, agricultural drainage tile, ditches, drainage ways, waterlines, buildings, roads, embankments, and other identifying features which help demonstrate parcel to drainfield relationships. Please provide two (2) copies.

8. Two (2) copies of a profile view of the proposal which illustrates the projected drainfield layout, trench dimensions, backfill depth, boundaries, (in cases where a crown over the drainfield is proposed), slope direction and percent of slope.

Hardship variances may be considered in cases of extreme and unusual hardship. The following factors may be considered: Advanced age or bad health of applicant; need of applicant to care for aged, incapacitated or disabled relative; and relative insignificance of the environmental impact of granting a variance. Documentation of hardship must be provided. FOR HARDSHIP CONSIDERATION MARK THIS BOX. [ ]

A minimum of two test pits must be provided within the specific area where the actual variance system is being proposed. The pits should be approximately two feet wide, four feet long, and excavated to either bedrock or to a depth of five (5) feet. Similar pits must be provided in the area of the repair system. The Variance Officer may require the proposed drainfield and the future replacement drainfield be staked out.

Please note that it is your responsibility to present all of the facts and the reasoning which you feel justifies the granting of the variance.

By my (our) signature(s), I (we) request the Department of Environmental Quality act on this application and hereby grant permission to enter onto the above described property.

Stephen W. Wilkins 6-15-94
Signature of Owner Date

Bonnie C. Wilkins 6-15-94
Signature of Owner Date

NOTE: All owners must sign this application form. If there are more than two (2) owners, attach additional duplicate applications.

* Pursuant to ORS 454.662, the applicant is not required to submit the application fee if, at the time of filing the application, the applicant is 65 years of age or older, is a resident of the State of Oregon, and has an annual household income, as defined in ORS 310.630, of $15,000 or less. Appropriate documentation must be submitted with the application.

XL151 (h)
DEQ/WQ-406 Revised (10/29/86)

FOR DEQ USE ONLY

LAND USE COMPATIBILITY STATEMENT FOR ON-SITE SEWAGE DISPOSAL SYSTEMS

APPLICANT'S NAME	MAILING ADDRESS	PHONE
STEPHEN W. WILKINS	1747 NW RIMROCK DR BEND OR 97701 CITY STATE ZIP	(503) 383-3000

LOCATION

TOWNSHIP	RANGE	SECTION	TAX LOT OR ACCT NO
20S	10E	35	1400
SUBDIVISION/PROJECT	**LOT**	**BLOCK**	**COUNTY**
DESCHUTES RIVER REC. HOMESITE	69	70	DESCHUTES

☒ PROPERTY IS A LOT OF RECORD CREATED BEFORE AUGUST 1, 1981.

PROPOSED LAND USE
1-4 BEDROOM SINGLE FAMILY RES.

STATEMENT OF COMPATIBILITY FROM APPROPRIATE LAND USE AUTHORITY

(An equivalent statement may be provided in lieu of this form)

PROPERTY'S ZONING DESIGNATION

THE ABOVE PROPOSAL HAS BEEN REVIEWED AND FOUND TO BE:

☐ COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN

☐ CONSISTENT WITH THE STATEWIDE PLANNING GOALS

OR

☐ NOT COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN

☐ NOT CONSISTENT WITH THE STATEWIDE PLANNING GOALS

REASON FOR FINDING OF COMPATIBILITY / INCOMPATIBILITY

PROPERTY IS LOCATED: (check one)

☐ INSIDE CITY

☐ INSIDE URBAN GROWTH BOUNDARY OUTSIDE CITY LIMITS

☐ OUTSIDE URBAN GROWTH BOUNDARY

LAND USE AUTHORITY

SIGNED	TITLE	DATE

CITY/COUNTY CONCURRENCE IF INSIDE URBAN GROWTH BOUNDARY

SIGNED	TITLE	DATE

(3/21/90)

DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND USE COMPATIBILITY STATEMENT REQUIREMENTS

FOR

ON-SITE SEWAGE DISPOSAL PERMITS

A Statement of Compatibility with applicable local comprehensive land use plans and Statewide Planning Goals is required for new or expanded on-site sewage disposal systems. A statement may be required before an Authorization Notice can be issued. The statement must certify that proposals are compatible with LCDC-Acknowledged local comprehensive land use plans and implementing ordinances, or Statewide Planning Goals. The Department prefers that its Land Use Compatibility Statement form be used; however, it will accept an equivalent statement in lieu of the form.

In urbanizing areas between city limits and urban growth boundaries, applicants must provide evidence of both city and county concurrence as to the land use compatibility of the proposal. This evidence must be:

1. Sign-off by both jurisdictions on DEQ's Land Use Compatibility Statement form;

2. A copy of the city/county management agreement included in the Urban Area Plan acknowledged by LCDC, or;

3. A written statement covering the applicant's proposal.

If DEQ receives a negative local Statement of Compatibility, a permit or approval cannot be issued. DEQ would then expect the applicant to work with the local jurisdiction to obtain the needed zone change, variance, or other modification to produce compatibility with the Acknowledged Plan and ordinances or the Statewide Planning Goals.

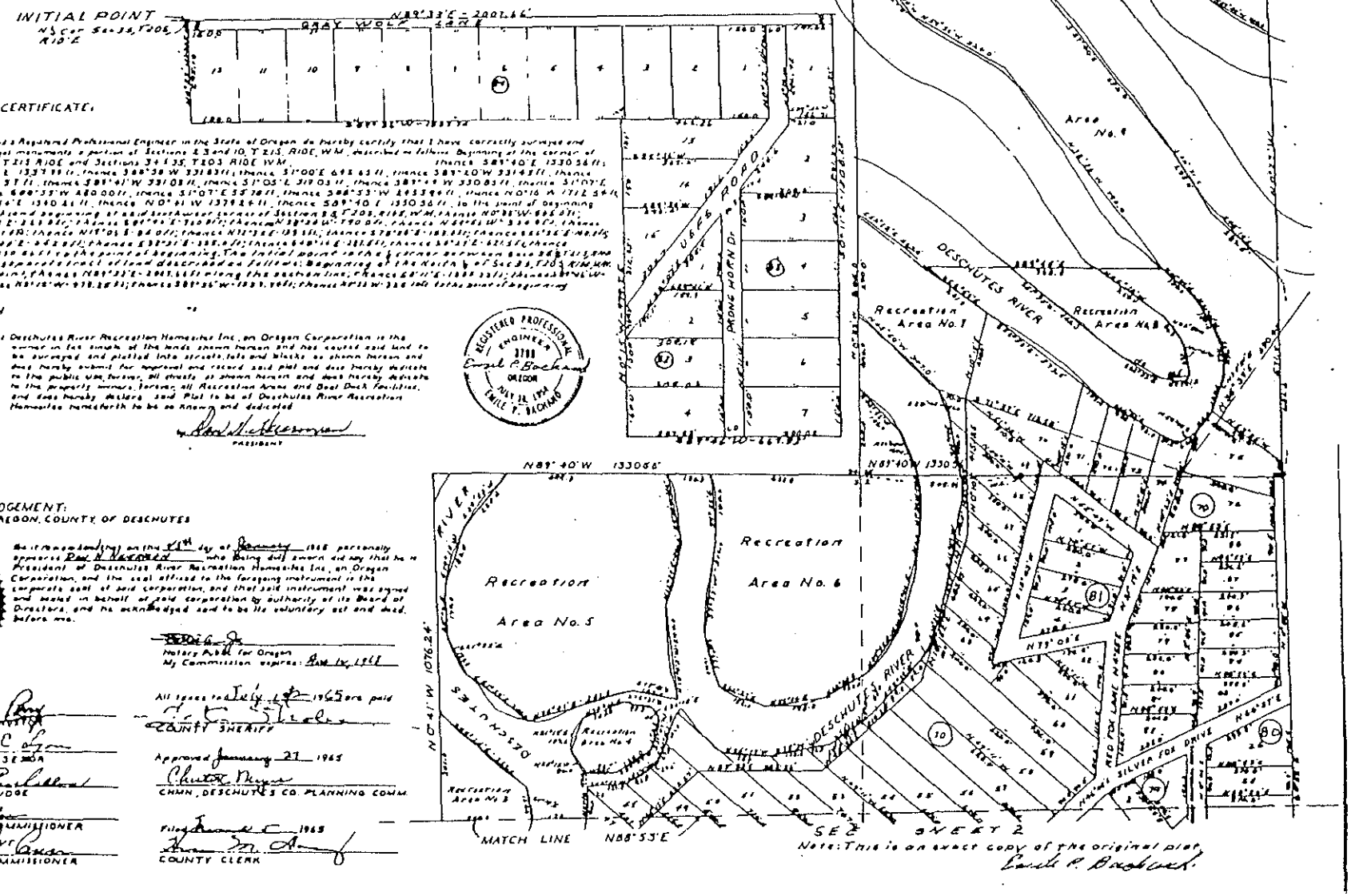
Applicants for on-site sewage disposal permits must submit a completed Statement of Compatibility or an approved equivalent along with their application or request.

DESCHUTES RIVER RECREATION HOMESITES

UNIT 6 PART II

SHEET 1 of 2

LOCATED IN SECTIONS 2, 3 & 10, T21S, R10E, & SECTION 35, T20S, R10E, W.M.
DESCHUTES COUNTY, OREGON
SCALE 1" = 200'



ENGINEERS CERTIFICATE:

I, Emil P. Bachand a Registered Professional Engineer in the State of Oregon do hereby certify that I have correctly surveyed and marked with legal monuments a portion of Sections 2, 3 and 10, T 21S, R10E, W.M., described as follows: Beginning at the corner of Sections 2, 3, T 21S R10E and Sections 34 & 35, T20S R10E W.M.; thence S89°40'E 1330.56 ft; thence S 0°58'E 1337.95 ft; thence S88°38'W 331.83 ft; thence S1°00'E 665.65 ft; thence S89°20'W 331.45 ft; thence S1°02'E 440.57 ft; thence S89°41'W 331.08 ft; thence S1°05'E 219.05 ft; thence S89°44'W 330.85 ft; thence S1°00'E 2.2 ± ft; thence S88°35'W 480.00 ft; thence S1°07'E 35.78 ft; thence S86°53'W 265.36 ft; thence N0°16'W 1712.54 ft; thence N89°36'E 1340.46 ft; thence N0°41'W 1379.86 ft; thence S89°40'E 1330.36 ft; to the point of beginning.
Also a tract of land beginning at said Southwest corner of Section 35, T20S, R10E, W.M.; thence N0°35'W 665.87 ft; thence S 43°15'E 845.86 ft; thence S 89°41'E 760.87 ft; thence N38°28'W 790.04 ft; thence N 89°41'W 336.87 ft; thence N 84°44'W 131.98 ft; thence N11°05'E 84.07 ft; thence N15°34'E 105.56 ft; thence S78°58'E 183.87 ft; thence S65°36'E 98.65 ft; thence S 37°49'E 246.87 ft; thence S 39°31'E 335.87 ft; thence S48°16'E 281.87 ft; thence S0°41'E 621.57 ft; thence N89°40'W 1330.66 ft to the point of beginning. The initial point is the ¼ corner between Sec 34, T20S R10E and Sec 3, T21S R10E W.M. Also a separate tract of land described as follows: Beginning at the North ¼ of Sec 34, T20S R10E W.M. the initial Point; thence N89°33'E 2001.66 ft along the section line; thence S0°41'E 1076.24 ft; thence S89°19'W 665.87 ft; thence N0°18'W 970.38 ft; thence S89°26'W 1331.90 ft; thence N0°33'W 336 ft to the point of beginning.

DEDICATION

Be it Known that Deschutes River Recreation Homesites Inc., an Oregon Corporation is the owner in fee simple of the lands shown hereon and has caused said land to be surveyed and platted into streets, lots and blocks as shown hereon and does hereby submit for approval and record said plat and does hereby dedicate to the public use, forever, all streets as shown hereon and does hereby dedicate to the property owners, forever, all Recreation Areas and Boat Dock Facilities, and does hereby declare said Plat to be of Deschutes River Recreation Homesites hereafter to be so Known and dedicated

Paul N. Ackerman
PRESIDENT

REGISTERED PROFESSIONAL ENGINEER 3788 OREGON JULY 31, 1956 EMILE P. BACHAND

ACKNOWLEDGEMENT:
STATE OF OREGON, COUNTY OF DESCHUTES

Be it Remembered that on this 21st day of January 1965 personally appeared Paul N. Ackerman who being duly sworn did say that he is President of Deschutes River Recreation Homesites Inc., an Oregon Corporation, and the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and he acknowledged said to be his voluntary act and deed. Before me:

[illegible]
Notary Public for Oregon
My Commission expires: June 14, 1967

APPROVAL

County Surveyor

County Assessor

County Judge

County Commissioner

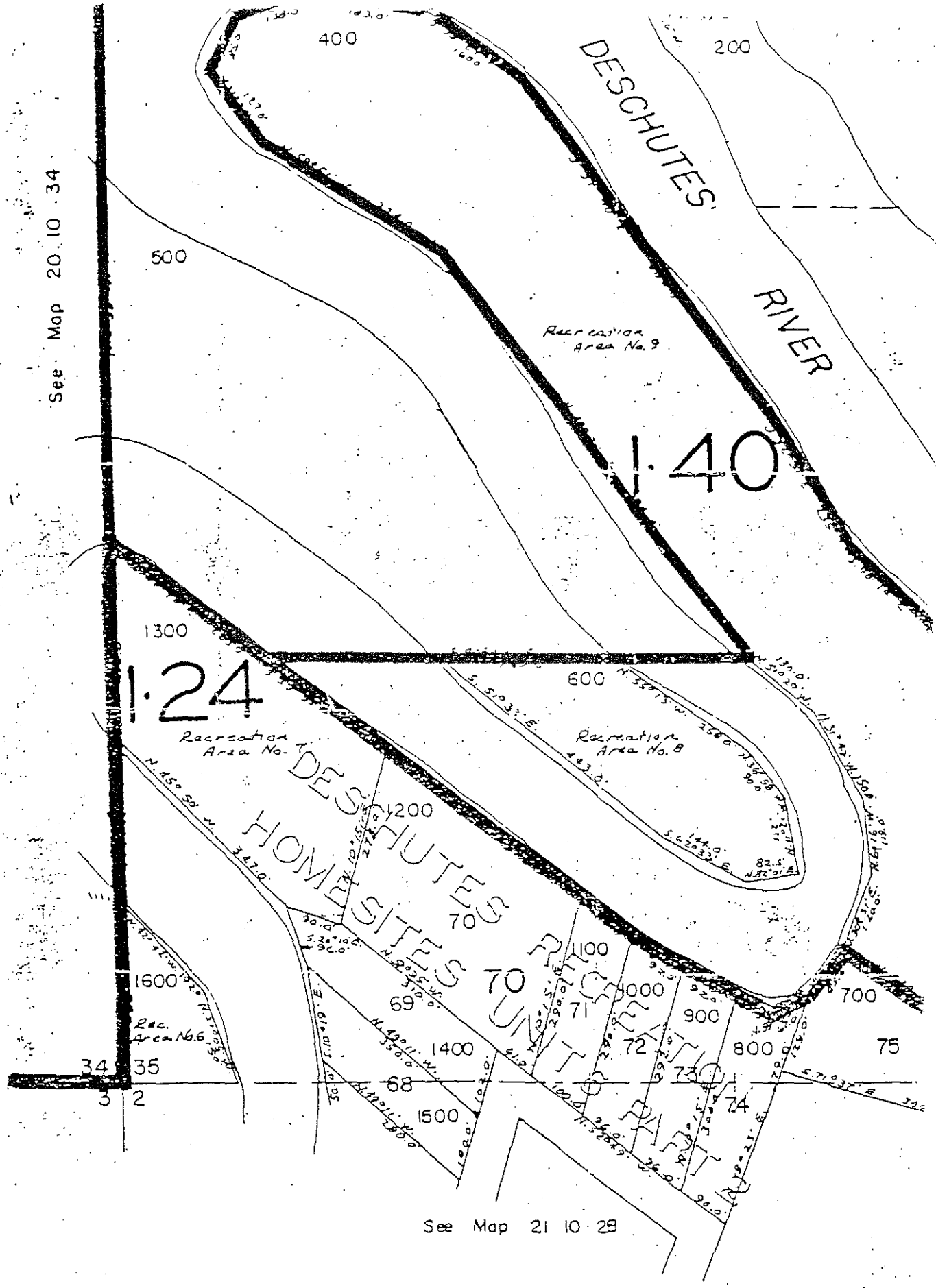
County Commissioner

All taxes to July 1st 1965 are paid
A. C. Sisler
County Sheriff

Approved January 21 1965
Chuter Nyse
Chmn., Deschutes Co. Planning Comm.

Filed January 1965
[illegible]
County Clerk

Note: This is an exact copy of the original plat.
Emil P. Bachand


DESCHUTES RIVER
400
200
500
See Map 20 10 34
Recreation Area No. 9
1.40
1300
1.24
600
Recreation Area No. 7
Recreation Area No. 8
1200
DESCHUTES HOMESITES UNIT NO. 2
70
1100
1600
69
71
1000
900
700
Rec. Area No. 6
1400
72
800
75
34
35
68
730
1500
74
3
2
See Map 21 10 28

March 29, 1993

DESCHUTES COUNTY PLANNING DEPT
COURTHOUSE ANNEX

ATTN: David Leslie

Re: Lot 69 Block 70 DESCHUTES RIVER RECREATION
HOMESITES, UNIT 6
Tax Lot 1400 Tax Map 20 10 35 CO

Dear Sir:

This letter is to confirm my understanding that based upon your review of site survey and Floodplane maps, the subject property has sufficient area outside of the Floodplane so that no special conditional use permit or variances* are required in order to construct a residence.

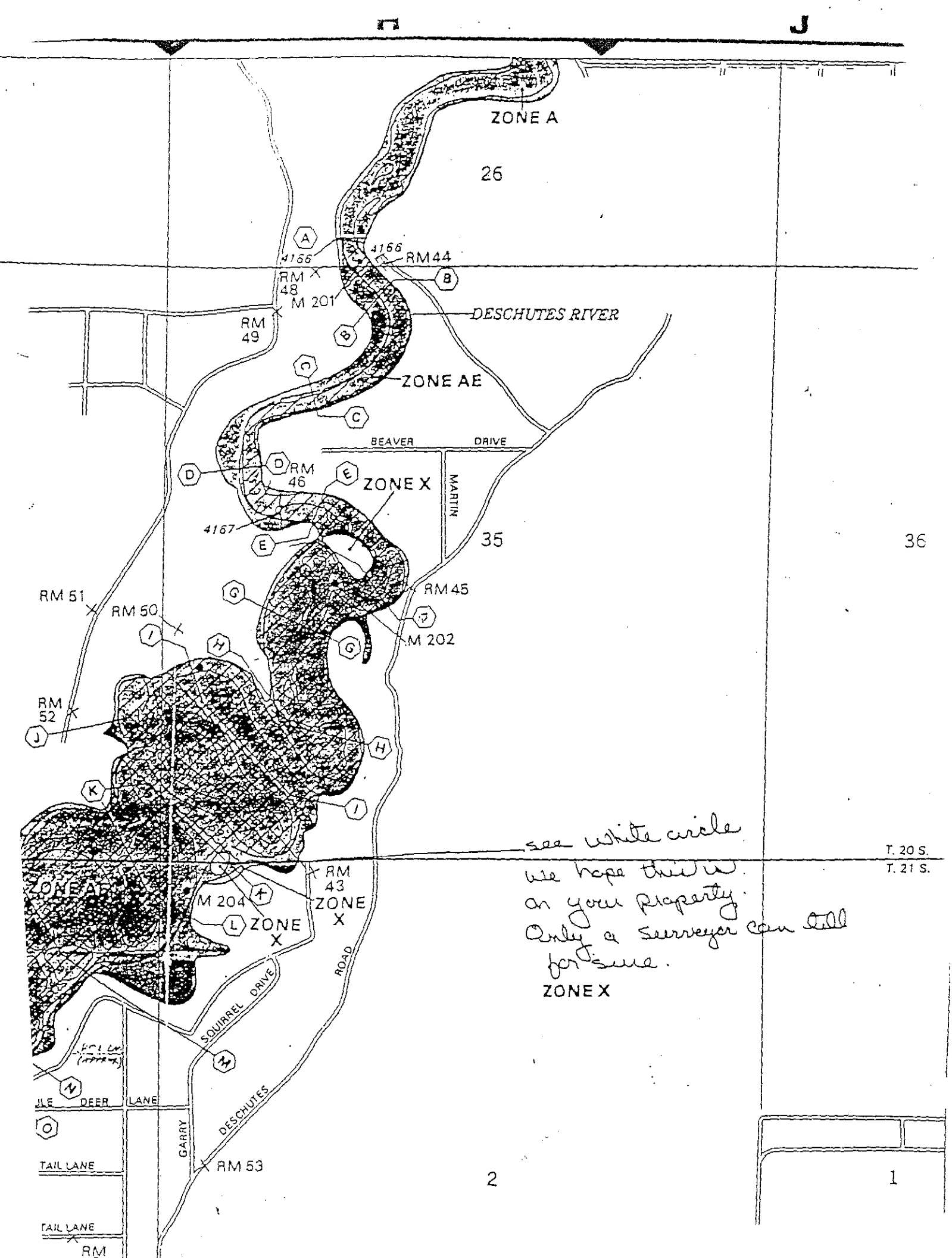
Sincerely,

Bonnie C. Wilkins

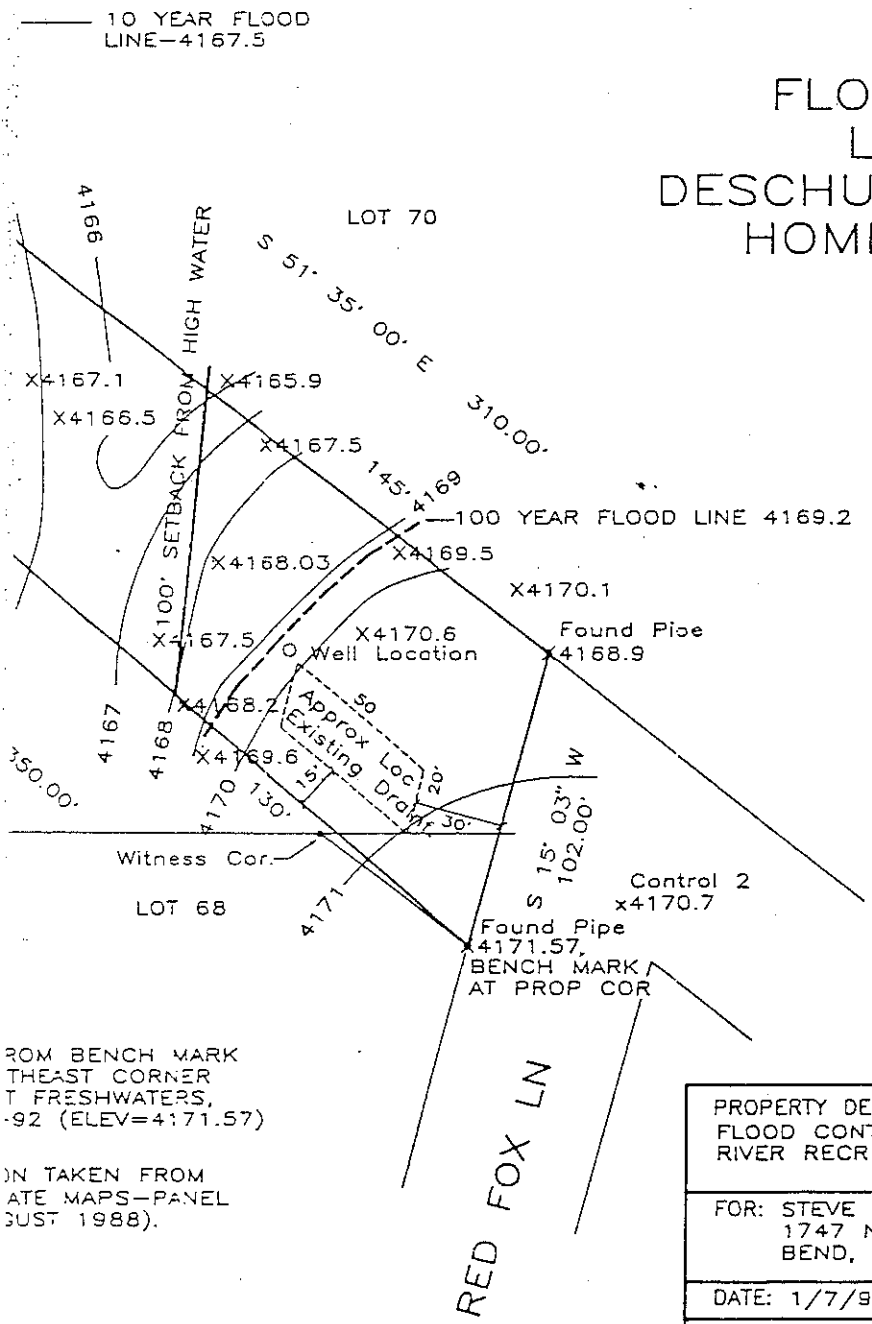
ACKNOWLEDGED:
March 30, 1993

By David Leslie
David Leslie, Deschutes County Planning Dept

* ALL STRUCTURES MUST COMPLY WITH YARD SETBACK REQUIREMENTS OF TITLE 18, DESCHUTES COUNTY CODE.


J
ZONE A
26
A
4166
4166
RM 44
RM 48
M 201
B
DESCHUTES RIVER
RM 49
C
ZONE AE
BEAVER DRIVE
D
RM 46
E
ZONE X
MARTIN
4167
35
36
RM 51
RM 50
G
RM 45
M 202
I
H
RM 52
J
K
see white circle
we hope this is
on your property.
Only a surveyor can tell
for sure.
ZONE X
T. 20 S.
T. 21 S.
RM 43
ZONE A
M 204
L
ZONE X
ZONE X
SQUIRREL DRIVE
ROAD
M
N
JLE DEER LANE
O
GARRY
DESCHUTES
TAIL LANE
RM 53
2
1
TAIL LANE
RM

FLOOD CONTROL SURVEY
LOT 69, BLOCK 70,
DESCHUTES RIVER RECREATIONAL
HOMESITES, UNIT 6, D.C.O.





SCALE: 1"=50'

ROM BENCH MARK
THEAST CORNER
T FRESHWATERS,
-92 (ELEV=4171.57)

ON TAKEN FROM
ATE MAPS—PANEL
GUST 1988).

PROPERTY DESCRIPTION:
FLOOD CONTROL SURVEY—LOT 69, BLOCK 70, DESCHUTES RIVER RECREATION HOMESITES, UNIT 6, DES. CO., OREGON

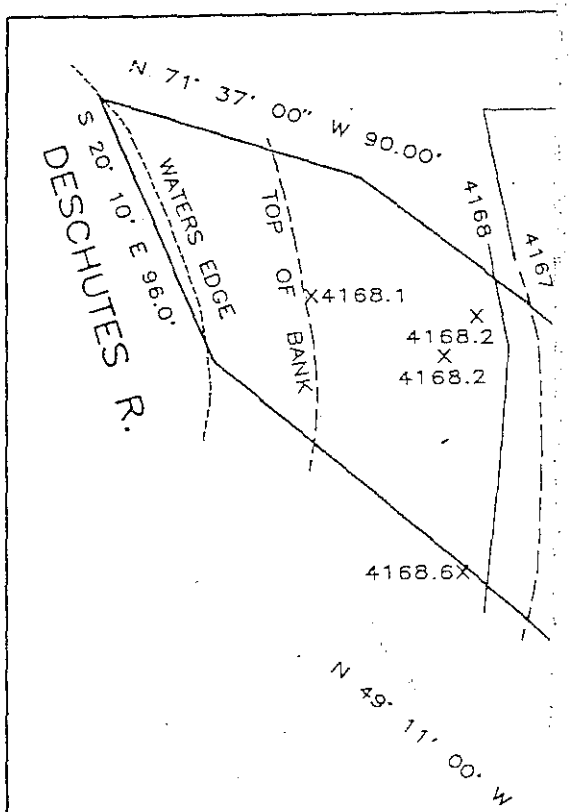
FOR: STEVE AND BONNIE WILKINS
1747 NW RIMROCK ROAD
BEND, OR. 97701

DATE: 1/7/93	REVISED 1/27/93	DWG. NO. 92-2695
SCALE: 1"=50'	DRAWN BY: BK-ACAD	

ROBERT KARL—RUSSELL M. KARL, JR.—PROF. LAND SURVEYORS
61271 Chikamin Drive—Bend, Oregon 97702 (503) 389-1924

REGISTERED
PROFESSIONAL
LAND SURVEYOR

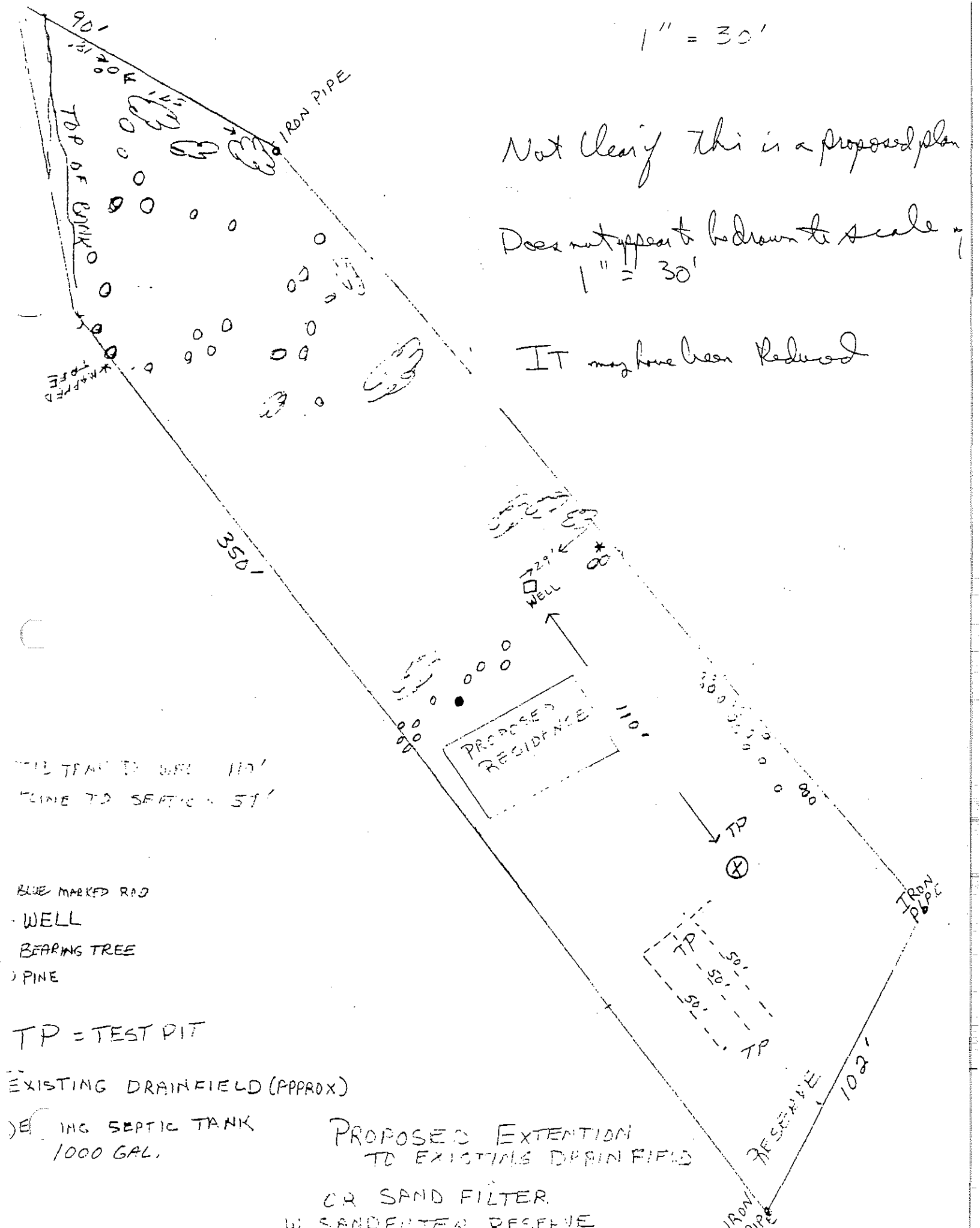
OREGON
JULY 14, 1978
ROBERT M. KARL
1642



——To Sec Cor 508.96'

NOTES—ELEVATIONS TAKEN F
ESTABLISHED AT SOU
OF LOT 69 BY SCOT
P.L.S., DATED 2-16-

FLOOD LINE ELEVATI
FLOOD INSURANCE R
NO. 465 (DATED AU


1" = 30'
Not Clear This is a proposed plan
Does not appear to be drawn to scale of 1" = 30'
It may have been Reduced
90'
IRON PIPE
TOP OF BANK
MAPPED
350'
29'
WELL
PROPOSED RESIDENCE
110'
80'
TP
IRON PIPE
50'
50'
50'
TP
TP
RESERVE
102'
IRON PIPE
BLUE MARKED RAD
WELL
BEARING TREE
PINE
TP = TEST PIT
EXISTING DRAINFIELD (APPROX)
EXISTING SEPTIC TANK
1000 GAL.
PROPOSED EXTENTION
TO EXISTING DRAINFIELD
OR SAND FILTER
W SANDFILTER RESERVE

DESCHUTES COUNTY

Community Development Department

Administration Bldg. / 1130 N.W. Harriman / Bend, Oregon 97701

(503) 388-6575

Planning Division
Building Safety Division
Environmental Health Division

October 28, 1993

Stephen W Wilkins
1747 Northwest Rimrock Rd
Bend OR 97701

RE #S34158: 20-10-35C-1400
54799 Red Fox Ln, Bend

Dear Mr. Wilkins

This letter is to correct a mistake in the authorization denial letter written August 16, 1993. The first sentence of the sixth paragraph is not true. After checking my spring water observation's notebook, the observation of high water was made on 4/8/93 and was on taxlot 20-10-35C-1000 which is approximately 200 feet from the property in question.

This misinformation does not change the decision on this lot.

A copy of this letter is going to be sent to Daryl Johnston at Regional Department of Environmental Quality office.

Sincerely

ENVIROMENTAL HEALTH DIVISION
Roger W. Everett, Director

Dan Haldeman

Dan Haldeman
Sanitarian

RWE:DWH:bgd

cc Daryl Johnston

DESCHUTES COUNTY

Community Development Department

Administration Bldg. / 1130 N.W. Harriman / Bend, Oregon 97701

(503) 388-6575

Planning Division
Building Safety Division
Environmental Health Division

August 16, 1993

Stephen W Wilkins
1747 Northwest Rimrock Rd
Bend OR 97701

RE #S34158: 20-10-35CO-1400
54799 Red Fox Ln, Bend

Dear Mr Wilkins

You recently completed an authorization notice application to utilize your existing sewage disposal system for property at the above address.

Oregon Department of Environmental Quality rules pertaining to on-site sewage disposal allows an Authorization Notice to be issued if:

1. The existing system is not failing; and
2. All setbacks between the existing system and the structure can be maintained; and
3. In the opinion of the agent, the proposed use would not create a public health hazard on the ground surface or in surface public waters. (OAR Chapter 340-71-205(3).
4. These rules further state: "If, in the judgment of the agent, proposed operation of a system would cause pollution of public waters or create a public health hazard, system installation or use shall not be authorized." (OAR 340-71-130(1)).

The information gathered from our files and the on-site inspection of your existing sewage disposal system indicates condition(s) 3 and 4 cannot be met. This Authorization Notice is therefore denied.

Part of the evaluation is to determine the level to which the ground water rises during the wet season of a <u>normal</u> weather year. Permanent water tables are present throughout the year although they may fluctuate in elevation seasonally. The soil indicators used to determine the level to which the water table rises are gray soils and mottling (discoloration of the soil).

In the test pits on this property the indicators suggest the water table may rise to within 15 - 20 inches of the ground surface.

The water table on 08/09/93 was measured at 12 inches below ground surface. Past observations and evaluations in this area verify the presence of a high water table.

Oregon Department of Environmental Quality Rules pertaining to on-site sewage disposal, require a minimum four foot separation between the bottom of a sewage disposal trench and the highest level a permanent water table may reach in the ground. Drainfields are installed a minimum of 12" into the ground. Drainfields can only be installed, therefore, where the water table does not rise closer than 5' from the ground surface. This allows for the 4' separation from the bottom of the trench to the water. [OAR Chapter 340-71-220(1d) and (2bA), copy enclosed.]

These rules also allow for a 24 inch separation between the high level of the water table and the bottom of a surface mounted sand filter system. A sand filter is an alternative sewage disposal system that treats the sewage to a better extent than a drainfield, and is considerably more expensive to install. However, conditions on this parcel indicate the water table may rise to within 12 inches of the ground surface.

DEQ rules would not allow installation of a standard drainfield, capping fill drainfield, pressurized distribution system or sand filter in these circumstances. [OAR 340-71-290(b)].

This property is therefore denied for on-site sewage disposal.

You have 90 days to provide additional test pits for evaluation at no additional fee. However, it appears that other areas on this property would not be suitable due to the lack of topography changes.

Per Dex 9/13/93 -
Soil is gray - however he suspects the color was from water prior to building of the dam - and that the level does not rise that far now.

You can request a denial review through the Oregon Department of Environmental Quality. This review requires a fee payable to DEQ. The request must be submitted in writing to DEQ within 30 days from the date of this letter. Another possible alternative would be to request a variance from the Oregon rules through the Department of Environmental Quality. This request is not an automatic variance. The fee for this request is $225.00. You would need to submit an application and required exhibits to DEQ. If you wish further information on these procedures, please contact the DEQ Central Region Office in Bend at (503) 388-6146.

If you have any questions, please do not hesitate to contact this office.

Sincerely

ENVIRONMENTAL HEALTH DIVISION
Roger W. Everett, Director

Dan Haldeman

Dan Haldeman
Sanitarian

RWE/DWH/bgd

Enclosure

SITE EVALUATION FIELD INSPECTION FORM

APPLICANT Wilkins, Stephen W SITE EVALUATION # S 34158
DATE 8-9-93

SUBDIVISION ORRH L 69 B 70

EVALUATOR: Dan Haldeman T 20 R 10 S 35C TL 1400

	Depth	Texture	Color	Notes on mottling, roots, structure, layer limiting effective soil depth, % loose rock, etc.
1	0-15"	Sandy loam	10YR 3/2	
	15-22	loam	3/2	much redox around root channels
	22-26	si l	10YR 5/1	few faint 5P mottles
	26-36	si loam	2.5Y 6/2	C.d. (4/6) mottles + (F.P.), 4/1 mottles
	36-44	S.L.	10YR 6/2	c.d. 5% mottles
2	0-14	Sandy Loam	10YR 3/2	
	14-26	si loam	2.5Y 5/2	C.d. Red 5% mottles
	26-36	si loam	2.5Y 6/2	C.p. mottles (6/6), 4/1 mottles
	36-45	S.L.	10YR 3/2	C.p. mottles (3/1)
3		Site removal of additions in this pit in past		
4	0-20	S.L.	10YR 3/2	
	20-30	s.l.	10YR 3/1	c.d. mottles (4/6)
	30-40	si loam	10YR 6/2	m.d. to p. mottles
			H2O at 50"	

Landscape notes TDA - Floodplain
Slope 0-2% Aspect N.W. Groundwater perm
Other site notes

Itg density of grasses, willows, forbs, pea

Comments: observations on this lot 4/6/93 on neighboring lot lot has the groundwater at 12" below surface

Reason For Unsuitability: (Include Rule Reference)

SITE EVALUATION FIELD INSPECTION FORM

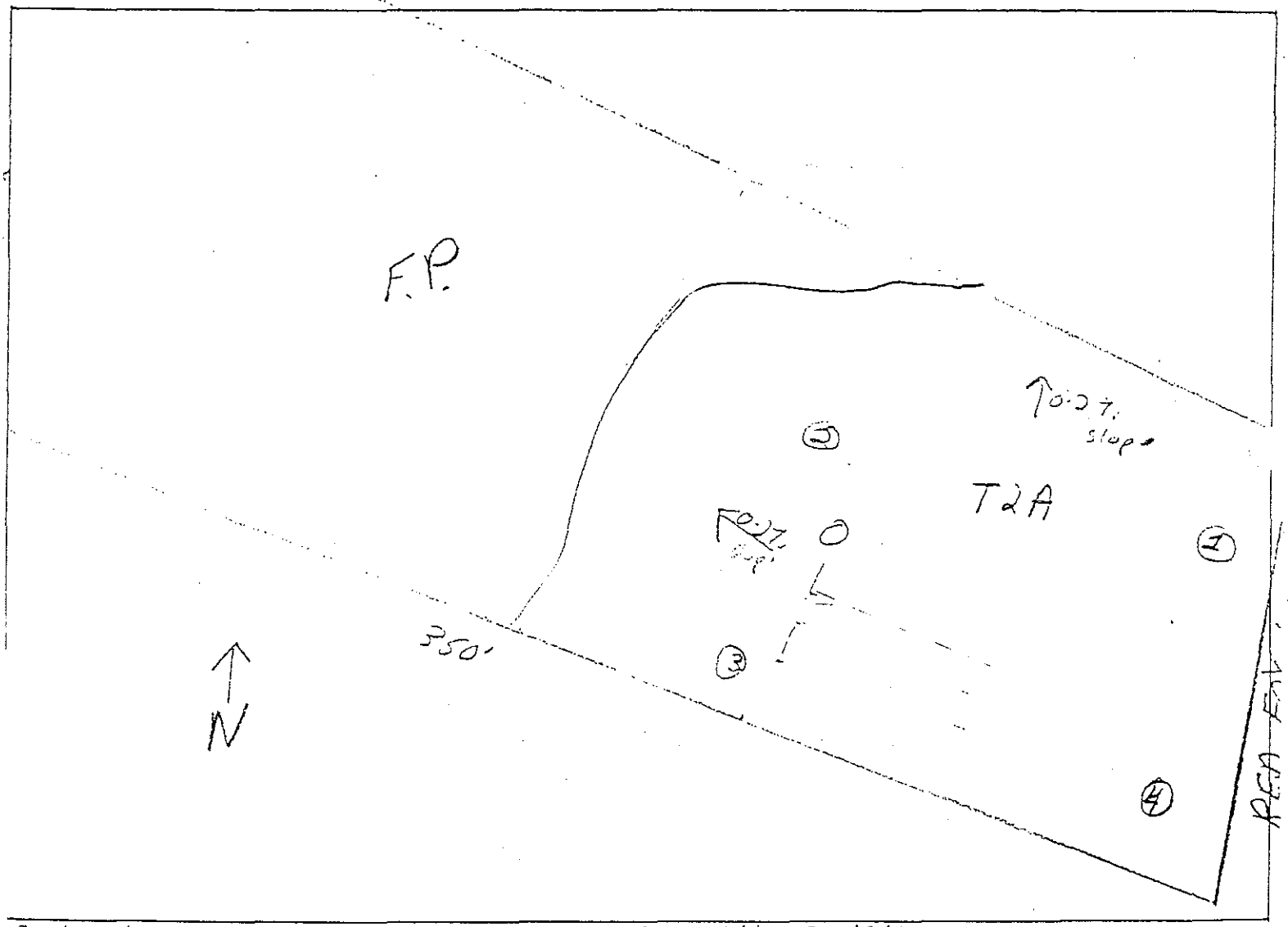
APPLICANT Wilkins, Stephen W SITE EVALUATION # S 34158

DATE 8-9-93

SUBDIVISION D.R.R.H L 69 B 70 PARCEL SIZE .77

EVALUATOR: Dan Haldeman T 20 R 10 S 35C TL 1400

SUITABLE ☐ SKETCH/NOT TO SCALE UNSUITABLE ☑



System type approved:

Initial

Replacement

Tank Size

Absorption facility:

Min. Size Max. Depth

Min. Size Max. Depth

Sewage Flow

Special Conditions: Denied due to high groundwater table, see Attached letter

DESCHUTES COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING SAFETY DIVISION
COURTHOUSE ANNEX--BEND, OREGON 97701
(503) 388-6575

DATE 10/14/87
BUILDING PERMIT NO. PERMIT NO. 09174
RECEIPT NO. 36581

ELECTRICAL PERMIT APPLICATION

LOCATION OF ELECTRICAL WORK -- ADDRESS 54799 Red Fox Lane CITY

OWNER'S NAME Molly Moore ADDRESS CITY 536-2807 TELEPHONE

NOTE: Applicants must hold Oregon Registration to conduct an electrical business or must be property owner / operator not hiring outside help.

Indicate status below.

ELECTRICAL CONTRACTOR	PROPERTY OWNER
NAME	NAME Owner
ADDRESS OR	ADDRESS
LICENSE NO. TELEPHONE	TELEPHONE

		DESCRIPTION			COMMENTS
		Residence			
1	____	Residence wiring less than 1000 sq. ft.	$ 30.00	$ ____	
2	____	Residence wiring less than 2000 sq. ft.	$ 50.00	$ ____	
3	____	Residence wiring over 2000 sq. ft.	$ 70.00	$ ____	
4	____	Electric heat installation in existing residence	$ 20.00	$ ____	
		SERVICES			
5	X	Temporary Construction Service	$ 20.00	$ 20	
6	____	Service Change only in an existing residence	$ 20.00	$ ____	
		Multifamily with Central Service, Commercial or Industrial:			
7	____	Service not over 100 amperes	$ 30.00	$ ____	
8	____	Service over 100 amperes but not more than 200 amperes	$ 50.00	$ ____	
9	____	Service over 200 amperes but not more than 400 amperes	$ 70.00	$ ____	
10	____	Service over 400 amperes but not more than 600 amperes	$100.00	$ ____	
11	____	Service over 600 amperes	$130.00	$ ____	
12	____	Service over 600 volts	$300.00	$ ____	
		COMMERCIAL AND INDUSTRIAL FEEDERS			
		Installation of Alterations or Relocations of Distribution Feeders			
13	____	Not more than 100 amperes	$ 20.00	$ ____	
14	____	Over 100 amperes but not more than 200 amperes	$ 30.00	$ ____	
15	____	Over 200 amperes but not more than 400 amperes	$ 50.00	$ ____	
16	____	Over 400 amperes	$ 60.00	$ ____	
17	____	Feeder over 600 volts	$ 80.00	$ ____	
		MISCELLANEOUS			
		A $20.00 Label shall apply for the following installations:			
18	____	A. Each trailer or mobile home space	$ 20.00	$ ____	
19	____	B. Each supply for mobile home	$ 20.00	$ ____	
20	____	C. Each farm building other than residence	$ 20.00	$ ____	
21	____	D. Each irrigation pump	$ 20.00	$ ____	
22	____	E. Each electric sign or outline lighting	$ 20.00	$ ____	
23	____	F. Each residential swimming pool	$ 20.00	$ ____	
		BRANCH CIRCUITS			
24	____	One new circuit; alteration or extension	$ 20.00	$ ____	
25	____	Two or more new circuits; alterations or extensions	$ 30.00	$ ____	

SUBTOTAL $ 20
4% STATE SURCHARGE $ 1

I certify that all installations will be in accordance with the code of Deschutes County and applicable State statutes and regulations.

TOTAL FEE $ 21

THIS PERMIT BECOMES NULL & VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 180 DAYS, OR IF WORK OR CONSTRUCTION IS SUSPENDED OR ABANDONDED FOR A PERIOD OF 180 DAYS AT ANY TIME AFTER WORK IS COMMENCED.

THE PERMIT APPLICANT IS REGISTERED WITH THE BUILDERS BOARD OF THE STATE OF OREGON UNDER THE PROVISIONS OF ORS 701, AND THAT REGISTRATION IS IN FULL FORCE & EFFECT, UNDER CERTIFICATE OF REGISTRATION NO. N/A

THE PERMIT APPLICANT IS EXEMPT FROM REGISTRATION WITH THE BUILDERS BOARD FOR THE FOLLOWING REASON:

SIGNATURE OF APPLICANT OR CONTRACTOR	DATE	APPROVED BY	DATE
Mary E Moore	10/14/87		10/14/87

White - Fire Copy Yellow - Applicant Copy Pink - Counter Copy

DESCHUTES COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
COURTHOUSE ANNEX—BEND, OREGON 97701
(503) 388-6561

DATE 7/15/87
SEPTIC TANK PERM.# 09-725-87 | BLDG. PERMIT # 70099
RECEIPT NO. 33748

SEPTIC TANK PERMIT APPLICATION

JOB LOCATION — ADDRESS: 54799 Red Fox Ln. CITY LP
LEGAL DESCRIPTION: TOWNSHIP 20 RANGE 10 SECTION 35C TAX LOT NO. 1400 ACREAGE
SUBDIVISION NAME: DRH LOT 69 BLOCK 70
OWNER'S NAME: Claude E. Moore PHONE 536-980
ADDRESS: 50630 Deer Forest CITY LaPine STATE OR ZIP 97739
EXCAVATOR'S NAME: LICENSE NO. PHONE
ADDRESS: CITY STATE ZIP
SITE EVALUATION NUMBER: EXISTING PERMIT NUMBER 09-440-80
SYSTEM USAGE: BEDROOMS 3 WATER SOURCE Priv. Well
NOTES:

I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.
I CERTIFY THAT ALL LABOR IN CONNECTION WITH THE CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM WILL BE PERFORMED EITHER BY A PERSON LICENSED UNDER ORS 454.695 OR THE OWNER.

SIGNATURE OF OWNER X Mary E Moore

I CERTIFY THAT I AM CURRENTLY LICENSED UNDER THE DEPARTMENT OF ENVIRONMENTAL QUALITY RULES.

SIGNATURE OF INSTALLER X

PLANNING DEPARTMENT

ZONE ~~EE~~ RR-10

STRUCTURAL SETBACKS

FRONT 75'
SIDE 10' / 20'
REAR 280'

SEPTIC TANK AND DRAINFIELD APPROVAL ONLY— DOES NOT CONSTITUTE BUILDING OR USE APPROVAL.

SIGNATURE INDICATES COMPLIANCE WITH APPROVED LCDC PLAN.

PLAN SIG. TA
DATE 7/15/87

☐ COMPATIBLE WITH CURRENT ZONING
☐ OTHER

SEPTIC FEES

STANDARD SYSTEM		
EVALUATION WITHIN 180 DAYS	$ 60.00	
EVALUATION OVER 180 DAYS	$120.00	
ALTERNATE SYSTEMS		
CAPPING FILL	$240.00	
SAND FILTER	$280.00	
TILE DEWATERING	$120.00	
RENEWAL	$ 10.00	
ALTERATION	$ 95.00	
AUTHORIZATION NOTICE	$ 25.00	25.-
COMMERCIAL GPD		
OTHER		
DEQ STATE SURCHARGE	$ 5.00	5.-
REPAIR	$ 35.00	
EVALUATION OF EXISTING SYSTEM	$ 60.00	
PLANNING	$ 10.00	
TOTAL	$	30.-

OFFICE USE ONLY

PERMIT APPROVED ☑ | DENIED | MIN. TANK CAP. (GAL.) | DESIGN FLOW GPD | TRENCH LENGTH LINEAR FEET

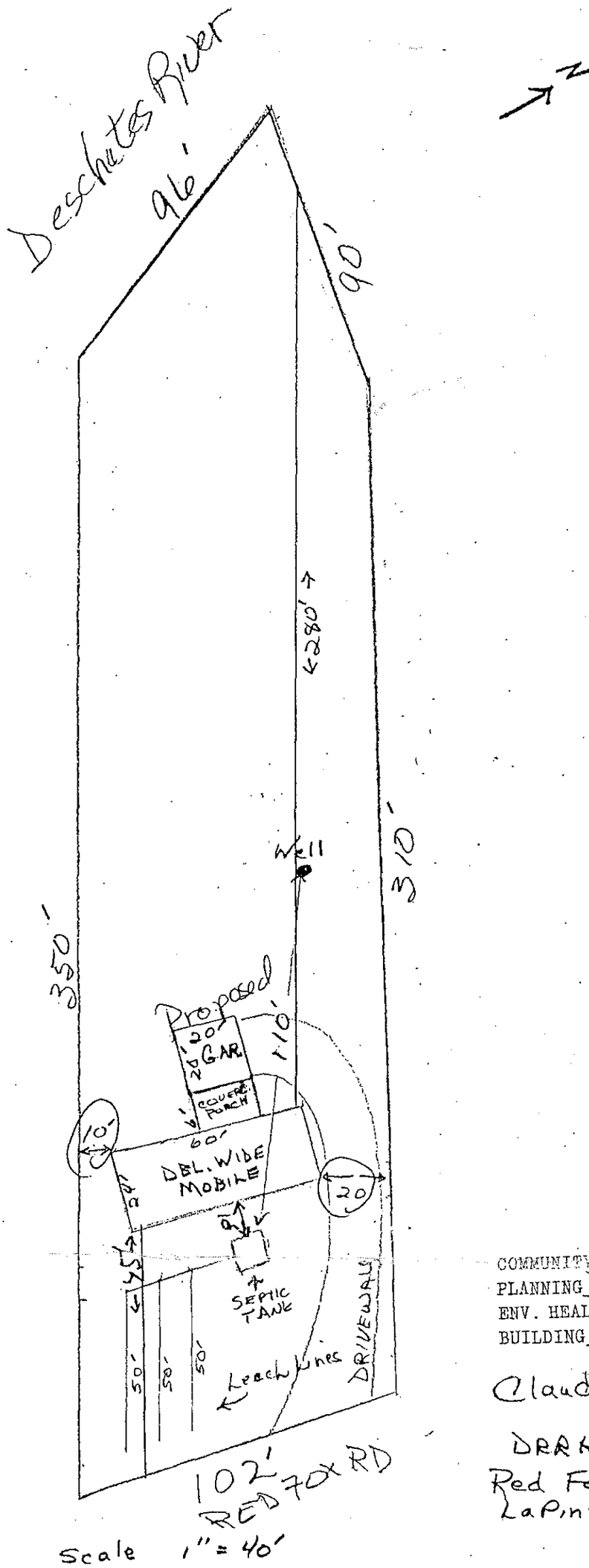
EQUAL | LOOP | SERIAL | PRESSURE | SAND FILTER | FILTER FABRIC ☐ | OTHER | TRENCH DEPTH INCHES

SPECIAL INSTRUCTIONS:

SANITARIAN Tom Jones DATE 7/16/87 THIS PERMIT EXPIRES 7/16/88

AUTHORIZATION NOTICE

THIS SYSTEM IS SUITABLE FOR GALLONS / DAY AND IS CURRENTLY OPERATING PROPERLY.



COMMUNITY DEVELOPMENT DEPT.
PLANNING TB DATE 7/15/81
ENV. HEALTH _____ DATE _____
BUILDING _____ DATE _____

Claude R. Moore

DRH LOT 69 BLK 70
Red Fox Rd
LaPine

Distance from: Well, springs, or cistern 50 ft. Building foundation _____ ft.

Sub-surface tile or perforated pipe disposal field PLASTIC Other _____

Distribution box: Yes ☐ No ☒

Length each line: 50 50 50 ft.

Total length: . . . . . 150 ft.

Width of trench: . . . . . 2 ft.

Total square footage: . . . . . 300 ft.

Distance between lines: . . . . . 10 ft.

Filler material: Type RIVER ROCK Size 1-3 in.

Distance of sub-surface or other type of system from:

Water line _____ ft. Cistern _____ ft.

Well — ft. Spring _____ ft.

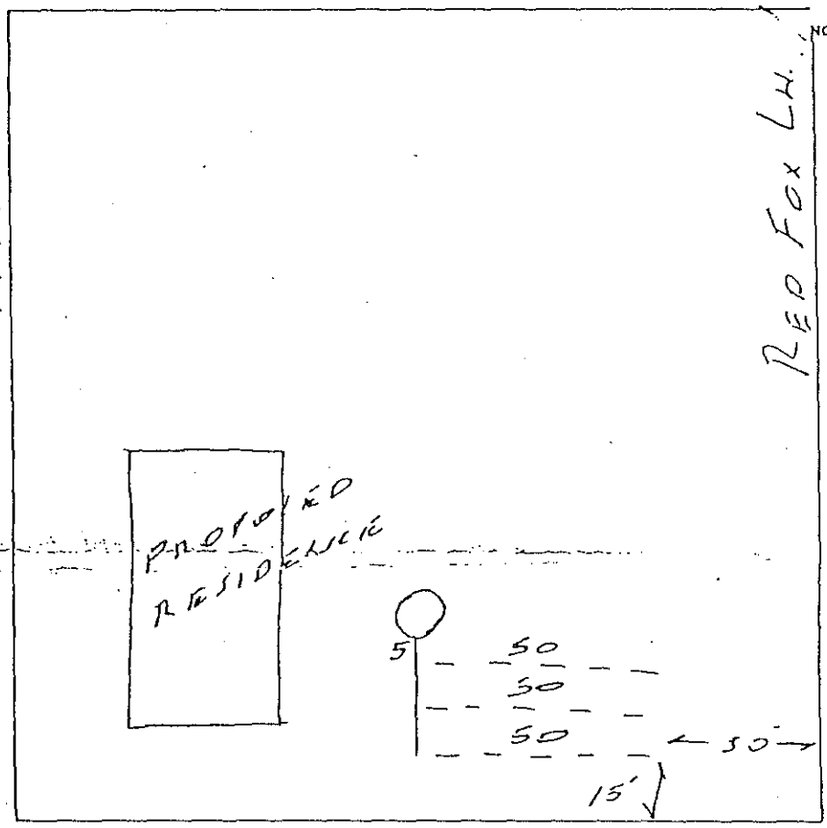
Nearest:

River _____ ft. Stream _____ ft. Lake _____ ft.

Nearest lot line:

Front 10 Side 15 Rear _____ ft.

Nearest foundation — ft.



In accordance with Oregon Revised Statute 454.665 this certificate is issued as evidence of satisfactory completion of a subsurface or alternative sewage disposal system at the above location.

Date of preliminary site approval 4-28-90 Soil conditions observed _____

Date of final inspection NOT approved _____ Approved 11-24-90

REMARKS

Don McDaniel

SANITARIAN DESCHUTES COUNTY - 382-4000 ext. 238

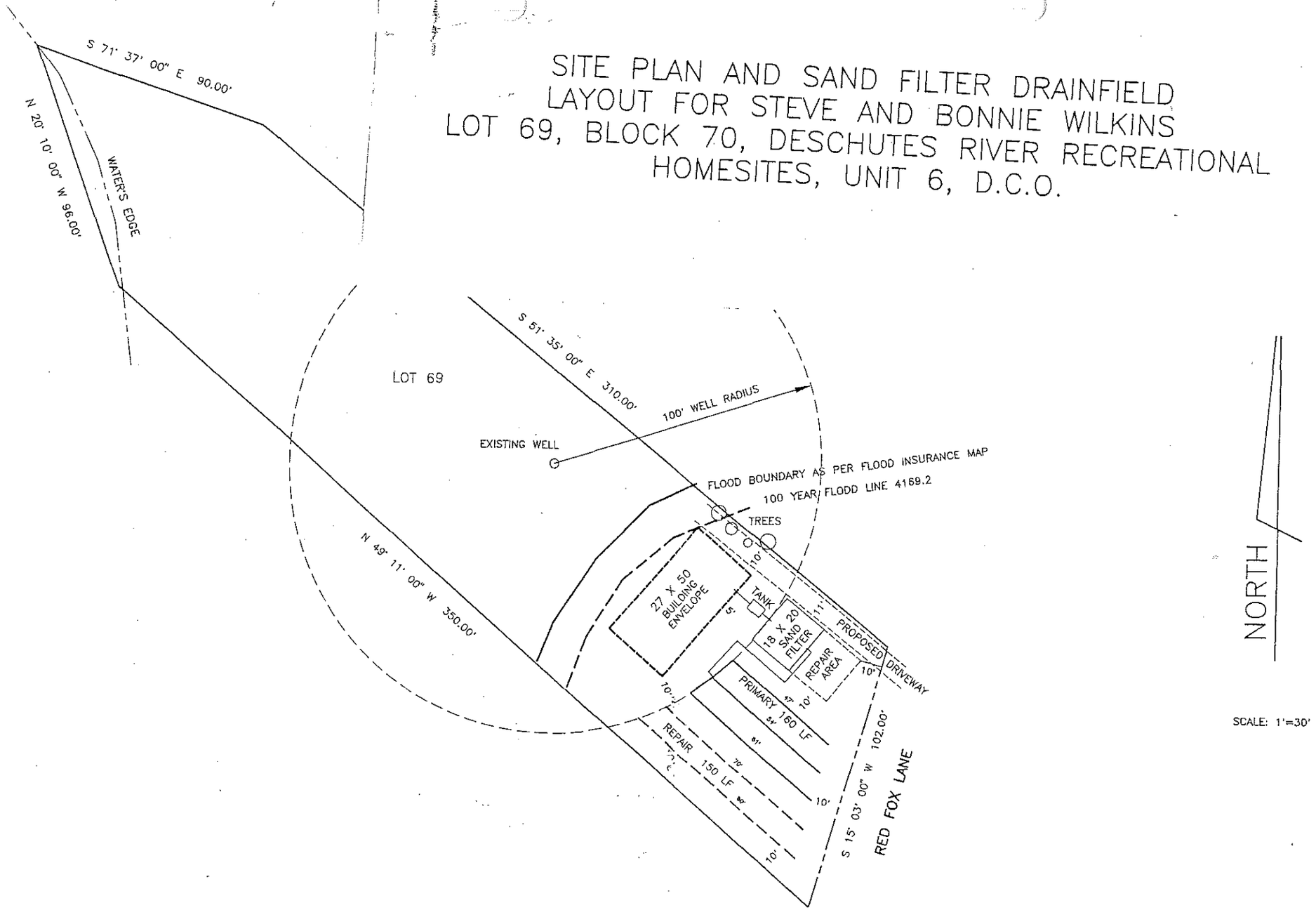
White copy — Health Department Pink Copy — Property Owner Yellow copy — Installer

PLEASE NOTE:

A Certificate of Satisfactory Completion shall be valid for a period of one (1) year, for connection of the system to the facility for which it was constructed. After the one (1) year period, rules for Authorization Notices or Alteration Permits apply.

"Authorization Notice" means a written document issued by Deschutes County Environmental Health Division which establishes that an existing on-site sewage disposal system appears adequate to serve the purpose for which a particular application is made. Authorization Notice applications can be approved, modified, or denied depending on site conditions, and the specific proposal.

SITE PLAN AND SAND FILTER DRAINFIELD LAYOUT FOR STEVE AND BONNIE WILKINS LOT 69, BLOCK 70, DESCHUTES RIVER RECREATIONAL HOMESITES, UNIT 6, D.C.O.



PERMIT APPLICATION

DESCHUTES COUNTY
BEND, OR 97701
382-4000

KENNETH E. GLANTZ, BUILDING ADMINISTRATOR, EXT. 252
BILL MONROE, PLANNING DIRECTOR, EXT. 207
JOHN K. GLOVER, COUNTY SANITARIAN, EXT. 237

DATE 4-28-80

BUILDING PERMIT NO. _____

SANITATION PERMIT NO. 09-440-80

APPLICANT: PLEASE FILL IN WHERE INDICATED IN RED

JOB LOCATION 54799 Red Fox Road, LaPine
ADDRESS

PERMIT TYPE [3] RESIDENTIAL ___ COMMERCIAL ___ MOBILE HOME ___ SEPTIC X ACCESSORY ___ OTHER ___

CLASS OF WORK [4] NEW ___ REMODEL ___ DEMOLITION ___ MOVED ___ FIRE ZONE ___

USE OF BUILDING [5] ___ OCCUPANCY ___

STRUCTURE TYPE [6] METAL ___ FRAME ___ BLOCK ___ LOG ___ OTHER ___ CONSTRUCTION TYPE ___

OWNER'S NAME & ADDRESS [7] [8] [9] Monty Moore PHONE 536-2807

BUILDER'S NAME & ADDRESS 5430 Deer Forest Dr. PHONE ___

ARCHITECT/ENGINEER LaPine, OR 97739 PHONE ___

NOTES: ___

LEGAL DESC [12] 20 TOWNSHIP 10 RANGE 35C SECTION 1400 TAXLOT NO. ___ PLAT NO.

PLANNING DEPT EX. 207

SUBDIVISION NAME Deschutes River Recreation LOT [16] 69 BLOCK 70
OR SITE PLAN NUMBER Homesites
PRESENT USE OF PROPERTY ___ ZONE ___ [13] ACREAGE ___

USE OF BUILDING (DESCRIBE IN DETAIL) ___

SETBACKS FRONT: ☐ NOTES: SEPTIC TANK AND DRAINFIELD APPROVAL ONLY [14]
SIDE: ☐ DOES NOT CONSTITUTE BUILDING OR USE APPROVAL
REAR: ☐

PERMIT NUMBER 09-440-80 [17]

SANITATION DEPT EX. 206

SIZE OF SEPTIC TANK 1000 GAL SQUARE FEET OF SIDEWALL 300

NUMBER OF BEDROOMS 3 [18] WATER SOURCE Well

NOTES: Renewal of permit # 09-248-79

maximum trench depth 18"

I CERTIFY THAT ALL LABOR IN CONNECTION WITH THE CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM WILL BE PERFORMED EITHER BY A PERSON LICENCED UNDER ORS 454.695 OR THE OWNER.

SIGNATURE OF OWNER/INSTALLER X Monty R. Moore

PLANNING DEPT
APPROVED/DENIED
BY ___
DATE 4-28-80

SANITATION DEPT
APPROVED/DENIED
BY Jay E. Langley
DATE 4-28-80

PLANS CHECKED & APPROVED
BY ___
DATE ___

I AGREE TO BUILD ACCORDING TO ABOVE DESCRIPTION, PLANS & SPECIFICATIONS AND THE BUILDING CODE OF DESCHUTES COUNTY. THIS PERMIT BECOMES NULL & VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 120 DAYS, OR IF WORK OR CONSTRUCTION IS SUSPENDED OR ABANDONDED FOR A PERIOD OF 120 DAYS AT ANY TIME AFTER WORK IS COMMENCED.

BUILDER CERTIFICATION NO. ___

OWNER OR AUTHORIZED AGENT

X ___

VALUATION [20] ___

BUILDING [22] ___
SURCHARGE [23] ___
PLUMBING [24] ___
SURCHARGE [25] ___
NOTIFICATION [26] ___
SEPTIC [27] Renewal 10.00
OTHER [28] ___
PLANS CHECK FEE [29] ___
MOBILE HOME [30] ___
TOTAL FEES DUE [31] ___

RECEIPT NUMBER 19076 [32]

DESCHUTES COUNTY
BEND, OR 97701
382-4000

KENNETH E. GLANTZ, BUILDING ADMINISTRATOR EXT. 72
LORIN D. MORGAN, PLANNING DIRECTOR EXT. 75
JOHN K. GLOVER, COUNTY SANITARIAN EXT. 60

DATE 1-12-79

BUILDING PERMIT NO. _____

SANITATION PERMIT NO. 79-248-77

APPLICANT: PLEASE FILL IN WHERE INDICATED IN RED

JOB LOCATION 54799 Rd 9 Rd. La Pine
ADDRESS

PERMIT TYPE [3] RESIDENTIAL _____ COMMERCIAL _____ MOBILE HOME _____ SEPTIC X ACCESSORY _____ OTHER _____

CLASS OF WORK [4] NEW _____ REMODEL _____ DEMOLITION _____ MOVED _____ FIRE ZONE _____

USE OF BUILDING [5] _____ OCCUPANCY _____

STRUCTURE TYPE [6] METAL _____ FRAME _____ BLOCK _____ LOG _____ OTHER _____ CONSTRUCTION TYPE _____

OWNER'S NAME & ADDRESS [7 8 9] Robert Meeks PHONE 536 2809

BUILDER'S NAME & ADDRESS 5 [illegible] Deer Forest Dr PHONE _____

ARCHITECT/ENGINEER La Pine OR 97739 PHONE _____

NOTES: _____

PLANNING DEPT EX. 75

LEGAL DESC [12] 20 (TOWNSHIP) 10 (RANGE) 36 (SECTION) 1400 (TAXLOT NO.) _____ (PLAT NO.)

SUBDIVISION NAME [15] Wm. Rees Re Amended LOT [16] 69 BLOCK 70

DATE PROPERTY WAS PURCHASED _____ ZONE _____ [13] ACREAGE _____

USE OF BUILDING (DESCRIBE IN DETAIL) _____

NOTES: [14] Renewed Permit # 09-440

SANITATION DEPT EX. 60

PERMIT NUMBER 09-248-77 [17]

SIZE OF SEPTIC TANK 1000 GAL SQUARE FEET OF SIDEWALL 300

NUMBER OF BEDROOMS 3 [18] WATER SOURCE Well

NOTES: Pd. # 46-11
Planning approval expires
See revised [illegible]

I CERTIFY THAT ALL LABOR IN CONNECTION WITH THE CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM WILL BE PERFORMED EITHER BY A PERSON LICENCED UNDER ORS 454.695 OR THE OWNER.

SIGNATURE OF OWNER/INSTALLER X Robert K. Meeks

PLANNING DEPT
APPROVED/DENIED
BY _____
DATE _____

SANITATION DEPT
APPROVED/DENIED
BY [illegible]
DATE 1-12-79

PLANS CHECKED &
APPROVED
BY _____
DATE _____

I AGREE TO BUILD ACCORDING TO ABOVE DESCRIPTION, PLANS & SPECIFICATIONS AND THE BUILDING CODE OF DESCHUTES COUNTY. THIS PERMIT BECOMES NULL & VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMENCED WITHIN 120 DAYS, OR IF WORK OR CONSTRUCTION IS SUSPENDED OR ABANDONDED FOR A PERIOD OF 120 DAYS AT ANY TIME AFTER WORK IS COMMENCED.

BUILDER CERTIFICATION NO. _____

OWNER OF AUTHORIZED AGENT

X [illegible]

VALUATION [20] _____

BUILDING [22] _____
SURCHARGE [23] _____
PLUMBING [24] _____
SURCHARGE [25] _____
MOBILE HOME [26] _____
SEPTIC [27] 20.00
OTHER [28] _____
PLANS CHECK FEE [29] _____
HEAT [30] _____
TOTAL FEES DUE [31] _____

RECEIPT NUMBER _____

File

DEPARTMENT OF ENVIRONMENTAL QUALITY

401-10

S 7[illegible]

54799 Red Jo/ R[illegible]

EVALUATION REPORT OF SUITABILITY OF PROPOSED SEWAGE DISPOSAL

DESCRIPTION OF PARCEL (Attach a Plat or Tax Showing All Sites as Exhibit A)

Section ___; Township ___; Range ___; County of Deschutes, Oregon; Tax lot _____

Narrative Description: Lot 69 — Block 7a — Des. R.V. Rec. Homesites

PROPOSED USE OF PARCEL (RESIDENTIAL - OTHER (SPECIFY))

PRESENTLY DESIGNATED LAND USE, ZONING, AND NAME OF DESIGNATING AGENCY

RR-1 Deschutes County

PROPOSED METHOD OF SEWAGE DISPOSAL (Check one and Provide Requested Information)

[ ] EXISTING SEWERAGE SYSTEM (Fee: $5 for one lot; $10 for two or more lots)

(1) Parcel is located within the boundaries of and can be provided sewerage service by the following entity which owns and operates a sewerage system:

Name of Entity _____

System Identification _____

Address of Entity _____

City, Zip Code _____

KEY PUNCHED

JUN 06 1978

(2) Present status of sewers or sewer extensions to serve parcel:

(a) Plans for sewers ( ) have ( ) have not been prepared.
(b) Plans for sewers ( ) have ( ) have not been approved by DEQ.
(c) Sewers ( ) have ( ) have not been installed.

(3) STATEMENT OF CERTIFICATION BY SEWERAGE SYSTEM OWNER (Separate statement may be attached if available).

As representative of the owner of the sewerage system named in (1) above, I hereby certify that sewerage service will be provided for the above described parcel; that said sewerage system has capacity to serve the parcel, and that the above information relative to the status of such sewerage service is correct to the best of my knowledge.

Signature of Representative _____

Title _____

Date _____

[ ] PROPOSED NEW SEWERAGE SYSTEM (Fee: $5 for one lot; $10 for two or more lots)

Has DEQ approved the proposed system previously in writing? ( ) No ( ) Yes, on _____ (date)
Has DEQ issued a Waste Discharge Permit for the proposed system? ( ) No ( ) Yes, Permit No. _____

[X] SUBSURFACE SEWAGE DISPOSAL SYSTEM (Fee: $25 per lot)

Show location of proposed subsurface system or systems on the plat plan for each site which is attached as Exhibit A. For a subdivision of four or more sites, attach as Exhibit B:

1. A topographical map 2. Rates of slope data 3. Soils data 4. Water table data 5. Drainage data (surface and subsurface) 6. Water supply source and distribution systems data 7. Existing subsurface sewage disposal systems location

Special Instruction:

DEQ and/or its contract agent must complete a site investigation before a report can be given. To facilitate such investigation, prepare two (2) backhoe test holes at least 4 ft. deep and approximately 75 ft. apart (at the same approximate ground surface elevation) at the site of each proposed system.

Test holes [X] have been prepared ( ) will be prepared by Deschutes County

I HAVE ATTACHED THE REQUIRED EXHIBITS AND FILE SPECIFIED IN THE INSTRUCTIONS AND ON THIS APPLICATION AND HEREBY REQUEST FROM THE DEPARTMENT OF ENVIRONMENTAL QUALITY A REPORT OF SUITABILITY OF THE ABOVE DESCRIBED METHOD OF SEWAGE DISPOSAL FOR THE ABOVE DESCRIBED PARCEL.

Name of Applicant Glenn Highman Signature of Applicant Randall I. Schonky

c/o Timberline Realty Address of Applicant TAYLOR Title _____

City, State, Zip Code 365 N.E. Greenwood Phone 382-3300 Date 5-15-78

BEND, OR.

(FOR DEQ OR AGENT USE ONLY)

Comments and recommendations based on Subsurface Site Investigation by DEQ or Contract Agent:

This lot has been evaluated by a member of this department. Studies including but not limit soil conditions, water table circumstances and topographical variations were conducted. It opinion of this department that it is feasible to install a septic tank and subsurface drain to serve a residence on this lot. This evaluation report shall remain in effect until issua a permit to construct, unless in the meantime conditions on subject or adjacent properties h been altered in any manner which would prohibit issuance of a permit in which case the evalu report shall be considered null and void.

DESCHUTES COUNTY DEPT. OF HEALTH
Deschutes County Courthouse Annex
BEND, OREGON 97701

Agent/DEQ ... Signature John K. Glover, R.S. Date June 2, 197

Statement of DEQ or Agent Relative to Above Application

[X] The above described method of sewage disposal is approved subject to the following conditions:

[ ] The above described method of sewage disposal is not approved for the following reasons:

One building site approved subject to the following conditions:

1. The soil in the proposed area of the drainfield and the replacement area cannot be altered.

2. A permit is required and must be obtained from the Deschutes County Health Department prior to constructing the system.

DESCHUTES COUNTY DEPT. OF HEALTH
Deschutes County Courthouse Annex
BEND, OREGON 97701

John K. Glover

John K. Glover, R.S. Date June 2, 1978

DEQ Agent Representative

State of Oregon
Department of Environmental Quality Memorandum†

Date: December 29, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item K, January 12, 1996, EQC Meeting

Statement of Purpose

The purpose of this agenda item is to inform the Commission of the status of the advanced vehicle emission testing program in Oregon.

Background

The Clean Air Act Amendments of 1990 mandated advanced testing for those areas classified as serious non-attainment areas. EPA developed an advanced test procedure called I/M 240 (Inspection/Maintenance and a 240 second duration test). It was also decided that centralized testing facilities were necessary to maintain the integrity of the test and maximize the emission reductions from advanced testing.

To comply with the EPA mandate, several states developed and implemented an I/M 240 program. These states hired contractors to build and operate test stations and went directly to a mandatory testing program. The public complained about long lines, high costs, damaged vehicles, long drives to the stations and increased repair costs along with other concerns.

Because of the public's complaints, several state legislatures put their programs on hold, even though their states could be severely penalized for failing to implement an I/M 240 program. EPA then granted additional flexibility to states to develop advanced testing programs which could minimize some of the problems with I/M 240. EPA is evaluating the effectiveness of these modified programs relative to the emission reductions predicted for I/M 240.

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†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

The Portland metropolitan area, although classified as a non-attainment area, is currently meeting ambient air quality standards so an I/M 240 program was not mandated. However, in order to be reclassified as an attainment area, a maintenance plan is required demonstrating that compliance will be maintained for the next 10 years. Given the expected growth in population and increases in vehicle miles traveled, the emission reductions from an advanced vehicle testing program are a very cost effective way to help maintain compliance. Therefore the 1993 Legislature selected advanced testing as a major element of the maintenance plan.

Authority of the Commission with Respect to the Issue

In order to implement an advanced, vehicle inspection program, the Commission would have to modify OAR 340-24 to include procedures for advanced testing. Currently, the procedures for the existing, basic testing program are the only ones allowed by rule. In addition, the Portland area Ozone Maintenance Plan will be a modification of the State Implementation Plan and therefore would need Commission approval.

Alternatives and Evaluation

Advanced vehicle tests such as I/M 240 more accurately identify high emitting vehicles because they more closely simulate actual, on-road conditions. With Oregon's current basic test, many of the sophisticated computer controls are not exercised during this test procedure. Although I/M 240 is very effective in identifying vehicles with high emissions, it is time consuming and would significantly increase the test fees. In some states, the mandate for centralized test facilities has been a controversial requirement, especially for states that have an already established decentralized program.

Since EPA has expressed a willingness to consider other testing programs, much effort has been put into developing programs that are less expensive but which identify the same failing vehicles. Several states such as California have proposed a combination of centralized and decentralized facilities and test equipment which is slightly less sophisticated than I/M 240 equipment.

At least two states are operating I/M 240 programs and states such as California, Washington and New Jersey are proposing or operating hybrid programs. DEQ is proposing a unique program because we feel it better addresses the concerns of Oregonians and is less expensive. The important elements of the proposed program are:

centralized test facilities,

basic tests for the oldest 5 years and the newest 3 years of vehicles,

a 31 second transient test for other vehicles, and

a program to train mechanics to repair failing vehicles.

We hope that the test program we have proposed will address all of the public concerns mentioned above.

The DEQ currently operates an effective, centralized, test program. Centralized programs avoid the potential conflict of interest in programs where testing and repair are conducted at the same facility by the same technicians. It also means that the public can be assured that the testing is consistent and fair to all and costs are minimized.

DEQ is proposing the basic test for the 1975 to 1980 model year vehicles because those vehicles have relatively unsophisticated controls and most emission problems can be identified with a basic test. The newest 3 model years of vehicles would receive a basic test as well. These vehicles are still relatively new and generally have low mileage. Emission control components are usually still under warranty. The basic test will identify dramatic failures of emission control components.

Some research has been done which suggests that a particular 31 second test can identify the same failing vehicles as I/M 240. DEQ is currently in the process of gathering data to support this hypothesis. We are running both test procedures on several hundred vehicles. When the testing is complete, the data will be analyzed and submitted to EPA. We hope to demonstrate that this significantly shorter test is equivalent to I/M 240. However this shorter test does not provide as much diagnostic information for repair technicians to use in correcting problems.

An advisory committee is developing a mechanic training proposal. It is important that both the public and the mechanics themselves have confidence that failing vehicles can be repaired quickly and efficiently. A program that provides training to analyze the results of the advanced test and diagnose problems will increase the effectiveness of the advanced testing program and minimize repair costs for the public.

Like most vehicle inspection programs, Oregon's is entirely fee supported. The length of the test procedure directly affects cost and customer wait times. Our best estimate at this time is that the proposed advanced test will process about the same number of vehicles per hour as our basic test, although longer lanes and additional inspectors will be necessary to accomplish this. The longer lanes will necessitate rebuilding our stations

and we are planning additional lanes to accommodate population growth. This proposed test procedure would raise the test fee to approximately $16 per test. In states with I/M 240 programs, the cost is $24 per test.

Public concerns with I/M 240 programs in other states included the long waiting lines and increased costs of testing and repair. In addition, there was some concern about damage to vehicles. DEQ's plans for new stations include provisions for enough lanes so that waiting times will not increase. In addition, we will design the facilities for easy expansion as the population grows. The advanced test will identify failing vehicles, some of which will be more difficult and costly to repair. However, newer vehicles will still be under warranty. These costs will be partially offset by increased gas mileage, better driveability and longer life.

The proposed advanced test will simulate on-road conditions with speeds up to 35 miles per hour, rather than the 55 miles per hour maximum speed in the I/M 240 test. Only a few claims that vehicles were damaged by the test procedures have been substantiated. Most testing facilities are equipped with restraints to keep the vehicles on the dynamometer and other safety precautions will be taken to prevent damage to vehicles.

Summary of Public Input Opportunity

Both the Portland area Ozone Maintenance Plan and revisions to the vehicle testing rules will be subject to a public comment period before consideration by the Commission.

Conclusions

* Advanced testing of motor vehicles is one of the most cost effective methods of gaining additional emission reductions necessary to maintain healthy air in the Portland area.

* DEQ's proposed testing program has made significant efforts to address potential concerns of citizens.

* We expect to keep wait times to current levels and minimize the increased costs.

Intended Future Actions

The Commission will consider an ozone maintenance plan for the Portland metropolitan area which includes advanced testing as a plan element. The Commission will consider

specific rule changes proposed by the Department to accommodate advanced testing. The Department is expecting advanced testing to be implemented sometime after July, 1997.

Department Recommendation

It is recommended that the Commission accept this report, discuss the matter, and provide advice and guidance to the Department as appropriate.

Attachments

Attached is a chart showing the Portland Ozone Maintenance Plan strategies and the relative reductions expected from each.

Reference Documents (available upon request)

Approved:

Section: Ed Woods

Division: Gregory A. Green

Report Prepared By: Ed Woods

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Date Prepared: 12/28/95

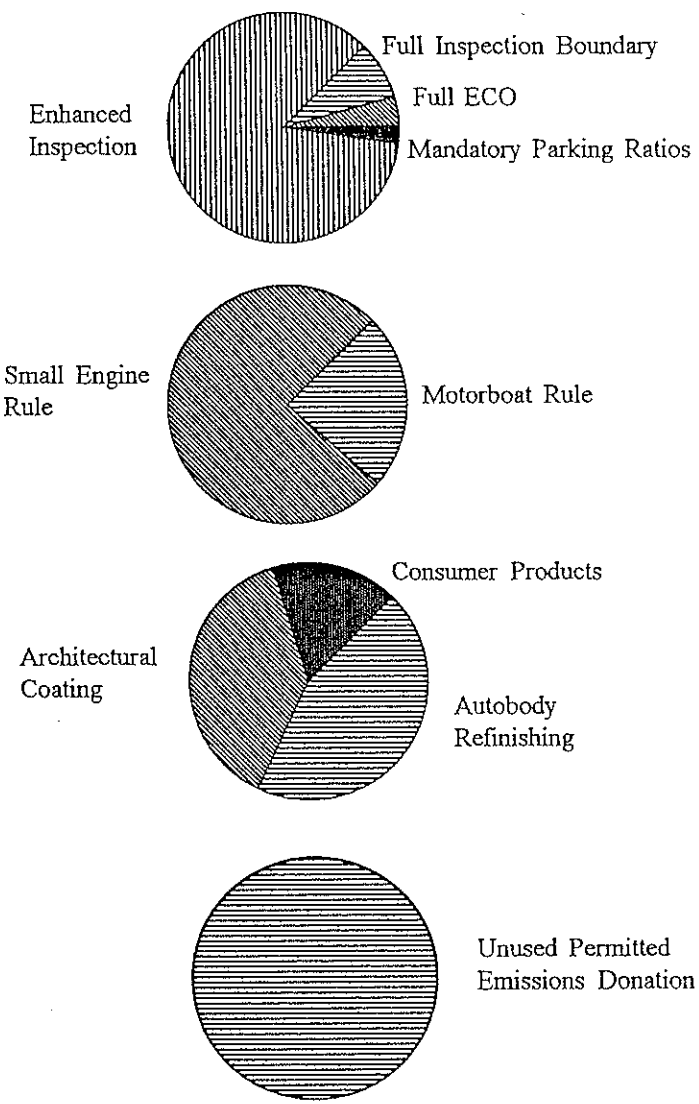
(Woods)
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Portland Area Ozone Maintenance Plan

VOC Reductions from New Strategies

(December 1995 Rebalance)

	% Reduction in Airshed VOC Emissions in 2006	
On-Road Vehicles	5.8%	→
Non-Road Engines	5.6%	→
Area Sources	2.9%	→
Industry	3.5%	→
Total Airshed	17.8%	



Item L

7TH ANNUAL ENVIRONMENTAL CLEANUP REPORT



JANUARY
1996

deq

Foreword

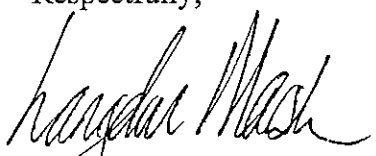
The Department of Environmental Quality's (DEQ) Environmental Cleanup Program has been in operation for eight years. Nearly 300 projects are under way or have been completed, about 100 sites are being evaluated to determine whether further work is needed, and several hundred tank cleanups are in progress. The Department has made many improvements in how cleanups occur as DEQ, like other state agencies, has gained more experience in addressing contamination and in working with responsible parties to successfully clean up dirty sites. The Environmental Cleanup Program will continue to evolve as DEQ implements the 1995 revisions to Oregon's cleanup law.

The program's priorities for the current biennium are to:

- Implement Oregon's revised cleanup law for maximum environmental protection, certainty, speed and cost-effectiveness;
- Build on current momentum and program innovations to maximize cleanups and brownfields redevelopment; and
- Identify options to provide stable funding for the cleanup program, in particular for orphan site cleanups.

This report provides highlights of changes made to the cleanup program, expands on its goals for this biennium and identifies challenges ahead. It also summarizes the accomplishments of the past fiscal year and projects the current year's activity levels. Finally, the report also includes a summary and update of the current four year plan.

Respectfully,



Langdon Marsh, Director
Department of Environmental Quality

Introduction

Oregon's Environmental Cleanup Program was established in 1988 by the Department of Environmental Quality (DEQ) and given the responsibility of implementing Oregon's environmental cleanup law (ORS 465.200-900). This report presents cleanup program activities for the past fiscal year (July 1994 - June 1995). It summarizes cleanup actions in progress, those completed during the current fiscal year, and those projected for completion through June 1996. It also includes a summary of the four-year plan through 1999.

CLEANUP PRIORITIES

- Implement Oregon's revised cleanup law for maximum environmental protection, certainty, speed and cost-effectiveness;
- Build on current momentum and program innovations to maximize cleanups and brownfields redevelopment; and
- Identify options to provide stable funding for the cleanup program, in particular for orphan site cleanups.

During the eight years of Oregon's environmental cleanup program, DEQ has assessed many sites and cleaned up a great deal of contamination. Still, environmental contamination of land and water remains an economic and social burden for Oregon's citizens and businesses.

The environmental cleanup program has grown and changed significantly since its inception in 1988. Some of these changes reflect the maturation of the program as it moved from its early focus on identifying and prioritizing sites into the investigation and cleanup phases. Many more changes resulted from efforts by DEQ and others involved in or affected by the cleanup program to improve its effectiveness and efficiency. The amendments to the cleanup law approved by the 1995 Legislature reflect those goals.

Continual updating of the cleanup process and assuring that adequate financial resources are available for cleanup actions are crucial to its success. The following is a brief description of the program's history, cleanup process improvements already implemented, and those planned or under way.

IMPROVING THE ENVIRONMENTAL CLEANUP PROCESS

In 1987, the Legislature enacted the environmental cleanup legislation, charging DEQ with discovering and cleaning up sites contaminated with hazardous substances.

During the program's early years, DEQ emphasized site discovery and evaluation. Given the staffing and funding resources at the time, the program could address only a portion of the worst sites. As resources were made available, the active site list grew in both the enforcement and voluntary programs, and the number of cleanups completed has steadily

increased. DEQ is currently working on more than 230 sites and approximately 60 cleanups have been completed.

As DEQ, like others involved in cleanups nationwide, has learned more about contamination and its remedies, we have modified the cleanup process. Sites now go through a preliminary screening process, to ensure that the more hazardous sites move quickly into cleanup. In most instances, the Department performs or requires interim cleanup actions, to reduce obvious risks early, while we conduct more thorough investigations and select the final cleanup plans.

IMPROVEMENTS IMPLEMENTED

In June 1992, the Environmental Quality Commission (EQC) amended the environmental cleanup rules by adopting **numeric soil cleanup levels**. Responsible parties can choose to clean up to these standards at qualifying sites, avoiding the potentially lengthy remedial investigation/ feasibility study (RI/FS) method. In 1994, DEQ completed a Soil Cleanup Manual to help people apply the numeric soil cleanup levels. This option provides more certainty in the cleanup process, and a quicker decision on the amount of cleanup required.

Later in 1992, the EQC also approved amended rules pertaining to **lender liability**. The amendments clarified the scope of cleanup liability exemption for financial institutions and other persons holding security interests in property. The amendments significantly increased the certainty for banks and other financial institutions about the extent, if any, that real property loan transactions would carry cleanup liability.

Established in 1991 to help responsible parties who want to complete environmental cleanups and redevelop contaminated land, the **Voluntary Cleanup Program** became fully operational in 1993. Currently, the program oversees the investigation or cleanup of more than 130 sites, allowing property transfers and development to occur more quickly. DEQ gives responsible parties an estimated budget of oversight costs in the beginning, providing more certainty about program costs. Oregon's program serves as a model for the U.S. Environmental Protection Agency (EPA) and other states.

The Voluntary Cleanup Program also facilitates the redevelopment of vacant, contaminated land known as "**brownfields**". Brownfield sites are typically former industrial facilities and are often located in developed urban areas. Because of cleanup expense and potential liability, brownfields may lie unused for an indefinite period.

DEQ has devoted substantial effort to finding ways to get these areas cleaned up and back into productive use. The agency has conducted preliminary assessments at several brownfield sites to determine the nature and extent of contamination, so that potential developers can have more certainty about cleanup costs. In 1995, DEQ completed a

study of the brownfields problem in the state, which will be used to identify strategies the cleanup program can employ to encourage even more cleanup and redevelopment.

DEQ is also a partner in other state and local efforts to address the brownfields problem. We assisted the Oregon Economic Development Department in its successful application to EPA to fund a pilot for the Mill Site Conversion Project. The project is a public/private partnership to return seven vacant mill sites in rural communities to productive use. Also in the works is a City of Portland request for EPA to fund several activities to stimulate redevelopment.

The **Bald Knob Mill site** illustrates how the Voluntary Cleanup program works to return brownfields to productive use. This parcel of more than 100 acres just outside of **Oakridge** has been largely unused since wood products mill operations ceased in 1990. The site was contaminated over the years with petroleum and wood-treating chemicals, and from PCBs released during a fire in 1991. The City of Oakridge was interested in purchasing the property and redeveloping it for mixed commercial and light industrial use. They needed to know the nature and extent of the contamination, but didn't have funds to carry out investigations. DEQ entered into a loan agreement with the City, enabling them to perform preliminary investigations. The City intends to incorporate any necessary cleanup actions into redevelopment of the parcel. Once redeveloped, the City can repay DEQ from the enhanced value of the land.

1995 Revised Cleanup Law

The 6th Annual Environmental Cleanup Report described a number of areas in which DEQ planned to improve the cleanup process. These included revising risk assessment procedures, authorizing the use of presumptive remedies and developing remedy selection guidance to address the issues of protective levels, cost effectiveness and hot spots of contamination. The 1995 amendments to Oregon's environmental cleanup law, which were developed with DEQ participation, mandate and expand upon those improvements.

The 1995 amendments to the cleanup law have the potential to encourage and facilitate the reuse of contaminated property, reduce the cost of cleanups and make it possible to complete some cleanups more quickly.

Under the new law, cleanup goals depend on the amount of risk the site poses to people and the environment. Cleanup decisions may be based on site-specific conditions, such as the anticipated future use of the site or scientifically-valid information about risks at the site. These changes should enable responsible parties to proceed with more certainty to a cleanup that is appropriate for the site. DEQ is developing a risk protocol, spelling out the details of the new process, which will be adopted by the Environmental Quality Commission (EQC) by January, 1997. In addition, research conducted by DEQ over the past two years will enhance its ability to evaluate these site specific factors.

The amended law has the potential to reduce cleanup costs in several ways. It provides responsible parties more flexibility to use remedies that leave hazardous substances in place at the site, while preventing exposure to the contamination. These methods, which may be used at all but the most contaminated areas, or "hot spots", are often cheaper than reducing or removing the contamination. The amendments also encourage cost control by requiring that more costly cleanup methods be justified by such things as more effective environmental protection or greater long-term reliability.

The primary goal remains the protection of human health and the environment and especially the state's groundwater resource. DEQ's rulemaking efforts will define what constitutes a "hot spot," where the level of contamination must be removed to the extent possible, rather than left in place.

In passing the revised law, the Legislature approved additional staff, in part to enable DEQ to develop **generic remedies.** Generic (also known as presumptive) remedies are technologies that can be used at common categories of sites or for certain kinds of contamination. When cleanups are accomplished using generic remedies, the sometimes lengthy and complex investigation and feasibility process can be streamlined and cleanups may proceed more quickly.

Lastly, the amendments set down in statute specific conditions for the **prospective purchaser agreement** tool that DEQ has begun using to encourage redevelopment and to facilitate financing of cleanup actions. Typically, these agreements involve a party who is interested in leasing or buying a contaminated site. In exchange for an agreement to do cleanup work, DEQ has granted release from full liability for past contamination. Prospective purchasers agreements facilitate the transfer and development of properties that might otherwise be considered bad investments.

Prospective purchaser example: Home Depot, Inc. approached DEQ in the fall of 1994 about its interest in developing a parcel of property, which had both soil and groundwater contamination, for a new Portland store. The Voluntary Cleanup program and Home Depot negotiated a prospective purchaser agreement in which the company agreed to clean up soil contamination in exchange for a release from further cleanup liability. Home Depot also agreed to allow monitoring and recovery wells on the property, so that the current property owner, who is still responsible for cleaning up the groundwater contamination, can fulfill that obligation. Home Depot will lease the property, which will provide the owner with the cash flow to perform the additional cleanup work. DEQ worked closely with Home Depot to meet the company's timetable to begin construction. A remedial action plan was approved and cleanup begun by September of 1995 and Home Depot can begin construction of the store on schedule in the winter of 1996.

The new law establishes qualifications for prospective purchasers and requires that, in exchange for liability relief, the purchaser provide a substantial public benefit, such as

providing funds for cleanup or redeveloping a vacant property. In October of 1995, DEQ published a model agreement and guidance to assist potential prospective purchasers. DEQ has completed five prospective purchaser agreements to date and several more are under development. There is strong interest in this provision.

CURRENT FISCAL YEAR GOALS AND ACTIVITIES

DEQ is continuing program improvement in these ways:

- Early implementation of the 1995 amendments to the environmental cleanup law

  Many of the provisions of the revised cleanup law cannot be fully implemented until the EQC completes rulemaking on the risk protocol, hot spots and remedy selection in January, 1997. DEQ will to apply the new principles to cleanups proceeding in the interim to the extent practicable under the existing rules. The Department's staff carefully review each case in an effort to perform cleanups in the spirit of the new law.

- Develop rules necessary to implement the revised cleanup law, emphasizing these principles:

  ◊ Broad public participation
  ◊ Increased dialog with communities
  ◊ Shared solutions and common goals
  ◊ Partnerships

  DEQ is committed to working with the bill's proponents, environmental interests, municipalities, land use groups, developers, property owners and other Oregonians to fairly and effectively implement the new law. Public participation in the rulemaking process includes a central advisory panel supported by technical workgroups, community discussion groups, informal participation and the usual formal notice and comment.

- Implement the generic remedy provisions of the revised cleanup law

  DEQ is developing a policy for the approval of generic remedies and identifying how the remedy selection process can be streamlined. Department staff are reviewing presumptive remedies approved by EPA and investigating potential remedies for contaminants commonly found at Oregon sites.

- Emphasize the dynamic, market-driven approach to Voluntary Cleanups

  The Legislative Emergency Board recently approved additional staff resources to enable the program to keep up with requests for oversight of voluntary cleanups. Responsible parties reimburse the Department for its costs, so resources can be added

as needed to meet the demand. There are currently 25 projects on the Voluntary Cleanup waiting list.

- Build on current momentum to increase Brownfields development:
  - ◊ Encourage and develop prospective purchaser agreements
  - ◊ Partner with industry and local government
  - ◊ Influence national brownfields policy for state flexibility and funding from EPA
  - ◊ Develop creative new funding sources for site assessments at Brownfields
  - ◊ Respond to or seek out prospective purchaser interest in Orphan Sites as a possible funding source
  - ◊ Participate in task force being formed by the Oregon Economic Development Department in accordance with Legislative direction to explore funding strategies and financial incentives to facilitate productive reuse of contaminated properties

- Focus group discussions with program users, consultants and attorneys to keep pace with changing needs

- Explore voluntary cleanup options, including more flexible cleanup agreements and after-the-fact review of completed cleanups, that will best match environmental and business goals

- Seek funding alternatives for the Orphan Site Program. (See Issues, on page 9)

- Produce guidance documents to help responsible parties comply with the new cleanup law, both through the transition and after new rules are adopted

- Promote federal Superfund reforms, including protective remedies, adequate state funding and delegation of programs to the state

- Implement the dry cleaner cleanup program (HB 3216)

  In 1995, the dry cleaning industry in Oregon successfully advocated for a change in the state's cleanup laws. In exchange for providing individual dry cleaners relief from cleanup liability, the industry as a whole will pay for cleanups at dry cleaning sites, and it will tighten environmental standards for operating dry cleaning businesses. DEQ's job is to help the dry cleaners meet their commitments.

  Since the passage of the bill, DEQ has established a dry cleaner advisory committee, and is providing technical assistance to dry cleaning businesses to understand the new requirements placed on them. In the coming months, as funds become available, DEQ will make decisions prioritizing expenditures on contaminated dry cleaning sites.

PROVIDING STABLE FUNDING FOR THE ORPHAN SITE CLEANUP PROGRAM

The 1989 Legislature created the Orphan Site Account so that the Department can clean up at high priority sites where the responsible parties are unknown, unwilling, or unable to pay. Only sites that present a serious public health and environmental threat are paid for with Orphan Site funds. These sites are often among the worst hazardous substance-contaminated sites in Oregon.

DEQ issued Orphan Site pollution control bonds totaling more than $12 million dollars between 1992 and 1994. Debt service on the bonds was to be paid from three sources: the petroleum load fee, the hazardous substance possession fee, and the solid waste disposal fee.

DEQ has been unable to use one funding source, the petroleum load fee, since 1993, when the Oregon Supreme Court found that a similar fee violated the constitutional dedication of petroleum-based revenues to highway funding. The 1995 Legislature approved temporary sources, including General Funds and Lottery, to meet existing debt service obligations and to permit another $8 million bond sale to maintain work at high priority sites in the current biennium.

In the interim, DEQ will be seeking alternatives to both the petroleum load fee and the hazardous substance fee. (Solid waste fees are reserved for solid waste disposal sites and have not yet been used.) A task force of key opinion leaders will begin meeting in January to form policy recommendations that will serve as a basis for future funding discussions. DEQ has already begun research into other ways the program might be financed.

Funds must be found to continue this vital part of the cleanup program's mission to protect human health and the environment. If not addressed, pollution sources continue to spread, contaminating adjacent properties and nearby waterbodies and groundwater, which often affects public water supplies. Because it's more expensive to clean sites after contamination has dispersed, it is important that these cleanups not be delayed. And the availability of Orphan funding is a necessary first step to returning these sites to economic productivity.

Currently, DEQ is working on 18 orphan sites, an increase of 4 since the last annual report. One more will be declared soon and several others are potential orphans.

The table below lists current orphan sites and a map showing the locations is located in the Appendix.

Site	Location
Astoria Plywood	Astoria
Chambers Oil	North Bend
East Multnomah County Area Groundwater	Portland/Gresham
Fashion Cleaners	Klamath Falls
High Dollar John's	The Dalles
Industrial Battery	Portland
Lakewood Estates	Aurora
Lebanon Area Groundwater	Lebanon
McCormick and Baxter*	Portland
Milwaukie Area Groundwater	Milwaukie
Montezuma West Spill	Central Point
Nu-Way Oil	Portland
Rogue Valley Circuits	Medford
Rose City Plating	Portland
Sandy Oil	Sandy
Surgichrome	Clackamas
Technical Images	Newberg
Vadis Pole Yard	North Plains
Cleanup work has also begun at one proposed orphan site: Sweet Home Area Groundwater	Sweet Home

* Placed on the EPA National Priorities List in May, 1994. Federal Superfund moneys are available for cleanup.

HEATING OIL TANKS

In 1993, the Legislature enacted the home sale disclosure law. Since passage of this law, many homeowners have requested technical assistance about heating oil tanks for such things as decommissioning abandoned tanks.

During fiscal year 1995, the Department received approximately 3,000 phone calls requesting technical assistance about heating oil tanks. DEQ does not have funding or staff for this purpose and attempts to respond with resources from other cleanup programs, primarily the underground storage tank cleanup program. A total of 584 releases from heating oil tanks were reported to the Department and 125 cleanups were completed during the past fiscal year.

CLEANUP PROGRAM ACCOMPLISHMENTS

Tables A and B show cleanup activities conducted since the environmental cleanup program was created, as well as cleanup work projected through the end of the current fiscal year (June 1996).

SITE ASSESSMENT AND ENVIRONMENTAL CLEANUP SITE INFORMATION SYSTEM (ECSI)

The site assessment process includes discovery of potentially contaminated sites, initial screening and assigning priority, performing preliminary assessments (PA) when appropriate, and determining if further investigation and/or cleanup is necessary.

The Environmental Cleanup Site Information System (ECSI) is a database of sites contaminated or potentially contaminated by hazardous substances. During the fiscal year July 1994 through June 1995, DEQ added 115 new sites to ECSI with an estimated 144 more to be added by June 1996. Currently there are 1,598 sites in ECSI.

The Confirmed Release List (CRL), a subset of ECSI, is a list of sites where contamination has been verified. Sixty-seven new sites were added to the CRL during the 1994-95 fiscal year. Thirty-six more are estimated to be included by June 1996. The CRL currently has 221 sites.

The "inventory," also a subset of the site database, is the list of sites where contamination has been confirmed through a preliminary assessment (PA) and the need for further action has been verified. The Inventory increased by 30 new sites during fiscal year 1994-95 with another 22 to be added by June 1996. There are currently 127 sites on the inventory.

A large number sites were added to both the CRL and Inventory near the end of the fiscal year ending June 1995, so the projected additions for the current fiscal year are reduced accordingly. The total for the two years combined exceeds previous projections.

The CRL and Inventory do not include all sites in the cleanup process. Responsible parties at some sites perform cleanup on their own without DEQ oversight. At some simple sites, cleanup is done before the listing process is completed.

Site screening categorizes sites by high, medium, and low priority. PAs are conducted only on the highest priority sites, so that cleanups may begin earlier. During the fiscal year July 1994 to June 1995, 250 site screenings were completed as the backlog of pending sites was reduced. By June 1996, 175 more are expected to be completed.

Between July 1994 and June 1995, 90 preliminary assessments were completed. Somewhat fewer - approximately 60 - are expected to be completed in the current fiscal year. The total number of preliminary assessments completed during the past two years exceeds previous projections.

Voluntary Cleanup

The Voluntary Cleanup Program (VCP) is currently overseeing 132 active projects. New projects are initially placed in the project development (PD) phase. Activities such as negotiations, file review, and work plan approvals occur in the PD phase. 47 Voluntary Cleanup projects completed the PD phase during the fiscal year 1994-95.

In the Voluntary Cleanup Program, early investigation work may determine that some projects do not need further cleanup work. In these cases, sites are classified as completed projects without going through all the phases of a cleanup. The Voluntary Cleanup Program has completed work on thirty-four sites since the program's inception. Removals or remedial actions were completed at 11 sites and 22 more were begun during the past fiscal year.

There are currently 25 projects on the VCP waiting list. About 3 new projects enter the program each month. VCP has completed about 12 projects a year in the last two years. This number will increase by the end of the biennium as the additional staff recently approved by the Emergency Board are brought on board.

Evidenced by the number of projects in progress and the length of the waiting list, the voluntary cleanup program continues to be in demand. The program is funded by responsible parties who request DEQ oversight, allowing staff resources to match the demand for cleanup oversight.

Site Response

Site Response is responsible for overseeing the cleanup of the state's worst hazardous substance contaminated sites, including Federal National Priorities List sites, state orphan sites and other high priority enforcement cleanups. The Site Response Program is currently overseeing cleanup work at 99 sites and has completed work at 26 sites.

Site Response completed 13 removals in the fiscal year ending June 1995, exceeding the 10 projected. Since 1991 more removals have been conducted whenever possible to reduce environmental hazards and to speed the cleanup process. Often, a removal will serve as the final cleanup for a site so that further remedial action is not necessary. In

addition, 2 remedial actions were completed. Five sites completed the remedial design phase, allowing remedial action to begin.

Remedial investigations (RI) and feasibility studies (FS) remain under way at some of the more complex sites projected for completion of those phases, but new RI/FSs initiated exceeded expectations.

Follow up monitoring or operation and maintenance (O&M) activities were initiated at 3 additional sites since the last annual report. O&M activities are expected to be completed at 2 sites by June 1996.

*****

In total, the Environmental Cleanup program has given "no further action required" status to 273 sites. These include completed cleanups conducted under DEQ's oversight, as well as sites listed on the database that are determined not to require any additional cleanup work.

More information about individual cleanup sites is available through the Oregon Public Environmental System, or OPENS. OPENS allows the public to access and print the most current reports from cleanup program electronic databases. OPENS terminals are available for use during business hours at DEQ Headquarters in downtown Portland and at several regional offices.

Underground Storage Tank (UST) Cleanups

During the fiscal year ending June 1995, DEQ received reports of 323 releases of petroleum from regulated underground storage tanks. Reports of an additional 300 releases are projected by June 1996. 192 cleanups were completed during fiscal year July 1994 through June 1995. For the current fiscal year, another 200 completed cleanups are projected.

Treatment of petroleum contaminated soil onsite continues to be an option for responsible parties. During the fiscal year ended July 1995, the Department issued 128 Solid Waste Letter Authorization permits to conduct this onsite treatment. Staff conducted 247 soil treatment inspections during the fiscal year.

Spill Response and Drug Lab Cleanups

DEQ has Spill Coordination teams operating out of seven regional offices. These teams provide state-wide coverage on a 24-hour basis and provide technical assistance to local responders during emergency response actions and oversight of spill cleanup activities.

Team captains and headquarters support staff attend Hazardous Material Emergency Response Team Technical Assistance Group meetings to identify and resolve problems and to better coordinate local responder and DEQ responses to spill incidents. Staff have also conducted numerous outreach sessions to educate other agencies on roles and responsibilities in spill response situations.

Most spills are cleaned up by responsible parties. DEQ cleans up only a small portion of the hundreds of spills of hazardous substances that are reported annually. These incidents involve spills where there is no identifiable responsible party, or where a responsible party refuses to undertake appropriate response actions. For the fiscal year ending June 1995, DEQ's contractors cleaned up 23 spill incidents, totaling $93,981.

DEQ continues to provide technical assistance to law enforcement agencies taking action against illegal drug manufacturing labs. In September of 1995, the Drug Lab Cleanup Fund was depleted. This Fund is replenished by contributions from police agencies from drug trafficking asset forfeitures. The Fund provides lab chemical disposal services on a first-come, first-serve basis. Until the fund is replenished, DEQ continues to provide assistance to police agencies at their expense under contract agreements. During the fiscal year ending June 1995, 66 illegal drug labs were cleaned up at a cost of $109,761.

TABLE A

Projects Completed

PROJECTS	1/88-6/91	7/91-6/93	7/93-6/94	7/94-6/95	Projected 7/95-6/96
Site Assessment					
Suspected Releases Added	957	279	178	115	144
Confirmed Release List Additions*	33	69	39	67	36
Facilities Added to Inventory*	24	39	25	30	22
Site Screenings	126	251	210	250	175
Preliminary Assessments	181	136	85	90	60
Voluntary Cleanup					
Project Development	1	48	49	47	42
Removals and Interim Actions	0	7	5	7	10
Remedial Investigations	1	7	8	14	13
Feasibility Studies	0	2	3	4	6
Remedial Design & Remedial Actions	0	1	3	4	8
Site Response					
Removals	11	9	10	13	8
Remedial Investigations	7	21	12	4	7
Feasibility Studies	6	8	1	5	7
Remedial Design & Remedial Actions	6	6	3	7	7
Underground Storage Tank Cleanup					
Releases Reported**	2487	2004	522	323	300
Cleanups	746	608	107	192	200

* Includes corrections of previously reported figures to reflect database updates. Note that both Confirmed Release List and Inventory additions reflect additions only and are not net of delistings. There have been 3 sites delisted from each of the lists.

** From regulated USTs only. (1993-94 figures reported have been revised to exclude non-regulated heating oil tanks)

TABLE B

Projects Initiated

PROJECTS	1/88-6/91	7/91-6/93	7/93-6/94	7/94-6/95	Projected 7/95-6/96
Site Assessment					
Site Screenings	118	93	232	241	180
Preliminary Assessments	91	170	89	104	60
Voluntary Cleanup					
Project Development	13	52	48	34	44
Removals or Interim Actions	1	8	6	12	13
Remedial Investigations	2	28	27	26	28
Feasibility Studies	0	2	22	6	7
Remedial Design & Remedial Actions	0	5	11	10	11
Site Response					
Removals	14	18	12	11	15
Remedial Investigations	43	19	22	10	8
Feasibility Studies	18	6	2	5	8
Remedial Design & Remedial Actions	15	11	4	10	9
Underground Storage Tank Cleanup					
Cleanups	1172	1209	552	321	300

Four Year Environmental Cleanup Plan

A four-year plan of action for the environmental cleanup program is required by ORS 465.235 beginning in 1991. The 6th Annual Environmental Cleanup Report (1995) included the first update to the original plan, covering the 1995-97 and 1997-99 biennia. The following is a condensed version of that report.

The plan estimates the number of preliminary assessments, remedial investigations, feasibility studies and remedial actions to be initiated and completed during the four year period. The plan also includes information about leaking underground storage tank cleanups.

Direction

Site Assessment will continue to use site screenings as a tool to identify the highest priority sites. Those sites will then be referred to the appropriate cleanup program. Cleanup of high priority sites will begin sooner.

Voluntary Cleanup anticipates steady growth in projects and will continue to look for ways to improve the process. Voluntary Cleanup expects to have 168 active projects by the end of the 1995-97 biennium.

Site Response expects to conduct more time critical removals. Many of these will be at orphan sites. Since 1993 the number of declared orphan site cleanups has tripled.

Underground Storage Tank Cleanup will continue to support onsite treatment of petroleum contaminated soil. Onsite soil treatment is often a lower cost cleanup option for responsible parties. Other goals are to improve the initial site screening process to better identify high priority sites and to continue working with heating oil tank issues.

Four-Year Projections

Table C, on page 19, presents the activity levels projected within each of the programs over the four-year period.

Staffing and Funding

The four-year plan was predicated on the 1995-97 budget request. The following summarizes key elements of the approved budget, which is shown in Table D on page 20. DEQ requested and received approval of these budget items:

- 11 new Voluntary Cleanup staff (approved by the Emergency Board in November, 1995) and conversion of 14 existing limited duration positions to permanent status to meet projected demand of 168 active projects by the end of the biennium
- 2 new positions in the Underground Storage Tank Cleanup program to manage onsite petroleum contaminated soil treatment
- Authorization to issue $8 million in pollution control bonds to provide for continued cleanup of orphan sites

These requests were not approved:

- 5 new Site Response positions to meet anticipated demand of one to two new projects per month
- Staff to implement a local government loan program to assist governments to return contaminated brownfield sites to productive use, and expenditure authorization to make loans

TABLE C: 4-Year Plan

	COMPLETED		INITIATED	
PROJECTS	**7/95-6/97**	**7/97-6/99**	**7/95-6/97**	**7/97-6/99**
Site Assessment				
Suspected Releases Added	300	300	N/A	N/A
Confirmed Release List Additions	60	60	N/A	N/A
Facilities Added to Inventory	35	35	N/A	N/A
Site Screenings	350	350	356	356
Preliminary Assessments	120	120	138	138
Voluntary Cleanup				
Project Development	50	50	50	50
Removals	5	5	5	5
Remedial Investigations	12	12	25	25
Feasibility Studies	12	12	12	12
Remedial Design & Remedial Actions	22	33	22	33
Site Response				
Removals	16	20	30	30
Remedial Investigations	14	18	16	16
Feasibility Studies	14	16	16	16
Remedial Design & Remedial Actions	6	8	12	12
Underground Storage Tank Cleanup				
Releases Reported	1000	1200	N/A	N/A
Cleanups	400	500	800	900

TABLE D

ENVIRONMENTAL CLEANUP PROGRAM

LEGISLATIVE APPROVED BUDGET

(1995-1997)

ACTIVITY	FTE	BUDGET	FUNDING SOURCES
Hazardous Substance Cleanups* (High priority enforcement, Orphan Site, Voluntary)	97.08	14,640,037	HSRAF** including Cost Recoveries
		8,000,000	Orphan Site Account
		926,395	Federal Funds
UST Cleanup (including heating oil tanks and soil treatment)	24.54	1,423,689	HSRAF**, cost recovery & permit fees (soil treatment)
		1,762,889	Federal Funds
Emergency Response (Spills)	5.75	61,849	General Funds
		51,932	Petroleum load fee
		1,059,497	HSRAF**
Illegal Drug Lab Cleanup	0.00	114,586	Illegal drug asset forfeiture and illegal drug cleanup fund
Dry Cleaner Cleanup Program***	1.50	1,574,176	Dry Cleaner Emergency Response Fund

* Includes $644,288 (5.0 FTE) related to 1995 Cleanup Law Amendments and $731, 680 (5.54 FTE) approved by the Emergency Board for Voluntary Cleanups

** Hazardous Substance Remedial Action Fund

*** Does not include waste minimization portion of program

Appendix

Glossary

Maps of Site Locations:

- Total Sites on Environmental Cleanup Database
- Site Screeings and Preliminary Assessments
- Site Response Sites
- Orphan Sites
- Voluntary Cleanup Sites
- Sites Contaminated by Petroleum Tanks

Environmental Cleanup

GLOSSARY

aquifer: an underground bed or layer of earth, gravel or porous stone that contains water.

background: the level of hazardous substance occurring naturally in the environment prior to a spill or release.

brownfield: vacant, contaminated property that is typically industrial and is located in a developed urban area.

confirmed release list: a list of properties where it has been verified that a hazardous substance has been released into the environment. Sites on the confirmed release list do not necessarily require any cleanup action.

consent order: A legal document that specifies a responsible party's obligations when entering into a cleanup settlement with the state.

corrective action plan: a work plan specifying exactly how a site contaminated with petroleum products will be cleaned up.

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act--commonly known as Superfund; the federal law passed in December 1980 authorizing identification and cleanup of abandoned hazardous waste sites.

DEQ: Department of Environmental Quality; the Oregon state agency established to restore, enhance, and maintain the quality of Oregon's air, water and land.

EPA: United States Environmental Protection Agency; the agency responsible for enforcing federal laws protecting the environment.

EQC: Environmental Quality Commission; the five-member citizen panel appointed by the Governor to set the environmental policies and regulations for Oregon.

feasibility study (FS): a study conducted to determine different options for cleaning up a site; it is based on information gathered during the "remedial investigation." The FS examines different levels of cleanup, cost effectiveness, permanence and level of protection, as well as available technology.

groundwater: the mass of water in the ground that fills saturated zones of material such as sand, gravel or porous rock.

inventory: the list of sites where release of a hazardous substance has been confirmed and further investigation is necessary.

LUST: leaking underground storage tank.

NPL: National Priorities List; the EPA's official list of hazardous waste sites nationwide to be addressed under the Superfund law.

numeric cleanup standards: a matrix used in simple soil cleanups that defines "how clean is clean" by setting a pre-approved cleanup level.

orphan site: a site contaminated with hazardous substances where the owner/operator is unknown, unwilling or unable to pay for cleanup.

plume: the extent or boundaries of the spread of contamination in groundwater.

preliminary assessment (PA): the initial determination to confirm whether a hazardous substance has been released into the environment, and whether further action is necessary.

presumptive remedy: a preferred cleanup technology for common categories of sites.

release: a hazardous substance that has spilled, leaked or otherwise been discharged into the environment.

remedial action (RA): work done at a contaminated site to permanently clean up, control or contain the hazardous substances.

remedial investigation (RI): an environmental investigation that includes information on the types and concentrations of hazardous substances, the geology and hydrology of the area, and an evaluation of potential risks to human health and the environment.

removal: work done at a contaminated site to clean up or remove a release of hazardous substances, including but not limited to security fencing or other means of limiting access and instigating measures to prevent contamination spread.

risk assessment: a comprehensive evaluation that examines potential risk to human health and the environment in terms of routes of exposure, populations at risk, and degree of harmful effects.

SARA: Superfund Amendments and Reauthorization Act (1986); federal law reauthorizing and expanding the jurisdiction of CERCLA.

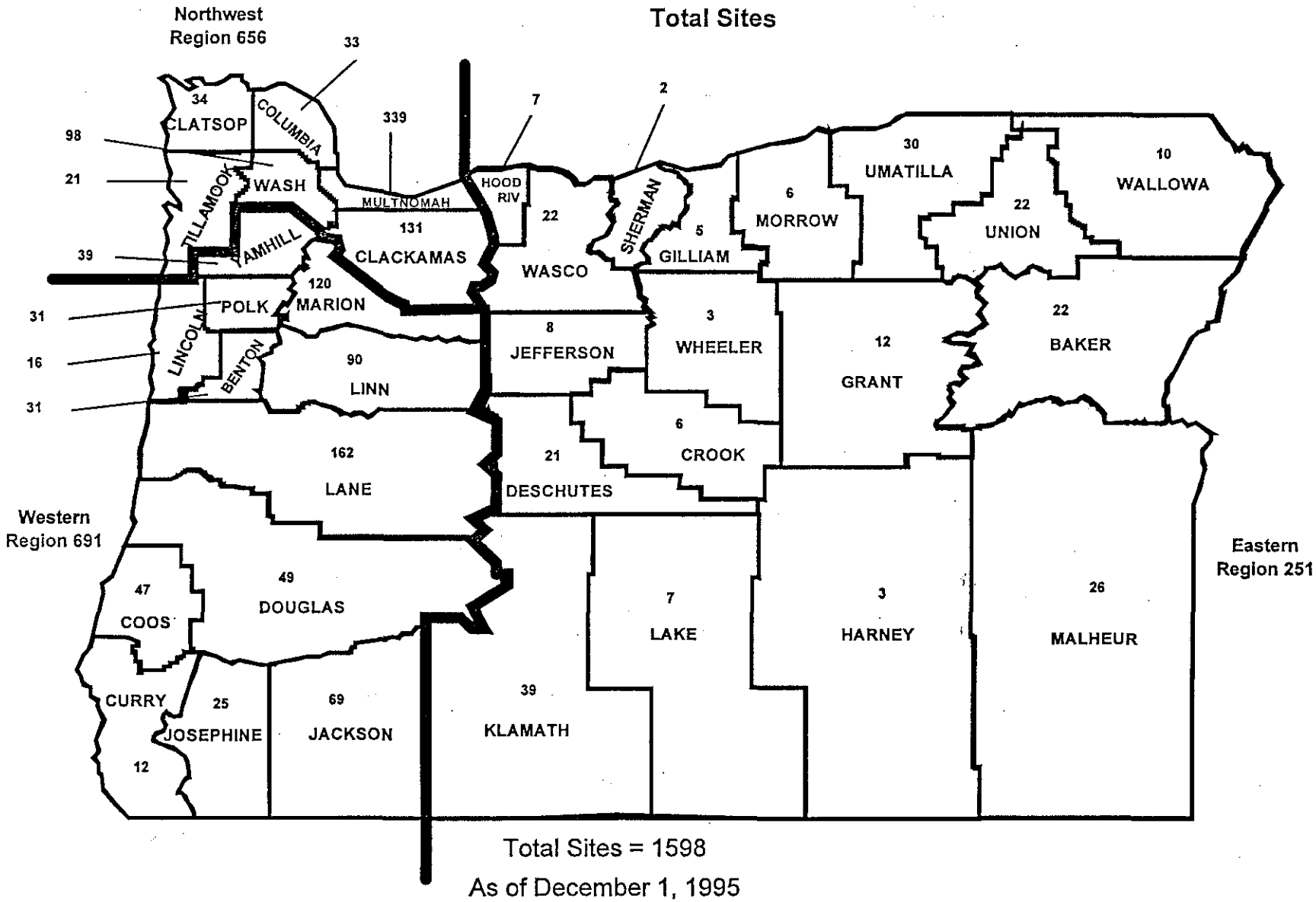
site investigation: an environmental investigation that includes information to determine whether a site should proceed to the next stage of investigation or whether it should be placed in a No Further Action status. A site investigation may be performed when a full RI/FS is not required.

Superfund: see CERCLA

ust: underground storage tank

work plan: a detailed report including a schedule for completing an investigation, a description of sampling methods, quality control measures, and safety procedures.

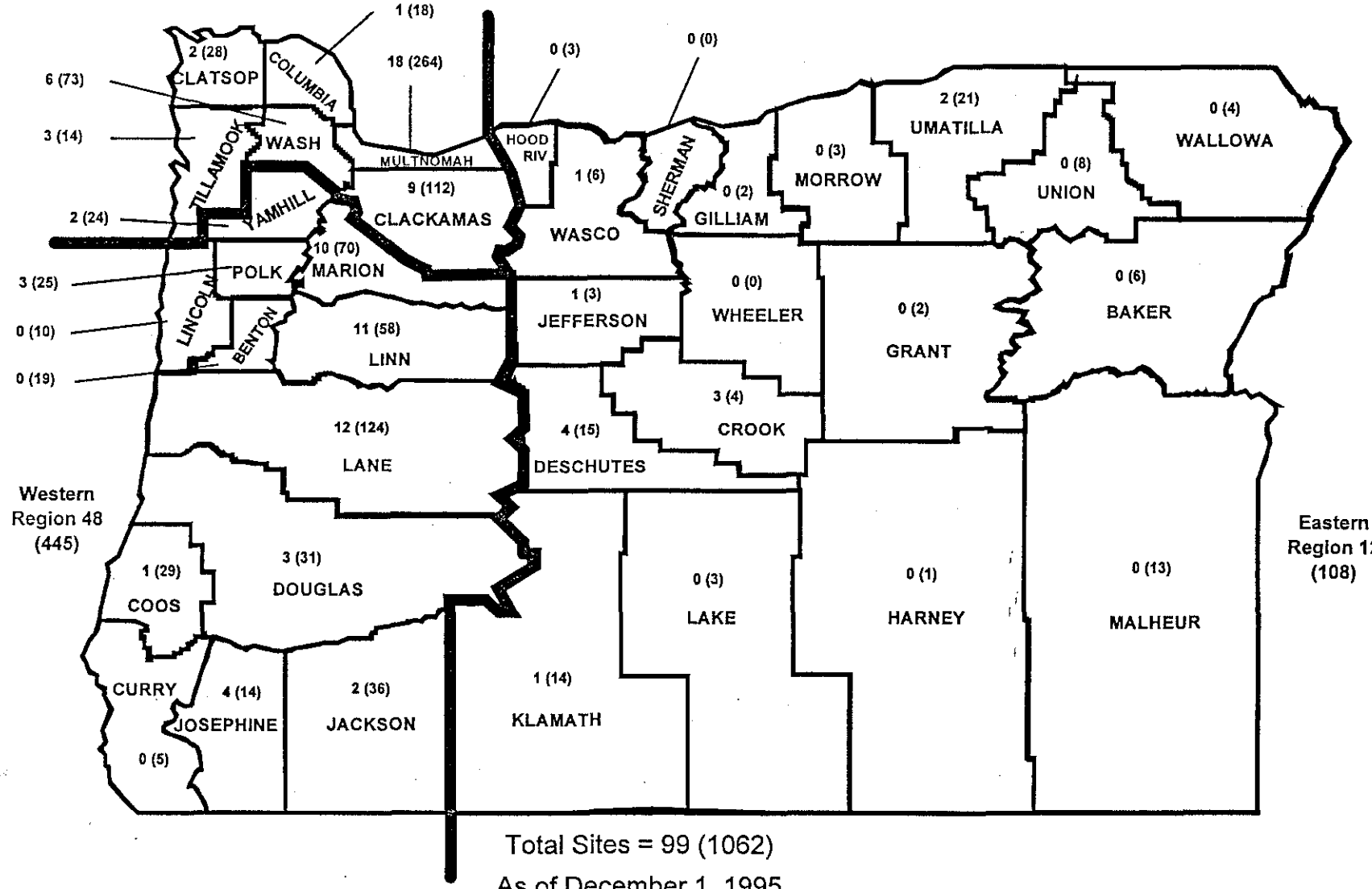
Environmental Cleanup Site Information Database--
Total Sites



Total Sites = 1598

As of December 1, 1995

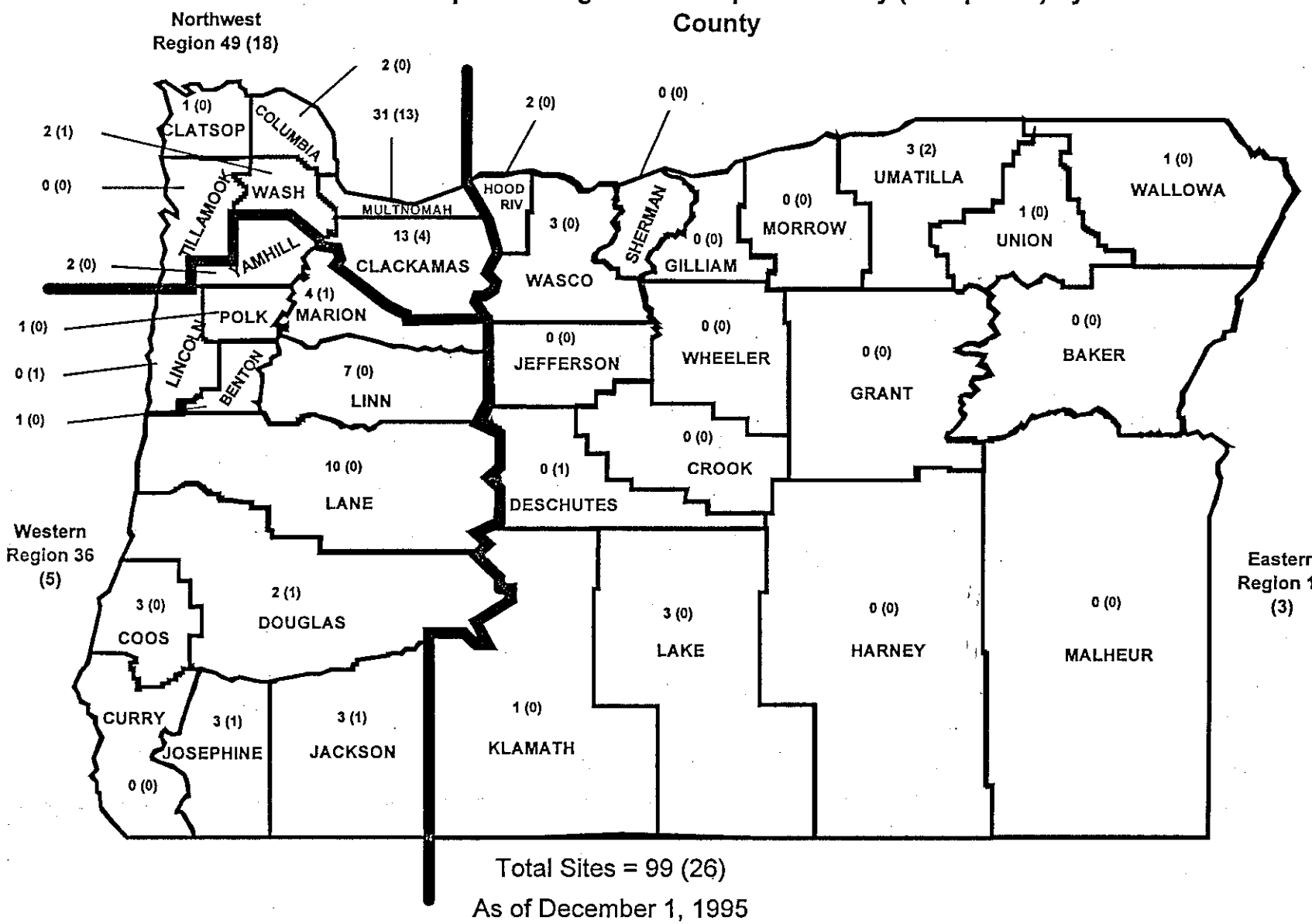
Sites With Screenings or Preliminary Assessments Underway (Completed) by County



Total Sites = 99 (1062)

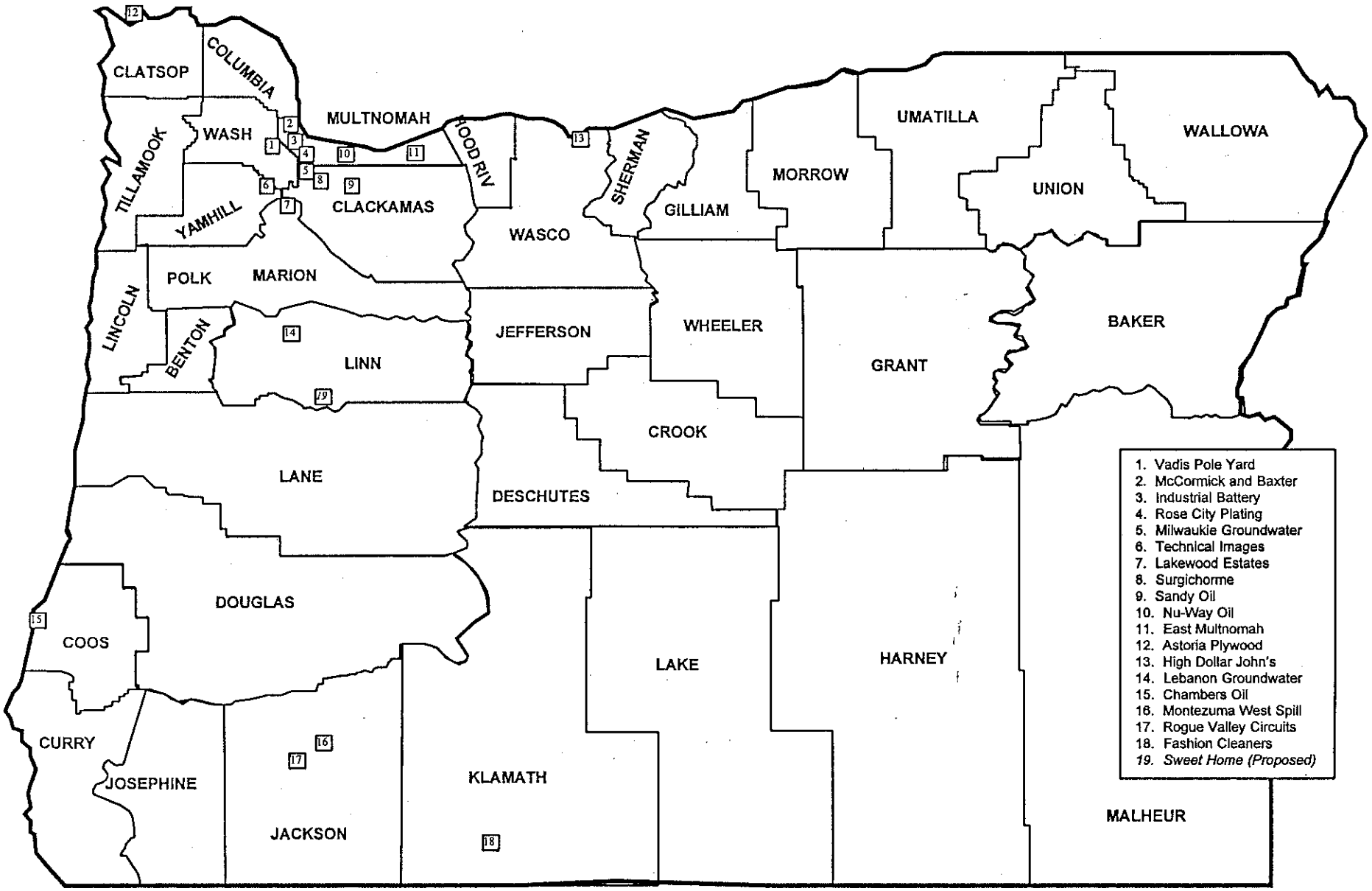
As of December 1, 1995

Site Response Program Cleanups Underway (Completed) by County



Total Sites = 99 (26)

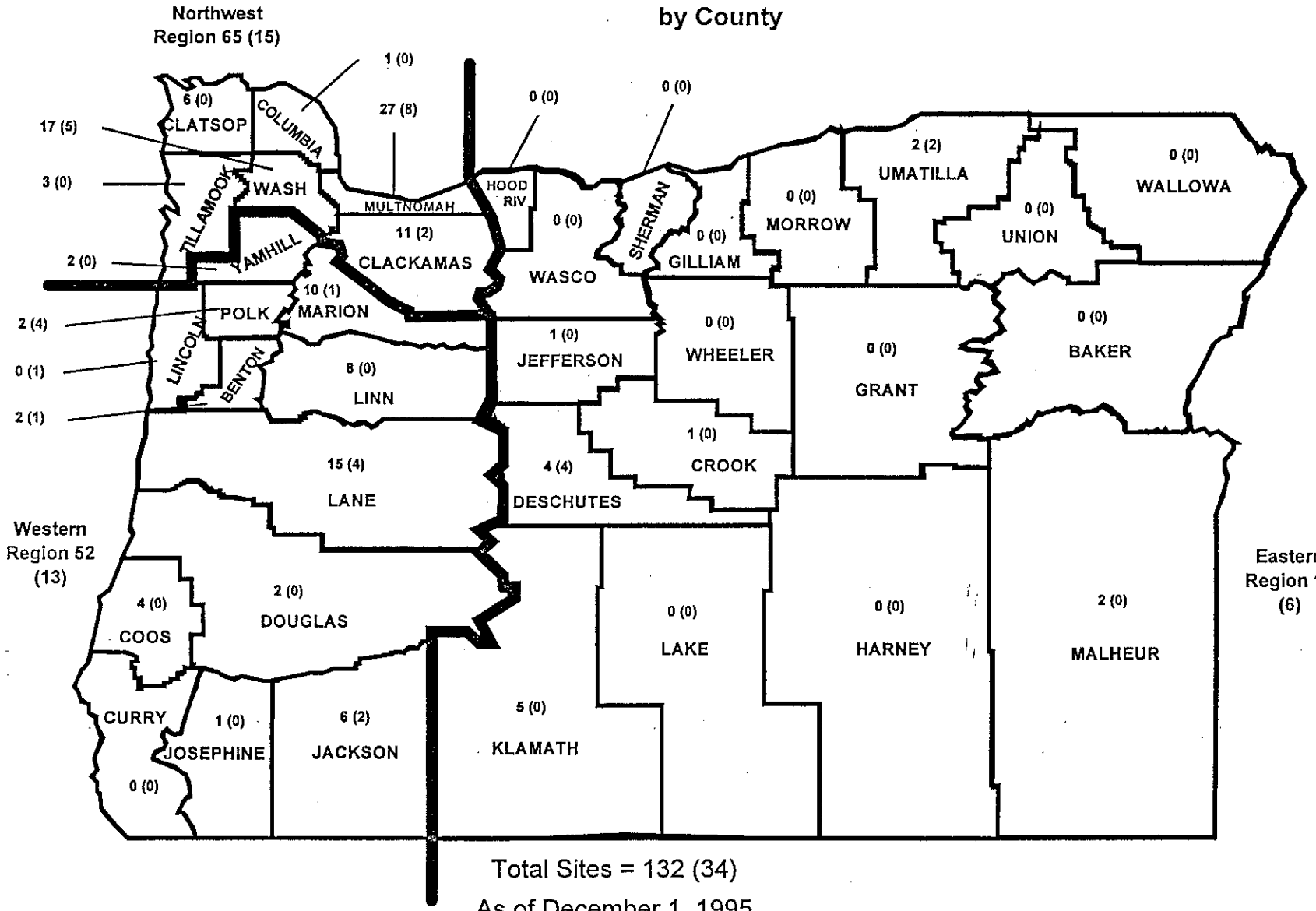
As of December 1, 1995



Oregon's Hazardous Substance Cleanup Orphans

orphanu2.ppt
12/29/95

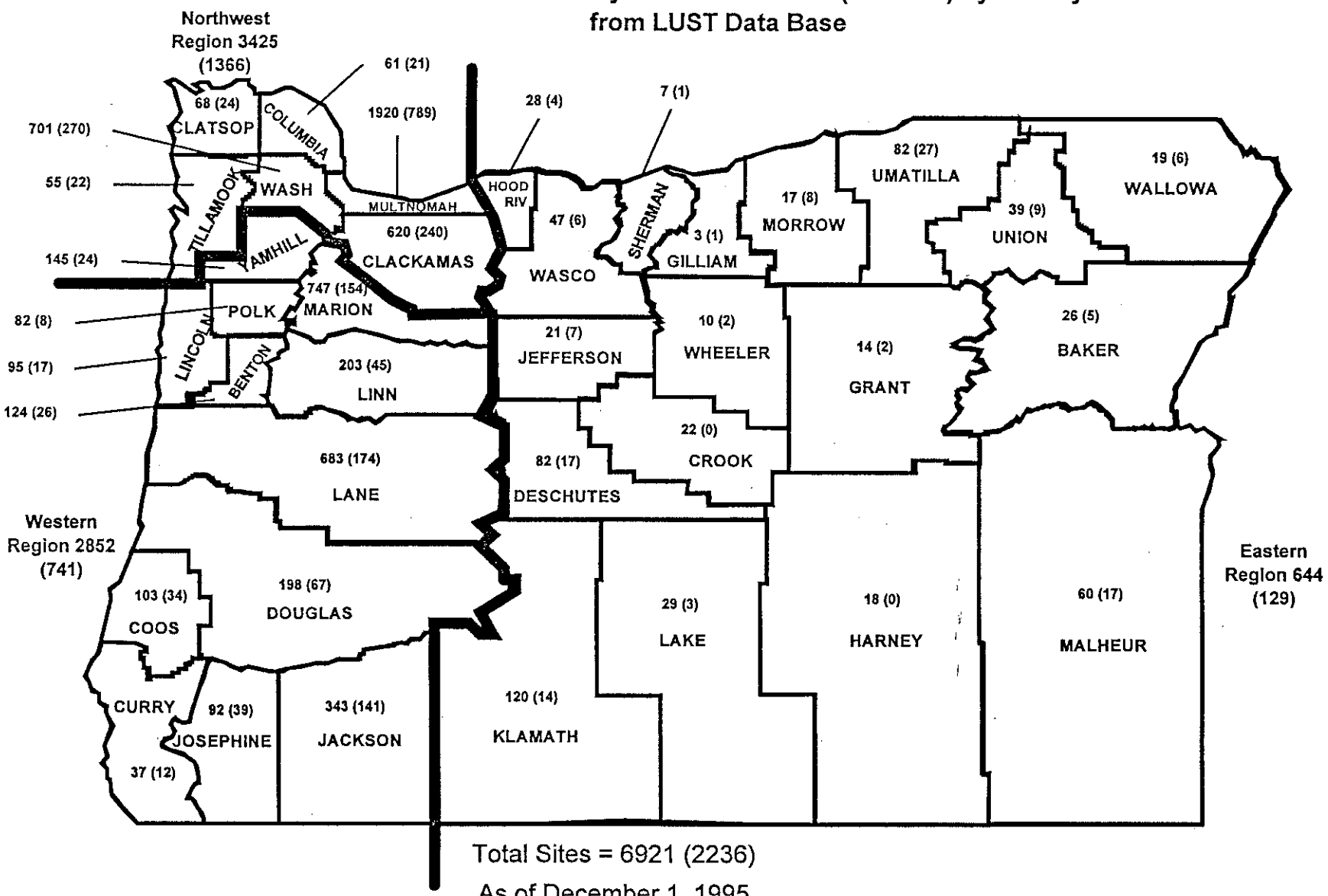
Voluntary Cleanup Program Cleanups Underway (Completed) by County



Total Sites = 132 (34)

As of December 1, 1995

Sites Contaminated by Petroleum Tanks (Cleaned) by County from LUST Data Base



Total Sites = 6921 (2236)

As of December 1, 1995

Environmental Quality Commission

☐ Rule Adoption Item
☒ Action Item
☐ Information Item

Agenda Item M
January 11-12, 1996 Meeting

Title:

Variance for Coos County Municipal Solid Waste Incinerator

Summary:

Coos County is unable to comply with the requirements of the variance granted by the Commission at the January 20, 1995 meeting. That variance provided Coos County with a nine month extension to comply with the requirements of OAR 340-25-885 (Incinerator Regulations) and Air Contamination Discharge Permit #06-0099.

Department Recommendation:

The Department recommends that the Commission approve the variance granting Coos County an additional four month extension to comply with the "Incinerator Regulations", and ACDP #06-0099. This would place the final compliance deadline at April 13, 1996.

Report Author | Division Administrator | Director

†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

State of Oregon
Department of Environmental Quality Memorandum†

Date: December 26, 1995

To: Environmental Quality Commission

From: Langdon Marsh, Director

Subject: Agenda Item M, Coos County Municipal Solid Waste Incinerator Variance, EQC Meeting: January 11-12, 1996

Statement of the Issue

Coos County will be unable to comply with the requirements of OAR 340-25-860 through 885, "Incinerator Regulations", by the December 13, 1995 date specified in the variance granted by the Commission on January 20, 1995. Coos County is requesting a four(4) month variance to meet the requirements of this regulation pursuant to ORS 468A.075. ORS 468A.075 gives the Commission the authority to grant specific variances which may be limited in time from the particular requirements of any rule or standard to such specific persons or class of persons or such specific air contamination source, upon such conditions as it may consider necessary to protect the public health and welfare. The commission shall grant such specific variance only if it finds strict compliance with the rule or standard is inappropriate because:
(a) Conditions exist that are beyond the control of the persons granted such variance; or (b) Special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions or cause; or
(c) Strict compliance would result in substantial curtailment or closing down of a business, plant or operation; or
(d) No other alternative facility or method of handling is yet available.
Coos County's application meets all of criteria (a) through (d).

Background

Coos County presently operates a municipal solid waste incineration facility located approximately 7 miles north of Bandon, OR at Beaver Hill. OAR 340-25-885 requires such facilities to meet specific emission limits, monitoring equipment installation, and testing deadlines by March 13, 1995. The Air Contaminant Discharge Permit for this facility (ACDP

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†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

06-0099) requires Coos County to meet the final deadline as well as several interim deadlines for increments of progress. Coos County, because of extenuating circumstances, was not able meet these interim deadlines and was granted a variance to extend the deadline until December 13, 1995. Coos County was not able to meet the extended deadline granted by the variance.

Coos County is currently on a path that they believe will bring them into full compliance with OAR 340-25-860 through 885. Coos County is requesting a variance to extend the compliance dates for a period of four (4) months, until April 13, 1995. The required equipment has been installed and is operating on an intermittent basis. The control system is not fully operational, delaying the source tests. The required operator training has been approved, and the training manuals are on site; however, training cannot take place until the system controls are completely operational. A source inspection conducted by the Department on December 21, 1995 confirmed the progress made towards achieving compliance with the rule and permit requirements.

Authority to Address the Issue

The Environmental Quality Commission is given authority to grant variances from air contamination rules and standards to protect the public health and welfare by ORS 468A.075. Because the incinerator rule is not in the State Implementation Plan (SIP), the Environmental Protection Agency does not have oversight responsibilities in this action.

Alternatives and Evaluation

The alternatives to granting the variance are the operation of the facility out of compliance with regulations, or the temporary or permanent closure of the facility. The Beaver Hill facility is the only solid waste disposal site in Coos County. Closure of the facility could therefore result in an accumulation of refuse that could cause a threat to the public health.

Summary of Any Prior Public Input Opportunity

This request for a variance has not been previously presented for public review or input. The variance that was granted on January 20, 1995, was presented for public review at that time.

Conclusions

- Despite their best efforts, Coos County was not able to comply with the deadline for compliance specified in the variance granted January 20, 1995.
- Coos County is an attainment area for all pollutants.

- The granting of this variance will not cause an exceedance of any ambient air quality standards, and will likely have a negligible effect on the air quality in the Beaver Hill area.

- Granting this variance will prevent the accumulation of refuse and the associated potential for public health effects.

Proposed Findings

The Environmental Quality Commission hereby finds that strict compliance with OAR 340-25-885 by Coos County is inappropriate because conditions exist that are beyond the control of Coos County. These conditions are the delays caused by unforeseen construction problems arising from poor soil conditions, vendor delivery delays, and weather related problems. Also, strict compliance is inappropriate because it would result in the closing down of an operation, and no other facility or method of handling municipal solid waste is currently available in Coos County. A four month variance from the compliance date will provide the time necessary for Coos County to bring the Beaver Hill municipal solid waste incinerator facility into full compliance with OAR 340-25-860 through 340-25-885.

Recommendation for Commission Action

It is recommended that the Commission approve the proposed variance granting Coos County a four month extension to comply with the requirements of OAR 340-25-885 and Air Contamination Discharge Permit 06-0099. This will require Coos County to demonstrate compliance with all requirements for municipal solid waste incinerators by April 13, 1995.

Reference Documents (available upon request)

1. Statutory Authority: ORS 468A.075
2. Applicable Rule(s): OAR 340-25-850 through 340-25-885
3. Supporting Technical References: ACDP 06-0099
4. Variance request and staff report from January 20, 1995

Approved:

Section: _____

Division: Stu Isaacs

Report Prepared By: Tom Peterson
Phone: 776-6010
Date Prepared: December 26, 1995

Permit No.: 06-0099
Expiration Date: 02/01/97
Page 1 of 11 Pages

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, OR 97204-1390
Telephone: (503) 229-5696

Issued in accordance with the provisions of ORS 468A.040

ISSUED TO:

Solid Waste Department
Coos County Courthouse
Coquille, OR 97423

INFORMATION RELIED UPON:

Application No.: 12382

Received: 11/29/89

PLANT SITE LOCATION:

Beaver Hill Disposal Site
15 miles south of Coos Bay
near Highway 101

ISSUED BY DEPARTMENT OF ENVIRONMENTAL QUALITY

Steve Greenwood

Steve Greenwood, Administrator

OCT 2 2 1993

Dated

Source(s) Permitted to Discharge Air Contaminants:

TYPE OF FACILITY (FROM TABLE 1, OAR 340-28-1720)	STANDARD INDUSTRY CODE
Incinerator, 50 to 250 tons/day capacity	SIC: 4953

PERMITTED ACTIVITIES

The permittee is herewith allowed to discharge exhaust gases containing air contaminants only in accordance with the permit application and the limitations contained in this permit. Until such time as this permit expires or is modified or revoked, the permittee is herewith allowed to discharge exhaust gases from those processes and activities directly related or associated thereto in accordance with the requirements, limitations, and conditions of this permit from the air contaminant source(s) listed above.

Compliance with the specific requirements, limitations and conditions contained herein does not relieve the permittee from complying with all other laws, rules and standards administered by the Department, nor does it allow significant levels of emissions of air contaminants not limited in this permit or contained in the permit application.

PERFORMANCE STANDARDS AND EMISSION LIMITS

1. The permittee shall at all times maintain and operate all air contaminant generating processes and all air contaminant control equipment at full efficiency and effectiveness, such that the emissions of air contaminants are kept at the lowest practicable levels.

2. The permittee shall not burn any waste other than solid waste as defined in OAR 340-25-855(18) in the incinerator. The permittee shall not burn any radioactive or hazardous waste in the incinerator.

Conditions 3. and 4. below (OAR 340-21-025 and 027), apply to the existing facility until March 13,1995.

3. Particulate emissions from the incinerators shall not exceed any of the following:

   a. 0.20 grains per standard cubic foot corrected to 12% CO_2 or 50% excess air for either CS2000 incinerator;
   b. 0.30 grains per standard cubic foot corrected to 12% CO_2 or 50% excess air for either C760m incinerator;
   c. an opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.

4. The permittee shall maintain the incinerator secondary chamber at a minimum temperature:

   a. prior to the initial charge of wastes and for the first 30 minutes of incineration of the initial charge, 1,600 degrees F for one second,
   b. for the period beginning 30 minutes after the initial charge of wastes to the time of the final charge, 1,800 degrees F for one second or 1,700 degrees F for two seconds or a temperature and corresponding residence time linearly interpolated between the aforementioned two points,
   c. for a two hour period after the final charge of waste, 1,600 degrees F for one second.

5. Particulate matter which is larger than 250 microns and which may be deposited upon the real property of another person shall not be emitted.

6. The permittee shall not allow the emission of odorous matter or other fugitive emissions so as to create nuisance conditions off the permittee's property. Nuisance conditions will be verified by Department personnel. The creation of nuisance conditions may, in addition to any

i. Except during periods of startup and shutdown, all incinerators shall achieve a combustion efficiency of 99.9 percent based on a running eight-hour average, computed as follows:

$$CE = \frac{CO2}{(CO2 + CO)} \times 100$$

where;

CO = Carbon monoxide in the exhaust gas, in parts per million by dry volume

CO2 = Carbon dioxide in the exhaust gas, in parts per million by dry volume.

j. The incinerator stack shall be designed in accordance with Good Engineering Practice (GEP) as defined in Title 40, Code of Federal Regulations, Parts 51.100(ii) and 51.118.

k. Each incinerator shall be operated such that the flue gas temperature at the outlet from the primary control device does not exceed 350°F.

PLANT SITE EMISSION LIMITS

10. Emissions from the sources listed shall not exceed the following:

Source	Particulate tons/yr (lbs/hr)	SO_2 tons/yr (lbs/hr)	CO tons/yr (lbs/hr)	NO_x tons/yr (lbs/hr)	VOC tons/yr (lbs/hr)
#1 C760m incinerator	1.6 (8.6)				
#2 CS-2000 incinerator	12.1 (6.3)				
#3 CS-2000 incinerator	12.2 (6.3)				
#4 C760m incinerator	1.7 (9.4)				
Incinerators (combined)		40.3 (5.3)	160.0 (20.8)	48.1 (6.3)	48.0 (6.2)
Totals	27.6 30.6)	40.3 (5.3)	160.0 (20.8)	48.1 (6.3)	48.0 (6.2)

Operating parameters, emission factors, and emissions are shown on the attached Plant Site Emissions Detail Sheets.

11. The PSEL is based on a maximum charging rate of 4,166 pounds of solid waste per hour to each of the two CS-2000 incinerators and a total of 32,000 tons/year to all four units. Any increases above these levels must receive the prior approval of the Department.

12. After March 13, 1995, emissions from the sources listed shall not exceed the following:

Source	Particulate tons/yr (lbs/hr)	SO_2 tons/yr (lbs/hr)	CO tons/yr (lbs/hr)	NO_x tons/yr (lbs/hr)	VOC tons/yr (lbs/hr)	HCl tons/yr (lbs/8 hr)
#2 CS-2000 incinerator	3.6 (0.9)					
#3 CS-2000 incinerator	3.6 (0.9)					
Incinerators (combined)		15.3 (7.1)	13.4 (6.2)	48.1 (6.3)	48.0 (6.2)	8.7 (32.0)
Unassigned PSEL	0.4 (1.8)					
Totals	7.6 (3.6)	15.3 (7.1)	13.4 (6.2)	48.1 (6.3)	48.0 (6.2)	8.7 (32.0)

Operating parameters, emission factors, and emissions are shown on the attached Plant Site Emissions Detail Sheets.

The table includes unassigned PSEL for use as an internal offset upon Department approval.

COMPLIANCE DEMONSTRATION SCHEDULE

13. The permittee shall submit a control strategy to comply with Oregon Administrative Rule (OAR) 340-25-860(1) through 885(4), "Solid and Infectious Waste Incinerators", in accordance with the following schedule:

a. By no later than January 1, 1994, the permittee shall submit a final control strategy, including detailed plans and specifications, or a plan to shut down the installed solid/infectious waste incinerator by March 13, 1995, to the Department of Environmental Quality for review and approval.

b. By no later than June 1, 1994, the permittee shall issue purchase orders for the major components of emission control equipment and/or for process modification work, if applicable. The permittee shall notify the Department in writing within seven (7) days that

the above has been accomplished.

c. By no later than December 1, 1994, the permittee shall initiate the installation of emission control equipment and/or on-site construction or process modification work, if applicable. The permittee shall notify the Department in writing within seven (7) days that the above has been accomplished.

d. By no later than March 1, 1995, the permittee shall complete the installation of emission control equipment and/or on-site construction or process modification work, if applicable. The permittee shall notify the Department in writing within seven (7) days that the above has been accomplished.

e. By no later than March 13, 1995, and every year thereafter (unless otherwise specified by the Department), the permittee shall demonstrate that the solid/infectious waste incinerator is capable of operating at its maximum operating capacity in continuous compliance with OAR 340-25-860(1) through 885(4) by submitting the results of a particulate, hydrogen chloride, sulfur dioxide, and carbon monoxide emissions source test or by submitting a notice that the existing solid/infectious waste incinerator was put out of service, including the disconnection of fuel and electric power.

All tests shall be conducted in accordance with the testing procedures on file at the Department and with the pretest plan submitted at least 15 days in advance and approved by the Source Test Coordinator in the Air Quality Division of the Department in Portland (unless otherwise notified). All test data and results shall be submitted for review to the Source Test Coordinator within 30 days after testing.

Only regular operating staff may adjust the combustion system and emission control parameters during the source performance tests and within two (2) hours prior to the tests. Any operating adjustments made during the source performance tests, which are a result of consultation during the tests with source testing personnel, equipment vendors or consultants, may render the source performance test invalid.

During the source test the following parameters should be monitored and recorded:

i. opacity readings on the exhaust stack following the procedures of EPA Method 9
ii. weight and time of material charged
iii. type of fuel or physical characteristics of the fuel
iv. type of waste or physical characteristics of the waste
v. all operator gauge readings and time of the readings at five (5) minutes or less time interval (including secondary combustion chamber temperature)
vi. operating parameters of emission control equipment, including but not limited to pressure drop across the scrubber,

multiclone, baghouse, electrostatic precipitator, and the electrical characteristics and cleaning cycle of the precipitator, whichever are applicable, during the emissions source tests.

SPECIAL CONDITIONS

14. The incinerator shall at all times be operated under the supervision of an operator who has received training necessary for proper operation. A description of the training program shall be submitted to the Department for approval within sixty (60) days of permit issuance.

15. Operation of the C760m incinerators shall be limited to emergency use only. These units are considered as backup incinerators to be utilized only as a last resort in the event of CS-2000 equipment failure or accumulation of excessive amounts of garbage in the waste storage pit. If it becomes necessary to utilize the C760m units, the permittee will operate these incinerators in accordance with all applicable rules for incineration, including Highest and Best Practicable Treatment and Control or Best Management Practices established by the Department.

16. The permittee shall submit a protocol which shall be used to estimate the weight of that portion of the waste that is delivered to the site by non-commercial haulers. This protocol shall be submitted to the Department for approval within 30 days of permit issuance. The protocol shall be revised as necessary to obtain Department approval.

MONITORING REQUIREMENTS

17. Beginning no later than March 13, 1995, the permittee shall monitor and record actual weight of all waste charged to each unit.

18. The permittee shall effectively inspect and monitor the operation and maintenance of the plant and associated air contaminant control facilities and shall implement the procedures necessary to monitor and record the following parameters. A record of all such data shall be maintained for a period of two years at the plant site for inspection by the authorized representatives of the Department.

    a. All parameters to be reported to the Department annually as required in Condition 22
    b. Excess emissions records as defined in OAR 340-28-110 and OAR 340-28-1400 through 340-28-1440 (recorded on occurrence)
    c. A description of any maintenance to the air contaminant control system (recorded on an as performed basis)
    d. Training review provided for all operating personnel

CONTINUOUS MONITORING REQUIREMENTS

19. The permittee shall continuously monitor the temperature of the secondary combustion chamber at all times during the operation of the incinerator in accordance with the Department's Continuous Monitoring Manual. Continuous monitoring equipment shall be used to determine compliance on a continuous basis with the secondary combustion chamber minimum temperature requirement.

20. Within sixty (60) days of permit issuance, a comprehensive "Quality Assurance Plan" shall be submitted to the Department for review. The plan shall include all elements, required to insure the integrity of the continuous temperature monitoring in accordance with the Department's Continuous Monitoring Manual. Upon approval by the Department, the plan shall be implemented within thirty (30) days. At least annually, the Department shall be notified of any changes to the Quality Assurance Plan.

21. By no later than March 13, 1995, the permittee shall install, operate, and maintain continuous monitoring equipment on the incinerator for monitoring sulfur dioxide, carbon monoxide, oxygen, and opacity in accordance with the Department's Continuous Monitoring Manual. The continuous monitoring equipment shall be used to determine compliance on a continuous basis with the carbon monoxide and opacity limits. A modified comprehensive "Quality Assurance Plan" shall be submitted to the Department for review. The plan shall include all elements, required to insure the integrity of all required emissions data, including but not limited to carbon monoxide and opacity data. Upon approval by the Department, the plan shall be implemented within thirty (30) days. At least annually, the Department shall be notified of any changes to the Quality Assurance Plan.

    a. By no later than December 15, 1994, the permittee shall submit a continuous monitoring plan identifying the location of each monitor for approval by the Department.
    b. By no later than February 1, 1995, the permittee shall initiate the installation of the continuous monitoring system.
    c. By no later than March 10, 1995, the permittee shall complete the installation of the continuous monitoring system.
    d. By no later than March 13, 1995, the permittee shall conduct initial monitor certification testing/verification in accordance with the Continuous Monitoring Manual and submit the results along with the Quality Assurance Plan within 30 days of completing the tests.

REPORTING REQUIREMENTS

22. The permittee shall submit to the Permit Coordinator of the Department, Western Region Office, Medford by January 15 of each year this permit is in effect two (2) copies of the following information for the preceding calendar year:

    a. Operating parameters:

i. Actual weight and type of waste burned in each incinerator on a maximum daily, monthly and an annual basis
ii. Quantities and types of fuel burned on a maximum daily, monthly and an annual basis
iii. Total operating time of the CS2000 incinerators (hours/year)
iv. Average CS2000 incinerator operating schedule (hours/day, days/week, weeks/year, hours/year)
v. C760m usage (number of startups, total hours of usage)

b. A log of all planned and unplanned excess emissions in accordance with OAR 340-28-1440.

c. Indicate any permanent changes made in the plant process or production which would effect air contaminant emissions. (Indicate when changes were made.)

d. List all major maintenance performed on air pollution equipment

23. All records associated with continuous monitoring data, including, but not limited to, original data sheets, charts, calculations, calibration data, production records and final reports shall be maintained for a continuous period of at least one year and shall be furnished to the Department upon request.

FEE SCHEDULE

24. The Annual Compliance Determination Fee for this permit is due on January 1 of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date. The fee shall be submitted to the Business Office of the Department in Portland (unless otherwise notified).

GENERAL CONDITIONS AND DISCLAIMERS

G1. The permittee shall allow Department of Environmental Quality representatives access to the plant site and pertinent records at all reasonable times for the purposes of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit in accordance with ORS 468.095.

G2. The permittee should have available at the facility at all times a copy of the Air Contaminant Discharge Permit.

G3. The permittee is prohibited from conducting open burning except as allowed by OAR 340-23-025 through 23-115.

G4. The permittee shall at all times conduct dust suppression measures to meet the requirements set forth in "Fugitive Emissions" and "Nuisance Conditions" in OAR 340-21-050 through 340-21-060.

G5. In accordance with OAR 340-28-1400 through 340-28-1450, the permittee shall immediately (i.e. as soon as possible but in no case more than one hour after the beginning of the excess emission period) notify the Department by telephone or in person of any excess emission, other than pre-approved startup, shutdown, or scheduled maintenance. Notification shall include the source name, nature of the emissions problem, name of the person making the report, name and telephone number of contact person for further information, date and time of the onset of the upset condition, whether or not the incident was planned, the cause of the excess emission (startup, shutdown, maintenance, breakdown, or other), equipment involved in the upset, estimated type and quantity of excess emissions, estimated time of return to normal operations, efforts made to minimize emissions, and a description of remedial actions to be taken. Followup reporting shall be made in accordance with Department direction and OAR 340-28-1430(1) and 340-28-1440.

Notification shall be made to the appropriate regional or branch office. Current Departmental telephone numbers are:

Portland	229-5263	Medford	776-6010
Salem	378-8240	Coos Bay	269-2721
Bend	388-6146	Roseburg	440-3338
Pendleton	276-4063		

In the event of any excess emissions which are of a nature that could endanger public health and occur during nonbusiness hours, weekends, or holidays, the permittee shall immediately notify the Department by calling the Oregon Accident Response System (OARS). The current number is 1-800-452-0311.

G6. The permittee shall notify the Department in writing using a Departmental "Notice of Construction" form, or "Permit Application Form", and obtain approval in accordance with OAR 340-28-800 through 340-28-820 before:

a. Constructing or installing any new source of air contaminant emissions, including air pollution control equipment, or

b. Modifying or altering an existing source that may significantly affect the emission of air contaminants, or

c. Making any physical change which increases emissions, or

d. Changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation to levels above those contained in the permit application and reflected in this permit and which result in increased emissions.

G7. Application for a modification of this permit must be submitted not less than 60 days prior to the source modification. A Filing Fee and an Application Processing Fee must be submitted with an application for the permit modification.

G8. The permittee shall notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. legal change of the registered name of the company with the Corporations Division of the State of Oregon, or

b. sale or exchange of the activity or facility.

Applicable Permit Fees must be submitted with an application for the name change.

G9. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. A Filing Fee, an Application Processing Fee and an Annual Compliance Determination Fee must be submitted with the application for the permit renewal.

G10. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

G11. This permit is subject to revocation for cause as provided in OAR 340-14-045.

PERMITS\P060099

Environmental Quality Commission

☐ Rule Adoption Item
☑ Action Item
☐ Information Item

Agenda Item F
January 20, 1995 Meeting

Title:

Variance for Coos County Municipal Solid Waste Incinerator

Summary:

Coos County will be unable to comply with the requirements of OAR 340-25-860 through 885, "Incinerator Regulations", by the March 13, 1995 deadline specified in OAR 340-25-885. Coos County is requesting a nine (9) month variance pursuant to ORS 468A.075 to meet the requirements of the incinerator regulations.

Department Recommendation:

The Department recommends that the Commission approve the variance granting Coos County a nine month extension to comply with the requirements of OAR 340-25-885 and Air Contamination Discharge Permit 06-0099.

Tom Peterson	Steve Greenwood	Lydia Taylor
Report Author	Division Administrator	Director

*January 6, 1995

†Accommodations for disabilities are available upon request by contacting the Public Affairs Office at (503)229-5317(voice)/(503)229-6993(TDD).

State of Oregon
Department of Environmental Quality Memorandum[†]

Date: January 9, 1995

To: Environmental Quality Commission

From: Lydia Taylor, Interim Director

Subject: Agenda Item F, Coos County Municipal solid Waste Incinerator Variance, January 20, 1995, EQC Meeting

Statement of the Issue

Coos County will be unable to comply with the requirements of OAR 340-25-860 through 885, "Incinerator Regulations", by the March 13, 1995 date specified in OAR 340-25-885. Coos County is requesting a nine (9) month variance to meet the requirements of this regulation pursuant to ORS 468A.075. ORS 468A.075 gives the Commission the authority to grant specific variances which may be limited in time from the particular requirements of any rule or standard to such specific persons or class of persons or such specific air contamination source, upon such conditions as it may consider necessary to protect the public health and welfare. The commission shall grant such specific variance only if it finds strict compliance with the rule or standard is inappropriate because:
(a) Conditions exist that are beyond the control of the persons granted such variance; or
(b) Special circumstances render strict compliance unreasonable, burdensome or impractical due to special physical conditions or cause; or
(c) Strict compliance would result in substantial curtailment or closing down of a business, plant or operation; or
(d) No other alternative facility or method of handling is yet available.
Coos County's application meets all of criteria (a) through (d).

Background

Coos County presently operates a municipal solid waste incineration facility located approximately 7 miles north of Bandon, OR at Beaver Hill. OAR 340-25-885 requires such facilities to meet specific emission limits, monitoring equipment installation, and testing deadlines by March 13, 1995. The Air Contaminant Discharge Permit for this facility (ACDP # 06-0099) requires Coos County to meet the final deadline as well as

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several interim deadlines for increments of progress. Coos County, because of extenuating circumstances, was not able meet these interim deadlines and will not be able to meet the final deadline required by rule.

Coos County was not able to hire consultants to develop the plans necessary or make the required financial commitments prior to the passage of a bond measure on March 22, 1994. Further delays were caused by unresolved Prevention of Significant Deterioration (PSD) issues resulting from past operations of the Beaver Hill facility. These issues were brought about by inaccurate reporting of annual tonnages by the county. Until the Department was able to resolve these issues by determining that no significant emission rates were exceeded, no construction could commence. To commence construction includes entering into binding agreements which cannot be cancelled or modified without a substantial loss to the owner. The result of these delays was that Coos County was not able to issue purchase orders or enter into construction contracts as soon as necessary to meet the requirements of the incinerator rule. Coos County immediately entered into contractual agreements following Department approval to proceed.

Coos County is currently on a path that they believe will bring them into full compliance with OAR 340-25-860 through 885. Coos County has entered into an agreement with Interel Environmental Technologies, Inc. to supply and install the equipment necessary for compliance. Coos County is requesting a variance to extend the compliance dates for a period of nine (9) months.

Authority to Address the Issue

The Environmental Quality Commission is given authority to grant variances from air contamination rules and standards to protect the public health and welfare by ORS 468A.075. Because the incinerator rule is not in the State Implementation Plan (SIP), the Environmental Protection Agency does not have oversight responsibilities in this action.

Alternatives and Evaluation

The alternatives to granting the variance are the operation of the facility out of compliance with regulations, or the temporary or permanent closure of the facility. The Beaver Hill facility is the only solid waste disposal site in Coos County. Closure of the facility could therefore result in an accumulation of refuse that could cause a threat to the public health.

Alternatives and Evaluation

The alternatives to granting the variance are the operation of the facility out of compliance with regulations, or the temporary or permanent closure of the facility. The Beaver Hill facility is the only solid waste disposal site in Coos County. Closure of the facility could therefore result in an accumulation of refuse that could cause a threat to the public health.

Summary of Any Prior Public Input Opportunity

The request for a variance has not been previously presented for public review or input. Coos County's plans for the incinerator control equipment and compliance strategy were presented at public hearings and debated extensively in Board of Commissioners' meetings prior to the March 22, 1994, bond measure vote. On March 22, 1994, the voters of Coos County approved the bond measure to spend up to seven million dollars to improve the Beaver Hill facility to comply with environmental requirements.

Conclusions

- Despite their best efforts, Coos County will not be able to comply with the deadline for compliance specified in OAR 340-25-885

- Coos County is an attainment area for all pollutants.

- The granting of the variance will not cause an exceedance of any ambient air quality standards, and will likely have a negligible effect on the air quality in the Beaver Hill area.

- Granting the variance will prevent the accumulation of refuse and the associated potential for public health effects.

Proposed Findings

The Environmental Quality Commission hereby finds that strict compliance with OAR 340-25-885 by Coos County is inappropriate because conditions exist that are beyond the control of Coos County. These conditions are the delays caused by the necessary passage of a bond measure to provide funding for the control equipment, and time for

the Department to make a determination of possible violations of PSD requirements. Also, strict compliance is inappropriate because it would result in the closing down of a operation, and no other facility or method of handling municipal solid waste is currently available in Coos County. A nine month variance from the compliance date will provide the time necessary for Coos County to bring the Beaver Hill municipal solid waste incinerator facility into full compliance with OAR 340-25-860 through 340-25-885.

Recommendation for Commission Action

It is recommended that the Commission approve the proposed variance granting Coos County a nine month extension to comply with the requirements of OAR 340-25-885 and Air Contamination Discharge Permit 06-0099. This will require Coos County to demonstrate compliance with all requirements for municipal solid waste incinerators by December 13, 1995.

Reference Documents (available upon request)

1. Statutory Authority: ORS 468A.075
2. Applicable Rule(s): OAR 340-25-850 through 340-25-885
3. Supporting Technical References: ACDP 06-0099

Approved:

Section: _____

Division: Gregory A. Green

Report Prepared By: Tom Peterson

Phone: 776-6010

Date Prepared: November 21, 1994

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