EQCMeeting2of2DOC19900525

Part 2 of 2

OREGON

ENVIRONMENTAL QUALITY

COMMISSION MEETING

MATERIALS 05/25/1990

State of Oregon
Department of Environmental Quality

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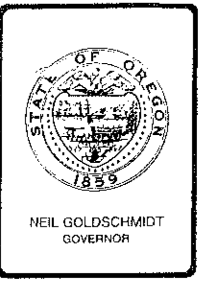

NEIL GOLDSCHMIDT
GOVERNOR

Environmental Quality Commission

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

REQUEST FOR EQC ACTION

Meeting Date: May 25, 1990
Agenda Item: G
Division: H&SW
Section: Solid Waste

SUBJECT:

Infectious Waste: Proposed Adoption of Rules to Implement 1989 Legislation Limiting Disposal and Requiring Incineration or Other Sterilization Before Disposal

PURPOSE:

Adopt amendments to Solid Waste rules which will establish criteria for the Department of Environmental Quality (Department or DEQ) to use in determining when pathological wastes may be sterilized through means other than incineration, and will specify how sharps (needles, scalpels, etc.) may be disposed of in permitted landfills without sterilization.

ACTION REQUESTED:

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

__ Authorize Rulemaking Hearing
X Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment C
Public Notice	Attachment D

__ Issue a Contested Case Order
__ Approve a Stipulated Order
__ Enter an Order

Proposed Order	Attachment ___

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

DESCRIPTION OF REQUESTED ACTION:

The 1989 Legislature passed House Bill (HB) 2865, regulating the storage, transport, and disposal of infectious waste, which includes biological and pathological wastes, cultures and stocks, and sharps. The law requires the State Health Division of the Department of Human Resources, the Public Utility Commission and the Environmental Quality Commission to adopt rules to implement various portions of the statute.

The statute states that "Pathological wastes (biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals) shall be treated by incineration in an incinerator that provides complete combustion of waste to carbonized or mineralized ash. The ash shall be disposed of as provided in rules adopted by the Environmental Quality Commission. If, however, the Department of Environmental Quality determines that incineration is not reasonably available within a wasteshed, pathological wastes may be disposed of in the same manner provided for cultures and stocks." The proposed rule establishes criteria by which the Department will determine if incineration is reasonably available within each wasteshed.

In addition to the requirements for incineration of pathological wastes, the law authorizes the Environmental Quality Commission to adopt rules pertaining to treatment and disposal methods for other infectious wastes and rules for storage and handling of infectious waste at solid waste disposal sites.

Hearings on the proposed changes and additions to the solid waste rules were authorized by the Environmental Quality Commission in January 1990. Four public hearings were held in March 1990. As a result of testimony received during the comment period, a new section has been added to the original proposed rules. The new section requires that sharps be treated by being placed in leak-proof, puncture-resistant, rigid, red containers and the lids sealed to prevent the contents from being released. The sharps can then be disposed of in a landfill with no further treatment.

AUTHORITY/NEED FOR ACTION:

X	Required by Statute:	Oregon Revised Statutes, Chapter 459, Sections 386 thru 405	Attachment E
	Enactment Date:	7/22/89 (HB 2865)	
__	Statutory Authority:	______	Attachment ___
__	Pursuant to Rule:	______	Attachment ___
__	Pursuant to Federal Law/Rule:	______	Attachment ___
__	Other:		Attachment ___
X	Time Constraints: (explain)		

Chapter 763 of Oregon Laws 1989 becomes operative on July 1, 1990.

DEVELOPMENTAL BACKGROUND:

__	Advisory Committee Report/Recommendation	Attachment ___
X	Hearing Officer's Report/Recommendations	Attachment F
X	Response to Testimony/Comments	Attachment G
__	Prior EQC Agenda Items: (list)	Attachment ___
__	Other Related Reports/Rules/Statutes: OAR 340-25-850 to 905	Attachment ___
__	Supplemental Background Information	Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The infectious waste law passed by the 1989 Legislature places substantial new requirements on the regulated community. Medical facilities which generate wastes defined in the statute as infectious will be required to segregate the infectious from noninfectious wastes at the medical facility. Commercial waste collection companies will then be required to transport infectious wastes in separate, non-compacting trucks. All infectious waste must be treated prior to disposal, and pathological wastes must be sterilized through incineration, unless incineration is not "reasonably available". These new requirements may significantly increase disposal costs for infectious wastes for some facilities.

The purpose of this proposed rule is to allow an option to incineration of pathological waste where it is simply not reasonably available to medical facilities in a particular location, due to cost or other factors.

At the present time, there are approximately thirty-six (36) hospitals operating on-site infectious waste incinerators and thirty-seven (37) crematoriums in the state of Oregon. Two private corporations operate dedicated infectious waste incinerator facilities in Oregon. In addition, one municipal solid waste energy recovery facility and two municipal solid waste volume reduction incinerators dispose of infectious wastes.

On-site incineration disposal costs for infectious wastes average fifty cents per pound at most of these facilities. One large hospital burning infectious and noninfectious wastes in an incinerator equipped with a heat recovery system estimates that the value of the recovered energy is higher than the cost of incineration. One small hospital in Eastern Oregon and a medium-sized hospital in the Willamette Valley estimate disposal costs of approximately eighty cents per pound, due to their burning only pathological wastes in their incinerators.

The cost of disposal in off-site incinerators is projected to be approximately the same as current disposal costs in on-site incinerators for most facilities. However, larger facilities which have energy recovery, such as St. Vincent's in Portland, and hospitals currently sending infectious wastes to landfills may pay more for incineration off-site.

Adoption of more stringent emission control rules by the Environmental Quality Commission on March 2, 1990, may result in closure of many of the existing hospital incinerators. This will reduce overall availability of incineration. However, total incinerator capacity is not expected to be a problem. The mass-burning, energy recovery facility in Marion County and the two commercial infectious waste incinerators (in Klamath and Washington counties) should be capable of disposing of the entire amount of infectious wastes generated in Oregon.

Discussions with the Public Utility Commission suggest that collection and transportation costs from most areas of the state to these three incineration facilities will not differ significantly. This may change, however, if the rate schedule for infectious waste transportation differs from the rates for other materials. The expected capital and

operating costs for incinerators operating in compliance with the proposed revised emission control rules are expected to be reasonably comparable between individual incinerators.

On November 21, 1989, the Solid Waste Advisory Committee discussed possible criteria to determine if incineration is reasonably available in a wasteshed to meet the statutory requirement to incinerate pathological waste. The Committee concluded that "reasonably available in a wasteshed" should not be limited to the presence of an incinerator in each wasteshed, and that the decision should be based largely upon cost, rather than upon geographic location. The Committee then evaluated a Department proposal that pathological wastes be incinerated if the cost of incineration did not exceed by more than twenty-five percent (25%) the cost of treatment by alternate methods, such as steam sterilization (autoclaving), chemical sterilization, irradiation, etc., approved by the State Health Division.

Based upon cost data provided by the owners of the two infectious waste incineration facilities, the Committee concluded that the proposed 25% cost differential would allow alternatives to incineration of pathological wastes in every part of the state of Oregon. This clearly violates the intent of the new legislation to promote incineration of pathological waste. Therefore, the proposed rules state that reasonable availability be determined by comparing the cost to incinerate pathological waste for a particular wasteshed to the cost of incineration throughout the state, rather than by comparing the cost to incinerate to the cost of treatment by alternative methods.

The proposed rule would require that the Department conduct periodic surveys of the cost of incineration and that pathological wastes generated in a wasteshed be incinerated unless the cost of incineration exceeds the average cost of incineration throughout the state by twenty-five percent. Even if incineration is not "reasonably available" using the 25 percent criteria, any alternate treatment system must still be approved by the State Health Division.

Adoption of rules establishing criteria by which the Department will determine whether incineration is reasonably available for a wasteshed presumes that alternative treatments for cultures and stocks will be approved by the State Health Division. The State Health Division issued draft rules to implement that portion of the statute and held a public hearing on May 3, 1990, to receive testimony regarding these draft rules. The Health Division intends to finalize the rules on or before June 15, 1990.

The proposed rule which requires that sharps be treated by placing them in special containers, taped or tightly lidded, ensures safe handling and disposal without requiring that sharps be sterilized by an autoclave prior to being placed in the container. Health Division proposed rules prohibit use of the same autoclave to treat wastes as is used to sterilize instruments. If autoclaving sharps prior to placing them in containers had been required by DEQ rules, most hospitals would have had to purchase a second autoclave to comply with Health Division rules.

By allowing sharps to be placed in special, sealed containers for disposal without autoclaving, the DEQ rules ensure safe handling and disposal without additional expense to the medical facility to meet Health Division requirements.

PROGRAM CONSIDERATIONS:

Chapter 763 of Oregon Laws 1989 requires that the Department determine if incineration is not reasonably available within a wasteshed. This proposed rule would establish criteria to make this determination on a statewide basis rather than for each individual wasteshed, thus reducing the fiscal impact upon the Department imposed by the statute, since HB 2865 did not establish a revenue source for this activity.

Based upon available information regarding proper management of infectious waste, incineration of these wastes in a properly designed incinerator equipped with air contaminant control systems and operated and maintained correctly is an environmentally acceptable method of disposal.

The proposed rule strikes a balance between encouraging incineration as the preferred treatment method for pathological wastes, and protects isolated rural communities from unreasonable rates.

Based upon discussions with hospital personnel involved with proper management of infectious waste, the Department has learned that several hospitals have already contracted with private companies for collection of infectious wastes for incineration in regional facilities. The Department did receive testimony expressing concern that the proposed rule would increase disposal costs for pathological wastes. The Department intends to survey incineration facilities which comply with the applicable air quality rules in July 1990 to establish the initial base incineration cost, and to

recalculate the base cost as new facilities are constructed. The base cost would also be recalculated if rule changes result in increased incineration disposal costs.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Develop new rules to establish criteria based upon geographic considerations such as distance from the nearest incinerator facility, or whether an incinerator facility is located within the same wasteshed.

2. Develop new rules to establish criteria based upon the statewide cost of disposal in incinerators which comply with the applicable emission control rules.

3. Develop new rules to establish criteria based upon a combination of geographic and disposal cost factors.

4. Develop new rules regarding treatment of sharps.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

Alternatives 1 and 3 are not recommended because exempting areas or sources from the requirement to incinerate pathological waste solely on geographic proximity to incinerators would result in major portions of the state not having to incinerate pathological wastes.

The Department recommends Alternative 2 because it is the most effective and most efficient way of accomplishing the legislative intent to promote incineration while still protecting small, remote communities from unreasonable costs.

The proposed criteria to determine whether incineration is reasonably available in a wasteshed are similar in concept to the criteria developed in the waste tire program to determine whether waste tires may be landfilled or whether they must be recycled. By providing an exemption based upon a comparison of the local incineration cost with statewide average costs of incineration, the proposed rule protects small, isolated communities from paying unreasonably high costs of transportation and incineration of pathological waste.

The recommended criteria are not based upon disposal fees at any specific incinerator facility, but rather upon a comparison with disposal costs for all incinerator facilities. The recommended criteria also delete the

requirement for incineration of pathological wastes if the generator is unable to contract for disposal with any incinerator facility.

The Department recommends Alternative 4 dealing with treatment of sharps. Steam sterilization of sharps in an autoclave or by use of chemical disinfectants is not a dependable treatment method. Since microorganism destruction depends upon direct physical contact with the steam or disinfectant, objects such as needles, which restrict free movement of fluids, are difficult to sterilize. If needles and syringes are then placed in a container prior to being placed into an autoclave or container of disinfectant, there is a much higher probability that microorganisms within the needle will not come in direct contact with the steam or disinfectant and will not be destroyed. Rather than assuming that autoclaved or disinfected sharps are sterile, the Department recommends that sharps be placed in sharps containers and transported to the landfill for disposal in a manner which preserves the container integrity, or that the containerized sharps be incinerated.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are consistent with Section 6 of Chapter 763 of Oregon Laws 1989 (also known as HB 2865). One alternative option considered, comparing the cost to alternate treatment methods, would not have been consistent with the clear legislative intent to encourage incineration.

ISSUES FOR COMMISSION TO RESOLVE:

1. Does the proposed rule provide sufficient preference to incineration of pathological waste?

2. Will the proposed rule prevent "unreasonable" costs from being imposed upon remote areas of the state?

3. Is the rule consistent with emission control rules adopted by the Commission which may result in the closure of existing hospital incinerators?

4. Does the new proposed section on sharps adequately address public health and safety concerns?

INTENDED FOLLOWUP ACTIONS:

1. Notify all garbage collectors, landfill and transfer station owners and operators, county health officers, and medical professional associations of the new rules.

2. Conduct a survey in July 1990 of incineration facilities which comply with the applicable air quality rules to establish the initial base incineration cost.

3. Develop total incineration costs for each wasteshed by determining the initial transportation cost in July 1990 from each wasteshed to all incineration facilities which comply with the applicable air quality rules, and by determining the charges by incineration facilities.

4. Provide a written determination to each wasteshed upon request that incineration is or is not "reasonably available" for disposal of pathological wastes within the wasteshed for which a determination was requested.

Approved:

Section: Stephanie Hallock

Division: Stephanie Hallock

Director: Fred Hansen

Report Prepared By: Tim Davison

Phone: 229-5965

Date Prepared: May 8, 1990

ETD:k
SW\SK2750
May 8, 1990

Proposed Revisions

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
ADMINISTRATIVE RULES
DIVISION 61 - SOLID WASTE MANAGEMENT

INFECTIOUS WASTE MANAGEMENT

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

DEFINITIONS

340-61-010

As used in these rules unless otherwise specified:

(1) "Access road" means any road owned or controlled by the disposal site owner which terminates at the disposal site and which provides access for users between the disposal site entrance and a public road.

(2) "Airport" means any area recognized by the Oregon Department of Transportation, Aeronautics Division, for the landing and taking-off of aircraft which is normally open to the public for such use without prior permission.

(3) "Aquifer" means a geologic formation, group of formations or portion of a formation capable of yielding usable quantities of ground water to wells or springs.

(4) "Assets" means all existing and probable future economic benefits obtained or controlled by a particular entity.

(5) "Baling" means a volume reduction technique whereby solid waste is compressed into bales for final disposal.

(6) "Base flood" means a flood that has a one percent or greater chance of recurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on the average of a significantly long period.

(7) **"Biological waste" means blood and blood products, excretions, exudates, secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include diapers soiled with urine or feces.**

[(7)] (8) "Closure permit" means a document issued by the Department bearing the signature of the Director or his authorized representative which by its conditions

authorizes the permittee to complete active operations and requires the permittee to properly close a land disposal site and maintain the site after closure for a period of time specified by the Department.

[(8)] (9) "Commission" means the Environmental Quality Commission.

[(9)] (10) "Cover material" means soil or other suitable material approved by the Department that is placed over the top and side slopes of solid wastes in a landfill.

[(10)] (11) "Composting" means the process of controlled biological decomposition of organic solid waste.

(12) **"Cultures and stocks," means etiologic agents and associated biologicals, including specimen cultures and dishes and devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Cultures" does not include throat and urine cultures.**

[(11)] (13) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

[(12)] (14) "Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

[(13)] (15) "Department" means the Department of Environmental Quality.

[(14)] (16) "Digested sewage sludge" means the concentrated sewage sludge that has decomposed under controlled conditions of pH, temperature and mixing in a digester tank.

[(15)] (17) "Director" means the Director of the Department of Environmental Quality.

[(16)] (18) "Disposal site" means land and facilities used for the disposal, handling or transfer of or resource recovery from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, transfer stations, resource recovery facilities, incinerators for solid waste delivered by the public or by a solid waste collection service, composting plants and land and facilities previously used for solid waste disposal at a land disposal site; but the term does not include a facility subject to the permit requirements of ORS 468.740; a landfill site which is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar nondecomposable material, unless the site is used by the public either directly or through a solid waste collection service; or a site licensed pursuant to ORS 481.345.

[(17)] (19) "Endangered or threatened species" means any species listed as such pursuant to Section 4 of the Federal

Endangered Species Act and any other species so listed by the Oregon Department of Fish and Wildlife.

[~~(18)~~] (20) "Financial assurance" means a plan for setting aside financial resources or otherwise assuring that adequate funds are available to properly close and to maintain and monitor a land disposal site after the site is closed according to the requirements of a permit issued by the Department.

[~~(19)~~] (21) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters which are inundated by the base flood.

[~~(20)~~] (22) "Groundwater" means water that occurs beneath the land surface in the zone(s) of saturation.

[~~(21)~~] (23) "Hazardous waste" means discarded, useless or unwanted materials or residues in solid, liquid or gaseous state and their empty containers which are classified as hazardous pursuant to ORS 459.410.

[~~(22)~~] (24) "Heat-treated" means a process of drying or treating sewage sludge where there is an exposure of all portions of the sludge to high temperatures for a sufficient time to kill all pathogenic organisms.

[~~(23)~~] (25) "Incinerator" means any device used for the reduction of combustible solid wastes by burning under conditions of controlled air flow and temperature.

(26) "Infectious waste" means biological waste, cultures and stocks, pathological waste, and sharps; as defined in Oregon Revised Statutes, Chapter 763, Oregon Laws 1989.

[~~(24)~~] (27) "Land disposal site" means a disposal site in which the method of disposing of solid waste is by landfill, dump, pit, pond or lagoon.

[~~(25)~~] (28) "Landfill" means a facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.

[~~(26)~~] (29) "Leachate" means liquid that has come into direct contact with solid waste and contains dissolved and/or suspended contaminants as a result of such contact.

[~~(27)~~] (30) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

[~~(28)~~] (31) "Local government unit" means a city, county, metropolitan service district formed under ORS Chapter 268, sanitary district or sanitary authority formed under ORS Chapter 450, county service district formed under ORS Chapter 451, regional air quality control authority formed under ORS 468.500 to 468.530 and 468.540 to 468.575 or any other local government unit responsible for solid waste management.

[~~(29)~~] (32) "Net working capital" means current assets minus current liabilities.

[~~(30)~~] (33) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

[~~(31)~~] (34) "Open dump" means a facility for the disposal of solid waste which does not comply with these rules.

(35) "Pathological waste," means biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological waste" does not include teeth or formaldehyde or other preservative agents.

[~~(32)~~] (36) "Permit" means a document issued by the Department, bearing the signature of the Director or his authorized representative which by its conditions may authorize the permittee to construct, install, modify or operate a disposal site in accordance with specified limitations.

[~~(33)~~] (37) "Person" means the state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

[~~(34)~~] (38) "Public waters" or "Waters of the 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 (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

[~~(35)~~] (39) "Processing of wastes" means any technology designed to change the physical form or chemical content of solid waste including, but not limited to, baling, composting, classifying, hydropulping, incinerating and shredding.

[~~(36)~~] (40) "Putrescible waste" means solid waste containing organic material that can be rapidly decomposed by microorganisms, which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.

[~~(37)~~] (41) "Regional disposal site" means:

(a) A disposal site selected pursuant to chapter 679, Oregon Laws 1985; or

(b) A disposal site that receives, or a proposed disposal site that is designed to receive more than 75,000 tons of solid waste a year from commercial haulers from outside the immediate service area in which the disposal site is located. As used in this paragraph, "immediate service area" means the county boundary of all counties except a county that is within the

boundary of the metropolitan service district. For a county within the metropolitan service district, "immediate service area" means the metropolitan service district boundary.

[~~(38)~~] (42) "Resource recovery" means the process of obtaining useful material or energy from solid waste and includes:

(a) "Energy recovery," which means recovery in which all or a part of the solid waste materials are processed to utilize the heat content, or other forms of energy, of or from the material.

(b) "Material recovery," which means any process of obtaining from solid waste, by presegregation or otherwise, materials which still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose.

(c) "Recycling," which means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity.

(d) "Reuse," which means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.

[~~(39)~~] (43) "Salvage" means the controlled removal of reusable, recyclable or otherwise recoverable materials from solid wastes at a solid waste disposal site.

[~~(40)~~] (44) "Sanitary landfill" means a facility for the disposal of solid waste which complies with these rules.

[~~(41)~~] (45) "Sludge" means any solid or semisolid waste and associated supernatant generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility or any other such waste having similar characteristics and effects.

(46) "Sharps" means needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.

[~~(42)~~] (47) "Solid waste" means all putrescible and non-putrescible wastes, including but not limited to garbage, rubbish, refuse, ashes, waste paper and cardboard; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure; vegetable or animal solid and semi-solid wastes, dead animals and other wastes; but the term does not include:

(a) Hazardous wastes as defined in ORS 459.410.

(b) Materials used for fertilizer or for other productive purposes or which are salvageable as

such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals.

[(43)](48) "Solid waste boundary" means the outermost perimeter (on the horizontal plane) of the solid waste at a landfill as it would exist at completion of the disposal activity.

[(44)](49) "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

[(45)](50) "Transfer station" means a fixed or mobile facility, normally used as an adjunct of a solid waste collection and disposal system or resource recovery system, between a collection route and a disposal site, including but not limited to a large hopper, railroad gondola or barge.

[(46)](51) "Underground drinking water source" means an aquifer supplying or likely to supply drinking water for human consumption.

[(47)](52) "Vector" means any insect, rodent or other animal capable of transmitting, directly or indirectly, infectious diseases from one person or animal to another.

[(48)](53) "Waste" means useless or discarded materials.

[(49)](54) "Zone of saturation" means a three (3) dimensional section of the soil or rock in which all open spaces are filled with groundwater. The thickness and extent of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge, discharge or withdrawal.

Stat. Auth.: ORS Ch. 459
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84
OAR Ch. 763, ef. 7-1-90

GENERAL RULES PERTAINING TO SPECIFIED WASTES

340-61-060

(1) Wastes prohibited from disposal at solid waste landfills.
- (a) Hazardous Wastes. Wastes defined as hazardous wastes must be managed in accordance with ORS 466.005 et seq. and applicable regulations.
- (b) Hazardous Wastes from Other States. Wastes which are hazardous under the law of the state of origin shall not be managed at a solid waste disposal site when transported to Oregon. Such wastes may be managed at a hazardous waste facility in Oregon if the facility is authorized to accept the wastes

pursuant to ORS 466.005 et seq. and applicable regulations.

(c) Lead-acid batteries. No lead-acid batteries may be mixed in municipal solid waste or disposed of at a solid waste landfill.

(d) Waste Oils. Large quantities of waste oils, greases, or oil sludges, shall not be placed in any disposal site unless special provisions for handling and other special precautions are included in the approved plans and specifications and operational plan to prevent fires and pollution of surface or groundwaters.

(2) Wastes allowed to be disposed only in landfills using "best management practices" to protect groundwater. For the purpose of this rule, best management practices shall be defined as including, at a minimum: a bottom lining system which performs equivalent to a composite liner consisting of a 60 mil thickness geomembrane component and two feet of soil achieving a maximum saturated hydraulic conductivity of 1×10^{-6} centimeters per second; and a leachate collection and treatment system designed to maintain a leachate head of one foot or less.

(a) Cleanup materials contaminated by hazardous substances.

(A) After January 1, 1991, cleanup materials contaminated by hazardous substances may be landfilled only in solid waste landfills authorized by the Department to receive this type of material.

(B) The land and facilities used for disposal, treatment, transfer, or resource recovery of cleanup material contaminated by hazardous substances, unless that activity is otherwise regulated by the Department, shall be defined as a disposal site under ORS 459.005 and shall be subject to the requirements of these rules, including permit requirements.

(C) The Department may authorize an owner or operator of a landfill to receive cleanup materials contaminated by hazardous substances, that are not hazardous wastes as defined by ORS 466.005, after January 1, 1991, if the following criteria are met:

(i) The landfill uses "best management practices" as defined in this section.

(ii) A waste management plan for the facility is approved by the Department which specifically addresses the management of the cleanup materials and requires, at a minimum, the following practices:

(I) The owner or operator of the landfill maintains for the facility a copy of the analytical results of one or more representative composite samples from the contaminated materials received for disposal;

(II) The owner or operator maintains for the facility a record of the source, types, and volumes of the contaminated materials received for disposal, and reports the sources, types, and volumes received to the Department in a quarterly waste report;

(III) Petroleum-contaminated soils, whenever possible, are incorporated into the daily cover material unless such practice would increase risks to public health or the environment; and

(IV) Any other requirements which the Department determines are necessary to protect public health and the environment.

(D) The Department may authorize an owner or operator of a landfill to receive cleanup materials contaminated by hazardous substances for disposal after January 1, 1991, at a facility which does not meet the performance criteria in subparagraph (C)(i) of this subsection if:

(i) the landfill accepts less than 1000 tons or 5% of the total volume of waste received, whichever is less, per year of cleanup material contaminated by hazardous substances;or

(ii) the cleanup materials contain concentrations of hazardous substances which do not exceed the cleanup levels approved by the Department for the site from which the materials were removed; or

(iii) the Department determines that the total concentrations and the hazardous characteristics of the hazardous substances in the cleanup materials will not present a threat to public health or the environment at the disposal facility, after considering the following factors:

(I) the compatibility of the contaminated materials with the volumes and characteristics of other wastes in the landfill;

(II) the adequacy of barriers to prevent release of hazardous constituents to the environment, including air, ground and surface water, soils, and direct contact;

(III) the populations or sensitive areas, such as aquifers, wetlands, or endangered species, potentially threatened by release of the hazardous substances;

(IV) the demonstrated ability of the owner or operator of the facility to properly manage the wastes;

(V) relevant state and federal policies, guidelines and standards; and

(VI) the availability of treatment and disposal alternatives.

(3) Wastes which require special handling or management practices.

(a) Waste Vehicle Tires:

(A) Waste tires shall be managed in accordance with ORS 459.705 through 459.790, and applicable regulations.

Comment: Provision updated to be consistent with new Waste Tires statute.

(b) Agricultural Wastes. Residues from agricultural practices shall be recycled, utilized for productive purposes or disposed of in a manner not to cause vector creation or sustenance, air or water pollution, public health hazards, odors, or nuisance conditions.

(c) Demolition Materials. Due to the unusually combustible nature of demolition materials, demolition landfills or landfills incorporating large quantities of combustible materials shall be cross-sectioned into cells by earth dikes sufficient to prevent the spread of fire between cells, in accordance with engineering plans required by these rules. Equipment shall be provided of sufficient size and design to densely compact the material to be included in the landfill.

(d) Infectious Wastes. All infectious wastes must be managed in accordance with Chapter 763, Oregon Laws 1989.

(A) Pathological wastes shall be treated by incineration in an incinerator which complies with the requirements of Oregon Administrative Rules 340-25-850 to -905 unless the Department determines:

(i) The disposal cost for incineration of pathological wastes generated within the individual wasteshed exceeds the average cost by twenty-five percent (25%) for all incinerators within the state of Oregon which comply with the requirements of Oregon Administrative Rules 340-25-850 to -905; or the generator is unable to contract with any incinerator facility within the state of Oregon due to lack of incinerator processing capacity; and

(ii) The State Health Division of the Oregon Department of Human Resources has prescribed by rule requirements for sterilizing "cultures and stocks," and this alternative means of treatment of the pathological waste is available.

(B) Sharps. Sharps may be treated by placing them in a leak-proof, rigid, puncture-resistant, red container that is taped closed or tightly lidded to prevent loss of the contents. Sharps contained within containers which meet these specifications may be disposed of in a permitted landfill without further treatment if they are placed in a segregated area of the landfill.

Stat. Auth.: ORS Ch. 459
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72
ORS Ch. 763, ef. 7-1-90

RULEMAKING STATEMENTS
for
Proposed New Rule and Revisions to Existing Rules
Pertaining to Disposal of Infectious Waste

OAR Chapter 340, Division 61

Pursuant to ORS 183.335, these statements provide information on the intended action to adopt a rule.

STATEMENT OF NEED:

Legal Authority

The 1989 Oregon Legislature passed HB 2865 regulating the collection, transportation, storage, treatment and disposal of infectious waste that establish priority in methods of treating and disposing of infectious waste. Sections 2 to 9 of this Act (ORS Chapter 763) are added to and made part of ORS 459.005 to 459.385. The Commission is adopting a new rule and revisions to an existing rule which are necessary to implement the provisions of the HB 2865.

Need for the Rule

Improper storage, transportation, treatment and disposal of infectious waste represents a potential health and safety problem to the staff of medical facilities and to employees of solid waste collection services and disposal facilities, and to a lesser extent to the public and the environment. The Act establishes a comprehensive program involving the State Health Division of the Oregon Department of Human Resources, the Public Utility Commission, the Environmental Quality Commission and the Department of Environmental Quality to regulate collection, treatment and disposal of infectious waste. The new rules and the rule revisions are needed to adopt criteria needed to determine the treatment method to be used for certain types of infectious wastes.

Principal Documents Relied Upon

a. Oregon Revised Statutes, Chapter 459.

b. Chapter 763, Oregon Laws 1989.

c. Oregon Administrative Rules, Chapter 340, Division 61.

LAND USE CONSISTENCY STATEMENT:

The proposed rules appear to affect land use to a minimum extent, and appear to be consistent with Statewide Planning Goals and Guidelines.

With regard to Goal 6 (Air, Water and Land Resources Quality), the rules pertain to establishing criteria by which the Department will determine whether certain infectious wastes are to be incinerated in each portion of the state. The proposed rule does not directly involve issuance of an Air Contaminant Discharge Permit or a Solid Waste Disposal Permit for a specific incineration facility. New or modified incineration facility permits are issued under existing rules.

The rules do not appear to conflict with other Goals.

Public comment on any land use issue involved is welcome and may be submitted in the manner described in the accompanying NOTICE OF PUBLIC HEARING.

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

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

EST:k
SW\SK2447 (12/89)

FISCAL AND ECONOMIC IMPACT STATEMENT

I. Introduction

The statute (Chapter 763, Oregon Laws 1989) requires that pathological waste shall be treated by incineration in an incinerator that provides complete combustion of waste to carbonized or mineralized ash. The ash shall be disposed of as provided in rules adopted by the Environmental Quality Commission. However, if the Department of Environmental Quality determines that incineration is not reasonably available within a wasteshed, pathological wastes may be disposed of in the same manner provided for cultures and stocks. Cultures and stocks shall either be incinerated or sterilized by other means (steam sterilization or autoclaving, chemical sterilization, irradiation, etc.) as prescribed by Health Division rule. Sterilized waste may be then disposed of in a permitted land disposal site, if it is not otherwise classified as hazardous waste.

The new rule and the rule revisions establish criteria for the Department to determine if incineration is not reasonably available in a wasteshed.

II. General Public

Since pathological wastes are defined in the statute as human tissues and anatomical parts from surgical and obstetrics procedures, and autopsies and laboratory procedures, individual members of the public do not generate this type of waste. There would be no direct financial impact imposed upon the public. The public would, however, be indirectly affected by this proposed rule if disposal costs for pathological wastes (from medical facilities) result in increased costs for medical procedures.

III. Small Business

Small hospitals and other medical facilities (which employ less than 50 persons) classified as small businesses would be affected directly by the proposed rule. Based on discussions with commercial infectious waste incineration companies and on estimates of transportation charges within the state of Oregon, total costs for transportation and incineration are estimated to range between 33 cents per pound to 38 cents per pound. In addition, the cost of containers for infectious wastes for transportation (as required by Chapter 763) are estimated at 14 cents per pound (based upon 25 pounds of waste in each container). The total container, shipping and

incineration costs would range from 47 cents per pound to 52 cents per pound in off-site incinerators which comply with the proposed air quality regulations.

Chapter 763 requires infectious wastes to be segregated from other wastes by separate containment at the point of generation. The 14 cents per pound estimate for the containers may be identical for medical facilities for on-site and off-site incineration. The current disposal costs for on-site incineration of infectious wastes in a number of hospitals averages 50 cents per pound, with two hospitals burning only pathological wastes reporting costs of over 80 cents per pound. These costs are expected to increase to comply with the proposed new air quality rules. Disposal costs will also increase for medical facilities now disposing of pathological wastes in landfills.

The net financial impact upon medical facilities generating pathological wastes will be site specific. Some medical facilities will face increased disposal costs, while other medical facilities utilizing off-site incineration may pay the same as or less than they now pay to operate their own incinerators.

IV. Large Businesses

Larger medical facilities, such as hospitals and medical laboratories, must also dispose of pathological wastes. This rule would have the same impact on them as on small businesses.

V. Local Governments

Local governments operating hospitals also generate pathological wastes. The proposed rule would have the same impact on them as on the general public or on small and large businesses.

VI. State Agencies

Hospitals operated by the Department of Human Resources which conduct surgical procedures will also be required to incinerate pathological wastes. This rule would have the same impact on them as on the general public, large and small businesses and local governments.

The proposed rule will have no appreciable fiscal impact upon the Department of Environmental Quality.

ETD:b

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

Proposed Rules Relating to Management of Infectious Wastes

Hearing Dates: March 20, 1990
March 21, 1990
March 22, 1990

Comments Due: April 6, 1990

WHO IS AFFECTED: Medical facilities generating infectious wastes.

WHAT IS PROPOSED: The Department of Environmental Quality proposes to add a new administrative rule, OAR 340-61-060(7), to establish criteria by which the Department will determine if incineration is not reasonably available within wasteshed for the disposal of pathological wastes.

WHAT ARE THE HIGHLIGHTS: The proposed rule would:

- o Add the definitions of "pathological waste" and "cultures and stocks" to the list of definitions in OAR 340-61-010.
- o Require that all infectious wastes be managed in accordance with the requirements contained in Chapter 763 of Oregon Laws 1989.
- o Require that pathological wastes be incinerated unless the Department determines if incineration is not reasonably available within the wasteshed. The criteria would compare the cost to incinerate the pathological waste for each wasteshed to the average cost of incineration within the entire state. The Department would determine that incineration is not reasonably available if the cost in the wasteshed exceeds the average cost within the entire state by 25% or if there is a lack of incineration capacity, and if an alternate treatment method, approved by the State Health Division for treatment of cultures and stocks, is available.

(over)

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

11/1/86

FOR FURTHER INFORMATION:

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

HOW TO COMMENT:

Public hearings will be held before a hearings officer at:

9:00 a.m.
March 20, 1990
DEQ Headquarters
Conference Room 4A
811 S.W. Sixth Avenue
Portland, OR

1:00 p.m.
March 21, 1990
Cascade Natural Gas
334 N.E. Hawthorne
Bend, OR

1:00 p.m.
March 22, 1990
Eastern Oregon State College
Room 309-310
Hoke College Center
La Grande, OR

1:30 p.m.
March 22, 1990
City Council Chambers
900 S.E. Douglas
Roseburg, OR

Written or oral comments may be presented at the hearing. Written comments may also be sent to the Department of Environmental Quality, Solid Waste Section, Hazardous and Solid Waste Division, 811 SW Sixth Avenue, Portland, OR 97204, and must be received no later than 5:00 p.m. on April 6, 1990.

Copies of the complete proposed rule package may be obtained from the DEQ Solid Waste Section. For further information, contact Tim Davison at 229-5965, or toll free at 1-800-452-4011.

WHAT IS THE NEXT STEP:

The Environmental Quality Commission may adopt a new rule identical to the one proposed, adopt a modified rule as a result of testimony received, or may decline to adopt a rule. The Commission will consider the proposed new rule and rule revisions at its meeting on May 25, 1990.

SW\SK2450

CHAPTER 763

AN ACT HB 2865

Relating to solid waste disposal; creating new provisions; and amending ORS 459.005, 459.225, 459.284, 459.290 and 459.995 and section 9, chapter 679, Oregon Laws 1985.

Be It Enacted by the People of the State of Oregon:

SECTION 1. Sections 2 to 9 of this Act are added to and made a part of ORS 459.005 to 459.385.

SECTION 2. The Legislative Assembly finds and declares that:

(1) The collection, transportation, storage, treatment and disposal of infectious waste in a manner that protects the health, safety and welfare of the workers who handle the waste and of the public is a matter of state-wide concern.

(2) The public health, safety and welfare is best protected by an infectious waste collection system that serves as many persons as possible in this state, including medical care and laboratory facilities, nursing care facilities and private residences.

(3) In the interest of public health, safety and welfare, it is the policy of this state to establish requirements for collection, transportation, storage, treatment and disposal of infectious waste that will

establish priority in methods of treating and disposing of infectious waste.

SECTION 3. As used in sections 2 to 8 of this 1989 Act:

(1) "Disposal" means the final placement of treated infectious waste in a disposal site operating under a permit issued by a state or federal agency.

(2) "Infectious waste" includes:

(a) "Biological waste," which includes blood and blood products, excretions, exudates, secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include diapers soiled with urine or feces.

(b) "Cultures and stocks," which includes etiologic agents and associated biologicals, including specimen cultures and dishes and devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Cultures" does not include throat and urine cultures.

(c) "Pathological waste," which includes biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological waste" does not include teeth or formaldehyde or other preservative agents.

(d) "Sharps," which includes needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers.

(3) "Storage" means the temporary containment of infectious waste in a manner that does not constitute treatment or disposal of such waste.

(4) "Transportation" means the movement of infectious waste from the point of generation over a public highway to any intermediate point or to the point of final treatment.

(5) "Treatment" means incineration, sterilization or other method, technique or process approved by the Health Division of the Department of Human Resources that changes the character or composition of any infectious waste so as to render the waste noninfectious.

SECTION 4. (1) No person who generates infectious waste shall discard or store such waste except as provided in section 5 of this 1989 Act.

(2) No person shall transport infectious waste other than infectious waste that is an incidental part of other solid waste except as provided in subsection (6) of section 5 and section 10 of this 1989 Act.

SECTION 5. (1) Infectious waste shall be segregated from other wastes by separate containment at the point of generation. Inclosures used for storage of infectious waste shall be secured to prevent access by unauthorized persons and shall be marked with prominent warning signs.

(2) Infectious waste, except for sharps, shall be contained in disposable red plastic bags or containers made of other materials impervious to moisture and strong enough to prevent ripping, tearing or bursting under normal conditions of use. The bags or containers shall be closed to prevent leakage or expulsion of solid or liquid wastes during storage, collection or transportation.

(3) Sharps shall be contained for storage, collection, transportation and disposal in leakproof, rigid, puncture-resistant red containers that are taped closed or tightly lidded to prevent loss of the contents. Sharps may be stored in such containers for more than seven days.

(4) All bags, boxes or other containers for infectious waste and rigid containers of discarded sharps shall be clearly identified as containing infectious waste.

(5) Infectious waste shall be stored at temperatures and only for times established by rules of the Health Division of the Department of Human Resources.

(6) Infectious waste shall not be compacted before treatment and shall not be placed for collection, storage or transportation in a portable or mobile trash compactor.

(7) Infectious waste contained in disposable bags as specified in this section shall be placed for collection, storage, handling or transportation in a disposable or reusable pail, carton, box, drum, dumpster, portable bin or similar container. The container shall have a tight-fitting cover and be kept clean and in good repair. The container may be of any color and shall be conspicuously labeled with the international biohazard symbol and the words "Biomedical Waste" on the sides so as to be readily visible from any lateral direction when the container is upright.

(8) Each time a reusable container for infectious waste is emptied, the container shall be thoroughly washed and decontaminated unless the surfaces of the container have been protected from contamination by a disposable red liner, bag or other device removed with the waste.

(9) Trash chutes shall not be used to transfer infectious waste between locations where it is contained or stored.

(10) Generators that produce 50 pounds or less of infectious waste in any calendar month shall be exempt from the specific requirements of subsections (5), (7) and (8) of this section.

SECTION 6. (1) Pathological wastes shall be treated by incineration in an incinerator that provides complete combustion of waste to carbonized or mineralized ash. The ash shall be disposed of as provided in rules adopted by the Environmental Quality Commission. However, if the Department of Environmental Quality determines that incineration is not reasonably available within a wasteshed,

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pathological wastes may be disposed of in the same manner provided for cultures and stocks.

(2) Cultures and stocks shall be incinerated as described in subsection (1) of this section or sterilized by other means prescribed by Health Division rule. Sterilized waste may be disposed of in a permitted land disposal site if it is not otherwise classified as hazardous waste.

(3) Liquid or soluble semisolid biological wastes may be discharged into a sewage treatment system that provides secondary treatment of waste.

(4) Sharps and biological wastes may be incinerated as described in subsection (1) of this section or sterilized by other means prescribed by Health Division rule. Sharps may be disposed of in a permitted land disposal site only if the sharps are in containers as required in subsection (3) of section 5 of this 1989 Act and are placed in a segregated area of the landfill.

(5) Other methods of treatment and disposal may be approved by rule of the Environmental Quality Commission.

SECTION 7. The Environmental Quality Commission may adopt rules for storage and handling of infectious waste at a solid waste disposal site.

SECTION 8. The requirements of sections 2 to 8 of this 1989 Act shall not apply to waste, other than sharps as defined in section 3 of this 1989 Act, that is:

(1) Generated in the practice of veterinary medicine; and

(2) Not capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

SECTION 9. Each person who transports infectious waste for consideration, other than waste that is an incidental part of other solid waste, shall:

(1) Provide written certification to a person who discards more than 50 pounds per month of infectious waste that such waste will be disposed of in compliance with the provisions of sections 2 to 9 of this 1989 Act; and

(2) Maintain records showing the point of origin and date and place of final disposal of infectious waste collected from generators. A copy of these records shall be given to the generator or the Department of Environmental Quality upon request.

SECTION 10. The Public Utility Commission may establish rules governing the conditions for transportation of infectious waste that is not an incidental part of other solid waste. The rules may require persons transporting infectious waste for consideration to register separately with the Public Utility Commission as an infectious waste transporter and may specify the terms of that registration, including a fee for such registration. The commission may require that persons transporting infectious waste for consideration document the county and state of origin of the waste. As used in this section, "infectious waste" has the meaning given in section 3 of this 1989 Act.

SECTION 11. Section 10 of this Act is added to and made a part of ORS chapter 767.

SECTION 12. ORS 459.005 is amended to read:

459.005. As used in ORS 459.005 to 459.385, unless the context requires otherwise:

(1) "Affected person" means a person or entity involved in the solid waste collection service process including but not limited to a recycling collection service, disposal site permittee or owner, city, county and metropolitan service district.

(2) "Area of the state" means any city or county or combination or portion thereof or other geographical area of the state as may be designated by the commission.

(3) "Board of county commissioners" or "board" includes county court.

(4) "Collection franchise" means a franchise, certificate, contract or license issued by a city or county authorizing a person to provide collection service.

(5) "Collection service" means a service that provides for collection of solid waste or recyclable material or both.

(6) "Commission" means the Environmental Quality Commission.

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

(8) "Disposal site" means land and facilities used for the disposal, handling or transfer of or resource recovery from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, transfer stations, resource recovery facilities, incinerators for solid waste delivered by the public or by a solid waste collection service, composting plants and land and facilities previously used for solid waste disposal at a land disposal site; but the term does not include a facility subject to the permit requirements of ORS 468.740; a landfill site which is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar nondecomposable material, unless the site is used by the public either directly or through a solid waste collection service; or a site operated by a wrecker issued a certificate under ORS 822.110.

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

(10) "Land reclamation" means the restoration of land to a better or more useful state.

(11) "Local government unit" means a city, county, metropolitan service district formed under ORS chapter 268, sanitary district or sanitary authority formed under ORS chapter 450, county service district formed under ORS chapter 451, regional air quality control authority formed under ORS 468.500 to 468.530 and 468.540 to 468.575 or any

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other local government unit responsible for solid waste management.

(12) "Metropolitan service district" means a district organized under ORS chapter 268 and exercising solid waste authority granted to such district under this chapter and ORS chapter 268.

(13) "Permit" includes, but is not limited to, a conditional permit.

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

(15) "Recyclable material" means any material or group of materials that can be collected and sold for recycling at a net cost equal to or less than the cost of collection and disposal of the same material.

(16) "Regional disposal site" means:

(a) A disposal site selected pursuant to chapter 679, Oregon Laws 1985; or

(b) A disposal site that receives, or a proposed disposal site that is designed to receive more than 75,000 tons of solid waste a year from commercial haulers from outside the immediate service area in which the disposal site is located. As used in this paragraph, "immediate service area" means the county boundary of all counties except a county that is within the boundary of the metropolitan service district. For a county within the metropolitan service district, "immediate service area" means the metropolitan service district boundary.

(17) "Resource recovery" means the process of obtaining useful material or energy resources from solid waste and includes:

(a) "Energy recovery," which means recovery in which all or a part of the solid waste materials are processed to utilize the heat content, or other forms of energy, of or from the material.

(b) "Material recovery," which means any process of obtaining from solid waste, by presegregation or otherwise, materials which still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose.

(c) "Recycling," which means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity.

(d) "Reuse," which means the return of a commodity into the economic stream for use in the same kind of application as before without change in its identity.

(18) "Solid waste collection service" or "service" means the collection, transportation or disposal of or resource recovery from solid wastes but does not include that part of a business operated under a certificate issued under ORS 822.110.

(19) "Solid waste" means all putrescible and nonputrescible wastes, including but not limited to garbage, rubbish, refuse, ashes, waste paper and cardboard; sewage sludge, septic tank and cesspool pumpings or other sludge; commercial, industrial, demolition and construction wastes; discarded or abandoned vehicles or parts thereof; discarded home and industrial appliances; manure, vegetable or animal solid and semisolid wastes, dead animals, **infectious waste as defined in section 3 of this 1989 Act** and other wastes; but the term does not include:

(a) Hazardous wastes as defined in ORS 466.005.

(b) Materials used for fertilizer or for other productive purposes or which are salvageable as such materials are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals.

(20) "Solid waste management" means prevention or reduction of solid waste; management of the storage, collection, transportation, treatment, utilization, processing and final disposal of solid waste; or resource recovery from solid waste; and facilities necessary or convenient to such activities.

(21) "Source separate" means that the person who last uses recyclable material separates the recyclable material from solid waste.

(22) "Transfer station" means a fixed or mobile facility normally used, as an adjunct of a solid waste collection and disposal system or resource recovery system, between a collection route and a disposal site, including but not limited to a large hopper, railroad gondola or barge.

(23) "Waste" means useless or discarded materials.

(24) "Wasteshed" means an area of the state having a common solid waste disposal system or designated by the commission as an appropriate area of the state within which to develop a common recycling program.

SECTION 13. ORS 459.225 is amended to read:

459.225. (1) If the commission finds that a disposal site cannot meet one or more of the requirements of ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.285 or any rule or regulation adopted pursuant thereto, it may issue a variance from such requirement either for a limited or unlimited time or it may issue a conditional permit containing a schedule of compliance specifying the time or times permitted to bring the disposal site into compliance with such requirements, or it may do both.

(2) In carrying out the provisions of subsection (1) of this section, the commission may grant specific variances from particular requirements or may grant a conditional permit to an applicant or to a class of applicants or to a specific disposal site, and specify conditions it considers necessary to protect the public health.

(3) The commission shall grant a variance or conditional permit only if:

(a) Conditions exist that are beyond the control of the applicant.

(b) Special conditions exist that render strict compliance unreasonable, burdensome or impractical.

(c) Strict compliance would result in substantial curtailment or closing of a disposal site and no alternative facility or alternative method of solid waste management is available.

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(4) A variance or conditional permit may be revoked or modified by the commission after a public hearing held upon not less than 10 days' notice. Such notice shall be served upon all persons who the commission knows will be subjected to greater restrictions if such variance or conditional permit is revoked or modified, or who are likely to be affected or who have filed with the commission a written request for such notification.

(5) In addition to the authority to issue a variance or conditional permit under subsections (1) to (4) of this section, the commission may modify an existing disposal site permit to specify the conditions under which the disposal site may accept and dispose of infectious waste as defined in section 3 of this 1989 Act. The commission also may require that a resource recovery facility or solid waste incinerator accept infectious waste generated in Oregon if the infectious waste has been contained and transported in accordance with sections 5 and 10 of this 1989 Act, but only so long as the volume of infectious waste generated outside the county in which the facility or incinerator is located does not affect the ability of the facility or incinerator to process or dispose of all waste generated within the county in which the facility or incinerator is located.

[*(5)*] **(6)** The establishment, operation, maintenance, expansion, alteration, improvement or other change of a disposal site in accordance with a variance or a conditional permit is not a violation of ORS 459.005 to 459.105, 459.205 to 459.245 and 459.255 to 459.285 or any rule or regulation adopted pursuant thereto.

SECTION 14. ORS 459.995 is amended to read:

459.995. (1) In addition to any other penalty provided by law, any person who violates ORS 459.205, 459.270 or the provisions of ORS 459.180, 459.188, 459.190, 459.195, 459.710 or 459.715 **or the provisions of sections 2 to 8 of this 1989 Act** or any rule or order of the Environmental Quality Commission pertaining to the disposal, collection, storage or reuse or recycling of solid wastes, as defined by ORS 459.005, shall incur a civil penalty not to exceed $500 a day for each day of the violation.

(2) The civil penalty authorized by subsection (1) of this section shall be established, imposed, collected and appealed in the same manner as civil penalties are established, imposed and collected under ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.405, 454.425, 454.505 to 454.535, 454.605 to 454.745 and ORS chapter 468.

SECTION 15. ORS 459.284 is amended to read:

459.284. Each [*city or county*] **local government unit** that has a disposal site operating under the provisions of ORS 459.005 to 459.385 and for which the [*city or county*] **local government unit** collects a fee may apportion an amount of the service or user charges collected for solid waste disposal at each publicly owned, [*or*] franchised **or privately owned** solid waste disposal site within or for the [*city or county*] **local government unit** and dedicate and use the moneys obtained for rehabilitation and enhancement of the area around the disposal site from which the fees have been collected. That portion of the service and user charges set aside by the [*city or county*] **local government unit** for the purposes of this section shall be not more than $1 for each ton of solid waste. If [*a city*] **any local government unit** apportions moneys under this section, [*the county in which the city is located*] **another local government unit** may not also apportion moneys under this section **for the same disposal site.**

SECTION 16. ORS 459.290 is amended to read:

459.290. Each [*city or county*] **local government unit** that apportions money under ORS 459.284 shall establish a citizens advisory committee to select plans, programs and projects for the rehabilitation and enhancement of the area around disposal sites for which the [*city or county*] **local government unit** has apportioned moneys under ORS 459.284. If [*a city*] **any local government unit** establishes a citizens advisory committee under this section, [*a board of county commissioners*] **another local government unit** may not also establish a local citizens advisory committee under this section **for the same disposal site.**

SECTION 17. Section 9, chapter 679, Oregon Laws 1985, is amended to read:

Sec. 9. (1) The metropolitan service district shall apportion an amount of the service or user charges collected for solid waste disposal at each general purpose landfill within or for the district and dedicate and use the moneys obtained for rehabilitation and enhancement of the area in and around the landfill from which the fees have been collected. That portion of the service and user charges set aside by the district for the purposes of this subsection shall be 50 cents for each ton of solid waste. **The metropolitan service district may not apportion moneys under ORS 459.284 for a general purpose landfill for which the district sets aside service and user charges under this subsection.**

(2) The metropolitan service district, commencing on [*the effective date of this 1985 Act*] **July 13, 1985,** shall apportion an amount of the service or user charges collected for solid waste disposal and shall transfer the moneys obtained to the Department of Environmental Quality. That portion of the service and user charges set aside by the district for the purposes of this subsection shall be $1 for each ton of solid waste. Moneys transferred to the department under this section shall be paid into the Land Disposal Mitigation Account in the General Fund of the State Treasury, which is hereby established. All moneys in the account are continuously appropriated to the department and shall be used for carrying out the department's functions and duties under [*this 1985 Act*] **chapter 679, Oregon Laws 1985.** The department shall keep a record of all moneys deposited in the account. The record shall

E-5

indicate by cumulative accounts the source from which the moneys are derived and the individual activity or program against which each withdrawal is charged. Apportionment of moneys under this subsection shall cease when the department is reimbursed for all costs incurred by it under [*this 1985 Act*] **chapter 679, Oregon Laws 1985.**

(3) The metropolitan service district shall adjust the amount of the service and user charges collected by the district for solid waste disposal to reflect the loss of those duties and functions relating to solid waste disposal that are transferred to the commission and department under [*this 1985 Act*] **chapter 679, Oregon Laws 1985.** Moneys no longer necessary for such duties and functions shall be expended to implement the solid waste reduction program submitted under section 8, [*of this 1985 Act*] **chapter 679, Oregon Laws 1985.** The metropolitan service district shall submit a statement of proposed adjustments and changes in expenditures under this subsection to the department for review.

SECTION 18. Except as provided in section 19 of this Act, sections 2 to 11 of this Act and the amendments to ORS 459.005, 459.225 and 459.995 by sections 12, 13 and 14 of this Act do not become operative until July 1, 1990.

SECTION 19. The Environmental Quality Commission, the Health Division and the Public Utility Commission may take any action before the operative date of this Act that is necessary to enable the Public Utility Commission, the Environmental Quality Commission, the Health Division or the Department of Environmental Quality to exercise, on and after the operative date of this Act, all the duties, functions and powers conferred by this Act.

Approved by the Governor July 22, 1989
Filed in the office of Secretary of State July 24, 1989

ATTACHMENT F

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY — INTEROFFICE MEMO

TO: Environmental Quality Commission **DATE:** April 17, 1990

FROM: Tim Davison, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Solid Waste Rules Portland, OR, 9:00 a.m., March 20, 1990

A public hearing was held in Portland, Oregon, at 9:00 a.m. on Tuesday, March 20, 1990, in Room 4A at the Department of Environmental Quality offices, regarding proposed rules on infectious waste. The proposed rules would establish criteria for the Department of Environmental Quality to use to determine if incineration is "reasonably available" in a wasteshed to dispose of pathological waste. Nineteen persons attended the hearing and one person presented oral testimony to summarize written testimony submitted earlier to the Department.

Ms. Diana Godwin, representing the Oregon Sanitary Service Institute (OSSI), stated that the organization has no comments regarding the proposed rules. Ms. Godwin said that the Oregon Sanitary Service Institute had submitted written testimony into the record that the Environmental Quality Commission exercise separate rulemaking authority granted by the legislature in House Bill 2865 to consider specifying the method of treatment and disposal for sharps prior to landfilling. The OSSI submitted written comments, dated March 1, 1990, on the proposed rules adding definitions of "sharps" and "biological wastes" and asking that the DEQ specify that sharps may be disposed of in a permitted landfill if they are placed in sharps containers and placed in a separate area of the landfill. The OSSI asks that treatment of sharps consist of placing them in a rigid, puncture-resistant, leak-proof, red container with the lid secured so as to prevent the release of the contents. Ms. Godwin explained that the reason for this request of the Environmental Quality Commission to exercise this authority, granted in Oregon Revised Statutes, 459.395(5), which was Subsection 6 of HB 2865, is to solve an apparent dilemma that the Health Division's legal counsel advises that sharps must be treated prior to placement in a permitted landfill. The other issue addressed by the written testimony from the OSSI is a request that the Environmental Quality Commission

authorize disposal of biological waste generated in individual residences in a landfill if the wastes are contained in a sealed plastic bag or other container, and if the containers are not compacted prior to disposal in a landfill.

ETD:k
SW\SK2743

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY — INTEROFFICE MEMO

TO: Environmental Quality Commission — **DATE:** April 17, 1990

FROM: Tim Davison, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Solid Waste Rules
Bend, OR, 1:00 p.m., March 21, 1990

A public hearing was held in Bend, Oregon, at 1:00 p.m. on Wednesday, March 21, 1990, in the Community Service Room of Cascade Natural Gas, regarding proposed infectious waste rules. The proposed rules would establish criteria for the Department of Environmental Quality to use to determine if incineration is "reasonably available" in a wasteshed to dispose of pathological waste. Five persons attended the hearing; however, no persons presented oral or written testimony.

The public hearing was recessed temporarily to answer questions. After a brief question-and-answer period, the hearing was reopened. No persons testified, and the hearing was closed after the attendees were told how to submit written testimony.

ETD:k
SW\SK2744

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMO

TO: Environmental Quality Commission **DATE:** April 17, 1990

FROM: Tim Davison, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Solid Waste Rules La Grande, OR, 1:00 p.m., March 22, 1990

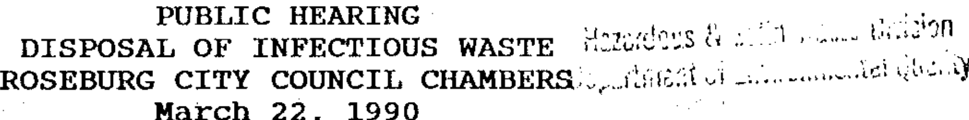
A public hearing was held in La Grande, Oregon, at 1:00 p.m. on Thursday, March 22, 1990, in Room 309 at the Hoke College Center at Eastern Oregon State College, regarding proposed infectious waste rules. The proposed rules would establish criteria for the Department of Environmental Quality to use to determine if incineration is "reasonably available" in a wasteshed to dispose of pathological waste. Nine persons attended the hearing and two persons presented oral testimony.

Mr. Ron Larvik, owner of City Garbage Service of La Grande, testified that most, if not all, pathological wastes generated within Union County are presently being incinerated at the La Grande Hospital. He expressed his concern that the hospital may have to stop operating the incinerator because of the new air quality rules for incinerators, and that this would result in there not being an incinerator near Union County. Mr. Larvik stated that this could result in higher incineration costs because of the small quantities of these wastes generated in Union County and the long distances from the county to commercial incinerators. He also stated that he had recent experience with the Department regarding recycling costs and that the Department's methods of determining costs differed from actual costs. Mr. Larvik said that he hoped that the Department would be realistic in determining incineration costs.

Mr. Fred Thorton, materials manager at Grande Ronde Hospital in La Grande, testified concerning Section 7 of the statute (Chapter 763 of Oregon Laws 1989) regarding sterilization of cultures and other pathological wastes. He stated that the use of the word "sterilizing" has been misused and has given the people of the state a false sense of security. Sterilization means the complete destruction of all microbial life. Sterilization of pathological wastes in an autoclave will require certain methods to be used, and that infectious wastes will not be sterilized by use of an autoclave.

The hearing was recessed at 1:23 p.m. to allow questions. The hearing was reconvened at 1:51 p.m.; however, no person offered testimony, and the hearing was then closed.

ETD:k
SW\SK2745



PUBLIC HEARING
DISPOSAL OF INFECTIOUS WASTE
ROSEBURG CITY COUNCIL CHAMBERS
March 22, 1990

The council chambers were opened at 1:00 PM with 20 minutes given to allow the attendees to sign in, pick up witness registration forms, and to review the handouts regarding the proposed rule changes.

The hearing was opened at 1:20 PM with one individual submitting a witness request. The witness, Mr. Tony Haber, represented Mercy Healthcare, Inc. and the Oregon Society of Hospital Engineering.

I introduced myself, stated the purpose of the hearing, informed the attendees that the meeting was being recorded, made them aware of the no smoking requirements, pointed out that it was a public meeting and that one individual had requested to testify.

The point of testimony was set off to the south side of the room so that individuals testifying would not have to look directly at the hearings office and would not have his or their backs to the attendees.

Mr. Tony Haber testimony was as follows:

"My name is Tony Haber. I'm representing Mercy HealthCare, Inc., in Roseburg, and the Oregon Society for Hospital Engineering; a group of hospital engineers within the state of Oregon. Both mine and our organizations major concern with some of the new rules is as it pertains to the requirement of the storage of what is being called infectious type waste for a period of not less than three days in an un-refrigerated state.

We feel that this regulation is not necessary. Hospitals at this time are in most cases either having their, what we might term, infectious waste either incinerated and/or being hauled off by a licensed hazardous waste company.

As you know, or may or may not know, the new rules just went into effect for the incineration issue. Which intern is basically going to shut down every incinerator in the state of Oregon. Therefore is going to require, either a large investment on the part of hospitals to purchase new incinerators, or spend a lot of money to update existing incinerators, which in most cases, I would feel probably won't happen. Therefore there's going to have to be another way to handle the infectious waste issue.

In this area, I'm not aware that there is any licensed hauler of materials that can haul infectious waste out of this area. I'm also, at this point, not aware that Douglas County will allow the disposal of infectious waste in the Douglas County Landfill,

therefore, this will require a hauler to come from somewhere else, probably Eugene north on a run to pickup the infectious waste that is captured in the hospital facilities in this area on a routine basis. The odds of that type of a hauler being here more frequently than every three days is probably quite slim only because of the quantity of material that's generated by the health care facilities in this area.

Health care facilities are very careful with their infectious waste. Usually prior to burning they are stored in an air conditioned space, an air conditioned restricted space, and particularly the infection control people, I think, can tell you that this type of material properly bagged and properly stored is not of any hazard to anyone, especially in a short a time as three days. I can certainly understand if bags of that type were stored in a very hot space or if the bags weren't properly prepared and stored that is another issue.

If this rule goes into effect what's going to be required is health care facilities are going to have to purchase very expensive refrigerated storage units, basically a walk-in refrigerator. There going have to hold this stuff in these refrigerators and again for a period not to exceed seven days or not to exceed three days. We think this is just a real waste of money. A real waste of money as it relates to the health care field. Everybody is always complaining about the cost of health care. This is just another way of increasing health care costs.

So both myself and our organization urge that this portion of the proposal be looked at a lot more closely and also have people who are very familiar with infection control have some input on what going on in this issue.

Thank you."

At this point I asked if the attendees would like me to close the hearing and allow them to review the handouts and then reopen the hearing for more testimony. It was agreed that this would be helpful.

I reopened the hearing at approximately 1:45 PM. One additional individual had signed up to testify, a Mr. Tony Burg representing the Bay Area Hospital in Coos Bay, Oregon.

Mr. Burg's testimony was as follows:

"I'm Tony Burg, Director of Engineering, and I'm representing Bay Area Hospital in Coos Bay and I would like to address the issue of the length of time for storage and the necessity for refrigeration,

Earlier this year at hearings, and have now gone into effect the new incineration laws. Compliance is very stringent and I believe the majority of incinerators in the state of Oregon will not comply. At our facility at Coos Bay we would fall into that

category of noncompliance. That leaves us with only one other option and that would be to haul. We do have landfill capability in the area, but we have been notified that the landfill will not accept infectious waste and that there also is an already setup penalty structure for it, so we are left with the only other option and which is to haul.

Being located on the coast of Oregon, the southern coast, it's fairly isolated and as far as health care facility the generation of infection control is not a great volume, which means that if we were hire a commercial hauler, that in order for them to come down, and we have talked to them in the past, to justify a truck making that run they would have to have the volume, if in fact they would have to have the volume, we would have to store for quite a while to build enough infectious waste to make it profitable for them and still allow our facility to be able to afford to have it hauled away. I believe the three days is the interpretation that it would have to be hauled away within three days without refrigerated, is way in excess, excuse me, is overkill.

Infectious waste, if kept in a cool area, not in sunlight, properly bagged is of no hazard to anyone if we propose possibly a secure holding area that does not necessitate being refrigerated. I think it's a burden financially, to on one hand say that we are now putting into effect stringent requirements on incineration, when the majority of incinerators in the state can not comply, and then on the other hand say that you can't landfill them, that you must haul them, and then if you must haul them that you have to refrigerate it if you are going to keep it in a storage area for over three days."

At this point I requested that, for the benefit of the Environmental Quality Commission, Mr. Burg state what He felt was a reasonable un-refrigerated storage time. His response was "I feel that a reasonable storage time would be seven days without refrigeration."

I then asked what he felt was the best way of disposing of infectious wastes. His response was "Well the most efficient disposal method is incineration but the state has effectively limited that to only those facilities that comply to the stringent rules. I agree with the hauling and/or incineration, I disagree with the time length and the requirement for refrigeration."

I then asked if any one wished to adjourn the hearing and asked questions regarding the rules.

The hearing was adjourned at 1:58 PM.

HELLER, EHRMAN, WHITE & McAULIFFE
ATTORNEYS
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

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701 FIFTH AVENUE
SEATTLE, WASHINGTON 98104-7098
FACSIMILE (206) 447-0849
TELEPHONE (206) 447-0900

DIANA E. GODWIN
SPECIAL COUNSEL

March 2, 1990

RECEIVED
MAR 05 1990
Hazardous & Solid Waste Division
Department of Environmental Quality

Tim Davison
Hazardous & Solid Waste Division
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

Re: Amendments to Proposed Administrative Rules on Medical Waste

Dear Tim:

Enclosed are suggested additions from the Oregon Sanitary Service Institute to the proposed revisions to administrative rules in Division 61. We have also provided background and comment on our suggested additions.

Please enter our written submission into the hearing record on the proposed rule revisions.

Thank you.

Very truly yours,

Diana

Diana E. Godwin

Enclosure
cc: Buck McCrone
Steve Greenwood, DEQ

16884\364

OREGON SANITARY SERVICE INSTITUTE

MEMBER
NSWMA
National Solid Wastes Management Association

OSSI Comments on Proposed Revisions to DEQ
Administrative Rules - Division 61
Contact Person: Diana E. Godwin 227-7400

March 1, 1990

OSSI recommends that the Environmental Quality Commission's proposed revisions to administrative rules on disposal of infectious waste be amended as follows:

OAR 340-61-010

Add new subsections in the appropriate alphabetical order and renumber the subsequent subsections. Proposed new subsections are as follows:

"'Sharps' means needles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers."

"'Biological waste' means blood and blood products, excretions, exudates, secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood fluids, but does not include diapers soiled with urine or feces."

OAR 340-61-060

Add new subsections (8) and (9) as follows:

"(8) Sharps:

"(a) Sharps shall be treated by placing them in a leakproof, rigid puncture-resistant red container that is taped closed or tightly lidded to prevent loss of the contents."

"(b) Sharps may be disposed of in a permitted landfill if they are treated as provided in subparagraph (a) and they are placed in a segregated area of the landfill."

"(9) Biological Wastes. Biological wastes that are generated at a single-family private dwelling unit may be disposed of in a

1880 Lancaster Drive NE • Suite 112 • Salem, Oregon 97305 • (503) 399-7784 • Toll-Free in Oregon: 1-800-527-7624

permitted landfill without sterilization if they are treated as follows:

"(a) they are contained in disposable red plastic bags or containers made of other materials impervious to moisture and strong enough to prevent ripping, tearing or bursting under normal conditions of use and the bags or containers are closed to prevent leakage; and

"(b) they are not subject to compaction before placement in the landfill."

Comment/Background ORS 459.395(5)[section 6 of Chapter 763, Oregon Laws 1989 (HB 2865)] provides that the Environmental Quality Commission may adopt rules approving "other methods of treatment and disposal" of infectious waste. ORS 459.398 (section 7 of chapter 763) also specifically provides that "the Environmental Quality Commission may adopt rules for storage and handling of infectious waste at a solid waste disposal site."

It is necessary for the Environmental Quality Commission to exercise this statutory rule-making authority with regard to the treatment and handling of sharps that are disposed of at landfills in order to clarify that placement in a specified container constitutes appropriate treatment. Unless the Environmental Quality Commission exercises this authority and adopts such an administrative rule, other statutory provisions governing infectious waste may be construed to require that sharps be sterilized after use and prior to disposal in a landfill.

Sharps cannot be sterilized effectively while in a rigid, puncture-resistant container. Thus either they must be sterilized before going into a container or they have to be removed from the container by personnel and placed in and removed from a sterilizing unit and then replaced in the container. Either approach exposes workers to a significantly increased risk of puncture wounds from contaminated sharps. This increased risk is completely unnecessary and unjustifiable; permanent placement of sharps in the specified container immediately after use on a patient is the safest and best method of treatment of those sharps prior to disposal.

It is also important that the Environmental Quality Commission exercise its rule-making authority to allow biological wastes generated at a private dwelling to be disposed at a landfill without prior sterilization. Unless this is allowed, our haulers will not be able to dispose of this segregated waste from households at a landfill because neither the household nor the hauler has ready access to a sterilization unit. If the hauler serving a private residence does not pick up segregated red-bagged biological waste the householder will have no realistic option other than to mix the waste in with the remainder of the household refuse where it will present exposure risks to the hauler and

landfill workers.

In summary, subsection (5) of ORS 459.395 allows the Environmental Quality Commission to approve "other methods of treatment and disposal" (other than incineration or sterilization) of infectious waste. OSSI urges the Commission to exercise this authority to provide that proper containerization of sharps constitutes the most appropriate treatment if the sharps are being landfilled and that red-bagging of biological wastes from households is an appropriate treatment prior to landfilling.

ODA Oregon Dental Association

April 10, 1990

RECEIVED

Hazardous & Solid Waste Division
Department of Environmental Quality

Tim Davison
Environmental Quality Commission
Solid Waste Section
811 S. W. 6th Avenue
Portland, OR 97204

Re: Medical Waste Rules

Dear Mr. Davision:

To followup up our telephone conversation today, enclosed is a copy of our comments submitted to Jill Laney regarding the disposal of sharps.

When you receive word from the Attorney General regarding the commission's authority to approve adequate forms of treatment under statute provisions, could you please share this information with me?

Your assistance in confirming the time and place for the upcoming public hearing tentatively scheduled for May 25, 1990, would be appreciated. The ODA would like to be present at this meeting.

Sincerely,

Beryl B. Fletcher
Director of Professional and Consumer Affairs

cc: Dr. Howard Curtis, ODA Dental Care Council Chairman
Dr. Tomm Pickles, ODA Office Safety Committee Chairman

17898 S.W. McEWAN ROAD • PORTLAND, OREGON 97224 • (503) 620-3230

March 20, 1990

Jill Laney, Manager
Health Care Survey Section
Oregon State Health Division
1400 S. W. 5th Avenue
Portland, OR 97201

RE: Infectious Waste Rules

Dear Ms. Laney:

On behalf of the Oregon Dental Association, we wish to commend you for the thoughtful, constructive manner you have employed to find ways to resolve the details of the new Infectious Waste Act.

As health care professionals directly affected by the law, we have had questions and concerns regarding implementation. It is our position and suggestion that the Health Division and other state agencys exercise its authority under ORS 459.395 (5) to adopt a rule stating that containerization of sharps in rigid, puncture proof, red containers that are taped shut, and are not subject to compaction, constitutes adequate treatment of sharps. We feel this would render these items safe and adequately treated. This also complies with the sharps handling provisions as defined by OSHA and CDC. Requiring office incineration or sterilization of sharps containers would be an extreme burden to almost all dental practices in the state, in addition to creating an severe hazard for employees in those practices.

Again, we appreciate the opportunity to discuss this legislation with you and to have our concerns heard. Please keep us informed about any further meetings and/or decisions on the proposed rules and guidelines for infectious waste.

Sincerely,

Tomm H. Pickles, DMD
Chairman, ODA Office Safety Committee

cc: Dr. Howard Curtis, Chairman, ODA Dental Care Council
Beryl B. Fletcher, ODA Director of Professional and Consumer Affairs

17898 S.W. McEWAN ROAD • PORTLAND, OREGON 97224 • (503) 620-3230

1601 S.E. Court Avenue
Pendleton, Oregon 97801
(503) 276-5121

April 4, 1990

E. T. (Tim) Davison
Hazardous and Solid Waste Division
Department of Environmental Quality
811 S.W. 6th Avenue
Portland, Oregon 97204

Dear Mr. Davison,

On March 22, 1990 in LaGrande, Oregon, Environmental Quality held a hearing on proposed rules relating to Management of Infectious Wastes. I did not enter oral testimony at that time but would now like to submit the following comments as written testimony.

Adoption of the proposed rules is premature as the ramification of the rules can not at this time be adequately evaluated.

The rules mandate incineration of pathological waste except under certain circumstances. Yet, on March 2, 1990, Incineration Regulations (OAR 34-25-850 to 905) became effective and will in time essentially eliminate incineration as an option in Eastern Oregon unless costly modifications are made to existing incinerators. (See enclosed copy of letter to Senator Mike Thorne dated 03/20/90).

Additionally the rules call for the State Health Division to define acceptable alternate treatment methods. These have not been published so can not even be considered when evaluating the full impact of the proposed rules.

Also, a report submitted by Tim Davison and dated January 3, 1990 states that incineration capacity is not expected to be a problem because of the size and utilization of incinerators presently in Western Oregon. Thus, implying that transportation of infectious waste across the State for disposal is an acceptable and reasonable option.

Section 10 of Chapter 763, Oregon Laws 1989, leaves the door wide open for the development of regulations by the Public Utility Commission to control and govern such an act. If transporting of infectious waste is such a reasonable and acceptable option, should not all the regulations be developed and considered before rules are adopted that result in mandating disposal methods that are neither acceptable or reasonable.

It appears that multiple state agencies are addressing a segment of the problem of waste and our environment. But, it does not appear that the efforts of these agencies are being coordinated by anyone.

Please delay acting on these rules until all regulations with implications on alternate methods for compliance have been developed and the system being mandated can be evaluated in its entirety.

Sincerely,

Shirley F. Galloway

Shirley F. Galloway
Vice President

SFG:vp

cc: State Representative Chuck Norris
Senator Mike Thorne
Governor Neal Goldschmidt
Larry Miller - DEQ Air Quality
Ray Mensing - OAH
Michael Skeels - Oregon State Health Division

1601 S.E. Court Avenue
Pendleton, Oregon 97801
(503) 276-5121

March 20, 1990

RECEIVED
Hazardous & ... Division
Department of ... Quality

Senator Mike Thorne
Holdman Route, Box 505
Pendleton, OR 97801

RE: Incinerator Regulations
OAR 340-25-850 to -950

Dear Senator:

The recent Oregon Department of Environmental Quality (D.E.Q.) ruling on incinerator regulations places undue hardship on hospitals and fails to address the real problem. Your help is urgently needed.

Prior to the rules being finalized, D.E.Q. held meetings throughout the State to hear arguments on the proposed rules. The Oregon Society for Hospital Engineering Inc. (OSHE) presented the results of a study showing that the average domestic oil furnace emits into the atmosphere more toxic gasses than a currently licensed properly operating hospital incinerator burning up to 5 tons of solid waste per day. Throughout the State there are approximately 50 licensed hospital incinerators of 5 ton or less capacity per day while on the other hand approximately 30,000 oil furnaces were in operation from September 1988 through April 1989 throughout the state and an undefined number of backyard burn barrels used. It is estimated that approximately 2,000 domestic backyard burn barrels are frequently used in Umatilla County alone.

Backyard burn barrels which are not regulated or of D.E.Q.'s concern, burn much of the same types of waste disposed of at hospitals (paper, plastic, styrofoam, etc.) with no emission controls. Hospital incinerators which are equipped with secondary burners destroy a major portion of particulate matter. Putting fifty hospital incinerators out of business is not going to eliminate the HCL (hydrogen chloride) emissions into the atmosphere. However a direct result of efforts to comply with the regulations would be an increase in the already high cost of health care and with no significant reduction in the amount of HCL in our atmosphere.

The cost to retrofit the average 5 ton per day incinerator to meet the new D.E.Q. regulations will be a minimum of $100,000.00 plus approximately $25,000.00 annual operating cost. Hospital cost are high now and this cost will have to be passed on to the public.

Additionally St. Anthony Hospital currently incinerates infectious/contaminated waste for local clinics, nursing homes, laboratories; city, county and State facilities. If hospitals cannot meet the requirements, what are the alternatives for all of us for disposal of infectious/contaminated waste, as well as all the solid waste generated.

A safe and healthy environment is important to me and my family that's one of the reasons why we choose to live in Eastern Oregon. The hazardous emissions released by incinerators of under 5 ton capacity with secondary burners are miniscule compared to such culprits as oil furnaces and back yard burn barrel.

As a member of OSHE and as the Director of Maintenance at St. Anthony Hospital, I strongly urge that this ruling (OAR 340-25-850 to -950) approved by the Environmental Quality Commission, March 2, 1990 be re-evaluated and the full impact on society determined before imposing these unnecessary hardships on rural hospitals.

Sincerely,

Jim Leinweber
Director of Maintenance

JL/vr

ATTACHMENT G

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY — INTEROFFICE MEMO

TO: Environmental Quality Commission — DATE: April 20, 1990

FROM: Tim Davison, Solid Waste Section

SUBJECT: Response to Testimony/Comments, Proposed Amendments to Solid Waste Rules Pertaining to Infectious Waste Management

The Department held four public hearings on the proposed revisions to the solid waste program rules establishing criteria for the Department to use to determine if incineration is reasonably available in a wasteshed to dispose of pathological wastes. The hearings were held on March 20-22, 1990, and public comment on the rule was accepted through April 6, 1990.

Comments fell into the following categories:

- o Definitions of "sharps" and "biological waste" should be added to the solid waste rules.
- o A new rule should be added to the solid waste rules specifying containerization of sharps as constituting treatment.
- o A new rule should be added specifying placement of biological wastes from individual private residences into sealed red plastic bags constitutes treatment.
- o Medical facilities should be allowed to store infectious wastes for longer than three days without refrigerated storage being required.
- o The small quantities of infectious wastes generated in many areas of the state, the closure of many incinerators due to the new emissions rules and the distances to remaining incinerators will result in high disposal costs.
- o The use of the word "sterilization" in the statute is incorrect and will leave a false impression that "sterilized" infectious wastes have been rendered non-infectious.

- o The efforts of the three state agencies currently preparing rules to implement the statute are not being coordinated by anyone. Rulemaking should be delayed until the public can review draft rules from all three agencies at the same time.

- o The cost to retrofit emission control systems on existing incinerators to comply with the new air quality rules will greatly increase hospital costs.

1. "Definitions"

- o Comment: Add new subsections in the proper alphabetical order and renumber the subsequent subsections to add definitions for "biological waste" and "sharps."

- o Response: The definitions for "biological waste" and for "sharps" contained in Chapter 763 of Oregon Laws 1989 have been added to Oregon Administrative Rule (OAR) 340-61-010.

2. "Sharps Treatment"

- o Comment: A new rule should be added to OAR 340-61-060 which specifies that sharps shall be treated by placing them in a leak-proof, rigid, puncture-resistant, red container that is taped closed or tightly lidded to prevent loss of contents and then placed in a segregated area of a landfill.

- o Response: A new rule (OAR 340-61-060(3)(e)) has been added which specifies that sharps may be treated by placing them in a leak-proof, rigid, puncture-resistant, red container that is taped closed or tightly lidded to prevent loss of the contents. Sharps contained within containers which meet these specifications may be disposed of in a permitted landfill without further treatment if they are placed in a segregated area of the landfill.

3. "Treatment of Biological Waste"

- o Comment: A new rule should be added to OAR 340-61-060 which allows disposal of biological waste generated in a single-family, private dwelling unit in proper containers without sterilization.

- o Response: Biological wastes (liquid blood and other body fluids) generated in private, single-family residences have not been identified to be present in significant quantities in municipal solid waste. The Department, therefore, does not recommend adoption of a rule excluding household biological waste from regulation at this time.

4. "Storage Time Restrictions for Infectious Waste"

- o Comment: Medical facilities should be allowed to store infectious wastes, without refrigeration being required, for up to seven days.

- o Response: Chapter 763 of Oregon Laws 1989 designates the Oregon State Health Division as the agency to regulate management of infectious waste within medical facilities. The Health Division has issued draft rules limiting storage of infectious wastes to seven days without refrigeration. The Environmental Quality Commission has not proposed to limit storage time for infectious wastes at medical facilities.

5. "Increased Disposal Costs"

- o Comment: The new air quality rules requiring that emission controls be retrofitted to incinerators, the small quantities of infectious wastes generated within less-populated areas of the state and the long distances from these areas to incinerator facilities in urban areas will greatly increase infectious waste disposal costs. The Environmental Quality Commission should carefully consider these factors prior to adopting new rules requiring incineration of pathological waste.

- o Response: The proposed rule (OAR 340-61-060(3)(d)) would compare the cost to incinerate pathological waste generated in a particular wasteshed with the average cost of incinerating pathological waste in all other portions of the state. The intent of the proposed rule is to combine transportation costs with incineration costs to arrive at an incineration cost for each wasteshed. The Department will use actual transportation costs to determine incineration cost totals.

6. "Definition of Sterilization"

- Comment: The term "sterilization" is incorrectly used in the statute and tends to convey a false sense of security that "sterilized" infectious wastes are incapable of infecting persons coming in contact with these wastes.

- Response: Changes in definitions contained in Oregon Statutes must be addressed by the legislature. Regulatory agencies are required to use legal definitions, as contained in statutes, in adopting and enforcing rules.

7. "Agency Coordination"

- Comment: Multiple state agencies are addressing a segment of the problem of waste and our environment, but it does not appear that there is coordination of these efforts.

- Response: Representatives from the Health Division, the Public Utility Commission and the Department of Environmental Quality have met on numerous occasions with each other and with persons representing medical facilities and professional associations and waste management associations to coordinate rulemaking efforts.

8. "Incineration Costs Will Increase Due to New Air Quality Rules"

- Comment: The cost to retrofit emission control equipment to existing incinerators to comply with new air quality rules will be a minimum of $100,000 (capital expense) and $25,000 annual operating cost. This cost will have to be passed on to the public. Closure of existing incinerators will not solve air quality problems, but it will eliminate disposal alternatives for many medical facilities.

- Response: The proposed rule concerning incineration of pathological waste is expected to increase disposal costs for this portion of infectious wastes; however, pathological wastes (as defined in the statute and in the proposed rule) constitute a small fraction of infectious wastes from medical facilities. The overall impact of increased incineration costs for disposal of pathological wastes, with the exemption clause, on medical facility waste disposal costs are expected to be minimal.

The proposed rule governing treatment of "sharps" is expected to reduce disposal costs, compared to the potential cost to sterilize sharps separately. The draft Health Division rules require infectious wastes to be autoclaved in a dedicated unit.

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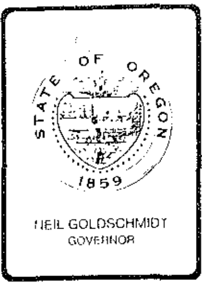


Environmental Quality Commission

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

REQUEST FOR EQC ACTION

Meeting Date: May 25, 1990
Agenda Item: H
Division: Hazardous & Solid Waste
Section: Underground Storage Tanks

SUBJECT:

UST Rules: Proposed Adoption of Federal Underground Storage Tank Rules for Technical Standards and Local Program Delegation

PURPOSE:

Adopt underground storage tank (UST) rules for local program delegation. Adopt UST rules allowing local government to petition for more stringent UST standards where groundwater is threatened. Adopt technical standards that are no less stringent than the federal UST regulations. Defer action on financial responsibility for owners and operators of 100 or more tanks pending review by legislative committee. Defer action on financial responsibility for owners and operators of fewer than 100 tanks until early 1991 based upon recent changes in federal UST regulations.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
_X_ Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment B

___ Issue a Contested Case Order

___ Approve a Stipulated Order
___ Enter an Order
Proposed Order — Attachment ___

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

DESCRIPTION OF REQUESTED ACTION:

To obtain state program approval to regulate USTs in lieu of federal regulation it is necessary to first adopt technical and financial responsibility requirements that are no less stringent than the federal UST regulations, 40 CFR 280. Secondly, the Department of Environmental Quality (Department) must apply to the U.S. Environmental Protection Agency (EPA) for state program approval. The Department intends to make application sometime after October 1, 1990.

The financial responsibility rules must be reviewed by the appropriate legislative committee prior to adoption (ORS 466.815 (6)). The rules will be presented to the Joint Interim Committee on Energy, Environment and Hazardous Materials on June 6, 1990.

In April 1990 EPA recognized that the federal financial responsibility regulations were severely affecting two classes of small businesses, petroleum marketing firms that owned 13 to 99 USTs and all petroleum UST owners with 12 or fewer USTs. Many of these businesses were unable to comply with the financial responsibility regulations since insurance was generally unavailable and expensive. Reasonably priced insurance was available only for facilities that met both EPA standards for new USTs and the insurance company's standards for site environmental cleanliness. The compliance dates for the two classes of small businesses were delayed one year to April 26, 1991 and October 26, 1991, respectively. The compliance dates for the two classes of large businesses were maintained at July 24, 1989 for petroleum marketing firms owning 1,000 or more USTs and October 26, 1989 for petroleum marketing firms owning 100 to 999 USTs.

The proposed technical rules significantly enhance our present state rules, allowing improved protection of the environment and public health and safety. Additionally, our present UST rules are strong enough to assure proper UST installation and decommissioning. The Department does not

believe that adoption of the technical rules should wait until after the financial responsibility rules are reviewed by the legislative Committee.

Accordingly, the Department is proposing adoption of the technical standards at the May 1990 Environmental Quality Commission (Commission) meeting and adoption of the financial responsibility rules for the petroleum marketers with 100 or more USTs after the financial responsibility rules are reviewed by the legislative committee. The Department is recommending deferral of the Financial Responsibility rules for small businesses until at least March 1991.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: ________________ Attachment ___
Enactment Date: ________________
_X_ Statutory Authority: ORS 466.705 - .995 Attachment ___
___ Pursuant to Rule: ________________ Attachment ___
_X_ Pursuant to Federal Law/Rule: 40 CFR 280 Attachment ___

___ Other: Attachment ___

_X_ Time Constraints:

The Department has made a grant commitment to the EPA to make application for federal authorization prior to October 1, 1990. The adopted rules are the basis for completing an application for program authorization.

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation Attachment ___
___ Hearing Officer's Report/Recommendations Attachment ___
_X_ Response to Testimony/Comment Attachment _C_
___ Prior EQC Agenda Items: (list)
Attachment ___
___ Other Related Reports/Rules/Statutes:
Attachment ___
___ Supplemental Background Information Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

The Department has been working with an Underground Storage Tank Advisory Committee of 32 members to assist in the development of these rules. The committee has reviewed the

proposed rules and the public testimony and recommends adoption of the rules shown in Attachment A.

The Department conducted public hearings on these rules during April 1990 at five locations throughout the state. Attachment C contains a summary of these hearings and separate written testimony.

The rules have been modified as a result of comments received in oral and written testimony, review by the UST Advisory Committee, and review by the Department.

1. The financial responsibility requirements have been removed from the rules. The Department will return to the Commission for adoption of the financial responsibility rules for large businesses at the June EQC meeting, and will defer rules for small businesses until 1991.

2. The proposed rules required that cathodic protection be installed by December 1998 where an UST was upgraded by lining. This requirement was deleted. The requirements for a lined UST are now identical to the federal requirement which allows internal inspection within ten years and every five years thereafter as an alternate to adding cathodic protection.

3. The proposed rules required groundwater monitoring leak detection systems to be designed by persons who are especially qualified by education and experience to design these systems. This rule placed the burden upon the Department to evaluate each designer. The rules now allow only registered professional engineers or registered geologists to design groundwater leak detection systems.

4. The rules now require the UST owner, the UST operator or the UST service provider to notify the Department three working days prior to starting work to install, upgrade, replace, or close an UST. The proposed rules required three working days notice for tank closure only.

5. It was the intent of the original state UST rule to require an owner to pay a permit fee for any part of a year an UST existed. The rule wording has been changed to clarify this intent.

6. The proposed rules required sellers and distributors of regulated products to measure and maintain records of

the capacity of USTs to which they delivered products in order to identify regulated tanks that did not have permits. The Department only has statutory authority over regulated tanks, and thus can only require sellers and distributors to measure those tanks that have permits. All other tanks would not be identified by the proposed rule. This requirement has been deleted from the rules since it will not work as intended.

7. The proposed rules required UST owners to install a spill containment basin at the UST fill pipe by December 23, 1994 rather than December 23, 1998, as required by the federal UST regulations. Early installation of spill containment basins has been removed from the rules in response to public testimony and discussion with the UST Advisory Committee.

8. The public is concerned that local program delegation may create many separate and distinct UST programs, rather than one statewide program. The proposed rules did not clearly require a local program to be identical to the state UST program. The rules now require a local program to be identical to the state UST program.

PROGRAM CONSIDERATIONS:

Before the state UST program can be authorized to regulate USTs in lieu of EPA, it will be necessary for the state to assure EPA that our rules are no less stringent and are as enforceable as the federal UST regulations. A Governor's submittal letter and an Attorney General's certification are required as part of the authorization application.

To assure that these proposed rules are no less stringent than the federal regulations, the Department has chosen to adopt the federal UST technical standards (40 CFR 280, Subparts A,B,C,D,E,F, and G) in whole, then modify the federal regulations where necessary for clarity, coordination with existing state rules and statutes, or to be more stringent. The same procedure will be used when the Department adopts the financial responsibility rules (Subpart H). Specific areas where the federal rules are changed include:

A. Coordination with State Rules:

1. The existing rule on decommissioning has been

deleted. The federal rules have been modified to include all of the Oregon decommissioning requirements.

2. The definitions included in both the existing state rules and the federal regulations have been modified to insure consistency of terms.

3. Subpart E "Release Reporting, Investigation, and Confirmation" and Subpart F "Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances" have been modified to coordinate with the Department's existing cleanup rules for leaking petroleum systems OAR 340-122-305 through OAR 340-122-360.

4. Subpart F "Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances" has been modified so that the Department's environmental cleanup rules OAR 340-122-010 through 340-122-110 are used rather than the federal cleanup regulations.

B. More Stringent Requirements: These more stringent than federal requirements have been given consensus approval from the UST citizen advisory committee.

1. Require owners and operators of field constructed tanks to provide federal notification forms to the Department. The EPA excluded these large tanks (greater than 30,000 gallons) from reporting requirements and the technical and financial responsibility requirements. The Department believes that field constructed USTs could cause a risk to the environment. The Department would like to know of the presence of large underground tanks containing petroleum or hazardous substances.

2. Require Department approval where a corrosion expert has determined that an UST system may be installed without corrosion protection. Since corrosion of USTs is the major cause of releases from USTs, the Department wishes to review and approve any UST installation where corrosion protection is not installed.

3. Require that a test station be installed with each UST cathodic protection system. A test station allows accurate testing of a cathodic protection system.

4. Limit compliance certification of an UST installation to certification by a state licensed installer, certification by a registered professional

engineer or another manner approved by the Department. In addition to these certification methods, the existing EPA rules allow certification by completing an UST manufacturers checklist, using an installer who is certified by the tank and piping manufacturers and certification of the installation by the implementing agency. Since the Department now licenses UST installers we prefer that USTs be installed and certified by licensed installers. The other options are available only to persons installing their own UST.

6. Require Department approval of groundwater monitoring systems. Require the monitoring systems to be designed by a registered engineer or geologist who is especially qualified by education and experience in groundwater monitoring systems. The Department is concerned that improperly installed monitoring wells could create an open pathway for UST leaks to rapidly enter groundwater.

7. Require daily or continuous monitoring on groundwater and vapor monitoring leak detection systems or daily inventory control. Federal regulations allow monitoring once per month. Once per month monitoring is not protective of human health and the environment.

8. Require a site assessment during any UST closure. The federal regulations allow closure (decommissioning) without a site assessment where either soil vapor, groundwater or interstitial monitoring is used. The Department believes that soil or groundwater sampling is needed to make certain that contamination does not exist.

9. Require notice three working days prior to starting physical work on UST installation, replacement, upgrade, or closure. Advanced notice is needed to allow the Department's regional staff to arrange an inspection while the work is being accomplished.

10. Require a site assessment on all decommissioned USTs, whether removed or closed in-place. Require site assessment plan to be submitted prior to closure in-place.

C. The Department has added provisions to the existing state underground storage tank rules, as follows:

1. Section 340-150-125: Allow a local unit of government responsible for a public water supply to

petition the Commission for more stringent UST requirements. The Commission must determine that more stringent rules are required to protect the water supply. To date no local government has proposed a geographical rule. This rule was added to allow local and state agencies to improve groundwater protection in the future.

2. Section 340-150-015: Allow delegation of program administration, in whole or part, to other state agencies or local government. The organization will apply for program delegation by providing a written application that describes the breadth of the proposed administration, administration procedures, procedures to coordinate with the Department and the needed resources.

The proposed rules contain no provisions for passing on any part of the UST fee to local government. Only one governmental body (Clackamas county) has shown any interest in the program. The 1989 Oregon legislature considered and rejected any authority for the Department to collect an additional fee to fund local programs.

These proposed changes to the interim UST rules and subsequent adoption of the financial responsibility rules will provide an UST program as envisioned by the Oregon legislature.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. Adopt proposed rules, as amended, based on public hearing testimony and recommendations from the Department's UST Advisory Committee.

   These rules contain only the UST technical standards. The financial responsibility rules for owners of 100 or more USTs will be presented for adoption at an another Environmental Quality Commission meeting.

2. Adopt the proposed rules, as amended, complete with the financial responsibility rules for all UST owners.

   Federal financial responsibility requirements have been delayed for one year for owners of fewer that 100 USTs. It is not necessary to regulate these persons at this time. Additionally, this alternative may require the Department to return to the Environmental Quality Commission with modifications to the rules based upon comments from the Joint

Interim Committee on Energy, Environment and Hazardous Materials.

3. Adopt the proposed rules, as amended, complete with the financial responsibility rules for owners of 100 or more USTs.

This alternative may require the Department to return to the Environmental Quality Commission with modifications to the rules based upon comments from the Joint Interim Committee on Energy, Environment and Hazardous Materials.

2. Delay adoption of both technical standards and financial responsibility regulations.

The Department currently receives federal funding for both UST compliance activities and UST remedial action activities. Federal funding for UST programs could be reduced or eliminated. The current grant from the EPA anticipated state rule adoption prior to October 1, 1990. Rules should be adopted prior to submittal of DEQ's application to EPA to operate the UST program in lieu of EPA.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends that the Commission:

1. Adopt the underground storage tank rules shown in Attachment A.

Rationale for this action is presented in the discussion of alternatives above.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The recommended action is consistent with legislative policy and with the agency's policy of seeking delegation of federal programs to the state.

ISSUES FOR COMMISSION TO RESOLVE:

1. Should the state UST rules be more stringent than the federal requirements?

The Department modified the federal UST Technical Requirements to match our existing state regulations and

where the Department believed it was necessary to be more stringent to protect human health and the environment but in no case be less stringent than the federal regulations. The Commission may wish to adopt rules that are equal to the federal regulations, neither more stringent nor less stringent, so as to maintain consistency between federal and state rules. The more stringent changes to the federal regulations are easily understood by the regulated community. The Department recommends adopting the more stringent rules shown in Attachment A.

2. Should the Department agressively pursue delegation of the program to local governments?

Delegation of the program to local governmental bodies should provide more oversight of underground storage tanks if the local program is adequately funded. The rules do not contain provisions for passing on any part of the UST fee to local government. Additionally, local government is prevented by statute from assessing any tank related fee. Local programs would need to find another funding source. While the Department supports the creation of local programs, the Department does not support active promotion of delegation.

INTENDED FOLLOWUP ACTIONS:

File the rules in Appendix A with the Secretary of State immediately upon EQC adoption

Present the financial responsibility rules to the appropriate legislative Committee.

Request adoption of the final financial responsibility rules after review by the legislative committee.

Apply for federal authorization of Oregon's underground storage tank program by October 1, 1990.

Approved:

Section: [signature]

Division: Stephanie Hallock

Director: Fred Hansen

Report Prepared By: Larry Frost
Phone: 229-5769
Date Prepared: May 9, 1990

LDF:lf
STAFF525.005
May 9, 1990

Attachment A
Agenda Item M
5-25-90 EQC Meeting

OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 150 - DEPARTMENT OF ENVIRONMENTAL QUALITY

MODIFICATIONS TO UNDERGROUND STORAGE TANK RULES
ORS 466.705 through 466.835 and ORS 466.895 through 466.995

OAR 340-150-001 is added in its entirety.

Purpose and Scope

340-150-001 (1) These rules are promulgated in accordance with and under the authority of ORS 466.705 through ORS 466.835 and ORS 466.895 through 466.995.

(2) The purpose of these rules is;

(a) to provide for the regulation of underground storage tanks to protect the public health, safety, welfare and the environment from the potential harmful effects of spills and releases from underground tanks used to store regulated substances, and

(b) to establish requirements for the prevention and reporting of releases and for taking corrective action to protect the public and the environment from releases from underground storage tanks.

(3) A secondary purpose is to obtain state program approval to manage underground storage tanks in Oregon in lieu of the federal program.

(4) Scope.

(a) OAR 340-150-002 incorporates, by reference, underground storage tank technical regulations of the federal program, included in 40 CFR 280, Subparts A, B, C, D, E, F, and G. Persons must consult these Subparts of 40 CFR 280 to determine applicable underground storage tank requirements. Additionally, persons must consult OAR Chapter 340, Division 122 for the applicable release reporting and corrective action requirements for underground storage tanks containing petroleum.

(b) OAR 340-150-003 incorporates amendments to the underground storage tank technical and financial responsibility regulations of the federal program, included in 40 CFR 280, Subparts A, B, C, E, F, and G.

(c) OAR 340-150-010 through -150 establishes requirements for underground storage tank permits, notification requirements for persons who sell underground storage tanks, and persons who deposit or cause to have deposited a regulated substance into an underground storage tank.

OAR 340-150-002 is added in its entirety.

Adoption of United States Environmental Protection Agency Underground Storage Tank Regulations.

340-150-002 (1) Except as otherwise modified or specified by these rules, the rules and regulations governing the technical standards and corrective action requirements for owners and operators of underground storage tanks, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 280, amendments thereto promulgated prior to May 25, 1990, and Oregon amendments listed in OAR 340-150-003 are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.705 through 466.835 and ORS 466.895 through 466.995.

OAR 340-150-003 is added in its entirety.

Oregon Rules Amending the United States Environmental Protection Agency Underground Storage Tank Regulations.

340-150-003 In addition to the regulations and amendments promulgated prior to May 25, 1990, as described in 340-150-002 of these rules, the following rules amending Title 40 Code of Federal Regulations, Part 280 are adopted and prescribed by the Commission to be observed by all persons subject to ORS 466.705 through 466.835 and ORS 466.985 through 466.995 with the following exceptions.

(1) 40 CFR 280.10(a) shall read, as follows:

(a) The requirements of this Part apply to all owners and operators of an UST system as defined in 280.12 except as otherwise provided in paragraphs (b), (c), and (d) of this section. Any UST system listed in paragraph (c) of this section must meet the requirements of 280.11. Any UST system listed in paragraph (c)(5) of this section must meet the requirements of 280.22.

(2) 40 CFR 280.11(b) shall read, as follows:

(b) Notwithstanding paragraph (a) of this section, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert and the implementing agency not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators must maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

(3) 40 CFR 280.12 "Cathodic protection tester" shall read, as follows:

"Cathodic protection tester" means a person licensed as an Underground Storage Tank Supervisor of Cathodic Protection System Testing through meeting the requirements of OAR Chapter 340, Division 160.

(4) 40 CFR 280.12 "Implementing Agency" shall read, as follows:

"Implementing agency" means the Oregon Department of Environmental Quality.

(5) 40 CFR 280.12 "Operator" shall read, as follows:

"Operator" means any person in control of, or having responsibility for, the daily operation of the UST system, including the permittee under a permit issued pursuant to OAR Chapter 340, Division 150.

(6) Amend 40 CFR 280.12 by deleting the definition "Owner" in it's entirety.

(7) Amend 40 CFR 280.12 by deleting the definition "Release" in it's entirety.

(8) 40 CFR 280.12 "Residential tank" shall read, as follows.

"Residential tank" is a tank located on property used primarily for single family dwelling purposes.

(9) 40 CFR 280.20(a)(2) shall read, as follows:

(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) A permanent cathodic protection test station is installed;

Note: The test station can be separate or combined with an existing box and shall be located near the protected structure and away from an anode. The test station shall provide, as a minimum, an electrical connection to the structure and access for placing a reference cell in contact with the soil or backfill. When located below the surface of the ground, the test station design shall prevent run off of surface water into the soil.

(iii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iv) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(v) Cathodic protection systems are operated and maintained in accordance with § 280.31 or according to guidelines established by the implementing agency; or

(10) 40 CFR 280.20(a)(4)(i) shall read, as follows:

(i) The tank is installed at a site that is determined by a corrosion expert and the implementing agency not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

Note: For the purpose of complying with Paragraph 280.20(a)(4)(i), approval by the Department shall be given after reviewing the data and

information submitted by the corrosion expert and a finding that the corrosion expert's determination is justified.

(11) 40 CFR 280.20(a)(5) shall read, as follows:

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a)(1) through (4) of this section.

Note: For the purpose of complying with Paragraph 280.20(a)(5), approval by the Department shall be given after reviewing the data and information submitted by a corrosion expert and a finding that the corrosion expert's determination is justified.

(12) 40 CFR 280.20(b)(3)(i) shall read, as follows:

(i) The piping is installed at a site that is determined by a corrosion expert and the implementing agency to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

Note: For the purpose of complying with Paragraph 280.20(b)(3)(i), approval by the Department shall be given after reviewing the data and information submitted by the corrosion expert and a finding that the corrosion expert's determination is justified.

(13) 40 CFR 280.20(b)(4) shall read, as follows:

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b)(1) through (3) of this section.

Note: For the purpose of complying with Paragraph 280.20(b)(4), approval by the Department shall be given after reviewing the data and information submitted by a corrosion expert and a finding that the corrosion expert's determination is justified.

(14) 40 CFR 280.20(e) shall read, as follows:

(e) Certification of installation. All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with § 280.22.

(1) The installer has been [certified or] licensed by the implementing agency; or

(2) The installation has been inspected and certified by a

registered professional engineer with education and experience in UST system installation; or

(3) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

(15) 40 CFR 280.22(a) shall read, as follows:

(a) Any owner who brings an underground storage tank system into use after May 8, 1986, must, 30 days prior to installing, closing, using, or bringing such tank into use, submit, in the form prescribed in Sections I through VI of Appendix I of this Part (or appropriate state form), a notice of existence of such tank system to the Implementing Agency.

(16) 40 CFR 280.22(d) shall read, as follows:

(d) Notices required to be submitted under paragraph (a) of this section must provide all of the information in Sections I through VI of the prescribed form (or appropriate state form) for each tank for which notice must be given. Notices for tanks installed after December 22, 1988 must, within 30 days after bringing such tank into use, also provide all of the information in Section VII of the prescribed form (or appropriate state form) for each tank for which notice must be given.

(17) 40 CFR 280.22 is amended by adding a new paragraph (h) that shall read, as follows:

(h) Unless the implementing agency agrees to waive the requirement, at least 3 working days before beginning work to install, replace, or upgrade an UST, owners and operators or the licensed service provider performing the work must notify the implementing agency of the confirmed date and time the work will begin to allow observation of the work by the implementing agency.

(18) 40 CFR 280.41(a) shall read, as follows:

(a) Tanks. Tanks must be monitored at least every 30 days for releases using one of the methods listed in § 280.43 (d) or must be monitored daily for releases using one of the methods listed in § 280.43 (e) through (h) except that:

(19) 40 CFR 280.41(b)(1)(ii) shall read, as follows:

(ii) Have an annual line tightness test conducted in accordance with § 280.44(b) or have daily monitoring conducted in accordance with § 280.44(c).

(20) Amend 40 CFR 280.43 by adding a new paragraph (f)(9), that shall read, as follows:

(9) The ground water monitoring system is determined by the implementing agency to be designed so that the risk to human health and the environment is not increased.

Note: For the purpose of complying with the requirements of this section, approval by the implementing agency shall be given after reviewing the data and design information submitted by a registered professional engineer or a registered geologist who is especially qualified by education and experience to design release detection systems and a finding that the leak detection system is designed so that the risk to human health and the environment is not increased.

(21) 40 CFR 280 Subpart F shall read, as follows:

Subpart F--Release Response and Corrective Action for UST Systems Containing Hazardous Substances

(22) 40 CFR 280.60 shall read, as follows:

§ 280.60 General.

Owners and operators or responsible persons of hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this subpart except for USTs excluded under § 280.10(b), where UST systems contain petroleum, and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

Note: Release Response and Corrective Action for UST Systems Containing Petroleum must meet the requirements of OAR Chapter 340 Division 122.

(23) 40 CFR 280.61(a) shall read, as follows:

(a) Report the release to the implementing agency (e.g., by telephone or electronic mail);

(1) All below-ground releases from the UST system in any quantity;

(2) All above-ground releases to land from the UST system in excess of reportable quantities as defined in OAR Chapter 340, Division 108, if the owner and operator or responsible person is unable to contain or clean up the release within 24 hours; and

(3) All above-ground releases to the waters of the state.

(24) 40 CFR 280.62(a) shall read, as follows:

(a) Unless directed to do otherwise by the implementing agency, owners and operators or responsible persons must perform the following abatement measures:

(25) 40 CFR 280.62(a)(4) shall read, as follows:

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator or responsible person must comply with applicable state and local requirements;

(26) 40 CFR 280.62(b) shall read, as follows:

(b) Within 20 days after release confirmation, or within another reasonable period of time determined by the implementing agency, owners and operators or responsible persons must submit a report to the implementing agency summarizing the initial abatement steps taken under paragraph (a) of this section and any resulting information or data.

(27) Amend 40 CFR 280.62 by adding a new paragraph (c) that shall read, as follows:

(c) The owner and operator, or responsible person shall provide any additional information beyond that required under paragraph (b) of this section, as requested by the implementing agency.

(28) 40 CFR 280.63(a)(4) shall read, as follows:

(4) Results of the free product investigations required under § 280.62(a)(6), to be used by owners and operators or responsible persons to determine whether free product must be recovered under § 280.64.

(29) 40 CFR 280.64 Free Product Removal shall read, as follows:

§ 280.64 Free product removal.

At sites where investigations under § 280.62(a)(6) indicate the presence of free product, owners and operators or responsible persons must remove free product to the maximum extent practicable as determined by the implementing agency while continuing, as necessary, any actions initiated under §§ 280.61 through 280.63, or preparing for actions required under §§ 280.65 through 280.66. In meeting the requirements of this section, owners and operators or responsible persons must:

(30) 40 CFR 280.64(d) shall read, as follows:

(d) Unless directed to do otherwise by the implementing agency, prepare and submit to the implementing agency, within 45 days after confirming a release, a free product removal report that provides at least the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected from, any discharge;

(6) The steps that have been or are being taken to obtain necessary permits for any discharge;

(7) The disposition of the recovered free product; and

(8) Other matters deemed appropriate by the implementing agency.

(31) 40 CFR 280.65 shall read, as follows:

§ 280.65 Corrective Action.

(a) Corrective action for cleanup of releases from underground storage tanks containing regulated substances other than petroleum shall meet the requirements of OAR 340-122-010 through 340-122-110.

(32) 40 CFR 280.66 shall read, as follows:

Note: OAR 340-122-010 through 340-122-110 contains equivalent requirements.

(33) 40 CFR 280.67 shall read, as follows:

Note: OAR 340-122-010 through 340-122-110 contains equivalent requirements.

(34) 40 CFR 280.71(a) shall read, as follows:

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the implementing agency, owners and operators must notify the implementing agency, on a form provided by the implementing agency, of their intent to permanently close or make the change-in-service, UNLESS such action is in response to corrective action. Unless the implementing agency agrees to waive the requirement, at least 3 working days before beginning this permanent closure, owners and operators or the licensed service provider performing the work must notify the implementing agency of the confirmed date and time the closure will begin to allow observation of the closure by the implementing agency. The required assessment of the excavation zone under §280.72 must be performed after notifying the implementing agency but before completion of the permanent closure or a change-in-service.

(35) 40 CFR 280.71(b) shall read, as follows:

(b) To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. Dispose of all liquids and accumulated sludges by recycling or dispose. The disposal method must be approved by the implementing agency prior to disposal. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material. Tanks removed from the ground must be disposed of in a manner approved by the implementing agency. The owner and operator shall document the name of the disposal firm, the disposal method and disposal location for all

liquids, sludges and UST system components including tanks, piping and equipment.

(36) 40 CFR 280.71(c) shall read, as follows:

(c) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with § 280.72.

(37) Amend 40 CFR 280.71 by adding a new subpart (d) that shall read, as follows:

(d) The following cleaning and closure procedures shall be used to comply with this section unless the implementing agency has approved alternate procedures and determined these alternate procedures are designed to be no less protective of human health, human safety and the environment:

(1) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

(2) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

(3) American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

(4) The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard...Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

(38) Amend 40 CFR 280.72 by adding a new subpart (c) that shall read, as follows.

(c) The owner and operator must notify the implementing agency and meet the requirement of Subparts E and F if contaminated soil, contaminated ground water, or free product as a liquid or vapor is discovered during the measurement for the presence of a release.

(39) 40 CFR 280.72(a) shall read, as follows:

(a) Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release. For USTs containing petroleum, the owner and operator shall measure for the presence of a release by following the sampling and analytical procedures specified in OAR Chapter 340 Division 122. A petroleum release shall be considered to have occurred if the contaminant levels are found to exceed the levels specified in OAR Chapter 340 Division 122. For USTs

containing regulated substances other than petroleum and for USTs to be closed in-place, the owner and operator shall submit a sampling plan to the implementing agency for its approval prior to beginning closure.

(43) 40 CFR 280 Appendix II shall read, as follows:

APPENDIX II - LIST OF AGENCIES DESIGNATED TO RECEIVE NOTIFICATIONS

Oregon (State Form)
Underground Storage Tank Program
Hazardous and Solid Waste Division
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 98204
503/229-5788

Report Releases to the Oregon Emergency Response System:

1-800-452-0311 or
1-800-452-4011

Definitions

340-150-010 (1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in 40 CFR 280.12 and 40 CFR 280.92.

(2) "Cleanup" or "cleanup activity" has the same meaning as "corrective action" as defined in ORS 466.705 or "remedial action" as defined in ORS 465.200.

([1]3) "Corrective Action" means remedial action taken to protect the present or future public health, safety, welfare or the environment from a release of a regulated substance. "Corrective Action" includes but is not limited to:

(a) The prevention, elimination, removal, abatement, control, investigation, assessment, evaluation or monitoring of a hazard or potential hazard or threat, including migration of a regulated substance; or

(b) Transportation, storage, treatment or disposal of a regulated substance or contaminated material from a site.

([2]4) "Decommission" means temporary or permanent closure, to remove from operation an underground storage tank, including temporary or permanent removal from operation, abandonment in place or removal from the ground.

(5) "Department" means the Oregon Department of Environmental Quality.

(6) "Director" means the Director of the Oregon Department of Environmental Quality or the Director's authorized representative.

([3]7) "Fee" means a fixed charge or service charge.

([4]8) "Investigation" means monitoring, surveying, testing or other information gathering.

(9) "OAR" means Oregon Administrative Rule.

(10) "ORS" means Oregon Revised Statute.

[(5) "Oil" means gasoline, crude oil, fuel oil, diesel oil, lubrication oil, sludge, oil refuse and any other petroleum related product or fraction thereof that is liquid at a temperature of 60 degrees Fahrenheit and a pressure of 14.7 pounds per square inch absolute.]

(11) "Owner" means the owner of an underground storage tank.

([7]12) "Permittee" means the owner or a person designated by the owner who is in control of or has responsibility for the daily operation or daily maintenance of an underground storage tank under a permit issued pursuant to these rules.

[(8) "Person" means an individual, trust, firm, joint stock company, corporation, partnership, joint venture, consortium, association, state, municipality, commission, political subdivision of a state or any interstate body, any commercial entity and the Federal Government or any agency of the Federal Government.]

[(9) "Regulated substance" means:

(a) Any substance listed by the United States Environmental Protection Agency in 40 CFR Table 302.4 as amended as of the date October 1, 1987, but not including any substance regulated as a hazardous waste under 40 CFR Part 261 and OAR 340 Division 101, or

(b) Oil.]

([10]13) "Release" means the discharge, deposit, injection, dumping, spilling, emitting, leaking or placing of a regulated substance from an underground storage tank into the air or into or on land or the waters of the state, other than as authorized by a permit issued under state or federal law.

(14) "Responsible person" means any person ordered or authorized to undertake remedial actions or related activities under ORS 465.200 through ORS 465.380.

([11]15) "Underground storage tank" or "UST" means "Underground storage tank", as defined in 40 CFR 280.12 [any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of a regulated substance, and the volume of which (including the volume of the underground pipes connected thereto is 10 percent or more beneath the surface of the ground. Such term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines) regulated under:

(A) Under the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1671, et seq.);

(B) Under the Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. 2001, et seq.); or

(C) As an intrastate pipeline facility regulated under state laws comparable to the provisions of law referred to in paragraph (A) or (B) of this subsection;

(e) Surface impoundment, pit, pond or lagoon;

(f) Storm water or waste water collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area if the storage tank is situated upon or above the surface of a floor. As used in this subsection. "underground area" includes but is not limited to a basement, cellar, mine, drift, shaft or tunnel.

(j) Pipe connected to any tank described in subsections (a) to (i) of this section.]

([12]16) "Seller" or "Distributor" means person who is engaged in the business of selling regulated substances to the owner or permittee of an underground storage tank.

Exempted Tanks

340-150-015 (1) The following regulated underground storage tanks are exempt from the requirements of these rules:

[(a) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances;

(b) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act;

(c) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks;

(d) Any UST system whose capacity is 110 gallons or less;

(e) Any UST system that contains a de minimus concentration of regulated substances;

(f) Any emergency spill or overflow containment UST system that is expeditiously emptied after use;

(g) Pipes connected to any tank described in subsections (a) to (f) of this section.

Note:] The exempt underground storage tanks [defined by this section]are the [same]underground storage tanks defined by 40 CFR 280.10[, Paragraph (b)].

Underground Storage Tank Permit Required

340-150-020 (1) After February 1, 1989, no person shall install, bring into operation, operate or decommission an underground storage tank without first obtaining an underground storage tank permit from the department.

(2) Permits issued by the department will specify those activities and operations which are permitted as well as requirements, limitations and conditions which must be met.

(3) A new application must be filed with the department to obtain modification of a permit.

(4) After February 1, 1989, permits are issued to the person designated as the permittee for the activities and operations of record and shall be automatically terminated:

(a) Within 120 days after any change of ownership of property in which the tank is located, ownership of tank or permittee unless a new underground storage tank permit application is submitted in accordance with these rules;

(b) Within 120 days after a change in the nature of activities and operations from those of record in the last application unless a new

underground storage tank permit application is submitted in accordance with these rules;

(c) Upon issuance of a new or modified permit for the same operation;

(5) The department may issue a temporary permit pending adoption of additional Federal underground storage tank technical standards.

(6) The permit conditions may be modified when the Commission adopts new rules.

Information Required on the Permit Application

340-150-050 (1) The underground storage tank permit application shall include:

(a) The name and mailing address of the owner of the underground storage tank.

(b) The name and mailing address of the owner of the real property in which the underground storage tank is located.

(c) The name and mailing address of the proposed permittee of the underground storage tank.

(d) The signatures of the owner of the underground storage tank, the owner of the real property and the proposed permittee.

(e) The facility name and location.

(f) The substance currently stored, to be stored or last stored.

(g) The operating status of the tank.

(h) The estimated age of the tank.

(i) Description of the tank, including tank design and construction materials.

(j) Description of piping, including piping design and construction materials.

(k) History of tank system repairs.

(l) Type of leak detection and overfill protection.

(m) Any other information that may be necessary to protect public health, safety, or the environment.

(n) The federal notification form, Sections I through VI of Appendix I of 40 CFR 280 (or appropriate state form).

Denial of Underground Storage Tank Permit

340-150-080 (1) An underground storage tank permit application may be denied if the underground storage tank installation or operation is not in conformance with these underground storage tank rules or ORS 466.705 through 466.835 and ORS 466.895 through ORS 466.995.

(2) An underground storage tank permit may be denied if the underground storage tank permit application is not complete or is determined to be inaccurate.

Revocation of Underground Storage Tank Permit

340-150-090 An underground storage tank permit may be revoked if the underground storage tank installation or operation is not in conformance with the underground storage tank permit, these underground tank rules or ORS 466.705 through ORS 466.835 and ORS 466.895 ORS 466.995.

Permit Procedures for Denial and Revocation

340-150-100 The permit procedures for denial and suspension or revocation (OAR 340-14-035 and OAR 340-14-045) shall apply to permits issued under this section.

Underground Storage Tank Permit Compliance Fee

340-150-110 (1) Beginning March 1, 1989, and annually thereafter, the permittee shall pay an underground storage tank permit compliance fee of $25 per tank per year.

(2) The underground storage tank permit compliance fee shall be paid for each calendar year (January 1 though December 30) or part of a calendar year that an underground storage tank is not permanently closed in accordance with 40 CFR 280.71 [in operation].

(3) The compliance fee shall be made payable to the Department of Environmental Quality.

Add OAR 340-150-115

Delegation of Program Administration

340-150-115 (1) Any agency of this state or a local unit of government wishing to administer all or part of the underground storage tank program covered by these rules shall submit a written application describing the portions of the Department's underground storage tank program they wish to administer. The application shall contain the following:

(a) A description in narrative form of the scope, structure, coverage and procedures of the proposed program.

(b) A description, including organization charts, of the organization and structure of applicant, including:

(A) The number of employees, occupation and general duties of each employee who will carry out the activities of the program;

(B) An itemized estimate of the cost of establishing and administering the program, including the cost of personnel listed in subparagraph (A) of this section and administrative and technical support;

(C) An itemization of the source and amount of funding available to meet the costs listed in subparagraph (B) of this section, including any restrictions or limitations upon this funding;

(D) A description of applicable procedures, including permit procedures;

(E) Copies of the permit form, application form and reporting form that will be used in the program;

(F) A complete description of the methods to be used to assure compliance and for enforcement of the program;

(G) A description of the procedures to be used to coordinate information with the Department, including the frequency of reporting and report content; and

(H) A description of the procedures the applicant will use to comply with trade secret laws under ORS 192.500 and ORS 468.910.

(2) Within 30 days after receiving the application, the Department will review the application for completeness and request any additional information needed in order for the application to be complete. The

Department will notify the applicant in writing when the application is complete.

(3) Within 120 days after the application is complete, the Department will:

(a) prepare and mail a written and signed agreement or contract, outlining the terms and conditions under which the Department will delegate a portion or all of the underground storage tank program described by these rules, to the applicant, or

(b) deny the application where the Department finds the program described by the application is not equivalent to the Department's underground storage tank program.

(4) The agreement or contract may be terminated by either party by providing 30 days prior notice in writing.

Delete OAR 340-150-120 in it's entirety.

[Underground Storage Tank Interim Installation Standards

340-150-120 (1) Upon the effective date of these rules no person shall install an underground storage tank for the purpose of storing regulated substances unless;

(a) such tank installation will prevent releases due to corrosion or structural failure for the operational life of the tank;

(b) such tank installation is cathodically protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(c) the material used in the construction or lining of the tank is compatible with the substance to be stored.

(2) For the purpose of determining compliance with these Interim Installation Standards, the department will use the guidelines published by the United State Environmental Protection Agency (EPA) entitled "Hazardous Waste; Interpretive Rule on the Interim Prohibition Against Installation of Unprotected Underground Storage Tanks", 40 CFR Part 280. (Copies are available from the EPA or the department)]

Add OAR 340-150-125.

Approval of More Stringent Performance Standards.

340-150-125 (1) Any local unit of government supplying water for municipal purposes from an underground source that could be jeopardized by releases from UST systems may petition the Department for more stringent UST performance standards for UST systems in the vicinity of the underground water source. Administrative rules on more stringent performance standards may be adopted where the Commission determines through facts and findings that it is necessary to protect the underground water supply through more stringent UST performance standards.

(2) The petition shall be made to the Department in writing and shall include the following information:

(a) A description of the underground water resource including, but not limited to:

(A) The geographical limits of the area where more stringent UST performance standards are required;

(B) The geographical limits of the groundwater recharge zone;

(C) The geographical limits of the underground water resource;

(D) The geology within both the recharge zone and the underground water resource;

(E) Location, size and present use of wells within the limits of the underground water resource;

(F) Estimated capacity of the underground water resource;

(b) A description of the existing threats to the groundwater resource including, but not limited to:

(A) Location, type and number of underground storage tanks;

(B) Agricultural effluent and rainwater runoff;

(C) Industrial effluent and rainwater runoff; and

(D) Rainwater runoff from roads and parking lots.

(c) A description of the underground storage tank performance standards required, including UST technical standards, operating standards, and administrative procedures.

(d) A description of the emergency conditions, where the petitioner requests adoption of emergency rules.

(3) Within 30 days after receiving the petition, the Department will review the petition for completeness and request any additional information needed in order for the petition to be complete. The Department will notify the petitioner in writing when the petition is complete.

(4) Within 120 days after the petition is complete, the Department shall:

(a) initiate rulemaking, or

(b) recommend denial of the petition where the Department finds that more stringent UST performance standards are not necessary to protect the underground water supply.

Permanent Decommissioning of an Underground Storage Tank

340-150-130 (1) The permanent decommissioning requirements for underground storage tanks are described in 40 CFR 280.70 through 280.74, Subpart G - Out of Service UST Systems and Closure. [Upon the effective date of these rules any underground storage tank that is permanently decommissioned must comply with the requirements of this section.

(2) After the effective date of these rules, an underground storage tank that is taken out of operation for longer than 24 months must be permanently decommissioned.

(3) Prior to permanent decommissioning the tank owner or permittee must notify the department in writing.

(4) All tanks that are permanently decommissioned must be emptied and either removed from the ground or be filled with an inert solid material.

(a) The permanent decommissioning procedures described in API 1604 "Recommended Practice for Abandonment or Removal of Used Underground Service Station Tanks" may be used as guidelines for compliance with this section.

(5) Dispose of all liquids, solids and sludge removed from the tank by recycling or dispose in a manner approved by the department.

(6) All tanks removed from the ground must be disposed of in a manner approved by the department.

(7) Measure for the presence of a release from the UST system. A release shall be considered to have occurred if, by following the sampling and analytical procedures specified in OAR 340-122-301 to 340-122-360, contaminant levels are found which exceed the levels specified in those rules.

(8) If contaminated soil, contaminated ground water, or free product as a liquid or vapor is discovered during measurement for the presence of a release the tank owner or permittee must;

(a) Notify the department within 24 hours. (Phone: 1-800-452-0311 or 1-800-452-4011)

(b) Assess the source and the extent of the release.

(c) Meet with the department to set up a cleanup standard and a schedule for cleanup.

(d) Cleanup the release.

(9) All underground storage tank owners must maintain records which are capable of demonstrating compliance with the permanent decommissioning requirement under this section. These records must be maintained for at least three years after permanent decommissioning and made available, upon request, to the department during business hours.]

5/8/90
USTFINAL.005

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF MODIFYING	)	
OAR Chapter 340,	)	STATEMENT OF NEED FOR RULES
Division 150	)	

Statutory Authority

ORS 466.705 through ORS 466.835 and ORS 466.895 through ORS 466.995 authorizes rule adoption for the purpose of regulating underground storage tanks. Specifically, Section 466.745 authorizes the Commission to adopt rules governing the standards for the installation of underground storage tanks, reporting of releases, permit requirements, requirements for maintaining records, procedures for distributors of regulated substances and sellers of underground storage tanks, decommissioning of underground storage tanks, procedures by which an owner or permittee may demonstrate financial responsibility, requirements for taking corrective action, civil penalties, and criminal penalties.

Section 466.720 authorizes the Commission and the Department to perform or cause to be performed any act necessary to obtain authorization of a state program for regulation of underground storage tanks under the provisions of Section 9004 of the Federal Resource Conservation and Recovery Act.

Section 466.745 authorized the Commission to adopt rules establishing more stringent underground storage tank rules to protect specific waters of the state.

Section 466.730 allows the Commission to authorize the Department to enter into an agreement with an agency of the state or a local unit of government to administer all or part of the underground storage tank program.

Need for the Rules

The proposed rule modifications are needed to carry out the authority given to the Commission to adopt rules for regulation of Underground storage tanks and to obtain federal authorization of the state underground storage tank program.

Principal Documents Relied Upon

Oregon Revised Statutes, ORS 466.705 through 466.835, 466.895 and 466.995.

40 CFR 280; 50 FR 28742, July 15, 1985; Amended by 50 FR 46612, November 8, 1985; Corrected by 51 FR 13497, April 21, 1986; Revised by 53 FR 37194, September 23, 1988, Effective December 22, 1988; Amended by 53 FR 43370, October 26, 1988; Corrected by 53 FR 51274, December 21, 1988; Amended by 54 FR 5452, February 3, 1989; Amended by 54 FR 47077, November 9, 1989; Amended by 55 FR 17753, April 27, 1990.

The Comprehensive Environmental Response, Compensation and Liability Act of 1980.

Superfund Amendments and Reauthorization Act of 1986.

Fiscal and Economic Impact

Fiscal Impact

There should not be any new or additional fiscal impact resulting from the proposed rule modifications including the adoption of the federal underground storage tank regulations because the federal technical standards became effective on December 23, 1988.

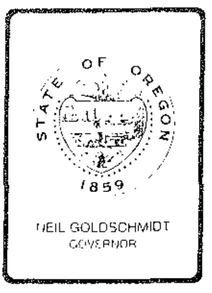
Small Business Impact

The department has currently issued permits to 19,000 tanks. The majority of businesses owning and operating underground storage tank are classified as small businesses. The federal underground storage tank technical standards and financial responsibility regulations are having a significant impact on small businesses. Department records show that approximately 900 facilities have removed their tanks since the federal UST program was first adopted in 1986. Most of these facilities do not retail motor fuel. It is likely additional facilities will remove their tanks as tank owners become aware of technical and financial responsibility requirements.

Since the owners and operators of underground storage tanks are required to comply with federal regulations, the Department believes that adoption of the technical standards will have minimal impact on Oregon businesses.

The proposed rules are more stringent in a number of areas. The increased record keeping, notification and reporting requirements can be carried out at minimal cost. The increased technical requirements could add costs of approximately $200 to $1,000 to each UST system.

The owner and operator of USTs would face additional costs where a local unit of government obtains more stringent UST requirements to protect a ground water resource. This financial impact would not occur until the Commission acts on a petition by adopting these more stringent rules.



Attachment C
Agenda Item M
5-25-90 EQC Meeting

Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

DATE: May 9, 1990

TO: Environmental Quality Commission

FROM: Larry D. Frost

SUBJECT: Hearing Report Summary and Responsiveness Summary

On January 19, 1990, the Environmental Quality Commission authorized four Public Hearings on proposed rules for adoption of Federal underground storage tank technical standards and financial responsibility rules, and program delegation rules. Public hearings were held at 4:00 P.M. on:

- o April 2, 1990 in Bend, Oregon
- o April 3, 1980 in Pendleton, Oregon
- o April 5, 1990 in Portland, Oregon
- o April 6, 1990 in Eugene, Oregon

The following persons either testified verbally at one of the hearings or submitted written comments as shown below:

Name/Representing	Verbal	Written/Date
Don Russell Boardman, Oregon	*	
Michael Armstrong Pacific Petroleum	*	
Albert L. Knopf Tank Liners	*	April 30, 1990
Steve E. Merritt Western States Petroleum Association		April 30, 1990
David L. Harris Harris Enterprises		April 27, 1990

COMMENT AND RESPONSE TO COMMENTS ON PROPOSED RULES

Requirement for Cathodic Protection on Lined Tanks

COMMENT (Knopf, Harris, Armstrong): Requiring cathodic protection (CP) after lining a tank creates undue hardship on the tank owner. There is no technical basis for this rule change. Requiring cathodic protection will effectively eliminate tank lining in Oregon. Do not change the federal regulations on lining.

DEPARTMENT RESPONSE: The Department agrees with the comments and will eliminate the amendment from the final rules thereby adopting the federal requirements unchanged.

Require Spill Containment Basins by December 23, 1994

COMMENT (Merritt): This requirement would be disruptive and expensive for multiple-tank owners who have planned their UST upgrades based upon federal timetable. This makes compliance confusing for the small tank owner. Please stay with the federal time table.

DEPARTMENT RESPONSE: The Department agrees with the comments. The Department will eliminate the amendment from the final rules, thereby adopting the federal requirements unchanged.

Financial Responsibility Rules

COMMENT (Russell): The financial responsibility rules are unfair to small business. It is necessary to upgrade an UST to obtain reasonable rates. Insurance for one of his upgraded stations costs $6,000 per year while the cost for a station without upgrading costs $15,000 per year.

DEPARTMENT RESPONSE: The Department is not adopting the financial responsibility rules at this time.

Evaluation and Approval by the Department

COMMENT (Harris): Mr. Harris asked that the rules require the Department to respond within a reasonable time frame, thirty or sixty days, whenever the rules require Department evaluation and approval prior to proceeding with installation of an alternate UST system. Delays by the Department could have a significant impact on construction and business expenses.

DEPARTMENT RESPONSE: The Department is also concerned about holding up construction and causing an UST owner unnecessary expenses. The Department believes the normal review and approval time for these requests would be less than thirty days. The Department, therefore, is not amending the proposed rules to require an approval time frame.

Aboveground Releases to Water

COMMENT (Harris): The rules state that all aboveground releases to "water" must be reported. This should be modified to exclude reporting of releases to surface water which cannot be cleaned up within 24 hours by the responsible party.

DEPARTMENT RESPONSE: Department regulations require all releases to "waters of the state" be reported. Releases or spills to casual water do not have to be reported. The rules will be amended to include only "waters of the state".

Delegation of Program to Other State Agencies or Local Government

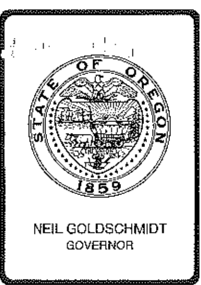
COMMENT (Harris): There is no provision for public comment. The regulated community should be afforded an opportunity to comment on any proposed delegation of program administration. It appears that this is an attempt to allow state agencies or local government to set fees over and above those authorized by the Oregon legislature. Delegation of the program will create separate regulations and compliance problems similar to what has happened in California. Such a system does nothing to protect the risk to human health and the environment, rather it acts in the opposite direction since virtually all activities are bogged down in meaningless bureaucratic red tape. The present rules were developed by task forces or citizens and government working together. These rules should be uniform throughout the state.

DEPARTMENT RESPONSE: The Department agrees that separate programs would work against the goals of the underground storage tank legislation. The rules will be amended to clearly require a local program to be identical to the state UST program.

Require Sellers and Distributors to Maintain a Record of UST Size

COMMENT (Harris): Requiring sellers and distributors to maintain a written record of the maximum capacity in gallons for each underground storage tank into which they deposit a regulated substance is extremely burdensome.

DEPARTMENT RESPONSE: The Department agrees and removed this amendment from the final rules.



Environmental Quality Commission

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

REQUEST FOR EQC ACTION

Meeting Date: May 25, 1990
Agenda Item: I
Division: Water Quality
Section: Administration

SUBJECT:

To modify existing rules and describe items which must be included in public notices for permit applications or permit renewals for NPDES permits, air contaminant discharge permits, water quality general permits, hazardous waste permits, and solid waste permits. The proposed rules also cover items to be included which are specific to notices for NPDES permits, air contaminant discharge permits, WQ general permits, and solid waste permits.

PURPOSE:

The purpose of the proposed rules is to include meaningful and sufficient information in public notices to result in the public being able to better respond with useful testimony and to determine whether they wish to request additional information.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
_X_ Adopt Rules

Proposed Rules	Attachment _A_
Rulemaking Statements	Attachment _B_
Fiscal and Economic Impact Statement	Attachment _B_
Public Notice	Attachment _C_

___ Issue a Contested Case Order
___ Approve a Stipulated Order
___ Enter an Order

Proposed Order	Attachment ___

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

DESCRIPTION OF REQUESTED ACTION:

The Department of Environmental Quality (Department) requests that the Environmental Quality Commission (Commission) adopt proposed rules which would increase the kind and amount of information provided in the agency's public notices on new and renewal permit actions. The proposed rules require generic information as well as specific additional rule content for identified permits.

The information which would be required in the generic public notice that isn't currently required in rule includes: a compliance history for permit renewals; a description of any special conditions in the permit; an indication of the location of documents relied upon to draft the permit; and a list of other Department permits which fall under this rule and are expected to be required for the facility.

No page limit on the public notice is included in this proposal. The draft rules for public notice included a page limit because the Secretary of State had limited the number of pages which could be published in the Secretary of State's Bulletin. The Department has historically published permit notices in the Bulletin, even though it is not a requirement of statute that we do so. Since the Secretary of State's office will no longer accept for publication public notices on permits, (or anything else not required to be published by statute) the reason for a page limit no longer exists.

The rules which went to public hearing included a requirement that the agency provide information about special conditions in the previous permit which had not been met. This requirement was deleted in the final proposed rules. Special conditions which have not been met are expected to be included as a part of enforcement and compliance history.

The Water Quality NPDES permit notice would contain a description (when available) of water quality upstream and downstream from the proposed discharge; whether the waterbody is water quality limited, a description of the permit conditions in relation to that status; a description of load increases allowed; and, an assessment of future control needs.

The Air Quality air contaminant discharge permit notice would include information on whether permits would have a significant impact on Class 1 airsheds; a description of whether a proposed emission is a criteria pollutant and whether the primary or secondary ambient air standard for that pollutant is presently attained; and, if a major source, what impact it would have on the Prevention of Significant Deterioration Program within the attainment area.

The Solid Waste facility permit would include a description of important natural features of the site and a description of leachate management systems or controls.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: ______________ Attachment ___
Enactment Date: ______________
_X_ Statutory Authority: ORS Chapters 183 & 468 Attachment ___
___ Pursuant to Rule: ______________ Attachment ___
___ Pursuant to Federal Law/Rule: ______________ Attachment ___

___ Other: Attachment ___

___ Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation Attachment ___
_X_ Hearing Officer's Report/Recommendations Attachment _E_
_X_ Response to Testimony/Comments Attachment _D_
___ Prior EQC Agenda Items: January 19, 1990, Commission report, Item O Attachment ___

___ Other Related Reports/Rules/Statutes: Attachment ___
___ Supplemental Background Information Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

All of the information DEQ has in file on permit applications is open to the public. However, for the public to determine whether they wish to review this information or ask for copies of certain portions of it, the Northwest Environmental Defence Center (NEDC) recommended additional information be included in the public notices. The purpose of the proposed rules is an attempt to do so. The assumption is that if the public had more meaningful information in the notice, they would more frequently seek the additional information and more frequently ask for public hearings.

Therefore, the proposed rules could result in additional public hearings being requested on proposed permit actions. This could result in delay on permit actions. The proposed rules should also result in more and better public comment being provided the agency, resulting in better permits.

PROGRAM CONSIDERATIONS:

The proposed rules would require additional Department staff time of approximately 1-1/2 FTE agencywide being devoted to public notices. One time added staff effort would be required to provide training to all staff who prepare public notices in the inclusion of new information. The Department does not plan to seek added resources for this effort. The added workload will result in the delay of activity of lower priority or a slowing in the permit review and issuance process.

The proposed rules are written to apply to air, water and hazardous waste permits which presently require public notice and in addition include solid waste facility permits which have not had public notice requirements in the past.

Permits which do not now require public notice are not included in these rules. These include underground storage tank registration permits, waste tire facility permits, and Water Pollution Control Facility permits,

It is intended that information provided in the public notice be taken from information the Department presently requires or has available. No additional information would be required of the regulated community solely for the purpose of providing it in the notice.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. The Department considered retaining existing rules, with internal guidance to expand the information provided in the public notice.

2. The Department considered including all of the information requested in the original NEDC request plus that requested by subsequent public testimony and written comment.

3. The Department considered providing information in addition to that currently requiredin rule. These revised rules require this additional information. The Department intends these additions to result in meaningful and sufficient public notice information being provided to the public.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the rules be adopted as proposed by the Department in alternative 3.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The proposed rules are consistent with agency policy to provide public participation on Department actions.

ISSUES FOR COMMISSION TO RESOLVE:

1. All of the information which DEQ has on a given permit application is presently available to the public. The issue of how much of it should be included in the public notice calls for judgment about how much information the public needs to determine whether a particular permit application warrants further inquiry, or is of sufficient interest to request a public hearing.

   The request by NEDC to expand information contained in the public notice is based upon the assumption that current public notices do not fulfill this need.

   In analyzing the original NEDC request, the Department concluded that public notice provisions would be improved with the inclusion of more information and that better public participation would be achieved through a revision of the rules.

   Does the Commission agree that public notices would better meet the needs of the public if expanded?

2. Is the value of increased and better public participation in the permit process worth the additional staff effort and realignment of priorities in the Department?

   Providing additional information in public notice will require existing staff to put effort into this rather than into other priorities. In preparing proposed rules, the Department attempted to achieve a balance between including all possible information, with major increases in staff effort, and providing sufficient information with minimum increase in staff effort.

Does the Commission agree that the proposed rules should provide sufficient information, balanced against the agency resource?

3. Should the rules include provision that omission of information in the public notice would not invalidate a subsequently issued permit?

   Public comment was received expressing concern that omission of information in the public notice could subject the permit to litigation based on the public notice alone. The Attorney General's office advises that this is correct. The current rule would also allow such litigation. Permits could be challenged on procedural basis alone if no exception is stated in the rule. The Department did not include wording in the rule to make omission of information in the public notice inadmissable as the sole basis for challenging a subsequently issued permit. The Department has no evidence that any permit issued by the Department in the past has been challenged on procedural basis related to public notice, but recognizes the concern. The Commission could include wording in the proposed rule making such a provision. Alternative wording is provided in Attachment A, page 9.

4. Should the rules contain a provision to require that categories of pollutants which are not covered in the permit be included in the notice?

   A great deal of written comment was provided expressing concern that the inclusion of categories of pollutants in the public notice which are not covered by the permit should either be clarified or omitted. There was concern that including such categories is de facto regulation. The original reason for including the item was to allow the public complete understanding of the discharges from a particular source, even if not regulated. The Department has omitted the language in the final proposed rule.

5. Should the public notice include the permittee's compliance and enforcement history if it is under appeal?

   The Department included wording in the proposed rule which would exclude from public notice enforcement and compliance actions pending appeal.

6. Should the rules be expanded to include "401" Dredge and Fill Certifications? If so, should the Department proceed to rulemaking with appropriate public notice, or include certifications in this proposed rule?

NEDC testified at the public hearing that "401" certification should be included and modified in these rules. The Attorney General's office advises that including "401" dredge and fill certification public notice modifications in these proposed rules when they weren't addressed in the rulemaking notice would be questionable. The Department reviews approximately 100-150 certifications annually but the permits are issued by the Division of State Lands or the Corps of Engineers. The Department presently provides brief public notice on dredge and fill certifications. (The Department provides extensive public notice on certifications for proposed hydroelectric projects.) The Department did not include "401" certifications in these proposed rules. If the Commission wishes to consider amending public notice rules on these certifications, the Department would need to prepare appropriate public notice and provide opportunity for comment. The Department staff requirement to expand the public notice information on "401" certifications would be approximately 1/3 FTE. The Department presently has assigned approximately 1/4 FTE to review of Dredge and Fill certification applications (excluding hydro projects).

7. Should information which the permittee is required to submit to other agencies such as the State Fire Marshal be included?

   The Department has not included in this proposed rule a requirement that DEQ note such things as whether the applicant is required to file information with the State Fire Marshal.

8. Does the fiscal impact statement need to be amended?

   The Department believes the fiscal impact statement provided with proposed rules is sufficient and does not need to be modified. This is based upon the Department's assumption that additional staff will not be requested to perform this increased work, but will instead result in a shifting of priorities. If the Commission expands the rules from those proposed by the Department an analysis of the fiscal impact statement should be performed.

9. Is the inclusion of impact on Prevention of Significant Deterioration on attainment areas inappropriate in the air quality notice provisions due to lack of available dispersion studies?

The Department requires dispersion modelling on certain major sources. Modelling may be done on other sources due to special concerns. When modelling has been performed, the Department will be able to provide resulting information in the public notice. The proposed rules have been modified to require presentation of modelling result when available.

10. Should the effective date of these rules, if adopted by the Commission, allow sufficient time for the Department to prepare public notice guidance and provide training to staff?

    The Department proposes that the rules, if adopted, become effective September 1, 1990 or be published in the Secretary of State's Bulletin on a schedule which would make them effective on or near September 1, 1990, in order to allow the Department to prepare and review guidance and train staff in order to comply with the new rules.

INTENDED FOLLOWUP ACTIONS:

1. Prepare guidance and sample public notices for all DEQ staff who prepare permit public notices.

2. Provide appropriate training to managers and staff of permit sections and regional offices.

3. File rules with the Secretary of State.

Approved:

Section: ______

Division: Lydia Taylor

Director: Fred Hansen

Report Prepared By: Lydia R. Taylor

Phone: 229-5324

Date Prepared: May 7, 1990

Lydia R. Taylor:hs
WH4021
May 7, 1990

OREGON ADMINISTRATIVE RULES
340-11-007

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.

PUBLIC NOTICE AND INFORMATIONAL HEARINGS

340-11-007

(1) If the Department proposes to issue or renew with increased discharges, a permit under OAR 340-20-130, 340-20-155, 340-45-033, 340-61-020, or 340-106-001, a public notice containing information regarding the proposed permit will be prepared by the Department and will be forwarded to the applicant or other interested person at the discretion of the Department for comment. Each public notice shall, at a minimum, for that permit, contain:

(a) All Notices:

(A) Name of Applicant;

(B) Type and duration of permit;

(C) Type of facility and kind of product if appropriate;

(D) Description of substances stored, disposed of or discharged under the conditions of the permit;

(E) An indication of the location of plans, specifications, or other documents used in preparing the permit;

(F) Any special conditions imposed in the permit.

(b) New Permits Only:

(A) A list of other Department permits requiring public notice under this rule, which are expected to be required;

(B) Basis of the need for a permit.

(c) Renewal Permits with Increased Discharges Only:

(A) Basis of the need for permit modification;

(B) Date of previous permit;

(C) Formal Compliance and enforcement history (excluding items under appeal) under most recent permit;

(2) The notice will also contain a description of public participation opportunities. These contents will be in addition to any specific permit notice requirements of individual programs.

[(1)](3) Whenever there is required or permitted a hearing which is neither a contested case hearing nor a rule making hearing as defined in ORS Chapter 183, the Presiding Officer shall follow any applicable procedural law, including case law and rules, and take appropriate procedural steps to accomplish the purpose of the hearing. Interested persons may, on their own motion or that of the Presiding Officer, submit written briefs or oral argument to assist the Presiding Officer in resolution of the procedural matters set forth herein.

[(2)](4) Prior to the submission of testimony by members of the general public, the Presiding Officer shall present and offer for the record a summary of the questions the resolution of which, in the Director's preliminary opinion, will determine the matter at issue. The Presiding Officer shall also present so many of the facts relevant to the resolution of these questions as are available then and which can practicably be presented in that forum.

[(3)](5) Following the public information hearing, or within a reasonable time after receipt of the report of the Presiding Officer, the Director or Commission shall take action upon the matter. Prior to or at the time of such action, the Commission or Director shall address separately each substantial distinct issue raised in the hearings record. This shall be in writing if taken by the Director or shall be noted in the minutes if taken by the Commission in a public forum.

OREGON ADMINISTRATIVE RULES
340-45-035

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.

ISSUANCE OF NPDES PERMITS

340-45-035

(1) Following the determination that it is complete for processing, each application will be reviewed on its own merits. Recommendations will be developed in accordance with provisions of all applicable statutes, rules, regulations, and effluent guidelines of the State of Oregon and the U.S. Environmental Protection Agency.

(2) The Department shall formulate and prepare a tentative determination to issue or deny an NPDES permit for the discharge described in the application. If the tentative determination is to issue an NPDES permit, then a proposed NPDES permit shall be drafted which includes at least the following:

(a) Proposed effluent limitations;

(b) Proposed schedule of compliance, if necessary; established in conformance with the Federal Act and regulations issued pursuant thereto;

(c) Other special conditions.

(3) <u>(a)</u> In order to inform potentially interested persons of the proposed discharge and of the tentative determination to issue an NPDES permit, a public notice announcement shall be prepared and circulated in a manner approved by the Director. <u>In addition to the information required under OAR 340-11-007(1) the public notice shall contain:</u>

<u>(A)</u> <u>A description (when available) of the water quality of the receiving water body both upstream and downstream;</u>

<u>(B)</u> <u>If the waterbody is water quality limited under Section 303(d)(1) of the Clean Water Act, a description of whether the permit relates to the parameter(s) which is water quality limited; if so, how the permit will fit</u>

within the existing TMDLs or if no TMDL exists, how it is acceptable; and

(C) A description of any load increase proposed and action required for its approval.

(b) The notice [shall tell of public participation opportunities,] shall encourage comments by interested individuals or agencies, and shall tell of the availability of fact sheets, proposed NPDES permits, applications, and other related documents available for public inspection and copying. The Director shall provide a period of not less than 30 days following the date of the public notice during which time interested persons may submit written views and comments. All comments submitted during the 30-day comment period shall be considered in the formulation of a final determination.

(4) A fact sheet shall be prepared for each draft NPDES permit for a major industrial facility and each NPDES general permit. In addition, a fact sheet shall be prepared for every industrial NPDES permit which incorporates a variance and for every draft permit which the Director finds is the subject of widespread public interest or raises major issues. Fact sheets shall contain the following, where applicable:

(a) A brief description of the type of facility of activity;

(b) The type and quantity of wastes to be discharged;

(c) Applicable standards and guidelines used as a basis for effluent limits;

(d) An explanation of any proposed variances;

(e) A sketch, map, or detailed location of the discharge, where appropriate; [and]

(f) Information spelling out procedures for finalizing the permit and providing additional public input, including opportunity for public hearing[.]; and

(g) Where appropriate, an assessment of future control needs based on the adequacy of present controls, records of compliance, applicable rules and regulations.

(5) After the public notice has been drafted and the fact sheet and proposed NPDES permit provisions have been prepared by the Department, they will be forwarded to the applicant for review and comment. All comments must be submitted in writing within 14 days after mailing of the proposed materials if such comments are to receive consideration prior to final action on the application, unless the applicant requests additional time. The

applicant may also waive his right for the 14 day review time in the interest of accelerating the issuance procedures.

(6) After the 14-day applicant review period has elapsed, the public notice and fact sheet shall be sent to any person upon request. The Director shall add the name of any person or group upon request to a mailing list to receive copies of public notices and fact sheets. Any public notice and fact sheet under this section shall be prepared and circulated consistent with the requirements of regulations issued under the Federal Act. The fact sheet, proposed NPDES permit provisions, application, and other supporting documents will be available for public inspection and copying. The Director may, in his discretion, charge a reasonable fee for reproduction and distribution of the public notice, fact sheet, and other supporting documents.

(7) The Director shall provide an opportunity for the applicant, any affected state, or any interested agency, person, or group of persons to request or petition for a public hearing with respect to NPDES applications. If the Director determines that useful information may be produced thereby, or if there is a significant public interest in holding a hearing, a public hearing will be held prior to the Director's final determination. Instances of doubt shall be resolved in favor of holding the hearing. There shall be public notice of such a hearing.

(8) At the conclusion of the public involvement period, the Director shall make a final determination as soon as practicable and promptly notify the applicant thereof in writing. Any NPDES permit issued hereunder shall contain such pertinent and particular conditions as may be required to comply with the Federal Act or regulations issued pursuant thereto. If the Director determines that the NPDES permit should be denied, notification shall be in accordance with rule 340-45-050. If conditions of the NPDES permit issued are different from the proposed provisions forwarded to the applicant for review, notification shall include the reasons for the changes made. A copy of the NPDES permit issued shall be attached to the notification. In any case, before the Director will issue an NPDES permit which applies effluent limitations in accordance with effluent guidelines rather than water quality standards, he will make a determination that the permitted discharge will not violate applicable water quality standards and will provide some justification for that determination. Such justification will include, but not necessarily be limited to:

(a) A description of the anticipated effect on water quality at the mixing zone boundary of the chemical and/or physical parameter(s) upon which the size and shape of the mixing zone are based; and

(b) A statement of anticipated effect of the discharge on aquatic life.

(9) If the applicant is dissatisfied with the conditions or limitations of any NPDES permit issued by the Director, he may request a hearing before the Commission or its authorized representative. Such a request for hearing shall be made in writing to the Director within 20 days of the date of mailing of the notification of issuance of the NPDES permit. Any hearing held shall be conducted pursuant to the regulations of the Department.

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.

NOTICE POLICY

340-20-150

(1) It shall be the policy of the Department and the Regional Authority to issue public notice as to the intent to issue an Air Contaminant Discharge Permit allowing at least thirty (30) days for written comment from the public, and from interested State and Federal agencies, prior to issuance of the permit.

(2) In addition to the information required under OAR 340-11-007, public notices for Air Contaminant Discharge Permits shall contain:

(a) If a major source permit, whether the proposed permitted emission would have a significant impact on a Class 1 airshed;

(b) Whether each proposed permitted emission is a criteria pollutant and whether the area in which the source is located is designated as attainment or nonattainment for that pollutant; and

(c) For each major source within an attainment area for which dispersion modelling has been performed an indication of what impact each proposed permitted emission would have on the Prevention of Significant Deterioration Program within that attainment area.

OREGON ADMINISTRATIVE RULES
340-61-024

NOTE:

The **underlined** portions of text represent new.

PUBLIC NOTICE

340-61-024

In order to inform potentially interested persons of a proposed permit issuance, a public notice shall be prepared and circulated in a manner approved by the Director. In addition to the information required under OAR 340-11-007(1), the public notice shall contain:

(1) A description of the facility which includes important natural features of the site.

(2) A description of any leachate management systems or controls.

OREGON ADMINISTRATIVE RULES
340-11-007

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.

Alternative wording to provide that omission of information in the public notice cannot be used as cause for subsequently invalidating a permit issued under the notice.

If the Commission includes this provision, it would be added to OAR 340-11-007.

Alternative 1:

Any permit issued under OAR 340-20-130, 340-20-155, 340-45-033, 340-61-020 or 340-106-001 shall not be subject to appeal due to omission of information in the public notice required under OAR 340-11-007, 340-45-035, 340-20-150 or 340-61-024.

Alternative 2:

Any permit issued under OAR 340-20-130, 340-20-155, 340-45-033, 340-61-020 or 340-106-001 shall not be subject to appeal due to omission of significant information in the public noitce required under OAR 340-11-007, 340-45-035, 340-20-150 or 340-61-024.

STATEMENT OF NEED FOR RULEMAKING

Pursuant to ORS 183.335(1), this statement provides information on Environmental Quality Commission's intended action to adopt a rule.

(1) Legal Authority:

These rules can be adopted under authority of ORS Chapter 183, 468.469.

(2) Need for Rule:

The Department reported to the Commission on October 20, 1989, the improvements needed in public notice rules. The proposed revisions are based on the Department's discussions with NEDC, Associated Oregon Industries, and Department staff.

(3) Principal Document Relied Upon:

Report to the Environmental Quality Commission, October 20, 1989, NEDC written document of December 11, 1989. These documents are available for review at the Department of Environmental Quality, Water Quality Division, 811 S.W. Sixth Avenue, Portland, OR 97204.

LAND USE CONSISTENCY STATEMENT

The proposed rule does not affect land use as defined in the Department's coordination program approved by the Land Conservation and Development Commission.

FISCAL AND ECONOMIC IMPACT STATEMENT

The newly proposed rules would have no direct fiscal or economic impact on individuals, public entities, and small and large businesses as the adoption of these rules set forth the procedure that Department is to follow. The adoption of these rules, by itself, will not require the expenditure of funds by any group within the regulated community, as these rules do not require an affirmative act in order to come into compliance. The rules do not place any additional duties on the regulated communities in order to maintain compliance. There is no fiscal or economic on small business as a result of these rules.

Lydia R. Taylor
229-5324
December 22, 1989

Attachment

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

PROPOSED REVISION OF OREGON ADMINISTRATIVE RULES
CHAPTER 340, DIVISION 11, PUBLIC NOTICE
OAR 340-14-025, OAR 340-20-150, and OAR 340-45-035

NOTICE OF PUBLIC HEARING

Hearing Date: March 23, 1990
Comments Due: March 30, 1990

WHO IS AFFECTED: People to whom Oregon's air quality, water quality, solid waste, and hazardous waste regulations may apply.

WHAT IS PROPOSED: The DEQ is proposing to revise the Public Notice rules OAR 340-11-007, OAR 340-45-035, OAR 340-20-150, and OAR 340-14-025.

WHAT ARE THE HIGHLIGHTS:

1. Proposed State Rule Revisions:

Rule modifications are proposed which would increase the kind and amount of information provided in the agency's public notices on new and renewal permit actions. The proposed rules contain general rule content as well as specific additional rule content for identified permits.

The information which would be included in the general public notice that isn't currently provided includes a compliance history on renewals, any special conditions in the permit, a description of pollutants or categories of pollutants which are not limited or monitored in the permit, an indication of the location of documents relied upon to draft the permit, and a list of other Department permits expected to be required for the facility.

HOW TO COMMENT:

Public Hearing:

TIME: 2:00 p.m.

DATE: Friday, March 23, 1990

PLACE: DEQ Offices, Fourth Floor, Room 4A
811 S.W. Sixth Avenue, Portland, Oregon

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ Water Quality, 811 S.W. Sixth Avenue, Portland, OR 97204. Written comments must be received no later than 5:00 p.m., March 30, 1990.

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.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY   INTEROFFICE MEMORANDUM

DATE: April 14, 1990

TO: Environmental Quality Commission

FROM: Lydia Taylor

SUBJECT: Response to testimony/written comments, proposed amendments to AQ, WQ,SW, HW rules on public notice content.

Comment:

Comment and testimony was received expressing concern that expanding the public notice information would make permits subject to litigation based on omission of information.

Agency Response:

The Department asked the Attorney General's office if omission of information by the Department in a public notice on a proposed permit would subject it to legal attack to which it otherwise would not be subject. The Attorney General's office says "yes", unless stated otherwise in the rule.

Whether or nor the Commission adopts rules which expand the information in public notices, omission of information under current or expanded rule may subject permits to legal attack on procedural basis alone. The Department has no record of permits being invalidated because of legal action based solely on omission of information in the public notice. The Department did not include wording in the proposed rule, but offered alternative wording if the Commission wishes to do so.

The intent of expanding information in the public notice is to provide sufficient information to the public for them to separate out those permits which are of keen interest to them; to signal to them those permits which they may wish to review in more detail; and, to provide sufficient information for them to determine if a public hearing should be requested. If, by inadvertent omission of information in the public notice, the Department does not receive comments which would have made material difference in the permit issued, opportunity to modify the permit to include such conditions exists through the Department's ability to reopen permits at any time. If the Department received such information subsequent to issuing a permit, and did not agree that a permit modification was

necessary, procedural grounds of omission of information in the public notice could be used to force the issue through litigation.

Since the Department does not have record of such litigation under current rule we have no reason to expect such litigation to occur because the information in the notice is expanded.

Comment:

Comment was received recommending that 401 certifications for dredge and fill certification notices be expanded. The proposed rules for rulemaking authorization did not include them.

Agency Response:

The Department asked the Attorney General's office if it would be outside the intent of the public notice of rulemaking on these rules to include revisions to the 401 certification public notice. They advised that is would be outside the intent of the notice on rulemaking. The Department did not include 401 public notice expansion in the proposed rules.

The Department provides certification to other agencies that proposals for fill and removal which require permits from them will not violate provisions the Clean Water Act. The certification is to indicate whether water quality standards will be violated by the proposed activity or construction. The Department is not the permitting agency for these activities, but does provide public notice when reviewing a request for certification. Those agencies which are responsible for permits on these activities provide opportunity for public input also. Prior to the Department making a recommendation to the Commission on whether our notices on certification should be expanded, coordination with those agencies which do the actual permitting should occur. The Corps of Engineers has suggested that the DEQ notice be combined with their official notice, rather than issued separately. The Department has not yet completed an analysis of the benefits and drawbacks of such a step. The Department presently reviews 100 to 150 fill and removal applications per year. Staff available for this effort is approximately 1/4 FTE. Because of the complexity of some proposed dredge and fill activities, the Department exceeds budget in this area fairly frequently. A rough estimate of additional staff work required to expand the notice as recommended by NEDC would be 1/3 FTE.

Comment:

Clarification of intent was suggested on the portion of the proposed rules which would require a description of substances stored, disposed of or discharged.

Agency Response:

The Department's intent was to provide a description of substances stored, disposed of or discharged which was specifically related to the permit being considered. Wording clarifying the intent is included in the proposed rule.

Comment:

The proposed requirement that a listing of pollutant categories not directly limited or required to be monitored by permit be included in the notice was commented on by several persons. Some recommended that pollutants be listed specifically with an explanation of why they are not limited in the permit or monitored. The stated purpose of including such information in the permit was to allow individuals to comment upon whether such categories should be address in the permit. The second reason being that persons who comment would have a more complete picture of the conditions under which permitting was being provided.

Others recommend that items which are not limited in the permit are not intended to be regulated by the permit because they do not come under Department regulation or Oregon law. There was also concern expressed that without definition, any substance could be viewed as a pollutant and the listing of items could be so extensive as to be useless.

Agency Response:

The Department determined that including categories of pollutants or listing of specific pollutants which are not limited or required to be monitored in the permit is questionable in its present form. Other substances which are contained in discharges should be addressed in the public notice in the listing of special conditions, if such pollutants are anticipated to be of future concern. They would also be addressed in NPDES permit notices under the item calling for assessment of future control needs.

Comment:

Several persons or firms indicated that they questioned the value of providing the extra staff effort to include additional information in public notices and in particular, that it would take staff away from more urgent priorities. Commentors also expressed concern that if the information isn't included in that which is already provided to the Department, they will be called upon to provide information numerous times to the Department.

Agency Response:

The Department attempted to provide balance between additional information, the expected benefit and staff effort in the proposed rules.

Comment:

Concern for reporting of compliance and enforcement history was indicated. Comments received related to the period of time over which the department would have to include this information, recommending that it be shortened to the last three years. Concern was also expressed that any inclusion of compliance problems alleged by the Department but contested by the permittee should not be included as they may be misleading.

Agency Response:

The Department limited such information to the most recent permit and excluded enforcement actions which were under appeal.

Comment:

Commentors recommended that notice be provided on all permits rather than new permits or permits for increase only.

Agency Response:

The Department is not prohibited by rule from providing public notice and frequently does when public interest in a permit is apparent or a change is made in a permit which decreases a discharge, but may affect the environment. The proposed rules do not revise the condition that public notice is provided on new permits and those which have increases. The reason for not including all permits in the original proposed rules was staff effort.

Comment:

Comment was received objecting to provision for Department flexibility. Concerned was expressed that some of the wording in the proposed rules provide too much Department discretion or flexibility in providing information. For example, the permit notices would contain the type of facility and kind of product if appropriate.

Agency Response:

The Department's intent was to indicate that in some cases, the type of product is not relevant to the permit and some firms would make numerous products. The Department usually indicates the type of facility which gives an indication of the type of product, but unless the type of product is directly related in some way to the permit discharges or limits it is not the issue in question. The Department did not revise the proposed rules.

Comment:

Concern was stated that the public notice will be used as a means of delay. Several commentors noted their concern that the agency will be in a position of receiving requests for delay on public notices if all information isn't provided.

Agency Response:

The Department recommended that the provisions for expansion of permit notices be put in rule form to provide accountability. Guidance and staff training will be provided to assure that all information required by rule is provided in the public notice.

Comment:

Requests that various pieces of additional information be included in the public notice was provided by several commentors.

Agency Response:

The Department attempted to achieve a balance between the information provided in the public notice and the staff effort available. All of the information held in Department offices is open to the public with few rare exceptions where

information submitted has officially been determined to be a confidential trade secret.

The Department has no philosophical objection to including information in the public notice, but does not have sufficient resource to provide all of the information suggested and continue to provide compliance, enforcement, plan review, permit drafting and similar basic functions. In addition, the Department receives large portions of its budget from the EPA which has a national policy of requiring numbers of permits to be issued timely in order to not be penalized financially. Although the Department does not always agree with EPA that quantity of permits is an appropriate measure of program accomplishment, the national policy is currently in place. The Department would risk current funding if large portions of our resource were shifted to public notice preparation.

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY INTEROFFICE MEMORANDUM

DATE: April 14, 1990

TO: Environmental Quality Commission

FROM: Lydia Taylor, Hearing Officer

SUBJECT: Public Hearing, Proposed Amendments to Air Quality, Water Quality, Hazardous Waste and Solid Waste rules under OAR 340-11-007, OAR 340-45-035, OAR 340-20-150, and OAR 340-14-025.

A public hearing was held at 811 SW 6th, Room 10A, in Portland, Oregon, at 2:00 pm, March 23, 1990, regarding proposed rules to expand the contents of public notices on certain new and modified permits proposed for issuance by the Department. Eleven persons offered testimony.

In support of expanding the contents of public notices were Eugene Rosalie, NEDC; Rick Parrish, NEDC; Carl Lind, Friends of the Earth; David Paul, NEDC; Carl Anuta, NEDC, ORC, Waterwatch; Lee Poe, Odor Abatement Committee; Karen Russell, NEDC; Michael Vernon, Odor Abatement Committee; Jean Cameron, OEC. Each individual supported the expanded information proposed by the Department but also wished to have it either include all of the information originally requested by NEDC, or recommended the addition of further information. Some individuals suggested clarification of portions of the proposed rules.

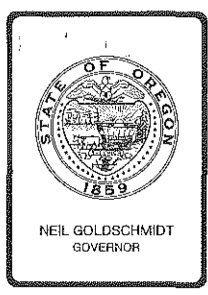
Other individuals who testified addressed specific concerns about portions of the proposed rules or the fiscal impact statement. Jim Craven, American Electronic Association, expressed concern that the portion of the proposed rules requiring information about substances stored, disposed of or discharged be clarified. He also expressed concern that the listing of pollutant categories not directly limited or required to be monitored by permit need expression of intent. Mr. Craven also asked that the fiscal impact statement be revised to indicate the possibility of increases in the future in permit fees. Tom Doneca, AIO inquired whether the AQ rules would be included in the SIP, providing more opportunity for third party appeals.

Specifically recommended for consideration was the addition in rule of expanded information in the public notice on 401 dredge and fill certifications under OAR 340-48-020(5). These certifications had not been included in the Department's proposed rules nor in the original request for consideration of rule development by NEDC. Karen Russell, NEDC, indicated this

had been an oversite in their original communication to the Commission.

Lee Poe, North Portland Odor Abatement Committee requested better communication from the Department generally. She specified particular items of information which had been requested from the Department but never received.

Most individuals who testified also provided written comment elaborating on their testimony. A listing of key issues from these written comments is attached.



Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

MEMORANDUM

TO: Environmental Quality Commission **DATE:** May 7, 1990

FROM: Lydia Taylor

SUBJECT: Proposed Rules on Public Notice Written Comment Key Issues

Association of Oregon Sewerage Agencies:

- DEQ currently has a permit backlog. This added staff work would aggravate the condition.
- Listing of pollutant categories which are not subject to permit limits does not seem to promote rational discourse.

American Electronic Association:

- Including a description of substances stored, disposed or discharged needs to have its intent clarified. An amendment was offered.
- "Listing of pollutant categories not limited by permit" should have exact definition and an expression of how it will be applied.
- Fiscal impact statement should recognize that a large percent of DEQ budget is fee supported and amend the fiscal impact statement should be amended.

NEDC

- "401" certifications for dredge and fill should be included in this public notice amendment (wording provided).

- All permit renewals should be included regardless of whether they contain a change.
- In order for the public to understand the parameters of the permit, a listing of pollutants not directly monitored or limited by the permit should be included by specific pollutant and an explanation included as to why its not controlled.
- A listing of documents used to prepare the permit should be included.
- Page limit should be increased to 3 double sided.
- A description of control facilities currently in place should be included (Amendment provided).
- Assessment of future control needs should be included to help public understand the permittee's operation relative to current technology.
- A rational for any load increase should be included.
- Notice should indicate availability of annual pretreatment reports on publicly owned treatment works.
- In Air Quality the notice should be broadened to include more than Class 1 airsheds and more than "major" sources.
- "Important" natural features on solid waste facilities should be defined. Amendment provided.
- Leachate runoff discharged to or otherwise contaminating ground or surface water should be described.
- A description of whether groundwater has been characterized and monitored at solid waste sites should be included.
- A list of proposed disposal restrictions should be included on solid waste sites.

Tektronix

- Proposed rules may hinder public participation by causing confusion and delay.
- Listing of pollutant categories not directly limited or monitored by permit may result in extensive demands for

more information from permittees. Permittees will not have a good history of these categories because they have not been limited by DEQ or the Legislature. This amounts to de facto regulation and monitoring. It would also increase risk of confidential manufacturing information being deduced from the notice.

- Compliance and enforcement history should be limited to most recent 3 years.
- If any information is omitted by DEQ the validity of the permit can be called into question.

AOI

- No rational provided by NEDC in their original request for rules.
- Budget problems of DEQ don't warrant added staff effort here.
- Can be used as an excellent means of delay because omission would be subject to litigation.
- Fiscal impact statement doesn't show increased costs to agency.
- Put general rule in 340-11-007 in more readable form.
- Including "description of substances stored, disposed of or discharged and a "listing of pollutant category not directly limited or required to be monitored" would be costly to agency.
- Compliance history should not be included.

OEC

- The entire original NEDC proposal should be included.
- Should include all permits.
- Add information regarding how public can get Community Right to Know Information from the Fire Marshal.
- Add a description of applicable state/federal health and environmental standards or risk assessment information if standards are available in 340-45-035(3).

- Delete words allowing DEQ flexibility in 340-45-035(4) and 340-20-150(2).

OSPIRG

- Add the entire compliance history.
- Add whether the applicant is required to prepare Toxics Use and Hazardous Waste Reduction Plans.
- Add availability of closure plans.
- Add compliance histories of corporate parents.

USA (Unified Sewerage Agency)

- Listing of pollutant categories is not useful information and increases the work of DEQ staff.
- Delays in permit actions would occur.
- Description of substances stored should be limited to those proposed under the permit.
- Including impact on prevention of significant deterioration on attainment areas is inappropriate due to lack of available dispersion studies and thus would be highly speculative.
- Much of additional information is readily available to the public as a right and need not be in the public notice
- Workload increase costs might be borne by permittee.

Blount Inc.

- Will cause confusion and delay.
- Ulterior motives may exist to use permit process as means to disrupt business operations and create litigious atmosphere.

City of Portland

- Endorses proposed rules with some exception.

- Listing of pollutant categories might result in greater confusion. Could be interpreted to include infinite number of things.

Tri City Service District ,(Hibbard, Caldwell, Bowerman & Schultz)

- Pollutant categories unreasonable to require.
- Compliance problems which are contested by permittee are allegations and should not be included.
- Substances received, disposed or discharged should not be imposed on the regulated permittee to provide more information.

US Department of Agriculture

- Add an identification of Class 1 air shed by name and include the forest(s) on which it is located.
- Where available provide cumulative impact of previous sources on class 1 area.

Sierra Club

- Add cumulative effects of permit considering all relevant outstanding permits and known permit actions or a statement that such isn't know or can't be estimated.

Marguerite Judd

Supports proposed rule.

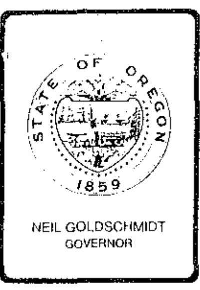
Lone Star Northwest

- Will duplicate work and add confusion to an already complicated process.
- Would like DEQ to take more positive role in working with industry.

Wahkiakum Port District No. 2

Supports proposed rules

WH4022
Attachments



Environmental Quality Commission

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

REQUEST FOR EQC ACTION

Meeting Date: May 25, 1990
Agenda Item: J
Division: Water Quality
Section: Municipal Waste

SUBJECT:

Water Quality Permit Fees: Proposed Municipal Fee Increase to Help Fund Groundwater Program, Pretreatment and Sludge Program.

PURPOSE:

The proposed rule would increase the annual fee to be paid by permitted domestic wastewater treatment facilities to generate revenues for: 1) Implementing parts of the Groundwater Protection Act of 1989 for permitted domestic sources; 2) overseeing pollution abatement activities in the Tualatin River Basin; and 3) regulating pretreatment and sludge management activities of permitted facilities. The proposed rule also modifies the existing fee schedule structure by distinguishing between different sizes and types of facilities and applying different fee amounts to these fee categories.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
X Adopt Rules

Proposed Rules	Attachment A
Rulemaking Statements	Attachment B
Fiscal and Economic Impact Statement	Attachment C
Public Notice	Attachment D

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

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

DESCRIPTION OF REQUESTED ACTION:

The Department requests the Commission adopt proposed rules which would increase the Annual Compliance Determination Fee to be paid by domestic sewage treatment facility permittees. The fee schedule proposed for adoption is different than the one taken to hearing April 18, 1990 based on testimony received during the public comment period. The revisions to the fee schedule proposed for adoption include:

1. A redistribution of the amount of fee increase associated with funding groundwater protection activities so that smaller permitted sources would pay less than the larger facilities is proposed. The schedule taken to hearing proposed all permitted domestic wastewater treatment facilities pay a $90 fee increase to generate $38,500 per year for Legislatively approved groundwater program activities. The schedule proposed now includes fees ranging from a $60 increase for the smallest permitted sources (Fee Category G) to $210 for the larger facilities (Fee Categories A through C).

2. The addition of new fee categories (C_1 and C_2) to differentiate between the permitted facilities with dry weather design flows above 1 MGD and less than 5 MGD is proposed. Distinguishing between facilities with design flows above 1, but less than 2 mgd (Category C_2) and those with design flows above 2, but less than 5 mgd (Category C_1) addresses concerns expressed by smaller communities that they not be required to fund a higher amount, per capita served by their treatment system, than larger communities for sludge management activities.

3. An overall reduction in the proposed fee increases for each category compared to the schedule taken to public hearing is proposed. The reduction in proposed fee amounts reflects substantially reduced levels of pretreatment and sludge management program activity. Revenues needed to fund a sludge management program (to be conducted by 4.75 FTE rather than 9.0 FTE) amount to $237,115 rather than $413,000 per year. Similarly, revenues needed to fund a pretreatment program (to be conducted by 2.25 FTE rather than 6.0 FTE) amount to $119,490 rather than $306,000 per year. The Department views these reduced program levels for sludge and pretreatment to be the minimum level needed to implement a credible program. Tables 1, 2, and 3, Attachment F, Appendix B summarize the activities to be conducted by the Department under the reduced funding level.

4. The addition of new fee categories (B_b, C_{1b}, C_{2b} & D_b) and modifications to the fee schedule to reflect the difference in sludge management oversight associated with sewage treatment lagoons is proposed. Permittees of sewage treatment lagoons in Fee Categories B, C, D and E (approximately 130 permittees) would pay a lower fee than permittees of other types of treatment facilities in the same fee category. This modification responds to concern expressed by permittees of lagoon systems that they not be required to bear the same fees for funding sludge management activities as other types of treatment facilities. This is because sludge processing by lagoons requires less oversite and lagoon sludge removal and land application occurs on an infrequent basis.

5. A reallocation of the fee increase associated with funding pretreatment program activities is proposed. It includes: a) A $1,000 base fee for 21 municipalities currently required to implement federal pretreatment programs in accordance with 40 CFR Part 403; and b) $335 additional fee for each significant industrial user served by that permitted source during the previous billing year. This would result in increased fees to fund pretreatment program activities ranging from $1000 for North Bend and Roseburg Urban Sanitary Authority (where the Department must evaluate the need for the requirements previously imposed since these municipalities may not serve any significant industrial users) to $33,830 for the City of Portland (Portland who has 98 significant industrial users connected to its treatment systems).

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: ____________________ Attachment ___
Enactment Date: ____________________
_X_ Statutory Authority: ____________________ Attachment ___
___ Pursuant to Rule: ____________________ Attachment ___
___ Pursuant to Federal Law/Rule: ____________ Attachment ___

_X_ Other: Amendment to Existing Rule, OAR 340-45-075 Attachment ___

_X_ Time Constraints: (explain) Rules need to be in effect before July 1, 1990 to adjust Annual Compliance Determination Fees to be effective in Fiscal Year (FY) 1991. Compliance Determination Fees ordinarily are invoiced in July of each fiscal year. The next scheduled Emergency Board meeting at the Department could request limitation and positions to conduct sludge and pretreatment program activities is July 1, 1990.

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation Attachment ___
_X_ Hearing Officer's Report/Recommendations Attachment _E_
_X_ Response to Testimony/Comments Attachment _F_
_X_ Prior EQC Agenda Items: (list)
March 2, 1990, Request for Hearing Authorization to Increase Fees for Domestic Waste Sources Under WPCF and NPDES Permits Attachment ___
___ Other Related Reports/Rules/Statutes:
Attachment ___
___ Supplemental Background Information Attachment ___

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

As presented in the Hearing Officer's Report (Attachment E), many objections were raised to the fee schedule authorized for public hearing. Permittees questioned the use of permit fees to fund these specific program activities; the level of program resources needed to conduct sludge management and pretreatment programs; and the distribution and allocation of fee increases among different types and sizes (fee categories) of permitted facilities. Some comments also questioned why permitted industries were not being required to undergo fee increases in a fashion similar to those proposed for permitted domestic sources with delegated pretreatment programs.

Some permittees advocated the Department seek other sources of revenue, such as state General Funds, to implement program activities. While some testifiers supported the Department conducting sludge and pretreatment program activities and increasing fees to fund these activities, they expressed concern about the large number of FTE (15) projected by DEQ to be needed to conduct these program activities. Some commenters suggested they would support fee increases to fund a reduced number of positions (e.g., 7 FTE) for the sludge and pretreatment programs. Testimony also advocated that Department resources for sludge and pretreatment focus on providing technical assistance and guidance to permittees rather than on regulatory/enforcement activities.

Additionally, testimony from the Association of Oregon Sewerage Agencies (AOSA) related support for a reduced level of sludge and pretreatment program activity. AOSA's support of proposed fee increases was predicted on the following (1) Rather than 15 FTE for sludge and pretreatment, AOSA would support seven FTE; (2) if the Department viewed additional FTE necessary to augment implementation of those programs, AOSA noted it would support a DEQ request for additional staff before the E-Board for state general funds; and (3) AOSA stated it would support a Department request for state funding of additional positions at the next legislative session. AOSA's support was offered on the condition that: (1) A program audit would be made in three years to assess effectiveness and utilization of fee-based funds; (2) DEQ would prepare an annual report which addressed fund expenditures; (3) the Department would examine the process by which fee increases were allocated amongst permittees; and (4) they advised that the fee structure recognize achieving equity between public and private NPDES permittees.

Subsequent to the public hearing, Department staff met on several occasions with representatives of the Association of Oregon Sewerage Districts (AOSA) and Special Districts to review the major concerns expressed in the testimony and to develop an alternative fee schedule proposal that addressed the major objections raised in the public comment. In particular, these discussions focused on revisions to the fee schedule to reflect a reduction in sludge management and pretreatment program levels and a more equitable basis for allocating fee increase amounts.

As described in the Evaluation and Response to Testimony (Attachment F), the Department has attempted to address many of the major concerns in the revised fee schedule proposed for adoption. The Department, however, acknowledges that some permitted sources are apt to object to the fee increase proposal, especially those that consider it inappropriate for the Department to fund program activities through fees.

PROGRAM CONSIDERATIONS:

The fee schedule proposed for adoption includes increases to fund activities associated with the Groundwater Protection Act of 1989 and Tualatin River Basin Pollution Abatement effort authorized by the 1989 Legislature.

The proposed fee schedule also includes increases to fund sludge and pretreatment program activities, though at a substantially reduced level (7 FTE versus 15 FTE) than as originally proposed. This level of resource (4.75 for Sludge Management and 2.25 FTE for Pretreatment, including 1 FTE Clerical Support) is viewed by Department staff as the minimum level necessary to implement functional programs. The reduced program level, however, will not enable the Department to provide technical assistance and guidance to permittees or process sludge management plan reviews to the extent that would be provided under programs levels with more positions and with higher fees.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

1. The Department considered limiting the proposed fee schedule modification and fee increase to address only the Groundwater and Tualatin Basin program activities for which the 1989 Legislature approved permit fee increases as the funding mechanism. This is because there is no apparent overwhelming support by the regulated community for higher fees to fund the Department's implementation of sludge management and pretreatment program activities.

2. The Department considered proposing rules for adoption that a) distinguish between permitted source types and sizes to a greater extent and enable fees to be more equitably allocated among categories, and b) provide for fee increases to conduct sludge management and pretreatment program activities at a reduced level than originally proposed for hearing.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends the fee increase rules be adopted as proposed in Alternative 2.

The Department believes it has a responsibility to seek funding through permit fees to conduct regulatory sludge management and pretreatment program activities. The Department has identified a minimum level of needed sludge management and pretreatment resources to conduct a functional base level program in each of these areas. This results in substantially lower fee increase than originally proposed. If the fee schedule is adopted by the Commission, the Department must seek Emergency Board review of the fees for these activities and budget limitation expenditure authority and positions.

The proposed fee increases for Groundwater and Tualatin River Basin Abatement activities are consistent with Legislative direction. The fee increase amounts for groundwater program activities are proposed to be less for permittees operating smaller facilities. Furthermore, the fee increase to six permittees to fund Tualatin River Basin pollution abatement activities is limited in duration, based on the final compliance date of 1997 for Unified Sewerage Agency facilities to comply with permitted effluent limitations, as specified in a federal Consent Decree.

Under this Alternative, the Commission may also choose to limit the fee increase for sludge management and pretreatment to a specific number of fiscal years. If these fees were to apply only for FY91, the Department may have to return to rulemaking next year to continue to conduct these programs should the Legislature elect to not approve general funds. Making the fee increase for sludge management and pretreatment applicable through FY 93 would provide a level of program continuity and minimize the need for additional rulemaking activity on permit fees while the Department pursued other revenues for conducting these program activities.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The identification of resource needs to conduct these program activities and the proposed mechanism for funding these regulatory responsibilities are consistent with the agency's strategic plan direction, agency policies and legislative policy.

ISSUES FOR COMMISSION TO RESOLVE:

1. Fee increase for sludge management and pretreatment program activities -- Does the Commission wish to have the Department conduct these activities in FY91, or should the Department instead wait until the legislature takes action on budgetary decision packages for the next biennium?

2. If the Commission chooses to adopt a fee schedule which includes increases for the Department to conduct more limited sludge and pretreatment programs than originally proposed, should the duration of the applicable fee be limited to 1 fiscal year or to perhaps 2-3 fiscal years?

INTENDED FOLLOWUP ACTIONS:

If the EQC adopts the proposed fee schedule, the Department will fill vacant positions already approved by the Legislature for Groundwater and the Tualatin River Basin Pollution Abatement effort. The Department will also request the Emergency Board to review the fees and approve budget expenditures and limitation and new positions to implement sludge management and pretreatment efforts. Invoices for Annual Compliance Determination Fees will be mailed to permittees of sewage treatment facilities in July or August 1990 to be effective for Fiscal Year 1991.

Approved:

Section: Mary M. Halliburton

Division: Lydia Taylor

Director: Fred Hansen

Report Prepared By: Mary Halliburton
Mark Ronayne

Phone: 229-6099

Date Prepared: May 10, 1990

MMH:crw
MW\WC6557
May 10, 1990

PROPOSED RULE LANGUAGE AND FEES
FOR SEWAGE DISPOSAL SYSTEMS
OAR 340-45-075

NOTE:

Rule language to be deleted is [~~bracketed~~] and proposed rule language to be added is underlined.

Application of proposed sludge and pretreatment fees in FY91 (July 1, 1990) is dependent upon legislative review.

340-45-075

(1) Filing Fee. A filing fee of $50 shall accompany any application for issuance, renewal, modification, or transfer of an NPDES Waste Discharge Permit or Water Pollution Control Facilities Permit. This fee is non-refundable and is in addition to any application processing fee or annual compliance determination fee which might be imposed.

(2) Application Processing Fee. An application processing fee varying between $75 and $2,000 shall be submitted with each application. The amount of the fee shall depend on the type of facility and the required action as follows:

(a) New Applications:

(A) Major industries[1] $2000
(B) Minor industries . . . . $ 600
(C) Major domestic[2] $1500
(D) Minor domestic . . . . $ 600
(E) Agricultural . . . . $ 300

(b) Permit Renewals (including request for effluent limit modification):

(A) Major industries[1] $1000
(B) Minor industries . . . . $ 300
(C) Major domestic[2] . . . . $ 750
(D) Minor domestic . . . . $ 300
(E) Agricultural . . . . $ 150

(c) Permit Renewals (without request for effluent limit modification):

(A) Major industries[1] . . . . $ 500
(B) Minor industries . . . . $ 200
(C) Major domestic[2] . . . . $ 500
(D) Minor domestic . . . . $ 200
(E) Agricultural . . . . $ 100

(d) Permit Modifications (involving increase in effluent limitations):

(A) Major industries[1] $1000
(B) Minor industries . . . . $ 300
(C) Major domestic[2] . . . . $ 750
(D) Minor domestic . . . . $ 300
(E) Agricultural . . . . $ 150

(e) Permit Modifications (not involving an increase in effluent limits): All categories . . . . $ 75

(3) Annual Compliance Determination Fee Schedule Table:

(a) Domestic Waste Sources -- [~~(Select only one category per permit) (Category, Dry Weather Design Flow, and Initial and Annual Fee):~~] Initial and Annual Fee is based on Dry Weather Design Flow, Type of Facility and Applicable Special Fees as follows:

[~~(A) Sewage Disposal -- 10 MGD or more . . . . $1150~~]

[~~(B) Sewage Disposal -- At least 5 but less than 10 MGD . . . . $ 900~~]

[~~(C) Sewage Disposal -- At least 1 but less than 5 MGD . . . . $ 500~~]

[~~(D) Sewage Disposal -- Less than 1 MGD . . . . $ 300~~]

[~~(E) Non-overflow sewage lagoons . . . . $ 150~~]

[~~(F) Subsurface Sewage disposal systems larger than 20,000 gallons per day . . . . $ 150~~]

[~~(G) Subsurface sewage disposal systems larger than 5000 gallons per day but not greater than 20,000 gallons per day . . . . $ 100~~]

		Fee	Fee[3]
(A_1)	Sewage Disposal - 50 MGD or more	$1,360	$19,500
(A_2)	Sewage Disposal - At least 25 MGD but less than 50 MGD	$1,360	$12,750
(A_3)	Sewage Disposal - At least 10 MGD but less than 25 MGD	$1,360	$ 5,250
(B_a)	Sewage Disposal - At least 5 MGD but less than 10 MGD	$1,110	$ 3,900
(B_b)	Sewage Disposal - At least 5 MGD but less than 10 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$1,110	$ 3,900
(C_{1a})	Sewage Disposal - At least 2 MGD but less than 5 MGD	$ 710	$ 2,575
($C1_b$)	Sewage Disposal - At least 2 MGD but less than 5 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 710	$ 225
(C_{2a})	Sewage Disposal - At least 1 MGD but less than 2 MGD	$ 710	$ 1,500
(C_{2b})	Sewage Disposal - At least 1 MGD but less than 2 MGD - Systems where treatment occurs in lagoons that discharge to surface waters	$ 710	$ 135
(D_a)	Sewage Disposal - Less than 1 MGD, and not otherwise categorized under Categories E, F, or G	$ 375	$ 380
(D_b)	Sewage Disposal - Less than 1 MGD - Systems where treatment occurs in lagoons that discharge to surface waters which are not otherwise categorized under Categories E, F, or G	$ 375	$ 75
(E)	Sewage Disposal - Systems where treatment is limited to lagoons which do not discharge to surface waters	$ 225	$ 25
(F)	Sewage Disposal - Systems larger than 20,000 gallons per day which dispose of treated effluent via subsurface means only	$ 225	$ 35
(G)	Sewage Disposal - Systems less than 20,000 gallons per day which dispose of treated effluent via subsurface means only and other systems required by OAR 340, Division 71 to have a Water Pollution Control Facilities (WPCF) permit	$ 160	$ 25

(H) Sources determined by the Department to administer a pretreatment program pursuant to federal pretreatment program regulations (40 CFR, Part 403; January 28, 1981) shall pay an additional $1,000 per year plus $335 for each significant industrial user specified in their annual report for the previous year.[4]

(H_2) In addition to applicable fees specified above, special Annual Compliance Fees for Tualatin Basin Pollution Abatement Activities will be applied to the following permittees until Fiscal Year 1998:

Unified Sewerage Agency - Durham	$26,720
Unified Sewerage Agency - Rock Creek	$22,995
Unified Sewerage Agency - Forest Grove	$ 5,450
Unified Sewerage Agency - Hillsboro	$ 4,240
Unified Sewerage Agency - Banks	$ 185
City of Portland - Tryon Creek	$ 910

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1 *Major Industries Qualifying Factors:*
- -1- Discharges large BOD loads; or
- -2- Is a large metals facility; or
- -3- Has significant toxic discharges; or
- -4- Has a treatment system which, if not operated properly, will have a significant adverse impact on the receiving stream; or
- -5- Any other industry which the Department determines needs special regulatory control.

2 *Major Domestic Qualifying Factors:*
- -1- Serving more than 10,000 people; or
- -2- Serving industries which can have a significant impact on the treatment system.

3 Application of this fee is contingent upon Legislative Emergency Board review.

4 Application of this fee is contingent upon Legislative Emergency Board review.

STATEMENT OF NEED FOR RULEMAKING

(1) Legal Authority:

This increase in fees is made pursuant to ORS 468.065 and A-Engrossed House Bill 5033 (passed by the 1989 Oregon Legislature).

(2) Need for the Rule:

The 1989 Oregon Legislature approved the Department's budgetary decision package to provide funding for resources to help implement regulatory controls to cleanup the Tualatin River and authorize the Department to seek permit fee increases to fund the activities. The annual amount to be recovered from permit fee increases is $60,500.

The 1989 Legislature also approved a Department of Environmental Quality budgetary decision package to provide resources to oversee implementation of the Groundwater Protection Act of 1989. The approved decision package specified permit fee revenue be used to help fund groundwater contamination prevention activities related to permitted industrial and sewage treatment facilities. The annual amount to be recovered from domestic permit fee increases is $38,500 per year.

At the direction of the 1983 Legislature, the Environmental Quality Commission (EQC) adopted rules and guidelines (OAR, Chapter 340, Division 50) to enable beneficial utilization of domestic sewage treatment facility sludge as a soil amendment. Sludge program activities were initially implemented without additional Department resources. The revenue needed to fund sludge activities is $412,133 per year.

Pursuant to the Federal Clean Water Act (Public Law 95-466) and Code of Federal Regulations (40 CFR, Part 403), May 16, 1989, the EQC adopted rules (OAR 340-45-063) which require permitted sources that receive process wastewater discharges from several categories of industry to be regulated under federal pretreatment standards. Implementation of the federal pretreatment program at the state level was required in order for the Department to continue its implementation of the NPDES permit issuance program. Pretreatment program regulatory oversight and technical existence have been minimal because of insufficient resources. Revenue necessary to fund pretreatment program activities is $305,287 per year.

(3) Principal Documents Relied Upon:

a. HB 3515, passed by 1989 Oregon Legislature.

b. ORS 468.065.

c. OAR 340-45-075(3).

d. OAR Chapter 340, Division 50.

e. A-Engrossed House Bill 5033, Section 6.

These documents are available for review during normal business hours at the Department's office, 811 S.W. Sixth, 5th Floor, Portland, Oregon.

LAND USE COMPATIBILITY STATEMENT

These permit fee increases have no effect on land use.

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

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

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

Mark P. Ronayne
(503) 229-6442
February 2, 1990

FISCAL AND ECONOMIC IMPACT STATEMENT

Proposed source Annual Compliance Determination Fee increases will affect all domestic sources regulated under individual Water Pollution Control Facilities (WPCF) and National Pollutant Discharge Elimination Permit System (NPDES) permits. Most municipalities will likely transfer sludge and Groundwater Protection Act related Annual Compliance Determination Fee increases to all users by raising monthly sewer rates. If sewer user rates are expanded to generate sufficient revenue to meet added Annual Compliance Determination fees, the sewer bill to the average home owner will increase between $.03 and $2.20 annually for Fee Categories A - F (Attachment A-3; Tables 1 and 2-1 to 2-8). The larger facilities will bear substantially higher fees, but they also have more users. The permitted facilities under Fee Category G are mostly small businesses. Their fees will increase from $100 to $215/year.

Significant Annual Compliance Determination Fee increases (net increase of $3,000 to $60,090/year) will affect 58 sources (Attachment B-7). These sources process the largest quantity of wastewater and generate greater than 98 percent of the sludge. Twenty-five of the sources receive industrial wastewater discharges which require regulation under federal pretreatment regulations. In the case of the five sources operated by the Unified Sewerage Agency (USA) some extraordinary level of regulation to restore the quality of surface water within the Tualatin Basin is needed.

Annual Compliance Determination Fees for sources with design flows ranging from 1 to 5 MGD that lie outside the Tualatin Drainage Basin Pollution Abatement area and do not operate a federally required pretreatment program will increase by $3,000 (Attachment B-7). Fees for sources that operate wastewater treatment facilities with design flows less than 1 MGD (with the exception of Canby and USA's Banks facilities) will rise $810. Similar fees for sources that operate wastewater treatment lagoons will increase by $290. Fees for facilities designed to process 20,000 gallons or more per day which discharge treated effluent to soil absorption systems will increase $140; and similar facilities designed to process less than 20,000 per day will increase $115.

Annual Compliance Determination Fee increases should not cause small businesses and institutions significant financial hardship. Fee increases will vary somewhat depending on the type of wastewater treatment system, the design flow of the source served, and the nature of the connected business or institution (Attachment A-3, Tables 2-1 to 2-9). Businesses connected to on-site sewage treatment and disposal systems will experience the greatest percent increase in Annual Compliance Determination Fees, yet the smallest dollar amount of increase ($115 - $145/year).

During the first year following Commission adoption of rules for increased Annual Compliance Determination Fees, a few small and medium sized sources operating under tight budgets may not have sufficient contingency funds to immediately absorb increased fees. The Department will be sensitive to this problem and expects to work with affected sources to arrive at a

reasonable time table within the Fiscal Year for them to remit required fees.

The net economic impact on municipal sources which receive wastewater discharges from industries that require management under federal pretreatment regulations and affected industries is expected to be minor. Sources are expected to distribute the majority of pretreatment related Annual Compliance Determination Fee increases among categorical industries and other significant industrial users via increasing monthly sewer rates. They may also elect to transfer a small portion of pretreatment associated costs (via a modest sewer rate increase) to lesser industrial users and nonindustrial users which discharge to their wastewater treatment facilities.

DEQ 424 (1/1/87)

NOTICE OF PROPOSED RULEMAKING HEARING

AGENCY: Department of Environmental Quality

The above named agency gives notice of hearing.

HEARING(S) TO BE HELD:

Date:	Time:	Location:
April 18, 1990	1:00 pm	Linn County Armory 104 4th Street S.W. Albany, Oregon

Hearings Officer(s): Neil J. Mullane

Pursuant to the statutory authority of ORS 468.065

the following action is proposed:

ADOPT:

AMEND: OAR 340-45-075 (3) Permit Fee Schedule

REPEAL:

SUMMARY:

Annual Compliance Determination Fees for sewage treatment facilities regulated under Water Pollution Control Facilities (WPCF) and National Pollutant Discharge Elimination (NPDES) permits are proposed to be increased to generate revenue totalling $99,000 per year to implement aspects of the Groundwater Protection Act and to oversee pollution abatement activities in the Tualatin Basin authorized by the 1989 Legislature.

Also, fee increases are proposed to generate $719,000 annually to fund the Department's sludge management and pretreatment programs.

Interested persons may comment on the proposed rules orally or in writing at the hearing. Written comments received by 5 pm April 20, 1990 **will also be considered. Written comments should be sent to and copies of the proposed rulemaking may be obtained from:**

AGENCY: Department of Environmental Quality

ADDRESS: 811 SW Sixth Avenue
Portland, OR 97204

ATTN: Mark P. Ronayne

PHONE: (503) 229-6442

Mark P. Ronayne 2/26/90

Signature **Date**

Oregon Department of Environmental Quality

A CHANCE TO COMMENT ON...

REVISION OF WATER QUALITY PERMIT FEE SCHEDULE FOR
DOMESTIC WASTEWATER FACILITIES PERMITTEES

NOTICE OF PUBLIC HEARING

Hearing Date: April 18, 1990
Comments Due: April 20, 1990

WHO IS AFFECTED: All domestic sewage treatment facilities regulated under Water Pollution Control Facilities (WPCF) or National Pollutant Discharge Elimination System (NPDES) permits issued by the Department of Environmental Quality.

WHAT IS PROPOSED: The Department of Environmental Quality (DEQ) is proposing to amend OAR 340-45-075 Permit Fee Schedule. Under the proposal, source Annual Compliance Determination fees would be increased to generate revenue totalling $99,000 per year to implement elements of the Groundwater Protection Act of 1988 pursuant to House Bill 3515 for point sources and to oversee pollution abatement activities in the Tualatin Basin authorized by the 1989-91 Legislature.

Further, fee increases are proposed to provide $719,000 per year to fund the Department's domestic sludge management and industrial waste pretreatment programs.

WHAT ARE THE HIGHLIGHTS: Under this proposal, Annual Compliance Determination fees for all permitted sewage treatment facilities will be increased by $90 to fund groundwater program activities.

Fee increases to generate revenue to conduct Tualatin Basin Pollution Abatement activities will only apply to Unified Sewerage Agency (USA) facilities (5), and the City of Portland's Tryon Creek facility. These fees will vary from $26,620/year for USA's Durham facility to $185/year for USA's Bank's facility and are proportioned to the sewage flow generated within the basin received by the specified facility.

Fee increases to fund domestic sludge program activities will also apply to all permitted sources. The proposed allocation of fee increase is structured so the larger municipal wastewater treatment facilities would bear the greatest costs since they generate considerably more sludge than smaller treatment facilities. To better reflect the differences in the amount of sludge generated by facilities with design flows above 10 million gallons per day (MGD), the Department proposes to divide the existing fee category for these systems into three (3) subcategories. These include categories for:

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

11/1/86

FOR FURTHER INFORMATION:

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

(1) Systems larger than 50 MGD;

(2) Systems between 25 and 50 MGD; and

(3) Systems between 10 and 25 MGD.

Under the proposed fee schedule, the City of Portland's Columbia Boulevard Sewage Treatment Plant (STP) will pay the most to help fund sludge management activities at $20,000 per year, followed by MWMC-Eugene/Springfield STP and the City of Salem at $15,000 per year. The six facilities with dry weather design flows above 10 MGD, but less than 25 MGD, will pay $6,250 per year. The nine facilities with design flows above 5 MGD, but less than 10 MGD, will pay $4,500 per year, and 41 facilities with flows above 1 MGD, but less than 5 MGD, will pay $3,000 per year.

The majority of permittees which have design flows less than 1 MGD will be expected to pay an additional amount of between $25 and $720 per year to help fund sludge management program activities.

Fee increases to fund pretreatment program activities will apply to 25 sources required to implement federal pretreatment programs. As will be the case with fees proposed to subsidize sludge program activities, pretreatment fees applied to sources with design flows of 10 MGD or above will be divided into three (3) categories in proportion to design flow to more equitably distribute costs.

Of the existing 25 permittees required to implement federal pretreatment programs because of their size and the nature of industrial wastes they receive, the nine largest will be required to pay between $15,000 and $40,000 per year. The other 16 facilities will pay from $7,500 to $8,500 per year above the fee established to be applicable to all permittees within a particular fee category.

Also, to address the potential for additional permittees to be required in the future to implement pretreatment programs, the fee schedule will be modified to allow the Department to assess the additional pretreatment fee if the Department finds a permittee is required to have a pretreatment program as specified by federal pretreatment program regulations, 40 CFR Part 403.

Prior to applying the proposed fee increases for sludge and pretreatment in FY91, the Legislative Emergency Board will have to review them.

HOW TO COMMENT:	Copies of the complete proposed rule package may be obtained from the Water Quality Division in Portland (811 S.W. Sixth Avenue). For further information, contact Mark P. Ronayne at (503) 229-6442.

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

TIME: 1:00 p.m.

DATE: April 18, 1990

PLACE: Linn County Armory
104 4th Street S.W.
Albany, Oregon

Oral and written comments will be accepted at the public hearing. Written comments may be sent to the DEQ, Water Quality Division, 811 S.W. Sixth Avenue, Portland, Oregon 97204, but must be received by no later than 5:00 p.m., April 20, 1990.

WHAT IS THE NEXT STEP:	After public hearing the Environmental Quality Commission may adopt rule amendments identical to the proposed amendments, adopt modified rule amendments on the same subject matter, or decline to act. The Commission's deliberation should come in April or May as part of the agenda of a regularly scheduled Commission meeting.

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

Attachment E

TO: Environmental Quality Commission

FROM: Mark P. Ronayne, Water Quality Division

SUBJECT: Hearings Officer's Report - Proposed Modifications to Increase Annual Compliance Determination Fees for Sewage Treatment Facilities Regulated Under Water Pollution Control Facilities (WPCF) and National Pollutant Discharge Elimination System (NPDES) Permits [OAR 340-45-075(3)].

The Environmental Quality Commission authorized a public hearing to receive testimony on proposed increases to Annual Compliance Determination Fees for sewage treatment facilities regulated under WPCF and NPDES permits at the March 2, 1990, meeting. Fee increases were proposed to generate revenue totalling $99,000 per year to implement aspects of the Groundwater Protection Act for point sources; oversee pollution abatement activities in the Tualatin Basin authorized by the 1989 Legislature; and to generate sufficient revenue to fund the Department's sludge management and pretreatment programs. Sludge and pretreatment program funding would also be subject to Legislative Emergency Board review.

Notice of Public Hearing was mailed to affected sources and other parties on the Department's rule mailing list March 11, 1990.

The public hearing on proposed rule modifications was conducted at Linn County Armory, 104 4th Street S.W., Albany, Oregon beginning at 1:00 p.m., April 18, 1990. After Dick Nichols, Hearing's Officer, introduced the subject under consideration and defined protocol for receiving written and verbal input and Mark Ronayne highlighted areas entertained under the rule modification proposal, testimony was received from:

1. Greg McGrew, Western Advocates, Inc., Special Districts Association of Oregon.

   (See written testimony summation.)

2. Don Schut, City of McMinnville.

   (See written testimony summation.)

3. Buzz Fulton, City of La Grande.

   (See written testimony summation.)

4. Roger Gould, City of Coos Bay.

   (See written testimony summation.)

5. Gerald Carlson, City of Stanfield.

   (See written testimony summation.)

6. Mark Yeager, City of Albany.

   (See written testimony summation.)

7. Bill Gaffi, Association of Oregon Sewerage Agencies (AOSA).

   (See written testimony summation.)

8. Ron Stillmaker, City of North Bend.

   North Bend expressed concern on how the funds will be used. The City opined funding derived through fees should be used for oversite of activities related to those programs only.

   North Bend also expressed concern that proposed fees represented substantial increases in Annual Compliance Determination Fees. North Bend reported they were finishing a 10-year program plan to upgrade their collection system and expand their treatment plant capacity which would dramatically increase sewer user rates. They voiced concern that sewer user fees had risen substantially in the past several years and noted an additional increase in fees would place still greater financial burden on rate payers.

   North Bend observed the fee schedule proposed by the Department related to sludge management and industrial pretreatment activities was based on treatment plant design flow. They viewed fees for these activity areas would be better allocated based on actual plant flow.

   North Bend commented that the City, because of its design flow, fell into Category C and recommended that Category C be subdivided into smaller flow range increments that were more proportionate to design flow.

   North Bend advised the fee proposed for pretreatment program oversite would cost the City $8,000 annually. North Bend viewed the proposal particularly unjust in their case since they do not regulate any industry that could subsidize pretreatment program costs through an increase in user rates. The City asserted it could not understand why it should be regulated under the pretreatment program since no significant industrial user or categorical industries discharge to the City's wastewater treatment facility.

North Bend viewed the need for education and technical assistance from DEQ critical to the sludge management and pretreatment programs.

9. Kip Burdick, Metropolitan Wastewater Management Commission (MWMC).

   (See written testimony summation.)

10. Kent Squires, Oak Lodge Sanitary District.

   (See written testimony summation.)

In addition to verbal testimony presented during the April 18, 1990, hearing, the Department received 30 pieces of written testimony (Appendix A); summarized below:[1]

1. March 20, 1990, letter, Gary F. Krahmer, General Manager, Unified Sewerage Agency of Washington County (USA).

   USA opined ORS 468.065(2) limited the Commission to establishing a fee schedule for permits issued pursuant to ORS 468.310, 468.315, 468.555, and 468.740. USA stressed fees contained in the schedule "shall be based upon the anticipated cost of filing and investigating the application, of issuing or denying the requested permit, and of an inspection program to determine compliance or non-compliance with the permit. The fee shall accompany the application for the permit."

   USA viewed there was no indication in the Department's staff report that identified which elements of the Groundwater Protection, Tualatin Basin, sludge management, and pretreatment programs were required as part of the NPDES permit processes referenced by statutes. They maintained some Department program areas identified under the proposed fee schedule fell outside required NPDES permitting areas. As an example, USA noted the Total Maximum Daily Load (TMDL) process is a Water Quality Planning process. Pursuant to 1989 Legislative action, they contended costs of rulemaking are not provided for as costs that may be recovered via NPDES permit fees. USA viewed other DEQ program activities might include staff participation in the facilities planning process, review of draft and final facility plans, and review of construction plans. In USA's opinion, none of these are allowable bases for the application of NPDES permit fees.

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1 In addition to the written testimony noted, May 3, 1990, the Department received correspondence from the City of Corvallis (Attachment A). Testimony received after the close of the comment period (April 20, 1990) is not summarized.

USA asserted there was some question as to whether proposed fees amounted to a "tax" exercised to raise revenue to subsidize program activities. They argued a "fee" is a more appropriate mechanism for exercising police powers. USA avowed proposed use of fees for non-permit related enforcement activities may exceed the legal authority of the Department.

USA opined special oversight activities connected with the Tualatin Basin abatement studies had no bearing on NPDES permitting matters since, to date, USA's NPDES permits had no provisions which specify waste load allocations based upon TMDL's. Until permits were modified to reflect clauses regulating TMDL's, USA viewed special oversight for NPDES permit enforcement actions inappropriate.

USA observed Page 4, paragraph 2, to fee modifications proposed for consideration by the Commission at their March 7, 1990 meeting, stated that, if proposed rules were not implemented, the Department will advise permittees and EPA that no staff activities for groundwater or Tualatin Basin pollution abatement activities would occur in Fiscal Year 1991. In USA's view, that statement contradicted on-going negotiations between USA and DEQ related to a payment of $100,000 by USA toward Tualatin Basin activities. USA noted previous discussions with DEQ staff had resulted in agreement that the $100,000 would be allotted to Tualatin Basin pollution abatement activities.

USA also expressed concern that staff's report lacked an analysis of costs involved by performing activities authorized by the Legislature; including the anticipated costs of filing and evaluating NPDES permit applications; permit issuance or denial; and implementation of inspection duties to determine if source operations comply with permit conditions and appropriate state or federal regulations.

USA opined the staff report failed to specifically describe how revenues identified as necessary for implementation of the pretreatment program were associated to permit related requirements.

USA indicated a number of tasks specified under activity areas delineated for the implementation of pretreatment duties had no connection with NPDES permit conditions. For example, USA viewed it unfair that sources who currently conduct pretreatment programs be charged a fee to carry out activities related to the identification of municipal sources needing pretreatment programs in general. USA viewed fees of this sort should be broadly distributed across all sources rather than assessed to those sources that now operate

pretreatment programs via fees. Further, they opined: (1) Activity Item 8, which related to pretreatment program policy review and rule development activities, had nothing to do with the terms and conditions of individual source permits; and (2) Item 9, the evaluation, review, and interpretation of federal pretreatment regulations, was a more general program or policy matter and, as such, should not be paid for by existing permittees with delegated pretreatment programs alone. USA viewed pretreatment activity Item 15, related to the review of industrial removal credit applications, had nothing to do with municipalities at all, nor would it apply to individual municipal permittees. USA also viewed pretreatment activity Item 20, the review and evaluation of hazardous and solid waste discharge proposals, should more appropriately be the funding responsibility of waste generators, not the permittees who receive process waters from hazardous or solid waste processing entities. Further, USA opined, though desirable, coordination with the Department's Pretreatment Advisory Committee is not specifically related to NPDES permits, thus fees to subsidize staff for this activity should not be derived from source Annual Compliance Determination Fees.

USA questioned whether proposed fees amounted to a "tax" exercised to raise revenue to subsidize program activities. They viewed a "fee" is a more appropriate mechanism for exercising police powers. They felt use of proposed fees for non-permit related enforcement activities may exceed the legal authority of the Department.

USA indicated sludge management fees appeared to be based heavily on the cost to regulate sludge land spreading activities. They noted their Durham facility incinerated sludge and viewed the basis for the assessment of a land application program related fee inappropriate for that facility.

USA also noted they were a member of the Association of Oregon Sewerage Agencies (AOSA). As an AOSA member, USA indicated it was committed to supporting the initial staffing level acknowledged by that organization (i.e., seven FTE dedicated to the implementation of sludge and pretreatment program activities). USA encouraged the Department to continue to work with AOSA to examine issues related to proposed fee increases and arrive at a position acceptable to both AOSA and the Department before approaching the Commission with a request to support permit fee increases.

2. April 5, 1990, letter, Marvin L. Kennedy, WQCP Superintendent, City of Medford.

   Medford viewed revenue other than fees paid by permitted sources ought to be used for financing Oregon's Water Quality regulatory programs.

   Medford generally viewed staff levels proposed by DEQ inadequate to ensure environmental protection. They opined Department programs are underfinanced and understaffed.

   Medford requested that adequate field staff be available to appropriately advise and guide sources in their sludge and pretreatment management needs. They viewed the proposal indicated most staff would be located in DEQ headquarters. They feared staffing at the headquarters level would cause the Department to approach program regulation from an enforcement viewpoint rather than from a proactive, problem solving point of view manner.

3. April 3, 1990, letter, Richard J. Barstad, P.E., Director of Public Works, City of Silverton.

   Silverton objected to the Department's proposal to assess a $3,000 Annual Compliance Determination Fee for sludge management program activities at their 1 MGD wastewater treatment facility. Silverton did not object a sludge management program to assure compliance with regulations, rules and guidelines. However, the City viewed they had been in compliance with environmental regulations in the past and that the expense proposed for sludge program oversite was excessive. Silverton noted their landspreading activities cost $3,000 to $4,000 annually, and advised the $3,000 fee proposed by the Department seemed much more than the level of regulation and guidance from DEQ would warrant.

   Silverton suggested the Department adopt a revised fee schedule which separated sources with dry weather flows that ranged from 1 to 5 MGD into 1 MGD categories.

4. April 5, 1990, letter, Bill Hamann, Wastewater Manager, City of Enterprise.

   Enterprise indicated support for the seven FTE sludge pretreatment program staffing level acknowledged by AOSA.

   The City stressed resources needed to be adequate to provide technical assistance at a local "on-site" level in the sludge program.

Enterprise expressed concern that the Department's approach to implementation of sludge management program would appear to somewhat enforcement oriented under the proposed fee structure. They viewed a cooperative stance was necessary between DEQ and the permitted sources it regulates to preserve a clean and healthy environment.

Enterprise viewed DEQ has not responded to requests for technical assistance related to the beneficial utilization of sludge in the past. They noted if they were to remit a fee, they expect DEQ to be responsive to their needs. Enterprise opined the Department needed to establish some mechanism to assure funding accountability for program activity areas.

5. March 27, 1990, letter, William B. Barrons, Clatsop County Manager, Astoria.

   The County viewed proposed fees excessive. They suggested an alternative method of funding be established to offset costs which would be imposed on small sanitary districts.

   Clatsop County noted it was responsible for the operation and management of the Westport County Service District. They expressed concern that fee increases proposed under Category D would raise the permit fee for the Westport County Service District from $300 to over $800 annually. The County also maintained the Arch Cape Service District would experience a similar fee increase and stated the proposed increase would represent nearly 2% of that District's annual operating budget.

6. March 29, 1990, letter, Nancy Reynolds, City Councilor, Public Works Commissioner, City of Yachats.

   Yachats expressed concern that proposed fee increases would pose a financial hardship on small communities like the City. They suggested fees may not be justified and stressed the City would prefer a gradual increase in permit costs to allow the City Council time to find a means to budget for this unexpected expense. Yachats asserted this was particularly critical since the City's median income was below the poverty level.

   Yachats appreciated the need for a domestic sludge program and stated they would support it, but the City recommended a more equitable way be found to finance the program.

7. March 26, 1990, letter, Jeffrey D. Ball, City Attorney, City of Klamath Falls.

The City of Klamath Falls would like the Department to further indicate what they proposed to do with pretreatment fees.

Klamath Falls requested they be granted a waiver from the proposed DEQ pretreatment fee. The City aregued they no longer needed DEQ involvement in pretreatment program guidance. They advised the lack of past DEQ responsiveness had contributed to the City's being fined $15,000 by EPA Region X, a Compliance Order and an Administrative Complaint. Klamath Falls maintained EPA staff had provided the City with adequate technical assistance to avoid pretreatment related penalties in the future.

8. April 4, 1990, letter, Donald Kallberg, Mayor, City of St. Helens.

St. Helens expressed concern that the City, which they advised represented less than 0.2% of Oregon's population, would be required to pay the fourth largest Annual Compliance Determination Fee in the state. They noted that if fees were adopted as proposed, St. Helens would have to increase user rates by $2.96, an overall increase of 1,585%.

St. Helens opined proposed fee increases for permits exceeded the jurisdiction provided for under ORS 468.065(2) which states "by rule and after hearing, the Commission may establish a schedule of fees for permits issued pursuant to ORS 468.310, 468.315, 468.555, and 468.740. The fees contained in the schedule <u>shall be based upon the anticipated cost of filing and investigating the application, of issuing or denying the requested permit, and of an inspection program to determine compliance or non-compliance with the permit</u>. The fee shall accompany the application for permit."

St. Helens viewed the staff report on proposed fee increases identified several non-permit (NPDES) related program elements which fell outside the area defined by statute. The City felt a number of tasks identified by DEQ had absolutely nothing to do with NPDES permit activities and requested such areas be eliminated from consideration under proposed fee increases. Specifically, St. Helens objected to Item 1 related to the identification of permitted municipal sources needing pretreatment program activities. They asserted that this was a general responsibility which permitted sources with existing pretreatment should not be expected to pay. St. Helens opined Item 8, related to pretreatment program

policy review and rule development, had nothing to do with terms and conditions in individual NPDES permits. In addition, they viewed Item 9, related to federal pretreatment regulation evaluation and interpretation, a general responsibility which St. Helens did not consider pertained specifically to NPDES permittees regulated under delegated pretreatment programs. Further, they suggested Item 15, related to the industrial removal credit applications, had nothing to do with municipalities at all and, thus, should not be imposed on municipal permittees. St. Helens also voiced concern that Item 20, related to the review and evaluation of hazardous and solid waste discharge proposals, should be the responsibility of the wastewater discharger rather than the permittee.

St. Helens stated they did not support initial proposal (i.e., seven FTE) endorsed by AOSA in the past.

The City objected to what they understood to be a $20,000 fee which would be assessed to "manage" sludges removed from their primary treatment facility. They indicated the $20,000 Annual Compliance Determination Fee for sludge management could not be justified. (Note: The $20,000 fee referred by St. Helens was originally proposed to regulate pretreatment program responsibilities rather than sludge management program responsibilities. The fee proposed for regulating sludge related responsibilities was be $3,000.)

9. April 17, 1990, letter, Barry C. Beyeler, Public Works Director, City of Boardman.

   Boardman did not specifically address the proposed fee modification package. Rather, the City indicated it viewed its present classification under OAR 340-45-75(3), Category D, inappropriate. Category D relates to sewage treatment works that discharge their treated wastewater to surface waters (i.e., NPDES Permitees). Boardman noted it had operated nondischarge lagoons under WPCF Permit 100345 since 1979. (Prior to that time, the City had operated a wastewater treatment facility which discharged its treated effluent to the Columbia River.)

   The City asked DEQ to help them obtain either a refund or some form of credit towards future Compliance Determination Fees to account for the difference in fees they avowed they had paid during the past eleven years.

10. April 16, 1990, letter, Peter R. Caine, President, Round Lake Utilities, Inc., Bend, Oregon.

Round Lake Utilities, Inc., a small permitted source (0.15 MGD) which operates a wastewater lagoon under fee Category E, objected to any increases in Annual Compliance Determination Fees. They stressed small sources, like the utility, have very few system users to assimilate fee increases. The Utility opined proposed fee increases for Category E were inordinate and out of proportion with the broader base of rate payers that subsidize activities at larger municipal sources.

Round Lake Utilities advised system users now pay $3.00 towards Annual Compliance Determination Fees. Under the increased fee proposal, the utility stated individual rate payers would pay $8.80 annually, a 293% increase in fees.

11. April 19, 1990, letter, Steven E. Simonson, Chairman, AOSA Sludge Committee.

The AOSA Sludge Committee supported the Department's oversite of sludge program activities but expressed concern about inequities in the proposed fee structure. They recommended the structure be reproportioned to place a greater burden for absorbing program costs on larger sources. AOSA advised fees be prorated on the basis of actual average annual flow; or as an alternative, via apportioning costs on 0.10 MGD flow increments for sources that discharge to surface waters with design flows ranging from 0.1 to 1.0 MGD; 2 MGD increments for sources with design flows ranging from 1 to 20 MGD; and 5 MGD increments for sources with flows ranging in from 20 to 50 MGD. In addition, the Committee recommended there be a fee ceiling on lagoon systems so no sources operating lagoons would be assessed a fee greater than that assessed for a 1.0 MGD wastewater treatment facility which discharged treated effluent to surface waters.

AOSA recommended the Department's sludge program emphasize site land application authorizations; sludge plan reviews; general technical assistance; and rule and regulation interpretation.

The Committee recommended two FTE's be assigned to work on field activities in the north portion of the state and one FTE each, be assigned to manage sludge concerns in the central and southern portions of Oregon. By placing staff in these areas, the Committee viewed DEQ resources would be strategically located in areas where most permitted sources exist.

12. April 18, 1990, letter, Gary F. Krahmer, General Manager, Unified Sewerage Agency of Washington County, Hillsboro, Oregon.

    USA supported AOSA's original proposal for the funding 7 FTE to implement sludge and industrial pretreatment program activities.

    USA opined it inappropriate for DEQ to assess a sludge program activity related fee against its Durham treatment facility since that facility incinerates rather than land applies sludge.

    USA viewed it inequitable that they be assessed higher program pretreatment fees than any other entity in Oregon, particularly since other sources received wastewater from a greater number of permitted users.

    USA encouraged the Department to revisit its legal authority for making proposed rule modifications. They opined the Department needed to make modifications to certain NPDES permits before adopting fees to assure their legality.

    USA maintained the adoption of Annual Compliance Determination Fees to provide $60,500 to help implement regulatory controls to cleanup the Tualatin River Basin represented a form of double taxation since DEQ had already been named beneficiary of $100,000 as a result of a previous legal settlement.

13. April 17, 1990, letter, Kent Squires, General Manager, Oak Lodge Sanitary District, Milwaukie, Oregon.

    The Oak Lodge Sanitary District expressed a number of concerns with the proposed Annual Compliance Determination Fee package. They questioned the authority of the Department to impose fees suggested. The District viewed the adoption of some of the fees a tax and doubted DEQ's authority to levy such a tax. They questioned whether the proposal represented a "fee for service" or "program funding fee" schedule and voiced concern that payment would be made to fund a program that they asserted lacked direct relationship to the amount of service DEQ rendered.

    The District was also concerned that the fees were too high relative to level of service they had received from DEQ in the past. They viewed the Department's fee increase proposal would not increase that level of service.

The District questioned the appropriateness of the funding mechanism for the groundwater protection fee. They noted the Department's report to the Commission indicated that much of the effort in coordinating groundwater management would be directed at taking preventative actions for groundwater protection at permitted sources operating lagoons, polishing ponds, or utilizing a subsurface means of wastewater treatment and disposal. Oak Lodge emphasized it did not utilize any of the treatment, storage, or disposal technologies of concern that were indicated in the Commission report.

The District stated they preferred that DEQ regulate sludge and pretreatment activities. Although, the Sanitary District generally supported the Department's operation of a sludge management program, they felt inequities in the proposed fee scheduled warranted further consideration. Specifically, the District viewed sludge incineration ought to be represented in a special fee category. Also, they noted fees needed to be proportioned more precisely to permitted source flow and annual sludge production. For example, the District viewed a 4.9 MGD facility would produce approximately 4.5 times more sludge than a 1.1 MGD facility, yet both these facilities would be charged the same amount for sludge under the proposed fee schedule.

The District also asserted the fee proposed for sludge management activities was excessively high in their case. As an alternative to the proposed sludge fee schedule, the District recommended a more specific fee based on the level of necessary program oversight, plus a cost per dry ton or the acreage required for sludge available nitrogen assimilation might be a more equitable method for funding sludge management activities.

The District indicated the pretreatment program funding proposal exhibited similar inequities to the sludge program. For example, they viewed there was no consideration for the number of industries regulated by the permitted source; the volume of industrial flow; or level of complexity in regulating the industrial waste discharge. Oak Lodge opined pretreatment program oversight should correspond to the complexity of the regulated industry; the number of regulated industries; the volume of industrial flow discharged to the receiving source; and other similar factors. The District acknowledged that it currently regulated one categorical industry and one significant industrial user. They opined that if the fee schedule were adopted as proposed, the District's costs would be transferred to the two industries in the form of a $4,200 surcharge, noting this fee would be in addition to the normal

sanitary sewer charge and current monitoring/testing fee billed those industries. The District stressed that if one of the two industries regulated were to discontinue discharging its process wastewaters to Oak Lodge's sanitary system, the full financial impact for the pretreatment fee would shift to the remaining source.

Further, the Sanitary District noted the maximum Annual Compliance Determination Fee assessed by the Department to permitted industrial sources was $2,000. They viewed there was inequity between DEQ's industrial and domestic source permit programs.

The Sanitary District encouraged the Department to reconsider how it proposed to fund its sludge and pretreatment programs in light of some of the inequities it voiced. To facilitate this process, the District suggested DEQ convene a task force comprised of Department staff and representatives from AOSA, the Special Districts Association of Oregon, and the League of Oregon Cities. They viewed a joint meeting of these entities would enable the Department to determine an appropriate level of program funding and cost distribution.

14. April 18, 1990, letter, William A. Peterson, Jr., City Manager and Donald Caldwell, Wastewater Superintendent, City of Hermiston.

Hermiston opposed the proposed fee schedule. They asked the Department to repropose a new schedule. They viewed the fee concept would only be appropriate when the beneficiary (source) of a particular service profiled from services rendered. The City recommended portions of programs be funded through allocations the general fund revenues rather than via permit fees.

Hermiston opined fees appeared to be inequitably distributed and stated they would cause small permitted sources to pay a proportionately higher fee than larger agencies like Portland, Salem and MWMC.

Hermiston was also concerned that the blanket (groundwater) fee be more equitably distributed so larger sources are assessed proportionately higher fees than small sources. The City contended costs projected to implement the domestic sludge and septage program were excessive. Hermiston viewed that approximately 35% of the time budgeted in these program areas was unaccountable. They suggested that the time forecasting system used by DEQ was inappropriate and maintained 2 FTE per year could be trimmed from the budget proposal if, what they considered slack time, was removed.

Hermiston was also concerned that the Department seemed to be asking cities to collect user fees for septage haulers. They viewed septage licensees should pay the fees directly to DEQ for solids plan reviews rather than permitted sources.

15. April 16, 1990, letter, Jeanne Reeves, Recorder Treasurer, City of Mosier.

    Mosier viewed proposed fee increases unfair. They noted their source fell into Annual Compliance Determination Fee Category D (wastewater treatment facilities which process less than one MGD). Mosier advised its WWTP was designed to process 80,000 gpd; however, the wastewater treatment facility has actually handled 22,000 to 25,000 gpd. Mosier felt the $700 sludge fee they would be assessed under the proposed rule inordinately high, given the design and actual flow they processed. As proposed, the City's per capita costs would be 50 times greater than those of the City of Portland. They suggested fees be reapportioned to more equitably distribute costs across all users.

    Similarly, the City objected to the proposed $90 blanket fee which would be assessed all permitted sources for groundwater protection. Rather than a uniform fee, the City indicated it preferred a fee that would be proportioned based on relative number of users served. To facilitate making fee distribution more equitable, the City suggested the Department consider establishing additional categories which would account for flows processed by smaller sources.

16. Written statement, Greg McGrew, Special Districts Association of Oregon, presented during the hearing on April 18, 1990.

    Mr. McGrew advised the Special Districts Association of Oregon represented over 60 sanitary districts which would be affected by proposed fee increases. The Association expressed concern that Districts were not consulted during the fee package proposal development process. They viewed the proposal unacceptable, and asked the Department to withdraw the fee schedule and resubmit, in its place, a more realistic, modestly priced schedule developed with input from their Association, the League of Oregon Cities, and AOSA. Through this process, the Association hoped alternative means for funding sludge and groundwater protection programs would be defined.

    The Association also expressed concern that the proposal failed to equitably distribute costs across permitted sources in a uniform manner.

Further, the Association stressed the Department favor education as the first step of enforcement.

17. April 16, 1990, letter, Kent L. Taylor, City Manager, City of McMinnville.

    McMinnville advised it did not support proposed fee modifications. The City conidered proposed Annual Compliance Determination Fee increases a tremendous jump from the current fee structure. They also viewed DEQ had not dedicated funds to fulfill the services they felt fees should cover.

    McMinnville indicated the proposed fee structure would increase its fee related user rates from less than one cent per capita to 25 cents per capita monthly.

    The City also expressed concern that the proposed fee structure allotted to meeting TMDLs established an unacceptable precedent. McMinnville objected to what it viewed a 100% fee assessment to permitted sources to cover stream basin pollution abatement activities. McMinnville feared they would be assessed a TMDL pollution abatement fee for the entire Yamhill River Basin. They opined fees for such activities should be more broadly distributed to include nonpoint pollutant sources such as agriculture and forestry.

    McMinnville also expressed concern that the Department will not commit to directing funds collected under the proposed fee structure to activities fees are intended to subsidize. McMinnville feared the Department's failure to dedicate the use of funds in particular areas may result in the Department's redirecting staff to other activities in response to other job pressures or current events and, thus, needed areas of service in sludge or pretreatment programs would go unattended.

    McMinnville asserted the City had received very limited (pretreatment) support and guidance for the regulation of significant or categorical industrial dischargers. Further, they indicated assistance given in the area of pretreatment have been misleading and had resulted in DEQ's misdirecting permitted sources. As a consequence, sources had been fined by EPA for failure to meet federal industrial pretreatment requirements.

18. Written testimony, W.E. "Buzz" Fulton, Mayor, City of La Grande, presented during the hearing April 18, 1990.

The City of La Grande expressed strong reservation about a number of aspects of the proposed fee increase. La Grande objected to the proposed fee schedule, stating: (1) There would be inadequate time for them to budget for the Annual Compliance Determination Fee increase; (2) their current categorical classification under the proposed fee schedule was incorrect. They noted they had been placed in the fee assessment category for flows ranging from 5 to 10 MGD (dry weather). However, their average design flow was 2.7 MGD; (3) DEQ's proposed sludge fees were based solely on wastewater treatment facility design flow. La Grande noted they generated only secondary sludge in their algae removal process through alum addition and coagulation. They viewed the quantity of sludge resulting from this process quite small compared to the quantity of sludge generated by permitted facilities operating conventional mechanical treatment works; (5) the City wanted to be assured that, as a result of increased fees, La Grande and other eastern Oregon communities would receive an appropriate level of service; (6) they questioned if the amount fee proposed was necessary; and (7) they were concerned about the Department's seeming lack of definition for how those fees would be allocated.

La Grande advised they would favor the addition of further personnel to service needs of eastern Oregon communities. La Grande indicated it would be less concerned about the proposed fee structure if it viewed the Department intended to increase the quantity of technical assistance and guidance. They viewed DEQ had become an insensitive, dictatorial bureaucracy over the last few years. In contrast, they indicated their relationship with the Oregon State Health Division had been much more cooperative and responsive to their needs.

La Grande also expressed the following concerns: (1) In adhering to DEQ's instructions, the City had failed to meet EPA pretreatment program requirements. As a result, La Grande was the subject of an EPA fine; (2) although City staff had requested an audience with DEQ, DEQ had declined to meet with La Grande to discuss their latest proposal for wastewater treatment facility permit conditions; and (3) at an annual Water and Wastewater short school conducted recently at Eastern Oregon State College, the Oregon State Health Division was represented by five people from their Portland and Pendleton offices. DEQ in contrast, provided only one instructor during part of the workshop. La Grande viewed this as an indication of the Department's lack of concern and support for eastern Oregon needs.

La Grande stated it contacted five other permitted wastewater treatment facilities in eastern Oregon to determine their views of proposed Annual Compliance Determination Fee increases. Based on those contacts they offered: (1) The Department had failed to provide technical guidance in the field to assist small permitted sources which had experienced facilities operational problems; (2) there currently is an excessive backlog and very slow turnaround time for getting facilities plans, O&M Manuals, etc., reviewed and processed through DEQ; (3) the NPDES Permit process has become excessively slow and cumbersome, as a result, small communities are left with a great deal of uncertainty on exactly what standards or regulations they need to be aware of in a timely manner; (4) the Department has not provided an acceptable level of technical assistance with respect to design standards and necessary plan improvements nor has DEQ provided specific answers to questions raised on the impact of TMDLs, groundwater, mass loading discharges, and testing; (5) it appears the Department has adopted the attitude of an aloof regulator rather than a team player. Sources viewed this was not always the case, but DEQ has moved in this direction lately; (6) recent DEQ regulations appear to be extremely expensive to implement and unreasonable; and (7) although it appears DEQ staff are already overextended, the agency has continued to enact new regulations without the addition of adequate staff to assure their proper administration.

In their assessment of DEQ's current mode of operation and the proposed Annual Compliance Determination Fee increases, eastern Oregon communities offered the following additional comments: (1) Communities prefer that DEQ offer technical guidance to assist them in understanding regulations rather providing them direction on the application of regulations that, in a strict sense, may be unnecessary; (2) DEQ needs to develop flexibility in its regulation implementation, particularly in those areas where the enforcement of regulations would be extremely expensive and little significant beneficial gain would be afforded to the environment; (3) DEQ needs to establish a better working relationship with small permitted sources; (4) DEQ needs to have staff available to respond to source concerns in a timely manner; (5) the Department needs provide technical assistance rather than stress enforcement; (6) DEQ needs to hold several training workshops (in eastern Oregon) to explain regulations and proposed impacts; and (7) sources viewed that DEQ should develop the attitude that they are the advocates and advisors of the sources they regulate. Sources opined the current relationship between EPA and DEQ would make DEQ appear to be an extension of EPA.

19. April 20, 1990, letter, Roger Gould, Mayor, City of Coos Bay.

Coos Bay indicated it preferred the Department to operate the sludge and pretreatment programs rather than EPA. However, they viewed the costs to operate those program activities inordinately high.

Coos Bay recommended the Environmental Quality Commission reject the proposal and have staff reformulate a fee schedule which would provide adequate support and technical assistance to local government at reasonable costs. Coos Bay stated they: (1) Disagreed with DEQ's proposal to locate staff (pretreatment) in the central office rather than in regional offices; (2) DEQ's apparent fee focus seemed to emphasize enforcement rather then technical guidance; (3) costs appeared prohibitive; and (4) they viewed the proposal provided an extremely vague description of program activities that the Department would offer under the projected fee increase package.

Coos Bay suggested the Department consider billing sources requiring technical assistance on an hourly basis rather than imposing an arbitrary blanket fee.

The City noted it had enjoyed an excellent working relationship with the Department of Environmental Quality in the past and stressed that the adoption of the proposed fee package would be apt to severely damage that rapport.

The City opined it appeared the Department was insensitive to the budget constraints imposed on permitted sources.

Coos Bay noted proposed fee increases would represent a 13-fold hike over the sources's current Annual Compliance Determination Fee. Similarly, the fee proposal would increase North Bend's annual Compliance Determination Fee by a factor of 20.

Based on the amount of revenue which would be generated from the proposed fee, Coos Bay concluded it would be paying for approximately a half FTE. The City viewed this level of regulation inordinately high, unrealistic, and absurd.

20. April 16, 1990, letter, Gerald Carlson, Administrator, City of Stanfield.

In general, Stanfield supported the Department's continued involvement in sludge management. However, they opined the Department's proposed staff resource level (nine FTE)

contained too much slack. The City viewed the proposed expansion of DEQ's sludge program to include nine FTE for sludge management needed better justification before it was acceptable.

Stanfield opposed the proposed groundwater pollution abatement fee, indicating it would result in a 375% increase in their Annual Compliance Determination Fees.

The City expressed concern that existing capital improvements to their wastewater treatment works would already place a financial burden on local users. They feared Annual Compliance Determination Fee increases would further compound this problem.

21. April 18, 1990, letter, Mark A. Yeager, P.E., Engineering/ Utilities Division Manager, City of Albany.

    Albany stated it recognized the need to support the domestic sludge and pretreatment programs. However, they were concerned about the level and method of funding proposed under the projected fee increase package. Albany suggested the Department consider a more moderate increase in staffing (up to a level of up to seven FTE) in the sludge and pretreatment program areas.

    Albany questioned the proposed means of cost recovery associated with the industrial pretreatment and sludge programs. They viewed that the programs would benefit the state of Oregon as a whole, thus, some funds necessary to operate these programs should be recovered from State General Fund revenues. The City indicated they would be willing to support some permit fee increases to offset program operating expenses on the condition DEQ would seek General Fund revenues to help subsidize program activities.

    Albany suggested the Department consider working with permitted industrial sources to develop a modified industrial pretreatment program fee schedule.

    Albany expressed concern about the timing involved in the implementation of proposed fee increases, stating actual startup for programs would probably not get underway until September 1990. They viewed the fee schedule needed to be modified to better recognize actual program staffing.

    Albany further opined the Department needed to provide technical support and assistance to permitted sources by placing emphasis on education and guidance over enforcement. They viewed technical guidance and support would provide the most effective means for regulating environmental concerns and keeping sources within compliance.

22. April 20, 1990, letter, John Lang, Administrator, City of Portland, Bureau of Environmental Services.

The City of Portland supported the Department's application of Annual Compliance Determination Fees to subsidize program operating expenses provided: (1) The cost and staffing level of the Department's compliance program was is appropriate; and (2) the fee schedule's rate determination methodology reflected generally accepted costs-of-service rate making principles.

Portland viewed it more prudent for the Department to increase revenues to subsidize sludge and pretreatment programs on an incremental basis to facilitate a better understanding of resource needs as experience in these areas grows. Initially, Portland endorsed staffing these programs at a level of seven FTEs.

In addition, Portland recommended the Department re-examine the proposed fee schedule and consider implementing a rate structure which considered both fixed and variable fees, based on appropriate work load indicators. Portland suggested a flat (minimum fee), fee be assessed each permitted source based on DEQ's estimate of fixed costs for maintaining a basic set of regulatory records and the review of regulated agency permits. In addition, the City suggested the Department's fee structure include a separate fee for variable program costs. They recommended that total annual sludge production (dry weight) be used to determine variable sludge fees. Portland also suggested DEQ assess sources with pretreatment programs a fee for every significant industrial user (both permitted and unpermitted) they regulated the prior billing year.

Under the implementation of the sludge and pretreatment programs, Portland suggested DEQ consider: (1) Providing technical assistance to agencies to determine local limits for industrial discharges based on uniform methods; (2) sponsoring state-wide waste exchange programs where one industry with a particular process waste may be able to find another industry that can beneficially utilize that waste in its manufacturing process. Since such a program would be apt to benefit both industry and the environment, Portland suggested DEQ may wish to fund this effort via general fund revenues or through the use of industrial permit fees or a combination of these two fee sources; (3) certifying sludge and sludge products which meet minimum quality standards and inform consumers of meaning of certification; and (4) sponsoring agricultural research to examine the use and benefits of sludge utilization and explore cross-media use potential (i.e., yard debris and sludge composting).

Portland also encouraged the Department to place program emphasis on technical assistance, public information, and research rather than stress regulatory compliance

23. April 19, 1990, letter, Gerald L. Odman, Public Works Director, City of Pendleton.

    Pendleton opposed to the proposed Annual Compliance Determination Fee increase. The City noted, if adopted as proposed, their Annual Compliance Determination Fee would increase 600% to approximately $5,500 per year.

    Pendleton questioned the Department's authority for assessing fees which, it viewed fell outside the limits of ORS 468.056(2). They opined that statute limited fees to actions directly connected to permit compliance assurance conditions. They viewed some permit related activities fell outside the scope of fee coverage intended by Oregon's Legislature. Pendleton suggested several general activity areas would more appropriately be funded through general state revenues rather than fees derived from sources regulated under NPDES permits.

    Pendleton asserted fees placed inordinate financial burden on smaller cities. They opined smaller permitted sources would have to pay seven to eight times more than larger sources (per capita) to fund proposed fee increases.

24. April 18, 1990, letter, David J. Abraham, Clackamas County Department of Utilities.

    Clackamas County supported the Department's oversight of the industrial pretreatment and sludge programs. However, the County expressed some concerns on the Annual Compliance Determination Fee proposal. Clackamas County opined revenues to support implementation of industrial pretreatment and sludge activities should be considered on a broader basis. They viewed the exclusive use of fee generated revenues to fund these program areas inappropriate. The County advised permit fees needed to be relevant to a cost-of-service and cost-user/payer oriented position.

    Clackamas County viewed the proposed 15 FTE package to implement sludge and industrial pretreatment program activities too high. They suggested they could support a more modest level of staffing (seven FTE). The County acceded to funding up to seven FTE to implement sludge management and pretreatment programs on an interim basis, pending the investigation of other revenue sources to subsidize these program activities.

Clackamas County viewed the Department's fee structure should be established on the basis of (1) equity; (2) uniformity; and (3) administrative ease. They opined the proposed fee package required closer scrutiny and refinement. The County suggested, for example, an allocation methodology based upon an inventory of significant industrial users, rather than to design flow, would provide a more equitable means to subsidize industrial pretreatment program activities. Similarly, they suggested fees for the sludge program be apportioned based on actual flow rather than design flow.

Clackamas County noted that the proposed fee package would become effective in time for the Department's July 1, 1990, billing cycle. However, they viewed time would be necessary to recruit and hire staff. The County requested that, within the initial budget year, lapse times required for hiring staff be factored into the initial assessment of fees. The County stressed sludge and pretreatment program emphasis should be slanted toward providing general technical assistance; preforming plan review activities; researching and approving sludge site authorizations; and the timely preparation of rule and regulation development, and allied guidance documents. They viewed this a more effective means of gaining compliance and protecting the environment than emphasizing a more enforcement oriented approach.

25. April 17, 1990, letter, Roger C. Rivenes, General Manager, South Suburban Sanitary District, Klamath Falls.

The South Suburban Sanitary District supported the Department's continued oversight for sludge and pretreatment programs, but recommended that permitted sources who actually land apply sludge and regulate industrial sources under pretreatment programs should pay higher fees to help finance programs required under their NPDES permits. They viewed some program activities should also be financed through the state general fund.

The District viewed the $3,000 they would be assessed for sludge management under the proposed fee increase package excessive and unjustifiable. South Suburban noted they operated a lagoon system which had been in use for 25 years. The District stressed no sludge removal had been required from their lagoon during this period. Thus, they opined the proposed sludge related fee out of proportion with the level of sludge regulation necessary to ensure environmental protection.

26. April 17, 1990, letter, Sherry Holliday, Mayor, City of Maupin, representing the views of the Mayor and the Maupin City Council.

Maupin expressed concern about the proposed fee increase, stating that under the proposal, their Annual Compliance Determination Fee would rise from $300 to $1,110. Maupin stated its budget was too tight to absorb the proposed fee increases and noted they lacked the revenue and income base to raise user rates to pay higher fees. Maupin stressed that the City had less then 300 service connections; 51.65% of its residents fall into the low and moderate income category; it had previously obtained a 40-year FmHA loan (1979) to construct a wastewater treatment works which had an outstanding indebtedness of $435,000; the City's current sewer user rate was $11 per month; and a portion of the City's sewerage system was already funded with revenues from the City's general fund supported by property tax dollars which were quite high ($35.89 per each $1,000 of assessed property value). Further, Maupin feared that additional fee increases would discourage potential developers from locating in their community.

Based on their economic constraints, the City appealed to the Department to be sensitive to appropriating fees to small sources like Maupin. Further, they suggested the Department establish a reasonable time table within the fiscal year to facilitate fee remittance and recommended the Department decrease fees to lessen the economic impact on small Oregon sources.

27. April 18, 1990, letter, Ginger Morrison, Recorder/Treasurer, City of Metolius.

Due budget limitations and economic concerns, Metolius noted it opposed any increase in fees proposed by DEQ. Metolius was extremely concerned that any increase in Metolius' permit fee would devastate the small City's budget. If the fee proposal were adopted as proposed, the City opined it would have difficult time subsidizing needed O&M for its existing sewer system.

28. April 18, 1990, letter, Bill Deist, City Administrator, City of John Day.

John Day opposed the proposed fee increase for sludge management and groundwater protection activities. They stated their Annual Compliance Determination Fee would increase 400% (from $300 to $1,100 annually). They viewed they had obtained Department approval of their sludge management plan. Thus, they viewed there was no need to pay an additional $720 per year to subsidize sludge program oversight activities. Further, the City declared they had little interface with DEQ staff.

The City noted they had already prepared their budget for the next calendar year. They also stated they treat wastewater from the City of Canyon City and that community, too, had completed their budget process for the year. John Day asserted both communities operate on tight budgets and neither community had adequate capacity to absorb proposed fee increases at this time.

John Day objected to paying a fee for groundwater oversight. They noted they sampled surface water quality above and downgradient from their sewage treatment plant percolation ponds quarterly. They viewed this satisfactory to assure groundwater was being protected and felt no additional oversight by DEQ warranted. Thus, they did not concur with the Department's desire to remit a $90 fee to cover additional groundwater oversight.

John Day also expressed concern that the Department tends to be emphasizing enforcement over assisting the City in resolving problems at the local level.

29. April 17, 1990 letter, Bill Gaffi, Chair, Association of Oregon Sewerage Agencies (AOSA).

AOSA supported the Department's oversite sludge and pretreatment program activities in Oregon. They construed current resources insufficient to carry out necessary job duties.

AOSA advised the Department to direct its attention to preventing environmental injury by providing permitted sources with technical assistance and through emphasizing proactive preventative actions as opposed to relying heavily on remediation of environmental problems via enforcement. They felt this could best be accomplished by keeping permittees informed on what was necessary to protect the environment.

AOSA's support of proposed fee increases was predicated on the following: (1) Rather than 15 FTE for sludge and pretreatment, AOSA would support seven FTE; (2) if the Department viewed additional FTE necessary to augment implementation of those programs, AOSA noted it would support a DEQ request for additional staff before the E-Board for state general funds; and (3) AOSA stated it would support a Department request for state funding of additional positions at the next legislative session. AOSA's support was offered on the condition that: (1) A program audit would be made in three years to assess effectiveness and utilization of fee-based funds; (2) DEQ would prepare an annual report which addressed fund expenditures; (3) the

Department would examine the process by which fee increases were allocated amongst permittees; and (4) they advised that the fee structure recognize achieving equity between public and private NPDES permittees.

AOSA recommended DEQ continue to pursue obtaining general fund revenues to fund sludge and pretreatment program activities in addition to NPDES permit fee revenues.

30. April 18, 1990, letter, Michael A. Kelly, Executive Officer, Metropolitan Wastewater Management Commission (MWMC), Eugene/Springfield.

    MWMC indicated general support for the Department to increase staff to address sludge and pretreatment program concerns and provide permittees with guidance and monitoring needed to effectively administer these programs. However, they were concerned that the Department's proposal greatly exceeded AOSA's endorsement to support seven FTE for sludge and pretreatment program oversight and assistance.

    MWMC expressed a number of concerns about proposed permit fee increases. They noted their Annual Compliance Determination Fee would increase more than 31-fold from $1,150 to $36,240 per year under the proposed rule amendment.

    MWMC indicated that DEQ may lack adequate legal basis for proposed sludge and pretreatment program fee increases. They opined fees for NPDES permits issued under ORS 468.740 are based on authority vested under ORS 468.065(2). They stressed that the statute provides that the fee "schedule shall be based upon the anticipated cost of filing and investigating the application, of issuing or denying the requested permit, and of an inspection program to determine compliance or non-compliance with the permit." MWMC viewed the Department's request for permit fee increases sufficient to fund an additional 15 FTE appeared to go significantly beyond the level necessary to address areas acknowledged under statute. They cited examples on the Department's list of proposed pretreatment program activities (Attachment B-2 to the original proposal) which they viewed bore little or no relationship to permit regulated actions. They opined similar non-permit specific sludge management program tasks were indicated under Attachment B-1.

    MWMC also questioned whether DEQ's list of program activities for pretreatment and sludge contained sufficient documentation to support those requests. They noted Attachment B-3 stated DEQ needed six FTEs for pretreatment program implementation but that a later, interoffice memo issued by the Department indicated DEQ needed 4.5 FTE to implement these duties. Further, MWMC indicated the 4.5 FTE

level was based on the assumption that one FTE would be necessary for each 168 working days. They viewed it would have been more reasonable to calculate employee availability on the basis of 220 days per year. They opined the Department could implement outlined pretreatment program activities using 3.5 FTEs. Thus, they viewed the Department may have overstated personnel needs by 31%. Based on MWMC's assessment of the number of days each FTE can dedicate to accomplishing program tasks and their view of the statutory limit for the actual range of activities that can be covered under fees, they concluded statutorily mandated tasks could probably be accomplished using fee revenues to support seven FTEs.

MWMC expressed concern that there appeared to be no intertie between permitted industrial sources regulated directly by the Department which operated their own independent treatment works and sources who discharged wastewaters to municipal treatment works. MWMC opined the Department's current proposal provided industrial dischargers a free ride. MWMC viewed there needed to be equity in the allocation of Annual Compliance Determination Fees between sources directly and indirectly regulated through the Department.

MWMC also viewed the Department needed to be accountable for reporting how effectively it used Annual Compliance Determination Fees. They argued that since the proposal involved a permit fee increase to conduct substantially increased activities, periodic review of program effectiveness was imperative.

MWMC indicated it generally supported AOSA's position to endorse seven FTEs to carry out sludge and pretreatment program management activities. However, their endorsement of this level of staffing was predicated upon the Department or EQC committing to: (1) Prepare and distribute an annual report detailing activities on which permit fees were expended; (2) perform and distribute a program audit within three years which assessed the effectiveness of DEQ's stewardship of pretreatment and sludge management activities; (3) immediately institute a dialogue between the Department and permittees and/or AOSA to review the fee increase allocation process; and (4) achieve within the immediate future, a revised fee structure which established equity between permitted municipal and industrial sources.

MWMC also opined there may be need for additional staffing to effectively carry out the sludge and pretreatment programs. However, they viewed additional revenues should be subsidized through the state's General Fund.

Appendix A

Persons Who Provided Written Testimony on Proposed Modifications to OAR 340-45-75(3)-Annual Compliance Determination Fee Increases

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1. Gary Krahmer-Unified Sewerage Agency-March 20, 1990
2. Marvin Kennedy-Medford-April 5, 1990
3. Richard Barstad-Silverton-April 3, 1990
4. Bill Hamann-Enterprise-April 5, 1990
5. William Barrons-Clatsop County-March 27, 1990
6. Nancy Reynolds-Yachats-March 29, 1990
7. Jeffery Ball-Klamath Falls-March 26, 1990
8. Donald Kallberg-St. Helens-April 4, 1990
9. Barry C. Beyeler-Boardman-April 17,1990
10. Peter Caine-Round Lake Utilities, Inc.-April 16, 1990
11. Steven Simonson-Association of Oregon Sewerage Agencies-April 19, 1990
12. Gary Krahmer-Unified Sewerage Agency-April 18, 1990
13. Kent Squires-Oak Lodge Sanitary District-April 17, 1990
14. William Peterson & Don Caldwell, Hermiston-April 18, 1990
15. Jeanne Reeves-Mosier-April 16, 1990
16. Greg McGrew-Western Advocates Incorporated-April 18, 1990
17. Kent Taylor-McMinnville-April 16, 1990
18. W.E. Fulton-La Grande-April 18, 1990
19. Roger Gould-Coos Bay-April 20, 1990
20. Gerald Carlson-Stanfield-April 16, 1990
21. Mark Yeager-Albany-April 18, 1990
22. John Lang-Portland-April 20, 1990
23. Gerald Odman-Pendleton-April 19, 1990
24. David Abraham-Clackamas County-April 18, 1990

25. Roger Rivenes-South Suburban Sanitary District-April 17, 1990

26. Sherry Holliday-Maupin-April 17, 1990

27. Ginger Morrison-Metolius-April 18, 1990

28. Bill Deist-John Day-April 18, 1990

29. Bill Gaffi-Association of Oregon Sewerage Agencies-April 17, 1990

30. Michael Kelly-Metropolitan Wastewater Management Commission-April 18, 1990

Persons Who Provided Oral Testimony on Proposed Modifications to OAR 340-45-75(3)-Annual Compliance Determination Fee Increases in Albany April 18, 1990

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1. Greg McGrew-Western Advocates Incorporated
2. Donald Schut-McMinnville
3. Ron Gross-La Grande
4. Roger Gould-Coos Bay
5. Gerald Carlson-Stanfield
6. Mark Yeager-Albany
7. Bill Gaffi-Association of Oregon Sewerage Agencies
8. Ron Stillmaker-North Bend
9. Kent Squires-Oak Lodge Sanitary District
10. Kip Burdick-Metropolitan Wastewater Management Commission

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY — INTEROFFICE MEMORANDUM

DATE: May 11, 1990

TO: Environmental Quality Commission

FROM: Mark P. Ronayne and Mary M. Halliburton, Municipal Waste Section, Water Quality Division

SUBJECT: Response to Written and Oral Testimony on Proposed Increases to Annual Compliance Determination Fees [OAR 340-45-75(3)] for Domestic Sewage Treatment Facilities Regulated Under Water Pollution Control Facilities (WPCF) and National Pollutant Discharge Elimination System (NPDES) Permits

On April 18, 1990, the Department conducted a public hearing at the Linn County Armory, 104 4th Street S.W., Albany, Oregon, to consider proposed increases to Annual Compliance Determination Fees for domestic sewage treatment facilities regulated under WPCF and NPDES permits. A summation of written and oral testimony appears in Attachment E.

Comments generally fell into ten categories:

1. Fee Issues.
2. Alternative Funding Methods.
3. Additional Sludge Program Issues.
4. Industrial Pretreatment Program Issues.
5. Statutory Scope.
6. Tualatin Basin Pollution Abatement Oversight Issues.
7. Groundwater Protection Funding.
8. Program Accountability.
9. Administrative Issues.
10. Miscellaneous.

1. Fee Issues.

Comment: Seventeen commenters expressed that fees proposed to offset sludge and pretreatment program duties were inordinately high (8, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29 & 30)[1]. Six testifiers maintained fees for permitted sources processing 1 to 5 MGD were too high (3, 11, 13, 14, 23 & 29). Further, they stated proposed fees would constitute a sizeable portion of a small source's annual operating budget. Three sources that operate domestic sewage lagoons also argued that proposed fees were excessive (10, 11 & 25). They too contended proposed fees would comprise a major portion of their annual operating budget.

Response: The funding level proposed by DEQ to fund sludge and industrial pretreatment regulatory activities was based on staff's appraisal of the resource necessary to adequately implement these program areas. The Department estimated 9 FTE would be necessary to implement sludge program activities while pretreatment program oversight would require 6 FTEs. Staff prepared detailed evaluations of activities necessary to effectively implement the sludge and industrial pretreatment programs. Those estimates were reviewed by the Department's Domestic Sludge and Industrial Pretreatment Technical Advisory Committees on March 14, 1990.

As an option to the Department's original staffing proposal (15 FTE), Committee members were also provided with FTE estimates for a less comprehensive program (Appendix B, Tables 1, 2, and 3). These estimates are based on a more austere program that will not provide as much environmental protection as the more complete program originally proposed. The revised fee schedule is based on 7 FTE to operate the sludge and pretreatment programs.

The Department acknowledges small permitted sources would be impacted to a greater extent than larger sources by proposed fee increases. The proposed fee schedule has been revised (Appendix B, Tables 1 through 6) to redistribute fees to decrease the economic burden on small permitted sources and permitted sources that operate lagoons (See Alternative Funding Methods).

Comment: One commenter asserted sludge fees related to non-overflow lagoons should be reduced since solids removal and land application activities would not occur on a frequent basis (10).

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[1] Numbers in parenthesis refer to the particular commenter who offered testimony; Appendix A.

Response: The Department recognizes that less resource will be required to regulate sludge management activities which occur at non-overflow lagoons where sludge would normally not be removed and land applied on a regular basis (Category E). Staff revised the fee schedule so permitted sources operating non-overflow lagoons would pay $25 annual for sludge activities rather than $200, the fee in the original proposal (Appendix B, Tables 4 and 6).

Comment: Two commenters argued that the assessment of sludge related Annual Compliance Determination Fees for Unified Sewerage Agency's (USA) Durham incinerator was inappropriate since that disposal technology did not require substantial interface with DEQ's Water Quality Program (12 & 13).

Response: The Department views the assessment of a sludge management fee to oversee Durham's current sludge handling operations reasonable. Sludge generated by the Durham facility is occasionally trucked to the Rock Creek facility for treatment and sludge management. The application of the fee to Durham STP will help fund the Department's regulatory oversight responsibilities in assuring sludges generated at Durham are properly managed. Also, USA, under its facility plan, indicates it intends to abandon the use of the Durham incinerator in the near future. In lieu of incineration, sludge at that source will undergo anaerobic digestion and subsequent land application.

Comment: Five commenters maintained that proposed industrial pretreatment Annual Compliance Determination Fees were inordinately high, unreasonable, and inequitable (12, 13, 19, 22 & 24).

Response: After considering testimony, the Department modified the industrial pretreatment fee proposal. Under the revised schedule, a flat $1,000 fee will be assessed to all domestic sources operating a delegated pretreatment program. In addition, a $335 fee will be assessed for each significant industrial user permitted by the regulated waste treatment facility (Appendix B, Tables 5 and 6).

2. Alternative Funding Methods.

Comment: Fourteen commenters opposed the proposed fee schedule (14, 15, 16, 17, 18, 19, 21, 23, 24, 25, 26, 27, 29 & 30). They requested the Department devise a new schedule. Thirteen testifiers asked that alternative funding methods be established to offset the costs of implementing sludge management and groundwater protection program activities for small permitted sources, particularly those that process design flows less than 1 MGD. They stressed the proposed fee schedule would impose substantial economic burden on a small

permitted source's annual operating budget (5, 6, 13, 14, 15, 16, 20, 23, 25, 26, 27, 29 & 30).

Eight commenters stressed alternative methods of fee allocation (e.g., fees based on average flow or the further partitioning of existing design flow categories) be considered for permitted wastewater processing facilities with design flows ranging from 50 to 0.1 MGD (11, 13, 15, 22, 23, 24, 29 & 30).

Five testifiers asserted proposed industrial pretreatment Annual Compliance Determination Fees were inordinately high, inappropriate, and inequitable. They requested the Department explore a more equitable means for funding program activities such as basing fees on the quantity of industrial flow, level and complexity of industrial unit processes and related regulatory requirements; the number of regulated industries; or the number of significant industrial users (12, 13, 19, 22 & 24).

One commenter recommended the Department assess a base fee to all permitted sources which would cover the cost of maintaining basic set of permit related records. In addition, the commenter advised a variable fee be established for each source based on the quantity (dry tons) of the sludge they produced annually or a delegated source's accounting of the number of significant industrial users permitted under its industrial pretreatment program the previous year (22).

Two commenters encouraged the Department to develop an ad hoc committee comprised of DEQ staff and representatives from AOSA, the League of Oregon Cities, and the Special Districts Association of Oregon, to determine the appropriateness of fees (13 & 16).

Response: After reviewing testimony, Department staff met with representatives from AOSA and the Special Districts of Oregon, to reconsider program resource needs, funding levels, and allocation options. As a result, the Department agreed to entertain less intensive sludge and industrial pretreatment programs.

Under the revised level of program staffing, 4.75 rather than 9 FTE would be dedicated to the execution of sludge program duties while industrial pretreatment program activities would be performed by 2.25 FTE rather than 6 FTE. In recognition of lower staffing levels, funding necessary to implement sludge and pretreatment program responsibilities was decreased from $412,138 and $305,287 to $235,875 and $119,152 per year respectively (Appendix B; Tables 1 through 6).

In addition, fees for funding groundwater, sludge and pretreatment program activities were reapportioned to decrease the financial burden on small permitted sources. The fee to subsidize point source related groundwater program activities was redistributed so Oregon's 58 largest sources paid $210 rather than $90 annually (Appendix B, Table 6). Under the groundwater fee reallocation, sources operating non-overflow lagoons, conventional wastewater treatment facilities designed to process less than 1 MGD; and on-site wastewater treatment and disposal systems which discharge treated effluent to soil absorption systems (designed to process greater than 20,000 gallons daily) would be required to remit a $75 fee rather than the $90 annual fee suggested in the Department's original proposal. Also, the fee for sources permitted to process less than 20,000 gallons per day that discharge their effluent to soil absorption systems would pay $60 rather than $90.

Fees for sludge program activities were also modified (Appendix B; Table 4). Fees were redistributed to diminish economic burden to smaller permitted domestic sources. Fees for sources with design flows less than 1 MGD that operate conventional wastewater treatment processes (Category D_a) were lowered from $720 to $380 per year while those operating lagoons which discharge to surface waters (Category D_b) were lowered to $50. Fees for non-overflow lagoons (Category E) were trimmed from $200 to $25 annually. Sludge fees for sources using an on-site means of treatment and disposal with design flows in excess of 20,000 gallons per day (Category F) were cut from $50 to $35.

To more equitably apportion fees for permitted sources with design flows ranging from less than 5 but at least 1 MGD, two new fee categories (C_1 and C_2) were developed (Appendix B; Tables 4 and 6). Sources designed to process at least 1, but less than 2 MGD (Category C_{2a}) that operate conventional wastewater treatment systems which discharge to surface waters would pay a $1,500 sludge fee (Appendix B; Tables 4 and 6). Sources with similar design flows that treat wastewater via lagoons (Category C_{2b}) would remit $135 for sludge management. Sources with design flows of at least 2, but less than 5 MGD that treat sewage in conventional wastewater plants (Category C_{1a}) would pay $2,275 for sludge activities while permitted sources processing similar flows that treat wastewater in lagoons (Category C_{1b}) would pay $225 annually (Appendix B; Tables 4 and 6).

Sources with design flows of at least 5 MGD, but less than 10 MGD that treat sewage in conventional treatment plants (Category B_a) would pay a $3,900 sludge fee while sources with similar design flows that treated wastewater via lagoons (Category B_b) would be assessed a $275 fee (Appendix B; Tables 4 and 6).

The schedule for industrial pretreatment fees was also modified. In lieu of design flow, as originally proposed, a flat $1,000 fee would be assessed each source operating a delegated pretreatment program (Appendix B; Tables 5 and 6). The $1,000 base fee would be assessed only one time where an agency or municipality operated more than one permitted source. To augment the base fee, sources with pretreatment programs would be assessed an additional $335 fee for each significant industrial user they listed in their annual report on pretreatment activities during the previous year.

Comment: Thirteen commenters recommended the Department consider a different method of cost allocation to more equitably fund groundwater protection activities. They voiced particular concern that the proposed groundwater fee would impose extreme financial hardship on small permitted sources which process less than 1 MGD, and stressed the groundwater protection fee alone would constitute a major portion of a small source's annual operating budget (5, 6, 13, 14, 15, 20, 23, 25, 26, 27, 29 & 30).

Response: DEQ recognizes the assessment of groundwater protection fees may place a greater economic burden on small permitted sources. However, it was the intent of the 1989 Legislature that all permitted sources participate in funding groundwater regulatory actions. Overall, that portion of groundwater program activities to be funded by industrial waste source and domestic waste source fee increases is quite small. The 1989 Legislature also made $1,790,000 available in general funds for Groundwater Protection program activities.

Comment: Seven commenters recommended the Department explore the use of general fund revenues, in addition to Annual Compliance Determination Fee revenues, to offset program operating expenses (14, 21, 23, 24, 25, 29 & 30).

Two commenters advised the Department increase fees for sludge and pretreatment programs incrementally to facilitate a better understanding of resource needs through actual experience (22 & 24). One testifier suggested the sludge and pretreatment programs be funded on an interim basis, pending a more detailed evaluation of program needs and further exploration of other funding sources (24).

Response: The Department considers the level of staffing for sludge and pretreatment program implementation (7 FTE) the minimum necessary to carry out program functions in these areas. AOSA expressed support to assist the Department in its evaluation of additional sludge and pretreatment program funding mechanisms, including providing support for general funds at the FY 92-93 Legislature.

Comment: To minimize the immediate economic impact on the annual operating budgets of small permitted sources, seven commenters asked that sources be granted sufficient time to absorb unanticipated Annual Compliance Determination Fee increases (6, 18, 21, 24, 26, 28 & 29).

Response: The Department is sensitive to the financial burden that increased fees may have on small source operating budgets. DEQ will provide sources time to remit fees during initial year the modified fee schedule is implemented if justified by the permittee.

3. Additional Sludge Program Issues.

Comment: Twelve commenters expressed support for a state operated sludge management program (6, 11, 12, 13, 18, 20, 21, 22, 24, 25, 29 & 30). Eleven testifiers supported state operated sludge and pretreatment programs staffed by 7 FTE rather than the 15 FTE staffing level originally proposed by the Department (1, 4, 8, 11, 12, 21, 22, 24, 29 & 30).

Response: The Department, via statute and Oregon Administrative Rules and Guidelines, has the responsibility to regulate domestic sludge and septage management practices in Oregon. Sludge processing and use technologies employed by sources are regulated under permits to help assure sludges are properly treated and beneficially used in a manner protective of the public health and the environment. The Department views it would serve the best interests of Oregon's citizens if it were to continue to regulate domestic sludge management practices, provided DEQ has sufficient staff to implement its regulatory responsibilities.

Comment: Five commenters maintained sludge program emphasis should be placed on beneficial use site authorizations; sludge management plan reviews; general technical assistance; and rule and regulation development and interpretation (11, 16, 21, 22 & 24).

Response: The Department agrees that program emphasis should stress the regulation of sludge management practices via permits, sludge management plans, and site specific authorization letters. Further, the Department recognizes on-going technical assistance afforded through training and rule, regulation, and guideline interpretation are elements essential to an effective sludge management program. The reduced funding/staffing levels will not provide the degree of technical assistance previously identified, however. (See Appendix B; Table 2.)

Comment: One testifier objected to paying for septage management plan reviews/approvals via sludge fees (14).

Response: Oregon sludge rules require DEQ licensed sewage disposal service businesses to operate under an approved septage management plan. Eighty-two percent of the solids licensed pumpers remove from single family residential septic tanks are conveyed to permitted domestic wastewater treatment facilities. In addition, many small permitted sources utilize some means of on-site sewage treatment. As an integral part of their sludge management operations, they rely on licensed pumpers to remove and transfer their solids to larger permitted sources. The impact of septages received by larger sources comprises an important element of their sludge management practices since solids loading may have substantial influence on the overall treatment capacity of the receiving source.

Relatively little resource is necessary to evaluate septage management plans and annual reports submitted by Oregon's 160 licensed pumpers. Due to the close interconnection between licensed pumping businesses and the permitted sources that accept their pumpings; the on-going need to evaluate the potential impacts hauled solids may have on receiving sources to help assure they will not prejudice wastewater treatment operations or sludge quality; and the reasonably small amount or resource needed to accomplish this activity; staff view some sludge program fee revenues should be directed towards the regular evaluation of septage management activities.

4. Additional Industrial Pretreatment Program Issues.

Comment: Eleven testifiers supported the Department's administration of an industrial pretreatment program on the condition that staff for pretreatment and sludge activities do not exceed 7 FTE (1, 4, 8, 11, 12, 21, 22, 24, 29 & 30).

Response: Both the proposed rule and the activities to be conducted are modified to reflect a reduction to 7 FTE to implement sludge (4.75 FTE) and pretreatment (2.25 FTE) program activities. (See Alternative Funding Methods.)

Comment: Three testifiers maintained DEQ's lack of guidance on pretreatment program issues had resulted in the imposition of fines by EPA (7, 17 & 18). One permitted source asserted that the Department's inaction had caused them to consult EPA to obtain guidance to develop and administer an acceptable pretreatment program. They requested they be exempted from having to pay a DEQ fee for pretreatment program activities which they viewed no longer essential from the Department (7).

Response: The absence of staff has significantly impaired the Department's ability to provide permitted sources adequate pretreatment program technical guidance and regulate pretreatment programs. Pretreatment program administration is required for Oregon's primacy over the NPDES permitting

process. The Department agrees that adequate resources are basic to successful program operation. With sufficient staff, the Department will be in a much better position to effectively relate pretreatment program requirements to permitted sources. Adequate staffing will also enable the Department to offer sources some training and guidance to effectively implement their pretreatment programs.

Comment: Three commenters maintained that DEQ needs to increase fees assessed permitted industrial sources at the same time permitted domestic source industrial pretreatment fees are increased (21, 29 & 30). Further, three testifiers noted industrial source Annual Compliance Determination Fees were lower than proposed domestic source pretreatment program fees. They viewed this disparity inappropriate, inequitable, and inconsistent (13, 29 & 30).

Response: The industrial pretreatment program required under 40 CFR, Part 403 is limited to industrial sources that discharge to permitted publicly owned domestic wastewater treatment facilities. Industrial sources permitted directly by the Department are regulated under different requirements. There is some distinction between how permitted domestic sources operating pretreatment programs and permitted industrial sources are funded. Since pretreatment programs comprise an essential part of the NPDES permitting process, it is appropriate that regulated domestic sources be provided adequate funding to meet the cost of program regulation.

5. Statutory Scope.

Comment: Five commenters contended that DEQ lacks the statutory authority to assess fees to fund Tualatin River Basin Pollution Abatement Activities and what they opined were non-permit related aspects of the sludge and industrial pretreatment programs (1, 18, 12, 13, 25 & 30).

Response: Under ORS 468.020, the Commission has broad authority to adopt rules and standards it considers necessary to adequately protect the public health and the environment. The Department, under ORS 468.035(1)(h) has the authority to receive and expend revenues derived from public agencies which are needed to administer water pollution control programs. ORS 468.065(6) provides DEQ the jurisdiction to use fees appropriated for water pollution control programs as a means to meet the administrative expenses related to programs for which they are collected.

The Department views the collection and appropriation of fees to cover direct and indirect costs related to the execution of water quality regulations as a proper means to fund those programs. Although permits are a primary mechanism for regulating sources, environmental protection

requirements and needs are also expressed in rules and enforcement documents.

6. Tualatin Basin Pollution Abatement Oversight Issues.

Comment: Two commenters viewed the Department and the Unified Sewage Agency (USA) had previously agreed to transfer fees to subsidize Tualatin River Basin pollution abatement oversight actions. They considered it improper that these funds be appropriated through Annual Compliance Assurance Determination Fees (1 & 12). USA considered the assessment of a $60,500 per year Annual Compliance Determination Fee for Tualatin River Basin clean up oversight a form of double taxation. They viewed a Consent Decree between USA and DEQ had previously made the Department the beneficiary of a $100,000 legal settlement from USA (12).

Response: USA's offer of $100,000 to defray part of the expenses associated with Tualatin River Basin pollution abatement oversight efforts was considered as part of a November 22, 1989, Consent Decree established to help resolve a lawsuit filed against that agency by the Northwest Environmental Defense Center (NEDC). The Consent Decree required USA to pay DEQ $100,000 to increase staff and other capabilities for monitoring and regulating water quality in the Tualatin River Basin.

A significant increase in water pollution control activities in the Tualatin River Basin combined with DEQ's responsibility to oversee pollution control implementation to assure compliance with permitted sources that discharge to the Basin have placed greater resource demands on the Water Quality Division. The Department's regulatory responsibilities include coordination and response to USA's facility plan and TMDL implementation activities; review of engineering plans and specifications for improvements at five USA and one City of Portland sewage treatment facilities; additional monitoring and compliance assurance activities; and participation in the preparation of guidance and review of nonpoint source control plans and implementation activities. The $100,000 payment from USA resulting from the NEDC Consent Decree will provide some, but not all, of the resource needed to perform these activities. Additional resources and revenue needs will be identified in decision packages as part of DEQ's FY 91-93 Budget.

7. Groundwater Protection Funding.

Comment: Five commenters opposed the addition of groundwater fees to the Annual Compliance Determination Fee schedule (13, 14, 15, 20 & 28). Thirteen testifiers recommended the Department consider alternative means of financing

groundwater oversight activities (5, 6, 13, 14, 15, 20, 23, 25, 26, 27, 29 & 30).

Response: The 1989 Legislature approved DEQ's decision package to provide a position to oversee the implementation the Groundwater Protection Act of 1989 pursuant to HB 3515. The approved decision package specified point source permit fee revenues be used to help fund groundwater protection activities.

8. Program Accountability.

Comment: Seven commenters stated that they expected the Department to be accountable for Annual Compliance Determination Fees collected to fund sludge and pretreatment program activities (4, 17, 18, 19, 20, 29 & 30). One commenter expressed concern that DEQ would misuse collected fees, fearing other Department priorities would cause staff subsidized via Annual Compliance Determination Fees to divert their attention from sludge and pretreatment program activities which fees are intended to fund (17). Two testifiers requested that DEQ be accountable to regulated sources to assure fees received for sludge, pretreatment, groundwater, and Tualatin Basin Pollution Abatement oversight actions were appropriately used to fund those activities. They requested the Department document how fees were used and asked that DEQ prepare an annual report summarizing expenditures (29 & 30). Further, they recommended an audit be performed three years after proposed fee modifications become effective to evaluate program efficacy and determine if fees had been used acceptably (29 & 30).

Four commenters maintained the Department had not provided an adequate level of technical assistance in the past. They stressed that if fees were increased, they needed to be assured that permitted sources would receive technical assistance related to program activities funded by fees (4, 17, 18 & 28).

Response: The Department intends to use fees collected to fund groundwater, Tualatin River Basin pollution abatement, sludge and industrial pretreatment activities in a responsible manner. The Department is accountable to the Commission, the Legislature and the citizens of Oregon on the way it expends revenues received to perform regulatory duties. For this reason, staff does not view the preparation of an annual report accounting for funds expended during a particular year essential nor is an audit of program actions necessary three years after modified fees become effective.

Proposed fees are not fees for service. Rather, they will be used to fund regulatory functions essential to adequate program execution. Fees collected for funding each

regulatory activity will be used to subsidize the appropriate activity. The fees will be drawn upon to support Municipal Waste Program activities.

Comment: Two commenters viewed the basis DEQ used to determine the number of FTE proposed to implement sludge and pretreatment program activities contained too much slack (14 & 30).

Response: The number FTE's required to implement the planned sludge and pretreatment program activities were derived after making a conservative estimate of the quantity of time to perform a specific number of tasks and duties over a specific time frame to ensure necessary program functions would be accomplished. In making this determination, the Department assumes staff would not be available to perform direct line duties during holiday periods (9 days assumed per year), vacation leave (15 days assumed per year), sick leave (up to 12 days per year) and the time required to attend meetings, perform administrative work, receive training, etc.

9. Administrative Issues.

Comment: Nine commenters encouraged the Department take a pro-active, approach to sludge management in preference to an enforcement focused approach (4, 16, 18, 19, 21, 22, 24, 28 & 29). They viewed emphasis on Annual Compliance Determination Fees to fund the sludge program seemed to represent a shift from providing technical assistance to enforcement.

Response: DEQ intends to encourage the voluntary cooperation of permitted sources as the primary means for regulating sludge program activities [pursuant to ORS 468.035 (1)(a)]. The activities described in Appendix B, Tables 2 and 3 are those the Department views to be the minimum necessary to conduct a credible program. With the reduced level of funding and positions, less technical assistance will be provided compared to the original proposal.

Comment: Two commenters asserted the Department has not been responsive to their needs. They feared this trend would continue after the Department received funding to implement program activities (4 & 18).

Response: The absence of sufficient staff has limited the Department's ability to conduct sludge management and pretreatment program activities. Resources have been "borrowed" from program related work to accomplish what has been done. Thus, in some areas of the state, staff have been less visible to certain sources. The adoption of proposed fee increases would enable the Department to dedicate additional staff to the implementation of sludge and pretreatment program activities.

Comment: Four testifiers requested that sludge and pretreatment program staff be placed in DEQ region offices rather than within Department headquarters (1, 4, 11 & 19).

Response: The original proposal considered the majority of new positions to be placed in the regions. Under the modified proposal, at least three of the six technical position are to be placed in the regions.

10. Miscellaneous.

Comment: Two commenters objected to proposed fee increases because they viewed they fell into the wrong fee categories. Both suggested they should actually be a lower classification category (9 & 18).

Response: If permittees have information which suggests they have been improperly categorized, the Department will evaluate requests for "recategorization" when such requests include information to support the change in Fee Category.

Persons Who Provided Written Testimony on Proposed Modifications to OAR 340-45-75(3) - Annual Compliance Determination Fee Increases

1. Gary Krahmer - Unified Sewerage Agency - March 20, 1990
2. Marvin Kennedy - Medford - April 5, 1990
3. Richard Barstad - Silverton - April 3, 1990
4. Bill Hamann - Enterprise - April 5, 1990
5. William Barrons - Clatsop County - March 27, 1990
6. Nancy Reynolds - Yachats - March 29, 1990
7. Jeffery Ball - Klamath Falls - March 26, 1990
8. Donald Kallberg - St. Helens - April 4, 1990
9. Barry C. Beyler - Boardman - April 17, 1990
10. Peter Caine - Round Lake Utilities, Inc. - April 16, 1990
11. Steven Simonson - Association of Oregon Sewerage Agencies - April 19, 1990
12. Gary Krahmer - Unified Sewerage Agency - April 18, 1990
13. Kent Squires - Oak Lodge Sanitary District - April 17, 1990
14. William Peterson & Don Caldwell - Hermiston - April 18, 1990
15. Jeanne Reeves - Mosier - April 16, 1990
16. Greg McGrew - Western Advocates Incorporated - April 18, 1990
17. Kent Taylor - McMinnville - April 16, 1990
18. W. E. Fulton - La Grande - April 18, 1990
19. Roger Gould - Coos Bay - April 20, 1990
20. Gerald Carlson - Stanfield - April 16, 1990
21. Mark Yeager - Albany - April 18, 1990
22. John Lang - Portland - April 20, 1990

23. Gerald Odman - Pendleton - April 19, 1990

24. David Abraham - Clackamas County - April 18, 1990

25. Roger Rivenes-South Suburban Sanitary District - April 17, 1990

26. Sherry Holliday - Maupin - April 17, 1990

27. Ginger Morrison - Metolius - April 18, 1990

28. Bill Deist - John Day - April 18, 1990

29. Bill Gaffi - Association of Oregon Sewerage Agencies - April 17, 1990

30. Michael Kelly - Metropolitan Wastewater Management Commission - April 18, 1990

Table 1. Summary of Resource Needs for Sludge and Pretreatment Program Activities

Classification	FTE	$/12 Month*
SLUDGE PROGRAM		
Environmental Specialist 4	1.0	$ 55,349
Environmental Specialist 3	3.0	161,130
Clerical Specialist	0.75	19,396
TOTAL	**4.75**	**$235,875**

Classification	FTE	$/12 Month*
PRETREATMENT PROGRAM		
Environmental Specialist 4	2.0	$112,698
Clerical Specialist	0.25	6,454
TOTAL	**2.25**	**$119,152**

* Includes salaries, benefits, expenses, and overhead (indirect expenses).

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Activities to be Conducted Under Reduced Domestic Sludge Management Program Funding Level (4.75 FTE)

Activity	FTE	Notes
Sludge Site Authorization Processing	1.0	Assumes: 33 requests are processed/mo. (400/yr); staff spend 4.5 hrs./req. (2 hrs. paper review; 1.5 hrs. field review; 1 hr. write-up); field review of 100 sites/yr.
Sludge Management Plan Review	0.65	Assumes: Review & approval of 72 sludge plans/yr.; includes plan reviews for up to 30 WWTP upgrades/yr. & plan triggered by 6 compliance inspections/yr.; ave. source plan review & drafting of approval letter requires 12 hrs.
Septage Management Plan Review	0.25	Assumes: Review & approval of 168 septage plans/yr.; ave plan review & approval drafting requires 2 hrs.
New and Renewal Source Permit Evaluation Report & Permit Terms Preparation	0.2	This evaluation is at the region level.
Sludge Related Aspects of Source Annual Compliance Assurance Inspections	0.4	Assumes:103 insps./yr. (35 majors & 68 minors); insps. require 5 hrs./evaluation (1 hr. for reviewing facility sludge unit processes; 1 hr. to review process records and daily records accounting for solids landspreading activities; 2 hrs. evaluation of one or more actively used sludge land application sites to determine management practices; & 1 hr. to write up source compliance reports; insps. will be confined to the 220 sources that actively land apply sludge annually.

Activity	FTE	Notes
Enforcement Compliance Issues	0.3	Relates to compliance assurance aspects of source inspections & follow-up actions required to process complaints from the public. Includes actions related to the violation of one or more permit, sludge management plan, site authorization letter, regulation, rule or guidance requirement; time required to document violations in writing & execute enforcement action pursuant to Chapter 340, Division 12 rules and procedures.
Evaluation of Monthly DMR Reports & Sludge Analytical Data	0.05	The number of analytical reports evaluated varies according to source size. Assumes: review of sludge related aspects of DMRs form 50 sources/mo. (@ 5 min/report) & 60 analytical reports /yr. (@15 min/report).
General Sludge Related Technical Assistance	0.2	Assumes most technical assistance will be offered to small sources who continuously need guidance to do their constant staff turn over & minimal requirements for operator education & experience. Written Sludge Related Policy Guidance Preparation0.2Includes on-going revision of existing guidance and preparation of new guidance at program level. Assumes guidance to sources will be provided primarily at a region level.

Activity	FTE	Notes
Oregon Sludge Rule & Guideline Interpretation	0.15	Assumes majority of the guidance to be given at the program level.
Evaluation & Interpretation of Federal Regulations	0.1	Assumes majority of the guidance to be given at the program level.
Work Issues With DEQ Sludge Advisory Committee	0.1	Relates to on-going work on DEQ program policies & federal & state sludge issues.
Program Training	0.21	Includes training & guidance provided at short schools, special association conferences, & presentations given to DEQ regions by program staff.

WHAT WON'T GET DONE

This option reduces program effort by about 40%. In other words, fewer field reviews of sites are conducted, fewer sludge management plans are reviewed, fewer sources are inspected. Also, less resource is available for providing technical assistance, developing training and guidance materials, conducting short school training on sludge issues, reviewing and evaluating needed rule modifications, tracking and evaluating future EPA sludge regulations and assessing their impact on Oregon sources.

No Sludge Management Data System would be developed and maintained.

No EPA Sludge Delegation Package would be prepared for submittal to EPA.

Activities to be Conducted Under Reduced Pretreatment Program Funding Level (2.25 FTE)

Pretreatment Audits, 4-5 year, including all aspects of compliance review; audit report write-up; data/information submittal to EPA PCS system; enforcement referral to Regional Operations, as needed.

Pretreatment Inspections, 16-17 year, including all aspects of compliance review; inspection report writeup; enforcement referral to Regional Operation, as needed.

Acknowledgement and review of 21 Annual Pretreatment Report Submittals and preparation of summary report to EPA.

Federal pretreatment program regulation tracking, review, interpretation, guidance development for implementation by POTWs.

Review of Industrial Waste Surveys to determine appropriateness of "Delisting" previously approved programs.

Quarterly coordination meetings with Pretreatment Technical Advisory Committee to review new EPA regulations/implementation requirements.

Development and updating of limited amount of pretreatment guidance materials. Needed materials will be prioritized and guidance on 1-3 topic/year may be developed.

Preparation of "Pretreatment" component of Source Permit Evaluation Report for NPDES renewals. Incorporation of recommendations for monitoring, reporting, special pretreatment conditions into NPDES permits.

WHAT WON'T GET DONE:

Review of local limits developed by POTW for their industries based on effluent toxicity and sludge criteria.

Review and followup on toxics data submitted as part of discharge monitoring reports.

Assessment of biomonitoring studies conducted by POTW and need for Toxicity Reduction Evaluations using EPA protocols; assessment of toxicity reduction plans; compliance assurance activities associated with biomonitoring/toxicity reduction evaluation requirements.

Identification and determination of other municipal sources needing federal pretreatment programs, including conducting statewide survey of other industries in non-delegated cities that may required regulation.

Guidance to sources about development of standard (nonfederal) pretreatment program.

Guidance and Technical Assistance to Sources Needing to Develop Federal Pretreatment Programs.

Review and Evaluation of new pretreatment program submittals for Director's approval.

Review and evaluation of Hazardous and Solid Waste discharge proposals to municipal systems, as may be requested by POTW or H&SW Division.

Review of industrial removal credit applications for pretreatment limitations less stringent that categorical as allowed under federal regulations, based on special factors.

Review of sewer user ordinances regarding pretreatment, except as required for POTWs with federal pretreatment programs.

Staff input/involvement with DEQ Data Processing on development of pretreatment data management system, and ongoing implementation of data system, once developed. (Use EPA's PCS instead, as required.)

Policy analysis and development of State Pretreatment program requirements/rules.

Table 4: Summary of Proposed Fees Needed to Conduct Sludge Management Activities

Fee Category	Number of Sources at Specific Fee Increase Amount for Activity	Proposed Fee Amount to Fund Sludge Program Activities	Projected Revenue to be Generated
A_1	1	$19,500	$ 19,500
A_2	2	$12,750	$ 25,500
A_3	5	$ 5,250	$ 26,250
B_a	8	$ 3,900	$ 31,200
B_b	1	$ 275	$ 275
C_{1a}	17	$ 2,575	$ 43,775
C_{1b}	3	$ 225	$ 675
C_{2a}	19	$ 1,500	$ 28,500
C_{2b}	2	$ 135	$ 270
D_a	140	$ 380	$ 53,200
D_b	81	$ 50	$ 4,050
E	43	$ 25	$ 1,075
F	32	$ 35	$ 1,120
G	69	$ 25	$ 1,725
		Total	$237,115

Table 5: Summary of Proposed Fees Needed to Conduct Pretreatment Activities*,**

Regulated Source	No. Significant Industrial Users	Proposed Fee Amount To Fund Pretreatment Program Activities
Albany	12	$ 5,020
Canby	2	$ 1,670
Clackamas County Service District No. 1	14	$ 5,690
Coos Bay	2	$ 1,670
Corvallis	2	$ 1,670
Gresham	11	$ 4,685
Klamath Falls	2	$ 1,670
La Grande	1	$ 1,335
McMinnville	2	$ 1,670
Medford	18	$ 7,030
MWMC	39	$ 14,065
Newberg	4	$ 2,340
North Bend	0	$ 1,000
Oak Lodge Sanitary District	2	$ 1,670
Portland	98	$ 33,830
RUSA	0	$ 1,000
Salem	26	$ 9,710
St. Helens	6	$ 3,010
Tri-City Services District	5	$ 2,675
USA (Durham)	18	$ 7,030
USA (Forest Grove)	6	$ 2,010
USA (Hillsboro)	2	$ 670
USA (Rock Creek)	12	$ 4,020
Woodburn	10	$ 4,350
Total		$119,490

*Amount includes a flat fee of $1,000 for each source with a delegated pretreatment program plus $335 per significant industrial user regulated as of 5/02/90.

**Portland, Coos Bay, and USA have more than one permitted treatment facility, but operate a single pretreatment program. The flat $1,000 base fee, not including $335/SIU, applies to a single STP.

Table 6: Summary of Proposed Fee Increases to Fund Water Quality Program Activities Associated with Sewage Facilities Under WPCF and NPDES Permits

Fee Category	Source*,**	Existing Fee	PROPOSED FEE INCREASE				Net Increase	Aggregate Cost of Annual Compliance Fee
			Tualatin Basin	Groundwater Protection Proposal Fee Increase	Sludge Management	Pretreatment		
A_1	Portland -- Columbia Blvd.	$ 1,150	--	$ 210	$ 19,500	$ 33,830	$ 53,540	$ 54,690
A_2	MWMC	$ 1,150	--	$ 210	$ 12,750	$ 14,065	$ 27,025	$ 28,175
A_2	Salem	$ 1,150	--	$ 210	$ 12,750	$ 9,710	$ 22,670	$ 23,820
A_3	Clackamas Co. Ser. Dist. No. 1	$ 1,150	--	$ 210	$ 5,250	$ 5,690	$ 11,150	$ 12,300
A_3	Gresham	$ 1,150	--	$ 210	$ 5,250	$ 4,685	$ 10,145	$ 12,295
A_3	Medford	$ 1,150	--	$ 210	$ 5,250	$ 7,030	$ 12,490	$ 13,640
A_3	USA -- Durham	$ 1,150	$26,720	$ 210	$ 5,250	$ 7,030	$ 39,210	$ 40,360
A_3	USA -- Rock Creek	$ 1,150	$22,995	$ 210	$ 5,250	$ 4,020	$ 32,475	$ 33,625
B_a	Albany	$ 900	--	$ 210	$ 3,900	$ 5,020	$ 9,130	$ 10,030
B_a	Bend	$ 900	--	$ 210	$ 3,900	--	$ 4,110	$ 5,110
B_a	Corvallis	$ 900	--	$ 210	$ 3,900	$ 1,670	$ 5,780	$ 6,680
B_a	Klamath Falls	$ 900	--	$ 210	$ 3,900	$ 1,670	$ 5,780	$ 6,680
B_b	La Grande	$ 900	--	$ 210	$ 275	$ 1,335	$ 1,770	$ 2,670
B_a	Pendleton	$ 900	--	$ 210	$ 3,900	--	$ 4,110	$ 5,010
B_a	Portland -- Tryon Creek	$ 900	$ 910	$ 210	$ 3,900	--	$ 5,020	$ 5,920
B_a	Tri-City Service District	$ 900	--	$ 210	$ 3,900	$ 2,675	$ 6,785	$ 7,685
B_a	USA -- Forest Grove	$ 900	$ 5,450	$ 210	$ 3,900	$ 2,010	$ 11,570	$ 12,470
C_{1a}	Ashland	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1b}	Astoria	$ 500	--	$ 210	$ 225	--	$ 435	$ 935
C_{1b}	Bear Creek Valley Sanitary Authority	$ 500	--	$ 210	$ 225	--	$ 435	$ 935
C_{1a}	Coos Bay No. 1	$ 500	--	$ 210	$ 2,575	$ 1,670	$ 4,455	$ 4,955
C_{1a}	Coos Bay No. 2	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	Grants Pass	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	Hermiston	$ 500	--	$ 210	$ 2,575	--	$ 2,485	$ 3,285

Table 6: Summary of Proposed Fee Increases to Fund Water Quality Program Activities Associated with Sewage Facilities Under WPCF and NPDES Permits (Continued)

Fee Category	Source*,**	Existing Fee	PROPOSED FEE INCREASE				Net Increase	Aggregate Cost of Annual Compliance Fee
			Tualatin Basin	Groundwater Protection Proposal Fee Increase	Sludge Management	Pretreatment		
C_{1a}	Lebanon	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	Lincoln City	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	McMinnville	$ 500	--	$ 210	$ 2,575	$ 1,670	$ 4,455	$ 4,955
C_{1a}	Newport	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	North Bend	$ 500	--	$ 210	$ 2,575	$ 1,000	$ 3,785	$ 4,785
C_{1a}	Oak Lodge Sanitary District	$ 500	--	$ 210	$ 2,575	$ 1,670	$ 4,455	$ 4,955
C_{1a}	USA	$ 500	--	$ 210	$ 2,575	$ 1,000	$ 3,785	$ 4,785
C_{1a}	St. Helens	$ 500	--	$ 210	$ 2,575	$ 3,010	$ 5,795	$ 6,295
C_{1a}	Seaside	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,785
C_{1b}	South Suburban Service District	$ 500	--	$ 210	$ 225	--	$ 435	$ 935
C_{1a}	The Dalles	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	USA -- Hillsboro West	$ 500	$ 4,240	$ 210	$ 2,575	$ 630	$ 7,655	$ 8,155
C_{1a}	Wilsonville	$ 500	--	$ 210	$ 2,575	--	$ 2,785	$ 3,285
C_{1a}	Woodburn	$ 500	--	$ 210	$ 2,575	$ 4,335	$ 7,120	$ 7,620
C_{2b}	Baker	$ 500	--	$ 210	$ 135	--	$ 345	$ 845
C_{2a}	Brookings	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Coquille	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Cottage Grove	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Dallas	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Douglas Co. Eng. Dept.	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Hood River	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Myrtle Creek	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,210
C_{2a}	Newberg	$ 500	--	$ 210	$ 1,500	$ 2,340	$ 4,050	$ 4,550
C_{2b}	Ontario	$ 500	--	$ 210	$ 135	--	$ 345	$ 845

Table 6: Summary of Proposed Fee Increases to Fund Water Quality Program Activities Associated with Sewage Facilities Under WPCF and NPDES Permits (Continued)

Fee Category	Source*,**	Existing Fee	PROPOSED FEE INCREASE				Net Increase	Aggregate Cost of Annual Compliance Fee
			Tualatin Basin	Groundwater Protection Proposal Fee Increase	Sludge Management	Pretreatment		
C_{2a}	Redmond	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Reedsport	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Sandy	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Silverton	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Stayton	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Sutherlin	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Sweet Home	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Tillamook	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Troutdale	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
C_{2a}	Umatilla	$ 500	--	$ 210	$ 1,500	--	$ 1,710	$ 2,010
D_a	Canby	$ 300	--	$ 75	$ 380	$ 1,670	$ 2,125	$ 2,425
D_a	USA -- Banks	$ 300	$ 185	$ 75	$ 380	--	$ 640	$ 940
D_a	All Other Category D_a Sources (138)	$ 300	--	$ 75	$ 380	--	$ 455	$ 755
D_b	All Category D_b Sources (81)	$ 300	--	$ 75	$ 50	--	$ 125	$ 425
E	43 Sources	$ 150	--	$ 75	$ 25	--	$ 100	$ 250
F	32 Sources	$ 150	--	$ 75	$ 35	--	$ 110	$ 260
G	69 Sources	$ 100	--	$ 60	$ 25	--	$ 85	$ 185
Total		$121,750	$60,500	$38,520	$237,115	$119,490	$455,625	$577,375

*Amount includes a flat fee of $1,000 for each source with a delegated pretreatment program plus $335 per significant industrial user regulated as of 5/02/90.

**Portland, Coos Bay, and USA have more than one permitted treatment facility, but operate a single pretreatment program. The flat $1,000 base fee, not including $335/SIU, applies to a single STP.

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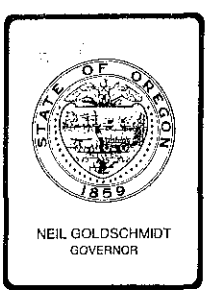

Environmental Quality Commission

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

WORK SESSION
REQUEST FOR EQC DISCUSSION

Meeting Date: May 24, 1990
Agenda Item: M-2
Division: Water Quality
Section: Surface Water

SUBJECT:

TBT: Background Discussion

PURPOSE:

This information item provides the Environmental Quality Commission (Commission) with some background and the results of a study, funded in part by National Oceanic and Atmospheric Administration (NOAA) for one year (1988-89), that investigated the concentration and distribution of tributyltin (TBT) in water and sediment and its effects on the biota of South Slough Estuary, Coos Bay.

TBT is the active ingredient used in some antifouling boat paints. TBT has been in use for more than twenty years and has been effective at preventing the growth and attachment of fouling organisms (barnacles, algae) on boat hulls. TBT enters the aquatic environment by leaching from TBT-painted surfaces into water, and by boat maintenance activities, such as scraping and sandblasting old paints from boat hulls where the debris enters the water. Extensive scientific research in the U.S. and other countries shows that TBT can adversely affect growth and reproduction of many aquatic life species at the parts per trillion level because it easily bioaccumulates in tissues. The results of research showing the high toxicity of TBT lead to the restriction of the use of antifouling paints around the world such as the passage of legislation in seven states (including Oregon) and the federal Antifouling Paint Control Act. These restrictions identified TBT as a restricted use pesticide that could only be used by licensed applicators on aluminum hulled boats and boats larger than 80 feet. All other uses were banned.

In early 1987, it was discovered that oysters grown in South Slough Estuary, an arm of Coos Bay, exhibited abnormal growth patterns and had chambered shells similar to oysters in France and England which were suspected of being exposed to TBT. A preliminary study was conducted at that time to determine if TBT was present. Samples of oysters and water were collected and analyzed for TBT concentrations, and were found to have elevated levels of TBT. Improper boat practices at a boatyard in South Slough were believed to be the major contributor of TBT at that time, since paint debris was disposed of in the estuarine water. Several other agencies such as Oregon Department of Fish and Wildlife, South Slough Estuarine Research Reserve and Health Division, and the Department of Agriculture all assisted in the study.

A more extensive study of South Slough was proposed by the Department to NOAA in 1987 to more accurately determine if TBT and its degradation products were present in sediment, water and shellfish tissues in concentrations high enough to affect aquatic life and human health in South Slough. The study was conducted between October 1988 and December 1989. Because of the restricted use of TBT since January 1988 due to state and federal legislation, and the improvement in boat yard practices in South Slough, the study showed that TBT was present in lower concentrations. It was not detectable in water samples, but was present in low concentrations in sediment and shellfish tissues. Upon consultation with researchers, NOAA, and the Oregon Health Division, it was determined that these concentrations did not pose a significant risk to shellfish or human health.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
___ Adopt Rules

Proposed Rules	Attachment ___
Rulemaking Statements	Attachment ___
Fiscal and Economic Impact Statement	Attachment ___
Public Notice	Attachment ___

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

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

DESCRIPTION OF REQUESTED ACTION:

The Department is not requesting Comission action with this work session item. The purpose is to provide information and a report on the status of the NOAA-sponsored study of TBT in South Slough.

South Slough is a narrow, shallow estuary, an arm of Coos Bay located on the southern coast of Oregon. A 10 foot deep, fifty foot wide navigation channel is maintained by the Army Corps of Engineers from the mouth to Charleston Bridge. South Slough is shallow, and flushes slowly with the tides, making it an ideal habitat for commercial shellfish production. In addition, the southernmost part of South Slough was designated as part of the National Estuarine Research Reserve System in 1974 and receives protection from shoreline and watershed development. There is considerable commercial and recreational activity outside the boundaries of the reserve, such as marina, commercial ship repair facilities, and fish processing plants.

Thirteen sample sites were identified within and outside the reserve to correspond with oyster growing areas, clam beds and commercial activities. Water, sediment and shellfish tissues were collected. The water was analyzed for TBT and other butyltin compounds, but were below the level of detection (11 nanograms/liter). Sediment was analyzed for butyltin compounds, particle size, total organic carbon, and priority pollutants and inorganic metals. Sediments were mostly medium sands, with non-detectable organic pollutants, some heavy metals (chromium, copper, nickel, zinc and arsenic) present, and levels of TBT that were below the level of concern. Shellfish samples (oysters and clams) generally had levels of butyltins below detectable levels, except at two stations where dibutyltin, a degradation product of TBT

was above detection (3 to 44 micrograms/liters). This indicates that TBT had been present at higher concentrations in the water or tissue at some previous time. Tissues were also weighed and shells were measured for length and thickness.

The oyster shells did not exhibit the high level of "balling" and thickening that were observed in the 1987 samples. These results, and the analytical results for water and tissue samples which were less than the water and tissue concentrations detected in 1987 preliminary sampling, indicate that TBT, if present, is not significantly affecting aquatic life. It is somewhat difficult to compare the two sampling results, however, because the 1987 results were analyzed by Moss Landing Marine Lab in California, and the 1988-89 results were analyzed by the Department using a different analytical method. The results from the 1988-89 study were sent to the Oregon Health Division to determine if the levels present were a risk for human health consumption of oysters. The Health Division evaluation stated that the concentrations present did not pose a human health risk.

Although the use of TBT is now restricted in Oregon since the passage of state and federal legislation in 1987, it may still pose a water quality concern in some areas. As antifouling paint needs to be removed from boats less than 82 feet in length to be replaced with copper-based antifouling paints, or boats larger than 82 feet in length for reapplication of the low-leach rate TBT paints allowed by legislation, TBT-laden paint debris may still enter the waters of the state. Most of the boat maintenance facilities are located in estuaries, at the waters edge which is close to areas that may be used for growth of shellfish. Although these boat maintenance facilities must use best management practices to minimize the amount of paint debris washed into the estuary, sometimes their easiest alternative is to flush the drydocks and allow the tide to carry off the debris. Unfortunately it has been observed that the debris accumulates in the mud flats near the boat yards, both covering the sediment with debris and allowing the active ingredient (such as TBT) to continue leaching out into the water. Shellfish in the estuary may then be exposed to TBT and bioaccumulate it in their tissues. This may pose a risk to the shellfish at the parts per trillion level, and a risk for human health consumption if the concentrations are at the parts per million level.

The Department is currently involved in the triennial standards review for toxic substances. The Department has a narrative standard that controls toxic substances, such as TBT, by stating that "Toxics in toxic amounts are not allowed in the waters of the state" (OAR 340-41-2(p)). The Department may consider including a numerical standard for TBT, and a rule for controlling debris at boat maintenance facilities, if needed to protect water quality, aquatic life and human health.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: ____________ Attachment ___
Enactment Date: ____________
___ Statutory Authority: ____________ Attachment ___
___ Pursuant to Rule: ____________ Attachment ___
___ Pursuant to Federal Law/Rule: ____________ Attachment ___

___ Other: Attachment ___

___ Time Constraints: (explain)

DEVELOPMENTAL BACKGROUND:

___ Advisory Committee Report/Recommendation Attachment ___
___ Hearing Officer's Report/Recommendations Attachment ___
___ Response to Testimony/Comments Attachment ___
___ Prior EQC Agenda Items: (list)
Attachment ___
___ Other Related Reports/Rules/Statutes:
Attachment ___
_X_ Supplemental Background Information Attachment _A_

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

Primarily shellfish growers and boat yard maintenance facilities.

PROGRAM CONSIDERATIONS:

None.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

None.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department recommends evaluating other boatyards to determine if they are implementing best management practices to prevent paint debris from entering estuarine waters.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The TBT study was consistent with efforts identified in the strategic plan, and both agency and legislative policies to identify and control toxic substances. However, the strategic plan defers consideration of other estuarine protection programs in the near future. Any further efforts in estuarine water quality protection will need additional funding to proceed.

ISSUES FOR COMMISSION TO RESOLVE:

The Department does not have any specific issues for the Commission to resolve at this time. However, the Commission may wish to discuss general program direction for the long-term protection of estuarine water quality. TBT is only one toxic contaminant that may be present in estuarine waters, sediment or aquatic life. Several estuaries such as Coos Bay, Yaquina Bay, and the Columbia River are known to have other toxic contaminants such as heavy metals and pesticides. At this time, the lower Columbia River is the only other estuary that will be monitored in the near future, but the exact monitoring program and the parameters have not yet been determined.

INTENDED FOLLOWUP ACTIONS:

1. The Department may evaluate boat yard practices in other estuaries, and the Columbia River, as resources allow, or as complaints are received, to determine if paint debris containing TBT or other antifouling agents are being disposed of into state waters.

2. The Department will consider proposing amendments to the Oregon Administrative Rules Chapter 340-41, defining best management practices that need to be implemented at boat painting facilities located on or near estuarine or riverine shores, and establishing a numeric standard for TBT.

3. The Department will identify other funding opportunities to continue work with investigating and protecting water quality in estuaries.

Approved:

Section: [signature]

Division: [signature]

Director: [signature]

Report Prepared By: Krystyna Wolniakowski

Phone: 229-6018

Date Prepared: April 26, 1990

(KUW:crw)
(SW\WC6515)
(5-1-90)

PRELIMINARY

Final Draft Report:

BACKGROUND SEDIMENT DATA AND OBSERVATIONS OF TRIBUTYLTIN DISTRIBUTION IN SOUTH SLOUGH, OREGON

February, 1990

TO BE Submitted in fulfillment of project:

INVESTIGATING THE FATE AND EFFECTS OF TRIBUTYLTIN IN SOUTH SLOUGH NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

Funded by a grant from the
National Oceanic and Atmospheric Administration,
Marine and Estuarine Management Division

to the
Oregon Department of Environmental Quality

Award Number NA88AA-D-CZ034

Contract period:
June 1, 1988 to Dec. 31, 1989

BACKGROUND SEDIMENT DATA AND
OBSERVATIONS OF TRIBUTYLTIN DISTRIBUTION
IN SOUTH SLOUGH, OREGON

Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

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3.3 Sample Storage

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BACKGROUND SEDIMENT DATA AND OBSERVATIONS OF TRIBUTYLTIN DISTRIBUTION IN SOUTH SLOUGH, OREGON

DRAFT

Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

1 INTRODUCTION

Tributyltin (TBT) is the active ingredient used in some antifouling boat paints. TBT has been in use for the past twenty years and has been effective at preventing the growth of organisms on boat hulls. TBT enters the aquatic environment by leaching from TBT-painted surfaces and by maintenance activities, such as scraping and sanding of TBT-painted boat hulls. Summaries of research results and overviews of the environmental issues surrounding the use of TBT paints, particularly the effects on non-target organisms, have been presented in several reports (e.g., Champ and Lowenstein, 1987; Champ and Pugh, 1987; California State Water Resources Control Board, 1988; Cardwell and Meador, 1989).

In 1987, it was discovered that oysters grown in South Slough, an arm of Coos Bay, Oregon, exhibited abnormal growth patterns and chambered shells similar to oysters in France and the United Kingdom which were suspected of being exposed to tributyltin (Alzieu, et al., 1986). Samples of oysters and water were collected by the Oregon Department of Environmental Quality (DEQ) and the Oregon Department of Fish and Wildlife (ODFW) and were analyzed for TBT by Mark Stephenson at Moss Landing Marine Laboratory in California (Wolniakowski, et al., 1987) using a sodium hydroxide precipitation method (Valkirs, et al., 1986). The results indicated TBT concentrations in water of up to 14 nanograms per liter (ng/l) or parts per trillion (ppt). TBT concentrations in oyster tissue ranged from 50 to 102 micrograms per kilogram (ug/kg) wet weight or parts per billion (ppb) within South Slough and 189 ug/kg at a site north of South Slough in Coos Bay near North Bend (Fig. 1a). Improper boatyard practices were believed to be a major contributor of TBT to South Slough at that time.

Concern about harmful effects on the aquatic environment and potential adverse effects on human health prompted efforts to improve boatyard practices and to pass state legislation restricting the use of TBT paints on non-aluminum vessels less than 25 meters (82 feet) in length. This study was conducted to provide more detailed information on the distribution of TBT and its degradation products (monobutyltin, dibutyltin, and inorganic tin) in water, sediment and shellfish throughout South Slough and to provide a post-legislation assessment.

Few laboratories perform butyltin analyses because of the complexity of the technique. This project enabled the DEQ laboratory to develop the analytical capability to perform butyltin analyses and to provide the state regulatory agency (DEQ) with the ability to monitor TBT contamination. In addition to data on butyltins, data is presented for sediment characteristics and basic water quality parameters. The sediment data includes particle size, total organic carbon, and inorganic metals at selected sampling stations in South Slough. Since sediment data for South Slough appears to be very limited, this data should provide useful background information for the estuary.

2 SAMPLING AREA DESCRIPTION

South Slough is a narrow, shallow estuary located on the southern coast of Oregon (Fig. 1a). It branches to the south of Coos Bay near the town of Charleston. The estuary splits into two arms, Winchester and Sengstacken, at its southern end. A 10-foot deep, 50-foot wide navigation channel is maintained by the Army Corps of Engineers from the mouth up to the Charleston Bridge (Fig. 1b). Small streams in the generally-forested drainage basin (an area of approximately 31 square miles; Harris, et al., 1979) contribute fresh water to the estuary. Although no hydrologic data are available for direct measurements of runoff to the estuary, a report by Oregon State University (Harris, et al., 1979) used data from nearby drainage basins to estimate input to South Slough. Annual fresh water runoff was estimated at an average of 98 cfs with monthly average values ranging from a low of 6 cfs in August to a high of 232 cfs in February.

Historically, salinity has varied from 6 to 33 parts per thousand ($^{o}/oo$) within South Slough. Salinities measured at low to slack tide during this study were similar to historical values. In October 1988, salinities of 32 $^{o}/oo$ were measured throughout the slough (Fig. 2a). In March 1989, salinities ranged from 8 to 22 $^{o}/oo$. In May 1989, salinities ranged from 15 to 30 $^{o}/oo$. Surface water temperatures in the estuary displayed only minor spatial and temporal variability (Fig. 2b).

Sediment in the estuary is predominantly medium to fine sand (Fig. 3a and b) eroded from terrace shorelands and coarse to medium silt from fluvial input (Baker, 1978). Channel sediments are mostly sand; larger amounts of silt and clay are found in the intertidal zone and in the upper reaches of the slough.

The southernmost part of South Slough was designated as part of the National Estuarine Reserve Research System in 1974 and receives protection from shoreline and watershed development. The reserve covers 3800 acres of upland forest and 600 acres of tide land (National Estuarine Sanctuary Program, 1984). There is considerable commercial and recreational activity in the northern part of the slough outside the reserve, however, where several

marinas, fish processing plants, and boat repair facilities are located. At an upland side to the east of the slough near Day Creek, there is a landfill that has received a variety of wastes, possibly including TBT paints (R. Kretzschmar, DEQ, pers. comm.). Studies by DEQ in early 1989 did not detect harmful levels of contaminants in the groundwater below the landfill (T. Davisson, DEQ, pers. comm.), although analyses were not conducted for TBT.

Pacific oysters (Crassostrea gigas) are grown commercially in several locations in South Slough and recreational clamming is popular and productive. In a report by the Oregon Department of Fish and Wildlife (1979), T. Gaumer is cited as estimating a total clam population in South Slough of over 10 million. Dominant species include gapers, cockles, butterclams, littlenecks, and softshell clams.

3 METHODS

3.1 Sample Site Selection

Sampling sites (Fig. 1b) were selected to coincide with those in the study by Wolniakowski, et al. (1987). Those sites had been selected to correspond to oyster-growing areas and suspected sources of TBT. Stations AA and A are located in the marina area where both recreational and commercial vessels are berthed. Station B is at the "Charleston Triangle", a popular recreational clamming area. Stations C and D are on the west and east ends of the Charleston Bridge, respectively. Station E is located at Hanson's Landing on the east side of Sough Slough near the entrance to Joe Ney Slough. Boat maintenance facilities are located along the east side of the slough near stations D and E.

Stations F, G and H are located in Joe Ney Slough; stations F and G are in proximity of a boatyard. Station I is located off Collver Point near Brown's Cove. Stations J, K, and L are located within the South Slough Sanctuary boundaries. Station J is west of Valino Island, station K is at the mouth of Winchester Arm, and station L is at the mouth of Sengstacken Arm.

Station Z is the only station located outside of South Slough. It is situated in Coos Bay near North Bend (Fig. 1a).

3.2 Sample Collection

3.2.1 Water

Samples were collected during low tides in October, 1988, and in March and May, 1989. Water samples were collected by immersing a polycarbonate container to a depth of approximately one-half meter, uncapping and filling the container, and recapping before removing. This procedure avoided sampling water from the surface water microlayer (the upper 50 micrometers of water) which has been reported to contain enhanced concentrations of TBT and other

contaminants (Hardy, et al., 1987; Cleary and Stebbing, 1987). In October, separate samples of the surface microlayer were collected at four stations (A, B, E, and I) by David Specht of the U.S. Environmental Protection Agency's Hatfield Marine Science Center (Newport, Oregon) using a Garrett screen (Garrett, 1965). The screen collects a layer approximately 300 microns thick (Cleary and Stebbing, 1987).

The water samples were frozen for storage prior to analysis. Analyses were conducted on unfiltered water samples.

3.2.2 Sediment

Sediment was collected from exposed intertidal flats at low tide. In October, sediment was sampled using glass corers, collecting the upper 4 cm of sediment. In March and May, sediment was collected by scraping from the upper 2 cm of the sediment surface using a polycarbonate scraper. A cursory review of the data indicated similar results from the two methods.

Sediment was collected in polycarbonate containers for butyltin and inorganic-metal analyses. Sediment was also collected in glass containers for priority pollutant analyses. Sediment samples were frozen for storage prior to analysis.

3.2.3 Shellfish

Oysters (*Crassostrea gigas*) were obtained from commercial oyster growers and were collected from the intertidal mudflats. Clams were collected by digging in the intertidal area and by SCUBA diving in the subtidal area. Several different species of clams were collected, including *Macoma balthica*, *Macoma nasuta*, *Saxidomus nuttalli* and *Tresus capax*. After removal of the tissue from the shell, tissue was frozen in polycarbonate containers for storage prior to analysis. Oysters were measured for upper-valve shell length, upper-valve thickness, and wet weight of tissue. Oyster shells were sectioned to examine chambering, which has been associated with TBT exposure (Waldock and Thain, 1983; Smith, et al., 1987).

3.3 Sample Storage

Samples for butyltin analyses were collected and stored in polycarbonate containers. Samples collected in October were frozen and stored for four months; samples collected in March and May were frozen and stored for less than one month prior to analysis. Stephenson, et al. (1987), reported a loss of 7% of TBT with frozen storage of tissue samples between 3 and 6 months.

3.4 Analytical Methods for Detection of Butyltins

3.4.1 Water

Water was analyzed for butyltins using a modification of the method described in Valkirs, et al. (1986). In this method, inorganic tin and organotins are converted to the volatile hydrides by reaction with sodium borohydride and are collected in a cryotrap packed with Chromosorb and placed in liquid nitrogen. The hydride compounds are separated by their varying volatilities, carried sequentially into a quartz burner where the tin portion of each hydride compound is released, and detected by an atomic absorption spectrophotometer at 286.3 nm.

The following modifications were made in an attempt to maintain the reproducibility of the system over the period of time needed to analyze duplicate sets of blanks, standards, samples, recoveries and calibration checks. Artificial seawater was used in place of "clean" seawater to calibrate the system for mono-, di- and tri-butyltin because the former appeared to be free of contaminating butyltins while the latter was not. An improved response was achieved by using a cryotrap made of Teflon rather than glass (Randall, et al., 1986) and packed with a larger amount of the trapping material (50 mg of Chromosorb versus 10 to 20 mg).

The heating steps required to volatilize the hydrides from the cryotrap were controlled electrically rather than using water and oil baths. The outlet line was also heated electrically to reduce carryover. To reduce the amount of water vapor carried to the cryotrap during each reaction, a dry ice water trap was introduced between the sample and the cryotrap. An HP(3390A) integrating recorder was used to record and integrate the responses produced.

Although these modifications resulted in a method that could produce acceptable results, it did not do so in a manner routine enough to warrant refinement for sediment and tissue applications during this study. Further investigation is needed to determine the reasons for the problems with reproducibility. For the purposes of this study, it was decided to utilize an alternative methodology for the analysis of sediment and tissue. The alternative method, which uses gas chromatogaphy with mass spectrometry (GC/MS) instead of atomic absorption spectrophotometry, follows.

3.4.2 Sediment and Tissue

Sediments were analyzed for butyltins using the method described in Krone, et al. (1988) which utilized tumbling for sediment and tissue samples. Sediment (10 to 20 grams) was mixed with 50 g anhydrous sodium sulfate, acidified with 1-2 ml 6N HCl and blended to homogeneity. Tripropyltin (0.4 ug) was added as the internal surrogate standard. After adding 200 ml 0.1% tropolone/methylene chloride, the mixture was tumbled for 16 hours at 50-60 rpm.

After decanting and rinsing, the sample was concentrated to 5-10 ml before adding 50 ml hexane to exchange the extract to hexane. A second concentration to approximately 5 ml was followed by hexylation using a Grignard reaction. Prior to GC/MS analysis, cleanup of the extract was accomplished by eluting with hexane in a column of silica gel and alumina.

Tissue samples (5 to 20 grams) were homogenized by grinding. The extraction procedure was similar to that for sediment samples. Tissue analyses were conducted on both individual organisms and composites.

Detection of mono-, di-, tri-, and tetra-butyltins and inorganic tin in extracted water, sediment and tissue samples was performed by GC/MS analysis using a Finnigan 5100 EFH SP with heated source coupled with a Data General data system. D,10-anthracene was added as an internal standard prior to GC/MS analysis. Detection limits improved for the samples collected in March and May as a result of refinements in analytical technique.

3.5 Additional Analytical Methods for Sediment

Particle sizing was conducted using a sieve-pipette method described by Guy (1969). Fractions coarser than 62 microns are determined by sieving through standard screens while finer fractions are separated by pipetting at timed intervals calculated using Stokes' Law for settling velocities. Total organic carbon (TOC) was measured using the Walkey-Black method (Amer. Soc. Agron., 1965) and is reported as the wet weight.

Inorganic metals were extracted from sediment using a nitric acid digest following standard U.S. Environmental Protection Agency methodology. Antimony, arsenic, selenium, silver, and thallium were analyzed using graphite furnace techniques; beryllium, cadmium, chromium, copper, nickel, and zinc were analyzed using flame atomic absorption spectrophotometry.

4 RESULTS

Table I specifies the sampling dates and the types of samples collected at each station.

4.1 Water

None of the water samples collected in October, including the surface microlayer samples, had butyltin concentrations above the detection limit of 11 ng/L. A lower detection limit of 3 ng/L was achieved in March through analytical refinements. At that time, the sample from the inner marina (station AA; Fig. 1b) had the only measurable concentration of TBT (12 ng/L).

4.2 Sediment

4.2.1 Particle Size

Samples were collected from the upper few cm (0 to 4 cm in October; 0 to 2 cm in March and May) of the sediment surface of the exposed intertidal zone. The predominant particle size of these samples was medium sand (0.5 to 0.125 mm) throughout the estuary. The distribution of fine silt and clay (particles less than 0.0156 mm) is shown in Fig. 3a and b for October and March. The percentage of fine particles (as a percent of the total sediment sample) was greatest (fifty percent fine silt and clay) at station F, which is located in a sheltered cove in Joe Ney Slough (Fig. 4). The percentage of fine particles at other stations ranged from 3 to 11 percent.

4.2.2 Total Organic Carbon

Total organic carbon (TOC) in the sediment in South Slough ranged from 0.72 to 2.45 percent wet weight, with the exception of station F where 9.3 percent was measured (Fig. 5a). There was a statistically significant relationship ($r=0.91$, $n=11$, $p<0.01$) between the percent of fine silt and clay (particles <0.0156 mm) and TOC (Fig. 5b). The correlation was strongly influenced by the single data point with high values for both particles and TOC. The actual relationship may be better represented by separate correlations for fall and spring. In either case, the high TOC value at station F was related to the higher percentage of fine particles at that station compared to the other stations.

4.2.3 Priority Pollutants and Inorganic Metals

Sediment samples collected in October were analyzed for 105 organic "priority pollutants." None of these organic contaminants were above detection limits.

Chromium, copper, nickel, zinc and arsenic were present in the sediments of South Slough in October and March at average concentrations of 30, 8, 22, 32, and 3 milligrams per kilogram (mg/kg) dry weight, respectively (Appendix A1-A5). Only chromium, which was once mined in the drainage basin, would be considered to be at a level of concern based on Apparent Effects Threshold (AET) limits from the 1986 Puget Sound Dredged Disposal Analysis report (Tetra Tech, Inc., 1986). The highest concentrations of metals were measured at station F; all were strongly correlated (r values between 0.80 and 0.87) with the percent of fine particles except for arsenic ($r=0.045$; Appendix A6-A10). The higher concentration of metals at station F would be expected due to the greater abundance of fine particles. Additional metals (antimony, beryllium, cadmium, selenium, silver, and thallium) were included in the analyses but were at concentrations below detection levels.

4.2.4 Butyltins

Butyltins were measured in sediment at four stations in October, eight stations in March, and ten stations in May (Table I). Tributyltin (TBT) in sediment was most evident at the three stations closest to the boatyard (D, E, and F; Fig. 6a) and in Joe Ney Slough (station H). Concentrations at those stations ranged from 11 to 40 ug/kg wet weight. At station D, small chips of paint (up to two mm in size) were evident in the sediment. Mono-, di- and tetra-butyltin and inorganic tin were below detection (less than 5 ug/kg wet weight) in most sediment samples (Table II). As with tributyltin, the exceptions were at the stations closest to the boatyard (stations D, E, and F) and in Joe Ney Slough (station H), where concentrations ranged from 7 to 63 ug/kg (Table II).

Recoveries of the tripropyltin surrogate standard varied from 25 to 134 percent. Uhler and Durell (1989) suggest a quality control guideline of 20 to 120 percent recovery for sediment and tissue samples. Figure 6b shows the relationship between recovery and the concentration of TBT in samples in which TBT was above the detection limit. These samples varied in percent recovery from 39 to 114. The r value of 0.013 indicates that there was not a statistically significant linear correlation ($n=11$, $p>0.05$).

An analysis of the correlation between the percent of fine silt and clay (particles <0.0156 mm) and the concentration of TBT in sediment was inconclusive due to the predominance of samples with concentrations below the detection limit. The five data points from October and March where sediment concentrations of TBT were above detection did not suggest a correlation.

4.3 Shellfish

4.3.1 Butyltins

Recoveries of the tripropyltin surrogate standard varied from 8 to 93 percent. When correlated with TBT concentrations in tissue, there was a statistically significant relationship ($r=0.69$, $n=32$, $p<0.01$, Fig. 7a). In an attempt to compensate for the differences in recoveries, the concentrations of TBT were adjusted based on the recovery of the internal surrogate standard, tripropyltin. After initial laboratory assessments, the butyltin data was adjusted based on the assumption that a 50% recovery of the standard was equivalent to an 85% recovery of butyltins (D. Hickman, pers. comm.). Also based on initial laboratory assessments, it was assumed that a linear relationship between standard recovery and butyltin recovery occurred up to the 50% recovery level. Above a standard recovery of 50%, the recovery of butyltins was assumed to be equivalent to that of the standard. The data which was adjusted for recovery will be referred to as "adjusted" data. Both adjusted and unadjusted data is listed in Table III.

Average unadjusted tributyltin concentrations in oyster and clam tissues are shown in Figure 7b. Figure 7c illustrates the adjusted values for TBT concentrations in tissue. Concentrations range from below detection to 44 ug/kg wet weight. The unadjusted concentrations range from below detection to 26 ug/kg wet weight. The highest concentrations of TBT were measured in clams collected at station B in October and in oysters collected at station H in October and March. There was generally less TBT in samples collected in May than in October. Figure 8 illustrates the variability in concentration of TBT between individual oysters collected at station H in Joe Ney Slough in October, March, and May.

In most tissue samples (clams and oysters), mono-, di-, and tetra-butyltin and inorganic tin were below the detection limit of 10 ug/kg in October and 3 ug/kg in March and May. In March, however, individual oysters from two stations (J and K) had concentrations of dibutyltin which were higher than concentrations of tributyltin (Table III). Because dibutyltin is a degradation product of tributyltin, this suggests that higher concentrations of TBT were present in the oyster tissue previously.

4.3.2 Relationship Between Tissue and Sediment

A predictive relationship between concentrations of TBT in the sediment and in tissue is not apparent from the available data. The reliability of any interpretation is limited, however, because the observed butyltin concentrations in most of the sediment samples were below detection levels.

4.3.3 Shell Length, Tissue Weight, Chambering

Adjusted TBT concentrations in oyster tissue exhibited a slightly significant linear correlation with the ratio of wet tissue weight to shell length ($r=0.44$, $n=27$, $0.05>p>0.01$; Fig. 9a). The data indicate that the oysters collected in October typically had a larger mass of tissue per unit shell length than those collected in March and May.

Adjusted TBT concentrations in oyster tissue do not exhibit a statistically significant correlation with a "shell thickness index" equivalent to: (shell length)/(upper-valve thickness) ($r=0.11$, $n=27$, $p>0.05$; Fig. 9b). The index values for individual oysters compared to tissue concentrations of TBT is shown in Figure 10 a, b, and c. The shell thickness index has been used by other researchers (e.g., Thain, et al., 1987; Unger, et al., 1987; Davies, et al., 1987) with lower values indicating thickened shells and suggesting abnormal growth patterns.

The number of chambers in individual oysters compared to tissue concentrations of TBT is shown in Figure 11 a, b, and c, and varies from 1 to 7 chambers in the upper (or right) valve; the

correlation, which is not statistically significant, is shown in Figure 9c (r=0.016, n=27, p>0.05). Okoshi, et al. (1987) noted that more chambers were usually found in the right valve, as was true in this study, and counted up to 8 chambers. The chambering effect in C. gigas has been attributed to exposure to TBT (Waldock and Thain, 1983; Smith, et al., 1987; Thain, et al., 1987), although Okoshi, et al. (1987) contend that chambering in C. gigas occurred in Japan prior to the use of TBT paints and is due to a combination of genetic and undetermined environmental factors. Waldock and Thain (1983) reported pronounced shell thickening at 150 ng/L TBT.

Comparisons were made to examine whether there was a relationship between tissue weight and tissue concentration of TBT (Fig. 12 a, b, and c). There does not appear to be a relationship between those parameters in this study. Thain, et al. (1987) did find that lower tissue weights in oysters were associated with higher concentrations of TBT in water, however.

5 DISCUSSION

Shells of oysters collected from South Slough in 1987 had more substantial "balling", or roundness, than the shells of oysters collected in 1988 and 1989. Recognizing that the 1987 samples were analyzed by a different laboratory and method and that data may not be directly comparable, concentrations of TBT in oysters in South Slough are listed in Table IV for both the present study and the earlier study. In the earlier study (Wolniakowski, et al., 1987), TBT concentrations in oyster tissue ranged from 50 to 189 ug/kg wet weight. In this study, TBT concentrations in oyster and clam tissue ranged from below detection (less than 3 ug/kg) to 44 ug/kg wet weight; TBT concentrations in sediment ranged from below detection to 40 ug/kg wet weight.

Because of analytical variability between methods, any conclusion regarding changes in TBT concentrations between the 1987 study and this study must be made with caution. Based on variability determined in other studies (Stephenson, et al., 1987), concentration values that differ by less than a factor of two or three should not be considered significantly different. In comparing the data from this study and the earlier study, it does appear that there has generally been a decrease in TBT concentrations in oysters from South Slough; the magnitude of the change is unclear due to the different methods used.

Again, although comparisons of data from different laboratories can be problematic due to differences in methods, differences in reporting, and lack of standards, some recent TBT data from other researchers follows. Note: Dry weight concentrations and wet weight concentrations for tissue samples are not directly comparable. In converting from wet weight to dry weight, concentration values for oyster tissue can increase by as much as a factor of eight to ten (M. Stephenson, pers. comm.).

Uhler, et al. (1989) measured 297 ug/kg dry weight TBT in Mytilus californianus (mussels) in upper Coos Bay and 739 and 762 ug/kg dry weight in Mytilus edulis in upper Coos Bay and Yaquina Bay, respectively; they measured as much as 3256 ug/kg in M. edulis in Harbor Island, California. Varanasi, et al. (1988) reported TBT concentrations of 6.6 to 3300 ug/kg dry weight as Sn in sediments from Shilshole Bay, Puget Sound, with the higher concentrations in sediments collected near boat repair and maintenance facilities.

Stephenson, et al. (1987) reported TBT concentrations ranging from 15 to 527 ug/kg in sediment and 96 to 6389 ug/kg dry weight in mussel tissue in Monterey Bay. Stallard, et al. (1987) reported concentrations of TBT from below detection up to 590 ng/L in marina waters and up to 23 ug/kg dry weight in coastal sediments in California. Grovhoug, et al. (1989) reported mean TBT concentrations in sediment ranging from 28 to 174 ug/kg dry weight with a maximum of 2200, and mean concentrations in mussel and oyster tissue ranging from 201 to 849 ug/kg wet weight with a maximum of 2600, from San Diego Bay. Compared to many other bays and estuaries on the west coast, South Slough appears to have below-average concentrations of TBT (M. Stephenson, pers. comm.).

Although the number of data points is limited, this study suggests that TBT concentrations in tissue are not predictable from TBT concentrations in sediment. For example, TBT was below detection in the sediment of the upper reaches of South Slough at the mouths of Sengstacken and Winchester Arms (stations K and L, Fig. 7a); however, TBT concentrations in oyster tissue from those stations were similar to concentrations throughout the slough.

The sediment data suggests that despite improved practices, the boat maintenance facilities (located near stations D, E, and F) continue to be a significant source of TBT to the estuary. Although the water analyses suggest that the inner marina (station AA) is also a source of TBT, station B (the station closest to the marina where sediment was collected) did not have detectable concentrations of TBT. While detectable concentrations of TBT in sediment were found in a limited area, TBT was found in oyster and clam tissue throughout much of the slough.

TBT in water is reported to degrade to DBT in about 1 to 2 weeks (Seligman, et al., 1986; Lee, et al., 1987). The process is accelerated by the activity of microalgae (Lee, et al., 1989). Harris and Cleary (1987) report a half-life of 40 to 60 days for TBT in water and a half-life of up to 6 months for TBT in sediment; Maguire and Tkacz (1985) also estimate a half-life of several months for TBT in sediment. Reported sediment-water partitioning coefficients of 5.5×10^3 to 7×10^3 (Laughlin, et al., 1986), and 0.11×10^3 to 8.2×10^3 (Unger, et al., 1988) indicate an affinity of TBT for sediment. Studies by Unger, et al. (1988) determined that TBT sorption to sediment is reversible. Stang and Seligman (1987), however, reported no

significant desorption from sediment. It is unclear whether or not sediment-associated TBT would act as a significant source of TBT to the water column.

In this study, the shell thickness index (the ratio of upper-valve thickness to shell length) was not directly related to present concentrations of TBT. Chambering was evident in most of the oyster shells examined, but there was no apparent correlation between the number of chambers and the concentration of TBT in individual oysters. Because most of the oysters were in the three- to four-year age class, the chambers would have been formed in response to previous exposures. More information is needed on the degradation rates of TBT in organisms to determine what proportion of the TBT measured in tissues was due to past versus recent exposure.

If the TBT measured in this study was remnant from previous exposure, it would not explain the similar concentrations of TBT found in bivalves of varying age classes; clams which were up to one year old (M. balthica, M. nasuta, stations B and C), oysters which were three to four years old (L. Qualman, pers. comm.), and a large clam (Saxidomus) estimated to be ten years old (N. Richmond, ODFW, pers. comm.) all had similar concentrations of TBT.

6 CONCLUSIONS AND RECOMMENDATIONS

In the process of preparing for and conducting this study, DEQ developed the capability to perform butyltin analyses for water, sediment, and tissue samples. Although the original proposal described a hydride derivitization method for analysis of butyltins, that method was used only for water analyses. An alternative method using gas chromatography with mass spectrometry was used for sediment and tissue analyses. That method proved to be more sensitive and reliable but still presented some difficulty in achieving consistently high recovery levels.

Butyltin analyses are complex and quite time consuming. In addition, no standard method has yet been established and no standard reference materials are available for interlaboratory calibration. Throughout the course of this project, this resulted in a substantial amount of effort being expended in method refinement. In order to establish and maintain the capability to perform routine butyltin analyses for monitoring purposes, substantial resources in terms of funding and staff time would be necessary. In the case of this project, considerably more laboratory and staff time was expended than was projected.

Because of the lack of detectable concentrations of TBT in the water samples collected, water did not prove to be a useful media for monitoring TBT in the South Slough estuary. Sediment was useful in identifying the dominant source of TBT in the estuary but was not useful in predicting the accumulation of TBT in

shellfish. The analysis of tissue samples appears to be the most valuable tool for TBT-monitoring purposes. Bioaccumulation of TBT in shellfish in South Slough is occurring even though concentrations of TBT in water are at concentrations below detection levels.

Additional assessments and monitoring of TBT in Oregon will be dependent on funding. There is a need for continued improvement in boatyard repair and maintenance practices to further reduce the potential entry of TBT into the estuarine environment in Oregon. There is also a need for more information on potential health risks from consumption of TBT in seafood.

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Table I. Sampling Times and Locations

S = sediment
W = water
M = surface water microlayer
T = tissue (oyster or clam)

Station:	October	March	May
AA		W	
A	W,M		S,T
B	S,W,M,T	S,W,T	S,T
C			S
D			S,T
E	W,M,T	S,W	
E	S		
G			S
H	S,W,T	S,W,T	S,T
I	S,W,M	S,W	S
J	W	S,W,T	S
K	W	S,W,T	S
L	W	S,W,T	S
Z			T

Table II. Butyltins (ug/kg wet weight) in Sediment in South Slough

	Butyltin Species					
	Tetra	Tri	Di	Mono	Tin	% Recovery
[OCT. 88]						
Sta. B	--	--	--	--	--	47
	--	--	--	--	--	52
	--	--	--	--	--	25
Sta. F	--	22	--	--	--	74
	--	17	--	--	--	44
	--	23	--	--	63	53
Sta. H	--	5	--	--	--	45
	--	--	--	--	--	47
	--	--	--	--	--	45
Sta. I	--	5	--	6	--	45
	--	5	--	--	--	39
	--	--	--	--	--	47
[MAR. 89]						
Sta. B	--	--	--	--	--	104
	--	--	--	--	--	110
Sta. E	--	35	8	8	--	96
	--	40	13	14	12	104
	--	14	9	9	--	114
	--	11	13	7	14	110
Sta. H	--	--	--	--	--	90
	--	--	--	--	--	91
Sta. I	--	--	--	--	--	94
	--	--	--	--	5	79
Sta. J	--	--	--	--	--	88
	--	--	--	--	6	93
Sta. K	--	--	--	--	--	73
	--	--	--	--	--	50
Sta. L	--	--	--	--	--	43
	--	--	--	--	5	63
[MAY 89]						
Sta. B	--	--	--	--	--	39
Sta. C	--	--	--	--	--	88
Sta. D	--	39	11	12	--	68
	--	38	10	19	--	81
Sta. E	--	19	8	--	--	61
Sta. G	--	--	6	--	--	52
Sta. H	--	--	--	--	--	41
	--	12	10	19	--	81

-- below detection limit of 4 ug/kg wet weight

Table III. Summary Data for Oysters and Clams

Mn = Macoma nasuta Cg = Crasssostrea gigas Tre = Tresus capax
Mb = Macoma balthica Sax = Saxidomus nuttalli

	Butyltins in Tissue (ug/kg wet wt) Tri	Adjust. Tri(*)	Di (Adj.Di)	Mono (Adj.Mono)	Percent Recovery	Shell Length (cm)	Tissue Weight (g)	Upper Valve Thick.(cm)	No. of Chambers
[OCT. 88]									
Sta. B (Mb)	19		---	---	56				
Sta. E (Tre)	11		---	---	75				
	28		---	---	93				
	30		---	---	93				
Sta. H (Cg):									
(composite)	19	22	---	---	50				
(individual)	5	6	---	---	50	8.28	22.86	0.3	1
" "	21	25	---	---	50	9.86	20.11	1.0	2
" "	14	27	---	---	31	8.31	12.19	0.7	3
" "	13	33	---	---	23	7.85	12.64	0.8	1
" "	25	40	---	---	37	10.87	17.51	0.8	3
" "	6	44	---	---	8	9.93	24.67	0.5	1
[MAR. 89]									
Sta. H (Cg)	22	26	---	---	50	7.62	20.6	1.1	5
	26	33	---	---	47	10.59	14.0	1.0	3
	10	39	---	---	15	11.10	32.6	2.0	4
Sta. J (Cg)	11	10	---	---	67	11.66	25.1	1.7	7
	5	17	45 (156)	---	17	10.87	52.6	1.0	6
	6	21	---	5 (17)	17	12.47	71.8	1.6	7
Sta. K (Cg)	15	12	26	---	71	12.62	60.9	1.0	3
	12	15	---	---	47	8.74	23.3	1.0	3
	8	16	---	---	29	10.69	56.4	1.3	6
Sta. L (Cg)	---	---	---	---	29	8.41	31.8	0.6	2
	---	---	4 (9)	---	25	9.25	38.7	1.0	3
	---	---	5 (11)	---	27	11.35	37.7	0.8	2
[MAY 89]									
Sta. B (Mn)	5	7	---	---	44				
Sta. B (Sax)	11	17	---	---	39				
Sta. C (Mn)	5	9	4 (7)	---	33				
Sta. E (Tre)	---	---	---	---	37				
Sta. H (Cg)	5	7	---	---	42	9.53	25.6	0.8	2
	4	14	---	---	17	9.09	25.2	1.5	5
	6	17	---	---	21	7.62	21.5	1.4	4
Sta. L (Cg)	3	9	3 (9)	17 (34)	20	8.18	29.2	0.8	3
	5	16	---	---	18	9.70	27.7	0.6	2
	6	20	---	---	18	8.84	37.4	1.2	6
Sta. Z (Cg)	8	19	---	---	25	12.95	60.9	1.5	7
	7	23	---	---	18	13.41	66.9	1.2	5
	6	25	4 (17)	---	14	11.43	78.4	2.0	6

--- = below detection limit of 10 ug/kg (Oct.) or 3 ug/kg (Mar., May); wet weight

(*) data adjusted for differences in percent recovery; see text

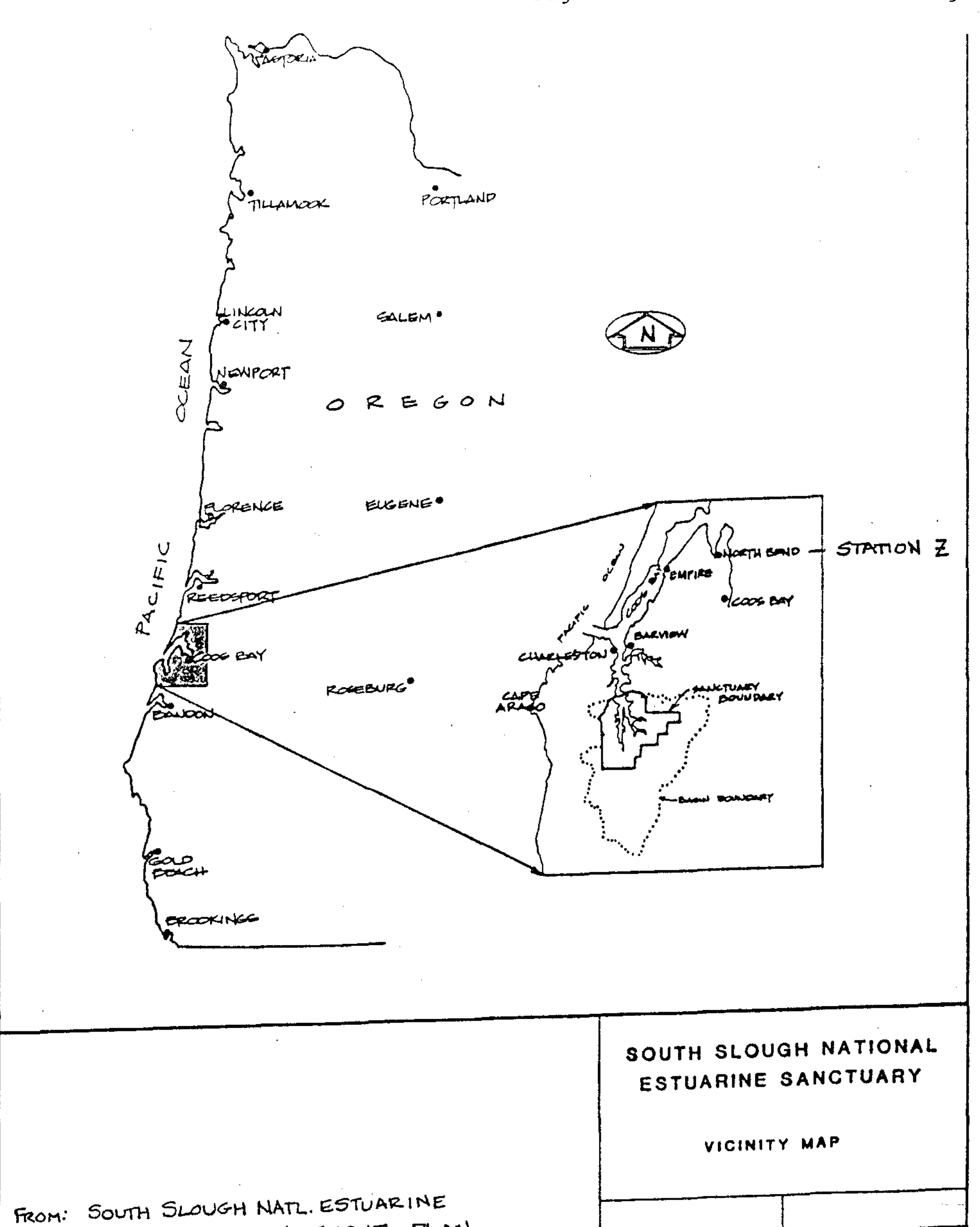
Table IV. Tributyltin in C. gigas (ug/kg wet weight)

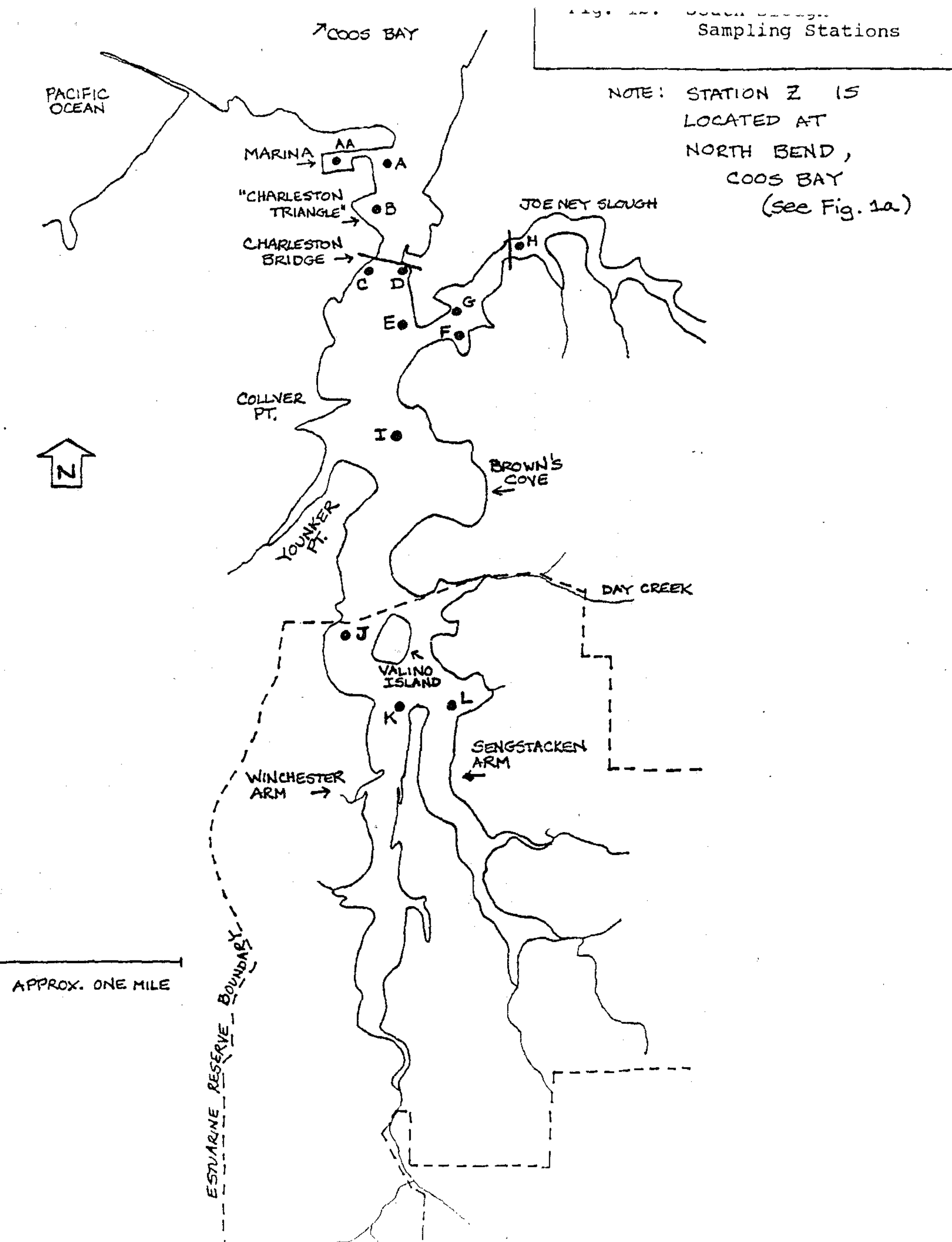
	June 87*	Oct. 88**	Mar. 89**	May 89**
Sta. H	88	26	33	13
Sta. I	76			
Sta. J	102		16	
Sta. K	48		14	
Sta. L	81		<3	15
Sta. Z	189			22

* analyses conducted by Moss Landing Marine Laboratory using sodium hydroxide precipitation method; composite samples

** analyses conducted by DEQ Laboratory using Grignard reaction method (see text for method description); average of individual samples

Fig. 1a. Location of South Slough





Sampling Stations

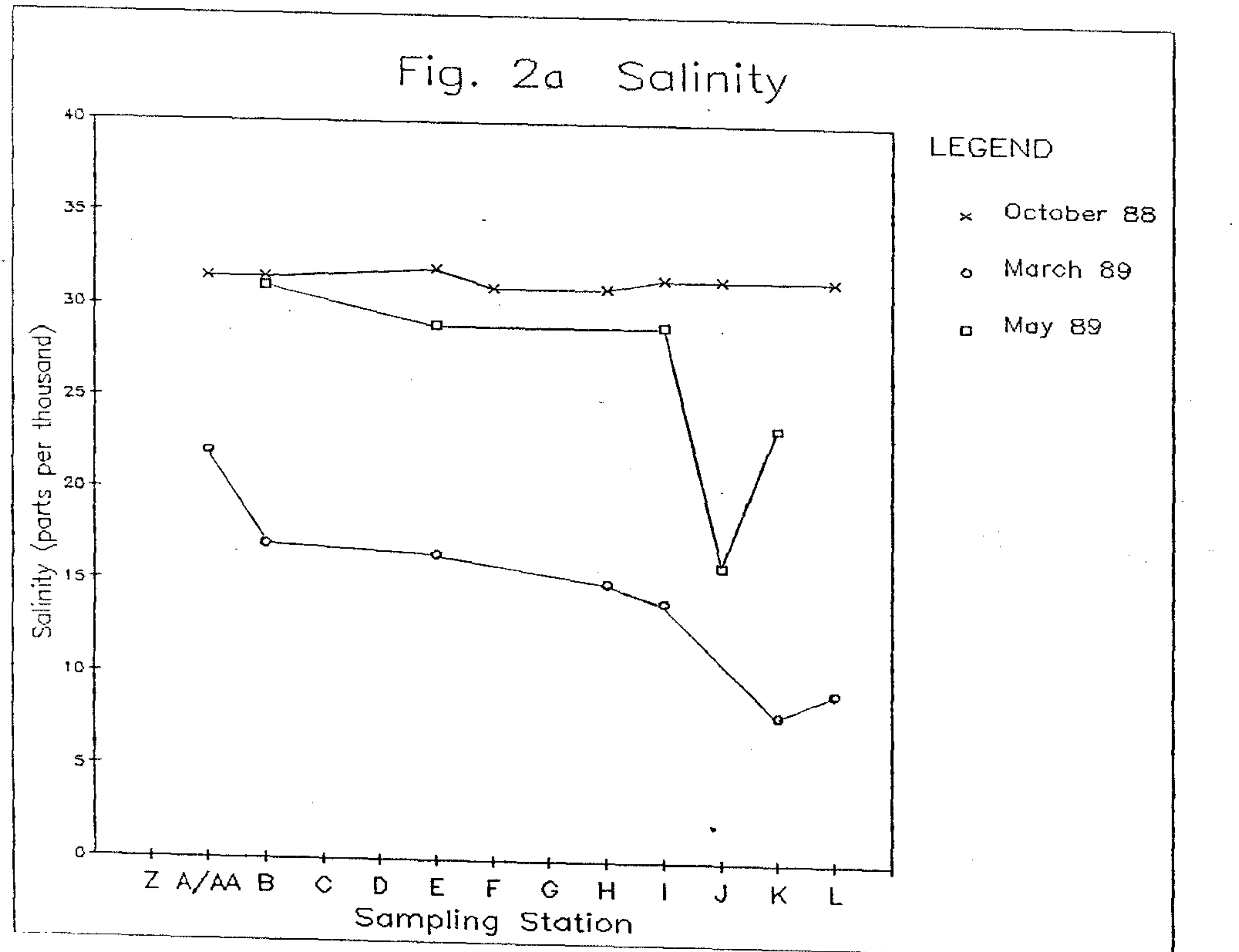


Fig. 2a Salinity
LEGEND
× October 88
o March 89
□ May 89
Salinity (parts per thousand)
40
35
30
25
20
15
10
5
0
Z A/AA B C D E F G H I J K L
Sampling Station

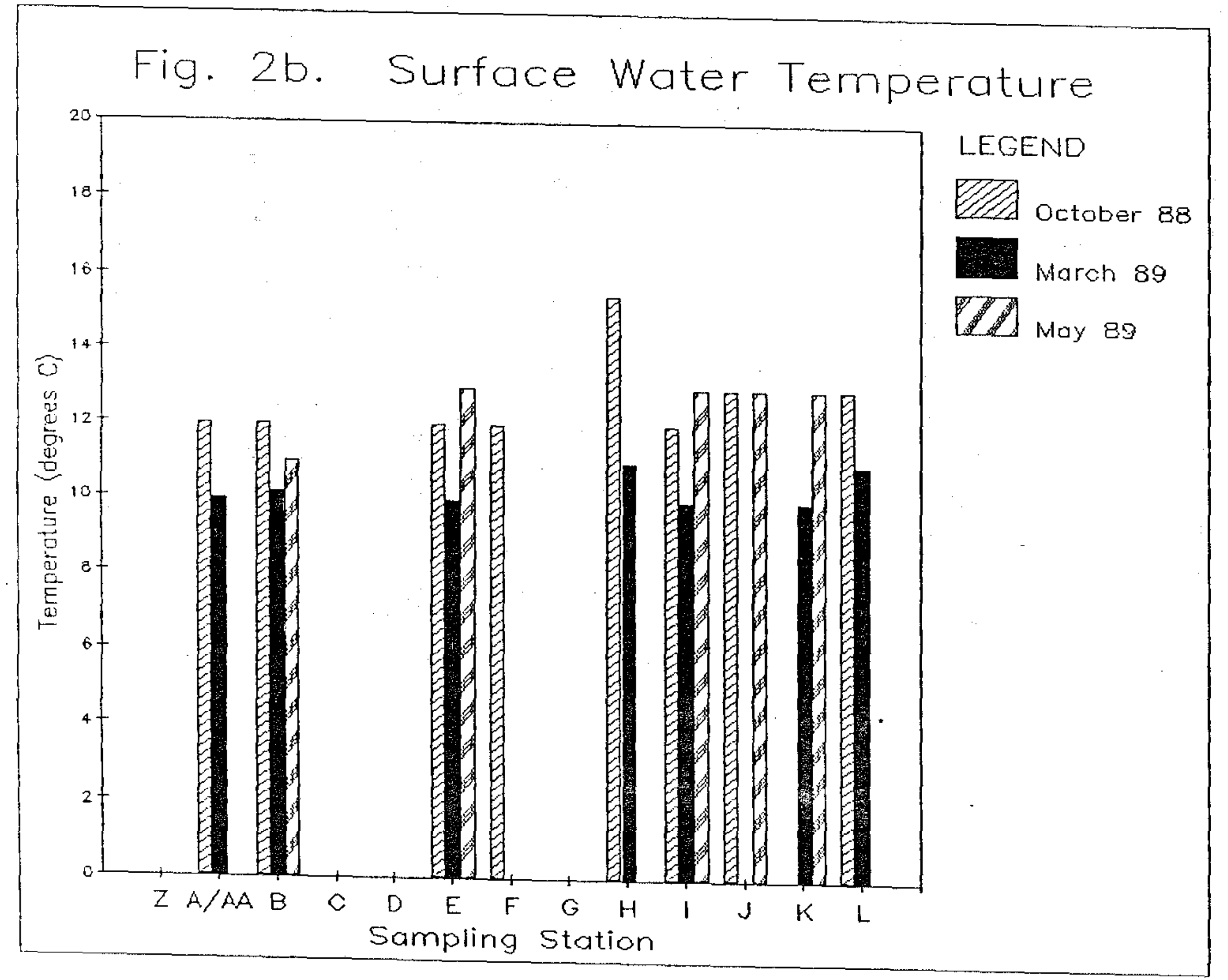


Fig. 2b. Surface Water Temperature
LEGEND
October 88
March 89
May 89
Temperature (degrees C)
0
2
4
6
8
10
12
14
16
18
20
Z
A/AA
B
C
D
E
F
G
H
I
J
K
L
Sampling Station

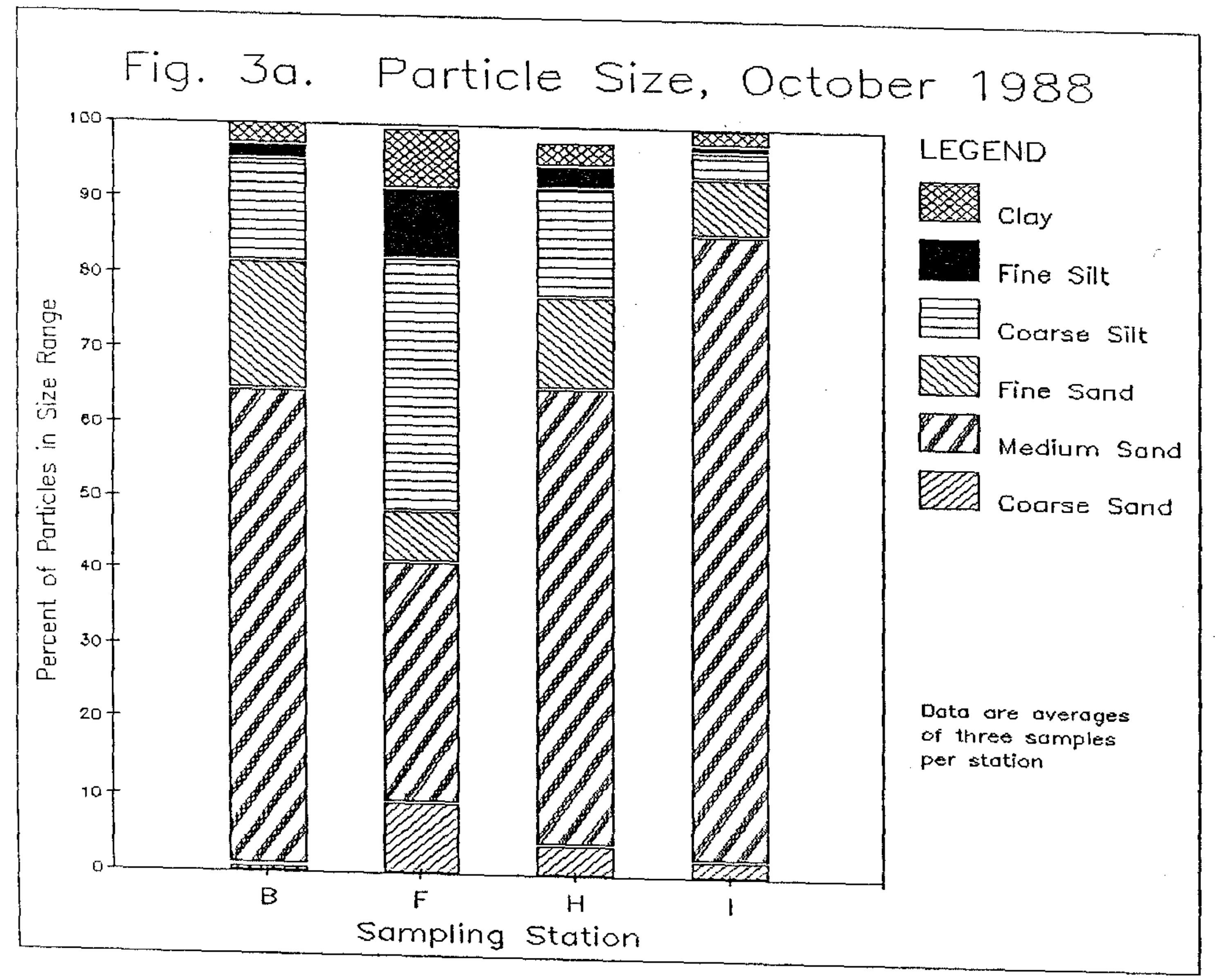


Fig. 3a. Particle Size, October 1988
Percent of Particles in Size Range
100
90
80
70
60
50
40
30
20
10
0
B
F
H
I
Sampling Station
LEGEND
Clay
Fine Silt
Coarse Silt
Fine Sand
Medium Sand
Coarse Sand
Data are averages of three samples per station

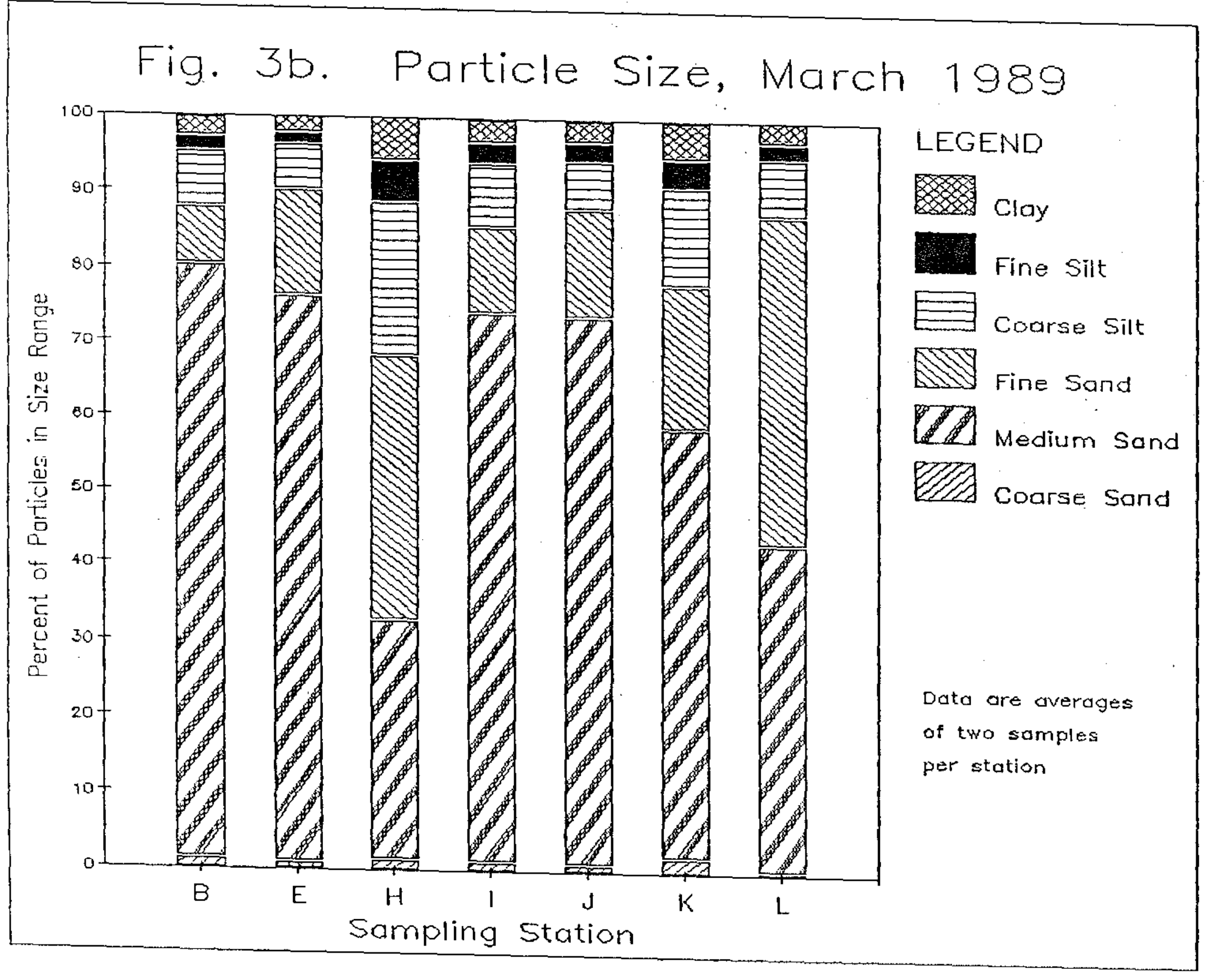


Fig. 3b. Particle Size, March 1989
100
90
80
70
60
50
40
30
20
10
0
Percent of Particles in Size Range
B
E
H
I
J
K
L
Sampling Station
LEGEND
Clay
Fine Silt
Coarse Silt
Fine Sand
Medium Sand
Coarse Sand
Data are averages
of two samples
per station

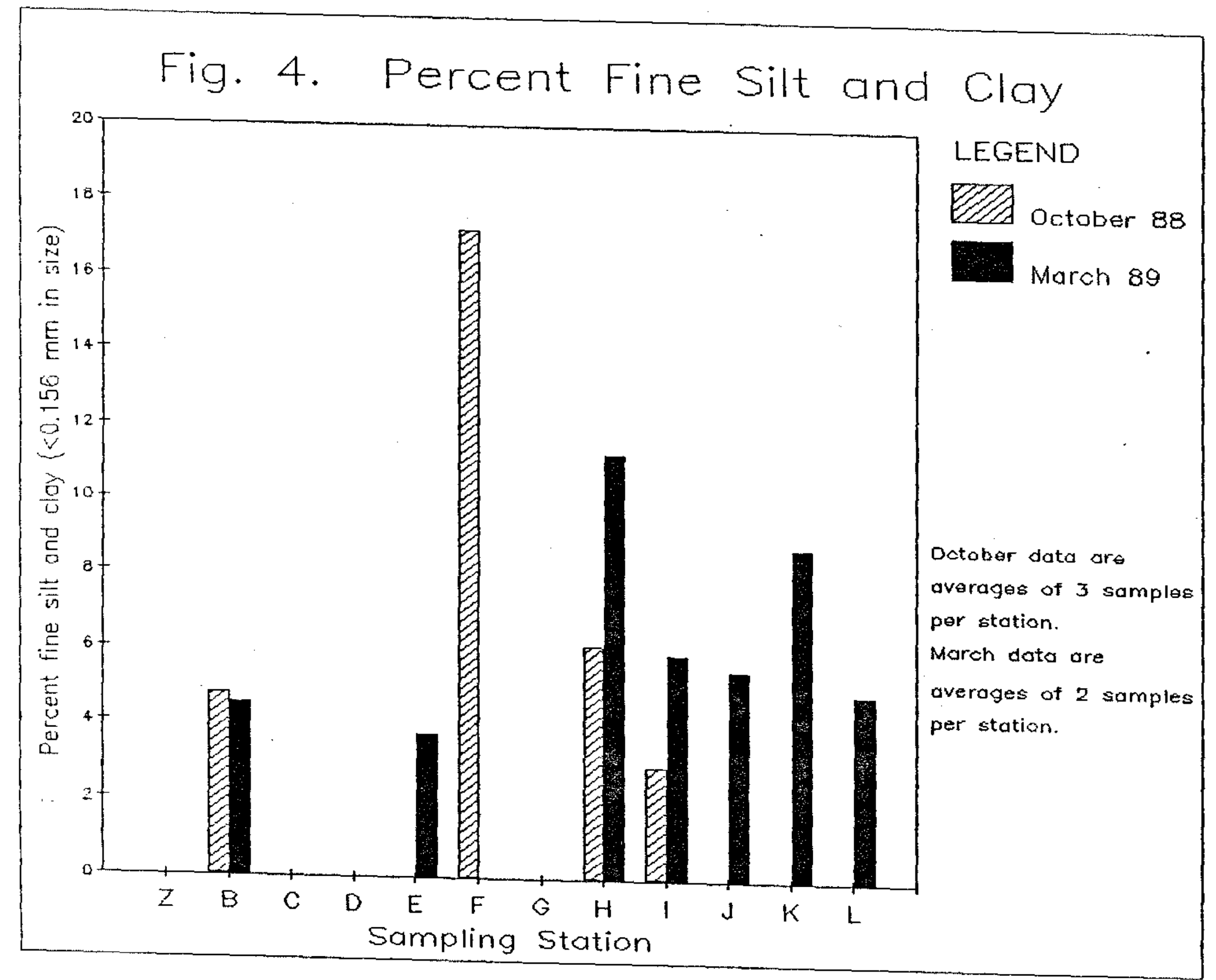


Fig. 4. Percent Fine Silt and Clay
Percent fine silt and clay (<0.156 mm in size)
20
18
16
14
12
10
8
6
4
2
0
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
LEGEND
October 88
March 89
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.

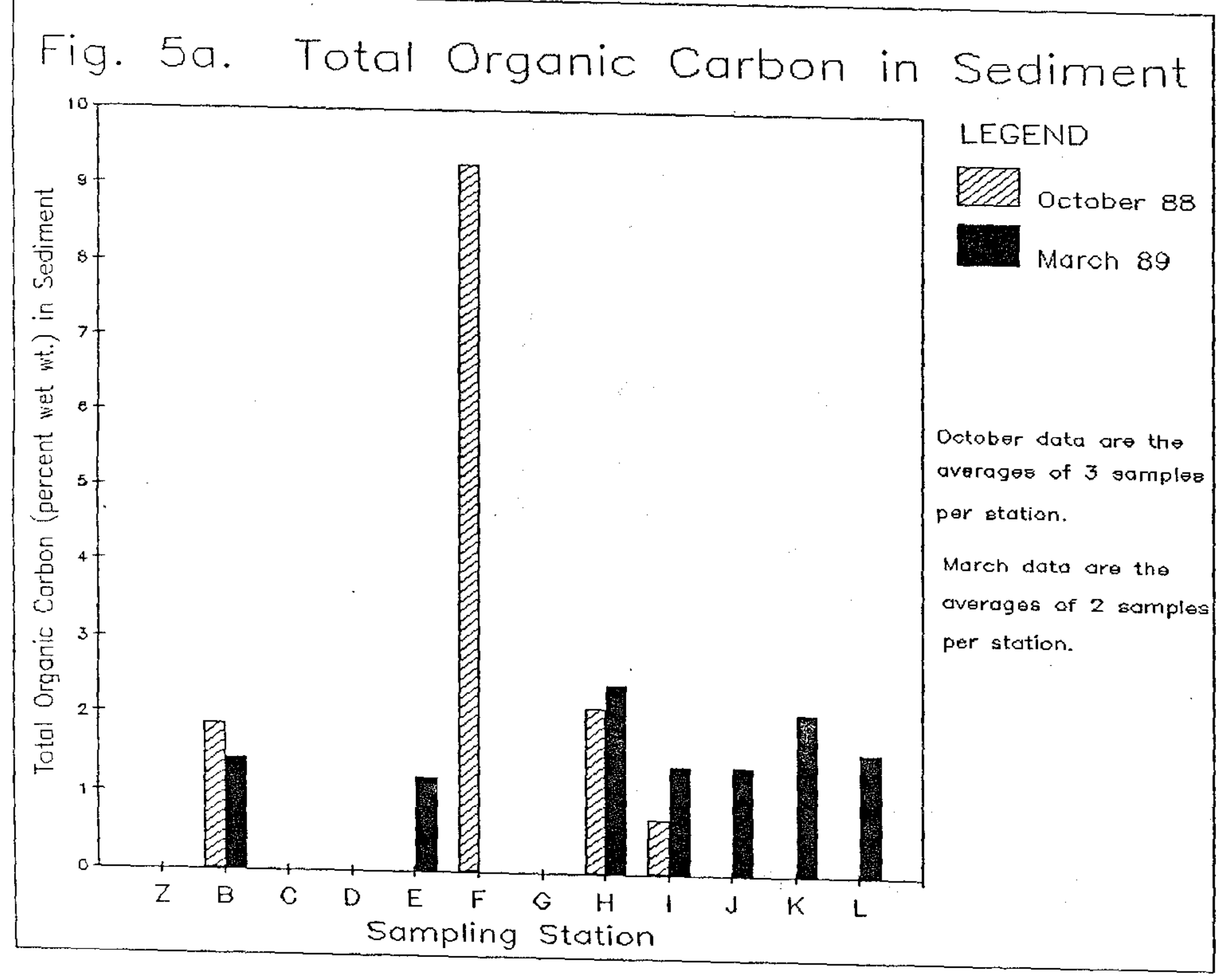


Fig. 5a. Total Organic Carbon in Sediment
LEGEND
October 88
March 89
October data are the averages of 3 samples per station.
March data are the averages of 2 samples per station.
Total Organic Carbon (percent wet wt.) in Sediment
0
1
2
3
4
5
6
7
8
9
10
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station

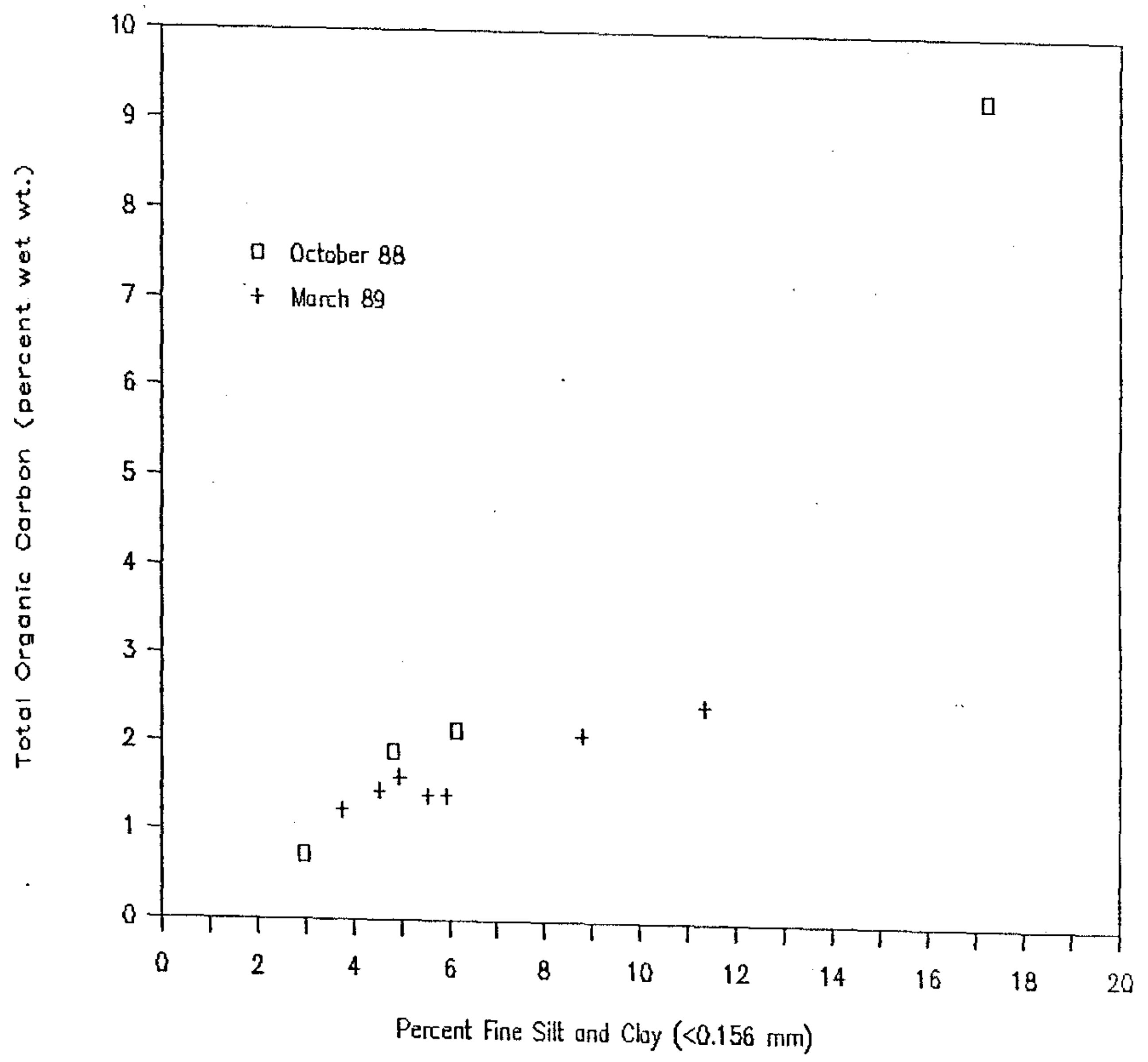


Fig. 5b. Fine Silt & Clay vs. TOC (sed)
Total Organic Carbon (percent wet wt.)
Percent Fine Silt and Clay (<0.156 mm)
October 88
March 89
0
1
2
3
4
5
6
7
8
9
10
0
2
4
6
8
10
12
14
16
18
20

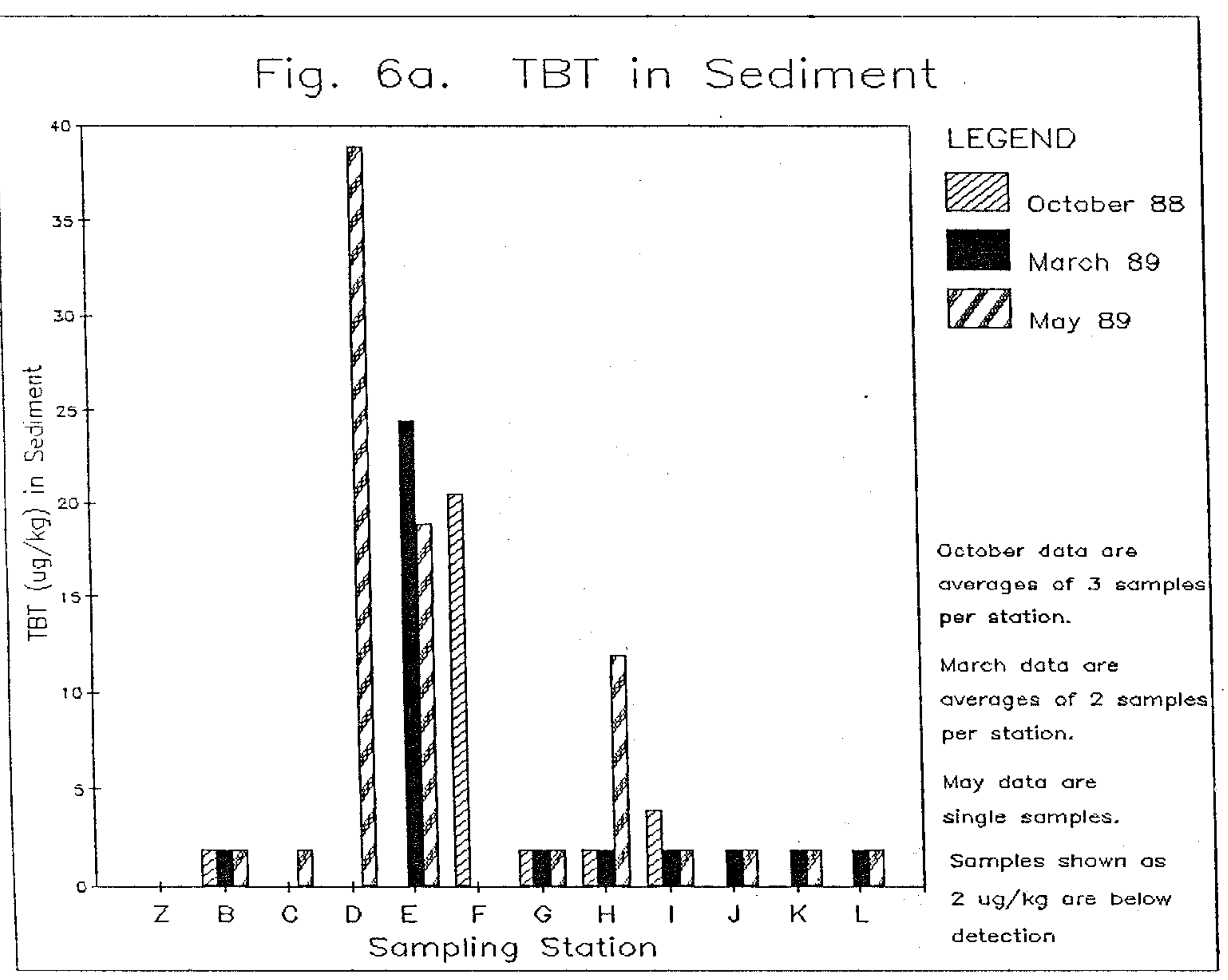


Fig. 6a. TBT in Sediment
LEGEND
October 88
March 89
May 89
TBT (ug/kg) in Sediment
40
35
30
25
20
15
10
5
0
Z B C D E F G H I J K L
Sampling Station
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.
May data are single samples.
Samples shown as 2 ug/kg are below detection

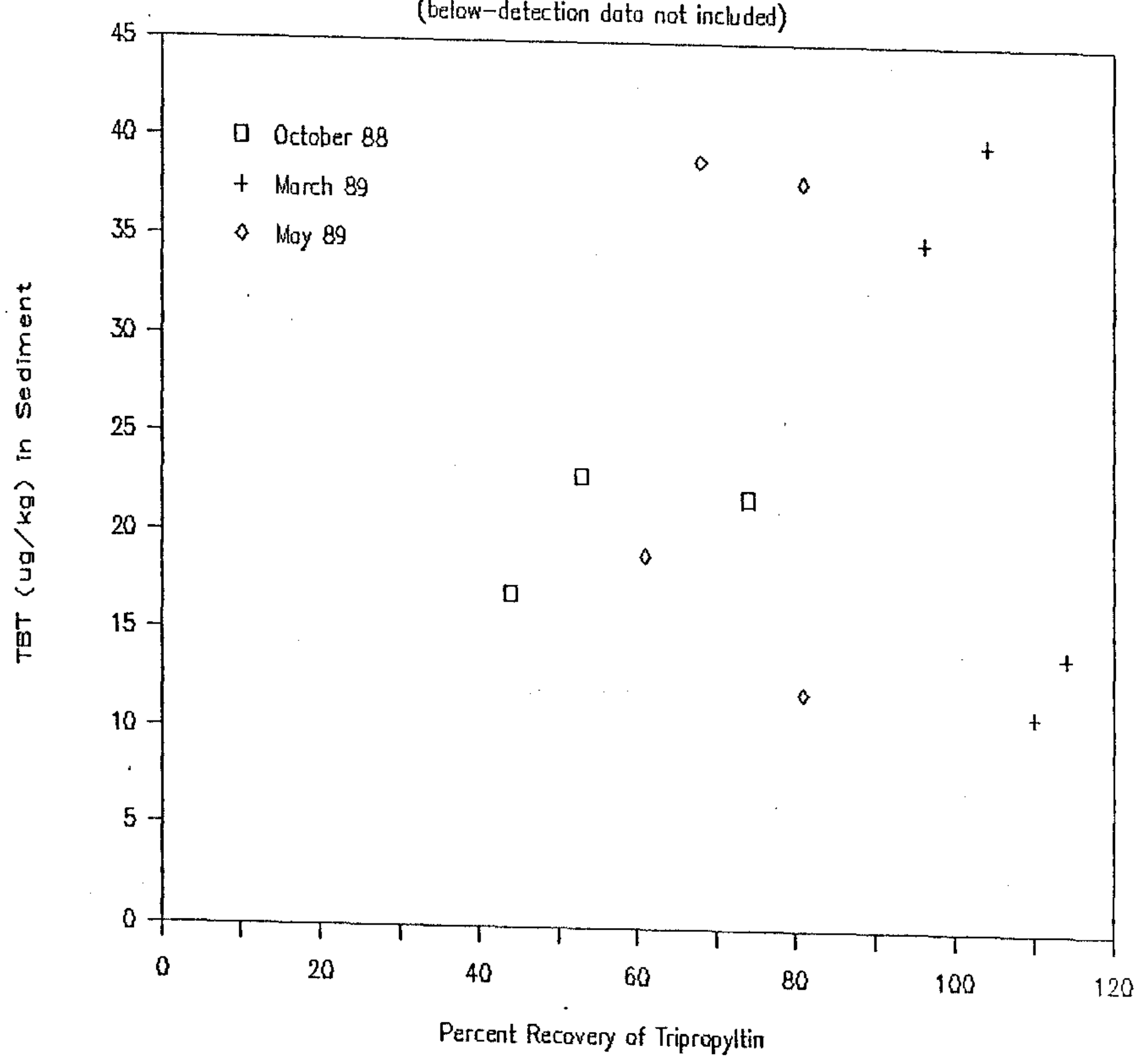


Fig. 6b. % Recovery vs. TBT in Sediment
(below-detection data not included)
October 88
March 89
May 89
TBT (ug/kg) in Sediment
Percent Recovery of Tripropyltin
0
5
10
15
20
25
30
35
40
45
0
20
40
60
80
100
120

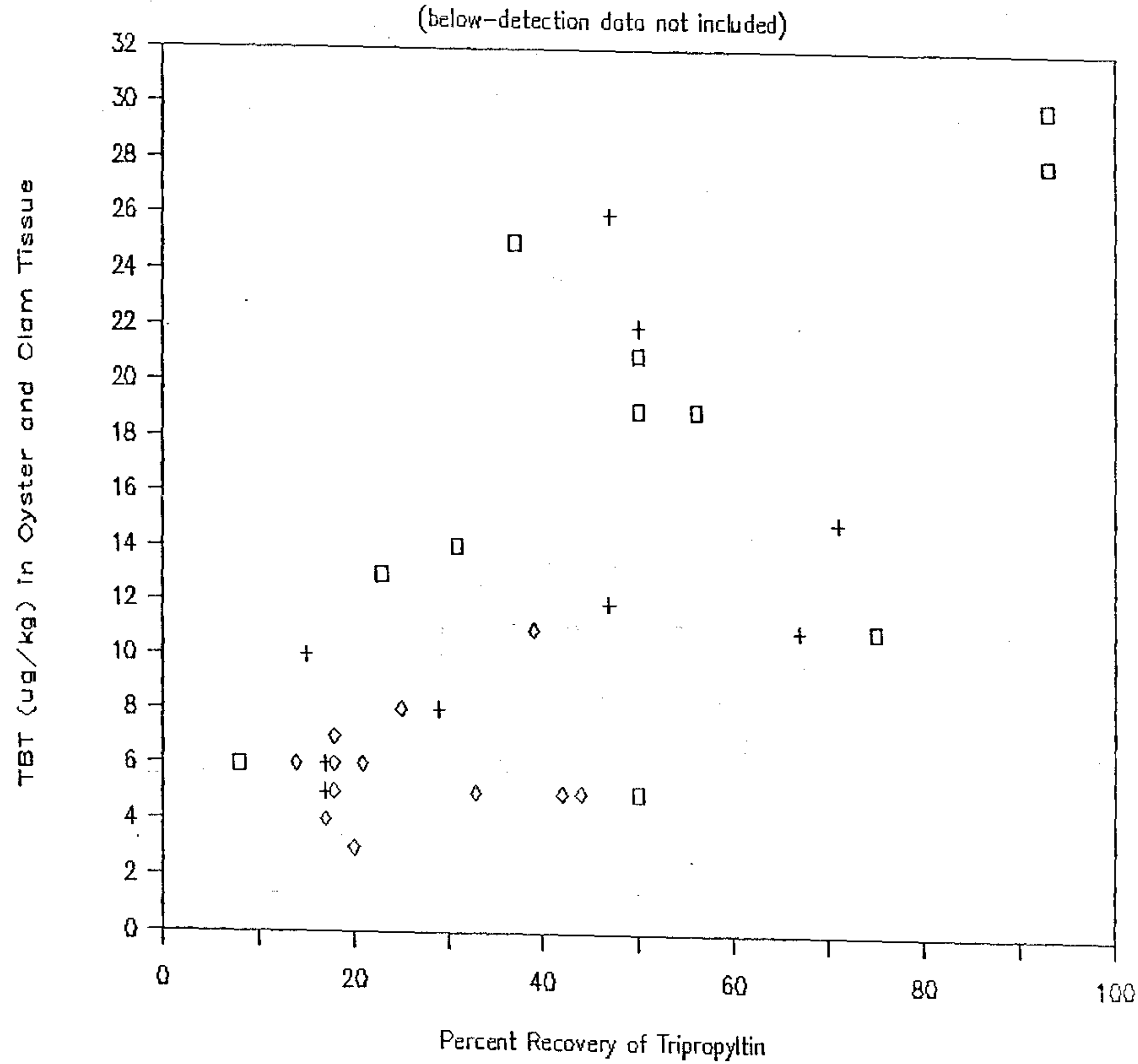


Fig. 7a. % Recovery vs. TBT in Tissue
(below-detection data not included)
TBT (ug/kg) in Oyster and Clam Tissue
Percent Recovery of Tripropyltin
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
0
20
40
60
80
100

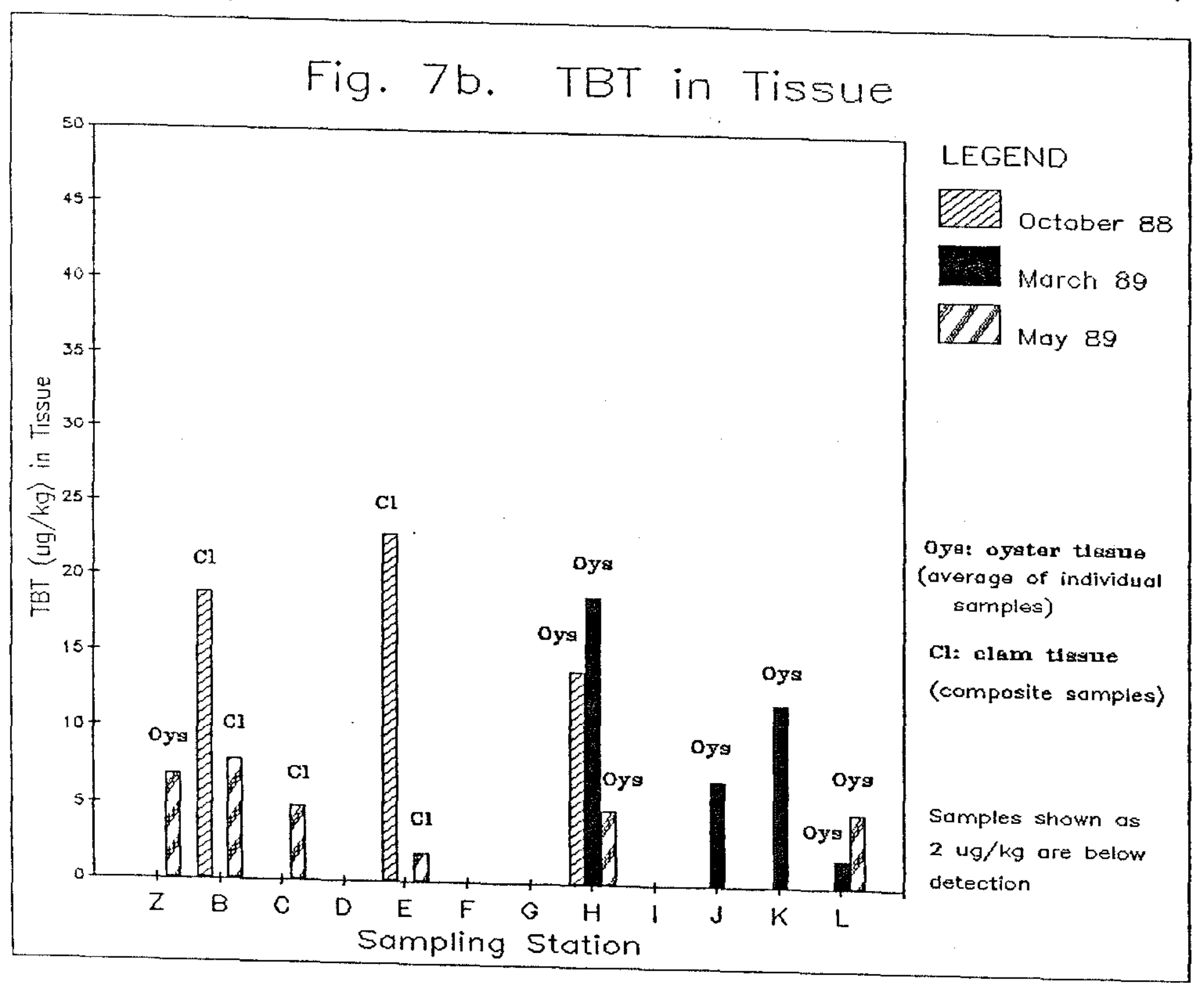


Fig. 7b. TBT in Tissue
LEGEND
October 88
March 89
May 89
TBT (ug/kg) in Tissue
0
5
10
15
20
25
30
35
40
45
50
Oys
Cl
Cl
Cl
Cl
Cl
Oys
Oys
Oys
Oys
Oys
Oys
Oys
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
Oys: oyster tissue (average of individual samples)
Cl: clam tissue (composite samples)
Samples shown as 2 ug/kg are below detection

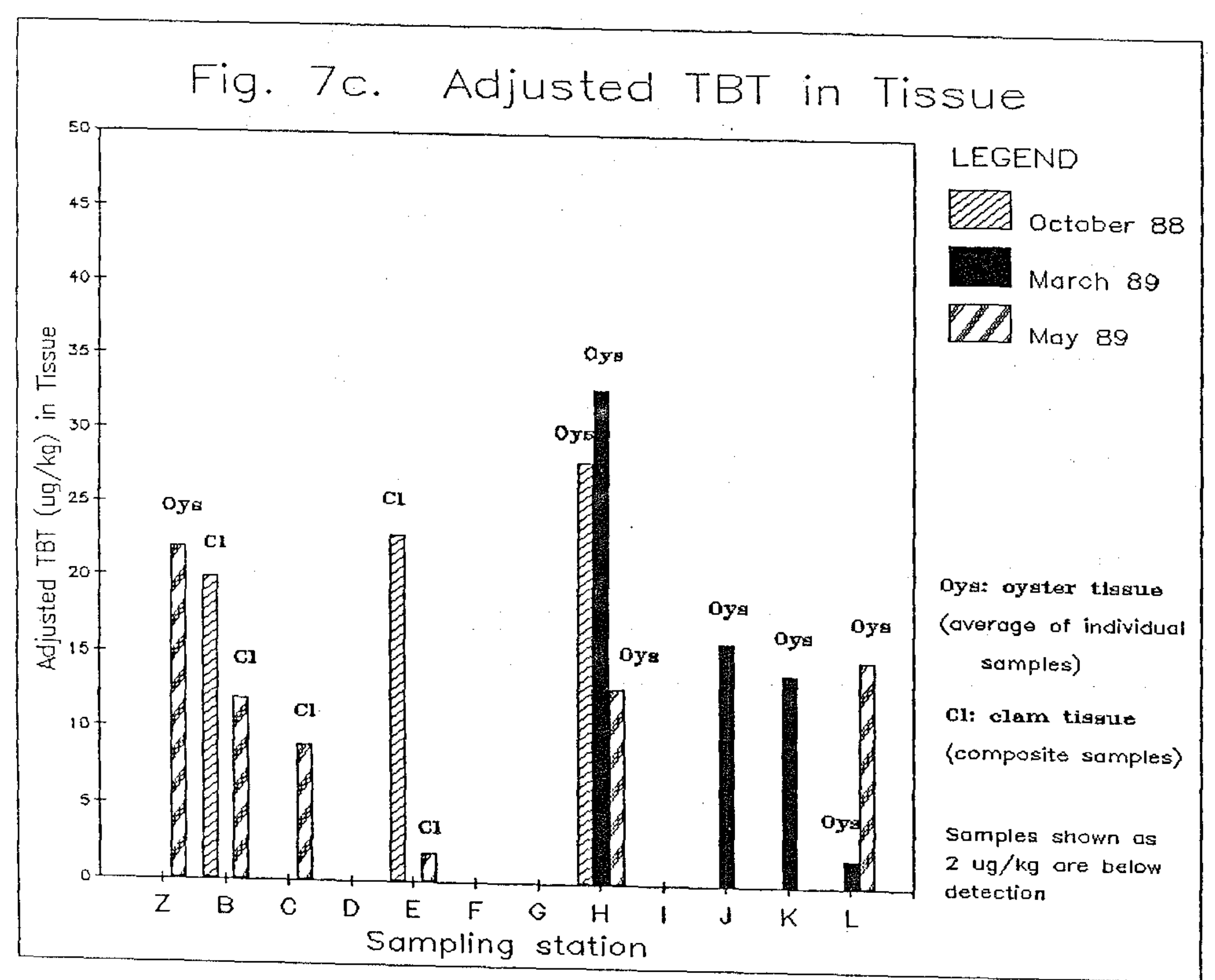


Fig. 7c. Adjusted TBT in Tissue
Adjusted TBT (ug/kg) in Tissue
50
45
40
35
30
25
20
15
10
5
0
Oys
Cl
Cl
Cl
Cl
Cl
Oys
Oys
Oys
Oys
Oys
Oys
Oys
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling station
LEGEND
October 88
March 89
May 89
Oys: oyster tissue
(average of individual
samples)
Cl: clam tissue
(composite samples)
Samples shown as
2 ug/kg are below
detection

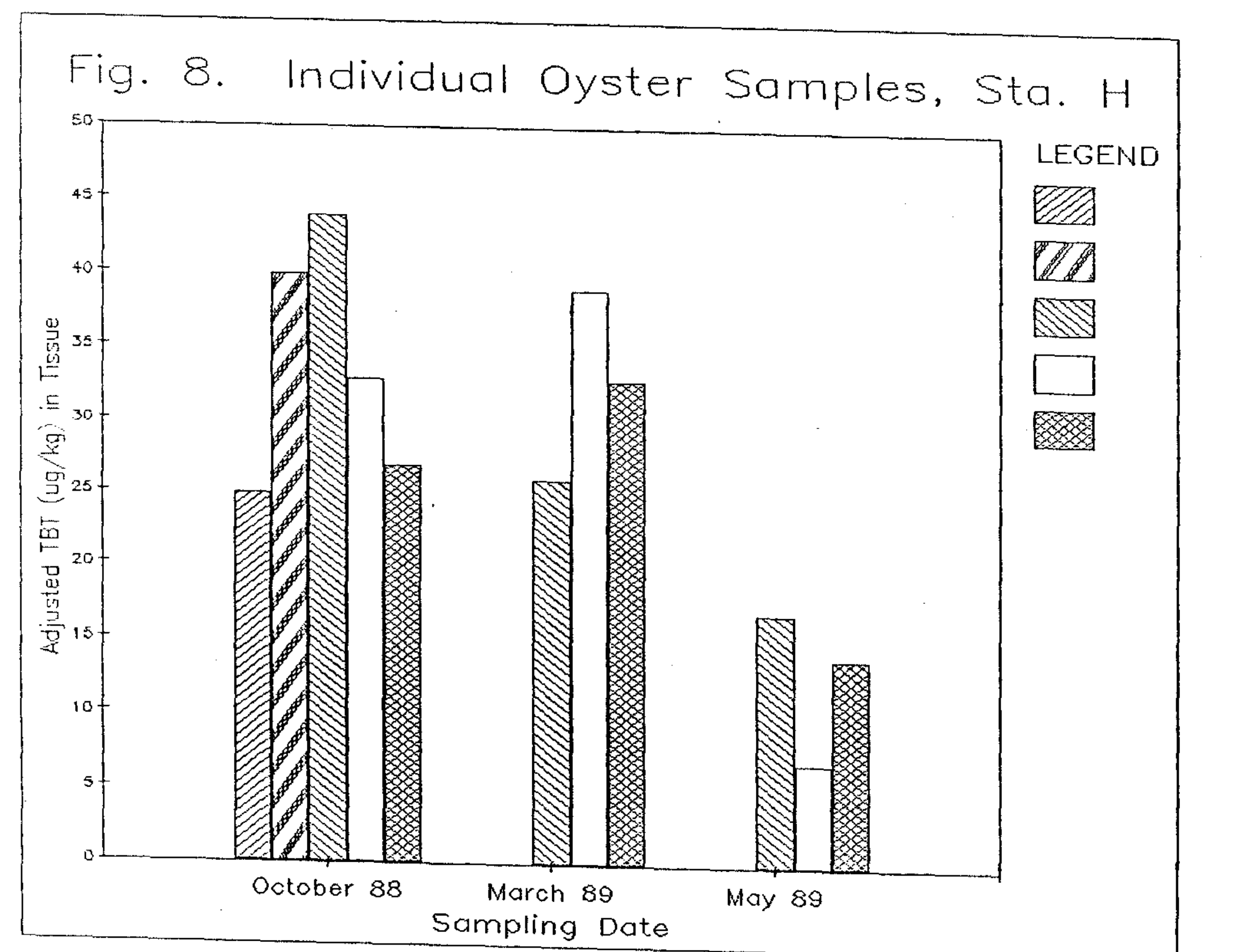


Fig. 8. Individual Oyster Samples, Sta. H
LEGEND
Adjusted TBT (ug/kg) in Tissue
50
45
40
35
30
25
20
15
10
5
0
October 88
March 89
May 89
Sampling Date

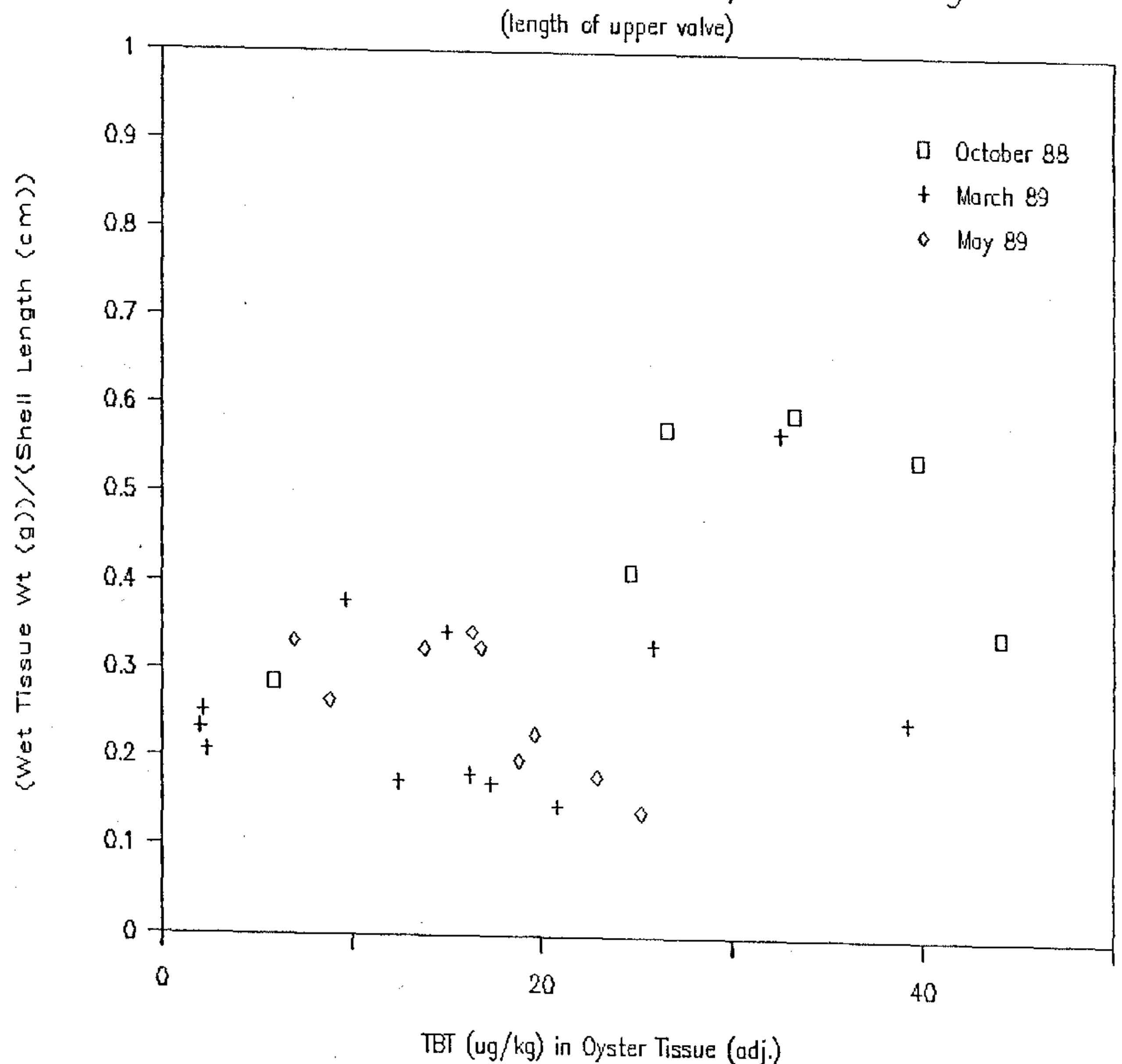


Fig. 9a. TBT vs. Tissue Wt/Shell Length
(length of upper valve)
(Wet Tissue Wt (g))/(Shell Length (cm))
TBT (ug/kg) in Oyster Tissue (adj.)
October 88
March 89
May 89
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
20
40

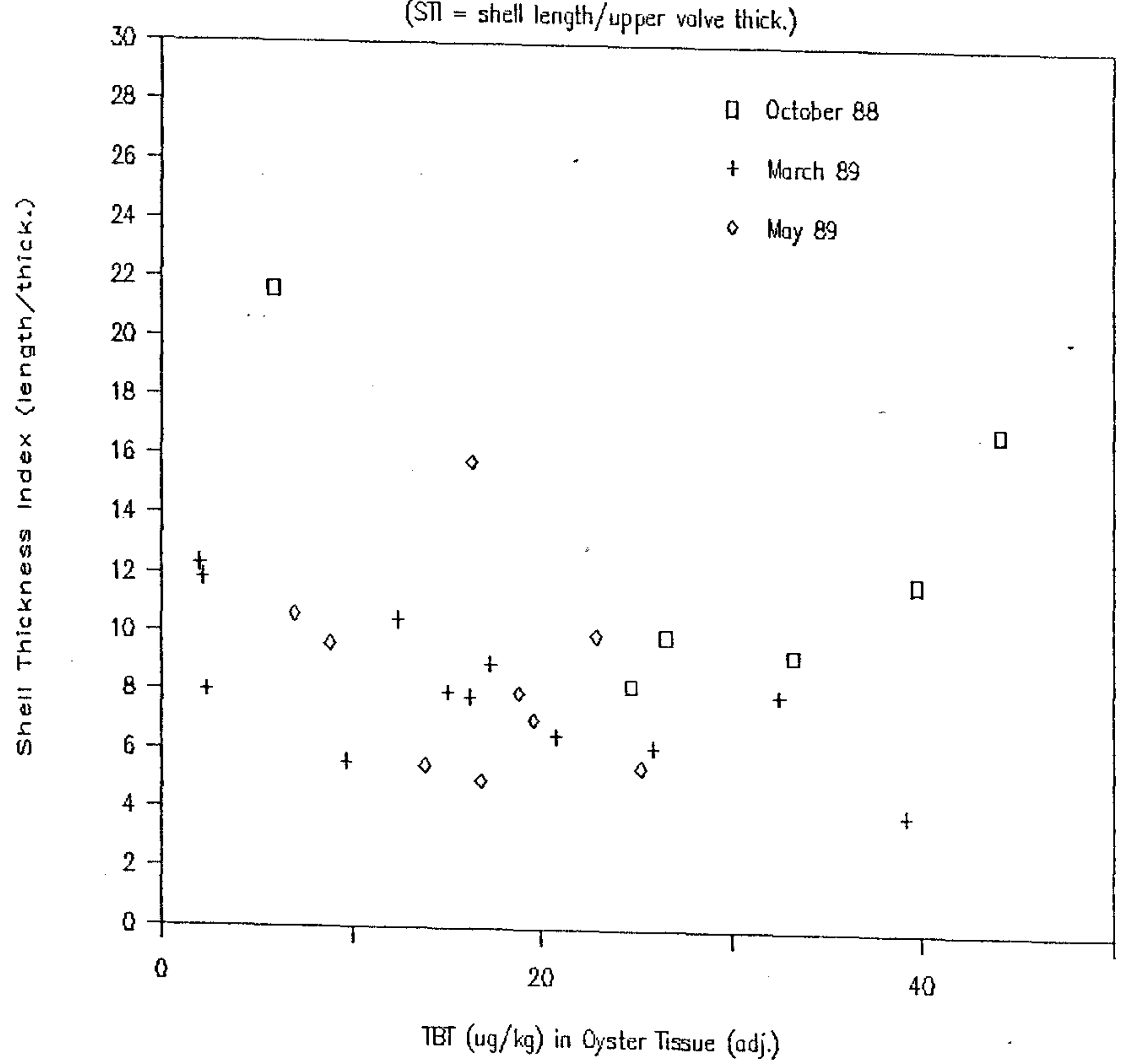
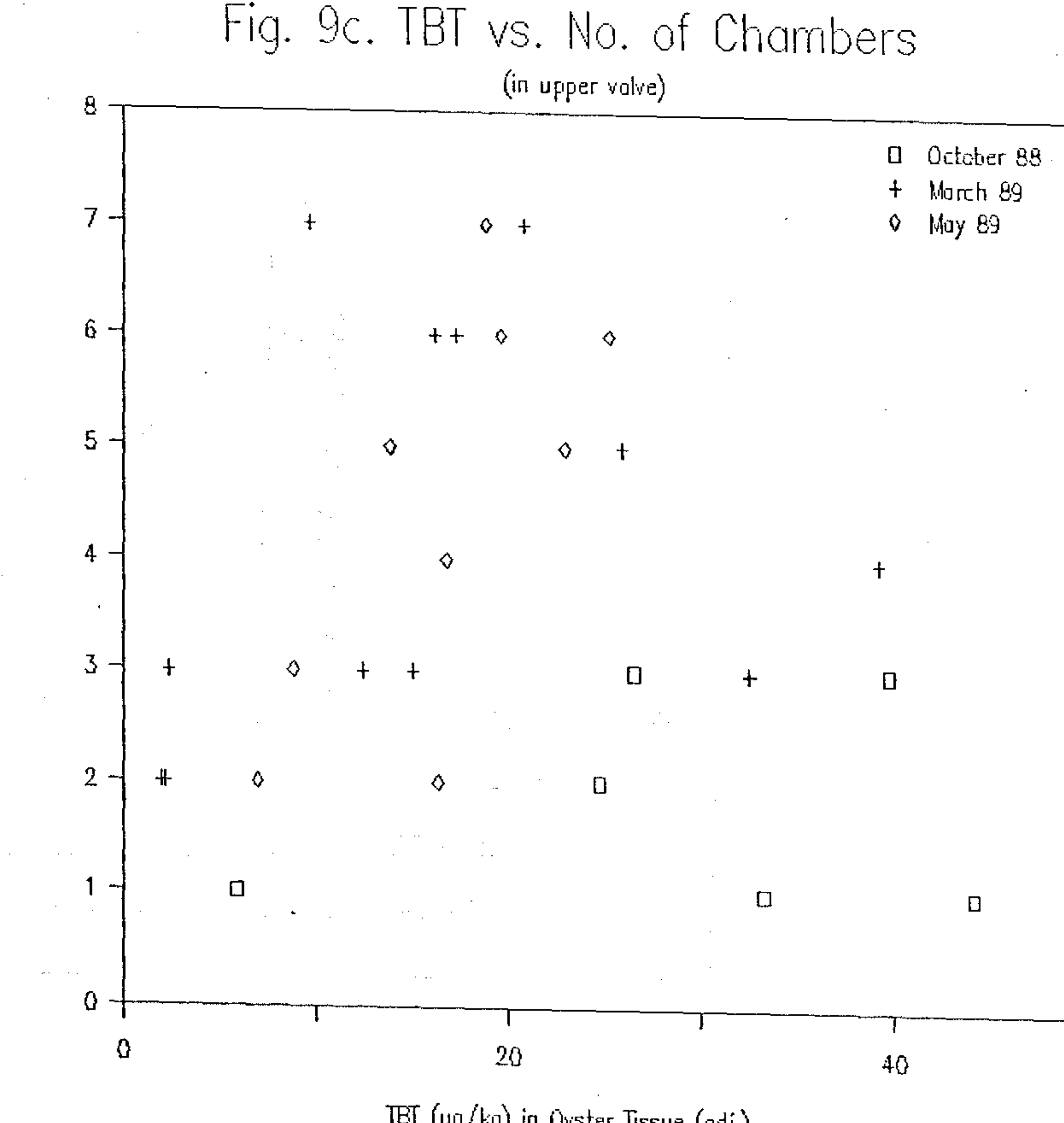


Fig. 9b. TBT vs. Shell Thickness Index
(STI = shell length/upper valve thick.)
October 88
March 89
May 89
Shell Thickness Index (length/thick.)
TBT (ug/kg) in Oyster Tissue (adj.)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
0
20
40

Fig. 9c. TBT vs. No. of Chambers

(in upper valve)



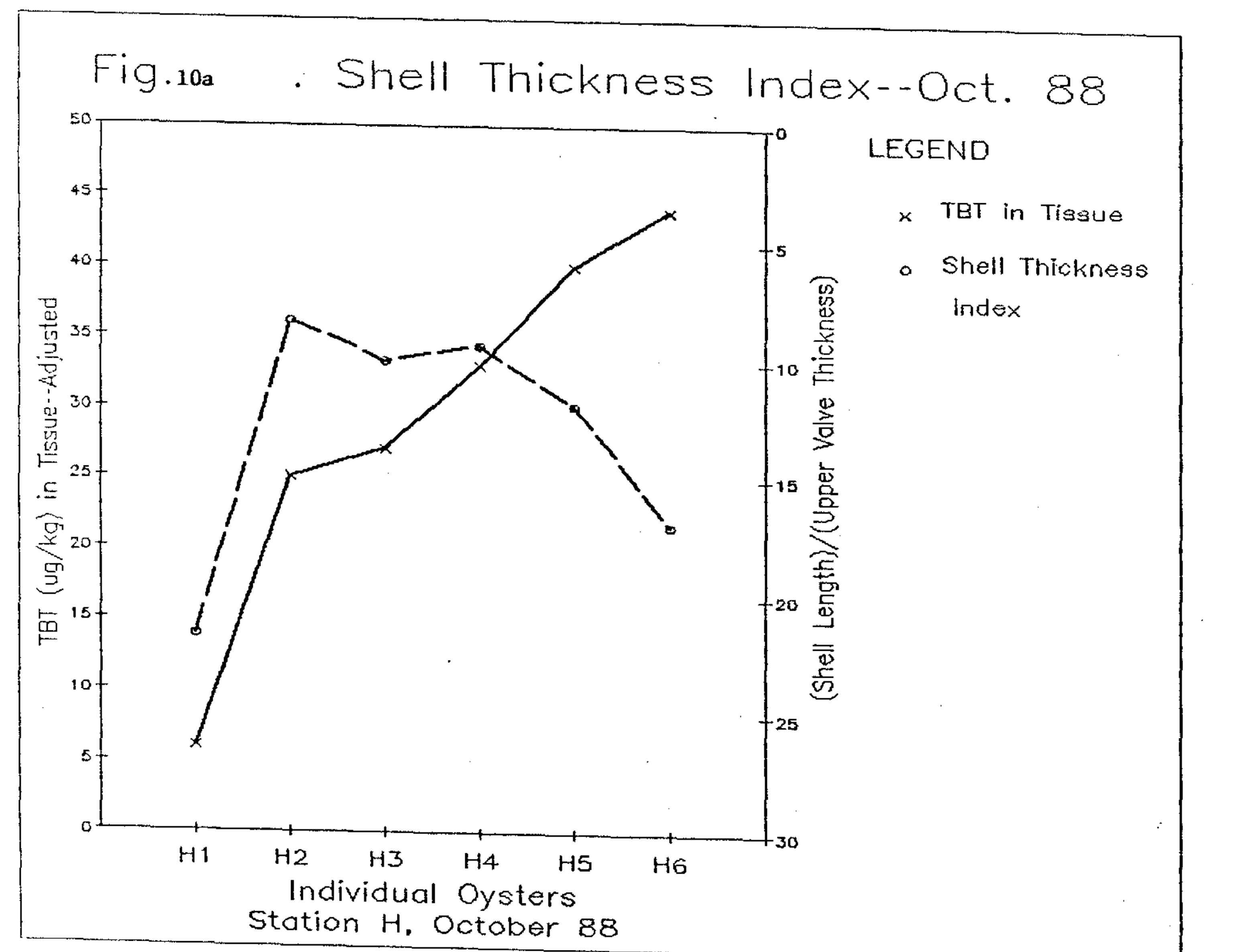


Fig.10a . Shell Thickness Index--Oct. 88
LEGEND
x TBT in Tissue
o Shell Thickness Index
TBT (ug/kg) in Tissue--Adjusted
(Shell Length)/(Upper Valve Thickness)
0
5
10
15
20
25
30
35
40
45
50
H1
H2
H3
H4
H5
H6
Individual Oysters
Station H, October 88

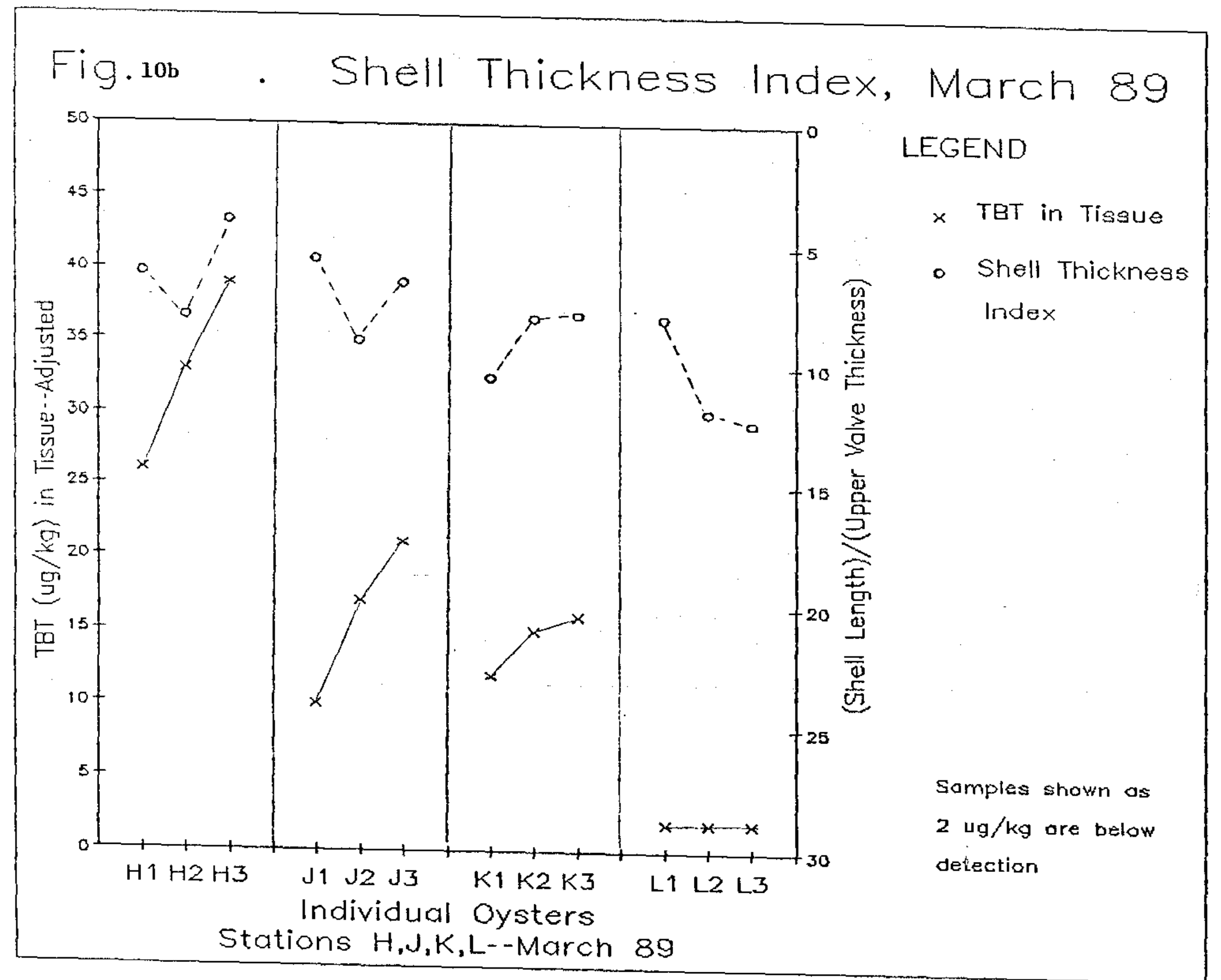


Fig. 10b . Shell Thickness Index, March 89
TBT (ug/kg) in Tissue--Adjusted
(Shell Length)/(Upper Valve Thickness)
50
45
40
35
30
25
20
15
10
5
0
0
5
10
15
20
25
30
H1 H2 H3
J1 J2 J3
K1 K2 K3
L1 L2 L3
Individual Oysters
Stations H,J,K,L--March 89
LEGEND
× TBT in Tissue
o Shell Thickness Index
Samples shown as 2 ug/kg are below detection

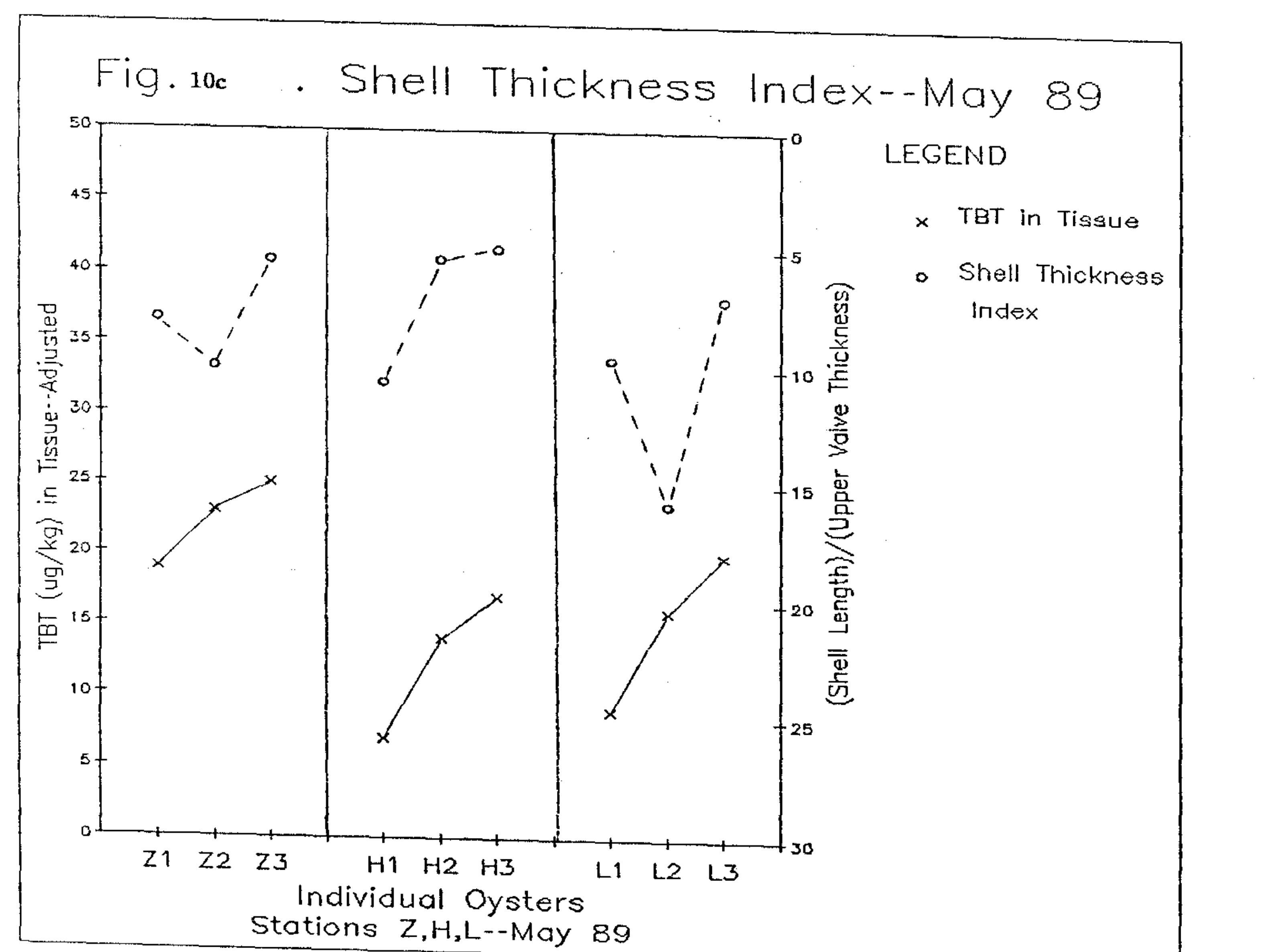


Fig. 10c . Shell Thickness Index--May 89
TBT (ug/kg) in Tissue--Adjusted
50
45
40
35
30
25
20
15
10
5
0
(Shell Length)/(Upper Valve Thickness)
0
5
10
15
20
25
30
LEGEND
TBT in Tissue
Shell Thickness Index
Z1 Z2 Z3 H1 H2 H3 L1 L2 L3
Individual Oysters
Stations Z,H,L--May 89

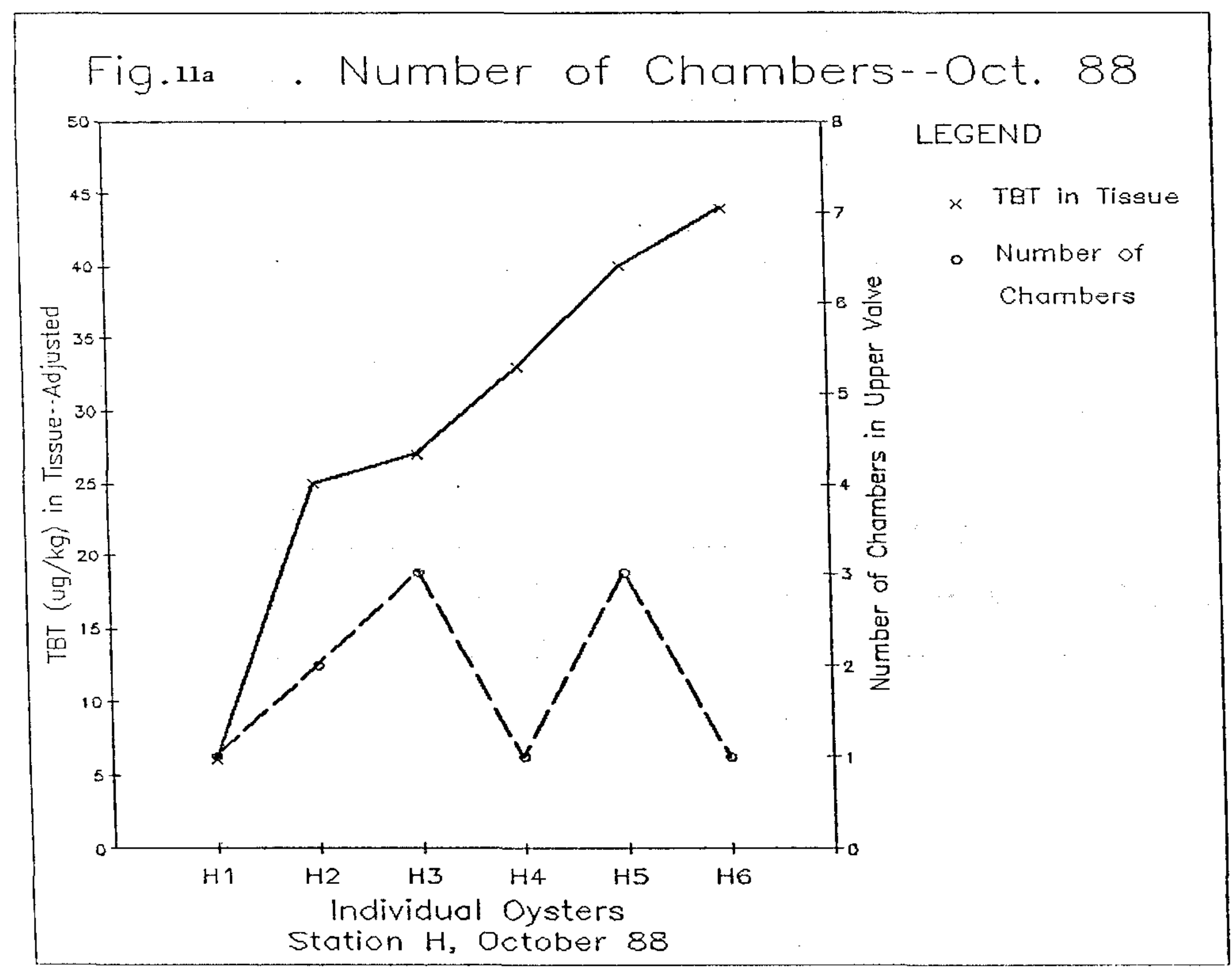


Fig. 11a . Number of Chambers--Oct. 88
LEGEND
TBT in Tissue
Number of Chambers
TBT (ug/kg) in Tissue-Adjusted
Number of Chambers in Upper Valve
50
45
40
35
30
25
20
15
10
5
0
8
7
6
5
4
3
2
1
0
H1
H2
H3
H4
H5
H6
Individual Oysters
Station H, October 88

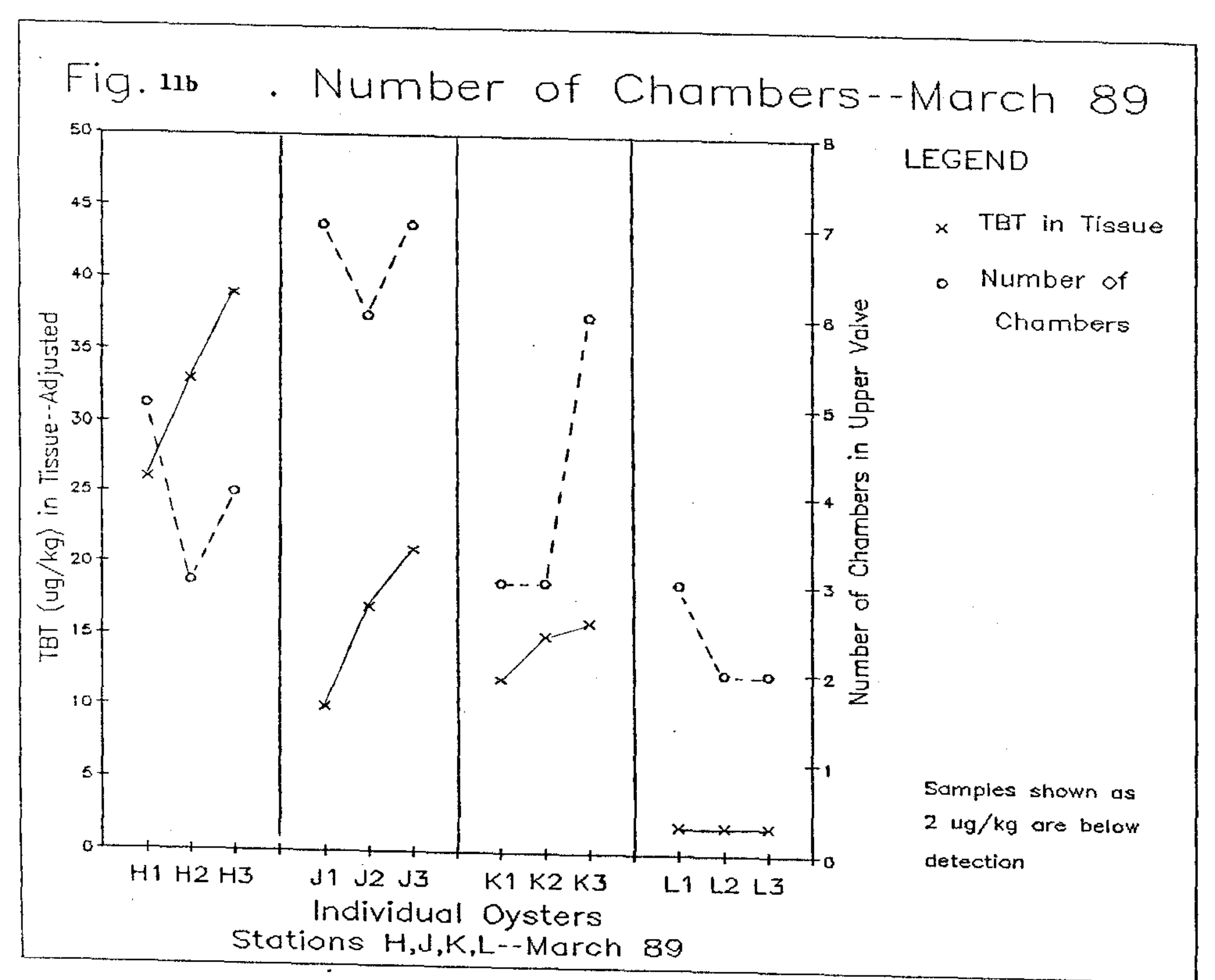


Fig. 11b . Number of Chambers--March 89
TBT (ug/kg) in Tissue--Adjusted
Number of Chambers in Upper Valve
50
45
40
35
30
25
20
15
10
5
0
8
7
6
5
4
3
2
1
0
H1 H2 H3
J1 J2 J3
K1 K2 K3
L1 L2 L3
Individual Oysters
Stations H,J,K,L--March 89
LEGEND
TBT in Tissue
Number of Chambers
Samples shown as 2 ug/kg are below detection

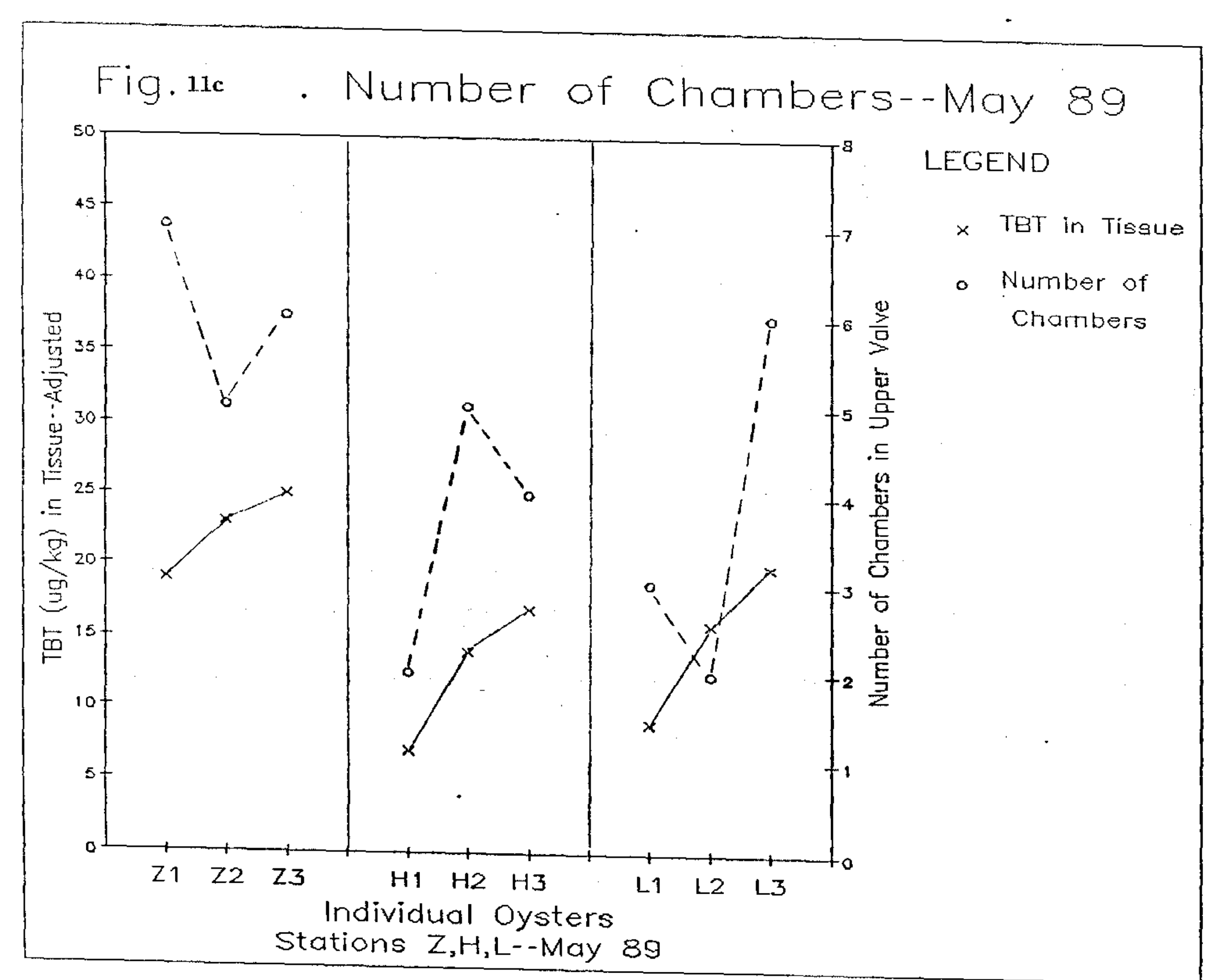


Fig. 11c . Number of Chambers--May 89
TBT (ug/kg) in Tissue--Adjusted
Number of Chambers in Upper Valve
LEGEND
× TBT in Tissue
o Number of Chambers
Z1 Z2 Z3 H1 H2 H3 L1 L2 L3
Individual Oysters
Stations Z,H,L--May 89

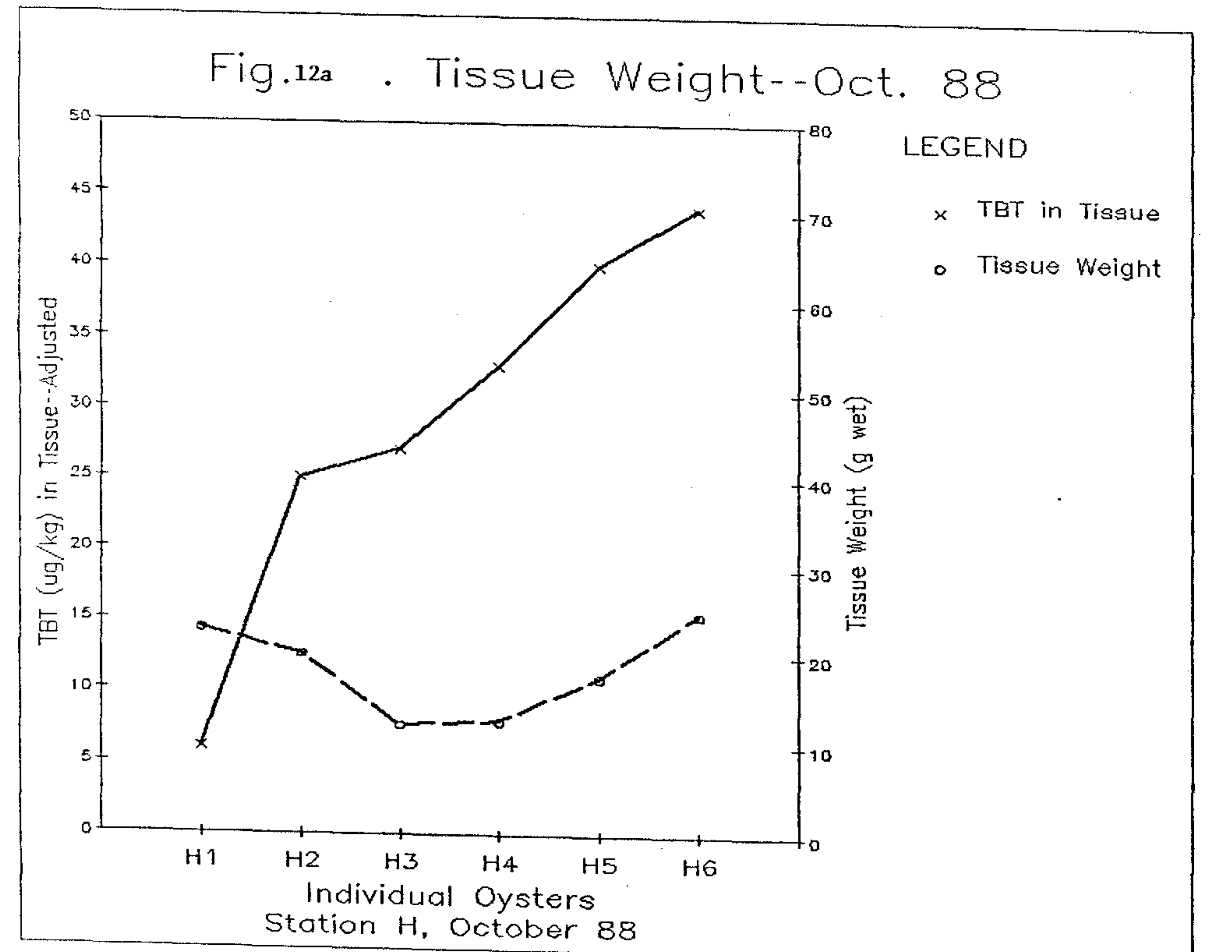


Fig.12a . Tissue Weight--Oct. 88
LEGEND
TBT in Tissue
Tissue Weight
TBT (ug/kg) in Tissue--Adjusted
Tissue Weight (g wet)
0
5
10
15
20
25
30
35
40
45
50
0
10
20
30
40
50
60
70
80
H1
H2
H3
H4
H5
H6
Individual Oysters
Station H, October 88

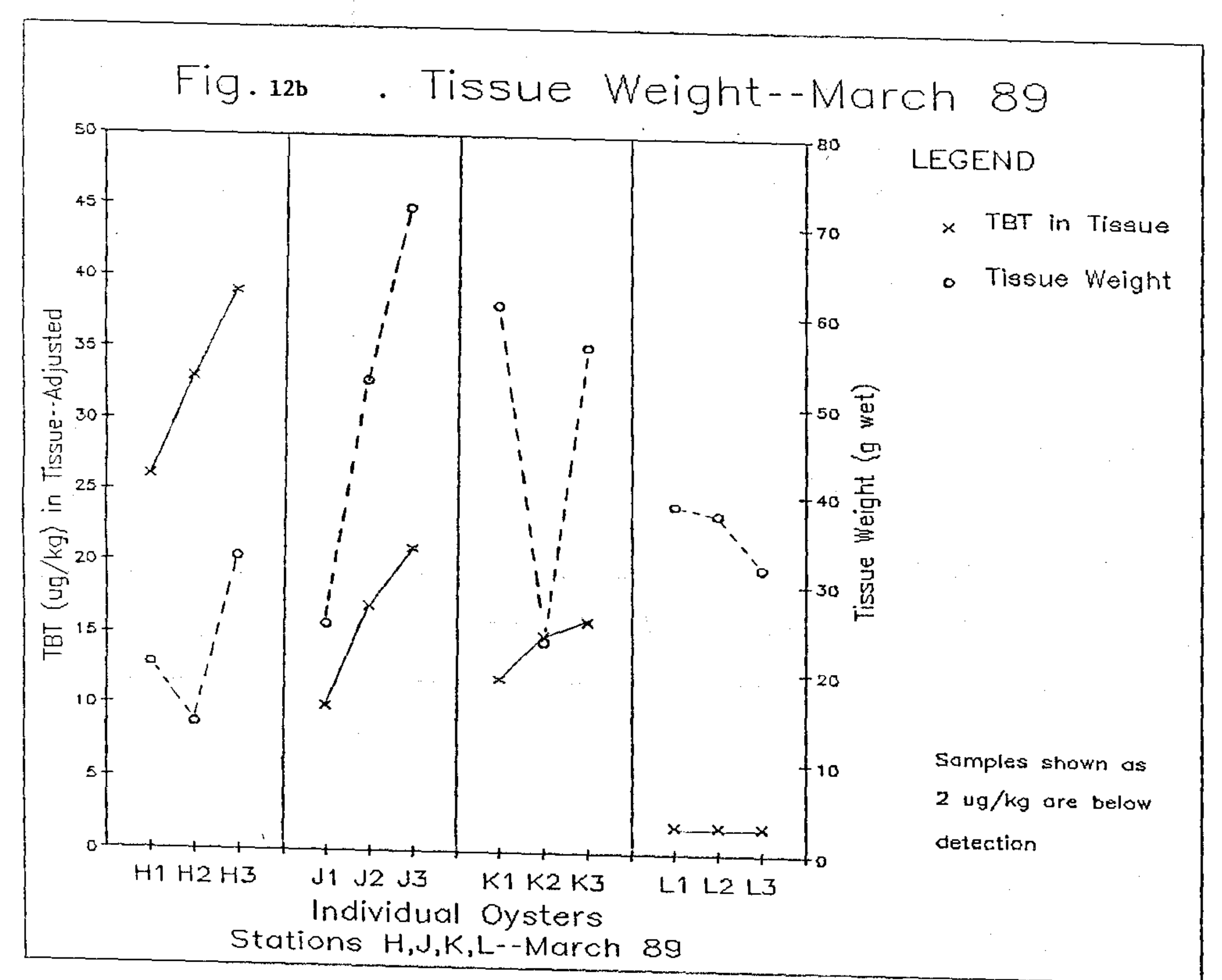


Fig. 12b . Tissue Weight--March 89
TBT (ug/kg) in Tissue--Adjusted
Tissue Weight (g wet)
LEGEND
TBT in Tissue
Tissue Weight
Samples shown as
2 ug/kg are below
detection
H1 H2 H3
J1 J2 J3
K1 K2 K3
L1 L2 L3
Individual Oysters
Stations H,J,K,L--March 89

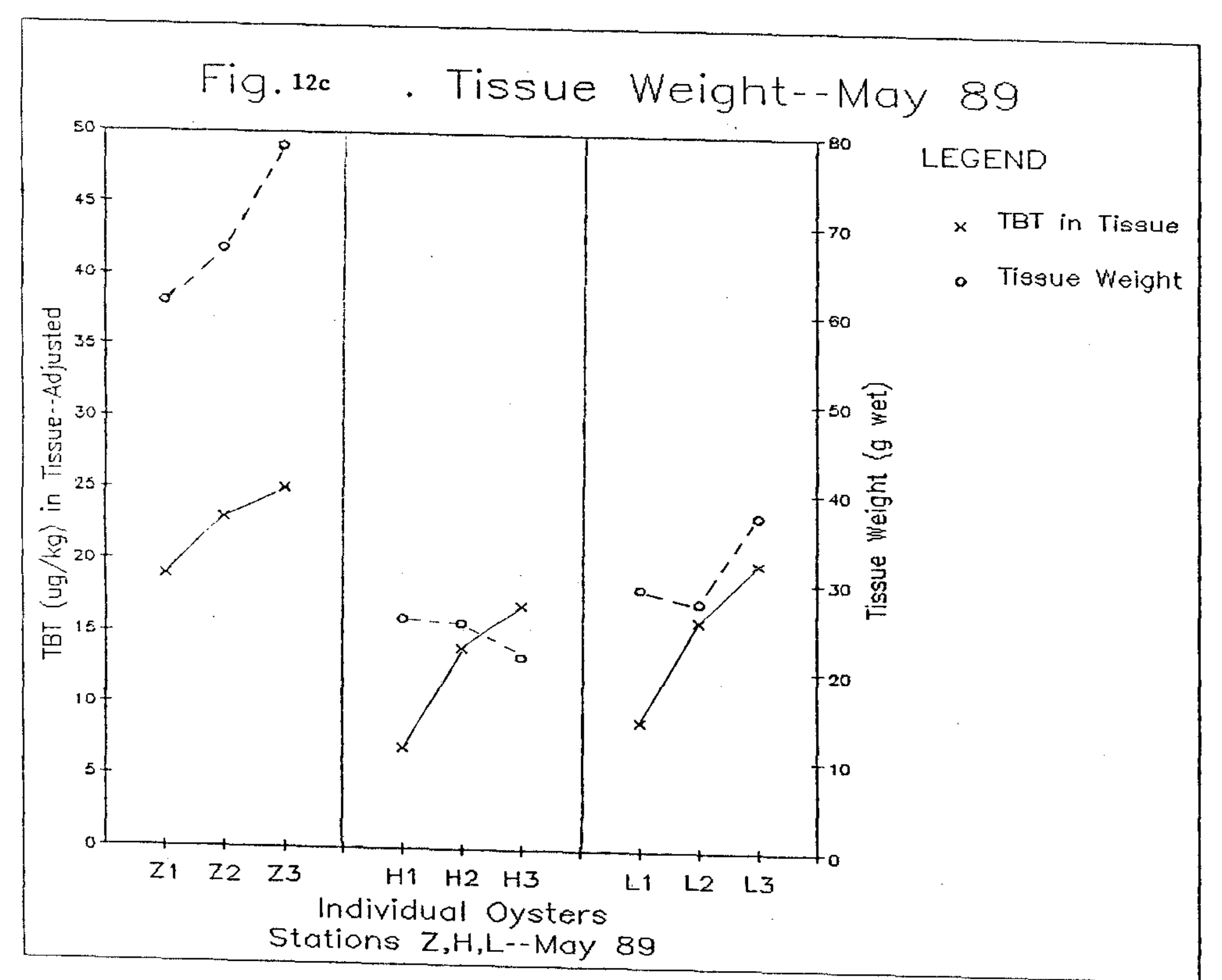


Fig. 12c . Tissue Weight--May 89
LEGEND
TBT in Tissue
Tissue Weight
TBT (ug/kg) in Tissue--Adjusted
Tissue Weight (g wet)
0
5
10
15
20
25
30
35
40
45
50
0
10
20
30
40
50
60
70
80
Z1
Z2
Z3
H1
H2
H3
L1
L2
L3
Individual Oysters
Stations Z,H,L--May 89

APPENDICES

Figure A1

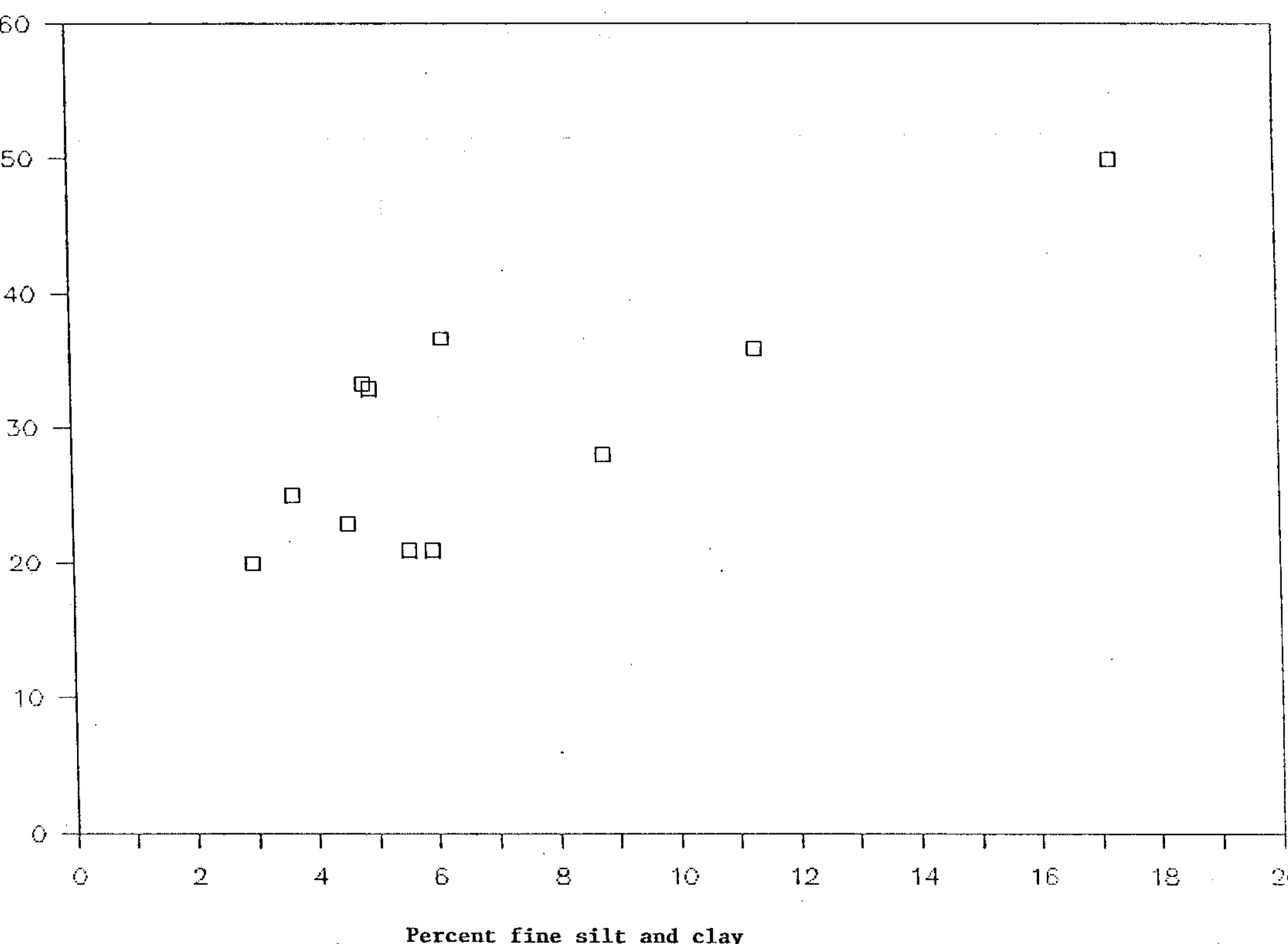


Figure A2

Copper (mg/kg) in sediment

30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0

0 2 4 6 8 10 12 14 16 18 20

Percent fine silt and clay

Figure A3

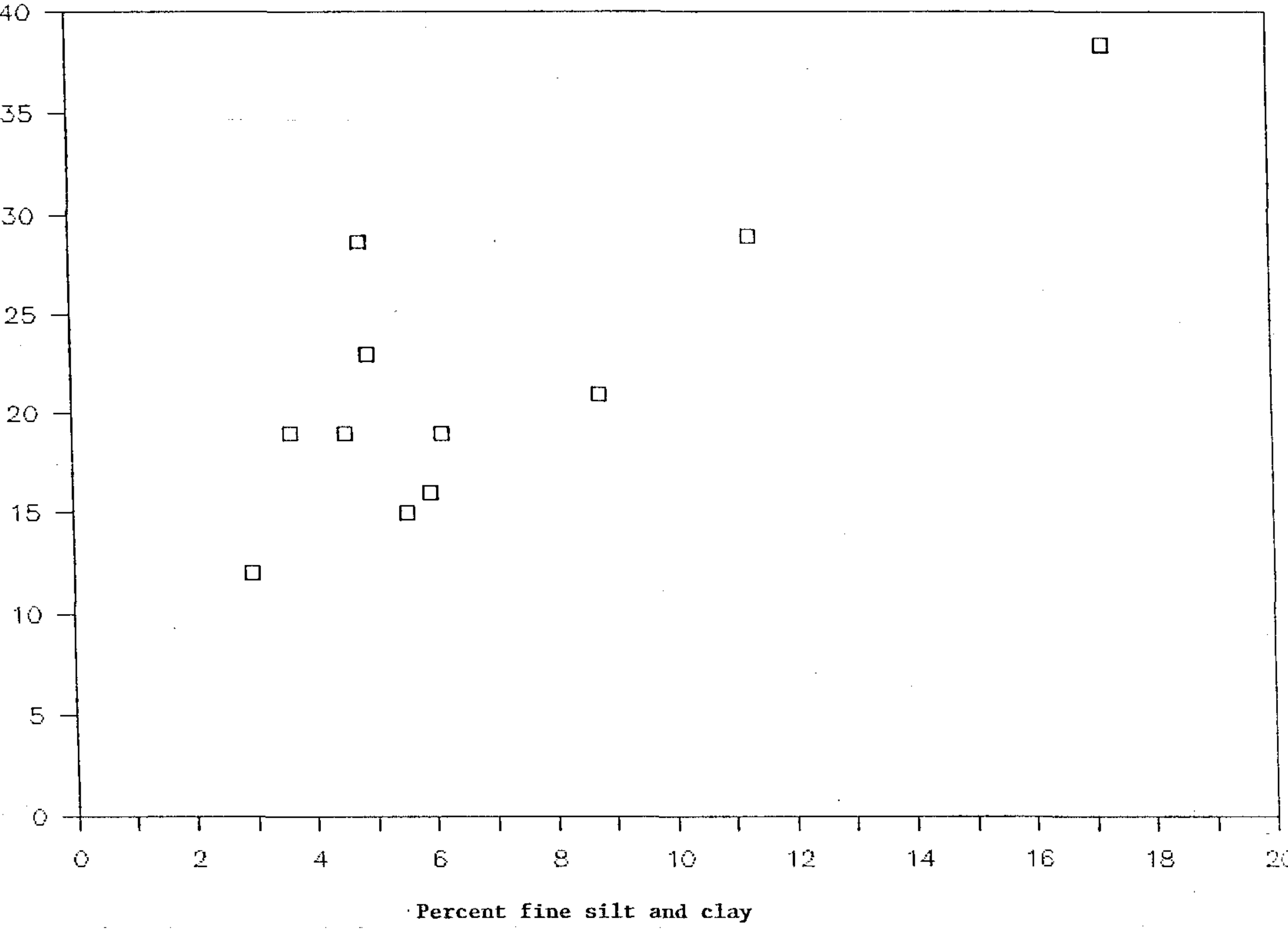


Figure A4

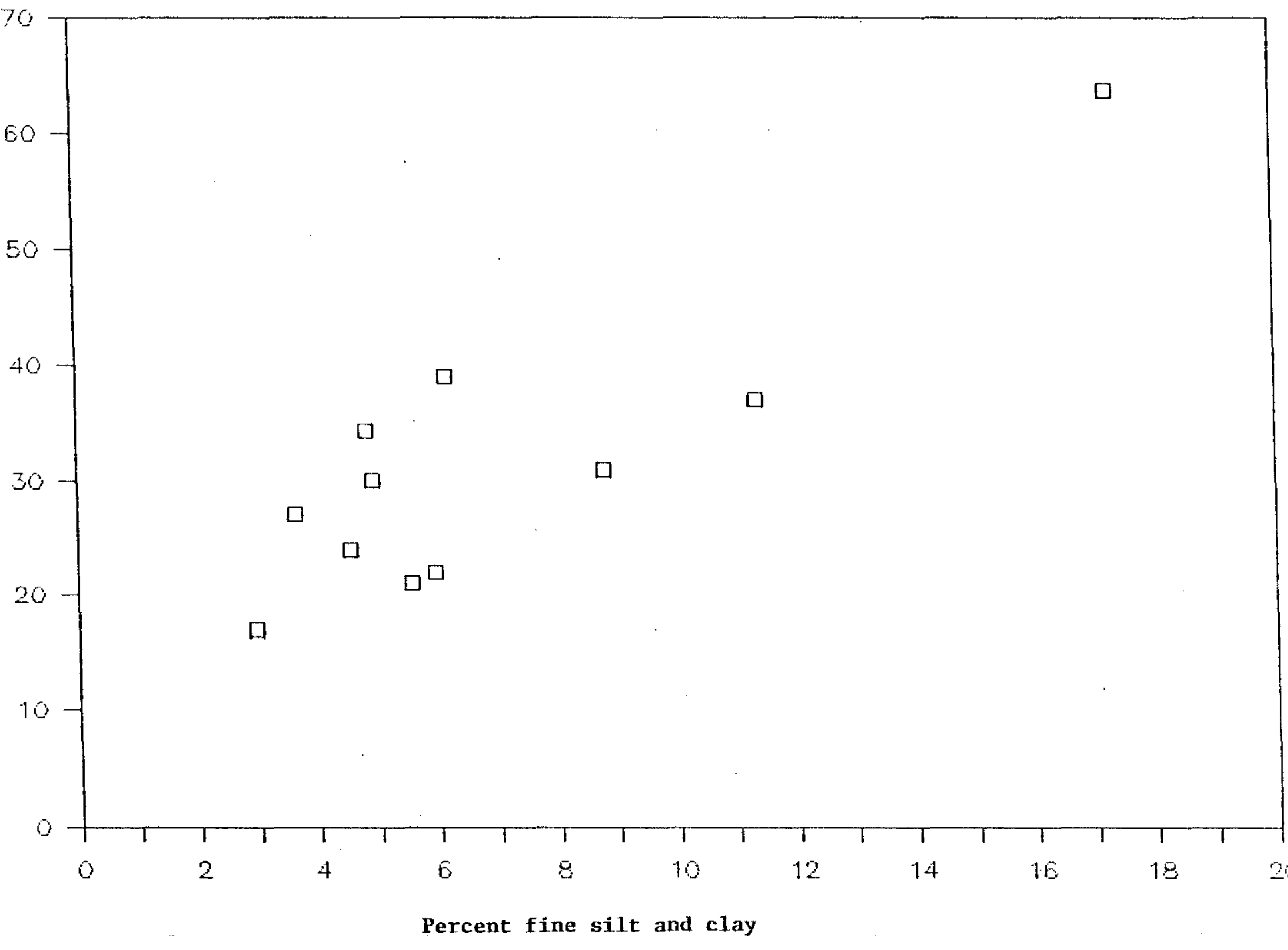
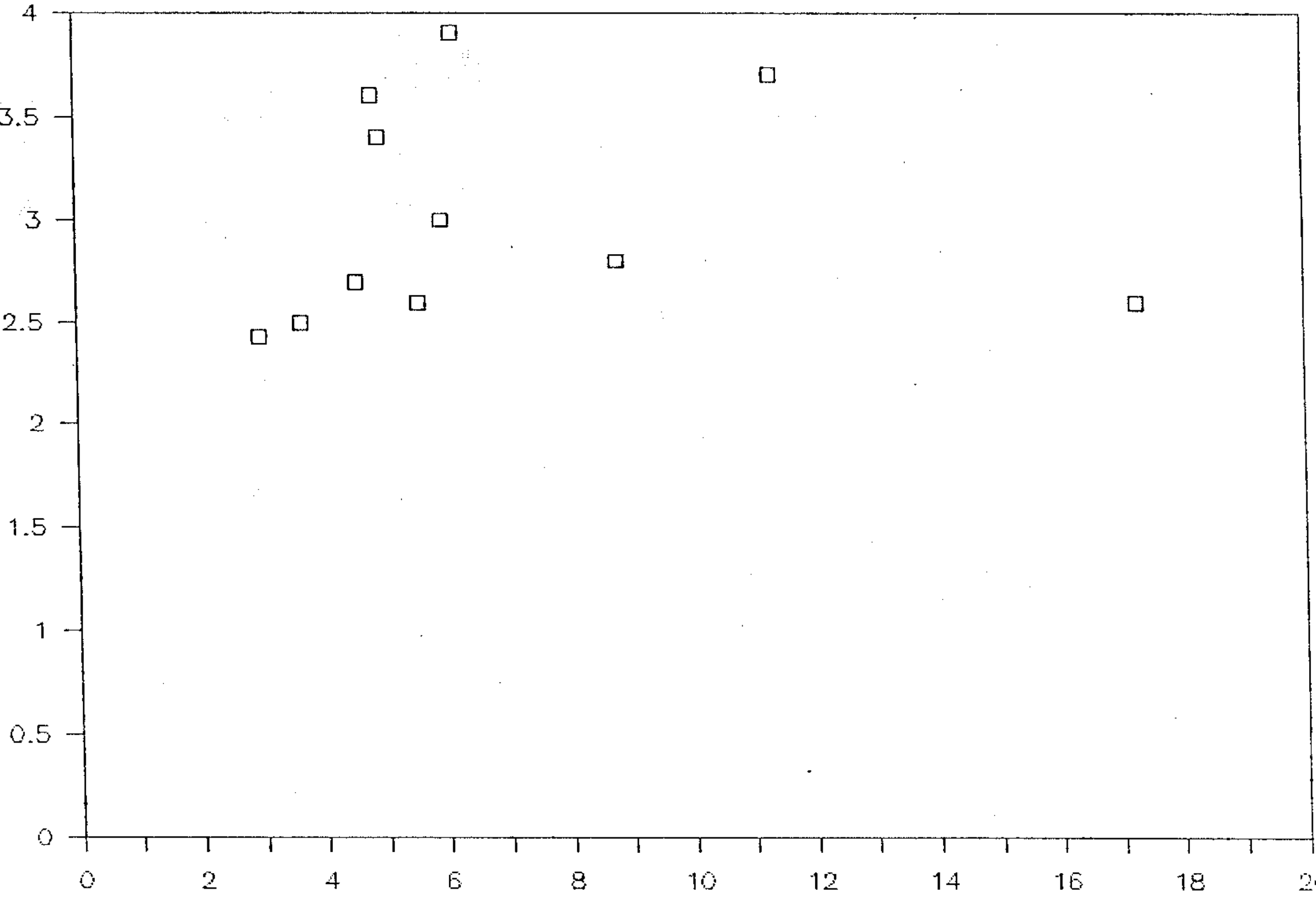


Figure A5



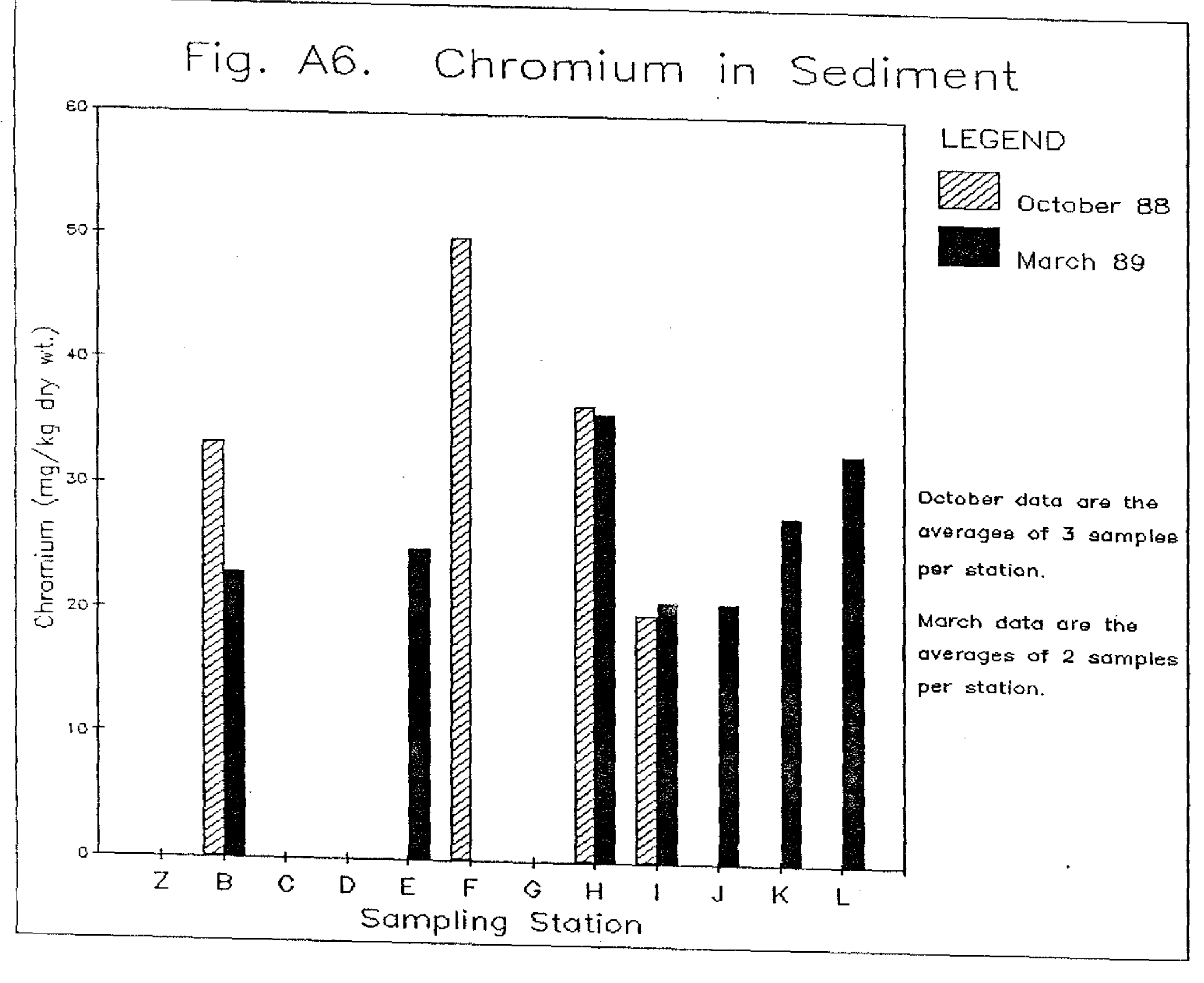


Fig. A6. Chromium in Sediment
Chromium (mg/kg dry wt.)
60
50
40
30
20
10
0
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
LEGEND
October 88
March 89
October data are the averages of 3 samples per station.
March data are the averages of 2 samples per station.

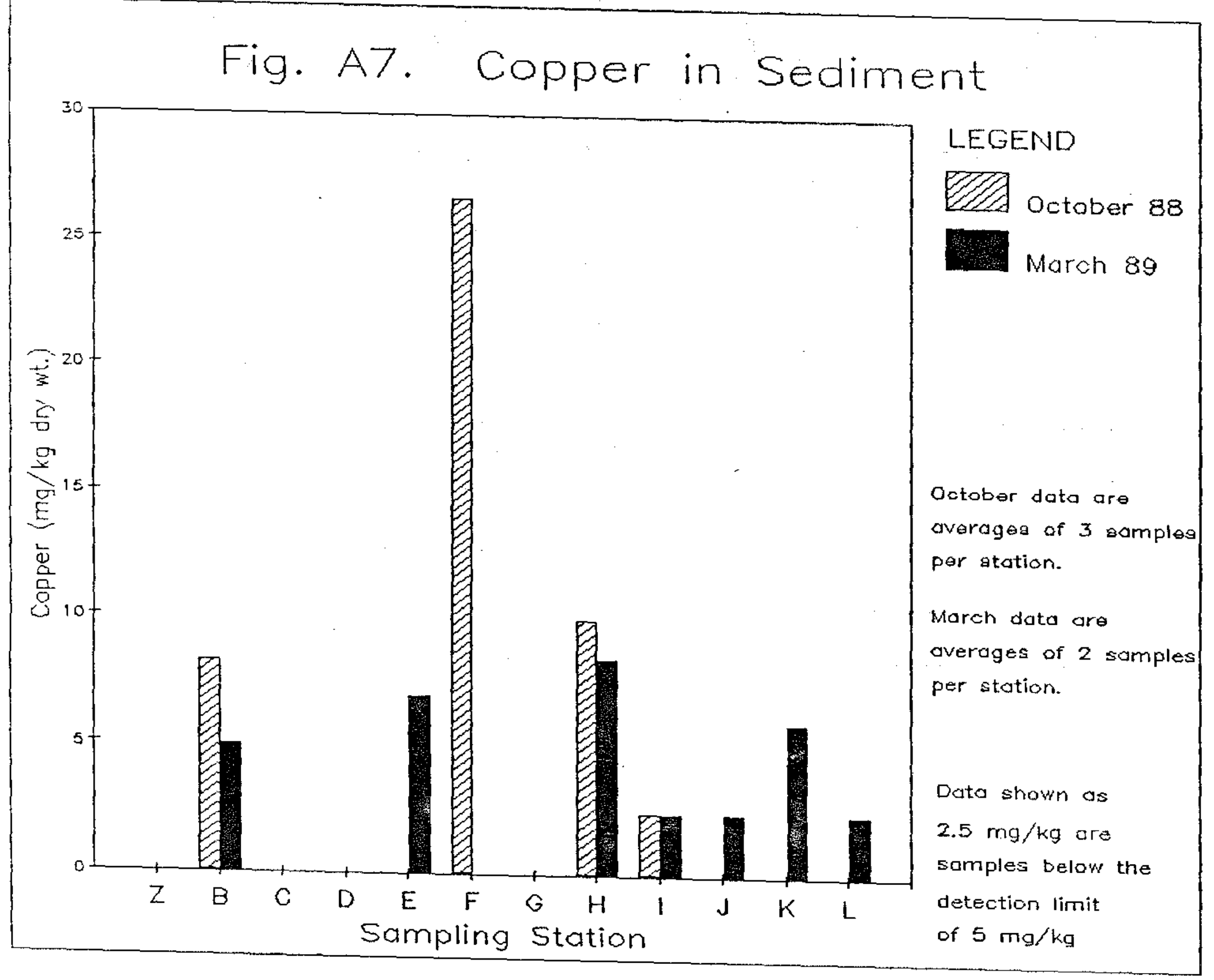


Fig. A7. Copper in Sediment
Copper (mg/kg dry wt.)
30
25
20
15
10
5
0
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
LEGEND
October 88
March 89
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.
Data shown as 2.5 mg/kg are samples below the detection limit of 5 mg/kg

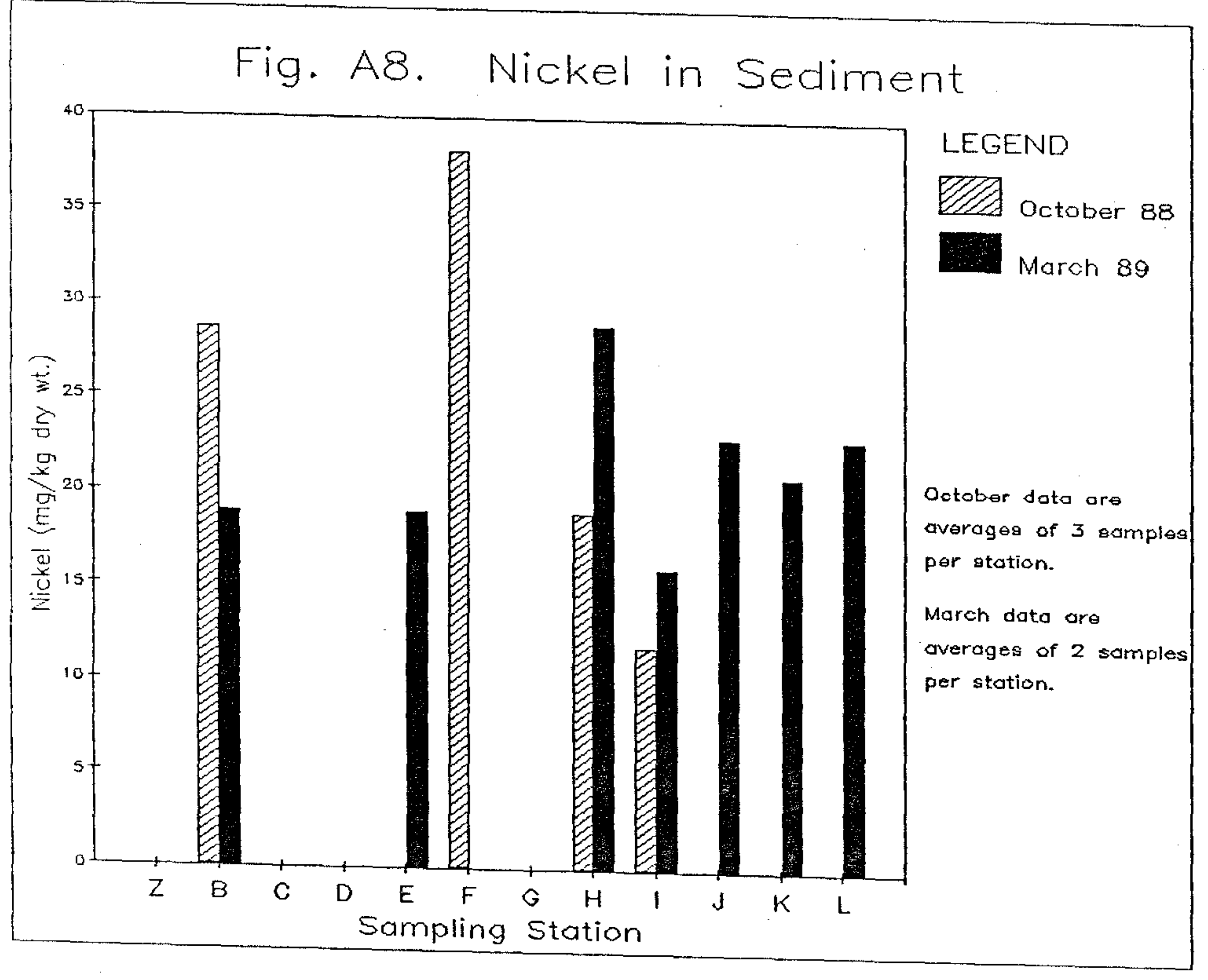


Fig. A8. Nickel in Sediment
Nickel (mg/kg dry wt.)
0
5
10
15
20
25
30
35
40
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
LEGEND
October 88
March 89
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.

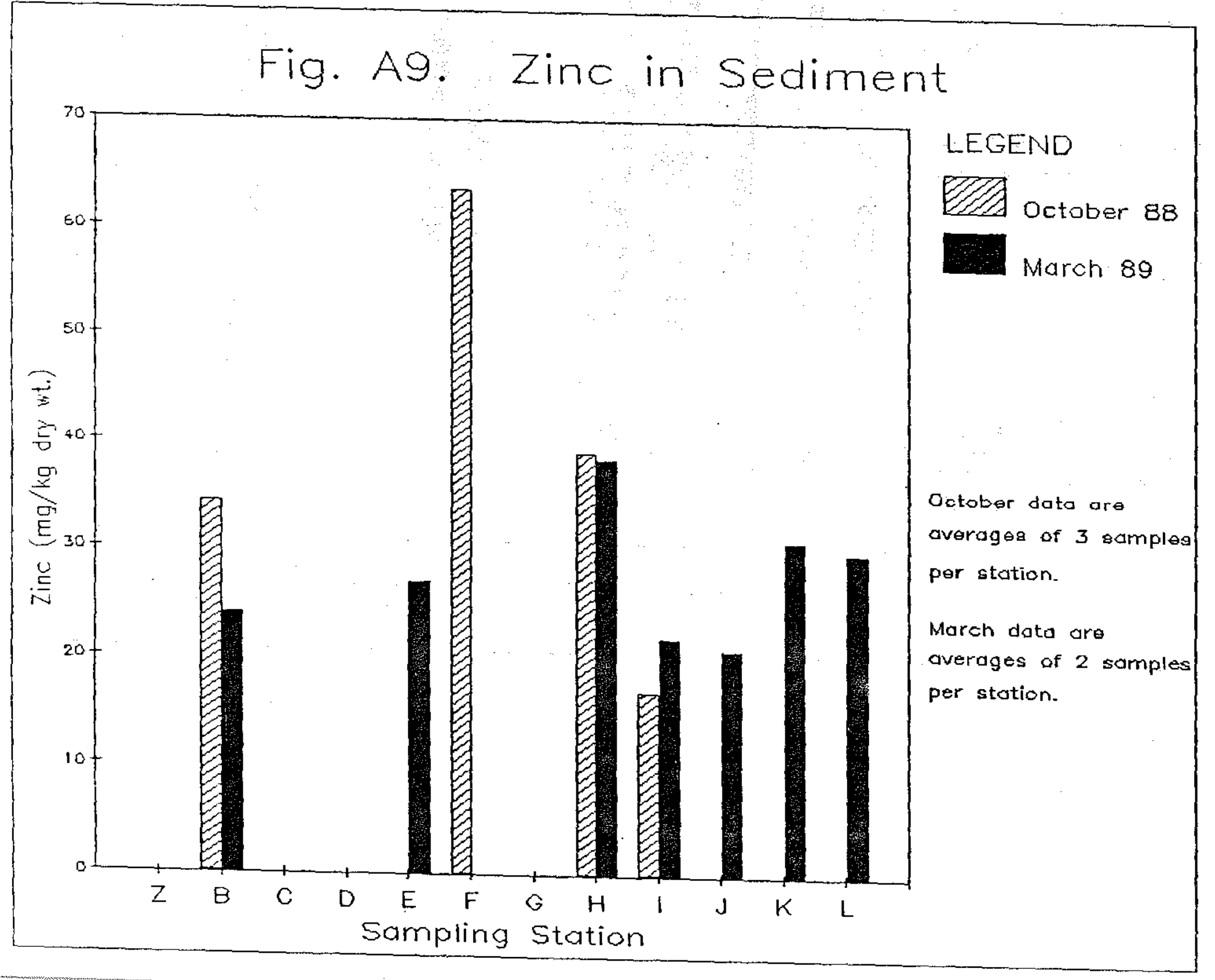


Fig. A9. Zinc in Sediment
LEGEND
October 88
March 89
Zinc (mg/kg dry wt.)
0
10
20
30
40
50
60
70
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.

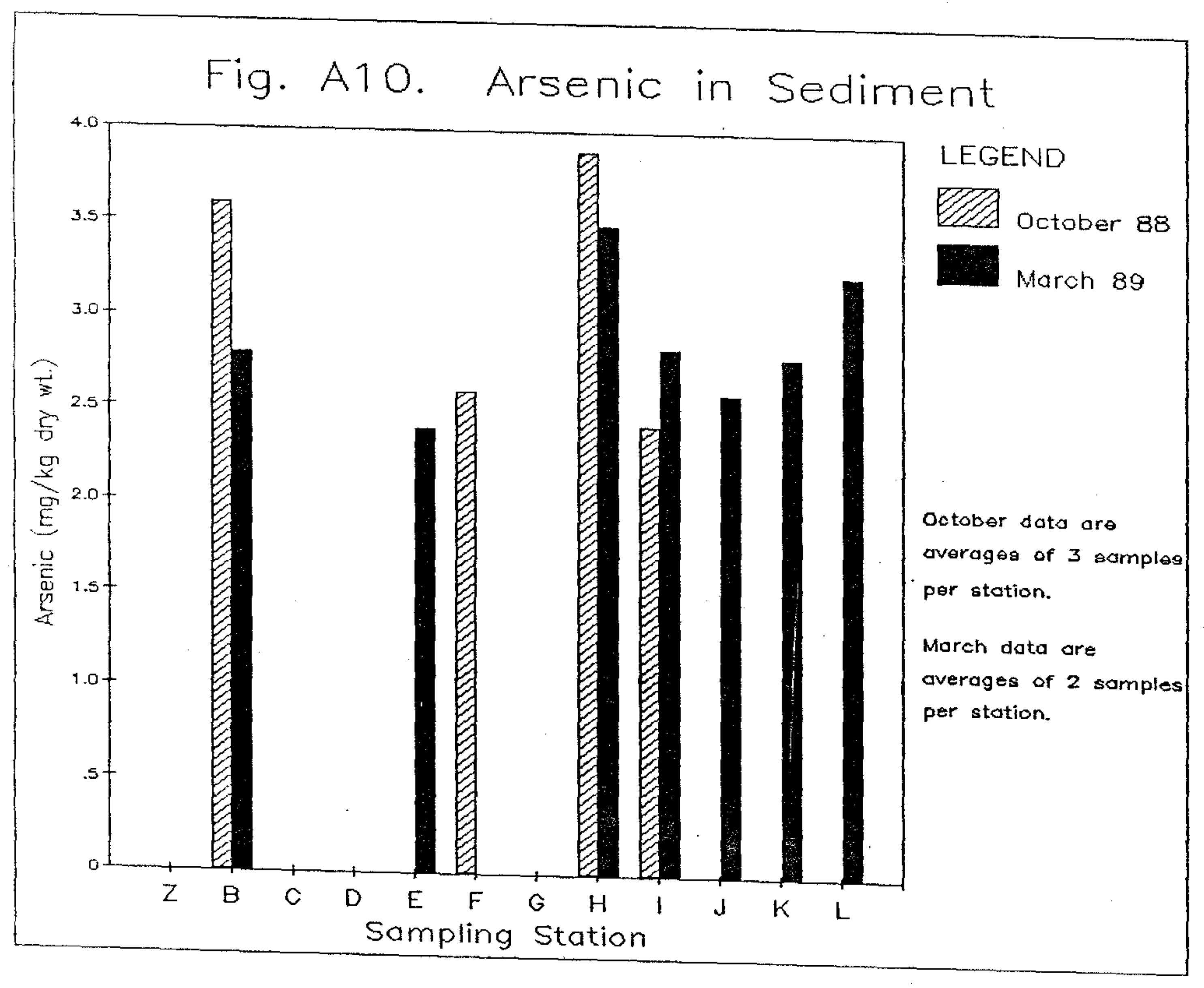


Fig. A10. Arsenic in Sediment
Arsenic (mg/kg dry wt.)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
.5
0
Z
B
C
D
E
F
G
H
I
J
K
L
Sampling Station
LEGEND
October 88
March 89
October data are averages of 3 samples per station.
March data are averages of 2 samples per station.

Appendix B1. Sediment Data--Total Organic Carbon, Inorganic Metals

	TOC percent (wet wt)	Chromium mg/kg	Copper mg/kg	Nickel mg/kg	Zinc mg/kg	Arsenic mg/kg
		--------	--------	(dry weight)	--------	--------
[OCT. 88]						
Sta. B(1)	1.6	30	7	25	31	3.5
	2.2	40	10	34	40	3.8
	1.9	30	8	27	32	3.6
Sta. B(2)	2.6	30	7	22	29	3.5
	1.5	30	7	20	27	3.6
	1.6	30	7	22	29	3.6
Sta. F	nd	60	34	51	86	3.2
	7.2	50	24	35	54	2.2
	11.40	40	22	29	51	2.3
Sta. H	2.6	30	10	17	35	4.1
	1.9	40	10	19	38	3.7
	1.9	40	11	21	44	3.8
Sta. I	7.3	20	<5	14	18	2.5
	7.2	<20	<5	10	15	2.4
	7.1	<20	<5	12	17	2.4
[MAR. 89]						
Sta. B	1.3	23	5	19	24	2.7
	1.6	23	5	19	25	2.9
Sta. E	1.2	25	7	19	27	2.5
	1.1	23	7	19	25	2.3
Sta. E	1.2	26	7	19	29	2.2
(QA)	1.4	27	8	21	29	2.5
Sta. H	2.3	36	8	29	37	3.7
	2.6	38	9	28	40	3.3
Sta. I	1.3	21	<5	16	22	3.0
	1.5	22	<5	18	22	2.7
Sta. J	1.4	21	<5	15	21	2.6
	1.4	21	<5	16	22	2.6
Sta. K	2.2	28	6	21	31	2.8
	2.0	28	6	22	30	2.8
Sta. L	1.6	33	<5	23	30	3.4
	1.6	33	<5	24	31	3.1

Samples collected in October were from the upper 4 cm of sediment with the exception of B(2) which was from the upper 2 cm. Samples collected in March were from the upper 2 cm of sediment.

QA = Quality Assurance duplicate samples

Appendix B2. Sediment Data--Particle Size

	Gravel	Coarse Sand	Medium Sand	Fine Sand	Coarse Silt	Fine Silt	Clay
Size in mm	>2	2 to 0.5	0.5 to 0.125	0.125 to 0.0625	0.0625 to 0.0156	0.0156 to 0.0039	<0.039
[OCT. 88]							
Sta. B(1)	<0.1	0.8	63.5	16.8	13.9	2.1	3.0
	<0.1	0.9	62.1	17.5	14.3	2.3	2.9
	<0.1	0.9	65.9	16.7	12.4	1.6	2.6
Sta. B(2)	<0.1	1.1	72.6	12.9	9.5	1.4	2.6
	0.1	1.2	73.6	12.5	9.0	1.3	2.4
Sta. F	0.1	6.7	40.8	5.9	31.5	8.3	6.7
	0.9	7.5	33.1	5.6	34.0	10.4	8.6
	0.6	13.8	22.3	9.6	35.8	9.1	8.7
Sta. H	0.5	3.8	59.4	11.6	17.3	3.6	3.8
	5.2	4.4	60.8	12.6	12.1	2.2	2.7
	0.1	4.1	63.3	12.6	13.8	3.0	3.2
Sta. I	<0.1	2.6	84.3	6.9	3.3	0.9	1.9
	<0.1	1.9	82.4	8.7	3.8	1.0	2.2
	<0.1	2.5	83.9	7.2	3.2	0.9	2.0
[MAR. 89]							
Sta. B	<0.1	1.6	80.5	6.7	6.8	1.7	2.7
	0.1	1.0	77.7	8.4	8.1	1.9	2.8
Sta. E	<0.1	1.0	75.3	13.9	6.1	1.6	2.2
	<0.1	0.8	75.7	14.0	6.1	1.3	2.2
Sta. E	0.2	1.1	73.9	14.3	7.0	1.3	2.2
(QA)	0.2	0.9	69.6	16.8	8.4	1.7	2.5
Sta. H	0.1	1.5	33.0	35.5	19.9	5.0	5.1
	<0.1	1.4	30.0	35.4	20.7	6.3	6.3
Sta. I	<0.1	1.1	75.2	10.8	7.6	2.4	2.9
	<0.1	1.1	71.1	11.8	9.4	3.1	3.5
Sta. J	<0.1	1.2	74.4	13.9	5.4	2.2	2.9
	<0.1	0.8	71.3	14.9	7.0	2.8	3.2
Sta. K	0.1	1.7	56.7	19.4	13.0	3.9	5.3
	<0.1	2.5	57.2	19.2	12.7	3.6	4.8
Sta. L	<0.1	0.4	42.8	44.8	7.4	1.8	2.8
	<0.1	0.4	43.4	43.1	8.0	2.1	3.2

Samples collected in October were from the upper 4 cm of sediment with the exception of B(2) which was from the upper 2 cm.
Samples collected in March were from the upper 2 cm of sediment.
QA = Quality Assurance duplicate samples

STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY **MEMORANDUM**

DATE: May 5, 1990

TO: Environmental Quality Commission

FROM: Peter Dalke, Management Services Division Administrator

SUBJECT: Agenda Item N, Environmental Quality Commission Meeting, May 25, 1990

Pollution Control Bonds: Background on Agreement Provisions and Future Bond Sale for Mid-Multnomah County Sewers

The purpose of this informational report is to provide the Environmental Quality Commission (EQC) with the background and current status of the Mid-Multnomah County Sewer Implementation Plan (Plan). As a part of this Plan, a request to issue Pollution Control bonds will be presented to the Commission in the near future.

Background

The Mid-Multnomah County Sewer Implementation Plan was completed in September, 1985, in response to preliminary findings by the EQC that a threat to drinking water existed within a specifically-defined, unsewered area of mid-Multnomah County. (The underlying groundwater aquifer is a backup water supply for the City of Portland.) The unsewered area encompasses 22,300 acres between the cities of Portland and Gresham and included nearly 65,000 households with a total population of 166,000. The 1985 Plan indicated that eighty-seven percent (87%) of the area was unsewered with approximately 14 million gallons of sewage disposed of daily in about 56,000 cesspools.

The Plan was accepted by the EQC in 1986. It's goal is the elimination of all cesspools in the area by the year 2005. The estimated cost of the Plan is $362 million. The costs fall into three major categories:

Major facilities construction (Portland and Gresham)	$ 98 Million
Sewer construction	188
Private residential/commercial plumbing	76
Total	$362 Million

The key institutional issues addressed by the Plan include the management, operation and financing of a sewer program in an unincorporated area. The Plan recommended management and

operation of the program to be handled by Portland and Gresham through the expansion of the existing wastewater treatment infrastructure of the cities. The financing issue is more complicated than the management and operation issues because an estimated 80% of the sewer construction costs are not contained in the corporate boundaries of either city.

The financing recommendation focused on a mechanism that did not rely on the full faith and credit (taxing authority) of the cities to guarantee the repayment of bonds that would finance construction in unincorporated areas. The mechanism is based instead on the cities' ability to enter into sewer assessment contracts with individual property owners. These contracts place a lien on the property to secure the repayment of loans for sewer construction costs, including costs of connecting residences to the sewer system. The Department of Environmental Quality (DEQ) will purchase sewer assessment bonds from the cities using proceeds from the sale of Pollution Control Bonds. The cities' sewer assessment bonds will be secured by the underlying property liens.

There were three primary reasons for recommending this mechanism: 1) it offers affordable financing to residences connecting to the sewer system; 2) it avoids subsidizing sewer construction in unincorporated areas with the general obligation tax pledge of incorporated areas; 3) it minimizes the Plan's impact on the cities' credit rating. The Plan estimated the need for DEQ to purchase $110 million of sewer assessment bonds over the life of the project.

Current Status

Considerable discussion has taken place over the past three years about the nature of the intergovernmental agreement between the cities and DEQ to implement the Plan. A key discussion point has been the sharing of risk for bond repayment between the parties. An agreement has been reached and has been presented to the State Treasurer and the Attorney General for review and comment.

The City of Gresham is proceeding with sewer construction in the Mid-County area and estimates the need for DEQ to purchase $3 million in sewer assessment bonds later this year. A draft Master Bond Ordinance for approval by Gresham City Council has been sent to DEQ for review. The City of Portland has proceeded with construction, but has not yet needed state financing.

Discussions between all parties are continuing in order to develop a final intergovernmental agreement, master bond ordinance and Pollution Control Bond sale plan for presentation to the Commission.

State of Oregon
Department of Environmental Quality

Memorandum

Date: May 9, 1990

To: Environmental Quality Commission

From: Fred Hansen, Director

Subject: **Agenda Item O,** May 24, 1990 EQC Meeting
Options for Public Input

At the meeting on April 17, 1990, the Commission discussed the need to establish a clear policy on public input during the Commission meeting related to rulemaking agenda items.

Attached is a draft **Statement of Policy** for your consideration. We have attempted to capture the ideas discussed at the last meeting and subsequently in my meetings with Chairman Hutchison, and incorporate them in a logical framework.

Recommendation

It is recommended that the Commission discuss the attached draft **Statement of Policy**, make such revisions as deemed appropriate, and instruct the Department to distribute copies of the final document to all persons who have requested to be notified of rulemaking actions as well as all persons who participate in future rulemaking actions.

FH:l
Attachment

Draft 5/9/90

Statement of Policy
on
Public Comment at Environmental Quality Commission Meetings on Proposed Adoption of Rules

The public policy, environmental standards, and operating procedures that guide Oregon's environmental quality protection efforts are established by law and by rules adopted by the Environmental Quality Commission (Commission).

The legislature has given the Commission broad authority to adopt such rules and standards as it deems necessary to carry out the responsibilities vested in the Commission by law. The Commission is also required to cause a public hearing to be held on any proposed rule or standard prior to its adoption.

The Commission values and encourages public input in all rulemaking activities. The success of Oregon's environmental quality protection efforts is dependent upon strong public support which comes, in part, from a fair and effective rulemaking process that provides equal opportunity for all interests to present their views.

The Rulemaking process used by the Commission generally has the following steps:

- The need for a rule is identified (by law, by Department staff, by public suggestions, etc.).
- The Department preliminarily evaluates options for addressing the need, and presents a report to the Commission which contains the evaluation and a specific recommendation for authorization of a rulemaking hearing.
- Upon authorization of a hearing, Public Notice of the Hearing and opportunity to provide oral or written input is given by publication in The Bulletin (published by the Secretary of State, mailing of notice to the mailing list of persons requesting to be notified of rulemaking hearings, and mailing of notice to others known by the department to be interested in the subject of the proposed rule. Notice is provided to the news media as an information item. The public notice advises of the nature of the proposed rulemaking action, the date, time and location of the rulemaking hearing, and the deadline for submittal of written comments.
- A public hearing is held to receive public input. The hearing is generally presided over by a Department staff member who acts on behalf of the Commission as the presiding officer. The Presiding Officer prepares a hearings officer's report which summarizes testimony received at the hearing.

- The Department evaluates all oral and written testimony received, and prepares a final report and recommendation for presentation to the Commission. The report and recommendation, including the record of the public hearing, is mailed to the Commission approximately 2 weeks prior to the meeting where action will be taken.
- The EQC takes final action on the Department recommendation for rule adoption at a regularly scheduled public meeting. The Commission may accept the department recommendation, modify the Department recommendation, or decline to act.

In order to assure an effective rulemaking process with equal opportunity for input and fairness to all participants, and to streamline the process before the Commission during their regular meeting, the following policies are established:

1. All persons desiring to provide input on any rulemaking action must either appear and provide testimony at the scheduled rulemaking hearing or must provide written input by the deadline established in the Public Notice.

   Providing all input at this time assures efficient use of Commission and DEQ staff resources by assuring that all concerns and information are in front of the Department and considered when their evaluation and recommendation is prepared. Written comments will be forwarded to the Commission for review. Commission members will attend rulemaking hearings (as observers) when their schedules allow in order to better understand the issues involved.

2. At the regular Commission meeting, the Commission will act on some rulemaking items as part of a "Consent" agenda item. Consent agenda items are routine items that are expected to be approved as a group without discussion. The Commission may elect to remove items from the Consent agenda and hold them over for discussion later in the meeting.

   - **Hearing Authorizations** will be acted upon as part of the Consent agenda item. The Commission expects all public testimony to be presented at the public rulemaking hearing that is being authorized. In some cases, the Commission will have discussed policy issues related to the topic at an earlier work session.
   - **Rule Adoptions** that involve proposals where no significant issues or concerns were raised in the public rulemaking hearing and where the Department is recommending adoption of the rules essentially as they were presented for public hearing will be acted upon as part of the Consent Agenda.

3. Rule Adoptions that involve significant issues or changes as a result of hearing testimony will be acted upon as individual agenda items. The Department will

forward copies of the staff report and recommendation to all those who submitted testimony at the rulemaking hearing at generally the same time the recommendation is forwarded to the Commission.

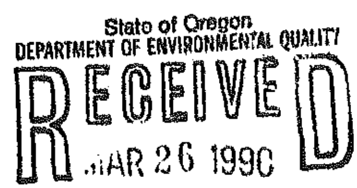
At the meeting when the rule is considered for adoption, the Commission may receive limited public comment that is related to changes recommended by the Department in response to hearing testimony. Repeat of testimony presented at the rulemaking hearing, or presentation of testimony not related to changes made subsequent to the rulemaking hearing will not be allowed. Persons with concerns regarding changes made by the Department in response to testimony are encouraged to communicate those concerns to the Department prior to the Commission meeting in an effort to resolve any misinterpretations.

4. For proposed rule adoptions that are particularly complex or significant, the Commission may elect to invite a panel of knowledgeable individuals to discuss the issues involved and help assure Commission understanding of the issues prior to the Commission's final action on the matter. Such panels may be used prior to authorization of a public hearing (in a work session), at a Commission meeting between hearing authorization and the time proposed for final adoption, at a special meeting, or at the meeting scheduled for rule adoption. The nature of the item will determine when and if such panels will be used. Input from such a panel is at the request and discretion of the Commission and is not intended to signal a general opportunity for additional testimony on the issue.

5. At the Commission meeting where a rule is considered for adoption, the Commission may allow time for receiving public comments only as noted in 3 and 4 above. The Commission then reserves the right to discuss the Department's recommendations and the comments received on the Department recommendation with Department staff in deliberations focused on questions and issues of importance to the Commission. Finally, the Commission reserves time for discussion between the Commission members prior to making a final decision on the rule adoption matter.

Interested persons are strongly encouraged to communicate their concerns regarding any proposed rulemaking action to the Department of Environmental Quality as soon as possible, but not later than the close of the public hearing comment period.

This policy should be distributed to those persons on the Department mailing lists who have expressed an interest in participation in rulemaking actions.



2420 SW Boundary Street
Portland, Oregon 97201
First Day of Spring, 1990

Deparment of Environmental Quality
Office of Director
811 SW 6th Ave.
Portland, Oregon 97201

Subject: Strategic Plan

Air Quality. I think one of the priorities of the air quality section should be reducing vehicle miles driven.

One of the Plan's assumptions is that "environmental regulatory programs will progressively focus more and more upon the individual. . ." It seems clear that the individual's greatest impact on the environment is from auto use. But a brochure suggesting that people drive less is not the solution. Individual auto use is tied to land use policies, adequacy of the bus system, and availability of parking--all influenced by government actions. I would like to see DEQ be an advocate for an efficient transportation system.

One of the areas where DEQ actions can influence driving habits is through the Indirect Source Rule. I would like to see DEQ devote more resources to parking. I have followed the implementation of Portland's Parking Policy for 10 years and believe it would be stronger today if the DEQ had devoted more time to it. Now, with all the growth on the east side of the river, should a parking lid be developed for the Central City? What can DEQ do to promote adequate transportation planning in the suburban areas? Beaverton and Gresham, particularly, are just disasters. I believe each of the large cities should have a Parking and Circulation Policy. Perhaps DEQ could include such a requirement in Metro's Urban Growth Management Plan or refuse to approve land use plans unless these cities have adequate parking and circulation policies.

Solid Waste. I think DEQ needs to have a major role in assuring increased recycling by local governments. I agree that implementation of recycling goals and standards and improved markets should be high priorities. But I also think that assuring funding for improved recycling systems should be another. I question "expansion of the Bottle Bill" as a priority. I would replace those words with "economic incentives."

There are two other recycling priorities I would like to see. One would be to reevaluate the solid waste management heirarchy. I think source separated recyclables should have a higher priority than recovery of recyclables from mixed waste, that composting needs to be mentioned, and that burning and landfilling should be on the same level. I would like to see State policy say this: "The guiding principle for the management

of solid waste shall be to return the maximum amount of material to the marketplace in the highest form possible in order to maximize the conservation of resources."

Another priority should be follow-up on Waste Reduction Plans which DEQ approves. Plans are not effective if they are not implemented.

Thank you for this opportunity to comment.

Yours truly,

Jeanne Roy

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
APR 05 1990
OFFICE OF THE DIRECTOR

Gary Arnold
1136 SE Umatilla
Portland, OR 97202

April 2, 1990

RESPONSE TO DEQ'S STRATEGIC PLAN

After reviewing DEQ's Strategic Plan I feel that the following comments should be made. The need for such a document as the strategic plan is long overdue, and the effort that has gone into it is applauded.

The document calls for "creativity" (pg 3) on the part of DEQ employees, but does not assume that funding for new or expanded programs will be available (pg 1). I believe that this is a self-imposed limitation that discounts the same creativity that is called for. I feel that "the average Oregonian" has a high interest in the environment, and is willing to support more programs to protect it. The current interest reflected in "earth day" stories supports this. If it is assumed from the beginning that no additional funding is available, it probably won't be. Since the first assumption made on page 1 is that Oregon's population base will grow, I believe that an aggressive and creative search for additional funding sources can be successful.

Goal number 2 (pg 2) is disturbing. It seems to imply that only future problems are of concern. I do not believe that 1990 is an acceptable status quo for the environment. Many existing problems (fecal coliform pollution, unsuitable stream habitat, dioxin ...) are already at intolerable levels. Simply identifying threats can become little more than a paperwork exercise; we must make a commitment to "enhancing and restoring" (per mission statement) environmental quality. I also think that enforcement of current laws should be made a priority. The State of Oregon already has passed many laws that give DEQ the power to clean up pollution sources, but only a fraction of DEQ's budget goes to this end.

Goal 3 states that "appropriate uses ... of currently unused assimilative capacity" (in streams) will be required. My feeling is that cities and industry do not have an exclusive right to use rivers and streams as waste disposal systems. My worry is that this engineering approach to rivers and streams will result in the ultimate view that pristine waters are appropriate for industrial discharge because of their high degree of potential assimilative capacity without regard to their intrinsic value as unaffected habitats. Habitats are worth preserving for their own sake, without economic justification. Because certain rivers have established histories of being the "workhorse" streams in the state, additional pollution should be restricted to these waters.

Goal 4 talks about "unenforceable" permit requirements. There are a lot of "stupid" laws and rules, but I think a hard look should be taken before any permit requirement is waved. Unenforceable should not mean inconvenient or simply manpower intensive. Sufficient budget should be provided to allow sufficient monitoring and required enforcement of pollution sources. After all, the goal of the program is to reduce pollution, not make the permit paperwork easier. If current technology cannot properly assess a permit requirement, then it is DEQ's responsibility to research and develop new technology.

Goal 5 is excellent and commendable. I think that it should be expanded to include DEQ support or involvement in environmental education in elementary and secondary schools. It will be through the next generations environmental awareness that any gain in the environment will be made.

I believe that the use of more self-monitoring by industry (pg 3&4) is a very bad idea. It is the classic fox in the henhouse approach to regulation. Any resource committed to development and certification of self-monitoring programs would be better spent by increasing DEQ's monitoring of these sources.

My last comment is about reducing efforts in responding to nuisance complaints (pg 4). We cannot continue to think that the environment is only definable in our terms. While I agree that responding to complaints can be done with logical priorities in mind, I believe that DEQ should guard against giving the impression that environmental issues are only about what affects man and his place on the earth. While some environmental impacts may seem trivial or nuisance in nature, they are still signs that our environment is out of balance. This is important to man as a species, but it is also important to all of the species that inhabit the earth, and I think we have a responsibility to help protect their place on this earth as well as ours. I think it is up to all of us, including DEQ, to foster this attitude.

Thank you for your attention to my comments.

Sincerely,

Gary Arnold

Gary Arnold

cc: Lydia Taylor, Water Quality
cc: Neil Mullane, Water Quality
cc: Andy Schaedel, Lab

UNIFIED SEWERAGE AGENCY OF WASHINGTON COUNTY

April 6, 1990

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
APR 10 1990
OFFICE OF THE DIRECTOR

Office of the Director
DEPARTMENT OF ENVIRONMENTAL QUALITY
811 SW 6th Avenue
Portland, Oregon 97204

SUBJECT: STRATEGIC PLAN

Thank you for the opportunity to comment on the Department's proposed Strategic Plan. Let me also commend you for your efforts in developing the Plan.

Regarding Item #3, it is extremely important, in our opinion, that the Department determine assimilative capacity based on pure scientific evaluation.

Regarding Item #4, we would suggest that some sort of statement be included where sound scientific judgment would be used to ensure that the self-monitoring program does not go beyond what is necessary to protect the environment.

Regarding Item #5, this Agency would be willing to share its "Tualatin River Ranger" program concept for the Department to consider in its promotion of public awareness. As you may have heard, this has become an extremely popular program that has received considerable support and has been commended by a number of folks from the education community.

In reviewing the goals, we found nothing that identifies the Department as a service organization where the Department has in the past and needs to recognize a need to continue to provide technical services and other assistance to its clients. We would very much encourage a goal that recognizes this responsibility.

Sincerely,

Gary F. Krahmer
General Manager

bjc

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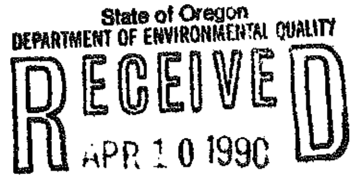
Hillsboro, Oregon 97124

Phone: 503/648-8621
FAX: 503/640-3525



OFFICE OF THE DIRECTOR

4194 N.W. Douglas Avenue
Corvallis, Oregon 97330
April 9, 1990

Harold Sawyer
Department of Environmental Quality
811 SW 6th Avenue
Portland, Oregon 97204-1390

Dear Mr. Sawyer,

You have asked for comments on the goals and objectives of your agency. I could write a multi-page discourse on the arbitrarinous, caprice, and anti-industry bias of the Oregon regulatory agencies. I have lived and worked in several states, with considerable involvement in chemical and radiological safety matters, and I must say that I have never encountered such inexcusable arrogance as I have seen in the Oregon DEQ and EPA. Let me cite just two examples of your total disregard of realistic risks in setting absurd demands on local industries.

A few months ago your demands on the Evanite Company in Corvallis to clean up a trichlorethylene spill were presented in a public hearing. You require that the sub-surface water be pumped and extracted to bring the TCE to a probably unachievable 10 parts per billion level. The chloroform produced by chlorination of municipal water supplies is about 83 parts per billion averaged over many cities, and a National water quality level of 100 ppb has been accepted. The cancer risk in rodents of chloroform is about 30 fold that of TCE. Thus, you are requiring that the carcinogenic risk of sub-surface water, where there is extremely small transfer into water supplies, be 300 times lower than that of the water of proven safety coming out of our spigots, and this disregards the mitigating effect of residence change of people in the affected area. (If the average stay is 7 years, the risk is reduced by another order of magnitude.) When I inquired of your people to justify this glaring discrepancy, they not only could not, but didn't seem to have any idea what I was talking about.

In a similar manner you have imposed ridiculous levels on dioxin discharges to the river from our pulp mills to 13 parts per quintillion at the edge of the mixing zone. This is many orders of magnitude below what can be justified by any epidemiological and scientific approach to the matter. In Vietnam there was gross, unprotected exposure to 2,4D/2,4,5T that contained 1 to 50 parts per million dioxin. The final (hopefully) study has now shown no cancer in veterans that could be attributed to their exposure to this material, which occurred at levels 80 to 4000 billion times that of the target level you have set for the pulp industry.

Dioxin is a product of chlorination of organic material and surely must be produced during the chlorination of municipal water supplies. Its concentration there is undoubtedly very low, but only one molecule of dioxin need be produced for every 6 billion molecules of chloroform to reach the DEQ level of .013 ppq. Surely the production of TCDD dioxin is greater than 1 in 6 billion that of chloroform, and possibly orders of magnitude greater, in which case

the limit of .013 ppq in river water becomes moot.

It is instructive to compare the carcinogenic risk of dioxin with that of the chloroform itself, as was done for trichlorethylene above. There is about a million-fold difference in the potency of dioxin and chloroform in rats (from TD-50 of 100mg/kg for chloroform and 0.lug/kg for dioxin). Thus, if TCDD were produced at 1 millionth the concentration of chloroform in drinking water, or 83 ppq, their cancer producing potential would be equal. You accept the 83 ppb chloroform in drinking water, but limit the dioxin to .013 ppq where it has a 6000-fold lower carcinogenic protential. Again, your people refused to address this discrepancy.

Oregon stands alone in setting these preposterously low limits of ubiquitous contaminants in our environment. You seem to completely disregard recommendations from the scientific community in setting your standards and, instead, hear only voices from emotion charged activists of various sorts. Dioxin, for example, is almost universally considered a non-mutagenic agent by the scientific community, and in concentrations that humans can be exposed to, little more than a skin irritant. Yet you totally disregard those findings in setting unachievable and monstrously expensive burdens on Oregon's industries. Meaningful and necessary environmental improvements can only be achieved in communities with a viable economy. Destroy that economy and your regulations will be ignored. (You can't fine industries that have lost their ability to pay.)

Incidentally, I am a private citizen with absolutely no connection or obligation to the industries in the two sample situations cited above.

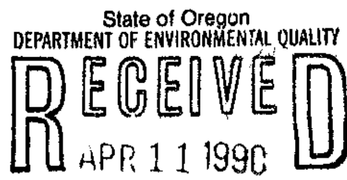
Very truly yours,

L. M. Foster

Dr. L. M. Foster

Copies to Mbrs. Environmental Quality Commission.

LMF/cp



Date: 4/5/90

To: Department of Environmental Quality
Office of the Director
811 S.W. 6th Avenue
Portland, OR 97204

Subject: Comments on DEQ Strategic Plan

From: Jim Parr - Department of Environmental Quality Laboratory

Note: My comments to the Strategic Plan correspond to the document page number: Strategic Plan page no./comment

Page 1 -

- How can we assume that only "productive" citizens or persons will be attracted to or move to Oregon?

- The same technology improvements that can assist future monitoring and measurement of environment may also provide an increased number of "pollute to allowable limit" opportunities which is still pollution and should not be endorsed or allowed by DEQ.

- How is the EQC, as a volunteer group, going to find the time to contribute more than at present?

Page 2 -

- The agency mission: More emphasis is needed on restoration. There are some instances where we over sample/monitor when that effort and resource could be utilized in remediation/restoration. (Resources consumed by repeated sampling can be utilized to repair damage - not simply and repetitively measure the damage).

- On a statewide basis, ambient monitoring is at a minimum or non-existent. We are missing the opportunity to discover, characterize and describe our background soil, air, and water before increasing population/industry/mining/agriculture etc. further impact these basically unmeasured areas.

- Our "compliance program" is very weak. There is a big difference between fines levied and fines actually collected. Our compliance program is basically ineffective and commands little respect. If compliance assurance has not been achieved to date, what changes in the program will suddenly bring it about?

Page 3 -

- An increased reliance on self-monitoring as a means of making more effective use of DEQ field staff needs to be carefully examined. So far, it appears that the audits, tracking, and reporting requirements needed to support self-monitoring are consuming as much or perhaps more of DEQ time and resources than if DEQ did the monitoring itself. For example, an industry needs only to change consultants (which they do frequently) and the entire audit/approval system must be conducted again.

- "Experts" are not needed to cultivate and promote a sense of value and responsibility for the environment. Stewardship and concern and care of the land and countryside (air, soil, water, habitat, etc.) is something that we can all practice and teach. We don't need experts to instill this ethic, it is within us all and DEQ simply needs to enhance, foster and cultivate the opportunity for each of us to educate and contribute these ideals to the community.

- If DEQ employees do not aspire to or do not achieve the highest of professional and ethical standards, it is because we perceive and view our agency mission as failing. Morale is low and falling. DEQ staff wants to see the agency succeed and to be an effective and dynamic organization that doesn't have to hold out for "100% of the facts or data" before it will make a move. To greatly improve morale, DEQ simply needs to be "THE BEST IT CAN BE!"

- DEQ activities are too health issue driven. We are supposed to exist for the benefit of Oregon's environment overall, not just environmental problems that are also health issues. DEQ should be characterizing, studying, describing, and repairing our environment in general. We should not confine our activities to health related issues. Such issues should perhaps be turned over to the Health Division.

Page 4 -

- Perhaps DEQ should be a <u>non</u> political agency; beholding to no individual, group or party and thereby, free to enforce the applicable laws fairly, uniformly, and aggressively as established by the public on behalf of the environment.

- While a comprehensive data management system can be a good tool, it <u>cannot</u> <u>substitute</u> for a <u>dynamic</u> <u>field</u> <u>presence</u> by DEQ staff.

- Conferences and seminars rarely are as effective as we may wish. Valuable work time is being lost by attendance at more than 1 or 2 each year.

- How will consistency be maintained if our programs are administered by many different local governments?

- To some degree, is not the public our eyes and ears; especially in the remote, sparsely populated parts of our state? Can we afford to disregard the troublesome, nuisance complaints?

- Any stream deserves total protection and/or restoration. Beneficial use value should not be a tool for allowing or accepting degradation of particular streams. (The oceans, wetlands, lakes, rivers, sinks, and estuaries need all of the clean water they can get).

- The time span is too long for problem identification, plan of action, and actual clean up at waste management facilities. Why is it taking years to process permits for these facilities?

- Groundwater protection rules should be implemented statewide (groundwater exists statewide). We should not be willing to risk the groundwater at any locale regardless of any priority ranking list.

- Oversight work should be timely and it should not take years to achieve closure or acceptable closure plans.

Page 6 -

- Resource conservation, protection and restoration is perhaps our most important function (or should be).

- Can we afford, at any time, not to permit and encourage voluntary cleanup?

<u>Summary Comments and Opinions</u>

DEQ should not write rules, laws, or permit provisions that it is unable or unwilling to enforce. DEQ's enforcement program should be uniform, non-arbitrary, timely and aggressive. DEQ should perhaps seek a criminal authority to complement its civil authority; or perhaps DEQ should transfer the enforcement of its laws to the state police. (The state police administer the Fish and Wildlife laws of the state). What ever happened to the new "lean and mean" agency that we were to become beginning several years ago?

DEQ should strive to become an effective, action-oriented agency while maintaining a viable research/study division. DEQ could probably function best as a non political agency. The Public Affairs section is too office bound. Public Affairs should be on the road; taking our message, mission, and presence regularly to every corner, section, town, village, community, and grange in the state. People should know DEQ exists and what it does.

It should not take a lawsuit to get DEQ to spring into action. We should be on top of things and way out in front of the threat of or need to be sued. Only when DEQ becomes the best it can be will staff morale rebound and possibly achieve the highest level ever.

The question of can self-monitoring really be a savings to DEQ should be carefully thought out. No stream (or aquifer) in any place in the state should be ignored, written off, or not protected.

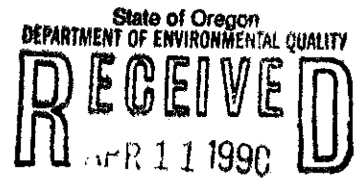
In a time of limited resources and funds, is it possible that the environmental protection effort could be best preserved by combining all of the state's resource management and conservation programs into a single Department of Natural Resources?

Thank you for the invitation to respond to the proposed DEQ Strategic Plan of 3/9/90, and for your consideration of what are my thoughts and opinions only.

Jim Parr

Jim Parr
4/11/90.

Chem-Security Systems, Inc.
A Chemical Waste Management, Inc. Company
Star Route, Box 9
Arlington, Oregon 97812
503-454-2643



M E M O R A N D U M

To: Department of Environmental Quality
Office of the Director
811 SW Sixth Avenue
Portland, Oregon 97204

From: Donald A. Haagensen and David S. Barrows
for Chem-Security Systems, Inc.

Re: **Draft Strategic Plan**

Date: April 11, 1990

Chem-Security Systems, Inc. submits the following comments on the draft Environmental Quality Commission/Department of Environmental Quality Strategic Plan dated March 6, 1990. In general, Chem-Security supports the elements of the draft Plan regarding hazardous waste especially the shift in emphasis to waste reduction and minimization. Chem-Security also has specific comments on the draft Plan. In the following specific comments the part of the draft Plan at issue is quoted in full and then followed by a discussion of the draft Plan and suggested changes to the draft Plan. Language recommended to be added to the draft Plan is underlined.

Current Draft Strategic Plan
(page 4)

"PRIORITIES FOR ALL PROGRAMS"

"High Priorities"

"7. Develop options for stable long term funding to achieve environmental protection goals. (All Goals)."

Discussion

The draft Plan very briefly addresses funding for DEQ's major programs. An assumption of the draft Plan is: "Fiscal constraints will continue to limit available funding for new or expanded environmental quality control efforts." Draft Plan, p. 1. The draft Plan also states that a high priority for all major

programs is to: "Develop options for stable long term funding to achieve environmental goals." Draft Plan, p. 4.

Chem-Security supports recent comments by the Director of the DEQ regarding reduction of overhead and emphasis on efficiencies in DEQ programs to control costs. However, because appropriate as well as adequate funding is critical to the success of DEQ's programs, a more extensive discussion of financial considerations should be included in the Strategic Plan. Guidance should be provided for future sources of funding in any long-term planning document.

In recent years funding for DEQ programs has relied significantly on money from sources other than the general fund. In addition to funding from the Environmental Protection Agency and other federal funding, this other funding has come to rely heavily on "user group" type funding. This type of funding should be discussed in the Strategic Plan.

Chem-Security has real concerns about the direction of user group funding. There should be a direct link between any "user type fees" and the specific DEQ program they support. A cornerstone for DEQ funding from user groups or regulated parties should be that monies collected should relate directly to the particular program that those groups necessitate or from which those groups benefit. Whenever user fees are implemented as a source of funding, those persons or companies for whom the legislature recognizes a need for regulation by the DEQ as well as those persons or companies whom the DEQ regulates to address that legislatively recognized need should pay the cost of such regulation to the extent they are able.

When such user groups are not available or they do not have an adequate ability to pay for the program involved, the cost for the program, because it has been recognized by the Legislature as important for Oregon, should be borne by Oregon as a whole. In other words when user fees are involved, those programs that cannot be supported by the persons or companies creating the need for the programs or benefiting from the programs, should be funded from the general fund or other funds from the state as a whole as much as possible because the programs benefit the state as a whole. Other users groups should not pay for programs to which they have no direct relation.

Chem-Security is concerned regarding this aspect of DEQ funding because Chem-Security generally has been viewed as a ready source of funds to support DEQ programs. A prime example is the per ton fee Chem-Security pays to the DEQ for waste disposed at Arlington. Although this fee began as only $10 per ton in 1985, it was increased to $20 per ton in 1987 and is now being proposed

for $30 per ton. A significant amount of money is involved with this fee:

Year	Fees Paid by Chem-Security
1986	$1,078,204.30
1987	$2,479,497.90
1988	$2,823,625.80
1989	$2,753,122.20
1990 (through March)	$ 856,127.00 (incurred but not yet paid)

The 1985 Legislature enacted this fee to provide the State's share of cleanup costs for federally designated Superfund sites in Oregon. Other sources of funds were examined to create the necessary money for these cleanups but Chem-Security was eventually selected. The fee was set at $10 a ton with Chem-Security's soft support. The fee was expected to generate about $300,000 a year for a DEQ-administered fund. The fee, as envisioned, was to be permanent, but once the fund reached $500,000, payment of fees stopped until expenditures were made from the fund and the fund decreased to $150,000.

The 1987 Legislature increased the fee to $20 per ton. The $10 increase was to provide money for the start-up of the state Superfund program. No other ready source of money could be identified to help pay for these start-up costs. Chem-Security reluctantly agreed to support this increase, again because all concerned indicated that this fee would remain at $20 and that it should not be increased in the future.

The latest DEQ legislative concept being considered for 1991 proposes raising the fee to $30 a ton. The new $10 increase would be used to fund hazardous waste reduction and management activities and to fund the encouragement of alternative management programs for hazardous waste that is currently being landfilled.

The necessity for these frequent increases not only makes costs difficult to project for Chem-Security, but contradicts the goal of long-term stable funding recognized in the draft Strategic Plan. It also runs counter to Chem-Security's belief that in the area of user fees those who create the need for a DEQ program and benefit from a program should bear the cost for the program to the extent of their ability to pay. If those parties cannot support the program, the state as a whole should pay through the general fund or through some other uniform funding

source rather than a non-related party like Chem-Security. Although there may have been some linkage or connection between earlier fee decisions by the Legislature in 1985 and 1987 (the cleanup programs funded by the fees would provide some waste to be disposed at Arlington), there is no linkage or connection for the latest increase to $30 per ton. The programs funded (hazardous waste reduction and development of alternatives to landfilling), although generally supported by Chem-Security, have no connection to Arlington and will likely reduce the amount of waste disposed there.

Funding for DEQ programs should be addressed in more detail in the Strategic Plan. User fees as a source of funding must be addressed. Specifically, certain concepts should be recognized regarding user fees. Chem-Security proposes the following changes to the draft Strategic Plan to reflect these concepts.

Suggested Changes to Draft Strategic Plan
(page 4)

"PRIORITIES FOR ALL PROGRAMS"

"High Priorities"

"7. Develop options for stable long-term funding to achieve environmental protection goals including for user fees:

"a. Relying to the greatest extent possible on funds that relate directly to activities that have a bearing on, or will benefit from, achievement of the environmental protection goal.

"b. To the extent additional funds are needed, relying on general fund support or sources of funds reflecting the segment of Oregon society being benefitted by the environmental protection goal. (All Goals.)"

ASPHALT PAVEMENT
ASSOCIATION OF OREGON

OFFICE OF THE DIRECTOR

JAMES E. BRITTON
Executive Director
CHUCK GASKILL
President
STEVE LOOSLEY
Vice President
PAT DEAN
Secretary/Treasurer

3747 Market Street, N.E. - Salem, Oregon 97301
(503) 363-3858

April 10, 1990

Department of Environmental Quality
Office of the Director
811 SW 6th Avenue
Portland, OR 97204

RE: COMMENTS - DRAFT STRATEGIC PLAN (3/6/90)

Dear Mr. Hansen:

A review of the 3/6/90 draft of the Draft Strategic Plan for the Environmental Quality Commission and the Department of Environmental Quality has lead to an observation and two suggestions. Reading the draft plan leads one to an observation that there is an imbalance between induced compliance and enforced compliance to regulations. In a democratic society induced compliance is generally the favored method of bringing about compliance to new regulations.

The first suggestion is that cooperation between those directly and actively involved in a problem solving situation will generally improve the quality of the solution. Team work will improve the probability of a successful application of the solution. The draft does not seem to encourage cooperation.

Secondly it is suggested that the benefits that may be derived from research done singularly or cooperatively by DEQ staff, academic institutions and the private sector of the economy be recognized as important parts of solutions to environmental problems. Determination of facts as they exist provides a more solid basis for solutions than perceptions. Importance of organized research is not recognized in the draft policy.

PAVING THE WAY WITH A SMOOTH, SAFE, DURABLE SURFACE

BOARD OF DIRECTORS: Steve Ausland, Jay Compton, Carl Dunlap, Kip Johnson, Jim Turin, Bob Reinhard

It is recognized that some DEQ sections and personnel do subscribe to induced compliance, cooperative efforts, and joint research. These comments are intended to convey a strong message that these concepts are of sufficient importance to be included in the proposed "Strategic Plan" of DEQ/EQC. Please give serious consideration to inclusion of these three concepts in your "Strategic Plan" which will provide staff guidance over the next few years.

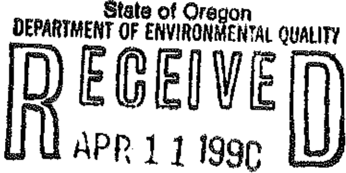
Yours truly,

James E. Britton
Executive Director

JEB/dl
DEQLTR.Doc

CITIZENS FOR KLAMATH QUALITY LIVING

P.O. Box 1888
Klamath Falls, Oregon 97601
(503) 882-5406



April 10, 1990

Office of the Director
Environmental Quality Commission
811 SW Sixth Avenue
Portland, Oregon 97204

Dear Environmental Quality Commission,

We offer the following comments on the 2/14/90 Strategic plan draft.

(1) We agree with many of the assumptions but take issue with the idea that regulatory programs increase their focus on individuals, particularly as consumers of products that cause pollution. Who made the products? Control the source not the user.

(2) Strategic Goal #3 implies that technology (e.g. waste incineration) is going to solve the problem and that we can still manufacture and market products whose disposal requires the use of "high technology". Recycling is "low technology" and is the best answer. Source reduction, source separation and recycling answer many problems that now require a high technology "solution" that most often produces a more serious problem.

(3) The air quality program objectives ignore the serious problem of dioxin, furan and heavy metals, present in incinerator air discharges and ash. No testing is presently being required and the strategic plan needs to change that. The California Air Resources Board requires dioxin and furan testing in addition to heavy metals for incineration operations, Oregon should as well. Adding this to your

plan would keep dioxin, the most toxic synthetic chemical known to man out of our biosphere.

(4) The hazardous and solid waste priorities #2 is excellent. Please place some real emphasis on this one.

(5) Priority #4 must include dioxins and heavy metals now being produced by municipal and hospital waste incineration. The apparent goal of regional incinerators being promoted by the Department of Environmental Quality is not in Oregon's best interest.

Many of the goals and priorities are very good. We applaud the direction taken and by adding the proper testing and moving from incineration to proven alternatives we feel this will be a better plan to serve Oregon. Thank You.

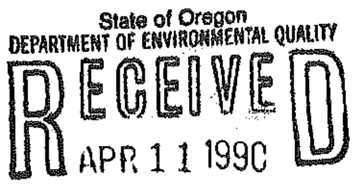
Sincerely,

Carol Yarbrough

Carol Yarbrough
Citizens For Quality Living

METRO

2000 SW First Avenue
Portland, OR 97201-5398
(503) 221-1646
Fax 241-7417



OFFICE OF THE DIRECTOR

April 10, 1990

Mr. Fred Hansen, Director
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

Dear Fred

Executive Officer
Rena Cusma

Metro Council
Mike Ragsdale
Presiding Officer
District 1
Gary Hansen
Deputy Presiding Officer
District 12
Lawrence Bauer
District 2
Jim Gardner
District 3
Richard Devlin
District 4
Tom DeJardin
District 5
George Van Bergen
District 6
Ruth McFarland
District 7
Judy Wyers
District 8
Tanya Collier
District 9
Roger Buchanan
District 10
David Knowles
District 11

Thank you for the opportunity to comment on the Draft Strategic Plan that has been prepared for the Environmental Quality Commission and the Department of Environmental Quality. We would like to make the following observations and recommendations (in the order they appear in the Strategic Plan):

1. Page 1 - The first assumption is unclear.

I believe that the intent of the statement is to simply assert that the population of the State will continue to grow. The <u>rate</u> of growth will vary, but it seems unlikely that the <u>rate</u> will continue increasing indefinitely (this implies a geometric increase to infinity).

Oregon had some hard times in the early 1980ies, and some areas of the State have still not recovered. However, particularly in the Portland area, recent increases in population have been large, and such increases are forecast to continue for at least the short term.

More importantly, from a philosophic standpoint, growth will likely occur no matter what. The attractiveness of Oregon, is due in large measure to Oregon's continuing concern with the environment. Accordingly, the issue seems more precisely to be how to best accommodate it. We recommend that the statement within the parentheses "(unless the state takes deliberate effort to discourage or prevent such growth)" be deleted. Unless this is the direction the EQC and DEQ want to take, it should be taken out, as it adds confusion rather than clarity.

Our recommendation for restatement of the assumption is as follows:

Recycled paper

"The population of Oregon will continue to increase, probably at a relatively rapid rate for the foreseeable future."

2. Page 1 - The second assumption again refers to increasing rates, as opposed to increases from today's level.

It is our suggestion that this assumption be rewritten as follows:

"Industrial and economic development will continue to increase, and shall be encouraged to provide jobs for Oregon's citizens, within a framework of sound environmental policy."

3. Page 1 - the seventh assumption referring to limitations on new or expanded programs does not logically follow.

Limited resources are a fact. Limited resources means that expanding staffing levels is not likely. However, it does not logically follow that new or expanded environmental quality control efforts are necessarily limited. Improved methods and management, or changing priorities could lead to implementation of new or expanded efforts. (As suggested in Strategic Goal 4, 7, etc.)

We recommend that the statement be revised as follows:

"Fiscal constraints will continue to limit available funding for additional staff. New or expanded programs will need to rely upon improvements in methods, management, and/or changes in program priorities."

4. Page 1 - the eighth assumption regarding the focus of regulatory programs is not clear.

It is important to get across the message that a particular product or activity is causing environmental degradation. This message needs to be received by the consumer as well as the provider of the product or service. The message needs to be effective, and could possibly include an economic message (attaching a cost to the consumer), as well as other types of messages. However, such messages, whether economic or other, will also impact the producer (possible impacts could be loss of market share, loss of revenue, etc.). Changes to regulatory programs should be very broadly publicized, (including the general public, local governments and potentially affected economic interests), comments sought

and carefully considered before implementation.

5. Page 2 - Strategic Goal 1 - establishment of a data management system.

Metro is in the process of developing RLIS (Regional Land Information System), for the Portland metropolitan area, based upon the ARC-INFO software system. We would like the opportunity to work with DEQ to provide any information or databases that we have or are developing, as well as to pursue, to the extent possible, the compatibility of systems.

6. Page 2 - Strategic Goal 3 - use of the phrase "highest and best", and assimilative capacity.

We are not familiar with the use of this phrase in describing technology. The phrase is common in real estate appraisal, while we are most familiar with the phrase "Best Achievable Control Technology", or several of the variants, as used in technology assessment.

We recommend that either the phrase "highest and best" be defined, taking into consideration the following:

> "the optimal combination of proven equipment or process technologies, based upon the assessment of all life-cycle economic costs, best engineering practices and the avoidance of undue economic hardship, which results in the highest level of overall environmental quality".

With regard to assimilative capacity, assuming it can be quantified, it would be in the long-term interests of both the environment and economic development to always maintain a significant increment of assimilative capacity. Accordingly, we suggest substituting the existing language with the following:

" A substantial increment of assimilative capacity shall be maintained."

7. Page 2 and 3, Strategic Goal 4 - changing permit conditions; methods of monitoring and reporting.

The explanation of this goal and methods of implementing are important techniques for improving the management of scarce resources. It would make a stronger and more balanced statement, if the explanatory language following

the strategic goal statement would include the comments that any such permit changes should also consider that the primary and overriding goal is to protect the environment through improved management and permit processes.

8. Page 3, Strategic Goal 8 - transfer or elimination of activities.

The explanatory paragraph indicates that some activities currently carried out by the DEQ may be transferred to other agencies, or eliminated. This kind of action may be appropriate in some cases. However, it should be done with the knowledge and cooperation of those agencies to which the burden may fall. Consideration of funding must be a primary factor in making such a decision.

We recommend that the following be added after the last sentence ("Efforts are also...").

"Transfer of programs or elimination of programs may be undertaken only after consulting with representatives of potentially affected industries, local governments, and the general public.

Transfer of programs shall consider the financial impacts to local governments, agencies or others assuming the fiscal burden."

Pages 3 & 4 Strategic Goal 9 - EQC decisions

We recognize that the EQC has a very full agenda. However, we would regret policy decisions being made solely by staff. It may not be the intent of the explanatory statement for Strategic Goal 9, to so limit EQC decisions. The EQC should continue to function as a policy board, ruling on matters required by statute or rule, but also any policy questions.

Page 4 Water Quality Program - 2. State Clean Water Strategy.

The establishment of priorities through the SCWS, within the Metropolitan Service District (Metro) should, at a minimum, include substantial participation by Metro. Should resource reduction action be considered by the State, Metro and DEQ should discuss any further role that may be appropriate for Metro to play.

Pages 4 & 5, Water Quality Program - 3. Treated wastewater alternatives.

Utilizing the Best Achievable Control Technology analysis of treated wastewater alternatives in addition to the cross-media approach, can be a productive decision-making tool. For example, reuse of treated wastewater utilizes a very basic and time-tested technology. Standards for the use of treated wastewater on field crops should not be any higher than is reasonably necessary to protect public health. Considering the cross-media approach, the soil may be the better "sink" for nutrients and metals than water. The comprehensive cross-media approach with long-term planning can function as the best mechanism driving DEQ's strategic planning.

Page 5, Water Quality Program - estuary program.

Metro Council policy, as embodied in an approved resolution, is to support estuary programs. We therefore highly recommend that the effort to complete a statewide estuary program not reflect a reduced resource priority.

Page 5, Hazardous and Solid Waste Program - 2 Waste reduction efforts.

We suggest that the opportunities for DEQ to encourage waste reduction and recycling should be far more extensive than just an extended bottle bill and improved markets for recyclables. Secondly, the implementation of recycling goals should be done not on a statewide basis, rather on a DEQ region basis, where local conditions with regard to waste composition, economic vitality and distance to markets must be considered.

We recommend the language in 2 could be rewritten as follows:

"Significantly promote waste reduction and recycling by establishing regional target rates of recycling progress which promote the design of recycling programs relevant to local conditions.

Page 5, Hazardous and Solid Waste Program - 7 Local government responsibilities.

There are policy clarifications that DEQ could help make with regard to this item. First, it has never been clear where the solid waste management responsibilities lie with regard to the rural areas outside the Metro boundary. Currently, Metro has the statutory responsibility for solid waste management within the urban portion of the 3 counties (Multnomah, Clackamas and Washington). However, Executive Orders issued by the Governor in 1977 and 1978 designated Metro to be responsible for solid waste planning for the entire tri-county area. These orders are not legally binding, yet they further establish responsibility with legislative authority for areas outside the Metro boundary. Clarification of responsibility and authority for solid waste planning for the rural portions of the tri-county area would be helpful.

Secondly, DEQ could increase it's efforts to recognize the Regional Solid Waste Management Plan which applies to the Metro area, assuring that all DEQ permits and programs are consistent with it.

Page 5, Hazardous and Solid Waste Program - Annual wasteshed recycling reports.

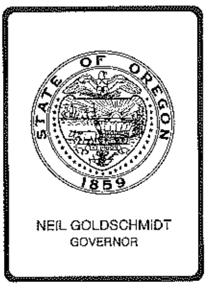
DEQ could also be helpful in clarifying the role that Metro already plays in preparing annual wasteshed recycling reports. These reports are necessary for Metro to prepare for the metropolitan area in order to monitor recycling progress for the
area. DEQ's current role of review of the annual wasteshed reports seems a duplication of efforts. It seems more appropriate for Metro to conduct such a review and report the results to DEQ.

Thanks for the opportunity to comment. We would also appreciate the opportunity to comment on Operating Plans and Performance Indicators, as they relate to the Metro responsibilities, and congratulate DEQ in this first strategic planning effort.

Sincerely,

Richard H. Carson

Richard H. Carson, Director
Planning and Development

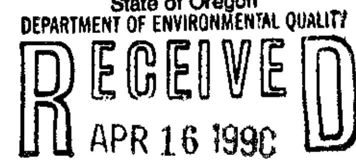


NEIL GOLDSCHMIDT
GOVERNOR

Department of Land Conservation and Development

1175 COURT STREET NE, SALEM, OREGON 97310-0590 PHONE (503) 373-0050

April 11, 1990



OFFICE OF THE DIRECTOR
Fax Rec'd 4/11/90

Fred Hansen, Director
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

Dear Fred:

We are pleased to have this opportunity to review your Strategic Plan.

Overall, we found your proposed plan to be concise, easy to read, and well organized. We especially liked how the document cross-referenced strategic goals and major program priorities.

Listed below are several suggestions aimed at strengthening your plan, particularly in terms of the vital connection between the state's environmental protection and land use programs.

Assumptions (pp. 1)

DLCD agrees with your general outline of future environmental issues facing the state. However, we believe that you should consider bringing together in the text those statements about increased population growth and development, finite limits on the assimilative ability of our environmental resources, and the high value the citizens of the state place on our environmental quality.

Clearly, the overall challenge implied by the linking of these assumptions is that "business as usual" is not an option and that critical decisions about how best to maintain Oregon's prized livability are upon us. This urgency for appropriate action would appear to be particularly true in certain regions of the state like the Willamette Valley, the Portland metro area, and portions of southwestern Oregon.

We also recommend that a new assumption be added expressing DEQ's commitment to ongoing involvement in the state's land use program as one of the key steps in protecting the state's environmental quality in the face of increased growth.

Strategic Goals (pp.2-4)

One of the predominant themes we perceived in several of the goal statements is the concept of achieving the state's environmental quality goals through a more concerted state effort to prevent problems, and therefore reduce the need for more costly remedial work later.

DLCD strongly endorses this principle. No only is such an approach more efficient from the standpoint of DEQ resources, it represents one of the key areas of coordination between the state's environmental quality efforts and the state land use program.

It is our view that your Strategic Goals should be more explicit about the environmental quality/land use relationship. Effective, up-to-date, city and county comprehensive plans, properly coordinated with DEQ programs, can play a significant part in addressing both existing environmental issues and avoiding future problems.

You are in the process of revising your state agency coordination (SAC) program for certification by LCDC. Several of the major elements in your SAC program, including procedures for comprehensive plan compatibility, participation in local planning and periodic review, and provision of technical assistance to local governments, offer potentially valuable ways for accomplishing purposes in your Strategic Plan.

For this reason DLCD believes specific mention should be made to the importance of DEQ's involvement in state land use planning and the benefits you seek to gain from implementing an updated SAC program.

Priorities (pp. 4-6)

Our comments on this section are directed to those priorities relating to all DEQ programs.

We have one specific suggestion. Your high priority #3 for all programs (pp. 4) should be adjusted to recognize in the context of your state agency coordination activities the need to clarify and improve DEQ permitting procedures with local governments, and, where necessary, other state agencies, where approval of the same project is involved.

We appreciate the chance to review your proposed Strategic Plan. I hope our suggestions are helpful. Please contact me, or Jim Knight (373-0085) of our staff , if you have questions, or if you or your staff would like to meet to discuss our comments.

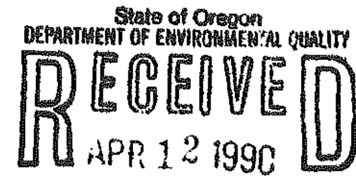
Sincerely,

Susan Brody
Director

SB:jbk
<sac>DEQ.STRAT.PLAN

cc: Harold Sawyer, DEQ
Pete Dalke, DEQ
Roberta Young, DEQ
Jim Knight, DLCD
Greg Wolf, DLCD

SIERRA CLUB
Oregon Chapter



OFFICE OF THE DIRECTOR

April 9, 1990

Department of Environmental Quality
Office of the Director
811 SW 6th Avenue
Portland, Oregon 97204

Re: Draft Strategic Plan

The Oregon Chapter appreciates the opportunity to offer comments on the Department's 3/6/90 Draft Strategic Plan.

The Sierra Club believes that strategic planning provides a crucial step towards effective management. Public input can be particularly valuable in the analysis process.

We note the contradiction implied in "Assumptions" between an increasing population (and presumably increasing pollution problems) and budgetary constraints for new or expanded programs. Should this problem not lead to priority support for programs which would attract federal funding? (Estuaries, lakes, wetlands, etc.?) Beginning a needed program, if federally aided, could be a strategic key to the development of future environmental protection programs. Should a strategic priority not be a search for funding for such programs?

We would agree that Goal 4 should receive high priority. However, until the objectivity and validity of data is assured and accepted by the public, "expansion of the use of self-monitoring and reporting" is a very poor strategic choice. The confidence which the public has in monitoring data is crucial to both acceptance of regulation and to program support. Professional and ethical standards are as essential in dealing with the data itself as in dealing with the public. (Goal 6)

Goals 2 and 3 also rank high on our priority list. We are somewhat concerned that Goal 2 might be construed to mean the identification of "new" threats to public health or the environment when, in fact, we believe that cleaning up existing problems may be as important if not more important than anticipating new problems.

. . . To explore, enjoy and preserve the nation's forests, waters, wildlife, and wilderness . . .

Goal 3 raises an issue which the Sierra Club has raised in the past. This Goal, if we understand it correctly, is recommending cumulative impact analysis. If so, we agree. It makes no sense to deal with an airshed or a watershed on a permit by permit basis. Understanding the pollution capacity of an airshed or watershed is essential to sound regulation.

It follows that Goal 1, which would lead to the establishment of a data management system, would provide the necessary underpinning for cumulative analysis -- and extend the analysis in a comprehensive cross-media approach. Good strategic goals.

Your internal strategic goals are inter-related. We would suggest that committed staff are best rewarded both by a safe environment and by the knowledge that their programs are effectively implemented. Streamlining programs and activities will be a nearly automatic product of an involved, effective and motivated staff.

Finally, we strongly believe educational out-reach is essential, not only to program implementation but also to the future of Oregon's environment. Your priorities for Environmental Cleanup are excellent. We would like to see some creative incentives as well as disincentives to buttress such an education program -- for air quality, water quality, hazardous and solid waste as well as environmental clean-up.

Oregonians care deeply about the quality of their environment. The current publicity about water quality of the Lower Columbia is q good example. Public concern for wetlands, for the quality of the water in our lakes and streams, for air quality in wilderness areas, is high. A strategic goal should be to capitalize on those concerns.

We hope that you will find our view helpful.

Sincerely,

John Albrecht

John Albrecht, Chair
3550 Willamette
Eugene, OR 97405

cc: Carol Lieberman
Liz Frenkel

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
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OFFICE OF THE DIRECTOR

OREGON ENVIRONMENTAL COUNCIL

P.O. Box 1498, Jacksonville, Oregon 97530
Phone: 503/899-7426

April 9, 1990

Harold Sawyer, Office of the Director
Department of Environmental Quality
811 S. W. 6th Avenue
Portland, OR. 97204

Dear Mr. Sawyer:

This letter is written in support of the DEQ's draft Strategic Plan. Overall, this plan is a large step in the right direction, but a few points follow tha bear emphasis.

I applaud Goal # 1 with its EIS-like qualities; this is a much needed redirection of efforts that will reduce "uncoordination" and errors due to limited perspective. Goal #2 is also long overdue as many problems will not be solved until a solid database is in place. Hopefully, the new Bureau of Environmental Statisics to be created within the new cabinet post of the EPA will reduce some of your workload.

Goal #3 needs some work, however, in that the aspect of pollution prevention does not receive enough emphasis and expansion. If there is one priority in the future, prevention is it.

Also, the idea of computing the assimulative capacity of the environment must not be done with the concept of saturation in mind, but with some sort of "clean environment" buffer built in so that we not always riding the line of health and welfare standards, but transcending them.

Goal #4 is extremely commendable and necessary. I am leery of self-monitoring. While I appreciate the benefits of staffing costs; the possible opportunities for violation are too overwhelming. I would prefer to see this aspect eliminated.

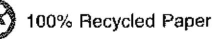
Thank you for the opportunity to respond.

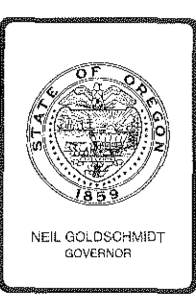
Sincerely,

Paul Wyntergreen, Regional Director

12-1

1968 • *"Twenty Years Protecting Oregon's Future"* • **1988**





NEIL GOLDSCHMIDT
GOVERNOR

Water Resources Department

3850 PORTLAND ROAD NE, SALEM, OREGON 97310 PHONE 378-3671

April 12, 1990

Fred Hansen
Director
Department of Environmental Quality
811 S.W. 6th Avenue
Portland, Oregon 97204

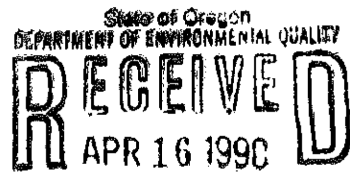
Dear Fred:

Thank you for the opportunity to review DEQ's draft Strategic Plan. We are submitting the following comments for your consideration.

First, DEQ should be commended for preparing a clear mission statement and lists of goals and priorities. Prefacing the plan with a list of assumptions provides additional clarity and perspective to the proposal. Including the resource reduction priorities in the plan provides a good sense of the trade-offs associated with program management given limited staff and funding resources.

The mission statement lists "restoration, enhancement, and maintenance" as top priorities for the quality of Oregon's air, water, and land. However, restoration does not appear to be emphasized in the goals and priorities. How restoration is to occur, for example through accelerated compliance-related activities, should be stated explicitly to provide a clear linkage between DEQ's mission and agency programs. Further, we would suggest that the the plan provide a specific goal and corresponding priority to clean up a definite number of high priority waste sites during the 1991-93 biennium.

Several questions also arose as we reviewed the draft plan. First, will certain of the proposed resource reduction strategies impede accomplishment of proposed goals and priorities. For example, will deferral of rulemaking related to natural resource damage assessments preclude DEQ from pursuing recovery of clean-up expenses as intended under Environmental Cleanup Program High Priority #2? Should additional training and certification requirements for operators of solid and hazardous waste transfer, storage and/or disposal facilities be added to the priorities for the Hazardous and Solid Waste Program?



OFFICE OF THE DIRECTOR

A general concern we had was the lack of focus on ground water protection and enhancement. The passage of 3515 gave a new emphasis , though not substantial funding, for this issue. We at WRD are committed to the proactive approach established by this legislation and expected it would be a high priority for DEQ. Instead, the only places where HB 3515 topics clearly appear are in the resource reduction categories under Hazardous and Solid Waste and Environmental Cleanup. I believe this is an area where our two agencies should seek greater resources.

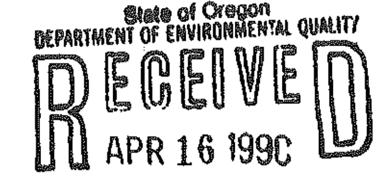
Again, we support your efforts and appreciate the opportunity to comment.

Sincerely,

Bill

William H. Young
Director

cc: Becky Kreag



OFFICE OF THE DIRECTOR

Northwest Environmental Defense Center
10015 S.W. Terwilliger Blvd., Portland, Oregon 97219
(503) 244-1181 ext.707

April 12, 1990

Fred Hansen, Director
Department Environmental Quality
811 SW Sixth
Portland, OR 97204

Re: Comments on DEQ's Draft Strategic Plan

Dear Fred:

Harold Sawyer generously granted us an extension of time to submit these comments.

ASSUMPTIONS

We applaud the idea of broadening regulatory programs to focus on the individual. However, this must not be done instead of focusing on industry. It should be done "as well as" focusing on industry.

The Department's assumptions are generally accurate. However, NEDC has concerns about the assumption that future technology will "continue to improve" our ability to "control" the quality of the environment. Technology has and will continue to improve our ability to "monitor" the environment. It is questionable, however, whether technology has ever given us "control." At best, technology has helped us to become more detailed in our efforts to influence the environment. To-date, these efforts have resulted in little or no "control" and a great deal of unexpected negative ramifications. In addition, if the Department's mission is to "restore, enhance and maintain" the quality of Oregon's environment, technological advances and new information should be used towards this goal, i.e., restoring the environment, not controlling it.

STRATEGIC GOALS

Overall, the goals are commendable. There is, however, one goal and one significant concept lacking throughout the document and throughout the articulated priorities: **ENFORCEMENT**. Only once in the entire Strategic Plan is enforcement mentioned (page 5, re: Solid Waste Program Disposal Standards). This oversight is shocking and disquieting. Enforcement should be a critical element of each and every part of the regulatory scheme. Otherwise, DEQ will become even more of a proverbial "toothless

lion" in the eyes of both the regulatory community and the public.

1. Addressing environmental issues using a comprehensive cross-media approach is important. However, it is unclear what "uniform acceptable risk factors" are. How is an "acceptable" risk factor determined? What does "uniform" mean in a cross-media context? These questions need to be addressed and answered in the plan, so that it is self-executing.

2. DEQ plans to "aggressively" identify environmental threats, but is only "taking steps" to prevent the problems created. Does "taking steps" mean enforcement? If so, why not state that? Since when did the word "enforcement" become taboo? The text of the goal discusses monitoring and "preventative" action. These seem to suggest that DEQ will be looking into taking action to prevent future problems. This is a laudable goal. However, existing problems must not be ignored. The goal should articulate DEQ's intent to eliminate existing problems, as well. This could be done by engaging in active enforcement. Prevention is critically important, but so is dealing with existing problems. The goal falls short of the mark by only addressing half of the problem.

3. To truly ensure that some portion of the environment's assimilative capacity remains unallocated, DEQ must look at qualitative standards and assessments. In addition, cumulative impacts of pollution on the environment must be assumed to occur and calculated into all decisions.

We cannot base assessments of assimilative capacity on "best available" or "highest and best" technology ("BAT"). Application of BAT is part of the problem. It is the mistake that has led DEQ astray for many years. It is not now, and never has been, a measure of the assimilative capacity of the environment. We cannot emphasize this enough. NEDC is horrified to see this effort to return once more to technology-based standards of assessment, rather than quality-based standards. Was the TMDL lawsuit all for nought? This goal must be revised, to reflect an intent to ensure that unallocated assimilative capacity exists by applying substantive qualitative standards and looking at beneficial uses.

4. DEQ sets the goal of "minimizing" unpermitted releases. Since these goals are to provide a "sense of direction" for the Department, a more appropriate goal would be to eliminate unpermitted releases. This is what a compliance program is supposed to do. Minimization is merely a short-term goal, elimination is the more "strategic" goal. This should be plainly articulated.

This goal also refers to reviewing and revising existing permits. However, it makes no reference to enforcing existing permits. To ensure that DEQ's compliance program meets its goal of serving as a "deterrent" and ensuring that an "economic advantage is not gained by non-compliance," DEQ must enforce its existing permits.

It is certainly important that permits be "achievable" and "clearly understood" by permitees. It is unclear from the Strategic Plan what considerations go into determining when a permit is unenforceable or unachievable. If this is an effort to backslide into simply giving the polluter a permit to dump whatever they are already dumping we cannot countenance it. A compliance strategy which calls only for review and revision of permits without any enforcement will not make achievement of the goal possible.

PRIORITIES

DEQ assumes that ongoing work will continue at present levels unless specifically targeted for reduction. NEDC notes that enforcement is not included in the Strategic Plan priorities. Does this mean that enforcement will continue at its present inadequate level? If so, NEDC has serious reservations regarding DEQ's ability to meet its existing compliance goals, much less its new goals.

A. Priorities for All Programs.

NEDC supports the concept of streamlining the permitting process, eliminating the backlog of permits and looking into long-term funding. However, we are concerned that priorities numbers 1 and 2 (restructuring compliance programs and developing comprehensive data management systems) and the planned reduction of staff time spent on monitoring will work at cross-purposes. Having better data management without a staff to use that data will be useless. Long-term funding must include increased permit fees. In addition, eliminating existing permit backlogs should not be used as a license to "rubber stamp" and issue these permits. If the proposed permitee has not provided sufficient data to make a reasoned decision, the permit should be denied.

B. Water Quality Program.

1. Establishment of assimilative capacity for the State's water bodies is a wise choice as priority number 1. This is critically important. We are pleased to see DEQ ranks this as the most important priority.

2/3. These priorities seem very appropriate, but once again the word "enforcement" or the concept of enforcement is totally missing. Perhaps this is just a linguistics problem. However, since this plan is designed to guide DEQ's and EQC's actions over the next several years, the concepts presented must be clear and straightforward. If you mean enforcement, say enforcement. If it is DEQ's intent to back away from enforcement, we vehemently oppose that policy choice.

C. Air Quality Program.

While the priorities in this section are commendable, they in no way ensure compliance with applicable air standards. If the goal of the air program is to reduce area source emissions, one of the most effective mechanisms is enforcement - something that is not mentioned in this section.

SUMMARY

Overall, the Strategic Plan includes some excellent ideas. However, the fact that enforcement was virtually ignored is extremely troubling. It may be a fatal flaw. In addition, the resurfacing of and substitution of "best available technology" for qualitative standards is intolerable. The plan should be rewritten to remove any reliance on BAT as a measure of qualitative results.

With the exceptions noted above, NEDC commends DEQ and EQC for pursuing the Strategic Plan. We look forward to reviewing the revised plan and participating further in this process.

Sincerely,

Karl G. Anuta
President, NEDC

KGA:pl

cc: Jack Smith
David Mann, Executive Director, NEDC
David Paul, Sierra Club

Hex Sawyer

ASSOCIATION of OREGON SEWERAGE AGENCIES

PO Box 68592, Portland, Oregon 97268-0592

Member Agencies

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Arch Cape Service District
Bandon
Bear Creek Valley Sanitary Authority
Bend
Boardman
Canby
Charleston Sanitary District
Clackamas County Dep't. of Utilities
Clatskanie
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Corvallis
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Philomath
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St. Helens
Sutherlin
Sweethome
Tillamook
Troutdale
Unified Sewerage Agency
Veneta
Wasco
Wilsonville
Winston
Woodburn

April 20, 1990

[redacted] Administrator
Water Quality Division
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204-1334

Re: Department's Strategic Plan

Dear Lydia:

The proposed strategic plan is a positive step toward charting a consistent course for the management of Oregon's rivers and streams and the Department is to be applauded for undertaking its development. AOSA is pleased to offer the following comments regarding the Department's proposed strategic plan.

MISSION:

- o The proposed mission statement appears appropriate but should be examined for consistency with the statutory charge of the Department.

STRATEGIC GOALS:

- o The goals are generally well developed but do not appear to encourage collaboration with other state, federal and local pollution control agencies in pursuit of the Department's mission, an ingredient that promises to be increasingly important in the future. (e.g. Cooperative basin studies.)

- o The assumptions included in the plan reflect the elements of the social/business environment affecting the Department, but the goals do not speak to important aspects of that environment and are focused internally

Chair
William C. Gaffi
796-7181

Vice Chair
Floyd Collins
588-6380

Secretary/Treasurer
Michael Reed
240-3215

15-1

04 '18 '90 08:16 PM ENVIRONMENTAL SRVCS P01

for the most part. As an example, the assumptions include the statement "Fiscal constraints will continue to limit available funding for new or expanded environmental quality control efforts". If this statement was intended to recognize constraints on all levels of government, not just the state, it should be reflected in the agencies strategic goals. This could be done by increasing the emphasis of prioritizing environmental control initiatives of the department to insure the public derives the greatest environmental bang for the dollar expended. We recognize that this is not entirely within the Department's control.

- o Goal 3 promotes the application of highest and best technology whether or not needed to maintain compliance with water quality standards or cost-effective. Preservation of existing water quality should be a priority. In order to maintain high water quality given other competing demands requires thoughtful custodianship of the economic resources of our communities which are critical to funding needed environmental improvements. In other words we need to make wise and considered investments of limited economic resources. This demands prioritization of these investments and comprehensive assessments of need. To do otherwise will likely occasion a future condition in which we have exhausted the public's ability or willingness to fund environmental improvements but have failed to address priority environmental needs.

- o Goal 7 speaks of enhancing the workplace environment to the end of promoting a high quality staff, productivity and motivation. A significant impediment to this goal is created by the compensation plan that DEQ is operating under. The Department enjoys a committed and quality staff due principally to the high level of personal commitment of its staff but will undoubtedly experience difficulty retaining and recruiting high caliber and minority staff due to the non-competitive level of DEQ compensation schedules.

- Another concern is the need for clear emphasis on the prevention of environmental injury through education and proactive preventative actions, as opposed to heavy reliance on remediation of environmental problems through enforcement. The existing regulatory framework is far too complex and dynamic for most local jurisdictions to individually track or understand. Inability of DEQ to adequately inform and educate permittees will therefore invite preventable environmental injury requiring remediation through enforcement. An adequate enforcement capacity is clearly needed. If it is the principal focus of limited staff, however, permittees will lack the guidance they need to pursue voluntary compliance. The environment will be best served by assuring that permittees are informed of regulatory expectations to prevent the environmental injury that will result in the absence of such information. Recent fines for pretreatment violations is an excellent example.

Thank you for the opportunity to comment. I hope the above is of assistance.

Highest Regards,

Bill

Bill Gaffi, Chair

UNIFIED SEWERAGE AGENCY OF WASHINGTON COUNTY

May 24, 1990

Environmental Quality Commission
William Hutchison, Jr.
Emery Castle
Henry Lorenzen
Genevieve Pisarski Sage
William W. Wessinger

RE: Agenda Item J - Water Quality Permit Fees

Dear Chair Hutchison and Commission Members:

Unified Sewerage Agency is a member of the Association of Oregon Sewerage Agencies (AOSA) and generally supports much of the Department's request to increase fees to fund better programs. The USA participated in AOSA's rule review process which resulted in its position on this proposal. USA has two areas of strong concern regarding the proposal as it stands:

1. Application of Sludge Fees to the Durham Facility

The proposed fee is based upon the fact that DEQ's sludge program primarily deals with the Department's review and monitoring of agricultural fields where sludge is being applied. Virtually all sludge at the USA Durham Facility is incinerated, and disposed of by landfilling. Therefore, we feel it is unfair and inappropriate to assess a fee component for the Durham Facility based upon agricultural application activities. USA pays fees for the Durham facility for the incinerator air discharge permit and indirectly through landfill charges. The Department has recognized a different expected cost based upon treatment method in its proposed categories for lagoons. USA urges the same approach for facilities which do not land apply sludge, and for which the Department has minimal regulatory costs.

The staff report states that sludge generated by the Durham Facility is occasionally trucked to the Rock Creek Facility for treatment and sludge management. In fact, during the past two years, sludge from the Durham Facility has been trucked to the Rock Creek Facility on two occasions, in April and September of 1989. This represented .05% (five hundredths of one percent) of the total sludge handled at the Durham Facility during that time. While it is true that USA intends to abandon the use of the Durham incinerator in the future and install anerobic digesters, at the earliest this will not occur within the next four years.

155 North First Avenue, Suite 270
Hillsboro, Oregon 97124
Phone: 503/648-8621
FAX: 503/640-3525

The language of ORS 468.065, which provides authority for DEQ's proposed fees, is very specific, and requires that fees be based on costs related to the permits in question. DEQ has provided no information to indicate that its proposed fee component to be charged for Durham sludge bears any relation to the cost of monitoring compliance with sludge conditions at that facility. Air and landfill permit fees address that activity.

Accordingly, USA requests reduction of the sludge management component of the Durham Facility from $5250 to $500, to pay for basic, non-agricultural sludge activities. The difference should be allocated to the other users in order to maintain the fiscal integrity of the Department's proposed program.

2. The Tualatin Basin Fee

USA strongly objects to DEQ's proposal to assess a special annual compliance fee for the Tualatin Basin. USA already has committed to pay DEQ $100,000 dedicated to the Tualatin Basin by the terms of a recent lawsuit settlement. The implementation of the proposed special fee would represent an additional assessment for the same activity. No other NPDES permittees in other basins affected by TMDL's are required to pay such a fee.

The 1989 Legislature did authorize the DEQ staff position for Tualatin Basin activities, with instructions to DEQ to obtain the needed funds through fees. It is USA's understanding that this instruction was in the nature of a budget note. USA suggests that the intent of this instruction was to obtain funding from non-state general fund resources. The payment by USA reasonably fulfills that intent.

However, USA questions the legal propriety of imposing such an annual compliance determination fee against a single entity, rather than a class. Though Portland is assessed a token amount, the fee truly singles out USA for special treatment without justification. DEQ's staff report states that the Department believes there is more than $100,000 worth of work for it to do in the Tualatin Basin. USA agrees that there are many valid, important program activities for DEQ. However, they are not all related to terms of USA NPDES permits. The Department has advanced no basis for additional monitoring and compliance assurance activities beyond those for any non-USA facilities elsewhere in the state. This is especially true when TMDL's have not been incorporated into USA's NPDES permits.

The statute relied upon by DEQ for this action does not provide authority for charging an annual compliance fee to implement administrative rules, such as the TMDL's, or for general water quality planning by the Department. It pertains only to NPDES permit costs of the Department. There is certainly no justification for funding DEQ's nonpoint source activities from a fee charged for an NPDES permit governing only point source activities. It is not enough for the Department to identify a desirable program for a river basin and obtain funds from a single NPDES permittee. That is why USA has supported securing additional funds from the State General Fund.

USA suggests that the department consider establishing a fee for review of construction plans of all types for which a permit is authorized or required under ORS 468.065. This would be a much more fair, evenhanded means to fund the costs incurred by the Department to review, adjust, and approve such plans. It also would track more precisely the level of activity required of the department.

In summary, USA requests the Commission's consideration to:

1. Reduce the sludge fee for the Durham Facility from $5,250 to $500 with the difference being allocated to all other facilities.

2. Delay adoption of a special monitoring fee for the Tualatin River Basin until 1991. Utilize funds provided by the DEQ-USA agreement for Tualatin Basin program activities. Request additional support from the 1991 Legislature for general water quality planning and program activities. Consider establishing a State-wide fee schedule for review of construction plans, to support that activity.

In sum, USA supports the efforts of DEQ to articulate its resource requirements to support better programs. These should be funded through a balance of general fund dollars and fees applied in a fair, uniform manner. USA takes exception to the fees proposed in the two areas stated, as they are not based upon the anticipated costs of DEQ's NPDES program activities within those areas, and, in the case of the Tualatin Basin fee, unfairly and improperly single out USA. Thank you very much for the opportunity to present these comments.

Sincerely,

Gary F. Krahmer
General Manager

OREGON ENVIRONMENTAL COUNCIL

2637 S.W. Water Avenue, Portland, Oregon 97201
Phone: 503/222-1963

MEMORANDUM
May 25, 1990

TO: The Environmental Quality Commission
FROM: Jean R. Cameron, Associate Director, Oregon Environmental Council
SUBJECT: DEQ regulation of cyanide heap-leach gold mining

I would like to offer some suggestions for your consideration as you develop your regulatory strategy for cyanide heap-leach or vat-milling gold mining.

A 1988 study commissioned by the California legislature identified the principal threat from mining as the acidic wastes and heavy metals leached from mine tailings. The report noted that acids can form (as a result of naturally occurring bacteria and oxidation in a process almost impossible to stop) long after a mine has closed, migrating through tailings and reaching ground and surface water years later. The toxic metals leached at these sites can include cadmium, mercury, iron, zinc, copper, manganese, lead, nickel, and arsenic.

For example, the 4,400 acre Iron Mountain Mine northwest of Redding, California is an EPA-designated Superfund site and major discharger of toxic waste into the Sacramento River. "Many more mining sites will be added to the National Priorities List (for Superfund waste cleanup) in the coming years" noted E.T. Sill, Vice-President for Environmental Affairs, Kerr-McGee Corp, at the 9/28/89 session of the American Mining Congress.

Ground and surface water contamination also result from active mines. Due to either the weight of tons of ore heaped on the leach pads, or to the weight of tons of water in the holding ponds, liners often leak. In South Dakota, for example, the Brohm Mining Corporation's detection system showed that 6,800 gallons of cyanide solution had leaked per day for about one month when the leak was found. At the Zortman-Landusky mining site in Phillips County, Montana, cyanide solution escaped from the leaching system on six occasions over six months in 1982. One release in December of 1982 leaked about 50,000 gallons into Alder Gulch and the Kalal system which supplies drinking water to the community of Zortman, MT.

Spills also occur as a result of leaks in piping systems or

tanks, or when heavy rains flood holding ponds or containment systems. While cyanide can volatize in air and sunlight, studies show that it can last over 40 years in groundwater. The citizens of Malheur County, Oregon, already have groundwater problems as a result of agricultural activities; proposed mining facilities in that county will only add to these problems.

Considering that Oregon has a groundwater policy which is intended to protect the resource for future generations, I suggest that you adopt the toughest possible BMPs as permit standards <u>and</u> adopt long-term monitoring and bonding requirements in addition to those required by DOGAMI.

We support BMPs for leach pads that include clay liners below double synthetic liners, each with leak detection and collection system layers, impoundment partitioning , and runoff containment systems adequate to deal with 100 year flood events.

Tailings from vat milling operations should be dewatered, treated with limestone, and placed on similar pads. At closure, heap leach pads should be rinsed to EPA drinking water standards, and both heaps and tailings should be capped to reduce future toxic runoff.

It's consistent with the Department's commitment to source reduction to require recovery and re-use of cyanide, and we support that concept. I also urge you to prohibit the use of liquid cyanide, since pellet forms are available and pose much less environmental risk during transportation and handling. You should also examine your requirements for spill reporting to see if they are adequate.

In order to protect wildlife from exposure to toxic holding ponds, permit conditions should include restricting toxicity of open ponds as well as netting and fencing and provision of clean diversion ponds. Perhaps it's possible to engineer a system that pipes directly from leaching pads to the filtering operation, thus eliminating the need for holding ponds altogether. We also support the use of drip nozzles on the heaps to reduce airborne contamination and attraction of wildlife to the heaps.

Finally, we urge you to seek authority to participate with other state agencies in developing a mechanism for an environmental impact analysis for projects which occur on state or private, rather than federal lands.

Thank you for the opportunity to present these comments.

ASSOCIATION of OREGON SEWERAGE AGENCIES

PO Box 68592, Portland, Oregon 97268-0592

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
MAY 23 1990

Member Agencies

Albany
Arch Cape
Service District
Bandon
Bear Creek Valley
Sanitary Authority
Bend
Boardman
Canby
Charleston Sanitary District
Clackamas County
Dep't. of Utilities
Clatskanie
Coos Bay
Corvallis
Cottage Grove
Culver
The Dalles
Douglas County
Engineer Dep't.
Enterprise
Estacada
Eugene
Gervais
Green Sanitary District
Gresham
Hermiston
Hood River
John Day
Klamath Falls
Lebanon
Madras
McMinnville
Medford
Molalla
M.W.M.C.
Mt. Angel
Myrtle Creek
Newberg
North Bend
North Tillamook County
Santary Authority
Nyssa
Oak Lodge
Sanitary Dist.
Pacific City
Sanitary District
Philomath
Portland Bureau of
Environmental Services
Redwood
Sewer Service Dist.
Roseburg Urban
Sanitary Authority
Salem
Sandy
Seaside
Shady Cove
Silverton
Silverton
South Suburban
Sanitary District
Springfield
St. Helens
Sutherlin
Sweethome
Tillamook
Troutdale
Unified Sewerage Agency
Veneta
Wasco
Wilsonville
Winston
Woodburn

May 22, 1990

Environmental Quality Commission
William Hutchison, Jr.
Emery Castle
Henry Lorenzen
Genevieve Pisarski Sage
William W. Wessinger

Re: Agenda Item J - Water Quality Permit Fees

Dear Chair Hutchison and Commission Members:

AOSA is pleased to offer its support of increased DEQ involvement in the oversight of sludge and pretreatment programs. The Association feels a strong DEQ role is of benefit to our membership and the environment.

At the EQC Commission meeting in Pendleton we requested the opportunity to meet with Department staff to review the basis for the program increases currently out for public comment. AOSA's comments submitted prior to the Pendleton EQC meeting are attached for your information. The Department has met with us to review the above and has modified the proposal to address most of our concerns.

Recognizing the above, AOSA has adopted an amendment to its earlier motion on the matter. The amended motion provides for AOSA support of the proposal based upon the following understanding:

a) Return to the seven-FTE proposal that DEQ earlier presented and AOSA endorsed.

b) If the Department feels the need for more than seven FTEs, AOSA will support the Department's request to the E-Board for state funding of the additional positions over seven FTEs.

Chair
William C. Gaffi
796-7181

Vice Chair
Floyd Collins
588-6380

Secretary/Treasurer
Michael Read
240-3215

c) AOSA will support the Department's request for state funding of the additional positions at the next legislative session.

d) It is AOSA's expectation that these funds be expended in substantial accordance with the work scope presented to AOSA by DEQ in the May 9, 1990 cost allocation.

e) The fee increases be revisited prior to the 1993 legislative session.

f) AOSA generally supports the cost allocation formula as reflected in the 5/9/90 Summary of Proposed Fee Increases to Fund Water Quality Program Activities Associated With Sewage Facilities Under WPCF and NPDES Permits

g) A review of the process by which fee increases are allocated among permittees.

h) The fee structure should recognize the goal of achieving equity between public and private NPDES permittee.

An additional concern exists over the policy of reallocating general fund expenses to permittees via NPDES permit fees. It appears that this warrants a specifically focused policy-making process that could occur outside of this process. However, we believe this question needs to be addressed in an open and direct manner and would encourage the Department to focus discussion on this policy but not defer the proposal.

The above reflects AOSA's position regarding the proposed permit fee increase. We look forward to working with DEQ to assure that the program moves forward in a way that is beneficial to all interested parties.

Yours very truly,

Bill Gaffi
Chair

WCG

DAVE FROHNMAYER
ATTORNEY GENERAL

JAMES E. MOUNTAIN, JR.
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND OFFICE
1515 SW 5th Avenue
Suite 410
Portland, OR 97201
Telephone: (503) 229-5725
FAX: (503) 229-5120

May 23, 1990

Tim Davison
Solid Waste Specialist
Solid Waste Section
Department of Environmental
Quality
811 S.W. 6th Avenue
Portland, OR 97204

Re: EQC Authority Over Disposal of Sharps
DOJ File No. 340-410-P0083-90

Dear Mr. Davison:

You have asked us whether the Environmental Quality Commission (EQC) has the authority to allow the disposal of sharps without sterilization by administrative rule. For the reasons discussed below, we conclude that the EQC has such authority.

The present statutes governing the treatment and disposal of infectious waste are found at ORS 459.386 et seq. The term "infectious waste" includes "sharps," which are defined as:

> "[N]eedles, IV tubing with needles attached, scalpel blades, lancets, glass tubes that could be broken during handling and syringes that have been removed from their original sterile containers." ORS 459.386(2)(d).

Our review of the legislative history indicates that the 1989 legislature adopted these statutory provisions with the passage of HB 2865. The provisions regarding infectious waste disposal were derived from HB 2337 and inserted into HB 2865 by the Senate Committee on Agriculture and Natural Resources on June 9, 1989. The original version of HB 2337 listed generally acceptable methods of treatment and disposal, and specifically delegated broad rulemaking authority to EQC by providing in part:

> "Infectious waste shall be treated by one of the following methods . . .
> (e) [And] any other method approved by the the Environmental Quality Commission."

HB 2337, 65th Oregon Legislative Assembly, § 6(1) (1989).

A-Engrossed HB 2377 revised section 6 to provide a specific regime for the treatment and disposal of particular infectious wastes, similar to the regime embodied in ORS 459.395. The revision maintained the broad EQC authority proposed in the original bill and provides that:

> "(5) Other methods of treatment and disposal may be approved by rule of the Environmental Quality Commission."

Further, section 7 provides:

> "The Environmental Quality Commission may adopt rules for storage and handling of infectious waste at a solid waste disposal site."

HB 2337, A-Engrossed, 65th Oregon Legislative Assembly, § 6, § 7 (1989).

Section 6(5) was embodied verbatim in ORS 459.395 and section 7 was embodied verbatim in ORS 459.398, thus codifying legislative intent allowing the EQC to provide alternative methods of treatment and disposal of infectious waste by rule.

We are aware that an earlier letter from this office addressed to Dr. Larry Foster of the Health Division and dated January 25, 1990 indicated that sterilization or incineration of sharps prior to disposal was a requirement of the statute. However, in consideration of that letter, two observations must be discussed.

First, in light of the legislative history, this preliminary conclusion may inaccurately reflect legislative intent. A proposed amendment to HB 2865 would have specifically required sterilization of sharps prior to disposal. This amendment provided in part:

> "Sharps may be disposed of in a permitted land disposal site only after sterilization if they are in containers as provided by subsection (3) of Section 5 of this 1989 Act and are placed in a segregated area of the land fill."

HB 2865, 65th Oregon Legislative Assembly, § 6(4) (1989) (emphasis added).

This language was rejected by the Senate Committee on Agriculture and Natural Resources on June 15, 1989. The committee appears to have concluded that sterilization of sharps before disposal was an unnecessary step in providing adequate protection for waste handlers and the general public, given other protective provisions of the bill calling for disposal of sharps in leak-proof, rigid, puncture resistant red containers, placement in a segregated area of the landfill, and a prohibition against compaction. Therefore, the legislative history of HB 2865 strongly indicates that the legislatures's intent in formulating ORS 459.386 *et seq*. was to allow disposal of sharps in permitted landfills *without* treatment via sterilization or incineration.

Second, regardless of whether our preliminary conclusion was correct, it would not negate EQC's authority to provide alternative methods of treatment and disposal of infections waste by rule, as previously discussed. We were not asked to address this question in our prior letter. EQC's rulemaking authority is not unlimited, but we think it would extend, at a minimum, to allow disposal of sharps without prior sterilization.

I have consulted with Rhea Kessler, current counsel for the Health Division, and she concurs with this opinion. If you have any further questions, please do not hesitate to call.

Sincerely,

Michael B. Huston

Michael B. Huston
Assistant Attorney General

MBH:aa
#2092H

TO: To the Environmental Quality Commission

FROM: Audrey Simmons, President, WaterWatch

WaterWatch is pleased to support the DEQ budget enhancement request for the water quality division. With growing concerns for the quality of Oregon's water not only for drinking but for industry, these positions are sorely needed.

Further, the need for DEQ to move quickly now into a position to apply for instream water rights can not be overemphasized. The instream water bill was passed in 1987. Before going to the 1991 session with budget enhancements, DEQ needs to show progress has been made toward the implementation of this legislation.

Finally, WaterWatch requests the Commission and the Department along with the Fish and Wildlife Commission and Department request instream water rights in the Columbia River "in amounts adequate to protect the public uses" in that river. (See the attached protest to the Water Resources Department.) An instream right is an appropriative right and such a right would protect Columbia River streamflows for fish, wildlife, water quality -- and a sound economy -- as well as protecting such flows from the avaricious grasping of Southern California. To date, the federal government has not impinged its authority on existing state appropriative rights.

WaterWatch of Oregon, Inc. 921 SW. Morrison, Suite 534 Portland, Oregon 97205 (503) 295-4039

PROTEST

I (We), WaterWatch of Oregon, Inc.
name(s)

921 SW Morrison, Suite 534
mailing address

Portland, , Oregon 97205 , 97205
city state Zip telephone

do hereby protest the approval of pending application numbered 70272

in the name(s) of Kent R. and Shannon K. Madison

pertaining to use of water from Columbia River, a tributary of Pacific Ocean
name of river, creek, etc.

My (Our) water rights which would be adversely affected by the proposed use of

water are: the public's interest in, and right to, adequate
(identify by permit or certificate number and priority date)

Columbia River streamflows for fish, wildlife and water quality.

My (Our) water rights would be adversely affected in the following way(s):

the cumulative effects of past and future diversions from the

Columbia may impair fish and wildlife values and water quality.

Therefore, I (we) request the Water Resources Director to reject the application

until instream water rights are established on the Columbia in amounts
(the action you want the director to take in this matter)
amounts adequate to protect the public uses provided by the river.

I (We) recognize that it may be necessary to present testimony and evidence in an administrative hearing before the Water Resources Director, in support of the allegations made in this protest.

Proof of service of a copy of this protest on the applicant is attached.

Dated and signed this 18 day of May, 1990.

Audrey Jackson Simmons
signature

Audrey Jackson Simmons, President

5/9/90 OREGONIAN

S. California official resurrects old tune: Let's have some of that Northwest water

☐ A Los Angeles County supervisor wants to divert the precious H_2O by aqueduct from the Snake and Columbia rivers

By PAUL KOBERSTEIN
of The Oregonian staff

Should the Northwest give some of its surplus water to drought-stricken Southern California?

A Los Angeles County supervisor thinks so. But officials in the Northwest say he's all wet.

Kenneth Hahn, a 37-year veteran of the Board of Supervisors in the nation's most populous county, resurrected a decades-old proposal Monday to divert water from the Columbia and Snake rivers to California.

"All I'm asking is 3 billion gallons of water (a day) for the people of Los Angeles County from people who are dumping 90 billion gallons of water (a day) into the Pacific Ocean," Hahn said at a news conference. "They've all read the Bible — they want to be good neighbors."

Hahn estimated it would cost $10 billion to build two aqueducts to get the water south.

But Sen. Mark O. Hatfield, R-Ore., says nonsense.

"At a time when low flows threaten to place salmon species on endangered status, I am confident that environmentally sensitive Californians will have second thoughts about any water diversions or any other nonsense," Hatfield said.

"We have been good neighbors," he added. "I have supported water-control projects for Californians' immediate and long-term needs."

In Idaho, where drought has sapped flows from the Snake River to the point where fish runs already may be endangered, the reaction was negative.

"There is no surplus water in Idaho to transfer anywhere," Idaho Gov. Cecil Andrus said. "It seems like every few years we must educate Californians about the facts."

And from Washington:

"We need every drop of that water for Eastern Washington, for fisheries, navigation including wheat barges, salinity and other purposes," said Sheryl Hutchinson, spokeswoman for Washington Gov. Booth Gardner.

Hahn's proposal calls for the construction of two aqueducts, one running from the Columbia River near Portland to Shasta Lake in Northern California. The other would run from the Snake River (which empties into the Columbia) in Idaho across eastern Nevada to Lake Mead, where the Colorado Aqueduct would carry the water to Southern California.

Federal law prohibits those projects from being studied or built, said Edward Sheets, executive director of the Northwest Power Planning Council.

Gail Achterman, natural resources adviser to Oregon Gov. Neil Goldschmidt, said the idea was "ill-conceived and based upon an apparent lack of understanding about its impact on water uses in the Columbia River."

She said water that flows into the ocean is not "wasted," as Hahn alleges, but serves marine life that lives in the Columbia River estuary. It also provides flows for navigation, irriga-

Please turn to WATER, Page A15

Water: Kitzhaber urges taking proposal seriously

■ Continued from Page One

tion, fish and power. Achterman said the Southwest had fully tapped the Colorado River and should not be allowed to do the same to the Columbia.

"Water policies that led to drying up the Colorado are not the policies that are going to protect the natural resources of this country in the future," Achterman said.

Oregon Senate President John Kitzhaber said Northwest residents should take Hahn's proposal seriously. He said the desert Southwest could face a major water shortage in a decade. At that time, the Southwest could muster enough political support for the kind of water diversion Hahn is talking about. Meanwhile, Northwest states should band together and ask Congress to forbid such an endeavor forever.

Instead, he said, Southern California should try conserving water, perhaps by curbing the use of swimming pools.

Hahn's proposal lacks support in Southern California, despite that region's serious water shortage problems, said Tim Skrove, spokesman for the Metropolitan Water District of Southern California. That agency sells water throughout that region.

> ***"We think there's enough water in California to meet our needs. We don't need to be looking to the Northwest."***
>
> — Tim Skrove, Metropolitan Water District of Southern California

"We think there's enough water in California to meet our needs," Skrove said. "We don't need to be looking to the Northwest."

California is in its fourth consecutive dry year, and many of that region's sources face supply or pollution threats, Skrove said. In particular, the state's share from the Colorado River will decline by nearly half during the next few years as the state of Arizona increases its share.

Meanwhile, courts are preventing the city of Los Angeles from tapping supplies in the Mono Lake Basin in the Sierra Nevada.

May 23, 1990 - The Oregonian

LA board OKs study to divert NW water

The Associated Press

LOS ANGELES — The Board of Supervisors for the nation's most populous county on Tuesday called for federal cooperation on a feasibility study of aqueducts that would divert water to California from the Pacific Northwest.

The idea is the brainchild of Supervisor Kenneth Hahn, who proposes building two aqueducts to meet increasing water demands in Southern California.

Hahn says one aqueduct could divert water from the Columbia River to Lake Shasta in Northern California. Another could take water from the Snake River in Idaho and Washington to Lake Mead, almost due south, where it could supplement water already flowing into Southern California.

Hahn asked his fellow supervisors to endorse his motion, which urges President Bush to direct Manuel Lujan Jr., the secretary of interior, to work with the U.S. Army Corps of Engineers to study the design and construction of such a system.

The measure also instructs county officials to send letters seeking cooperation from the governors of Washington, Oregon, Idaho, Nevada, Utah and Arizona. Already, the governors of Oregon, Washington and Idaho have criticized the proposal as ill-conceived. Sen. Mark O. Hatfield, R-Ore., described it as "nonsense."

Hahn's colleagues voiced doubt about the idea. Supervisor Pete Schabarum abstained on the vote, and Supervisor Dean Dana said, "This seems to be tilting at water," apparently a literary allusion.

Nevertheless the motion, which has already sparked derision in Oregon and Idaho, passed 3-0.

Later in the meeting, Supervisor Ed Edelman introduced a measure asking for a separate report from a panel of water experts.

The panel was asked to assess the short-term and long-term water outlook for Southern California. They were asked to prepare their first report to the board in three months and to make recommendations in six months.

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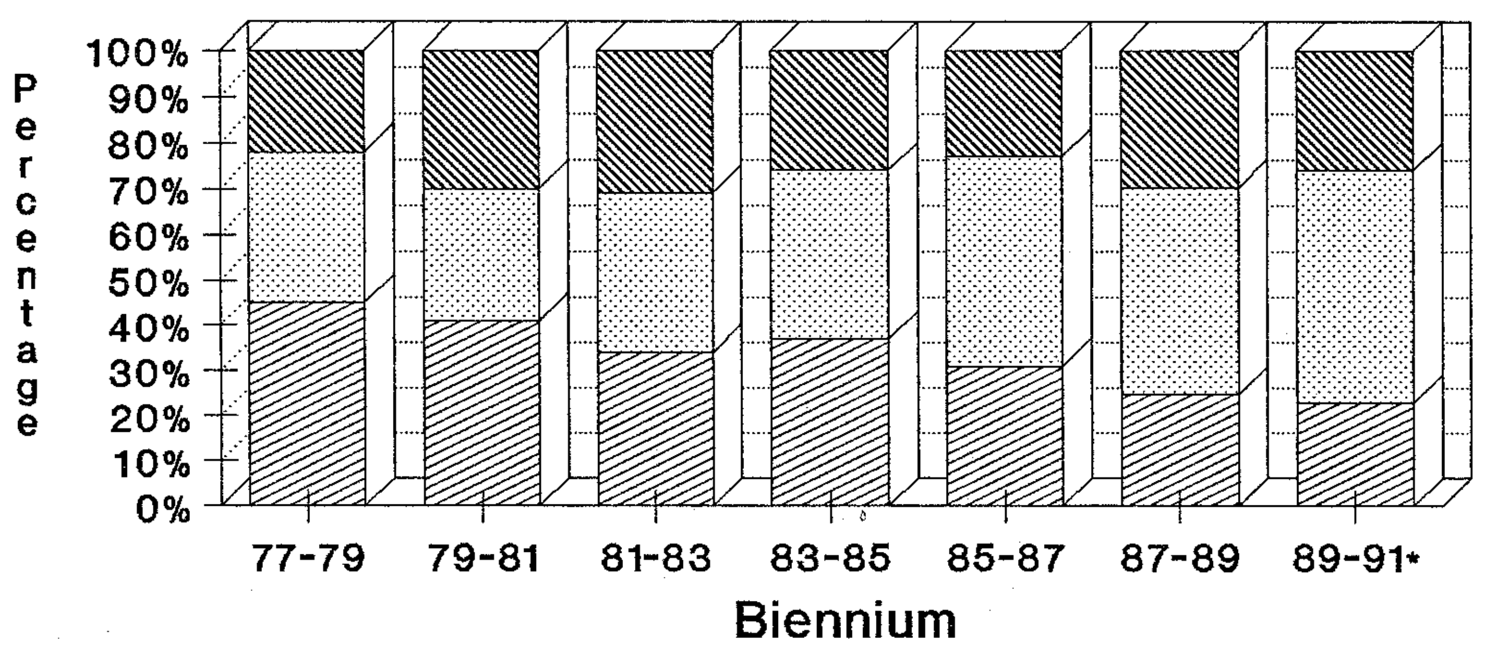
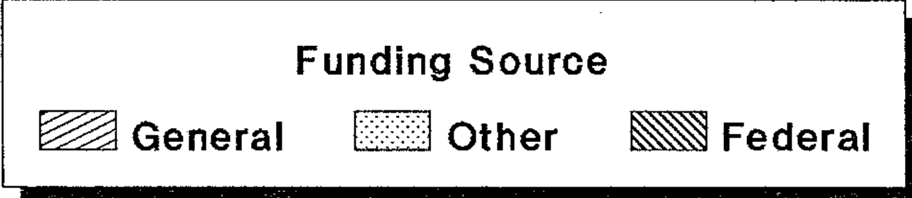
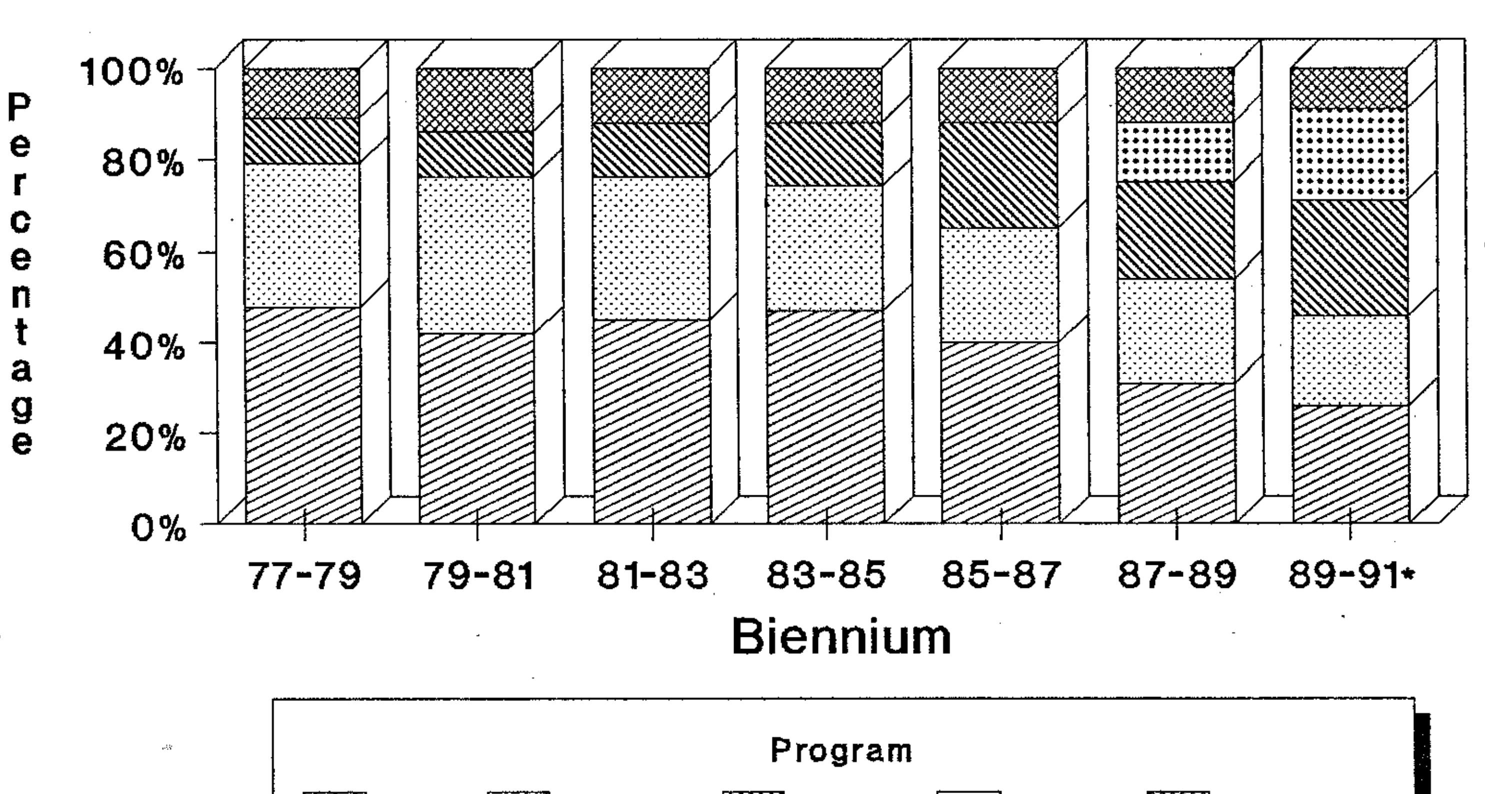
DEQ OPERATING BUDGET
Percentage By Fund





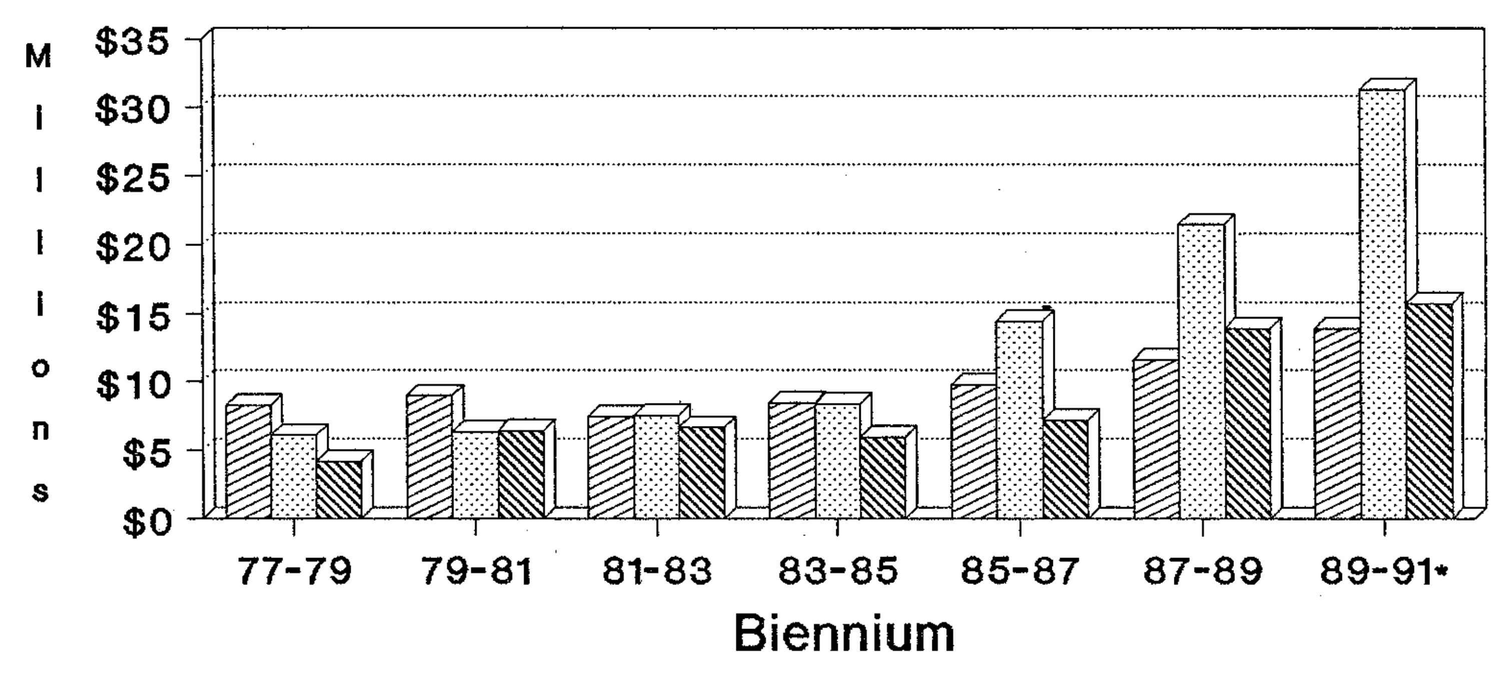
*Legislatively Approved Budget
Excludes $9.7M GF - WQ Revol. Loan Fund

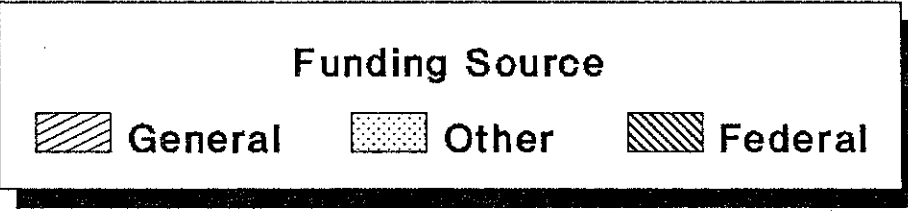
DEQ OPERATING BUDGET
Percentage of Budget by Program Area



*Legislatively Approved Budget
Excludes $9.7M GF - WQ Revol. Loan Fund

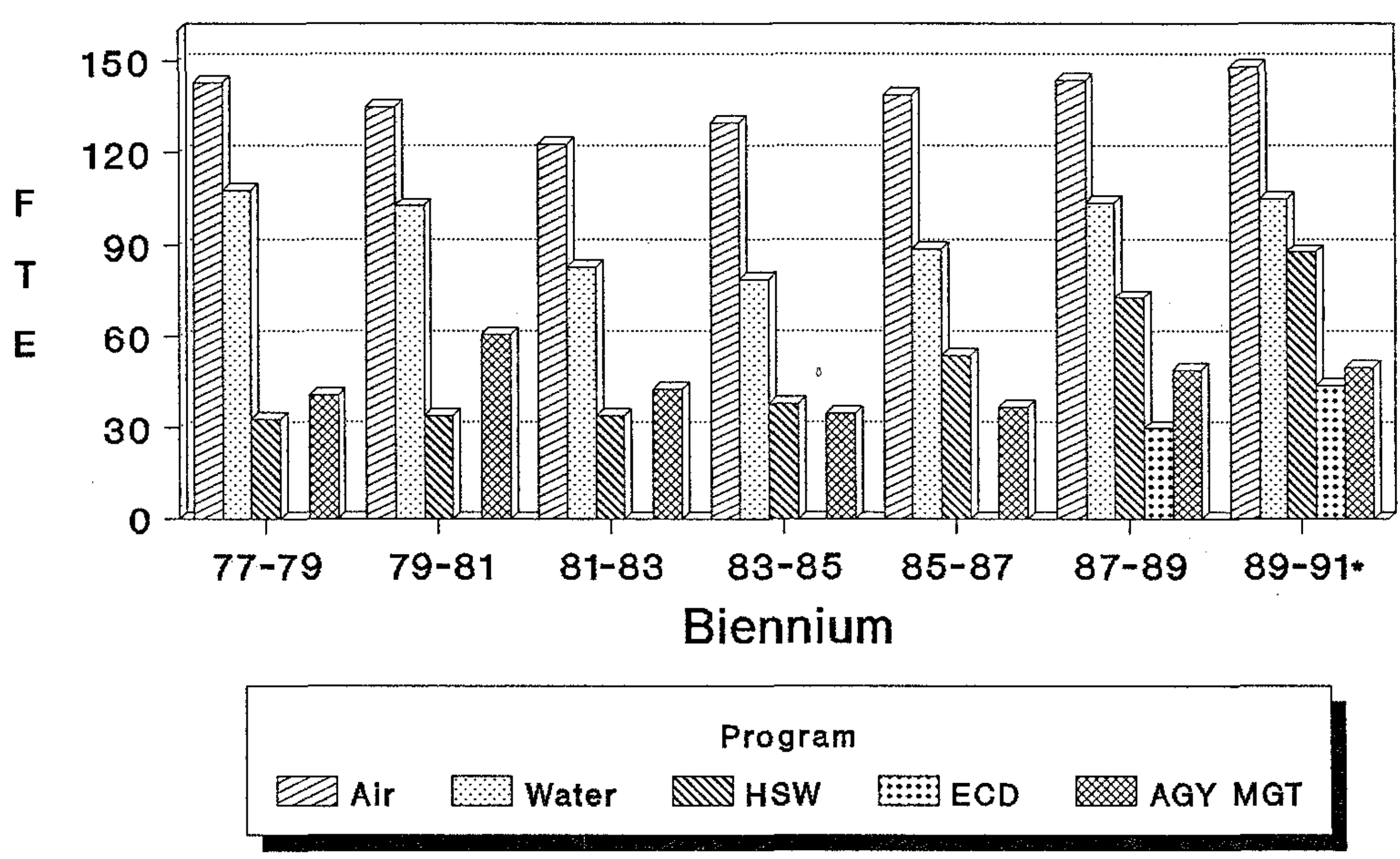
DEQ OPERATING BUDGET
Dollar Comparison by Fund





*Legislatively Approved Budget
Excludes $9.7M GF - WQ Revol. Loan Fund

DEQ OPERATING BUDGET
FTE by Program

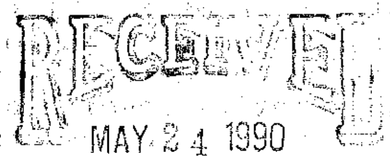


*LEGISLATIVELY APPROVED BUDGET

SPECIAL DISTRICTS ASSOCIATION OF OREGON

The Equitable Center • 530 Center Street NE - Room 315 • Salem, Oregon 97301 • (503) 371-8667
P.O. Box 12613 • Salem, Oregon 97309-2613

May 23, 1990



Environmental Quality Commission
811 SW Sixth Avenue
Portland, Oregon 97204

Dear Commissioners:
William Hutchison, Jr., Chair
Emery Castle
Henry Lorenzen
Genevieve Pisarski Sage
William W. Wessinger

Please accept and enter the following comments into the public record as testimony on the proposal by the Department of Environmental Quality to amend OAR 340-45-075, Permit Fee Schedules; Agenda Item J - Water Quality Permit Fees.

The Special Districts Association of Oregon (SDAO) is an association of some 540 special service districts providing a variety of services throughout the State of Oregon. As such SDAO represents sanitary districts and authorities all over the State.

SDAO became involved in the proposal currently before you, to increase fees and institute programs in groundwater, industrial waste pretreatment, and sludge management, at the request of our sanitary sewerage service providing members. Since that request we have testified at the April 18, 1990 hearing on the original proposal and we have been involved in discussions with Department of Environmental Quality staff seeking to define an appropriate level of effort for these new programs as well as an equitable allocation of the associated costs. The modified proposal under consideration today has largely addressed the concerns which were expressed by our membership.

SDAO supports the concept of increased involvement by the Department of Environmental Quality in Industrial Waste Pretreatment and Sludge Management Program oversight. We believe a strong role by the Department is conducive to providing beneficial service to our membership and the sound environmental management necessary to maintain and improve the water quality in the State of Oregon. We also believe that such services and management oversight by the Department should strongly focus on education and technical assistance with the goal being prevention of environmental degradation. Obviously prevention is far preferable to mitigation.

The Special Districts Association of Oregon and its members understand that practical application of this proposal will be necessary in determining the future needs, both in staff and funding levels, to properly implement the proposed programs. We also understand the concerns of our membership with respect to shifting funding of such programs from the State General Fund to Permittees. We believe this issue should be addressed between now and the 1993 Oregon Legislative session and offer our assistance in this regard. And finally, we understand the Department is committed to using these revenues for the purposes intended as outlined in the scope of work presented in the May 9, 1990 cost allocation. On this basis, SDAO is pleased to offer its general support for the modified proposal before you at this time.

We have been pleased to be a participant with the Department of Environmental Quality and the Association of Oregon Sewerage Agencies in the development of this proposal. We look forward to implementation of this program in a beneficial manner and to working with DEQ in the future.

Very truly yours,

SPECIAL DISTRICTS ASSOCIATION OF OREGON

Kent Squires

Kent Squires,
President

RKS:mw

MINE DEVELOPMENT AND PERMITTING

STAGES OF METALLIC MINERAL OPERATIONS

EXPLORATION AND DEVELOPMENT	CONCEPTUAL PLANNING AND DEVELOPMENT	CONSTRUCTION	MINING	CLOSURE AND RECLAMATION

STAGES OF TEAM PERMITTING

JOINT IDENTIFICATION OF AGENCY ROLES, RECUIREMENTS AND TIMELINES	COORDINATION OF INDIVIDUAL PERMITTING	INSPECTIONS FOR COMPLIANCE	MONITORING AND ENFORCEMENT

RECLAMATION

Oregon Department of Geology and Mineral Industries
U.S. Forest Service or Bureau of Land Management on Federal Lands

LAND USE

County
U.S. Forest Service or Bureau of Land Management on Federal Land

WATER AND AIR QUALITY

Oregon Department of Environmental Quality

WATER QUANTITY

Oregon Department of Water Resources

OTHER

Division of State Lands
Oregon Department of Fish and Wildlife

PUBLIC

Input on Agency Specific Basis During Permitting Process
Informational Meetings Prior to Permitting Process

METAL MINE REGULATION
Pertinent Activities of Oregon Department of Geology and Mineral Industries

Legislative

- 1981 Statutes to address nonaggregate mines
- 1987 Statutes to address cyanide use bonding
- 1989 Statutes to address toxic natural occurring materials
- 1990 Emergency Board Action regarding staffing level
- 1991 Legislative Concepts to address civil penalties, public input, bonding, transportation of substances

Coordination Agreements

- Memoranda of Understanding
  - Department of Environmental Quality
  - U.S. Forest Service
  - U.S. Bureau of Land Management
- Rules to address concerns of other natural resource agencies
- State Agency Coordination Agreements 1981, 1983, 1990
- Team Permitting
- Western Governor's Association

Major Concerns

- Economic opportunities of rural Oregon
- Ground and surface water
- Land use decision
- Federal pre-emption
- Public participation

JDB:dej
B2Met516.doc
May 16, 1990

Speed Letter® 44-912

Speed Letter®

To G. DAVIS

From

HARRY M. DEMARAY
Open Burning Coordinator
NORTHWEST REGION
Regional Operations Division

Department of Environmental Quality
811 SW 6th Ave. Portland 97204 Phone (503) 229-5295
In Oregon call Toll Free 1-800-452-4011

Subject ENFORCEMENT REFERRALS PENDING

MESSAGE 1030 Date 2/21/90 19

THE VIOLATORS LISTED ON THE ATTACHMENT SHOULD HAVE ENFORCEMENT REFERRAL ACTION. ALL HAVE HAD (OR BEEN PREPARED) NON'S.

Signed H Demaray

REPLY Date ______ 19

Signed

ER TO DO 2/21/90

THESE NEED ENF. REF. ACTION

1/26/90 THROW AWAY BIT Ind.

1/8/90 BUDGET AUTO SALV.

1/23/90 GSL CONST. CO. apt.

1/18/90 SEABOLD CONST CO.

1/24/90 GERRITZ HOMES

1/2/90 SUMMIT STRUCT (ZOOK)

12/9/89 TWELVE MILE DISPOSAL

12/16/89 LUGO (AUTO REPAIR - MAY RD)

1/10/90 PACE CONST. CO.

1/2/90 IOYA PAUL

1/18/90 GOEDEN (AGPRO)

1/16/90 PAT DAVIS (S. REDLAND RD)

12/30/89 HUTCHINSON (F. GROVE F.D) + WG

12/8/89 LLOY-DENE FARMS + WG

6/18/89 SUNNYSIDE PARK APTS. apt.

5/26/89 VANPORT

Public Forum comments of Harry Demaray at the EQC meeting May 25, 1990.

I asked for your help at your last meeting because I was fired by Fred Hansen and minions for enforcing Oregon's Pollution Control Laws by the book, but apparently contrary to Hansen's and your "policy" decisions.

I told you then that I left 16 documented Class I open burning violations on my desk when I was forced out. All violations are subject to and should be assessed civil penalties. Two of the violations also include serious water pollution problems in the Tualatin Basin that carry penalties up to $25,000/day and one year in the county jail, ORS 468.990.

Because you have not responded to my first report I am planning to file a Citizen's Suit with EPA under Section 304 Clean Air Act and Section 505 Clean Water Act. I am attaching the list of 16 violations that I left for my ex-supervisor George Davis and Regional Manager Ed Woods to follow up. None have been forwarded to the Enforcement Section for action.

When I learned of the inaction I met with Battallion Chief Marvin Wright at the Forest Grove Fire Department this past Wednesday and found him upset and angry because he could not get anyone at DEQ or EQC to follow on the violations we had found on land owned by Dr. Alfred Hutchinson of Portland. I have attached copies of Chief Wright's letter with his notes on the back of names he has called without results. A site map and ownership data is also attached. Chief Wright said this case is a perfect example why Fire Departments have absolutely no respect for DEQ.

The other violation was farther downstream on the Tualatin in the zone of the Cornelius Fire Department managed by Chief Chris Asanovic. Here on property held by Mr. Lloyd Duyck and the Lloy-Dene Corp., a berry growing and packing operation, a huge pile of industrial waste including tires, plastics and Lord knows what else, was burned. Some of the oily waste has gotten into the Tualatin River. Chief Asanovic has also been ignored by DEQ since I was ousted.

An interesting story in the Oregonian ran in Tuesday's business section describing how GSL Properties,Inc., a New Mexico developer who landed in Oregon recently, is making hay(as wellas smoke)in the apartment construction market. Their 309 unit complex on the old Frank Estate on SW Oleson Rd. was constructed with the assistance of a DEQ subsidy allowing them to get away with open burning the waste Styrofoam form-liner from their concretefoundations. My civil penalty recommendation was sacrificed on the altar of Economic Development.

The very latest word on Economic Development is expressed in Gov. Goldschmidt's Executive Order 90-10 which convenes a Kangaroo Court to acquit Economic Development before it is charged. All according to law, as tempered by"Policy", of course.

FOREST GROVE CITY & RURAL FIRE DEPARTMENT

1919 Ash Street, Forest Grove, Oregon 97116

(503) 359-3240

January 3, 1990

Mr. Harry Demaray
Open Burning Coordinator
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

Dear Mr. Demaray:

On December 30, 1989, at 0223 hours, we received a call of a structure on fire at Rt. 1 Box 104, Gaston. This is a joint response area for Forest Grove and Gaston fire departments. On our arrival, we found a large debris pile burning so I had Gaston and Forest Grove continue in with only one engine each. They tried to extinguish the fire using 3,000 gallons of water, but it was deep-seated. I sent the fire crews home and said that I would return during daylight hours. No pictures were taken at that time.

At 1155 hours, I took a camera with me to the site and took pictures. When I arrived, a caterpillar was busy covering the materials which were still burning. I called another engine out and they dumped an additional 1,000 gallons of water.

This site is in a "flood plain" and within 500 feet of the Tualatin River. I've enclosed the pictures and below is a brief description of five of them.

No. 1 - Raw garbage in plastic bags.

No. 2 - Garbage in the process of being covered with dirt.

No. 3 - Wire with insulation burned off.

No. 4 - Most of the pile burning was of composition roofing, this is a pile that had not yet been lit.

No. 5 - Empty five gallon containers, like the one I showed you with insecticide labeling. (unsure of label contents on these containers)

Thank you for your speedy response.

Sincerely,

Marvin Wright
Battalion Chief

Enclosure

MW:ljh

IS WORKING HARRY'S JOB

GEORGE DAVIS → SUPERVISOR

CHARLIE GRAY

→ CHARLIE

MAIN MAN

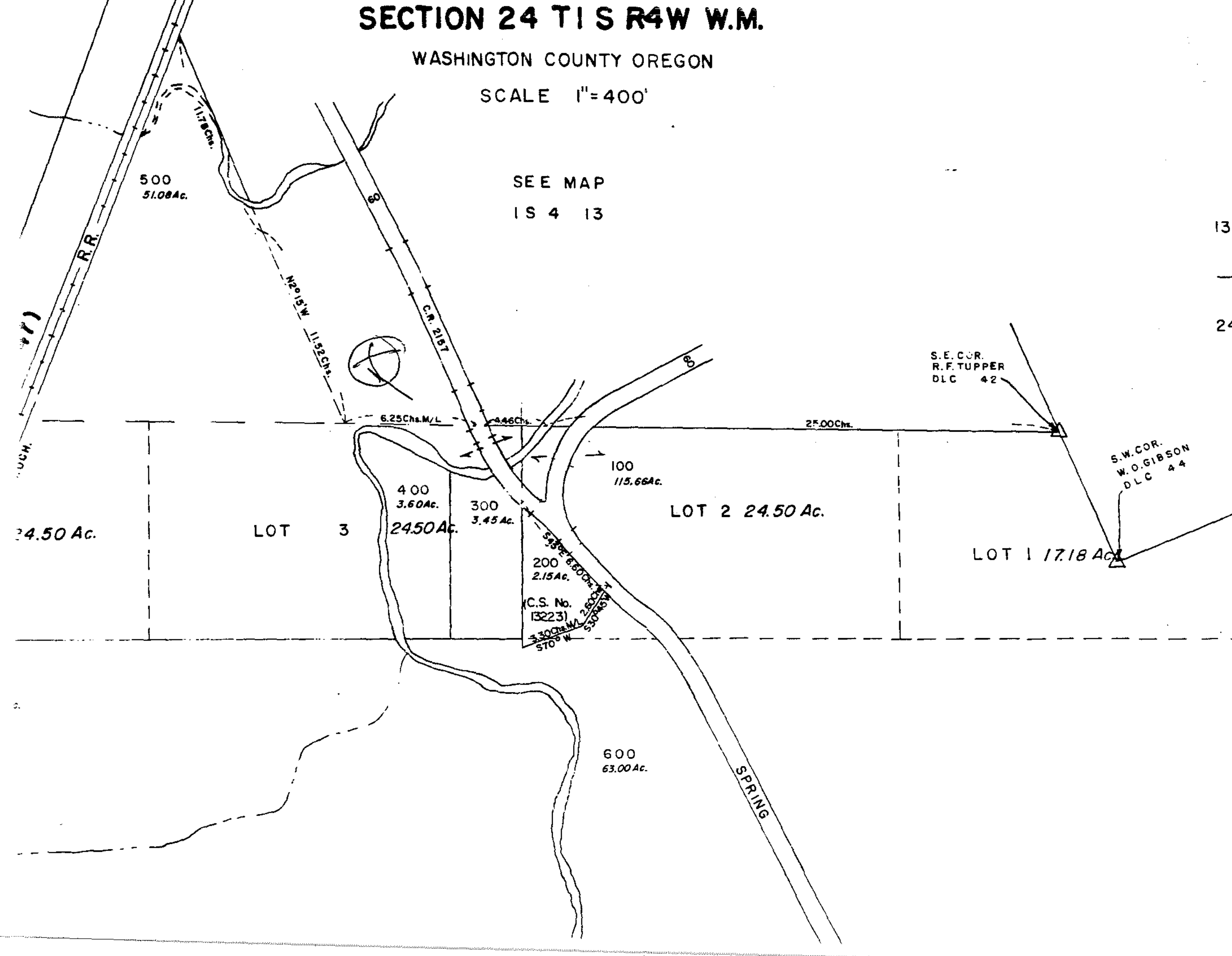
→ FRED HANSEN

GEORGE DAVIS'S SUPERVISOR

→ ED WOODS 229 5263

→ BILL HUTCHINSON 223-5181

→ TOM BISPHAM 229-2582 (3 MESSAGES)


SECTION 24 T1S R4W W.M.
WASHINGTON COUNTY OREGON
SCALE 1"=400'
SEE MAP
1S 4 13
13
24
500
51.08Ac.
R.R.
11.78Chs.
N2°15'W
11.52Chs.
60
C.R. 2157
60
6.25Chs.M/L
4.46Chs.
25.00Chs.
S.E. COR.
R.F. TUPPER
DLC 42
S.W. COR.
W.O. GIBSON
DLC 44
100
115.66Ac.
LOT 2 24.50 Ac.
LOT 1 17.18 Ac.
400
3.60Ac.
300
3.45Ac.
LOT 3
24.50 Ac.
24.50 Ac.
200
2.15Ac.
(C.S. No. 13223)
6.60Chs.
2.60Chs.
3.30Chs.M/L
S70°W
600
63.00Ac.
SPRING

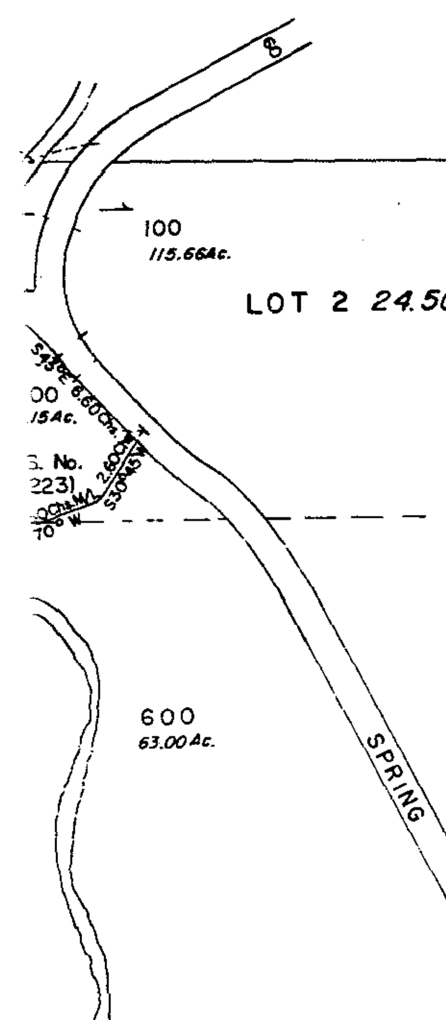
11S R4W W.M.

COUNTY OREGON

E 1"=400'

E MAP

4 13



- - Display Property Record - -

Property ID : R447350 1S424-00500 (Real Property)
Legal Description: 51.08AC ZONED FARMLAND-POTENTIAL ADDITIONAL TAX LIABILITY

Owner ID : 91442
HUTCHINSON, ALFRED AND
HELEN
1932 NW LOVEJOY
PORTLAND, OR 97209

Situs :

Code Area : 015.03
Exemptions :
Mort Lender: -

Prop Class : 5026
Neighborhood: 1S46
Year Built :
Living Area :
Sale Date : 12/01/80
Sale Price :
Deed Type :
Inst Number : 80047536

1990 Property Values

Improvements	$	43,180	(+)
Land	$	0	(+)
Land Spec Mkt	$	14,630	
Land Spec Use	$	14,630	(+)
Total Assessed	$	57,810	(=)
Exemptions	$	0	(-)
Taxable	$	57,810	(=)

1989 Tax Status

Current Levied Taxes : 1,476.87
Special Assessments : 406.75
*** Unpaid Taxes ***

Depress the RETURN key :

DAVE FROHNMAYER
ATTORNEY GENERAL

JAMES E. MOUNTAIN, JR.
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE

PORTLAND OFFICE
1515 SW 5th Avenue
Suite 410
Portland, OR 97201
Telephone: (503) 229-5725
FAX: (503) 229-5120

May 23, 1990

Lydia Taylor
Administrator
Water Quality Division
Department of Environmental
Quality
811 S.W. 6th Avenue
Portland, OR 97204

Re: EQC Regulatory Authority over Heap Leach Mining on Federal Lands
DOJ File No. 340-310-P0081-90

Dear Ms. Taylor:

You have requested our advice on the extent of the authority of the Department of Environmental Quality (DEQ) and the Environmental Quality Commission (EQC) to regulate mining on federal lands.[1] We understand that the agency is generally assessing its regulatory authority in this arena and has not as of yet prepared specific, additional regulations. Our advice is necessarily and correspondingly general. We would also be glad to advise you on any specific regulatory approach that may be forthcoming.

ISSUE

To what extent can DEQ regulate hardrock mining on federal lands?

---

[1] Unless otherwise noted, further references in this letter to "DEQ" includes the "EQC."

CONCLUSION

As a broad rule, DEQ can regulate mining on federal lands as long as the regulations are for environmental protection, do not prohibit the mining activity, and do not conflict with federal regulations governing mining on federal lands.

The federal government has the ultimate authority to regulate hardrock mining on federal lands, but state laws and regulations are applicable to the extent they are not preempted by federal law. State environmental regulations (as distinguished from land use planning requirements) are not *per se* preempted by federal law, but they can be preempted in their application to specific mining operations if they conflict with federal regulations. Since current BLM and Forest Service regulations contemplate state and federal cooperation and specifically require compliance with state air, water, and solid waste treatment and disposal standards, there appears to be little conflict on a general level between federal law and DEQ authority to regulate mining for environmental protection.

DISCUSSION OUTLINE

I. BACKGROUND

- A. The 1872 Mining Law
- B. Federal Preemption Analysis

II. THE *GRANITE ROCK* DECISION: ENVIRONMENTAL REGULATIONS VERSUS LAND USE PLANNING REGULATIONS

III. LIMITS TO STATE AUTHORITY TO REGULATE

- A. The BLM Regulations
  1. General requirements
  2. State authority
- B. The Forest Service Regulations
  1. General requirements
  2. State authority
- C. State Case Law: The Regulatory/Prohibitory Distinction
- D. Other Potential Limits to State Regulatory Authority
  1. Prohibitively expensive requirements
  2. Use of a permit system
  3. Federal approval of specific mining operations

IV. SUMMARY

DISCUSSION

I. BACKGROUND

A. The 1872 Mining Law.

The Mining Law of 1872, 30 U.S.C. §§ 22-54 (1982) declares that the public lands, unless otherwise withdrawn, are open for hardrock mineral development. (Fuel minerals such as coal and oil are regulated under other statutes, as are "common variety" minerals such as gravel, sand, and stone). To encourage mineral development, the 1872 Law authorizes citizens to enter and explore federal lands in search of a "valuable mineral deposit." Once such a deposit is located, the locator can establish a claim and extract and sell the minerals without paying a royalty to the United States. Unpatented mine claim holders have the right to mine without interference from other miners or the general public, although the claim holder must allow noninterfering recreational use by the public. See United States v. Curtis-Nevada Mines, Inc., 611 F.2d 1277 (9th Cir. 1980). A claim holder must meet minimal annual requirements to retain the claim, and may eventually gain fee title to the land by following the necessary procedures to patent. (Once a claim has been patented, ownership of the land is transferred to the claim holder. Since the land subject to regulation is now private land, state authority to regulate by environmental or land use planning statutes is assured. Thus, this memo discusses issues relevant to unpatented claims only.) The claim holder must, however, comply with either BLM or Forest Service surface management regulations designed to protect the federal land from unnecessary environmental damage. See United States v. Weiss, 642 F.2d 296, 298 (9th Cir. 1981)(upholding the authority of the Forest Service to regulate mining activity on national forest land).

In effect, the 1872 Mining Law established a federal right to mine on public lands to encourage development of mineral resources. Although the development policy retains support as a national goal (see National Materials and Minerals Policy, Research and Development Act of 1980, 30 U.S.C. §§ 1601, 1602), calls for reform of the 1872 Law to prevent abuses, establish a more efficient system of locating and removing minerals, and provide greater environmental protection have been increasing. See, e.g., Squillance, "The Enduring Vitality of the General Mining Law of 1872," 18 Envtl. L. Reptr. 10261, 10268 (1988).

B. Federal Preemption Analysis.

Generally, states can regulate private activity on federal public lands to the extent that the state law does not conflict with existing federal law or regulations. In situations of conflict, the federal law preempts state law because Congress has the ultimate power to manage federal lands under the Property Clause of the Constitution. Kleppe v. New Mexico, 426 U.S. 529, 543 (1976)(holding that the Wild Free-Roaming Horses and Burros Act preempts New Mexico's Estray Law and prohibits state agents from rounding up and removing stray burros from BLM land).

Preemption can occur in two ways. Congress can enact legislation with an intent to "occupy the field" such that any state law falling within that field is preempted (e.g., the Atomic Energy Act occupies the field of nuclear safety regulation), or state law is preempted because it conflicts with federal law directly (i.e., it is impossible to comply with both state and federal law) or indirectly (the state law obstructs the full purposes and objectives of Congress). See, e.g., California Coastal Commission v. Granite Rock Co., 107 S.Ct 1419, 1425 (1987)

II. THE GRANITE ROCK DECISION: ENVIRONMENTAL REGULATIONS VERSUS LAND USE PLANNING REGULATIONS.

The Supreme Court's decision in Granite Rock clearly establishes the right of states to regulate mining activity on federal lands for environmental protection purposes. In Granite Rock, a mining company had an unpatented claim in national forest land near the scenic Big Sur coastline. The company wanted to mine limestone and filed a plan of operations with the Forest Service. The Forest Service performed an environmental assessment (EA) pursuant to NEPA, and approved the plan with modifications suggested by the EA. After mining had commenced, the California Coastal Commission (CCC) sought to enjoin the mining until Granite Rock obtained a permit as part of CCC's implementation of the Coastal Zone Management Act. Granite Rock challenged the CCC's authority, claiming that the 1872 Mining Law and the Forest Service regulations preempted any state permit requirement. (The CCC had not as yet imposed any conditions under the permit; Granite Rock was making a facial challenge to CCC's authority, claiming that any state permit requirement was per se preempted).

The Supreme Court rejected Granite Rock's challenge, stating first that the Mining Law and the Forest Service regulations, both of which require that miners comply with relevant state laws, show no intent to preempt state laws. 107 S.Ct at 1426-27. The Court then turned to federal land use planning statutes, the Federal Land Policy Management Act (FLPMA) (43 U.S.C. §§ 1701-84) and the National Forest Management Act (NFMA) (16 U.S.C. §§ 1600-14) and concluded, without deciding the issue, that these federal land use statutes would preempt the extension of state land use plans onto unpatented mining claims on federal land. Id. at 1427. The Court determined, however, that the CCC permit was not based on state attempts to regulate land use on federal lands, but rather was an attempt to prescribe environmentally protective conditions on the use of the land.

Thus, the Court's distinction between environmental regulations and land use planning is the starting point for any analysis of state authority over hardrock mining on federal land: the former will be presumptively valid, the latter will be presumptively invalid.

There is no hard and fast test for whether a particular regulation is "environmental" or "land use", but the Court stated that:

> "Land use planning in essence chooses particular uses for the land; environmental regulation, at its core, does not mandate particular uses of the land but requires only that, however land is used, damage to the environment is kept within prescribed limits."

107 S.Ct at 1428. As the Court further noted,

> "the line between environmental regulation and land use planning will not always be bright; for example, one may hypothesize a state environmental regulation so severe that a particular land use would become commercially impracticable." Id.

Under the Granite Rock distinction then, any state law or regulation that is characterized by an underlying purpose to protect the environment will pass the initial threshold of validity. Thus, DEQ's authority to regulate under pollution control laws, the Water Resources Commission's authority to protect groundwater from contamination, the Division of State Land's authority under dredge and fill laws, and the Department of Geology and Mineral Industries' (DOGAMI) authority to require reclamation--all will be at least initially valid as applied to private mining activity on federal lands. Land use planning regulations, however, are likely to be preempted. DEQ's land use compatibility statement requirement, for example, could be found inapplicable to miners on federal land as an impermissible attempt to direct a particular land use on federal land.

There have been no court cases regarding the preemption of state regulation of mining on federal land since Granite Rock except for LeFaivre v. Environmental Quality Council, 735 P.2d 428 (Wyo. 1987) (decided a month after Granite Rock) which upheld a state agency's denial of a mining permit application. The agency found that reclamation would be impossible because the mine site (on BLM lands) was within an area of unique and irreplaceable historic, archeological, recreational and wildlife values. The court found there was no preemption, in part because of a cooperative agreement between the BLM and the state. Id. at 434. Even though the state agency absolutely prohibited any mining, the Wyoming court stated, in a footnote, that its decision was consistent with Granite Rock. Id. at 434, n.3.

Another court applying Granite Rock in a situation other than the mining context has upheld state environmental regulations on federal land. Friends of the Earth v. United States Navy, 841 F.2d 927, 935-36 (9th Cir. 1988). In that case, the Ninth Circuit held that the Navy was required to obtain a state permit under Washington's Shoreline Management Act prior to constructing a homeport in Everett. The Navy argued that the Shoreline Act was a land use planning statute, but the Court said that the provisions of the permit relating to dredging and water quality were environmental regulations and therefore not preempted under Granite Rock.

III. LIMITS TO STATE AUTHORITY TO REGULATE.

Under Granite Rock, a state environmental law or regulation is not per se preempted either by the 1872 Mining Law or by the existence of federal regulations designed to minimize environmental harm from mining activity. However, a particular permit condition based on a facially valid state environmental regulation could conflict with federal legislation and therefore be preempted. (Recall that in Granite Rock, the state had not yet imposed any actual conditions; once conditions are established, traditional preemption analysis takes over).

Both the BLM and Forest Service regulations governing mining activity on federal land require claim holders to comply with some environmental protection measures. The potential for conflict with state environmental laws and regulations, however, appears slight. First, the federal regulations are not very specific or comprehensive, leaving room for state regulations to fill the gaps; second, both the BLM and Forest Service regulations specifically provide for incorporation of at least some state regulations; and third, state courts applying a preemption analysis have generally found that the federal regulations do not preempt state law if the state law regulates the mining activity without prohibiting it.

A. The BLM regulations

1. General requirements

The BLM regulations establish procedures "to prevent unnecessary or undue degradation of Federal lands which may result from operations authorized by the mining laws." 43 C.F.R. § 3809.0-1 (1989). The BLM has established three categories of mining activity which determines what level of administration is required. "Casual use" mines result in only "negligible" disturbance of the land; "notice" mines cause a cumulative surface disturbance of five acres or less in a year; and "plan" mines disturb over five acres a year. § 3809.1-2, 3809.1-3, 3809.1-4. Casual use mines do not require the prior approval of or notification to the BLM. Notice mines require notification to the BLM with a statement of basic information about the mining activity and that

reclamation will be completed in accordance with standards set out. Only plan mines require the claim holder to file an operation plan and get it approved before commencing operations.

The environmental standards applicable to notice and plan mines are broadly defined, leaving room for more specific state regulations to complement the BLM regulations. For example, the BLM requires that the operator "reclaim the area disturbed" at the "earliest feasible time," and reclamation includes but is not limited to:

> "(i) Saving of topsoil for final application after reshaping of disturbed areas . . .
>
> (ii) Measures to control erosion, landslides, and water
>
> (iii) Measures to isolate, remove, or control toxic materials . . ."

§ 3809.1-3(d)(4).

2. State authority under the BLM regulations

More importantly, the BLM regulations contemplate significant state involvement in regulating mining operations. First, the regulations state that nothing therein is to be construed to effect a preemption of state laws and regulations relating to mining operations or reclamation. § 3809.3-1.

Second, the regulations specifically authorize the BLM to enter into agreements to provide for joint federal-state administration and enforcement, which may in fact be entirely left to the state:

> "The Director may consult with appropriate representatives of each State to formulate and enter into agreements to provide for a joint Federal-State program for administration and enforcement. The purpose of such agreements is to prevent unnecessary administrative delay and to avoid duplication of administration and enforcement of laws. Such agreements may, whenever possible, provide for State administration and enforcement of such programs.

§ 3809.3-1(c).

(If such an agreement does not already exist, the DEQ and other interested state agencies should consider negotiations with BLM to adopt one to help consolidate state control over federal mining activity and to streamline the regulatory process.)

Third, all mining operations, whether classified as casual use, notice, or plan mines, are required to comply "with all pertinent Federal and State laws including but not limited to the following:

> (a) Air quality. All operators shall comply with applicable Federal and State air quality standards, including the Clean Air Act . . .
>
> (b) Water quality. All operators shall comply with applicable Federal and State water quality standards, including the Federal Water Pollution Control Act . . .
>
> (c) Solid wastes. All operators shall comply with applicable Federal and State standards for the disposal and treatment of solid wastes, including regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act."

§ 3809.2-2.

Other relevant state environmental laws may also be applicable (the list by its terms is not exhaustive) but at the very least, DEQ's authority to require compliance with important state pollution control standards is clearly established. (For example, two federal circuit courts have held that mining activities are not exempt from point source regulation under the Clean Water Act, so states can impose stricter standards for effluent release via the NPDES permit process. Trustees for Alaska v. Environmental Protection Agency, 749 F.2d 549 (9th Cir. 1984) (gold placer mining by sluice box is a point source and not exempt from the NPDES permit system); United States v. Earth Sciences, Inc., 599 F.2d 368 (10th Cir. 1979) (discharges of cyanide solution from gold heap leaching process is a point source and subject to NPDES permit system). The EPA national effluent limitations for gold lode and placer mining are found at 40 C.F.R. § 440.100-105 and § 440.140-144 (1989).

B. The Forest Service Regulations

1. General requirements

The Forest Service regulations require that mining be conducted so as to "minimize adverse environmental impacts on National Forest System surface resources." 36 C.F.R. § 228.1 (1989). The Forest Service requires that notice be given and a plan of operation submitted any time mining operations will likely cause significant disturbance of surface resources (any mining that requires the cutting of trees or the use of bulldozers or backhoes, for example). § 228.4. Thus, whereas the BLM regulations require disturbance of five acres or more before a plan of operations is required, the Forest Service's "likely to cause significant disturbance of surface resources" threshold will require an operations plan for most mining activity. The Forest Service regulations also set broad standards, capable of being detailed by state laws, *e.g.,* reclamation, "where practicable" includes

"(1) Control of erosion and landslides;
(2) Control of water runoff;
(3) Isolation, removal or control of toxic materials . . ."

§ 228.8(g).

2. State authority under the Forest Service regulations

Like the BLM regulations, the Forest Service requires that operators comply with state air and water quality standards and state solid waste disposal and treatment standards as a part of the required environmental protections for *every* mining operation (even those not requiring an operation plan). 36 C.F.R. § 228.8 (1989). Unlike the BLM regulations, however, the Forest Service does not have a savings provision stating that nothing in the regulations are intended to effect a preemption of state regulations. The Forest Service regulations do state, however that

> "Certification or other approval issued by State agencies or other Federal agencies of compliance with laws and regulations relating to mining operations will be accepted as compliance with similar or parallel requirements of these regulations."

§ 228.8(h).

This implies that the Forest Service intends state laws and regulations to be applicable, and it could also be read to authorize federal-state agreements to govern the regulatory process. Finally, the role of state laws and regulations under the current Forest Service regulations seems assured by the Supreme Court's statement in Granite Rock that the Forest Service regulations "expressly contemplate coincident compliance with state law as well as with federal law". 107 S. Ct. at 1426-27.

C. State Case Law: The Regulatory/Prohibitory Distinction

State courts applying a preemption analysis to the 1872 Mining Law prior to the decision in Granite Rock have generally held for state authority along a regulatory/prohibitory distinction: states have the authority to regulate mining activity on federal lands, but they do not have the power to prohibit it. Although the Supreme Court did not adopt the regulatory/prohibitory distinction, using instead the distinction between environmental regulation and land use planning, the effect is nearly the same. Thus, traditional preemption analysis as applied in state courts remains valid after the Granite Rock decision. The cases confirm that there is generally no preemption of state environmental regulatory authority.

In State ex rel. Andrus v. Click, 554 P.2d 969 (Idaho 1976), for example, the Supreme Court of Idaho concluded there was no *per se* conflict between Idaho's Dredge and Placer Mining Protection Act and the 1872 Mining Law or the Forest Service surface management regulations. The court first noted that there was no direct conflict between state and federal legislation even though the state law set more stringent standards than the federal law:

> "the mere fact that federal legislation sets low standards of compliance does not imply that the federal legislation grants a right to an absence of further regulation. On the other hand, where a right is granted by the federal legislation, state regulation which rendered it impossible to exercise that right would be in conflict."

554 P.2d at 974.

The court acknowledged that the purpose of the Mining Law of 1872 was to encourage the development of valuable mineral deposits, but concluded that the development purpose had been "tempered" in recent years by federal legislation (including the National Environmental Policy Act) requiring mineral development be carried out in ways to minimize adverse environmental impacts. Thus, Idaho's Dredge Mining Act did not interfere with the objectives and purpose of the 1872 Law. Id. at 976-77. The court held that Idaho's Board of Land Commissioners could require miners on unpatented national forest land to obtain a state permit and meet the state's environmental protection requirements as long as those requirements did not make it impossible to mine.

A year later, the Oregon Court of Appeals followed the reasoning in Click and upheld the Division of State Land's authority to require defendants to obtain a fill and removal permit before digging a water diversion trench on an unpatented mining claim on BLM lands. The court found that the federal mining laws did not indicate an attempt to preempt state regulation and that there was no conflict between any provision of the federal mining laws and the Oregon fill and removal statutes. State ex rel Cox v. Hibbard, 31 Or. App. 269, 570 P.2d 1190 (1977).

Just as state courts have upheld state regulatory authority, they have also rejected state (and particularly local) attempts to prohibit mining activity on federal land. Thus, in Elliot v. Oregon International Mining Co., 60 Or. App. 474, 654 P.2d 663 (1982), the court invalidated a county zoning ordinance which prohibited surface mining as it applied to a valid claim to the mineral estate on nominally federal lands. In Elliot, the defendants were surface mining on the plaintiff's land which had been obtained under patent from the Homestead Act. The Homestead Act specifically authorized mineral estate holders to enter onto a patentee's land to prospect and mine. Thus, the court held that the county zoning ordinance banning surface mining was invalid as to the patented land because it specifically prohibited an activity authorized by Congress. Similarly, in Brubaker v. Board of Commissioners, El Paso County, 652 P.2d 1050 (Colo. 1982), a county denied a special use permit to plaintiffs to drill test holes on their mining claim in national forest land because the proposed drilling was inconsistent with long term land use

planning goals. The Supreme Court of Colorado found that the denial of the permit obstructed the federal approval of the mining activity, and therefore held that the county zoning was preempted.

In short, state and local laws that impose reasonable environmental conditions upon the use of federal lands are likely to be upheld under Granite Rock and various state cases finding no preemption by federal law or regulations. State laws which prohibit uses of the federal lands already authorized by Congress (such as hardrock mining under the Mining Law) are likely to be preempted.

D. Other Potential Limits to State Regulatory Authority

1. Prohibitively expensive state environmental regulations

Although Granite Rock resolved a number of issues, the opinion also raised a number of questions about the extent of state authority to regulate private activity on federal lands, and left them largely unanswered. For example, the Court suggested that an otherwise valid state environmental regulation that was so stringent as to make mining "commercially impracticable" would blur the distinction between a valid environmental regulation and an impermissible land use regulation and risk preemption. 107 S.Ct at 1428-29. Unfortunately, the Court did not elaborate on this limitation, leaving the implication that states may not be able to impose particularly costly environmental regulations. What if DEQ were to require expensive treatment and disposal methods for the cyanide leachate, for example, and certain marginally economic mining operations could not afford the methods? Would this mean that DEQ's valid environmental regulation would be preempted because it made mining commercially impracticable?

The answer is probably no, because it would lead to the odd result that only clearly profitable mining operations (which could afford to continue despite the cost of the DEQ regulations) would be regulated while marginal operations would not. More importantly, the Department of the Interior (which retains primary responsibility for determining the validity of mining claims) has held that costs of compliance with environmental regulations are to be taken into account in determining the value of a mineral deposit in the first place. Thus, if compliance with environmental regulations makes extraction too costly, the claim fails to yield a "valuable

mineral deposit" under the Mining Law and is invalidated. See, e.g., United States v. Kosanke Sand Co., 80 I.D. 538 (1973). The issue has not yet been litigated, but one commentator has suggested Justice O'Connor's warning about "commercial impracticability" means that courts will assess the reasonableness of the environmental regulation and perhaps apply a balancing test, weighing the state's interest in mitigating environmental impacts against the miners expectation of a right to mine. Leshy, "Granite Rock and the States' Influence Over Federal Land Use", 18 Envtl. L. 99, 113 (1987).

2. Use of a permit system

Another potential problem for states is the use of a permit system to enforce its environmental regulations. On the one hand, if the mining operator fails or refuses to obtain a state permit, Granite Rock controls and will require the operator to obtain the permit if the regulation is for environmental protection purposes and is "reasonable". On the other hand, if the state can require a permit, it can essentially prohibit mining until the permit is obtained. Does Granite Rock then require preemption by federal law?

The majority in Granite Rock seemed untroubled by the apparent catch-22, stating that use of a permit requirement to impose valid state environmental regulations does not necessarily conflict with federal law. 107 S.Ct at 1429. In dissent, however, Justice Powell pointed out that the power to require a permit is the power to veto the activity:

> ". . . if the Coastal Commission can require Granite Rock to secure a permit before allowing mining operations to proceed, it necessarily can forbid Granite Rock from conducting these operations. It may be that reasonable environmental regulations would not force Granite Rock to close its mine. This misses the point. The troubling fact is that the Court has given a state authority . . . the power to prohibit Granite Rock from exercising the rights granted by its Forest Service permit."

Id. at 1436-37.

Again, the answer may lie in a court's determination of the reasonableness of the state's environmental regulation. A miner who feels the state regulation is too stringent can litigate the issue, but because the Granite Rock decision allows a state to enjoin operations until a state permit is obtained, the miner bears the burden of challenging the reasonableness of the regulation. Thus, for mining operations to go forward while the issue is being litigated, the miner will either have to comply with the state requirements or seek a judicial stay of their enforcement. See Leshy, "Granite Rock and the States' Influence Over Federal Land Use", 18 Envtl. L. 99, 102-03 (1987).

3. Federal approval of a specific mining operation

Justice Powell's dissent also raises the issue of another kind of conflict between the federal and state authorities: if the BLM or Forest Service specifically approves a particular mining operation, does that preempt any further state control? Again, the answer is apparently no. In Granite Rock, the Forest Service had already approved Granite Rock's plan of operations and had produced an environmental assessment on the action before the Coastal Commission requested a permit, but the Court did not find that the Forest Service's approval of the operation acted to preempt the state permit requirement. (Note also that federal and state permit systems covering similar resources do not necessarily conflict. In Friends of the Earth v. United States Navy, 841 F.2d 927 (9th Cir. 1988), the Navy tried to argue that the state water quality and dredging permit were duplicative of the federal Clean Water Act permit and therefore preempted. The court rejected this argument, stating that under Granite Rock, there is not necessarily duplication when a state statute requires an environmental permit just because a federal agency requires one as well. Id. at 936.) Similarly, an argument could be made that since both BLM and Forest Service regulations require compliance with certain state environmental laws, neither federal agency can approve mining operations until those state laws are complied with, or the agency will be in violation of its own regulations.

IV. Summary

In general then, the Supreme Court's decision in Granite Rock provides states with considerable authority to regulate hardrock mining activity on federal lands, so long as the regulation is reasonable and designed to protect the land from environmental damage whatever use the land is put to, rather than a regulation designed to prohibit particular uses of the land. What constitutes a "reasonable" environmental regulation has not been litigated, but a regulation which has the practical effect of prohibiting the mining activity is suspect. States can enforce their regulations via a permit system, but the potential remains for preemption if federal law conflicts with state law on the level of specific permit conditions. Whether or not preemption will occur will depend on the particular situation, but under current BLM and Forest Service regulations, preemption is unlikely. At a minimum, current BLM and Forest Service regulations assure DEQ of considerable authority to regulate mining activity because they require compliance with both federal and state air, water, and solid waste treatment and disposal standards.

Sincerely,

Michael B. Huston
Assistant Attorney General*

MBH:aa
#2187

*This letter was primarily authored by law clerk Lydia Grimm

DEQ-12-R-11/83

DEPARTMENT OF ENVIRONMENTAL QUALITY

Section Reqn. No. ECD 503-90

REQUISITION FOR SUPPLIES, EQUIPMENT, OR SERVICE

DELIVER TO: DEPARTMENT OF ENVIRONMENTAL QUALITY

Section: Environmental Cleanup Division

Address:

VENDOR PREFERENCE:

Michael Downs
Division Administrator

Fund Code: 488-1-08-01-01-55-850800 - 933.830

Fiscal Year: 1990

Commodity Code:

Price Agreement No.:

F.O.B.:

DATE WANTED:

TERMS OF PAYMENT:

Item No.	STOCK NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
		To remiburse Mike Downs for a Trowel and				
		screwdriver purchased in Klamath Falls				
		in connection with the Sixth and Klamath				
		Project.				15.33

Fiscal Office
Dept. of Environmental Quality
RECEIVED
MAY 30 1990

PREPARED BY: Denise Roth — TELEPHONE NO.: 229-6853 — DATE: 5-24-90

APPROVED - PROGRAM DIRECTOR: Michael J Downs — Michael Downs — DATE: 5/30/90

OTHER APPROVAL (WHEN REQUIRED) — DATE:

PLUS SHIPPING/HANDLING

ESTIMATED TOTAL COST: 15.33

☐ Contract Release Order No.

☐ Purchase Order No.

☐ Purchase Request No.

☒ Other Direct Payment #5050

CAPITAL OUTLAY REQUESTS,

New Requirement ☐ Replacement Requirement ☐

DEQ Property No. Being Replaced ______ PDR No. ______

PURCHASE OFFICER APPROVAL: Marlene Miller — DATE: 5-30-90

DEQ-12-R-11/83

DEPARTMENT OF ENVIRONMENTAL QUALITY

Section Reqn. No. AQ-340-90

REQUISITION FOR SUPPLIES, EQUIPMENT, OR SERVICE

DELIVER TO: DEPARTMENT OF ENVIRONMENTAL QUALITY
Section: Air Quality Division
811 S. W. Sixth Avenue
Portland, OR 97204-1390
Address:

VENDOR PREFERENCE:
International Graphics & Nameplate
3103 NE 65th Street
Vancouver, WA 98663

Fund Code: 418-1-01-01-01-18 - 922.300 Fiscal Year: 90
Commodity Code
Price Agreement No.

F.O.B. DATE WANTED: TERMS OF PAYMENT

Item No.	STOCK NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1.		PMTs for:				
		Consolidated Dutchwest				
		Model: FA264 Design: 2183		lot		$42.00

CONFIRMATION ONLY - DO NOT DUPLICATE
In payment of Invoice #00547 Dated 05-25-90

Fiscal Office Dept. of Environmental Quality RECEIVED MAY 30 1990

PREPARED BY: A.Everest for DLCollier TELEPHONE NO.: 5177 DATE: 05-29-90

PLUS SHIPPING/HANDLING

APPROVED - PROGRAM DIRECTOR [signature] DATE: 5-29-90

ESTIMATED TOTAL COST $42.00

OTHER APPROVAL (WHEN REQUIRED) DATE

☐ Contract Release Order No.
☐ Purchase Order No.
☐ Purchase Request No.
☒ Other Direct Payment #5053

CAPITAL OUTLAY REQUESTS,
New Requirement ☐ Replacement Requirement ☐
DEQ Property No. Being Replaced PDR No.

PURCHASE OFFICER APPROVAL: Marlene Miller DATE: 5.30-90

DEQ-1 -R- 11/83

MSD-227-90
Section Reqn. No.

DEPARTMENT OF ENVIRONMENTAL QUALITY

REQUISITION FOR SUPPLIES, EQUIPMENT, OR SERVICE

DELIVER TO: DEPARTMENT OF ENVIRONMENTAL QUALITY

Section: MSD

Address: LIBRARY

VENDOR PREFERENCE: OPL Resources, Ltd
PO Box 948 Murray Hill Stn
New York, NY 10156

Fund Code: 490-1-06-01-20-91 -912.500

Fiscal Year: 90

Commodity Code

Price Agreement No.

F.O.B.

DATE WANTED:

TERMS OF PAYMENT

Item No.	STOCK NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
		The One Person Library:				
		A Newsletter for Librarians				
		& Management				
		Renew Subscription				
		Sept 1990 - Aug 1991	1	yr		60.00
		Connie - Return Renewal				
		Form with check.				
		Marlene				

Fiscal Office
Dept. of Environmental Quality
RECEIVED
MAY 30 1990

PREPARED BY: C Nuttall TELEPHONE NO.: 229 6484 DATE: 5/24/90

APPROVED - PROGRAM DIRECTOR: Linda J. Rober DATE: 5/29/90

OTHER APPROVAL (WHEN REQUIRED): [signature] DATE: 5/31/90

PLUS SHIPPING/HANDLING

ESTIMATED TOTAL COST: 60.00

☐ Contract Release Order No.

☐ Purchase Order No.

☐ Purchase Request No.

☒ Other Direct Payment #5056

CAPITAL OUTLAY REQUESTS,

New Requirement ☐ Replacement Requirement ☐

DEQ Property No. Being Replaced ________ PDR No. ________

PURCHASE OFFICER APPROVAL: Marlene Miller DATE: 5.30.90

DEQ-12-R-11/83

DEPARTMENT OF ENVIRONMENTAL QUALITY

Section Reqn. No. ECD 504-90

REQUISITION FOR SUPPLIES, EQUIPMENT, OR SERVICE

DELIVER TO: DEPARTMENT OF ENVIRONMENTAL QUALITY

Section: Environmental Cleanup Division

Address:

VENDOR PREFERENCE:

Denise Roth
Support Services Supervisor

Fund Code • 481-1-08-01-01-56 - 926.470

Fiscal Year • 1990

Commodity Code

Price Agreement No.

F.O.B.

DATE WANTED:

TERMS OF PAYMENT

Item No.	STOCK NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
		To reimburse Denise for a non credit				
		class in American Sign Language sponsored				
		by PCC Community Education				28.00

Dept. of Environmental Quality RECEIVED MAY 30 1990

PREPARED BY: Denise Roth — TELEPHONE NO.: 229-6853 — DATE: 5-24-90

APPROVED - PROGRAM DIRECTOR: Michael J. Downs [signature] — DATE: 5/30/90

OTHER APPROVAL (WHEN REQUIRED) — DATE

PLUS SHIPPING/HANDLING

ESTIMATED TOTAL COST 28.00

☐ Contract Release Order No.
☐ Purchase Order No.
☐ Purchase Request No.
☒ Other Direct Payment #5062

CAPITAL OUTLAY REQUESTS,

New Requirement ☐ Replacement Requirement ☐

DEQ Property No. Being Replaced ______ PDR No. ______

PURCHASE OFFICER APPROVAL: Marlene Miller — DATE: 5.30.90

FIELD TOUR - FOREST PRACTICES/WATER QUALITY
ENVIRONMENTAL QUALITY COMMISSION &
OREGON DEPARTMENT OF FORESTRY
Vicinity - Falls City
May 24, 1990

SWINDELLS SPUR OPERATION - Little Luckiamute River

Best Management Practices
Road Construction and Maintenance

* Road designed to minimum use standards to minimize disturbance to existing drainage patterns and water quality.

* Road no wider than necessary for anticipated use.

* Culvert designed to prevent erosion of fill; culvert placed to filter water through vegetative buffer before entering stream.

* Road designed to drain naturally through outsloping, insloping, and ditching.

* Stable road surface and operating drainage system maintained to protect water quality - Grading, rocking, ditching, and culverts. Applies to active and inactive roads.

* Clean culvert inlets and ditches and crowned road.

Harvesting

* Use of uphill cable yarding.

* Cable yarding across Class II waters that minimized disturbance to the channel and streambank vegetation.

* Vegetation along Class II water retained in width sufficient to maintain water quality of Class I waters.

* Slash removed from Class II streams.

* Landings and fire trails located on stable areas.

* Drainage system provided for fire trails (waterbars) to control dispersal of surface runoff water and minimize entry of muddy and turbid water into streams.

TINY TEAL OPERATION - South Fork Teal Creek

Best Management Practices
Harvesting

* Approval of written plan obtained for operation within 100 feet of a Class I water before conducting operation.

* Riparian management area (RMA) provided, an average of three times the stream width, not less than 25 feet, not more than 100 feet average with.

* Trees felled away from Class I water.

* Use of uphill cable yarding.

* Avoided cable yarding through Class I water.

* Provided for shade, soil stabilization, and water filtering effects of vegetation in riparian management area.

* During and after harvesting, waterways and riparian area vegetation are protected to assure water quality, soil, wildlife habitat, and aquatic habitat values.

* If burning were used to treat slash or competing vegetation, residual timber, humus, and soil surface must be adequately protected.

Forest Practices Section
Oregon Department of Forestry

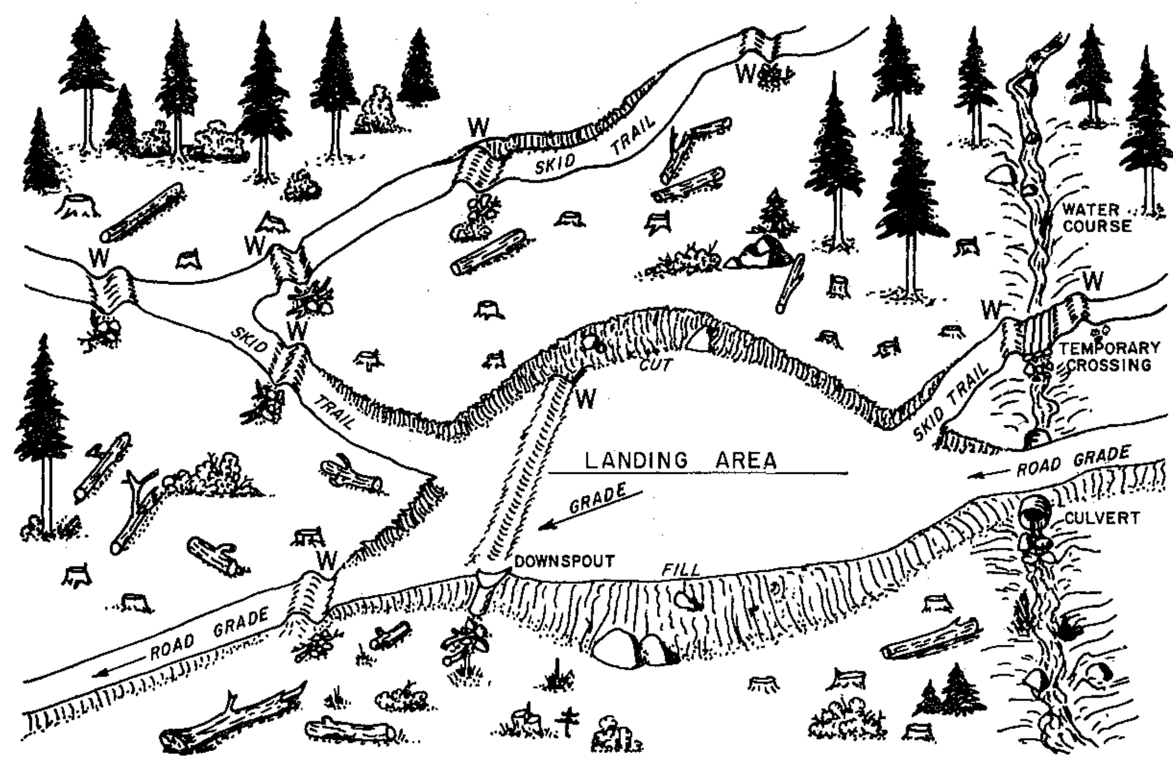
FOREST PRACTICES NOTES

2600 State Street
Salem, Oregon 97310

No. 1 Published in Cooperation With AOI, AOL, and OFPA June 1979

WATERBARS

Waterbars are constructed on roads, skid trails, and landings to help minimize the volume of water flowing over these exposed areas and to remove water to places where it will not cause erosion. These guidelines, if utilized, will help reduce erosion and meet the requirements of the Road Construction and Harvesting Rules of the Forest Practices Act. On roads with regular vehicular traffic, rolling dips may be preferable to waterbars. Guidelines for these will be covered in a later NOTE.



Location

1. Space waterbars (W) to prevent concentrations of water and to remove runoff water from disturbed and unstable soil areas. Spacing will depend on soil type and slope. Suggested guidelines are included in Table I, Water Bar Spacing Guide.

2. Precaution should be taken to prevent the direct entry of runoff into live streams. Water flowing off the waterbar should flow onto rocks, slash, vegetation, duff, or other less erodible material. Don't divert water to other skid trails or bare ground, especially loose soil.

Forest Practices Section
Oregon Department of Forestry

FOREST PRACTICES NOTES

2600 State Street
Salem, Oregon 97310

No. 4 Published in Cooperation With AOI, AOL, and OFPA October 1981

ROAD MAINTENANCE

Forest roads are necessary for harvesting timber as well as providing access for firefighting and timber management activities such as thinning and reforestation. If roads are properly located, designed and built, they are less prone to the slumps and slides which can reduce the productivity of land and streams. Slides are very costly to repair. Frequently, repair costs exceed the original cost of the road. Since roads represent a large capital investment with high repair costs, it would be far wiser to maintain roads than to repair them.

In addition to being wise practice, maintenance of roads is required by the Forest Practices Act administrative rules under Sections 629-24-424, 629-24-524, and 629-24-624 ROAD MAINTENANCE. "Maintenance on both active and inactive roads shall be sufficient to maintain a stable surface, keep the drainage system operating, and to protect the quality of waters of the State." The operator is required to perform road maintenance procedures while the operation is active. The landowner is responsible for road maintenance after the operation is completed.

Routine maintenance and quick response to problem situations are two programs which would significantly reduce the incidence of detrimental, road-caused slumps and slides. Depending on the size of the business enterprise and the resources available, a maintenance program could consist of some or all of the following:

1. Identify those portions of the road system where history, geology or soils indicate a high probability of slides.

2. Establish a road inspection schedule to insure that the areas identified in number 1 above are examined more often than the rest of the road system. For example, a two-man patrol could be used during heavy storms in areas known to produce slides. This team (it could be a co-op effort between more than one business) should have the ability to assess situations which could lead to resource damaging slumps and slides, and also have the authority to call in the necessary personnel and equipment to correct the slide-causing situations.

3. Establish a "quick response unit" - personnel and equipment capable of repairing road damage before slides occur, i.e. cleaning out ditches or culverts or other appropriate tasks.

4. Plan to quickly repair likely annual damage (i.e., washouts of culverts, slides and road surface damage from freezing and thawing) by ensuring that repair crews and equipment are ready during the heavy runoff periods.

In addition to the above detection, prevention, and corrective procedures, the following routine maintenance tasks will help prevent slide problems before they occur.

Culvert Maintenance:

In order for culverts to perform correctly, culvert inlets, outlets and catch basins must be free of debris that can restrict the free flow of runoff water. Cleaning culverts, especially just before and during rainy seasons, lowers the danger of culvert clogging and washouts. Clearing away all floatable debris from the area immediately above the culvert intake is a good preventive measure. Assuming the culvert size is adequate, and the watershed is 30 acres or larger, a good rule of thumb is to clear floatable debris from an area extending to a distance above the intake ten times the culvert size in feet. For example, for a culvert three feet in diameter, clearing would extend 10 X 3, or 30 feet above the inlet. In no case should the cleared area be less than 20 feet. Riprap or some stabilizing material may be necessary at culvert inlet "catch basins", to prevent plugging of culverts.

The culvert outlet, or any water collection device such as waterbars or dips, should discharge water onto a vegetation or riprap-protected slope, not bare soil. Some type of energy dissipator is necessary to reduce soil erosion and stream sedimentation. The energy dissipator can be the natural forest litter, or man-made dissipators like logging slash, rocks or culvert half-rounds (bottom half of a length of culvert). When using culvert extensions, like half rounds, the extension must be well-anchored to the culvert to prevent separation. Using some sort of energy dissipator to insure that water is discharged at ground level will prevent "cannon culverts". "Cannon culverts" are hazardous because they allow the water, which they collect, to fall from a great height. Falling water has a much higher erosive potential than running water and will quickly undermine the road bed.

Ditch Maintenance:

Ditches must be kept open and clear of debris in order to drain water from the road and the cut bank. Without good drainage, the fill slope will saturate with water, frequently causing a sluice-out. Ditch erosion is an indication that more culverts or cross drainages are needed. Relief culvert spacing is difficult to determine, but even in the most erosion-resistant, rocky soils and on the gentlest grade (4%), 1,000 feet would be the maximum spacing allowable to adequately drain the road. On steeper grades (18%) and more erodible soils, culvert spacings as close as 250 feet may be necessary. (Culvert spacing will be covered more thoroughly in a Forest Practices Notes on culverts).

Road surface erosion from ditch overflow indicates the need for pulling (cleaning) the ditches with a grader. Ditches should be pulled only where necessary and the blade should not remove soil-holding grass or undercut the backslope. Culvert locations should be flagged to help the operator avoid damaging culverts or their inlet catch basins.

Unfortunately, pulling ditches can generate a large amount of material. If this material is not suitable for road surfacing, it must be disposed of. General procedures in the past have been to blade waste material over the outside edge of the road. This practice can cause serious problems because the excess material: 1. Is easily erodible and may rapidly reach a stream; 2. May overload the sidecast material and cause it to fail, taking part of the road with it; 3. Can physically damage or even smother small seedlings

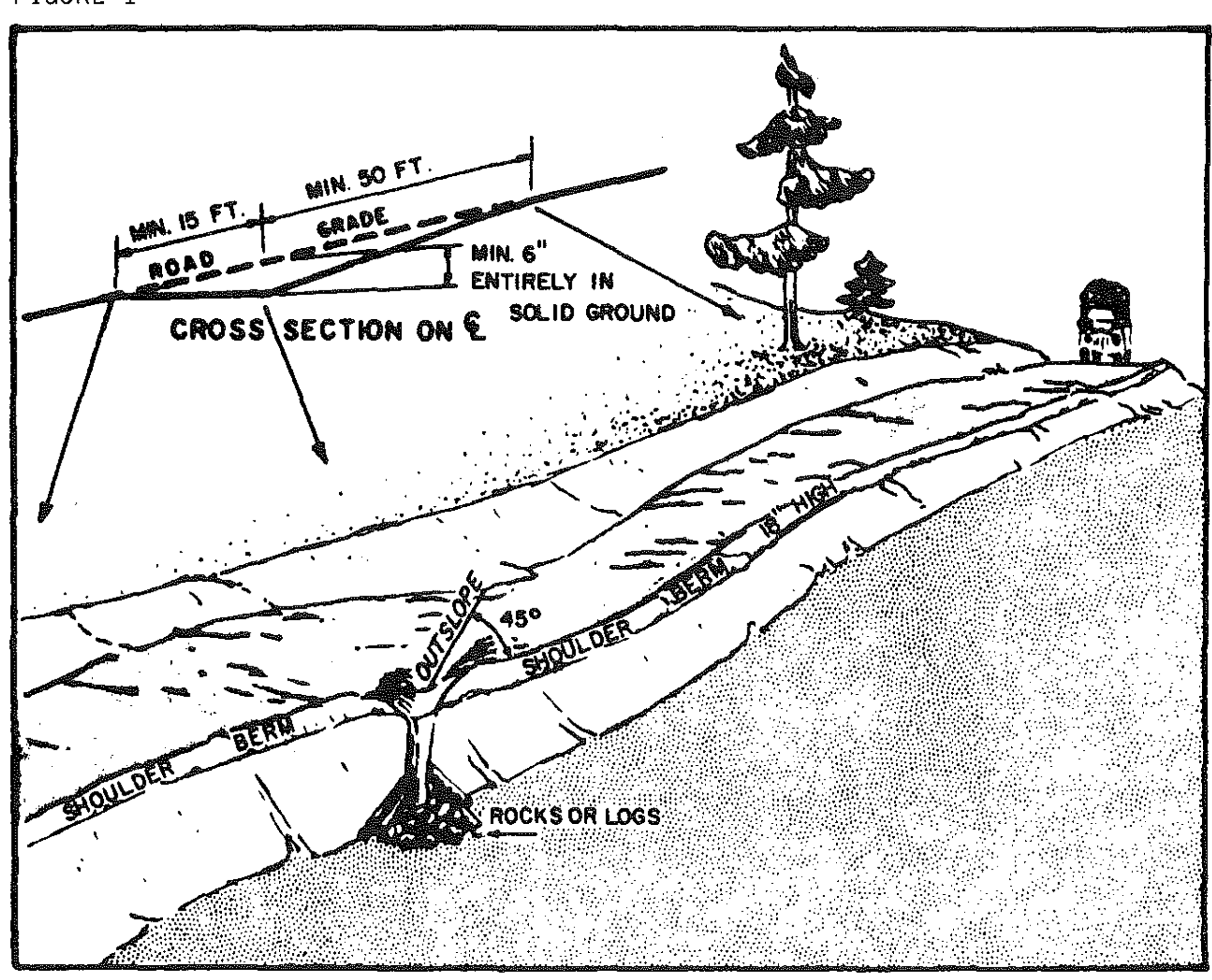
downslope. If there is a lot of waste material, say from a slump or backslope failure, the material should be hauled to a stable area. In steep terrain where road building is difficult, large amounts of waste material are generated, and stable disposal sites are few and far between. Suitable disposal sites might be saddles, abandoned rockpits or benches. However, each should be carefully investigated by qualified people to ensure that adding more weight to an apparently stable area does not decrease its stability.

Running Surfaces:

Grading to remove ruts and holes, reshaping the road crown or slope, mixing rock and fines, and pulling berms, should be done following the spring thaw and before the fall freeze. However, shaping should not be done while it is raining. Additional shaping is done as necessary to provide safe travel and preservation of the road. Thoughtful placement of easily-crossed rolling dips in the fall (or designed in the road during construction) can keep erosion of the running surface to a minimum. Rolling dips are designed to carry overland flow off the road before runoff gains enough volume and velocity to cause rills (small ruts) which can rapidly develop into large ruts. A typical rolling dip installation is shown in Figure 1.

TYPICAL ROLLING DIP INSTALLATION

FIGURE 1



Road Surface Applications:

Road oil and other surfacing materials should be applied in a manner that prevents their entry into waterways. Precautions should fit the properties of the chemicals or substances being used. Flagging waterways prevents contamination by enabling the applicator to see them in time to avoid direct application to water courses.

Slope and Fill Stabilization:

Planting grass and other soil-holding species or riprapping are some of the best methods of slope and fill stabilization. Seed must be planted when moisture is sufficient for germination and growth, generally in early spring or fall. Fertilizer must be used so that the plants will survive and grow. Consider using plant species favored by wildlife as forage. Consult a Forest Practices Forester or the Soil Conservation Service for best seeding mixtures.

Roadside Vegetation Control:

Safe travel requires roadside vegetation control to permit good visibility. Wet spots in the road can frequently be eliminated by removing dripping overhead vegetation. This can be done by mechanical slashing or by use of herbicides. All rules for safe handling of chemicals apply. It is a good idea to flag waterways so the equipment operator can avoid chemical contamination of the water course. Use of chemicals requires notification of the State Forester.

Stabilizing Unused Roads:

When the operation is completed, or if the landowner plans to discontinue active use of the roads, all unused roads must be maintained to the degree necessary to provide adequate drainage and soil stability. However, if the landowner intends to "put-the-road-to-bed" by closing and blocking it, he must only leave it in such a state as to provide for adequate drainage and soil stability. Measures can include installing waterbars, seeding to grass and other forage species, removal of temporary stream crossing structures, outsloping the surface and sometimes pulling culverts. At access points, the landowner is encouraged to avoid drainage and soil stability measures that would deny use by fire suppression equipment. Two ways of controlling access to unused roads include piling surface rock in the road, to be spread when the road is reopened, or piling dirt-covered root wads in the road.

Summary

Thus, with a few simple practices, it is possible to reduce road caused resource damage by:

1. Routinely maintaining culverts, ditches, and running surfaces.
2. Stabilizing unused roads and cut and fill slopes on active roads.
3. Planning for the annual periods of heavy runoff by:
    a. Identifying unstable portions of the road system.
    b. Patrolling those areas during periods of heavy runoff.
    c. Establishing a "quick response unit" which can reach a trouble spot quickly and make the necessary repairs to avert possible resource damage.

HB:ab
9277B

Forest Practices Section
Oregon Department of Forestry

FOREST PRACTICES NOTES

2600 State Street
Salem, Oregon 97310

No. 5 Published in Cooperation With AOI, AOL, and OFPA June 1982

Ditch Relief Culverts

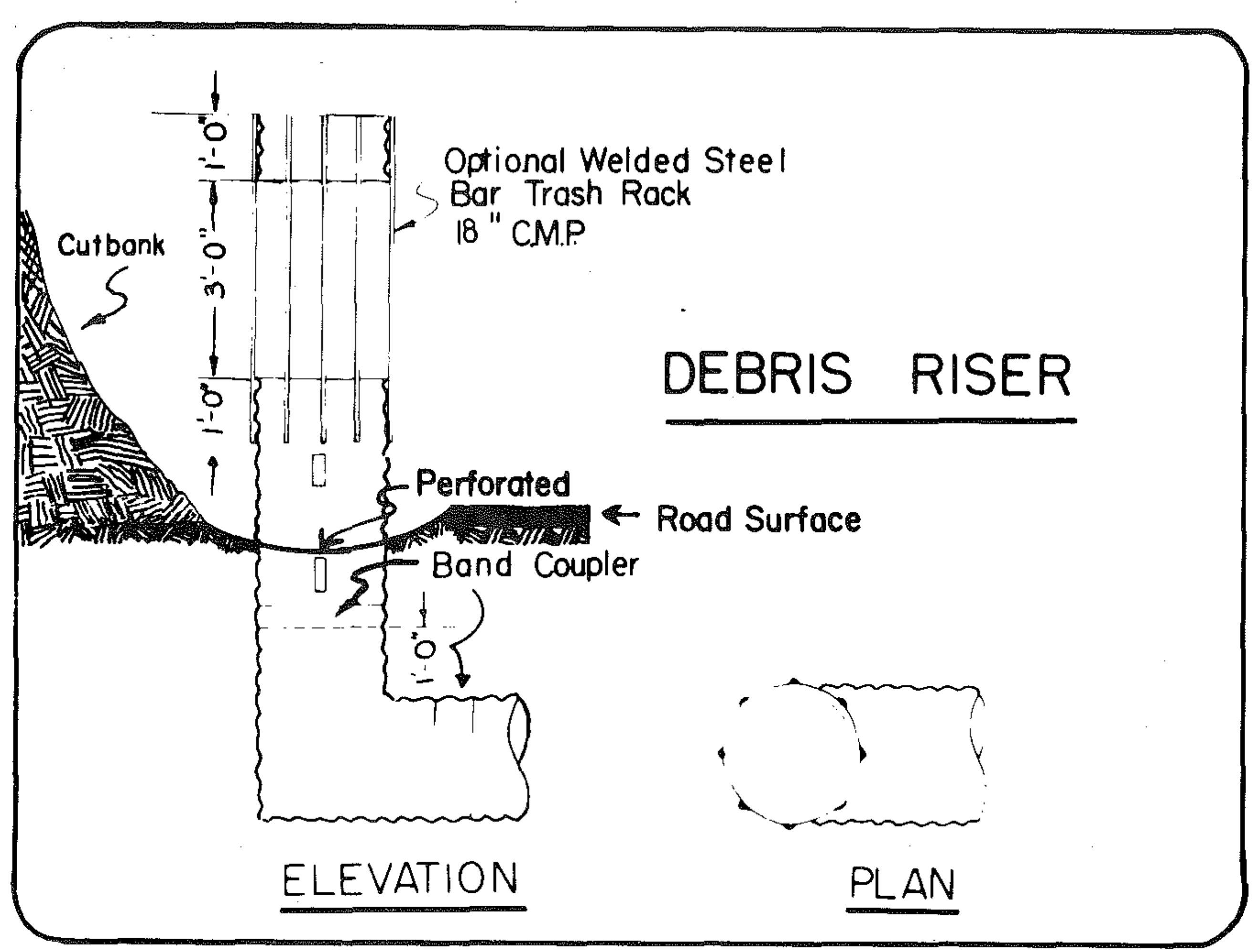
Roads on forest land are subject to the work of one of the most irresistible forces in nature - running water. Unless this water is carefully routed across or under roads, it will find its own course and possibly result in eroded running surfaces, washed out fills, mass soil movement, and sediment laden water downstream.

Culverts provide a means of draining water from a road as do water bars (FP Note No. 1), rolling dips (FP Note No. 4), and ditches. Culverts are placed at varying intervals in a road to conduct water, under controlled conditions, from the ditch to the outside portion of the road. They are an integral part of a road drainage system which is designed to prevent erosion of ditches and road surface. The importance of proper culvert usage cannot be overemphasized. The fact that they are addressed in no less than five different sections of the Forest Practices Act attests to their importance.

629-24-422, 522, and 622, "Road Specification or Design"
629-24-423, 523, and 623, "Road Construction"
629-24-424, 524, and 624, "Road Maintenance"
629-24-540, "Harvesting"
629-24-444 and 644, "Drainage System"

Culverts can be fashioned out of many different materials, but corrugated metal, either aluminum or steel, is the most common material used. During installation, a suitable bed must be provided to prevent the culvert from sagging and to prevent water from washing underneath. The bed should be fine material, well compacted by tamping. Any large boulders within one foot of the pipe should be removed to prevent damage. Large organic debris, such as stumps, logs and limbs, should be removed from the fill material. Compaction of the backfill material should extend at least as high as one-half of the pipe diameter, and the compacted fill over the culvert should be at least one foot in depth.

Culverts often need outlet and inlet protection to keep water from scouring away supporting material and to keep debris from plugging the culvert. Outlet protection keeps water from undermining the road fill or sidecast material, and generally consists of rock rubble or slash, or half-round bolted to the culvert. Inlet protection ranges from elaborate precast concrete catch basins to rock riprap. An effective and inexpensive method of inlet protection is a perforated standpipe such as the one shown on following page.



Culverts are used in two situations - for ditch relief and stream crossing. Each has different criteria for sizing, placement, and location. Therefore, ditch relief culverts will be handled in this Forest Practices Note and stream crossing culverts will be handled in a subsequent Forest Practices Note.

Size

Eighteen-inch culverts are generally sufficient in most areas. However, if past experience in the local area has shown that 18-inch culverts have been too small, space them closer together to avoid using a larger size. In addition, in a run of three or four culverts, a larger one at the lower end of the slope is good insurance, if one of the others becomes plugged.

Spacing

Culvert spacing depends on rainfall intensity, soil type, and road grade. Since rainfall intensity and soil type are difficult to determine, culvert spacing has generally been determined by the steepness of grade and the road engineer's previous experience in the local area.

Fortunately, a reliable estimate of culvert spacing can be determined from the past performance of other relief culverts in the local area. Generally, if road ditches are not eroding, culvert spacing is adequate. If after observing the existing culvert spacing and condition of the ditches, there remains some doubt about proper spacing, consult the local Forest Practices Forester.

To determine whether the culverts are performing correctly, five culvert standards should be checked. These standards are termed the 5D's.

Determining whether ditch relief culverts are performing correctly --- The five D's

1. Diversion - Is the culvert installed at the proper angle to the road (20°-40° to the perpendicular)? Is the head of the culvert designed to divert all of the ditch water into the culvert? Is the culvert on the correct slope (2-5%) so that sediment does not collect in it?

2. Discharge - Has the culvert been large enough to handle the 25 year storm?

3. Dissipation - Is some kind of energy dissipator installed at the outlet (culvert half-round, rock riprap, or slash) to prevent erosion of the fill slope or road bed?

4. Distance - Are the culverts installed close enough together to prevent washing (erosion) of the ditches?

5. Debris - Have sufficient precautions been taken (trash racks or periodic ditch cleaning) to ensure that the culvert inlet hasn't become plugged with debris?

Location

Location of relief culverts is important since they collect runoff and concentrate it in a small area. Under natural conditions, precipitation is dispersed over large areas when it hits the ground. Gradually, as rainfall moves downslope as runoff, it collects into larger and larger natural channels which have stabilized over many years.

When a road is constructed across a hillside, it interrupts the natural flow of water and, if culverts are not located properly, concentrates the runoff in an area which has not had time to stabilize or has not previously handled such a high flow of water. In either case, the roaded area is not able to accept the increased flow without some adjustment.

The adjustment might be simply settling of the fill or sidecast material, or more seriously, a stream disrupting "sluice-out." (A common problem associated with settling of the fill material is separation of the culvert sections at the connecting collar. Drainage water leaks out through this break and can erode the fill material enough to cause a complete failure of the structure).

While it is impossible to accurately predict the results of a particular culvert placement, the following suggestions should help avoid some costly impacts due to road construction.

1. Stream headwalls normally do not have the capacity to carry much runoff since they are so high on the slope. Therefore, if it is necessary to place a culvert in a headwall, check out the possibility of placing an extra culvert a few hundred feet up the road grade so that some of the ditch water can be diverted before it reaches the headwall culvert. (This can help minimize soil erosion and mass movement in the headwall area).

2. If a road is near an area which is prone to slumping, make sure that none of the culverts route water into the slumps. Extra water in an unstable area is sure to cause more slumps. Additional culverts are needed in this landtype to avoid concentrating water above an unstable area.

Summary:

The following sketch illustrates some important points for culvert installation.

How to install a cross drainage culvert under a truck road

After you have cleared away trees and brush and shaped the haul road, determine where the cross drainage is needed and:

1. Install the culvert at a 30 degree angle downslope (see diagram).
2. Place the culvert about 12 inches below grade and allow it to slope at least 5 inches in every 10 feet.
3. Allow the inlet end to extend into the side ditch so that it intercepts water flowing in the ditch.
4. Allow the outlet end to extend beyond any fill and empty onto an apron of rocks, gravel, brush or logs.
5. Space the culverts according to the road grade:
   - On gentle slopes (0-5%) space them 900 feet apart.
   - On moderate slopes (5-12%) space them 600 feet apart.
   - On steep slopes (12%+) space them 300 feet apart or less.

*Copyright 1981, State of Maine, Land Use Regulation Commission.

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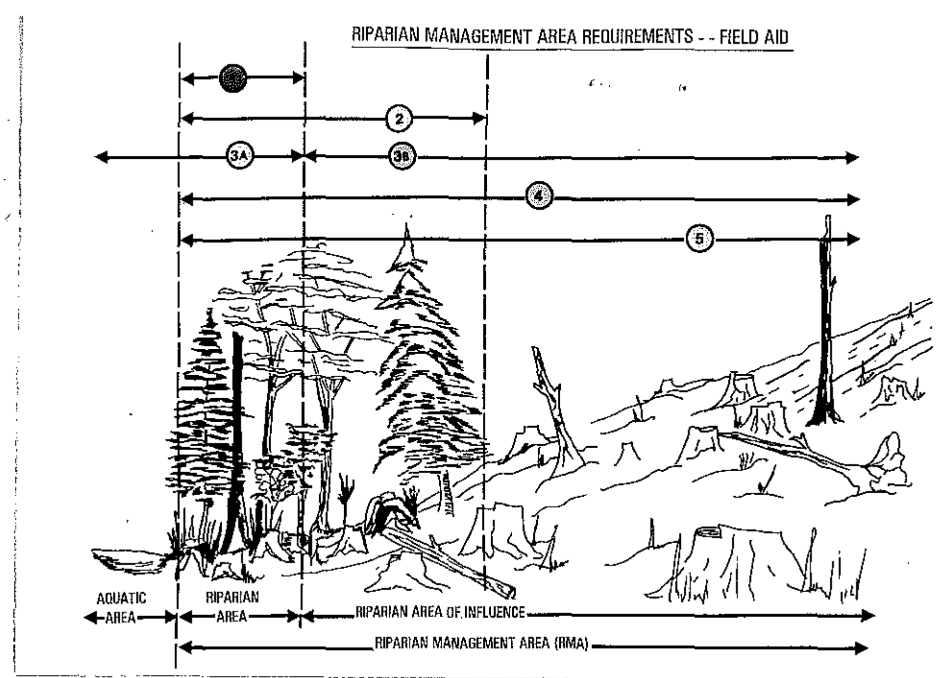

RIPARIAN MANAGEMENT AREA REQUIREMENTS - - FIELD AID
2
3A
3B
4
5
AQUATIC AREA
RIPARIAN AREA
RIPARIAN AREA OF INFLUENCE
RIPARIAN MANAGEMENT AREA (RMA)

5 MAJOR "LEAVE" REQUIREMENTS FOR RMA'S

REQUIREMENT	WHERE IT CAN BE REQUIRED
① Leave 50% of the pre-operation tree canopy.	Only within the riparian area inside the limits of the riparian management area.
② Leave live conifer trees equalling at least an average of 9 trees per acre and at least 10 sq. ft. of basal area per acre.	Within the half of the RMA closest to the stream or within 25 feet, whichever is greater. (SW & NW Regions only).
3. Ⓐ Leave ALL downed wood.	In the aquatic area and in the riparian area within the RMA.
Ⓑ Leave unmerchantable downed wood.	In the riparian area of influence within the RMA.
④ Leave 75% of pre-operation shade over the aquatic area.	Anywhere within the RMA.
⑤ Leave all snags which are not a safety or fire hazard.	Anywhere in the RMA.

A RIPARIAN MANAGEMENT AREA (RMA) is required along **each** side of Class 1 waters. It must average 3 times stream width. 25 foot minimum, 100 foot maximum.

Forest Practices Notes

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Riparian Protection

What Are Riparian Areas?

The wet soil areas next to streams, lakes, estuaries and wetlands are known as "riparian" areas. These are areas that have high water tables and soils which exhibit characteristics of wetness. Riparian areas often contain water-loving trees such as alder, willow, cottonwood, cedar and spruce.

Who Must Protect Riparian Areas?

Every forest landowner and any logger or commercial forest operator working on private forest land in Oregon is responsible for protecting riparian areas. The Board of Forestry developed new regulations to protect these important forest lands that went into effect August 1, 1987.

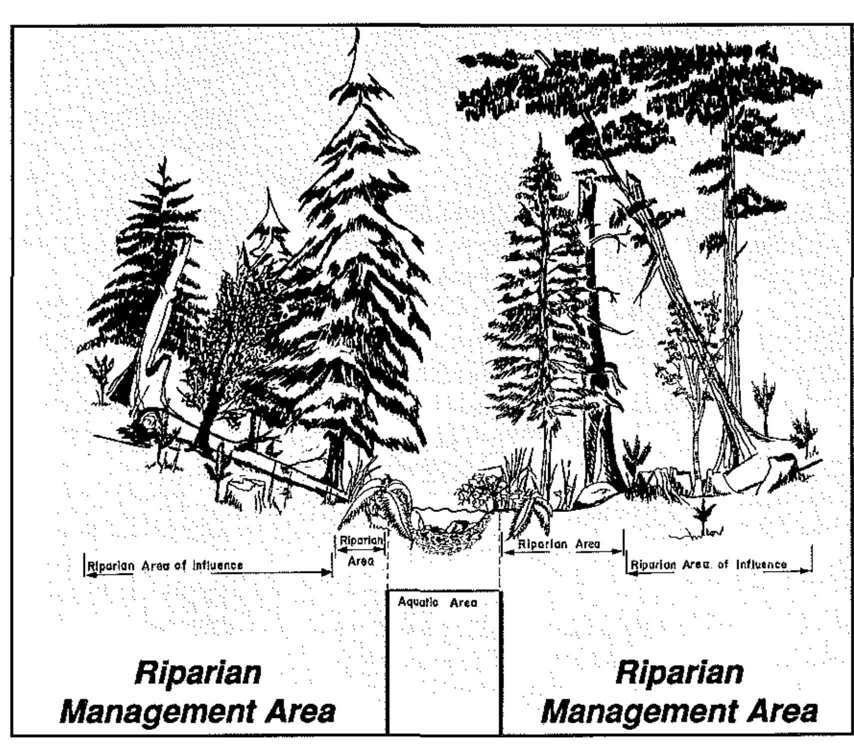
A *Forest Practices Forester* from the Oregon Department of Forestry will be available to help you protect these areas on your land. As a landowner or logging operator the law requires that you notify the Department of Forestry at least 15 days in advance of beginning any commercial operation on private forest lands in Oregon. Sometime beginning in 1988 a written plan describing your operation will be required when you conduct operations within 100 feet of a Class I stream.

A list of the Department's field offices and phone numbers is included on the back page. The information here provides an overview of regulations. Contact the Department of Forestry for more information.

Riparian Area Protection

Why?--Riparian areas make up only a small percentage of Oregon's total forest area, but when it comes to water, fish and wildlife it's a very important part. Riparian areas play an important role in protecting water quality and fish populations. Wildlife often find all of the necessities of life there.

Grasses, brush and trees growing on stream banks hold soil in place and filter water flowing to the stream. If a large amount of silt enters the stream it could smother fish eggs or insects the fish feed on in the stream bed gravel.



The log in this riparian area creates a pool behind it. The brush and trees provide shade and habitat for wildlife.

Wildlife is more abundant in riparian areas than any other part of the forest. Birds, rodents, amphibians, big game and other animals find water, food, nesting areas and cover, for protection from predators, man and the elements, in riparian areas. The corridors of brush and trees along streams provide a protected migration route for wildlife.

How?--A *riparian management area* shall be maintained along each side of all Class I waters. The size of the *riparian management area* shall be an average of three (3) times the stream width, but it shall not average less than twenty-five (25) feet or average more than one hundred (100) feet. A *Forest Practices Forester* can help determine the actual boundary.

No burning is allowed in a *riparian area.* Burning in a *riparian area of influence* is permitted, but must be conducted in a way which protects the habitat components of the *riparian management area.* Spraying chemicals by aircraft shall be done parallel to *riparian areas* and one swath width shall remain unsprayed on each side of a Class I water. Timber felled within the *riparian management area* shall be directionally felled away from the waters. Limit machine activity in the *riparian management area.* Prior approval from the State Forester must be obtained before operating machinery in or through Class I waters.

In addition, the following protection must be provided for shade, canopy cover, down wood, snags and live conifers in the *riparian management area* (the restrictions listed apply only to Class I waters, with the exception of shade protection which also includes Class II SP waters):

Shade Protection

Why?--Shade is necessary to protect water temperatures in streams. Trout and salmon prefer cool temperatures. If the stream is exposed to direct sunlight the water temperature will rise, which in turn could adversely affect fish populations.

How?--When logging on Class I and Class II SP waters the landowner or operator must leave 75% of the shade that existed over the *aquatic area* prior to the operation.

Canopy Protection

Why?--The leaves and twigs overhanging streams and lakes provide a major source of insects and organic materials essential to enrich streams and provide food for fish.

How?--When logging, the landowner or operator must leave 50% of the tree canopy in the *riparian area* that was present prior to the operation.

Down Wood Protection

Why?--Large logs left in the stream are important because they create pools, trap gravel moving down the stream in the bottom of those pools, hold organic matter in place, such as leaves and needles used as a food source by insects in the stream, and provide cover for fish. These pools create excellent areas in which fish can spawn and develop. A stair-stepped creek channel is the most productive. Conifer logs over 14 inches in diameter provide the best wood for dams to create pools. Large maple and alder logs also provide good structure to the stream, but do not last as long as conifers.

Logs and debris left above the water level provide many benefits for wildlife. This large wood debris provides dens and burrows for many small species. The rotten wood provides food and habitat for salamanders and other reptiles.

How?--All timber that was down and on the ground in the *aquatic area* and *riparian area* along Class I waters prior to beginning the operation must be left. In the *riparian area of influence* leave all unmerchantable logs.

Snag Protection

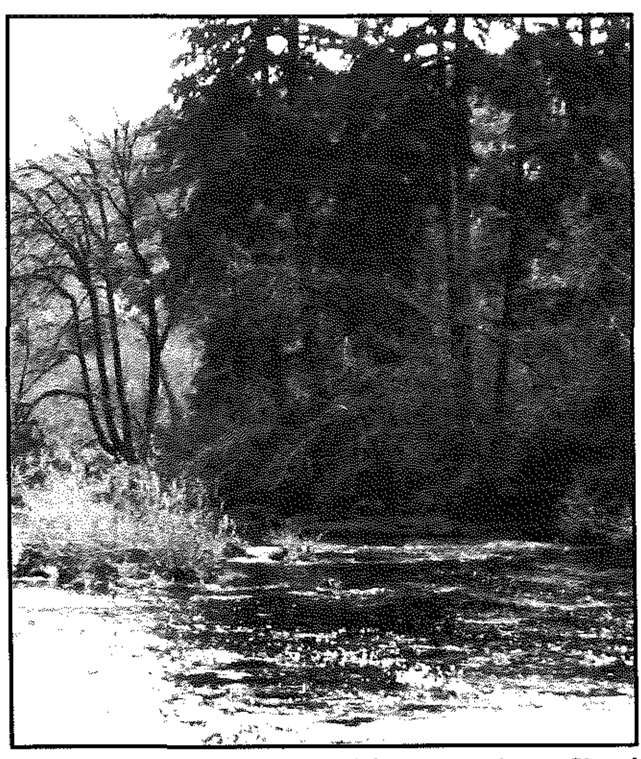
Why?--Standing dead trees or snags provide valuable habitat for insects, birds and small animals. Snags also provide future down logs for wildlife habitat and future logs in streams to create pools for fish habitat.

How?--Except for snags defined to be a safety hazard by the rules of Workers' Compensation Department, Accident Prevention Division or a fire hazard by the State Forester, leave all snags in the *aquatic area* and *riparian management area* along Class I waters.

Live Conifer Protection

Why?--Snags, down logs and logs creating pools in streams will eventually rot and disappear from the *riparian management area*. It's important that some live conifer trees be left to eventually die and provide future snags, down logs and logs in streams. For that reason the new rules require some live conifer trees be left in *riparian management areas*.

(Continued on back page)



This photo shows live conifers left in a clump along a Class I stream. Clumping conifers is preferred because it provides better habitat for wildlife.

Glossary of Terms You'll Need to Know

Class I Waters--These are the most important streams, lakes, estuaries and wetlands because of their fishery, domestic use and recreational values. These Class I waters include the water and banks below the normal high water level. Each Department of Forestry field office has maps showing the classification of waters of the state.

Class II Special Protection Waters--These are Class II waters that have a significant impact on Class I streams downstream. These waters have a significant summertime cooling influence on downstream Class I waters which are at or near a temperature at which production of anadromous or game fish is limited.

Class II Waters--These are any waters in the state that are not classified as Class I Waters, but which have a definite channel or bed. They are measured from the bank below the normal high water level.

Aquatic Area--This is the water area of a stream, lake or wetland measured at the high water level.

Riparian Area--Riparian areas are the wet soil areas next to streams, lakes,estuaries and wetlands. These areas have high water tables and soils which exhibit characteristics of wetness. Water-loving plants are often associated with these areas.

Riparian Area of Influence--This is a transition area between the riparian area and upland vegetation. It forms the outer edge of the riparian management area. It contains trees which may provide shade or contribute fine or large woody material or terrestrial insects to a stream. It also may contain trees that provide habitat for wildlife associated with the riparian management area.

Riparian Management Areas--This is the area the Board of Forestry has decided must be managed for protection of riparian values along Class I waters. Its width on <u>each</u> side of a stream shall average three (3) times the stream width, but shall not average less than twenty-five (25) feet or average more than one hundred (100) feet. A riparian management area occurs on each side of a stream and usually includes a riparian area and riparian area of influence. The width may vary with terrain and circumstances. The measurement is the average width over the length of stream where the operation occurs.

Forest Practices Forester--The Forest Practices Forester is an employe of the Oregon Department of Forestry and plays a key role in making the Oregon Forest Practices Act work on the ground. The FPF visits operations on the ground before, during and after operations to assist operators and landowners comply with the law through education and where necessary enforcement.

How?--Live conifer trees must be left in the *riparian management area* along Class I waters, according to the table at right. These leave trees shall be left in the half of the *riparian management area* closest to the stream or within an average of 25 feet of the water, whichever is greater. The conifers left must be a minimum of eight (8) inches in diameter breast high, comprising at least ten (10) square feet of basal area per acre in the aggregate. In computing basal area, trees over twenty (20) inches diameter breast high shall be counted only as twenty (20) inch diameter trees. The trees left may be cull or nonmerchantable and may also meet the requirements for shade and stream canopy cover. Forest lands in the Eastern Oregon Forest Practices Region are not included in rules requiring live conifers in *riparian management areas* because sufficient conifers are left during selective harvest.

Table of Leave Trees

Average Stream Width	Average Rip. Mgt. Area Width	Conifers Per 1,000 Ft.	Basal Area Per 1,000 Ft.
8- Feet	25 Feet	5	6
10 Feet	30 Feet	6	7
12 Feet	35 Feet	7	8
13 Feet	40 Feet	8	9
15 Feet	45 Feet	9	10
17 Feet	50 Feet	10	11
18 Feet	55 Feet	11	12
20 Feet	60 Feet	12	13
22 Feet	65 Feet	13	14
23 Feet	70 Feet	14	15
25 Feet	75 Feet	15	16
27 Feet	80 Feet	15	17
28 Feet	85 Feet	16	18
30 Feet	90 Feet	17	19
32 Feet	95 Feet	19	21
33+ Feet	100 Feet	21	23

Where To Call: ODOF Field Offices

If you're planning to harvest timber, apply chemicals or conduct other forest operations on your forest land you are required by law to notify the Oregon Department of Forestry at least 15 days in advance of beginning that work. Department of Forestry offices are listed below. Local Forest Practices Foresters are available to review your planned operation to assure it meets the requirements of the Oregon Forest Practices Act.

Astoria
Route 1, Box 950
Astoria, OR 97103
325-5451

Columbia City
405 E. Street
Columbia City, OR 97018
397-2636

Tillamook
4907 E. Third Street
Tillamook, OR 97141
842-2545

Forest Grove
801 Gales Creek Road
Forest Grove, OR 97116
357-2191

Molalla
14995 S. Hwy. 211
Molalla, OR 97038
829-2216

Sweet Home
4690 Highway 20
Sweet Home, OR 97386
367-6108

Philomath
Star Rt., Box 1B
Philomath, OR 97370
929-3266

Dallas
825 Oak Villa
Dallas, OR 97338
623-8146

Toledo
P.O. Box 160
Toledo, OR 97391
336-2273

Springfield
3150 E. Main St.
Springfield, OR 97477
726-3588

Veneta
P.O. box 157
Veneta, OR 97487
935-2283

Roseburg
1758 NE Airport Road
Roseburg, OR 97470
440-3412

Coos Bay
300 Fifth St.
Coos Bay, OR 97420
267-4136

Mehama
22965 N. Fork Rd. S.E.
Lyons, OR 97358
859-2151

Bridge
Bridge Rt., Box 57A
Myrtle Point, OR 97458
572-2796

Gold Beach
P.O. Box 603
Gold Beach, OR 97444
247-6565

Central Point
5286 Table Rock Rd.
Central Point, OR 97502
664-3328

Grants Pass
5375 Monument Dr.
Grants Pass, OR 97526
474-3152

Prineville
Route 2, Box 357
Prineville, OR 97754
447-5658

Klamath Falls
3400 Greensprings Drive
KlamathFalls, OR 97601
883-5681

Lakeview
2290 N. 4th St.
Lakeview, OR 97630
947-3311

La Grande
E. Adams at 20th
La Grande, OR 97850
963-3168

John Day
P.O. Box 546
John Day, OR 97845
575-1139

The Dalles
3701 W. 13th St.
The Dalles, OR 97058
296-4626

Fossil
Star Route
Fossil,OR 97830
763-2575

Pendleton
1055 Airport Rd.
Pendleton, OR 97801
276-3491

Wallowa
Rt. 1, Box 80
Wallowa, OR 97885
886-2881

AUTHORITY

The Oregon Forest Practices Act, ORS 527.610 to 527.730 and 527.990, is the statutory authority for the Forest Practices Program. The Forest Practices Act was legislated in 1971. The Act has been changed several times since. It was extensively changed in 1987.

In ORS 527.630, the Act vests in the Board of Forestry "... exclusive authority to develop and enforce state-wide and regional rules..." to carry out the policy and purposes of the Act. Further, in ORS 527.710, the Act describes the Board's duties:

> "In carrying out the purposes ... the board shall adopt, ... rules to be administered by the State Forester establishing minimum standards for forest practices in each region or subregion."

The Forest Practices Act's purposes, in 527.710, include providing for "...the overall maintenance of ...: Water resources, including but not limited to sources of domestic drinking water ..." The statute also assigns the Board to maintain and protect the water-related resources: a) fish and b) significant wetlands.

The Oregon Department of Environmental Quality and Oregon State Department of Forestry have joined in a Memorandum of Agreement for implementing water quality management. The Department of Environmental Quality is the lead agency for water quality in the state. The agencies agree that the Department of Forestry is the implementing agency for nonpoint source water pollution control on state and private forest lands. As a result,the Department of Forestry is a "designated management agency" (DMA).

GOAL

The water quality goal of the Forest Practices Program is to see that forest resources are managed to meet federal and state water quality requirements.

The program's water quality goal is set in the context of ORS 527.630, the policy section of the Forest Practices Act:

> "Forests make a vital contribution to Oregon by providing jobs, products, tax base and other social and economic benefits, by helping to maintain forest tree species, soil, air and water resources and by providing a habitat for wildlife and aquatic life. Therefore, it is declared to be the public policy of the State of Oregon to encourage

economically efficient forest practices that assure the continuous growing and harvesting of forest tree species and the maintenance of forest land for such purposes as the leading use on privately owned land, consistent with sound management of soil, air, water and fish and wildlife resources that assures the continuous benefits of those resources for future generations of Oregonians."

With this charter, the Board is further authorized by ORS 527.630(3) to develop rules and:

"... to coordinate with other state agencies and local governments which are concerned with the forest environment."

The Forest Practice Rules carry out the Forest Practices Act. ORS 527.710(2) describes water resource maintenance among the goals of these rules as follows:

"The rules shall assure the continuous growing and harvesting of forest tree species. Consistent with ORS 527.630, the rules shall provide for the overall maintenance of the following resources:

(a) Air quality;
(b) Water resources, including but not limited to sources of domestic drinking water;
(c) Soil productivity; and
(d) Fish and wildlife."

It is important to understand the meaning of this goal statement in the law. That meaning is clear in the legislative intent statement accompanying House Bill 3396, the 1987 change of the Forest Practices Act. It reads:

"The intent of this subsection is for the board's rules to generally maintain the listed widespread resources, as opposed to maintaining them without any change or disturbance. This recognizes that forest operations may adversely affect these resources but that the integrity of the resources overall should be maintained. It is also intended to continue the long-standing policy that forest landowners are not required to provide "drinkable" domestic water, but rather to provide "treatable" water consistent with the federal and state water quality laws."

So, forest operations may be expected to disturb temporarily water quality conditions. However, the Board will establish and enforce practices which will limit that disturbance. This concept is one of protecting all the forest resources from excessive disturbance. This protection does not mean total preservation of individual resources from disturbance at the expense of other resources.

A key element of the Board's responsibility is determining the acceptable limits of disturbance. This requires gathering technical information about the relationships of the forest resources. Technical understanding is followed by decisions on trade-offs among the resources. These decisions are reflected in the design of the Forest Practice Rules.

This must be done in consultation with other agencies and their related programs. For water quality, the Department of Environmental Quality is the primary coordinating agency. ORS 527.710 (4) states this responsibility:

> "Before adopting rules under subsection (1) of this section, the board shall consult with other agencies of the state or any of its political subdivisions that have functions with respect to the purposes specified in ORS 527.630 or programs affected by forest operations."

ORS 527.710(5) guides the Board in completing this responsibility to consult with other agencies:

> "In carrying out the provisions of subsection (4) of this section, the board shall consider and accommodate the rules and programs of other agencies to the extent deemed by the board to be appropriate and consistent with the purposes of ORS 527.630."

The result is management of all forest resources, including the water resource, in a considered, combined harmony.

OBJECTIVES

The water quality objectives of the plan are to continue managing and monitoring water quality and forest growth and harvest through the Forest Practices Program. This program's rules are designed to be best management practices for maintaining all beneficial uses of water. The rules are administered, interpreted, and modified as necessary to maintain beneficial uses of water during forest operations.

Effectiveness of the rules in maintaining water quality will be assessed through an in-stream water monitoring program. The rules' requirements will be monitored for compliance with water quality standards and total maximum daily loads. Water quality standards and total maximum daily loads are expected to reflect the needs of beneficial uses.

PROGRAM OPERATION

Forest Practices Program operation can be described in three parts. The first is program administration. It includes all the tasks, procedures, and policies necessary to administer the Forest Practice Rules. The second part is program review and reporting. It involves internal, interagency and public review and reporting on the Program. The third part is program adjustment. Adjustments may be educational programs, changes to rule interpretation, or administrative actions by the Department of Forestry. Adjustments may also be rule changes made by the Board of Forestry.

Program Administration

Forest Practice Rules as Best Management Practices

The Forest Practice Rules include specific practices and required results that maintain the forest soil, water, air, fish and wildlife during commercial forest operations. In 1979, the rules were certified as best management practices (BMPs).

The rules receive periodic interagency review of their effectiveness in meeting water quality standards. Based on these reviews, the rules are recertified as best management practices by the Department of Environmental Quality. The rules address the following activities on forest land:

*Chemical application, including pesticides and fertilizers;
*Handling of petroleum products;
*Disposing of slashing;
*Stream channel changes;

*Surface mining for road surfacing rock;
*Reforestation;
*Road location;
*Road design;
*Road construction;
*Road maintenance;
*Harvesting methods;
*Location of landings, skid trails, and fire trails;
*Drainage systems for landings, skid trails, and fire trails;
*Disposition of excess soil and woody debris;
*Riparian area management;
*Harvesting around streams;
*Operating around bogs, swamps, and other wetlands;
*Disposition of debris from land clearing;
*Construction of landing fills; and
*Harvesting on sites with high risk of mass soil movement.

Most of the activities associated with growing and harvesting trees may affect water quality. In summarized form, the rules specify the following practices to protect water quality:

* Keeping chemicals out of waters;
* Keeping soil in stable locations, and out of streams;
* Retaining near-natural water drainage paths around roads, landings, skid trails, and fire trails to maintain slope stability;
* Retaining ground cover to filter overland water flows;
* Protecting vegetation around stream channels;
* Protecting stream banks and beds from disturbance;
* Limiting soil disturbance;
* Stabilizing exposed soil surfaces by seeding, mulching, or riprapping;
* Falling trees away from streams;
* Maintaining a stable road surface;
* Keeping activities above high water marks of streams; and
* Keeping organic debris out of road and landing fills.

Program Organization

The Department of Forestry organization administers seven programs. One of those seven is the Forest Practices Program. Across the state, the Department has three administrative areas, the Northwest, Southern, and Eastern Oregon Areas. These areas are divided into thirteen districts. The districts maintain twenty-eight unit and satellite offices where Forest Practices Foresters (FPFs) are stationed. Supervision of the field foresters is provided by the area, district, and unit offices. The Northwest and Southern Oregon Area offices also provide geotechnical specialists to support the field Foresters.

Forty-seven Forest Practices Foresters monitor commercial forest operations on all non-federal forest lands outside municipal

urban growth boundaries. Each Forest Practices Forester is responsible for operations in an assigned inspection area.

Staff support of the Program is supplied by the Program Director and the three units of the Forest Practices staff at Department headquarters in Salem. The three units are the Administrative, Operations, and Resource Inventory Units. The Administrative Unit provides logistical and policy support for the Program. The Operations Unit provides geotechnical consultation, rule interpretation guidance, civil penalties administration, and program monitoring. The Resource Inventory Unit identifies sensitive resource sites, develops management strategies for these sites, and provides a biologist's technical consultation to the field.

Operation Planning

Planning to protect forest resources during operations varies in intensity according to the potential for effects on resources. Planning intensity ranges from getting basic information about the location and type of operation to specifying details of the operation in writing.

* Notification of Operation

The Department of Forestry formally learns of plans for a forest operation when a Notification of Operation form is submitted to one of its offices. Notification forms are supplied at any Department office. By law, the operator, landowner, or timber owner is required to make this notification. Certain minimum information is required, accompanied by additional information necessary to the Department.

The Department sends copies of notifications to other interested parties and agencies. Copies go to the operator, landowner, and timber owner regardless of which one submitted the notification. Copies are also sent to the Department of Revenue, the Accident Prevention Division, the county assessor, and the Department of Fish and Wildlife.

Anyone may purchase a subscription to receive copies of these notifications at the local Department office. The subscriber receives copies of all notifications for a desired geographic area. The Department will mail these copies to subscribers within three working days of receiving the notifications. Subscribers may use this information to contact the operator or landowner, or to submit comments to the Department about the planned operation. The Department evaluates and responds to any comments received.

* Operation Evaluation and Priority-Setting

A planned operation cannot begin for 15 calendar days following

notification. This waiting period is to allow the Forest Practices Forester to evaluate the site and the operation's potential for resource disturbance. The Forest Practices Forester uses this evaluation to set priorities for preventive efforts. The high and medium priority operations are most intensively planned and inspected.

Some operation activities automatically require the Forest Practices Forester's prior approval. Most of these involve operations that may affect water quality. Two examples are road construction near streams and harvesting on steep, unstable sites. Sometimes an alternative to a normally acceptable practice is best suited to a specific site. Such alternate practices always require prior approval. The Forest Practices Forester must determine that an alternate practice will provide equal or better resource protection than the normal practice.

* Pre-operation Inspections

Another operation planning tool is the pre-operation inspection. The Forest Practices Forester inspects the site before activity begins, often accompanied by the operator or landowner. Technical specialists from the program staff and agencies such as the Department of Fish and Wildlife may be consulted during the pre-operation inspection. On-site, the Forest Practices Forester determines the resource protection practices needed and sees that the operator understands them. To confirm this, the Forest Practices Forester may write out recommendations to the operator.

* Written Plans

This is the Program's most intensive prevention planning method. A written plan describes how necessary preventive practices will be conducted to protect water quality, soil, air, fish, or wildlife. Specialists from consulting agencies may be asked to review the written plan. The Forest Practices Forester may approve changes to the written plan if unexpected conditions develop during the operation.
Written plans are used to plan two kinds of operations. One involves operations required by rule to have prior approval from the Forest Practices Forester. For these operations, requiring a written plan is the Forest Practices Forester's option. The other kind involves certain operations that may affect rule-specified resources, such as major fish-bearing streams. The rules automatically require a written plan for operating on or near these sites. The written plan must be followed or enforcement action is taken.
<u>Preventive Inspections</u>

* In-progress and Post-operation Inspections

The next step after operation planning is be sure of proper

completion of the expected practices. Forest Practices Foresters do this by inspecting while the operations are active. They concentrate their inspections on the higher priority operations.

Where appropriate, the operator has latitude in choosing the equipment and methods of achieving required results. The Forest Practices Forester discusses planned methods with the operator to be sure the results will follow the rules.

Inspections made after the operator leaves the site focus on determining whether the site is in stable condition as required by the rules. For example, drainage patterns are to be returned to normal or designed to keep sediment-bearing runoff diverted into filtering vegetation and absorbent soils. The operator may be required to return to the site to correct deficiencies, if necessary.

Time spent and the results of inspections are recorded in a data base. The data shows that Forest Practices Foresters spend more time on a typical high priority operation than on a medium or low priority operation. Statewide, they conduct from 13,000 to over 15,000 inspections of operations each year.

* Operator Education and Recommendations

During inspections, Forest Practices Foresters check to see that required practices are being applied. They discuss upcoming aspects of the operation with the operator, reminding the operator of resource protection needed. These one-on-one inspections are the primary means of educating operators and landowners about required practices.

Where necessary, the Forest Practices Forester reinforces resource damage prevention by writing out recommendations. The Forester writes recommendations on the inspection report form, gets the operator's signature, and gives a copy to the operator.

* Written Statement of Unsatisfactory Condition

When an operator fails to follow with an applicable rule and necessary practice, without prior approval, it is termed an unsatisfactory condition. The Forest Practices Forester determines whether timely corrective action can be taken before resource damage is likely to occur. The Forest Practices Forester considers such factors as the risk of damage to protected resources and the time of year. When the Forest Practices Forester judges there is time to correct the unsatisfactory condition, the forester issues a written statement.

The written statement specifies corrective actions and a required completion date. Unsatisfactory conditions must be corrected by

the completion date or be considered violations. Enforcement action is taken on all violations.

Enforcement

* Citation

Enforcement action is taken whenever a violation occurs. A violation is a failure to follow a statute or rule. When a violation occurs, a citation is issued. The citation states the nature of the violation. An order to cease further violation accompanies each citation. This order requires the operator to stop the activity or the failure to act, that resulted in a violation.

* Order to Repair Damage or Correct Unsatisfactory Condition

When the damage or unsatisfactory condition resulting from a violation can be practically and economically repaired, an order is issued requiring repair. When issued, the repair order normally accompanies the citation. If necessary, a circuit court order can be sought to obtain compliance with a repair order. The Board of Forestry may authorize the Department to make repairs and then recover costs from the offending party.

* Civil Penalty

The State Forester may assess a civil penalty for any violation. The civil penalty is determined by a formula established by rule. The formula contains several factors including a base fine, a cooperation value, a prior knowledge or prior violations value, a damage to protected resources value, and a repairability/repairs-made value. Penalties may range up to $5,000 for each violation. The amounts of the fines are designed to make compliance more cost-effective than violation of the rules. Civil penalties are assessed for virtually all violations.

* Criminal Prosecution

Citations will be presented to the county District Attorney in two instances. The first is when the State Forester judges the operator acted knowingly or recklessly in violating the Forest Practices Rules. The second is when the State Forester judges the operator gained monetarily by violating the rules. If the monetary gain exceeds that amount recoverable by a civil penalty, criminal prosecution will be pursued.

Program Monitoring

* Program Implementation Monitoring

The major program monitoring effort has been ensuring implementation of the Forest Practice Rules. These rules are best management practices for maintaining water quality. Implementation is monitored by maintaining and analyzing a data base of program activities. Analysis of this program data leads to program management adjustments. Data is compiled in five general categories:

* Administration, including the budgeted fund levels, personnel levels, and forestry activities in the program.
* Coordination, involving consultations with other agencies on operations.
* Prevention activity, including such activities as notifications of operations, pre-operation inspections, on-site inspections, and written recommendations.
* Enforcement, including reforestation compliance, violations, court actions, civil penalties, and repairs.
* Complaint investigation, including sources, types, and disposition of complaints.

This data indicates whether the best management practices are being properly administered. If adequately-designed practices are properly administered, water quality is maintained as desired.

Monitoring program implementation also provides information for managing program resources. For example, much of budgeting is based on the workload. Part of program workload is reflected in the number of notifications of operations received each year, the number of high priority operations encountered, and the number of inspections needed.

Implementation monitoring is a good indication of proper program administration. However, it is an indirect indication of design adequacy of the management practices. To address adequacy of the practices, program effectiveness monitoring is being increased.

* Program Effectiveness Monitoring

The effectiveness of the rules is monitored by checking the condition of the resource for the desired results. In water quality, this means evaluation of the condition of the water itself and the beneficial uses. Program effectiveness monitoring may confirm existing practices' design and administration or indicate a need for program modifications.

Effectiveness of the water quality management element of the program is monitored in part by in-stream water sampling. Water sampling to monitor the effectiveness of the chemical application rules has been a program practice since 1979. The chemical rule adequacy monitoring program has shown the current rules to be

successful in protecting beneficial uses of water during chemical applications to forest lands.

A recent addition to in-stream monitoring is water sampling to determine compliance with total maximum daily loads (TMDLs). Achieving the load allocations of a TMDL should result in the desired water quality conditions and hence maintenance of the beneficial uses. Complying with TMDLs indicates best management practices are properly designed and adequately administered.

In-stream monitoring of water quality subject to nonpoint source pollution effects is not an easy task. Nonpoint source loadings, by definition, are dispersed and unpredictable. As a result, measuring them reliably requires many samples over extended periods. Sampling biological indicators in streams may facilitate rule effectiveness monitoring, if accurate indicators can be identified.

In addition, natural processes as well as man-caused activities contribute to nonpoint source loadings. It may take lengthy, detailed research to separate man-caused loadings from natural background loadings. Monitoring data, although less reliable than research data, will be used to the extent it gives reliable evidence of the source of excessive loadings.

When in-stream monitoring indicates non-compliance with a TMDL or water quality standard, more intensive investigations will be initiated by the Department. Funding in addition to normal program budgets will have to be obtained for these investigations. On the basis of investigations, program adjustments will be made. The Board of Forestry and the Department, in coordination with the Department of Environmental Quality, will determine the appropriate program adjustments.

Program Review and Reporting

Program review and reporting are systematic sources of information on how well the Forest Practices Program is achieving its goals and objectives. The State Forester and the Board of Forestry use these regularly to evaluate the Program. There are three regular reviews of the Program with accompanying reports. These reviews are being reinforced by a new internal effectiveness monitoring effort that encompasses all program elements, including water quality.

NPS Statewide Water Quality Management Plan Review

Under the provisions of the 1989 update of the NPS Statewide Water Quality Management Plan, each NPS program will be reviewed at regular intervals. The Forest Practices Program will be reviewed cooperatively by appropriate agencies including the

departments of Forestry and Environmental Quality. The results of the review will be reported to the agency directors, the Board of Forestry, the Environmental Quality Commission, and the public.

State Forester's Annual Review

Each year, the State Forester invites the directors of other state agencies to meet and review the Program. The purpose of the meetings is to discuss the adequacy of the Forest Practices Program to meet the agencies' related program needs. This annual review is required by forest practice rule OAR 629-24-104. An annual Department report summarizes the meetings for the Board of Forestry. The report includes any recommendations for adding, deleting, or amending rules.

Biennial Activity Summary

Each biennium, the Department produces a summary of program implementation monitoring statistics. It is a report of program activities accomplished by forest landowners and the Department. This summary is distributed to cooperating agencies and is available to the public. It provides much of the information included in an annual Program Accomplishment Report prepared for the Board of Forestry. This Program Accomplishment Report is required by Department internal directive. The report is available to anyone requesting to be on the Board's mailing list.

Forest Practices Monitoring Program

In 1987, the legislature funded a Program staff position to conduct monitoring of all elements of the Forest Practices Program. This internal monitoring program includes the water quality element of the program. Thus, in-stream water quality monitoring for compliance with total maximum daily loads is a segment of this monitoring program. The water quality-related data from this monitoring and review will be included in the NPS Statewide Plan review and report.

Program Adjustment

Forest Practices Program adjustment usually goes through three phases. The first is issue identification. The second is evaluation, during which facts are collected. The third is selection of appropriate action supported by the evaluation.

Issue Identification

Issues arise from internal review, interagency requests, public

input, state legislation, and federal legislation. The Forest Practices Program is dynamic and has been changed in response to issues from all these sources.

Issue Evaluation

Once an issue is raised, facts are needed to verify the issue and generate solutions. This evaluation is done by the program in one or more ways. Some issues only need to be evaluated by the program staff. Other issues require expertise available from other agencies, and technical committees are assembled to evaluate them. Evaluations are also conducted through public involvement processes. These may include assembling an advisory committee, referring the issue to the standing Regional Forest Practice Committees, or holding public hearings before the Board of Forestry. All these techniques have been used by the program.

Program Adjustment

A range of actions are available and have been used to address verified Program issues. In some cases, additional training for Program personnel is scheduled. In other situations, additional emphasis is focused on needed practices through landowner and operator education programs. Clarifying the interpretation of rules by the Department is sometimes enough. When practices need to be added, deleted or changed substantially, the Board of Forestry acts on the rules in the process specified for rulemaking in the Administrative Procedures Act. Circumstances determine the actions selected to adjust program results.

PUBLIC INVOLVEMENT

The Forest Practice Rules were developed in many public meetings of the Board of Forestry and its Regional Forest Practice Committees. This access to the program continues. The public can obtain information and raise issues during each of the Forest Practices Program's main operational processes: program administration; program review and reporting; and program adjustment.

In the program administration process, anyone can obtain access to notifications and written plans. The public has the opportunity to comment on how operations are planned and to appeal whether operations are in compliance with the Forest Practice Rules. Complaints about operations can be directed to the Department at any time and will receive prompt investigation and response.

Public involvement is provided in the NPS Statewide Water Quality

Management Plan. Information will be solicited from the public during the regular periodic program review that is part of the Plan. All program review and activity reports are available to the public for evaluation.

The public has access to the Department and Board of Forestry during the program adjustment process. The Department, the Board, and the Regional Forest Practice Committees all maintain public information mailing lists. Program issues can be brought to the Department or Board at any time. The Forest Practices Act authorizes the Board of Forestry to assemble advisory committees from the public to address specific issues. The Board's standing Regional Forest Practice Committees hold public meetings and accept testimony from the public when they are convened to evaluate program issues. The Board of Forestry also accepts public testimony at designated times during its meetings. When the Board authorizes the Department to undertake rulemaking, public hearings before hearings officers are conducted as standard procedure.

PROGRAM BUDGET

Funding of the Forest Practices Program is shared by the state's general fund and a dedicated portion of the Forest Products Harvest Tax. The general fund's share is 60 percent of funding, and the Harvest Tax provides the remaining 40 percent. The biennial budget for the program has grown from $750,000 in 1973-75 to $6,500,000 in 1989-91. The water quality element is such an integral part of the whole Program that it is difficult to precisely separate it from the total budget.

OREGON FOREST PRACTICES ACT

527.610 Short title. ORS 527.610 to 527.730 and 527.990 (1) are known as the Oregon Forest Practices Act. [Formerly 527.010]

527.620 Definitions for ORS 527.610 to 527.730. As used in ORS 527.610 to 527.730, 527.735, 527.990 and 527.992:

(1) "State Forester" means the State Forester or the duly authorized representative of the State Forester.

(2) "Operator" means any person, including a landowner or timber owner, who conducts an operation.

(3) "Board" means the State Board of Forestry.

(4) "Forest land" means land which is used for the growing and harvesting of forest tree species, regardless of how the land is zoned or taxed or how any state or local statutes, ordinances, rules or regulations are applied. Forest tree species does not include Christmas trees on land used solely for the production of cultured Christmas trees as defined in ORS 215.203 (3).

(5) "Forest practice" means any operation conducted on or pertaining to forest land, including but not limited to:

(a) Reforestation of forest land;

(b) Road construction and maintenance;

(c) Harvesting of forest tree species;

(d) Application of chemicals; and

(e) Disposal of slash.

(6) "Operation" means any commercial activity relating to the growing or harvesting of forest tree species.

(7) "Landowner" means any individual, combination of individuals, partnership, corporation or association of whatever nature that holds an ownership interest in forest land, including the state and any political subdivision thereof.

(8) "Timber owner" means any individual, combination of individuals, partnership, corporation or association of whatever nature, other than a landowner, that holds an ownership interest in any forest tree species on forest land.

(9) "Written plan" means a plan submitted by an operator, for written approval by the State Forester, which describes how the operation will be conducted, including the means to protect resource sites described in ORS 527.710 (3)(a), if applicable. [1971 c.316 §3; 1987 c.919 §9]

527.630 Policy. (1) Forests make a vital contribution to Oregon by providing jobs, products, tax base and other social and economic benefits, by helping to maintain forest tree species, soil, air and water resources and by providing a habitat for wildlife and aquatic life. Therefore, it is declared to be the public policy of the State of Oregon to encourage economically efficient forest practices that assure the continuous growing and harvesting of forest tree species and the maintenance of forest land for such purposes as the leading use on privately owned land, consistent with sound management of soil, air, water and fish and wildlife resources that assures the continuous benefits of those resources for future generations of Oregonians.

(2) It is recognized that operations on forest land are already subject to other laws and to regulations of other agencies which deal primarily with consequences of such operations rather than the manner in which operations are conducted. It is further recognized that it is essential to avoid uncertainty and confusion in enforcement and implementation of such laws and regulations and in planning and carrying out operations on forest lands.

(3) To encourage forest practices implementing the policy of ORS 527.610 to 527.730 and 527.990, it is declared to be in the public interest to vest in the board exclusive authority to develop and enforce state-wide and regional rules pursuant to ORS 527.710 and to coordinate with other state agencies and local governments which are concerned with the forest environment. [1971 c.316 §4; 1987 c.919 §10]

527.640 Forest regions. The board shall establish a number of forest regions, but not less than three, necessary to achieve the purposes described in ORS 527.630. [1971 c.316 §6]

527.650 Forest practice committees; members; qualifications; appointment; terms. (1) The board shall establish a forest practice committee for each forest region established pursuant to ORS 527.640. Each such committee shall consist of nine members, a majority of whom must reside in the region. Members of each committee shall be qualified by education or experience in natural resource management and not less than two-thirds of the members of each committee shall be private landowners, private timber owners or authorized representatives of such landowners or timber owners who regularly engage in operations.

(2) Members of forest practice committees shall be appointed by the board for three-year terms. Appointments under this subsection shall

be made by the board within 60 days after July 1, 1972. If there is a vacancy for any cause, the board shall make an appointment to become immediately effective for the unexpired term. Each such committee shall select a chairman from among its members. A staff member of the State Forestry Department shall be designated by the State Forester to serve as the secretary, without voting power, for each such committee.

(3) Notwithstanding the terms of the committee members specified by subsection (2) of this section, of the members first appointed to each such committee:

(a) Three shall serve for a term of one year.

(b) Three shall serve for a term of two years.

(c) Three shall serve for a term of three years. [1971 c.316 §7]

527.660 Committees to review rules. Each forest practice committee shall review proposed forest practice rules in order to assist the board in developing rules appropriate to the forest conditions within its region. Committee recommendations are advisory only and the committees need not be consulted prior to the adoption of any forest practice rule. [1971 c.316 §8; 1987 c.919 §11]

527.665 Notice of reforestation requirements to be given in forest land transfers; effect of failure to notify; damages. (1) In any transaction for the conveyance of an ownership interest in forest land, the transferor must provide to the transferee, prior to the date of execution of the conveyance, written notice of any reforestation requirements imposed upon the land pursuant to the Oregon Forest Practices Act.

(2) The failure of the transferor to comply with subsection (1) of this section does not invalidate an instrument of conveyance executed in the transaction. However, for any such failure the transferee may bring against the transferor an appropriate action to recover the costs of complying with the reforestation requirements. If the transferee prevails in any such action, the transferee is entitled to costs and disbursements and reasonable attorney fees at trial and on appeal. [1983 c.759 §4]

527.670 Commencement of operations; when notice and written plan required; appeal of plan. (1) The board shall designate the types of operations for which notice shall be required under this section.

(2) The board shall determine by rule what types of operations require a written plan to be approved by the State Forester.

(3) The board's determination under subsection (2) of this section shall require a written plan for operations within:

(a) One hundred feet of a Class 1 stream, unless the board, by rule, provides that a written plan is not required because there is no reasonable likelihood that such operations would damage a resource described in ORS 527.710 (2), within the riparian management area; or

(b) Three hundred feet of a resource site inventoried pursuant to ORS 527.710 (3)(a).

(4) The distances set forth in paragraphs (a) and (b) of subsection (3) of this section are solely for the purpose of defining an area within which a hearing may be requested under ORS 527.700 and not the area to be protected by the board's rules adopted pursuant to ORS 527.710 (3)(c).

(5) For the purpose of determining the distances set forth in paragraphs (a) and (b) of subsection (3) of this section "site" means the specific resource site and not any additional buffer area.

(6) An operator, timber owner or landowner, before commencing an operation, shall notify the State Forester. The notification shall be on forms provided by the State Forester and shall include the name and address of the operator, timber owner and landowner, the legal description of the operating area, and any other information considered by the State Forester to be necessary for the administration of the rules promulgated by the board pursuant to ORS 527.710. Promptly upon receipt of such notice, the State Forester shall send a copy of the notice to whichever of the operator, timber owner or landowner did not submit the notification. The State Forester shall also send to the operator, the timber owner and the landowner a copy of the rules applicable to the proposed operation.

(7) An operator, timber owner or landowner, whichever filed the original notification, shall notify the State Forester of any subsequent change in the information contained in the notification.

(8) Within three working days of receipt of a notice or a written plan filed under subsection (6) or (7) of this section, the State Forester shall send a copy of the notice or written plan to the Department of Revenue, the county assessor for the county in which the operation is located and persons who requested of the State Forester in writing that they be sent copies of notice and written plan and who have paid any applicable fee established by the State Forester for such service. The State Forester may establish a fee for send-

ing copies of notices and written plans under this subsection not to exceed the actual and reasonable costs.

(9) Persons may submit written comments pertaining to the operation to the State Forester within 14 calendar days of the date the notice or written plan was filed with the State Forester under subsection (2), (6) or (7) of this section. Notwithstanding the provisions of this subsection, the State Forester may waive any waiting period for operations not requiring a written plan under subsection (3) of this section.

(10) Whenever an operator, timber owner or landowner is required to submit a written plan of operations to the State Forester under subsection (3) of this section, the State Forester shall not approve any such written plan until 14 calendar days following the date the written plan was filed with the State Forester. An operation may commence upon approval of the written plan.

(11)(a) The State Forester shall issue a decision on a written plan within three working days after the end of the 14-day period described in subsection (10) of this section.

(b) If the State Forester fails to issue a decision within five working days after the end of the 14-day period described in subsection (10) of this section, the written plan shall be deemed approved and the operation may be commenced.

(12) When the operation is required to have a written plan under subsection (3) of this section and comments have been timely filed under subsection (9) of this section pertaining to the operation requiring a written plan, the State Forester shall:

(a) Send a copy of the approved written plan to persons who submitted timely written comments under subsection (9) of this section pertaining to the operation; and

(b) Send to the operator, timber owner and landowner a copy of the approved written plan and copies of all timely comments submitted under subsection (9) of this section. [1971 c.316 §9; 1987 c.919 §12]

527.680 Violation by operator; citation; order to cease violation; order to repair damage; temporary order where violation continuing; service on operator. (1) Whenever the State Forester determines that an operator has committed a violation under ORS 527.990 (1), the State Forester may issue and serve a citation upon the operator or authorized representative. The State Forester shall cause a copy of the citation to be mailed or delivered to the timber owner and landowner. Whenever the State Forester determines that the landowner has failed to comply with the reforestation rules under ORS 527.710, the State Forester may issue and serve a citation upon the landowner or authorized representative. Each citation issued under this section shall specify the nature of the violation charged and any damage or unsatisfactory condition that has occurred as the result of such violation.

(2) Whenever a citation is served pursuant to subsection (1) of this section, the State Forester:

(a) Shall issue and serve upon the landowner or operator or authorized representative an order directing that the landowner or operator cease further violation. If the order is served upon an operator, the State Forester shall cause a copy of such order to be mailed or delivered to the timber owner and landowner; and

(b) May issue and serve an order upon the landowner or operator and shall cause a copy of such order to be mailed or delivered to the timber owner and landowner, directing the landowner or operator, where practical and economically feasible, to make reasonable efforts to repair the damage or correct the unsatisfactory condition specified in the citation within a period specified by the State Forester.

(3) In the event the order issued under paragraph (a) of subsection (2) of this section has not been complied with, and the violation specified in such order is resulting in continuing damage, the State Forester by temporary order, may direct the landowner or operator to cease any further activity in that portion of the operation that is resulting in such damage. Such temporary order shall be in effect until the date of the expiration of the period as prescribed in subsection (4) of this section or until the date that the violation ceases, whichever date occurs first.

(4) A temporary order issued under subsection (3) of this section shall be served upon the landowner or operator or authorized representative, and the State Forester shall cause a copy of such temporary order to be mailed or delivered to the operator, timber owner and landowner. If requested by the operator, timber owner or landowner, the board, following the appeal procedures of ORS 527.700, must hold a hearing on the temporary order within five working days after the receipt by the board of the request. A temporary order issued and served pursuant to subsection (3) of this section shall remain in effect not more than five working days after such hearing unless the order is sooner affirmed, modified or revoked by the board. [1971 c.316 §10; 1983 c.759 §1]

527.683 Notice of violation. (1) No civil penalty prescribed in ORS 527.992 shall be

imposed until the person incurring the penalty has received notice in writing from the State Forester specifying the violation. Such notice is in addition to the notice required in ORS 527.687.

(2) The citation issued pursuant to ORS 527.680 (1) and the order issued pursuant to ORS 527.680 (2)(b) shall each constitute the notice required by subsection (1) of this section. [1987 c.919 §25]

Note: 527.683 to 527.687 were enacted into law by the Legislative Assembly and added to and made a part of chapter 527 but were not added to or made a part of 527.610 to 527.730 by legislative action. See Preface to Oregon Revised Statutes for further explanation.

527.685 Civil penalty considerations. (1) The board shall by rule establish the amount of civil penalty that may be imposed for a particular violation. No civil penalty shall exceed $5,000 per violation.

(2) In imposing a penalty authorized by this section, the State Forester may consider the following factors:

(a) The past history of the person incurring a penalty in taking all feasible steps or procedures necessary or appropriate to correct any violation.

(b) Any prior violations of statutes, rules, orders and permits pertaining to the Oregon Forest Practices Act.

(c) The gravity and magnitude of the violation.

(d) Whether the violation was repeated or continuous.

(e) Whether the cause of the violation was an unavoidable accident, negligence or an intentional act.

(f) The size and type of ownership of the operation.

(g) Any relevant rule of the board.

(h) The violator's cooperativeness and efforts to correct the violation.

(3) The penalty imposed under this section may be remitted or mitigated upon such terms and conditions as the board determines to be proper and consistent with the public benefit. Upon the request of the person incurring the penalty, the board shall consider evidence of the economic and financial condition of the person in determining whether a penalty shall be remitted or mitigated.

(4) The board, by rule, may delegate to the State Forester upon such conditions as deemed necessary, all or part of the authority of the board provided in subsection (3) of this section to assess, remit or mitigate civil penalties. [1987 c.919 §26]

Note: See note under 527.683.

527.687 Notice of civil penalty; hearing; civil penalty as judgment. (1) Subject to the notice provisions of ORS 527.683, any civil penalty imposed under ORS 527.992 shall become due and payable when the person incurring the penalty receives a notice of the penalty in writing from the State Forester. The notice referred to in this section shall be served personally or sent by registered or certified mail and shall include:

(a) A reference to the particular sections of the statute, rule, standard, order or permit involved;

(b) A short and plain statement of the matters asserted or charged;

(c) A statement of the amount of the penalty or penalties imposed; and

(d) A statement of the party's right to request a hearing.

(2) The person to whom the notice is addressed shall have 20 days from the date of service or mailing of the notice in which to make written application for a hearing before the board, after which time the notice becomes a final order. Such a hearing shall be held at the next regularly scheduled meeting of the board as provided in ORS 526.016 (3).

(3) In no case shall a hearing be held less than 45 days from the date of mailing of the notice of penalty to allow the party to prepare testimony.

(4) All hearings shall be conducted pursuant to the applicable provisions of ORS 183.310 to 183.550.

(5) The board, by rule, may delegate to a hearings officer appointed by the State Forester, upon such conditions as deemed necessary, all or part of the authority to conduct hearings required by subsection (2) of this section.

(6) Unless the amount of penalty is paid within 10 days after the order becomes final, the order shall constitute a judgment and may be recorded with the county clerk in any county of this state. The clerk shall record the name of the person incurring the penalty and the amount of the penalty in the County Clerk Lien Record. The penalty provided in the order so recorded becomes a lien upon the title to any interest in real property situated in the county and owned by the person against whom the order is entered. Execution may be issued upon the order in the same manner as execution upon a judgment of a court record.

(7) All civil penalties recovered under ORS 197.180, 197.270, 197.825, 215.050, 477.090, 477.440, 477.455, 477.460, 526.009, 526.016, 527.620, 527.630, 527.660, 527.670, 527.683 to 527.687, 527.700 to 527.722, 527.735 and 527.992 shall be paid to the General Fund. [1987 c.919 §27]

Note: See note under 523.683.

527.690 Failure to comply with order to repair damage; estimate of cost of repair; notification; board may order repair completed; cost of repair as lien upon operator, timber owner or landowner. (1) In the event an order issued pursuant to ORS 527.680 (2)(b) directs the repair of damage or correction of an unsatisfactory condition, and if the operator or landowner does not comply with the order within the period specified in such order and the order has not been appealed to the board within 30 days, the State Forester based upon a determination by the forester of what action will best carry out the purposes of ORS 527.630 shall:

(a) Maintain an action in the Circuit Court for Marion County or the circuit court for the county in which the violation occurred for an order requiring the landowner or operator to comply with the terms of the forester's order or to restrain violations thereof; or

(b) Estimate the cost to repair the damage or the unsatisfactory condition as directed by the order and shall notify the operator, timber owner and landowner in writing of the amount of the estimate. Upon agreement of the operator, timber owner or the landowner to pay the cost, the State Forester may proceed to repair the damage or the unsatisfactory condition. In the event approval of the expenditure is not obtained within 30 days after notification to the operator, timber owner and landowner under this section, the State Forester shall present to the board the alleged violation, the estimate of the expenditure to repair the damage or unsatisfactory condition and the justification for the expenditure.

(2) The board shall review the matter presented to it pursuant to subsection (1) of this section and shall determine whether to authorize the State Forester to proceed to repair the damage or correct the unsatisfactory condition and the amount authorized for expenditure. The board shall afford the operator, timber owner or landowner the opportunity to appear before the board for the purpose of presenting facts pertaining to the alleged violation and the proposed expenditure.

(3) If the board authorizes the State Forester to repair the damage or correct the unsatisfactory condition, the State Forester shall proceed, either with forces of the State Forester or by contract, to repair the damage or correct the unsatisfactory condition. The State Forester shall keep a complete account of direct expenditures incurred, and upon completion of the work, shall prepare an itemized statement thereof and shall deliver a copy to the operator, timber owner and landowner. In no event shall the expenditures exceed the amount authorized by subsection (2) of this section. An itemized statement of the direct expenditures incurred by the State Forester, certified by the State Forester, shall be accepted as prima facie evidence of such expenditures in any proceeding authorized by this section.

(4) The expenditures in cases covered by this section shall constitute a general lien upon the real and personal property of the operator, timber owner and landowner within the county in which the damage occurred. A written notice of the lien, containing a statement of the demand, the description of the property upon which the expenditures were made and the name of the parties against whom the lien attaches, shall be certified under oath by the State Forester and filed in the office of the county clerk of the county or counties in which the expenditures were made within six months after the date of delivery of the itemized statement referred to in subsection (3) of this section, and may be foreclosed in the manner provided in ORS chapter 88.

(5) Liens provided for in this section shall cease to exist unless suit for foreclosure is instituted within six months from the date of filing under subsection (4) of this section. [1971 c.316 §11; 1981 c.757 §10; 1983 c.28 §1]

527.700 Appeals from orders of State Forester; hearings procedure; stay of operation. (1) Any operator, timber owner or landowner affected by any finding or order of the State Forester issued under ORS 527.610 to 527.730 may request a hearing within 30 days after issuance of the order. The hearing shall be commenced within 14 days after receipt of the request for hearing and a final order shall be issued within 28 days of the request for the hearing unless all parties agree to an extension of the time limit.

(2) The board may delegate to a hearings officer the authority to hear and issue proposed or final orders on matters under this section. Hearings provided under this section shall be conducted as contested case hearings under ORS 183.413 to 183.470. The board may establish such rules as it deems appropriate to carry out the provisions of this section. Appeals from final hearing orders under this section shall be provided in ORS 183.482.

(3) Any person adversely affected or aggrieved by an operation described in subsection (4) of this section may file a written request to the board for a hearing if the person submitted written comments pertaining to the operation within the time limits established under ORS 527.670 (9).

(4) A request for hearing may be filed under subsection (3) of this section only if a written plan was required pursuant to ORS 527.670 (3).

(5) A request for hearing filed under subsection (3) of this section shall be filed within 14 calendar days of the date the written plan was approved. Copies of the complete request shall be served, within the 14-day period, on the operator, timber owner and landowner. The request shall include:

(a) A copy of the written plan on which the person is requesting a hearing;

(b) A copy of the comments pertaining to the operation that were filed by the person requesting the hearing;

(c) A statement that shows the person is adversely affected or aggrieved by the operation and has an interest which is addressed by the Oregon Forest Practices Act or rules adopted thereunder; and

(d) A statement of facts that establishes that the operation is of the type described in ORS 527.670 (3).

(6) If the board finds that the person making the request meets the requirement of paragraph (c) of subsection (5) of this section, the board shall set the matter for hearing within 14 calendar days after receipt of the request for hearing. The operator, timber owner and landowner shall be allowable parties to the hearing. The person requesting the hearing may raise, in the hearing, only those issues that the person raised in written comments filed under ORS 527.670 (9) relating to conformity with the rules of the board. A final order shall be issued rescinding, affirming or modifying the written plan within 28 days after the request for hearing was filed, unless all parties agree to an extension of the time limit.

(7) The board may award reasonable attorney fees and expenses to each of the prevailing parties against any other party who the board finds presented a position without probable cause to believe the position was well-founded, or made a request primarily for a purpose other than to secure appropriate action by the board.

(8)(a) Upon the written request of a person requesting a hearing under subsection (3) of this section, a stay of the operation subject to the hearing may be granted upon a showing that:

(A) Commencement or continuation of the operation will constitute a violation of the rules of the board;

(B) The person requesting the stay will suffer irreparable injury if the stay is not granted; and

(C) The requirements of subsections (3), (4) and (5) of this section are met.

(b) If the board grants the stay, it shall require the person requesting the stay to give an undertaking which may be in the amount of the damages potentially resulting from the stay, but in any event shall not be less than $15,000. The board may impose other reasonable requirements pertaining to the grant of the stay. The board shall limit the effect of the stay to the specific geographic area or elements of the operation for which the person requesting the stay has demonstrated a violation of the rules and irreparable injury under paragraph (a) of this subsection.

(c) If the board affirms the written plan pertaining to the operation for which the stay was granted, the board shall award reasonable attorney fees and actual damages in favor of each of the prevailing parties, to the extent incurred by each, against the person requesting the stay.

(9) If the board disapproves or changes the written plan as submitted and approved by the State Forester pertaining to any operation, the board shall award reasonable attorney fees and costs against the state in favor of each of the prevailing parties.

(10) As used in this section, "person" means any individual, partnership, corporation, association, governmental subdivision or public or private organization of any character. [Formerly 527.240; 1983 c.28 §2; 1987 c.919 §13]

527.710 Duties and powers of board; rules to protect resources; inventory for resource protection; consultation with other agencies required. (1) In carrying out the purposes of ORS 527.610 to 527.730 and 527.990 (1), the board shall adopt, in accordance with applicable provisions of ORS 183.310 to 183.550, rules to be administered by the State Forester establishing minimum standards for forest practices in each region or subregion.

(2) The rules shall assure the continuous growing and harvesting of forest tree species. Consistent with ORS 527.630, the rules shall provide for the overall maintenance of the following resources:

(a) Air quality;

(b) Water resources, including but not limited to sources of domestic drinking water;

(c) Soil productivity; and

(d) Fish and wildlife.

(3)(a) In addition to its rulemaking responsibilities under subsection (2) of this section, the board shall collect and analyze the best available information and establish inventories of the following resource sites needing protection:

(A) Threatened and endangered fish and wildlife species identified on lists that are adopted, by rule, by the State Fish and Wildlife Commission or are federally listed under the Endangered Species Act of 1973 as amended;

(B) Sensitive bird nesting, roosting and watering sites;

(C) Biological sites that are ecologically and scientifically significant; and

(D) Significant wetlands.

(b) The board shall determine whether forest practices would conflict with resource sites in the inventories required by paragraph (a) of this subsection. If the board determines that one or more forest practices would conflict with resource sites in the inventory, the board shall consider the consequences of the conflicting uses and determine appropriate levels of protection.

(c) Based upon the analysis required by paragraph (b) of this subsection, and consistent with the policies of ORS 527.630, the board shall adopt rules appropriate to protect resource sites in the inventories required by paragraph (a) of this subsection.

(4) Before adopting rules under subsection (1) of this section, the board shall consult with other agencies of this state or any of its political subdivisions that have functions with respect to the purposes specified in ORS 527.630 or programs affected by forest operations. Agencies and programs subject to consultation under this subsection include, but are not limited to:

(a) Air and water pollution programs administered by the Department of Environmental Quality under ORS 468.700 to 468.778, 468.780, 468.815 and 477.515 to 477.532;

(b) Mining operation programs administered by the Department of Geology and Mineral Industries under ORS 516.010 to 516.130 and 517.010 to 517.990;

(c) Game fish and wildlife, commercial fishing, licensing, wildlife and bird refuge and fish habitat improvement tax incentive programs administered by the State Department of Fish and Wildlife under ORS 272.060, 316.084, 501.005 to 501.540 and ORS chapters 496, 498, 506 and 509;

(d) Park land, arboretum and botanical gardens, Crabtree Valley State Park, Willamette River Greenway, scenic waterway and recreation trail programs administered by the Parks and Recreation Division under ORS 358.475 to 358.565, 390.110, 390.210, 390.215, 390.310 to 390.368, 390.805 to 390.925 and 390.950 to 390.990;

(e) The programs administered by the Columbia River Gorge Commission under Public Law 99-663 and section ______, chapter 14, Oregon Laws 1987 (Enrolled House Bill 2472) and section ______, chapter 856, Oregon Laws 1987 (Enrolled House Bill 3391);

(f) Removal and fill, natural heritage conservation and natural heritage conservation tax incentive programs administered by the State Land Board and the Division of State Lands under ORS 273.553 to 273.591, 307.550, 307.560 and 541.605 to 541.990;

(g) Federal Safe Drinking Water Act programs administered by the Health Division under ORS 448.273 to 448.990;

(h) Natural heritage conservation programs administered by the Natural Heritage Advisory Council under ORS 273.553 to 273.591, 307.550 and 307.560;

(i) Open space land tax incentive programs administered by cities and counties under ORS 308.740 to 308.790; and

(j) Water resources programs administered by the Water Resources Department under ORS 536.220 to 536.540.

(5) In carrying out the provisions of subsection (4) of this section, the board shall consider and accommodate the rules and programs of other agencies to the extent deemed by the board to be appropriate and consistent with the purposes of ORS 527.630.

(6) The board shall adopt rules to meet the purposes of another agency's regulatory program where it is the intent of the board to administer the other agency's program on forest land and where the other agency concurs by rule. An operation performed in compliance with the board's rules shall be deemed to comply with the other agency's program.

(7) The board may enter into cooperative agreements or contracts necessary in carrying out the purposes specified in ORS 527.630. [1971 c.316 §5; 1987 c.919 §14a]

Note: Section 32a, chapter 919, Oregon Laws 1987, provides:

Sec. 32a. (1) No later than November 1, 1988, the State Board of Forestry shall prepare and submit to the

President of the Senate, the Speaker of the House of Representatives and the Joint Legislative Committee on Land Use a report on:

(a) The board's progress toward completion of the requirements of ORS 527.710; and

(b) Enforcement of the provisions of ORS 527.610 to 527.730 including but not limited to:

(A) The number of violations for which a citation was issued;

(B) The number and amount of civil penalties imposed;

(C) The reasons for the imposition of the penalty and the amount of the penalty in each particular case;

(D) The number of instances in which the State Forester requested action of the district attorney;

(E) The number of cases accepted by the district attorney;

(F) The disposition of the cases accepted by the district attorney; and

(G) The average caseload for each forest practice officer.

(2) Not later than November 1, 1990, the board shall submit to the President of the Senate, the Speaker of the House of Representatives and the Joint Legislative Committee on Land Use a final report of completion of the requirements set forth in ORS 527.710. [1987 c.919 §32a]

527.715 Rules to establish standards and procedures. The board shall establish, by rule, the standards and procedures to implement the provisions of ORS 197.180, 197.270, 197.825, 215.050, 477.090, 477.440, 477.455, 477.460, 526.009, 526.016, 527.620, 527.630, 527.660, 527.670, 527.683 to 527.687, 527.700 to 527.722, 527.735 and 527.992. [1987 c.919 §28]

Note: 527.715 was enacted into law by the Legislative Assembly and was added to and made a part of chapter 527 but was not added to or made a part of 527.610 to 527.730 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

527.720 [1971 c.316 §5a; repealed by 1987 c.919 §15 (527.721 enacted in lieu of 527.720)]

527.721 Coordination with state and local agencies for review and comment on operations. By rule or by cooperative agreement entered into following an opportunity for public comment before the board, the board shall provide for coordination with appropriate state and local agencies regarding procedures to be followed for review and comment on individual forest operations. [1987 c.919 §16 (enacted in lieu of 527.720)]

527.722 Restrictions on local government adoption of rules regulating forest operations; exceptions. (1) Notwithstanding any provisions of ORS chapters 197, 215 and 227, and except as provided in subsections (2) and (3) of this section, no unit of local government shall adopt any rules, regulations or ordinances or take any other actions that prohibit, limit, regulate, subject to approval or in any other way affect forest practices on forest lands located outside of an acknowledged urban growth boundary.

(2) Nothing in subsection (1) of this section prohibits local governments from adopting and applying a comprehensive plan or land use regulations to forest land to allow, prohibit or regulate:

(a) The establishment or alteration of structures other than temporary onsite structures which are auxiliary to and used during the term of a particular forest operation;

(b) The siting or alteration of dwellings;

(c) Physical alterations of the land, including but not limited to those made for purposes of exploration, mining, commercial gravel extraction and processing, landfills, dams, reservoirs, road construction or recreational facilities, when such uses are not auxiliary to forest practices;

(d) Partitions and subdivisions of the land; or

(e) Nothing in this subsection shall prohibit a local government from enforcing the provisions of ORS 456.750 to 456.910 and the rules adopted thereunder.

(3) Counties can prohibit forest practices on land for which an acknowledged exception to an agricultural or forest land goal has been taken. [1979 c.400 §2; 1987 c.919 §17]

527.724 Forest operations to comply with air and water pollution control rules and standards; effect of violation. Any forest operations on forest lands within this state shall be conducted in full compliance with the rules and standards of the Environmental Quality Commission relating to air and water pollution control. In addition to all other remedies provided by law, any violation of those rules or standards shall be subject to all remedies and sanctions available under statute or rule to the Department of Environmental Quality or the Environmental Quality Commission. [1979 c.400 §3]

527.725 [1975 c.185 §5; repealed by 1975 c.185 §6]

527.726 [1979 c.400 §4; 1983 c.827 §55; repealed by 1987 c.919 §29]

527.730 Conversion of forest land to other uses. Nothing in ORS 527.610 to 527.730 and 527.990 (1) shall prevent the conversion of forest land to any other use. [1971 c.316 §12]

527.735 Forest Trust Land Advisory Committee; membership; terms; advisory function. (1) A Forest Trust Land Advisory Committee is established to be composed of three members, appointed by the Governor, who are elected officials of county governing bodies from

counties in which lands subject to ORS 530.010 to 530.170 are located.

(2) The term of office of a member is four years. Appointments may be made from a list submitted by the Association of Oregon Counties.

(3) Members may receive reimbursement for actual and reasonable traveling and other expenses necessarily incurred in performing official duties. This reimbursement shall not be deemed lucrative.

(4) The committee shall advise the board and the State Forester on the management of lands subject to the provisions of ORS 530.010 to 530.170 and on other matters in which counties may have a responsibility pertaining to forest land. The board and the State Forester shall consult with the committee with regard to such matters. [1987 c.919 §6a]

Note: 527.735 was enacted into law by the Legislative Assembly and was added to and made a part of chapter 527 but was not added to or made a part of 527.610 to 527.730 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

FOREST PRACTICE AS NUISANCE

527.800 Definitions for ORS 527.805 and 527.810. As used in ORS 527.800 to 527.810:

(1) "Forest land" means land that is:

(a) Assessed for taxation under ORS 321.352, 321.705 to 321.765 or 321.805 to 321.825; or

(b) Classified pursuant to land use laws in a zone for which one of the primary uses is the production of forest products for commercial purposes.

(2) "Forest practice" includes, but is not limited to, site preparation, timber harvest, slash disposal, road construction and maintenance, tree planting, precommercial thinning, release, fertilization, animal damage control and insect and disease control. [1985 c.347 §1]

527.805 Certain forest practices not private or public nuisance; effect on local ordinances; exceptions. (1) A forest practice conducted on forest land in accordance with ORS chapters 477 and 527 shall not be declared or held to be a private or public nuisance.

(2) Any local government ordinance adopted after September 20, 1985, that declares a forest practice to be a nuisance or that provides for abatement of the forest practice as a nuisance is invalid with respect to that forest practice.

(3) Subsections (1) and (2) of this section do not apply:

(a) When a nuisance results from the negligent conduct of a forest practice;

(b) To the growing, raising, harvesting or transporting of infested, infected or diseased forest products that are declared a nuisance by statute or pursuant to rules adopted by the State Forestry Department;

(c) City ordinances adopted in accordance with ORS 527.722; or

(d) To any forest practice conducted in violation of a solar energy easement that complies with ORS 105.880 to 105.890. [1985 c.347 §2]

527.810 Effect on other remedies and laws. (1) The provisions of ORS 527.805 shall not impair the right of any person or governmental body to pursue any remedy authorized by statute, ordinance or administrative rule that:

(a) Concerns matters other than a nuisance;

(b) Does not expressly purport to prohibit or regulate forest practices as a nuisance; or

(c) Prohibits or regulates the use or physical condition of facilities that adversely affect public health or safety, regardless of whether it purports to prohibit or regulate a situation as a nuisance.

(2) The provisions of ORS 527.805 do not supersede:

(a) Any existing or future statute.

(b) Any ordinance or administrative rule that names specific activities or occurrences as nuisances and that was in effect on September 20, 1985. [1985 c.347 §3]

PENALTIES

527.990 Criminal penalties. (1) Violation of ORS 527.670 or any rule promulgated under ORS 527.710 is punishable, upon conviction, as a misdemeanor. Each day of operation in violation of an order issued under ORS 527.680 (3) shall be deemed to be a separate offense.

(2) Violation of ORS 527.260 (1) is a misdemeanor. Violation of ORS 527.260 is punishable, upon conviction, by a fine of not more than $250 or by imprisonment in the county jail for not more than 60 days, or both.

(3) Violation of ORS 527.540 is punishable, upon conviction, by a fine of not more than $100 or by imprisonment in the county jail for not more than 30 days, or both. [Amended by 1953 c.262 §2; 1971 c.316 §14; 1987 c.919 §32]

527.992 Civil penalties. (1) In addition to any other penalty provided by law, any person who fails to comply with any of the following may

incur a civil penalty in the amount adopted under ORS 527.685:

(a) The requirements of ORS 527.670.

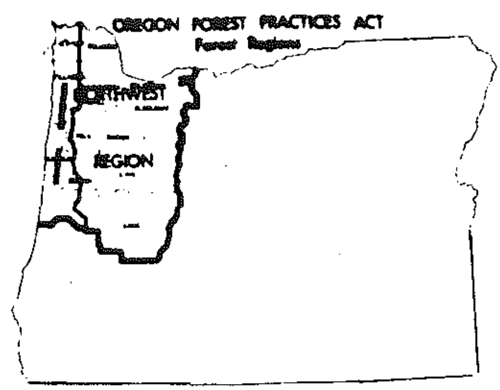
(b) The terms or conditions of any order of the State Forester issued in accordance with ORS 527.680.

(c) Any rule or standard of the board adopted or issued pursuant to ORS 527.710.

(d) Any term or condition of a written waiver, or prior approval granted by, or of a written plan of operation accepted by the State Forester pursuant to the rules adopted under ORS 527.710.

(2) Imposition or payment of a civil penalty under this section shall not be a bar to actions alleging trespass under ORS 105.810, nor to actions under ORS 161.635 or 161.655 seeking to recover an amount based on the gain resulting from individual or corporate criminal violations. [1987 c.919 §24]

Note: 527.992 was enacted into law by the Legislative Assembly, was added to and made a part of ORS chapter 527 but was not added to or made a part of any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.



FOREST PRACTICE RULES

NORTHWEST OREGON REGION   EFFECTIVE AUGUST 1, 1988, EXCEPT AS NOTED BELOW

The Oregon Forest Practices Act provides for a set of rules establishing MINIMUM STANDARDS which encourage and enhance the growing and harvesting of trees. At the same time, the act considers and protects other environmental resources - air, water, soil, and wildlife.

The following rules have been promulgated to achieve the purpose of the Forest Practices Act in Northwestern Oregon. The rules are arranged in eight categories including chemicals, slash, reforestation, road construction and maintenance, harvesting, civil penalties, notification of and access to notification of operations, and Regional Forest Practice Committee responsibilities.

These pages contain the Forest Practice Rules for Northwestern Oregon. For a complete listing of statewide rules, refer to the Oregon Forest Practice Rules and Statutes. Statutory authority for the rules is found in ORS 526.041 and ORS 527.710.

Rule changes of March 10, 1988, May 11, 1988, August 1, 1988, September 1, 1988, and September 20, 1989 are underlined for ease of reference.

GENERAL RULES

629-24-101 DEFINITIONS. As used in OAR 629-24-101 to 629-24-649, unless otherwise required by context:

(1) "Established seedling" means a seedling of acceptable forest tree species which has survived two years in the site.

(2)(a) "Class I waters" means any portions of streams, lakes, estuaries, significant wetlands, or other waters of the state which are significant for:

(A) Domestic use, including drinking, culinary and other household human use;

(B) Angling;

(C) Water dependent recreation; or

(D) Spawning, rearing or migration of anadromous or game fish.

(b) The following are included within the meaning of "Class I waters":

(A) The water itself, including any vegetation, aquatic life, or habitats therein; or

(B) Beds and banks below the normal high water level which may contain water, whether or not water is actually present.

(3) "Class IISP special protection waters" (Class IISP

waters) means any Class II waters which have a significant summertime cooling influence on downstream Class I waters which are at or near a temperature at which production of anadromous or game fish is limited.

(4)(a) "Class II waters" means any waters of the state, not classified as Class I waters, which have a definite channel or bed.

(b) The following are included within the meaning of "Class II waters":

(A) The water itself, including any vegetation therein; or

(B) Beds and banks below the normal high water level, whether or not water is actually present.

(c) "Class II waters" do not include unchanneled overland flow, roadside ditches, puddles, or other surface waters which have no surface outlet.

(5) "Sapling" means live trees of commercial species, less than 11 inches DBH, of good form and vigor.

(6) "Forest land" means land for which a primary use is the growing and harvesting of forest tree species.

(7) "Relief culvert" means a structure to relieve surface runoff from roadside ditches to prevent excessive buildup in volume and velocity.

(8) "Buffer strip" means a protective area adjacent to an area requiring special attention or protection.

(9) "Water bar" means a diversion ditch and/or hump in a trail or road for the purpose of carrying surface water runoff into the vegetation and duff so that it does not gain the volume and velocity which causes soil movement or erosion.

(10) "Chemicals" means and includes herbicides, insecticides, rodenticides, fertilizers, and adjuvants.

(11) "Herbicides" means any substances used to destroy, repel, or mitigate any weed or to prevent or retard any undesirable plant growth.

(12) "Insecticides" means any substances used to destroy, repel, or mitigate any insect.

(13) "Rodenticides" means any substance used to destroy small mammals.

(14) "Fertilizers" means any substance or combination or mixture of substances designed for use principally as a source of plant food.

(15) "Contaminate" means the presence in the atmosphere, soil, or water of sufficient quantities of chemicals as may be injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, or recreational uses, or to livestock, wildlife, fish, or other aquatic life.

(16) "Waters of the state" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, wetlands, 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 (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

(17) "Filling" means the deposit by artificial means of any materials, organic or inorganic.

(18) "Removal" means the taking or movement of any amount of rock, gravel, sand, silt, or other inorganic substances.

(19) "Active roads" are roads currently being used or maintained for the purpose of removing commercial forest products.

(20) "Inactive roads" are roads used for forest management purposes exclusive of removing commercial forest products.

(21) "Vacated roads" are roads that have been made impassable and are no longer to be used for forest management purposes or commercial forest harvesting activities.

(22) "High risk areas" are lands determined by the State Forester to have a significant potential for destructive mass soil

movement or stream damage because of topography, geology, biology, soils, or intensive rainfall periods.

(23) "High risk sites" are specific locations determined by the State Forester within high risk areas. A high risk site may include but is not limited to: slopes greater than 65 percent, steep headwalls, highly dissected land formations, areas exhibiting frequent high intensity rainfall periods, faulting, slumps, slides, or debris avalanches.

(24) "Prior approval" means written approval of the State Forester given for specific forest practices before the operation begins. Where timing is critical, verbal permission may be granted followed by immediate written confirmation.

(25) "Written plan" means a plan submitted by an operator, for written approval by the State Forester, which describes how the operation will be conducted, including the means to protect resource sites described in ORS 527.710(3)(a) (relating to the collection and analysis of resource site inventories), if applicable.

(26) "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include marshes, swamps, bogs, and similar areas.

(27) "Coastal shorelands" means all lands designated in local comprehensive plans as coastal shorelands within the area described as:

(a) All lands west of the Oregon Coast Highway as described in ORS 366.235, except that:

(A) In Tillamook County, only lands west of a line formed by connecting the western boundaries of the following described roadways: Brooten Road (County Road 887) northerly from its junction with the Oregon Coast Highway to Pacific City, McPhillips Drive (County Road 915) northerly from Pacific City to its junction with Sandlake Road (County Road 871), Sandlake-Cape Lookout Road (County Road 871) northerly to its junction with Cape Lookout Park, Netarts Bay Drive (County Road 665) northerly from its junction with the Sandlake-Cape Lookout Road (County Road 871) to its junction at Netarts with State Highway 131 to its junction with the Oregon Coast Highway near Tillamook.

(B) In Coos County, only the lands west of a line formed by connecting the western boundaries of the following described roadways: Oregon State 240, Cape Arago Secondary (FAS 263) southerly from its junction with the Oregon Coast Highway to Charleston; Seven Devils Road (County Road 33) southerly from its junction with Oregon State 240 (FAS 263) to its junction with the Oregon Coast Highway near Bandon; and

(b) All lands within an area defined by a line measured horizontally:

(A) 1,000 feet from the shoreline of estuaries; and

(B) 500 feet from the shoreline of coastal lakes.

(28) "High water level" means the stage regularly reached by a body of water at the peak of fluctuation in its water level. "High water level" is often observable as a clear, natural line impressed on the bank. It may be indicated by such characteristics as terracing, changes in soil characteristics, destruction of vegetation, presence or absence of litter or debris, or other similar characteristics.

(29) "Aquatic area" means the wetted area of streams, lakes, and wetlands up to the high water level. Oxbows and side channels are included if they are part of the flow channel or contain fresh water ponds.

(30) "Riparian area" means the ground area along a Class I water where the vegetation and microclimate are influenced by perennial or intermittent water, associated high water tables, and soils which exhibit some wetness characteristics.

(31) "Riparian area of influence" means the transition area, within the riparian management area, between the riparian area and upland vegetation. It forms the outer edge of the riparian management area. The "riparian area of influence" contains trees which may provide shade or contribute fine or large woody material or terrestrial insects to a stream. It may also contain trees that provide habitat for wildlife associated with the riparian management area. The area may be identified by such characteristics as change in plant composition and relative plant abundance.

(32) "Riparian management area" is determined under OAR 629-24-117 and means an area along each side of a Class I water in which special management practices are required for the protection of water quality, aquatic habitat, and wildlife habitat. It includes the riparian area and the riparian area of influence.

(33) "Significant summertime cooling" influence means that the volume of water is large enough and at such temperature that it will maintain or reduce the temperature in a downstream Class I water.

(34) "Significant wetlands" means those wetlands in which conflicting uses are limited under a county comprehensive plan as provided in OAR 660-16-010(3).

(35) "Roosting site" means a site where birds communally rest at night and which is unique for that purpose.

629-24-102 COMPLIANCE.

(1) The operator, landowner, or timber owner shall comply with OAR 629-24-101 to 629-24-649 unless prior approval has been obtained from the State Forester for alternate practices which provide for equivalent or better results.

(2) The State Forester may grant prior approval for waiver or modification of rules governing practices in riparian areas, riparian areas of influence, and riparian management areas when:

(a) A federal or state agency or a college or university submits an application to the State Forester for a research project which may involve activities not in accordance with forest practice rules;

(b) The State Forester determines that waiver or modification of a specific practice will result in less environmental damage than if the practice is applied; or

(c) Based on consultation with the Department of Fish and Wildlife or other responsible coordinating state agency, the State Forester determines that waiver or modification of a specific practice will improve soil, water quality, fish habitat, or wildlife habitat.

(d) When the prior approval given by the State Forester does not follow the written recommendations of the Department of Fish and Wildlife or other responsible coordinating state agency, the State Forester shall maintain on file a written explanation of the reasons for allowing the alternate practices.

629-24-103 CONVERSION TO A NON-FOREST USE. When a landowner wishes to convert his forest land to another use, he shall accomplish a conversion within the period required to achieve reforestation, as specified in 629-24-402, 629-24-502, and 629-24-602. The determination by the State Forester as to whether or not conversion has been accomplished shall be governed by:

(1) The presence or absence of improvements necessary for use of the land for the intended purpose.

(2) Evidence of actual use of the land for the intended purpose.

629-24-104 ANNUAL REVIEW. The State Forester shall, at least once each year, meet with the other state agencies concerned with the forest environment to review the Forest Practice Rules relative to sufficiency. He shall then report to the Board of Forestry a summary of such meeting or meetings together with recommendations for amendments to rules, new rules, or repeal of rules.

629-24-105 CONSULTATION. State Forestry personnel shall consult with personnel of other state agencies concerned with the forest environment situations where expertise from such agencies is desirable or necessary.

629-24-106 COMPLIANCE WITH THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY. Each operation as defined by ORS 527.620(5) shall be conducted in full compliance with the rules and regulations of the Department of Environmental Quality relating to solid waste control and air, water, and noise pollution control. In addition to all other remedies, any violation thereof shall be subject to all remedies and sanctions available by law, rule, or regulation to the Department of Environmental Quality.

629-24-107 NOTIFICATION TO THE STATE FORESTER - TYPES OF OPERATIONS.

Under the provisions of ORS 527.670:

(1) Notification to the State Forester shall be given for the following types of operations:

(a) Harvesting of forest tree species including, but not limited to, felling, bucking, yarding, decking, loading or hauling.

(b) Construction, reconstruction and improvement of roads.

(c) Site preparation for reforestation involving clearing or the use of heavy machinery.

(d) Application of insecticides, herbicides, rodenticides, and fertilizers.

(e) Clearing forest land for conversion to any non-forest use.

(f) Disposal or treatment of slash.

(g) Pre-commercial thinning.

(h) Cutting of firewood, when the firewood will be sold or used for barter.

(i) Surface mining.

(2) Notification to the State Forester shall not be required for the following types of operations:

(a) Culturing and harvesting of Christmas trees on land used solely for the production of Christmas trees.

(b) Routine road maintenance, such as grading, ditch cleaning, culvert cleaning or spot rocking.

(c) Tree planting or tree seed application, except when trees or seeds are treated with rodenticides.

(d) Cutting of firewood, when the firewood will not be sold or used for barter.

(e) Harvesting or collection of minor forest products, such as boughs, cones, and hardwood burls.

(f) Road reconstruction of an emergency nature where delay for notification procedures presents a greater potential for resource damage than the operation. Within 48 hours following the commencement of an emergency road reconstruction operation, the operator shall contact the State Forester and report the operation. Upon request of the State Forester, the operator shall be able to demonstrate that an emergency actually existed.

(3) Exemption from notification of certain types of operations does not relieve the operator's responsibility for complying with applicable forest practice rules.

629-24-108 NOTIFICATION TO THE STATE FORESTER - WHEN, WHERE AND HOW.

(1) The operator, landowner or timber owner shall notify the State Forester, as required by ORS 527-670(6), at least 15 days prior to commencement of an operation.

(2) The State Forester may waive the 15 day waiting period required in subsection (1) of this rule, except as prohibited in ORS 527.670(10), when the State Forester has already previewed the operation site or has otherwise determined the operation to have only minor potential for resource damage. Such waivers shall be made in writing, and on an individual notification basis.

(3) Once an operation is actually commenced following proper

notification of the State Forester, further notification under ORS 527.670(6) is not required for the following calendar years, provided:

(a) There are no changes in the information required on the notification.

(b) The operation actively continues within the first six months of the following calendar year; and

(c) A valid permit to operate power driven machinery required under ORS 477.625 is obtained prior to continuation of the operation in the new calendar year. Otherwise, the notification is valid only for the calendar year.

(4) Notwithstanding subsection (3) of this rule, nothing in this rule relieves an operator, landowner or timber owner of the responsibility to comply with ORS 477.625, requiring a permit to operate power driven machinery on a calendar year basis; 477.685, requiring a permit to clear rights-of-way; or 321.550 requiring notification of intent to harvest provided to the Department of Revenue through the Department of Forestry for the purposes of tax collection.

(5) For the purposes of ORS 527.670, a notification will be considered received only when the information required by the State Forester is complete and the necessary forms are on file at the Department of Forestry district or unit office responsible for the area in which the operation will take place. Notifications not properly completed shall be promptly returned to the party submitting them. Properly completed notifications submitted to an incorrect Department of Forestry office will be forwarded.

(6) Notifications required by ORS 527.670(6) shall be completed in detail, on forms provided by the State Forester. When more than one type of operation or more than one location is submitted on a single notification, each operating unit shall be identifiable as to the type of operation, by legal subdivision, maps or other appropriate means. Operations involving harvesting in more than one county may not be combined on the same notification for tax collection purposes.

(7) The operator, landowner or timber owner, whichever filed the original notification, shall contact the State Forester and report any subsequent change to information contained in the notification. Additions to the geographic location, however, shall require a separate notification.

629-24-109 STREAM CHANNEL CHANGES. Changes shall not be made in natural fish bearing stream courses by filling, removal, or by relocation of the channel, except by written approval from the State Forester.

629-24-110 LEAKAGE OR ACCIDENTAL SPILLAGE OF PETROLEUM PRODUCTS. Take adequate precautions to prevent leakage or accidental spillage of any petroleum products in such a location that they will enter waters of the state.

629-24-111 SURFACE MINING STANDARDS.

(1) The development and use of surface mining operations which are located on forest lands, from which materials are to be utilized for forest access roads or other supporting forest management activities, such as riprapping, bridge wing wall diversions, culvert bedding, or other similar activities located on forest land, shall be done in such a manner as to protect water quality, retain soil stability, and provide for general safety during mining operation and after operations have ceased.

(2) Surface Mining Practices:

(a) Quarry sites shall not be located in streambeds except as authorized by ORS 541.605 to 541.645 or OAR 629-24-109.

(b) When reasonable alternatives exist, quarry sites should be located away from state and federal highway routes.

(c) Prevent overburden, solid wastes, and petroleum products from entering waters of the state.

(d) Stabilize banks, headwalls, and other surfaces of quarry sites in order to prevent surface soil erosion or mass soil movement.

(e) When the site is abandoned as a material source, it will be left in the condition described in subsections (c) and (d) above.

629-24-112 FOREST PRACTICES REGIONS. For the purposes of the Forest Practices Rules, the State is divided into three regions as follows:

(1) Eastern Oregon Region Boundary: All land east of the summit of the Oregon Cascade Range as described by the following boundary: Beginning at a point on the Columbia River near the junction of Interstate 84 and State Highway 35, thence southerly along State Highway 35 to the north line of Section 5, T2S-R10E; thence east to the NE corner Section 5; thence southeasterly approximately 1.5 miles to a point of intersection with Forest Road No. 1720 in Section 9, T2S-R10E; thence easterly along said road and along Forest Road No. 44 to the east line of Section 12, T2S-R10E; thence southerly along the western boundaries of Wasco, Jefferson, Deschutes, and Klamath Counties to the southern boundary of Oregon.

(2) Northwest Oregon Region Boundary: All land west of the summit of the Oregon Cascade Range as described in the Eastern Oregon Region boundary, north of the south boundary of Lane County.

(3) Northwest Oregon Coastal Subregion Boundary: All lands in the Northwest Oregon Region and west of the line beginning at the intersection of the range line between Ranges 6 and 7W, W.M. and the Columbia River, thence south along said range line to the SE corner of Section 13, T4S-R7W; thence west to the range line between Ranges 7 and 8W; thence south along said range line, to the SE corner Section 1, T7S-R8W; thence west 1 mile; thence south 1 mile; thence west 1 mile; thence south 4 miles to the SE corner Section 34, T7S-R8W; thence east 1 mile; thence south 2 miles; thence west 2 miles; thence south 2 miles; thence east 3 miles; thence south 1 mile; thence east 1 mile; thence south 4 miles; thence east 1 mile; thence south 9 miles to the SE corner Section 32, T10S-R7W; thence west 2 miles; thence south 4 miles; thence east 1 mile; thence south 6 miles; thence east 1 mile; thence south 1 mile; thence east 1 mile; thence south 1 mile; thence east 2 miles; thence south 1 mile; thence east 1 mile; thence south along range line between R6W and R7W 5 miles to the SW corner Section 31, T13S-R6W; thence east 1 mile; thence south 3 miles; thence west 1 mile; thence south along range line between Ranges 6W and 7W to SE corner Section 36, T15S-R7W; thence west 1 mile; thence south 4 miles; thence west 1 mile; thence south 2 miles; thence west 2 miles to NW corner Section 4, T17S-R7W; thence south 5 miles; thence east 2 miles; thence south 1 mile; thence east 2 miles to SE corner Section 36, T17S-R7W; thence south 2 miles; thence east 1 mile; thence south 1 mile; thence east 1 mile; thence south 1 mile; thence east 2 miles; thence south 1 mile; thence east 1 mile; thence south 1 mile; thence east 1 mile to NE corner Section 1, T19S-R6W; thence south along range line between Ranges 5W and 6W to the SE corner Section 36, T20S-R6W.

(4) Southwest Oregon Region Boundary: All land west of the summit of the Cascade Range as described in the Eastern Oregon Region Boundary; south of the south boundary of Lane County.

(5) Southwest Oregon Interior Subregion Boundary:

(a) A subregion has been established in recognition of major differences in conditions of growth and composition of major tree species.

(b) The subregion boundary is described as follows: Beginning at the south boundary of Oregon at the range line between Ranges 8W and 9W, north to the south line of T40S, thence east across the south boundary of T40S-R8W; thence north 3 miles; thence east 6 miles;

thence north about 8 miles along the range line between Ranges 6W and 7W; thence generally easterly along the boundary of the Siskiyou and Rogue River National Forests to the point of its intersection with the south boundary of Oregon in T41S-R1E; thence east to the east boundary of Jackson County; thence north along said county line to a point paralleling the north boundary of Crater Lake National Park; thence east to the Rogue-Umpqua divide; thence westerly along said Rogue-Umpqua divide to the west boundary of the Umpqua National Forest in T32S-R3W; thence northerly along said west boundary to the south Umpqua divide; thence southwesterly along said divide through the City of Myrtle Creek, thence to Nickle Mountain, and thence to the SW corner of T31S-R9W; thence southerly along the eastern boundary of the Siskiyou National Forest to the south boundary of Oregon; thence east to the point of beginning.

629-24-113 WRITTEN PLANS.

(1) Operators shall obtain written approval from the State Forester of a written plan, before conducting any operations requiring notification under OAR 629-24-107, which are:

(a) Within 100 feet of a stream classified as a Class I water. The State Forester may waive, in writing, this requirement for a written plan, if the State Forester determines the intended forest practice will not directly affect the physical components of the riparian management area. "Physical components" means materials such as but not limited to vegetation, snags, rocks, and soil. "Directly affect" means that physical components will be moved, disturbed or otherwise altered, by the operation activity, even if only temporarily.

(b) Within 300 feet of a specific site involving threatened or endangered wildlife species, or sensitive bird nesting, roosting, or watering sites; as listed by approximate legal description, in a document published by the Department of Forestry titled "Cooperative Agreement Between the Board of Forestry and the Fish and Wildlife Commission, March 28, 1984".

(c) Within 300 feet of any nesting or roosting site of threatened or endangered species listed by the U.S. Fish and Wildlife Service or by the Oregon Fish and Wildlife Commission by administrative rule.

(d) Within 300 feet of a significant wetland as defined in OAR 629-24-101(34) (SIGNIFICANT WETLANDS) .

(2) The State Forester shall notify the operator of the presence of one of the sites listed in subsection (1) and the requirement of the written plan at any time the State Forester determines the presence of the above sites.

(3) Written plans required under subsection (1) of this rule shall be subject to the hearings provisions of ORS 527.700(3) (Appeals from orders of State Forester; hearings procedure; stay of operation); and shall be subject to the provisions of ORS 527.670(10), (11) and (12) (Commencement of Operations; when notice and written plan required; appeal of plan.) prescribing certain waiting periods and procedures.

(4) The State Forester may also require the operator to submit a written plan when an operation involves practices requiring prior approval. Written plans required under this subsection shall not be subject to the provisions of ORS 527.700(3) or to ORS 527.670(10), (11), and (12).

(5) Operators shall comply with all provisions of an approved written plan.

(6) A written plan shall contain specific information applicable to the operation regarding but not limited to the location of roads and landings, road and landing design, construction techniques, drainage systems, disposal of waste materials, felling and bucking, buffer strips, yarding systems and layout, riparian management area

protection measures, sensitive resource site protection measures and post-operation stabilization measures.

(7) Modification of the written plan shall be required when, based on information that was not available or known at the time the original written plan was approved, the State Forester determines the approved written plan will no longer provide for compliance with applicable forest practice rules or adequately address the conflict with the resource site. Written plans with modifications required under this subsection shall not be subject to the provisions of ORS 527.670(10) and (11) relating to waiting periods for approval of written plans.

629-24-115 OPERATIONS ON DESIGNATED COASTAL SHORELANDS. Because of the unique and special values of the coastal shorelands, conduct operations so as to protect the diverse environmental resources of coastal shorelands and coastal waters.

(1) Obtain prior approval of the State Forester before conducting operations in the designated coastal shorelands.

(2) Written plans, when required on designated coastal shorelands, shall describe the methods that will be used to protect the diverse natural resources including major marshes, natural shorelands, riparian vegetation, significant fish and wildlife habitat, soil integrity, and water quality.

629-24-116 DESIGNATION OF WATERS; NOTICE TO LANDOWNERS; RECONSIDERATIONS.

(1) The State Forester shall maintain a map showing the classification of waters of the state in each Department of Forestry field office where notice of operations required by ORS 527.670 (2) may be submitted. The map shall cover the geographic area of responsibility for that field office and shall show the classification of waters within the geographic area.

(2) The class of waters indicated on such maps shall not be changed by the State Forester without 30 days' prior written notice to the landowners immediately adjoining the portion of the waters to be reclassified. Notice to the landowners shall include the reason for the change of classification and the time within which the landowner may request reconsideration of reclassification.

(3) Any landowner immediately adjoining portions of waters to be reclassified may request reconsideration of the reclassification by the State Forester within 30 days of the notice of reclassification.

(4) The reclassification becomes effective:

(a) At the end of 30 days from the notice, if no landowner requests review;

(b) Immediately upon written waiver of reconsideration by all landowners immediately adjoining the portion of the waters to be reclassified; or

(c) Upon denial of reconsideration by the State Forester.

(5) No forest operation shall take place within 100 feet of a water proposed to be reclassified until the reclassification becomes effective or is rescinded upon reconsideration by the State Forester.

629-24-117 DETERMINING WIDTH OF RIPARIAN MANAGEMENT AREA. The boundaries of the riparian management area need not be formed by straight lines. The width of the riparian management area may vary depending upon topography, vegetative cover, the needs of harvesting design, and the needs for aquatic and wildlife habitat. The following requirements apply to determining the width of various types of riparian management areas:

(1) Streams -- The width of the riparian management area shall average three times the stream width, but it shall not average less than 25 feet or average more than 100 feet. Stream width is the average of the main channel width of the stream during its high water level flow.

(2) Estuaries -- The width of the riparian management area shall average 100 feet.

(3) Lakes and significant wetlands -- The width of the riparian management area for lakes and significant wetlands less than one acre shall average 25 feet; for lakes and significant wetlands of one acre or more but less than five acres, the width shall average 50 feet; for lakes and significant wetlands of five acres or more but less than 10 acres, the width shall average 75 feet; for lakes and significant wetlands of 10 acres or more, the width shall average 100 feet.

629-24-118 INTERIM PROCESS FOR PROTECTING SENSITIVE RESOURCE SITES REQUIRING WRITTEN PLANS.

(1) Protection practices for sites requiring written plans under OAR 629-24-113(1)(a) or (1)(d) (WRITTEN PLANS) are the same as practices applied to any operation adjoining a Class I water.

(2) Protection practices for sites requiring written plans under OAR 629-24-113(1)(b) or (1)(c) shall be determined for each site as follows:

(a) The State Forester shall notify the operator and landowner of the presence of a site requiring a written plan, and request their input into the decision making process.

(b) The State Forester shall, when practical, inspect the proposed operation with the landowner or landowner's representative, the operator, and the appropriate representative of the Oregon Department of Fish and Wildlife. The State Forester shall then determine if the proposed forest practice is in conflict with the protection of the sensitive resource site.

(c) If planned forest practices are determined to conflict with protection of the sensitive resource site, the written plan shall describe reasonable measures sufficient to resolve the conflict in favor of the resource site. Reasonable measures to resolve the conflict in favor of the resource site may include, but are not limited to, preparing and imple- menting a habitat management plan, limiting the timing of forest practices, redesigning the proposed practices in favor of site protection and excluding the forest activities outright.

(d) If planned forest practices are determined not to conflict with protection of the sensitive resource site, the written plan shall describe how the operation will be conducted in compliance with existing forest practice rules. No additional protection measures shall be required.

APPLICATION OF CHEMICALS

629-24-200 PURPOSE. Chemicals perform an important function in the growing and harvesting of forest tree species. The purpose of these rules is to regulate the handling, storage, and application of chemicals in such a way that the public health and aquatic habitat will not be endangered by contamination of waters of the state.

629-24-201 MAINTENANCE OF EQUIPMENT IN LEAKPROOF CONDITION. Equipment used for transportation, storage, or application of chemicals shall be leakproof. If there is evidence of chemical leakage, the State Forester shall have the authority to suspend the further use of such equipment until the deficiency has been satisfactorily corrected.

629-24-202 PROTECTION OF WATER QUALITY DURING MIXING OF CHEMICALS. Whenever water is taken from any stream or water impoundment for use in the mixing of chemicals, precautions shall be taken to prevent contamination of the source:

(1) Provide an air gap or reservoir between the water source and the mixing tank; or

(2) Use a portable pump with the necessary suction hose, feed hoses, and check valves to supply tanks with water from streams, such equipment to be used only for water.

629-24-203 PROTECTION OF WATERWAYS, AREAS OF OPEN WATER, AND DWELLINGS WHEN SPRAYING.

(1) The operator shall protect waterways and areas of open water such as swamps or impoundments from contamination when spraying chemicals by aircraft by leaving an unsprayed strip of at least 60 feet on each side of every Class I water or area of open water.

(2) When applying chemical spray from the ground, the operator shall leave unsprayed a strip of at least ten (10) feet on each side of every waterway or area of open water.

(3) Chemical spray application in or adjacent to the riparian area of influence shall be made parallel to waterways, and must be made prior to application to the remainder of the area to be treated.

(4) When applying herbicides by aircraft near inhabited dwellings, the operator shall leave an unsprayed strip of at least 60 feet adjacent to such dwellings.

(5) No untreated strip is required to be left by the operator when applying fertilizers, except that precautions shall be taken to avoid direct application of fertilizers to Class I waters or areas of open water.

629-24-204 SELECTION AND MAINTENANCE OF MIXING AND LANDING AREAS. Mix chemicals or clean tanks or equipment only where the chemicals will not contaminate waters of the state. Mixing areas and aircraft landing areas shall be located where spillage of chemicals will not contaminate waters of the state. If any chemical is spilled, immediate and appropriate action shall be taken to contain or neutralize it.

629-24-205 APPLICATION OF CHEMICALS IN ACCORDANCE WITH LIMITATIONS. Apply chemicals only in accordance with currently recognized limitations of temperature, humidity, wind, and other factors specified by the State Forester.

629-24-206 CLEANING, RE-USE, AND DISPOSAL OF CHEMICAL CONTAINERS. Rinse chemical containers with the carrier used in mixing at least three times. Apply the flushing solution in the form of spray to the area. Do not re-use chemical containers unless properly treated. Disposal of chemical containers shall be in accordance with approved state disposal requirements.

629-24-207 DAILY RECORDS OF CHEMICAL APPLICATIONS.

(1) Whenever insecticide or herbicide sprays are applied on forest land, the operator shall maintain a daily record of spray operations which includes:

(a) Name of monitor or name of applicator (pilot or ground applicator);

(b) Location of project;

(c) Temperature (hourly);

(d) Wind velocity and direction (hourly);

(e) Contractor's name and pilot's name when applied aerially; contractor's name and/or employer's name for ground application.

(f) Insecticides or herbicides used, including name, mixture, application rate, and carrier used;

(g) Disposal method/location of containers.

(2) Whenever rodenticides or fertilizers are applied, the operator shall maintain a daily record of such application which includes subsections (1)(a), (b), and (e) of this rule, and the name of the chemical and the application rate.

(3) The records required in subsections (1) and (2) of this rule shall be kept for three years and be made available at the request of the State Forester.

629-24-208 LANDOWNER'S RESPONSIBILITY TO DETERMINE WHETHER OR NOT CHEMICALS ARE CONTAMINATING STREAMS. Whenever chemicals are applied to forest land, it is the responsibility of the landowner to determine whether or not chemicals are contaminating streams or other bodies of water.

629-24-209 REPORTING OF CHEMICAL ACCIDENTS. Immediately report all chemical accidents to the State Forester.

629-24-210 NOTIFICATION, POSTING OF ACCESS ROUTES AND ROAD CLOSURE WHEN AERIALLY APPLYING 2,4,5-T OR SILVEX.

(1) The landowner shall make every reasonable effort to notify contiguous landowners of record and residents, and downstream water users of record within one-half mile of the intended spray area, at least 15 days prior to the spray application. Notification shall be by registered letter and/or direct personal communication and by advertising in the local newspaper.

(2) Boundaries of an aerial spray area shall be posted by the landowner with a sign provided by the State Forester at all points of regular access at least five days prior to spraying. Posting shall remain at least 15 days after spraying is completed.

(3) When road closure is feasible, roads leading into or contiguous to a spray area shall be closed temporarily to public traffic during spraying. Where temporary road closures are not practical, leave a buffer strip at least one swath width on each side of all regularly traveled public roads.

NOTE: Use of 2,4,5-T and Silvex on forest land was suspended by EPA on February 28, 1979.

DISPOSAL OF SLASHING

629-24-300 PURPOSE. For the purposes of this rule, treatment of slashing is recognized as a necessary tool for the protection of reproduction and residual stands from the risk of fire, insects, and disease, to prepare the site for future productivity and to minimize the risk of material from entering streams. Such treatment may employ the use of mechanical processes, fire, chemical or other means to minimize competitive vegetation and residue from harvesting operations.

629-24-301 MAINTENANCE OF PRODUCTIVITY AND RELATED VALUES. Operations on forest land shall be planned and conducted in a manner which will provide adequate consideration to treatment of slashing to protect residual stands of timber and reproduction to optimize conditions for regeneration of forest tree species, to maintain productivity of forest land, and maintain air and water quality and fish and wildlife habitat.

(1) Reduce the volume of debris as much as practicable by such methods as:

(a) Well-planned and supervised felling and bucking practices to minimize breakage.

(b) Increase utilization of wood fibre including, but not limited to, salvaging, pre-logging and re-logging when a market exists.

(c) Stage cutting where applicable, with successive cuts delayed until slashing created by previous operations is reduced.

(2) In those areas where slash treatment is necessary for protection or regeneration, the following methods may be used:

(a) Scattering of slash accumulations;

(b) Piling or windrowing of slash;

(c) Mechanized chopping, compaction, or burying of slashing;

(d) Controlled burning;

(e) Provisions for additional protection from fire during the period of increased hazard. Protect fish habitat when establishing water sources.

(3) Dispose of or disperse unstable slash accumulations around landings to prevent their entry into streams.

(4) When treating competing vegetation, plan harvesting practices to break up or destroy such vegetation. When necessary, follow up with application of chemicals and/or by burning.

(5) If burning is the means of slash or competitive vegetation treatment used, it should be accomplished in such ways and at such times that reproduction and residual timber, humus and soil surface are adequately protected.

(6)(a) No landowner or operator shall burn in a riparian area along a Class I water.

(b) When burning in riparian areas of influence, landowners and operators shall protect aquatic and wildlife habitat such as downed logs and snags.

(7) Whenever disposal of slashing is to be accomplished by burning, such burning shall be accomplished under such conditions of weather that will assure adequate maintenance of air quality. Burning shall be done in accordance with the rules of Oregon's "Smoke Management Plan".

REGIONAL RULES
NORTHWEST OREGON REGION

REFORESTATION

629-24-500 PURPOSE. Prompt reforestation of forest land following harvesting operations is an important factor in assuring continuous growing and harvesting of forest tree species on forest lands economically suitable therefore. The purpose of administrative rules relating to reforestation of such lands is to define economic suitability, as a basis for designating the forest land subject to reforestation requirements; to describe the conditions under which reforestation will be required; to specify the minimum number of trees per acre and the maximum period of time allowed after an operation for establishment of such trees; and to require stabilization of soils which have become exposed as a result of operations.

629-24-501 LANDS AFFECTED. Any lands which come within the definition of forest land and which are capable of a mean annual production of at least 50 cubic feet per acre at culmination as determined by Site Index Tables contained in Pacific Northwest Forest and Range Experiment Station "Field Instructions for Integrated Forest Survey and Timber Management Inventories in Oregon, Washington, and California, 1971"; pages V125-36 are subject to the reforestation requirements.

629-24-502 STOCKING LEVELS, SUBREGIONS, TIME LIMITS.

(1) Whenever as a result of an operation the stocking is reduced below either 25 percent, based on estimated crown closure, or 80 square feet of basal area per acre, of trees 11 inches DBH and larger, the landowner shall establish at least 150 well distributed seedlings or saplings, or any combination thereof, per acre on the area.

(2) In computing basal area per acre, trees over 36 inches DBH will be counted only as 36 inch DBH trees.

(3) For the purpose of determining length of time allowed for establishment of seedlings or saplings, the Northwest Region shall be divided into two subregions. In the area west of the summit of the Coast Range, compliance with the minimum stocking standards shall be achieved at the end of three growing seasons following operations. In the area east of the summit of the Coast Range, compliance with the minimum stocking standards shall be achieved at the end of five growing seasons following operations.

(4) Determination of time for establishment of seedlings shall be based on completion of the logging operations and removal of equipment. When smoke management restricts the burning of slash, an extension in writing may be granted by the State Forester.

629-224-503 ACCEPTABLE SPECIES AND VARIANCES. For those lands subject to the reforestation requirement, the State Forester shall maintain a list of forest tree species acceptable to be counted as stocking. The list shall consist of those species normally marketable within the Northwest Region. Red alder or other hardwood species shall not be counted as acceptable in stocking surveys of lands which have supported adequately stocked stands of Douglas fir or other acceptable conifers unless a prior alternate plan is approved by the State Forester.

629-24-504 LANDS NOT AFFECTED--ACTION REQUIRED. Within one year following harvesting on lands not subject to the reforestation requirement, and on which reforestation is not being planned, adequate vegetation cover shall be established to provide continuing soil productivity and stabilization. Consider the use of wildlife habitat plans.

629-24-505 REHABILITATION OF BRUSH FIELDS. Rehabilitation of brush fields or other sites containing undesirable species may be accomplished by controlled burning, chemical application, mechanical clearing, or any combination. Place debris above the high water mark of any waters of the state. On mechanical clearing projects, minimize compaction and movement of top soil.

ROAD CONSTRUCTION AND MAINTENANCE

629-24-520 PURPOSE. A well-located, constructed, and maintained system of forest roads is essential if the forest is to reach its potential of supplying jobs, tax base, and wood products for our society, and to provide a means of proper forest management and protection. The purpose of these rules is to establish minimum standards for forest practices that will provide the maximum practical protection to maintain forest productivity, water quality, and fish and wildlife habitat during road construction and maintenance.

629-24-521 ROAD LOCATION. Landowners and operators should locate roads to minimize risk of material entering waters of the state.

(1) Fit the road to the topography so that a minimum alteration of natural features will be necessary.

(2) Avoid locating roads in steep, narrow canyons, slide areas, steep headwalls, slumps, marshes, meadows, riparian management areas, or existing drainage channels where practical alternatives exist. If there is a risk of material entering the waters of the state, the operator shall obtain prior approval from the State Forester.

(3) Avoid locating roads on high risk sites if practical alternatives exist. Obtain prior approval from the State Forester before building roads on high risk sites.

(4) Minimize road density in high risk areas whenever practical alternatives exist.

(5) Minimize the number of stream crossings.

(6) When it is practical, cross streams at right angles to the main channel.

(7) The landowner and operator shall leave or re-establish areas of vegetation between roads and streams.

(8) Landowners and operators shall not locate roads in riparian management areas without prior approval of the State Forester.

(9) To minimize road construction, make use of existing roads where practical. Where roads traverse land in another ownership but will adequately serve the operation, attempt to negotiate with the owner for use before resorting to location of new roads.

629-24-522 ROAD DESIGN. Consistent with good safety practices, design each road to the minimum use standards adapted to the terrain and soil materials, so as to minimize disturbance to existing drainages and damage to water quality.

(1) Use a flexible design to minimize damage to soil and water quality. Designate end-hauling where disposal of excess material from high risk sites is indicated.

(2) Roads should be designed no wider than necessary to accommodate the immediate anticipated use.

(3) Design cut and fill slopes to minimize the risk of mass soil movement.

(4) Design culvert installations to prevent erosion of the fill.

(5) Design water crossing structures to provide for adequate fish passage, minimum impact on water quality, and the 25-year frequency storm.

(6) Design roads to drain naturally by outsloping and through grade changes wherever possible. Where outsloping is not feasible, use roadside ditches and culverts.

(7) Provide dips, water bars, and cross drainage on all temporary roads.

(8) Whenever practical, avoid diverting water from natural drainage ways. Dips, water bars, and cross drainage culverts should be placed above stream crossings so that water can be filtered through vegetative buffers before entering waters of the state.

(9) Provide drainage where surface and groundwater cause slope instability.

(10) Select stable areas for disposal of end-haul materials. Avoid overloading areas which may become unstable from additional material loading.

(11) Design roads so that water is not concentrated into high risk sites.

629-24-523 ROAD CONSTRUCTION. Debris, overburden, and other materials associated with road construction shall be placed in such a manner as to prevent entry into the waters of the state. Landowners and operators shall:

(1) Deposit end-haul and other excess material in stable locations above the high water level.

(2) Clear drainage ways of woody debris generated during road construction and maintenance.

(3) Place woody debris or boulders in stream channels for stream habitat enhancement only upon prior approval of the State Forester.

(4) Stabilize exposed material which is potentially unstable or erodible by use of seeding, compacting, riprapping, benching, leaving light slashing, or other suitable means.

(5) In the construction of road fills, compact the material to reduce the entry of water and minimize the settling of fill material.

(6) Construct stream crossings to result in minimum disturbance to banks, existing channels, and riparian management areas. Temporary crossing structures shall be removed promptly after use and, where applicable, approaches to the crossings shall be water barred.

(7) Keep machine activity in beds of streams to an absolute minimum. Such activity shall be restricted to periods of low water levels. Prior approval of the State Forester shall be obtained for machine activity in Class I waters.

(8) Install drainage structures on live streams as soon as feasible. Uncompleted road grades subject to washing should be adequately crossdrained.

(9) Retain outslope drainage during construction operations and remove all berms on the outside edge, except those intentionally constructed for protection of road grade fills.

(10) Keep soil disturbance to a minimum by constructing roads when soil moisture conditions are favorable.

(11) Operators shall not incorporate slash, logs, and other large quantities of organic material into road fills where fill failure due to organic material decomposition may impact waters of the state.

629-24-524 ROAD MAINTENANCE. Maintenance of active and inactive roads shall be sufficient to maintain a stable surface, to keep the drainage system operating, and to protect the quality of the waters of the state.

(1) Clean culvert inlets and outlets, drainage structures and ditches before and during the rainy season to diminish danger of clogging and the possibility of washouts. Provide for practical preventative maintenance programs for high risk sites that will address the problems associated with high intensity rainfall events.

(2) Restore road surface crown or outslope all roads prior to the rainy season.

(3) When it is the intention of the landowner to discontinue active use of the road or to control unauthorized use, the road shall be maintained to the degree necessary to provide appropriate drainage and soil stability.

(4) When it is the intention of the landowner to vacate a road to "put-a-road-to-bed", the road shall be posted "closed"; shall be blocked to prevent continued use by vehicular traffic; and the road shall be left in such a state as to provide for adequate drainage and soil stability.

(5) Plan applications and apply road oil or other surface stabilizing material in such a manner as to prevent their entry into waters of the state.

(6) Maintain and repair active and inactive roads as needed to minimize damage to waters of the state.

(7) Place material removed from ditches in a stable location.

HARVESTING

629-24-540 PURPOSE. Harvesting of forest tree species is a key part of forest management by which wood is obtained for human use and forests are established and tended. Harvesting operations are recognized as causing a temporary disturbance to the forest environment. These rules are established as minimum standards for forest practices to maintain the productivity of the forest land, to minimize soil and debris entering waters of the state, and to protect wildlife and fish habitat.

629-24-541 PROTECTION OF RESIDUAL TREES. On any operation, trees left for future harvest shall be adequately protected from damage resulting from damage resulting from harvest operations to assure their survival and growth. This may be done by locating roads and landings and by conducting felling, bucking, yarding, and decking operations so as to minimize damage to or loss of residual trees.

629-24-542 SOIL PROTECTION. Select for each harvesting operation the logging method, size of equipment, and type of equipment best adapted to the given slope, landscape, and soil materials to minimize soil deterioration.

(1) Avoid tractor or wheel skidding on unstable, wet, or easily compacted soils, and on slopes which exceed 35 percent, unless operations can be conducted without causing deep soil disturbance or accelerated erosion.

(2) Locate skid trails where sidecasting is kept to a minimum.

(3) Uphill cable yarding is recommended. Use a yarding system that will minimize soil disturbance when downhill yarding or when yarding across high risk sites.

(4) Where skidders are used, consider size of the equipment needed to do the job.

629-24-542 LOCATION OF LANDINGS, SKID TRAILS, AND FIRE TRAILS.

(1) Landings shall be of minimum size and shall be located on stable areas to minimize the risk of material entering waters of the state.

(2) Landowners and operators shall not locate landings in riparian management areas without prior approval of the State Forester. Landings shall be located on firm ground above the high water level of any stream. Landings shall not be placed on unstable areas, on steep side hill areas, or where excessive excavation is needed.

(3) Skid trails and fire trails shall be located so they are

not within the riparian management area, except when using temporary crossings specified in 629-24-546(2)(a), and with the prior approval of the State Forester.

629-24-544 DRAINAGE SYSTEM. For each landing, skid trail, or fire trail, provide and maintain a drainage system that will control the dispersal of runoff water from such exposed soils, and that will minimize the entry of muddy and turbid water into the waters of the state.

(1) Provide and maintain cross drains, dips, water bars, and other water diversions to prevent soil from entering waters of the state.

(2) Divert or water bar all tractor or skidder trails before the rainy season.

(3) Leave or place debris and re-establish drainage on landings after use to guard against future soil movement.

629-24-545 TREATMENT OF WASTE MATERIALS.

(1) Landowners or operators shall leave or place debris, overburden, and other waste material associated with harvesting in such a location as to prevent its entry by erosion, high water, or other means into waters of the state.

(2) Landowners and operators shall fell trees in a manner to minimize breakage.

(3) Landowners or operators shall stabilize potentially unstable or erodible soils by seeding or other suitable means and shall consider using game forage plants.

(4) The landowner or operator shall remove waste from logging operations, such as crankcase oil, filters, and grease and oil containers, from the forest and dispose of other debris, such as machine parts, old wire rope, and used tractor tracks, immediately following termination of harvesting operations. Landowners or operators shall not place these materials in waterways.

629-24-546 PROTECTION OF WATERS OF THE STATE.

(1) Any landowner, operator, or timber owner conducting an operation shall retain a riparian management area along each side of Class I waters. The riparian management area is recognized as having a unique concentration of public values including timber, wildlife habitat, aquatic habitat, and soil and water quality values. OAR 629-24-546 is designed to recognize the public's interest in growing and harvesting timber in the riparian management area, while protecting the soil, water quality, aquatic habitat, and wildlife habitat resources found therein. During and after harvesting operations, waterways and riparian area vegetation shall be protected to assure the protection of water quality, soil, wildlife habitat, and aquatic habitat values.

(2) In order to implement the provisions of ORS 527.630 and OAR 629-24-546(1), the landowner or operator shall conduct operations in riparian management areas using the following practices:

(a) Avoid tractor skidding in or through any stream. When streams must be crossed, provide adequate temporary structures to carry stream flow. Remove all temporary crossings immediately after use and, where applicable water bar road ends.

(b) Avoid cable yarding through any Class I water. When yarding across such waters is necessary, it shall be done by swinging the yarded material free of the ground in the aquatic and riparian areas, and in a manner to avoid unnecessary disturbance to the riparian area of influence.

(c) Prior to skidding, yarding, or operating machinery in or through any Class I water, the landowner, timber owner, or operator shall obtain prior approval of the State Forester.

(d) Cable yarding across Class II waters shall be done in a way which minimizes disturbance to the channel and the streambank vegetation.

(e) In addition to other requirements for Class II waters, operators shall leave 75 percent of the original shade along Class IISP waters.

(3) The operator shall provide for shade, wildlife habitat, soil stabilization, and water filtering effects of forest vegetation in riparian management areas adjacent to Class I waters by applying the following practices.

(a) Maintain an average of 75 percent of the preoperation shade over the aquatic area along Class I waters.

(b) Retain at least 50 percent of the preoperation tree canopy in the riparian area along Class I waters.

(c) Except for snags defined to be a safety hazard by the rules of Workers' Compensation Department, Accident Prevention Division (OAR Division 80), or a fire hazard by the State Forester, leave all snags and down timber in the aquatic area and riparian area along Class I waters. In the riparian area of influence along Class I waters, leave all snags and down unmerchantable timber, except for the safety and fire hazard snags identified above. Stands of blown down timber, snags and down timber infested with insects or disease, or killed by fire, may be removed with the prior approval of the State Forester.

(d) Retain live conifers in the riparian management area along Class I waters at least according to the following conditions and standards:

(A) Conifers shall be retained in the one-half (1/2) of the riparian management area closest to the water (or within an average of 25 feet of the water, whichever is greater);

(B) The conifers must be a minimum of 8 inches in diameter breast high, comprising at least 10 square feet of basal area per acre in the aggregate;

(C) In computing basal area, trees over 20 inches in diameter breast high shall be counted only as 20 inch diameter trees;

(D) Trees may be cull or nonmerchantable due to quality;

(E) Conifer trees left to comply with paragraphs (3)(a) and (b) of this section are included in satisfying the live conifer requirement;

(F) Conifer trees shall be retained at the following rates on each side of Class I streams or along other Class I waters:

Average Stream Width	Average Riparian Management Area Width	Conifers per 1,000 Feet	Basal Area per 1,000 Feet
8 Feet or less	25 Feet	5	6
10 Feet	30 Feet	6	7
12 Feet	35 Feet	7	8
13 Feet	40 Feet	8	9
15 Feet	45 Feet	9	10
17 Feet	50 Feet	10	11
18 Feet	55 Feet	11	12
20 Feet	60 Feet	12	13
22 Feet	65 Feet	13	14
23 Feet	70 Feet	14	15
25 Feet	75 Feet	15	16
27 Feet	80 Feet	15	17
28 Feet	85 Feet	16	18
30 Feet	90 Feet	17	19
32 Feet	95 Feet	19	21
33 Feet or more	100 Feet	21	23

(G) The provisions of paragraph (3)(d) do not apply to significant wetlands or estuaries.

(e) Limit machine and yarding activity in the riparian area to the minimum required to remove timber harvested from the area.

(f) Limit machine activity in the riparian area of influence to that which is necessary to remove trees and successfully achieve reforestation.

(g) Timber felled within the riparian management area shall be directionally felled away from the waters.

(h) Residual trees and plants may be removed from the riparian management area where necessary to improve future wildlife and aquatic habitat with the prior approval of the State Forester.

(i) Practices in paragraphs (3)(b), (c), and (d) do not apply to waters designated as Class I solely because of domestic use.

(4) Fell, buck, and limb trees so that the tree or any part of it will not fall into or across any Class I water, and remove all material that gets into such water as an ongoing process during harvesting operations. Place removed material above high water level. The State Forester may waive this requirement in writing when material is placed in Class I waters for habitat enhancement purposes.

(5)(a) As a minimum, the operator shall fell all trees away from Class II waters whenever possible. Remove slash that gets into the water following forest operations, unless waived by the State Forester for habitat enhancement.

(b) If slash enters a Class II water as a result of felling, bucking, limbing, or yarding, remove such material in connection with the yarding activity, unless such removal is waived in writing by the State Forester. The State Forester may waive slash removal based on the absence of any threat to water quality, or aquatic habitat, or threat of mass soil movement. The removal of slash shall be completed within 14 days if yarding activity has been completed or discontinued.

(6) Retain or re-establish undergrowth vegetation along Class II waters in widths sufficient to maintain water quality of Class I waters.

629-24-547 SITE UTILIZATION. When harvesting plans include leaving a residual stand, reserved growing stock should be of desirable species, form, vigor, and crown position which will assure adequate utilization of the site for efficient production of forest products.

629-24-548 MAINTENANCE OF PRODUCTIVITY AND RELATED VALUES. Design harvesting practices to assure the continuous growing and harvesting of forest tree species by suitable economic means, and also to protect soil, air, water, and wildlife resources.

(1) Where major scenic attractions, highways, recreation areas, or other high use areas are located within or traverse forest land, conduct prompt cleanup and regeneration.

(2) Obtain prior approval from the State Forester before operating near or within:

(a) Critical wildlife or aquatic habitat sites that are listed in a cooperative agreement between the Board of Forestry and the Fish and Wildlife Commission, or sites designated by the State Forester; or

(b) Habitat sites of any wildlife or aquatic species classified by the Department of Fish and Wildlife as threatened or endangered.

(3) When conducting operations in or along wetlands or along lakes, springs, seeps, or wet meadows, protect soil and vegetation from disturbances which would cause adverse effects on water quality, quantity, and wildlife and aquatic habitat.

(4) Whenever practical, plan clearcutting operations so that adequate wildlife escape cover is available within one-quarter mile from any portion of the clearcut unit.

(5) Minimize compaction and movement of top soil on mechanical clearing projects. Place debris above the high water mark of any stream or body of open water.

(6) Slash, logs, and other large quantities of organic material shall not be incorporated into landing fills where fill failure due to organic material decomposition may impact waters of the state.

(7) Whenever practical, retain snags for wildlife habitat.

629-24-549 HARVESTING ON HIGH-RISK SITES.

(1) Obtain prior approval from the State Forester before conducting harvesting operations on high risk sites.

(2) Written plans, where required for harvesting in high risk sites, will describe how harvesting operations will be conducted to minimize impact upon soil and water resources. Such written plans will consider all actions necessary to minimize such impacts, including but not limited to the following:

(a) Yarding systems that will minimize soil disturbance;

(b) Establishing or maintaining plant species that will enhance slope stability in harvested areas where needed to minimize the risk of mass soil movement while maintaining forest productivity.

AS ADOPTED BY THE BOARD OF FORESTRY
JUNE 8, 1988

EFFECTIVE SEPTEMBER 1, 1988

CIVIL PENALTIES

629-55-005 DEFINITIONS. As used in OAR Chapter 625, Division 55:

(1) "Board" means the State Board of Forestry.

(2) "Damage" means an adverse alteration to a resource protected by the Forest Practices Act.

(3) "Operation" means any commercial activity relating to the growing or harvesting of forest tree species.

(4) "Operator" means any person, including a landowner or timber owner, who conducts an operation.

(5) "State Forester" means the State Forester or a duly authorized representative of the State Forester.

(6) "Statement of unsatisfactory condition" means a written statement issued by the State Forester informing an operator of the existence of an unsatisfactory condition, and specifying the corrective action to be taken within a definite time limit.

(7) "Timely corrective action" means action to be taken by the operator within a specified time to prevent or reverse the damage potentially caused by an unsatisfactory condition.

(8) "Unsatisfactory condition" means the circumstance which exists when an operator fails to comply with a practice specified in a forest practice rule (OAR Chapter 629, Division 24) and the State Forester determines both of the following conditions exist:

(a) The forest practice rule applies to the type of operation conducted.

(b) The operator has not been exempted from the rule by obtaining approval for, or having obtained approval has not followed, an alternate practice as prescribed by OAR 629-24-102.

(9) "Violation" means the circumstance which exists anytime one or more of the following occurs:

(a) An operator fails to comply with any provision of ORS 527.670(6) or (7) requiring notification to the State Forester before commencing an operation.

(b) An unsatisfactory condition exists, and:

(A) Damage has resulted; or

(B) The State Forester has determined that it is not feasible for the operator, by timely and appropriate action, to eliminate the consequences of the unsatisfactory condition; or

(C) A statement of unsatisfactory condition has been issued to the operator, the deadline for appropriate action has passed and appropriate action has not been taken by the operator.

(c) Required prior approval for a practice has not been granted and the operator has commenced the practice.

(d) An operator fails to comply with any term or condition of any order of the State Forester issued in accordance with ORS 527.680.

629-55-010 INSPECTIONS, COMPLIANCE DETERMINATION.

(1) The State Forester shall conduct investigations of reported Forest Practices Act violations and make preventative and compliance inspections on forest operations subject to the Oregon Forest Practices Act.

(2) When inspecting operations, the State Forester shall examine practices employed by the operator and the results thereof to assess compliance with the applicable forest practice rules (OAR 629, Division 24) and written plans. The State Forester may make recommendations to the operator where such recommendations would be helpful in avoiding any unsatisfactory condition.

(3) When the State Forester determines that an unsatisfactory condition exists, the State Forester shall determine whether

timely corrective action can be taken by the operator to prevent damage. Such factors as expected weather and site conditions, availability of equipment, expertise to accomplish work, and access to the site may be considered in making the determination.

(4) If the State Forester determines that an opportunity for timely corrective action exists, the State Forester shall issue a written statement of unsatisfactory condition to the operator. Such a statement shall contain the nature of the unsatisfactory condition, the corrective action to be taken, the time within which it must be taken, and a notice that enforcement action will be initiated if damage results prior to completion of corrective action, or corrective action is not completed by the date specified.

(5) When the State Forester determines that a violation exists, enforcement action shall be initiated by the State Forester.

629-55-020 ENFORCEMENT ACTION, CRIMINAL PROSECUTION.

(1) When a violation is determined to exist, enforcement action shall be initiated by issuance and service of a citation to the responsible person, persons, or corporation in accordance with ORS 527.680.

(2) Whenever a citation is served, an order to cease further violation shall be issued and served, in accordance with ORS 527.680(2)(a).

(3) Whenever a citation is issued, the State Forester shall determine whether it is practical and economically feasible for the operator to take corrective action to repair the damage or correct the unsatisfactory condition. Upon such a determination, the State Forester may issue and serve an order directing the operator to make reasonable efforts to repair the damage or correct the unsatisfactory condition in accordance with ORS 527.680(2)(b).

(4) Citations for violation of ORS 527.670 or any rule promulgated under ORS 527.710 shall be presented to the District Attorney for the county where the violation occurred, along with a case brief, for the purpose of filing a complaint or information pursuant to ORS 527.990(1), whenever:

(a) In the judgment of the State Forester, the operator acted knowingly, or recklessly as defined in ORS 161.085 relating to criminal liability; or

(b) The violation appears in the judgment of the State Forester to have resulted in monetary gain to the operator, substantially in excess of any amount recoverable by a civil penalty, and which would not have resulted under compliance with the rule.

629-55-030 ASSESSMENT OF CIVIL PENALTIES; NOTICE OF PENALTY.

(1) In addition to any other remedy, the State Forester may assess a civil penalty for any violation as described in ORS 527.992(1).

(2) After a citation is issued, the citation and any accompanying information shall be reviewed by a civil penalty administrator, appointed by the State Forester. The civil penalty administrator shall review the circumstances of the violation and determine the amount of penalty to be assessed in accordance with OAR Chapter 629, Division 55.

(3) The State Forester shall give written notice of a civil penalty by personal service or by certified mail to the person incurring the penalty. The notice shall include, but not be limited to:

(a) A reference to the particular sections of the statute, rule, standard, order or permit involved;

(b) A short and plain statement of the matters asserted or charged;

(c) A statement of the amount of the penalty or penalties imposed and how it was calculated;

(d) A statement of the party's right to request a hearing within 20 days of mailing of the notice and an explanation of how a hearing or mitigation of a penalty may be requested.

(e) A statement that the notice becomes a final order unless the person upon whom the civil penalty is assessed makes a written request for a hearing within 20 days from the date of service or mailing of the notices; and

(f) A statement that the record of the proceedings to date, including the agency file or files on the subject of the civil penalty, automatically becomes part of the contested case record upon default for the purpose of providing a prima facie case.

629-55-040 AMOUNT OF CIVIL PENALTIES.

(1) The amount of civil penalty per violation shall be determined by a formula of $B (CxP) + [($BxD) - ($BxDxR)] = penalty, where:

(a) $B is a base fine established by type of violation in subsection (6) of this rule;

(b) C is cooperation;

(c) P is prior knowledge or prior violations;

(d) D is damage to protected resources; and

(e) R is the extent to which damage can be repaired and future damage avoided by repairs.

In accordance with ORS 527.685(1), the penalty may not exceed $5,000. Penalties totalling $50 or less will be suspended, pending no further violations within one year of issuance of the citation.

(2) The cooperation value (C) shall be determined by the State Forester after reviewing whether the person is taking all feasible steps or procedures necessary or appropriate to correct the violation for which the penalty is being assessed. The value shall be assigned as follows:

(a) A value of 1 shall be assigned where the person cooperates fully by immediately ceasing further violation and taking prompt action to repair damage or correct any unsatisfactory condition where deemed feasible by the State Forester.

(b) A value of 2 shall be assigned where the State Forester determines that the person does not immediately cease further violation, is evasive upon attempts to make necessary communications, or neglects to take necessary and timely action to repair damage or correct any unsatisfactory condition.

(3) The prior knowledge or prior violations value (P) shall be determined by the State Forester after reviewing Department of Forestry records of violations and operation notifications. The value shall be as follows:

(a) A value of 0.5 shall be assigned only where the State Forester determines a person has no prior knowledge of the Forest Practices Act and has cooperated fully in ceasing violation and correcting unsatisfactory conditions. Previous notification of operations pursuant to ORS 527.670, naming the person as operator, landowner or timber owner shall be prima facie evidence of prior knowledge of the Forest Practices Act.

(b) A value of 1 shall be assigned where the State Forester determines the person has not had previous correspondence or conversation with Department of Forestry personnel regarding the required practices or actions involved in the violation.

(c) A value of 2 shall be assigned where the State Forester determines that the person has had previous correspondence or conversation with Department of Forestry personnel regarding the required practices or actions involved in the violation.

(d) A value of 4 shall be assigned where the State Forester issued a statement of unsatisfactory condition prior to determination of the violation.

(e) A value of 5 shall be assigned where the State Forester determines that the person has been previously cited for a violation of the same rule, statute, or condition; or in a case of failure to comply with an order to repair damage or correct unsatisfactory condition (ORS 527.680(2)(b).

(4) The damage value (D) shall be determined by the State Forester as a measure of extent or relative adverse effect, as follows:

(a) A value of zero shall be assigned where the State Forester determines the violation has not and will not directly result in resource damage.

(b) A value of 1 shall be assigned where the State Forester determines the adverse effects of the violation left uncorrected are minor and the affected resources will naturally self-restore within one year. Example: Siltation from exposed skid trails flows into the lower reaches of a Class II water, and will subsequently reach a Class I water, but the skid trail will naturally revegetate within the next growing season, preventing further siltation.

(c) A value of 3 shall be assigned where the State Forester determines the damage from the violation left uncorrected is more serious than described in paragraph (b) of this subsection, but the affected resources will self-restore naturally within five years. Example: A small volume debris avalanche is caused by road construction material placed in an unstable location. The debris comes to rest in a Class I water.

(d) A value of 5 shall be assigned where the State Forester determines the damage from the violation left uncorrected is major in relative effect, but minor in scope (or vice versa); such that natural self-restoration will take up to 10 years, over a broad area, or as long as a timber rotation or longer, on a smaller area. Example: Removal of all vegetation along a Class I water without prior approval for a distance of less than 500 feet.

(e) A value of 10 shall be assigned where the State Forester determines the damage from the violation left uncorrected is both major and extensive. Example: More than a mile of stream habitat is destroyed after a poorly designed road crossing plugs and the backed up water breaches a deep fill.

(5) The repairability value (R) shall be assigned by the State Forester as a measure of the relative extent to which damage resulting from the violation can be corrected and expected future damage prevented by proper completion of an order to repair damage or correct unsatisfactory condition. The value shall be set by the State Forester between zero and 1 inclusive, expressed as a decimal; indicating the degree to which damage will be prevented, divided by the total damage which would occur if left uncorrected until nature would restore the resource. Example: A tractor crossed a stream with no temporary structure, breaking the streambanks down, and leaving exposed soils in the skid trails which will erode creating turbidity and sedimentation of the stream. If left unrepaired, nature will stabilize the bank within a few years, and the skid trails will revegetate in one growing season. Compliance with the repair order, placing riprap and woody material against the streambank and mulching the skid trails, in the State Forester's judgment, will result in avoidance of 85 percent of the potential damage over the next few years. Therefore, R equals 0.85.

(6) The base penalty value ($B) shall be established as follows:

(a) A base penalty of $250 shall be applied to violations of rules which are designed to provide specific management practices for protection of riparian management areas along Class I waters, critical habitat areas and sites inventoried by the Board of Forestry pursuant to ORS 527.710(3). These rules include OARs 629-24-203(1); 446(3), 546(3), 646(3); and 448(2), 548(2), and 648(2). In addition, a base penalty of $250 shall apply to violations of OARs 629-24-402, 502, and 602 requiring reforestation, following reduction in stocking below minimums, after harvesting.

(b) A base penalty of $150 shall be applied to violations involving failure to obtain prior approval, or failure to comply with

any term or condition of a waiver, written plan, or prior approval granted or accepted by the State Forester. Rules include:

(A) 629-24-109 - Stream channel changes.

(B) 629-24-113 - Operations requiring written plans.

(C) 629-24-421(2), (8); 423(6); 521(2), (3), (8); 523(3), (7); 621(2), (3), (8); and 623(3), (8) - Prior approval of road location and construction.

(D) 629-24-443(2), (4); 543(2), (3); and 643(2), (4) - Prior approval for landings or skid trails in riparian management areas.

(E) 629-24-446(2)(c); 546(2)(c) and 646(2)(c) - Prior approval for skidding, yarding, or operating machinery in or through any Class I water.

(F) 629-24-549 and 649 - Prior approval for harvesting in high risk sites.

(c) A base penalty of $50 shall be applied to violations of ORS 527.670(6) and (7), requiring notification to the State Forester before commencing operations.

(d) A base penalty of $250 shall be applied to any violation involving a failure to comply with the terms or conditions of any order of the State Forester issued in accordance with ORS 527.680; and

(e) A base penalty of $100 shall be applied to all other violations of rules not specifically listed above.

(7) Upon written request of the person assessed, actual costs of repair up to an amount equal to $B x D may be substituted for the value of $B x D x R when such request is made in writing and received by the State Forester within 20 days of service or mailing of the notice of civil penalty and the State Forester determines said costs to be reasonable. Evidence of costs may be presented by the person without prejudice to any claim by the person that no violation has occurred or that the person is not responsible for the violation.

(8) The civil penalties administrator appointed by the State Forester shall have the discretion to combine violations for the sake of assessing reasonable penalties, under the following circumstances:

(a) Multiple citations have been issued resulting from the same act; or

(b) Multiple citations have been issued for violations resulting in the same damage; or

(c) Upon finding of the State Forester that combination of violations is in the public interest and consistent with the policy of the Forest Practices Act, ORS 527.630.

629-55-050 CIVIL PENALTIES CONTESTED CASE HEARINGS PROCEDURES. The rules of procedure in OAR 629-55-060 through 629-55-090 are in addition to the procedural requirements of the Attorney General's Model Rules of Procedure adopted under OAR 629-01-005. They shall govern the conduct of all contested case proceedings involving civil penalties. When OARs 629-55-060 through 629-55-090 conflict with any rule adopted under OAR 629-01-005, the provisions of this division shall apply over those of the Attorney General's Model Rules.

629-55-060 REQUESTING HEARINGS.

(1) When requesting a hearing, or within 10 days following a request for hearing, the person assessed a civil penalty must admit or deny, in writing, all factual matters stated in the notice of penalty. Otherwise, any factual matters not denied shall be presumed admitted.

(2) When requesting a hearing, or within 10 days following a request for hearing, the person assessed a civil penalty shall affirmatively state, in writing, any and all claims or defenses the person may have and the reasoning in support of the claim or defense. Otherwise, failure to raise a claim or defense shall be presumed to be a waiver of such claim.

(3) Evidence shall not be taken on any issue not raised in the notice and either the request

for hearing or a subsequent statement within 10 days following the request for hearing as required in subsections (1) and (2).

(4) Unless the issue is raised in the person's request for hearing or subsequent statement within 10 days following the request for hearing, no evidence may be presented at the hearing on the economic and financial condition of the person. At the hearing, the burden of proof and the burden of going forward with evidence concerning the person's economic and financial condition, shall be upon the person against whom the civil penalty is assessed.

629-55-070 CONDUCT OF HEARINGS

(1) Prior to a hearing, the State Forester or hearing officer may schedule conferences to:

(a) Establish a procedural schedule, including dates for prefiled testimony and exhibits;

(b) Identify, simplify or clarify issues;

(c) Eliminate irrelevant or immaterial issues;

(d) Obtain stipulations, authenticate documents, admit documents into evidence and decide the order of proof; and

(e) Consider other matters which may expedite the orderly conduct and disposition of the proceeding.

(2) Except as provided in subsection (3) of this rule, the record shall reflect the results of any conferences, which shall be binding on all parties.

(3) Unaccepted proposals of settlement at conference shall be privileged and shall not be admissible as evidence in the proceeding.

(4) Failure of the person against whom the civil penalty is assessed to appear at the conference shall be deemed a default and the written notice shall become a final order upon a prima facie case made on the record of the Department of Forestry.

(5) Unless allowed by the State Forester or hearing officer, the person may not reopen any matter determined at the conference or hearing. If the State Forester or hearing officer finds there was good cause for the person's failure to appear, the State Forester or hearing officer may permit the matter to be reopened, heard, and considered.

(6) Hearings shall be conducted under the provisions of ORS 183.310 to 183.550 applicable to contested cases. No hearing shall be held earlier than 45 days from the mailing or service of the notice or later than the date of the next regularly scheduled meeting of the Board following the 45 day period.

(7) If no hearing is requested or if the person requesting a hearing fails to appear, the final order shall be entered upon a prima facie case made on the record of the agency.

(8) Conferences and hearings shall be held at locations which are within the forest practices region of the person being assessed the penalty, unless otherwise agreed to by all parties.

629-55-080 ORDERS

(1) Not later than 60 days after the closing of the record, the State Forester or hearings officer shall draft, file with the Board, and serve on all parties, a proposed order, including rulings on the admissibility of offered evidence if the rulings are not set forth in the record, recommended findings of fact, conclusions of law, and recommendation for disposition of the case.

(2) If the State Forester modifies the hearing officer's draft proposed order, all parties to the hearing must be notified of the changes.

(3) Not later than 10 days after the date of the filing of the proposed order with the board, the person on whom the civil penalty has been imposed may file with the board, and serve on the department and the hearing officer, the person's written exceptions to the proposed order.

(a) The exception shall be confined to factual and legal issues which are essential to the

ultimate and just determination of the proceeding, and shall be based only on grounds that:

(A) A necessary finding of fact is omitted, erroneous, or unsupported by the preponderance of the evidence on the record;

(B) A necessary legal conclusion is omitted or is contrary to law or the board's policy; or

(C) Prejudicial procedural error occurred.

(b) The exception shall be numbered and shall specify the disputed finding, opinions or conclusions. The nature of the suggested error shall be specified and the alternative or corrective language provided.

(4) After the board has received and reviewed the proposed order and the exceptions, if any, the board shall:

(a) Entertain such oral argument as the board determines necessary or appropriate to assist the board in the proper disposition of the case;

(b) Remand the matter to the State Forester or hearing officer for further proceedings on any issues of fact which the board believes were not fully or adequately developed; or

(c) Enter a final order adopting the recommendation of the State Forester or hearing officer as the board's order or rejecting the recommendation of the State Forester or hearing officer. If the board elects to reject the recommendation of the State Forester or hearing officer, the board's final order shall contain necessary findings of fact and conclusions of law.

629-55-090 DELEGATION OF AUTHORITY TO STATE FORESTER; MITIGATION OF PENALTIES.

(1) In addition to any duties and responsibilities conferred upon the State Forester by law or any other delegation of authority from the Board of Forestry, the State Forester may, with respect to the administration of this division:

(a) Execute any written order, on behalf of the Board, which has been consented to in writing by the person or persons adversely affected by the order;

(b) Prepare and execute written orders, on behalf of the Board, implementing any action taken by the Board on any matter;

(c) Prepare and execute orders, on behalf of the Board, upon default where:

(A) The adversely affected party or parties have been properly notified of the time and manner in which to request a hearing and have failed to file a proper, timely request for a hearing; or

(B) Having requested a hearing, the adversely affected person or persons have failed to appear at the hearing or at any duly scheduled prehearing conference.

(2) The State Forester or the forester's designated representative may conduct any hearing authorized under OAR 629-55-010 through 629-55-090. "Designated representative" may include those persons designated by the State Forester as hearing officers.

(3) Upon written request of any person assessed a civil penalty, the State Forester may remit or mitigate the amount of any civil penalty greater than $250 upon a finding that remitting or mitigating the civil penalties is in the public interest and consistent with the policy of ORS Chapter 527.

(a) The request for mitigation shall be made in a written request for hearing to the State Forester under OAR 629-55-060 and must be received by the State Forester within 20 days from the date of personal service or mailing of the notice of civil penalty.

(b) If requested to do so in the written request for mitigation, the State Forester shall consider evidence of the person's economic and financial condition.

(c) The burden of going forward with evidence of the person's economic and financial condition is on the person seeking mitigation. Such evidence may be presented by the person without

prejudice to any claim by the person that no violation has occurred or that the person is not responsible for the violation.

AS ADOPTED BY THE BOARD OF FORESTRY SEPTEMBER 6, 1989

EFFECTIVE SEPTEMBER 20, 1989

629-55-100 ORDERS OF THE STATE FORESTER

(1) As used in OAR 629-55-100 to 629-55-150, order of the State Forester issued under ORS 527.610 to 527.730 means:

(a) An order denying approval of a written plan (ORS 527.670(2), (3), (10) and (11)).

(b) An order to repair damage or correct unsatisfactory condition (ORS 527.680(2)(b)).

(c) Temporary order to cease further activity (ORS 527.680(3)).

(2) Whenever an order affecting an operator, timber owner or landowner is issued under ORS 527.610 to 527.730, notice of the order shall be given to the affected party by personal service or certified mail. As used in this section, "personal service" means service on the party by any officer, employe, or agent of the Oregon State Department of Forestry. The notice shall include:

(a) A reference to the particular sections of the statute, rule, standard, order or permit involved;

(b) A short and plain statement of the matters asserted or charged;

(c) A statement of the person's right to request a hearing within 30 days from the date of service;

(d) A statement that the notice becomes a final order unless the person makes a written request for a hearing within 30 days from the date of service or mailing of the notice; and

(e) A statement that the record of the proceedings to date, including the agency file on the subject of the order automatically becomes part of the contested case record upon default, for the purpose of providing a prima facie case.

629-55-110 HEARINGS FOR OPERATORS LANDOWNERS OR TIMBER OWNERS

(1) As provided in ORS 527.700 (1), any operator, timber owner or landowner affected by a finding or order of the State Forester issued under ORS 527.610 to 527.730 may request a hearing within 30 days of the issuance of the order. The request for a hearing shall be in writing and must include a specific statement as to the reasons for disputing the State Forester's order, including but not limited to disagreement with any findings leading to the order. In addition, the request for hearing shall state what relief from the order is sought.

(2) Hearings under this rule shall be conducted as contested case proceedings under ORS 183.413 to 183.470.

(3) The hearing shall be commenced within 14 days after receipt of the request for hearing and a final order shall be issued within 28 days of the request for hearing unless all parties agree to an extension of the time limits.

(4) Failure of the person requesting the hearing to appear at the hearing shall be deemed a default and shall result in a final order being entered upon a prima facie case made on the record of the agency.

629-55-120 HEARINGS FOR PERSONS ADVERSELY AFFECTED BY AN OPERATION FOR WHICH A WRITTEN PLAN IS REQUIRED UNDER ORS 527.670(3)

(1) If a written plan under ORS 527.670(3) is required for an operation, any person who submitted written comments on the operation and who is adversely affected or aggrieved by the operation may file a request to the board for a hearing on the plan. The request shall be filed and copies served on the operator, timber owner and landowner personally or by certified mail within 14 days of the date the written plan was approved. The request shall include:

(a) The person's name and address and the organization represented.

(b) If represented by an attorney, the name and address of the attorney representing the person.

(c) A detailed statement of the person's interest and of how such interest may be affected by the results of the proceeding.

(d) A detailed statement of the fact regarding how the person's interest is affected by the Forest Practices Act or rules adopted thereunder.

(e) A detailed statement of fact showing that the operation is the type described in ORS 527.670(3).

(f) A brief statement of what board action is sought by the person.

(2) Upon receipt of a request provided under subsection (1) of this section, the State Forester shall determine whether the request meets the requirements of ORS 527.700(3) through (5). In making this determination, the State Forester shall consider:

(a) Whether the person has demonstrated a personal or public interest that could reasonably be affected by the outcome of the proceeding;

(b) Whether any such affected interest is within the scope of the board's jurisdiction;

(c) The interest the petitioner represents and the qualifications the petitioner possesses in cases in which a public interest is alleged;

(d) Whether the person could reasonably be considered to be affected by the Forest Practices Act or rules adopted thereunder.

(3) If the State Forester determines that the person making the request meets the requirements of ORS 527.700(3) through (5) the State Forester shall send written notification of the date of the hearing to the person requesting the hearing and to the timber owner, landowner and operator.

(a) The hearing date shall be no later than 14 days from the receipt of the request for hearing.

(b) The notice of hearing shall contain the statements that:

(A) Failure of the person requesting a hearing to appear at the hearing shall be deemed a default and a record of the proceedings to date, including the agency file or files on the subject of the written plan, automatically becomes a part of the record for the purpose of providing a prima facie case upon which default may be granted; and

(B) The hearing shall be conducted by a hearings officer, appointed by the Board of Forestry, according to the Attorney General's Model Rules for contested case proceedings.

(4) If the State Forester determines that the person making the request does not meet the requirements of ORS 527.700(3) through (5) the State Forester shall recommend to the Chairperson of the Board of Forestry that a hearing be denied for cause. The chairperson upon review of the request for hearing and the State Forester's recommendation shall either:

(a) Issue a final order on behalf of the board, denying a hearing for cause; or

(b) Direct the State Forester to schedule a hearing and send notices as required in subsection (3) of this section.

(5) Failure of the person requesting the hearing to appear at the hearing shall be deemed a default. A final order upon a prima facie record shall be entered approving the written plan.

(6) The landowner, timber owner or operator shall be made a party to the proceeding.

(7) The person requesting the hearing under these provisions may only present evidence on those issues raised in the person's

written comments to the written plan filed under ORS 527.670(9).

629-55-130 HEARINGS GENERALLY; FINAL ORDERS

(1) The Board of Forestry may appoint a hearings officer to conduct hearings under ORS 527.700. The hearings officer shall conduct the hearing and prepare the record for filing with the board within five working days of the close of the hearing. Except as provided in section (2) of this rule, no less than a majority of the board shall then review and consider the record, hold a meeting or telephone conference, and issue a final order.

(2) If upon a determination by the Chairperson of the Board of Forestry, the board cannot complete a final order in the matter within 28 days of the request for a hearing, the chairperson may delegate the authority to issue a final order to the hearings officer as provided in ORS 527.700(2).

(3) Unless consent to an extension is granted by all parties, a final order shall be issued no later than 28 days after the request for hearing was filed. The order may affirm, rescind or modify the written plan. Appeals from the final order shall be filed as provided in ORS 183.482.

629-55-140 STAY OF OPERATION

(1) The State Forester is authorized to issue temporary orders pertaining to a stay of operations under ORS 527.700(8).

(2) Any person entitled to a hearing under OAR 629-55-120 may apply to the State Forester for a stay of the operation pending a hearing on the matter. The request for a stay shall include:

(a) The name, address and telephone number of the person filing the request, identifying that person as a petitioner; and the names, addresses and telephone numbers of each of the other parties to the proceedings, identifying those parties' role in the proceedings. When any party is represented by an attorney in the proceeding, then the name, address and telephone number of the attorney shall be provided and the address and telephone number of the party may be omitted.

(b) Identification of the operation for which the stay is requested.

(c) A statement of facts and reasons sufficient to show that the stay request should be granted because:

(A) Commencement or continuation of the operation will constitute a violation of the rules of the board;

(B) The person requesting the stay will suffer irreparable injury if the stay is not granted;

(C) The person requesting the stay has met the requirements of ORS 527.700(3), (4) and (5); and

(D) Granting the stay will not result in substantial public harm.

(d) A statement identifying any potential injury to the other parties in the matter if the stay is granted. If the purposes of the stay can be achieved with limitations or conditions that minimize or eliminate possible injury to other persons, petitioner shall propose such limitations or conditions. Petitioner shall propose an amount of bond or other undertaking, not less than $15,000, to be imposed on the petitioner should the stay be granted, explaining why that amount is reasonable in light of the identified potential injuries.

(e) A description of any other procedures, if any, the petitioner believes should be followed by the State Forester in determining the appropriateness of the stay request; and

(f) An appendix of affidavits containing all evidence upon which the petitioner relies in support of the statements required in (2)(c) and (d) of this rule.

(3) The request for stay and all required accompanying documents must be filed with the State Forester at the same time the request for a hearing is filed.

(4) The State Forester shall notify the parties listed in the petition for stay, that they may participate in the stay proceeding if they file a response in accordance with section (5) of this rule. The State Forester shall include in this notice a time certain for filing a response to the request for stay.

(5) The landowner, timber owner or operator may file a response to the request for stay. The response shall contain:

(a) The name, address, and telephone number of the person filing the response, except that if the person is represented by an attorney, then the name, address, and telephone number of the attorney shall be included and the person's address and telephone number may be deleted;

(b) A statement accepting or denying each of the statement of facts and reasons provided in the petitioner's stay request.

(c) A statement accepting, rejecting, or proposing alternatives to the petitioner's statement on the bond or undertaking amount or other reasonable conditions that should be imposed on petitioner should the stay request be granted.

(6) The response may contain affidavits containing additional evidence upon which the person relies in support of the statement required under subsections (b) and (c) of section (5) of this rule.

(7) The response must be delivered or mailed to the State Forester and to all parties identified in the stay request.

(8) After the deadline for filing responses, the State Forester may:

(a) Issue a temporary order on the stay upon the basis of the material before the State Forester; or

(b) Conduct such further proceedings as the State Forester deems desirable; or

(c) Determine that the circumstances reasonably permit delay of consideration of a stay until the hearing.

(9) The State Forester's temporary order may:

(a) Grant the stay upon a showing that commencement or continuation of the operation will constitute a violation of the rules of the board, the person requesting the stay will suffer irreparable injury if the stay is not granted, and the requirements of ORS 527.700(3), (4) and (5) are met. The State Forester shall limit the effect of the stay to the specific geographic area or elements of the operation for which the person requesting the stay has demonstrated a violation of the rules and irreparable injury.

(b) Deny the stay request upon a finding that the petitioner failed to show that the requirements of ORS 527.700(8)(a) are met or granting the stay will result in substantial public harm.

(10) If the State Forester grants the stay, the person requesting the stay shall be required to give an undertaking which may be in the amount of the damages potentially resulting from the stay, but in any event shall not be less than $15,000. The undertaking shall be in the form that the State Forester determines best protects the interests of the person against whom the stay is imposed. In the event the written plan for which the stay was granted is affirmed in whole or in part, the State Forester shall retain the undertaking until all damages, including attorney fees, costs and expenses have been paid.

(11) The State Forester's temporary order shall be subject to review as part of the hearing reviewing the written plan. The temporary order of the State Forester may be affirmed, rescinded or modified by final order of the Board.

629-55-150 ACTUAL DAMAGES RESULTING FROM A STAY; ATTORNEY'S FEES

(1) If the board or hearings officer affirms the written plan of an operation for which a stay was granted, the board shall award actual damages in favor of each prevailing party against the person requesting the stay. A landowner, timber owner, or operator against whom a stay was entered may petition for actual damages for the portion of the case upon which it prevailed.

(2) The board may award reasonable attorney's fees and expenses to each of the prevailing parties against any other party who the board finds presented a position without probable cause to believe the position was well founded, or made a request primarily for a purpose other than to secure appropriate action by the board. If a written plan pertaining to an operation for which a stay was granted is affirmed, the board shall award reasonable attorney's fees in favor of each of the prevailing parties against the person requesting the stay. If a written plan submitted to and approved by the State Forester is disapproved or modified, the board shall award reasonable attorney's fees and costs against the state in favor of each of the prevailing parties. Any prevailing party, as described above, may file a petition for attorney's fees, expenses and costs for the portion of the case upon which it prevailed.

(3) An award of attorney's fees shall not exceed $5000.

(4) As used in this section, a "prevailing party" is one in whose favor an order pertaining to a written plan is issued, and may include the Department of Forestry where a written plan is affirmed. Where a written plan is affirmed in part and modified in part, each party may be regarded as a prevailing party.

(5) "Actual damages" include but are not limited to costs such as:

(a) Penalties for non-performance of contracts.

(b) Losses due to market fluctuations.

(c) Payments for crew stand-by.

(d) Equipment down-time.

(e) Move-in and move-out costs; and

(f) Loss in value of logs left sitting on the site for long periods.

(6) Attorney's fees, expenses and costs shall include only the following:

(a) The actual amount of fees charged by the attorney for services directly connected with prosecuting or defending against the challenge to the written plan; or

(b) Where the prevailing party is not charged a specific fee for the case (e.g., because the attorney is paid on a retainer basis or is an employe of the party), the fee shall be the reasonable value of the attorney's services directly connected with prosecuting or defending against the challenge to the written plan. "Reasonable value" means the equivalent of the fees charged by practitioners of similar skill and experience under section (6)(a) of this section, and includes such secretarial and other overhead costs as are customarily included in those fees.

(7) A prevailing party must file a petition and supportive affidavit for award of actual damages from a stay or attorney fees within 30 days of the date of the issuance of the board's order in the case for which awards are requested. A copy of the petition, together with a supporting affidavit, shall be served upon the opposing party or parties at the time the petition is filed and proof of service shall be provided to the board. The board shall dismiss petitions which do not

comply with this rule. The petition shall include:

(a) A statement of the facts upon which petitioner relies in claiming that it is a prevailing party;

(b) A statement of the amount of award requested, supported by an affidavit that describes in detail the actual damages incurred and the basis for the amount of damages requested; or amount of the fees incurred by petitioner, or where the petitioner was not charged fees, the basis for the amount of the costs requested;

(c) A statement describing how the amount of the award requested would be consistent with the policies and the purposes of the Oregon Forest Practices Act.

(8) An opposing party shall have 14 days from the date of service of the petition to file written objections. Such objections shall be served on the petitioner at the time the objections are filed and proof of service shall be provided to the board.

(9) In designating the amount of fees and costs to be awarded, the board shall consider, but is not limited to, the following factors:

(a) Consistency with the policies and purposes of the Oregon Forest Practices Act including but not limited to the following considerations:

(A) The issue in the case was one of first impression; or

(B) A complaint or defense was frivolous or otherwise without merit; or

(C) A party was an individual who, due to the circumstances of the case, had to rely upon his or her personal financial resources.

(b) In the case of attorney's fees, the appropriate charges for the services rendered, based on:

(A) The time and labor customarily required in the same or similar cases;

(B) Hourly charges customarily made by attorneys for rendering similar services;

(C) The novelty and difficulty of the issues and the amount of preparation, research or briefing reasonably required; and

(D) The skill requisite to perform the services properly.

(c) Awards in similar cases.

(10) The hearings officer who presided over the hearing on the written plan shall examine the petition for award of actual damages or attorney's fees and any associated arguments. The hearings officer may require the parties to provide additional information or conduct hearings as the officer deems necessary. The hearings officer shall prepare a proposed order for the board.

(11) The board shall review the hearings officer's proposed order and issue a final order awarding actual damages or attorney's fees pursuant to this section, based upon the record. The board may award all or a portion of the actual damages or fees requested. The board will not act on a petition until the appeal period has run or, where an appeal has been filed, during the pendency of the appeal.

AS ADOPTED BY THE BOARD OF FORESTRY
APRIL 30, 1988
EFFECTIVE MAY 11, 1988

ACCESS TO NOTIFICATIONS AND WRITTEN PLANS

629-55-200 PROCEDURES FOR REQUESTING COPIES OF NOTIFICATIONS AND WRITTEN PLANS; FEES

(1) Any person may examine or request copies of notifications or written plans filed with the State Forester as required by the Forest Practices Act. Examination of records, or requests for copies shall be made at the Department of Forestry district or unit office responsible for the geographic areas in question.

(2) When a person requests copies of notifications or written plans already on file, a fee shall be charged, as specified in OAR 629-10-200, Charges for Copying and Purchasing Public Records.

(3) When a person requests to be sent notifications or written plans as they are filed at some time in the future, the request shall be made in writing on forms provided by the State Forester. The request shall require payment, in advance, of a fee as established in subsections (4) and (5) of this rule. Such request shall specify the geographic area of interest by legal description. The smallest unit of area described in such a request shall be a section (usually 640 acres).

(4) The fee for sending copies of notifications or written plans to persons requesting them, shall be a minimum of $15. For requests covering more than five sections, an additional $3 shall be charged for every section in excess of five sections. Complete townships shall be discounted to $100 per township.

(5) The fees described in subsection (4) are based on estimated costs of services, and the likelihood that such services shall be rendered for any particular section. For complete Department of Forestry districts, costs of services can be estimated with more precision, based on the annual average number of notifications filed, as shown below. Therefore, as a person requests to receive copies over several townships, the costs of sending copies under subsection (4) approaches the estimated maximum cost per district expressed below. The fee charged per district shall be the lesser of the amount derived from either subsection (4) or this subsection.

DISTRICT	OFFICE LOCATIONS	MAXIMUM FEE
Astoria	Astoria	$ 400
Central Oregon & Walker Range	Prineville The Dalles John Day Fossil	$ 725
Clackamas-Marion	Molalla Mehama	$ 900
Coos	Coos Bay Bridge Gold Beach	$1,200
Douglas	Roseburg	$ 700
Eastern Lane	Springfield	$ 900
Forest Grove	Forest Grove Columbia City	$1,300
Klamath-Lake	Klamath Falls Lakeview	$ 350
Linn	Sweet Home Mehama	$ 800
Northeast	LaGrande Pendleton Wallowa	$ 500
Southwest	Central Point Grants Pass	$ 600
Tillamook	Tillamook	$ 350
Western Lane	Veneta	$ 900
West Oregon	Philomath Dallas Toledo	$1,300

(6) Upon payment of fees described in subsections (4) or (5) of this rule, the person shall be sent all notifications and written plans filed with the State Forester for the geographic area described in the request for a period of one year from the date of payment.

629-55-210 EXEMPTION FROM SENDING WRITTEN PLANS TO DEPARTMENT OF REVENUE OR COUNTY ASSESSORS.

(1) Notwithstanding ORS 527.670(8), the State Forester may enter into cooperative agreements with the Director of the Department of Revenue and any of the county assessors for the purpose of exempting the State Forester from the requirement to send written plans.

(2) Notwithstanding ORS 527.670(8), the State Forester may enter into cooperative agreements

with the Director of the Department of Revenue and any of the county assessors for the purpose of exempting the State Forester from the requirement to send notifications within three working days of receipt. Such agreement shall establish the procedures for sending notifications, appropriate to the use of the receiving party. In those counties which do not assess a personal property tax or otherwise do not have a use for notifications, a cooperative agreement may exempt sending notifications altogether.

AS ADOPTED BY THE BOARD OF FORESTRY
APRIL 30, 1988
EFFECTIVE MAY 11, 1988

629-55-400 REGIONAL FOREST PRACTICE COMMITTEE RESPONSIBILITIES

(1) Pursuant to ORS 527.650 and 527.660, Regional Forest Practice Committees are advisory committees established to assist the Board of Forestry in developing appropriate forest practice rules. The committees are comprised of citizens qualified by education or experience in natural resource management. The committees may review proposed forest practice rules, identify the need to amend forest practice rules or propose amended forest practice rules.

(2) The regional committees will be requested to review proposed forest practice rules whenever:

(a) The proposed rule prescribes operating practices needing review to ensure clarity, technical feasibility and practicality.

(b) The proposed rule deals with administrative matters that the Board determines to be of importance to operators and landowners; or

(c) The Board determines that there is a need to provide for greater public involvement in the rulemaking process for a given rule and chooses the regional committees as a vehicle of that public involvement.

(3) When requested by the Board of Forestry or the State Forester to review proposed rules, the regional committees shall report back to the Board regarding the clarity, technical feasibility, and practicality of the proposed rule as well as any other comments or recommendations the committee may have. For the purpose of this rule, the following definitions apply:

(a) "Clarity" is a test of the ease with which the intent of the rule can be understood by the regulated parties.

(b) "Technical feasibility" is a test of whether the technology exists and is reasonably available to be applied within the region in question.

(c) "Practicality" is a test of whether the rule provides an actual solution to the problem, and when applied, will the rule meet the objectives of the Forest Practices Act.

629-55-410 MEMBER QUALIFICATIONS, APPOINTMENTS, ORGANIZATION.

(1) The regional committee members shall be appointed by the Board of Forestry and shall be qualified as prescribed by ORS 527.650.

(2) The chairperson and vice-chairperson of each committee shall be selected by the committee members.

(3) The State Forester shall appoint a member of the Department of Forestry to serve as secretary for each of the committees.

(4) Reports to the Board of Forestry shall be made by the respective regional committee chairperson or the chair's designee.

629-55-420 CONDUCT OF MEETINGS.

(1) The regional committees may determine operating procedures governing the transaction of their business.

(2) The chairperson shall have the usual duties and power of a presiding officer.

(3) All meetings of the

regional committees will be conducted as open public meetings. However, though most meetings will provide for the opportunity for public testimony as a necessary means of conducting business, such an opportunity is not required and may be excluded at the discretion of the chairperson when necessary to conduct business.

(4) The committee secretary shall send an agenda together with minutes of the previously held meeting to all members of the committee prior to each committee meeting.

A Summary of Forest Practices Activities 1988

OREGON STATE DEPARTMENT OF FORESTRY
FOREST PRACTICES PROGRAM

November 1989

A SUMMARY OF FOREST PRACTICES ACTIVITIES

1988

Prepared By:

Forest Practices Program Staff
Oregon State Department of Forestry

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EXECUTIVE SUMMARY

The following report summarizes the administration of the Oregon State Department of Forestry's Forest Practices Program during calendar year 1988.

Harvesting and other management activities increased in Oregon's state and private forests during 1988. The Forest Practices Program' field and staff personnel responded to this increase while at the same time tackling several new administrative workloads, including new rule development and implementation. Personnel were added both to the field and in Salem to respond to these challenges.

The number of notifications of operations received on non-federal lands reached 11,924, higher than in any of the previous five years. The number of acres clearcut and partial cut harvested increased significantly above the previous five-year average along with the number of acres where soil was stabilized and the acres treated with chemicals.

Cooperation with other state agencies continued to be a high priority for the Forest Practices Program. During 1988, this coordination was evident in the field and at the staff and executive levels.

Sixty-nine percent of the high priority operations statewide received a pre-operation inspection. Many operations received more than one inspection. Over 2,700 written recommendations were issued to forest operators to encourage rule compliance.

Compliance with the forest practice reforestation rules continued to be very high. Of the acres requiring reforestation, 98.2 percent are in compliance.

A total of 200 citations were issued during 1988, with failure to submit a notification being the most common violation. In the fall of the year, the department began issuing civil penalties in addition to pursuing criminal prosecution. As of the date of this publication, civil penalty citations issued during 1988 have resulted in the assessment of $14,162.50 in fines of which $10,535.00 have been collected.

The department continued to investigate operation-specific complaints received from the public and other state agencies in a timely fashion.

Overall, 1988 can be viewed as a year of change for both the Forest Practices Program and for the forest lands and forest users it regulates.

INTRODUCTION

The statistics and trends presented in this report summarize the administration of the Forest Practices Program during 1988. This information is useful in evaluating the effectiveness of the program in achieving the direction provided by the Oregon Board of Forestry. The report is divided into six sections:

- Administration
- Interagency Coordination
- Prevention
- Enforcement
- Complaint Investigation
- Appendices

Amendments to the Forest Practices Act approved by the 1987 Oregon Legislature resulted in major changes in the forest practice rules and the administration of the Forest Practices Program. These changes are reflected in the sections dealing with administration and enforcement.

Within each section, specific questions regarding program administration, interagency coordination, rule application, and rule enforcement are presented, followed by data which attempts to answer these questions. The questions were developed as part of the Forest Practices Program's Monitoring Plan, of which this report is a product. A new forest activity computerized tracking system scheduled for implementation in 1990 will allow future editions of this report to provide more comprehensive answers to these and other monitoring questions.

This report is developed for use by the Board of Forestry, other state agencies, and the people of Oregon. The Department of Forestry will also use this data in its planning and budgeting processes.

Questions about the summary should be directed to:

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Forest Practices Program Monitoring Coordinator
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Salem, Oregon 97310 (Phone: 373-7474)

ADMINISTRATION

How are forest practices field personnel and Salem staff organized and what are their responsibilities?

Forest Practices Foresters and their supervisors in the field are responsible for direct administration of the Forest Practices Program within their assigned geographical areas. Figure 1 illustrates the distribution of Forest Practices Foresters in the state during 1988. As a result of an increased 1987-1989 biennium budget combined with additional funding approved by the Legislative Emergency Board early in 1988, three vacant Forest Practices Foresters positions were filled. These Foresters are stationed at the department's Columbia City, Molalla, and Dallas field offices. There are now a total of 48 Forest Practices Foresters statewide.

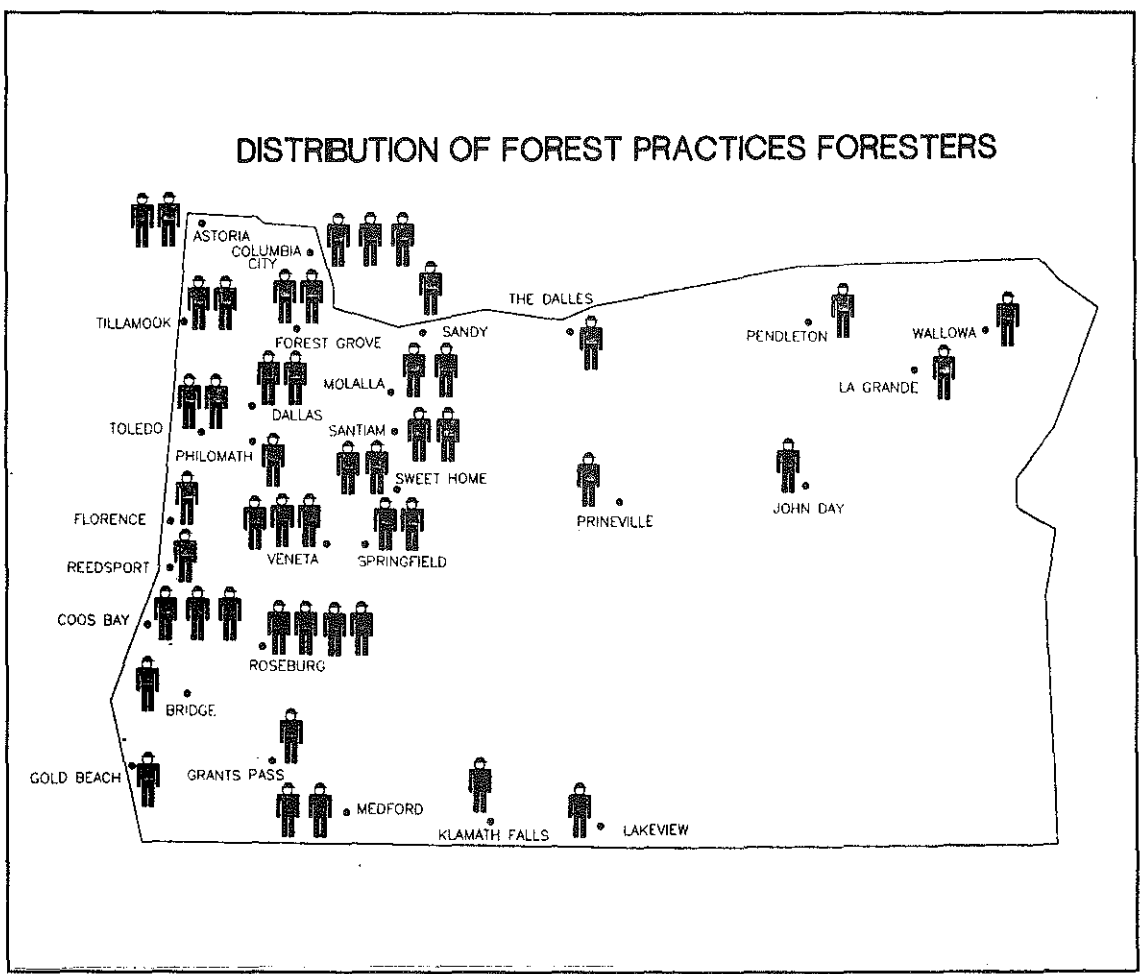

Figure 1

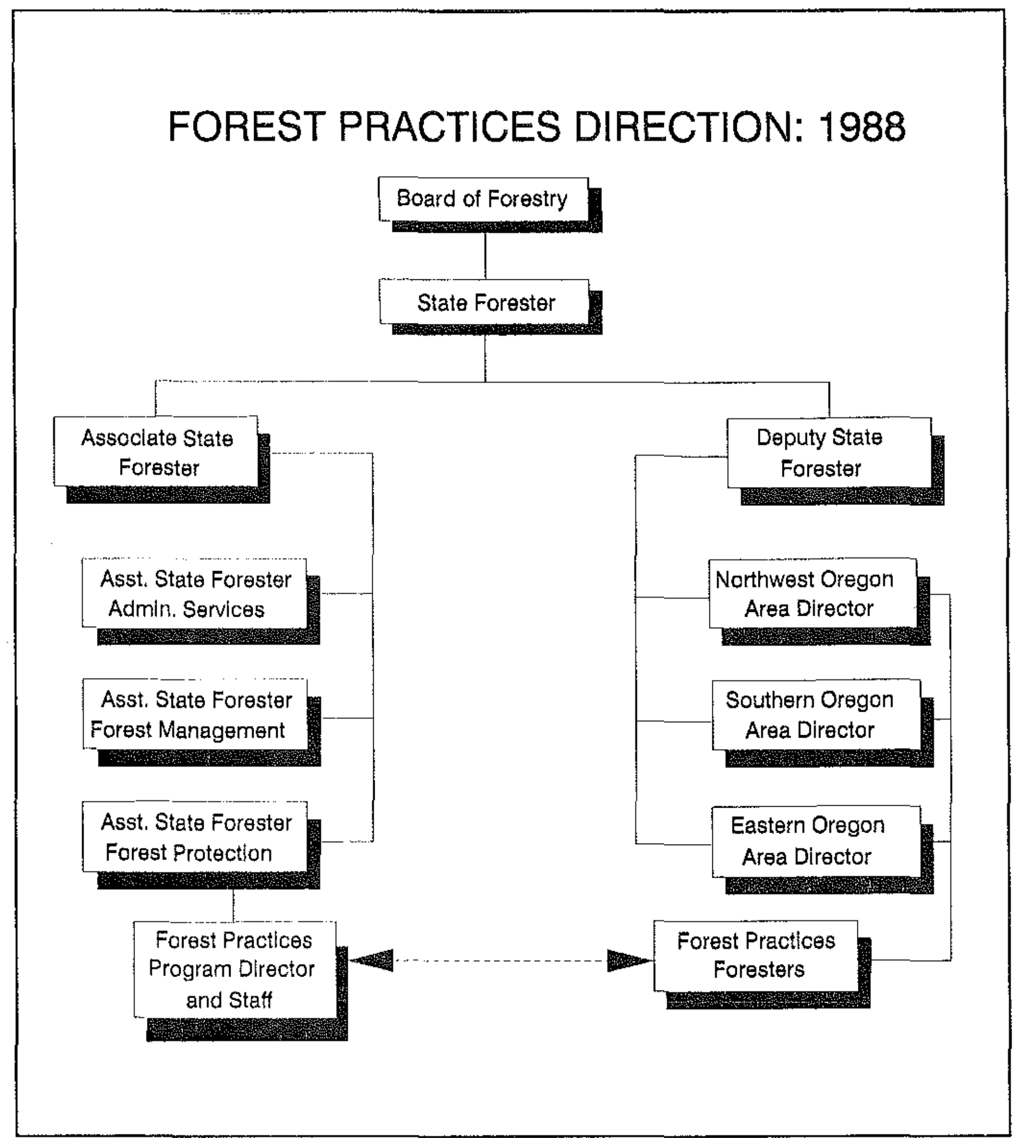

Figure 2

Field personnel are supported by program staff based in Salem managed by the Forest Practices Program Director who, in turn is directed by the State Forester and his executive staff (Figure 2). During 1988, the department's Associate State Forester position was vacated and has since been replaced with a fourth Assistant State Forester.

The Forest Practices Staff was expanded in 1988 with the addition of seven positions. These new personnel are primarily working on implementation of new rules and policies resulting from amendments to the Forest Practices Act in 1987 (Figure 3). These activities have included developing administrative rules regarding Regional Forest Practices Committees, interim written plans, civil penalties, and public access to notifications and written plans. The staff also assisted in the formation of the State Forester's Advisory Committee on the Selection and Protection of Resource Sites which will advise the department on criteria for further rule development.

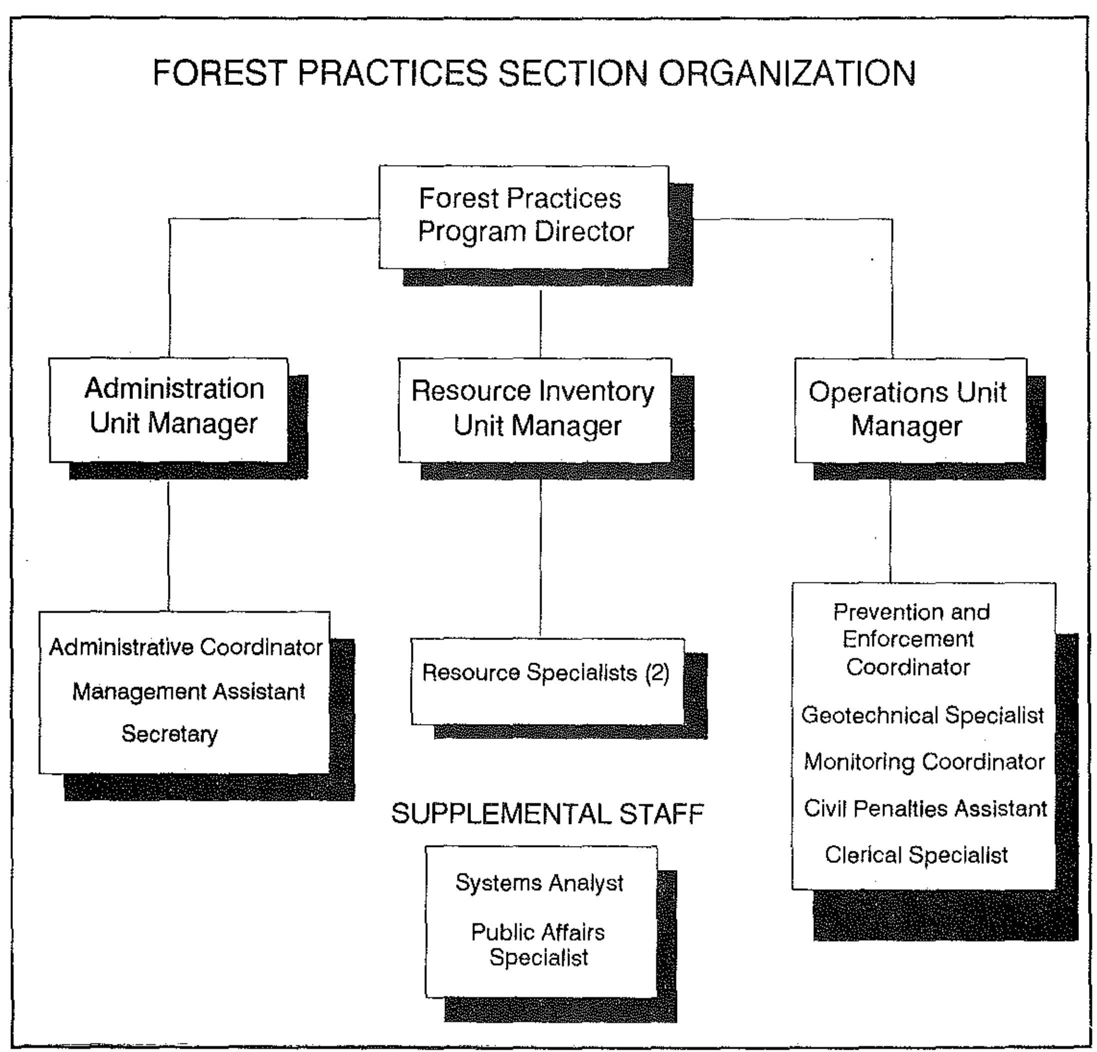

Figure 3

Sixty percent of the funding for this program is derived from General Funds and the remaining 40 percent originates from the Forest Products Harvest Tax (Table 1).

Most of the Forest Practices Foresters are only partially funded by the Forest Practices Program. Some of their time is devoted to other programs, primarily Fire Prevention and, in a few cases, Service Forestry.

Table 1
FOREST PRACTICES PROGRAM STAFFING AND FUNDING
1979-1981 to 1987-1989 Bienniums

Biennium	Full Time Equivalents	Biennial Funding[1]
1979-1981	48.9	$ 2.6 million
1981-1983	43.4	$ 2.7 million
1983-1985	44.1	$ 3.2 million
1985-1987	48.2	$ 3.8 million
1987-1989[2]	62.6	$ 5.2 million

Notes: [1] Not adjusted for inflation.
[2] Following Legislative Emergency Board action in 1988.

How many forest operations are conducted each year and what types of activities are occurring on these operations?

An objective of the Forest Practices Program is to maintain the quality of forest resources through prevention rather than remedial action whenever possible. Prevention activities include operator education, recognition of high quality operators, requiring prior notification of operations, on-site inspections, written recommendations by Forest Practices Foresters, and, in certain cases, requirements for written plans for preventing resource damage.

The department's receipt of a notification of operation initiates this prevention effort. Many notifications include multiple operations or types of activities regulated by the forest practice rules. For instance, it is common to have road construction, harvesting, slash treatment, and a chemical application occurring on one forest site. Each type of operation is guided by a separate section of the rules and is evaluated by the Forest Practice Forester so that adequate resource protection is provided (Table 2 and Figure 4).

Table 2
NOTIFICATIONS OF OPERATIONS
RECEIVED BY THE STATE FORESTER
Calendar Year 1988

	LANDOWNER CLASS[1]				
Types of Operations to be Conducted	State and Local Government	Non-Industrial[2] Private	Partnership/ Corporation	Total	Percent of Operations by Operation Type
Harvest of Forest Crops	439	4,217	4,062	8,718	54.4 %
Road Construction or Reconstruction	174	600	1,486	2,260	14.1
Site Preparation	37	298	327	662	4.1
Chemical Application	105	208	954	1,267	7.9
Land Use Change	9	247	39	295	1.8
Slash Treatment	37	396	548	981	6.1
Pre-Commercial Thinning	22	213	329	564	3.5
Other[3]	160	403	728	1,291	8.1
TOTAL NOTIFICATIONS RECEIVED[4]	742	4,888	6,294	11,924	
PERCENT OF NOTIFICATIONS BY LANDOWNER CLASS	6.2 %	41.0 %	52.8 %	100 %	

1 Excludes 1,502 notifications for operations on federal lands.
2 Includes foundations, non-profit organizations, etc., in addition to individuals.
3 Rock pits, salvage, etc.
4 This total is less than the sum of operations since some notifications include more than one type of operation.

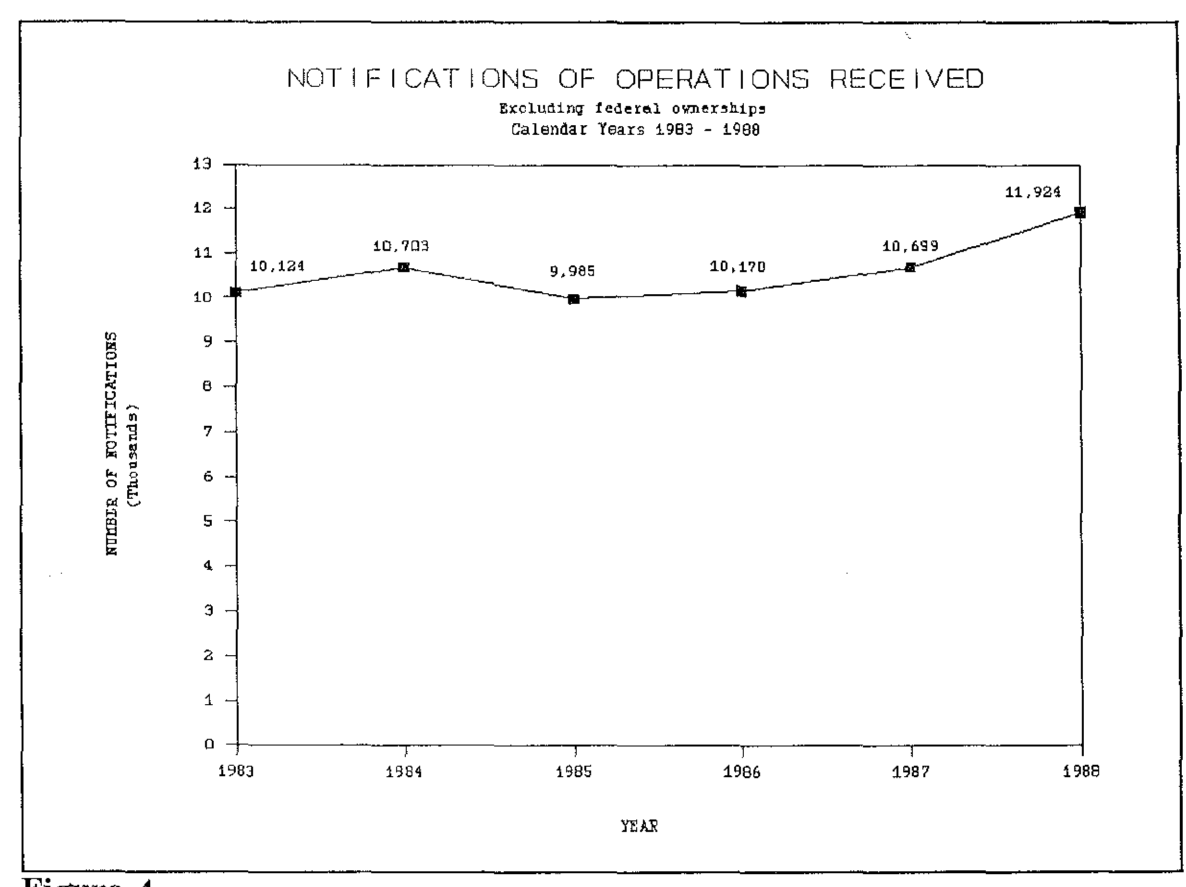

Figure 4

Each year, the activities in forest operations that are completed are totalled. Some operations are continued into future years. Activities are recorded only in the year they are completed (Table 3).

Table 3
FORESTRY ACTIVITIES COMPLETED
Calendar Year 1988 and Historical Trend

Activity	1988	1983-1987 Average
Road Construction (Miles)	653	682
Stabilization of Soil (Acres)	12,315	7,911
Harvesting (Acres)		
Clearcut	85,430	74,919
Partial Cut	193,746	143,875
Salvage	100,558	138,911
Total	379,734	357,705
Chemical Application (Acres)		
Herbicide	176,730	160,843
Fertilizer	49,664	50,183
Fungi-/Insecti-/Rodenticide	65,518	12,273
Total	291,912	223,298
Site Preparation (Acres)	28,723	25,155
Pre-Commercial Thinning (Acres)	45,872	42,173

COORDINATION

Are the objectives of other state agencies, as designated by the legislature or by their respective boards and commissions, being met on forest lands through the forest practice rules?

The forest practice rule OAR 629-24-104 requires the State Forester to annually review the forest practice rules with other interested state agencies. The purpose of the meetings is to review the sufficiency of the rules to support other state agencies' related programs. The rule also requires the results of these reviews to be reported to the Board of Forestry.

At the end of 1988, nine agency heads were invited to meet with the State Forester and his staff in a series of meetings to review the performance of the Forest Practices Program. Seven of the agencies accepted. Those seven were Agriculture, Environmental Quality, Fish and Wildlife, Health, Parks and Recreation, State Lands, and Water Resources. The other two agencies, Land Conservation and Development and Geology and Mineral Industries, chose not to schedule a meeting that year.

Summaries of the main points of discussion during the seven meetings with state agencies are provided in Appendix A.

Are affected state agencies being consulted by the Department of Forestry and are these agencies providing recommendations when their expertise is needed?

Interagency contact occurs at the field, staff, and executive levels and may involve site-specific consultations (which may or may not involve on-site inspections), mutual training, task force participation, program administration coordination, and annual program reviews. Only on-site operation contacts are presently documented (Table 4 and Figures 5 and 6).

Table 4
FOREST PRACTICES OPERATION CONTACTS
Calendar Year 1988
and Historical Trend

Year	Department of Forestry Only	With Other Agencies	Total
1988	16,595	166	16,761
1983-1987 Average	14,167	167	14,334

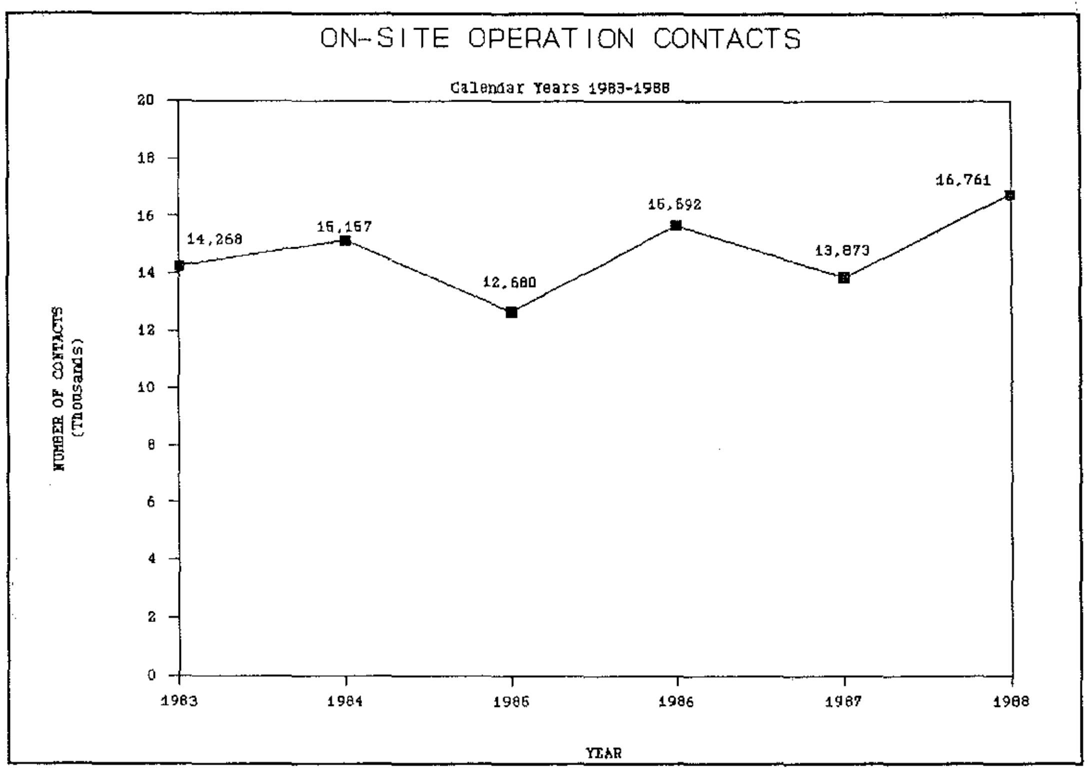

Figure 5

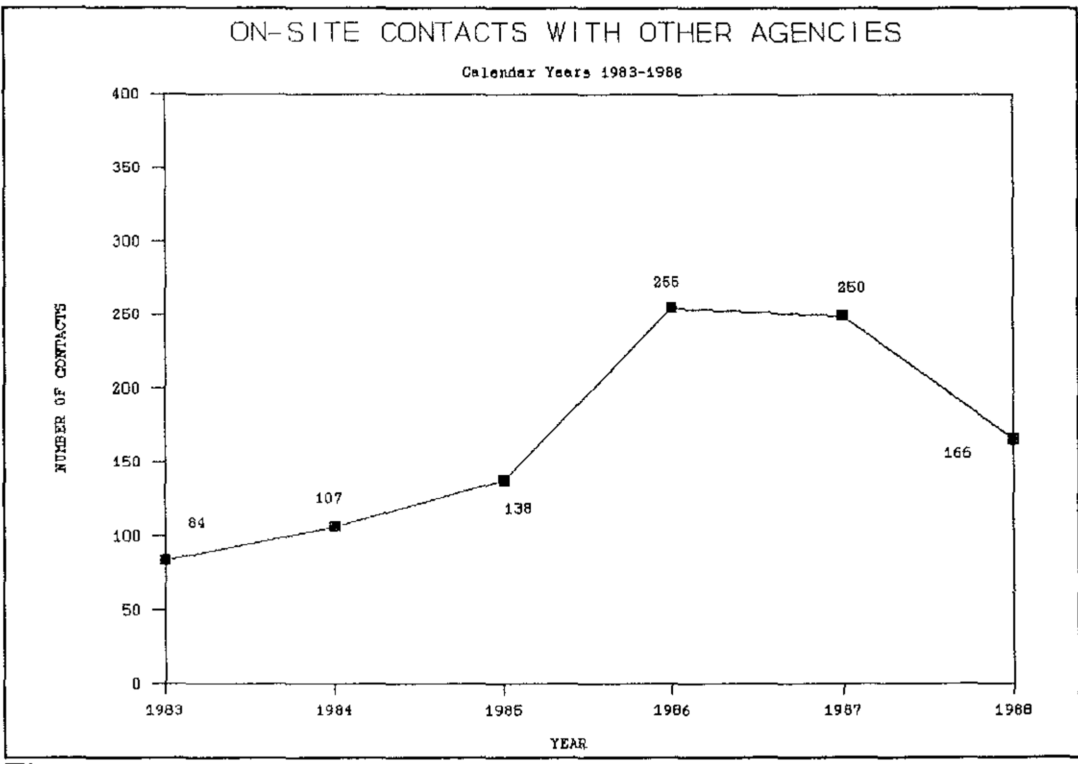

Figure 6

PREVENTION

How many inspections are being made by Forest Practices Foresters in order to prevent resource damage?

By inspecting operation sites before work begins, the Forest Practices Forester can help the operator plan to meet the rule requirements and prevent resource damage. Since Forest Practices Forester are not able to visit every operation, each operation is assigned an inspection priority of low, medium or high. Pre-operation inspections are concentrated on the high and medium priority operations (Table 5).

Low priority operations are usually on gentle slopes and in areas where the potential for causing resource damage is almost nonexistent unless intentional.

Medium priority operations are usually on moderately steep slopes (25% to 45%). A sizable disturbance would have to occur before Class I waters (waters important for fisheries, recreation, or domestic use) or other sensitive resources would be influenced.

High priority operations are usually on steep slopes where minor disturbances could affect a Class I water system or other sensitive resources. Unstable soils, close proximity to streams, and difficult road construction also usually result in a high priority rating. Special care must be taken to protect water quality and maintain productivity.

Table 5
SUMMARY OF PRE-OPERATION ACTIVITY
Calendar Year 1988
and 1983 to 1987 Statewide Average

	Inspection Priority	No. of Operation Starts	No. of Operations Receiving 1 or More Pre-Operation Inspections	Percent Receiving Inspections
Statewide Total	High	1,382	925	66.9 %
	Medium	3,202	961	30.0
	Low	6,107	439	7.2
	All	10,437	2,326	22.3
Statewide Average 1983 to 1987	High	1,168	803	68.8 %
	Medium	2,951	1,022	34.6
	Low	5,225	390	7.5
	All	9,344	2,215	23.7

Often more than one inspection is made during the course of an operation, particularly on high priority operations (Table 6).

Table 6
ON-SITE CONTACTS PER COMPLETED OPERATION, BY PRIORITY
Calendar Year 1988
with 1983 to 1987 Average

No. of Contacts Per Completed Operation	Number of Operations by Inspection Priority		
	High	Medium	Low
1988			
2 Contacts or More	538	953	567
1 Contact	231	793	1,421
Not Contacted	207	767	3,075
Total Operations	976	2,513	5,063
1983 to 1987 Average			
2 Contacts or More	533	906	508
1 Contact	323	821	1,355
Not Contacted	235	781	2,599
Total Operations	1,091	2,508	4,422

Forest Practices Foresters may issue written recommendations to operators in order to prevent resource damage and rule violations. Recommendations are normally given in conjunction with joint inspections of the operation site by the Forest Practices Forester and operator. Written recommendations are a frequently used tool which continues to be successful in preventing resource damage (Table 7).

Table 7
WRITTEN FOREST PRACTICES RECOMMENDATIONS
Calendar Year 1988
with 1983 to 1987 Average

Type of Recommendation	1988 Total	1983 to 1897 Average
Harvesting	1,885	1,616
Road Construction	469	491
Chemicals	100	156
Slash Disposal	28	28
Reforestation	49	41
Stream Change	23	10
Other	166	179
Total	2,720	2,521

ENFORCEMENT

What enforcement actions are being taken when the forest practice rules are violated?

Enforcement action is initiated whenever a forest practices rule violation is detected. This procedure involves the issuance of a citation for each violation. The citation may or may not require a court appearance depending on the effect on the protected resource and the record of the violator.

Enforcement action supports the prevention effort by limiting the extent of resource damage and by requiring corrective action. Whenever damage can be limited or mitigated, an order to "repair damage or correct unsatisfactory condition" accompanies the citation. The State Forester can seek a court order to enforce a "repair order" or can even do the repairs and collect the costs from the violator.

Reforestation Requirements

The forest practice rules require successful regeneration of economically suitable forest land whenever an operation reduces the stocking below established minimums. The private forest landowner is given a prescribed number of years to reestablish a viable forest stand. An exception is tracts where the use of the land is changed to a non-forest purpose. Enforcement action is taken on operations not complying by the required deadline.

Table 8 and Figure 7 summarize a continuing high level of compliance with the reforestation rules.

Table 8
REFORESTATION ACCOMPLISHMENTS
Calendar Year 1988
with 1983 to 1987 Average

Year	Acres Requiring Reforestation	Acres in Compliance	Acres not in Compliance
1988	83,112	81,605	1,507
1983-1987 Average	90,374	88,358	2,016

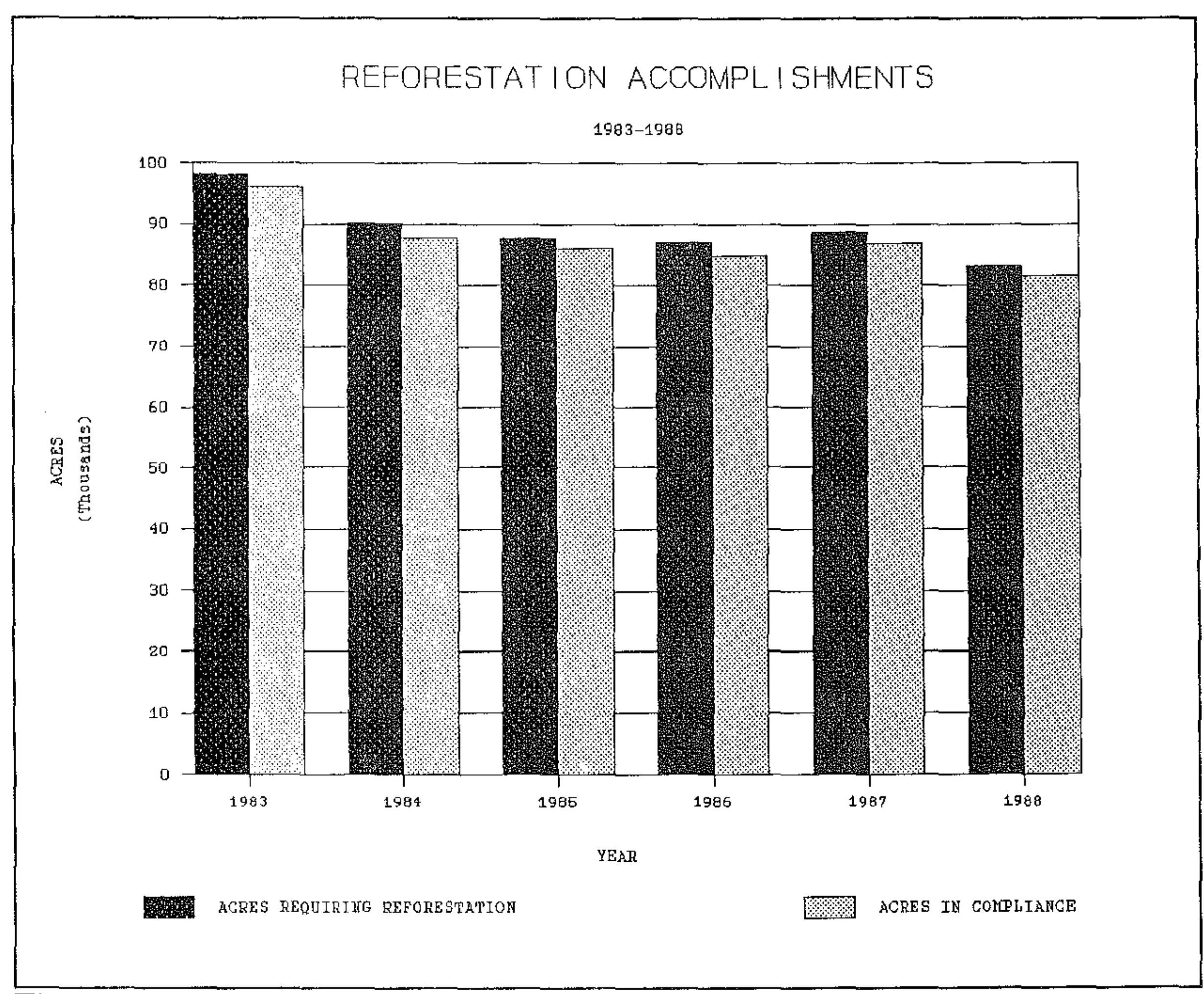

Figure 7

Rule Violations

Violations of the forest practice rules regarding prior notification, harvesting, and road construction continue to be most frequently cited. Table 9 lists the types of citations issued in 1988. Some of the operations cited, particularly those cited for reforestation rule violations, were completed in previous years. Overall compliance with the forest practice rules has remained very high (Table 10).

Table 9

FOREST PRACTICE CITATIONS ISSUED BY TYPE OF VIOLATION
Calendar Year 1988
with 1983 to 1987 Average

Type of Violation	1988	Number of Violations 1983-1987 Average
1. Failure to Notify State Forester	81	51
2. Harvesting	64	74
3. Road Construction and Maintenance	23	35
4. Reforestation	19	20
5. Chemical Application	4	5
6. Other	9	11
TOTAL	200	196

Appendix B summarizes the number and types of violations cited by Department of Forestry district.

Table 10
TOTAL OPERATION COMPLIANCE
Calendar Year 1988

No. of Completed Operations Inspected	No. of Operations With 1 or More Violations	Percent of Operations in Compliance
4,503	170	96.2

In August of 1988, the Department of Forestry received authority to assess civil penalties for forest practice rule violations in addition to pursuing criminal penalties. The forest practice rule specify the formulas and procedures for assessing civil penalties. Of the 200 cited rule violation during the year, 67 resulted in civil penalty action. Table 11 summarizes the outcome of these 67 citations, including activities on these cases to date during 1989. Table 12 describes the amount of penalties assessed and collected. Collected penalties are added to the State's General Fund.

Table 11
SUMMARY OF CIVIL PENALTY ACTIONS TO DATE
on Calendar Year 1988 Citations

CITATIONS WITH CIVIL PENALTIES:				
Citations Initially Issued Involving a Civil Penalty	67			
Citations Later Dropped by District Forester		4		
Citations Later Dropped by Civil Penalty Administrator		1		
Citation Upheld, No Penalty Issued		4		
Cases Awaiting Assessment		1		
Assessment Notices Sent by Department		57		
STATUS OF CASES WITH ASSESSMENTS				
Total Cases with Assesment Notices Sent			57	
Cases Closed (no further action needed)				49
Cases Under Appeal				1
Cases Open				2
Cases Open Due to Overdue Payment of Penalty				5

CONTESTED CASES		
Total Contested Cases	8	
Closed Contested Cases 2 Dropped by Violators, Penalties Paid 2 Dropped by Violators, Penalty Dropped by Department		4
Dropped By Civil Penalty Administrator		1
Mitigation Requested and Denied		1
Open, Awaiting Hearing Officer's Proposed Order		1
Order Upheld by the Board of Forestry, Appealed By Violator (no penalty pending)		1

Table 12
AMOUNTS OF CIVIL PENALTIES ASSESSED AND COLLECTED
Calendar Year 1988

Total Penalties Assessed		$14,162.50
Total Penalties Suspended (less than or equal to $50)	850.00	
Total Adjusted	412.50	
Total Collected	10,535.00	
Penalties Payments Overdue	2,175.00	
Penalties Held Pending Hearing	190.00	
	$14,162.25	

Prior to implementation of civil penalties, violations that were repeat offenses or that caused serious damage to a protected resource resulted in a citation requiring a court appearance to face criminal charges. Criminal prosecution is still pursued in two situations. One is when it is determined that an operator acted knowingly or recklessly when committing the violation. The second is when the violation resulted in a monetary gain for the operator above any recoverable civil penalty. Cases cited to court are often settled in a variety of ways without a court appearance, such as community service or probation. Table 13 summarizes the results of court actions in 1988.

Table 13
COURT ACTIONS
Calendar Year 1988
with 1983 to 1987 Average

Case Disposition	1988	1983-1987 Average
Total Citations Issued	200	196
Cases Cited to Court	15	42
Guilty Pleas	4	21
Cases Tried, Found Guilty	1	6
Cases Tried, Found Not Guilty	3	2
Cases Dropped By District Attorney	2	6
Other[1]	5	8

Note: [1] Other includes cases resulting in plea bargains, put on diversion, dropped by the Department of Forestry, dismissed by the court, or cases pending final resolution.

Table 14 summarizes the fines imposed by the courts in 1988. This table does not include all operations cited to court since some cases are still pending.

Table 14
FINES IMPOSED BY COURTS
Calendar Year 1988
with 1983-1987 Average

Year	No. of Cases Assessed Fines	Total Fines Levied	Total Fines Suspended
1988	8	$ 1,492	$ 0
1983-1987 Average	19	$ 5,507	$ 881

Repair action is required whenever resource damage can be limited or corrected. The order to repair damage is enforced regardless of the results of court proceedings. Therefore, the costs of repairs frequently exceed the amount of fines imposed and other penalties. Repair costs actually incurred by operators are not easily determined and can vary widely. Actual repair costs are probably higher than shown in Table 15. Along with adverse publicity and possible criminal conviction for a misdemeanor, repair cost is considered major deterrent to violations.

Table 15
REPAIR COST BY TYPE OF DAMAGE[1]
Calendar Year 1988
with 1983-1987 Average

Type of Damage	1988	1983-1987 Ave.
Excessive Siltation	$ 7,940	$ 9,645
Other Stream Damage	12,452	11,834
Soil Erosion or Movement	700	3,148
Deep Soil Disturbance	1,450	1,000
Significant Stream Temperature Increase	0	120
Wildlife Habitat Damage	220	0
Fish Habitat Damage	12,350	2,180
Inadequate Tree Stocking	3,910	6,167
Loss of Productivity	1,000	350
Other	700	8,915
TOTAL	$ 47,922	$ 43,359

[1] Note: Costs are estimates and have not been adjusted for inflation. Some costs may not have been reported.

COMPLAINT INVESTIGATION

What operation-specific complaints have been received by the Department of Forestry and what was the outcome of these complaints?

Complaints and information requests from citizens or other agencies receive prompt attention and complete investigation. The results of these investigations are relayed to the complainant. Incidents determined to be unrelated to the Forest Practices Program are referred to the appropriate agency.

Table 16
SUMMARY OF COMPLAINTS
Calendar Years 1988
with 1983 to 1987 Average

	1988	1983-1987 Average	
Total Complaints	124	78	
Percent by Source:			
Citizen	87 %	83 %	
Other Agency	13 %	17 %	
Percent by Type:			
Chemical Spray	9 %	19 %	
Stream Damage/Siltation	26 %	34 %	
Domestic Water Supplies	6 %	9 %	
Soil Disturbance	6 %	5 %	
Road Construction	4 %	4 %	
Buffers/RMA	17 %	4 %	(Included in Other until 1986)
Other (Including Non-Forest Practice Related)	32 %	25 %	
Complaints Involving Forest Practices Program	76	58	
Complaints Resulting in Remedial Action Recommended to Operator	11	17	
Complaints Resulting in Forest Practices Citations	13	9	

APPENDIX A

SUMMARY OF THE MAIN POINTS OF DISCUSSION IN THE STATE FORESTER'S 1988 REVIEW OF THE FOREST PRACTICES PROGRAM WITH STATE AGENCIES

Department of Agriculture

1. Agriculture and the Department of Forestry confirmed their continued cooperation in controlling nonpoint source pollution.

2. The tendency of people to associate field and slash burning makes it valuable for Agriculture and Forestry to cooperate in dealing with issues related to burning.

3. Agriculture is working with the Environmental Protection Agency (EPA) on three issues related to pesticide use. These are: protecting threatened and endangered species; groundwater protection; and worker protection standards. Agriculture will share information with Forestry on these issues as it becomes available.

4. Agriculture is responsible to classify and determine protective measures for threatened or endangered plant species on state-owned land. Agriculture will coordinate these activities with appropriate agencies, including the Department of Forestry.

5. Agriculture reported some pesticides may no longer be available for forest use because of EPA's requiring detailed registration data from pesticide manufacturers. Where forest use is a minor market, manufacturers may allow some pesticides' registrations to lapse because providing data to EPA is too costly.

6. Agriculture reported the gypsy moth control projects appear to have been a great success. The pest has been virtually eradicated. Agriculture and the Department of Forestry cooperated in these projects over the last four years.

7. Agriculture assessed the Forest Practices Program as sufficient to support their related programs.

Department of Environmental Quality (DEQ)

1. DEQ and the Department of Forestry agreed it is important for the two agencies and their governing bodies to cooperate closely in implementing DEQ's responsibilities for protecting water quality. DEQ is the lead agency for water quality protection. The Department of Forestry has responsibility for controlling water quality effects from forest operations.

2. DEQ is under a court-ordered consent decree to set total maximum daily loads (TMDLs) for problem pollutants on streams. TMDLs approximate the maximum capacity of the stream to assimilate pollutants. At pollutant levels beyond the TMDL, beneficial uses of the water are unacceptably impaired. DEQ must first verify that the streams are below water quality standards designed to protect beneficial uses. Forest management activities will receive a load allocation as a share of the allowable TMDL. Forestry is one of DEQ's designated management agencies and is responsible for providing a water quality management program to comply with load allocations for forest management.

3. DEQ and Forestry agreed to coordinate closely on setting TMDLs and load allocations on water quality limited streams. Forestry is concerned that load allocations for nonpoint sources are difficult to set and monitor. One consequence of such load allocations may be pressure for Forestry to regulate harvest levels and other forest practices more closely.

4. DEQ conducted a poll of the public and resource professionals, combined with some water quality data, to assess Oregon's streams for nonpoint source effects. This Assessment and a Nonpoint Source Management Plan are key products required by Section 319 of the Water Quality Act. The Assessment will be used to prioritize efforts to verify the condition of streams and to take corrective action. Where further investigation indicates a waterbody is water quality limited, a TMDL may be required. Forestry has proposed a process to be sure the indications from DEQ's Assessment are fully evaluated to determine the condition of Oregon's streams.

5. Both agencies agree that best management practices (BMPs) are a primary mechanism for controlling pollution from nonpoint sources. The effectiveness of BMPs will be evaluated through in-stream monitoring. Monitoring focuses on physical, chemical, and biological parameters that indicate the condition of water for its beneficial uses. The condition of beneficial uses are to be represented by load allocations and water quality standards which will be used to judge effectiveness of BMPs (forest practice rules). Consequently, the accuracy of these standards is important.

6. DEQ evaluated the Forest Practices Program a decade ago and judged it sufficient to meet program needs. The current Section 319 effort focuses on ensuring that the program's BMPs continue to meet water quality goals.

Department of Fish and Wildlife (ODFW)

1. ODFW and Forestry agreed to investigate spotted owl management action needed under HB 3396 or SB 533. At issue is how the owl will be managed between the time the Fish and Wildlife Commission lists the owl as threatened or endangered and ODFW's development of a recovery plan.

2. ODFW will help support the State Forester's Advisory Committee on Selection and Protection of Resource Sites. ODFW's role will be as technical and policy consultant to the Advisory Committee. If technical subcommittees are used, ODFW will provide members.

3. ODFW is preparing sub-basin level anadromous fish management plans for the Columbia River basin. The project is being conducted under the funding and direction of the Northwest Power Planning Council fish habitat rehabilitation project. Forestry will continue to contribute technical consultation on the sub-basin plans. Plans are in progress for the Coos, Coquille, Smith, Yaquina, Malheur, and Ten-Mile Rivers. Plans have been completed outside the Council's process for the North Umpqua, Willamette, and McKenzie Rivers.

4. ODFW and Forestry agreed to continue coordinating discussions about the forest practice rules and ODFW's objectives for the fish and wildlife resources of the state.

Health Division (OHD)

1. OHD and the Department of Forestry discussed Oregon's water quality requirements for raw water used by domestic water suppliers. Both DEQ's standards and the forest practice rules provide for treatable water. The domestic water supplier is required by OHD standards to treat the water as necessary to meet drinking water standards. OHD is hearing more concern for watershed management because of new, higher standards for drinking water quality from the Environmental Protection Agency.

2. OHD's Drinking Water Section and the Forest Practices Staff continue to work together closely on protection of forested watersheds during forest operations. OHD is satisfied that the agencies' staffs are working together well, and the forest practices program is working to protect water resources.

State Parks and Recreation Division (Parks)

1. The Department of Forestry will provide Parks with a copy of the HB 3396 sensitive resource inventories when they are completed.

2. Forestry and Parks are establishing procedures to supply Parks copies of notifications and written plans on operations near state parks and scenic waterways. Forestry is already informing Parks of operations near the Willamette Greenway and scenic waterways.

3. State Parks controlled operations in the Willamette Greenway and scenic waterways through county regulations and the forest practices program. Since HB 3396 rescinded county authority to regulate forest practices outside urban growth boundaries, Parks and Forestry will explore alternatives for Parks to achieve their objectives in these areas.

4. The Scenic Waterways Initiative added substantial river mileage to the State Scenic Waterways Program. Forestry will continue to cooperate with Parks by alerting them when notifications are received for operations along these waterways. Parks will provide Forestry maps for these areas.

5. Parks will seek to coordinate with the Protection from Fire Program to avoid confusion over fire protection closures that cover areas including state parks.

6. Parks is pleased with the communication and coordination between the agencies. The forest practices program supports Parks's programs. However, the forest practice rules, being minimum standards, are not intended to meet all the scenic waterway program objectives. Solutions to this issue are being explored.

Division of State Lands (DSL)

1. DSL and Forestry discussed the possibility of holding periodic joint executive staff meetings.

2. DSL and Forestry are working together on a statewide wetlands inventory. Forestry will provide $35,000 to the US Fish and Wildlife Service, at DSL's request, to help fund the project. The inventory will contribute to accomplishing Forestry's inventory tasks under HB 3396. In addition, the inventory is an important element of a coordinated statewide wetlands policy.

3. DSL is satisfied with the support provided by the forest practices program. The agencies will continue cooperation on such projects as the Wetlands Management Task Force.

Water Resources Department (WRD)

1. WRD assembled a summary of state agencies' programs and proposed activities relating to 12 important water management issues. The Oregon Water Management Program report was completed in August 1988.

2. The WRD's historical role has been in allocating unappropriated water supplies. It is now responsible for public water rights established to maintain stream flows important to public uses. Its current role has also expanded into basin-wide planning for solutions to water-related issues. Some issues are addressed through WRD rules and some through other state agencies' programs. A basin planning process results in recommendations for action by the appropriate agencies. Basin plans are subject to periodic review. Basin plans are being prepared for the Sandy and Willamette River basin.

3. The WRD supports the Governor's Watershed Enhancement Board (GWEB). GWEB issues grants for demonstration projects and for establishing programs to foster sound management of water. Relatively few grants were issued to forest-land-related projects. There is a proposal for increasing funding for all grants in the 1989-91 biennium.

4. The two agencies are working together in both basin planning and the GWEB. WRD finds Forestry programs are generally consistent with WRD programs. WRD looks forward to further coordination with Forestry to continue increasing water resource protection on non-federal forest land.

APPENDIX B

SUMMARY OF CITED FOREST PRACTICE RULE VIOLATIONS BY DEPARTMENT OF FORESTRY DISTRICT

Calendar Year 1988

Differences in amount and types of violations detected within the Department of Forestry's 14 administrative districts may be the result of several factors. Among these are:

1. The number, types and sizes of operations conducted;
2. The experience of the operators;
3. The rate of turnover of landowners and operators;
4. The presence and proximity of protected forest resources;
5. The number of Forest Practices Foresters and the amount of time they can devote to operation inspections; and
6. The potential for varying field interpretations of department enforcement guidelines.

The following table summarizes the number and types of violations cited by district during 1988 and lists the number of these citations which were issued before and after the department implemented its civil penalty authority in September.

FOREST PRACTICES CITATIONS ISSUED BY DISTRICT

District	Type of Violation 1	2	3	4	5	6	Total	No. Before Civil Penalties	No. After Civil Penalties
Astoria	3	5	1	0	0	1	10	6	4
Central Oregon	6	4	1	0	0	0	11	8	3
Clackamas-Marion	25	18	5	1	3	2	54	36	18
Coos	1	0	2	0	0	0	3	3	0
Douglas	1	4	0	1	0	1	7	6	1
Eastern Lane	13	6	0	0	0	0	19	19	0
Forest Grove	12	4	4	3	0	1	24	9	15
Klamath-Lake	0	0	0	0	0	0	0	0	0
Linn	2	2	2	4	0	0	10	6	4
Northeast	9	6	2	0	0	0	17	14	3
Southwest	0	0	2	0	0	0	2	2	0
Tillamook	1	3	0	2	0	0	6	4	2
West Oregon	4	9	3	5	0	0	21	14	7
Western Lane	4	3	1	3	1	4	16	10	6
TOTALS	81	64	23	19	4	9	200	137	63

Codes for Types of Violations

1. Failure to Notify State Forester
2. Harvesting
3. Road Construction and Maintenance
4. Reforestation
5. Chemical Application
6. Other

Oregon State Department of Forestry
2600 State Street
Salem, Oregon 97310

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Easy,

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Ethylene Glycol Disposal

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Ethylene glycol—widely used by industry in heat exchangers, as an antifreeze in liquid-cooled engines, and as a deicing fluid—has been evaluated by the Department of Health Services (DOHS), using the California hazardous waste criteria listed in the California Code of Regulations.

Since an oral dose as low as 100 ml (1/2 cup) has been found to be lethal to humans, ethylene glycol is classified as a hazardous waste pursuant to Section 66696 (a) (6) of Article 11, Title 22, CCR, and is subject to stringent disposal requirements.

The problem for industry until now has been how to be **sure** that all disposal requirements are met, and that no unforseen liabilities will be incurred. But, now, there is one answer: AES.

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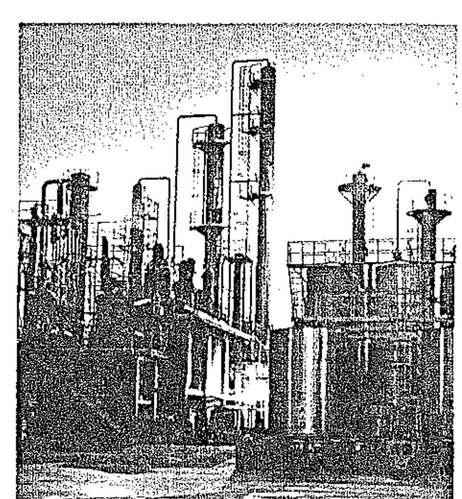
AES—Antifreeze Environmental Service Corp.—is a specialist in the recycling and disposal of all forms of ethylene glycol, including automotive antifreeze. As such, it currently serves many leading auto dealerships, service stations, etc. And, it GUARANTEES proper handling, processing or disposal, and documentation.



How AES Solves Your Problems

- Fully licensed, permitted (EPA #CAD 981694664) and insured, AES will pick up your waste ethylene glycol in one of its compartmented bulk tankers. (We can provide you storage tanks, if needed.)
- AES will provide an EPA hazardous waste manifest to verify compliance with EPA and DOT (Department of Transportation) regulations, thereby eliminating possible future liabilities to your company.
- The waste ethylene glycol is delivered to Romic Chemical Corporation, a fully insured and permitted (EPA #CAD009452657) Resource Conservation and Recovery Act (RCRA) facility where it is:
  - a Recycled, thereby meeting the waste minimization law, or
  - b Incinerated in a manner meeting all regulatory requirements.
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Irwindale, California 91706

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6760 W. Allison Road
Chandler, Arizona 85226

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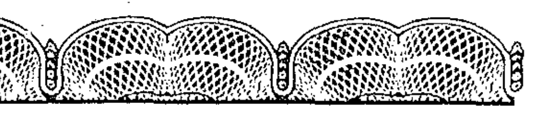

Antifreeze Environmental Service Corp.

GUARANTEE

Under current California Health and Safety laws, the improper disposal of hazardous wastes can result in a fine of up to $25,000 for each violation, or imprisonment for one year. Other local, state and federal regulations have formed a quagmire of restrictions and liabilities for business operators. And, each day's newspapers report massive retroactive company liabilities for past dumping activities.

AES GUARANTEES COMPLETE ELIMINATION OF YOUR COMPANY'S LIABILITIES with respect to the waste antifreeze handled by AES. All waste is legally recycled or incinerated at fully permitted and insured RCRA facilities, meeting all regulatory requirements.

Large fines have also been levied on waste generators for insufficient record-keeping or improper handling of wastes by disposal companies to which they have been consigned.

AES GUARANTEES THAT ALL PICKUPS BY ITS SERVICE ARE PROPERLY MANIFESTED AND HANDLED by a fully licensed, permitted and insured hauler. Moreover, our fleet of compartmented tankers is fully equipped to accept bulk waste antifreeze and to deliver new antifreeze, as the customer desires.

Government regulations establish restrictions against mixing antifreeze with used oil, on the amount of hazardous waste which may be stored at a site, the amount of time it may be stored, and the type of containers in which it may be stored. Moreover, companies are liable for any leakage which takes place.

AES GUARANTEES TO PROVIDE ITS CUSTOMERS WITH — AND INSTALL — A SUITABLE HEAVY-DUTY POLYETHYLENE TANK FOR WASTE ANTIFREEZE ACCUMULATION, PLUS A TANK FOR NEW ANTIFREEZE STORAGE, IF THAT SERVICE IS DESIRED. THERE IS NO CHARGE FOR INSTALLATION.

The tanks provided by AES are double-contained in accordance with all codes: fire, EPA, DOHS. This eliminates the need for you to provide concrete containment berms.

Regulations require individual labeling, sampling and testing of used antifreeze if it is picked up by a hauler in drums. This can be quite expensive, as can the handling, storage and disposal of such drums.

AES GUARANTEES, BY PROVIDING A SYSTEM OF BULK STORAGE AND HANDLING, TO ELIMINATE DRUM SAMPLING, TESTING, HANDLING, STORAGE AND DISPOSAL COSTS related to the waste antifreeze it handles.

Some disposers sell you recycled antifreeze which does *not* meet automotive standards — antifreeze inhibitor packages for engine protection can vary widely — or leave it to you to buy your own at higher per-gallon container prices.

AES GUARANTEES TO DELIVER NEW LOW-SILICATE, NON-PHOSPHATED ANTIFREEZE — WITH PROPER INHIBITORS TO MEET ALL AUTOMOTIVE REQUIREMENTS AND ASTM STANDARDS — AT LOW BULK PRICES, BUT ONLY IF YOU DESIRE. NO COSTS FOR HAZARDOUS WASTE DISPOSAL OF CONTAINERS.

The choice is yours. AES will simply dispose of waste antifreeze, or will pick up the waste and deliver new antifreeze to a second tank provided by AES for that purpose.

The handling and disposal of waste antifreeze so as to meet all requirements can be difficult, costly and labor-intensive. Many haulers and disposers quote unreasonably low prices, and then tack on a mass of surcharges such as lab fees, drum deposits, mileage charges, pickup fees, etc.

AES GUARANTEES AN ANTIFREEZE DISPOSAL SYSTEM THAT IS SIMPLE AND ECONOMICAL. Workers simply dump or pump waste antifreeze into the clearly labeled tank we provide. As required, the AES truck comes to your site, collects the waste liquid, provides documentation and removes the waste antifreeze for proper, legal disposal ...ALL FOR A FIXED PER-GALLON CHARGE.

THERE ARE:

NO TANK INSTALLATION CHARGES
NO LAB FEES
NO CONTAINER DISPOSAL CHARGES
NO MILEAGE CHARGES
NO REQUIREMENT TO PURCHASE NEW ANTIFREEZE
NO DELIVERY CHARGES
and
NO LIABILITIES

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Environmental Quality Commission

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

WORK SESSION
REQUEST FOR EQC DISCUSSION

Meeting Date: May 24, 1990
Agenda Item: M -1
Division: Water Quality
Section: Surface Water

SUBJECT:

Coquille Project: Informational Report.

PURPOSE:

This work session item provides the Environmental Quality Commission (Commission) with a description of the current status of the Near Coastal Waters Pilot Project "Action Plan For Oregon Estuary and Ocean Waters." This is a two year (1988-90) national pilot project that will be completed in September 1990.

As part of the U.S. Environmental Protection Agency's Near Coastal Waters Strategic Initiative, proposals were solicited from coastal states for projects that would demonstrate innovative management for these vital ecosystems. The Department proposed to develop a management framework for protecting environmental quality of Oregon's coastal waters, and tie in to existing coastal management efforts through the Ocean Resources Management Act and the Coastal Zone Management Act. Very little information is available on the quality of near coastal waters, as defined from the head of tide in estuaries to the three-mile limit of the state territorial sea. This pilot project involved both an estuary-specific study of the Coquille River estuary where detailed water quality information was collected, and a more general involvement in planning for the protection of Oregon's ocean waters in the future.

ACTION REQUESTED:

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

___ Authorize Rulemaking Hearing
___ Adopt Rules
  Proposed Rules — Attachment ___
  Rulemaking Statements — Attachment ___
  Fiscal and Economic Impact Statement — Attachment ___
  Public Notice — Attachment ___

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

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

DESCRIPTION OF REQUESTED ACTION:

The U.S. Environmental Protection Agency (EPA) selected Oregon to be the site of one of three state pilot projects in the U.S. for developing and implementing innovative ways of managing water quality in estuary and ocean waters. The Department of Environmental Quality (Department) nominated the Coquille River estuary as a demonstration project for the federal program because of water quality and habitat concerns, a coastal economy based on good water quality, and a strong community involvement and interest in environmental quality projects. An analysis of water quality monitoring data during the last ten years showed that the Coquille River violated water quality standards for fecal coliform and dissolved oxygen. Sedimentation was also identified as a problem. In 1986, the Department identified the Coquille River as "water quality limited" and listed it as a Total Maximum Daily Load (TMDL) waterbody. In addition, the Department's involvement in Governor Goldschmidt's Ocean Resources Management Program, which was charged with identifying information needs and developing a plan for ocean environmental protection, supported the goals of EPA's Near Coastal Waters Strategic Initiative.

Groundwork for the Oregon Pilot Project began with a series of public meetings to provide information to the Coquille Basin residents about the scope of the pilot project and to invite participation. A community advisory committee was appointed to develop a workplan for the two year project, and to review the results of the monitoring efforts. The committee will also assist the Department with an implementation plan to improve water quality

The three major elements of the workplan related to either specific suspected problems for the Coquille River estuary, or to the larger goal of developing an overall management framework for coastal waters. Public education products transferrable to other localities were an especially important aspect of the project.

The first element is "Consensus Building and Public Education." Activities include:

- o Establishing a Coquille Community Advisory Committee with 30 basin residents representing local government from Bandon, Myrtle Point, Coquille and Powers; business; fisheries; agriculture; forestry; and citizens-at-large.
- o Near Coastal Waters Forum, a public workshop entitled "Clean Coastal Waters Clinic," where professionals and the public assembled for a weekend workshop to discuss coastal water quality issues and suggest solutions.
- o Video Documentary to use as a demonstration tool for other communities.
- o Public Education Programs such as volunteer monitoring, school lectures, bulletins, displays, and interpretive centers.

The second element is "Resources and Water Quality Studies in the Coquille Estuary." This element includes the following:

- o Resource Inventory to compile existing data to create an inventory of water quality, biological, and economic resources for the Coquille Basin.
- o Bandon STP Outfall Evaluation to identify how the location of the outfall and effluent quality may be affecting water quality in the lower Coquille Estuary.
- o Wetlands evaluation and inventory to identify mitigation sites and develop methods for understanding how wetlands changed historically, and how they presently function for water quality protection.
- o Woody Debris evaluation to determine the role of wood debris for fisheries habitat, at historical and present levels.
- o Water Quality Monitoring to determine what the trends are seasonally in water quality, where the most serious water quality problems are, and what controls will be needed to meet TMDL requirements.

The third element is "Pulling it All Together." This element involves developing a management framework for managing environmental quality of Oregon's near coastal waters. This will result from the synthesis of knowledge gained by working on the Coquille Estuary, with the Oregon Coastal Zone Management Agency (Department of Land Conservation and Development, or, DLCD) and with the Governor developing the Oregon Ocean Resources Management Program. A copy of the workplan is attached in A.

PROGRESS TO DATE

Public Involvement: Much of the data gathering for the project has been completed and presented to the Advisory Committee during the monthly meetings. In addition, special presentations are made to the Committee by various specialists involved in estuarine pollution issues. A Clean Coastal Waters Clinic was held in June 1989, and the video (script written by a retired Bandon resident) is currently being developed in cooperation with the U.S. Fish and Wildlife Service, and Oregon Department of Fish and Wildlife.

Resource Inventory: Natural and Economic Resources information has been collected. Water quality samples indicated that violations continued to occur in fecal coliform bacteria concentrations and dissolved oxygen levels. The Department has shared this information with appropriate state and federal agencies. Defining and implementing the solutions will be the most important task during June through September 1990.

Ocean Resources Management Plan: After two years of Task Force meetings and public workshops, the Draft Ocean Resources Management Plan has been prepared and will be reviewed once more at Public Hearings scheduled for May 1990. A final plan will be presented to the Legislature in July 1990.

AUTHORITY/NEED FOR ACTION:

___ Required by Statute: ____________________ Attachment ___
Enactment Date: ____________________
___ Statutory Authority: ____________________ Attachment ___
___ Pursuant to Rule: ____________________ Attachment ___
___ Pursuant to Federal Law/Rule: CWA Sec.303(d) Attachment ___

___ Other: Attachment ___

X Time Constraints: (explain) The pilot project is to be completed within two years, with a deadline of September 30, 1990.

DEVELOPMENTAL BACKGROUND:

___	Advisory Committee Report/Recommendation	Attachment ___
___	Hearing Officer's Report/Recommendations	Attachment ___
___	Response to Testimony/Comments	Attachment ___
___	Prior EQC Agenda Items: (list)	Attachment ___
___	Other Related Reports/Rules/Statutes:	Attachment ___
X	Supplemental Background Information	Attachment A

REGULATED/AFFECTED COMMUNITY CONSTRAINTS/CONSIDERATIONS:

All businesses, residents, industries, and local governments in the Coquille Basin may be affected:

PROGRAM CONSIDERATIONS:

Because of the diversity of issues examining water quality and beneficial uses and resolving point source and nonpoint source management problems, this effort has included extensive involvement by sewage disposal, industrial waste, construction grants, standards and assessments, and surface water program development sections. It has also required extensive involvement by local, state and federal agencies.

ALTERNATIVES CONSIDERED BY THE DEPARTMENT:

There are no alternatives proposed at this time.

DEPARTMENT RECOMMENDATION FOR ACTION, WITH RATIONALE:

The Department plans to complete the study on schedule and there are no recommended actions for Commission consideration at this time.

CONSISTENCY WITH STRATEGIC PLAN, AGENCY POLICY, LEGISLATIVE POLICY:

The pilot project is consistent with the Strategic Plan and current Department policy and legislative direction for water quality management of near coastal waters.

ISSUES FOR COMMISSION TO RESOLVE:

There are no issues for the Commission to resolve at this time. Although the approach is consistent with Department policy and strategic plan in general, the strategic plan identifies estuary studies as lower priority and defers

further studies until more resources are available. Since the pilot project was intended to act as a model for other efforts, the Commission may wish to discuss if followup estuarine studies are needed, and should be a higher priority, when this pilot project is completed.

INTENDED FOLLOWUP ACTIONS:

The Department will be working with the Coquille Community Advisory Committee and other interested Coquille Basin residents through the summer/fall of 1990, and longer if resources allow, to implement water quality improvements to meet the TMDL. The local Soil and Water Conservation District and Soil Conservation Service have obtained a grant to control nonpoint source pollution through improved animal waste management practices by using information gathered from the pilot project. Through implementing this grant, and working with them to establish a local Coordinated Resource Management Program, water quality improvement should result. The Department is also working with the Wastewater Treatment Plant Operators to improve operation and maintenance of the plants to improve effluent quality. In addition, the Department set aside $100,000 in grants for assisting the community with water quality enhancement projects, which will be selected from recommendations made by the Advisory Committee during summer 1990.

The Department will also develop a water quality management plan for use in other estuaries, as additional grant funds become available.

Approved:

Section: [signature]

Division: [signature]

Director: [signature]

Report Prepared By: Krystyna U. Wolniakowski

Phone: 229-6018

Date Prepared: April 26, 1990

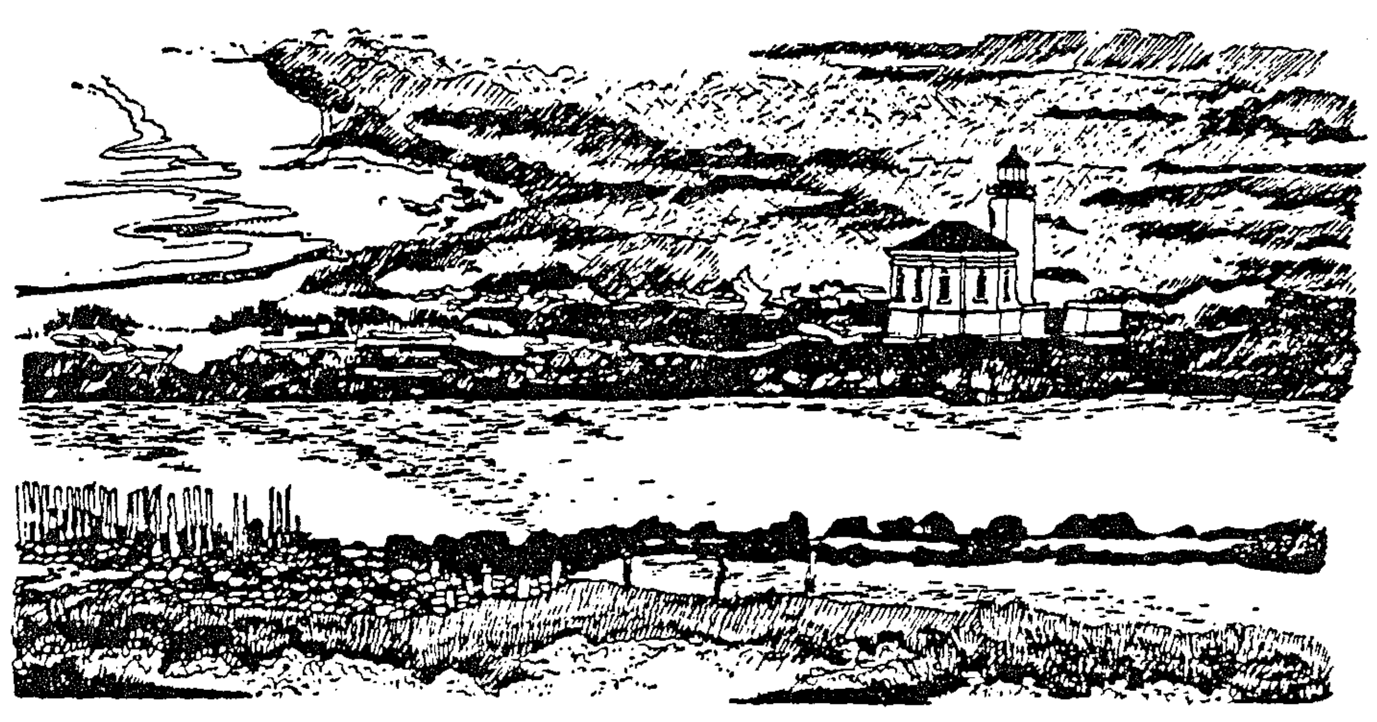
(KUW:crw)
(SW\WC6514)
(5-1-90)

NEAR COASTAL WATER PILOT PROJECT

"ACTION PLAN FOR OREGON ESTUARY AND OCEAN WATERS"

1988-1990

Workplan



K.Linke

NEAR COASTAL WATERS PILOT PROJECT
"ACTION PLAN FOR OREGON ESTUARY AND OCEAN WATERS"
WORKPLAN
(revised 12/10/88)

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ACKNOWLEDGEMENTS: The Near Coastal Waters Pilot Project is funded by the US Environmental Protection Agency, Office of Marine and Estuarine Protection, with a grant to the Oregon Department of Environmental Quality (Grant No. X-000382-01).

Cover artwork is an original design by local artist Kaye Linke, who resides in Bandon, Oregon.

(revised 12/10/88)

NEAR COASTAL WATERS PILOT PROJECT

"ACTION PLAN FOR OREGON ESTUARY AND OCEAN WATERS"

I. Introduction

In May 1987, the U.S. Environmental Protection Agency (EPA) requested coastal states to submit conceptual proposals for managing near coastal waters. In February 1988, EPA formally selected Oregon's proposal "Action Plan for Oregon Estuaries" as one of three state pilot projects in the U.S. for developing and implementing innovative ways of managing water quality in estuary and ocean waters. The conceptual proposal submitted by Oregon Department of Environmental Quality (DEQ) nominated Coquille Estuary as a demonstration project for the federal program because of water quality and habitat concerns, a coastal economy based on good water quality, and the strong community involvement and interest in previously successful projects in Coos County. In addition, DEQ's involvement in Governor Goldschmidt's Ocean Resources Management Program, supported the goals of EPA's near coastal waters program.

The DEQ is required under the Clean Water Act (Section 303) and a recent lawsuit to set pollutant load limits on waterbodies that do not meet water quality standards. An analysis of water quality monitoring data during the last 10 years has shown that the Coquille River violates dissolved oxygen standards during several low flow months of the year, creating unfavorable conditions for fish and sensitive aquatic life. Fecal coliform bacteria concentrations have exceeded the levels necessary to support swimming, recreational shellfish harvesting, and other uses where the public may come in direct contact with the water. Sedimentation problems, have also historically been a concern. For these reasons, the DEQ identified the Coquille River as potentially water quality limited as early as 1973, and confirmed it as a "Waterbody of Concern" in 1986 Water Quality Report.

Coastal waters are extremely productive areas that must be of the highest quality to support the diverse needs of coastal economies dependent on fisheries, tourism, aquaculture, and other activities that rely on good water quality. Through the Pilot Project, the DEQ, with public participation, will design a basin-wide approach for managing point and nonpoint sources of pollution to protect water and sediment quality, living resources, and natural habitats. A Coquille Community Advisory Committee will be a vital part of the program.

The three major elements of the workplan relate to either specific suspected problem areas for the Coquille Estuary, or to the larger goal of developing an overall management framework for coastal waters. Public education products transferable to other localities are an especially important aspect of the project.

The first element is "Consensus Building and Public Education". This element involves developing and implementing four subelements: a Community Involvement Plan, a Near Coastal Waters Public Workshop, a Video Documentary, and Public Information Bulletins and School Curriculum Materials.

The second element is "Resources and Water Quality Studies in the Coquille Estuary". This element involves five subelements: a Resource Inventory, a Water and Sediment Quality Sampling Program, a Wetlands Inventory, identification of the Role of Woody Debris in Estuaries, and a Bandon STP Outfall Relocation Plan.

The third element is "Pulling It All Together". This element involves developing a management framework for managing the environmental quality of Oregon's near coastal waters. This will result from the synthesis of knowledge gained by working on the Coquille estuary, with the Oregon Coastal Zone Management Agency, as well as other state and federal resource agencies, and with the Governor developing the Oregon Ocean Resources Management Program.

This pilot project workplan begins with an overview of Oregon's estuaries and a description of the Coquille basin. It then discusses project goals, activities, and concludes with a detailed outline of the workplan elements. The workplan elements have been reviewed by the Coquille Community Advisory Committee, and at this time, incorporate ideas and values of the community. The workplan will continue to evolve and be revised as the project progresses.

II. Oregon's Estuaries and Nearshore Waters

Oregon's near coastal waters include estuaries and the state territorial sea that extends offshore for three miles. Oregon has 21 major estuaries, with a total of 131,844 acres of intertidal and subtidal estuarine habitat. These estuaries are located in the five coastal basins: North Coast, Mid-Coast, Umpqua River, South Coast and the Rogue River. The total area of Oregon's nearshore submerged and submersible lands is over 800,000 acres.

Estuaries are one of the most biologically productive places on earth. More than two-thirds of commercial and recreational fish caught depend on estuaries for feeding or as nursery areas. Estuaries also provide habitat for thousands of species of terrestrial and aquatic life, including many threatened, endangered or rare species. Physical features typical of estuaries, such as the narrow mouths, barrier beaches and salt marshes, provide storm and flood protection and pollution control.

The environmental quality of estuaries and nearby coastal waters depends on the extent of activities and types of land uses throughout the coastal drainage basin, and the degree of sensitivity of the biological resources. Oregon's estuaries are classified by the amount of development allowed in each estuary to preserve diversity and to guide development proposals. Natural estuaries include: Sand Lake and the Salmon River. These estuaries are not adjacent to urban areas. Conservation estuaries include: Necanicum, Netarts, Nestucca, Siletz, and Alsea Bays. These estuaries lack maintained jetties or channels but are adjacent to urban areas. Shallow draft development estuaries include: Nehalem, Tillamook, Siuslaw, Umpqua, Coquille, Rogue, and Chetco Rivers. These estuaries have jetties and maintained channels up to 22 feet. Finally, deep draft development estuaries include: Columbia River, Yaquina and Coos Bays. These estuaries have jetties and maintained channels deeper than 22 feet.

Oregon's estuarine shorelands are used for many types of commercial and recreational industries. The shorelands are zoned for each type of designated use through county or city land use plans. Agricultural lands, forest lands, rural residential, urban residential, commercial, industrial, and dredged material disposal sites are land uses common in the coastal basins. Shoreland zoning illustrates the setting which surrounds the estuaries. Farm, forest land, and state parks comprise 39,000 acres or 76% of estuarine shorelands. Lands zoned for more intense development covers 12,376 acres or 24 %.

Although multiple shoreland uses are an integral part of the coastal economy, the uses may contribute nonpoint and point source discharges of contaminants to the coastal river and estuary systems if they are not managed properly. Estuaries are sinks that receive pollutants from all sources in the watershed including air, water, and solid wastes. These pollutants include excessive nutrients that cause eutrophication, toxic substances such as pesticides and heavy metals, and fecal coliform bacteria that are indicators of human pathogens present in the water. In addition, point and nonpoint source discharges can cause habitat loss and a change in the ecological integrity that cumulatively affects public health, fish and wildlife habitat, and recreational resources in the highly valuable but vulnerable estuaries. Despite DEQ's past regulatory and management efforts, the water quality and habitat within some of the estuaries in Oregon has changed due to many environmental disturbances in the coastal drainage basins. In addition, new proposals for coastal zone development must often be reviewed by DEQ without sufficient or updated environmental information or national coastal zone protection policies to make balanced decisions.

In an effort to understand the environmental status of Oregon's near coastal waters, the National Coastal Resources Institute studied and identified the following high priority issues:

- offshore oil, gas, mineral, sand and gravel exploration and exploitation, and associated environmental conflicts;
- wetland preservation, rehabilitation, replacement, and mitigation, to compensate for the losses of wetlands;
- examination of the coastal carrying capacity for fisheries, agriculture and forestry;
- nearshore pollution from point and nonpoint sources, dredge and fill activities, oil spills, and dumping; and,
- changes in living coastal and marine resources, and identification of critical marine habitats.

The DEQ strives to balance pollution abatement and economic development with protection of sensitive beneficial uses and critical estuarine and wetland habitats. In order to insure that water quality and habitat are protected, the DEQ is currently reviewing discharge permits, land uses and how they affect water quality, and disposal practices in the coastal basins. In addition, future offshore oil and gas leasing is being investigated to determine how development may affect nearshore water quality and habitat. Water quality monitoring programs are being developed to assess the degree of existing and potential problem areas.

III. Description of Coquille Basin

Geography

The Coquille River and Estuary drain a watershed that is predominantly mountainous, with a narrow lowland valley region covering 1,058 square miles. Primary land uses include forests, pasturelands, and rangelands. Population in the basin is centered in the incorporated towns of Bandon, Coquille and Myrtle Point. Coquille is the largest community with a population of 4275 residents. Bandon has a population of 2270, and Myrtle Point has a population of 2720. Powers, located on the South Fork of the Coquille River, has a population of 775.

The Coquille River, from the headwaters at the South Fork Coquille River, to the mouth near Bandon, measures 99 miles. It is the longest river in the South Coast Basin, with several major tributaries. The Middle Fork Coquille joins the South Fork at river mile 9.1 of the South Fork, and the East Fork confluence with the North Fork is at river mile 9.1 of the North Fork. The mainstem Coquille River is formed by the South Fork and the North Fork at river mile 36.3 of the Coquille River. The head of tide is between river miles 38 and 41, upstream from the town of Myrtle Point. The Coquille River widens into a bay approximately 3 miles from the mouth near Bullards Beach State Park. Since the definition of an estuary is that part of a coastal river that is influenced by the tide, the term Coquille Estuary will be used to refer to the area upriver to Myrtle Point.

Living Resources

The lower embayment of the Coquille Estuary is long and narrow, measuring about 763 acres. The estuary contains over 380 acres of tidelands, and 383 acres of permanently submerged land, rich in natural resources. Eelgrass beds, wetlands, and tidal flats provide critical habitat and refuge for many species of terrestrial and aquatic life. Raptors, waterfowl, wading birds, marine mammals, coho salmon, chinook salmon, steelhead, cutthroat trout, flounder perch, shrimp, clams, and many other fish and wildlife species use the estuary for feeding, spawning, breeding, nesting, and as nursery areas.

The Coquille Estuary also provides important economic benefits from commercial and recreational opportunities. Shellfish harvesting, angling for anadromous and resident fish, and boating activities bring in funds that help sustain the local communities where tourism is a major industry. Forestry and agriculture are also very important as economic resources for the Coquille Basin. These ecological, economic, recreation, and aesthetic values are strongly dependent on good water, sediment, and habitat quality. In addition, public health and welfare are dependent on a near

coastal environment suitable for the consumption of fish and shellfish.

IV. Water Quality Concerns

The DEQ has recently initiated a review of water quality and potential water quality standards problems in the Coquille system. Low dissolved oxygen concentrations during several low flow months a year, potentially excessive nutrient and sediment loading, and elevated fecal coliform bacteria levels, were identified as the parameters of concern.

The water quality in the Coquille Estuary is the result of the discharge from several point sources, and the runoff from nonpoint sources throughout the watershed. Without more definitive water quality data, it is not known whether the water quality is not meeting standards because point sources or nonpoint source discharges. However, the cumulative effect of point and nonpoint sources must be considered when evaluating water quality conditions, and how much dilution is available to assimilate wastes.

The Coquille Basin currently receives discharges from several point source discharges on National Pollution Discharge Elimination System (NPDES) permits. Bandon, Coquille, Myrtle Point, and Powers discharge municipal waste; and Georgia Pacific Corporation, and Bandon Fisheries discharge plant wastewaters. Other discharges may occur, but they are not permitted and cannot be identified at this time. Nonpoint source discharges can come from a variety of activities such as runoff from logging and agriculture, landfills, storm drains or improperly maintained septic tanks.

It is important to note that the environmental conditions within the Coquille Basin are not thoroughly documented due to a lack of data that could help to understand trends. Several land management activities have been improved, according to basin residents, which may have improved environmental conditions from those in the past. However, it is difficult to determine the beneficial aspects of those improvements without more detailed information. At this time, gathering information to identify water quality and habitat trends will be of highest priority.

Given the information available, the major concerns in the Coquille Basin are summarized as follows:

o Bandon Sewage Treatment Plant discharged secondary treated but undiluted municipal effluent into sensitive areas of the estuary until 1987, because the outfall was located above the low tide area. Due to the proximity of the outfall to a recreational clam bed, and poor mixing of effluent and receiving water during low tides, shellfish sanitation and fish passage were

potentially impaired. With the relocation of the outfall in late 1987, DEQ requested that the new area be evaluated to insure proper mixing and dilution, and the previous outfall location monitored to document recovery of any aquatic life.

o Excessive sedimentation from erosion in the watershed have been identified as a potential cause for concern by the Soil and Water Conservation District (1983) and in the recently completed Preliminary Statewide Nonpoint Source Assessment.

o Nutrient and Coliform Bacteria contamination potentially contributed from agricultural runoff, upstream municipal wastewater plants, or on-site septic tanks and drainfields, may be affecting human health through recreational contact and consumption of shellfish, and may be responsible for creating algal blooms during low flow months of the year.

o Toxic substances may have been introduced from a variety of sources in the watershed, both point and nonpoint, with little known about their fate or transport in the estuary. For example, organotin leachates from recreational boat marinas, and pentachlorophenols from the old lumber treatment facilities, both pesticides, may have settled into the sediments and may be affecting bottom-dwelling organisms. These are two unconfirmed, but suspected problems, that need further analysis. In addition, landfills, stormdrains, and industrial sites can contribute runoff containing toxic substances.

o Habitat modification and physical alteration of channels and the removal of large woody debris and complex structures, have altered flows, tidal movement and flushing action, and have modified wetlands and other wildlife and aquatic habitat in the estuary. According to the Division of State Lands, over 80 percent of Oregon's coastal wetlands no longer exist. The amount of wetlands in the Coquille that have been altered has not been accurately determined, but needs to be identified to determine if habitat enhancement or restoration may be desirable.

V. Project Goals

Through the pilot project, the DEQ, with public participation, will design a basin-wide approach for understanding the water quality trends in the Coquille Estuary and for managing point and nonpoint source discharges.

The ultimate goals are to enhance the health, ecological integrity, and economic vitality of near coastal waters, starting with the Coquille Basin, and to build a foundation for managing the waters to benefit the health and welfare of coastal communities, locally and nationally. In order to achieve these goals, water quality, habitat conditions, and economic resources need to be evaluated based on a current and comprehensive information base. Once the information base is more complete, a comprehensive plan to improve water quality in near coastal waters, starting with the Coquille system, needs to be developed through programs which enhance economic development. The project also needs to be complement and be compatible with local comprehensive land use/estuary plans.

VI. Project Activities

The Near Coastal Waters Pilot Project will be composed of the following activities to be completed by 1990.

Element 1: Consensus Building and Public Education

A. Coquille Community Advisory Committee: Establish a community advisory committee representing the Coquille Basin with a technical subcommittee with members from local and state agencies and interested citizens to advise and assist the Department in setting the direction for the project, establishing tangible and measurable goals, assigning responsibilities, reviewing applicable land use plans, and monitoring progress.

B. Near Coastal Waters Public Forum and Workshop: Conduct a public forum and workshop, organized by the Oregon State University Seagrant/Extension Service, to bring together a variety of professional resource managers and the public to explore near coastal waters issues, identify benefial uses that are currently impaired, and develop action plans to beginning solving identified problems.

C. Video Documentary: Produce a video documentary about the Coquille Estuary by describing the important economic, natural and recreational resources of the area, and to demonstrate to other coastal communities the opportunities for similar activities in their areas.

D. Public Awareness: Develop bulletins, educational displays, and school curriculum materials to encourage citizen understanding of near coastal waters issues and involvement in projects to manage their everyday environment. Encourage residents to participate in DEQ's water quality monitoring efforts to learn about how information is gathered and processed.

Element 2: Resources and Water Quality Studies in the Coquille Estuary

A. Resource Inventory: Identify and compile data available on the historical and current economic and environmental conditions in the Coquille Estuary to develop an inventory of water quality and biological resources with a trend analysis of changes.

Acknowledge and describe resource management accomplishments in the Coquille Basin to date.

B. Bandon STP Outfall Relocation Plan: Document the tideflat organisms in the area where the Bandon outfall was previously located, and conduct mixing zone surveys to confirm that the new location has been more suitable. Effluent samples will also be collected and analyzed, and mixing zone studies conducted.

C. Wetland Resources: Document the wetland resources and inventory potential sites for mitigation and/or wetland restoration. Address the benefits of both wetland and agricultural land as valuable habitat.

D. Role of Woody Debris in Estuaries: Trace the history of wood structure deposition and removal in the estuary, and determine the role of wood structure in estuarine and riverine processes. In addition, develop methods for managing the wood structure to aid habitat conservation, but allow continued use of navigation channels. Document the problems that wood has caused historically.

E. Water Quality Monitoring: Monitor water quality for conventional and non-conventional pollutants to assess whether beneficial uses may be impaired, and to what degree they may be affected. Total Maximum Daily Loads and Load Allocations for pollutants of concern will be established. Biomonitoring of fish and aquatic life will also be conducted.

F. Sediment Monitoring: Monitor sediment for conventional and non-conventional (priority) pollutants in certain areas. In addition, monitor and evaluate sediment loads and erosion concerns, and develop recommendations for action.

Element 3: Pulling It All Together into a NCW Management Framework

A. Management Framework: Based on the results of the Coquille Estuary project, develop a water quality plan for Oregon's near coastal waters that can be applicable to other areas. Link efforts of the Oregon Coastal Zone Management Act and Department of Land Conservation and Development to insure water quality protection.

B. Oregon Ocean Resources Mangement Plan: Participate on the Governor's Oregon Ocean Resources Management Task Force (Senate Bill 630 formed by the 1987 Legislature), and complete the plan to address possible offshore ocean development activities that may affect nearshore and estuarine water quality.

VII. Final Products

Final products of the project will include at least the following:

- Public Participation Plan
- Economic and Natural Resource Inventory
- Sewage Treatment Plant Outfall Recovery Report
- Wetlands Mitigation/Restoration Management Analysis
- Large Woody Structures Plan
- Water Quality Monitoring and Trend Analysis (TMDL)
- Sediment Monitoring and Trend Analysis
- Public Information Video Documentary
- Public education Bulletins/School Curriculum Materials
- Ocean Resources Management Plan
- Proceedings from the NCW Public Forum and Workshop

VIII. Detailed Workplan Elements and Related Tasks

This workplan contains ideas for an approach to improving and managing water and habitat quality in the Coquille Estuary. The work program has been devloped by DEQ with assistance from the Community Advisory Committee, who helped DEQ prioritize the elements and suggest approaches to completing the work. EPA will provide funding to assist the DEQ in carrying out the work program. A portion of these funds will be used to implement specific activities in the Coquille for the long term improvement of water quality in the Coquille Estuary. Many people provided comments on the project prior to the CCAC's first meeting. Several resident expressed concerns about the econmic impact of implementing the plan, the costs involved, and where additional funding would come from to correct any water quality problems that were found. However, many people also expressed support for the project as a high priority as a way of obtaining more definitive information on the river and estuary, and finding ways to improve water quality to increase production of fish, wildlife and riparian habitat.

Element 1: Consensus Building and Public Education

A. Community Advisory Committee and Technical Subcommittee

Public involvement and interagency coordination will be a vital part of the project. The goal for public participation is to keep the public informed and involved at each step of the decision-making process. A public advisory committee with members from local, state and federal governments, business, forestry, agriculture, fisheries, and citizens interested in coastal issues will serve to advise the Department on the project, assist with setting tangible and measurable goals, review plans and monitor progress. Interagency and local cooperative efforts will be more effective if there is a broader understanding of the scope of the problems, and an identification of conflicting interests and land uses. By involving the community to advise on developing solutions, a more effective, systematic, integrated and meaningful plan can be implemented and sustained for long-term water quality management.

The Commitee meetings will be open to the public, with a special Public Forum set aside during each meeting to allow for audience comments.

Tasks

a) Organize and conduct issues scoping meeting with representatives from the Coquille basin area, and solicit suggestions for members of the advisory committees.
b) Establish a mailing list of interested citizens and organizations.
c) Organize and appoint members for the Community Advisory Committee.
d) Organize and appoint members for the Technical Advisory Subcommittee.
e) Conduct the meetings every other month, or as often as the chair requests.
f) Supply the CCAC with information about the project, EPA's programs, and guidelines for CCAC involvement as needed.

- Product: Each of the meetings will be recorded and summarized, and a model public participation plan will result.

- Schedule: The activities of the advisory groups will be ongoing throughout the project. The public participation plan will be completed at the end of the project period.

Target Completion Date for:

Task a :	April 1988
Tasks b-d:	July 1988
Tasks e-f:	Ongoing / June 1990

B. Near Coastal Waters Forum and Workshop

To bring together a variety of interest groups, resource managers, and interested citizens, a public forum and workshop will be organized by Oregon State University Seagrant/ Extension Service. A steering Committee comprised of state and federal agencies, OSU, National Coastal Resources Institute, Coastal Oregon Productivity Enhancement (COPE), and a representative from the CCAC will assist OSU E/SG in planning the workshop. Critical coastal water quality issues and alternatives solutions will be explored. Open houses will be held, as needed.

Target Completion Date will be July 1988.

C. Video Documentary

To document improvement in water quality and habitat for public education and future planning efforts elsewhere, a video documentary of the project as it progresses will be produced. The video will describe the characteristics of the Coquille watershed, and the important recreation, economic and natural resources in the area. The goal is to produce an educational and visually pleasing graphic documentary that will be interesting to residents, schools, and visitors.

The video production will also be used as a tool for other coastal communities as a model for their efforts, as well as soliciting more support for estuarine management grants.

In addition, information generated through the project will be summarized and distributed by the Oregon State University Extension/Seagrant Program that is responsible for assisting coastal communities in understanding land and water use practices, and how they affect water and habitat resources.

Tasks

a) Define the scope of the video presentation.
b) Determine the scenes to be shot through a draft script.
c) Contract for services.
d) Tape special events throughout the project.
e) Edit the tape with a final script.

- Product: The product will be a video documentary.
- Schedule: Target Completion Date for:
  Tasks a-b: January 1989
  Task c: March 1989
  Tasks d-e: June 1990

D. Public Awareness

Volumes of information currently exist about estuarine and marine pollution, water quality, and valuable natural resources. However, that information is usually not readily accessible to the public, or presented concisely enough to be useful to the public in general. Consequently, information about local or national issues does not reach all the people who are affected by resource management decisions. Nor do they have an opportunity to become involved in projects that may interest them to obtain a better understanding of near coastal waters issues and all the organizations that are involved in near coastal water programs.

By developing bulletins, educational displays, school curricula, and encouraging citizen involvement in water quality monitoring or other similar project activities, a better understanding of issues and options will result.

Tasks

a) Develop educational material, fact sheets, and bulletins on near coastal water quality issues, specific pollutant problems, and other pertinent topics related to the pilot project.
b) Develop a temporary/portable exhibit on coastal and estuarine pollution, focussing on issues and work outlined in the pilot project workplan.
c) Work with the different communities to explore interpretive centers on an estuary near a visitor center (Bandon Marsh has been suggested as a possible site).
d) Design volunteer projects and citizen water quality sampling programs to involve schools and retired citizens in the Coquille study. Coordinate with the local STEP program on fisheries projects.
e) Design curriculum topics and other informational tools as needed.

- Product: The product will be a series of information pieces that will be easily accessible and meaningful to the public in coastal communities.

- Schedule: Target completion date for:
  Tasks a-e: July 1988

Element 2: Resources and Water Quality Studies in the Coquille Estuary

A. Data Compilation and Resource Inventory

Several local, state and federal agencies have jurisdiction related to estarine and coastal resource management. It was suggested that the roles and responsibilities of these entitities be described. These agencies are also sources of resource data and information. Existing data available on the environmental conditions in the Coquille, trends in water quality and habitat changes, will be identified and compiled into a comprehensive report based on information from sources such as the Oregon Department of Fish and Wildlife, OSU, state and federal data bases. These documents will serve as the guide for additional inventory work. The information for the Coquille will be divided into the following categories. Each agency with jurisdiction related to the information categories will be consulted, and will make the information available to DEQ. DEQ will compile the information, and present to the CCAC for review, as necessary.

Task

a) Inventory agency roles and responsibilities related to coastal area resource management.
b) Inventory of habitat and aquatic life resources
c) Inventory existing water and sediment quality
d) Inventory point source discharges, permit limits, mixing zone information
e) Inventory of permitted land uses in the watershed
f) Inventory of land form characteristics, drainage areas
g) Inventory recreational uses
h) Identify physical flushing characteristics, hydrology
i) Document history of dredging activities
j) Review county comprehensive plans, estuary plans, and other reports already existing for the Coquille.
k) Review historical watershed uses and characteristics
l) Inventory economic resources and development plans

- <u>Product</u>: The final product of this task will be an inventory of current plans and agency responsibilities, economic, water quality and biological resources with a trend analysis of changes in subtidal, wetland and upland areas. This document will serve as a record to compare conditions and monitor progress after completion of the project.

- <u>Schedule</u>: These tasks will be completed within six months to seven months of the start of the project.
  Target Completion Date: June 1989.

B. Bandon Sewage Treatment Plant

The Bandon Sewage Treatment Plant discharged into an environmentally sensitive area until 1987. Softshell clam beds and Ferry Creek, a tributary used by salmonids for migrating to spawning areas, were within 200 feet of the discharge structure. At low tide, secondary treated effluent flooded the tideflats without adequate dilution.

In 1987, the outfall was relocated at the request of the DEQ, to a more environmentally sound area with adequate dilution to protect aquatic life. At the time of the outfall relocation, the Department requested information on pollutant loadings, mixing characteristics, tidal prism effects, and so on that would result from moving the outfall. Since the resources were scarce to conduct this activity before the outfall relocation, an evaluation will be conducted as part of the pilot project. This element will focus on identifying the steps necessary to relocate an outfall, confirming that the relocation site was the best available area, and documenting that the previous outfall site has recovered to productivity and biological diversity similar to other tidelflat areas.

In addition, DEQ will be evaluating current treatment levels and operations of the plant, and evaluating if alternative treatment facilities should be considered in the future. Financing plant improvements through the Construction Grants program will also be pursued.

Tasks

a) Conduct a biological assessment of the tideflat where the outfall was previously located to document any changes in the aquatic life community.
b) Determine if native vs hatchery salmonids return to Ferry Creek.
c) Conduct a subtidal survey and mixing evaluation at the new outfall location to determine dilution and dispersion of the effluent.
d) Document the process involved in relocating an outfall.

o Product: The product will be a report summarizing the pre-outfall relocation environmental conditions, the public/agency planning process to relocate the outfall to a less sensitive area, documentation of tideflat changes, and effluent dispersion patterns.

o Schedule

Target Completion Date: June 1990

C. Wetland Resources

Losses of coastal wetland resources are estimated to be over 80 percent in Oregon. These losses can be attributed to activities such as diking wetlands for the purposes of creating agricultural lands in coastal areas in the early 1900's. Since the 1930's, most losses have been attributed primarily to urban activities such as filling to create port facilities or building of roads and harbors. Removal or alteration of wetlands eliminates or reduces their value for water quality control, erosion control, flood control, and for important habitat for fish and wildlife. According to the Division of State Lands, the Coquille Estuary has 373 acres of tidal marsh. Since 1970, 55 acres of wetland have been filled, and over 40 acres have been removed. No accurate estimates of total wetland loss are available for the Coquille basin at this time. However, one area, the Bandon Marsh is a rich resource that has been preserved and serves as critical habitat for migratory bird populations.

Since wetlands are functionally important for water quality, fish and aquatic life habitat, and act as groundwater recharge areas in some cases, appropriate wetland issues will be discussed as related to overall project goals. No systematic evaluation and approach specifically designed for Oregon's estuarine wetlands currently exists. Part of the pilot project will focus on conducting an inventory of historic wetland areas, determining if any potential mitigation or restoration sites are present, and determining the feasibility of restoring or creating wetland habitat in the Coquille. If so, then a coordinated resource management program for wetlands will be designed.

In addition, there has been considerable discussion of the value of the agricultural land that resulted from converting wetlands, for wildlife habitat and water quality protection. From information gathered during the project, and habitat monitoring data, an attempt will be made to address this issue to understand the ecological relationships and values of conversion.

The intention of this component is to explore the value of wetlands and document the situation as it exists in the Coquille. The intention is not to create additional regulation or enforcement, or to convert productive agricultural lands to wetlands. It was suggested that an assessment should be conducted on the impacts of wetland restoration on reducing the agricultural land base, and on the regional economy. Any restoration conducted under this project would be minimal in terms of acreage. However, a cost benefit analysis, an identification of feasible sites, and a landowner incentives program will be discussed for the final report.

Nationally, there has been a focus on no-net loss of wetlands due to the significant depletion of these resources around the country. Each state has become active in developing an approach to preserve valuable existing wetlands, and to convert unproductive areas back to wetlands where possible to enhance those resources dependent on wetlands for existence. However, some development needs to continue in areas that may affect existing wetland areas. By understanding the role and function of wetlands, and where they are located, better management should result.

Several agencies, such as DSL, Coos County, and SCS are currently working on additional wetland resource identification. Efforts for this project will dovetail and complement work in progress, and all work tasks related to wetlands will be coordinated with agencies responsible for wetlands management.

Tasks

a) Compile historical wetland information with the assistance of agencies responsible for wetlands programs.
b) Conduct literature review on wetland restoration, and document the values and functions of wetlands.
c) Develop criteria that could be used to screen areas as potential restoration and/or mitigation sites.
d) Identify areas that may be suitable for restoration.
e) Conduct a cost/benefit analysis to determine the feasibility of conducting activities related to mitigation and restoration. Tie in with where water quality problem areas are located.
f) Determine the process for identifying and obtaining the agriculturally unproductive land through donations or purchase depending on funding available.
g) Develop criteria to judge the appropriate restoration goal.
h) Develop an implementation plan, after restoration site identified.
i) Develop a monitoring plan to document any changes in water quality and habitat enhancement.
j) Conduct the restoration activity.
k) Document the feasibility of using wetlands for effluent nutrient recycling.
l) If restoration site found, develop a project display at the restoration site for public education.
m) Explore the value of agricultural lands converted from historic wetlands, and identify criteria to evaluate the habitat and water quality relationships, to determine if wetland restoration or retaining unproductive agricultural land is more valuable.

- <u>Product</u>: The product will be the documentation of the process of restoring the wetland, the required agency/public coordination, more accurate estimates of changes that have occurred in wetland resources since the early 1900's.

- <u>Schedule</u>: Target Completion Date for:
  Tasks a-c: March 1989
  Tasks d-g, m: July 1989
  Tasks h-i: November 1989
  Task j : January 1990
  Task k : May 1990
  Task l : September 1990

D. <u>Sources and Role of Large Wood Structure in the Estuary</u>

The Coquille Estuary has been modified periodically to allow ship traffic. Dredge and fill activities, and the removal of large woody structure from the estuary have changed natural flushing characteristics and habitat creation in the estuary. Oregon State University studies are currently in progress on the history and importance of large woody debris in the estuary and lower river for fish habitat, and how it affects river channelization, flows and depositions of sediments. Since fish habitat is important for the production of fisheries in the Coquille River and Estuary system, a plan to determine where woody debris could be left or removed but not interfere with navigation will be developed.

The Coquille was selected as a historical case study because of its moderate size watershed, the availability of the historical material on the river, and the fact that no dams, except splash dams, have been built on it. It has been a location for most of the activities experienced by other Northwest rivers. This component will have three sections. The first will be a reconstruction of the historical amounts of large woody debris in the estuary through historical descriptions, quantitative records, and photogrammetric examination. The second section will document the historical extent and characteristics of the tidal creeks and tributaries of the wetlands landscape along the tidal section of the Coquille through land survey notes and aerial photographs. The third section will document the changes in channel depth for the tidal section historical depth data and dreging records.

Since sedimentation and erosion are an important concern for the Coquille Basin, several CCAC member requested that the role of wood debris lodged in the river aggravating those problems be identified.

Tasks

a) Compile historic information on natural patterns and amounts of wood occurred in the late 1800's and early 1900's.
b) Document historic river channel sedimentation patterns and changes in river depths; relate to presence of wood debris lodged in the river.
c) Document wood removal activities since 1900.
d) Compile information on logging practices since 1900 and determine correlation (if any) on amount of woody structure in the river.
e) Describe current practices related to woody structure removal in the estuary.
f) Determine if strategic placement of wood structure would aid habitat conservation.
g) Document historical extent and characteristics of tidal creeks and tributaries of wetlands.

- Product: The product will be a summary of the historical characterization of the watershed, activities that have influenced river flows and sedimentation patterns, and a description of the role of wood structure in riverine and estuarine processes. A plan for strategic removal/placement of wood structure would also result.

- Schedule

  Target Completion Date for:
  Tasks a-d: December 1989
  Tasks e-g: June 1990

E. Water Quality Monitoring

The Coquille Estuary serves as a source of dilution water as well as a sink for pollutant loads carried downstream in the Coquille River. In order to improve water quality in the Coquille River and Estuary, contribution of pollutants from point and nonpoint sources must be identified and evaluated. From this evaluation, total maximum daily loads and waste load allocations will be calculated, as mandated by the Clean Water Act of 1972 for waters that do not meet water quality standards.

One approach that the Department will use treats the Coquille River as a point source to the estuary. Total maximum daily loads projections for the estuary will be based on the calculated pollutant load from the river, on annual flows, and on tidal fluctuations in the estuary to assure effective dilution and flushing. The loads will be directly correlated with flows: the higher the flows, the higher the allowable pollutant loads.

The Coquille River and Estuary will be monitored intensively for water quality parameters such as nutrients, fecal coliform, oxygen levels, toxics, and turbidity, and algal growth. During periods of critical low flows, or wet weather events, more frequent intensive monitoring will occur.

Monitoring will occur intensively around point source discharges, with special mixing zone studies conducted during low flow months to characterize the effluent dilution and dispersion. Monitoring for nonpoint source runoff will coordinate closely with the Statewide Nonpoint Source Assessment Program, and will most likely be conducted during periods of wet weather events. (A more detailed monitoring plan is included in the Appendix).

Tasks

a) Identify point source discharges, flow rates, and review permit limits.
b) Identify areas where subsurface systems may be failing.
c) Identify potential nonpoint sources of pollutants.
d) Develop water quality monitoring sites from the mouth upstream into the main forks of Coquille River, with sites located upstream and downstream of potential pollutant sources, and tributaries,schedule sampling; write Quality Assurance Plan.
e) Develop biological monitoring sites and schedule for sampling; do bioassays, write Quality Assurance Plan.
f) Review literature on estuarine flushing and flow patterns, and tidal prism effects to predict pollutant dispersion. Identify the salt wedge and distance of saltwater intrusion.
g) Establish a computer data base for Coquille, and develop a water quality/ pollutant transport model.
h) Based on the monitoring information collected, calculate total maximum daily loads.

i) Determine the most effective implementation of waste load allocations.
j) Determine if management practices need to be updated or developed to assist in improving water quality.
k) Identify applicable water quality standards for freshwater and estuarine waters and define where they are applicable; identify origin of fecal coliform (human vs animal).
l) Coordinate with watermaster to record flows measured at gaging stations, and minimum stream flows locations; and maintain precipitation records.

o Product: Two products will be developed. The first will be a water quality model that calculates tidal prism effects and potential pollutant transport and dispersion during high and low tides, for the estuary, and the near shore zone. The second product will be the process for calculating allowable pollutant loads (which will vary with the flows) and the prediction of water quality and biological resource (fisheries) improvement. In addition, water quality standards for estuaries will be reviewed and evaluated to determine if improvements are needed to more accurately reflect local conditions and variation.

o Schedule:

Target Completion Date for:

Tasks a-e:	January 1989
Task f :	June 1989
Task g :	September 1989
Task h :	December 1989
Tasks i-j:	March 1990

F. Sediment Quality and Load Monitoring

Sediment quality is an important component of an estuarine system. Since sediments act as a sink and provide attachment surfaces for many types of environmental contaminants that are carried downstream, and can influence the productivity of bottom-dwelling organisms, monitoring the sediments is important. To assess whether contaminants are present in the sediments from a variety of sources, pollutants such as pentachlorophenols from the wood treatment plants, or organotins from antifouling paints applied to vessels will be analyzed for presence and concentration. Some sediment quality information already exists for areas scheduled for dredging, and no significant levels of contaminants were found in these areas. However, upstream of the dredged areas, sediment quality sample information is not available.

Sedimentation, or excessive sediment loads from upstream erosion, has been identified as a historic concern, and currently remains one of the top priorities of the Coquille Basin residents. Information is needed on the sources and causes of the sedimentation and on actions that could successfully reduce the sedimentation problems. The Coquille River has historically carried large sediment loads (according to historical information), but the magnitude may have increased in recent years due to increased erosion from river channel modification or land use practices. The increased sedimentation may be causing navigation problems, as well as fisheries impairment. An investigation of the issue will be conducted, starting with historical data collection (see Component 5), and establishing monitoring sites for sediment load quantification and characterization.

In addition, the development of sediment quality criteria, and guidelines for testing sediments are in progress. DEQ and the US Army Corps of Engineers co-sponsored a workshop for ports and agencies to discuss an approach. When the results of the workshop are available, they will be distributed to the CCAC for review.

Tasks

a) Consult with sedimentation and sediment quality experts (in conjunction with the Technical Advisory Committee) to help develop sediment quality monitoring sites and schedule for sampling; write Quality Assurance Plan.
b) Identify the goals of the sedimentation component, and how the results of the study could benefit the estuary, streamside residents, and economic development potential.
c) Conduct sediment bioassays, if necessary, to screen for and characterize potential toxicity to resident bottom-dwelling organisms.
d) Analyze the samples collected for sediment content, examine

areas of intense erosion, and recommend corrective actions to minimize further erosion and sedimentation.

e) Develop a model to determine the historic and current rate of sedimentation, if enough data and information is available.

f) Request the port representatives to review dredged sediment criteria guidelines developed by the DEQ and Army Corps of Engineers for applicability and practicality.

- <u>Product:</u> The product will be a description of the sediment quality in certain areas of the Coquille estuary, and an estimate of sedimentation rates. An analysis of potential sediment sources and recommendations for decreasing erosion problems will also be included.

  - <u>Schedule:</u>

    Target Completion Date for:

    Tasks a-e: September 1990
    Task f : March 1989

Element 3: Pulling It All Together into a NCW Management Framework

A. Water Quality Management Framework

Based on the results of the Coquille Estuary project, a coordinated water quality plan for Oregon's near coastal waters will be developed, so that the approach will be applicable to other areas nationally.

Target Completion Date: September 1990

B. Oregon Ocean Resources Management Plan

The Coquille project will be coordinated with planning activities required under the 1987 Oregon Ocean Resources Management Act. The Act requires the state to develop a plan to guide future development activities in the nearshore and offshore areas of Oregon for all ocean resources such as air quality, water quality, living marine resources, and habitat. It provides the opportunity to be proactive, instead of reactive, to proposals for oil and gas leasing, minerals mining, and other activities that may affect water quality, habitat, and thus economic resources in near coastal waters of Oregon. By carefully examining the types of activities that are proposed, reviewing information from other states where these activities have already occurred, and developing a strong public/government partnership to provide decisionmaking by consensus, Oregon will be better prepared to manage marine resources by balancing maximum economic benefits with habitat conservation. It is the policy of the state of Oregon to prioritize renewable resource protection over non-renewable resources.

More specifically, the plan will include the development of marine water quality standards and permit procedures to assure compliance with the standards, develop oil spill plans to protect near coastal water resources, and identify resource information needs or additional regulatory programs required for management decisions.

Although the focus of the CCAC has been on the Coquille, members of the CCAC are encouraged to participate during Governor's Task Force meetings and public workshops. Information on the progress of the Task Force, and development of the Ocean Resources Plan will be provided to the CCAC regularly.

Tasks

a) Participate on the Ocean Resources Management Task Force, with other agencies and public representatives.
b) Develop an interim plan that will identify the needs to guide review of development proposals.
c) Identify the agencies that have regulatory responsibility for water resources in the near coastal waters and determine if regulatory programs are compatible, overlapping, if gaps exist.
d) Develop marine water quality standards.
e) Define application of the Antidegradation Policy for marine waters.
f) Identify areas that may need oil spill plans, and determine the most efficient method for developing the plans.
g) Identify the activities that may affect marine water quality, determine if current regulatory program is sufficient to protect water quality, and develop additional programs as needed.

o Product: The product will be a refinement of the current regulatory programs for future environmental quality planning efforts and management decisions regarding policies and strategies for near coastal waters. The documentation of the intergovernmental/public coordination process in Oregon will greatly assist other states with reviewing similar development proposals and setting goals for near coastal waters strategic planning efforts.

o Schedule:

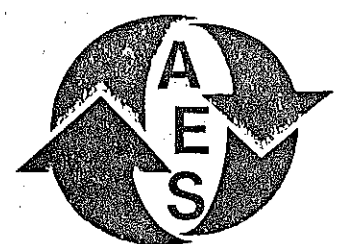
Target Completion Date for:
Tasks a-b: August 1988
Tasks c-g: June 1990

CONCLUDING REMARKS

This workplan reflects ideas, values and suggestions from the Coquille Community Advisory Committee, and members of several local, state and federal agencies. It is an ambitious plan that seeks to accomplish a diverse set of tasks and to find the best approach for integrating all the results into a cohesive near coastal waters program.

It must be emphasized that this is a pilot project, and thus the approach will require some trial and errors. DEQ and the CCAC will work together to insure that understanding of the goals and procedures is always evaluated and communicated. Although this workplan has been extensively reviewed, it must be flexible enough to accomodate a change in direction or emphasis as new information is discovered. The CCAC has been instrumental in assisting DEQ refine the workplan, and will continue to provide valuable insights on local conditions and needs throughout the project.

FINAL REPORT WILL BE DUE TO EPA IN SEPTEMBER 1990.



Antifreeze Environmental Service Corp.

2081 BAY ROAD • P.O. BOX 50757 • E. PALO ALTO, CALIFORNIA 94303 • (415) 325-2666
16031 E. ARROW HWY., UNIT H • IRWINDALE, CALIFORNIA 91706 • (818) 337-3877

March 14, 1990

Ms. Laurel Tomchick
METRO-Municipality of Metropolitan Seattle
Environmental Lab
322 W. Ewing St.
Seattle, WA 98119

Dear Laurel:

Thank you for your interest in Antifreeze Environmental Service's antifreeze recycling and disposal program. As requested, I've enclosed some information on AES' services, plus related background materials from California.

I discussed METRO's proposed limit of 40 gallons per day with Elliott Lewis, AES' GM. Based on AES' experience, that limit seems very high.

Elliott reports that of the 1,400 accounts which AES services in California, only one (CalTrans) might generate that much volume of spent coolant/used antifreeze. Our experience suggests that the average dealer or fleet operator generates roughly 100 to 200 gallons of spent coolant/used antifreeze per month. I will check those figures with the Automobile Service Association of Greater Seattle and relay their figures to you.

AES provides spent coolant/used antifreeze generators with either 100 or 200 gallon dual containment polyethylene storage tanks, which meet EPA and fire code standards. AES schedules pick ups of used coolant/antifreeze and/or deliveries of new antifreeze every one to three months. AES picks up and delivers in bulk via a stainless steel tank truck. This bulk handling eliminates the risk of spillage from a dropped or overturned 55 gallon drum and it eliminates the need to dispose of empty, but contaminated, drums and gallon jugs.

Widespread use of a recycling service such as AES would mean a significant reduction in the volume of spent coolant/used antifreeze entering wastewater treatment facilities and storm drains.

Based on input from sewage treatment facilities in California, the benefits METRO would realize are:

1) Ethylene glycol (E.G.) in antifreeze has a very high BOD/COD (biological oxygen demand/chemical oxygen demand), which may affect plant operations if slug loads are received. The BOD value of E.G. is between 20,000 - 40,000 mg/l, which is significantly higher than normal domestic loadings. COD tests on waste antifreeze showed values of 350,000 - 700,000 mg/l (see attachments).

   Higher oxygen demand loadings may lead to an upset of the plant's biological treatment system, resulting in a discharged effluent that could violate N.P.D.E.S. requirements. Reducing those loads will produce a greater margin of safety.

2) Spent coolant/used antifreeze from radiators contains heavy metals extracted from the cooling system. The major metals are lead, copper, and zinc (see attachments).

   Heavy metals concentrate in the waste sludge, which can be toxic to the bacteria in anaerobic digesters or it could concentrate to a level where the facility will have to dispose of the sludge as a hazardous waste. Such disposal would be at considerably greater expense.

While metals standards are strict now, the EPA has proposed new, stricter standards. Reducing the volume of spent coolant/used antifreeze entering a treatment facility will reduce the volume of heavy metals in that facility's sludge.

3) Ethylene glycol is biodegradable in a body of water in between 3 and 20 days. If antifreeze is poured into the storm drain or not sufficiently degraded in a treatment plant, there is a risk of toxicity and heavy metals working their way through the ecosystem and into the state's native fish, clams, etc. This could have a significant negative impact on the state's fishing industry.

Providing clear direction about acceptable disposal methods to generators can help reduce the environmental risk to Washington's ecosystem and fishing industry.

The primary benefits which the area's spent coolant/used antifreeze generators will realize are increased disposal options and reduced liability exposure.

The City of Tacoma's landfill is one of several local Superfund clean up sites, and several automotive/truck service facilities reportedly were cited as PRPs (primary responsible parties). Even though they followed the then applicable rules, they were later held financially liable for later, stricter environmental rules.

Antifreeze Environmental Service Corporation is fully licensed, permitted, and insured. AES will pick up bulk used antifreeze in this area and accumulate it at an approved storage facility in Tacoma. It will then be transported to East Palo Alto, California, and recycled by Romic Chemical Corporation, a fully insured and licensed Resource Conservation and Recovery Act (RCRA) facility.

Using fractional distillation, Romic extracts clean, antifreeze grade ethylene glycol. Using this as a base stock, Romic adds top quality inhibitors to produce new antifreeze. AES' HP 747A antifreeze meets or exceeds all performance standards for ASTM D3306 and D4340, SAE J1034 and J814C, General Motors 1899, 1825M, and 6038M, and Cummins 85T8-2 specifications.

The only byproduct, a small quantity of "bottoms," is burned as cement kiln fuel and the ash is mixed in with the cement per EPA regulations, thus eliminating possible future liabilities for generators.

Thanks again for your interest. Please contact me as you have further questions.

Sincerely,

Robert Wander
Sales Representative
C/O 17414 - 143rd Pl NE
Woodinville, WA 98072
206/483-9197

P.S.: Please contact the sewage treatment districts whose letters are enclosed for further information.

Encls.

May 25, 1990

PROPOSED

TURHWR REPORTING REQUIREMENTS

REQUIRED

1. SIC CODE
   Use: To aggregate information by industry type
   Frequency: Annual

2. NAME, LOCATION AND MAILING ADDRESS
   Use: To properly identify reporting entity. To aggregate data geographically.
   Frequency: Annual

3. EPA I.D. NUMBER AND TRI I.D. NUMBER
   Use: To properly identify reporting entity and merge data in existing data bases.
   Frequency: Annual

4. TIME PERIOD COVERED BY PLAN
   Use: To know the time period covered by reduction goals.
   Frequency: One time only

5. For each chemical and hazardous waste for which a performance goal is set:
   a) NAME
   b) CODE
   c) AMOUNT USED/GENERATED
   Use: Monitor progress of reduction achieved.
   Frequency: Annual

6. NARRATIVE EXPLAINING DATA IN 5 ABOVE
   Use: Anecdotal information on achievements, difficulties in reduction and description of progress. Clarifies information in 5 above.
   Frequency: Annual

OPTIONAL

1. NARRATIVE DESCRIPTION OF REDUCTION ACCOMPLISHMENTS PRIOR TO THE PLAN
   Use: Anecdotal history which may explain why further reduction will be difficult.
   Frequency: One time only.

2. PRODUCTION INDEX
   Use: Helps explain true reduction and shows the relationship of amount reduced to number of items produced or services rendered.
   Frequency: Annual

3. PERFORMANCE GOALS SET
   Use: Aggregated by industry type, chemical/waste type or statewide provides a prognosis for reduction and assists in targeting technical assistance and technology development.
   Frequency: Annual

4. REDUCTION MEASURES IMPLEMENTED
   Use: Assists in targeting technology transfer and technology development.
   Frequency: Annual

5. IMPEDIMENTS TO REDUCTION
   Use: Assists in targeting technical assistance and technology development.
   Frequency: Annual

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Agenda Item A 3-B

Oregon Environmental Quality Commission

Request to Present Information

Jim Craven
Name (Please Print Clearly)

707 13th St. SE Salem 97301
Address

American Electronics Assn.
Affiliation

Please limit comments to five minutes.

Agenda Item A 4C

Oregon Environmental Quality Commission

Request to Present Information

Karen Russell
Name (Please Print Clearly)

10015 SW Terwilliger
Address

NEDC
Affiliation

Please limit comments to five minutes.

Agenda Item Forum
Minutes

Oregon Environmental Quality Commission

Request to Present Information

HARRY DEMARAY
Name (Please Print Clearly)

576 WELCOME WAY SE SALEM
Address

SELF
Affiliation

Please limit comments to five minutes.

Agenda Item D2

Oregon Environmental Quality Commission

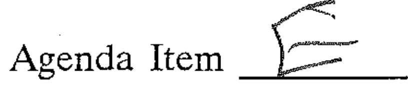
Request to Present Information

CHRIS BOWLES
Name (Please Print Clearly)

155 N FIRST HILLSBORO OR
Address

UNIFIED SEWERAGE AGENCY
Affiliation

Please limit comments to five minutes.

Agenda Item 

Oregon Environmental Quality Commission

Request to Present Information

Jean Cameron (for OEC)
Name (Please Print Clearly)

2637 SW Water Ave PDX 97201
Address

OEC
Affiliation

Please limit comments to five minutes.

Agenda Item E

Oregon Environmental Quality Commission

Request to Present Information

John D. Beaulieu
Name (Please Print Clearly)

Dept Geology - Portland
Address

Deputy State Geologist
Affiliation

Note — It is my understanding that I am to be part of the Agenda Item E presentation

Please limit comments to five minutes.

Agenda Item F

Oregon Environmental Quality Commission

Request to Present Information

Lori Cooper
Name (Please Print Clearly)

10015 SW Terwilliger Portland 97219
Address

NEDC
Affiliation

Please limit comments to five minutes.

Agenda Item I

Oregon Environmental Quality Commission

Request to Present Information

Steve Hudson
Name (Please Print Clearly)

P.O. Box 1414 Portland OR 97207
Address

Boise Cascade Corp.
Affiliation

Please limit comments to five minutes.

Agenda Item I

Oregon Environmental Quality Commission

Request to Present Information

Karen Russell
Name (Please Print Clearly)

10015 SW Terwilliger Portland
Address

NEDC
Affiliation

Please limit comments to five minutes.

Agenda Item ________

Oregon Environmental Quality Commission

Request to Present Information

Stanton LeSieur Item J

Name (Please Print Clearly)

155 N 1th Street Hillsboro

Address

Unified Sewerage Agency

Affiliation

Please limit comments to five minutes.

Agenda Item J

Oregon Environmental Quality Commission

Request to Present Information

KIP BURDICK
Name (Please Print Clearly)

225 N 5th ST SPRINGFIELD OR
Address

MWMC
Affiliation

Please limit comments to five minutes.

Agenda Item forum

Oregon Environmental Quality Commission

Request to Present Information

JOHN RICE
Name (Please Print Clearly)

1050 CLAYTON WAY GLADSTONE, OR 97027
Address

ANTIFREEZE ENVIRONMENTAL SERVICE
Affiliation

RECYCLE ANTIFREEZE COOLANT & ETHYLENE GLYCOL

Please limit comments to five minutes.

John Rice
Sales Representative

3401 Lincoln Avenue • Tacoma, WA 98401
Portland, OR: (503) 656-2864

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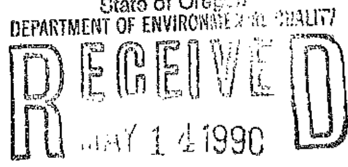
NICHOLAS I. GOYAK, P.C.*†
JOHN DILORENZO, JR., P.C.
DAVID R. LUDWIG, P.C.

OF COUNSEL
WILLIAM J. MOSHOFSKY
ARNO H. DENECKE, P.C.

CHRISTOPHER H. KENT
ERIC M. BOSSE'
CHRISTOPHER P. VICE

* ALSO WASHINGTON BAR
† ALSO CALIFORNIA BAR
‡ ALSO LL.M., TAXATION



May 11, 1990

OFFICE OF THE DIRECTOR

Director's Office
Department of Environmental Quality
811 S.W. Sixth Avenue
Portland, Oregon 97204

Re: Agenda for Regular Meeting of
Environment Quality Commission--May 25, 1990

Ladies and Gentlemen:

I would appreciate receiving from you copies of staff reports which pertain to Agenda Items G, "Infectious Waste," and L, "Legislative Update," on the Agenda for the Regular Meeting of the Environmental Quality Commission to take place on May 25, 1990.

Thank you for your courtesies concerning this matter.

Very truly yours,

John DiLorenzo Jr.

JDL/lw
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